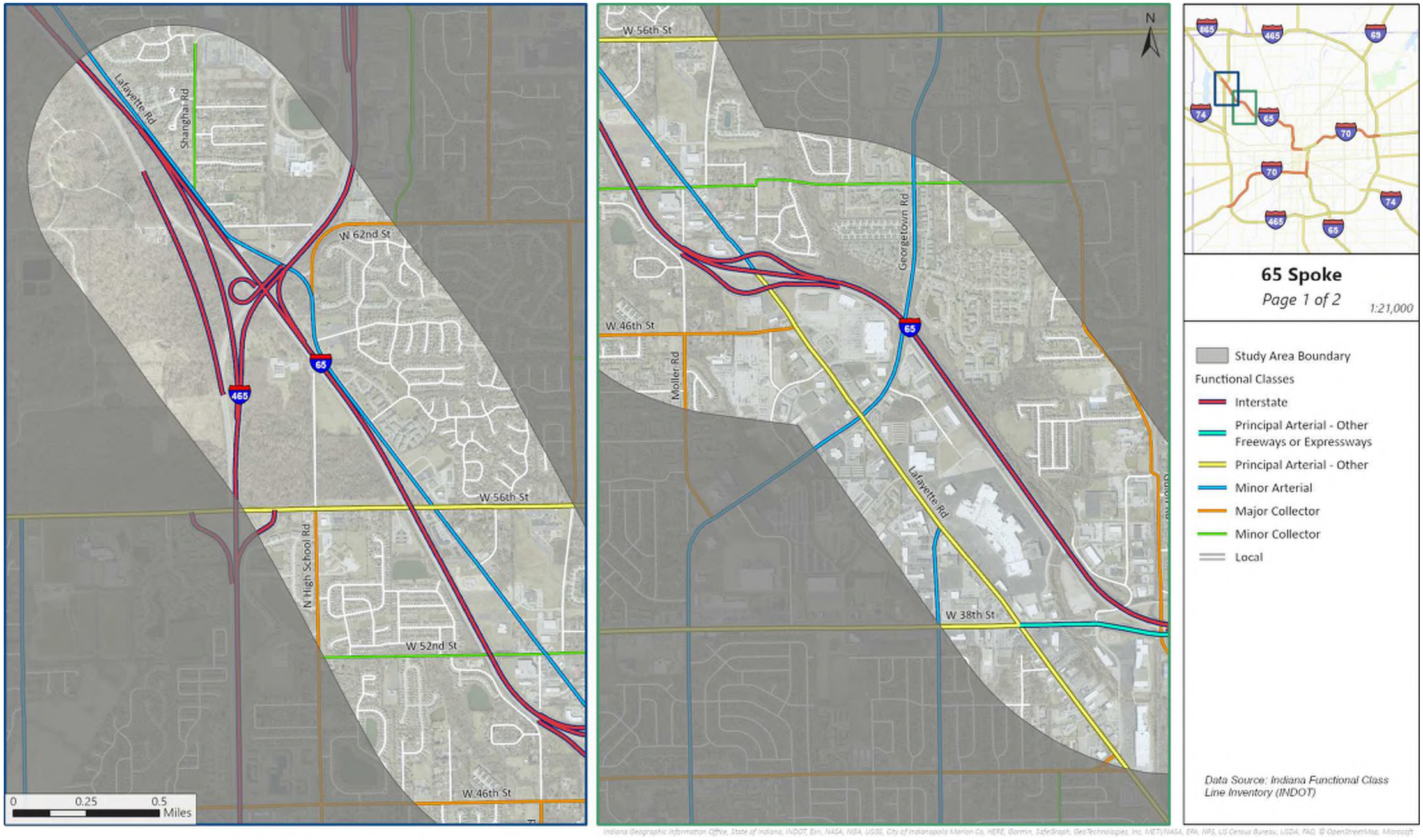
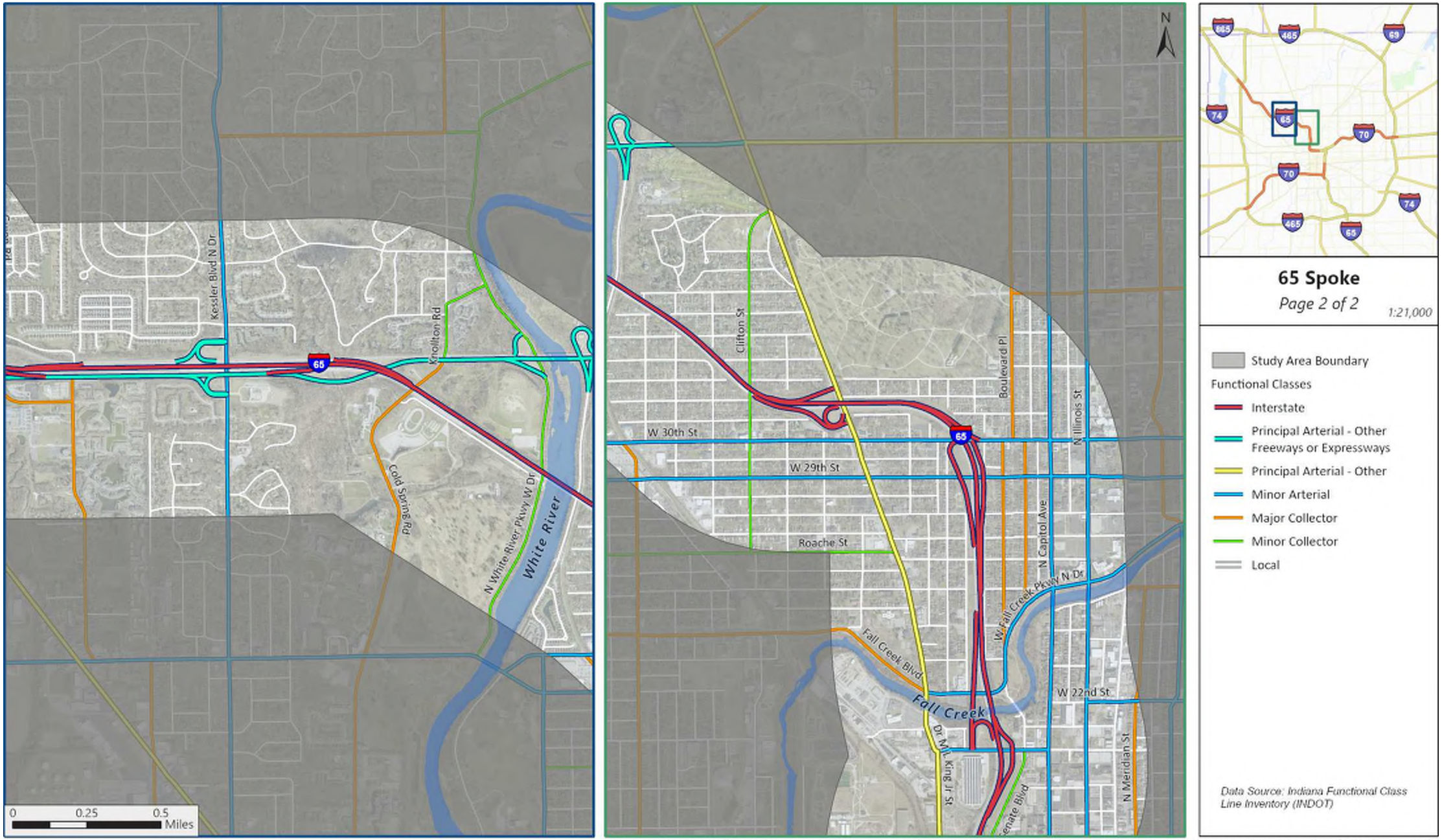
APPENDIX D: EXISTING TRANSPORTATION CONDITIONS REPORT APPENDIX PART 1

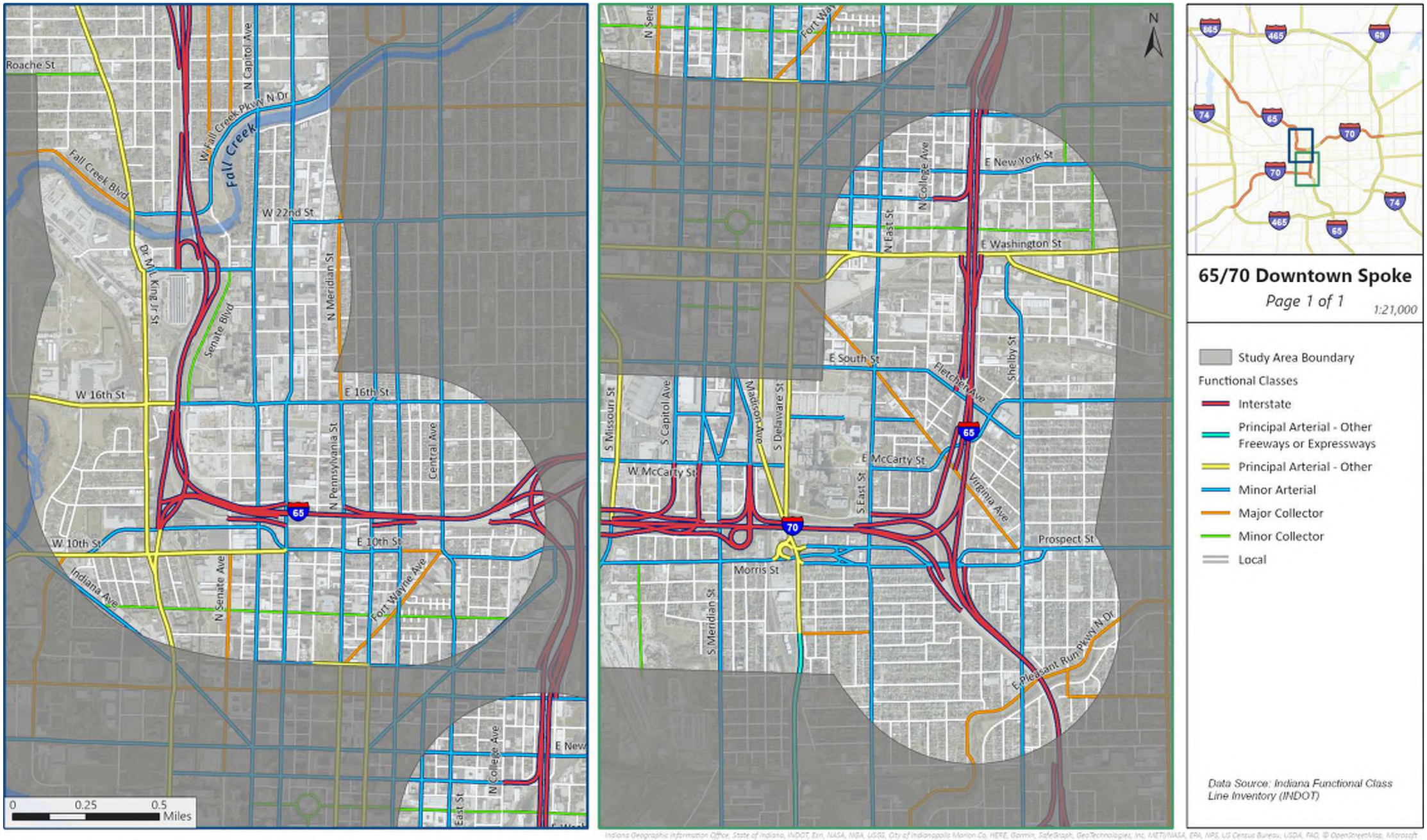
- Appendix A: Functional Classification of Roadways
- Appendix B: Railroad Crossings
- Appendix C: Major Utilities
- Appendix D: Bike & Pedestrian Facilities
- Appendix E: Statewide Transportation Improvement Program (STIP)
- Appendix F: Asset Data
- Appendix G: Transit Routes
- Appendix H: Education, Hospital, and Public Safety Facilities
- Appendix I: Crash Analysis Results
- Appendix J: Traffic Volumes
- Appendix K: Existing Conditions (2023) Capacity Analysis Results

APPENDIX A: FUNCTIONAL CLASSIFCIATION

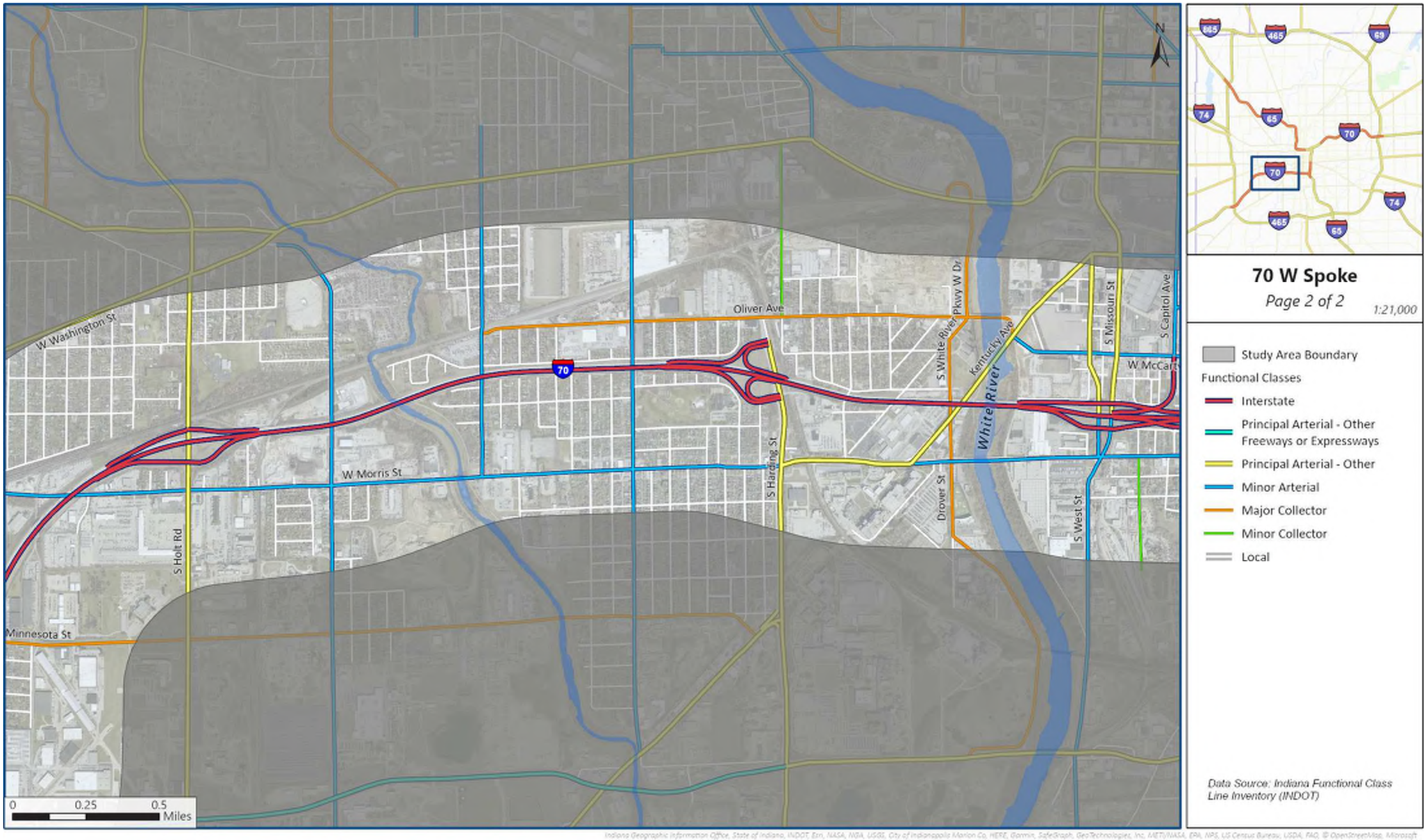


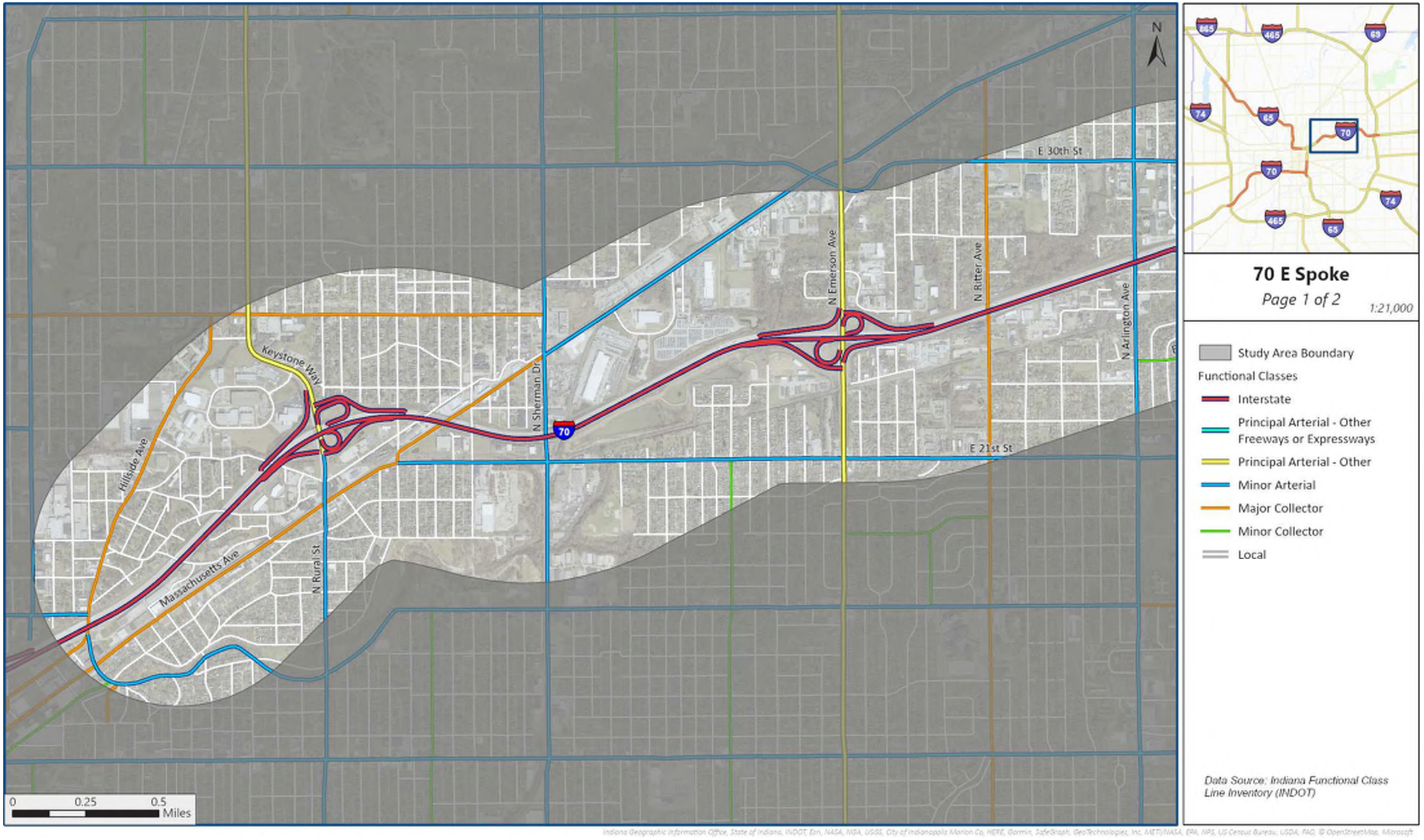
Indiana Geographic Information Office, State of Indiana, INDOT, Esri, NASA, NGA, USGS, City of Indianapolis Marion Co, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, FAO, © OpenStreetMap, Microsoft

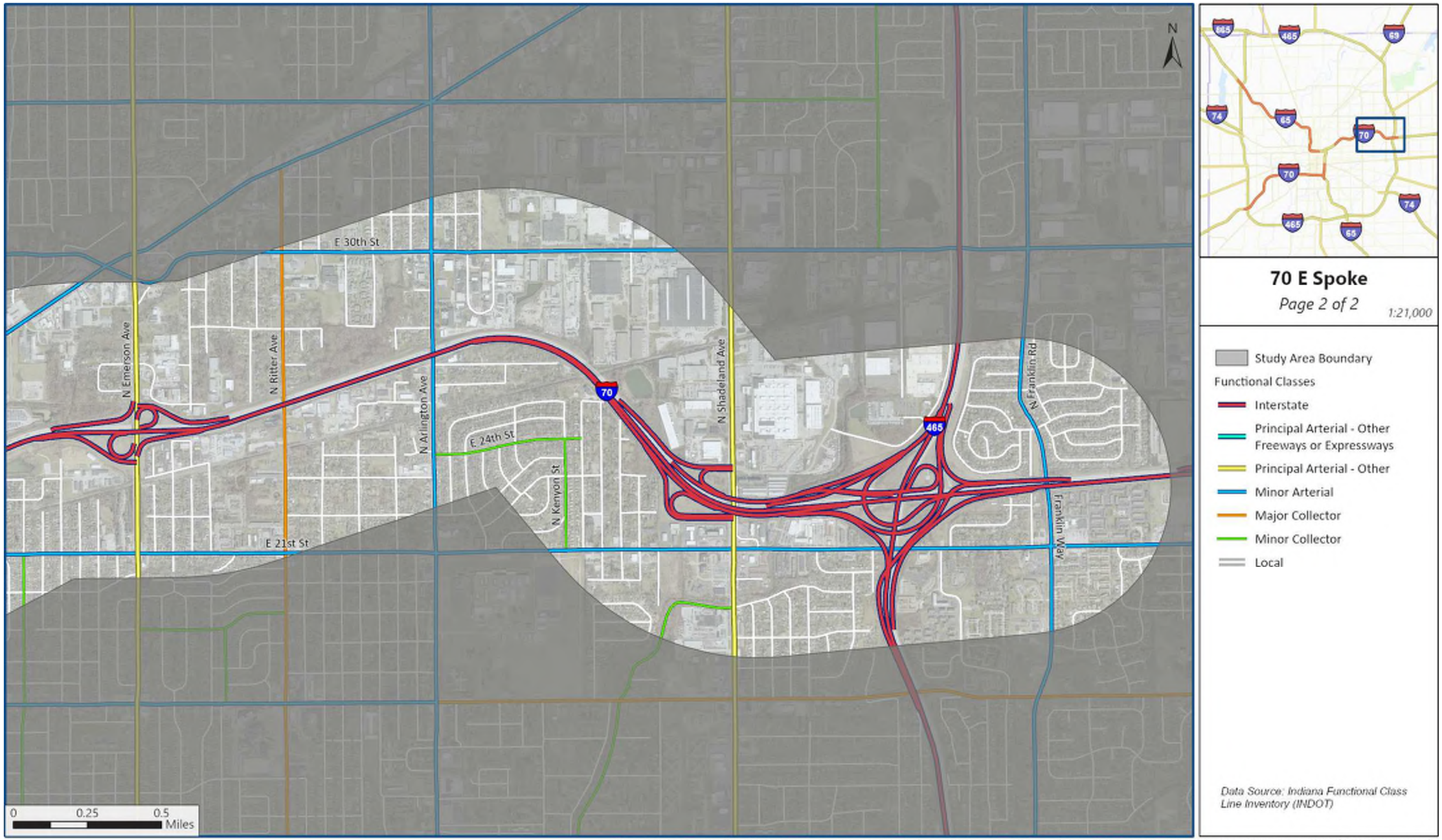

Kessler Blvd N Dr
Knollton Rd
Cold Spring Rd
N White River Pkwy W Dr
White River
65
0
0.25
0.5
Miles
N
W 30th St
W 29th St
Roache St
Clifton St
Boulevard Pl
N Illinois St
N Capitol Ave
W Fall Creek Pkwy N Dr
Fall Creek Blvd
Fall Creek
Dr M.L. King Jr St
W 22nd St
N Meridian St
Indiana Geographic Information Office, State of Indiana, INDOT, Esri, NASA, NGA, USGS, City of Indianapolis Marion Co, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, FAO, © OpenStreetMap, Microsoft
65
465
69
74
70
65 Spoke
Page 2 of 2
1:21,000
Study Area Boundary
Functional Classes
Interstate
Principal Arterial - Other Freeways or Expressways
Principal Arterial - Other
Minor Arterial
Major Collector
Minor Collector
Local
Data Source: Indiana Functional Class Line Inventory (INDOT)


Roache St
N Capitol Ave
W Fall Creek Pkwy N Dr
Fall Creek
Fall Creek Blvd
W 22nd St
Dr M.L. King Jr St
Senate Blvd
N Meridian St
W 16th St
E 16th St
N Pennsylvania St
Central Ave
65
W 10th St
E 10th St
Indiana Ave
N Senate Ave
Fort Wayne Ave
N College Ave
East St
0
0.25
0.5
Miles
N
E New York St
N East St
E Washington St
E South St
Fletcher Ave
Shelby St
S Missouri St
S Capitol Ave
Madison Ave
S Delaware St
E McCarty St
W McCarty St
S East St
70
Virginia Ave
Prospect St
Morris St
S Meridian St
E Pleasant Run Pkwy N Dr
65/70 Downtown Spoke
Page 1 of 1
1:21,000
Study Area Boundary
Functional Classes
Interstate
Principal Arterial - Other Freeways or Expressways
Principal Arterial - Other
Minor Arterial
Major Collector
Minor Collector
Local
Data Source: Indiana Functional Class Line Inventory (INDOT)
Indiana Geographic Information Office, State of Indiana, INDOT, Esri, NASA, NGA, USGS, City of Indianapolis Marion Co, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, FAO, © OpenStreetMap, Microsoft

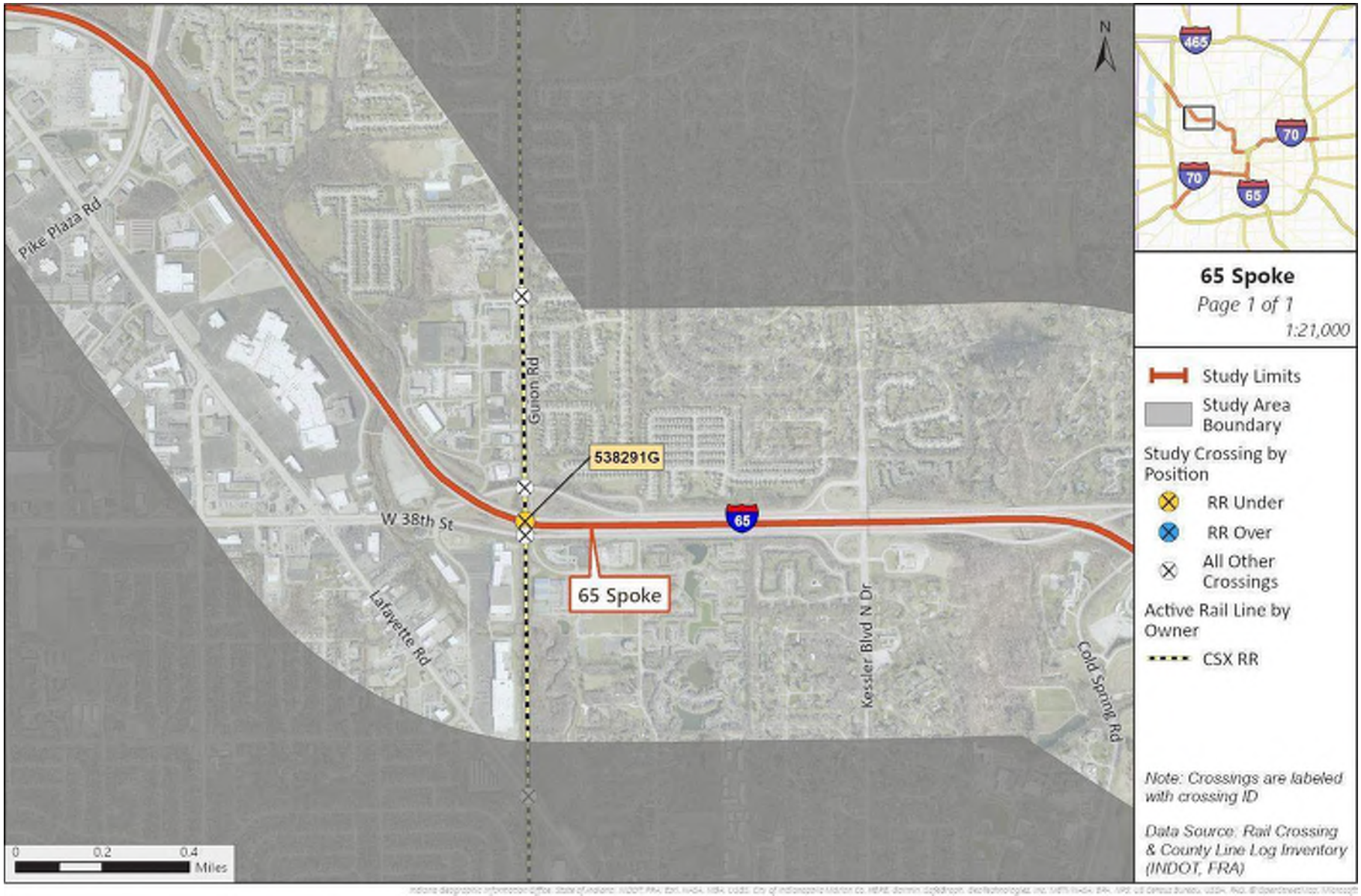

W Troy Ave
S Lynhurst Dr
465
70
S High School Rd
W Hanna Ave
0
0.25
0.5
Miles
W Washington St
N
S Holt Rd
W Minnesota St
70
S Lynhurst Dr
W Troy Ave
Indiana Geographic Information Office, State of Indiana, INDOT, Esri, NASA, NGA, USGS, City of Indianapolis Marion Co, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, FAO, © OpenStreetMap, Microsoft
465
69
74
65
70
70
74
465
65
70 W Spoke
Page 1 of 2
1:21,000
Study Area Boundary
Functional Classes
Interstate
Principal Arterial - Other Freeways or Expressways
Principal Arterial - Other
Minor Arterial
Major Collector
Minor Collector
Local
Data Source: Indiana Functional Class Line Inventory (INDOT)

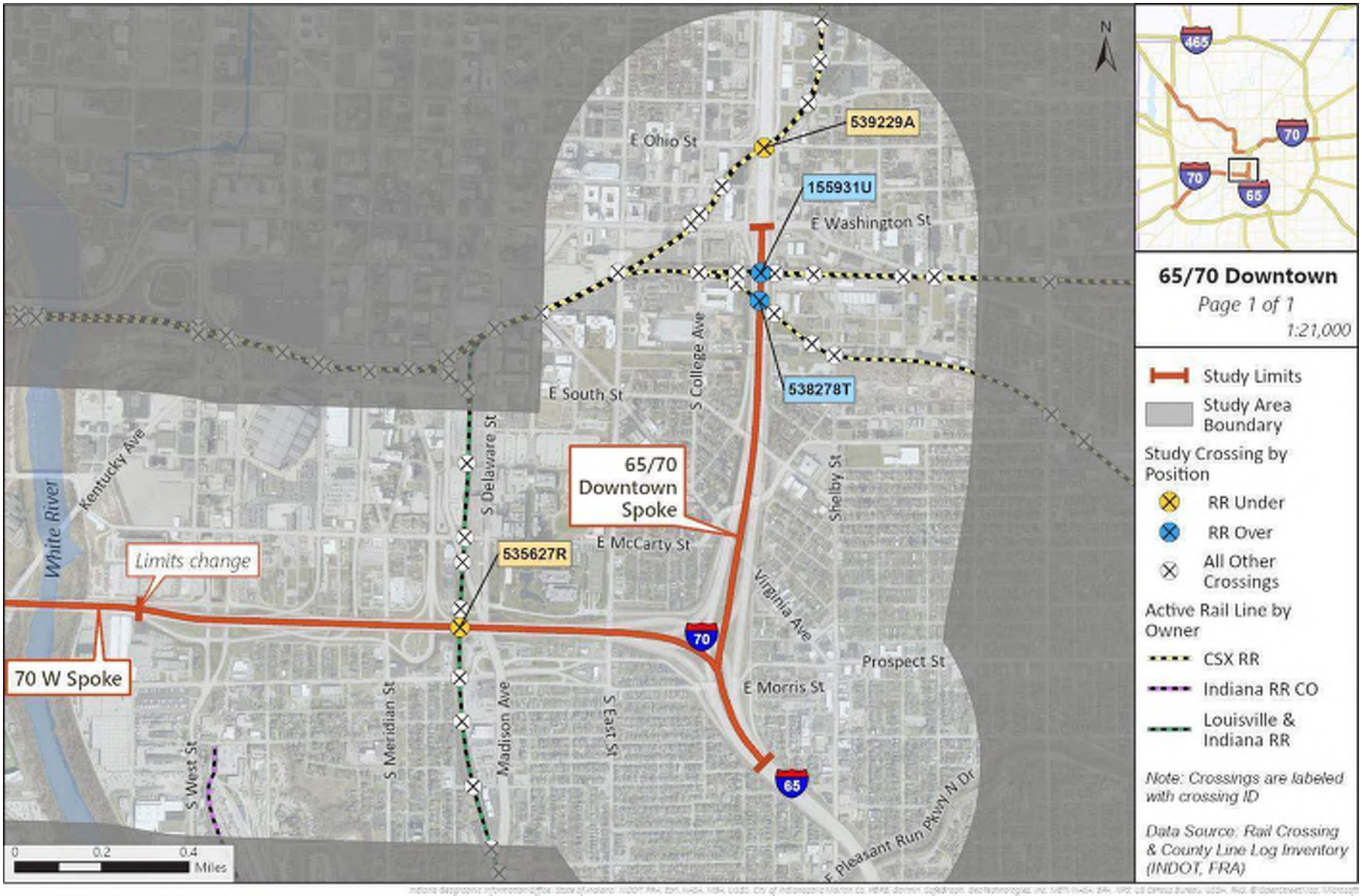

W Washington St
Oliver Ave
70
S White River Pkwy W Dr
Kentucky Ave
S Missouri St
S Capitol Ave
White River
W Morris St
S Harding St
Drover St
S West St
S Holt Rd
Minnesota St
0
0.25
0.5
Miles
N
70 W Spoke
Page 2 of 2
1:21,000
Study Area Boundary
Functional Classes
Interstate
Principal Arterial - Other Freeways or Expressways
Principal Arterial - Other
Minor Arterial
Major Collector
Minor Collector
Local
Data Source: Indiana Functional Class Line Inventory (INDOT)
Indiana Geographic Information Office, State of Indiana, INDOT, Esri, NASA, NGA, USGS, City of Indianapolis Marion Co, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, FAO, © OpenStreetMap, Microsoft


E 30th St
N Emerson Ave
N Ritter Ave
N Arlington Ave
Keystone Way
N Sherman Dr
E 21st St
Hillside Ave
Massachusetts Ave
N Rural St
70
0
0.25
0.5
Miles
N
465
69
74
65
70
70
74
465
69
70 E Spoke
Page 1 of 2
1:21,000
Study Area Boundary
Functional Classes
Interstate
Principal Arterial - Other Freeways or Expressways
Principal Arterial - Other
Minor Arterial
Major Collector
Minor Collector
Local
Data Source: Indiana Functional Class Line Inventory (INDOT)
Indiana Geographic Information Office, State of Indiana, INDOT, Esri, NASA, NGA, USGS, City of Indianapolis Marion Co, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, FAO, © OpenStreetMap, Microsoft


E 30th St
N Emerson Ave
N Ritter Ave
N Arlington Ave
E 24th St
N Kenyon St
E 21st St
N Shadeland Ave
N Franklin Rd
Franklin Way
70
465
N
0
0.25
0.5
Miles
70 E Spoke
Page 2 of 2
1:21,000
Study Area Boundary
Functional Classes
Interstate
Principal Arterial - Other Freeways or Expressways
Principal Arterial - Other
Minor Arterial
Major Collector
Minor Collector
Local
Data Source: Indiana Functional Class Line Inventory (INDOT)
Indiana Geographic Information Office, State of Indiana, INDOT, Esri, NASA, NGA, USGS, City of Indianapolis Marion Co, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, FAO, © OpenStreetMap, Microsoft

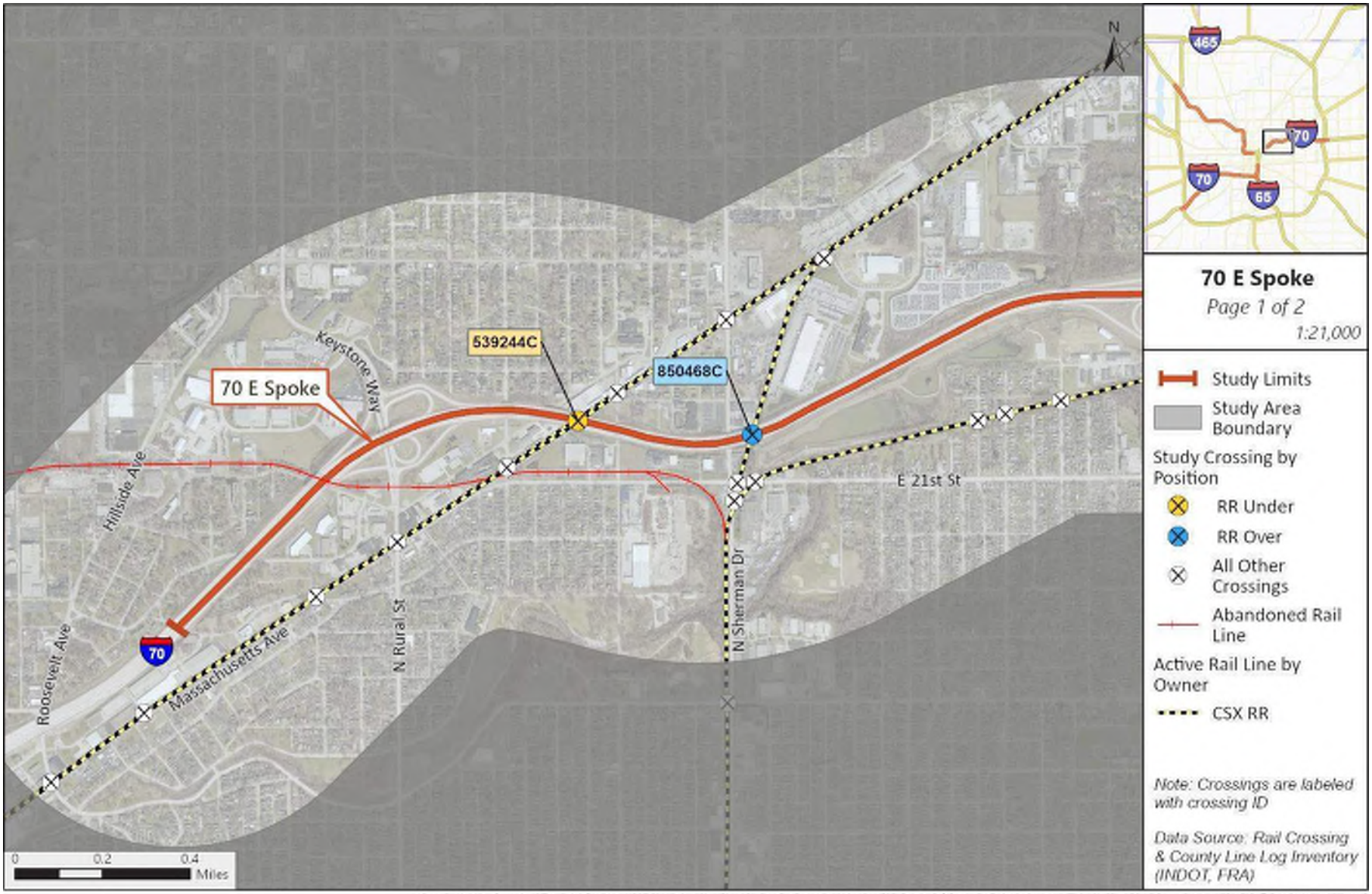
APPENDIX B: RAILROAD CROSSINGS

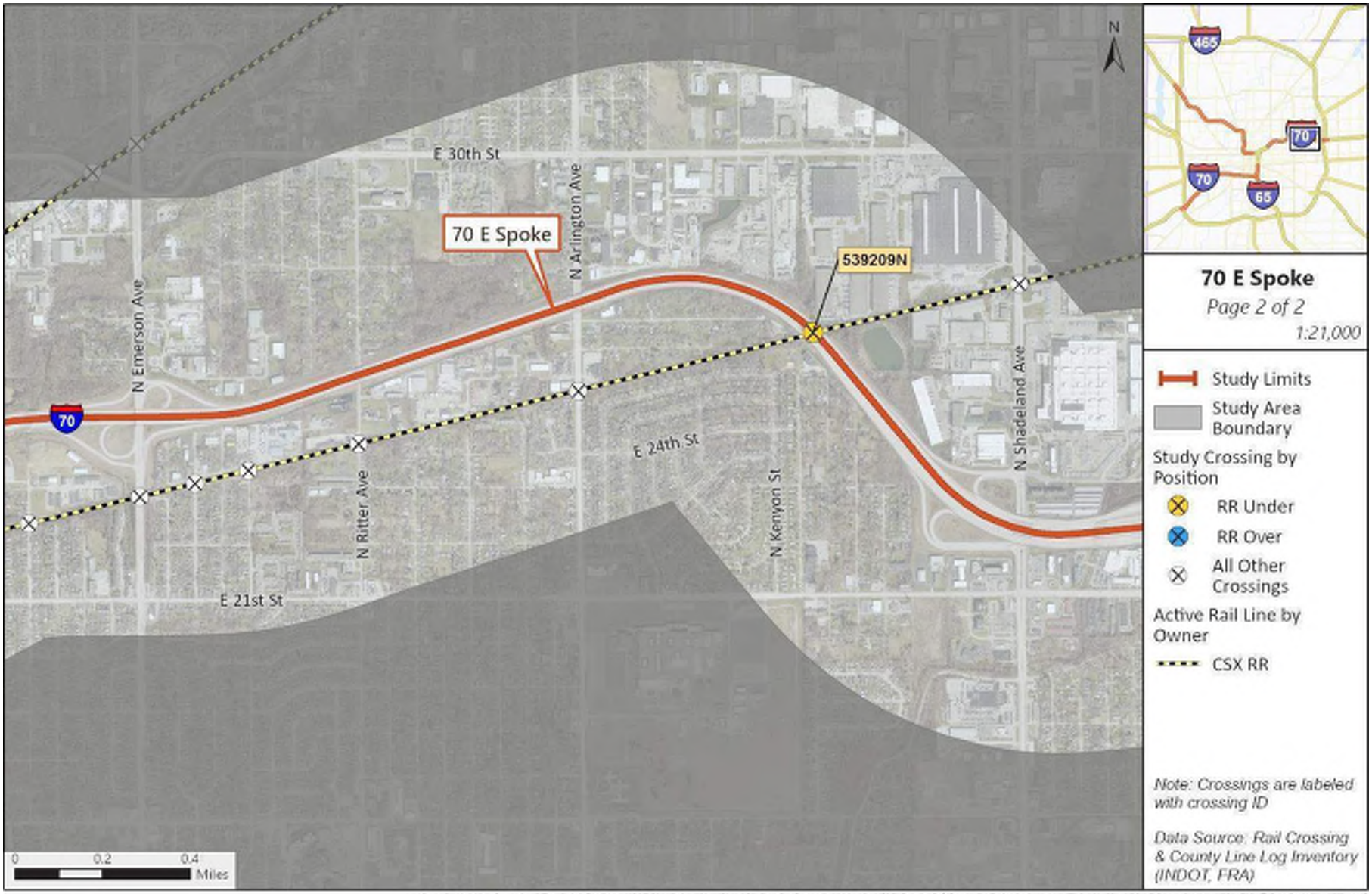

Pike Plaza Rd
Guion Rd
538291G
W 38th St
65
65 Spoke
Lafayette Rd
Kessler Blvd N Dr
Cold Spring Rd
0
0.2
0.4
Miles
N
465
70
70
65
65 Spoke
Page 1 of 1
1:21,000
Study Limits
Study Area Boundary
Study Crossing by Position
RR Under
RR Over
All Other Crossings
Active Rail Line by Owner
CSX RR
Note: Crossings are labeled with crossing ID
Data Source: Rail Crossing & County Line Log Inventory (INDOT, FRA)


65/70 Downtown
Page 1 of 1
1:21,000
Study Limits
Study Area Boundary
Study Crossing by Position
RR Under
RR Over
All Other Crossings
Active Rail Line by Owner
CSX RR
Indiana RR CO
Louisville & Indiana RR
Note: Crossings are labeled with crossing ID
Data Source: Rail Crossing & County Line Log Inventory (INDOT, FRA)
539229A
155931U
538278T
535627R
65/70 Downtown Spoke
70 W Spoke
Limits change
E Ohio St
E Washington St
E South St
E McCarty St
E Morris St
Prospect St
Virginia Ave
Shelby St
S College Ave
S Delaware St
Madison Ave
S East St
S Meridian St
S West St
Kentucky Ave
White River
E Pleasant Run Pkwy N Dr
0 0.2 0.4 Miles

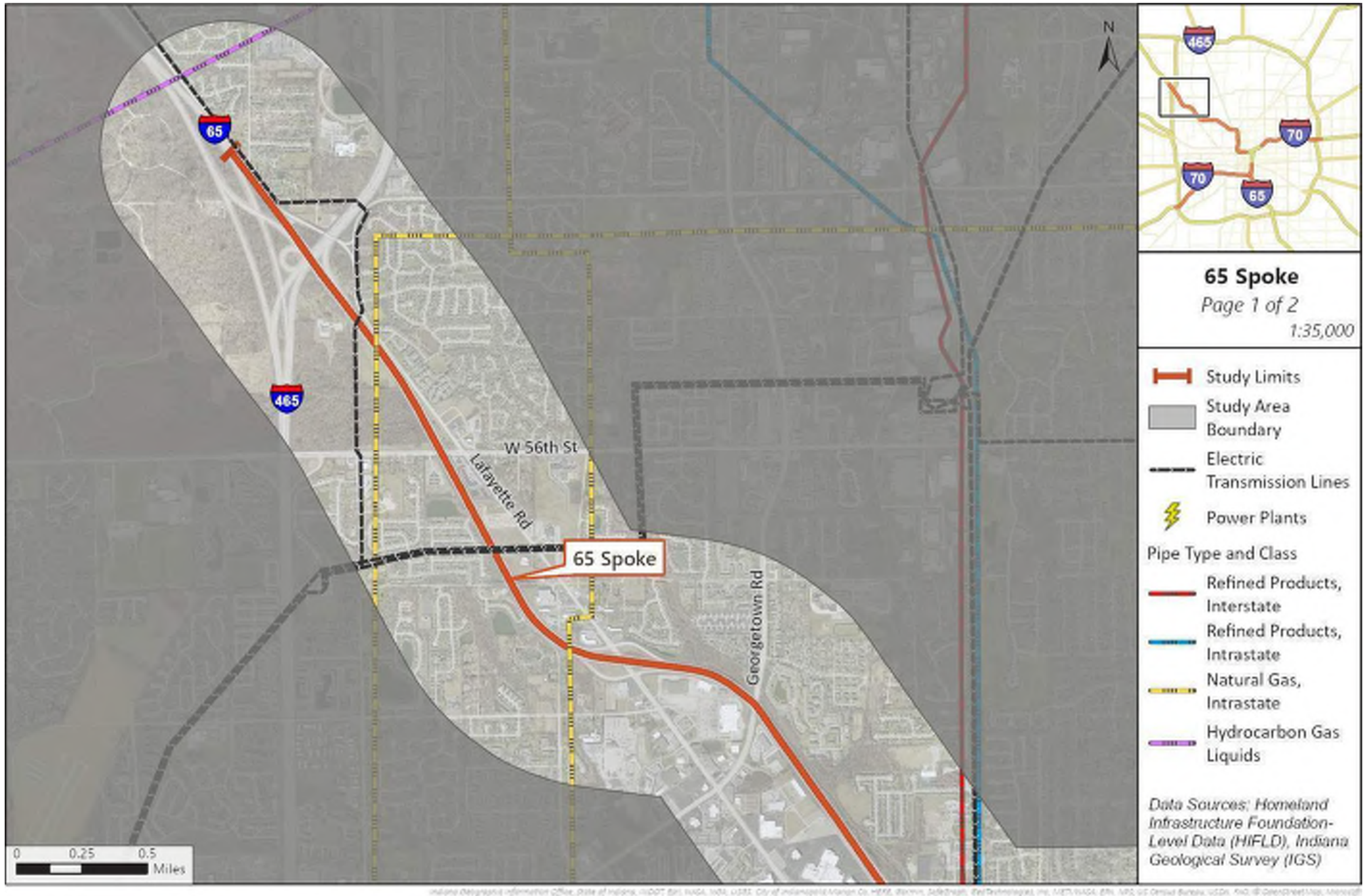

539272F
539269X
70 W Spoke
539062R
W Morris St
S Holt Rd
Eagle Creek
W Minnesota St
Sam Jones Expressway
70
0
0.2
0.4
Miles
N
465
70
70
65
70 W Spoke
Page 1 of 2
1:21,000
Study Limits
Study Area Boundary
Study Crossing by Position
RR Under
RR Over
All Other Crossings
Abandoned Rail Line
Active Rail Line by Owner
CSX RR
Indiana Southern RR
Note: Crossings are labeled with crossing ID
Data Source: Rail Crossing & County Line Log Inventory (INDOT, FRA)

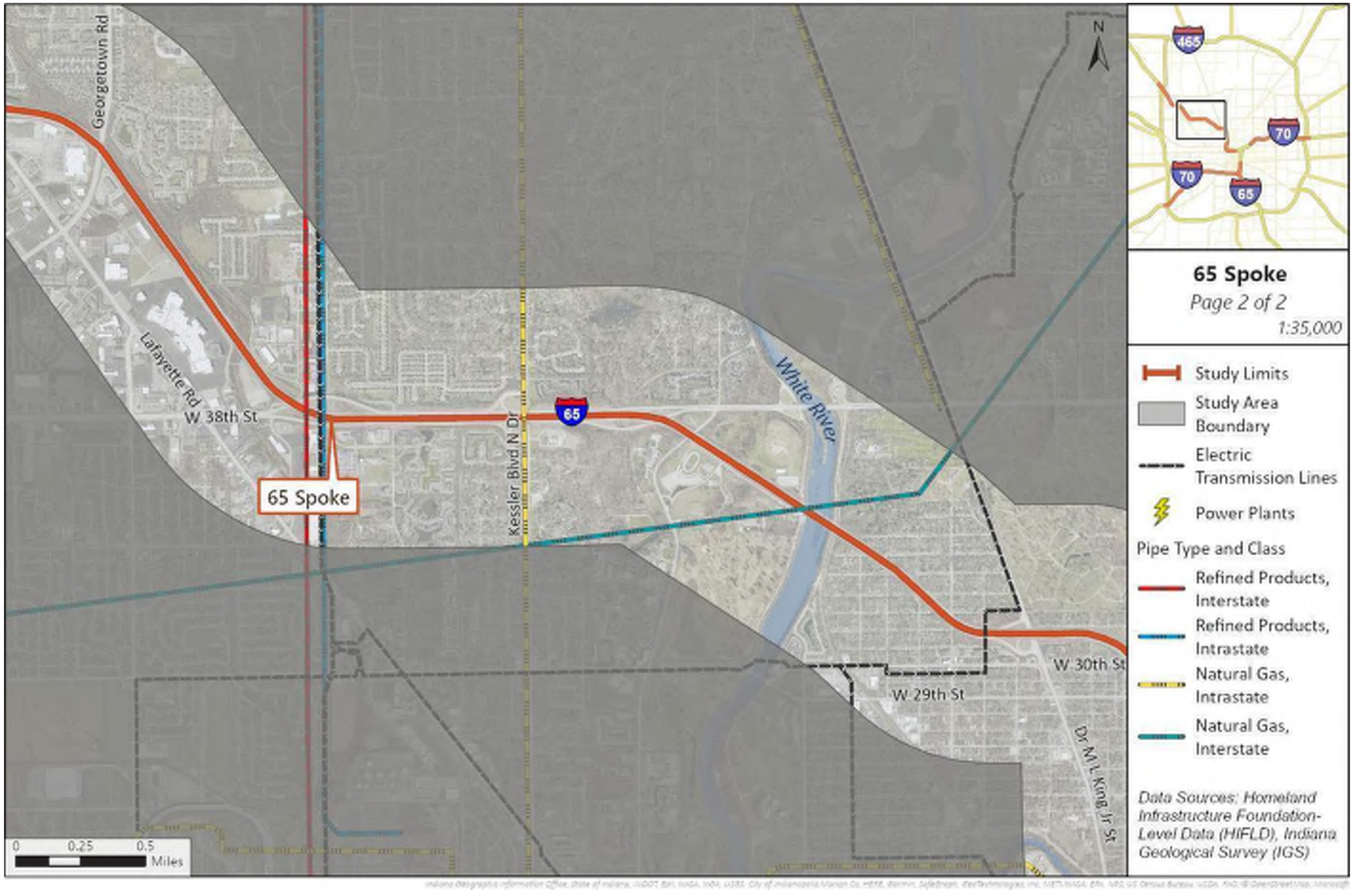

70 W Spoke
850419F
Oliver Ave
White River
Kentucky Ave
Limits change
65/70 Downtown Spoke
S Harding St
W Morris St
Eagle Creek
S West St
70
465
65
N
0
0.2
0.4
Miles
70 W Spoke
Page 2 of 2
1:21,000
Study Limits
Study Area Boundary
Study Crossing by Position
RR Under
RR Over
All Other Crossings
Abandoned Rail Line
Active Rail Line by Owner
CSX RR
Indiana RR CO
Note: Crossings are labeled with crossing ID
Data Source: Rail Crossing & County Line Log Inventory (INDOT, FRA)

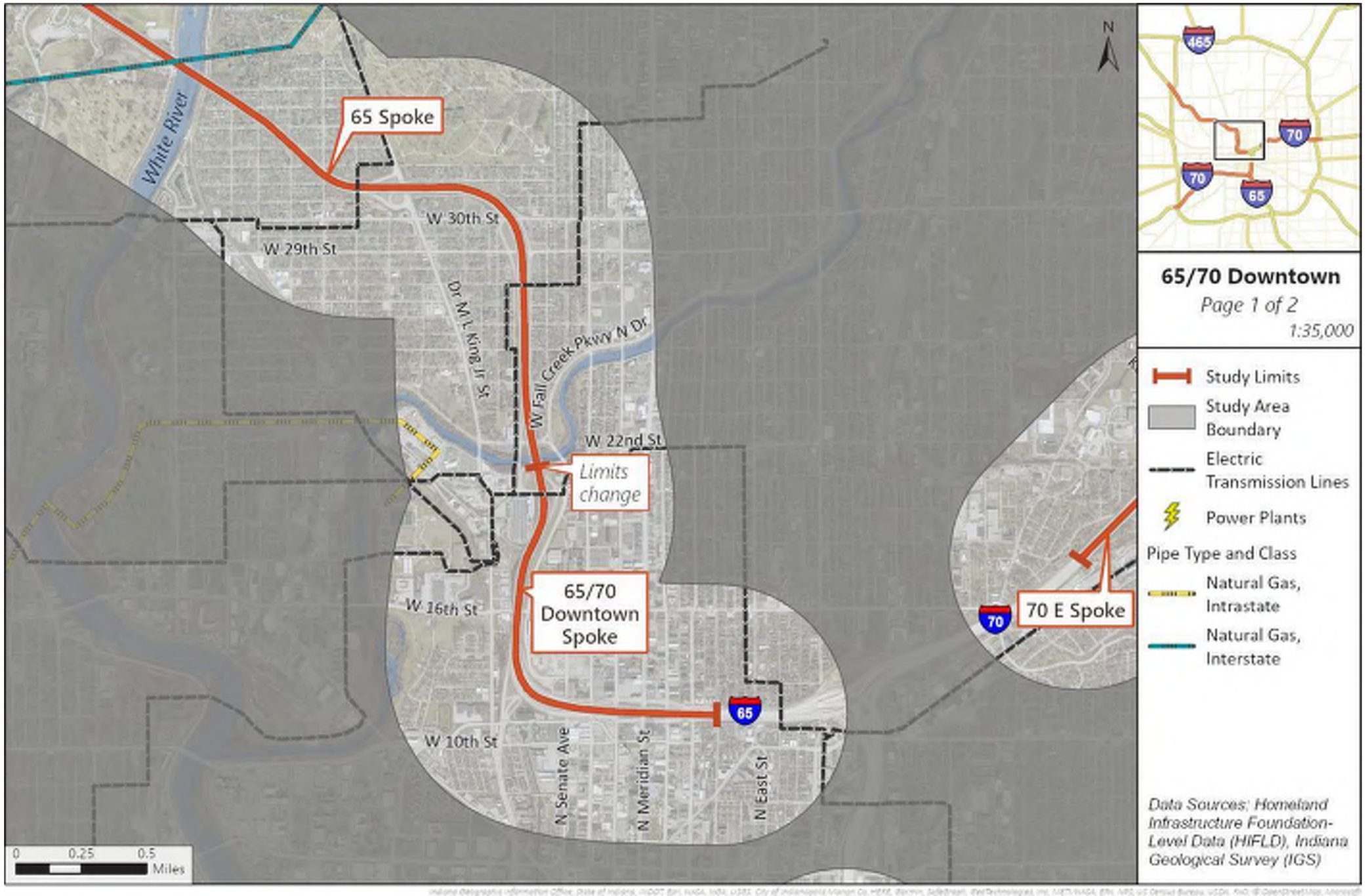

70 E Spoke
539244C
850468C
Keystone Way
Hillside Ave
Roosevelt Ave
Massachusetts Ave
N Rural St
N Sherman Dr
E 21st St
70
0 0.2 0.4 Miles
N
465
70
70
65
70 E Spoke
Page 1 of 2
1:21,000
Study Limits
Study Area Boundary
Study Crossing by Position
RR Under
RR Over
All Other Crossings
Abandoned Rail Line
Active Rail Line by Owner
CSX RR
Note: Crossings are labeled with crossing ID
Data Source: Rail Crossing & County Line Log Inventory (INDOT, FRA)

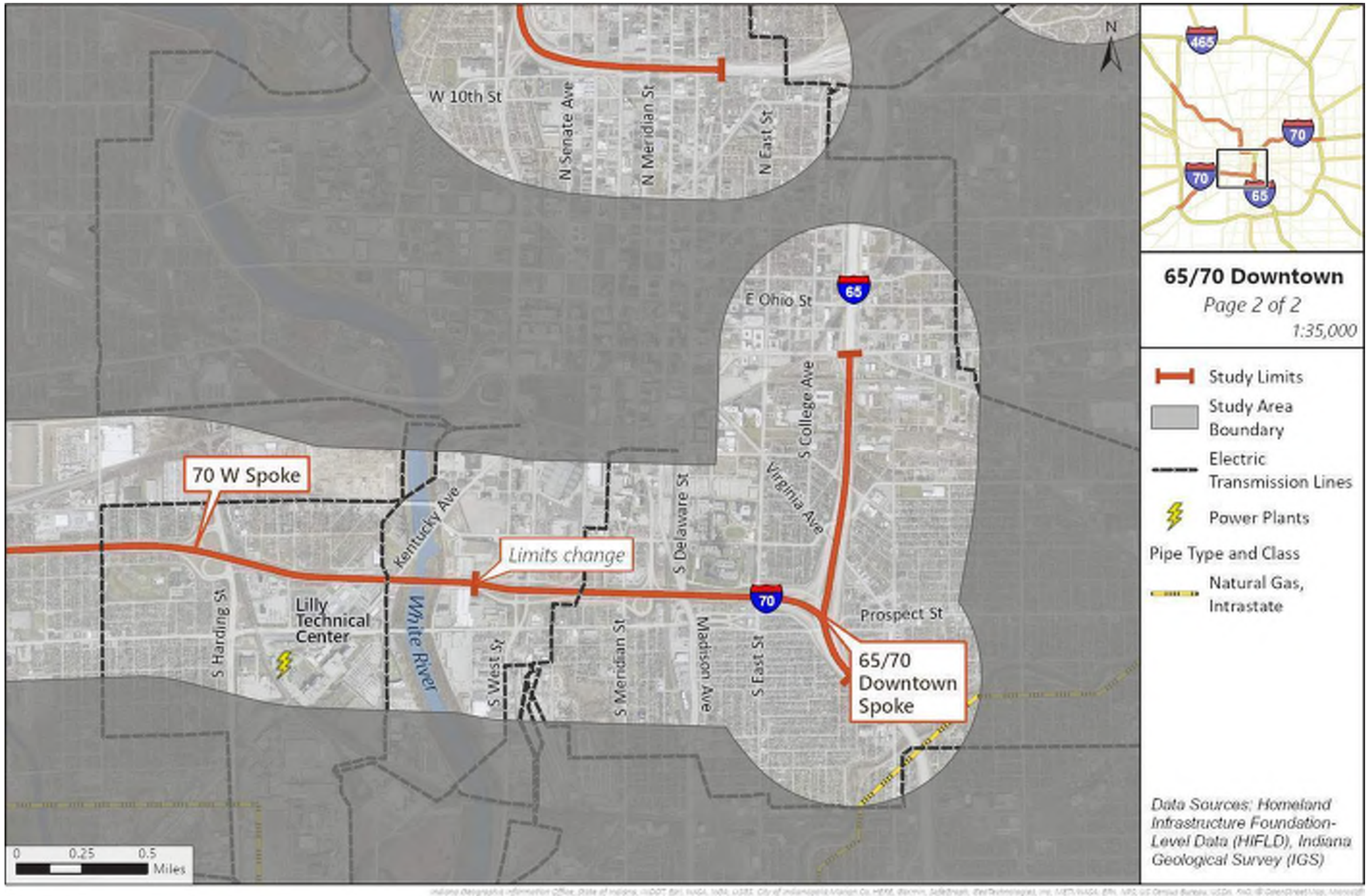

E 30th St
70 E Spoke
539209N
N Arlington Ave
N Emerson Ave
N Ritter Ave
E 24th St
N Kenyon St
N Shadeland Ave
E 21st St
70
0
0.2
0.4
Miles
N
465
70
70
65
70 E Spoke
Page 2 of 2
1:21,000
Study Limits
Study Area Boundary
Study Crossing by Position
RR Under
RR Over
All Other Crossings
Active Rail Line by Owner
CSX RR
Note: Crossings are labeled with crossing ID
Data Source: Rail Crossing & County Line Log Inventory (INDOT, FRA)

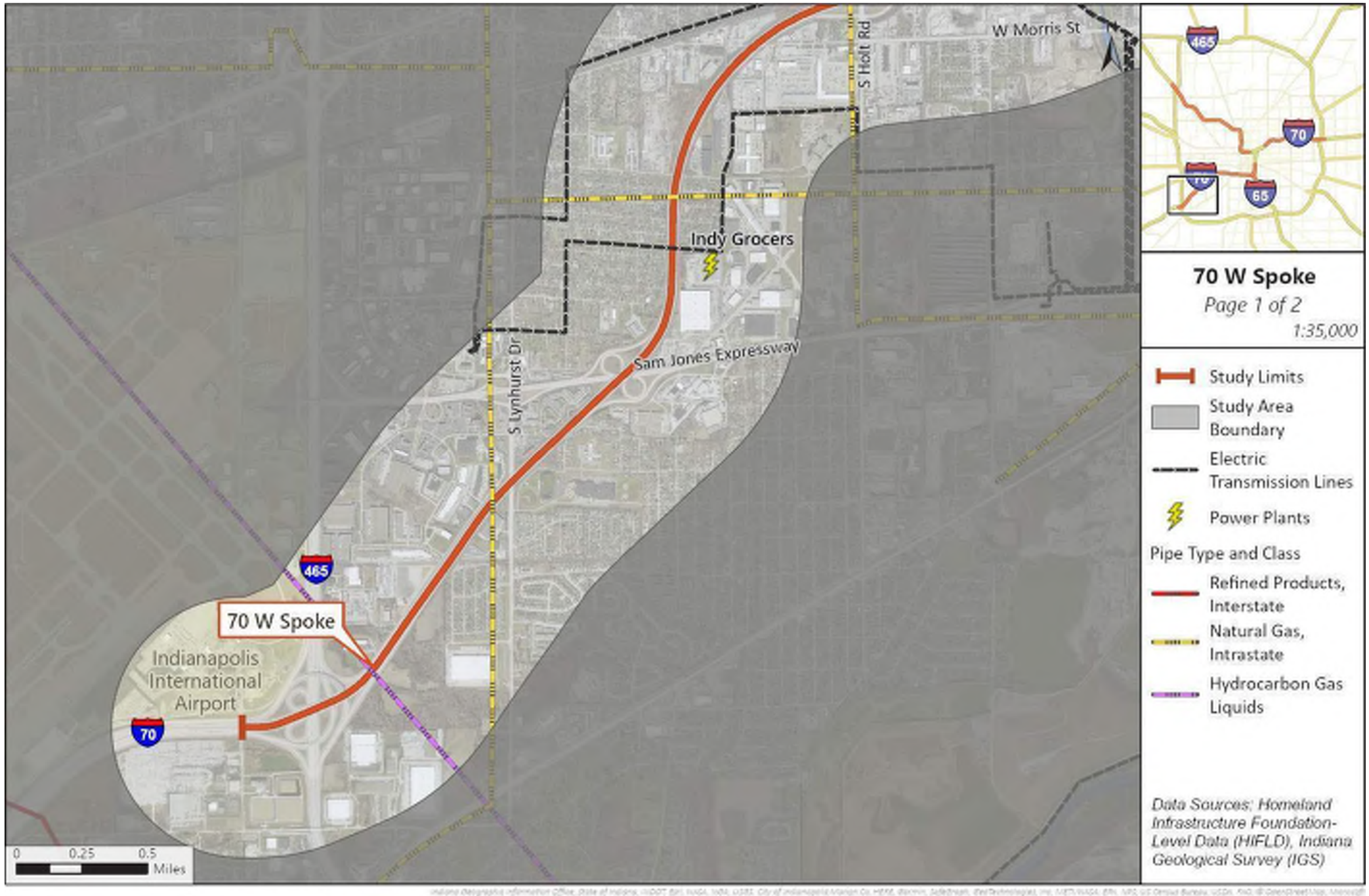
APPENDIX C: MAJOR UTILITIES

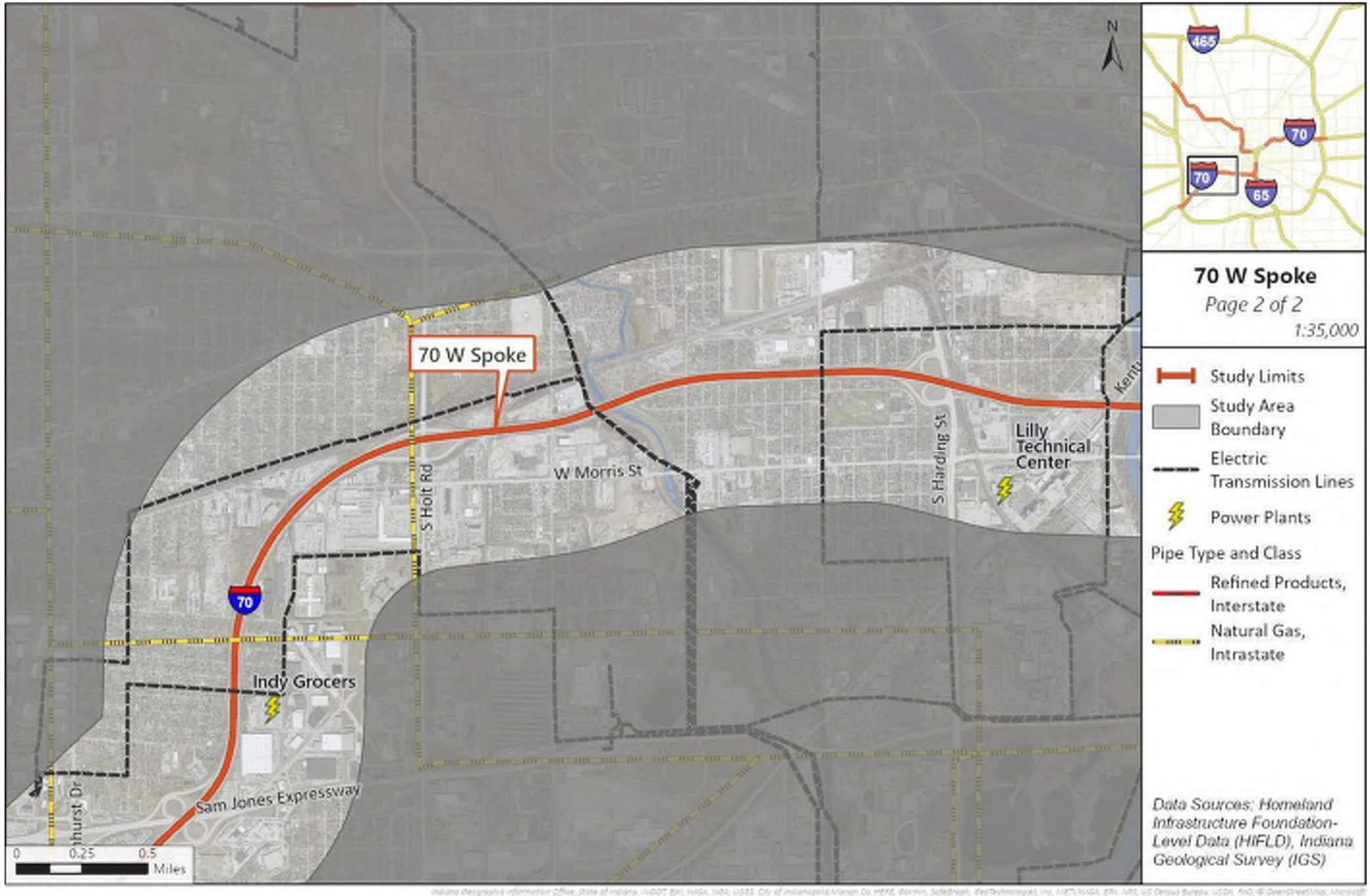

65
465
W 56th St
Lafayette Rd
65 Spoke
Georgetown Rd
0
0.25
0.5
Miles
N
465
70
70
65
65 Spoke
Page 1 of 2
1:35,000
Study Limits
Study Area Boundary
Electric Transmission Lines
Power Plants
Pipe Type and Class
Refined Products, Interstate
Refined Products, Intrastate
Natural Gas, Intrastate
Hydrocarbon Gas Liquids
Data Sources: Homeland Infrastructure Foundation-Level Data (HIFLD), Indiana Geological Survey (IGS)

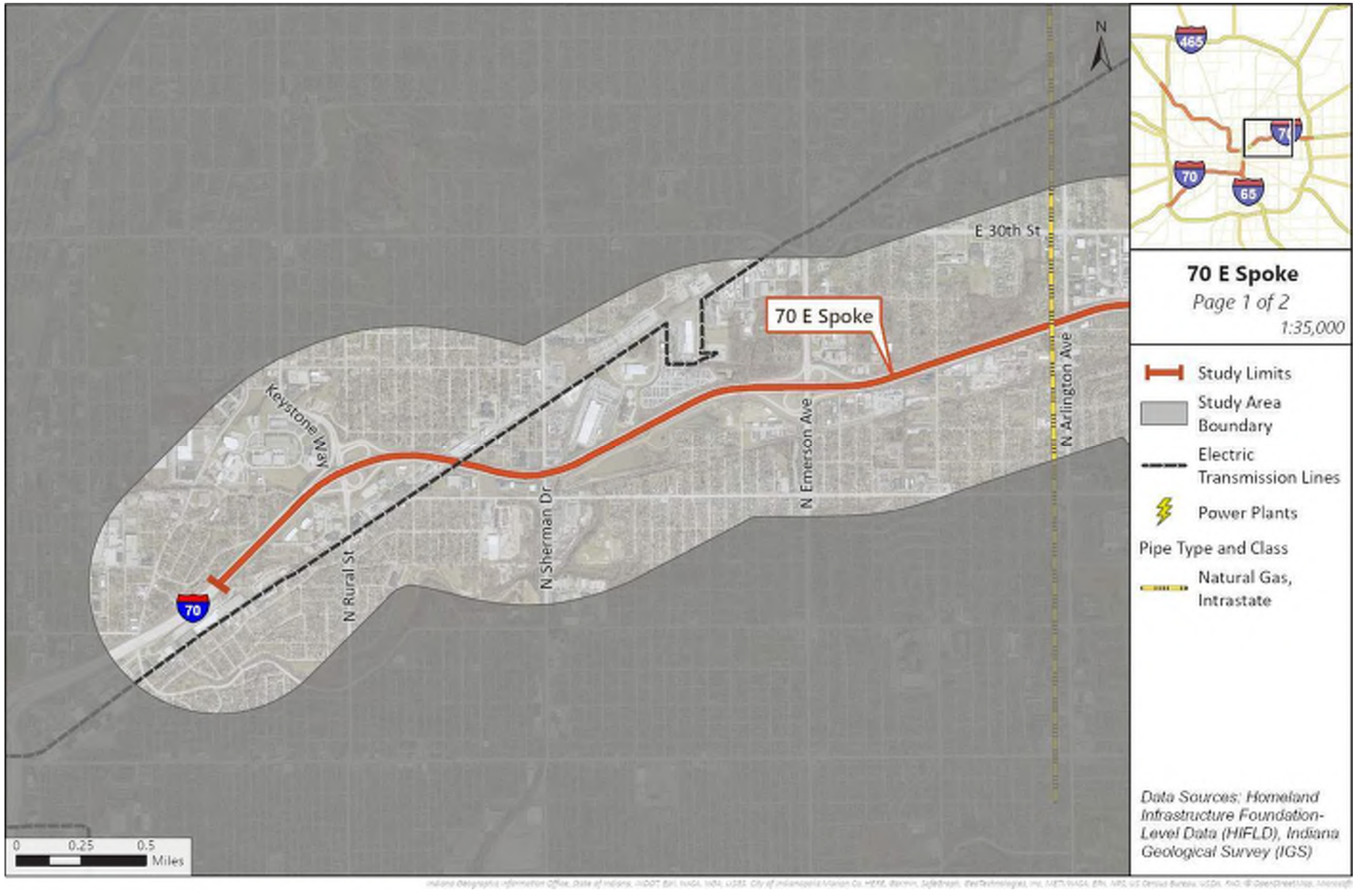

Georgetown Rd
Lafayette Rd
W 38th St
65
65 Spoke
Kessler Blvd N Dr
White River
W 30th St
W 29th St
Dr M L King Jr St
0
0.25
0.5
Miles
N
465
70
70
65
65 Spoke
Page 2 of 2
1:35,000
Study Limits
Study Area Boundary
Electric Transmission Lines
Power Plants
Pipe Type and Class
Refined Products, Interstate
Refined Products, Intrastate
Natural Gas, Intrastate
Natural Gas, Interstate
Data Sources: Homeland Infrastructure Foundation-Level Data (HIFLD), Indiana Geological Survey (IGS)

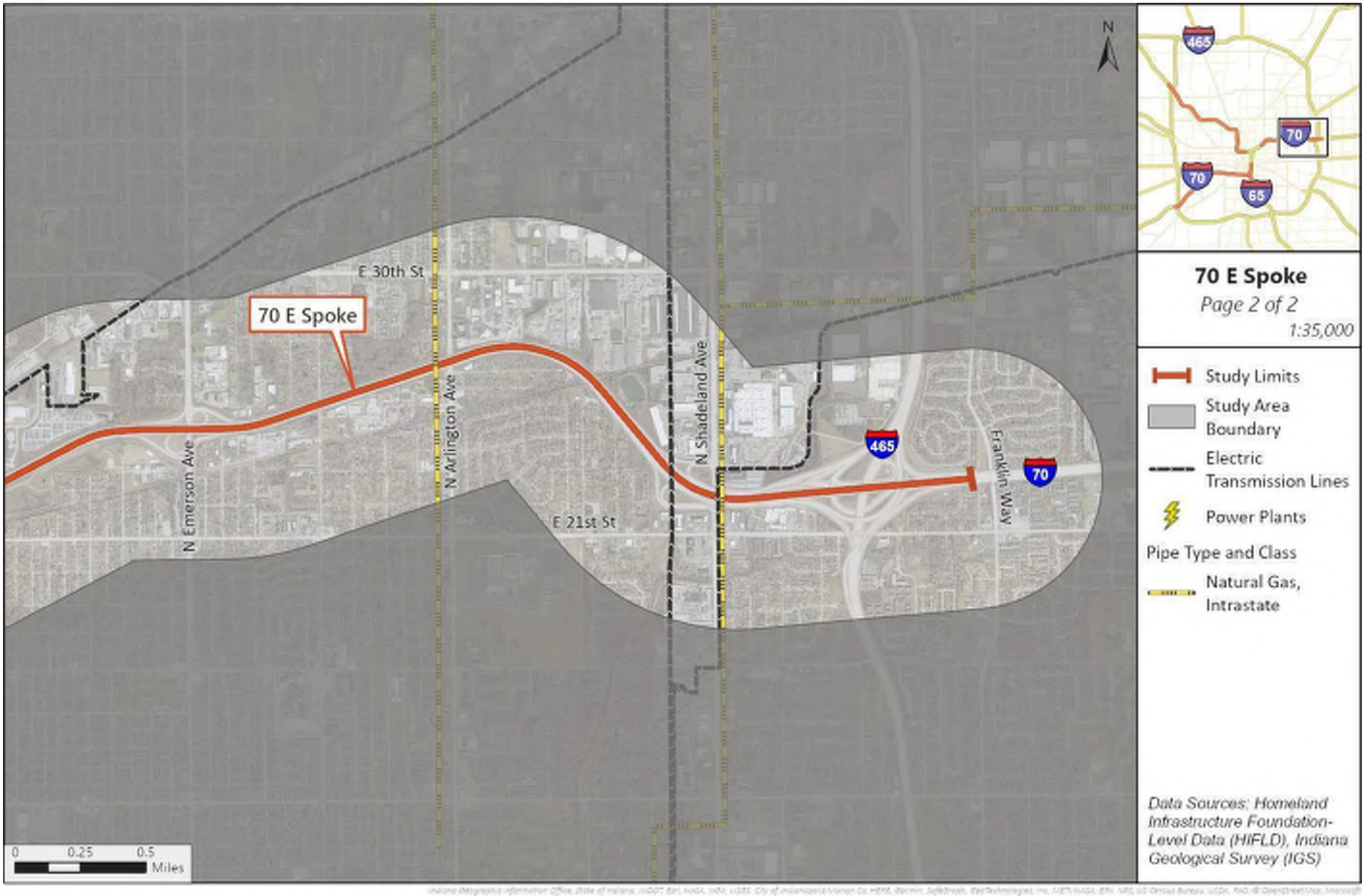

65 Spoke
White River
W 30th St
W 29th St
Dr M L King Jr St
W Fall Creek Pkwy N Dr
W 22nd St
Limits change
65/70 Downtown Spoke
W 16th St
W 10th St
N Senate Ave
N Meridian St
N East St
70 E Spoke
0 0.25 0.5 Miles
N
65/70 Downtown
Page 1 of 2
1:35,000
Study Limits
Study Area Boundary
Electric Transmission Lines
Power Plants
Pipe Type and Class
Natural Gas, Intrastate
Natural Gas, Interstate
Data Sources: Homeland Infrastructure Foundation-Level Data (HIFLD), Indiana Geological Survey (IGS)


W 10th St
N Senate Ave
N Meridian St
N East St
N
E Ohio St
65
S College Ave
Virginia Ave
S Delaware St
70 W Spoke
Kentucky Ave
Limits change
70
S Harding St
Lilly Technical Center
White River
S West St
S Meridian St
Madison Ave
S East St
Prospect St
65/70 Downtown Spoke
0 0.25 0.5 Miles
465
70
70
65
65/70 Downtown
Page 2 of 2
1:35,000
Study Limits
Study Area Boundary
Electric Transmission Lines
Power Plants
Pipe Type and Class
Natural Gas, Intrastate
Data Sources: Homeland Infrastructure Foundation-Level Data (HIFLD), Indiana Geological Survey (IGS)

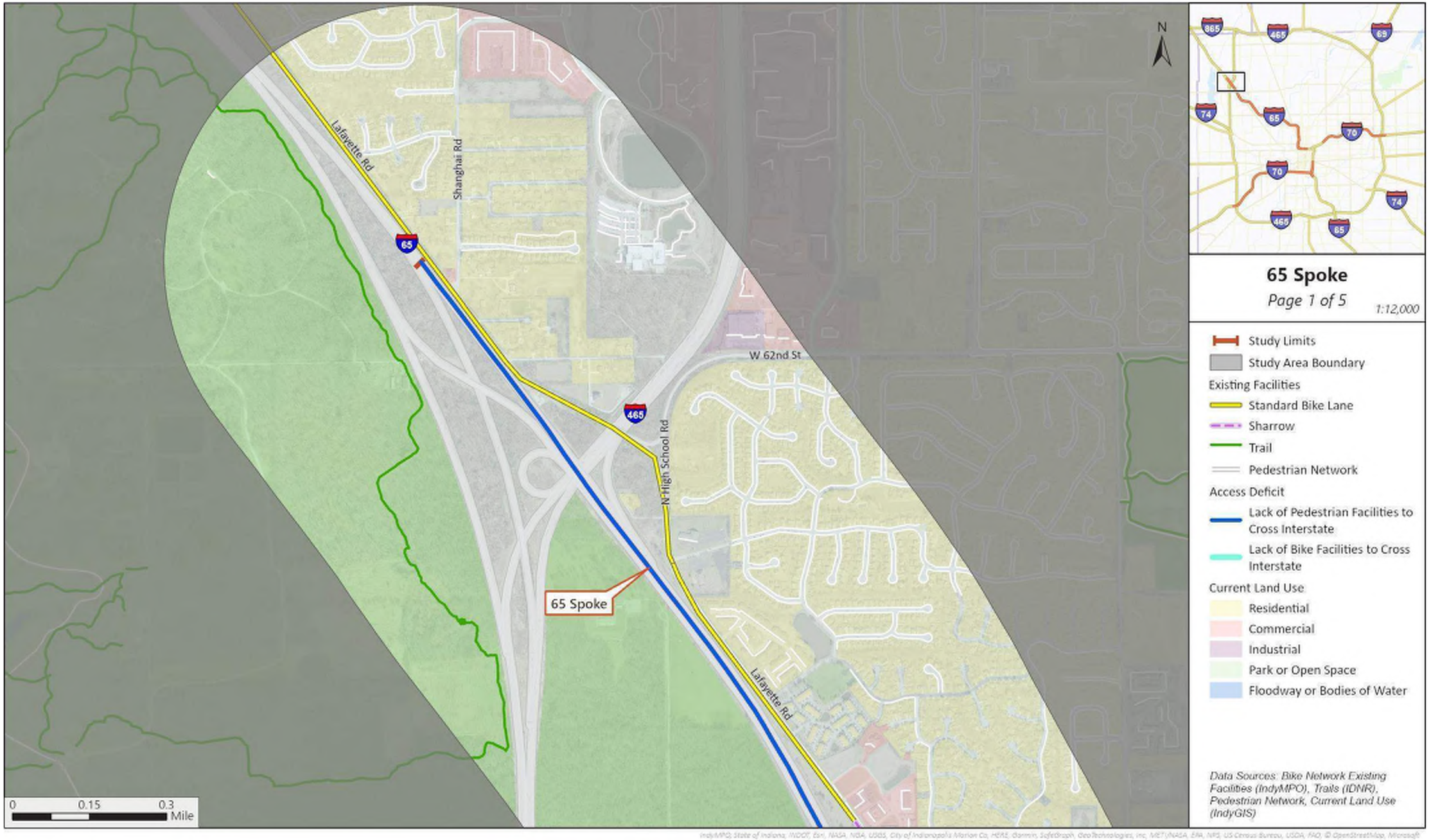

W Morris St
S Holt Rd
Indy Grocers
Sam Jones Expressway
S Lynhurst Dr
465
70
Indianapolis International Airport
70 W Spoke
0 0.25 0.5 Miles
70 W Spoke
Page 1 of 2
1:35,000
Study Limits
Study Area Boundary
Electric Transmission Lines
Power Plants
Pipe Type and Class
Refined Products, Interstate
Natural Gas, Intrastate
Hydrocarbon Gas Liquids
Data Sources: Homeland Infrastructure Foundation-Level Data (HIFLD), Indiana Geological Survey (IGS)

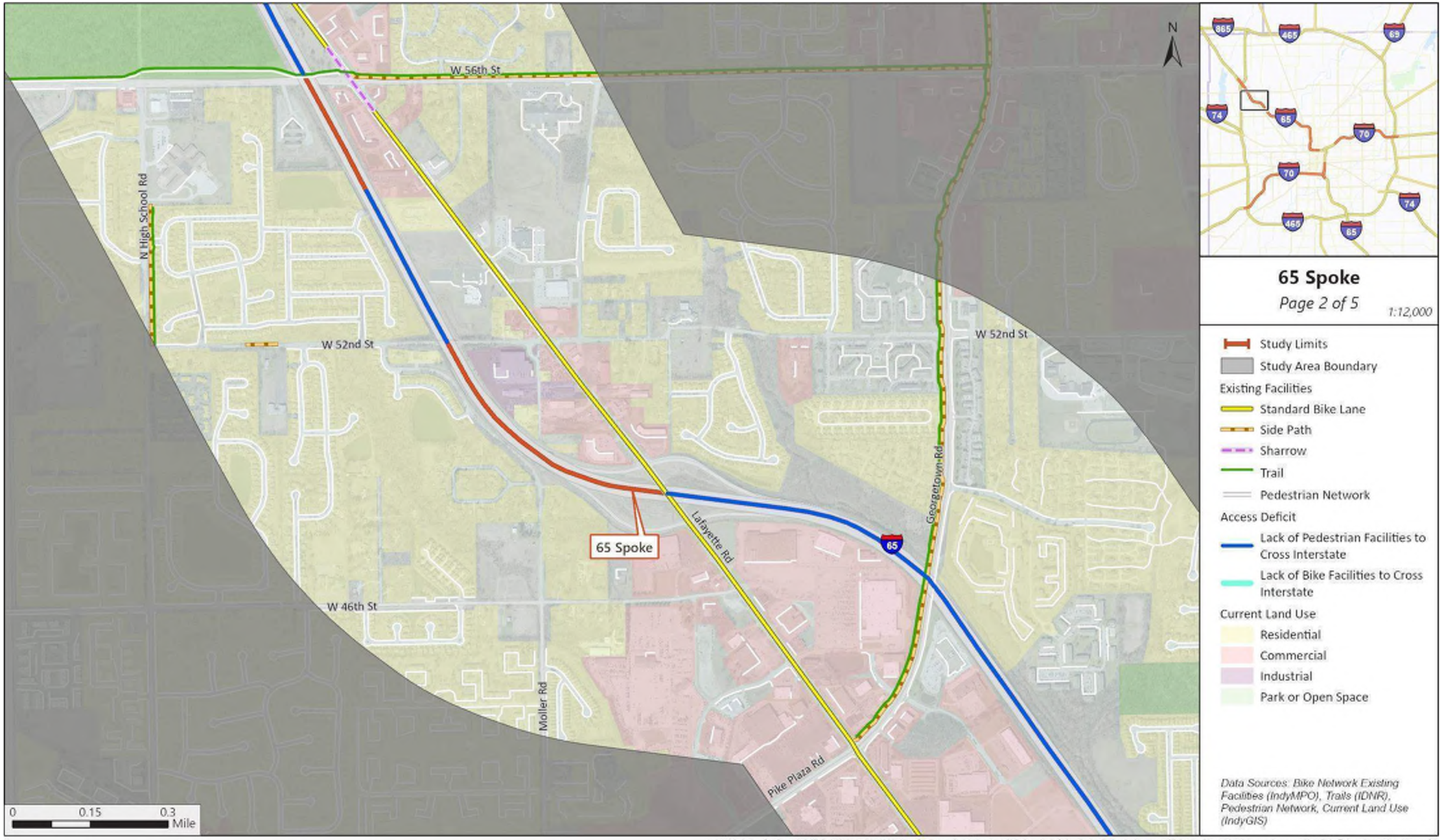

70 W Spoke
W Morris St
S Holt Rd
S Harding St
Lilly Technical Center
70
Indy Grocers
Sam Jones Expressway
0
0.25
0.5
Miles
N
465
70
70
65
70 W Spoke
Page 2 of 2
1:35,000
Study Limits
Study Area Boundary
Electric Transmission Lines
Power Plants
Pipe Type and Class
Refined Products, Interstate
Natural Gas, Intrastate
Data Sources: Homeland Infrastructure Foundation-Level Data (HIFLD), Indiana Geological Survey (IGS)


N
E 30th St
70 E Spoke
Keystone Way
N Rural St
N Sherman Dr
N Emerson Ave
N Arlington Ave
70
0
0.25
0.5
Miles
465
70
65
70 E Spoke
Page 1 of 2
1:35,000
Study Limits
Study Area Boundary
Electric Transmission Lines
Power Plants
Pipe Type and Class
Natural Gas, Intrastate
Data Sources: Homeland Infrastructure Foundation-Level Data (HIFLD), Indiana Geological Survey (IGS)

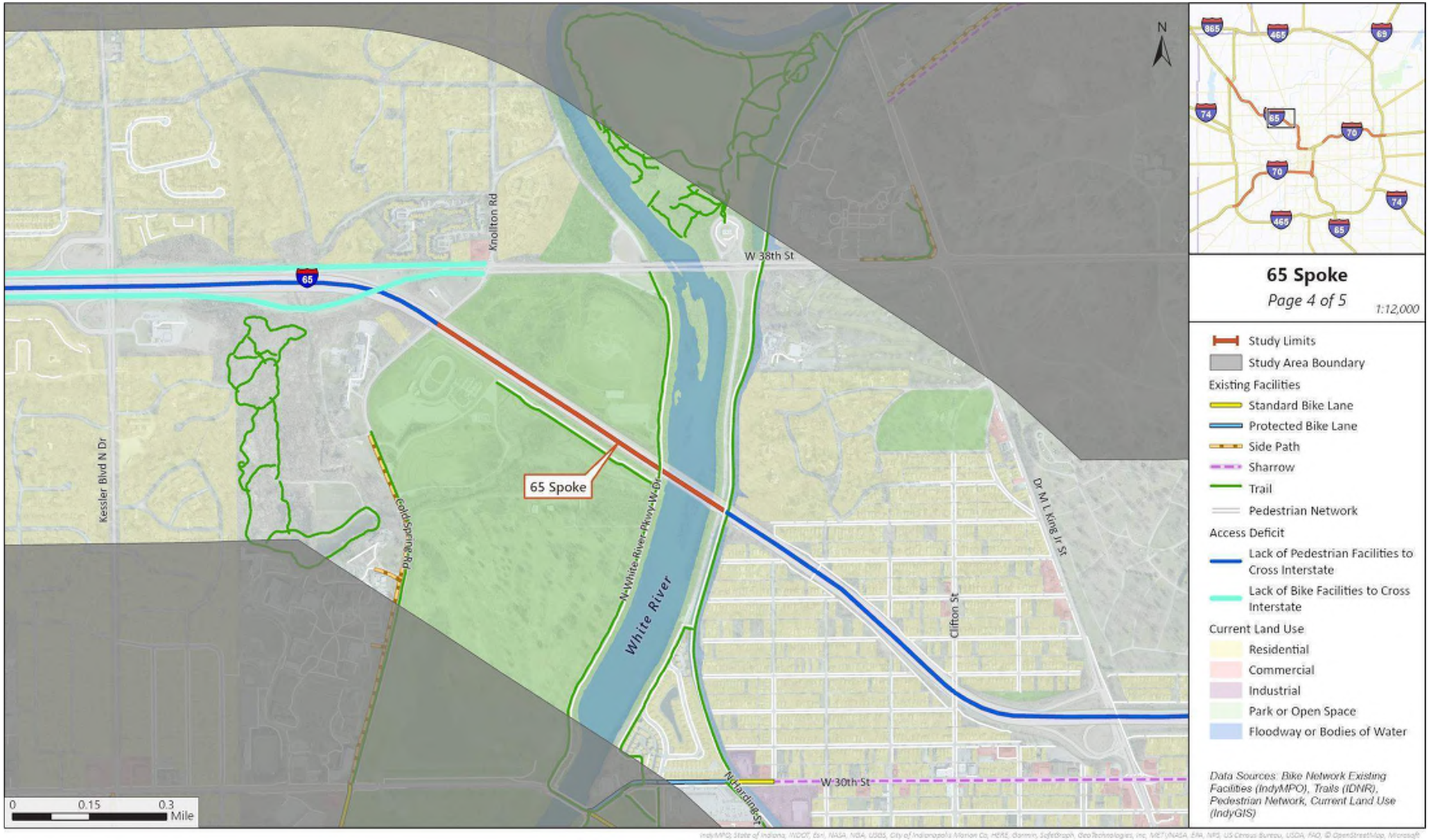

N
E 30th St
70 E Spoke
N Emerson Ave
N Arlington Ave
N Shadeland Ave
E 21st St
Franklin Way
465
70
0
0.25
0.5
Miles
70 E Spoke
Page 2 of 2
1:35,000
Study Limits
Study Area Boundary
Electric Transmission Lines
Power Plants
Pipe Type and Class
Natural Gas, Intrastate
Data Sources: Homeland Infrastructure Foundation-Level Data (HIFLD), Indiana Geological Survey (IGS)

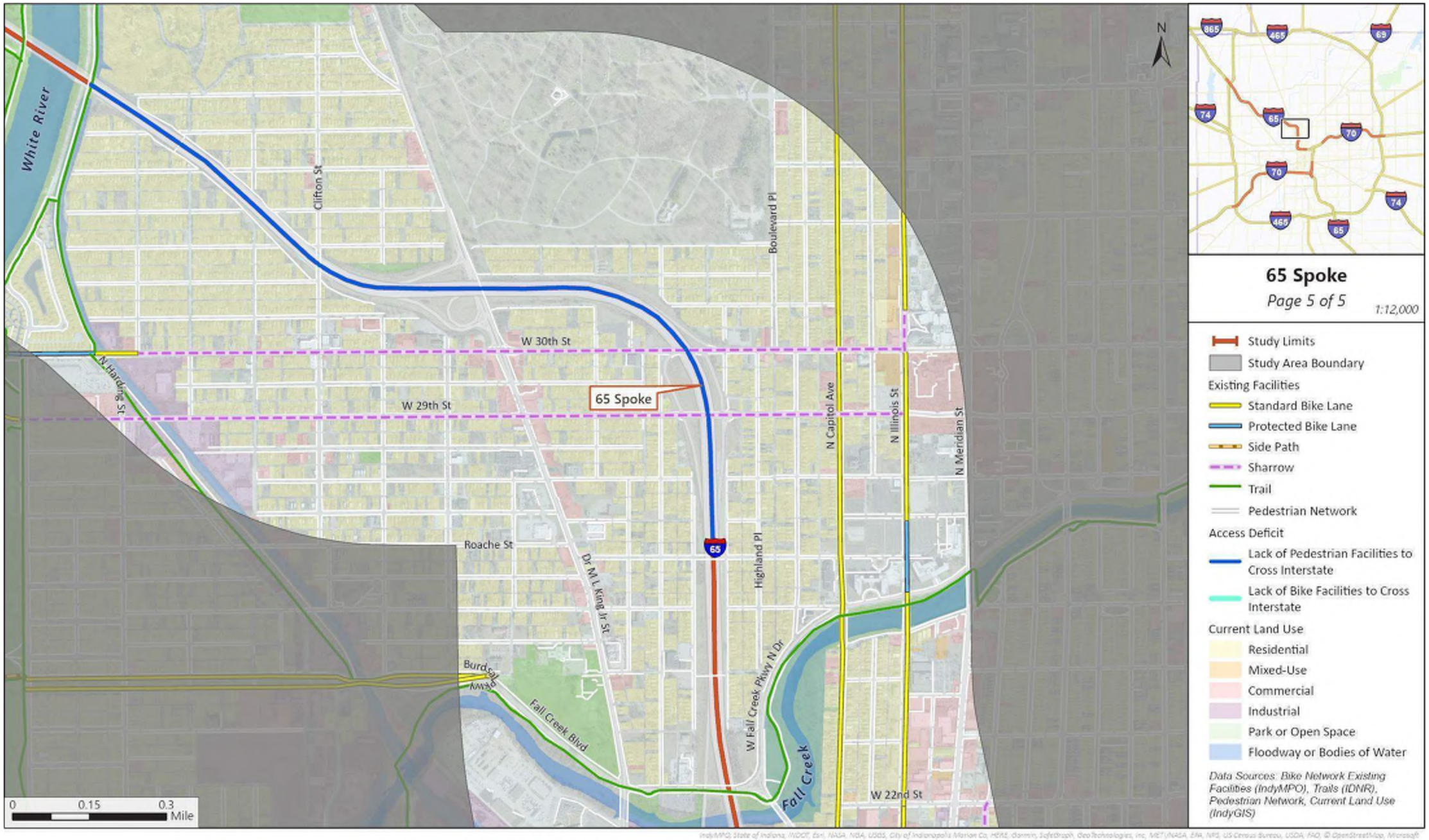
APPENDIX D: BIKE & PEDESTRIAN FACILITIES

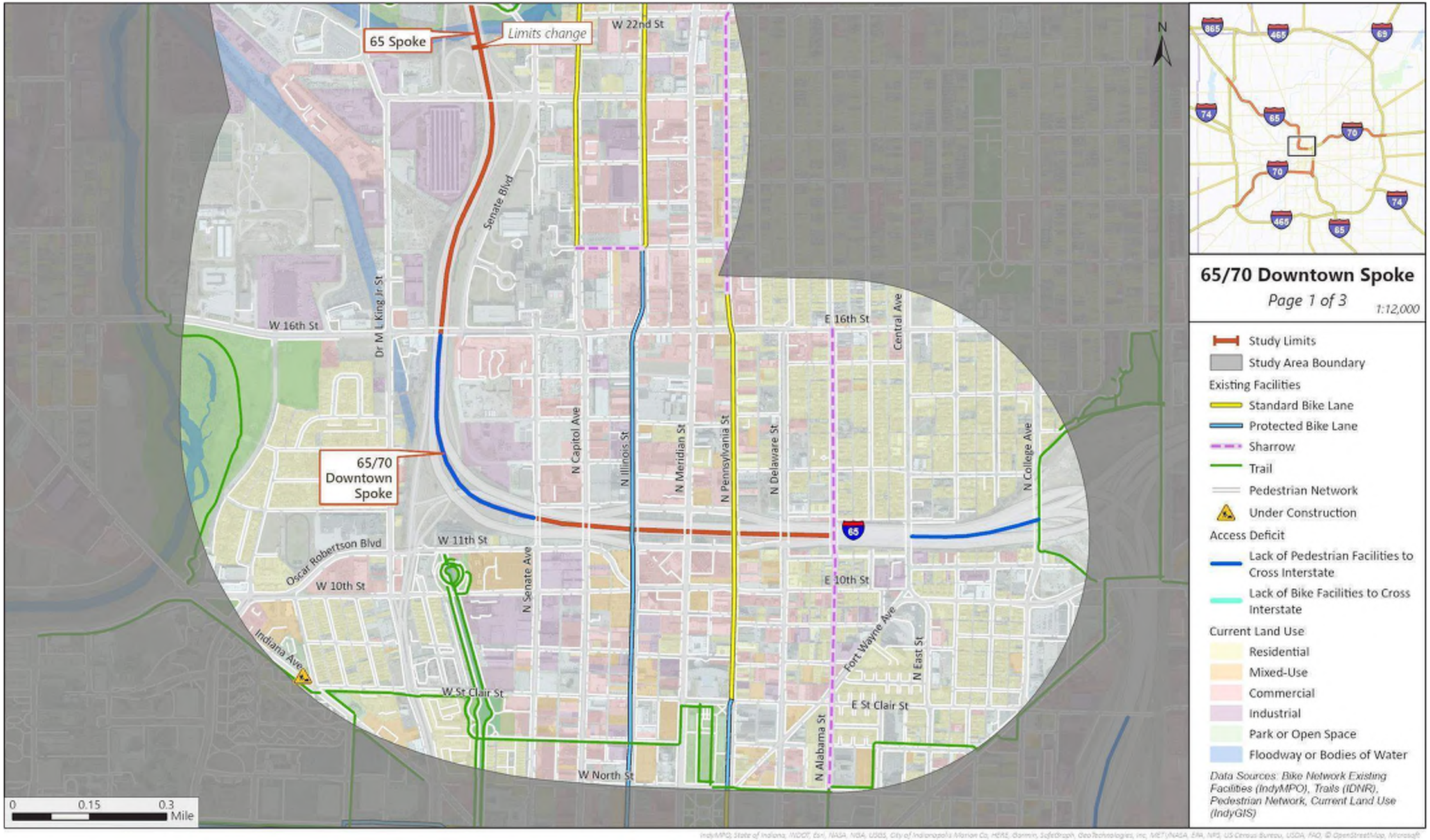

N
Lafayette Rd
Shanghai Rd
65
465
W 62nd St
N High School Rd
65 Spoke
Lafayette Rd
0
0.15
0.3
Mile
65 Spoke
Page 1 of 5
1:12,000
Study Limits
Study Area Boundary
Existing Facilities
Standard Bike Lane
Sharrow
Trail
Pedestrian Network
Access Deficit
Lack of Pedestrian Facilities to Cross Interstate
Lack of Bike Facilities to Cross Interstate
Current Land Use
Residential
Commercial
Industrial
Park or Open Space
Floodway or Bodies of Water
Data Sources: Bike Network Existing Facilities (IndyMPO), Trails (IDNR), Pedestrian Network, Current Land Use (IndyGIS)

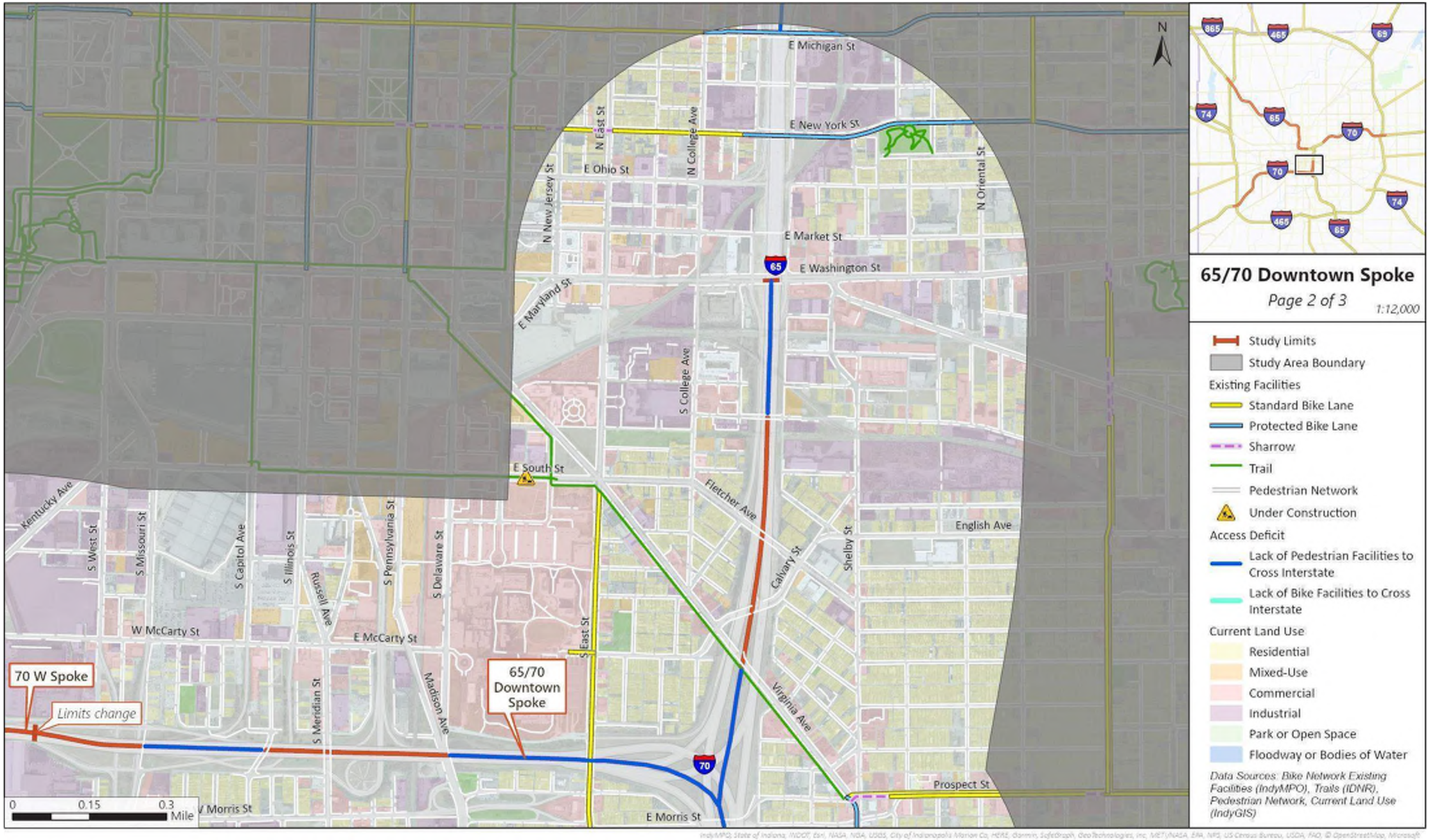

W 56th St
N High School Rd
W 52nd St
W 52nd St
Georgetown Rd
65 Spoke
Lafayette Rd
65
W 46th St
Moller Rd
Pike Plaza Rd
0
0.15
0.3
Mile
N
65 Spoke
Page 2 of 5
1:12,000
Study Limits
Study Area Boundary
Existing Facilities
Standard Bike Lane
Side Path
Sharrow
Trail
Pedestrian Network
Access Deficit
Lack of Pedestrian Facilities to Cross Interstate
Lack of Bike Facilities to Cross Interstate
Current Land Use
Residential
Commercial
Industrial
Park or Open Space
Data Sources: Bike Network Existing Facilities (IndyMPO), Trails (IDNR), Pedestrian Network, Current Land Use (IndyGIS)

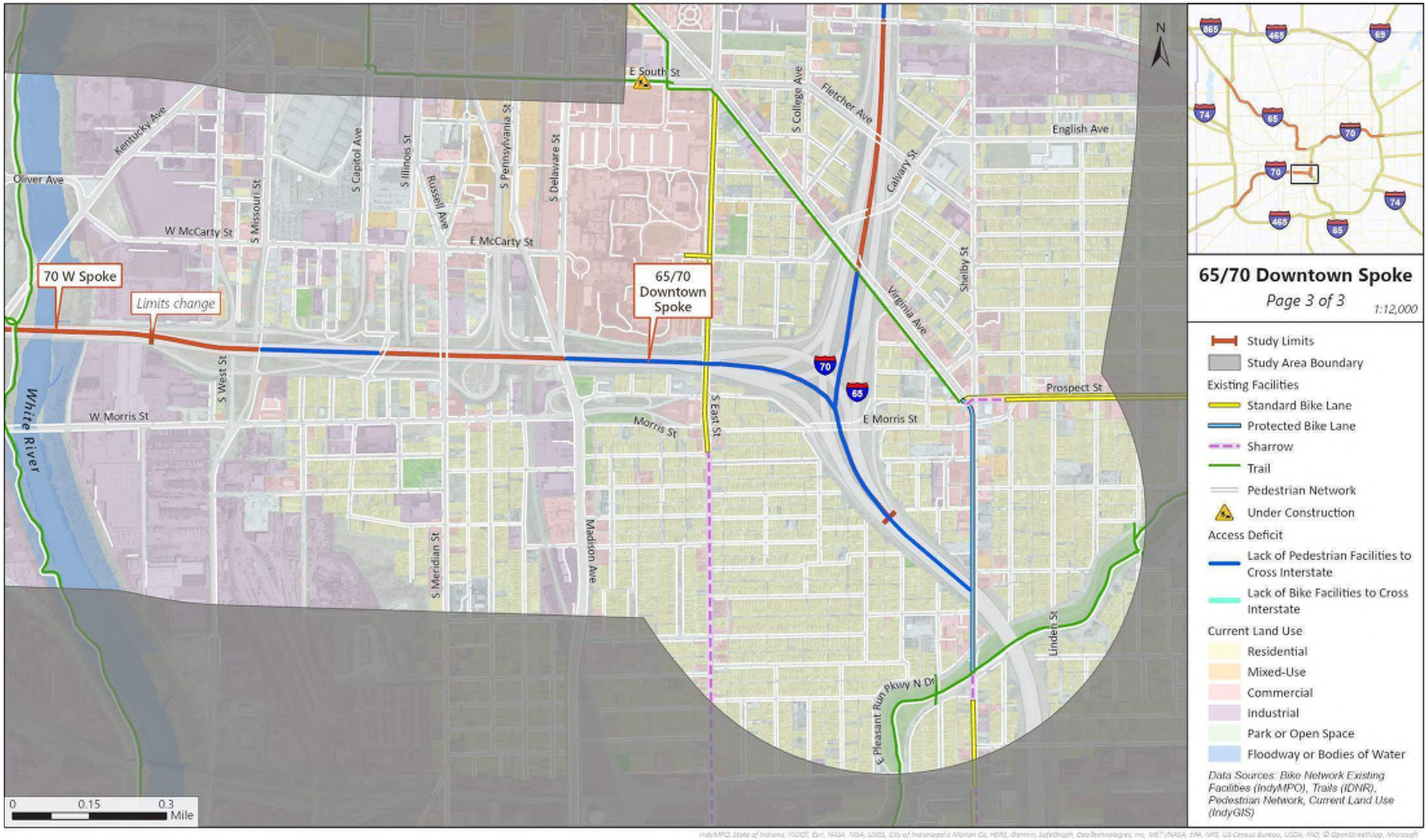

Georgetown Rd
Pike Plaza Rd
Lafayette Rd
Guion Rd
Kessler Blvd N Dr
65 Spoke
W 38th St
65
N
865
465
69
74
465
70
70
74
465
65
65 Spoke
Page 3 of 5
1:12,000
Study Limits
Study Area Boundary
Existing Facilities
Standard Bike Lane
Side Path
Sharrow
Trail
Pedestrian Network
Access Deficit
Lack of Pedestrian Facilities to Cross Interstate
Lack of Bike Facilities to Cross Interstate
Current Land Use
Residential
Commercial
Industrial
Park or Open Space
Floodway or Bodies of Water
Data Sources: Bike Network Existing Facilities (IndyMPO), Trails (IDNR), Pedestrian Network, Current Land Use (IndyGIS)
0
0.15
0.3
Mile


N
Knoliton Rd
W 38th St
65
65 Spoke
Kessler Blvd N Dr
Gold Spring Rd
N White River Pkwy W Dr
White River
Dr M L King Jr St
Clifton St
W 30th St
N Harding St
0
0.15
0.3
Mile
65 Spoke
Page 4 of 5
1:12,000
Study Limits
Study Area Boundary
Existing Facilities
Standard Bike Lane
Protected Bike Lane
Side Path
Sharrow
Trail
Pedestrian Network
Access Deficit
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Lack of Bike Facilities to Cross Interstate
Current Land Use
Residential
Commercial
Industrial
Park or Open Space
Floodway or Bodies of Water
Data Sources: Bike Network Existing Facilities (IndyMPO), Trails (IDNR), Pedestrian Network, Current Land Use (IndyGIS)


White River
Clifton St
Boulevard Pl
W 30th St
N Harding St
W 29th St
65 Spoke
N Capitol Ave
N Illinois St
N Meridian St
Roache St
Dr M L King Jr St
Highland Pl
65
W Fall Creek Pkwy N Dr
Burd St
Fall Creek Blvd
Fall Creek
W 22nd St
N
0
0.15
0.3
Mile
65 Spoke
Page 5 of 5
1:12,000
Study Limits
Study Area Boundary
Existing Facilities
Standard Bike Lane
Protected Bike Lane
Side Path
Sharrow
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Lack of Bike Facilities to Cross Interstate
Current Land Use
Residential
Mixed-Use
Commercial
Industrial
Park or Open Space
Floodway or Bodies of Water
Data Sources: Bike Network Existing Facilities (IndyMPO), Trails (IDNR), Pedestrian Network, Current Land Use (IndyGIS)


65 Spoke
Limits change
65/70 Downtown Spoke
W 22nd St
W 16th St
W 11th St
W 10th St
E 16th St
E 10th St
E St Clair St
W St Clair St
W North St
Senate Blvd
Dr M L King Jr St
Oscar Robertson Blvd
Indiana Ave
Central Ave
Fort Wayne Ave
N Capitol Ave
N Illinois St
N Meridian St
N Pennsylvania St
N Delaware St
N College Ave
N Senate Ave
N East St
N Alabama St
N
0
0.15
0.3
Mile
65/70 Downtown Spoke
Page 1 of 3
1:12,000
Study Limits
Study Area Boundary
Existing Facilities
Standard Bike Lane
Protected Bike Lane
Sharrow
Trail
Pedestrian Network
Under Construction
Access Deficit
Lack of Pedestrian Facilities to Cross Interstate
Lack of Bike Facilities to Cross Interstate
Current Land Use
Residential
Mixed-Use
Commercial
Industrial
Park or Open Space
Floodway or Bodies of Water
Data Sources: Bike Network Existing Facilities (IndyMPO), Trails (IDNR), Pedestrian Network, Current Land Use (IndyGIS)
IndyMPO, State of Indiana, INDOT, Esri, NASA, NGA, USGS, City of Indianapolis Marion Co, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, FAO, © OpenStreetMap, Microsoft


N
E Michigan St
E New York St
E Ohio St
N New Jersey St
N East St
N College Ave
N Oriental St
E Market St
E Washington St
E Maryland St
S College Ave
E South St
Fletcher Ave
Calvary St
Shelby St
English Ave
Kentucky Ave
S West St
S Missouri St
S Capitol Ave
S Illinois St
Russell Ave
S Pennsylvania St
S Delaware St
W McCarty St
E McCarty St
S East St
Madison Ave
S Meridian St
Virginia Ave
Prospect St
E Morris St
70 W Spoke
Limits change
65/70 Downtown Spoke
0
0.15
0.3
Mile
65/70 Downtown Spoke
Page 2 of 3
1:12,000
Study Limits
Study Area Boundary
Existing Facilities
Standard Bike Lane
Protected Bike Lane
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Industrial
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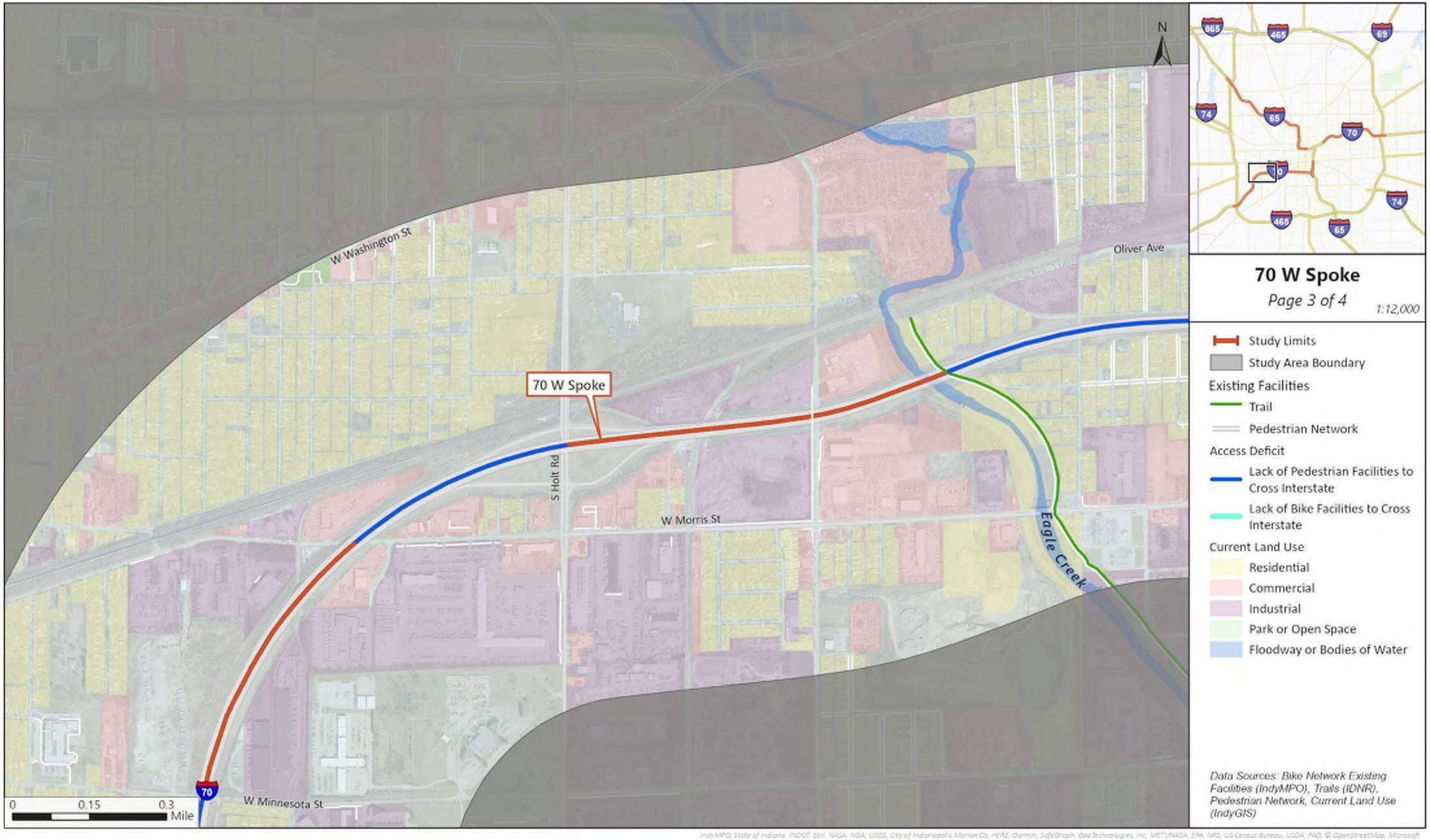
IndyMPO, State of Indiana, INDOT, Esri, NASA, NGA, USGS, City of Indianapolis Marion Co, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, FAO, © OpenStreetMap, Microsoft



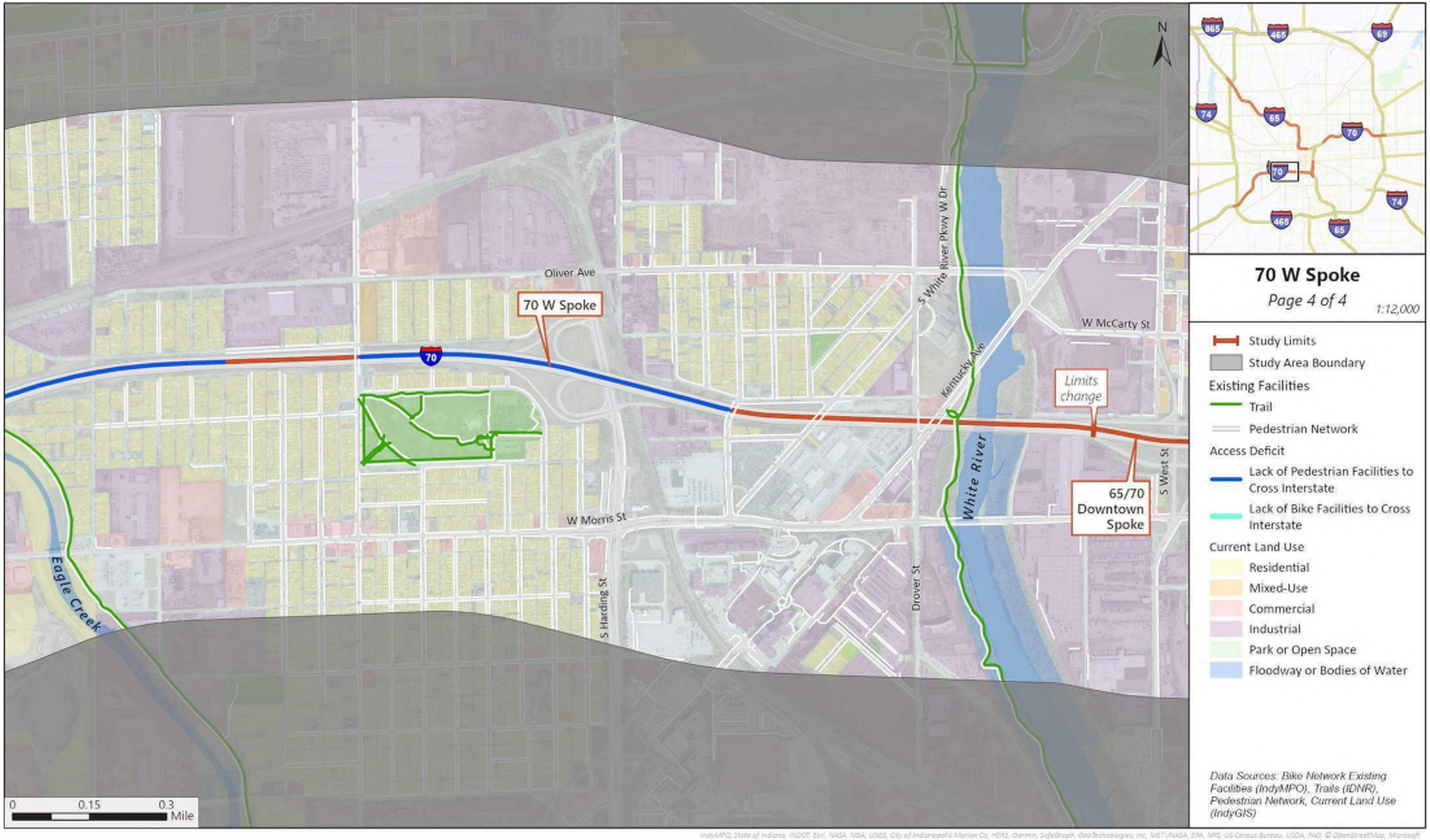
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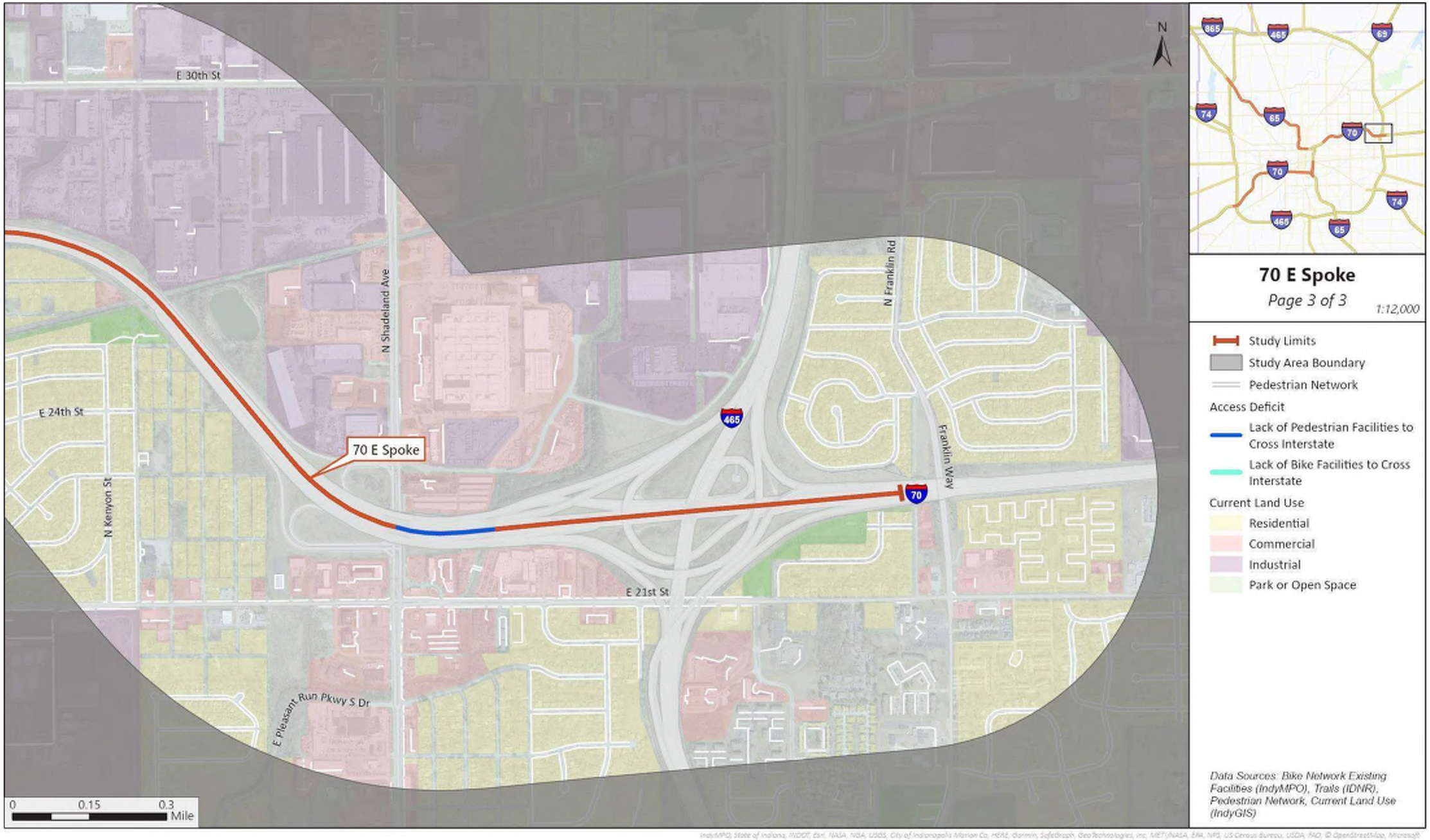


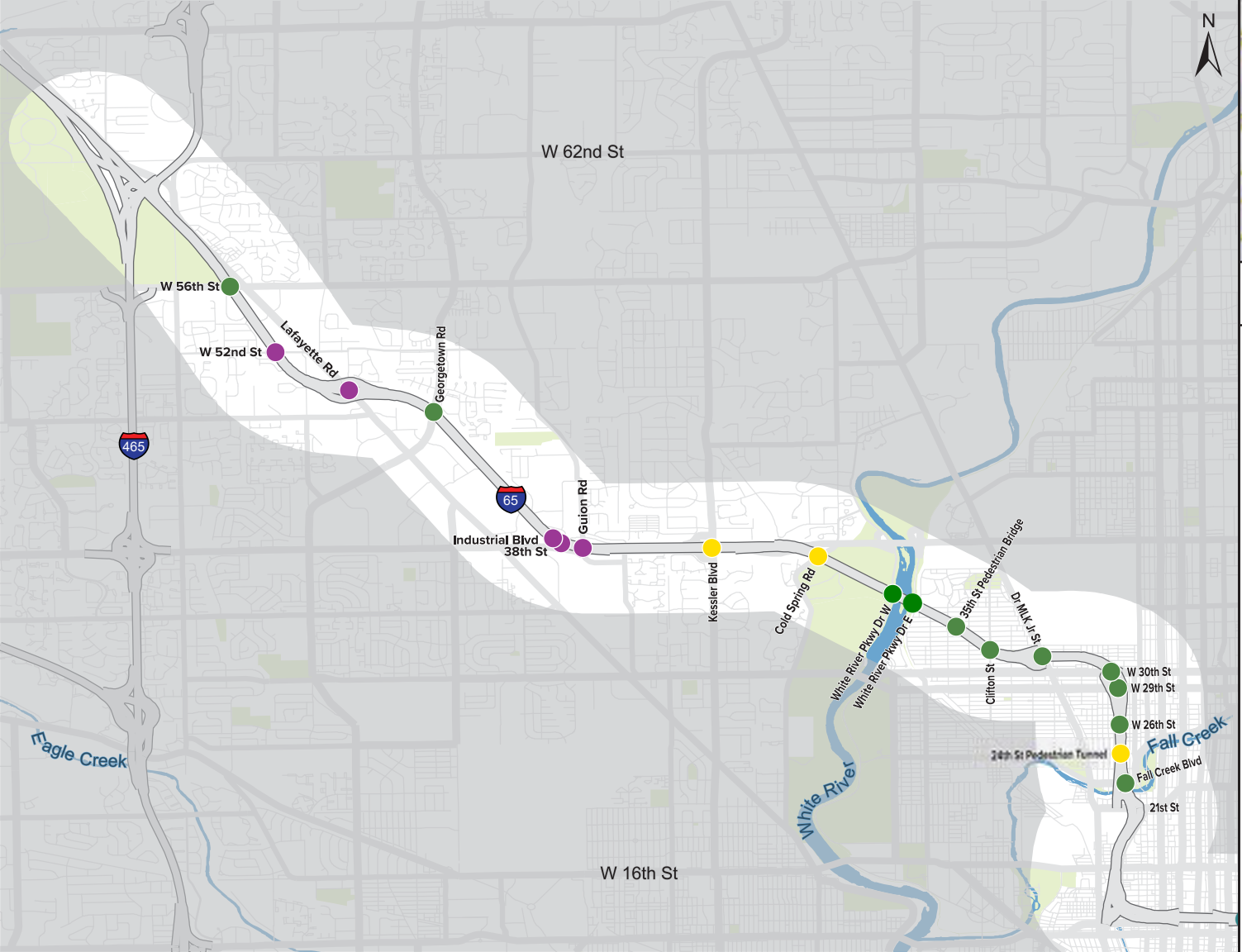
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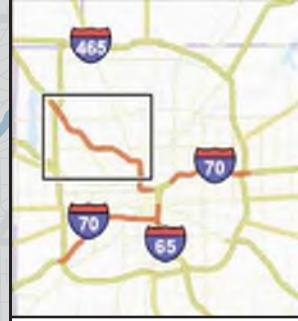

70 E Spoke
Keystone Way
Hillside Ave
N Sherman Dr
E 21st St
Dr A J Brown Ave
Roosevelt Ave
Massachusetts Ave
N Rural St
E 16th St
Brookside Pkwy S Dr
Commerce Ave
Nowland Ave
70
0
0.15
0.3
Mile
N
70 E Spoke
Page 1 of 3
1:12,000
Study Limits
Study Area Boundary
Existing Facilities
Side Path
Trail
Pedestrian Network
Access Deficit
Lack of Pedestrian Facilities to Cross Interstate
Lack of Bike Facilities to Cross Interstate
Current Land Use
Residential
Mixed-Use
Commercial
Industrial
Park or Open Space
Data Sources: Bike Network Existing Facilities (IndyMPO), Trails (IDNR), Pedestrian Network, Current Land Use (IndyGIS)



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E 30th St
N Shadeland Ave
E 24th St
70 E Spoke
N Kenyon St
E 21st St
E Pleasant Run Pkwy S Dr
N Franklin Rd
Franklin Way
465
70
0
0.15
0.3
Mile
N
865
465
69
74
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70
70
74
465
65
70 E Spoke
Page 3 of 3
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Study Area Boundary
Pedestrian Network
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65 Spoke

Existing Pedestrian Facilities Evaluation

- Study Area Boundary
- No Facilities
- Appropriate
- Limited
- Poor

0 0.25 0.5 1
Miles

Data Sources:
Taylor Siefker Williams Design Group

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE 56th STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 4
Approximate lane width: 12'
Traffic Flow: two-way
Curbs: No

LAND USE CONNECTIONS:

East: Residential/Commercial
West: Residential/Commercial/ Civic

NOTABLE CONNECTIONS:

Eagle Creek Trail & Park

PEDESTRIAN FACILITIES:

Sidewalks: Multi-use Greenway
Lighting: No

BICYCLE FACILITIES:

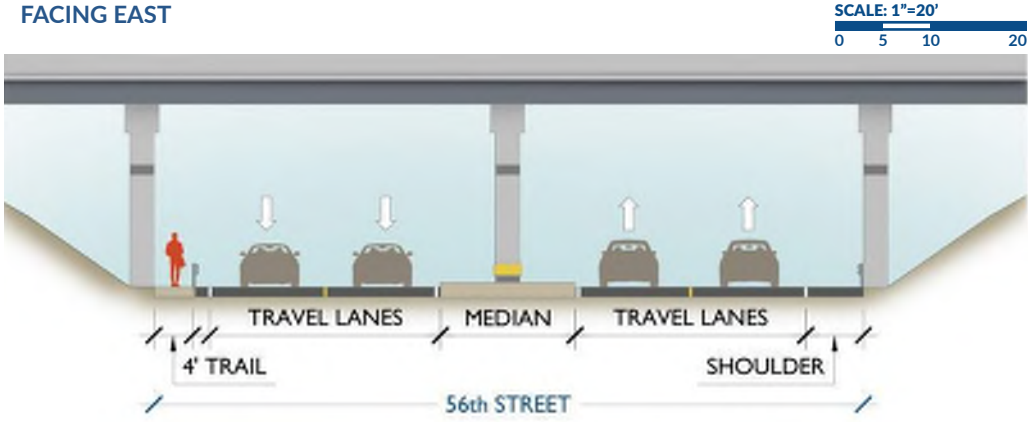
Eagle Creek Trail (4' width)

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Dedicated bike facilities present but improvement needed (maintenance, improved markings, signage.

CROSSING SECTION

FACING EAST

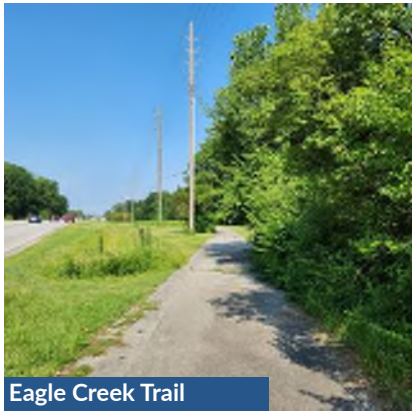


CROSSING IMAGES


Facing East


Facing West


Facing Southeast


Eagle Creek Trail

While this underpass includes a multi use trail, it lacks dedicated pedestrian facilities on the south side. There are potential opportunities to add lighting on both sides of the underpass.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE 52nd STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets

ROAD INFO:

Type of crossing: Overpass/bridge
Total lanes of traffic: 2
Approximate lane width: 10'
Traffic Flow: two-way
Curbs: No

LAND USE CONNECTIONS:

North: Residential/Commercial
South: Residential/Commercial
East: Commercial/Industrial/Civic
West: Civic/Residential

NOTABLE CONNECTIONS:

Community of Christ/Victory Learning Center

PEDESTRIAN FACILITIES:

No dedicated pedestrian facilities

BICYCLE FACILITIES:

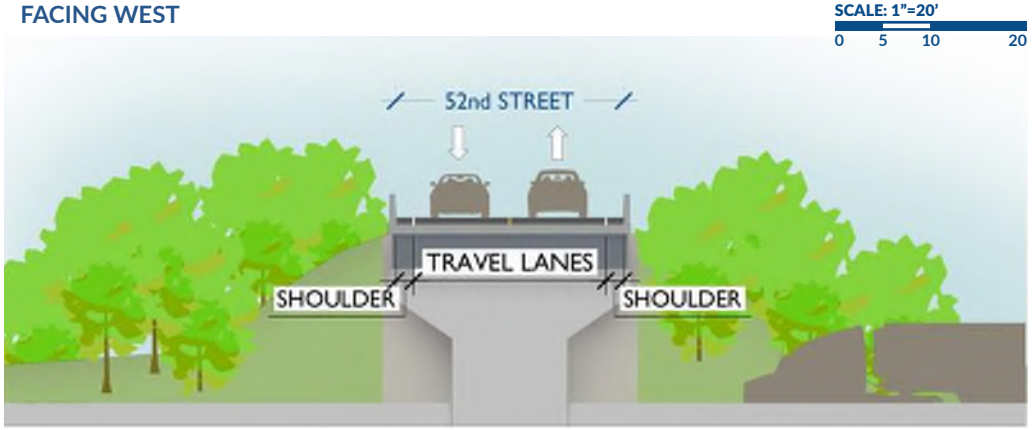
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Proposed bike facility included in IMPO ATP.

CROSSING SECTION

FACING WEST



CROSSING IMAGES


Facing East


Facing East


Facing East


Facing East

This elevated overpass lacks pedestrian facilities on both sides of the street but has a 2' shoulder on each side. A wider structure with added pedestrian facilities could enhance or improve the connection to the Community of Christ Church and Victory Learning Center as well as residential use to the west to commercial use to the east.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE LAFAYETTE ROAD

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets

ROAD INFO:

Type of crossing: Underpass & Interchange
Total lanes of traffic: 6
Approximate lane width: 9'
Traffic Flow: two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Commercial, Residential
South: Commercial

NOTABLE CONNECTIONS:

International Marketplace

PEDESTRIAN FACILITIES:

No dedicated pedestrian facilities

BICYCLE FACILITIES:

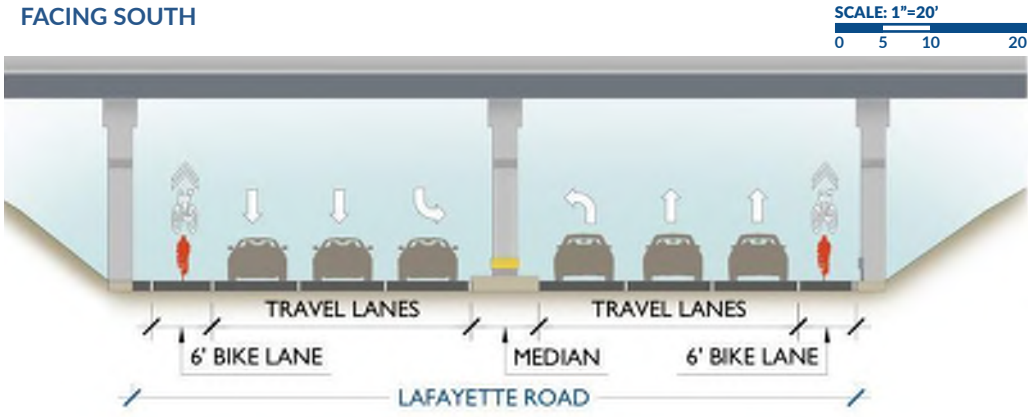
Bike Lanes

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Dedicated bike facilities present but improvement needed (maintenance, improved markings, signage). Their presence is appropriate.

CROSSING SECTION

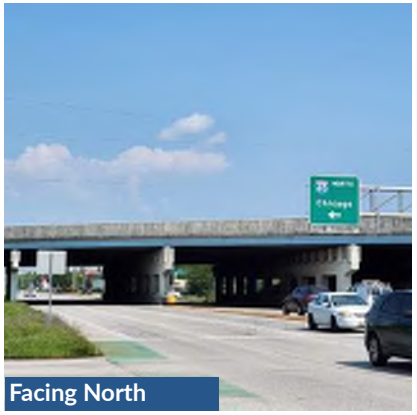
FACING SOUTH



CROSSING IMAGES


Facing South


Facing South


Facing North


Facing North

This intersection is a major commercial interchange. Pedestrian facilities could connect users to various business such as Walmart, Goodwill, and Kaura International Food Market.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE GEORGETOWN ROAD

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Overpass/Bridge
Total lanes of traffic: 4
Approximate lane width: 11'
Traffic Flow: two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential
South: Commercial
East: Residential/Commercial
West: Residential/Commercial

NOTABLE CONNECTIONS:

International Marketplace
Georgetown Medical Plaza
Guion Creek Schools

PEDESTRIAN FACILITIES:

Sidewalks on both sides of street

BICYCLE FACILITIES:

Multi-use path on approach

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Facilities would be appropriate to improve access to transit network

CROSSING SECTION

FACING SOUTH

SCALE: 1"=20'
0 5 10 20

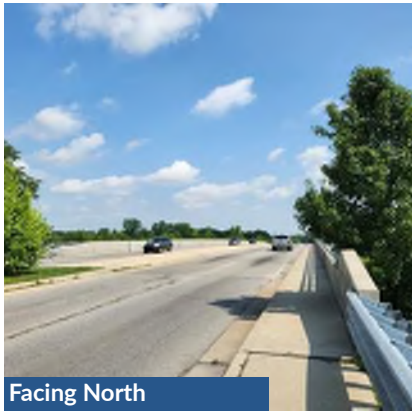


CROSSING IMAGES


Facing South


Facing South


Trail, Facing South


Facing North

The sidewalk on the west side of Georgetown Road could be used as a multi-use trail however the approach has extensive vegetative overgrowth. The sidewalk is 12' wide on the bridge, but only 6' wide on the approach.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE INDUSTRIAL BOULEVARD

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 12'
Traffic Flow: two-way
Curbs: No

LAND USE CONNECTIONS:

North: Industrial
South: Commercial

NOTABLE CONNECTIONS:

Lafayette Plaza Shopping Center
Saraga International Grocery

PEDESTRIAN FACILITIES:

No dedicated pedestrian facilities
One existing streetlight

BICYCLE FACILITIES:

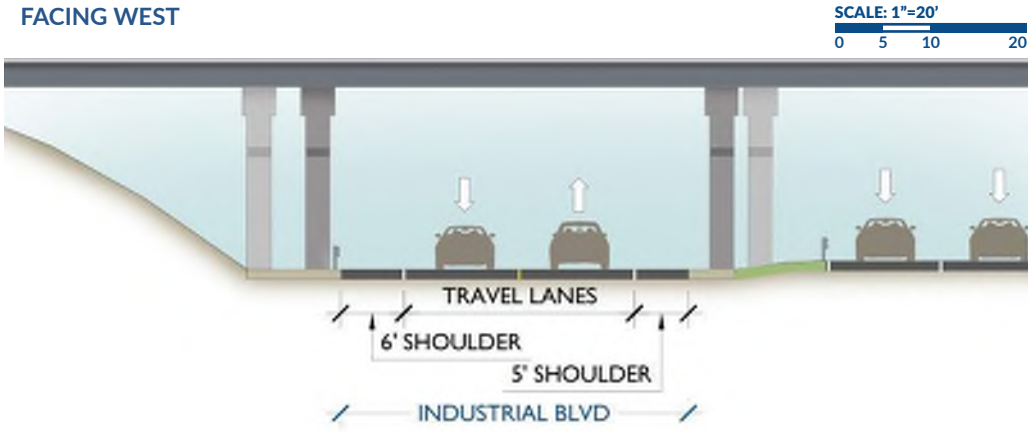
No dedicated bike facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Proposed bike facility included in DPW Indy Moves.

CROSSING SECTION

FACING WEST



CROSSING IMAGES


Facing East


Facing West


Facing West


Facing East

The lacking pedestrian facilities limit the connections to local destinations such as the Lafayette Plaza Shopping Center. There is also evidence of pedestrians walking under the existing I-65 bridge over Little Eagle Creek, approximately 0.3 miles to the north. This indicates a need for pedestrian facilities in this general area.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE 38th STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 3
Approximate lane width: 12'
Traffic Flow: One-way
Direction: West bound
Curbs: Yes

LAND USE CONNECTIONS:

East: Industrial
West: Commercial

NOTABLE CONNECTIONS:

Lafayette Place Shopping Center

PEDESTRIAN FACILITIES:

No dedicated pedestrian facilities

BICYCLE FACILITIES:

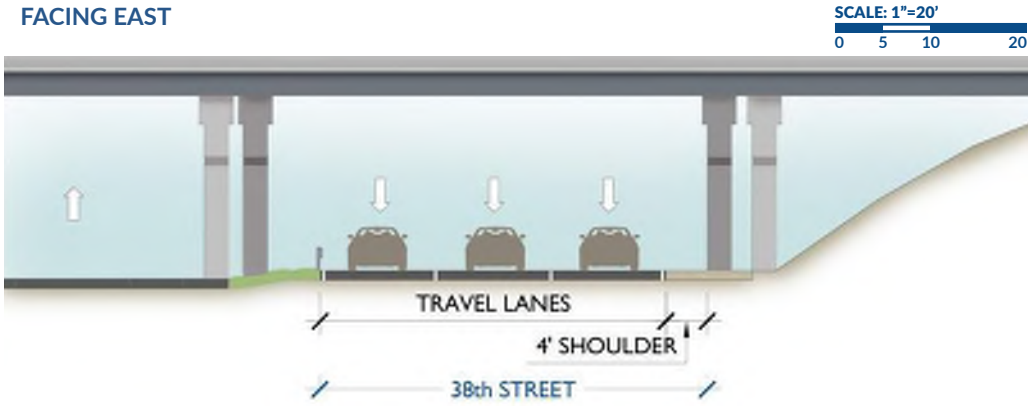
No dedicated bike facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Proposed bike facility included in DPW Indy Moves.

CROSSING SECTION

FACING EAST



CROSSING IMAGES


Facing East


Facing West


38th & Indust. Verge


Facing West

The connection between industrial and commercial areas does not warrant dedicated pedestrian facilities.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE GUION ROAD

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 11'
Traffic Flow: Two-way
Curbs: No

LAND USE CONNECTIONS:

North: Industrial, Residential
South: Commercial, Industrial, Residential

NOTABLE CONNECTIONS:

Indianapolis Healthplex

PEDESTRIAN FACILITIES:

No dedicated pedestrian facilities

BICYCLE FACILITIES:

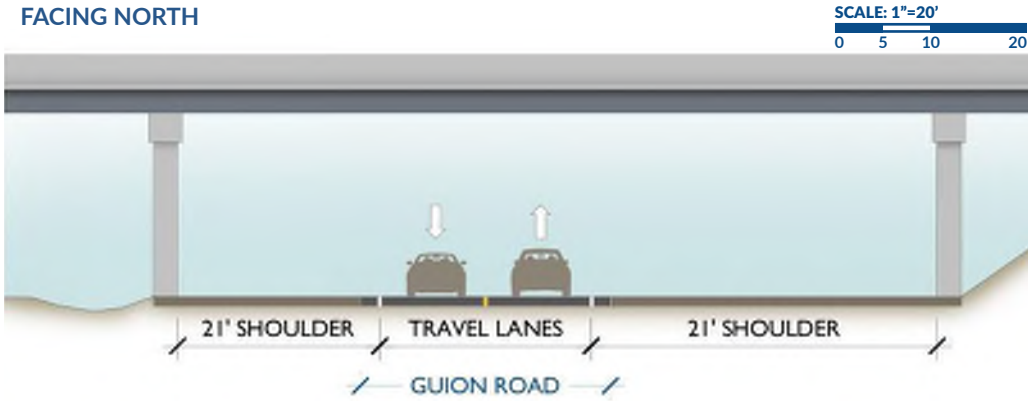
No dedicated bike facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Proposed bicycle facility included in IMPO ATP. Proposed multi-use path included in DPW Indy Moves.

CROSSING SECTION

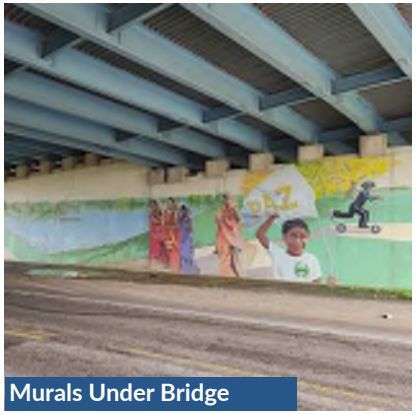
FACING NORTH

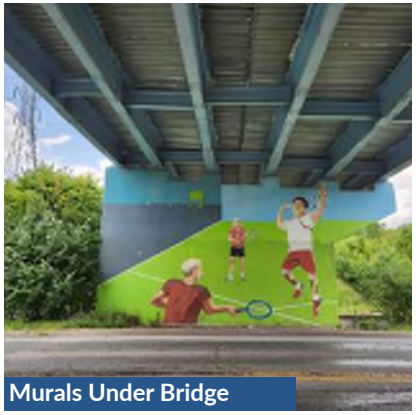


CROSSING IMAGES


Facing North


Facing North


Murals Under Bridge


Murals Under Bridge

Guion Road includes three separate underpasses along the I-65 corridor. Public art murals are included on each side of all three underpasses. A rail line runs on the west side of the road but is not close enough to be a barrier to any pedestrian facilities.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE W KESSLER BLVD N

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

LIMITED

Pedestrian facilities at crossings, but no connecting infrastructure.

ROAD INFO:

Type of crossing: Overpass/bridge
Total lanes of traffic: 4
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: No

LAND USE CONNECTIONS:

North: Industrial, Residential
South: Residential
East: Residential, Civic

NOTABLE CONNECTIONS:

Marian University

PEDESTRIAN FACILITIES:

Sidewalks: Both sides of bridge

BICYCLE FACILITIES:

No dedicated bike facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Proposed bicycle facility included in IMPO ATP. Proposed multi-use path included in DPW Indy Moves.

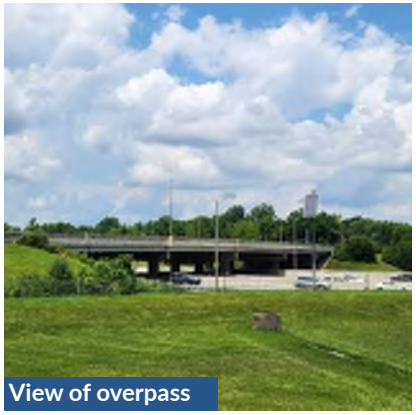
CROSSING SECTION

FACING NORTH



CROSSING IMAGES


Facing South


View of overpass


Planted Median


Facing North

Sidewalks are only on the bridge structure and not on the approach. Turn lanes area located after the bridge on both sides of the approach. Sidewalks are only 4-feet wide, which is below the 60-inch required for this sidewalk to be ADA accessible.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE COLD SPRING ROAD

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

LIMITED

Pedestrian facilities at crossings, but no connecting infrastructure.

ROAD INFO:

Type of crossing: Overpass/bridge
Total lanes of traffic: 2
Approximate lane width: 11'
Traffic Flow: Two-way
Curbs: Yes, north side.

LAND USE CONNECTIONS:

North: Commercial/Residential/ Civic
South: Civic

NOTABLE CONNECTIONS:

Marian University, Major Taylor Velodrome, Cold Spring School

PEDESTRIAN FACILITIES:

Sidewalks: Only on north side

BICYCLE FACILITIES:

No dedicated bike facilities.

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bike facilities would be appropriate at this crossing. Proposed multi-use path included in DPW Indy Moves.

CROSSING SECTION

FACING SOUTH



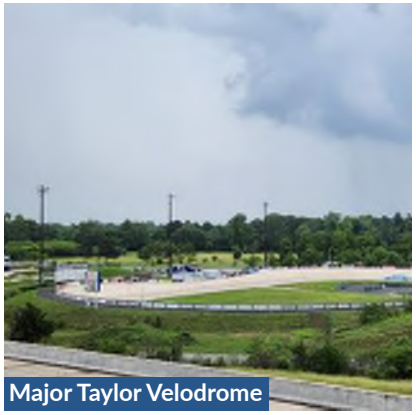
CROSSING IMAGES


Facing South


Facing North



Marian University Signage


Major Taylor Velodrome

A 5-foot wide sidewalk is present on the east side of Cold Spring Road. No sidewalk is present on the west side of the road or on the approach to either side.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE N WHITE RIVER PKWY DR W

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 16'
Traffic Flow: Two-way
Curbs: Yes, east side.

LAND USE CONNECTIONS:

North: Civic/Parks, Residential
South: Civic/Parks

NOTABLE CONNECTIONS:

White River Greenway, Riverside Park, Riverside Golf Academy

PEDESTRIAN FACILITIES:

Multi-use path

BICYCLE FACILITIES:

Central Canal White River Towpath

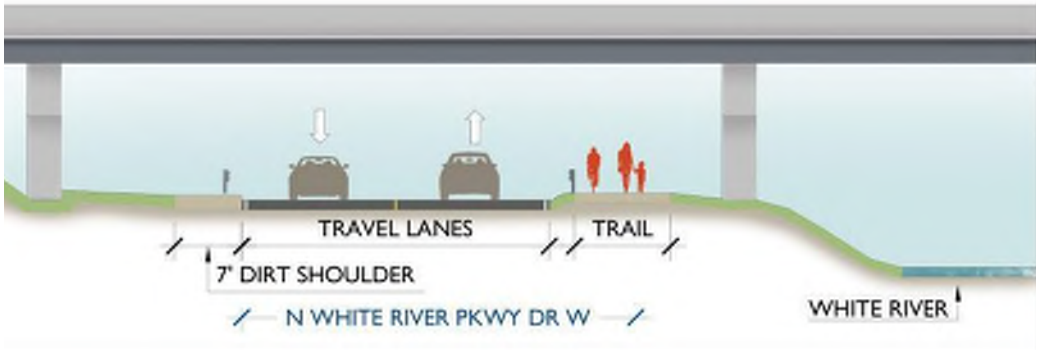
EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Appropriate bike facilities in place

CROSSING SECTION

FACING NORTH

SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES


Facing South


Facing North


Murals under bridge


River overlook

While this crossing is serviced by the Central Canal White River Towpath, it lacks separate pedestrian facilities on the west side adjacent to the road. This area has the potential to connect to a wide range of recreational and public amenities.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE N WHITE RIVER PKWY E DR

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: No

LAND USE CONNECTIONS:

North: Residential, Civic
South: Residential, Civic
East: Residential

NOTABLE CONNECTIONS:

Virginia B. Fairbanks Arts & Nature Park, Newfields, Canal Towpath, Herron-Riverside HS

PEDESTRIAN FACILITIES:

Multi-use path

BICYCLE FACILITIES:

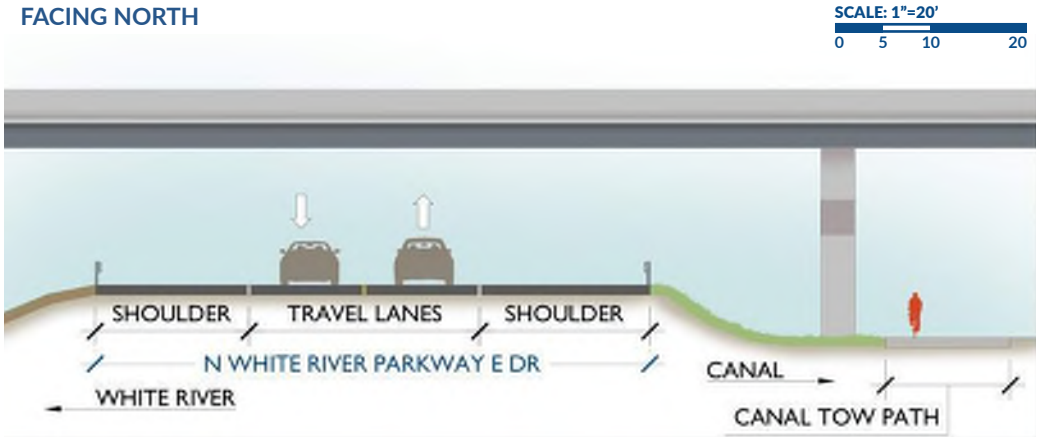
Central Canal White River Towpath

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Central Canal White River Towpath provides facilities

CROSSING SECTION

FACING NORTH

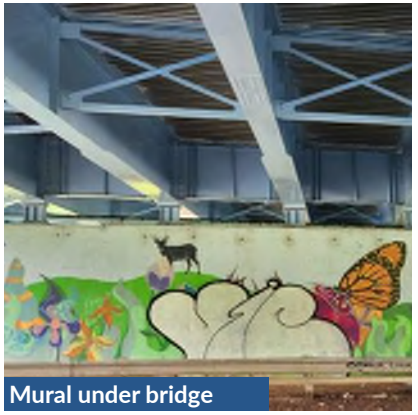


CROSSING IMAGES


Facing North


Facing South


Graffiti under bridge


Mural under bridge

This crossing includes the Central Canal White River Towpath but does not feature any additional pedestrian or bike facilities. Similarly to the crossing on the west side of the White River there are several connection opportunities to outdoor recreation and public amenities near this area.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE 35th STREET PEDESTRIAN BRIDGE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Pedestrian Bridge
Total lanes of traffic: N/A
Approximate bridge width: 8'
Traffic Flow: N/A
Curbs: N/A

LAND USE CONNECTIONS:

North: Residential
South: Residential

NOTABLE CONNECTIONS:

None

PEDESTRIAN FACILITIES:

Pedestrian Bridge

BICYCLE FACILITIES:

No dedicated bike facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

As a pedestrian bridge, dedicated bike facilities are not needed. However, IMPO ATP has a proposed bike facility leading to crossing.

CROSSING SECTION

FACING NORTH

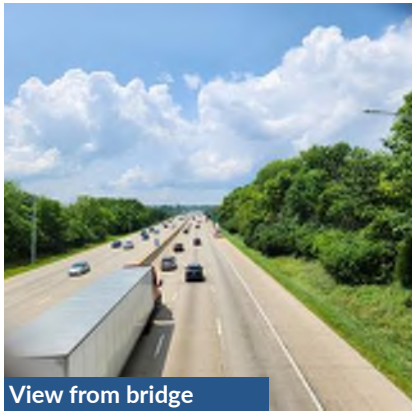


CROSSING IMAGES


Facing South


Facing South


Dead end next to bridge


View from bridge

This pedestrian bridge serves an important connection between two adjacent neighborhoods. A large amount of vegetative overgrowth is apparent near the entrance to the pedestrian bridge. Landings on both sides of the bridge crossing could be improved upon.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE CLIFTON STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 11'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential
South: Residential

NOTABLE CONNECTIONS:

Pilgrim Baptist Church

PEDESTRIAN FACILITIES:

Sidewalks, Lighting (both sides)

BICYCLE FACILITIES:

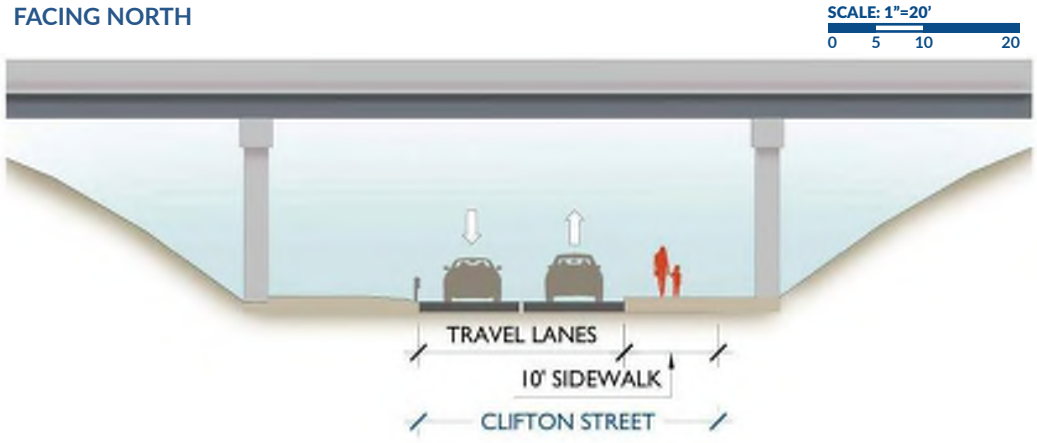
No dedicated bike facilities.

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bicycle facilities would be appropriate at this location. Transit stops near this area. DPW Indy Moves includes propose facilities

CROSSING SECTION

FACING NORTH



CROSSING IMAGES


Facing North


Facing South


Under the bridge


Facing South

This crossing connects a divided neighborhood. Clifton Street and Congress Avenue are also part of a designated bus route.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE DR M.L.K. JR ST

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 4
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential, Civic, Business
South: Residential

NOTABLE CONNECTIONS:

Crown Hill Cemetery, Bertha Ross Park, Woodstock Golf Course

PEDESTRIAN FACILITIES:

Lighting on both sides of street
Sidewalk present on east side of the street, but missing on west side

BICYCLE FACILITIES:

No dedicated bike facilities

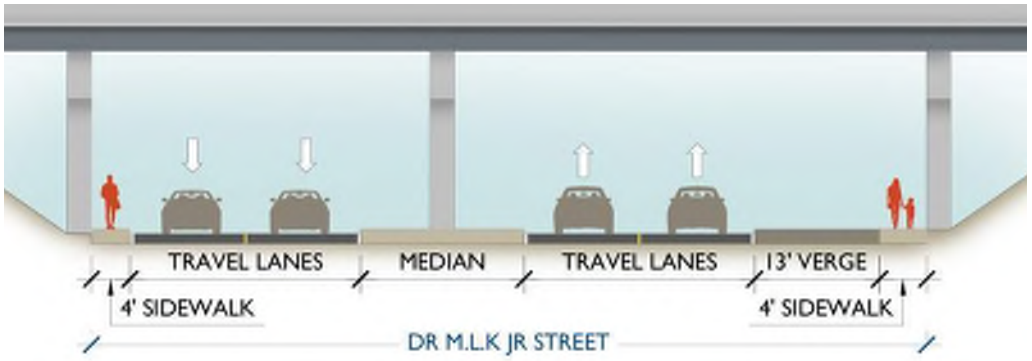
EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bicycle facilities would be appropriate at this location to increase connectivity to existing transit stops

CROSSING SECTION

FACING NORTH

SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES


Facing South


Facing South


View of Skyline


Branded Signage

This crossing serves as a link between neighborhoods with connections to parks and recreation on the north side of the interstate. This crossing is also separated as a major interchange along the corridor.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE 30th STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 4
Approximate lane width: 12'
Traffic Flow: One-way, Westbound
Curbs: Yes

LAND USE CONNECTIONS:

East: Residential/Civic
West: Residential/Civic

NOTABLE CONNECTIONS:

New Era Church, Pathway Missionary Church, Children's Museum of Indianapolis

PEDESTRIAN FACILITIES:

Sidewalks, Lighting

BICYCLE FACILITIES:

On street dedicated bike lane

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bicycle facilities are hard to see and require marking improvements

CROSSING SECTION

FACING EAST



CROSSING IMAGES


Facing East


Facing West


Painted Columns



Directional Signage

This crossing serves an important connection between neighborhoods and a gateway to local civic institutions. Opportunities exist for additional pedestrian amenities at the existing on-ramps to I-65.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE 29th STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 4
Approximate lane width: 10'
Traffic Flow: One-way, Eastbound
Curbs: Yes

LAND USE CONNECTIONS:

East: Residential
West: Residential

NOTABLE CONNECTIONS:

Ivy Tech Community College, Children's Museum of Indianapolis

PEDESTRIAN FACILITIES:

Sidewalks, Lighting, Murals (on both sides of street)

BICYCLE FACILITIES:

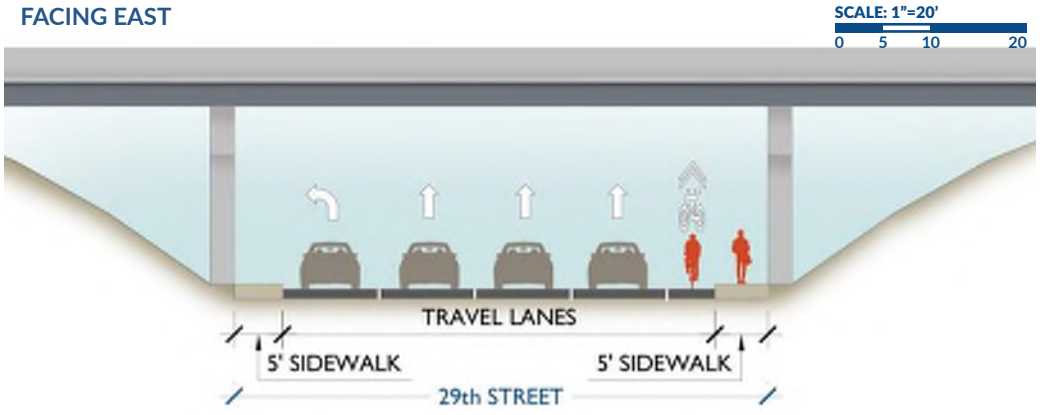
Bike Lanes

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Dedicated bike facilities present. Transit stops nearby

CROSSING SECTION

FACING EAST



CROSSING IMAGES


Facing East


Facing West


Painted Columns


West Traffic Light

This crossing provides a link between two adjacent neighborhoods. It provides a direct connection for the west neighborhood to amenities like the Children's Museum of Indianapolis. There are potential opportunities to enhance existing on-street bicycle facilities.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE 26th STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:
Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:
East: Residential
West: Residential

NOTABLE CONNECTIONS:
Ivy Tech Community College

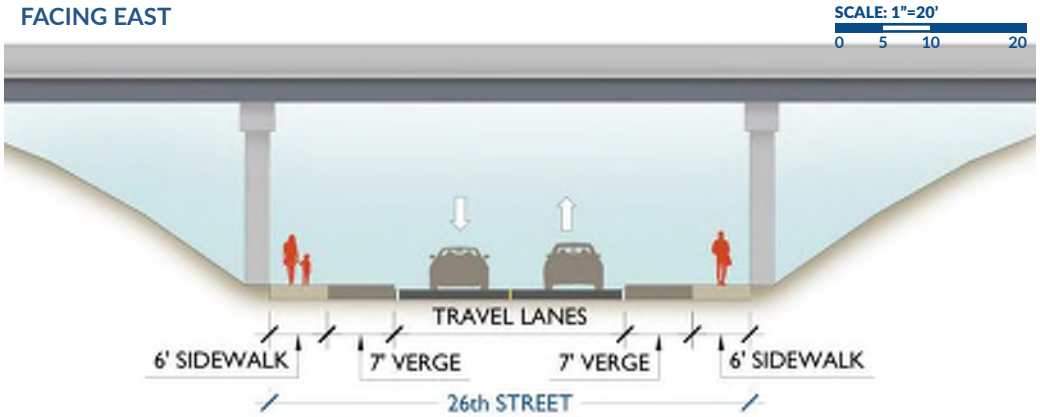
PEDESTRIAN FACILITIES:
Sidewalks, Lighting
(on both sides of street)

BICYCLE FACILITIES:
No dedicated bike facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:
DPW Indy Moves includes proposed bike facilities. Transit stops nearby

CROSSING SECTION

FACING EAST

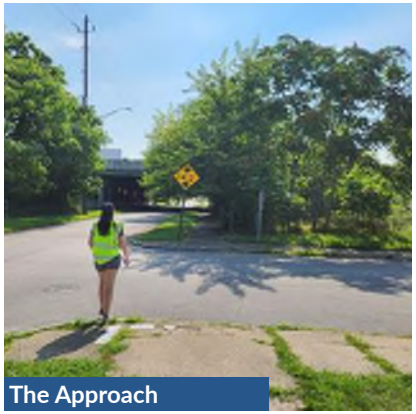


CROSSING IMAGES


Facing East


Facing East


Under, Facing West


The Approach

This crossing links two adjacent neighborhoods. It provides a direct connection for the west neighborhood to Ivy Tech Community College.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE 24th STREET PEDESTRIAN TUNNEL

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

LIMITED

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Pedestrian Tunnel
Total lanes of traffic: N/A
Approximate tunnel width: 11'
Traffic Flow: N/A
Curbs: No

LAND USE CONNECTIONS:

East: Residential, Civic
West: Residential, Civic

NOTABLE CONNECTIONS:

Watkins Park, Barton Park, IPS George Washington Carver Montessori No.87

PEDESTRIAN FACILITIES:

Pedestrian tunnel

BICYCLE FACILITIES:

No dedicated bike facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bike facilities would not be appropriate at this crossing to connect to the greater network and increase access to transit stops

CROSSING SECTION

FACING WEST

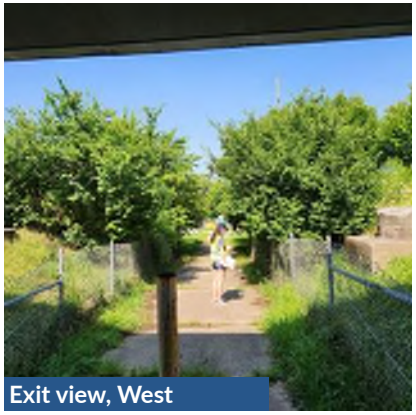


CROSSING IMAGES


Facing West


Facing West


Exit view, West


Exit view, West

This pedestrian tunnel provides connection between two residential neighborhoods. Within these residential areas there are also additional community destinations, including parks, a school, and places of worship. Potential safety and functional enhancements could be made to the tunnel.

PEDESTRIAN CROSSING INVENTORY | 65 N SPOKE FALL CREEK BLVD

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 4
Approximate lane width: 10'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

East: Residential, Civic
West: Residential, Civic

NOTABLE CONNECTIONS:

Christ Temple Apostolic Faith, Barton Park, Fall Creek Trail, Watkins Park, Fall Creek Church

PEDESTRIAN FACILITIES:

Sidewalks, Lighting on both sides

BICYCLE FACILITIES:

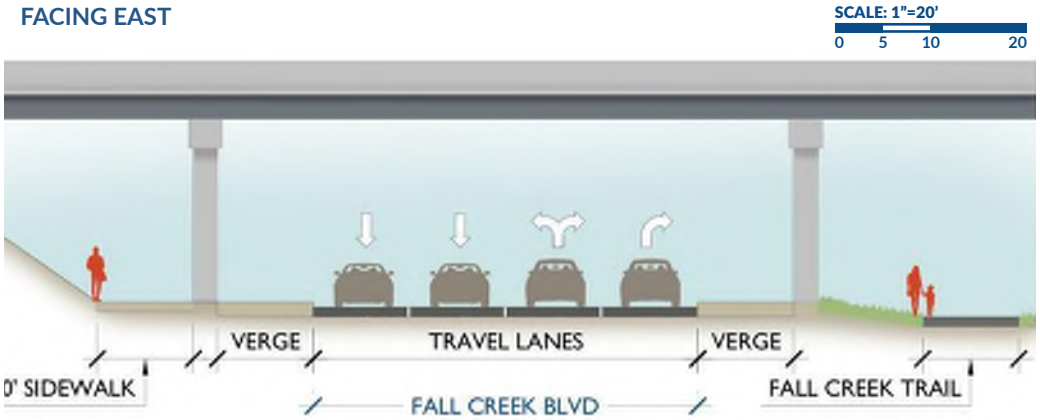
Fall Creek Trail

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Appropriate bike facilities in place

CROSSING SECTION

FACING EAST



CROSSING IMAGES


Facing East

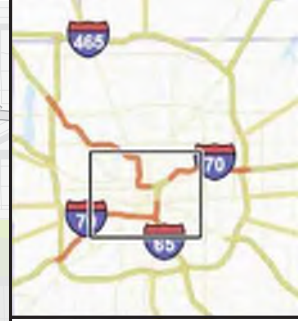

Facing East


Under Bridge, Facing West


Facing East

This underpass connects two neighborhoods on the northwest edge of Downtown. The approaching sidewalk is 6' and widens to 10' under the bridge. A limited amount of existing vegetation potentially blocks access and visibility to the area.





65/70 Downtown Spoke

Existing Pedestrian Facilities Evaluation

- Study Area Boundary
- No Facilities
- Appropriate
- Limited
- Poor

0 0.25 0.5
Miles

Data Sources:
Taylor Siefker Williams Design Group

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE 21ST STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate with little improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 5
Approximate lane width: 11'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

East: Commercial, Civic *West:* Commercial, Industrial

NOTABLE CONNECTIONS:

Indianapolis Fire House 5, Indianapolis Health Department, 14 blocks to the mile

PEDESTRIAN FACILITIES:

Sidewalks (both sides)
Lighting (both sides)

BICYCLE FACILITIES:

No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

IMPO ATP includes proposed bike facility. DPW Indy Moves includes proposed bike facility. Transit stops to the south

CROSSING SECTION

FACING EAST

SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES



Facing West


Facing Northwest


Crosswalk to East


Facing East

This crossing has suitable pedestrian facilities. Bicycle facilities would be appropriate here but could be challenging with the current interchange design.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE 16TH STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate with little improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 5
Approximate lane width: 11'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

East: Civic
West: Residential, Industrial, Civic

NOTABLE CONNECTIONS:

IU Health Hospital Campus

10 blocks to the mile square

PEDESTRIAN FACILITIES:

Sidewalks (both sides)
Lighting (both sides)

BICYCLE FACILITIES:

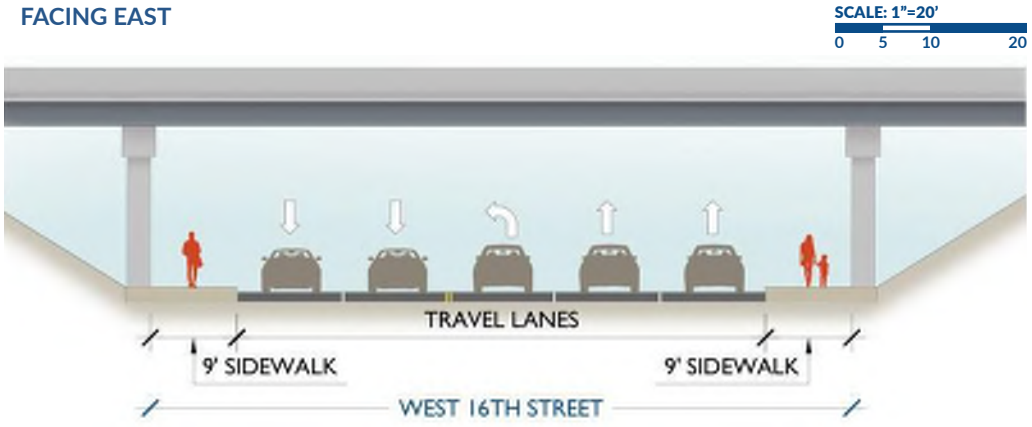
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bicycle facilities would be appropriate at this crossing that would increase connectivity to nearby transit stops.

CROSSING SECTION

FACING EAST



CROSSING IMAGES


Facing East


Facing Northeast


Facing West


IU Health Hospital Campus

There is opportunity to establish bicycle facilities at this location. The current pedestrian facilities are suitable but the sidewalks to the west of I-65 have heavy vegetative overgrowth that could be managed.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE SENATE AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate with little improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 11'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Civic
South: Commercial, Civic

NOTABLE CONNECTIONS:

IU Health Hospital Campus, The Stutz, Myriad Weightlifting

6 blocks to the mile square

PEDESTRIAN FACILITIES:

Sidewalks (both sides)
Lighting (both sides)

BICYCLE FACILITIES:

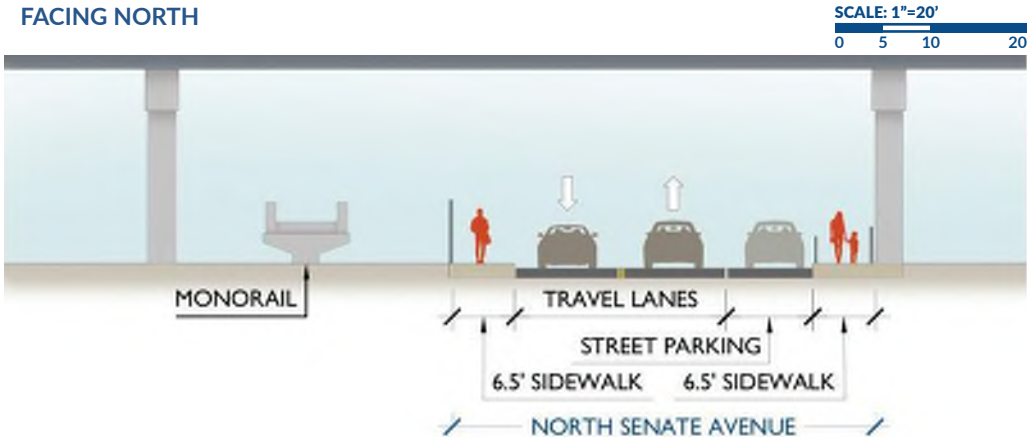
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bicycle facilities would be appropriate at this crossing.

CROSSING SECTION

FACING NORTH

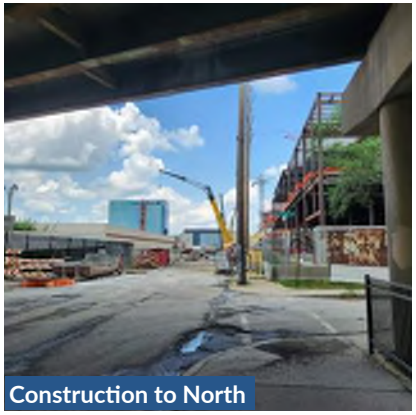


CROSSING IMAGES


Facing North


Facing South


Facing South


Construction to North

There are opportunities to establish dedicated bike facilities on Senate Avenue. There are many connections to local businesses and the IU Health Hospital Campus.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE CAPITOL AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate with little improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2 + bus lanes
Approximate lane width: 11'
Traffic Flow: One-way (south)
Curbs: Yes

LAND USE CONNECTIONS:

North: Commercial, Residential
South: Commercial, Civic

NOTABLE CONNECTIONS:

The Stutz, Myriad Yoga, Starbucks, Victoria Apartments

6 blocks to the mile square

PEDESTRIAN FACILITIES:

Sidewalks (both sides)
Lighting (both sides)

BICYCLE FACILITIES:

No dedicated bicycle facilities

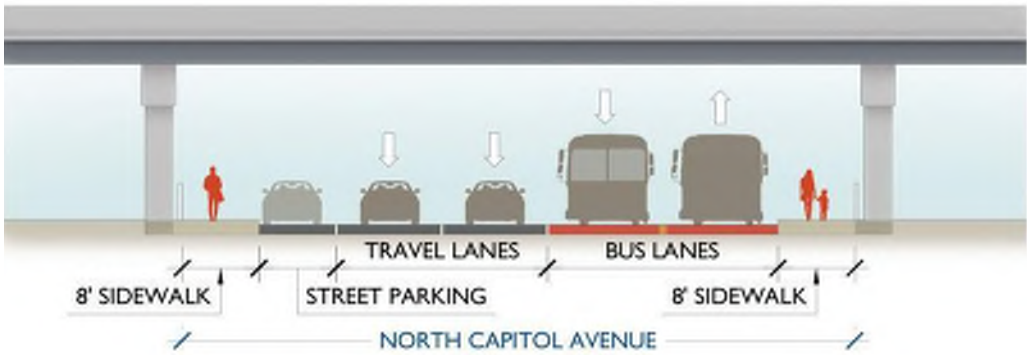
EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bike facilities would be difficult to implement due to lack of connections to existing network

CROSSING SECTION

FACING NORTH

SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES


Facing North


Facing Northeast


Facing West


IU Health Hospital Campus

The Red Line bus route runs in both directions on North Capitol Avenue. Pedestrian facilities are appropriate but dedicated bike facilities would be difficult to implement due to lack of connections to existing network.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE ILLINOIS STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate with little improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traff c: 3
Approximate lane width: 12’
Traff c Flow: One-way (north)
Curbs: Yes

LAND USE CONNECTIONS:

North: Commercial, Residential
South: Commercial

NOTABLE CONNECTIONS:

Victoria Apartments, IU Health Hospital Compus, 6 blocks to the mile square

PEDESTRIAN FACILITIES:

Sidewalks (both sides)
Lighting (both sides)

BICYCLE FACILITIES:

5’ Bike lanes (x2)
Bike lane buffer

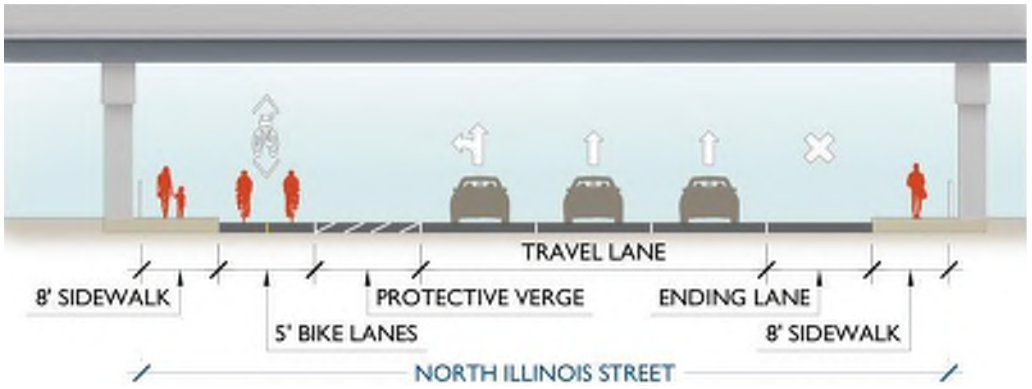
EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bicycle facilities are appropriate at this location

CROSSING SECTION

FACING NORTH

SCALE: 1"=20'
5 10 20



CROSSING IMAGES


Facing North


Facing East


Buffered bike lanes


Facing South

Pedestrian and bike facilities at this location are appropriate.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE MERIDIAN STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate with little improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 5
Approximate lane width: 11'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Commercial/Residential
South: Commercial/Civic

NOTABLE CONNECTIONS:

Indianapolis Public Library, Saints Peter and Paul Cathedral

6 blocks to the mile square

PEDESTRIAN FACILITIES:

Sidewalks (both sides)
Lighting (both sides)

BICYCLE FACILITIES:

No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bike facilities would be appropriate at this crossing. IMPO ATP includes proposed bike facilities.

CROSSING SECTION

FACING NORTH

SCALE: 1"=20'
0 5 10 20

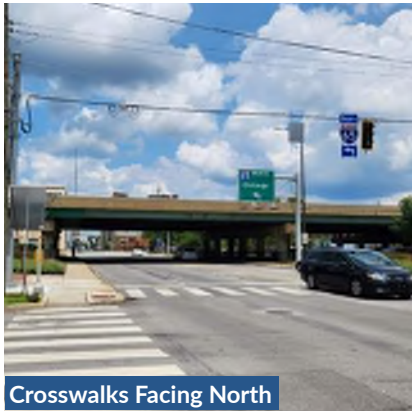


CROSSING IMAGES


Facing South


Facing North


Facing North


Crosswalks Facing North

This crossing makes a connection between commercial, civic, and residential areas. There is potential to improve the bicycle connection to amenities like the Indianapolis Public Library, but existing pedestrian facilities are appropriate as is.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE PENNSYLVANIA STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate with little improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 4
Approximate lane width: 10'
Traffic Flow: One-way (south)
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential
South: Commercial/Residential

NOTABLE CONNECTIONS:

Indianapolis Public Library, American Legion Mall

6 blocks to the mile square

PEDESTRIAN FACILITIES:

Sidewalks (both sides)
Lighting (both sides)

BICYCLE FACILITIES:

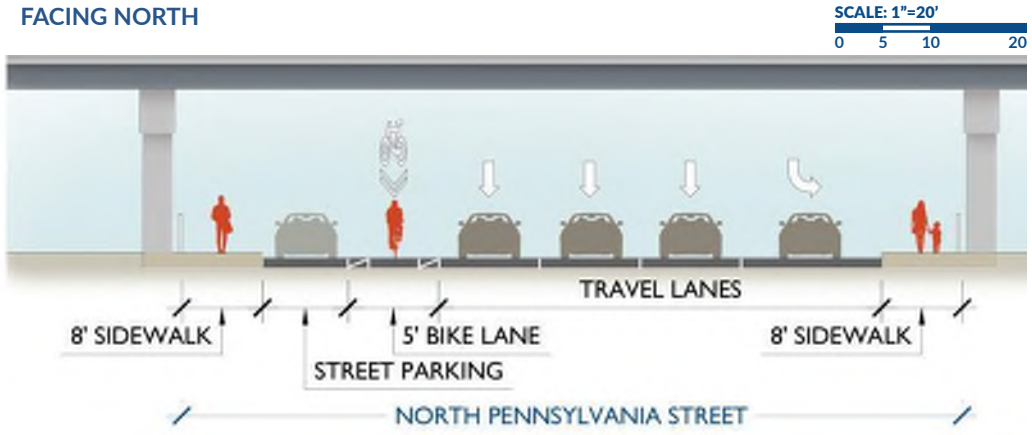
5' Bike lane (southbound)
Narrow bike lane buffers

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Dedicated bike facilities present but could be improved.

CROSSING SECTION

FACING NORTH



CROSSING IMAGES


Facing South


Facing North


Facing South


Facing North

This crossing makes a connection between commercial and residential areas. There is potential to improve the pedestrian connection to amenities like the Indianapolis Public Library, but existing bicycle facilities are appropriate with minor marking improvements

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE DELAWARE STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate with little improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 5
Approximate lane width: 12'
Traffic Flow: One-way (north)
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential
South: Residential/Commercial

NOTABLE CONNECTIONS:

Benjamin Harrison Presidential Site, Old Northside

6 blocks to the mile square

PEDESTRIAN FACILITIES:

6' Sidewalks (both sides)

BICYCLE FACILITIES:

No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bike facilities would be appropriate at this crossing. IMPO ATP includes proposed bike facilities.

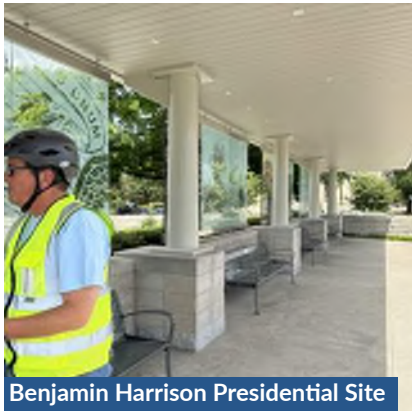
CROSSING SECTION

FACING NORTH



CROSSING IMAGES


Facing North


Benjamin Harrison Presidential Site


Facing East


Facing South

This crossing has the potential to serve as a commuter route for bicyclists. There are a variety of residential neighborhoods and apartment complexes that bike facilities could serve.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE ALABAMA STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate with little improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2 + 2 parking
Approximate lane width: 12'
Traffic Flow: **One-way (south)**
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential/Civic
South: Residential/Commercial

NOTABLE CONNECTIONS:

Shawn Grove Park, Old Northside

6 blocks to the mile square

PEDESTRIAN FACILITIES:

Sidewalks (both sides)
Lighting (both sides)

BICYCLE FACILITIES:

Marked "sharrows"

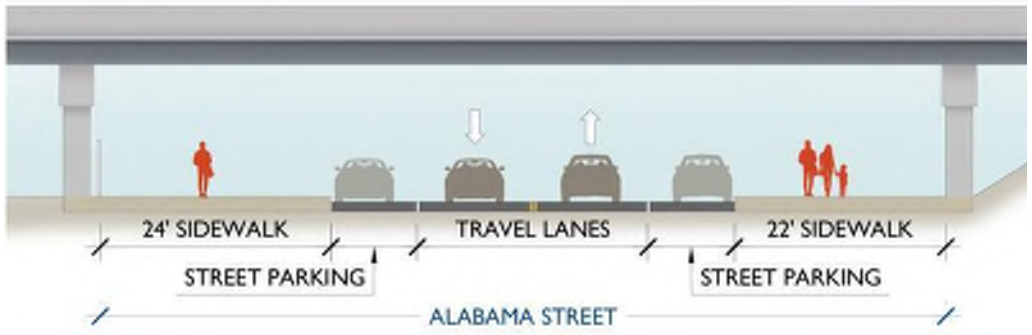
EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Dedicated bike facilities present but there is potential for improvement.

CROSSING SECTION

FACING SOUTH

SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES


Facing Southwest


Facing South

Dedicated bicycle facilities could be appropriate for this crossing, there are marked "sharrows" indicating that bikes are to share the road with vehicles. There is potential to make this experience safer with protected bike lanes.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE BATES STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate with little improvements needed.

ROAD INFO:

Type of crossing: Overpass/bridge
Total lanes of traffic: 2
Approximate lane width: 12-20'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential
South: Residential/Civic

NOTABLE CONNECTIONS:

2 blocks to the mile square

PEDESTRIAN FACILITIES:

Sidewalks (both sides)

BICYCLE FACILITIES:

No dedicated bicycle facilities

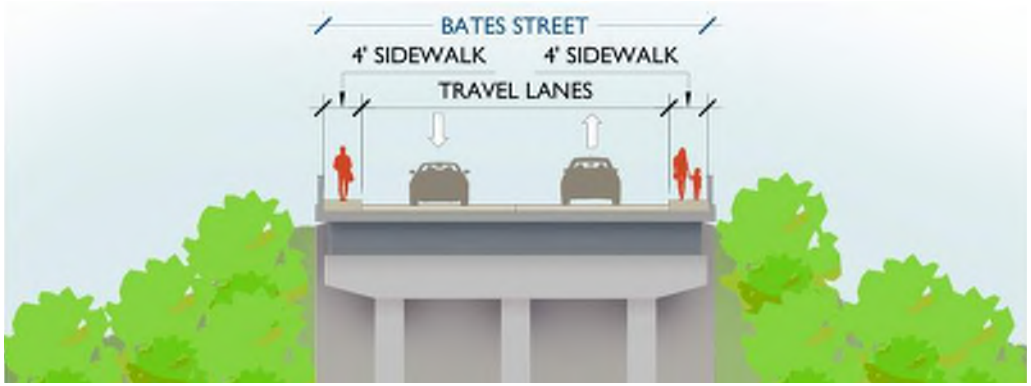
EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bike facilities would require additional local street improvements to connect to the greater network

CROSSING SECTION

FACING WEST

SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES


Facing East


Facing East

This crossing is under utilized both in vehicular traffic and pedestrian traffic. Sidewalks are narrow but are enough to accommodate the low amounts of foot traffic.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE FLETCHER AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate with little improvements needed.

ROAD INFO:

Type of crossing: Overpass/bridge
Total lanes of traffic: 4
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential
South: Residential/Civic

NOTABLE CONNECTIONS:

Fletcher Place, Calvary Tabernacle
2 blocks to the mile square

PEDESTRIAN FACILITIES:

6' Sidewalks (both sides)

BICYCLE FACILITIES:

No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bike facilities would be appropriate at this crossing

CROSSING SECTION

FACING WEST

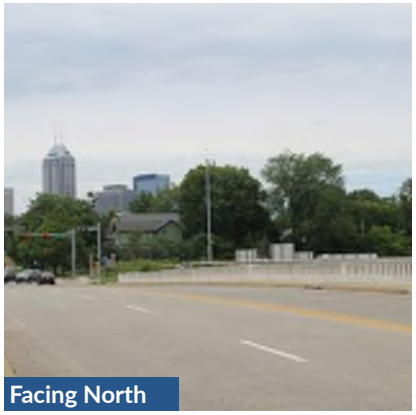
SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES


Facing South


Facing North


Facing North


Fletcher Place

This crossing serves as a gateway to Fletcher Place. Because of this, there is a potential opportunity to establish dedicated bicycle facilities. There is also a bus stop on the north end that poses opportunities to enhance the connection of pedestrian facilities.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE CAVALRY STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate with little improvements needed.

ROAD INFO:

Type of crossing: Overpass/bridge
Total lanes of traffic: 4
Approximate lane width: 13'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential
South: Residential/Civic
East: Residential
West: Residential/Civic

NOTABLE CONNECTIONS:

Fletcher Place, Calvary Tabernacle, Fountain Square, 3 blocks to mile square

PEDESTRIAN FACILITIES:

5' Sidewalks (both sides)

BICYCLE FACILITIES:

No dedicated bicycle facilities

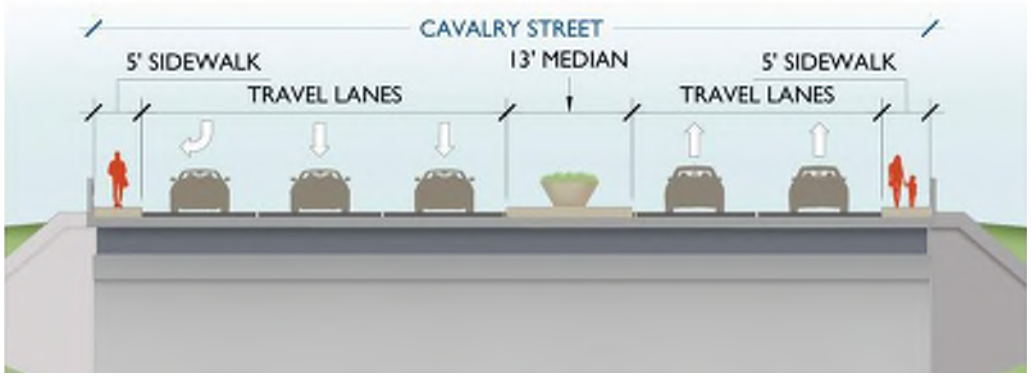
EVALUATION OF FACILITIES AND PLANNED FACILITIES:

DPW Indy Moves includes proposed bike facilities. Increased connectivity to nearby transit stops

CROSSING SECTION

FACING WEST

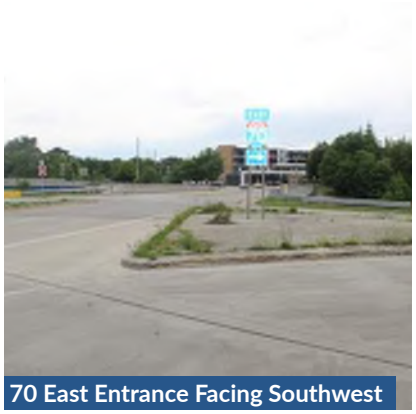
SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES


Facing West


Median Planters


70 East Entrance Facing Southwest


70 East Entrance Facing West

This crossing serves as a gateway between Fletcher Place and the greater Fountain Square area. Because of this, there are potential opportunities for dedicated bicycle facilities and improved sidewalk crossings. There are existing beautification efforts that could potentially be furthered such as planters in the median on Cavalry Street.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE VIRGINIA AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate with little improvements needed.

ROAD INFO:

Type of crossing: Overpass/bridge
Total lanes of traffic: 2
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

East: Residential/Commercial
West: Residential/Commercial

NOTABLE CONNECTIONS:

Fountain Square, Cultural Trail, Lilly Campus

3 blocks to the mile square

PEDESTRIAN FACILITIES:

Sidewalks (both sides)
Lighting (west side)

BICYCLE FACILITIES:

Multi-use trail (Cultural Trail)

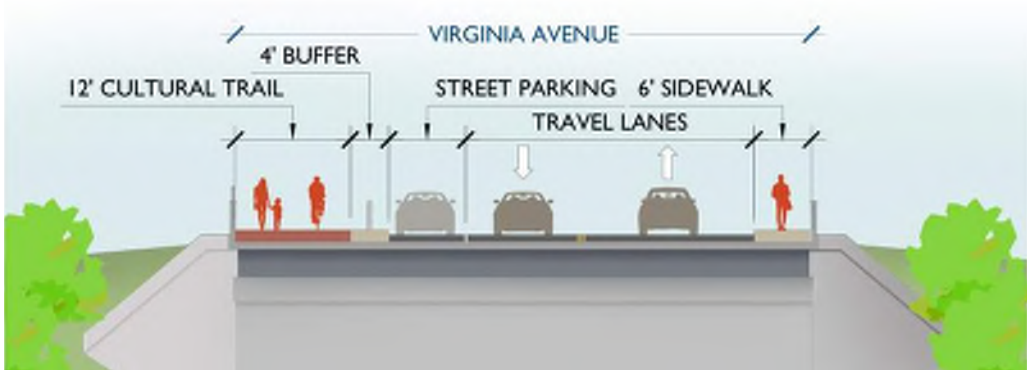
EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Existing facilities are appropriate

CROSSING SECTION

FACING WEST

SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES


Facing Northwest


Facing Southeast


The Idle


Public Sculpture on Trail

This crossing serves as a gateway between Fountain Square and Downtown Indianapolis. The Cultural Trail is a high quality pedestrian and bike facility. Minor maintenance could be done on the northeast sidewalk of Virginia avenue.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE MORRIS/PROSPECT STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

LIMITED

Pedestrian facilities are narrow, limited visibility and safety concerns.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: **5**
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

East: Residential/Commercial
West: Residential

NOTABLE CONNECTIONS:

Fountain Square, Cultural Trail, Lilly Campus

3 blocks to the mile square

PEDESTRIAN FACILITIES:

Sidewalks (both sides)
Lighting (both sides)

BICYCLE FACILITIES:

No dedicated bicycle facilities

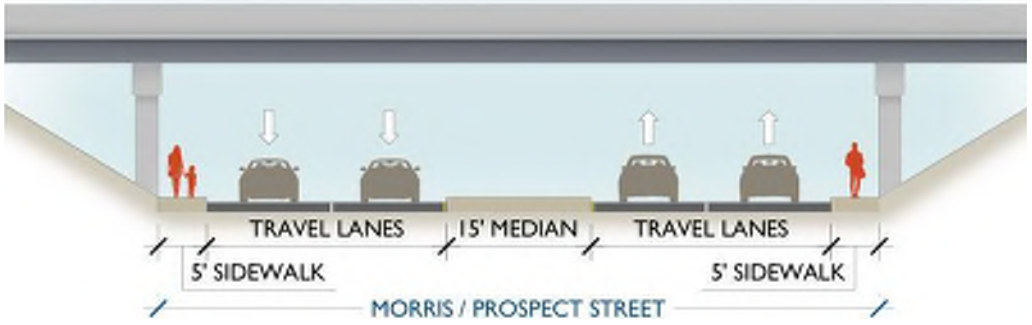
EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bike facilities would be appropriate at this crossing

CROSSING SECTION

FACING West

SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES


Facing West


Facing North


Facing South


Facing East

There is a potential opportunity at this crossing to implement bike facilities that would connect the Bates-Hendricks neighborhood to Fountain Square. Traffic in this area can be fast and heavy as cars may not slow down for interstate entry slip lanes and continue through crosswalks without yielding.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE MORRIS/PROSPECT STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

LIMITED

Pedestrian facilities are narrow, limited visibility and safety concerns.

ROAD INFO:

Type of crossing: Overpass/bridge
Total lanes of traffic: **5**
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

East: Residential/Commercial
West: Residential

NOTABLE CONNECTIONS:

Fountain Square, Cultural Trail, Lilly Campus

3 blocks to the mile square

PEDESTRIAN FACILITIES:

Sidewalks (both sides)

BICYCLE FACILITIES:

No dedicated bicycle facilities

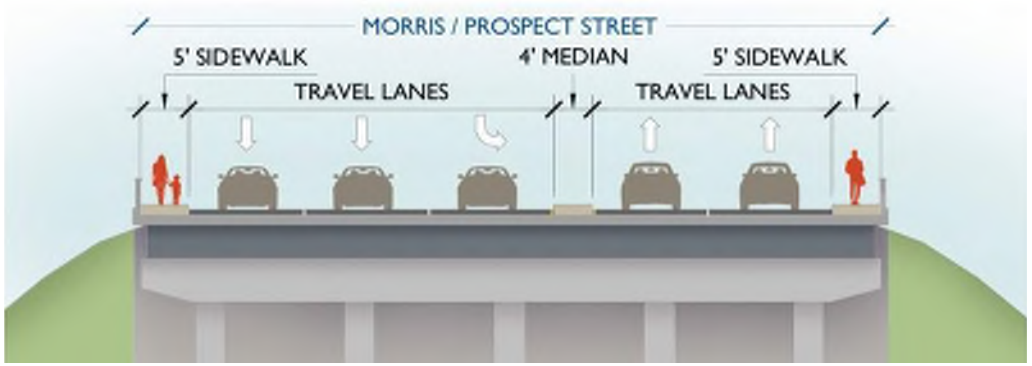
EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bike facilities would be appropriate at this crossing

CROSSING SECTION

FACING WEST

SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES


Facing West


Facing West


Facing Northwest


Facing East

There is a potential opportunity at this crossing to implement bike facilities that would connect the Bates-Hendricks neighborhood to Fountain Square. Traffic in this area can be fast and heavy as cars do not slow down for interstate entry slip lanes and barrel through crosswalks.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE SOUTH EAST STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate with little improvements needed.

ROAD INFO:

Type of crossing: Overpass/bridge
Total lanes of traffic: **4**
Approximate lane width: 11'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential, Industrial
South: Residential, Commercial

NOTABLE CONNECTIONS:

Lilly Campus, Immanuel Church, Fletcher Woods
3 blocks to the mile square

PEDESTRIAN FACILITIES:

5' sidewalks (both sides)
Lighting (east side only)

BICYCLE FACILITIES:

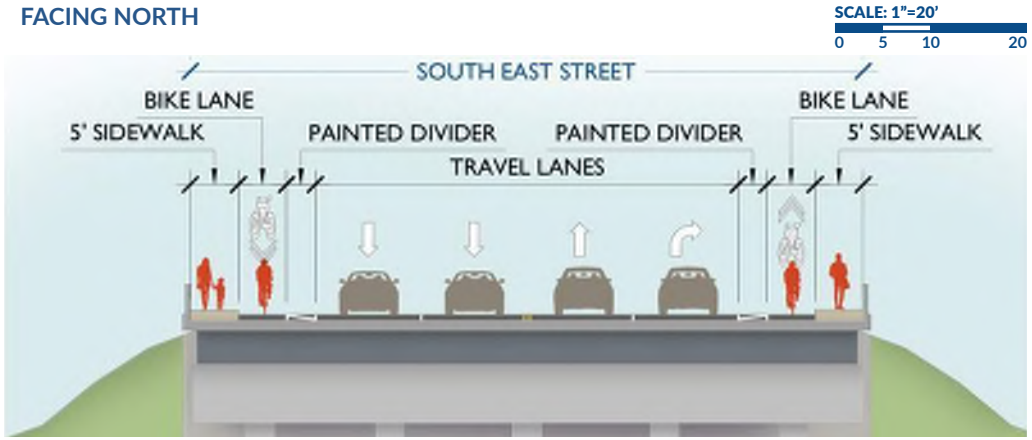
5' bike lanes (both sides)
3' Bike lane buffers (both sides)

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Dedicated bike facilities present but could be improved.

CROSSING SECTION

FACING NORTH



CROSSING IMAGES


Facing South


Facing North


Bike Lane


Crosswalks on Prospect St.

The pedestrian and bike facilities on South East Street are appropriate but there are opportunities to improve by repainting bike lanes and crosswalks. The bike lanes are narrow and can be hard to distinguish.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE MADISON/DELAWARE STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

LIMITED

Pedestrian facilities are narrow, limited visibility and safety concerns.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 6
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Industrial
South: Industrial, Commercial, Residential

NOTABLE CONNECTIONS:

Lilly campus, Hendricks Park

3 blocks to the mile square

PEDESTRIAN FACILITIES:

Lighting (both sides)
Sidewalks (both sides)

BICYCLE FACILITIES:

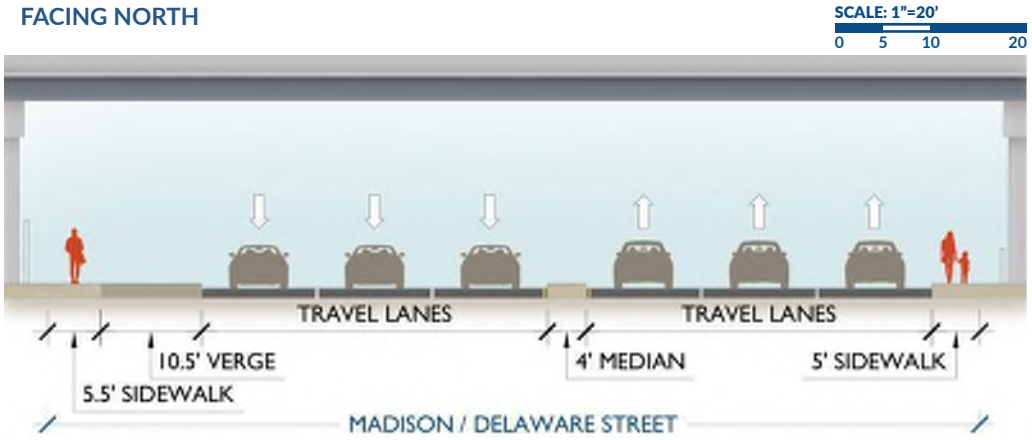
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On street bike facilities would be appropriate but would need to be separated from heavy/fast traffic.

CROSSING SECTION

FACING NORTH



CROSSING IMAGES


Facing North


Facing West


Facing South


Approach from North

Traffic at Madison/Delaware Street is heavy and fast. There are opportunities to improve the ADA accessibility of pedestrian facilities. There is vegetative overgrowth on the east side of the road that could potentially be maintained.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE SOUTH MERIDIAN STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 8'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential, Commercial
South: Residential, Commercial

NOTABLE CONNECTIONS:

Kelly Park, Downtown Indianapolis

3 blocks to the mile square

PEDESTRIAN FACILITIES:

Lighting (both sides)
Sidewalks (both sides)

BICYCLE FACILITIES:

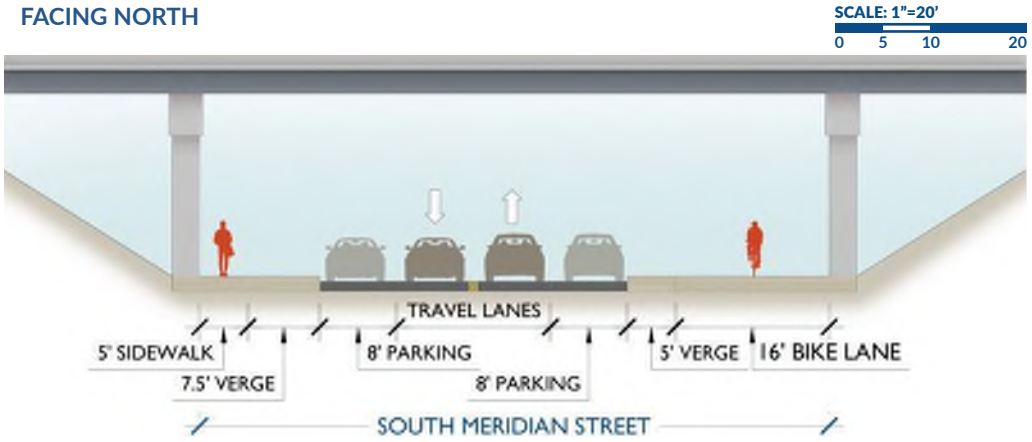
16' multi-use trail

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Appropriate bicycle facilities in place

CROSSING SECTION

FACING NORTH



CROSSING IMAGES


Facing North


Facing South


Facing South


Facing Northeast

Pedestrian facilities at this crossing are appropriate. There are opportunities to add painted crosswalks to intersecting streets. At the time of observation Meridian Street was closed. Traffic flow may be heavier as it reopens.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE KENWOOD/SOUTH CAPITOL AVE.

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

LIMITED

Pedestrian facilities at crossings, but no connecting infrastructure

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 20'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Industrial, Commerical
South: Residential

NOTABLE CONNECTIONS:

South Calvalry Baptist Church, Lucas Oil Stadium

3 blocks to the mile square

PEDESTRIAN FACILITIES:

Lighting (both sides) Sidewalks (both sides)

BICYCLE FACILITIES:

No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bicycle facilities would be appropriate at this location

CROSSING SECTION

FACING NORTH



CROSSING IMAGES


Facing Northeast


Facing South


Overgrown Sidewalk


West Sidewalk

There is a potential connection to be made to the event center/entertainment hub from the south by the Cultural Trail at South Street. There is also potential to improve lane and crosswalk markings as theyare missing.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE SOUTH MISSOURI STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

POOR

Pedestrian facilities broken, missing, not properly maintained

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 4
Approximate lane width: 12-13'
Traffic Flow: One-way (north)
Curbs: Yes (only on east)

LAND USE CONNECTIONS:

North: Industrial, Commercial
South: Residential, Industrial, Commercial

NOTABLE CONNECTIONS:

Lucas Oil Stadium, Victory Field

3 blocks to the mile square

PEDESTRIAN FACILITIES:

Lighting (both sides)
Sidewalks (east side)

BICYCLE FACILITIES:

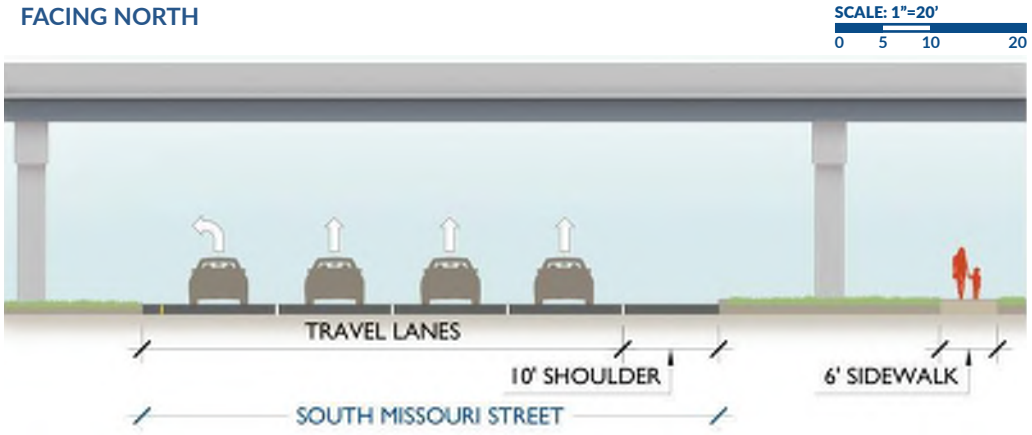
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

With minimal future bicycle facilities planned, additional facilities would not be appropriate at this location unless appropriately separated

CROSSING SECTION

FACING NORTH



CROSSING IMAGES


Facing Northwest


Facing North


Public Sculptures


Facing South

Traffic flow on South Missouri Street is heavy and fast. There is potential to improve existing sidewalk conditions as well as to add a sidewalk on the west side of the street.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE SOUTH WEST STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 3
Approximate lane width: 13'
Traffic Flow: One-way (south)
Curbs: No

LAND USE CONNECTIONS:

North: Industrial, Commercial
South: Industrial

NOTABLE CONNECTIONS:

Lucas Oil Stadium, Victory Field
3 blocks to the mile square

PEDESTRIAN FACILITIES:

No pedestrian facilities

BICYCLE FACILITIES:

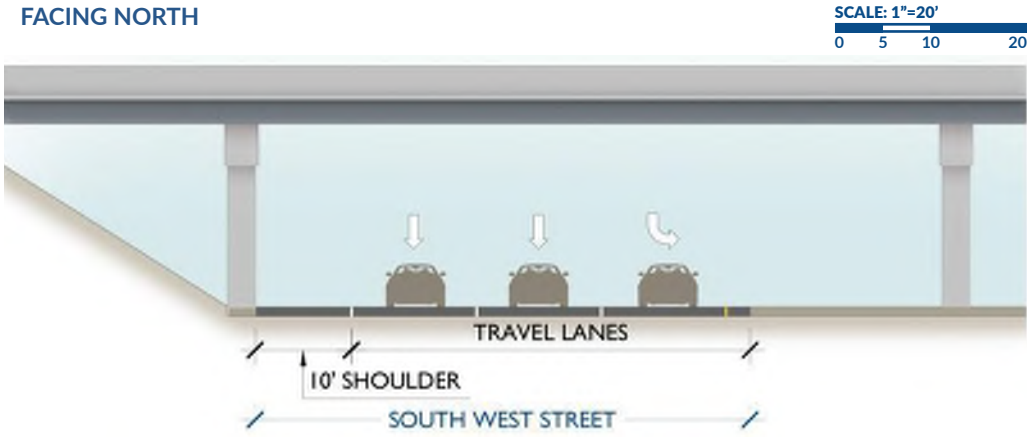
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bike facilities would not be appropriate, but separated facilities could be used.

CROSSING SECTION

FACING NORTH



CROSSING IMAGES



Facing North


Facing North


Facing South


Public Sculptures

Traffic flow on South West Street is heavy and fast. There is potential to improve existing sidewalk conditions as well as to add a sidewalk on the east side of the street.

PEDESTRIAN CROSSING INVENTORY | 65/70 DOWNTOWN SPOKE
WHITE RIVER PARKWAY EAST DRIVE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets.

ROAD INFO:
Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 15'
Traffic Flow: Two-way
Curbs: Yes (only on east side)

LAND USE CONNECTIONS:
East: Industrial

NOTABLE CONNECTIONS:
White River

PEDESTRIAN FACILITIES:
Lighting (both sides)

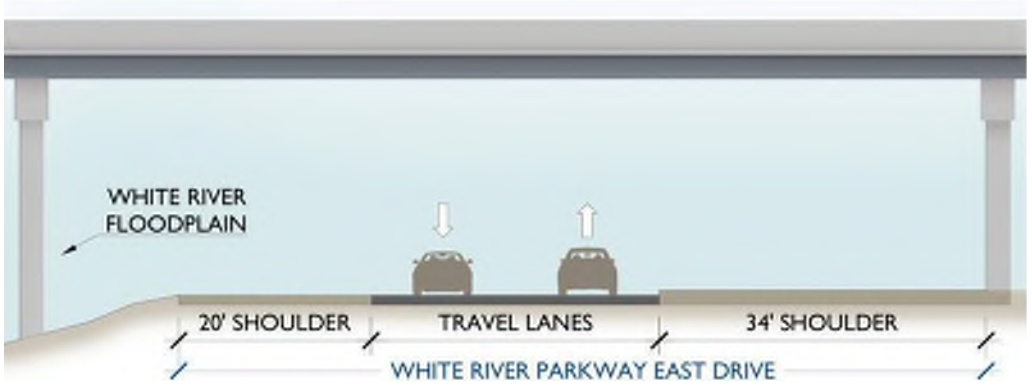
BICYCLE FACILITIES:
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:
On-street bicycle facilities would not be appropriate at this crossing

CROSSING SECTION

FACING SOUTH

SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES

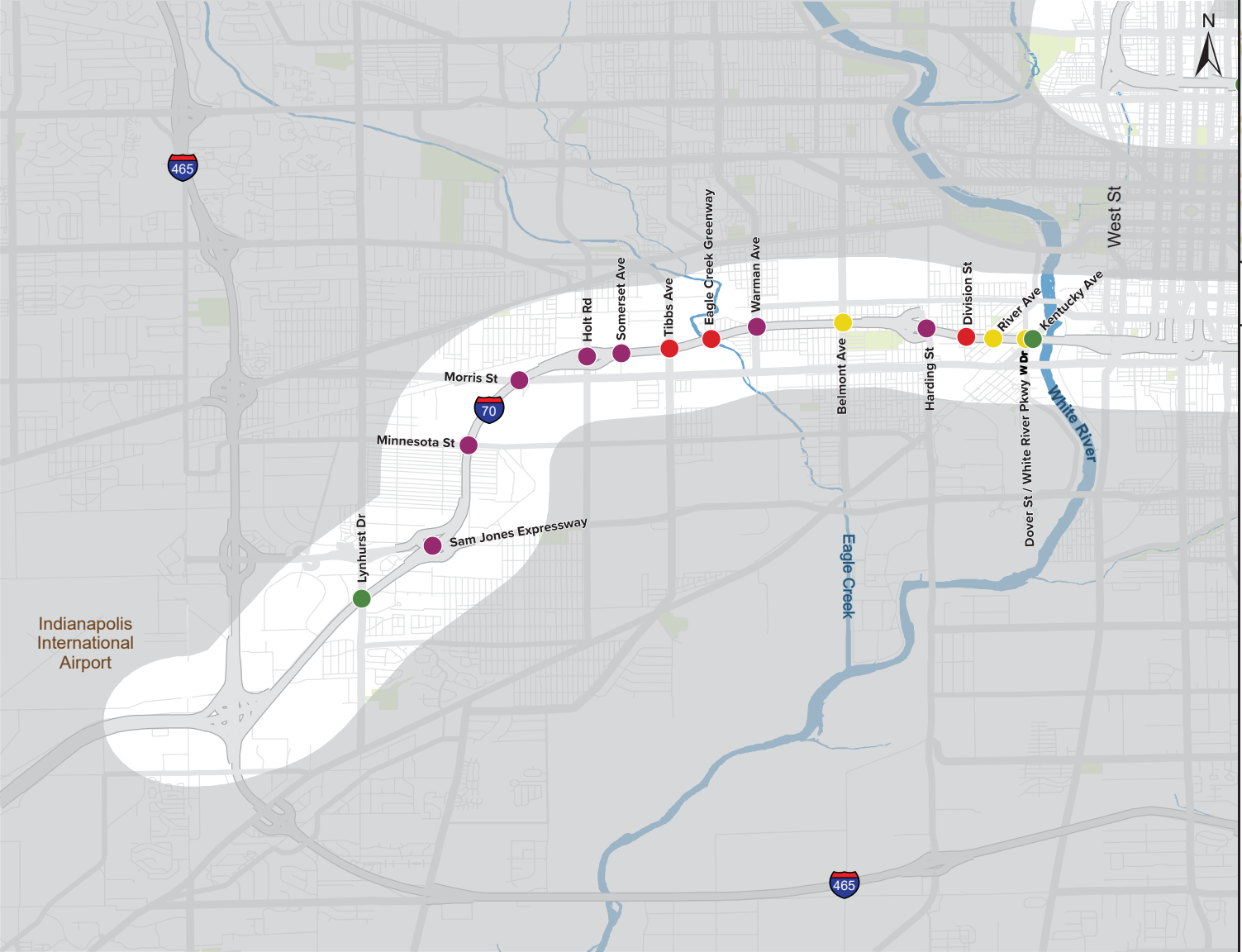

Facing North


Facing West


Facing East


Facing South

White River Parkway East Drive connects primarily to industrial areas which may not need pedestrian infrastructure, but there are potential opportunities for pedestrian facilities that interact with the White River.





70 W Spoke

Existing Pedestrian Facilities Evaluation

- Study Area Boundary
- No Facilities
- Appropriate
- Limited
- Poor

0 0.25 0.5 1
Miles

Data Sources:
Taylor Siefker Williams Design Group

PEDESTRIAN CROSSING INVENTORY | 70 W SPOKE LYNHURST DRIVE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Overpass/bridge
Total lanes of traffic: 4
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential, Commercial
South: Residential, Industrial, Civic

NOTABLE CONNECTIONS:

Lynhurst 7-8th Grade Center

PEDESTRIAN FACILITIES:

Sidewalks on both sides of street.

BICYCLE FACILITIES:

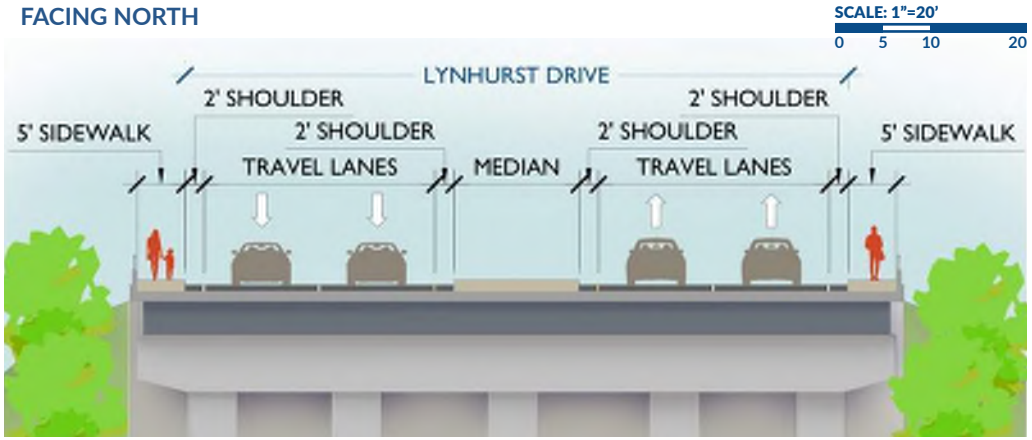
No dedicated bike facilities.

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bike facilities would be appropriate at this location. IMPO ATP includes proposed bike facility. Indy Moves includes multi-use path.

CROSSING SECTION

FACING NORTH

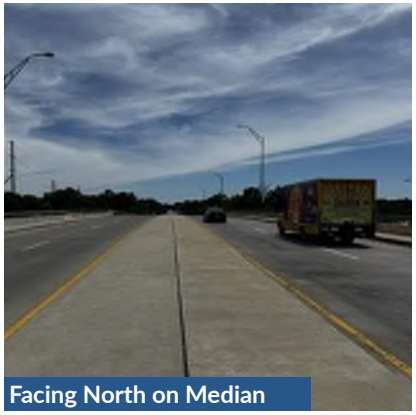


CROSSING IMAGES


Facing South


Facing South


Desire Path Leading to Sidewalk


Facing North on Median

This overpass makes a connection between two residential areas and a large industrial use area. There appears to be a path on the approach of the east sidewalk indicating a pedestrian connection may be important to those living and working in this area.

PEDESTRIAN CROSSING INVENTORY | 70 W SPOKE SAM JONES EXPRESSWAY

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets.

ROAD INFO:

Type of crossing: Overpass/bridge
Total lanes of traffic: 6
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: No

LAND USE CONNECTIONS:

North: Residential
South: Residential, Industrial
East: Industrial
West: Residential, Commercial

NOTABLE CONNECTIONS:

Stout Field Park, Indy Airport

PEDESTRIAN FACILITIES:

Lots of lighting

BICYCLE FACILITIES:

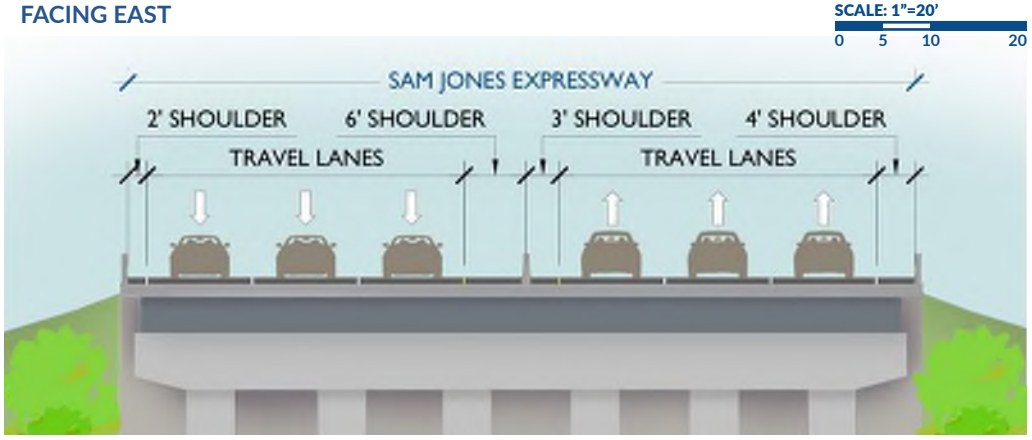
No dedicated bike facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

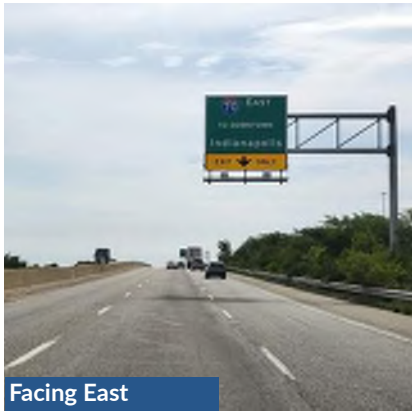
Bike facilities would be difficult to implement due to lack of connections to existing network

CROSSING SECTION

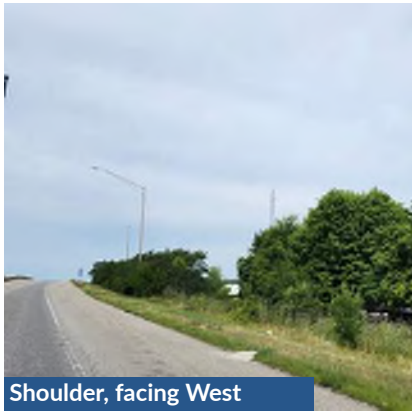
FACING EAST

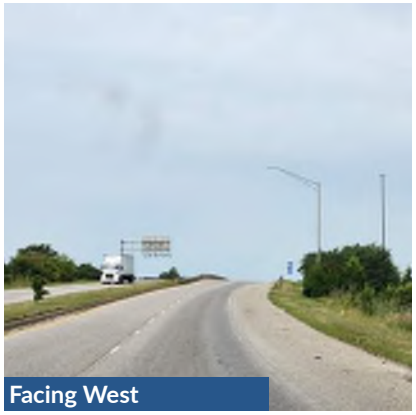


CROSSING IMAGES


Facing East


Facing East


Shoulder, facing West


Facing West

This overpass is a highway-freeway interchange. The traffic flow is heavy, fast, and not very conducive to pedestrian or bike facilities.

PEDESTRIAN CROSSING INVENTORY | 70 W SPOKE MINNESOTA STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 10'
Traffic Flow: Two-way
Curbs: No

LAND USE CONNECTIONS:

East: Residential, Industrial
West: Residential, Industrial

NOTABLE CONNECTIONS:

Maplewood Elementary School, Indoor Skate park, EPIC Climbing

PEDESTRIAN FACILITIES:

No pedestrian facilities

BICYCLE FACILITIES:

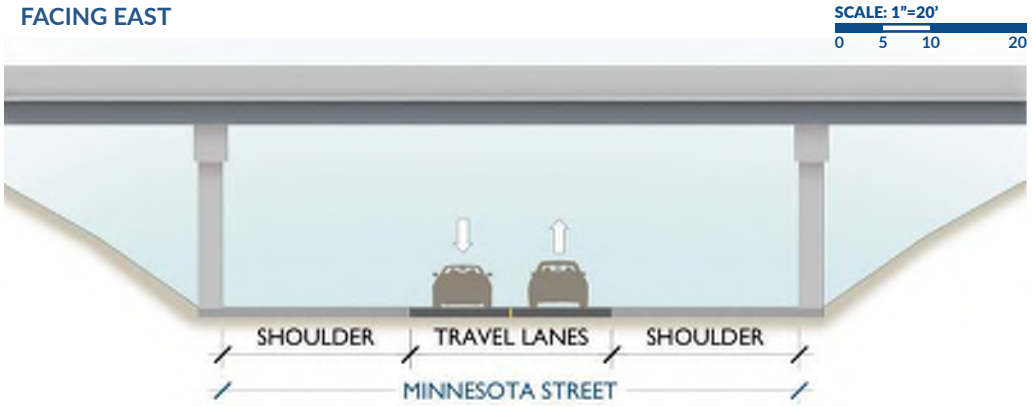
No dedicated bike facilities.

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bike facilities would be appropriate on the south side of Minnesota St. IMPO ATP includes proposed bike facilities. Indy Moves includes multi-use path.

CROSSING SECTION

FACING EAST



CROSSING IMAGES


Facing East


Facing East


Facing West


Facing West

There is a potential pedestrian connection to be made between residential neighborhoods to the west of I-70 and EPIC Climbing and Q Skate Shop to the east.

PEDESTRIAN CROSSING INVENTORY | 70 W SPOKE MORRIS STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 10'
Traffic Flow: Two-way
Curbs: No

LAND USE CONNECTIONS:

East: Industrial
West: Industrial

NOTABLE CONNECTIONS:

None

PEDESTRIAN FACILITIES:

No pedestrian facilities

BICYCLE FACILITIES:

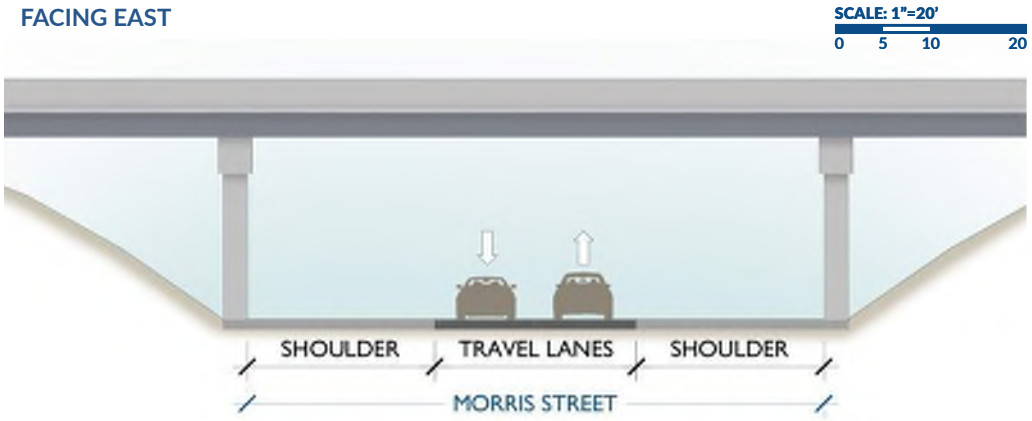
No dedicated bike facilities.

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bike facilities would not be appropriate at this crossing.

CROSSING SECTION

FACING EAST



CROSSING IMAGES


Facing East


Facing West


Facing West


Unsanctioned Campsites

Connecting two industrial areas, there is not much potential for pedestrian connection at this intersection.

PEDESTRIAN CROSSING INVENTORY | 70 W SPOKE HOLT ROAD

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets.

ROAD INFO:

Type of crossing: Overpass/bridge
Total lanes of traffic: 5
Approximate lane width: 11'
Traffic Flow: Two-way
Curbs: No

LAND USE CONNECTIONS:

North: Residential
South: Industrial, Commercial

NOTABLE CONNECTIONS:

I-70 interchange access, American Legion, Restaurants, Gas Station

PEDESTRIAN FACILITIES:

No pedestrian facilities

BICYCLE FACILITIES:

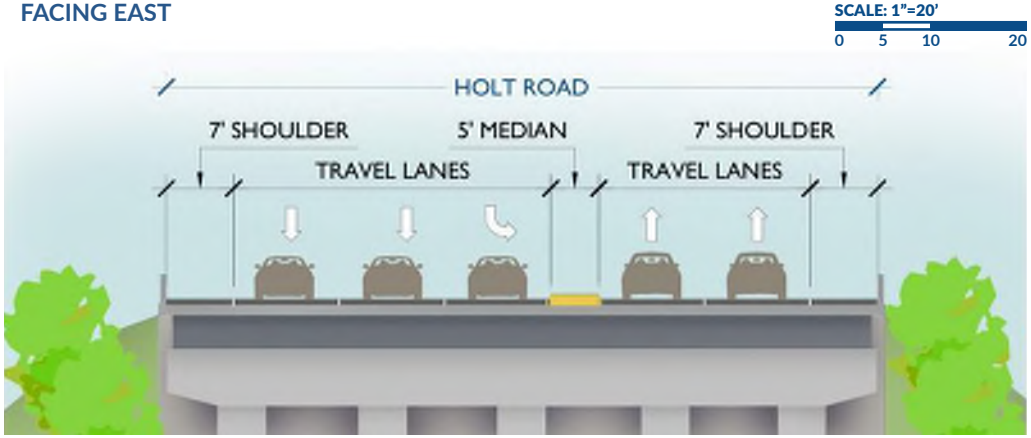
No dedicated bike facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bike facilities would be appropriate at this crossing. IMPO ATP includes bike facilities. Indy Moves includes multi-use path.

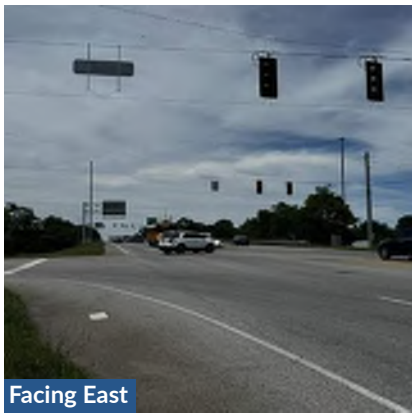
CROSSING SECTION

FACING EAST



CROSSING IMAGES


Facing South


Facing East


Facing South


View from I-70 Overpass

This overpass connects a residential area to a heavy industrial area with a small amount of businesses including convenience stores and restaurants.

PEDESTRIAN CROSSING INVENTORY | 70 W SPOKE SOMERSET ROAD

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 18'
Traffic Flow: Two-way
Curbs: No

LAND USE CONNECTIONS:

North: Commercial
South: Industrial, Residential

NOTABLE CONNECTIONS:

Bus stop (Morris St), Railroad Crossing

PEDESTRIAN FACILITIES:

No pedestrian facilities

BICYCLE FACILITIES:

No dedicated bike facilities.

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bike facilities would not be appropriate at this crossing

CROSSING SECTION

FACING EAST



CROSSING IMAGES


Facing South


Facing North


Pallet Storage (South)


Facing East

This underpass leads to a dead end at Grady Brothers Asphalt in the north. There are no clear travel lanes and the wide shoulders are used for semi trailer parking. The approach through a wood pallet storage yard makes this area feel like private property.

PEDESTRIAN CROSSING INVENTORY | 70 W SPOKE TIBBS AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

POOR

Pedestrian facilities broken, missing sections, not properly maintained.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: No

LAND USE CONNECTIONS:

North: Commercial
South: Commercial, Industrial

NOTABLE CONNECTIONS:

Commercial area at Tibbs and Morris

PEDESTRIAN FACILITIES:

Sidewalk on west side only
Lighting on both sides

BICYCLE FACILITIES:

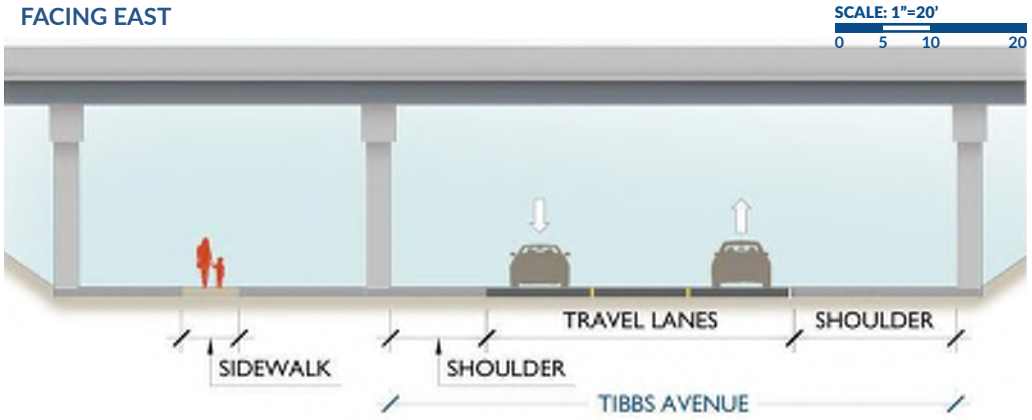
No dedicated bike facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bike facilities would not be appropriate at this crossing

CROSSING SECTION

FACING EAST



CROSSING IMAGES


Facing South


Sidewalk to west


Facing South


Lighting on columns

Pedestrian facilities on Tibbs Avenue are separated from the travel lanes, running between two bridge columns.

PEDESTRIAN CROSSING INVENTORY | 70 W SPOKE EAGLE CREEK GREENWAY

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

POOR

Crossing closed due to deteriorating and missing boardwalk.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: N/A
Approximate trail width: 10'
Traffic Flow: N/A
Curbs: No

LAND USE CONNECTIONS:

North: Residential
South: Residential

NOTABLE CONNECTIONS:

Eagle Creek Greenway

PEDESTRIAN FACILITIES:

Eagle Creek Greenway

BICYCLE FACILITIES:

Eagle Creek Greenway

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

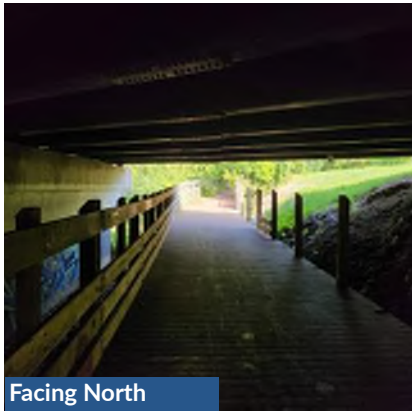
Dedicated bike facilities present but improvement needed (maintenance, improved markings, signage)

CROSSING SECTION

FACING SOUTH



CROSSING IMAGES


Facing North


Facing South


Facing South


Concrete Barrier Blocking Path

Eagle Creek Greenway spans 1.6 miles along Eagle Creek along this southern portion of the trail. The trail passes through both residential and industrial areas. The segment of trail near the I-70 overpass is a boardwalk. A portion of the boardwalk has collapsed in the section under the bridge and foot travel is blocked by a concrete barrier.

PEDESTRIAN CROSSING INVENTORY | 70 W SPOKE WARMAN AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 15'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential, Industrial
South: Residential

NOTABLE CONNECTIONS:

Eagle Creek Trail, Beulah Lighthouse Church, Fellowship Missionary Baptist Church, Church of the Nazarene

PEDESTRIAN FACILITIES:

No sidewalks
Lighting (both sides)

BICYCLE FACILITIES:

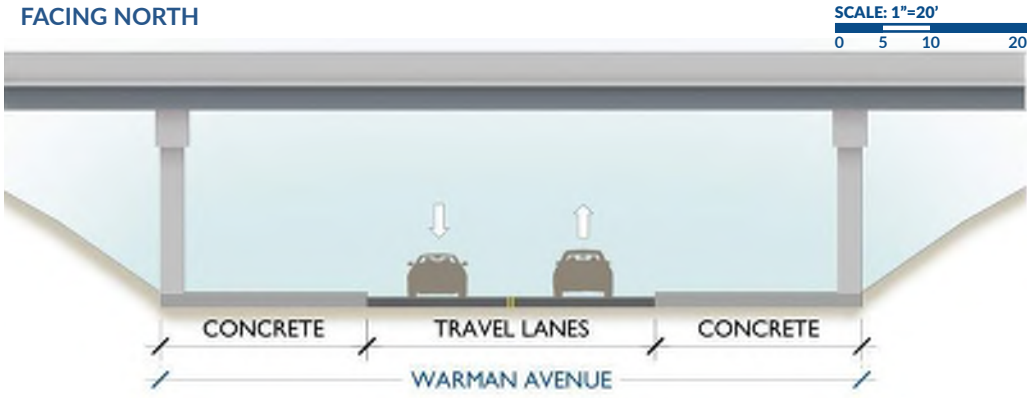
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Proposed bicycle facility included in the IMPO ATP. Proposed multi-use path included in DPW Indy Moves.

CROSSING SECTION

FACING NORTH



CROSSING IMAGES


Facing North


Facing South


West Side of Underpass


Approach from South

There are no crosswalks or sidewalks on Warman Avenue at the intersection of I-70. There is a unofficial desire path on the east side of the road indicating an opportunity for implementation of pedestrian facilities.

PEDESTRIAN CROSSING INVENTORY | 70 W SPOKE BELMONT AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

LIMITED

Pedestrian facilities at crossings, but no connecting infrastructure.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 11'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential, Industrial
South: Residential, Civic

NOTABLE CONNECTIONS:

Rhodius Park, William Penn School 49, DG Kidane Eritrean Orthodox Church, Iglesia Fuiente de Vida

PEDESTRIAN FACILITIES:

Sidewalks and lighting (both sides)

BICYCLE FACILITIES:

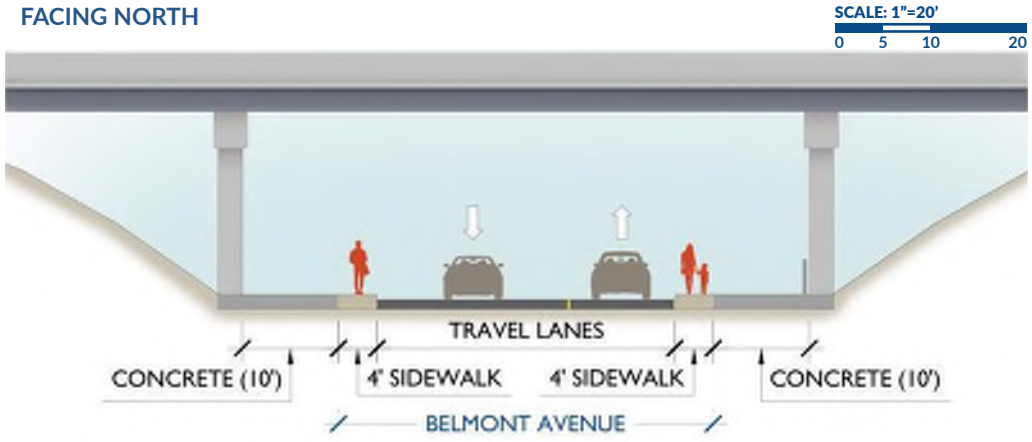
No dedicated bike facilities.

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bike facilities would be appropriate at this crossing

CROSSING SECTION

FACING NORTH



CROSSING IMAGES


Facing North


Facing South


Approach From North


Approach from South

Traffic at this crossing is light but fast, and there are no painted lane markings under the bridge. Pedestrian connections could be made between George Washington High School (further north) to the churches and Rhodius Park to the south. The sidewalk connecting Rhodius Park to the underpass is not usable for people in wheelchairs and those differently abled.

PEDESTRIAN CROSSING INVENTORY | 70 W SPOKE HARDING STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 7 + Median
Approximate lane width: 13'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential, Industrial
South: Residential, Industrial, Park

NOTABLE CONNECTIONS:

William Penn School 49, Rhodius Park, Lilly Industry

PEDESTRIAN FACILITIES:

Lighting (both sides)
Sidewalks only present on east side of street, south of interchange

BICYCLE FACILITIES:

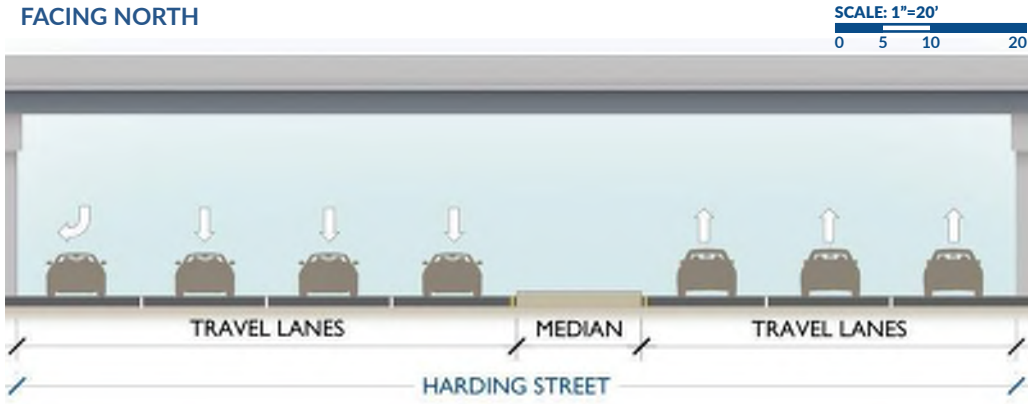
No dedicated bike facilities.

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bike facilities would be difficult to implement due to lack of connections to existing network

CROSSING SECTION

FACING NORTH



CROSSING IMAGES


Facing North


Facing South


Under the Bridge


Facing North

Traffic flow at this interchange is heavy and fast especially through the slip lane. Sidewalks are present on east side of Harding Street but do not continue past the interchange.

PEDESTRIAN CROSSING INVENTORY | 70 W SPOKE DIVISION STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

POOR

Pedestrian facilities broken, missing sections, not properly maintained.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 24'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential
South: Industrial

NOTABLE CONNECTIONS:

McCarty Triangle Park, Ethiopian Orthodox Church

PEDESTRIAN FACILITIES:

Lighting (both sides)
6' Sidewalks (both sides)

BICYCLE FACILITIES:

No dedicated bike facilities.

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bike facilities would not be appropriate at this crossing. The road is wide enough but it is very short with no destinations.

CROSSING SECTION

FACING NORTH



CROSSING IMAGES


Facing North


Facing South


Facing North


Approach from North

Division Street does not continue far beyond the interstate in either direction. Areas of overgrowth exist on the south side of I-70. There is potential to improve crosswalks in the areas leading up to the underpass.

PEDESTRIAN CROSSING INVENTORY | 70 W SPOKE RIVER AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

LIMITED

Pedestrian facilities at crossings, but no connecting infrastructure

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 3
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential, Civic
South: Industrial

NOTABLE CONNECTIONS:

McCarty Triangle Park

PEDESTRIAN FACILITIES:

Lighting (both sides)
6' Sidewalks (both sides)

BICYCLE FACILITIES:

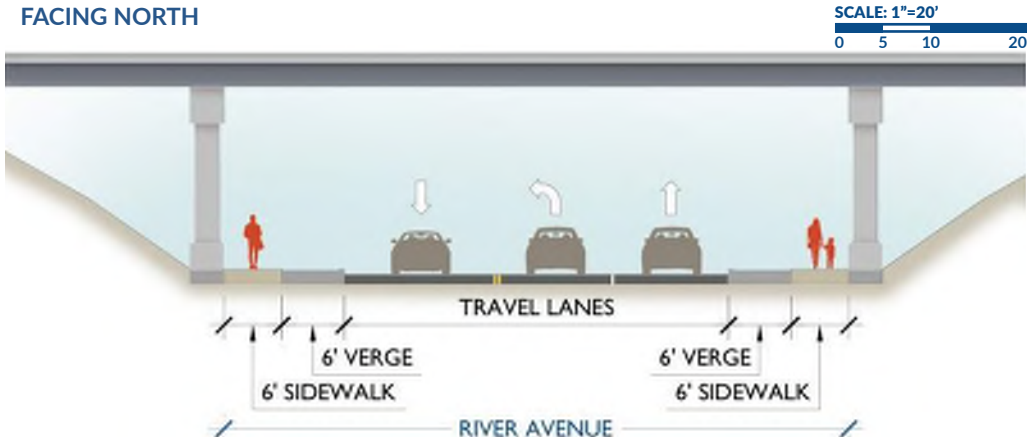
No dedicated bike facilities.

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bike facilities would not be appropriate at this crossing. River Avenue dead ends south of I-70.

CROSSING SECTION

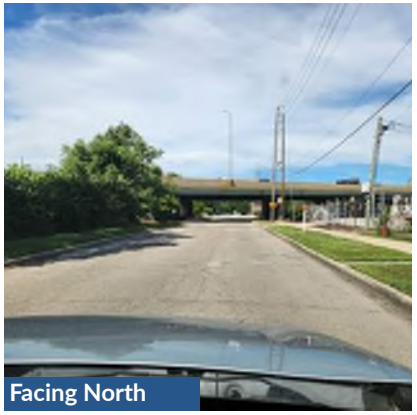
FACING NORTH



CROSSING IMAGES


Facing North


Facing South


Facing North


Facing North

River Avenue dead ends into private industrial property south of I-70. There are opportunities to improve the crosswalk at River Ave and Ray Street. There is vegetative overgrowth on the west side of River Avenue that could potentially impede pedestrian traffic.

PEDESTRIAN CROSSING INVENTORY

70 W SPOKE
DROVER STREET/WHITE RIVER PKWY W DR

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

LIMITED

Pedestrian facilities at crossings, but no connecting infrastructure

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 3 + turn lane
Approximate lane width: 13'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential
South: Industrial

NOTABLE CONNECTIONS:

White River Greenway, Edison School of Arts, Lilly Industry

PEDESTRIAN FACILITIES:

Lighting (west side)
6' Sidewalk (east side)

BICYCLE FACILITIES:

No dedicated bike facilities.

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

Bike facilities would be appropriate at this crossing.

CROSSING SECTION

FACING NORTH

SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES


Facing South


Facing Southwest


Facing South


Facing North

Traffic is light on Drover Street. There is an opportunity to improve lighting on the east side of the street that includes a sidewalk. This sidewalk also presents the opportunity to connect to the White River Greenway.

PEDESTRIAN CROSSING INVENTORY | 70 W SPOKE KENTUCKY AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate with little improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 4 + turn lane
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: Yes (tall - 8-10")

LAND USE CONNECTIONS:

North: Civic
South: Industrial

NOTABLE CONNECTIONS:

Lilly Industry Campus, White River Greenway, Riley Park, Fire Station 19

PEDESTRIAN FACILITIES:

6' sidewalks (both sides) Lighting (only facing road)

BICYCLE FACILITIES:

No dedicated bicycle facilities

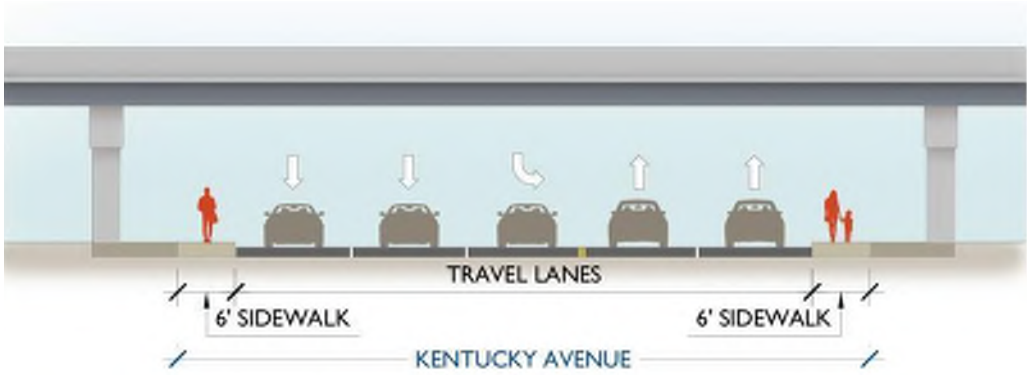
EVALUATION OF FACILITIES AND PLANNED FACILITIES:

IMPO ATP shows proposed bike facilities and Indy Moves shows proposed multi-use path would be appropriate at this crossing.

CROSSING SECTION

FACING NORTH

SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES

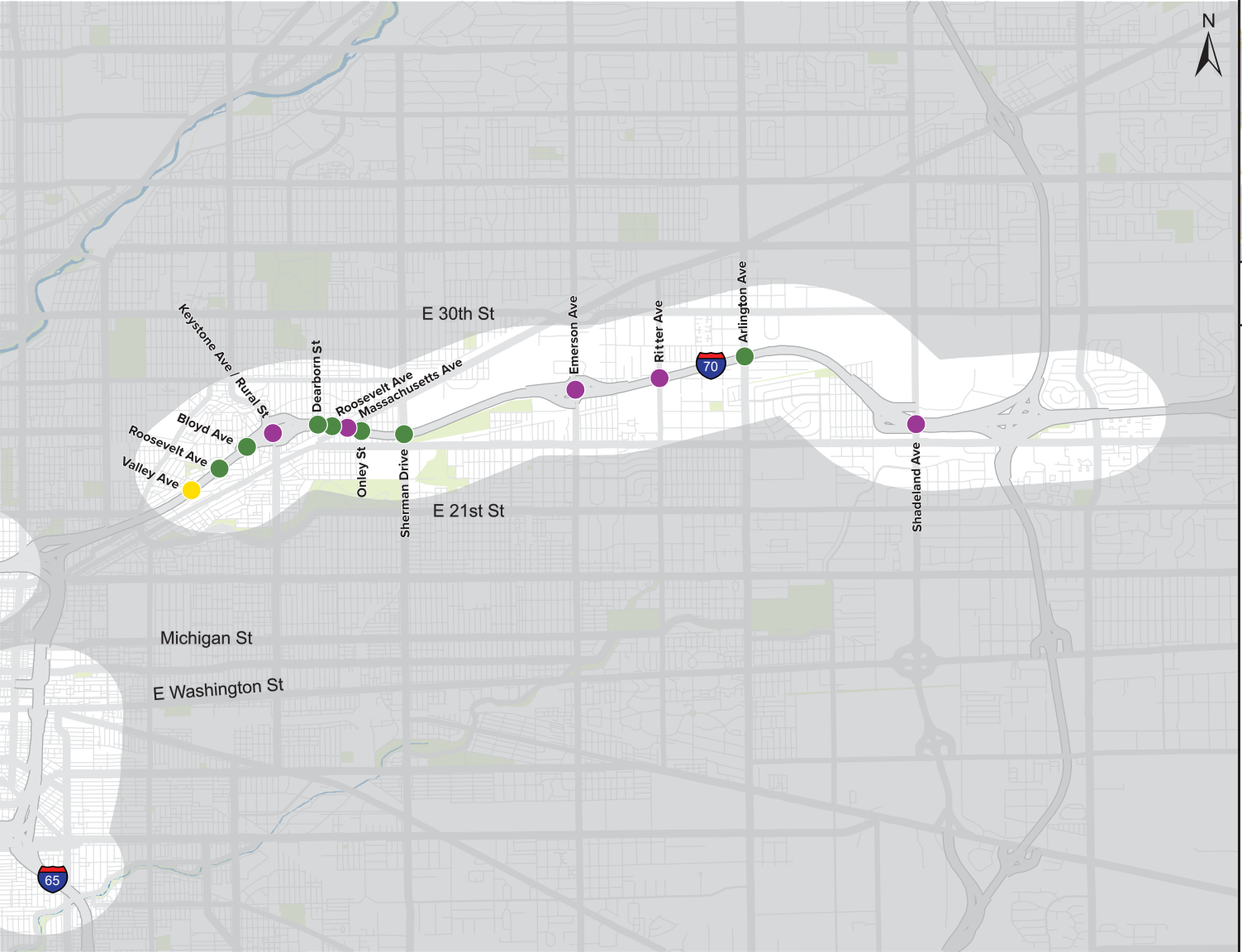

Facing North


Facing North


Facing South


Park at Fire Department

The pedestrian facilities along both sides of the street are appropriate but there are opportunities to improve by increasing lighting and visibility.





70 E Spoke

Existing Pedestrian Facilities Evaluation

- Study Area Boundary
- No Facilities
- Appropriate
- Limited
- Poor

0 0.25 0.5 1
Miles

Data Sources:
Taylor Siefker Williams Design Group

PEDESTRIAN CROSSING INVENTORY | 70 E SPOKE VALLEY AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

LIMITED

Pedestrian facilities at crossings, but no connecting infrastructure.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 15'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

East: Industrial
South: Residential

NOTABLE CONNECTIONS:

None

PEDESTRIAN FACILITIES:

Sidewalks (both sides)
Lighting (both sides)

BICYCLE FACILITIES:

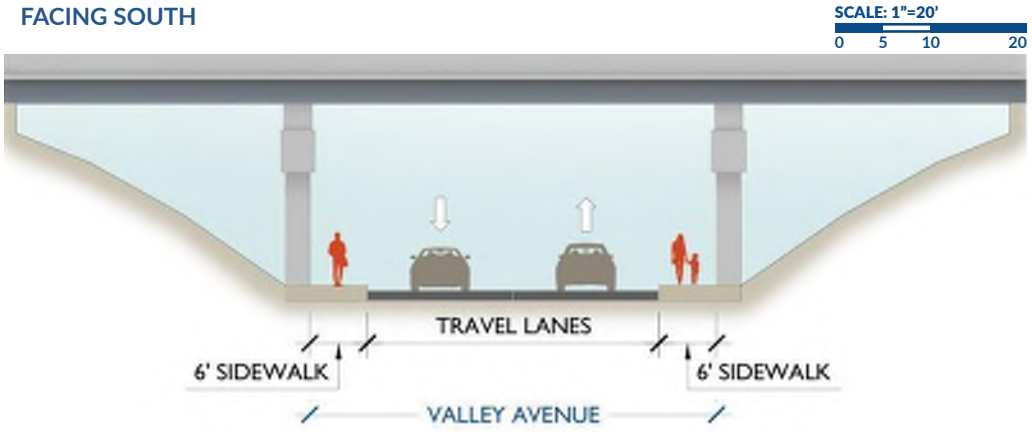
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bicycle facilities would not be appropriate at this crossing.

CROSSING SECTION

FACING SOUTH



CROSSING IMAGES


Facing West


Facing West


Facing Southeast


Facing East

This crossing has poor connections to the local pedestrian grid and a general feeling of unsafety. There are opportunities to maintain overgrown vegetation on the approach to the underpass.

PEDESTRIAN CROSSING INVENTORY | 70 E SPOKE ROOSEVELT AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 21.5'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential
South: Residential, Commercial, Industrial

NOTABLE CONNECTIONS:

Community garden at Unity Park, Hope House

PEDESTRIAN FACILITIES:

Sidewalks (both sides)
Lighting (both sides)

BICYCLE FACILITIES:

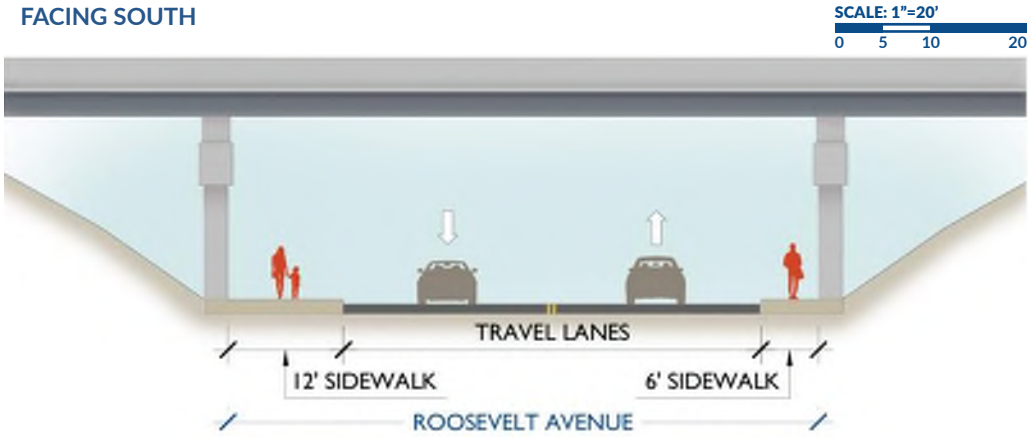
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bicycle facilities would be appropriate at this crossing as sidewalks provide enough space.

CROSSING SECTION

FACING SOUTH



CROSSING IMAGES


Facing East


Facing East


Facing West


Nearby Public Art

This crossing connects a residential neighborhood in the north to commercial and industrial areas in the south. There could be opportunities to improve pedestrian connections to businesses like North Mass Boulder.

PEDESTRIAN CROSSING INVENTORY | 70 E SPOKE BLOYD AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 13'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential, Industrial
South: Industrial

NOTABLE CONNECTIONS:

None

PEDESTRIAN FACILITIES:

Sidewalks (south)
Lighting (both sides)

BICYCLE FACILITIES:

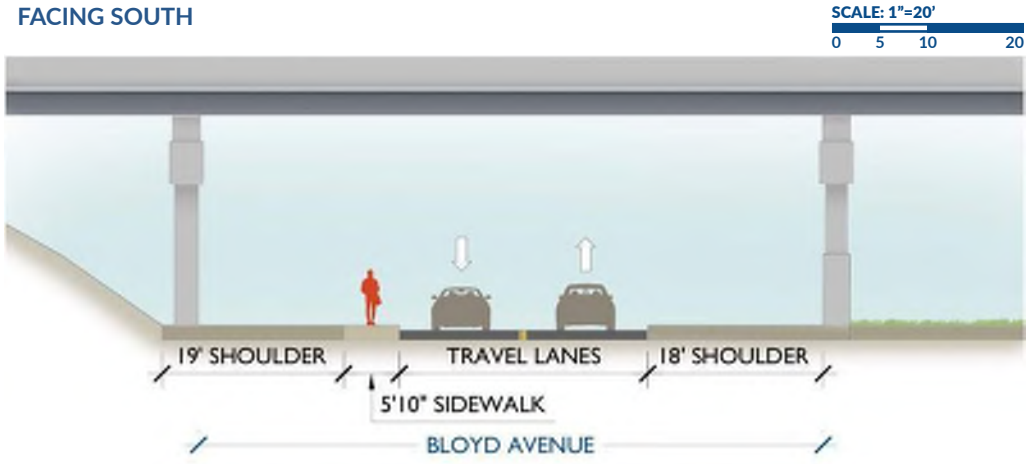
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bicycle facilities would be appropriate at this crossing. IMPO includes a bike facility. Indy Moves includes a proposed greenway.

CROSSING SECTION

FACING SOUTH



CROSSING IMAGES


Facing West


Facing North


Facing East


Facing West

This crossing does not have any apparent connections to be made. There is also a high volume of truck traffic from Rural Street that decreases from the level of perceived safety.

PEDESTRIAN CROSSING INVENTORY | 70 E SPOKE RURAL STREET/KEYSTONE AVE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets, many improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 6
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: No

LAND USE CONNECTIONS:

North: Residential, Commercial, Industrial
South: Commercial, Industrial, Residential

NOTABLE CONNECTIONS:

I-70 interchange access point

PEDESTRIAN FACILITIES:

Lighting (both sides)

BICYCLE FACILITIES:

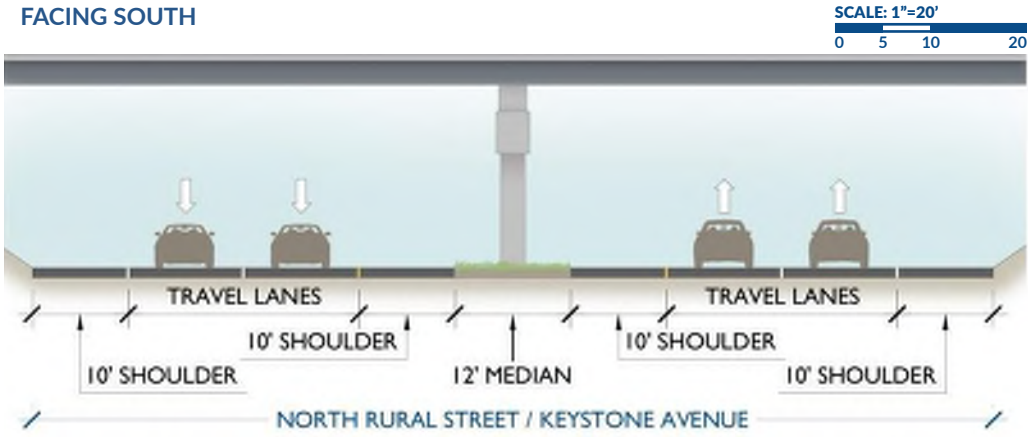
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

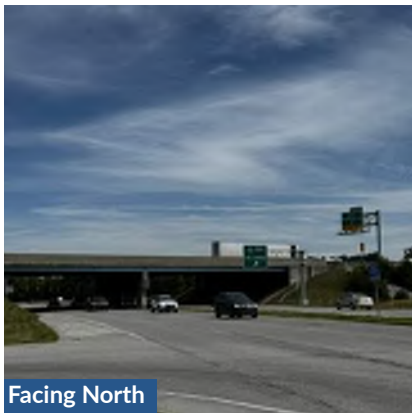
On-street bicycle facilities would not be appropriate at this crossing.

CROSSING SECTION

FACING SOUTH



CROSSING IMAGES


Facing North


Facing North


Facing South


Facing South

Being a major vehicular interchange access point, this is not currently a pedestrian thoroughfare. If the interchange were to be redesigned, there are opportunities to connect the two residential neighborhoods via bike or pedestrian facilities.

PEDESTRIAN CROSSING INVENTORY | 70 E SPOKE DEARBORN STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 15'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential
South: Residential, Industrial

NOTABLE CONNECTIONS:

None

PEDESTRIAN FACILITIES:

Sidewalks(both sides)
Lighting (both sides)

BICYCLE FACILITIES:

No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On street bicycle facilities would not be appropriate at this location due to lack of potential connections.

CROSSING SECTION

FACING SOUTH



CROSSING IMAGES


Facing North


Facing North


Facing North

The primary connection to be made at North Dearborn Street is between two residential neighborhoods. The overall connection to the local grid is poor. There are opportunities to improve crosswalks as well as maintain existing sidewalks by removing trash/gravel.

PEDESTRIAN CROSSING INVENTORY | 70 E SPOKE ROOSEVELT AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 20'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential
South: Industrial

NOTABLE CONNECTIONS:

Mt Pigsah Baptist Church, James Russell Lowell School 51

PEDESTRIAN FACILITIES:

Lighting (both sides)
5' Sidewalks (both sides)

BICYCLE FACILITIES:

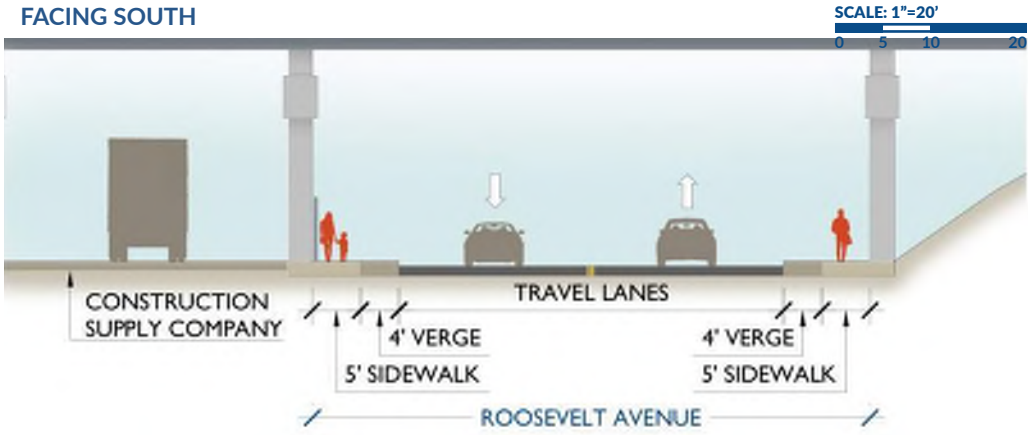
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On street bicycle facilities would be appropriate at this location.

CROSSING SECTION

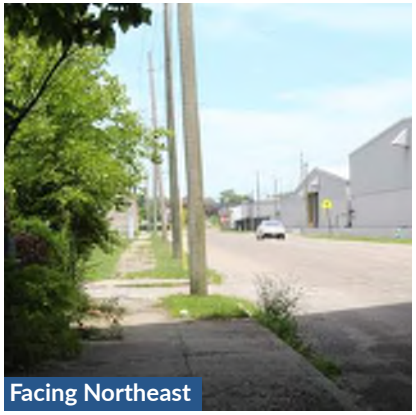
FACING SOUTH



CROSSING IMAGES


Facing Southwest


Facing Southwest


Facing Northeast


Facing South

There is a potential opportunity to connect Mt Pigsah Baptist Church and James Russell Lowell School 51 to the south with the hope of connecting them to downtown via a multi-use trail. Space for this trail could be allocated from the 20' lane widths. Currently, there are opportunities to maintain overgrowth and litter on the existing sidewalks.

PEDESTRIAN CROSSING INVENTORY | 70 E SPOKE MASSACHUSETTS AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: No

LAND USE CONNECTIONS:

North: Industrial, Park
South: Industrial

NOTABLE CONNECTIONS:

Brightwood Park+School, James Russel Lowell School 51

PEDESTRIAN FACILITIES:

Lighting (both sides)

BICYCLE FACILITIES:

No dedicated bicycle facilities

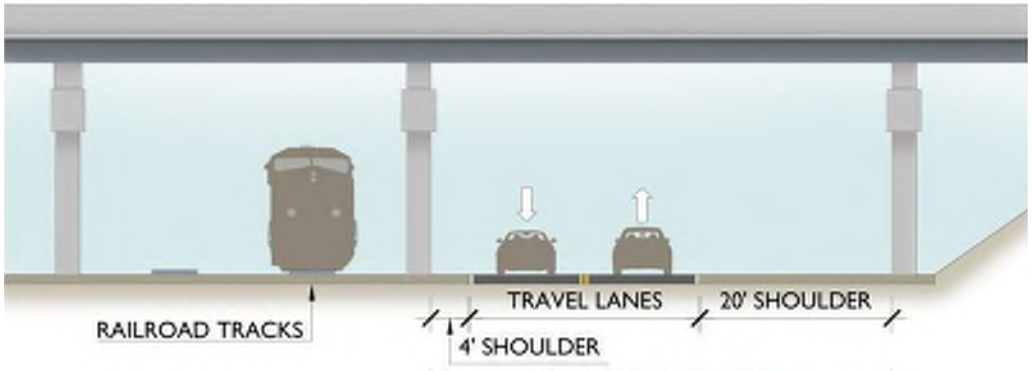
EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On street bicycle facilities would be appropriate at this location. Indy Moves includes proposed walking facilities along the route

CROSSING SECTION

FACING SOUTH

SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES


Facing Southwest


Facing Southwest

Dedicated bicycle facilities could potentially connect residents who live in this area to Downtown Indianapolis along Massachusetts Avenue.

PEDESTRIAN CROSSING INVENTORY | 70 E SPOKE OLNEY STREET

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 15'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Residential, Industrial, Park
South: Commercial, Industrial, Residential, Community Center

NOTABLE CONNECTIONS:

Brightwood Park and James Russell Lowell Elementary School, Martin University, Brookside Community Center

PEDESTRIAN FACILITIES:

Sidewalks and lighting (both sides)

BICYCLE FACILITIES:

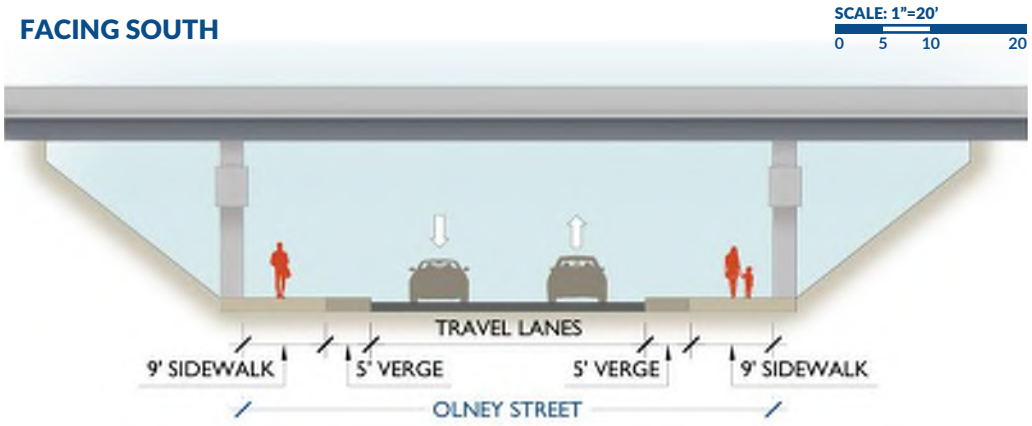
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On street bicycle facilities with enhanced markings would be appropriate at this location

CROSSING SECTION

FACING SOUTH



CROSSING IMAGES


Facing North


Vegetative Overgrowth


Facing South


Facing South

There is potential to improve the connection from residential neighborhoods located south of I-70 to Martin University and Brightwood Park and James Russell Lowell Elementary School on the north side. Brookside Community Center is also located to the south of the crossing.

PEDESTRIAN CROSSING INVENTORY | 70 E SPOKE SHERMAN DRIVE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 4
Approximate lane width: 11-23'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Commercial, Industrial
South: Commercial, Industrial, Civic

NOTABLE CONNECTIONS:

Martin University

PEDESTRIAN FACILITIES:

Sidewalks and lighting (both sides)

BICYCLE FACILITIES:

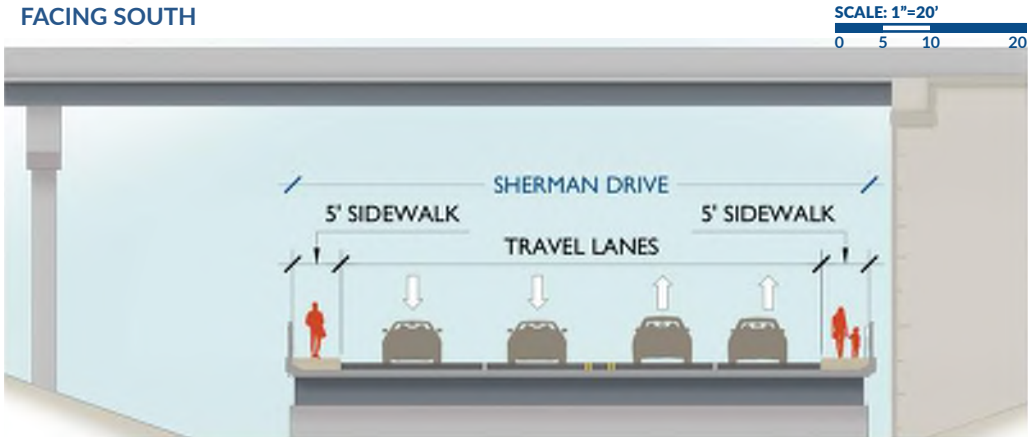
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On street bicycle facilities would be appropriate at this location. IMPO ATP includes proposed bike facilities and Indy Moves shows a proposed multi-use path. Near transit stop on south side.

CROSSING SECTION

FACING SOUTH



CROSSING IMAGES


Facing South


Facing Southeast


Facing North


Drainage Area

Pedestrian facilities are appropriate for the level of existing connections to the local grid. Bike facilities could potentially be appropriate for those commuting to Martin University.

PEDESTRIAN CROSSING INVENTORY | 70 E SPOKE EMERSON AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 6
Approximate lane width: 13'
Traffic Flow: Two-way
Curbs: No

LAND USE CONNECTIONS:

North: Residential, Industrial
South: Residential, Industrial

NOTABLE CONNECTIONS:

Pogues Run and
Pogues Run Art and Nature Park

PEDESTRIAN FACILITIES:

No pedestrian facilities

BICYCLE FACILITIES:

No dedicated bicycle facilities

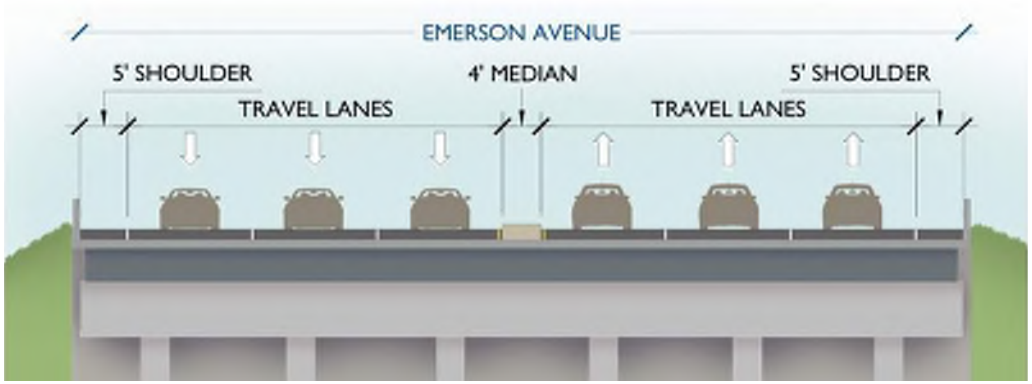
EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On street bicycle facilities would be appropriate at this location. Indy Moves includes additional pedestrian facilities

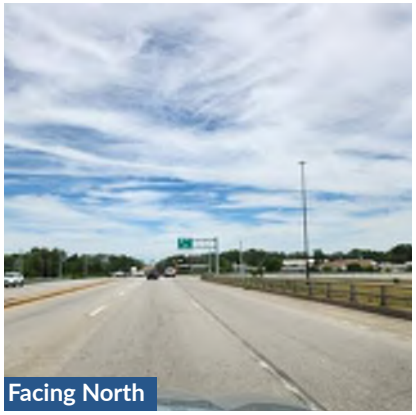
CROSSING SECTION

FACING SOUTH

SCALE: 1"=20'
0 5 10 20



CROSSING IMAGES


Facing North


Facing North


Facing South


Facing North

There are residential neighborhoods both north and south that would warrant pedestrian connection facilities at this crossing. Traffic is heavy and fast, but Indy Moves recommends proposed walking facilities.

PEDESTRIAN CROSSING INVENTORY | 70 E SPOKE RITTER AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 2
Approximate lane width: 10-15'
Traffic Flow: Two-way
Curbs: No

LAND USE CONNECTIONS:

North: Residential, Industrial
South: Residential, Industrial, Commercial

NOTABLE CONNECTIONS:

None

PEDESTRIAN FACILITIES:

No pedestrian facilities

BICYCLE FACILITIES:

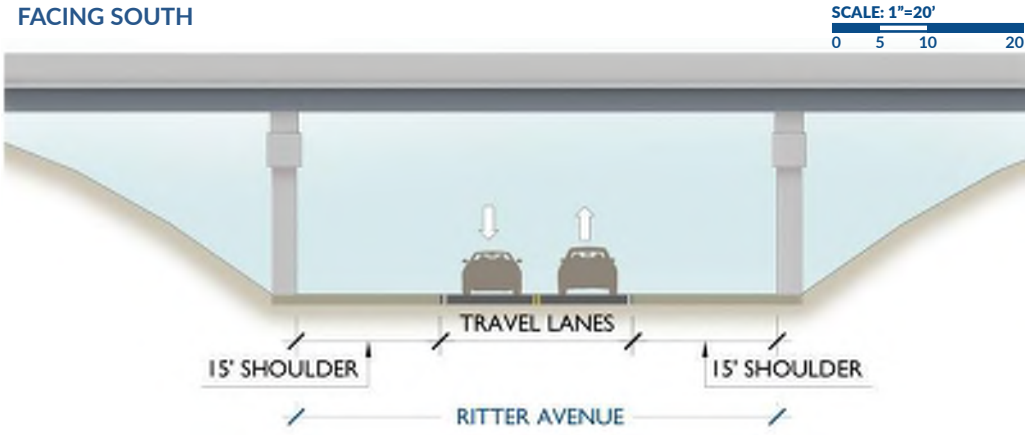
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bicycle facilities could be appropriate at this crossing. IMPO includes proposed bike facilities and Indy Moves includes multi-use path.

CROSSING SECTION

FACING SOUTH



CROSSING IMAGES


Facing North


Facing South


End of Sidewalk Facing North


Facing North

There are sidewalks beyond the crossing on the west side of Ritter Avenue but they do not continue under the overpass. This provides an opportunity for an easy connection into the existing pedestrian facilities.

PEDESTRIAN CROSSING INVENTORY | 70 E SPOKE ARLINGTON AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

APPROPRIATE

Pedestrian improvements appropriate, limited improvements needed.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 4
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: No

LAND USE CONNECTIONS:

North: Residential, Industrial
South: Residential, Commercial

NOTABLE CONNECTIONS:

Bus stops on both sides of I-70

PEDESTRIAN FACILITIES:

Sidewalks (both sides)
Lighting on median
Extended concrete under bridge

BICYCLE FACILITIES:

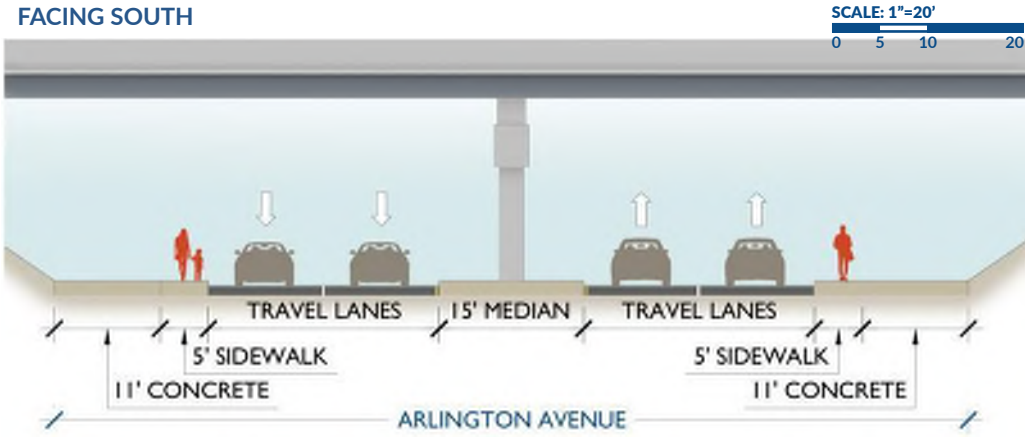
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On-street bicycle facilities could be appropriate at this crossing. IMPO includes proposed bike facilities.

CROSSING SECTION

FACING SOUTH



CROSSING IMAGES


Facing North


Facing North


Facing South


Facing South

There are opportunities to maintain existing sidewalks. The sidewalks provide an important connection to the bus stops on either side of I-70. Bike facilities would be appropriate as IMPO and Indy Moves shows proposed bike facilities.

PEDESTRIAN CROSSING INVENTORY | 70 E SPOKE SHADELAND AVENUE

CROSSING DATA

OVERALL EVALUATION OF PEDESTRIAN FACILITIES:

NOT EXISTING

No pedestrian facilities on local streets.

ROAD INFO:

Type of crossing: Underpass
Total lanes of traffic: 9
Approximate lane width: 12'
Traffic Flow: Two-way
Curbs: Yes

LAND USE CONNECTIONS:

North: Industrial
South: Commercial

NOTABLE CONNECTIONS:

Multiple Hotels, Culver's

PEDESTRIAN FACILITIES:

No pedestrian facilities

BICYCLE FACILITIES:

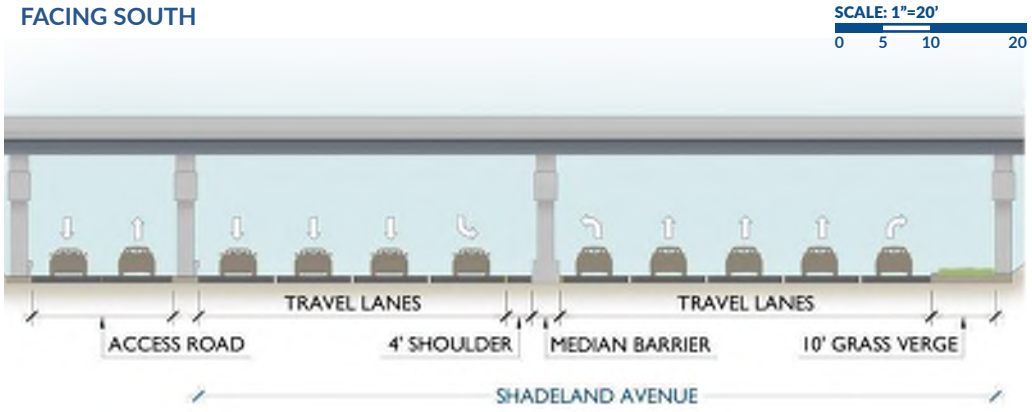
No dedicated bicycle facilities

EVALUATION OF FACILITIES AND PLANNED FACILITIES:

On street bicycle facilities would be appropriate at this location. IMPO ATP includes proposed bike facilities.

CROSSING SECTION

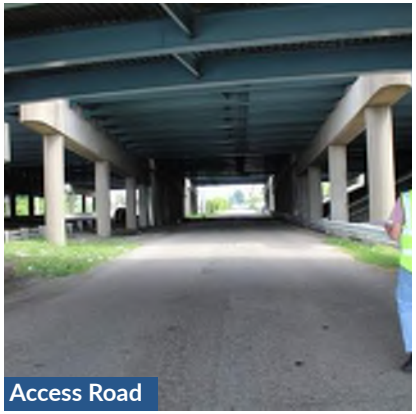
FACING SOUTH



CROSSING IMAGES


Facing South


Facing North


Access Road

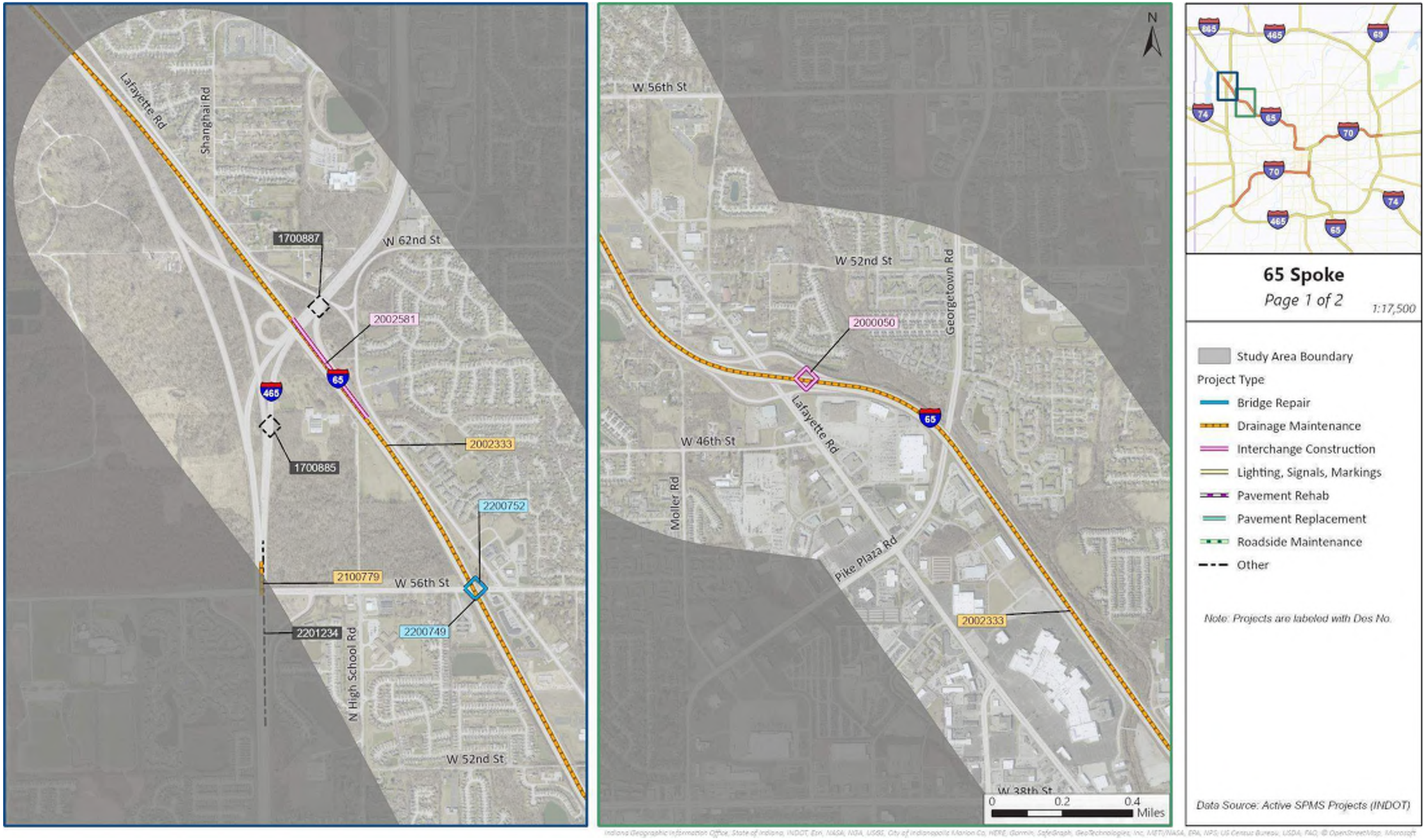

Facing North

There are unofficial walking paths formed by people repeatedly walking off the pavement along the hotel access road (Shadeland Road). This path indicates that pedestrians are favoring a less dangerous route. Traffic is heavy and fast on Shadeland Avenue especially when I-465 is backed up.

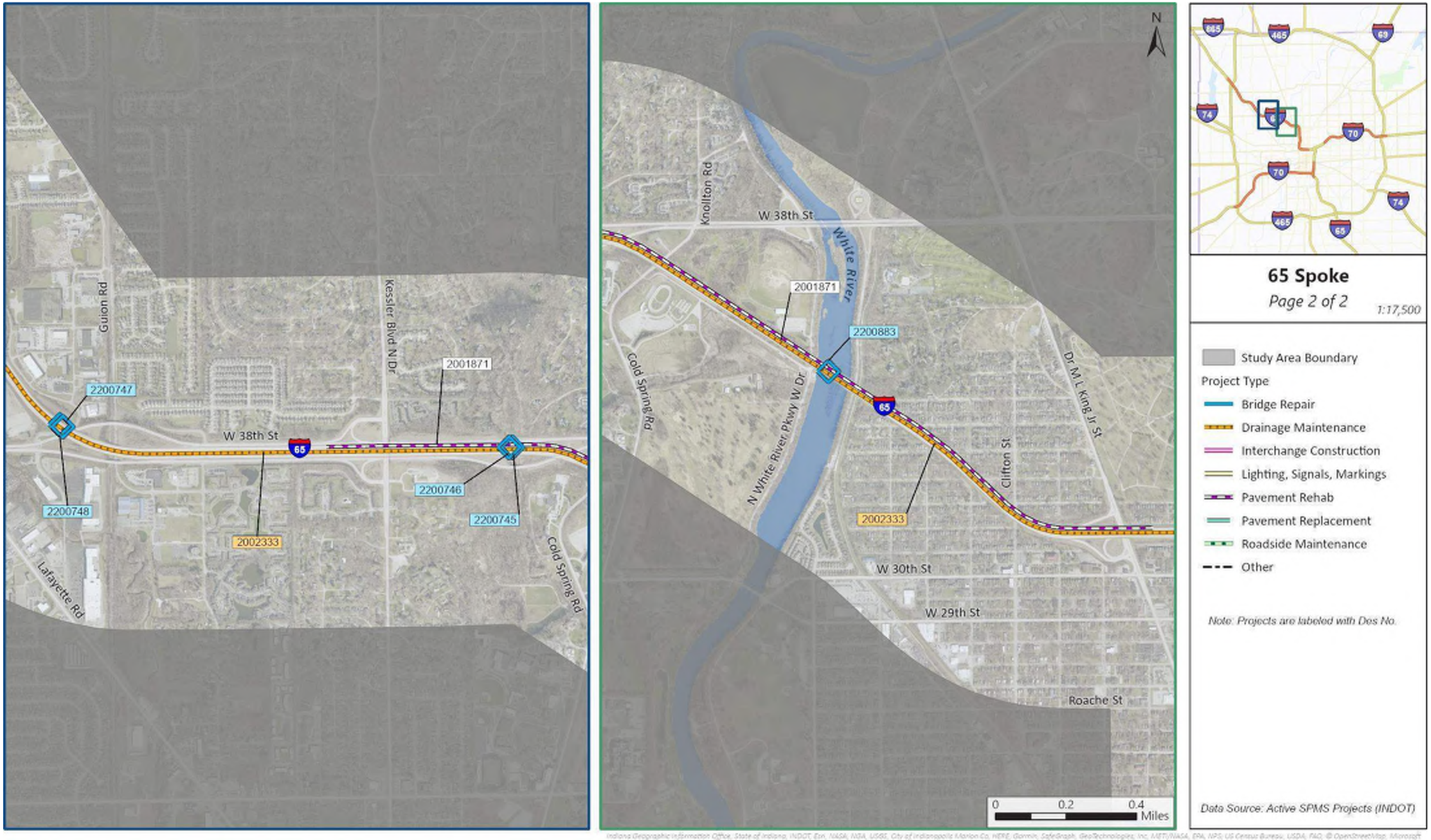
APPENDIX E: STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM (STIP)

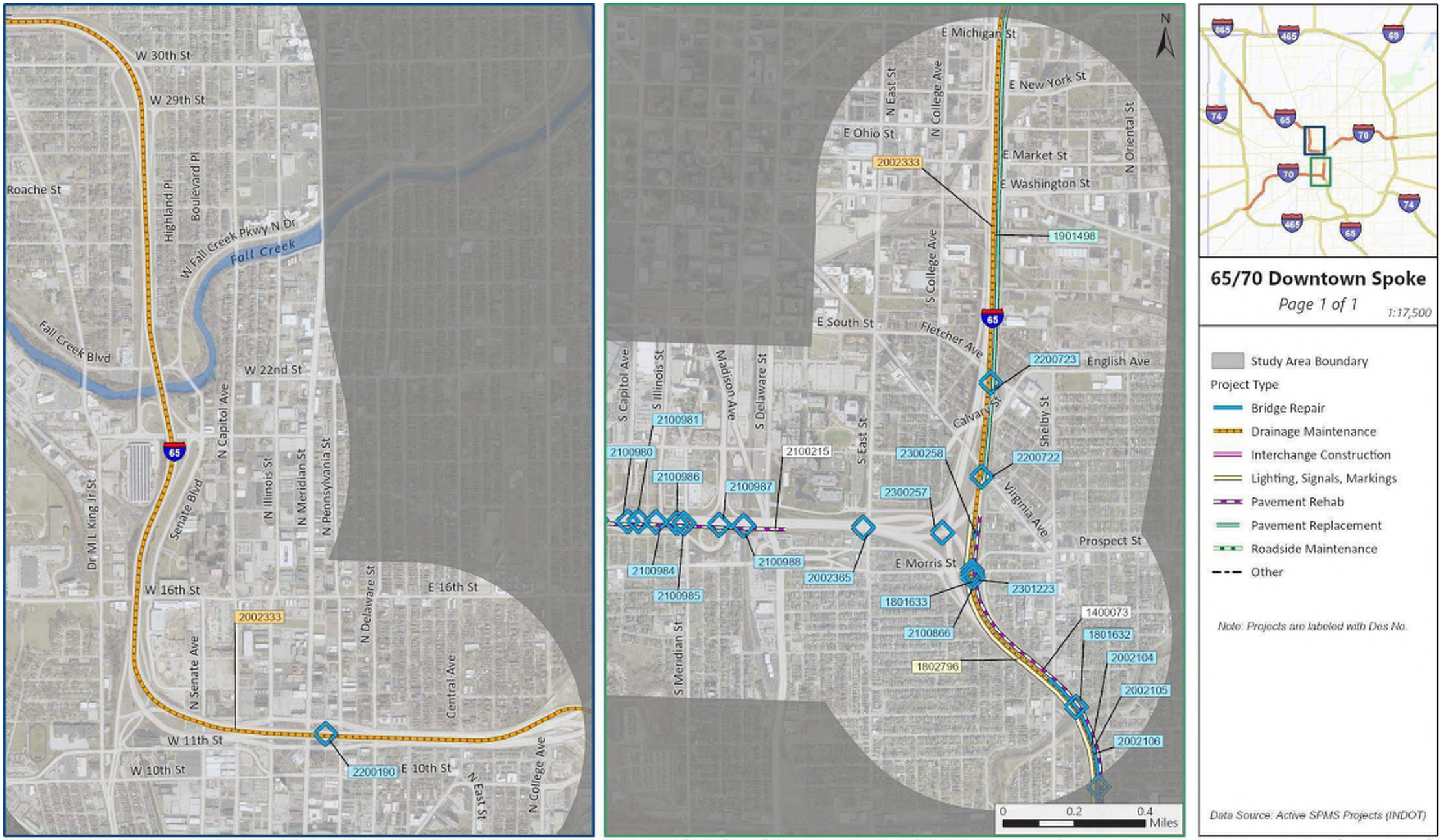
Spoke	Des. No.	Secondary Des. No.	Work Type	STIP 5-Year
Downtown Spoke	1400073	1702287, 1702288, 1801630, 1801631, 1801632, 1801633, 1801763, 1801766, 1801767, 1801768, 1801769, 1801770, 1802792, 1802796, 1802797, 1900410, 1901498, 2002091, 2002092, 2002093, 2002094, 2002095, 2002096, 2002097, 2002098, 2002099, 2002101, 2002102, 2002103, 2002104, 2002105, 2002106, 2002371, 2100866	Added Travel Lanes	STIP 2024-2028
Downtown Spoke	2301223		Morris/Prospect Bridge Rehabilitation over I-65 SB and I-70 EB to I-65 SB ramp	STIP 2024-2028
Downtown Spoke	2200723		Bridge Deck Replacement	STIP 2024-2028
Downtown Spoke	2200722		Bridge Repair on Fletcher Ave over I-65	STIP 2024-2028
Downtown Spoke	2200723		Bridge Repair on Fletcher Ave over I-66	STIP 2024-2028
I-65N	2200745	2200746, 2200747, 2200748, 2200749, 2200752	Bridge Deck Overlays on I-65 from Crooked Creek to 56th St	STIP 2024-2028
I-65N	2001871		Concrete Restoration on I-65, 4.17 mi N of I-70N jct (MLK Jr St) to 4.54 mi S of I-465 N leg (Kessler Blvd)	STIP 2024-2028
I-65N	2000050		Interchange Modification at Lafayette Rd	STIP 2024-2028
I-65N	2002331	2002333	District Drainage Project	STIP 2024-2028

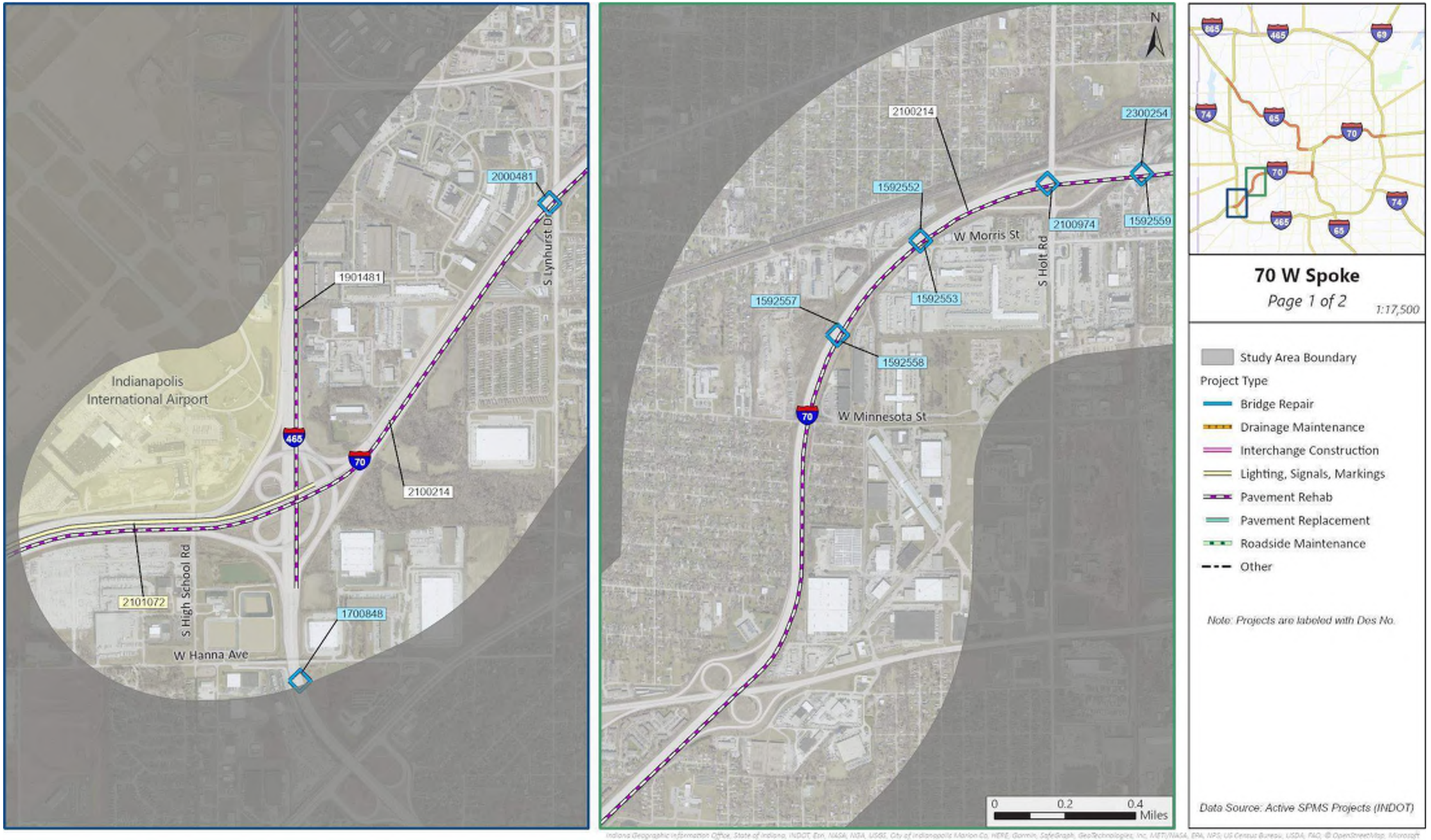
Spoke	Des. No.	Secondary Des. No.	Work Type	STIP 5-Year
I-70E	2001925	2200174	Concrete Pavement Restoration on I-465 from US 31 N to White River; Fall Creek to I-65	STIP 2024-2028
I-70E	2100778		I-70 Small Structure Project, 4.47 mi East of I-65 Split	STIP 2024-2028
I-70E	1800715		Signal Modernization at CSX crossing north of Rural St and Massachusetts Ave Intersection	STIP 2022-2026
I-70E	1901952		Bridge Repair Emerson Ave over Pogues Run 00.35 N I-70	STIP 2024-2028
I-70W	2100214	2100215, 1592551, 1592553, 1592554, 1592555, 1592556, 1800490, 2100974, 2100975, 2100976, 2100977, 2100978, 2100979, 2100980, 2100981, 2100982, 2100983, 2100984, 2100985, 2100986, 2100987, 2100988, 1800489	I-70 Concrete Pavement Restoration Work with Bridge Work From RP 72 to RP 78	STIP 2024-2028
I-70W	2101072		I-70 Fiber Optic Replacement from 2.5 east of SR 267 to I-465 (West Leg)	STIP 2024-2028
I-70W	1901481	1700848	District Pavement Project with 16 Bridge Thin Deck overlays	STIP 2024-2028
I-70W	2300197		Bridge Over Tibbs Ave, 3.9 mi W of I-65	STIP 2024-2028
I-70W	2300255		EB Bridge Repair Over Warman Ave, 3.37 mi W of I-65	STIP 2024-2028
I-70W	2300256		WB Bridge Repair Over Warman Ave, 3.37 mi W of I-65	STIP 2024-2028

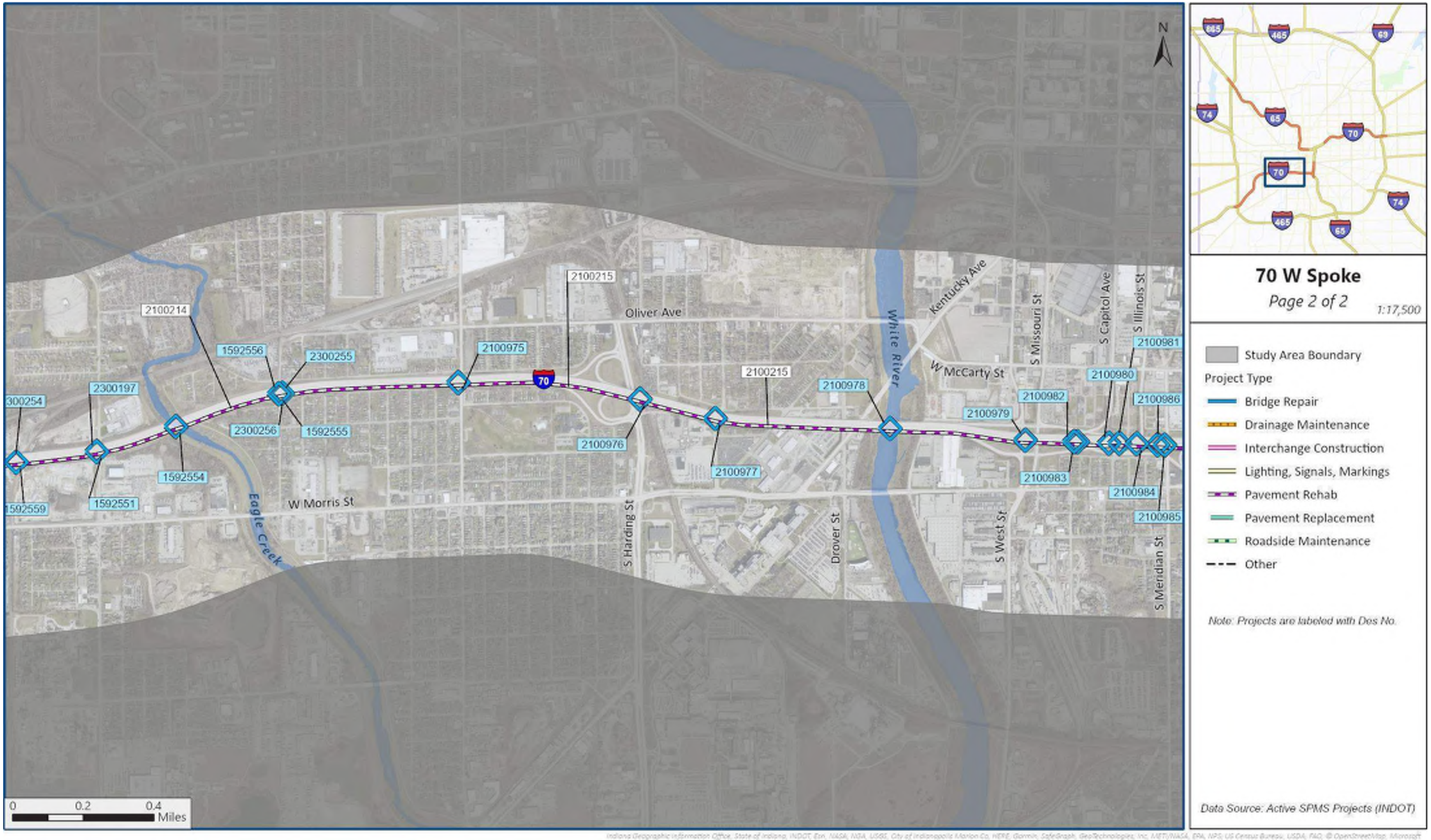


Indiana Geographic Information Office, State of Indiana, INDOT, Esri, NASA, NGA, USGS, City of Indianapolis Marion Co, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, FAO, © OpenStreetMap, Microsoft

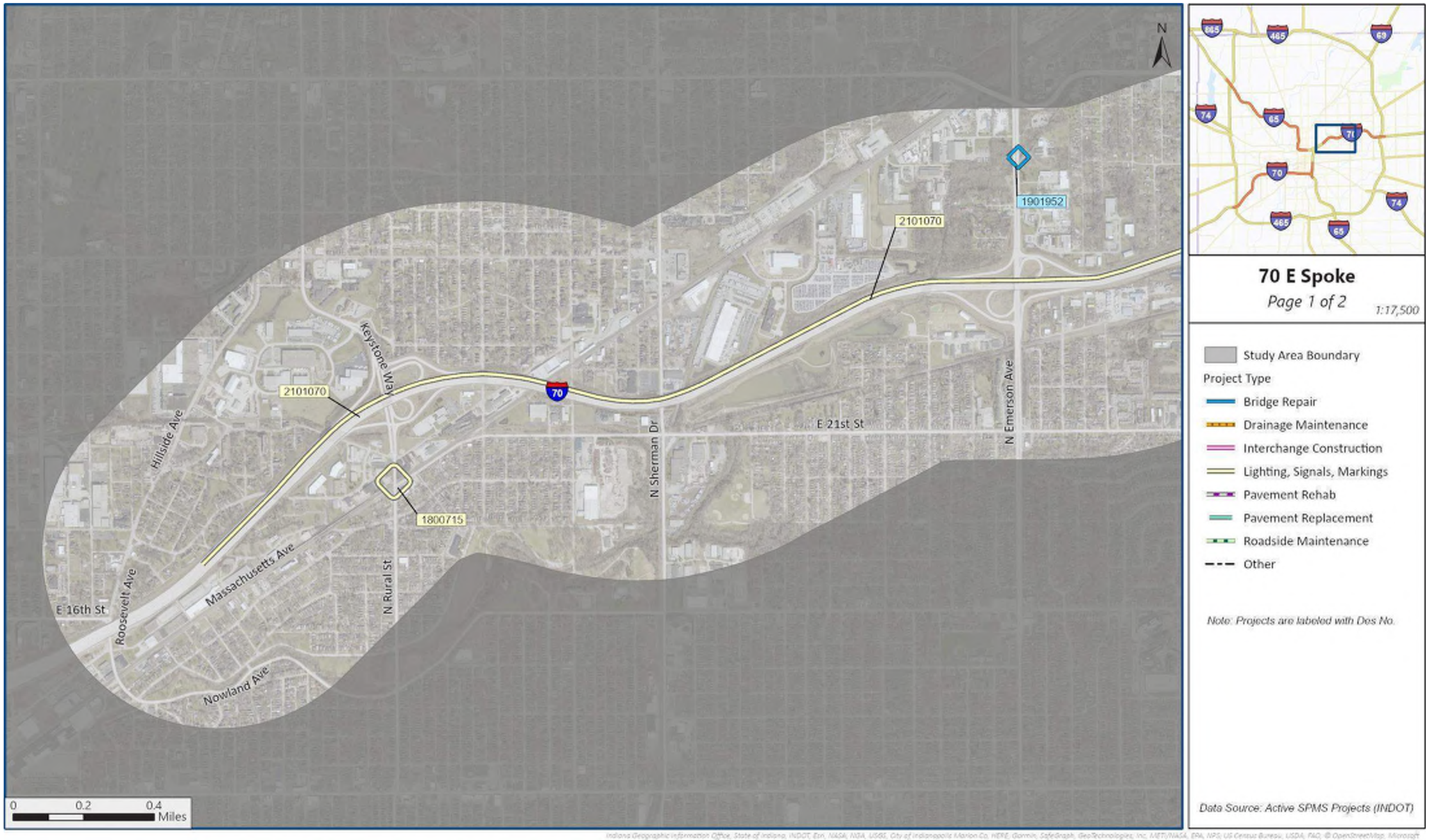

Guion Rd
Kessler Blvd N Dr
W 38th St
2200747
2001871
2200748
2200746
2200745
2002333
Lafayette Rd
Cold Spring Rd
Knollton Rd
White River
Cold Spring Rd
N White River Pkwy W Dr
Clifton St
Dr M L King Jr St
W 30th St
W 29th St
Roache St
0
0.2
0.4
Miles
65 Spoke
Page 2 of 2
1:17,500
Study Area Boundary
Project Type
Bridge Repair
Drainage Maintenance
Interchange Construction
Lighting, Signals, Markings
Pavement Rehab
Pavement Replacement
Roadside Maintenance
Other
Note: Projects are labeled with Des No.
Data Source: Active SPMS Projects (INDOT)


W 30th St
W 29th St
Roache St
Highland Pl
Boulevard Pl
W Fall Creek Pkwy N Dr
Fall Creek
Fall Creek Blvd
W 22nd St
N Capitol Ave
N Illinois St
N Meridian St
N Pennsylvania St
Dr M L King Jr St
Senate Blvd
W 16th St
E 16th St
2002333
N Delaware St
N Senate Ave
Central Ave
W 11th St
W 10th St
2200190
E 10th St
N East St
N College Ave
E Michigan St
N East St
N College Ave
E New York St
E Ohio St
E Market St
N Oriental St
2002333
E Washington St
1901498
S College Ave
E South St
Fletcher Ave
2200723
English Ave
S Capitol Ave
S Illinois St
Madison Ave
S Delaware St
2100981
2100980
2100986
2100987
2100215
S East St
Calvary St
Shelby St
2300258
2200722
2300257
Virginia Ave
Prospect St
2100988
2100984
2100985
2002365
E Morris St
2301223
1801633
1400073
1801632
2100866
2002104
1802796
2002105
2002106
S Meridian St
N
0
0.2
0.4
Miles
Indiana Geographic Information Office, State of Indiana, INDOT, Esri, NASA, NGA, USGS, City of Indianapolis Marion Co, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, FAO, © OpenStreetMap, Microsoft
65/70 Downtown Spoke
Page 1 of 1
1:17,500
Study Area Boundary
Project Type
Bridge Repair
Drainage Maintenance
Interchange Construction
Lighting, Signals, Markings
Pavement Rehab
Pavement Replacement
Roadside Maintenance
Other
Note: Projects are labeled with Des No.
Data Source: Active SPMS Projects (INDOT)

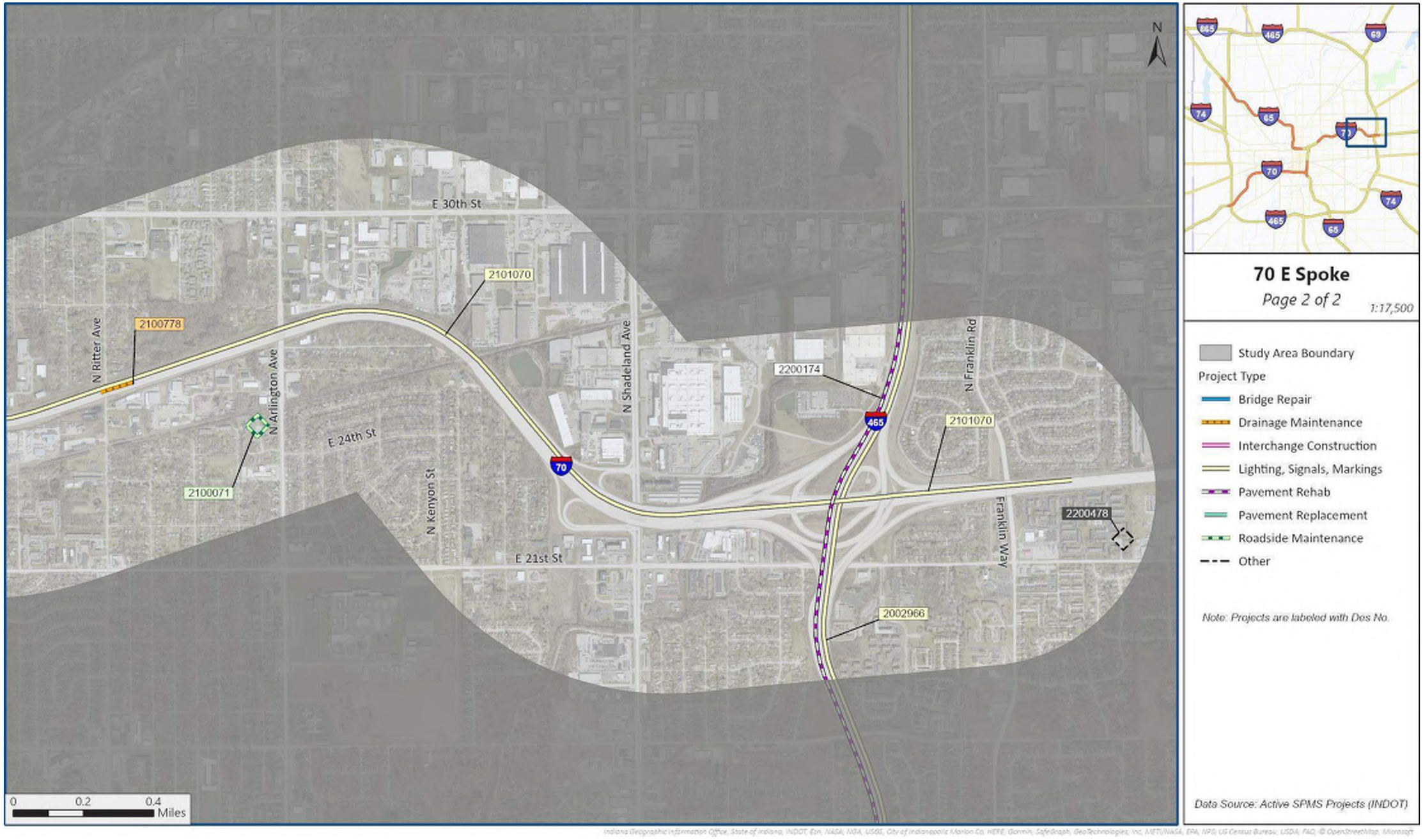

2000481
1901481
Indianapolis
International Airport
S Lynhurst Dr
465
70
2100214
S High School Rd
2101072
1700848
W Hanna Ave
N
2100214
2300254
1592552
2100974
1592559
W Morris St
S Holt Rd
1592553
1592557
1592558
70
W Minnesota St
0
0.2
0.4
Miles
Indiana Geographic Information Office, State of Indiana, INDOT, Esri, NASA, NGA, USGS, City of Indianapolis Marion Co, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, FAO, © OpenStreetMap, Microsoft
465
69
74
65
70
70
74
465
69
70 W Spoke
Page 1 of 2
1:17,500
Study Area Boundary
Project Type
Bridge Repair
Drainage Maintenance
Interchange Construction
Lighting, Signals, Markings
Pavement Rehab
Pavement Replacement
Roadside Maintenance
Other
Note: Projects are labeled with Des No.
Data Source: Active SPMS Projects (INDOT)



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APPENDIX F: ASSET DATA

PAVEMENT ASSET DATA[1]

PK	Route	Pvmt Area (sys)	Lanes	PM Count	Functional Age	Structural Age	Overall PQI	HMA PQI	Concrete PQI	HMA IRI	HMA Cracking	HMA Rut	Concrete IRI	Concrete Cracking	Concrete Faulting	Planned Treatment	Planned Year
30411	I-70	645,240	8	1	2	14	83.9	71.1	84.2	128	0%	0.08	97	1%	0.00	PM	2030-2039
30410	I-70	63,350	5	0	26	26	86.1	98.2	68.7	67	3%	0.06	98	10%	0.02	PM	2040-2049
30409	I-70	33,400	4	1	3	26	98.9	99.7	59.1	63	1%	0.06	151	0%	0.00	PM	2020-2029
30248	I-70	138,521	6	3	2	26	74.7	-	74.7	-	-	-	120	0%	0.00	PM	2020-2029
30247	I-70	320,313	6	2	2	28	98.2	72.2	99.9	125	0%	0.08	55	0%	0.00	PM	2020-2029
30235	I-65	362,251	6	0	3	21	98.1	98.9	86.3	43	2%	0.06	84	6%	0.00	PM	2030-2039
30234	I-65	167,806	6	2	3	51	65.2	-	65.2	-	-	-	116	7%	0.02	PM	2030-2039
30233	I-65	158,700	6	1	5	27	93.4	96.4	81.6	70	6%	0.08	97	4%	0.00	-	2020-2029
30232	I-65	111,817	6	1	6	30	54.3	56.5	50	130	23%	0.09	161	4%	0.00	-	2030-2039
30231	I-65	77,113	7	2	3	48	41.9	-	41.9	-	-	-	41.9	14%	0.04	PM	2040-2049
30231	I-65									-	-	-					2020-2029
30230	I-65	85,664	7	1	3	8	91.2	98.3	84.2	73	1%	0.09	94	3%	0.00	PM	2030-2039

Notes:

1. Asset data provided by INDOT. Planned year amended to match data provided on INDOT Next Level Roads Website (https://entapps.indot.in.gov/dotmaps/nlri/)
2. * No values were provided for this segment (I-65/70 from Washington Street to Calvary). This pavement is scheduled to be replaced in 2026.

BRIDGE ASSET DATA

NBI No.	Bridge File No.	Asset Type	Location	Spoke	Year Built	Condition Ratings			Forecasted Work									Next Major Forecasted Work	
						Super	Deck	Sub.	1st Thin Overlay	Rigid Overlay	Deck Replacement	2nd Thin Overlay	Super. Replacement	3rd Thin Overlay	Bridge Replacement	Deck Replacement	Super. Replacement	Year	Scope
036310	I65-110-05714 ASBL	Bridge		65/70 Dtwn	1973	7	6	6	1978	1988	-	-	-	-	2030	-	-	2030	Bridge Replacement
036320	I65-110-05713 ANBL	Bridge	I-65 NB over Morris & Prospect St	65/70 Dtwn	1973	5	6	6	1978	1988	-	-	-	-	2030	-	-	2026	Bridge Replacement
036330	I65-110-05715 B	Bridge	00.13 S I-70	65/70 Dtwn	1973	7	7	6	1978	1988	2015	2030	-	-	2055	2015	-	2055	Bridge Replacement
036340	I65-110-05719 ENBL	Bridge	Virginia Ave. over I-65	65/70 Dtwn	1973	6	6	6	1978	1988	-	-	-	-	2030	-	-	2026	Bridge Replacement
036350	I65-110-05720 DSBL	Bridge	I-65 SB Ramp 7 N-W, 00.18 N I-70	65/70 Dtwn	1973	6	5	6	1978	1988	-	-	-	-	2030	-	-	2030	Bridge Replacement
036360	I65-110-05722 BNBL	Bridge	I-65 NB , 00.29 N I-70	65/70 Dtwn	1973	6	6	6	1978	1988	-	-	-	-	2030	-	-	2030	Bridge Replacement
036370	I65-110-05721 BSBL	Bridge	I-65 SB, 00.29 N I-70	65/70 Dtwn	1973	6	6	6	1978	1988	-	-	-	-	2030	-	-	2030	Bridge Replacement
036380	I65-110-05723 A	Bridge	Fletcher Ave. over I-65	65/70 Dtwn	1973	7	5	6	1978	1988	-	-	-	-	2030	-	-	2030	Bridge Replacement
036390	I65-110-02427	Bridge		65/70 Dtwn	1973	N/A	N/A	N/A	1978	1988	-	-	2030	2040	2054	-	2030	2030	Super. Replacement
036400	I65-111-05724 A	Bridge	I-65 NB SB & SB CD, 00.66 N I-70	65/70 Dtwn	1973	7	6	6	1978	1988	-	-	-	-	2030	-	-	2030	Bridge Replacement
036410	I65-111-02428	Bridge		65/70 Dtwn	1973	N/A	N/A	N/A	1978	1988	-	-	2030	2040	2054	-	2030	2030	Super. Replacement
036420	I65-111-02429	Bridge		65/70 Dtwn	1973	N/A	N/A	N/A	1978	1988	-	-	2030	2040	2054	-	2030	2030	Super. Replacement
036660	I65-112-02419 C	Bridge	Bridge over 7 streets, Access road, Monorail from 6.88 miles to 7.46 miles west of I-70 and I-465	65/70 Dtwn	1972	6	5	6	1977	1987	-	-	-	-	2030	-	-	2026	Bridge Replacement
036670	I65-113-05669 BSBL	Bridge	I-65 Ramps (5670), 03.61 N I-70	65/70 Dtwn	1970	7	5	7	1975	1985	2030	2040	2050	2060	2070	2030	2050	2030	Deck Replacement
036680	I65-113-05670 B	Bridge	West St on Ramp to I-65 N, 03.61 N I-70	65/70 Dtwn	1970	7	6	7	1975	1985	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
036690	I65-113-05671 BNBL	Bridge	West St on Ramp, 03.65 N I-70	65/70 Dtwn	1970	7	5	7	1975	1985	2030	2040	2050	2060	2070	2030	2050	2030	Deck Replacement
036700	I65-113-05673 D	Bridge	16th Street, 03.69 N I-70	65/70 Dtwn	1969	7	6	7	1974	1984	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
036720	I65-114-05367 C	Bridge	21st Street, 04.16 N I-70	65/70 Dtwn	1968	7	7	7	1973	1983	2005	2030	2040	2050	2060	2005	2040	2040	Super. Replacement
036730	I65-114-05368 D	Bridge	Fall Cr, Parkway N, 04.33 N I-70	I-65	1968	6	7	6	1973	1983	2005	2030	-	-	2045	2005	-	2045	Bridge Replacement

NBI No.	Bridge File No.	Asset Type	Location	Spoke	Year Built	Condition Ratings			Forecasted Work									Next Major Forecasted Work	
						Super	Deck	Sub.	1st Thin Overlay	Rigid Overlay	Deck Replacement	2nd Thin Overlay	Super. Replacement	3rd Thin Overlay	Bridge Replacement	Deck Replacement	Super. Replacement	Year	Scope
036740	I65-114-05368 DRC	Bridge		I-65	1968	7	7	7	1973	1983	2005	2030	2040	2050	2060	2005	2040	2040	Super. Replacement
036750	I65-114-05974 D	Bridge	Pedestrian Walk, 04.59 N I-70	I-65	1969	6	6	7	1974	1984	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
036760	I65-114-05369 C	Bridge	26th Street, 04.78 N I-70	I-65	1968	7	7	7	1973	1983	2005	2030	2040	2050	2060	2005	2040	2040	Super. Replacement
036770	I65-115-05370 C	Bridge	29th Street, 05.09 N I-70	I-65	1968	7	7	7	1973	1983	2005	2030	2040	2050	2060	2005	2040	2040	Super. Replacement
036780	I65-115-05371 C	Bridge	West 30th Street, 05.22 N I-70	I-65	1968	7	7	6	1973	1983	2005	2030	-	-	2045	2005	-	2045	Bridge Replacement
036790	I65-115-04913 C	Bridge	Dr ML King Drive, 05.69 N I-70	I-65	1968	7	7	7	1973	1983	1996	2030	2040	2050	2060	1996	2040	2040	Super. Replacement
036800	I65-116-04914 D	Bridge	Clifton Street, 06.00 N I-70	I-65	1968	6	7	6	1973	1983	-	-	-	-	2030	-	-	2030	Bridge Replacement
036810	PI65-116-05940 A	Bridge	I-65 NB/SB, 06.23 S I-465	I-65	1969	7	7	6	1974	1984	-	-	-	-	2030	-	-	2030	Bridge Replacement
036820	I65-116-04915 D	Bridge	Bridge over White River, Canal, PKWYS, 5.94 mi S of I-465	I-65	1966	6	7	7	1971	1981	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
036830	I65-117-08314 A	Bridge	I-65, 05.36 S I-465	I-65	2000	7	7	8	2005	2030	-	-	2055	2065	2075	-	2055	2055	Super. Replacement
036840	I65-117-08315	Bridge		I-65	2000	7	8	8	2005	2030	-	-	2055	2065	2075	-	2055	2055	Super. Replacement
036850	I65-117-04838 CNBL	Bridge	Bridge over Crooked Creek, 5.05 mi S of I-465	I-65	1964	7	7	7	1969	1979	1996	2030	-	-	2039	1996	-	2039	Bridge Replacement
036860	I65-117-04838 JDSB	Bridge	Crooked Creek, 05.05 S I-465	I-65	1964	6	7	7	1969	1979	1996	2030	-	-	2039	1996	-	2039	Bridge Replacement
036870	I65-118-04839 D	Bridge	I-65 NB/SB 38th Str E/W, 04.70 S I-465	I-65	1964	6	6	5	1969	1979	-	-	-	-	2030	-	-	2030	Bridge Replacement
036880	I65-118-02313 CNBL	Bridge	CSX RR, Guion Road, 03.93 S I-465	I-65	1964	7	7	7	1969	1979	2000	2030	2040	2050	2060	2000	2040	2040	Super. Replacement
036890	I65-118-02313 JCSB	Bridge	CSX RR, Guion Road, 03.93 S I-465	I-65	1964	7	6	7	1969	1979	2000	2030	2040	2050	2060	2000	2040	2040	Super. Replacement
036900	I65-118-04840 BNBL	Bridge	38th St Industr Blvd, 03.80 S I-465	I-65	1964	7	7	7	1969	1979	2000	2030	2040	2050	2060	2000	2040	2040	Super. Replacement
036910	I65-118-04840 JBSB	Bridge	38th St Industr Blvd, 03.80 S I-465	I-65	1964	7	7	7	1969	1979	2000	2030	2040	2050	2060	2000	2040	2040	Super. Replacement
036920	I65-119-04841 CNBL	Bridge	Little Eagle Creek, 03.49 S I-465	I-65	1963	7	7	7	1968	1978	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
036930	I65-119-04841 CSBL	Bridge	Little Eagle Creek, 03.49 S I-465	I-65	1963	7	7	7	1968	1978	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
036940	I65-120-06016 B	Bridge	I-65 Little Eagle Creek, 02.56 S I-465	I-65	1969	8	7	7	1974	1984	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
036950	I65-120-04842 CNBL	Bridge	Lafayette Road, 02.00 S I-465	I-65	1963	7	7	7	1968	1978	-	-	2030	2040	2050	-	2030	2030	Super. Replacement

NBI No.	Bridge File No.	Asset Type	Location	Spoke	Year Built	Condition Ratings			Forecasted Work									Next Major Forecasted Work	
						Super	Deck	Sub.	1st Thin Overlay	Rigid Overlay	Deck Replacement	2nd Thin Overlay	Super. Replacement	3rd Thin Overlay	Bridge Replacement	Deck Replacement	Super. Replacement	Year	Scope
036960	I65-120-04842 CSBL	Bridge	Lafayette Road, 02.00 S I-465	I-65	1963	7	7	7	1968	1978	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
036970	I65-121-04843 D	Bridge	I-65, 01.47 S I-465	I-65	1962	7	7	7	1967	1977	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
036980	I65-122-04844 BNBL	Bridge	West 56th Street, 00.91 S I-465	I-65	1963	7	7	7	1968	1978	2000	2030	-	-	2040	2000	-	2040	Bridge Replacement
036990	I65-122-04844 BSBL	Bridge	West 56th Street, 00.91 S I-465	I-65	1963	7	7	7	1968	1978	2000	2030	-	-	2040	2000	-	2040	Bridge Replacement
037000	I65-122-04569 DNBL	Bridge	I-465, 07.16 S SR 334	I-65	1959	7	7	7	1964	1974	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
037010	I65-122-04569 JDSB	Bridge	I-465, 07.16 S SR 334	I-65	1959	7	7	7	1964	1974	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
037020	(I65)I465-145-04567 DSBL	Bridge	I-65 NB Connector, 00.26 N I-465	I-65	1959	7	7	7	1964	1974	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
041980	I70-072-08533 A	Bridge		I-70 W	2004	8	8	7	2009	2030	-	-	2059	2069	2079	-	2059	2059	Super. Replacement
042018	I70-074-08458	Bridge	Mars Ditch, 01.08 E I-465	I-70 W	1994	N/A	N/A	N/A	1999	2009	-	-	2049	2059	2069	-	2049	2049	Super. Replacement
042020	I70-074-05231 B	Bridge	Bridge over I-70, 01.18 E I-465	I-70 W	1967	7	7	7	1972	1982	2017	2030	2040	2050	2060	2017	2040	2040	Super. Replacement
042030	I70-074-05232 C	Bridge		I-70 W	1967	7	7	6	1972	1982	-	-	-	-	2030	-	-	2030	Bridge Replacement
042040	I70-075-05233 DEBL	Bridge	I-70 EB Minnesota St, 02.62 E I-465	I-70 W	1967	7	7	6	1972	1982	-	-	-	-	2030	-	-	2030	Bridge Replacement
042050	I70-075-05233 CWBL	Bridge	I-70 WB Minnesota St, 02.62 E I-465	I-70 W	1967	7	7	7	1972	1982	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042060	I70-075-02374 CEBL	Bridge	I 70 EB over CSX RR Spur 2.84 mi E of I-465	I-70 W	1967	7	7	7	1972	1982	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042070	I70-075-02374 CWBL	Bridge	I 70 WB over CSX RR Spur 2.84 mi E of I-465	I-70 W	1967	7	7	7	1972	1982	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042080	I70-076-05234 CEBL	Bridge	I 70 EB over Morris Street 3.21 miles E of I-465	I-70 W	1967	7	7	7	1972	1982	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042090	I70-076-05234 JCWB	Bridge	I 70 WB over Morris Street 3.21 mi E of I-465	I-70 W	1967	7	7	7	1972	1982	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042100	I70-076-05235 C	Bridge	I 70 HOLT ROAD, I-70 EB/WB, 3.63 MI E I-465	I-70 W	1967	6	6	7	1972	1982	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042110	I70-076-02376 C	Bridge	I 70 Over CSX Wye Tracks, 3.88 miles E of I-465	I-70 W	1967	7	7	6	1972	1982	-	-	-	-	2030	-	-	2026	Bridge Replacement

NBI No.	Bridge File No.	Asset Type	Location	Spoke	Year Built	Condition Ratings			Forecasted Work									Next Major Forecasted Work	
						Super	Deck	Sub.	1st Thin Overlay	Rigid Overlay	Deck Replacement	2nd Thin Overlay	Super. Replacement	3rd Thin Overlay	Bridge Replacement	Deck Replacement	Super. Replacement	Year	Scope
042120	I70-077-05391 C	Bridge	I 70 4.10 mi E of I-465 over Tibbs Avenue	I-70 W	1967	7	6	7	1972	1982	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042130	I70-077-05392 C	Bridge	I 70 Over Big Eagle Creek, 3.67 miles W of I-65	I-70 W	1967	7	7	7	1972	1982	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042140	I70-077-05393 BEBL	Bridge	I 70 EB over Warman Avenue, 4.63 mi E of I-465	I-70 W	1967	6	7	7	1972	1982	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042150	I70-077-05393 BWBL	Bridge	I 70 WB over Warman Avenue 4.63 mi E of I-465	I-70 W	1967	6	7	7	1972	1982	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042160	I70-078-05394 B	Bridge	I 70 I-70, BELMONT AVENUE 2.87 MI W I-65	I-70 W	1967	6	7	7	1972	1982	1995	2030	2040	2050	2060	1995	2040	2040	Super. Replacement
042170	I70-078-02385 B	Bridge	I 70 I-70, HARDING STREET, CSX RR, 2.36 MI W I-65	I-70 W	1975	5	7	6	1980	1990	-	-	-	-	2030	-	-	2030	Bridge Replacement
042180	I70-078-05395 A	Bridge	I 70 BRIDGE OVER DIVISION STREET, 2.13 MI W I-65	I-70 W	1973	6	6	6	1978	1988	-	-	-	-	2030	-	-	2030	Bridge Replacement
042190	I70-079-02420 F	Bridge	I 70 01.72 W I-65	I-70 W	1972	6	6	6	1977	1987	-	-	-	-	2030	-	-	2026	Bridge Replacement
042210	I70-079-02416 B	Bridge	I 70 I-70, WEST, MISSOURI STS, 1.31 MI W I-65	I-65/I-70 Downtown	1973	7	6	6	1978	1988	-	-	-	-	2030	-	-	2030	Bridge Replacement
042215	I70-079-06580 C	Bridge	I 70 00.97 W I-65	I-65/I-70 Downtown	1975	6	6	6	1980	1990	-	-	-	-	2030	-	-	2030	Bridge Replacement
042220	I70-079-06581 B	Bridge	I 70 01.16 W I-65	I-65/I-70 Downtown	1975	6	7	7	1980	1990	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042230	I70-079-05643 A	Bridge	I 70 I-70 WB ON RAMP, I-70 WB EXIT RAMP 1.25 MI W I-65	I-65/I-70 Downtown	1973	7	6	6	1978	1988	-	-	-	-	2030	-	-	2030	Bridge Replacement
042240	I70-079-05644 A	Bridge	I 70 01.24 W I-65	I-65/I-70 Downtown	1973	7	6	7	1978	1988	-	-	-	-	2039	-	-	2039	Bridge Replacement
042250	I70-080-05645 B	Bridge	I 70 00.93 W I-65	I-65/I-70 Downtown	1968	6	6	6	1973	1983	-	-	-	-	2030	-	-	2030	Bridge Replacement
042260	I70-080-05646 E	Bridge	I 70 00.88 W I-65	I-65/I-70 Downtown	1973	5	7	7	1978	1988	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042270	I70-080-05647 A	Bridge	I 70 I-70 EXIT RAMP, MERIDIAN STREET 0.83 MI W I-65	I-65/I-70 Downtown	1970	7	6	7	1975	1985	-	-	-	-	2039	-	-	2039	Bridge Replacement
042280	I70-080-05648 B	Bridge	I 70 I-70, OFF/ON RAMPS, 0.77 MI W I-65	I-65/I-70 Downtown	1973	6	5	6	1978	1988	-	-	-	-	2030	-	-	2030	Bridge Replacement
042290	I70-080-02417 C	Bridge	I 70 00.65 W I-65	I-65/I-70 Downtown	1973	6	6	6	1978	1988	-	-	-	-	2030	-	-	2030	Bridge Replacement

NBI No.	Bridge File No.	Asset Type	Location	Spoke	Year Built	Condition Ratings			Forecasted Work									Next Major Forecasted Work	
						Super	Deck	Sub.	1st Thin Overlay	Rigid Overlay	Deck Replacement	2nd Thin Overlay	Super. Replacement	3rd Thin Overlay	Bridge Replacement	Deck Replacement	Super. Replacement	Year	Scope
042300	I70-080-05650 C	Bridge	East St. over I-70, 0.38 mi. W of I-65	I-65/I-70 Downtown	1973	8	7	7	1978	1988	2014	2030	2040	2050	2060	2014	2040	2040	Super. Replacement
042310	I70-080-05716 DEBL	Bridge	I 70 Bridge OVER I-65 SB, 00.15 miles W of I-65	I-65/I-70 Downtown	1973	6	9	6	1978	1988	2020	2030	-	-	2060	2020	-	2060	Bridge Replacement
042320	I70-080-05717 B	Bridge	I 65 Bridge OVER I-70 EB I-65 TRI-LEVEL, 00.00 JCT I-70	I-65/I-70 Downtown	1973	7	8	7	1978	1988	2015	2030	2040	2050	2060	2015	2040	2040	Super. Replacement
042450	I70-084-05703 EEBL	Bridge	Roosevelt Av @ Winter Av, 05.12 W I-465	I-70 E	1974	7	8	7	1979	1989	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042460	I70-084-05703 JDWB	Bridge	Roosevelt Av @ Winter Av, 05.12 W I-465	I-70 E	1974	7	8	7	1979	1989	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042470	I70-084-02423 EEBL	Bridge	Bloyd Avenue, CSX RR, 04.89 W I-465	I-70 E	1974	7	7	7	1979	1989	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042480	I70-084-02423 JDWB	Bridge	Bloyd Avenue, CSX RR, 04.89 W I-465	I-70 E	1974	7	8	7	1979	1989	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042490	I70-084-05704 CEBL	Bridge	Rural Street, 04.71 W I-465	I-70 E	1974	7	8	6	1979	1989	-	-	-	-	2030	-	-	2030	Bridge Replacement
042500	I70-084-05704 CWBL	Bridge	Rural Street, 04.71 W I-465	I-70 E	1974	7	8	6	1979	1989	-	-	-	-	2030	-	-	2030	Bridge Replacement
042510	I70-085-05705 CEBL	Bridge	Dearborn Street, 04.35 W I-465	I-70 E	1974	7	8	7	1979	1989	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042520	I70-085-05705 JCWB	Bridge	Dearborn Street, 04.35 W I-465	I-70 E	1974	7	7	7	1979	1989	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042530	I70-085-02424 DEBL	Bridge	2 City Streets, CSX RR, 04.25 W I-465	I-70 E	1974	7	7	7	1979	1989	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042540	I70-085-02424 JDWB	Bridge	2 City Streets, CSX RR, 04.25 W I-465	I-70 E	1974	7	7	7	1979	1989	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042550	I70-085-05706 CEBL	Bridge	Olney Street, 04.17 W I-465	I-70 E	1974	8	8	7	1979	1989	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042560	I70-085-05706 CWBL	Bridge	Olney Street, 04.17 W I-465	I-70 E	1974	7	8	7	1979	1989	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042570	I70-082-05773 A	Bridge	I-70, 03.93 W I-465	I-70 E	1973	6	6	5	1978	1988	-	-	-	-	2030	-	-	2030	Bridge Replacement
042590	I70-086-05707 DEBL	Bridge	Pogues Run, 03.10 W I-465	I-70 E	1969	8	8	7	1974	1984	-	-	2007	2020	2039	-	2007	2039	Bridge Replacement
042600	I70-086-05707 JDWB	Bridge	Pogues Run, 03.10 W I-465	I-70 E	1969	7	8	7	1974	1984	-	-	2007	2020	2039	-	2007	2039	Bridge Replacement

NBI No.	Bridge File No.	Asset Type	Location	Spoke	Year Built	Condition Ratings			Forecasted Work									Next Major Forecasted Work	
						Super	Deck	Sub.	1st Thin Overlay	Rigid Overlay	Deck Replacement	2nd Thin Overlay	Super. Replacement	3rd Thin Overlay	Bridge Replacement	Deck Replacement	Super. Replacement	Year	Scope
042610	I70-086-05708 B	Bridge	I-70 EB/WB 02.84 W I-465	I-70 E	1969	6	7	6	1974	1984	-	-	-	-	2030	-	-	2030	Bridge Replacement
042620	I70-087-05709 DEBL	Bridge	Ritter Avenue, 02.33 W I-465	I-70 E	1969	7	8	7	1974	1984	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042625	I70-087-05709 DWBL	Bridge	Ritter Avenue, 02.33 W I-465	I-70 E	1969	7	8	7	1974	1984	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042630	I70-087-05710 DEBL	Bridge	Arlington Avenue, 01.81 W I-465	I-70 E	1969	7	7	7	1974	1984	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042640	I70-087-05710 JDWB	Bridge	Arlington Avenue, 01.81 W I-465	I-70 E	1969	7	7	7	1974	1984	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042650	I70-088-02426 DEBL	Bridge	CSX RR, 01.25 W I-465	I-70 E	1969	7	7	7	1974	1984	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042660	I70-088-02426 JDWB	Bridge	CSX RR, 01.25 W I-465	I-70 E	1969	7	7	7	1974	1984	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042665	I70-088-05711 CDW	Bridge	Shadeland Ave & Rd, 00.57 W I-465	I-70 E	1990	7	7	7	1995	2005	-	-	2045	2055	2065	-	2045	2045	Super. Replacement
042670	I70-088-05711 DEBL	Bridge	Shadeland Ave & Rd, 00.57 W I-465	I-70 E	1967	7	7	7	1972	1982	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042680	I70-088-05711 JDWB	Bridge	Shadeland Ave & Rd, 00.57 W I-465	I-70 E	1967	7	8	7	1972	1982	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
042684	I70-088-05711 CDEA	Bridge	Shadeland Ave & Rd, 00.57 W I-465	I-70 E	1989	7	7	7	1994	2004	-	-	2044	2054	2064	-	2044	2044	Super. Replacement
042685	I70-088-05712 CDW	Bridge	Pleasant Run, 00.42 W I-465	I-70 E	1990	6	6	6	1995	2005	-	-	-	-	2030	-	-	2030	Bridge Replacement
042690	I70-088-05712 JDEB	Bridge	Pleasant Run, 00.42 W I-465	I-70 E	1967	8	8	7	1972	1982	-	-	2007	2020	2039	-	2007	2039	Bridge Replacement
042700	I70-088-05712 DWBL	Bridge	Pleasant Run, 00.42 W I-465	I-70 E	1967	8	8	7	1972	1982	-	-	2007	2020	2039	-	2007	2039	Bridge Replacement
042704	I70-088-05712 CDE	Bridge	Pleasant Run, 00.42 W I-465	I-70 E	1990	7	7	7	1995	2005	-	-	2045	2055	2065	-	2045	2045	Super. Replacement
042705	I70-088-07260 ADJ	Bridge	I-70 WB CD, 00.29 W I-465	I-70 E	1990	8	6	7	1995	2005	-	-	2045	2055	2065	-	2045	2045	Super. Replacement
042707	(I70)I465-117-08279 B	Bridge	I-70, I-70 WB CD, 00.13 W I-465	I-70 E	2002	7	7	7	2007	2031	-	-	2057	2067	2077	-	2057	2057	Super. Replacement
042710	(I465)I70-086-08278 AADJ	Bridge	I-70, 00.14 E I-465	I-70 E	2002	7	7	7	2007	2030	-	-	2057	2067	2077	-	2057	2057	Super. Replacement
042715	I70-089-06462 D	Bridge	I-70, 00.16 E I-465	I-70 E	1977	5	6	6	1982	1992	-	-	-	-	2030	-	-	2030	Bridge Replacement

NBI No.	Bridge File No.	Asset Type	Location	Spoke	Year Built	Condition Ratings			Forecasted Work									Next Major Forecasted Work	
						Super	Deck	Sub.	1st Thin Overlay	Rigid Overlay	Deck Replacement	2nd Thin Overlay	Super. Replacement	3rd Thin Overlay	Bridge Replacement	Deck Replacement	Super. Replacement	Year	Scope
050000	(I465)I70-086-08277 A	Bridge	I-465 NB/SB, 00.12 S of I-70	I-70 E	2002	8	7	8	2007	2030	-	-	2057	2067	2077	-	2057	2057	Super. Replacement
050010	I465-117-05552 JDNB	Bridge	I-70, WB Ramp, 02.39 S US 36 / SR 67	I-70 E	1966	7	8	7	1971	1981	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
050020	I465-117-05552 DSBL	Bridge	I-70, WB Ramp, 02.39 S US 36 / SR 67	I-70 E	1966	7	8	7	1971	1981	-	-	2030	2040	2050	-	2030	2030	Super. Replacement
050720	(I65)I465-145-04566 B	Bridge		I-65	1959	7	7	6	1964	1974	1994	2030	-	-	2034	1994	-	2034	Bridge Replacement
076620	I70-085-08773 A	Bridge	Sherman Drive, CSX, 03.91 W I-465	I-70 E	2007	8	8	7	2012	2030	-	-	2062	2072	2082	-	2062	2062	Super. Replacement
079628	I70-072-08323 A	Bridge	I-465 NB to I-70 WB, I-70 EB/WB I-465, 00.13 E I-465	I-70 W	2011	7	7	8	2016	2030	-	-	2066	2076	2086	-	2066	2066	Super. Replacement
079630	(I465)I70-073-08324 A	Bridge	Ramp I-70 EB to I-465 NB, I-465 NB/SB, Ramp, 00.13 S I-70	I-70 W	2011	8	8	8	2016	2030	-	-	2066	2076	2086	-	2066	2066	Super. Replacement
079634	I70-072-09219 AEBL	Bridge	I-70 EB I-465, Seerley Creek, 06.53 E SR 267	I-70 W	2011	8	8	8	2016	2030	-	-	2066	2076	2086	-	2066	2066	Super. Replacement
079636	I70-072-08851 AWBL	Bridge	I-70 WB I-465, Seerley Creek, 06.53 E SR 267	I-70 W	2011	8	8	8	2016	2030	-	-	2066	2076	2086	-	2066	2066	Super. Replacement
079648	I70-072-08852 AEBL	Bridge	Ramp I-70 EB to I-465, 00.08 E I-465	I-70 W	2011	8	8	8	2016	2030	-	-	2066	2076	2086	-	2066	2066	Super. Replacement
079650	I70-072-08853 AWBL	Bridge	Ramp I-70 EB to I-465, 00.08 E I-465	I-70 W	2011	8	8	8	2016	2030	-	-	2066	2076	2086	-	2066	2066	Super. Replacement

APPENDIX G: TRANSIT ROUTES

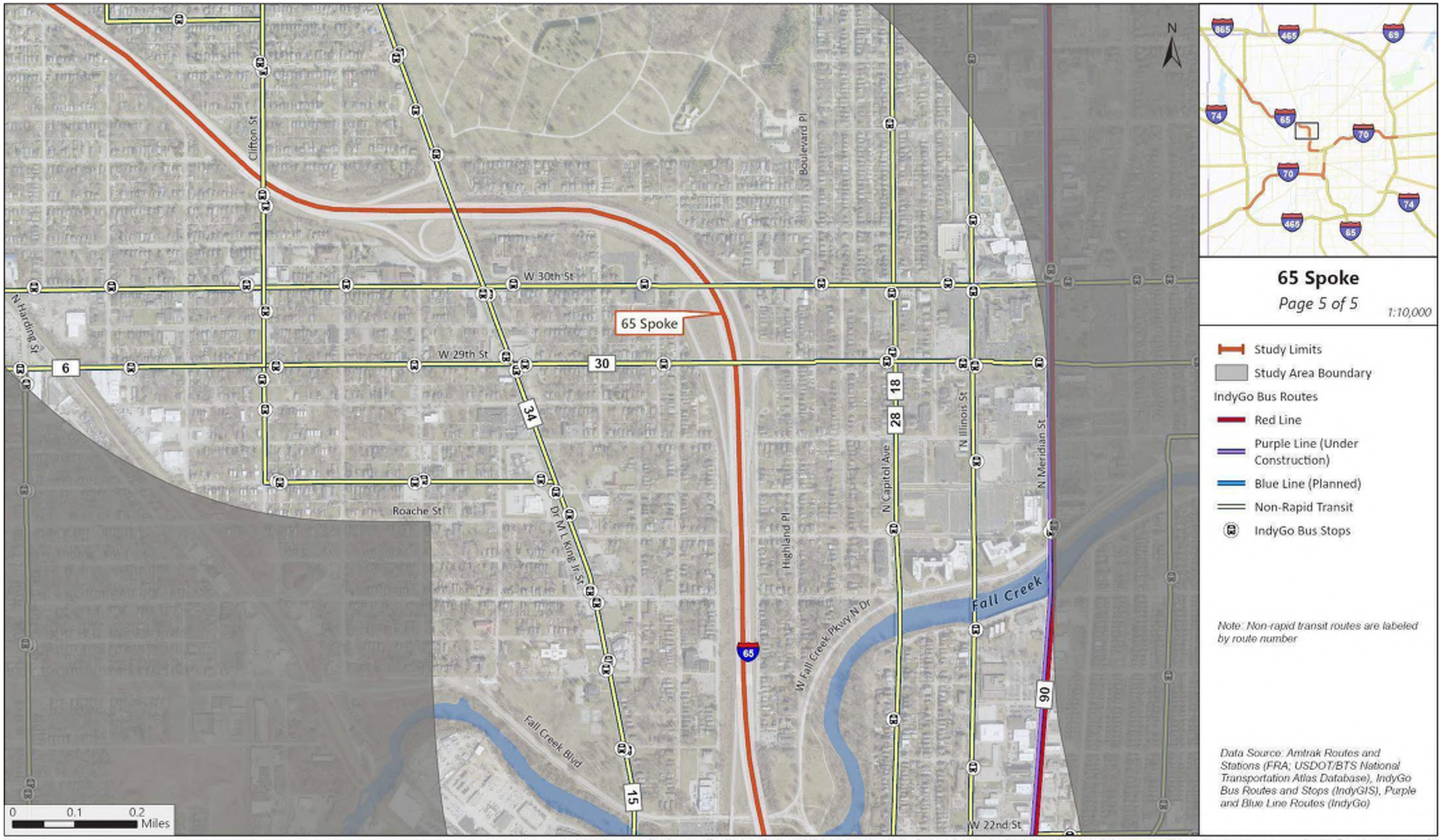

N
Lafayette Rd
Shanghai Rd
37
65
465
W 62nd St
N High School Rd
Lafayette Rd
65 Spoke
0 0.1 0.2 Miles
865
465
69
74
65
70
70
74
465
65
65 Spoke
Page 1 of 5
1:10,000
Study Limits
Study Area Boundary
IndyGo Bus Routes
Red Line
Purple Line (Under Construction)
Blue Line (Planned)
Non-Rapid Transit
IndyGo Bus Stops
Note: Non-rapid transit routes are labeled by route number
Data Source: Amtrak Routes and Stations (FRA; USDOT/BTS National Transportation Atlas Database), IndyGo Bus Routes and Stops (IndyGIS), Purple and Blue Line Routes (IndyGo)

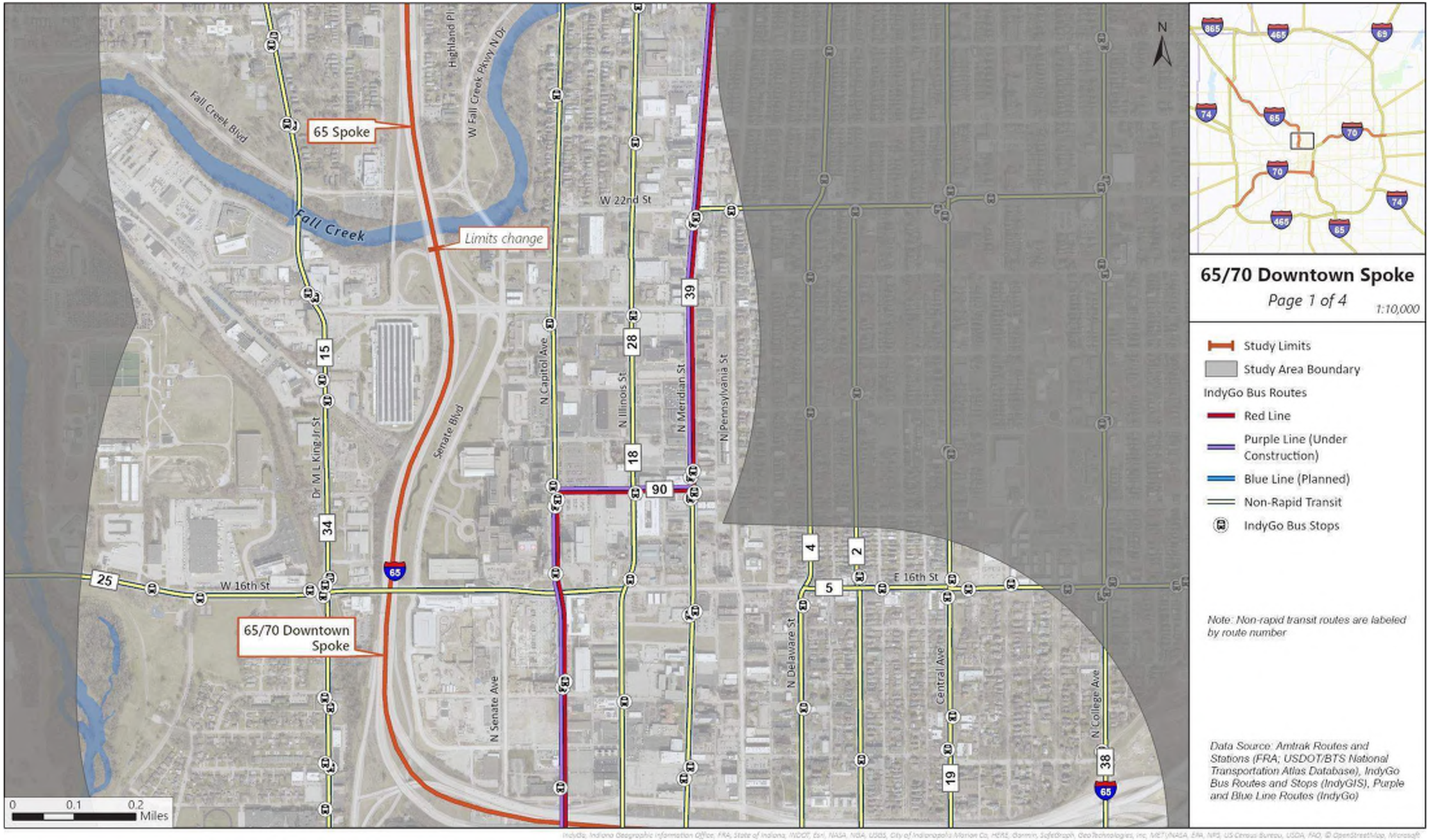

W 52nd St
W 52nd St
37
Lafayette Rd
65 Spoke
65
W 46th St
25
Moller Rd
Georgetown Rd
Guion Rd
Pike Plaza Rd
0
0.1
0.2
Miles
N
65 Spoke
Page 2 of 5
1:10,000
Study Limits
Study Area Boundary
IndyGo Bus Routes
Red Line
Purple Line (Under Construction)
Blue Line (Planned)
Non-Rapid Transit
IndyGo Bus Stops
Note: Non-rapid transit routes are labeled by route number
Data Source: Amtrak Routes and Stations (FRA; USDOT/BTS National Transportation Atlas Database), IndyGo Bus Routes and Stops (IndyGIS), Purple and Blue Line Routes (IndyGo)

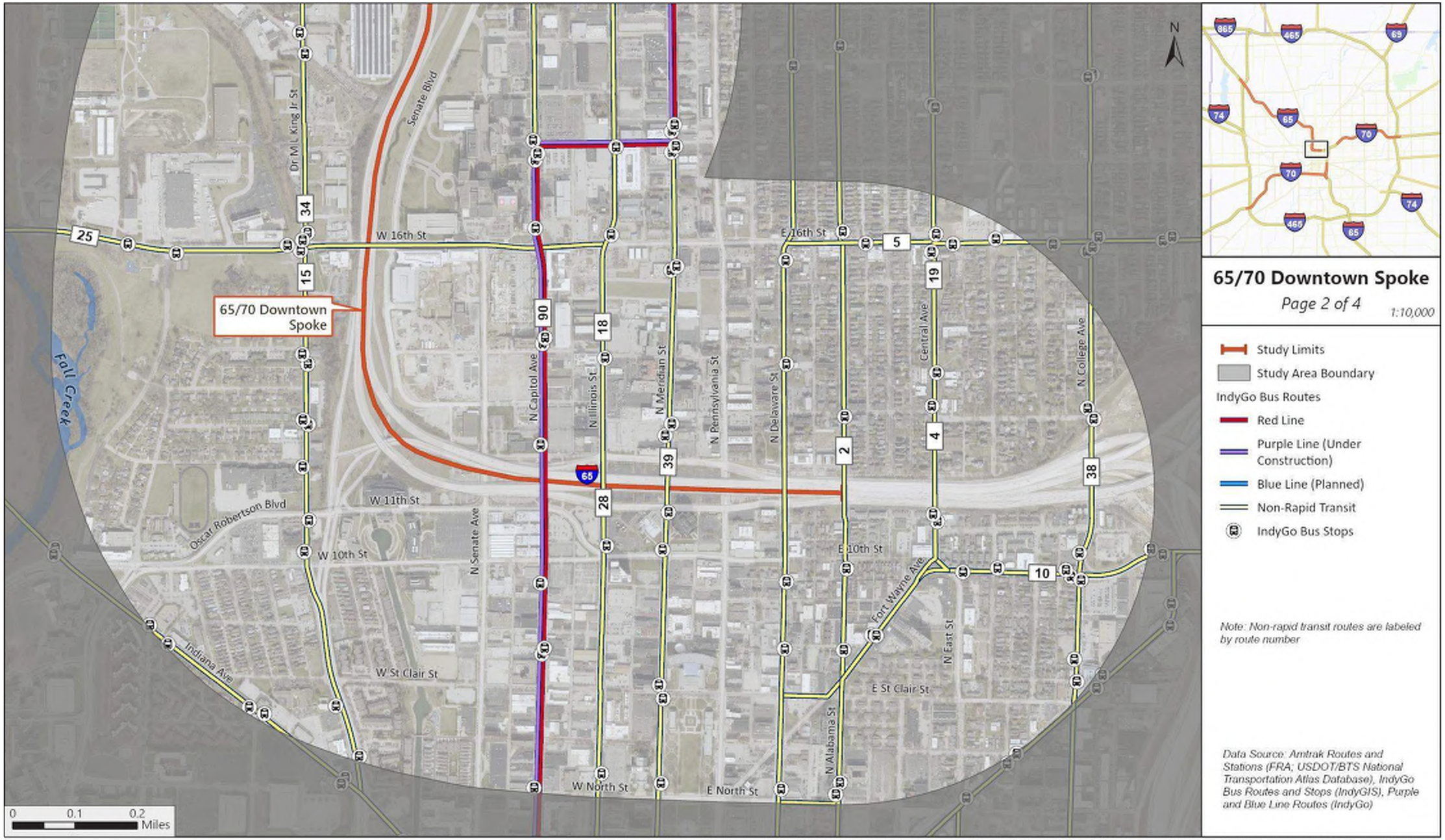


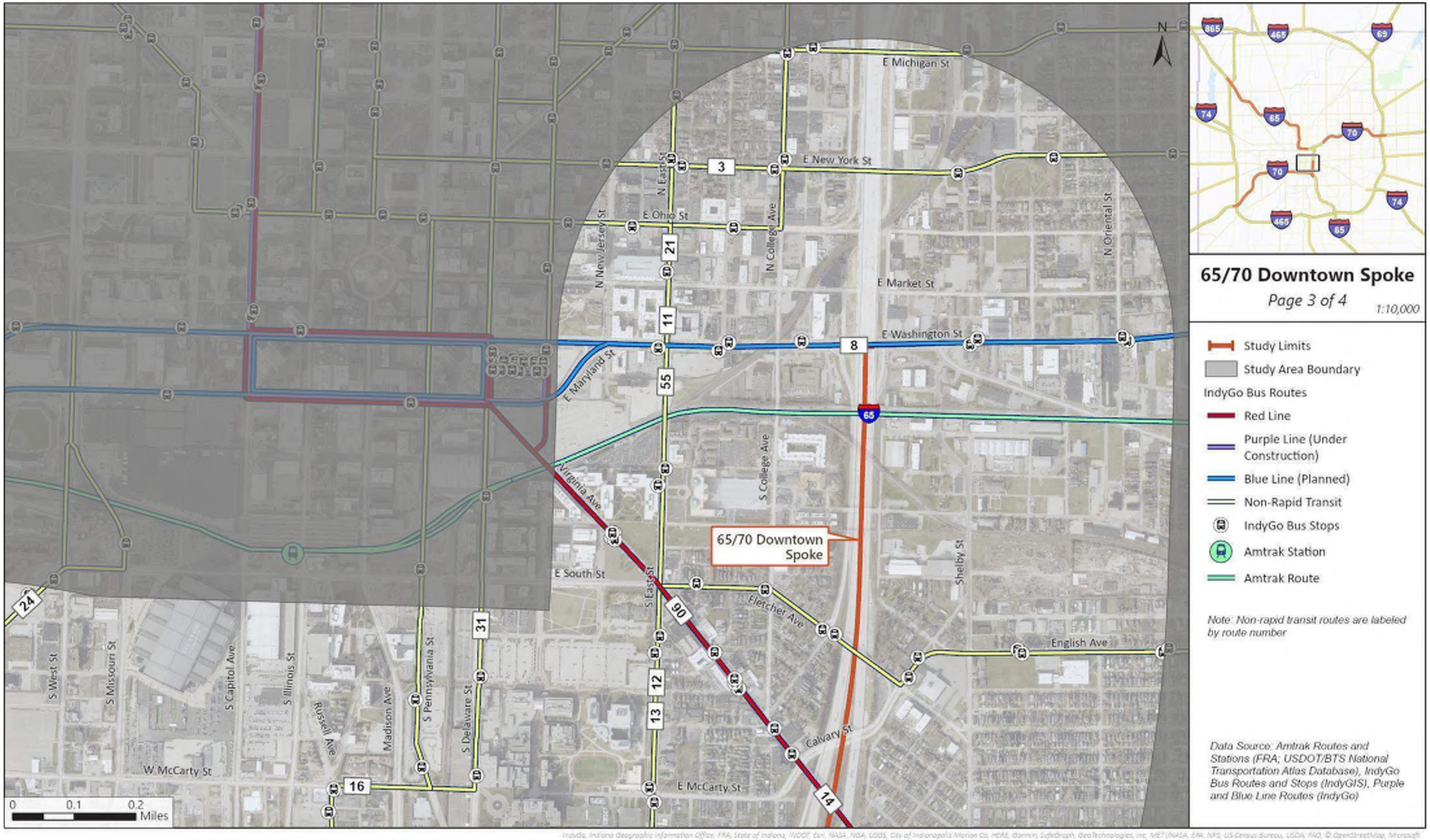
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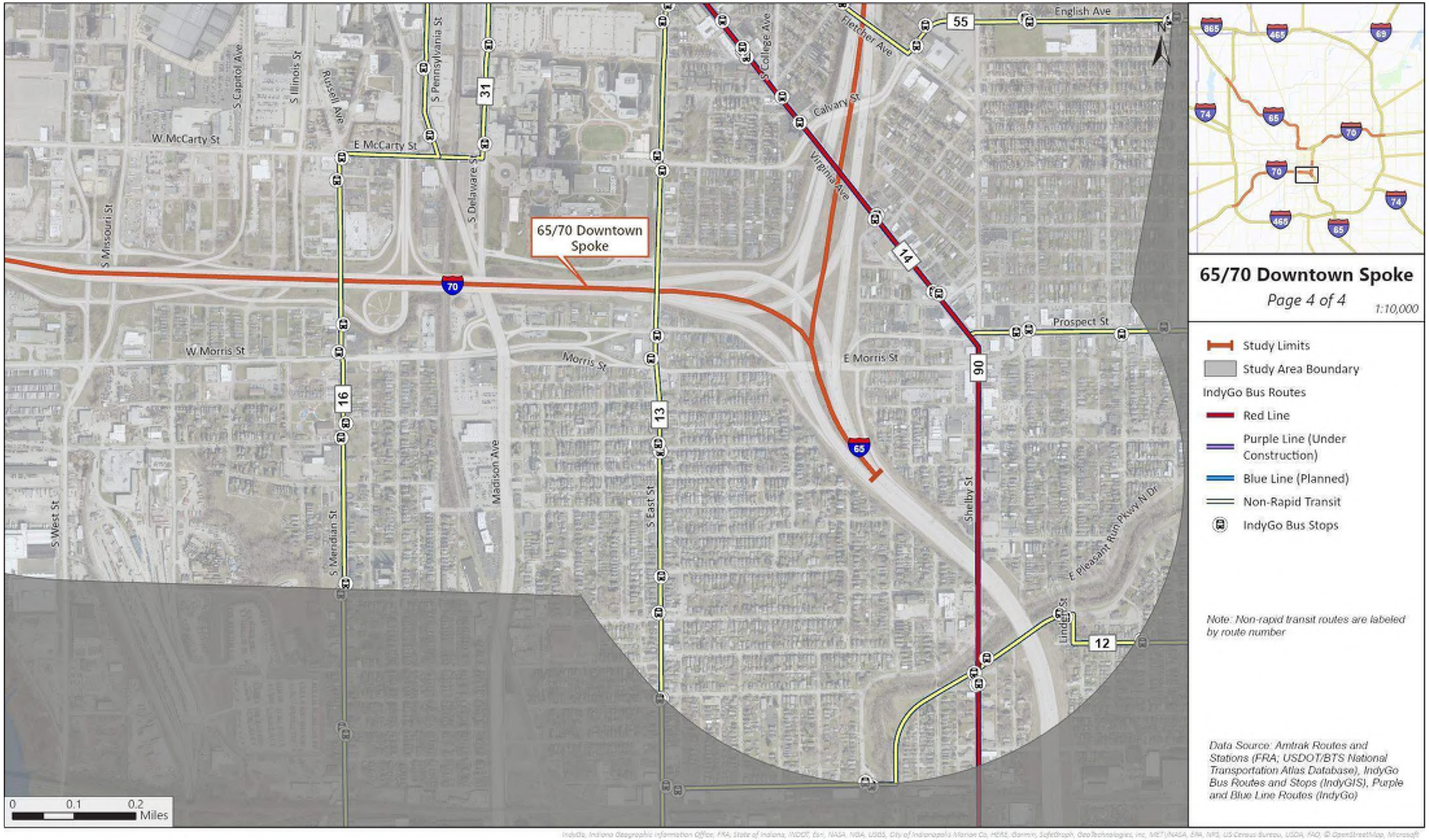

65 Spoke
Page 4 of 5
1:10,000
Study Limits
Study Area Boundary
IndyGo Bus Routes
Red Line
Purple Line (Under Construction)
Blue Line (Planned)
Non-Rapid Transit
IndyGo Bus Stops
Note: Non-rapid transit routes are labeled by route number
Data Source: Amtrak Routes and Stations (FRA; USDOT/BTS National Transportation Atlas Database), IndyGo Bus Routes and Stops (IndyGIS), Purple and Blue Line Routes (IndyGo)
N
W 38th St
Knollton Rd
Cold Spring Rd
N White River Pkwy W Dr
White River
Clifton St
Dr M L King Jr St
W 30th St
65
38
34
6
15
30
0
0.1
0.2
Miles


65 Spoke
Page 5 of 5
1:10,000
Study Limits
Study Area Boundary
IndyGo Bus Routes
Red Line
Purple Line (Under Construction)
Blue Line (Planned)
Non-Rapid Transit
IndyGo Bus Stops
Note: Non-rapid transit routes are labeled by route number
Data Source: Amtrak Routes and Stations (FRA; USDOT/BTS National Transportation Atlas Database), IndyGo Bus Routes and Stops (IndyGIS), Purple and Blue Line Routes (IndyGo)
N
W 30th St
W 29th St
Clifton St
N Harding St
Boulevard Pl
N Capitol Ave
N Illinois St
N Meridian St
Highland Pl
W Fall Creek Pkwy N Dr
Fall Creek
Fall Creek Blvd
Roache St
Dr M L King Jr St
W 22nd St
0 0.1 0.2 Miles

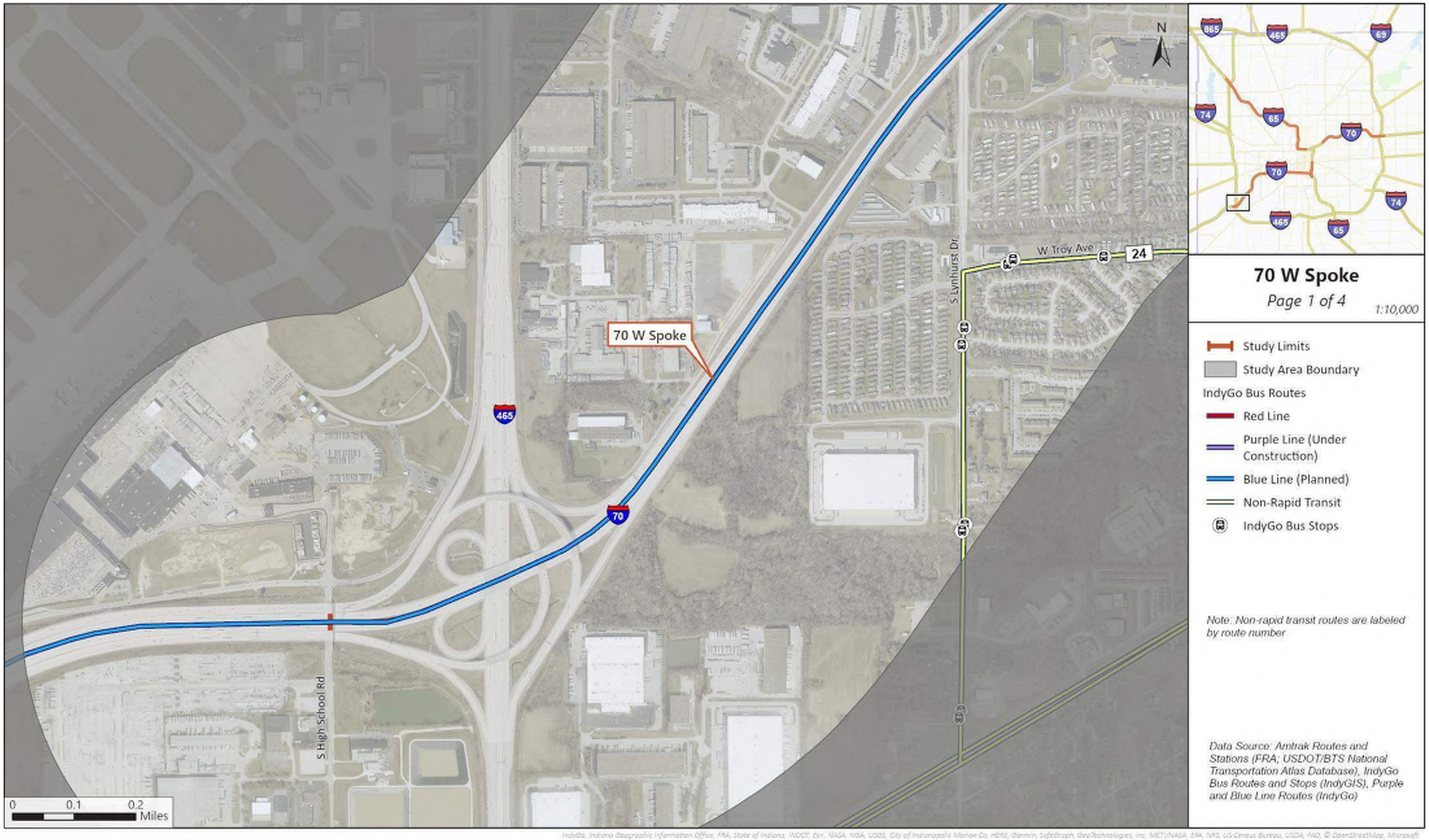

65 Spoke
Limits change
65/70 Downtown Spoke
Fall Creek Blvd
Fall Creek
Highland Pl
W Fall Creek Pkwy N Dr
W 22nd St
N Capitol Ave
N Illinois St
N Meridian St
N Pennsylvania St
Senate Blvd
N Senate Ave
Dr M L King Jr St
W 16th St
E 16th St
N Delaware St
Central Ave
N College Ave
15
34
25
65
28
18
90
39
4
2
5
19
38
0 0.1 0.2 Miles
N
65/70 Downtown Spoke
Page 1 of 4
1:10,000
Study Limits
Study Area Boundary
IndyGo Bus Routes
Red Line
Purple Line (Under Construction)
Blue Line (Planned)
Non-Rapid Transit
IndyGo Bus Stops
Note: Non-rapid transit routes are labeled by route number
Data Source: Amtrak Routes and Stations (FRA; USDOT/BTS National Transportation Atlas Database), IndyGo Bus Routes and Stops (IndyGIS), Purple and Blue Line Routes (IndyGo)


65/70 Downtown Spoke
Page 2 of 4
1:10,000
Study Limits
Study Area Boundary
IndyGo Bus Routes
Red Line
Purple Line (Under Construction)
Blue Line (Planned)
Non-Rapid Transit
IndyGo Bus Stops
Note: Non-rapid transit routes are labeled by route number
Data Source: Amtrak Routes and Stations (FRA; USDOT/BTS National Transportation Atlas Database), IndyGo Bus Routes and Stops (IndyGIS), Purple and Blue Line Routes (IndyGo)
65/70 Downtown Spoke
W 16th St
E 16th St
Senate Blvd
Dr M.L. King Jr St
N Capitol Ave
N Illinois St
N Meridian St
N Pennsylvania St
N Delaware St
Central Ave
N College Ave
Fall Creek
Oscar Robertson Blvd
W 11th St
W 10th St
N Senate Ave
Indiana Ave
W St Clair St
W North St
E North St
E 10th St
Fort Wayne Ave
N East St
E St Clair St
N Alabama St
0 0.1 0.2 Miles


N
E Michigan St
E New York St
E Ohio St
E Market St
E Washington St
E South St
E Maryland St
Virginia Ave
N East St
N New Jersey St
N College Ave
N Oriental St
S College Ave
S East St
Shelby St
Fletcher Ave
English Ave
Calvary St
S West St
S Missouri St
S Capitol Ave
S Illinois St
Russell Ave
Madison Ave
S Pennsylvania St
S Delaware St
W McCarty St
E McCarty St
3
21
11
55
8
65
24
31
12
13
16
90
14
65/70 Downtown Spoke
0
0.1
0.2
Miles
65/70 Downtown Spoke
Page 3 of 4
1:10,000
Study Limits
Study Area Boundary
IndyGo Bus Routes
Red Line
Purple Line (Under Construction)
Blue Line (Planned)
Non-Rapid Transit
IndyGo Bus Stops
Amtrak Station
Amtrak Route
Note: Non-rapid transit routes are labeled by route number
Data Source: Amtrak Routes and Stations (FRA; USDOT/BTS National Transportation Atlas Database), IndyGo Bus Routes and Stops (IndyGIS), Purple and Blue Line Routes (IndyGo)

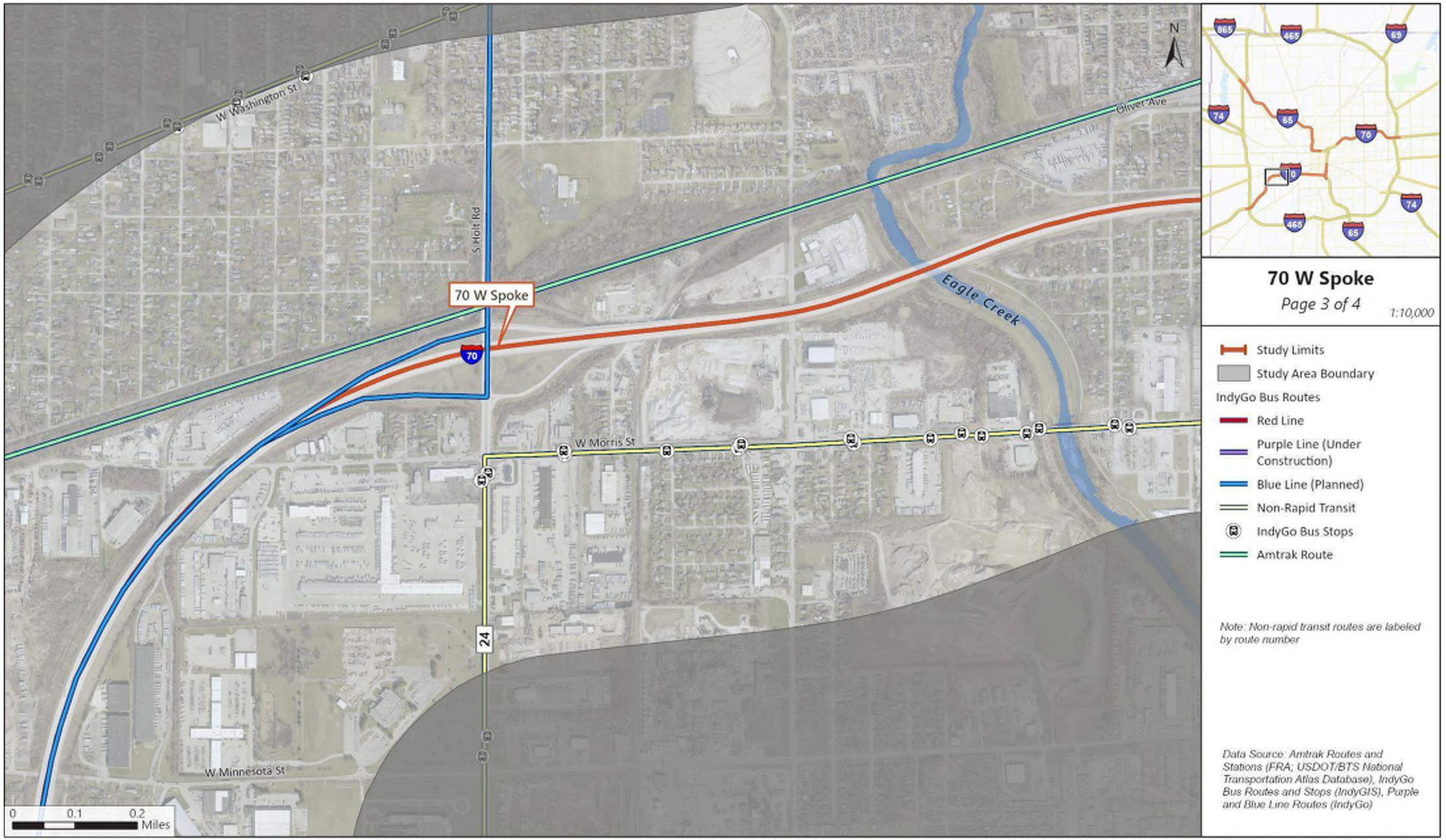


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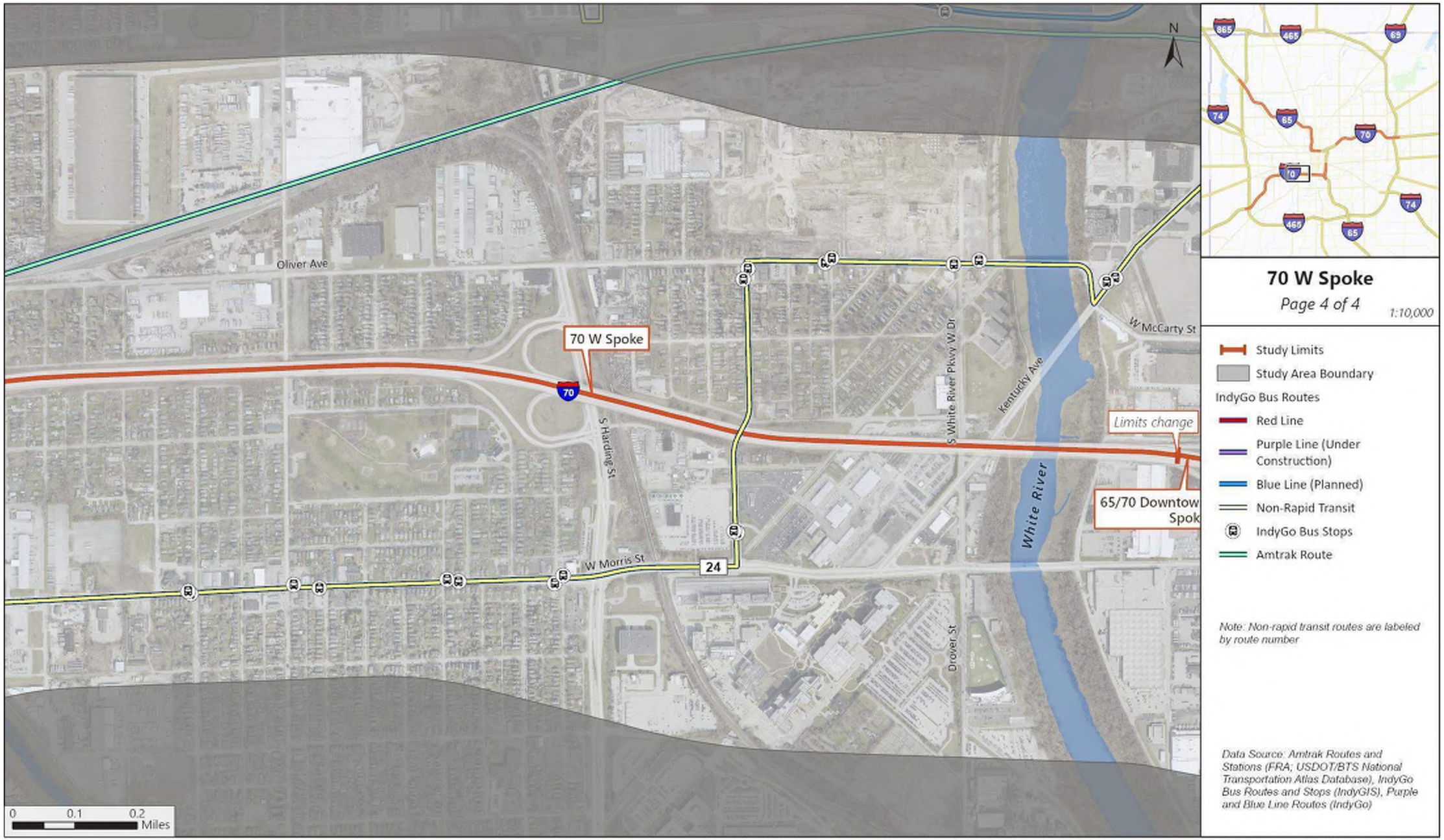

70 W Spoke
Page 1 of 4
1:10,000
W Troy Ave
S Lynhurst Dr
S High School Rd
465
70
24
N
0 0.1 0.2 Miles
Study Limits
Study Area Boundary
IndyGo Bus Routes
Red Line
Purple Line (Under Construction)
Blue Line (Planned)
Non-Rapid Transit
IndyGo Bus Stops
Note: Non-rapid transit routes are labeled by route number
Data Source: Amtrak Routes and Stations (FRA; USDOT/BTS National Transportation Atlas Database), IndyGo Bus Routes and Stops (IndyGIS), Purple and Blue Line Routes (IndyGo)



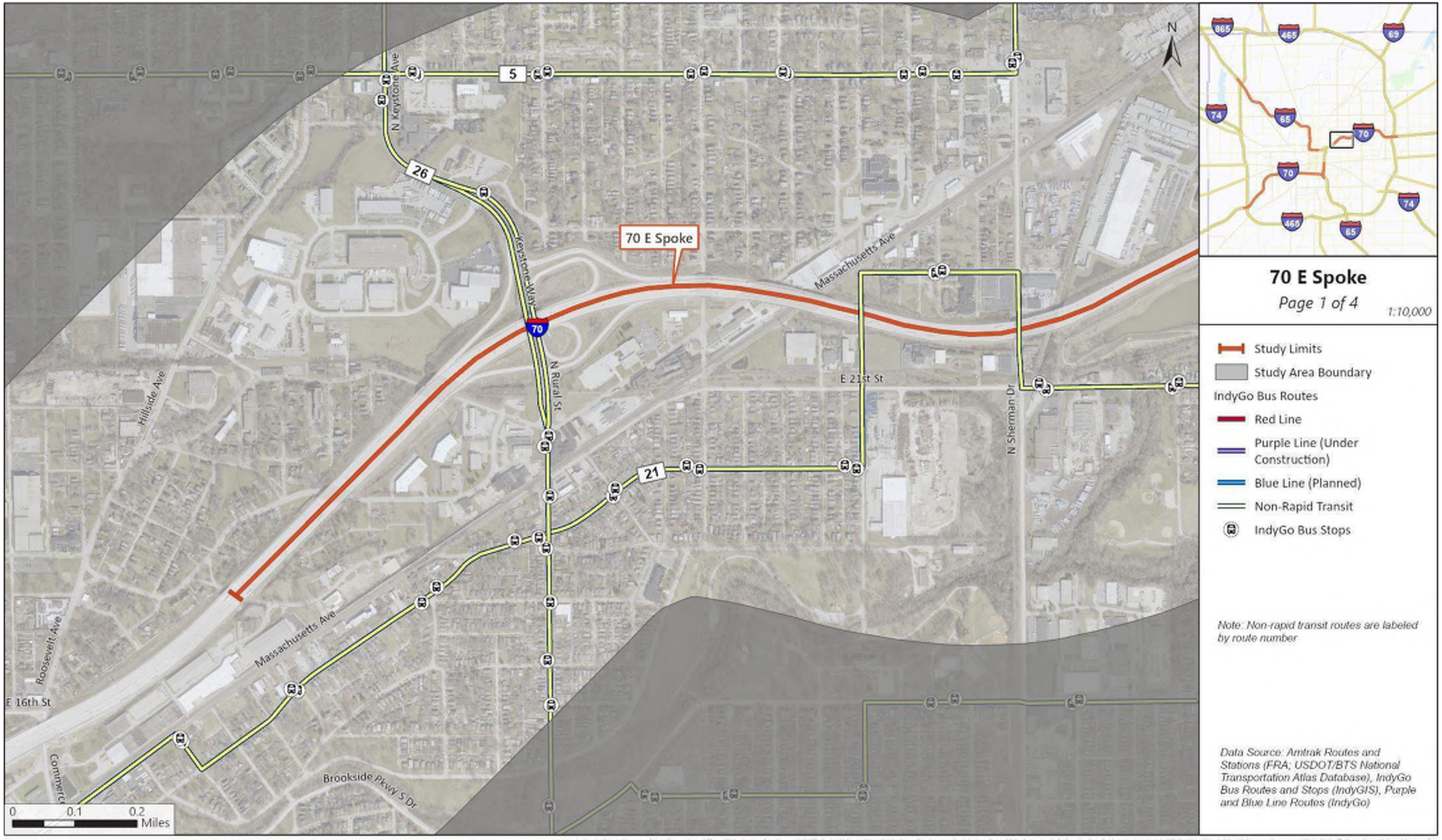
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70 E Spoke
Page 1 of 4
1:10,000
Study Limits
Study Area Boundary
IndyGo Bus Routes
Red Line
Purple Line (Under Construction)
Blue Line (Planned)
Non-Rapid Transit
IndyGo Bus Stops
Note: Non-rapid transit routes are labeled by route number
Data Source: Amtrak Routes and Stations (FRA; USDOT/BTS National Transportation Atlas Database), IndyGo Bus Routes and Stops (IndyGIS), Purple and Blue Line Routes (IndyGo)
N
N Keystone Ave
Keystone Way
Massachusetts Ave
N Rural St
N Sherman Dr
E 21st St
Hillside Ave
Roosevelt Ave
E 16th St
Brookside Pkwy S Dr
0
0.1
0.2
Miles


70 E Spoke
Page 2 of 4
1:10,000
Study Limits
Study Area Boundary
IndyGo Bus Routes
Red Line
Purple Line (Under Construction)
Blue Line (Planned)
Non-Rapid Transit
IndyGo Bus Stops
Note: Non-rapid transit routes are labeled by route number
Data Source: Amtrak Routes and Stations (FRA; USDOT/BTS National Transportation Atlas Database), IndyGo Bus Routes and Stops (IndyGIS), Purple and Blue Line Routes (IndyGo)
70 E Spoke
30
E 30th St
E 24th St
E 21st St
21
3
70
N Emerson Ave
N Ritter Ave
N Arlington Ave
N Bosart Ave
0 0.1 0.2 Miles
N

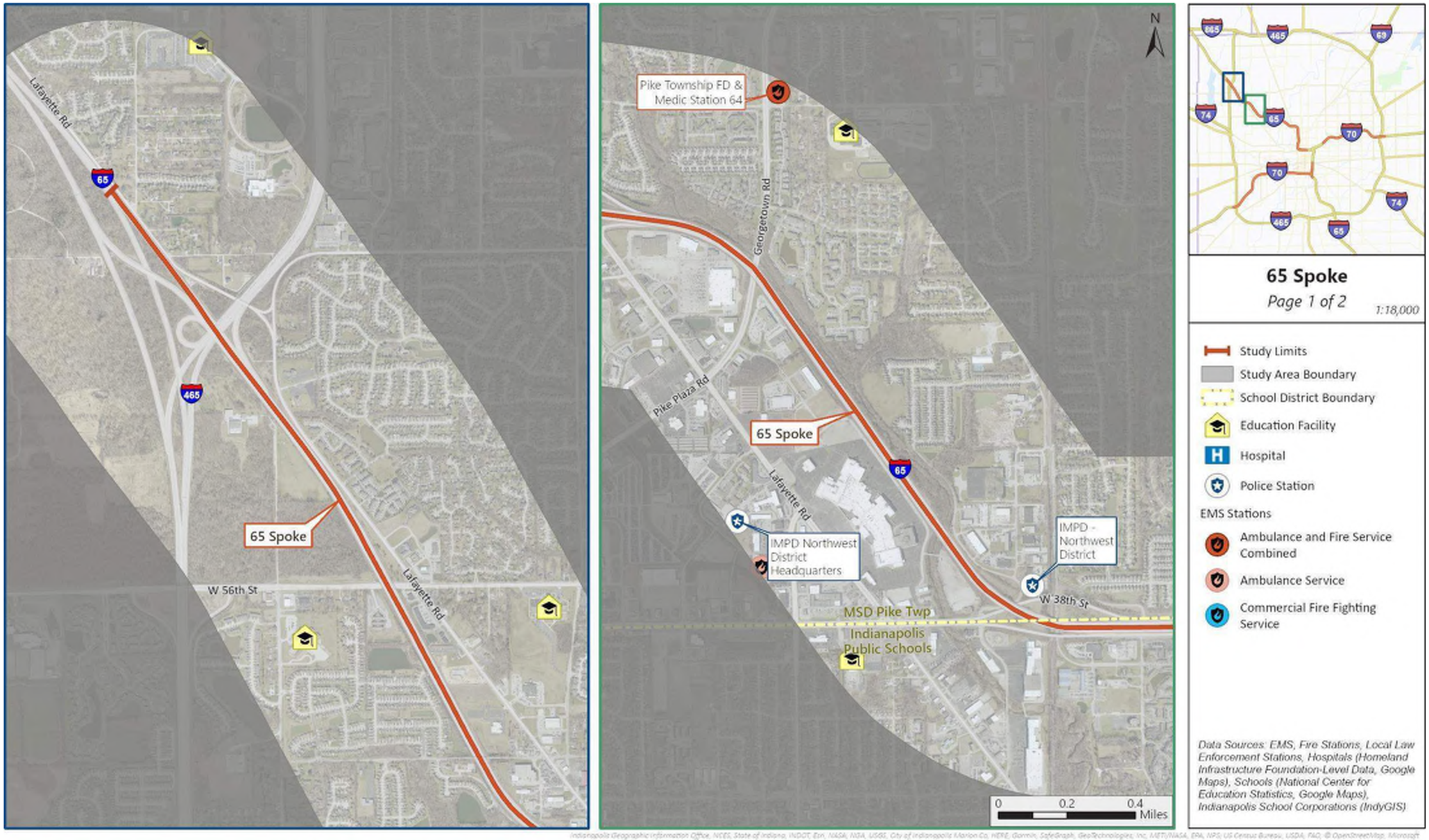

E 30th St
30
N Arlington Ave
3
E 24th St
N Kenyon St
N Shadeland Ave
2
70 E Spoke
70
465
E 21st St
21
E Pleasant Run Pkwy S Dr
0 0.1 0.2 Miles
N
865
465
69
74
65
70
70
74
465
65
70 E Spoke
Page 3 of 4
1:10,000
Study Limits
Study Area Boundary
IndyGo Bus Routes
Red Line
Purple Line (Under Construction)
Blue Line (Planned)
Non-Rapid Transit
IndyGo Bus Stops
Note: Non-rapid transit routes are labeled by route number
Data Source: Amtrak Routes and Stations (FRA; USDOT/BTS National Transportation Atlas Database), IndyGo Bus Routes and Stops (IndyGIS), Purple and Blue Line Routes (IndyGo)

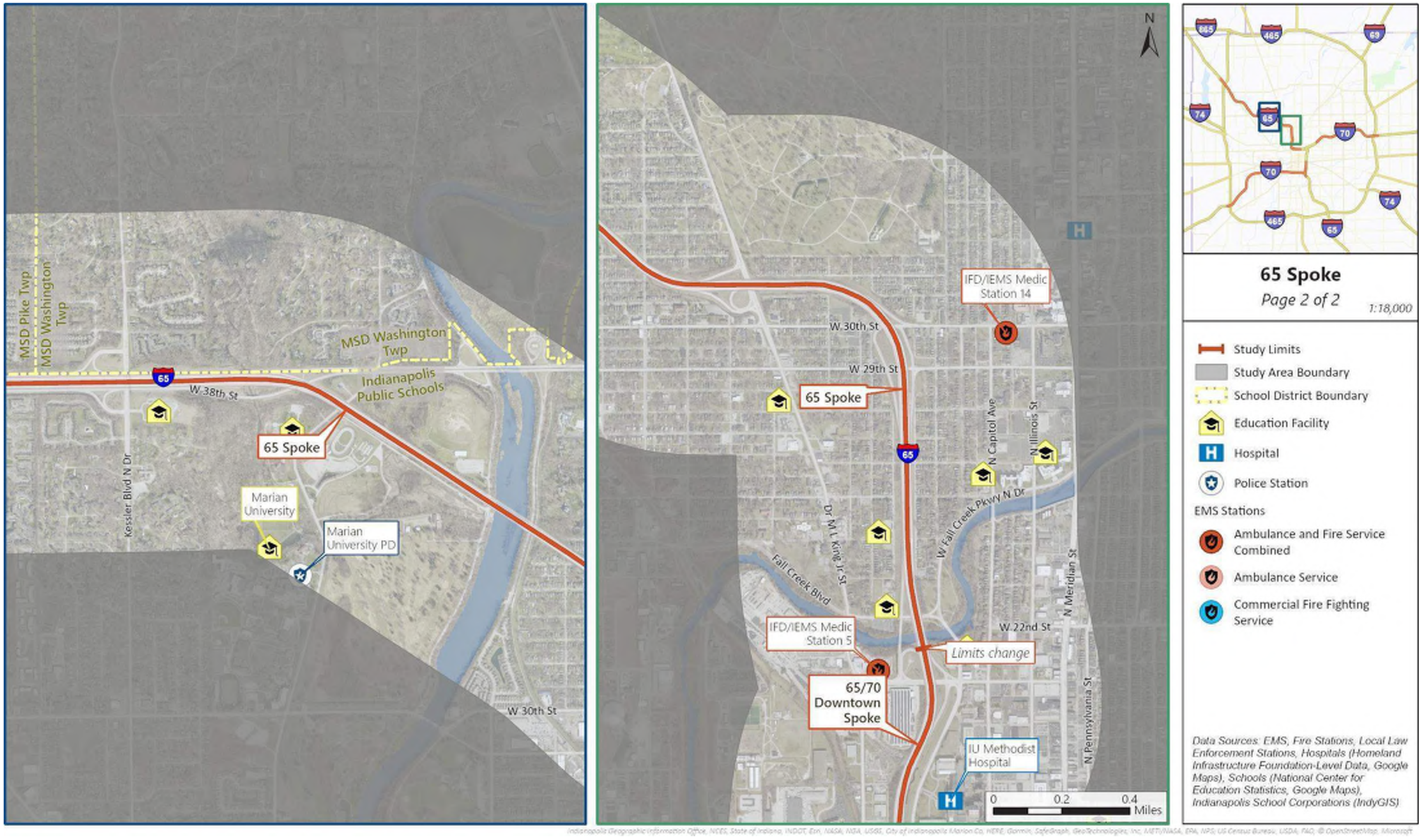


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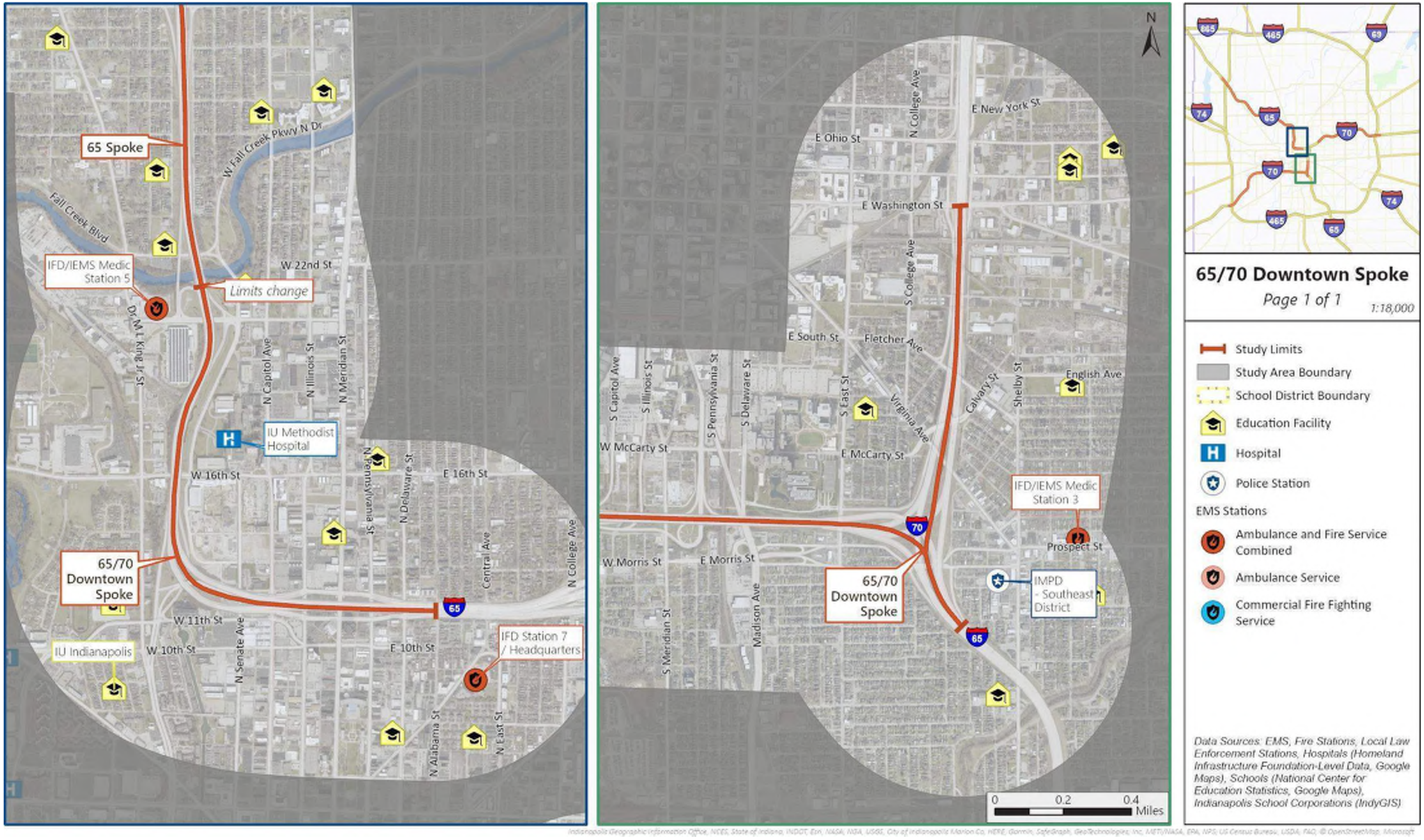
APPENDIX H: EDUCATION, HOSPITAL, AND PUBLIC SAFETY RESOURCES


BOONE
HAMILTON
HENDRICKS
HANCOCK
MORGAN
JOHNSON
SHELBY
MSD Pike Township
MSD Washington Township
MSD Lawrence Township
Indianapolis Public Schools
School Town of Speedway
MSD Wayne Township
Beech Grove City Schools
MSD Warren Township
MSD Decatur Township
MSD Perry Township
Franklin Township Community School Corporation
N
0 1.5 3
Miles
Study Limits

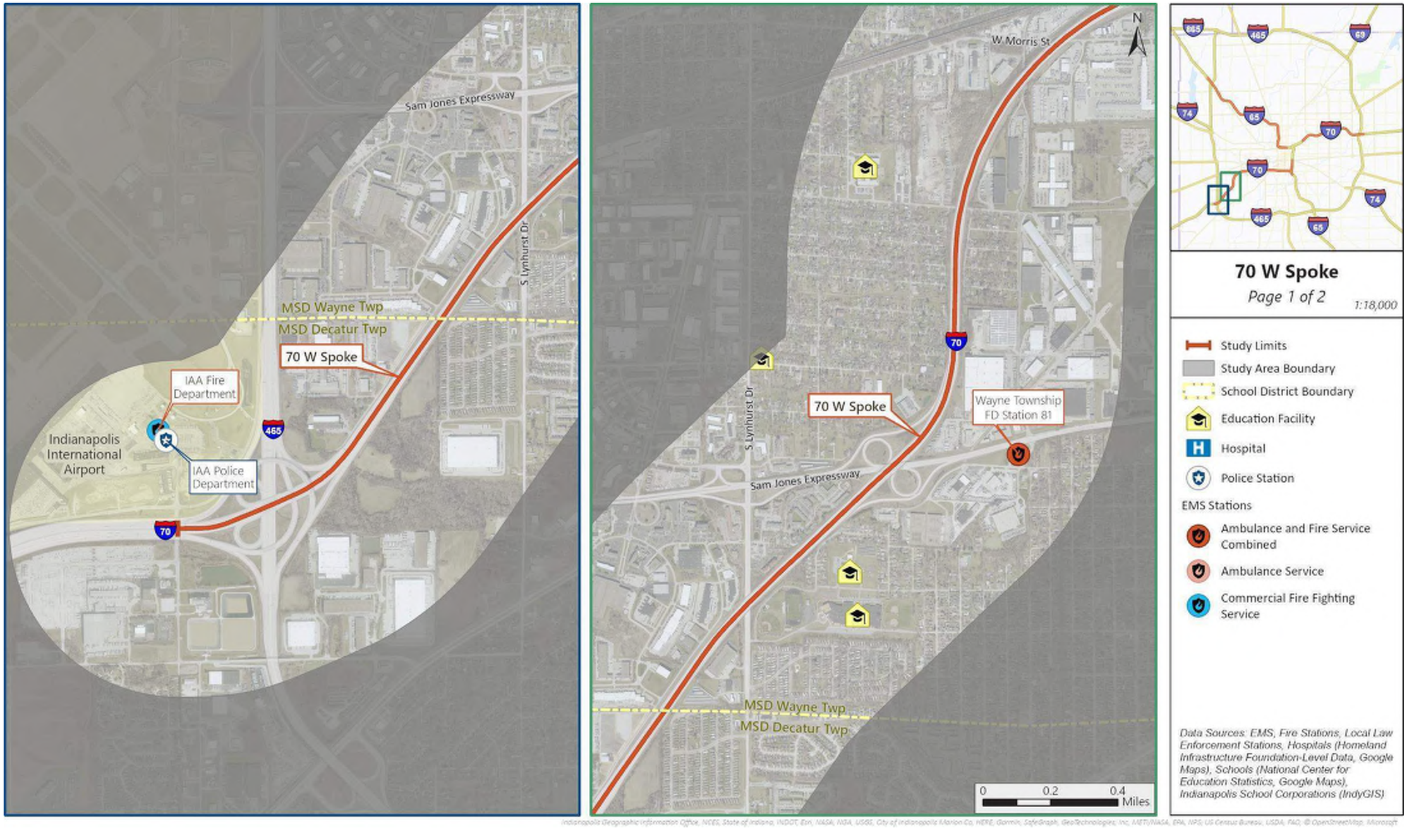

Lafayette Rd
65
465
65 Spoke
W 56th St
Lafayette Rd
Pike Township FD &
Medic Station 64
Georgetown Rd
Pike Plaza Rd
65 Spoke
Lafayette Rd
65
IMPD Northwest
District
Headquarters
IMPD -
Northwest
District
W 38th St
MSD Pike Twp
Indianapolis
Public Schools
N
0
0.2
0.4
Miles
65 Spoke
Page 1 of 2
1:18,000
Study Limits
Study Area Boundary
School District Boundary
Education Facility
Hospital
Police Station
EMS Stations
Ambulance and Fire Service
Combined
Ambulance Service
Commercial Fire Fighting
Service
Data Sources: EMS, Fire Stations, Local Law
Enforcement Stations, Hospitals (Homeland
Infrastructure Foundation-Level Data, Google
Maps), Schools (National Center for
Education Statistics, Google Maps),
Indianapolis School Corporations (IndyGIS)



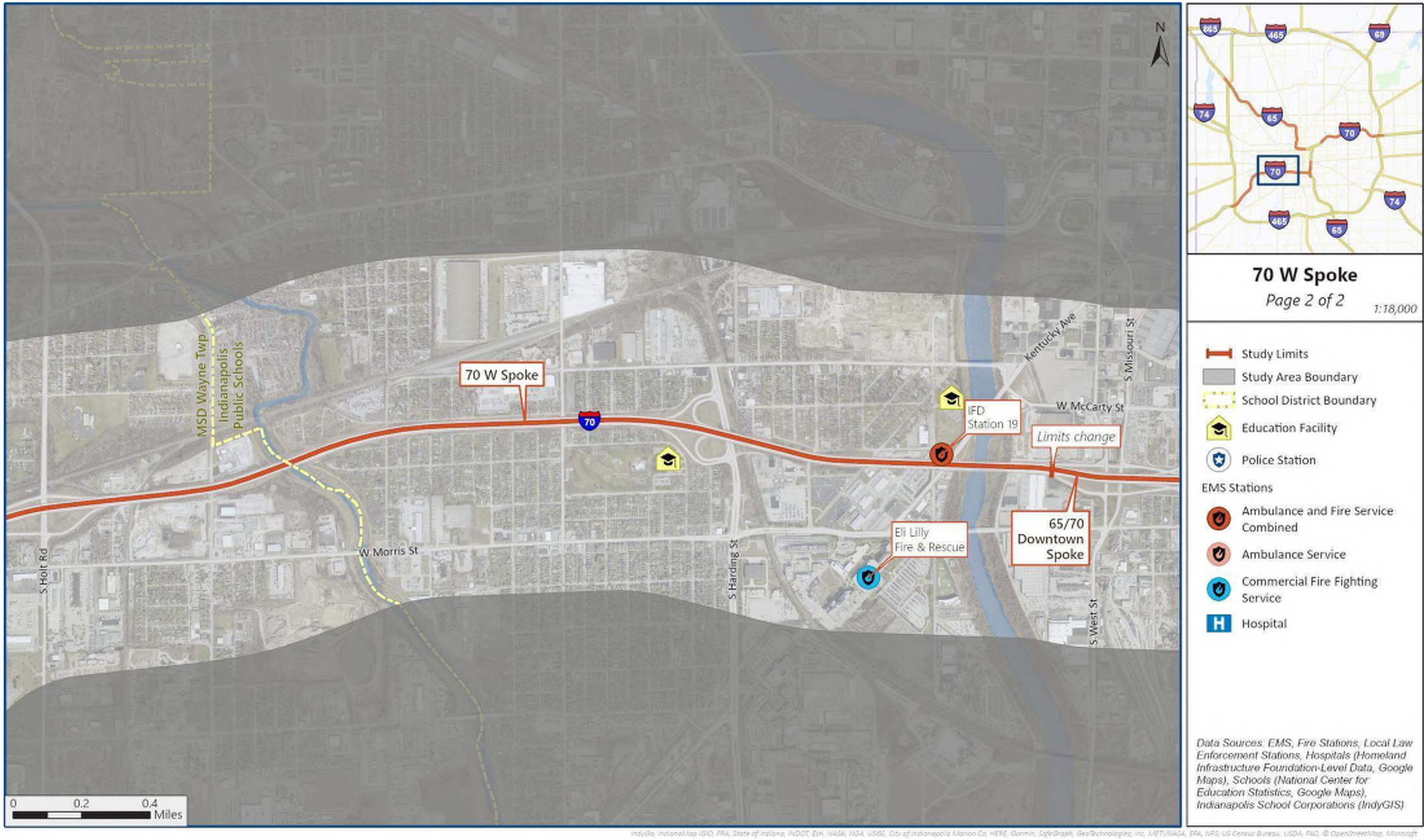
Indianapolis Geographic Information Office, NCES, State of Indiana, INDOT, Esri, NASA, NGA, USGS, City of Indianapolis Marion Co, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, FAO, © OpenStreetMap, Microsoft

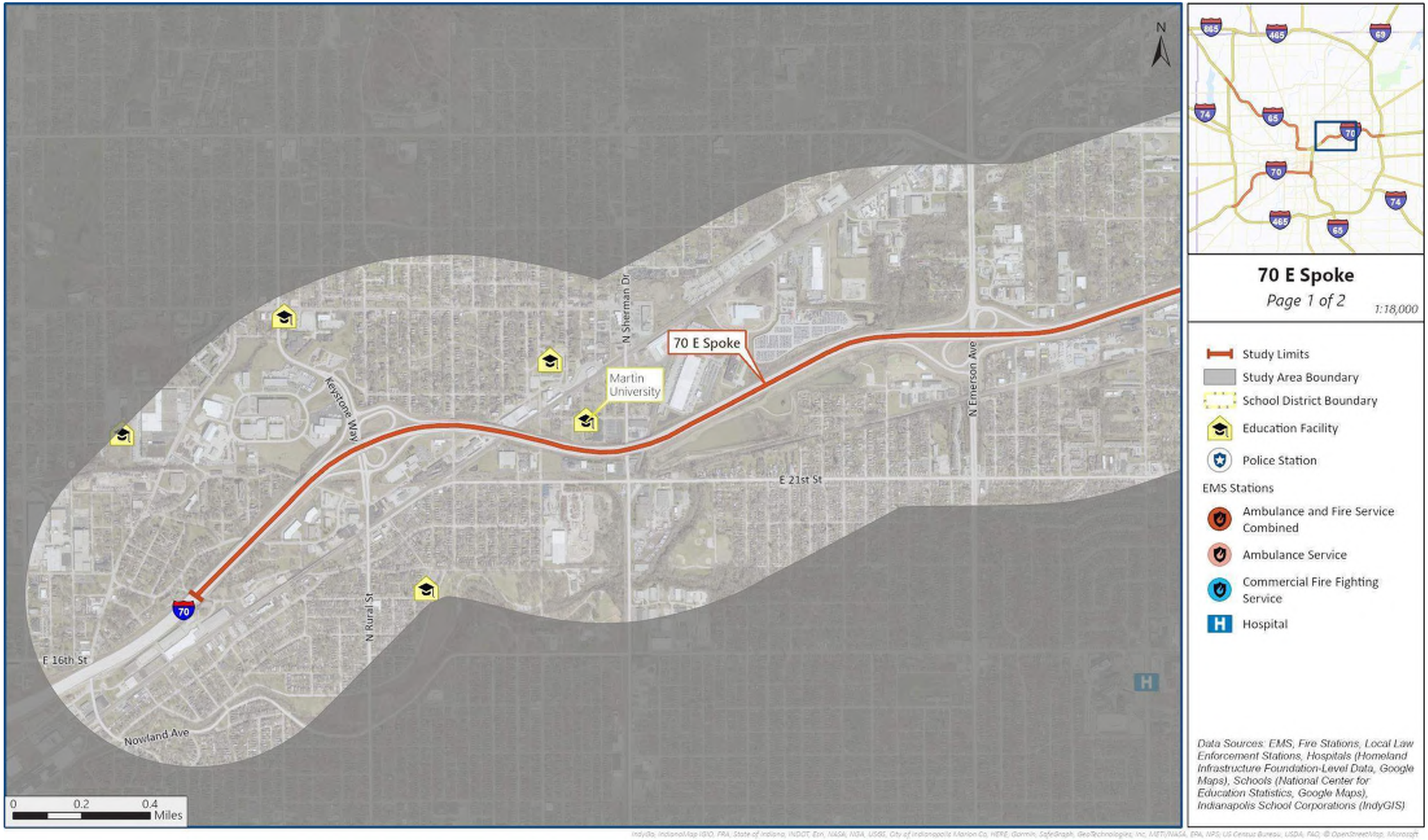


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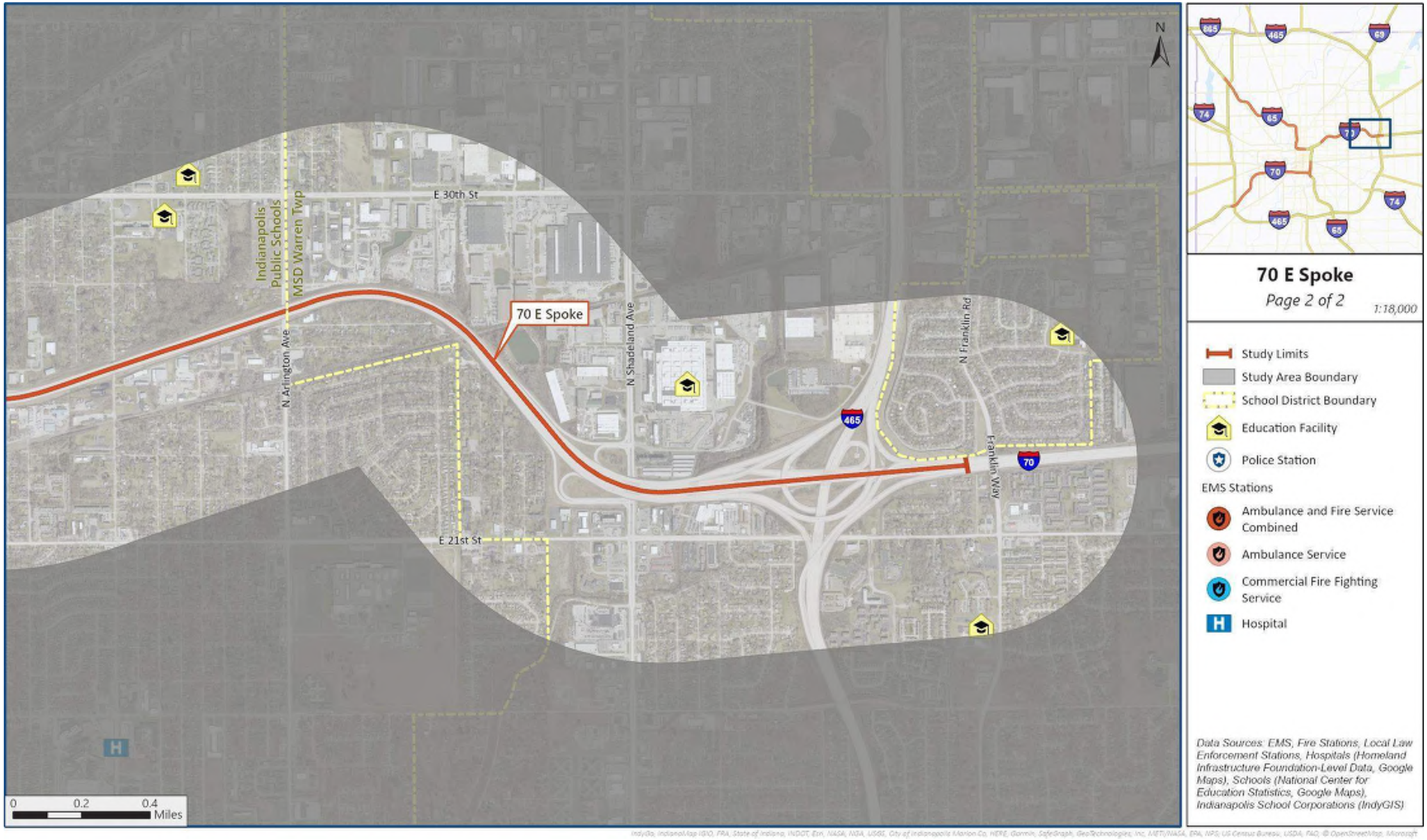


Indianapolis Geographic Information Office, NOES, State of Indiana, INDOT, Esri, NASA, NGA, USGS, City of Indianapolis Marion Co, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, FAO, © OpenStreetMap, Microsoft


70 W Spoke
MSD Wayne Twp
Indianapolis
Public Schools
S Holt Rd
W Morris St
S Harding St
S West St
S Missouri St
Kentucky Ave
W McCarty St
IFD
Station 19
Limits change
65/70
Downtown
Spoke
Eli Lilly
Fire & Rescue
0
0.2
0.4
Miles
N
70 W Spoke
Page 2 of 2
1:18,000
Study Limits
Study Area Boundary
School District Boundary
Education Facility
Police Station
EMS Stations
Ambulance and Fire Service Combined
Ambulance Service
Commercial Fire Fighting Service
Hospital
Data Sources: EMS, Fire Stations, Local Law Enforcement Stations, Hospitals (Homeland Infrastructure Foundation-Level Data, Google Maps), Schools (National Center for Education Statistics, Google Maps), Indianapolis School Corporations (IndyGIS)

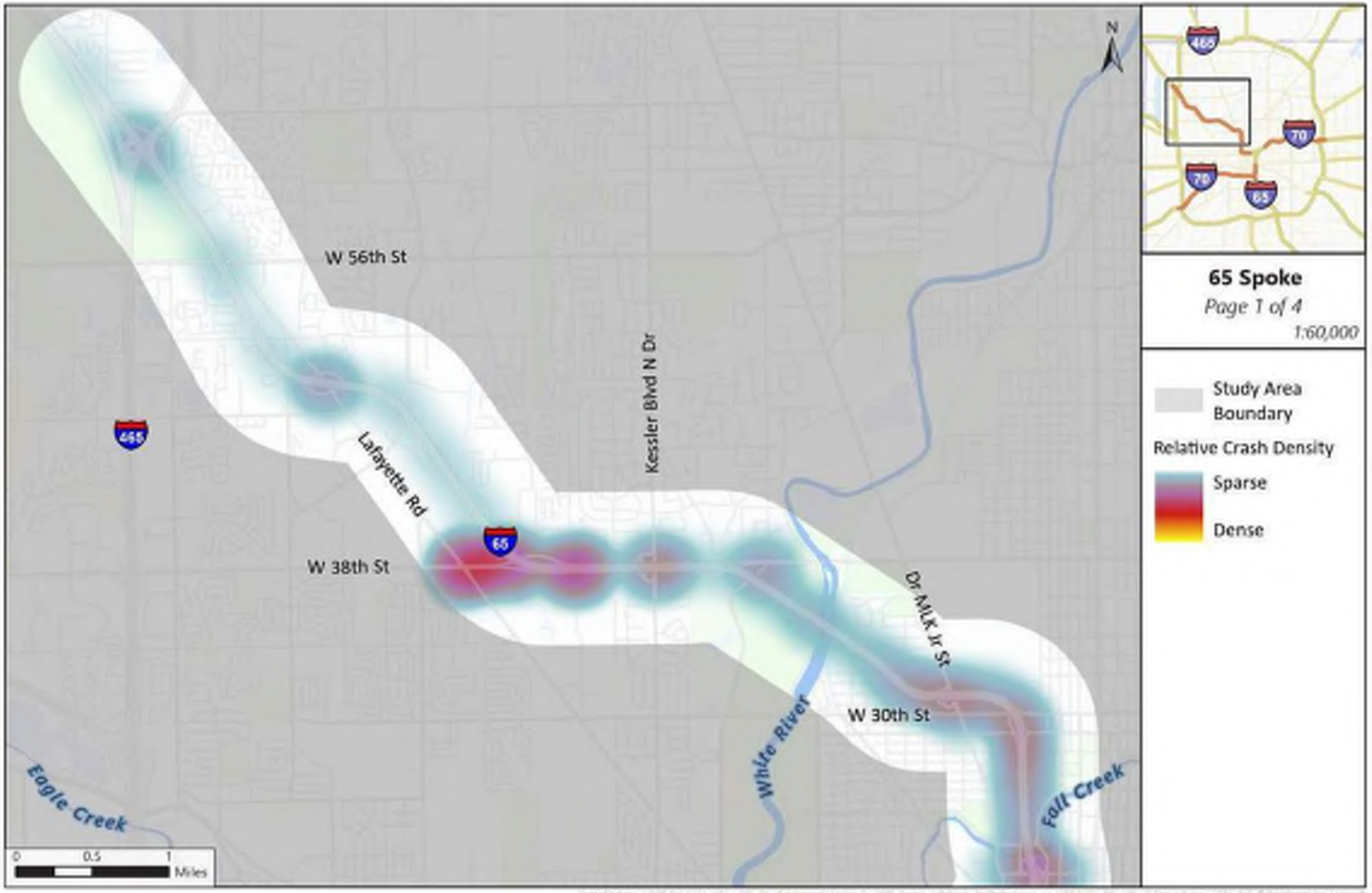


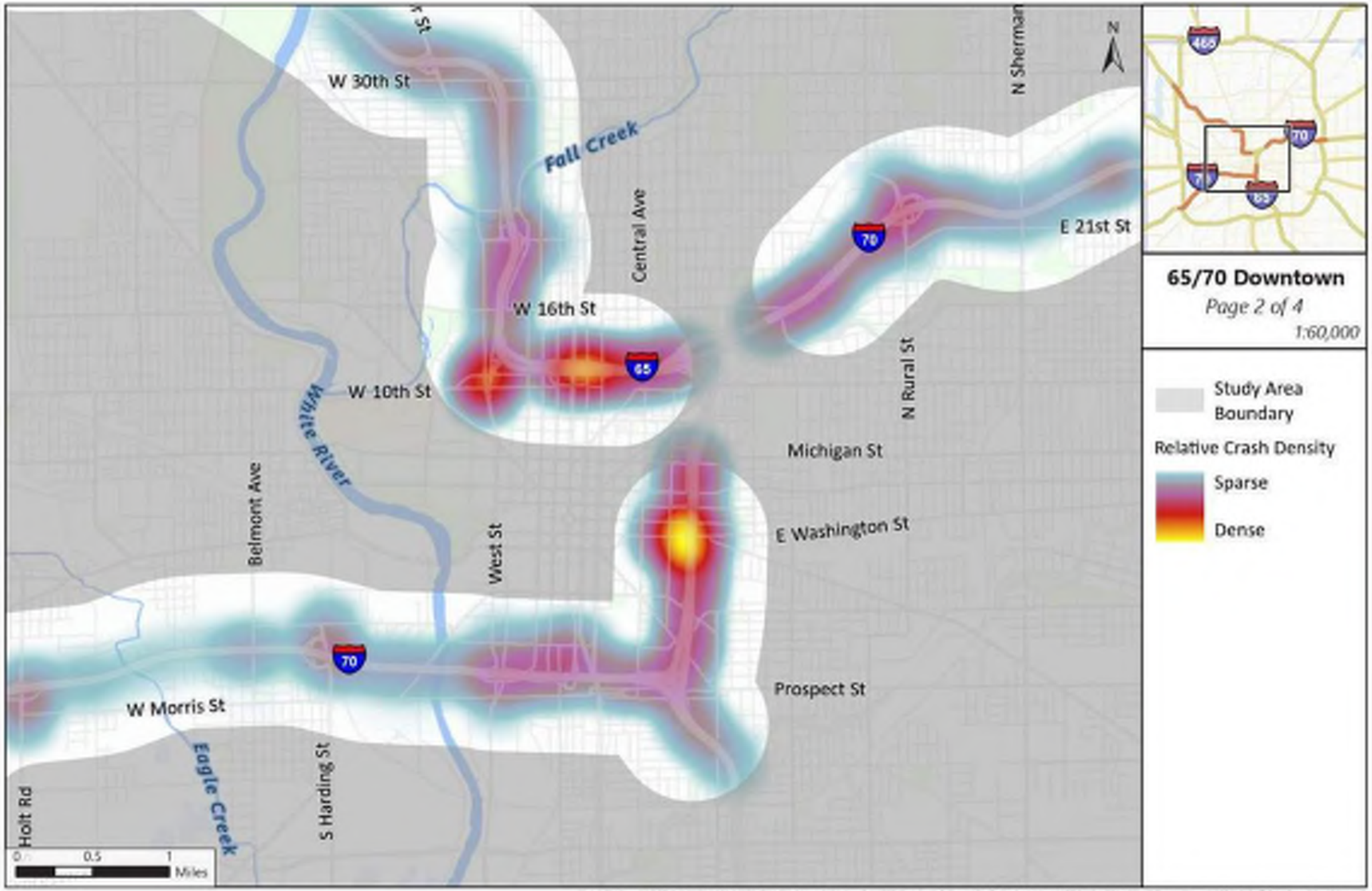
IndyGo, IndianaMap IGIO, FAA, State of Indiana, INDOT, Esri, NASA, NGA, USGS, City of Indianapolis Marion Co, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, EPA, NPS, US Census Bureau, USDA, FAO, © OpenStreetMap, Microsoft

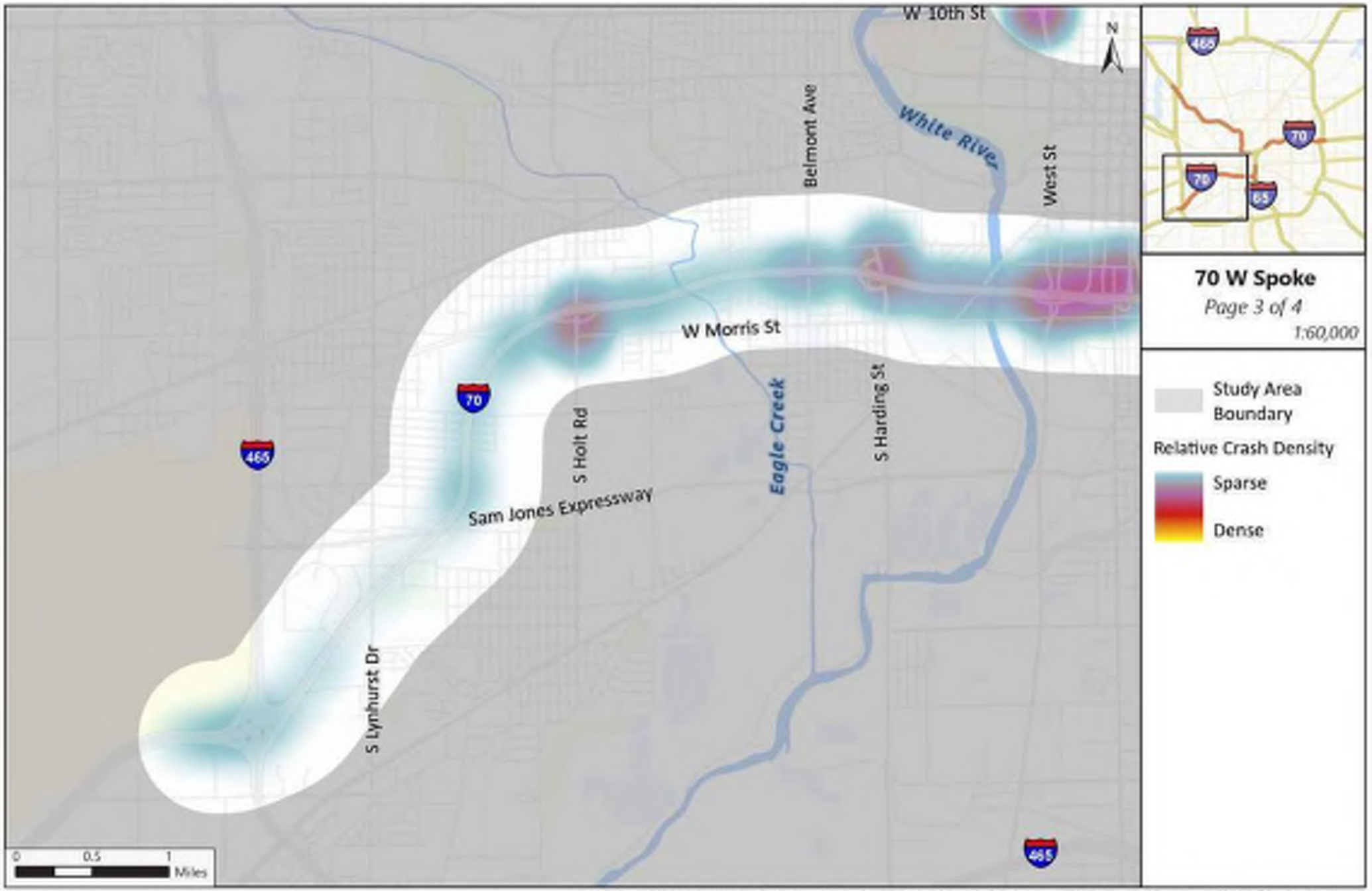


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APPENDIX I: CRASH ANALYSIS RESULTS


W 56th St
Kessler Blvd N Dr
Lafayette Rd
W 38th St
Dr MLK Jr St
W 30th St
White River
Fall Creek
Eagle Creek
465
65
70
0
0.5
1
Miles
N
65 Spoke
Page 1 of 4
1:60,000
Study Area Boundary
Relative Crash Density
Sparse
Dense


W 30th St
Fall Creek
Central Ave
N Sherman
E 21st St
W 16th St
W 10th St
White River
N Rural St
Michigan St
Belmont Ave
West St
E Washington St
Prospect St
W Morris St
Eagle Creek
S Harding St
Holt Rd
0
0.5
1
Miles
N
65/70 Downtown
Page 2 of 4
1:60,000
Study Area Boundary
Relative Crash Density
Sparse
Dense


W 10th St
Belmont Ave
White River
West St
W Morris St
S Holt Rd
Eagle Creek
S Harding St
Sam Jones Expressway
S Lynhurst Dr
465
70
65
N
0
0.5
1
Miles
70 W Spoke
Page 3 of 4
1:60,000
Study Area Boundary
Relative Crash Density
Sparse
Dense


Fall Creek
N Sherman Dr
N Shadeland Ave
E 30th St
E 21st St
N Emerson Ave
N Arlington Ave
N Rural St
Michigan St
E Washington St
70
465
65
N
0
0.5
1
Miles
70 E Spoke
Page 4 of 4
1:60,000
Study Area Boundary
Relative Crash Density
Sparse
Dense

Detailed Review of Select Locations

I-65 Spoke

INTERSECTION: 38TH ST AT LAFAYETTE RD

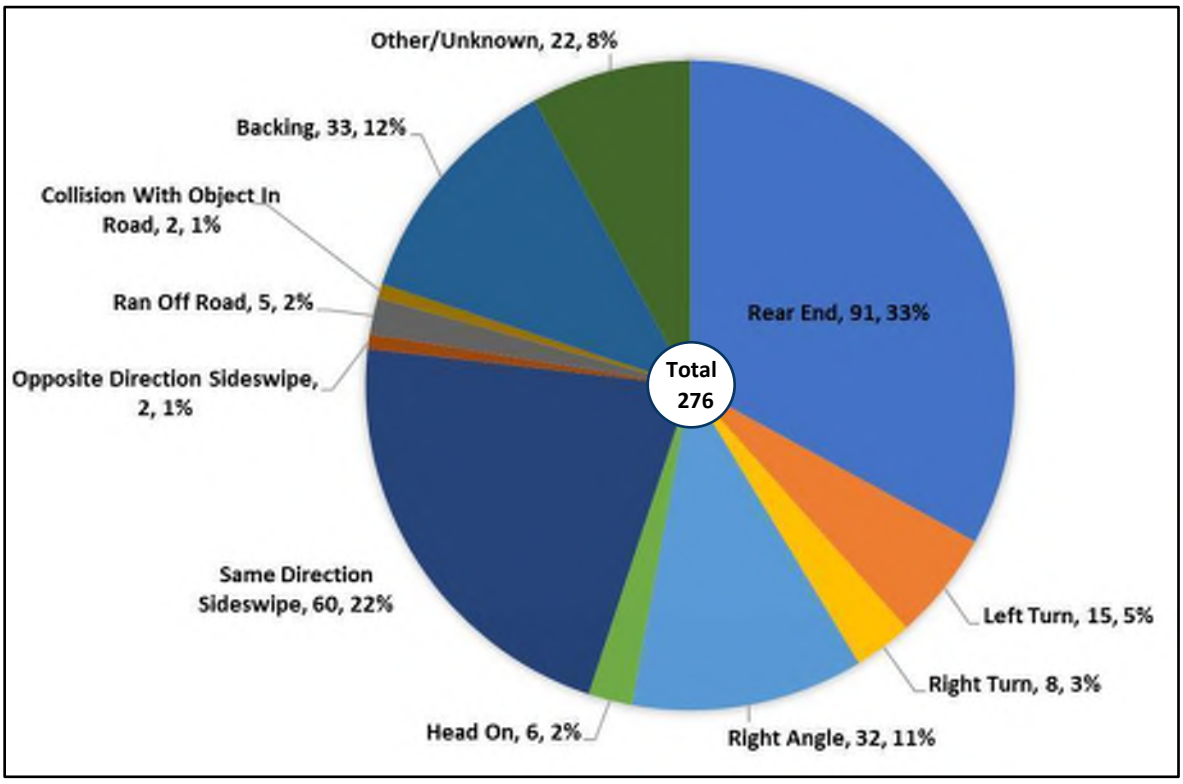
38th Street at Lafayette Road is a signalized intersection. Between 2018 and 2022, the most common crash types were rear end (33%) and same direction sideswipe (22%). There was a total of 7 documented incapacitating injury crashes, although there are no trends associated with these crashes. One of the crashes involved a pedestrian. Conditions when these crashes occurred were commonly daylight and dry. Over this same period, no fatality crashes were documented.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 1**, and a summary of the intersection crash types is provided in **Figure 1**.

Table 1. Crash Analysis Summary - 38th St at Lafayette Rd

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.17	0.01	7	18	251

Figure 1. Crash Types - 38th St at Lafayette Rd



INTERSECTION: 38TH ST AT INDUSTRIAL BLVD / COMMERCIAL DR

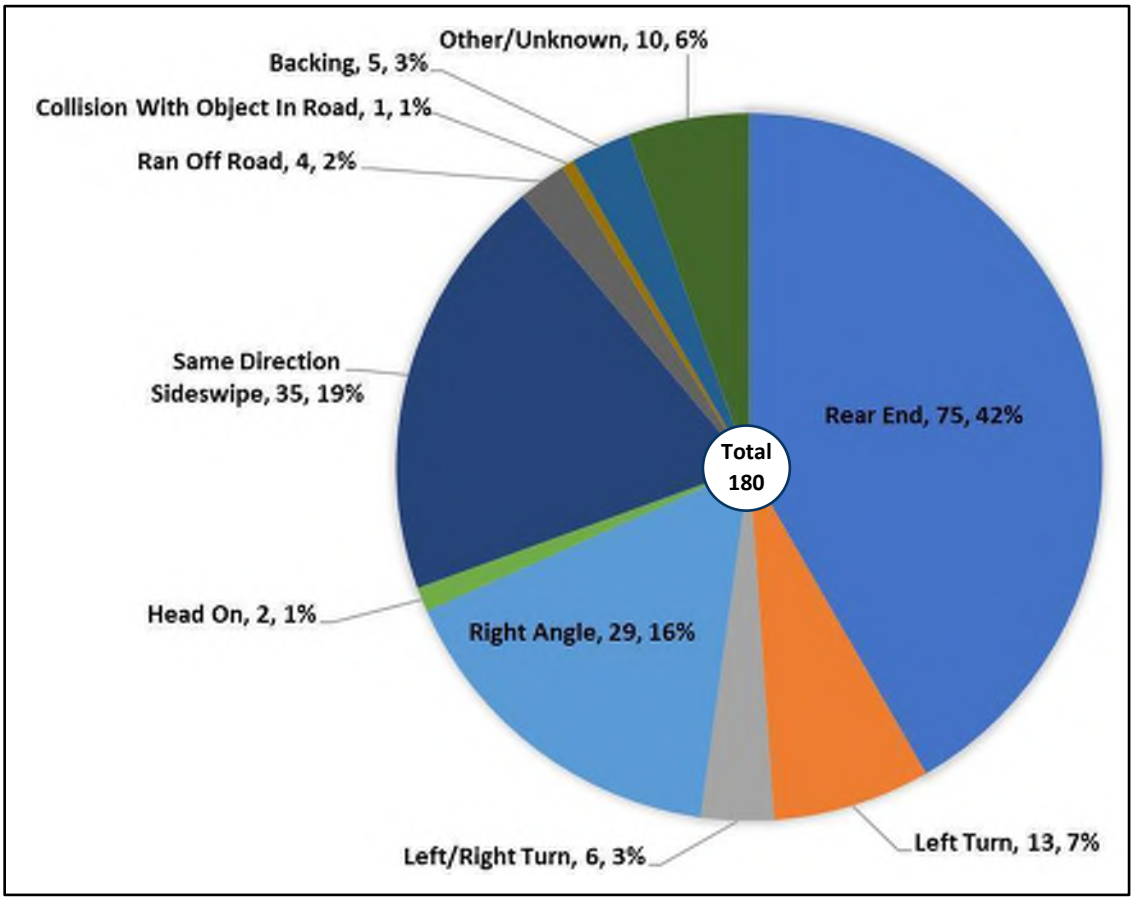
38th Street at Industrial Boulevard / Commercial Drive is a signalized intersection. Between 2018 and 2022, the most common crash types were rear end (42%), same direction sideswipe (19%), and right angle (16%). There was a total of 18 documented incapacitating injury crashes, most of which resulted from drivers disregarding the signal and running a red light (8 crashes) or drivers failing to yield the right of way (3 crashes). For both red light running and failure to yield crashes, high speeds were frequently noted as a possible contributing cause. Crashes typically occurred during daylight while the road was dry. Over this same period, no fatality crashes were documented.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 2**, and a summary of the intersection crash types is provided in **Figure 2**.

Table 2. Crash Analysis Summary - 38th St at Industrial Blvd / Commercial Dr

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
3.68	3.37	18	18	144

Figure 2. Crash Types - 38th St at Industrial Blvd / Commercial Dr



INTERSECTION: W 29TH ST AT NB I-65 OFF-RAMP

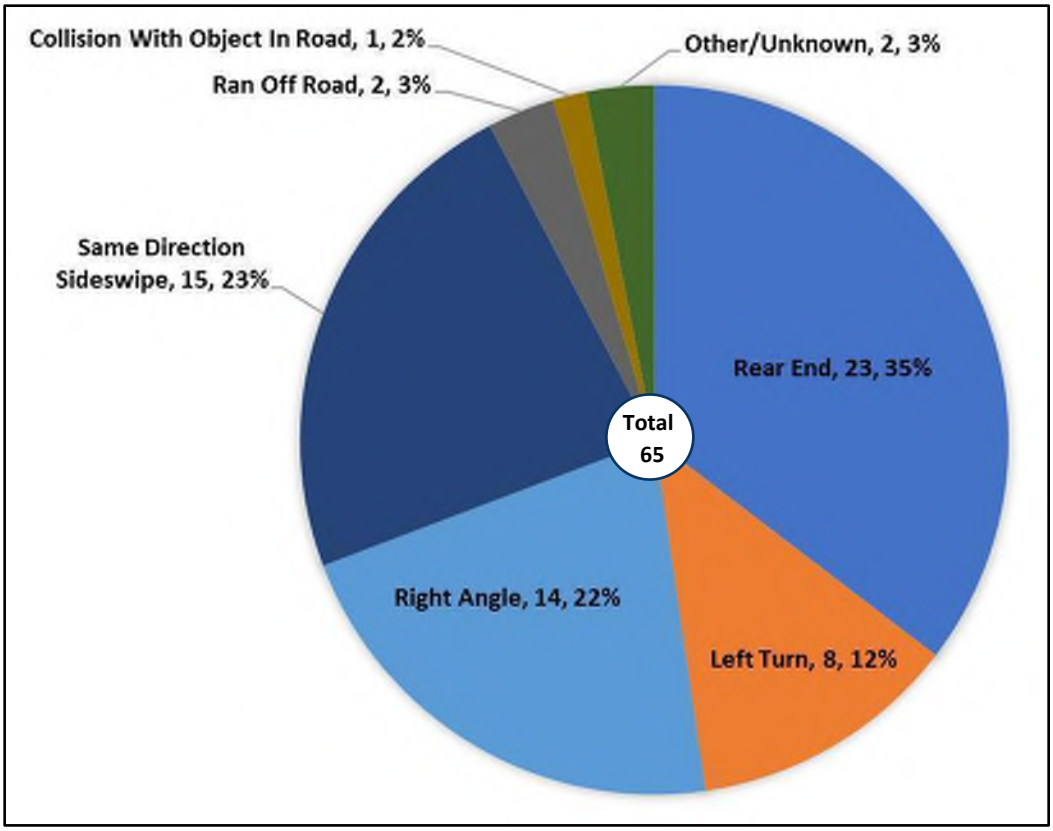
W 29th Street at the northbound I-65 off-ramp is a signalized intersection. Between 2018 and 2022, the most common crash types were rear end (35%), same direction sideswipe (23%), and right angle (22%). Of the three incapacitating injury crashes, two resulted from red light running. These crashes occurred during daylight hours with dry surface conditions. Over this same period, no fatality crashes were documented.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 3**, and a summary of the intersection crash types is provided in **Figure 3**.

Table 3. Crash Analysis Summary - W 29th St at NB I-65 Off-Ramp

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
2.11	0.76	3	4	58

Figure 3. Crash Types - W 29th St at NB I-65 Off-Ramp



SEGMENT: NB I-65, 38TH ST TO LAFAYETTE RD

The northbound I-65 mainline from 38th Street to Lafayette Road is a six-lane interstate segment, with three lanes in the northbound direction. It encompasses the interstate segment from west of 38th Street to east of Lafayette Road (approximately 1.14 miles). Between 2018 and 2022, the most common crash types were same direction sideswipe (29%), ran off the road (27%), and rear end (21%).

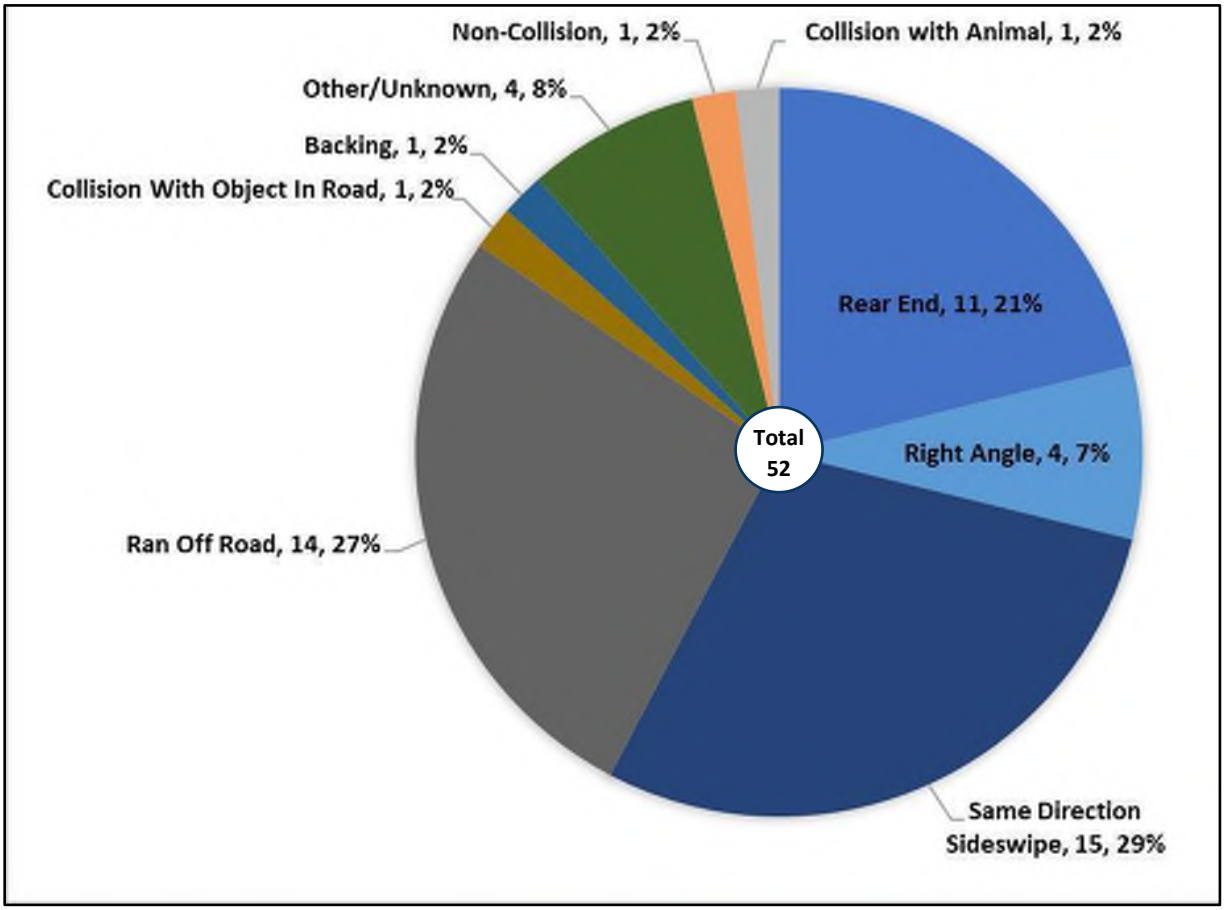
A total of seven documented crashes resulted in incapacitating injury. In five of these crashes, drivers lost control of their vehicle. Rain, ice, or snow was a contributing factor in two of the five lost control crashes and speed was a contributing factor in one. Six of the seven incapacitating injury crashes occurred in daylight conditions, with the seventh in dark (lighted) conditions.

Street lighting is not present on the majority of this segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 4**, and a summary of the segment crash types is provided in **Figure 4**.

Table 4. Crash Analysis Summary – NB I-65, 38th St to Lafayette Rd

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
0.80	1.20	7	5	40

Figure 4. Crash Types – NB I-65, 38th St to Lafayette Rd



SEGMENT: SB I-65, LAFAYETTE RD TO 38TH ST

The southbound I-65 mainline from Lafayette Road to 38th Street is a six-lane interstate segment, with three lanes in the southbound direction. It encompasses the interstate segment from east of Lafayette Road to west of 38th Street (approximately 1.14 miles). Between 2018 and 2022, the most common crash types were ran off the road (32%) and rear end (24%).

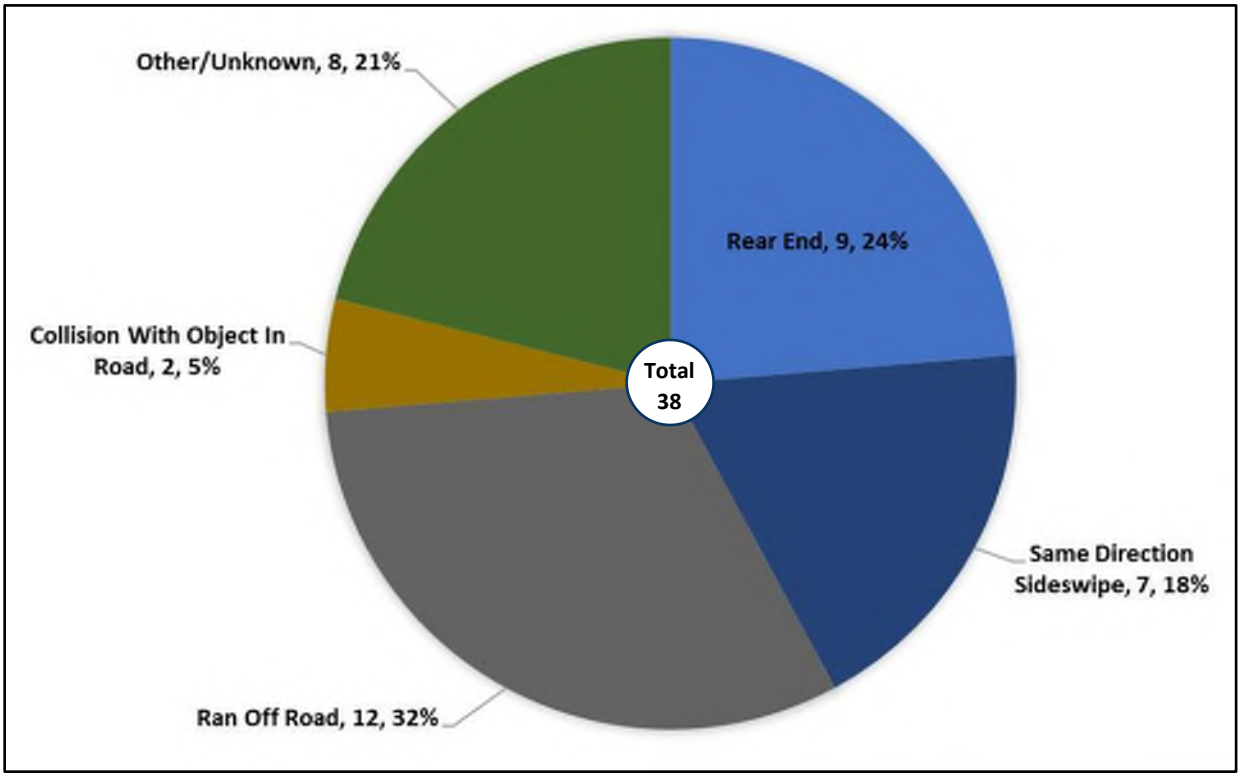
A total of seven documented crashes resulted in incapacitating injury. In four of the crashes, drivers lost control of their vehicle. Speed was listed as a contributing factor in one of the lost control crashes. Three of the seven incapacitating injury crashes occurred in wet pavement conditions. Of the seven incapacitating injury crashes, one occurred in dark (not lighted) conditions, three in dark (lighted) conditions, and three in daylight conditions.

Street lighting is not present on the majority of this segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 5**, and a summary of the segment crash types is provided in **Figure 5**.

Table 5. Crash Analysis Summary – SB I-65, Lafayette Rd to 38th St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
0.15	1.13	7	6	25

Figure 5. Crash Types – SB I-65, Lafayette Rd to 38th St



SEGMENT: NB I-65 AT 38TH ST

The I-65 mainline at 38th Street is a six-lane interstate segment, with three lanes in the northbound direction. It encompasses the interstate segment parallel to the 38th Street frontage road, from east of Cold Springs Road to west of Industrial Boulevard (approximately 1.8 miles). Between 2018 and 2022, the most common crash types were ran off the road (30%), same direction sideswipe (29%), and rear end (20%).

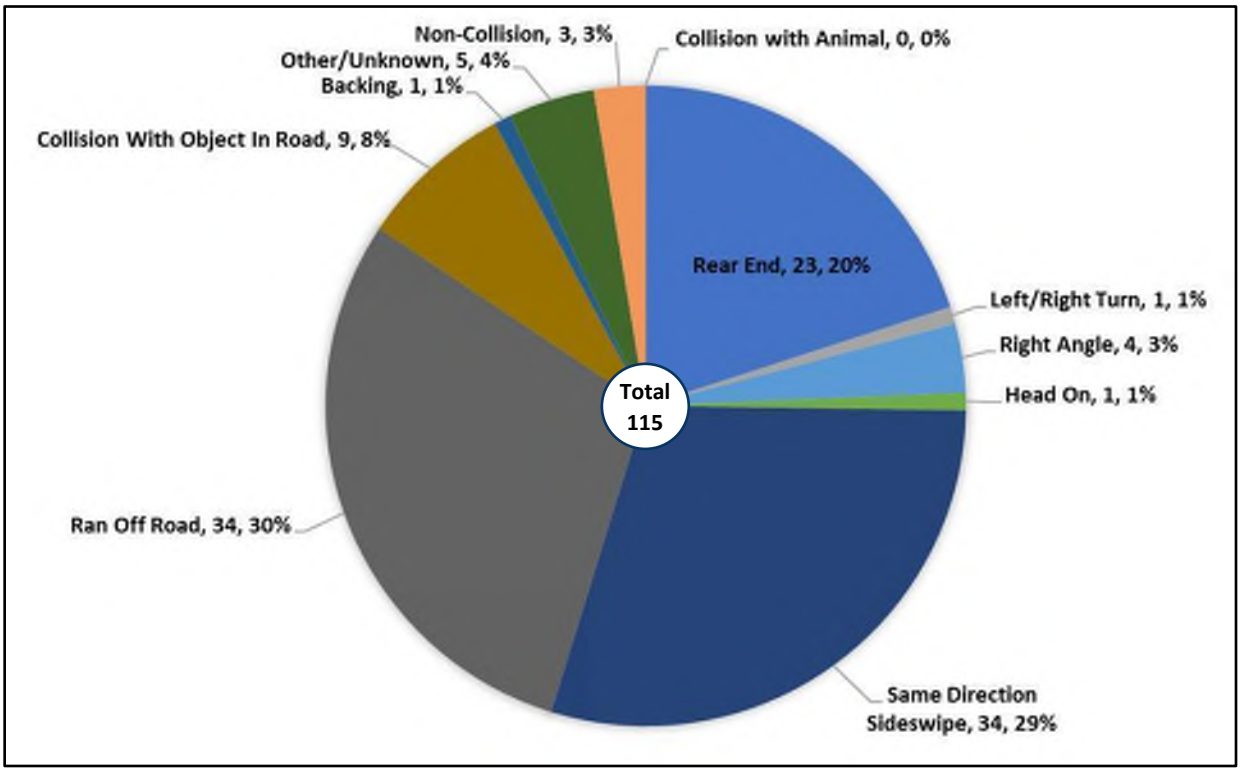
A total of 10 documented crashes resulted in incapacitating injury. In five of these crashes, drivers lost control of their vehicle. Rain, ice, or snow was a contributing factor in three of the five lost control crashes. All other incapacitating injury crashes occurred during dry road conditions. There was one reported fatality on this segment, resulting from a ran off the road collision that occurred when a motorcycle lost control and departed the roadway. This crash occurred during daylight hours with dry roadway conditions.

Street lighting is present on this segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 6**, and a summary of the segment crash types is provided in **Figure 6**.

Table 6. Crash Analysis Summary - NB I-65 at 38th St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
2.30	1.37	11	9	95

Figure 6. Crash Types – NB I-65 at 38th St



SEGMENT: SB I-65 AT 38TH ST

The I-65 mainline at 38th Street is a six-lane interstate segment, with three lanes in southbound direction. It encompasses the interstate segment parallel to the 38th Street frontage road, from west of Industrial Boulevard to east of Cold Springs Road (approximately 1.8 miles). Between 2018 and 2022, the most common crash types were ran off the road (30%), same direction sideswipe (25%), and rear end (23%).

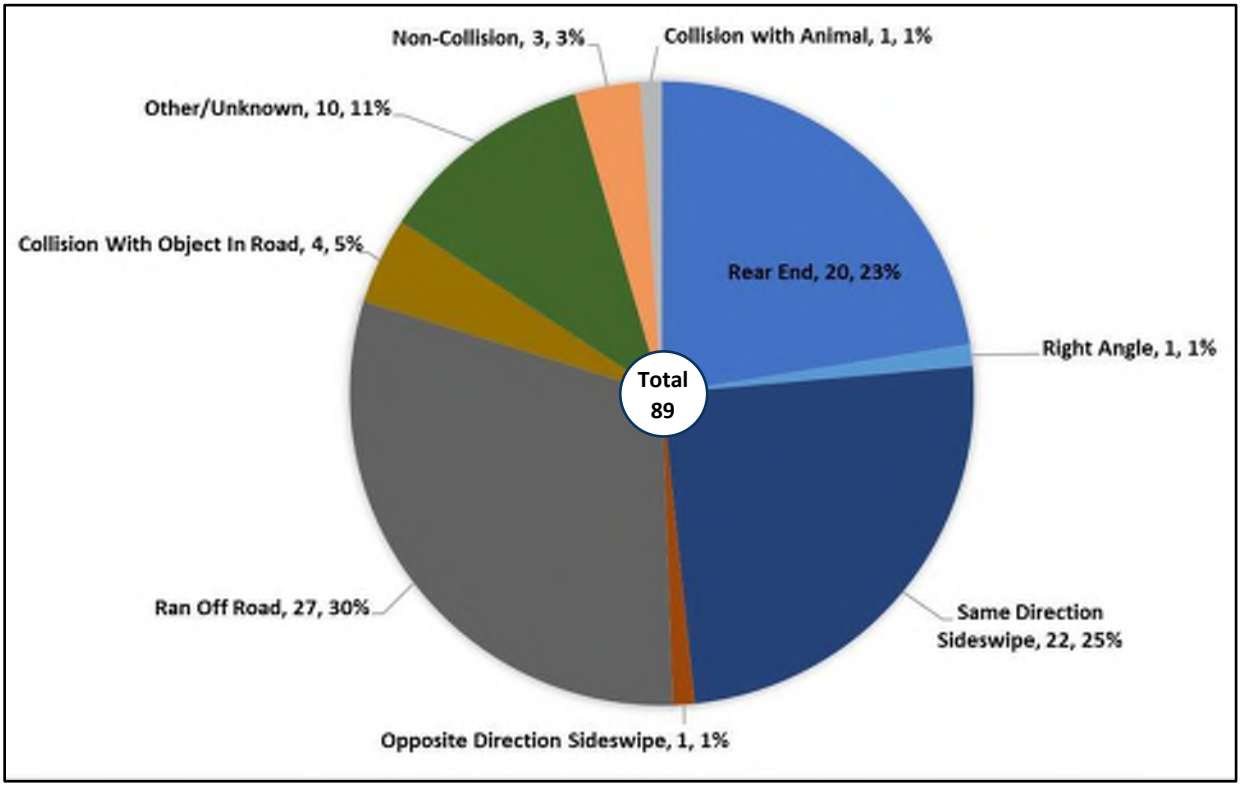
A total of two documented crashes resulted in incapacitating injury. In both of these crashes, drivers lost control of their vehicle with rain, ice, or snow as a contributing factor. Both also occurred in dark (lighted) conditions.

Street lighting is present on this segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 7**, and a summary of the segment crash types is provided in **Figure 7**.

Table 7. Crash Analysis Summary - SB I-65 at 38th St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.44	-0.80	2	8	79

Figure 7. Crash Types – SB I-65 at 38th St



SEGMENT: EB 38TH ST FRONTAGE AT I-65

The 38th Street frontage at I-65 is an eight-lane roadway segment, with four lanes in the eastbound direction. It encompasses the 38th Street frontage segment parallel to I-65, from east of Industrial Boulevard / Commercial Drive to west of Cold Springs Road / Knolton Road (approximately 1.0 mile). Between 2018 and 2022, the most common crash types were rear end (50%), same direction sideswipe (15%), and ran off the road (10%).

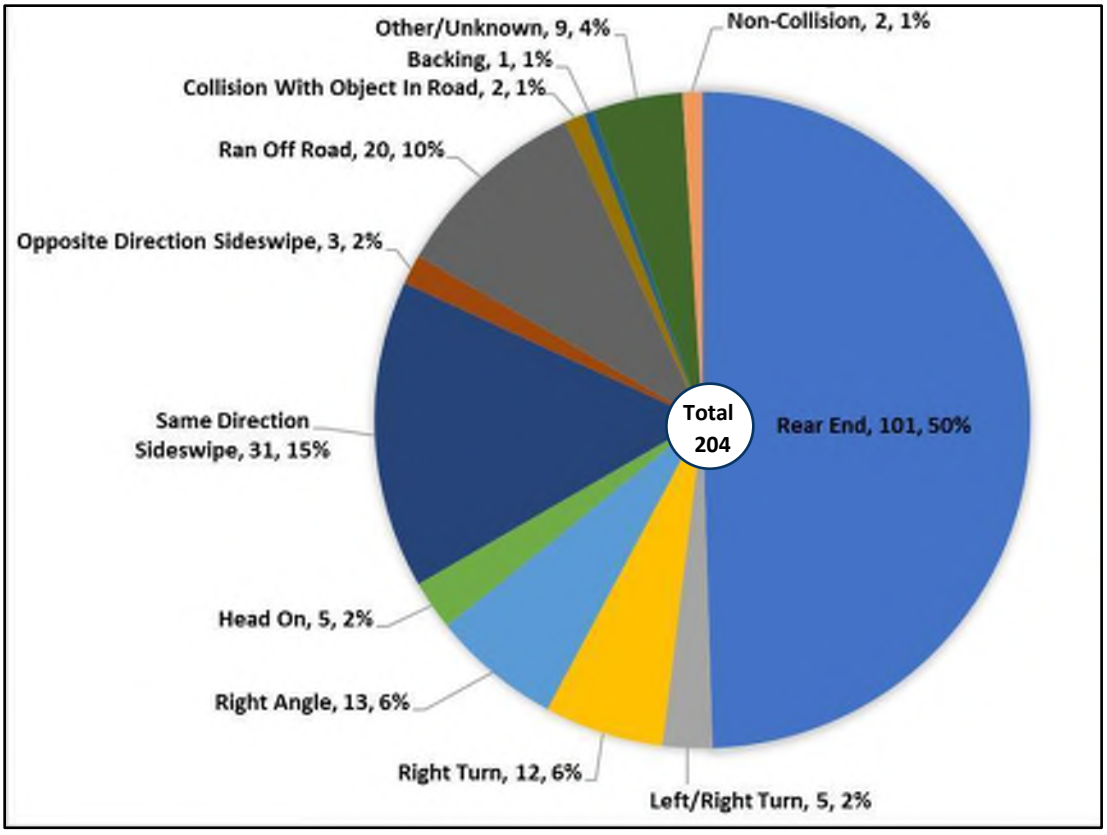
A total of 13 incapacitating injury crashes were documented with four occurring when the driver lost control of their vehicle. These lost control crashes occurred with dry roadway conditions during daylight hours. There were two reported fatalities on this segment. One occurred between a motorcycle traveling eastbound on 38th Steet and a truck with trailer making a right turn onto Guion Road. This crash occurred during daylight hours with dry roadway conditions. The other fatality occurred when a high-speed eastbound vehicle ran off the road while changing lanes to access the off-ramp to Kessler Boulevard. This crash occurred in the early morning (predawn) hours with dry roadway conditions.

Street lighting is present on this segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 8**, and a summary of the segment crash types is provided in **Figure 8**.

Table 8. Crash Analysis Summary – EB 38th St Frontage at I-65

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.32	2.41	15	18	171

Figure 8. Crash Types – EB 38th St Frontage at I-65



SEGMENT: SB I-65, 38TH ST TO DR MLK JR ST

The southbound I-65 mainline from 38th Street to Dr MLK Jr Street is a six-lane interstate segment, with three lanes in the southbound direction. It encompasses the interstate segment from east of 38th Street to west of Dr MLK Jr Street (approximately 0.83 miles). Between 2018 and 2022, the most common crash types were rear end (35%), same direction sideswipe (23%), and ran off the road (23%).

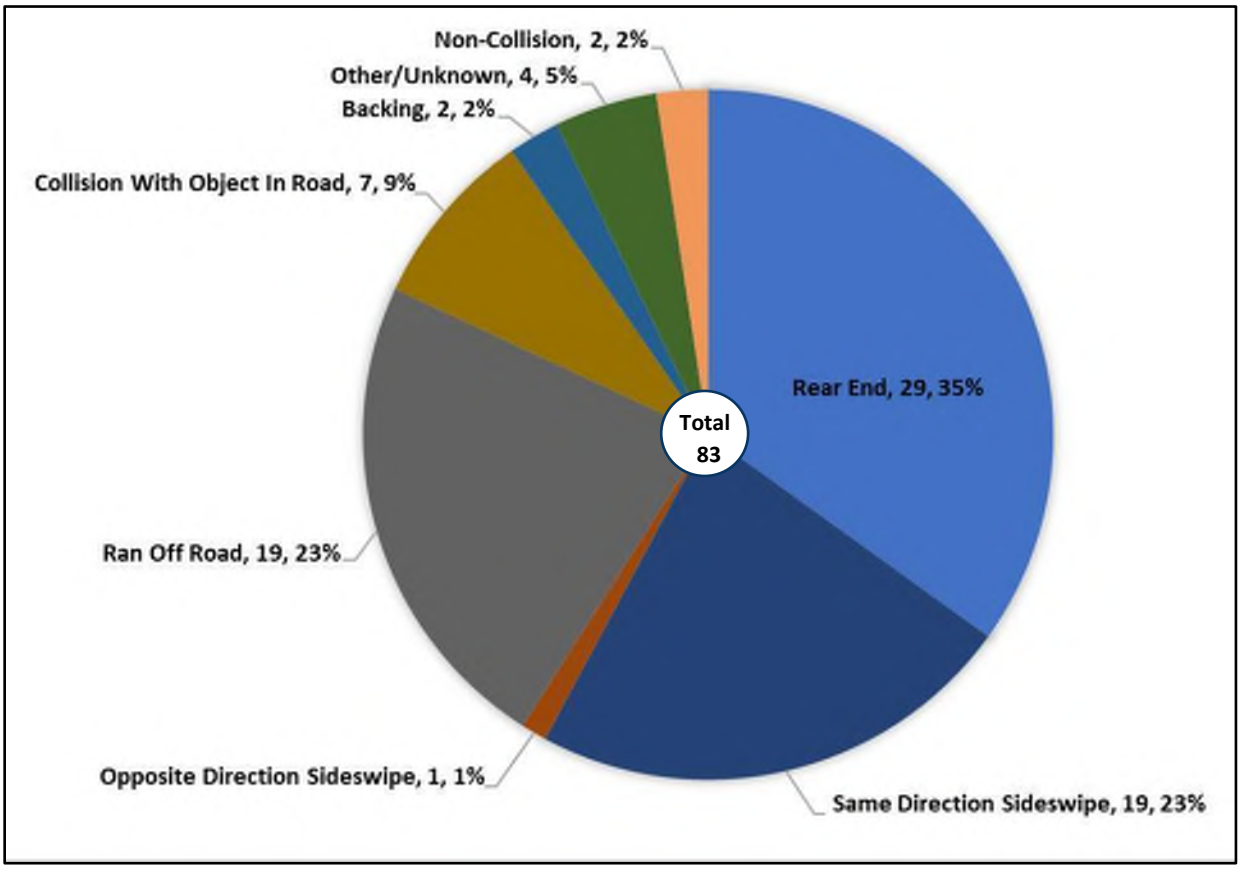
There was a total of nine documented incapacitating injury crashes with six being rear end crashes. Of these six rear end crashes, three occurred due to slowing traffic, two resulted from a disabled vehicle in the roadway, and one from a driver following too closely. Conditions for all incapacitating injury crashes were dry, with eight occurring during daylight hours and one occurring in dark (lighted) conditions. Over this same period, no fatality crashes were documented.

Street lighting is present on this segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 9**, and a summary of the segment crash types is provided in **Figure 9**.

Table 9. Crash Analysis Summary - SB I-65, 38th St to Dr MLK JR St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.40	1.55	9	6	68

Figure 9. Crash Types – SB I-65, 38th St to Dr MLK JR St



SEGMENT: SB I-65 AT W 30TH ST AND W 29TH ST

The I-65 at W 30th Street and W 29th Street segment is a six-lane interstate segment, with three lanes in the southbound direction. It encompasses the I-65 at W 30th Street and W 29th Street interchange segment from north of W 30th Street to south of W 29th Street (approximately 0.79 miles). Between 2018 and 2022, the most common crash types were rear end (34%), same direction sideswipe (28%), and ran off the road (19%).

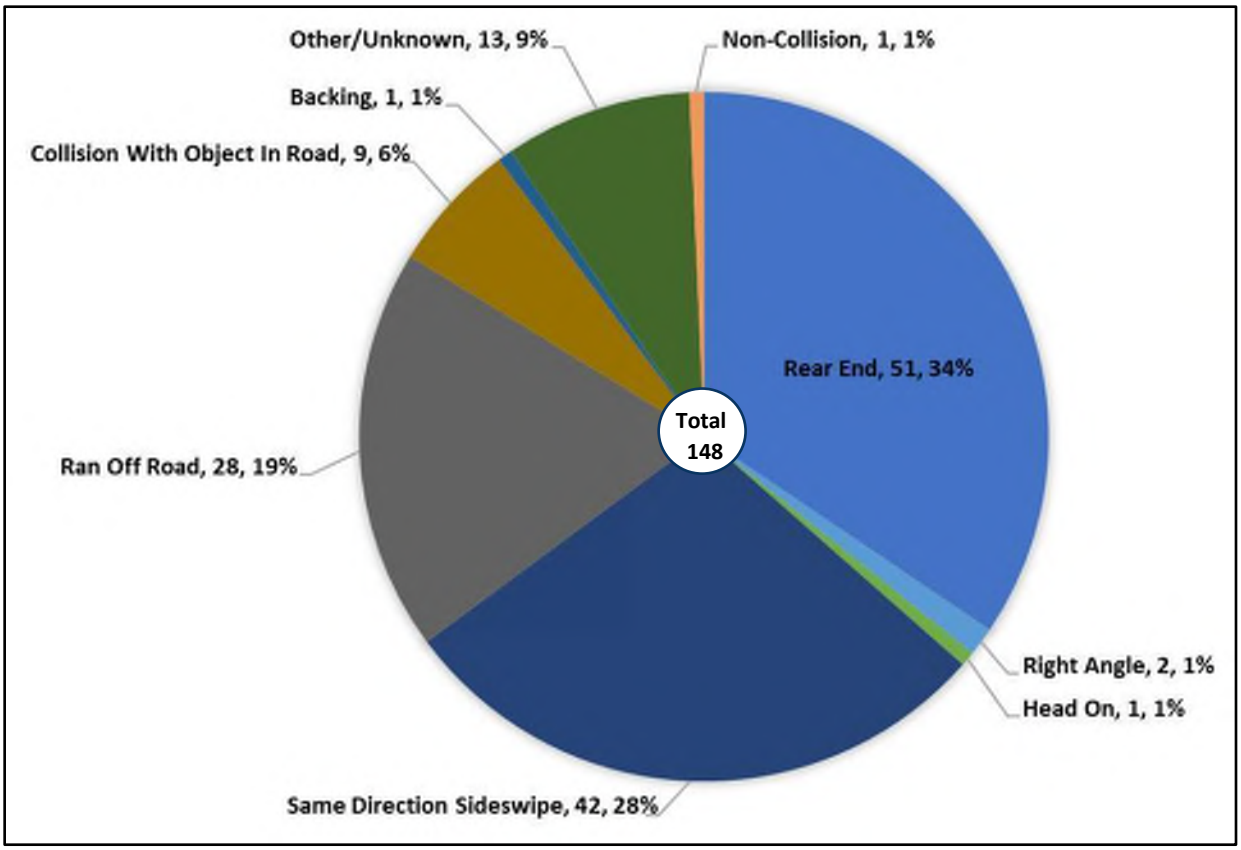
There was a total of 15 documented incapacitating injury crashes with eight occurring when the driver lost control of their vehicle. Rain, ice, or snow was present in four of the eight lost control crashes. The second leading cause of incapacitating injury crashes, with two crashes, was driver intoxication. Over this same period, no fatality crashes were documented.

Street lighting is present on this segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 10**, and a summary of the segment crash types is provided in **Figure 10**.

Table 10. Crash Analysis Summary - SB I-65 at W 30th St and W 29th St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
0.28	1.30	15	15	118

Figure 10. Crash Types – SB I-65 at W 30th St and W 29th St



DOWNTOWN SPOKE

INTERSECTION: W 21ST ST AT SENATE BLVD / BOULEVARD PLACE

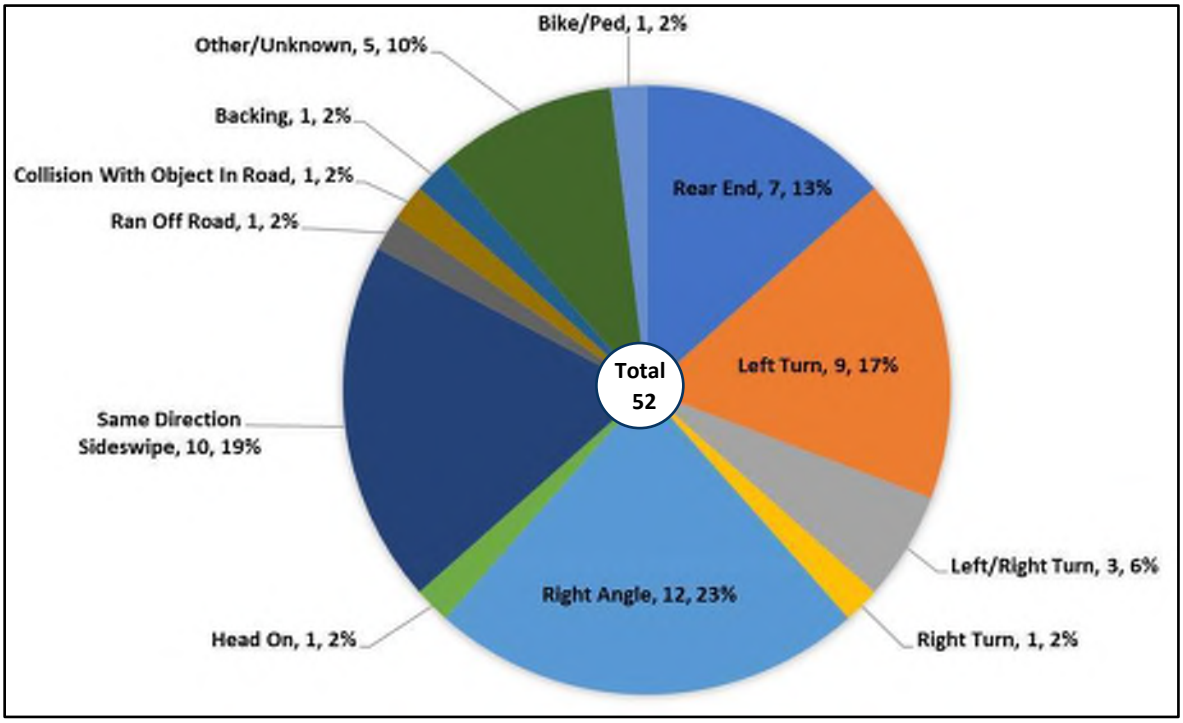
W 21st Street at Senate Boulevard / Boulevard Place is a signalized intersection. Between 2018 and 2022, the most common crash types were right angle (23%), same direction sideswipe (19%), and left turn (17%). Three incapacitating injury crashes were documented with no trend among them as to the cause of crash. One of the documented incapacitating injury crashes involved a pedestrian. Conditions were mainly dry during daylight hours. Over this same period, no fatality crashes were documented.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 11**, and a summary of the intersection crash types is provided in **Figure 11**.

Table 11. Crash Analysis Summary - W 21st St at Senate Blvd / Boulevard Place

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.06	0.69	3	8	41

Figure 11. Crash Types - W 21st St at Senate Blvd / Boulevard Place



INTERSECTION: SB I-65 AND NB I-65 OFF-RAMPS AT WEST ST

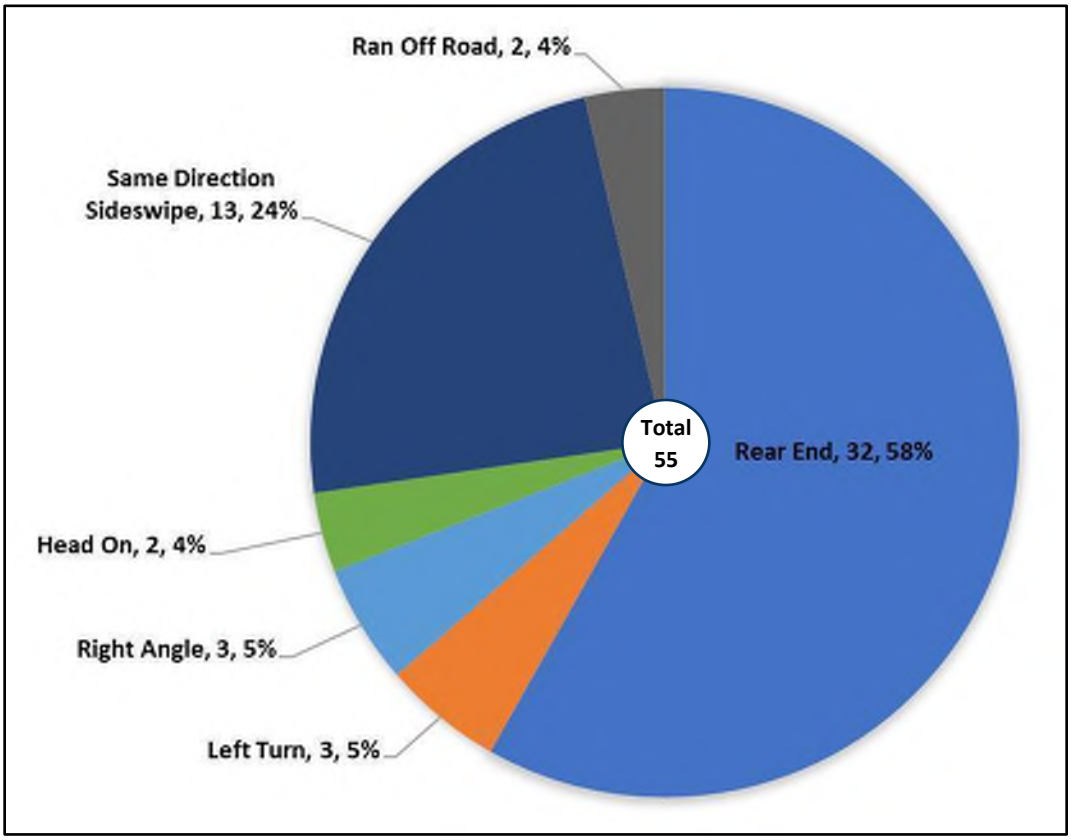
SB I-65 and NB I-65 Off-ramps at West Street is a signalized intersection. Between 2018 and 2022, the most common crash types were rear end (58%) and same direction sideswipe (24%). Over this same period, no fatality or incapacitating injury crashes were documented.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 12**, and a summary of the intersection crash types is provided in **Figure 12**.

Table 12. Crash Analysis Summary - SB I-65 and NB I-65 Off-ramps at West St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.20	-0.70	0	2	53

Figure 12. Crash Types - SB I-65 and NB I-65 Off-ramps at West St



INTERSECTION: 11TH ST AT WEST ST / I-65 & OSCAR ROBERTSON BLVD AT DR MLK JR ST

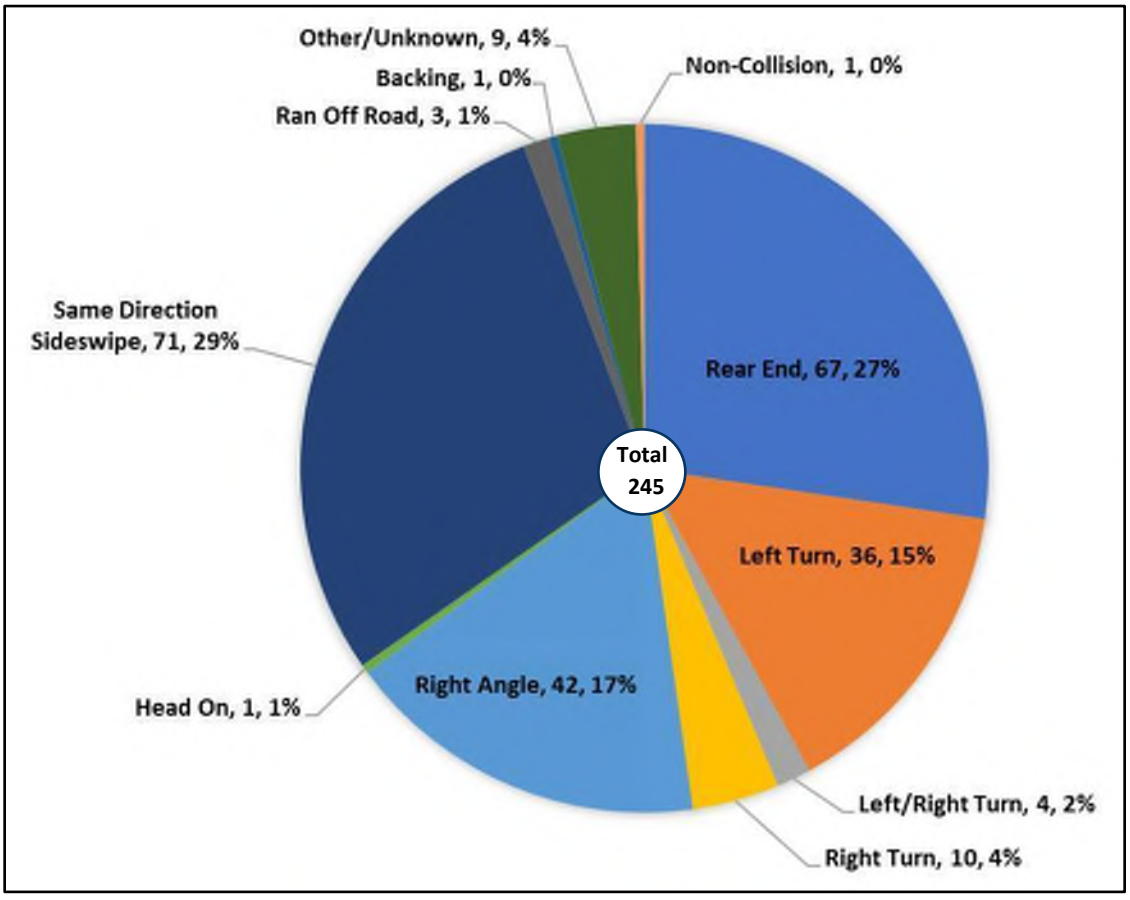
11th Street at West Street / I-65 & Oscar Robertson Boulevard at Dr MLK Jr Street is a signalized intersection. Between 2018 and 2022, the most common crash types were same direction sideswipe (29%), rear end (27%), and right angle (17%). There was a total of eight documented incapacitating injury crashes with six of the crashes caused by the drivers disregarding the signal and running a red light. Conditions were commonly dry and during daylight hours. Over this same period, no fatality crashes were documented.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 13**, and a summary of the intersection crash types is provided in **Figure 13**.

Table 13. Crash Analysis Summary - 11th St at West St / I-65 & Oscar Robertson Blvd at Dr MLK Jr St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.05	0.12	8	17	220

Figure 13. Crash Types - 11th St at West St / I-65 & Oscar Robertson Blvd at Dr MLK Jr St



INTERSECTION: 10TH AT DR MLK JR ST AND N WEST ST

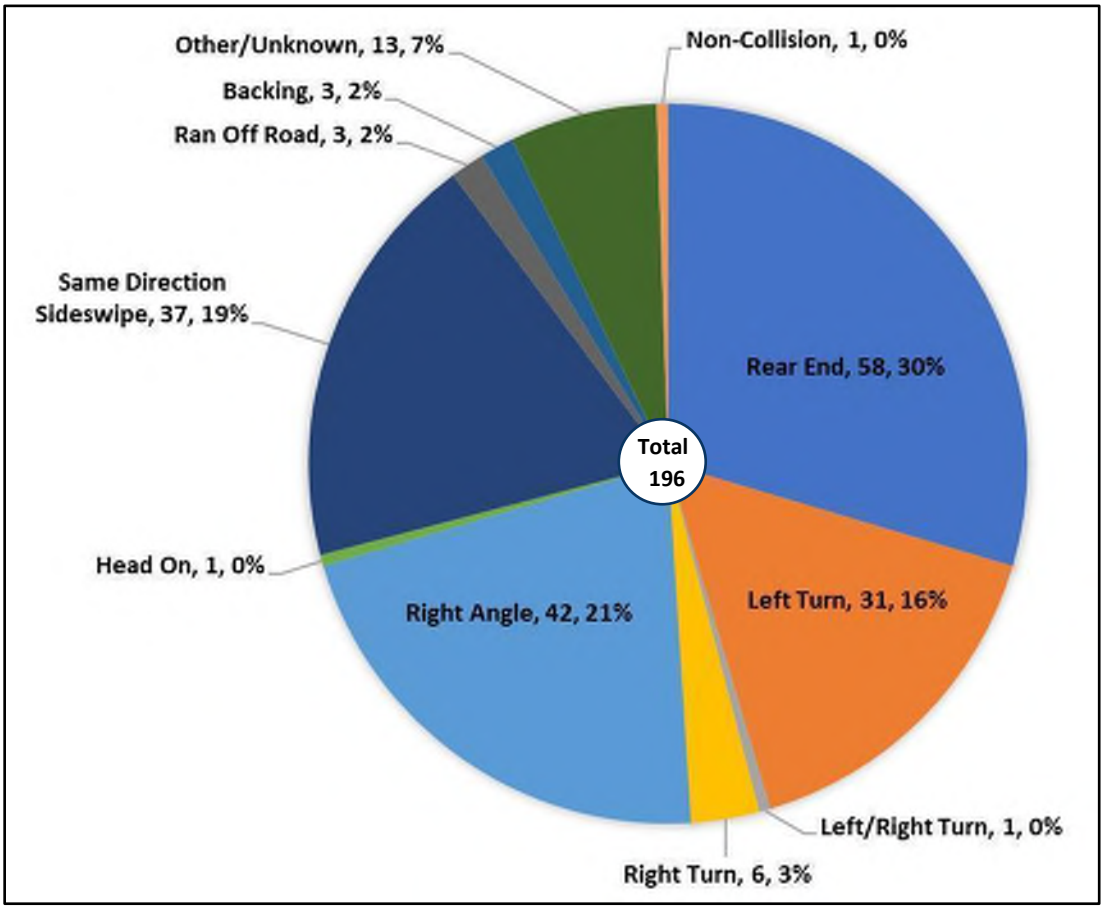
10th at Dr MLK Jr Street and N West Street is a signalized intersection. Between 2018 and 2022, the most common crash types were rear end (30%), right angle (21%), and same direction sideswipe (19%). There were five documented incapacitating injury crashes with three of the crashes occurring with the drivers disregarding the signal and running a red light. Conditions during the time of crashes were commonly dry during daylight conditions. Over this same period, no fatality crashes were documented.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 14**, and a summary of the intersection crash types is provided in **Figure 14**.

Table 14. Crash Analysis Summary - 10th at Dr MLK Jr St and N West St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.66	0.13	5	9	182

Figure 14. Crash Types - 10th at Dr MLK Jr St and N West St



INTERSECTION: 12TH ST AT N PENNSYLVANIA ST

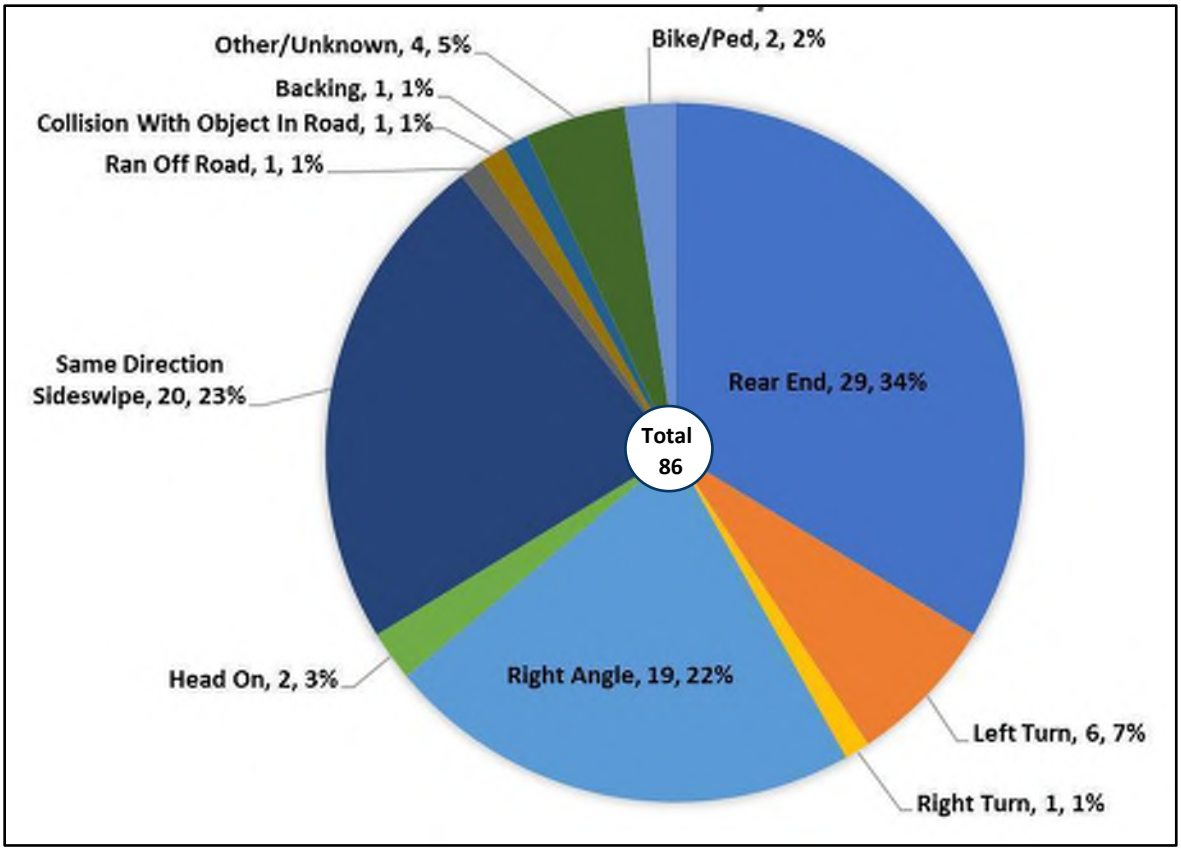
12th Street at N Pennsylvania Street is a signalized intersection. Between 2018 and 2022, the most common crash types were rear end (34%), same direction sideswipe (23%), and right angle (22%). One incapacitating injury crash was documented to have occurred at this intersection due to failure to stop. Conditions were dry and during daylight hours. Over this same period, no fatality crashes were documented.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 15**, and a summary of the intersection crash types is provided in **Figure 15**.

Table 15. Crash Analysis Summary - 12th St at N Pennsylvania St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.86	0.17	1	10	75

Figure 15. Crash Types - 12th St at N Pennsylvania St



INTERSECTION: E MICHIGAN ST AT DAVIDSON ST

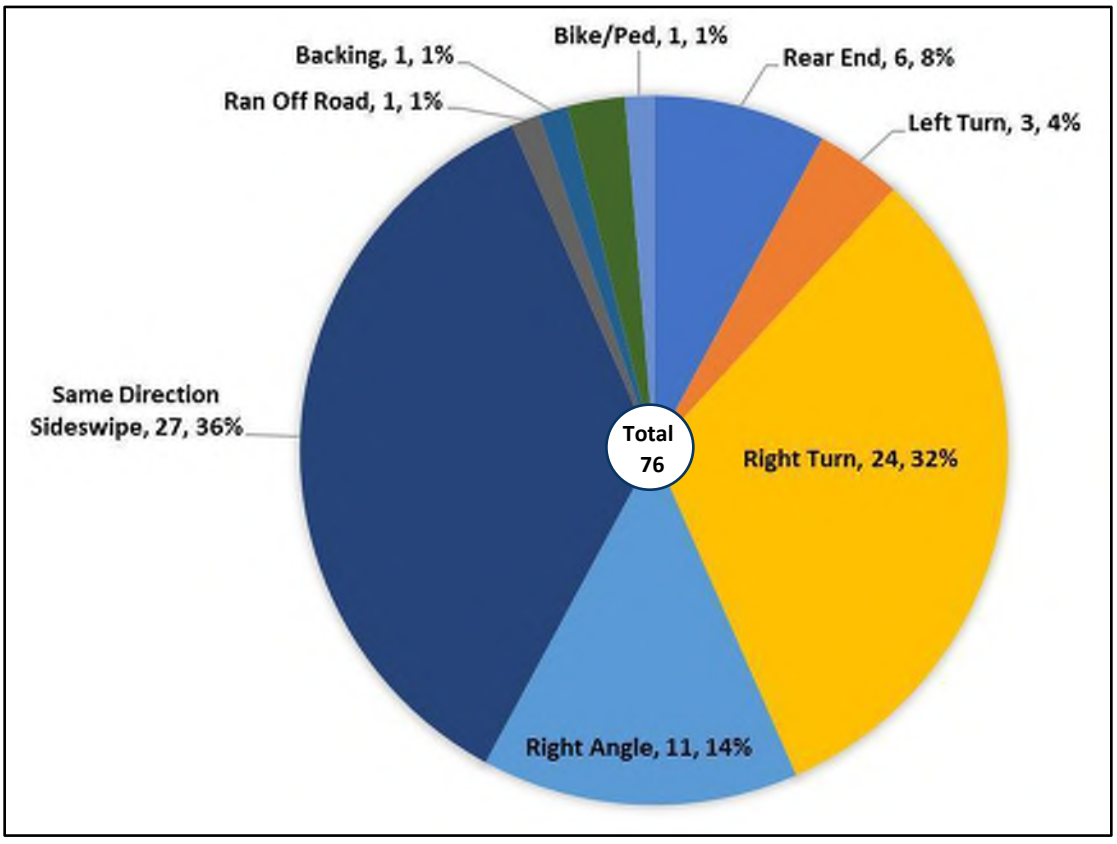
E Michigan Street at Davidson Street is a signalized intersection. Between 2018 and 2022, the most common crash types were same direction sideswipe (36%), right turn (32%), and right angle (14%). Two incapacitating injury crashes were documented, in both of which the drivers had disregarded the signal. Conditions were wet during both crashes with one during daylight hours and the other dark but lighted. There was one reported fatality at the intersection, resulting from a right-angle collision that occurred when a vehicle ran a red light. This crash occurred during daylight hours with dry roadway conditions.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 16**, and a summary of the intersection crash types is provided in **Figure 16**.

Table 16. Crash Analysis Summary - E Michigan St at Davidson St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
3.78	1.31	3	5	68

Figure 16. Crash Types - E Michigan St at Davidson St



INTERSECTION: E MICHIGAN ST AT PINE ST

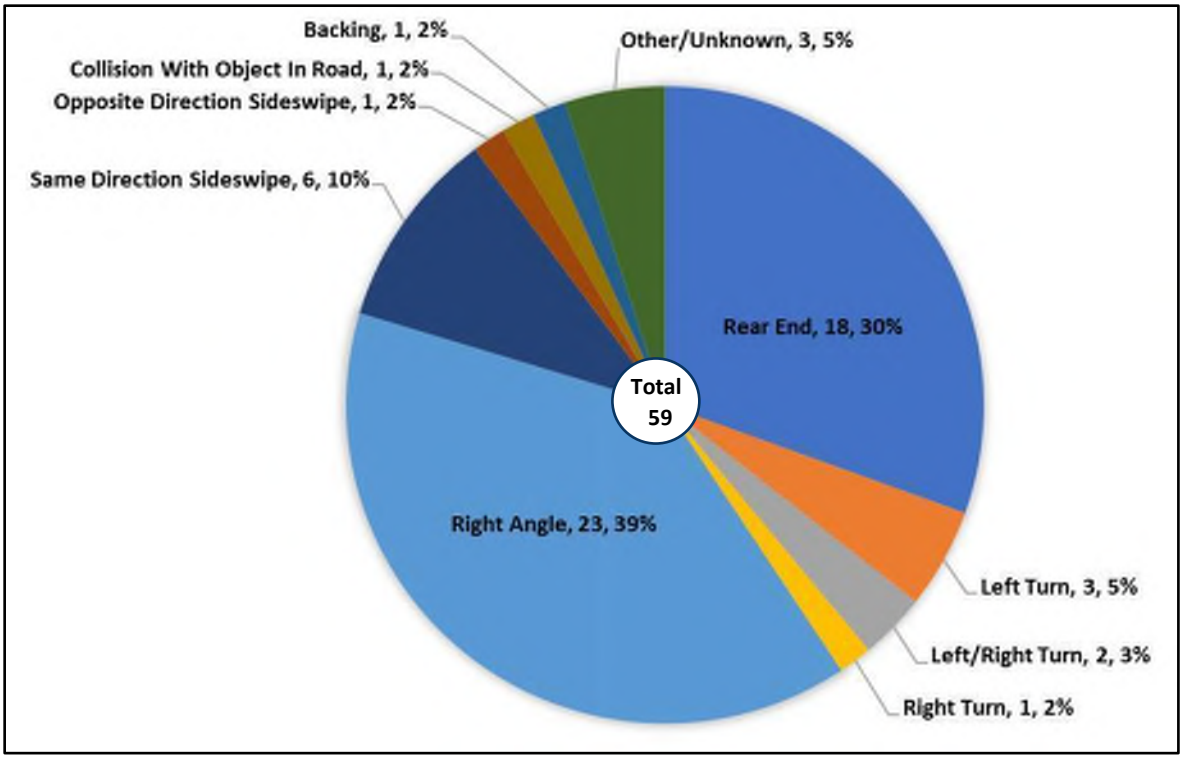
E Michigan Street at Pine Street is a signalized intersection. Between 2018 and 2022, the most common crash types were right angle (39%) and rear end (30%). Two incapacitating injury crashes were documented in both of which the drivers disregarded the signal. Conditions were dry and during daylight hours. Over this same period, no fatality crashes were documented.

Street lighting is not present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 17**, and a summary of the intersection crash types is provided in **Figure 17**.

Table 17. Crash Analysis Summary - E Michigan St at Pine St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
2.02	0.55	2	5	52

Figure 17. Crash Types - E Michigan St at Pine St



INTERSECTION: E OHIO ST AT N COLLEGE AVE

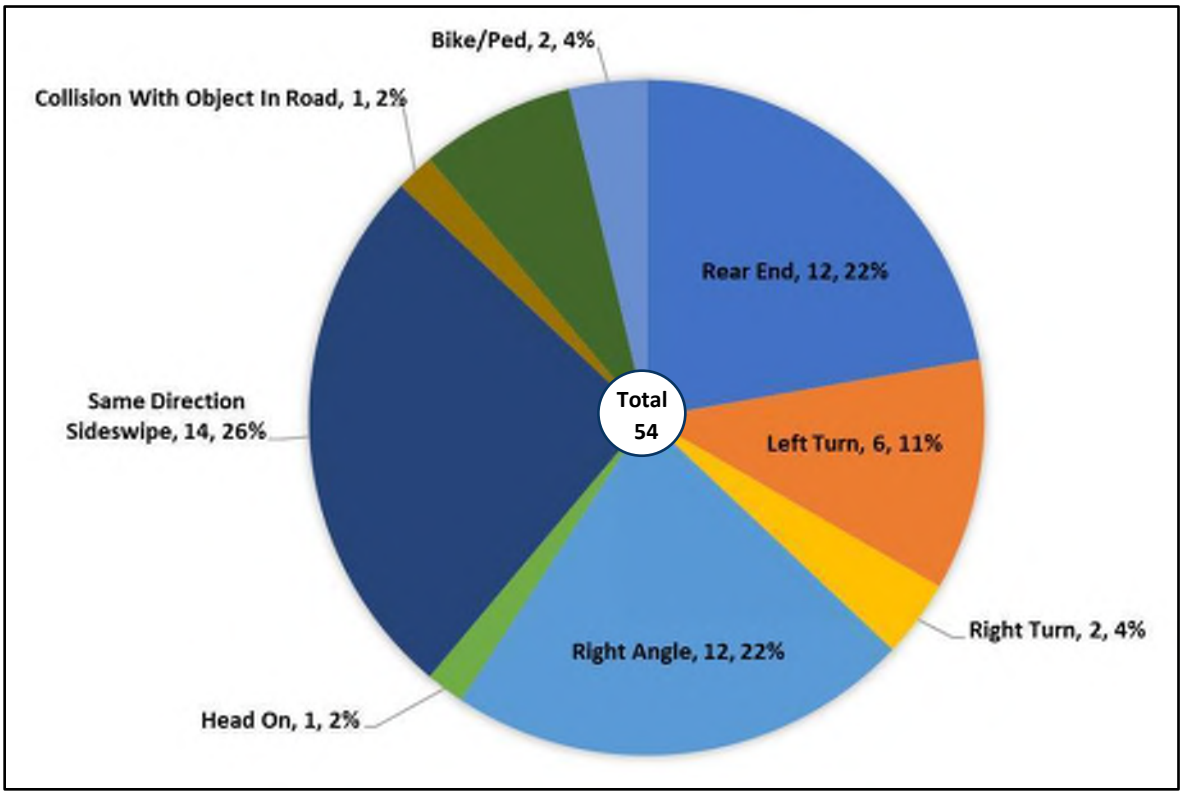
E Ohio Street at N College Avenue is a signalized intersection. Between 2018 and 2022, the most common crash types were same direction sideswipe (26%), rear end (22%), and right angle (22%). Over this same period, no fatality or incapacitating injury crashes were documented.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 18**, and a summary of the intersection crash types is provided in **Figure 18**.

Table 18. Crash Analysis Summary - E Ohio St at N College Ave

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
3.82	1.21	0	11	43

Figure 18. Crash Types - E Ohio St at N College Ave



INTERSECTION: E WASHINGTON ST AT N COLLEGE AVE

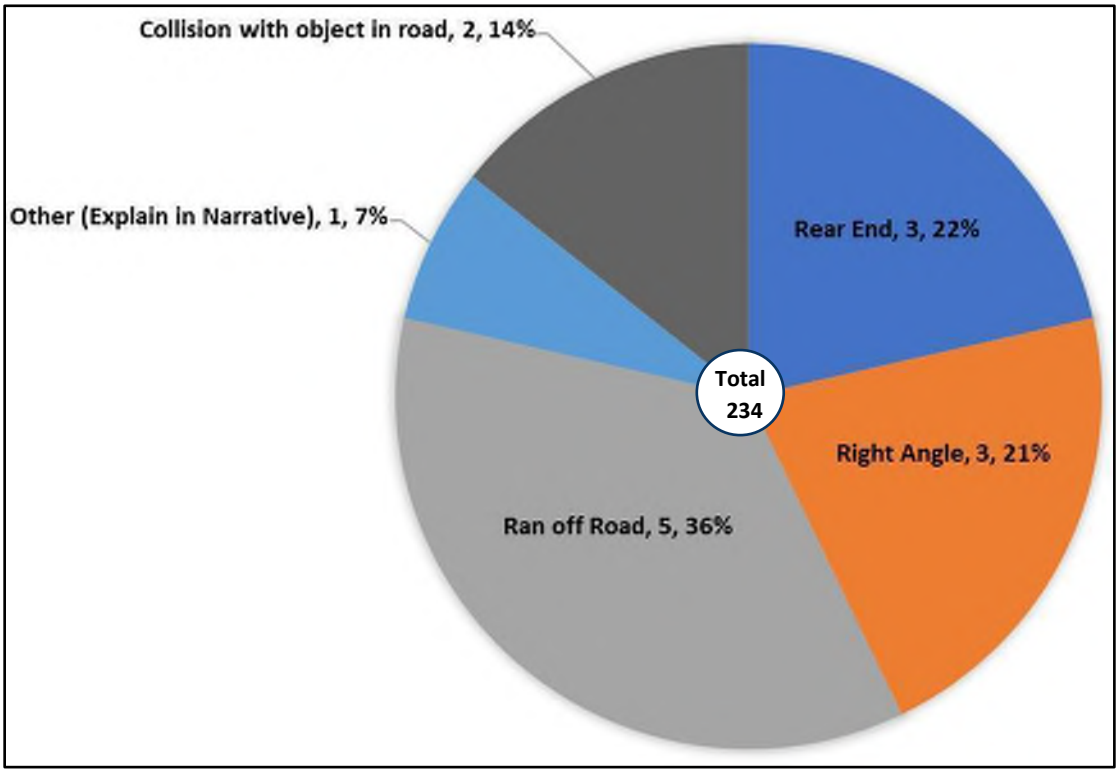
E Washington Street at N College Avenue is a signalized intersection. Between 2018 and 2022, the most common crash types were ran off the road (36%), rear end (22%), and right angle (21%). A total of ten incapacitating injury crashes were documented with four occurring due to drivers disregarding the signal and three occurring when drivers struck the railroad bridge support. Over this same period, no fatality crashes were documented. There is a railroad overpass over the west and north legs of this intersection which limits both sight distance and lane widths.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 19**, and a summary of the intersection crash types is provided in **Figure 19**.

Table 19. Crash Analysis Summary - E Washington St at N College Ave

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
6.68	3.50	10	26	198

Figure 19. Crash Types - E Washington St at N College Ave



INTERSECTION: W MCCARTY ST AT S CAPITOL AVE / WB I-70 ON-RAMP

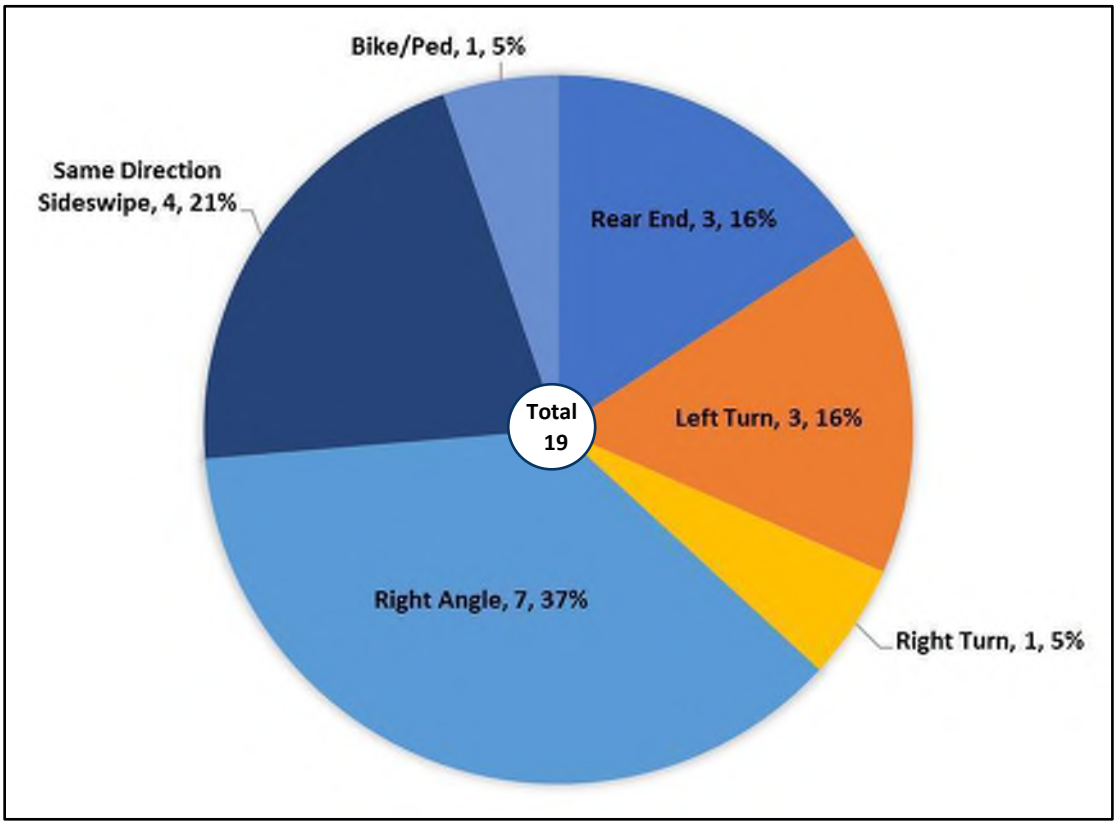
W McCarty Street at S Capitol Avenue / WB I-70 On-ramp is a signalized intersection. Between 2018 and 2022, the most common crash types were right angle (37%), same direction sideswipe (21%), rear end (16%), and left turn (16%). Two incapacitating injury crashes were documented at this intersection, in both of which the drivers had disregarded the signal. Over this same period, no fatality crashes were documented.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 20**, and a summary of the intersection crash types is provided in **Figure 20**.

Table 20. Crash Analysis Summary - W McCarty St at S Capitol Ave / WB I-70 On-ramp

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.60	1.02	2	3	14

Figure 20. Crash Types - W McCarty St at S Capitol Ave / WB I-70 On-ramp



INTERSECTION: W MCCARTY ST AT ILLINOIS ST / EB I-70 OFF-RAMP

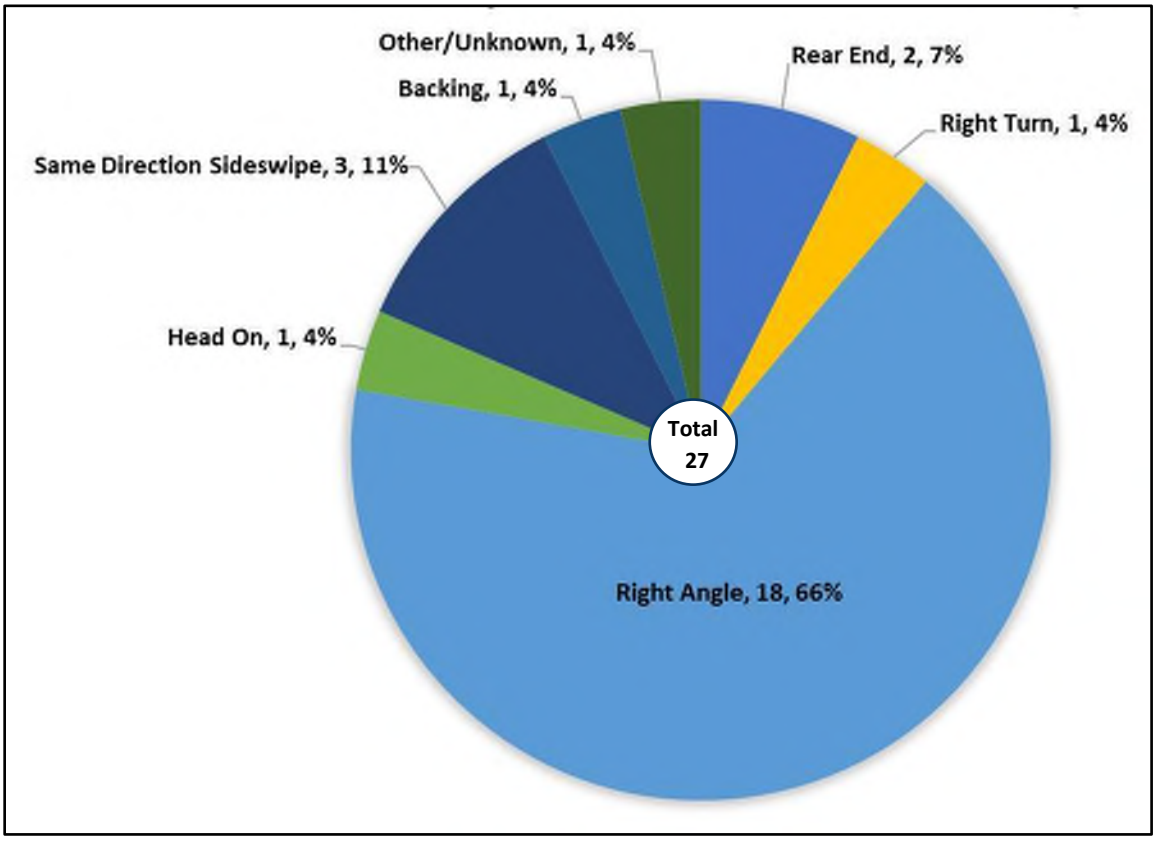
W McCarty Street at Illinois Street / EB I-70 Off-ramp is a signalized intersection. Between 2018 and 2022, the most common crash type was rear end (66%). Over this same period, no fatality or incapacitating injury crashes were documented.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 21**, and a summary of the intersection crash types is provided in **Figure 21**.

Table 21. Crash Analysis Summary - W McCarty St at Illinois St / EB I-70 Off-ramp

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
2.24	0.52	0	7	20

Figure 21. Crash Types - W McCarty St at Illinois St / EB I-70 Off-ramp



INTERSECTION: W MCCARTY ST AT S MERIDIAN ST / RUSSELL AVE

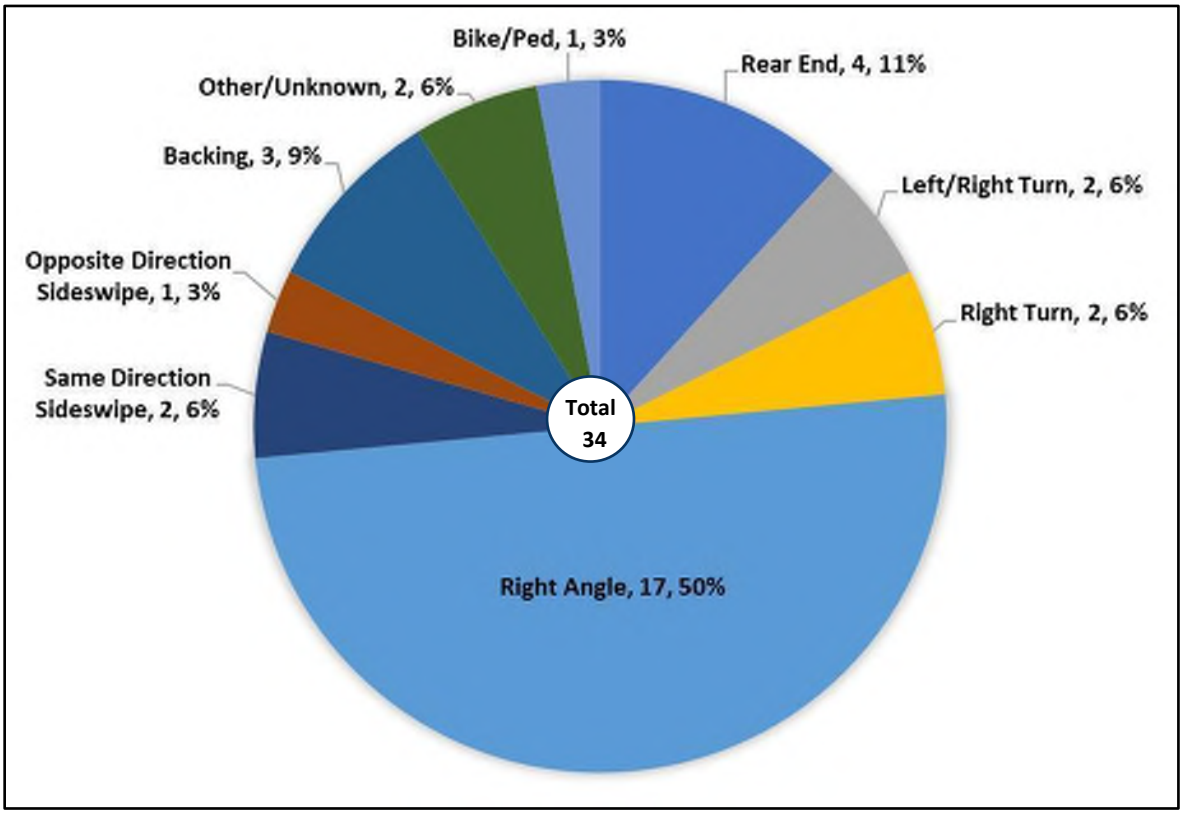
W McCarty Street at S Meridian Street / Russell Avenue is a signalized intersection. Between 2018 and 2022, the most common crash types were right angle (50%) and read end (11%). One incapacitating injury crash was documented to have occurred which resulted when the driver disregarded the signal. Over this same period, no fatality crashes were documented.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 22**, and a summary of the intersection crash types is provided in **Figure 22**.

Table 22. Crash Analysis Summary - W McCarty St at S Meridian St / Russell Ave

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.64	0.41	1	5	28

Figure 22. Crash Types - W McCarty St at S Meridian St / Russell Ave



INTERSECTION: W MCCARTY ST AT I-70 RAMPS / MADISON AVE

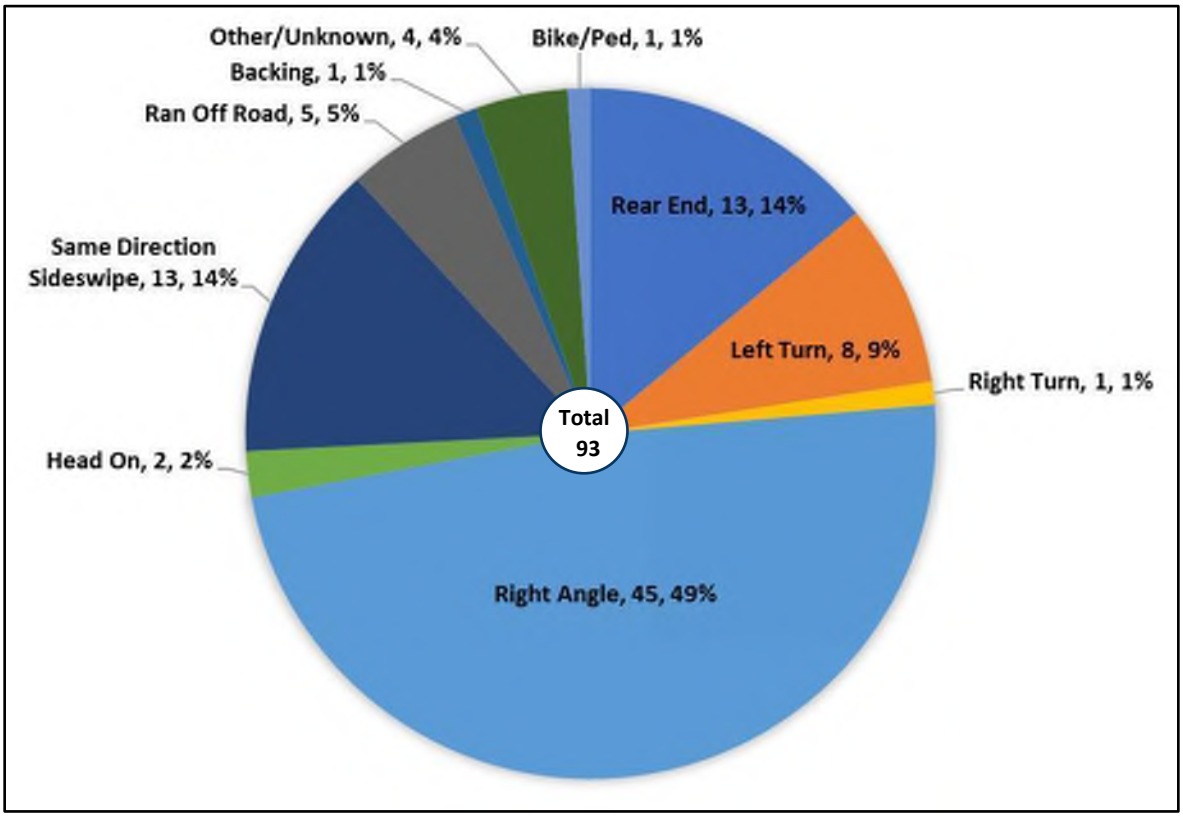
W McCarty Street at I-70 ramps / Madison Avenue is a signalized intersection. Between 2018 and 2022, the most common crash types were right angle (49%), rear end (14%), and same direction sideswipe (14%). There were seven documented incapacitating injury crashes over this time, with six of the crashes occurring with the drivers disregarding the signal and running a red light. Conditions were commonly dry and during daylight hours. Over this same period, no fatality crashes were documented.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 23**, and a summary of the intersection crash types is provided in **Figure 23**.

Table 23. Crash Analysis Summary - W McCarty St at I-70 ramps / Madison Ave

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
2.00	1.52	7	9	77

Figure 23. Crash Types - W McCarty St at I-70 ramps / Madison Ave



INTERSECTION: W MCCARTY ST AT PENNSYLVANIA ST

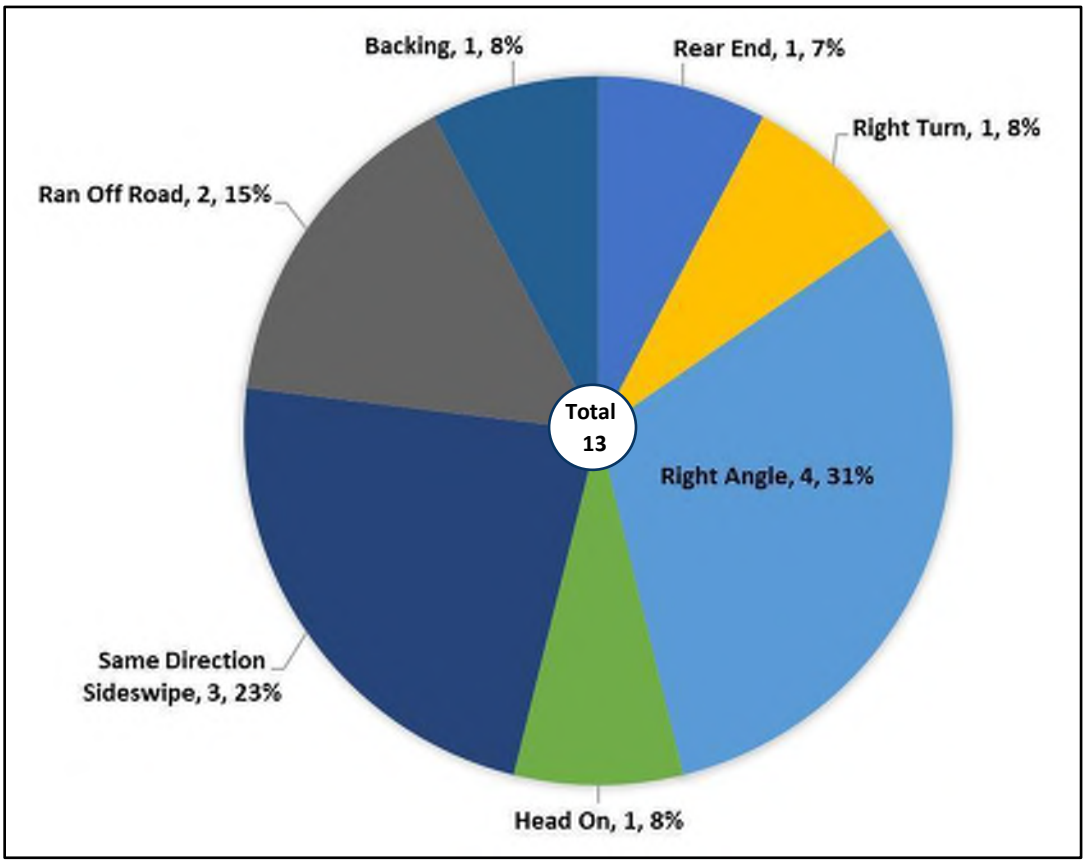
W McCarty Street at Pennsylvania Street is a signalized intersection. Between 2018 and 2022, the most common crash types were right angle (31%), same direction sideswipe (23%), and rand off the road (15%). There were three documented incapacitating injury crashes recorded, with two of the crashes occurring with the drivers disregarding the signal and running a red light. There was one reported fatality at the intersection, resulting from a ran off the road collision where a motorcyclist lost control, struck the curb, and was ejected from the vehicle. This crash occurred at night with dry roadway conditions.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 24**, and a summary of the intersection crash types is provided in **Figure 24**.

Table 24. Crash Analysis Summary - W McCarty St at Pennsylvania St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
-0.26	1.00	4	3	6

Figure 24. Crash Types - W McCarty St at Pennsylvania St



INTERSECTION: W MORRIS ST AT S WEST ST / S MISSOURI ST

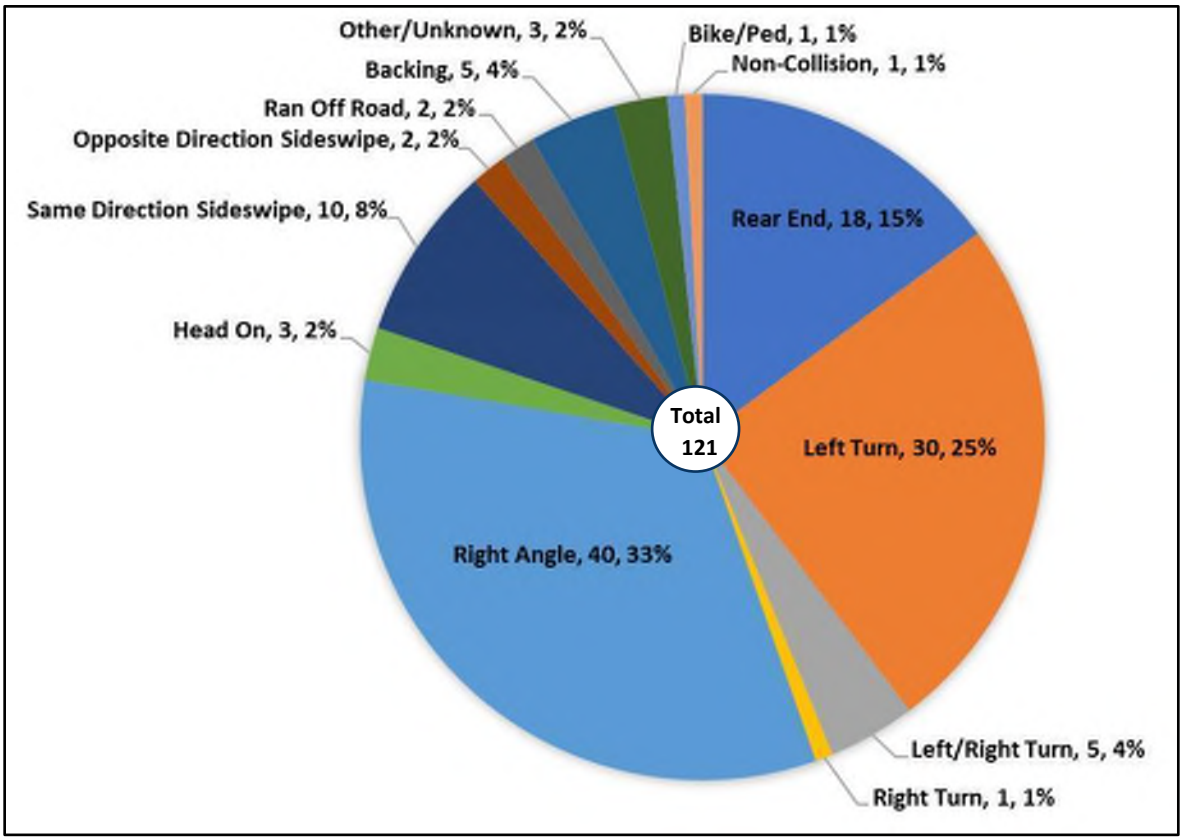
W Morris Street at S West Street / S Missouri Street is a signalized intersection. Between 2018 and 2022, the most common crash types were right angle (33%), left turn (25%), and rear end (15%). A total of 10 incapacitating injury crashes were reported at this intersection with three of the crashes occurring with the drivers disregarding the signal and running a red light, and three of the crashes occurring when a left-turning driver failed to yield to an oncoming through vehicle. Conditions were commonly dry and during daylight hours. There was one reported fatality at the intersection, resulting from a right-angle collision that occurred when a vehicle ran a red light. This crash occurred during daylight hours with dry roadway conditions.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 25**, and a summary of the intersection crash types is provided in **Figure 25**.

Table 25. Crash Analysis Summary - W Morris St at S West St / S Missouri St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
2.64	2.35	11	12	98

Figure 25. Crash Types - W Morris St at S West St / S Missouri St



SEGMENT: NB I-65, N PARK AVE TO ILLINOIS ST

The I-65 segment from N Park Ave to Illinois St is a six-lane interstate segment, with three lanes in the northbound direction. It encompasses the interstate segment from east of N Park Ave to west of Illinois Street (approximately 0.69 miles). Between 2018 and 2022, the most common crash types were rear end (46%) and same direction sideswipe (34%).

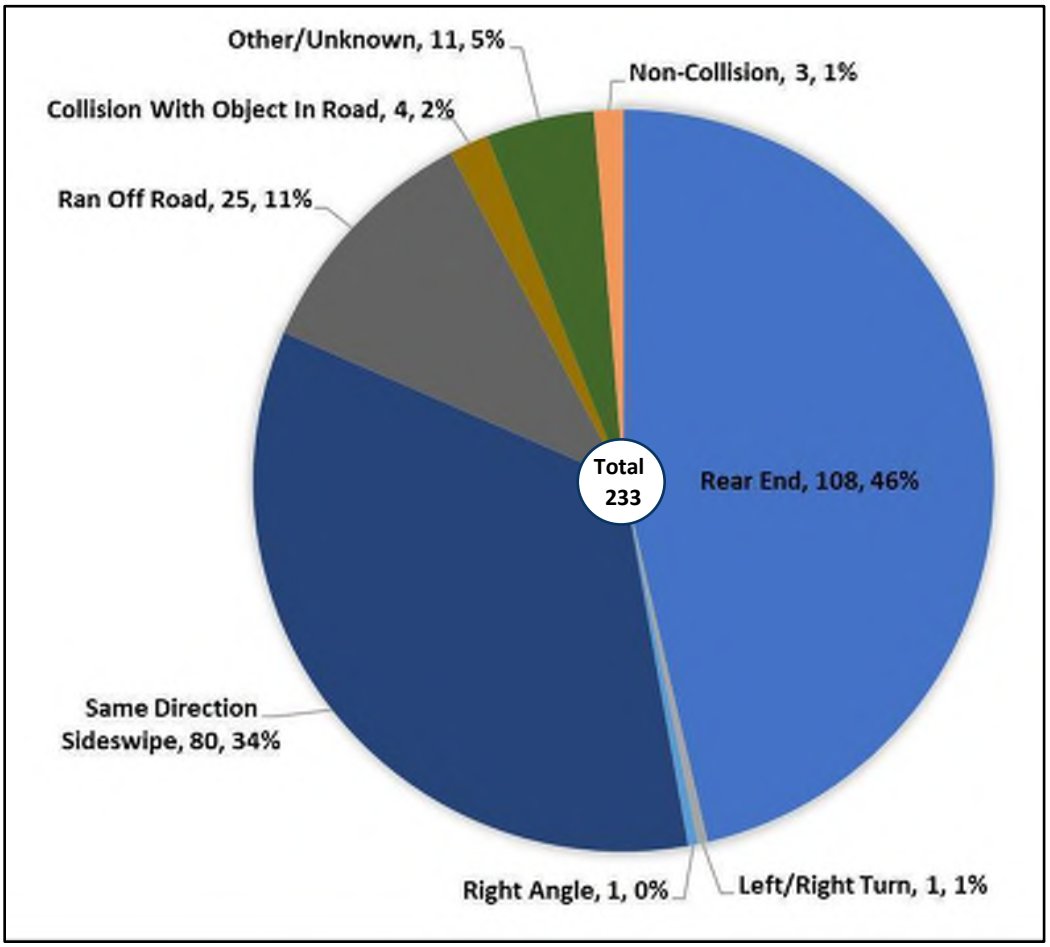
There was a total of six documented incapacitating injury crashes that occurred along this segment. In four of these crashes, traffic congestion was a contributing cause. In the remaining two, unsafe vehicle movements were the primary cause. Rain, ice, or snow was present in two of the six incapacitating injury crashes.

This segment is immediately adjacent to the North Split which was under construction in 2021 and 2022. This construction modified the geometry to eliminate the weave between I-65 / I-70 system ramps and the Delaware Street off-ramp. Street lighting is present on this segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 26**, and a summary of the segment crash types is provided in **Figure 26**.

Table 26. Crash Analysis Summary - NB I-65, N Park Ave to Illinois St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.28	0.41	6	24	203

Figure 26. Crash Types – NB I-65, N Park Ave to Illinois St



SEGMENT: SB I-65, ILLINOIS ST TO N PARK AVE

The I-65 segment from Illinois St to N Park Ave is a six-lane interstate segment, with three lanes in the southbound direction. It encompasses the interstate segment from west of Illinois Street to east of N Park Ave (approximately 0.69 miles). Between 2018 and 2022, the most common crash types were rear end (57%) and same direction sideswipe (27%).

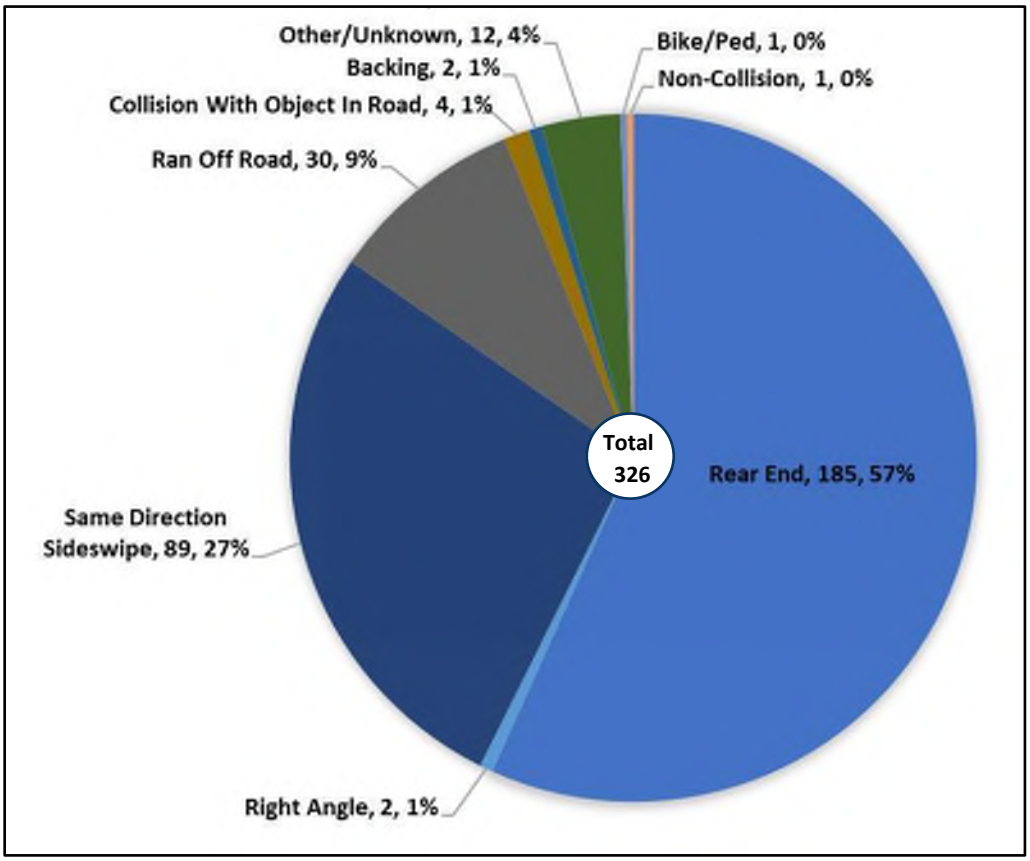
There was a total of 18 documented incapacitating injury crashes that occurred along this segment. Six of these crashes involved the driver losing control of their vehicle, with rain, ice, or snow a contributing factor in five of the six. Additionally, five of the incapacitating injury crashes occurred as the result of drivers following too closely, with the majority of these occurring with dry roadway conditions. There was one reported fatality on this segment, resulting from a rear end collision that occurred when a high-speed vehicle rear ended a stationary vehicle sitting in traffic. This crash occurred during daylight hours with dry roadway conditions.

This segment is immediately adjacent to the North Split which was under construction in 2021 and 2022. This construction modified the geometry to eliminate the weave between the Delaware Street on-ramp and the I-65 / I-70 system ramps. Street lighting is present on this segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 27**, and a summary of the segment crash types is provided in **Figure 27**.

Table 27. Crash Analysis Summary - SB I-65, Illinois St to N Park Ave

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
2.27	2.29	19	22	285

Figure 27. Crash Types – SB I-65, Illinois St to N Park Ave



SEGMENT: SB I-65/I-70 AT OHIO ST

The I-70 at Ohio Street segment is a nine-lane interstate segment, with five lanes in the southbound direction (two collector-distributor and three mainline). It encompasses the interstate segment from south of Michigan Street to south of Ohio Street (approximately 0.24 miles). Between 2018 and 2022, the most common crash types were rear end (58%) and same direction sideswipe (29%).

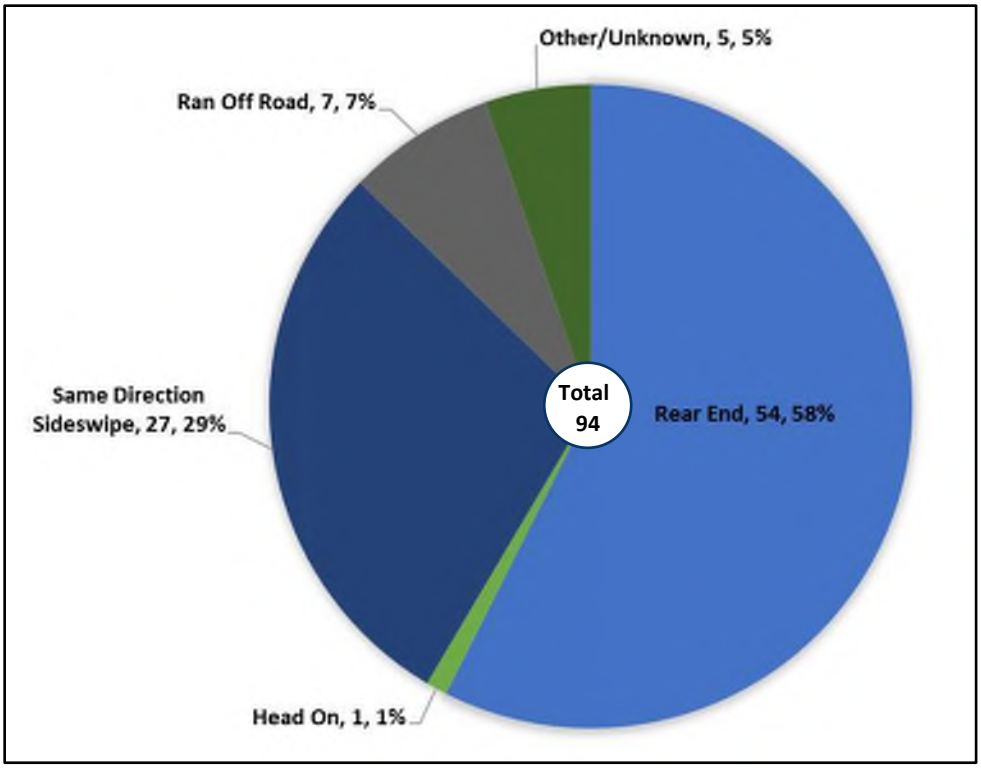
Seven incapacitating injury crashes were reported along this segment of roadway. Two occurred as the result of drivers following too closely and two occurred as the result of unsafe lane movements or unsafe speed. Conditions were commonly dry and during daylight hours. There was one reported fatality on this segment, which occurred when a construction zone worker was struck by a passing vehicle which swerved into the shoulder. This crash occurred during nighttime hours with dry roadway conditions.

This segment is immediately adjacent to the North Split which was under construction in 2021 and 2022. Street lighting is present on this segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 28**, and a summary of the segment crash types is provided in **Figure 28**.

Table 28. Crash Analysis Summary - SB I-65/SB I-70 at Ohio St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.73	1.43	8	3	83

Figure 28. Crash Types – SB I-65/SB I-70 at Ohio St



SEGMENT: NB I-65/I-70 AT FLETCHER AVE AND CALVARY ST

The I-70 at Fletcher Avenue and Calvary Street segment is an eight-lane interstate segment, with four lanes in the northbound direction. It encompasses the interstate segment from north of Fletcher Avenue to south of Calvary Street (approximately 0.43 miles). Between 2018 and 2022, the most common crash types were same direction sideswipe (54%) and rear end (33%).

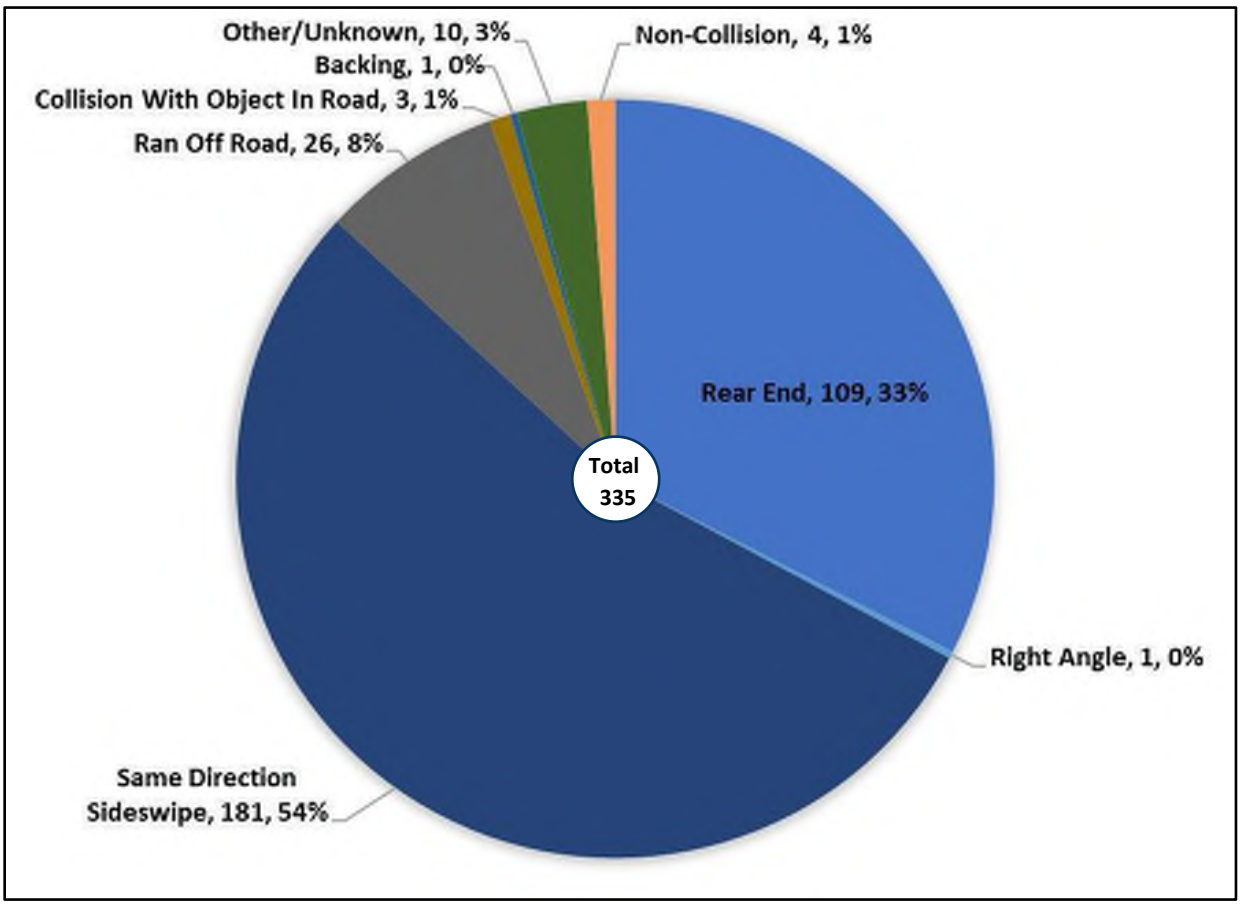
A total of 17 incapacitating injury crashes occurred along this segment of roadway with nine occurring as the result of unsafe lane movements by the driver and four occurring when the driver lost control of their vehicle. Conditions were commonly dry and during daylight hours. Over this same period, no fatality crashes were documented.

Street lighting is present on this segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 29**, and a summary of the segment crash types is provided in **Figure 29**.

Table 29. Crash Analysis Summary - NB I-65/I-70 at Fletcher Ave and Calvary St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
4.60	2.80	17	18	300

Figure 29. Crash Types – NB I-65/I-70 at Fletcher Ave and Calvary St



SEGMENT: SB I-65/I-70 AT FLETCHER AVE AND CALVARY ST

The I-70 at Fletcher Avenue and Calvary Street segment is an eight-lane interstate segment, with four lanes in both the southbound direction. It encompasses the interstate segment from north of Fletcher Avenue to south of Calvary Street (approximately 0.43 miles). Between 2018 and 2022, the most common crash types were rear end (51%) and same direction sideswipe (29%).

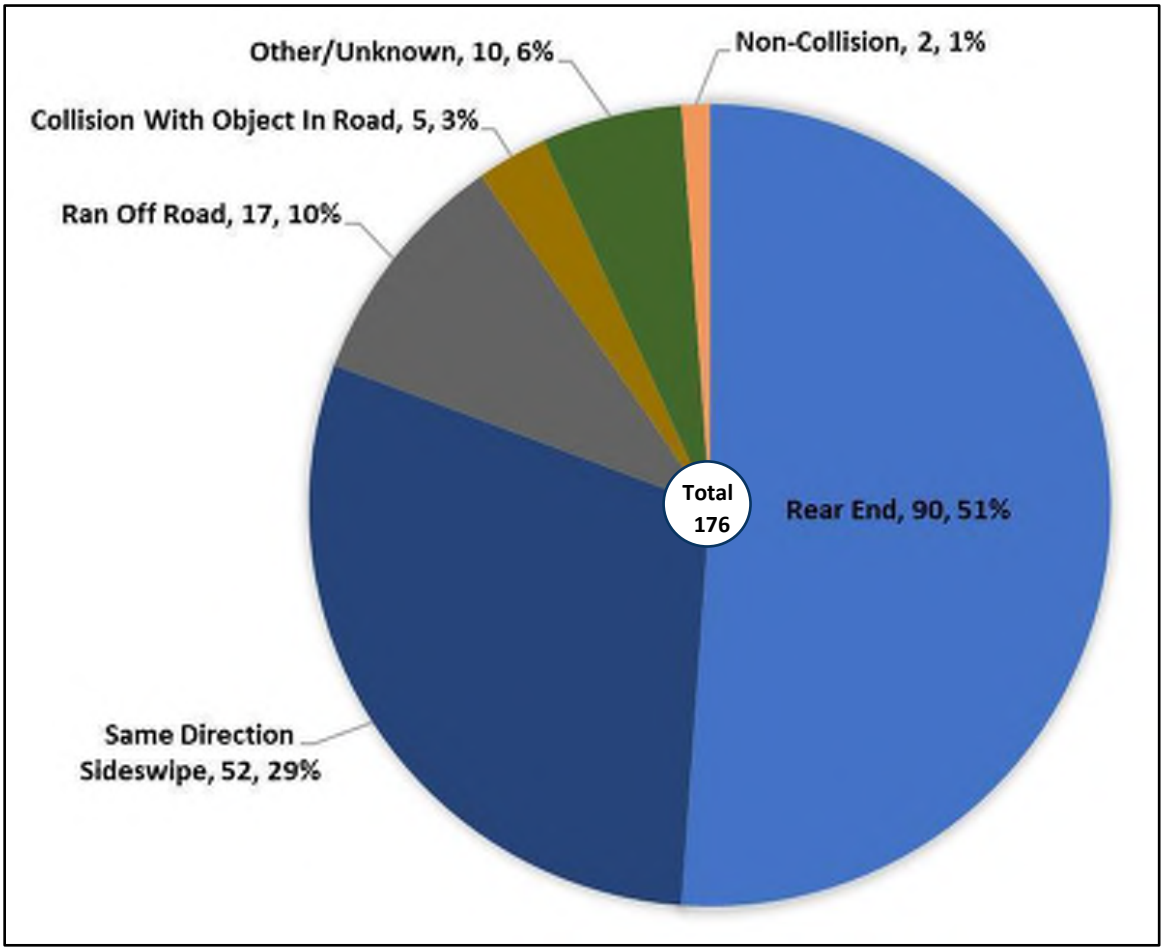
A total of 13 incapacitating injury crashes occurred along this segment of roadway with eight occurring as the result of unsafe lane movements by the driver and four occurring when the driver lost control of their vehicle. Over this same period, no fatality crashes were documented.

Street lighting is present on this segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 30**, and a summary of the segment crash types is provided in **Figure 30**.

Table 30. Crash Analysis Summary - SB I-65/I-70 at Fletcher Ave and Calvary St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.99	1.61	13	12	151

Figure 30. Crash Types – SB I-65/I-70 at Fletcher Ave and Calvary St



SEGMENT: SOUTH SPLIT, EB I-70 TO NB I-65

The I-70 eastbound to I-65 northbound segment within the South Split is a two-lane system ramp segment. Between 2018 and 2022, the most common crash types were same direction sideswipe (38%), rear end (30%), and ran off the road (23%).

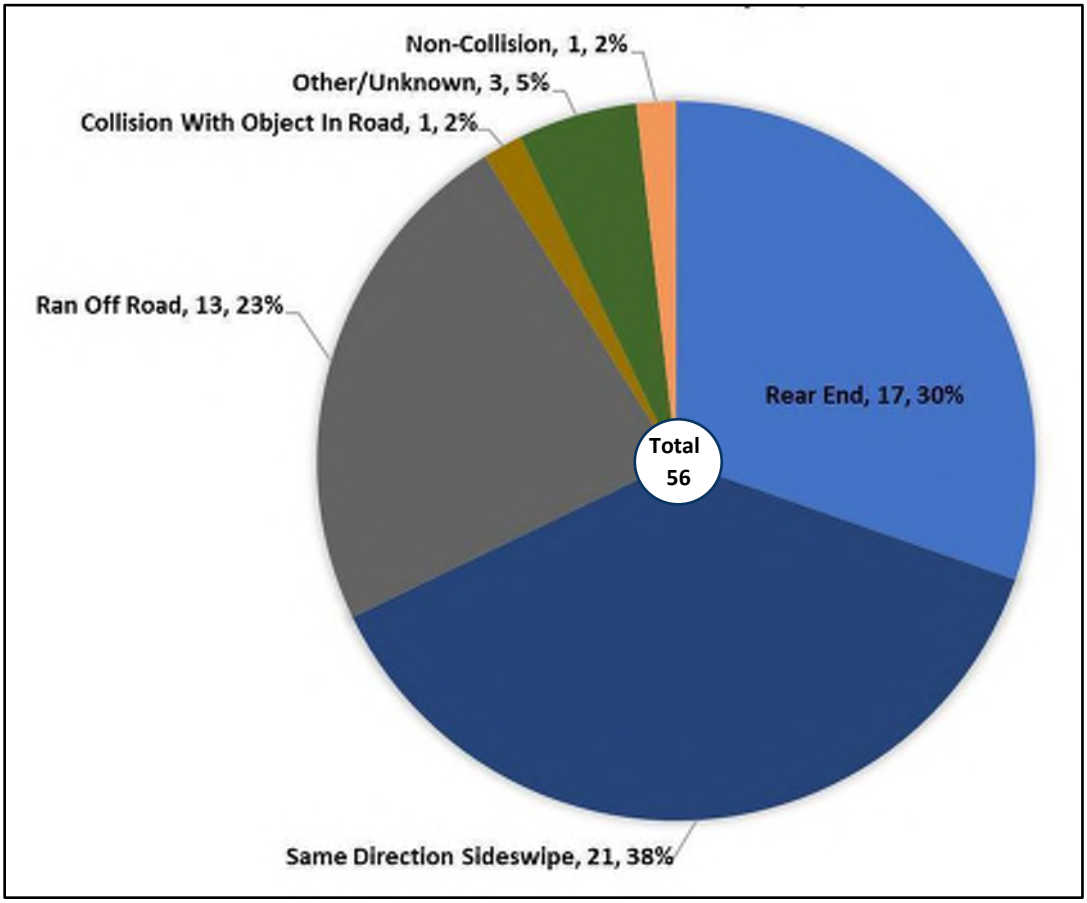
A total of seven incapacitating injury crashes were documented to have occurred along this segment. Five of these crashes involved the driver losing control of their vehicle, with rain, ice, or snow a contributing factor in two of the five and alcohol a contributing factor in one of the five.

High mast lighting is present in this area. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 31**, and a summary of the segment crash types is provided in **Figure 31**.

Table 31. Crash Analysis Summary - South Split, EB I-70 to NB I-65

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
0.33	2.13	7	6	43

Figure 31. Crash Types – South Split, EB I-70 to NB I-65



SEGMENT: SOUTH SPLIT, NB I-65 TO NB I-65

The I-65 northbound to I-65 northbound segment within the South Split is a two-lane system ramp segment. Between 2018 and 2022, the most common crash types were rear end (42%), same direction sideswipe (32%), and ran off the road (26%).

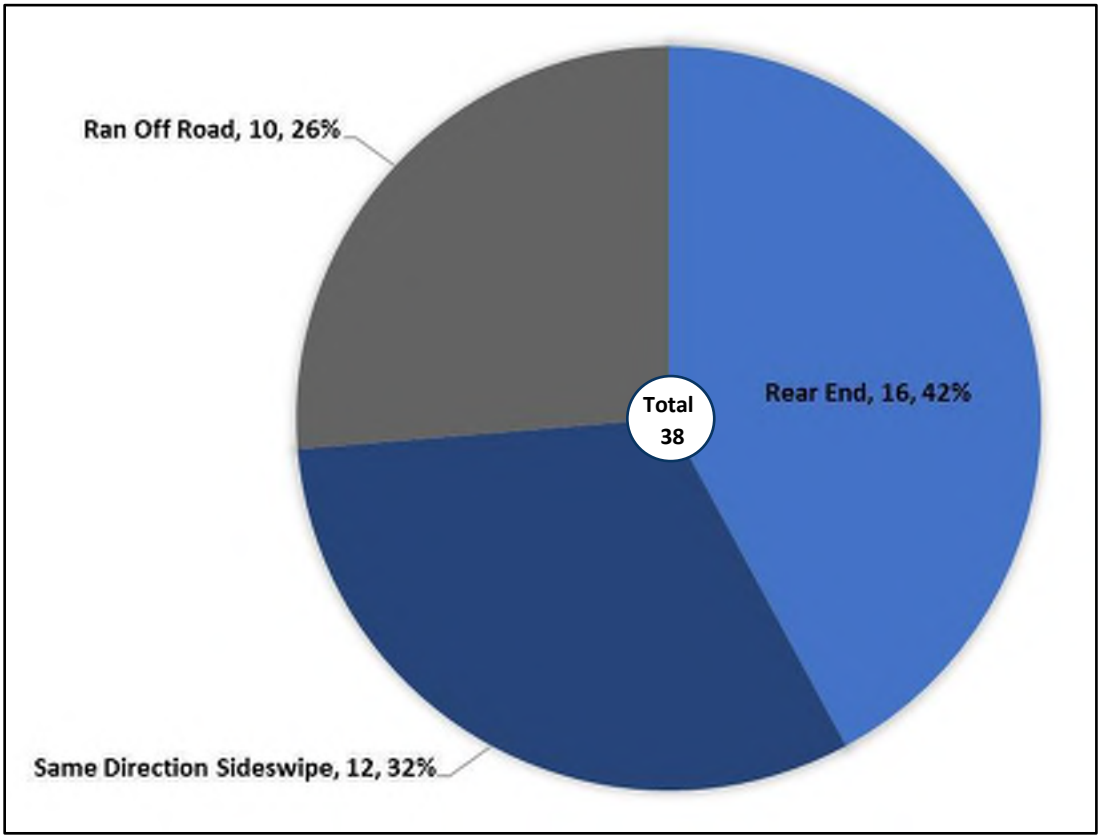
A total of six incapacitating injury crashes were documented to have occurred along this segment. Four of these crashes involved the driver losing control of their vehicle, with rain, ice, or snow a contributing factor in two of the four and speed a contributing factor in the other two.

High mast lighting is present in this area. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 32**, and a summary of the segment crash types is provided in **Figure 32**.

Table 32. Crash Analysis Summary - South Split, NB I-65 to NB I-65

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
0.04	1.55	6	3	29

Figure 32. Crash Types – South Split, NB I-65 to NB I-65



SEGMENT: SOUTH SPLIT, NB I-65 TO WB I-70

The I-65 northbound to I-70 westbound segment within the South Split is a two-lane system ramp segment. Between 2018 and 2022, the most common crash types were rear end (43%), same direction sideswipe (26%), and ran off the road (24%).

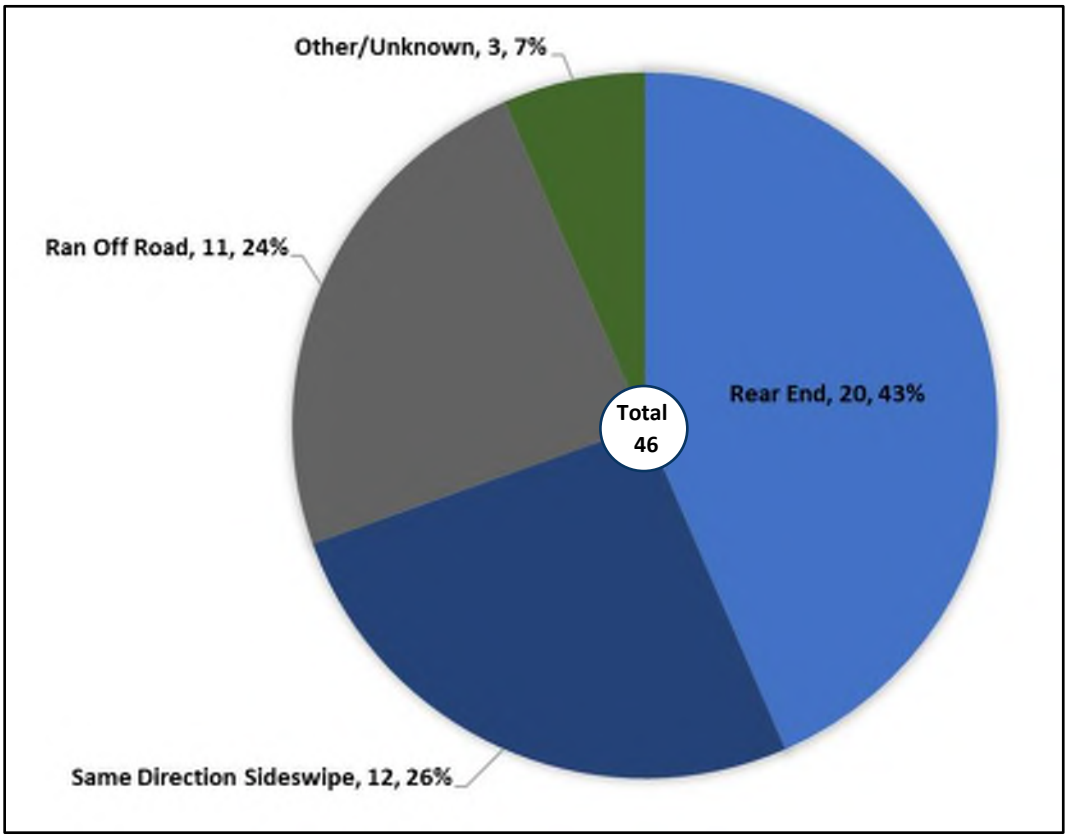
A total of four incapacitating injury crashes were documented to have occurred along this segment. Two of these crashes involved the driver losing control of their vehicle, with drug influence a likely factor in one of them. The other two incapacitating injury crashes were read end collisions where the driver was either following to closely or traveling too fast.

High mast lighting is present in this area. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 33**, and a summary of the segment crash types is provided in **Figure 33**.

Table 33. Crash Analysis Summary - South Split, NB I-65 to WB I-70

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
0.50	1.58	4	1	41

Figure 33. Crash Types – South Split, NB I-65 to WB I-70



SEGMENT: SOUTH SPLIT, EB I-70 TO SB I-65

The I-70 eastbound to I-65 southbound segment within the South Split is a two-lane system ramp segment. Between 2018 and 2022, the most common crash types were same direction sideswipe (37%), ran off the road (29%), and rear end (17%).

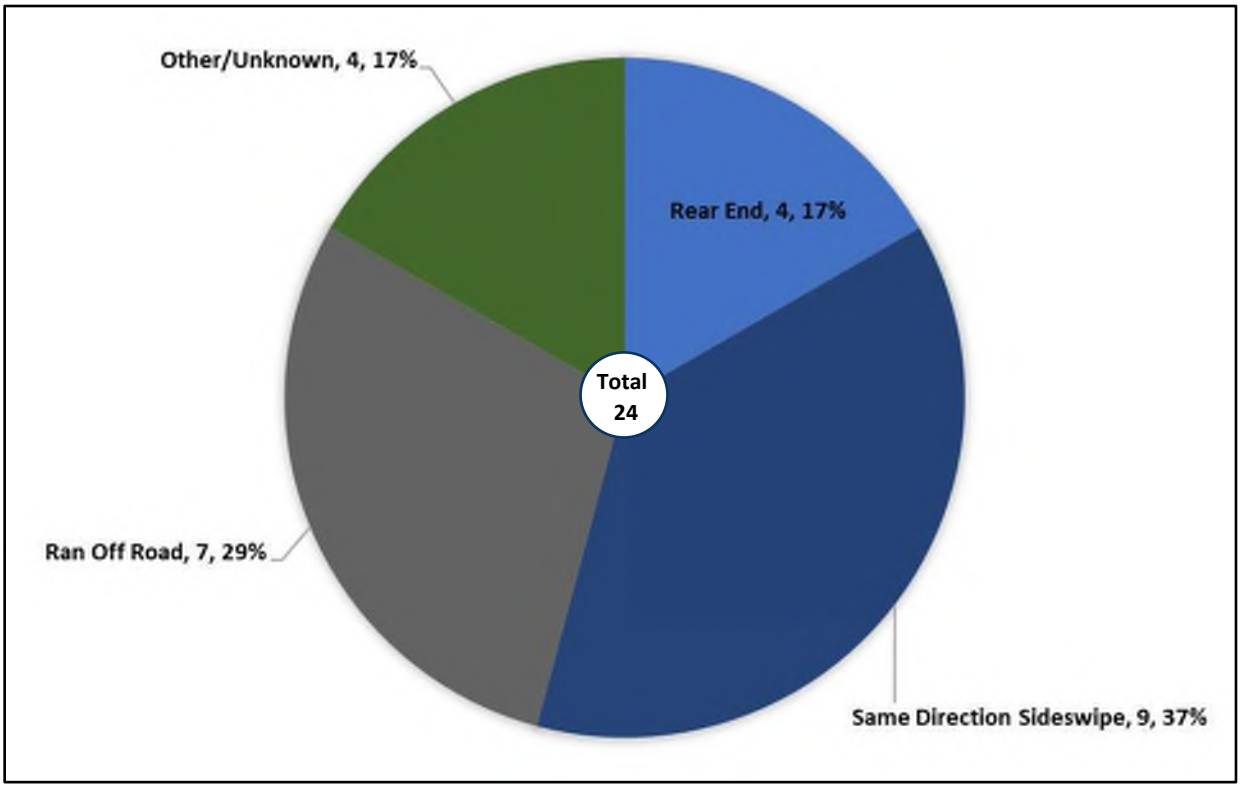
Two incapacitating injury crashes were documented to have occurred along this segment. Both crashes involved the driver losing control of their vehicle, with speed a contributing factor in one of them.

High mast lighting is present in this area. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 34**, and a summary of the segment crash types is provided in **Figure 34**.

Table 34. Crash Analysis Summary - South Split, EB I-70 to SB I-65

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
0.12	1.16	2	5	17

Figure 34. Crash Types – South Split, EB I-70 to SB I-65



SEGMENT: SOUTH SPLIT, SB I-65 TO SB I-65

The I-65 southbound to I-65 southbound segment within the South Split is a two-lane system ramp segment. Between 2018 and 2022, the most common crash types were ran off the road (61%) and same direction sideswipe (22%).

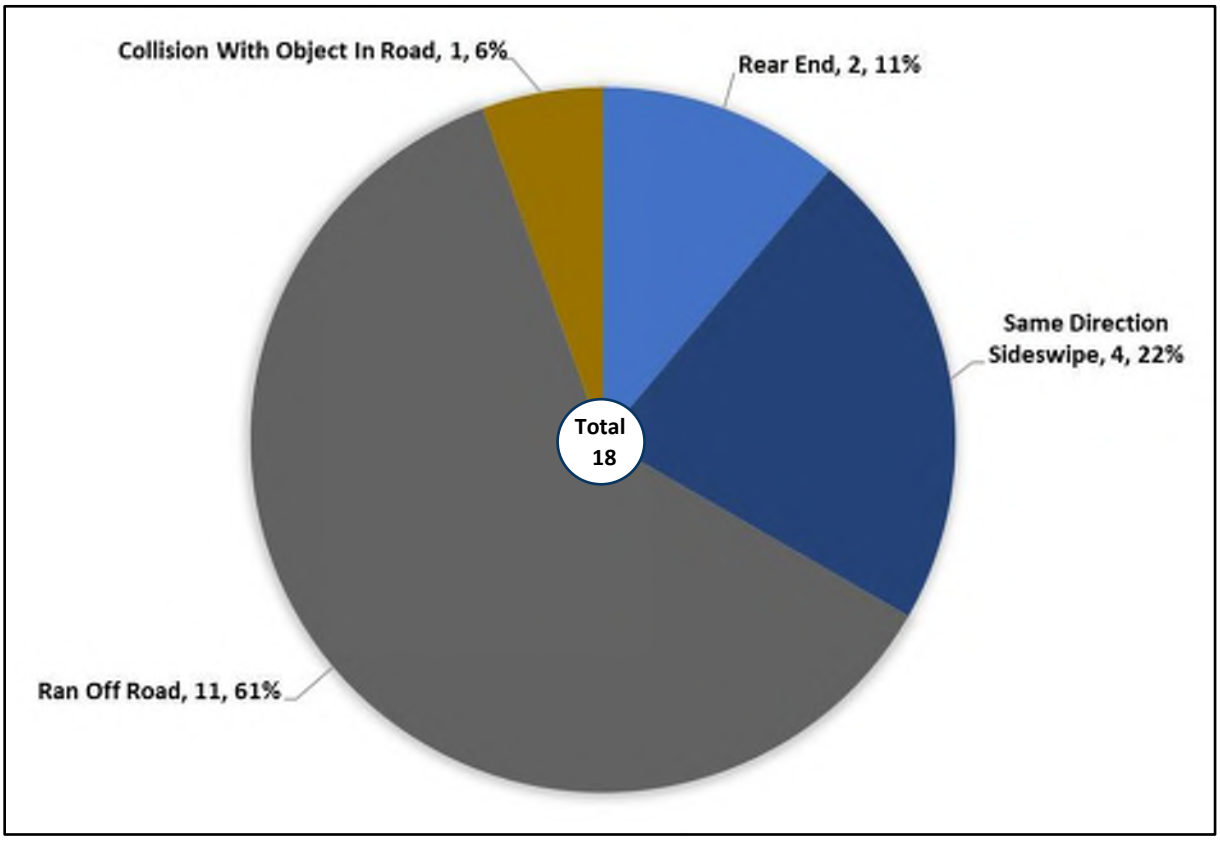
A total of four incapacitating injury crashes were documented to have occurred along this segment. All of these crashes involved the driver losing control of their vehicle, with drug influence a likely factor in one of them and speed in another. There was one reported fatality on this segment. It occurred when a vehicle lost control in the early evening (daylight) with dry roadway conditions.

High mast lighting is present in this area. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 35**, and a summary of the segment crash types is provided in **Figure 35**.

Table 35. Crash Analysis Summary - South Split, SB I-65 to SB I-65

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
-0.17	1.25	5	1	12

Figure 35. Crash Types – South Split, SB I-65 to SB I-65



SEGMENT: SOUTH SPLIT, SB I-65 TO WB I-70

The I-65 southbound to I-70 westbound segment within the South Split is a two-lane system ramp segment. Between 2018 and 2022, the most common crash types were same direction sideswipe (41%), ran off the road (34%), and rear end (19%).

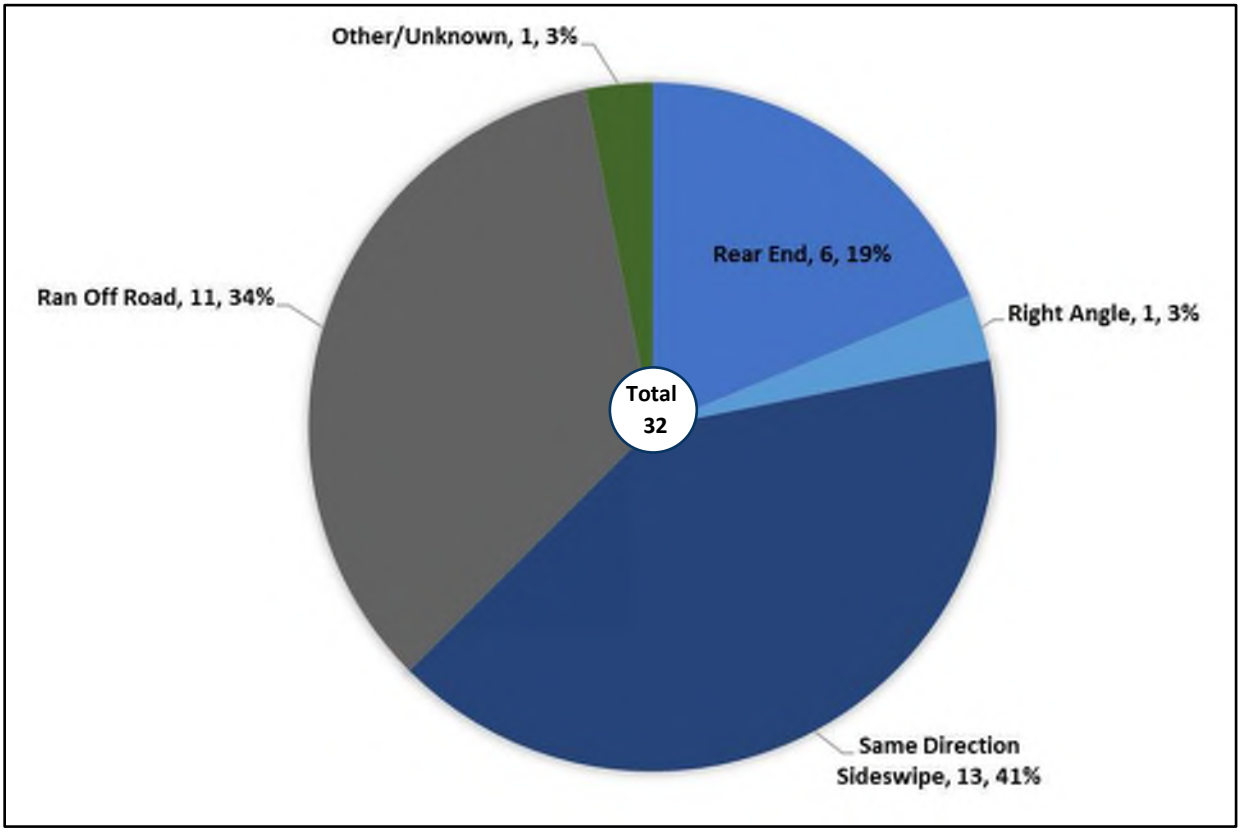
A total of four incapacitating injury crashes were documented to have occurred along this segment. Three of these crashes involved the driver losing control of their vehicle, with travel speed a factor in two of them. The fourth incapacitating injury crash was a rear end collision related to traffic congestion and following too closely.

High mast lighting is present in this area. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 36**, and a summary of the segment crash types is provided in **Figure 36**.

Table 36. Crash Analysis Summary - South Split, SB I-65 to WB I-70

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
0.07	1.22	4	2	26

Figure 36. Crash Types – South Split, SB I-65 to WB I-70



SEGMENT: EB I-70, KENTUCKY AVE TO MADISON AVE

The I-70 segment from west of Kentucky Avenue to east of Madison Avenue (approximately 1.4 miles) is a six-lane interstate segment, with three lanes in the eastbound direction. It includes ramps to/from S West Street, S Missouri Street, S Illinois Street, and Madison Avenue. Between 2018 and 2022, the most common crash types were rear end (55%) and same direction sideswipe (24%).

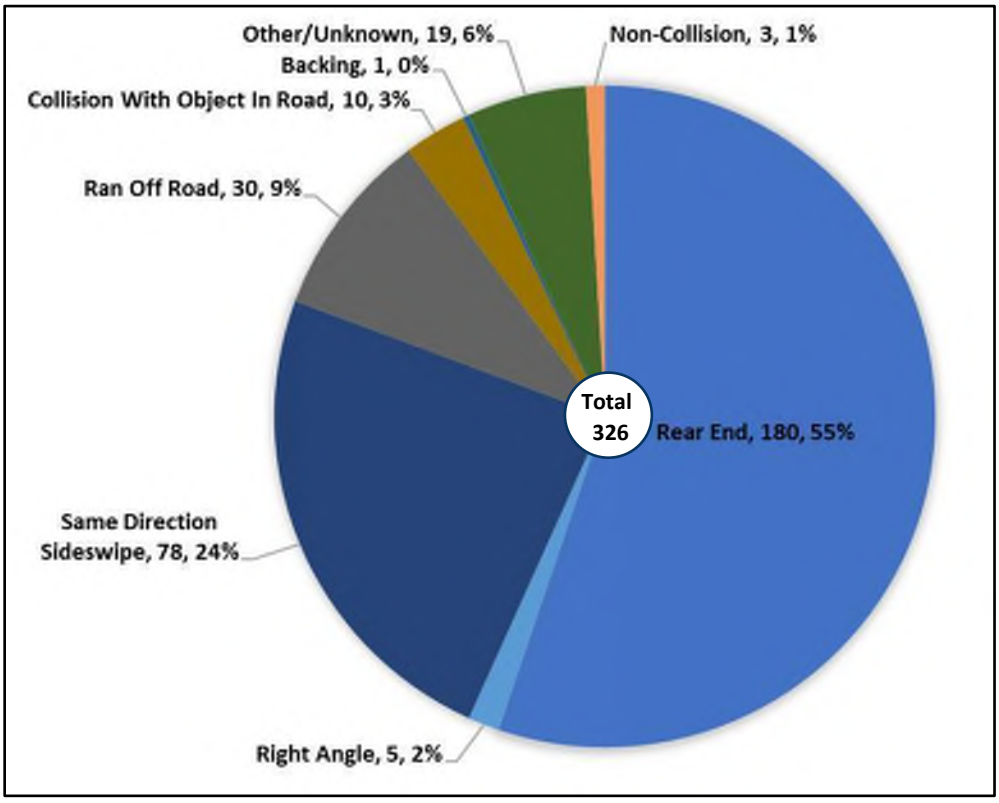
A total of 18 incapacitating injury crashes were documented to have occurred along this segment. The three most common causes were loss of control by the driver (8 crashes), rear ends due to slowing traffic / following too closely (6 crashes), and unsafe lane movements by the driver (3 crashes). Rain, ice, or snow was a contributing factor in five of the eight lost control crashes. There were two reported fatalities on this segment. One fatality occurred when a vehicle lost control and ran off the road while navigating ramp I70-079-N. This crash occurred in the early morning (predawn) hours with dry roadway conditions. The other fatality occurred when a vehicle with a flat tire changed lanes into the path of a motorcycle. This crash occurred during daylight hours with dry roadway conditions.

High mast lighting is present along the segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 37**, and a summary of the segment crash types is provided in **Figure 37**.

Table 37. Crash Analysis Summary - EB I-70, Kentucky Ave to Madison Ave

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.13	1.63	20	17	289

Figure 37. Crash Types – EB I-70, Kentucky Ave to Madison Ave



SEGMENT: WB I-70, MADISON AVE TO KENTUCKY AVE

The I-70 segment from east of Madison Avenue to west of Kentucky Avenue (approximately 1.4 miles) is a six-lane interstate segment, with three lanes in the westbound direction. It includes ramps to/from S West Street, S Missouri Street, S Capitol Avenue, and Madison Avenue. Between 2018 and 2022, the most common crash types were rear end (38%), same direction sideswipe (30%), and ran off the road (16%).

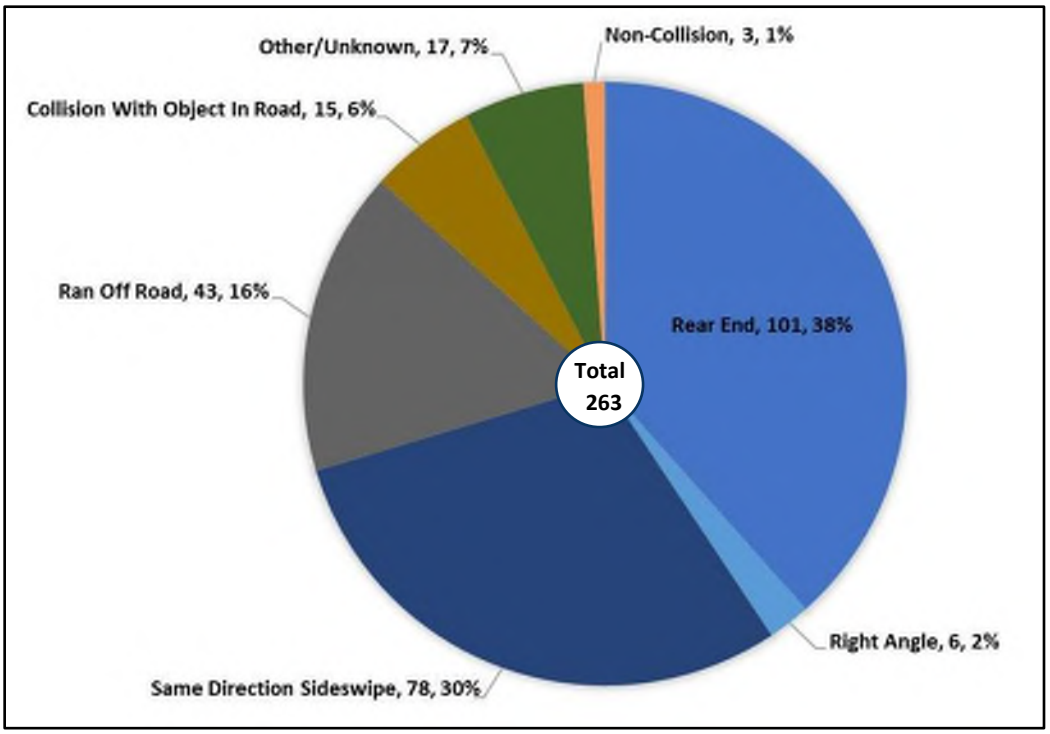
A total of 19 incapacitating injury crashes were documented to have occurred along this segment. The three most common causes were unsafe lane movements by the driver (9 crashes), rear ends due to slowing traffic / following too closely (5 crashes), and loss of control by the driver (3 crashes). Rain, ice, or snow was a contributing factor in all three of the lost control crashes.

High mast lighting is present along the segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 38**, and a summary of the segment crash types is provided in **Figure 38**.

Table 38. Crash Analysis Summary - WB I-70, Madison Ave to Kentucky Ave

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
0.50	1.19	19	23	221

Figure 38. Crash Types – WB I-70, Madison Ave to Kentucky Ave



I-70W SPOKE

INTERSECTION: W MORRIS ST AT HOLT RD

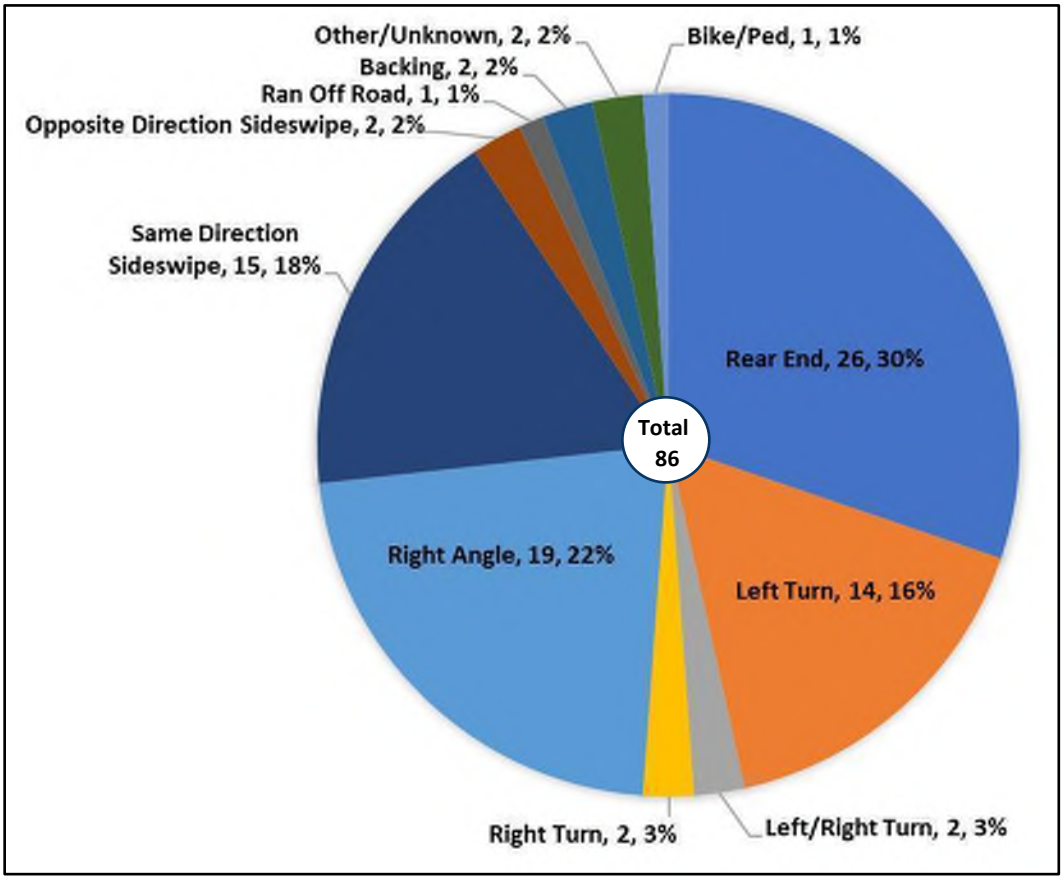
W Morris Street at Holt Road is a signalized intersection. Between 2018 and 2022, the most common crash types were rear end (30%), right angle (22%), same direction sideswipe (18%), and left turn (16%). Four incapacitating injury crashes were documented to have occurred at this intersection with no trends in the contributing factors. Conditions were dry and during daylight hours. There was one reported fatality at the intersection, resulting from a right-angle collision that occurred when a vehicle ran a red light. This crash occurred at night with dry roadway conditions.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 39**, and a summary of the intersection crash types is provided in **Figure 39**.

Table 39. Crash Analysis Summary - W Morris St at Holt Rd

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.12	0.69	5	9	72

Figure 39. Crash Types - W Morris St at Holt Rd



INTERSECTION: OLIVER AVE AT S HARDING ST

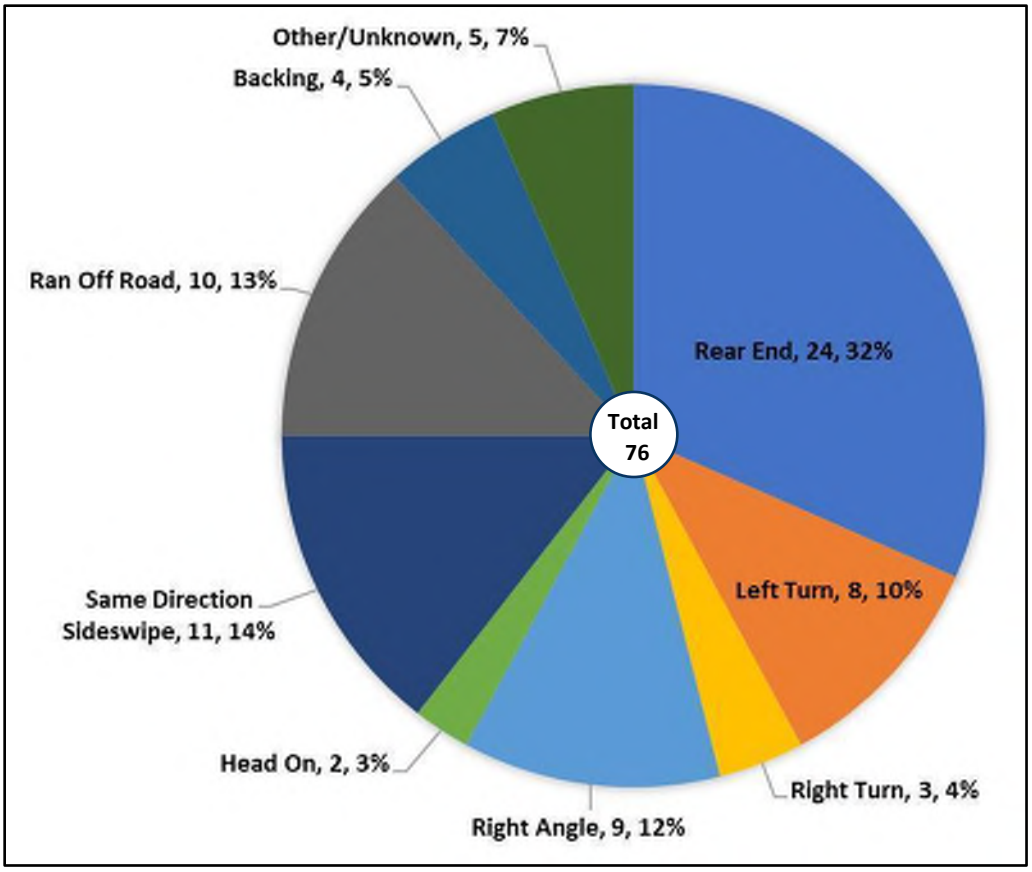
Oliver Avenue at S Harding Street is a signalized intersection. Between 2018 and 2022, the most common crash types were rear end (32%), same direction sideswipe (14%), and ran off the road (13%). Over this same period, no fatality or incapacitating injury crashes were documented.

Street lighting is present on the northbound and eastbound approaches, but not at the intersection itself. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 40**, and a summary of the intersection crash types is provided in **Figure 40**.

Table 40. Crash Analysis Summary - Oliver Ave at S Harding St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.84	-0.09	0	9	67

Figure 40. Crash Types - Oliver Ave at S Harding St



SEGMENT: EB I-70, HOLT RD TO HARDING ST

The I-70 segment from east of Holt Road to west of Harding Street (approximately 0.87 miles) is a six-lane interstate segment, with three lanes in the eastbound direction. Between 2018 and 2022, the most common crash types were rear end (46%), same direction sideswipe (24%), and ran off the road (10%).

A total of eight incapacitating injury crashes were documented to have occurred along this segment. The three most common causes were unsafe lane movements by the driver (2 crashes), rear ends due to slowing traffic / following too closely (2 crashes), and loss of control by the driver (3 crashes). Rain, ice, or snow was a contributing factor in two of the three lost control crashes.

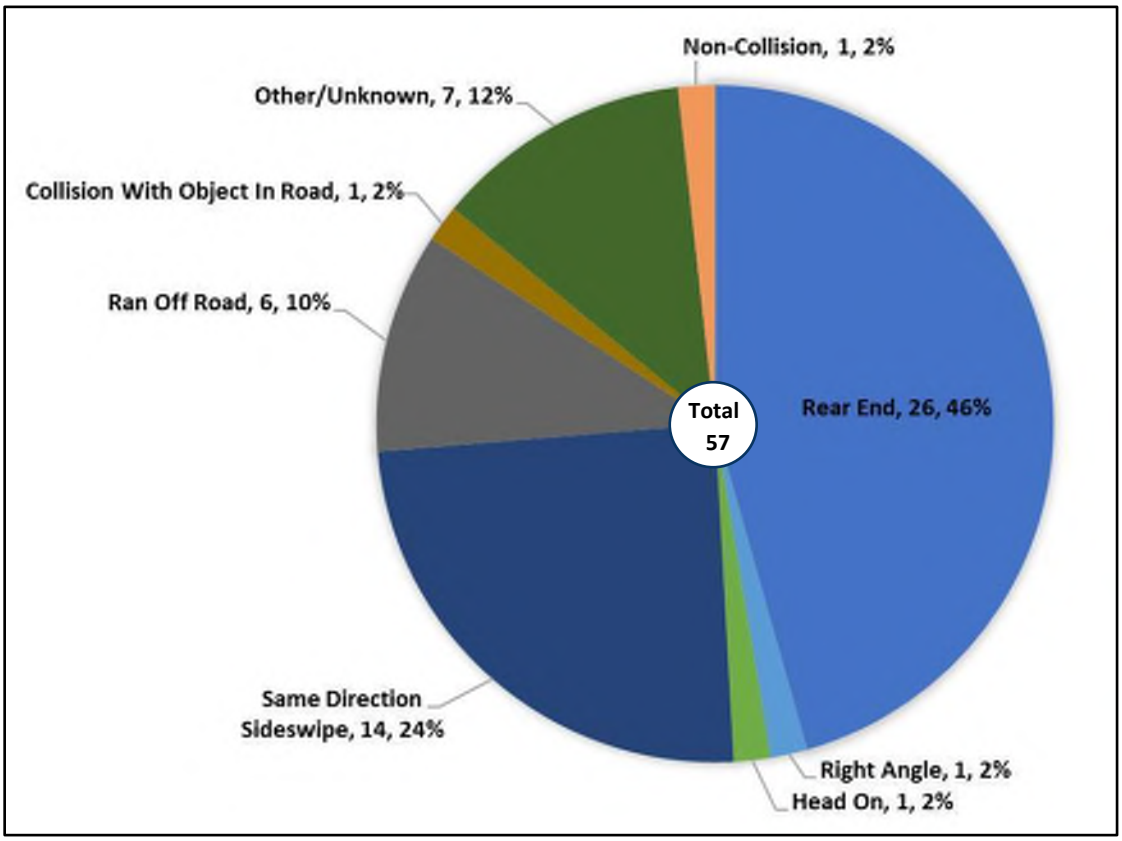
There was one reported fatality on this segment, which occurred at approximately 1:00 AM. The fatality involved a wrong-way driver and occurred during dark (lighted) hours with dry roadway conditions.

Street lighting is present on this segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 41**, and a summary of the segment crash types is provided in **Figure 41**.

Table 41. Crash Analysis Summary - EB I-70, Holt Rd to Harding St

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
0.39	1.20	9	3	45

Figure 41. Crash Types – EB I-70, Holt Rd to Harding St



SEGMENT: WB I-70, HOLT RD TO SAM JONES EXPRESSWAY

The I-70 segment from west of Holt Road to east of Sam Jones Expressway (approximately 0.62 miles) is a six-lane interstate segment, with three lanes in the westbound direction. Between 2018 and 2022, the most common crash types were same direction sideswipe (32%), ran off the road (29%), and rear end (18%).

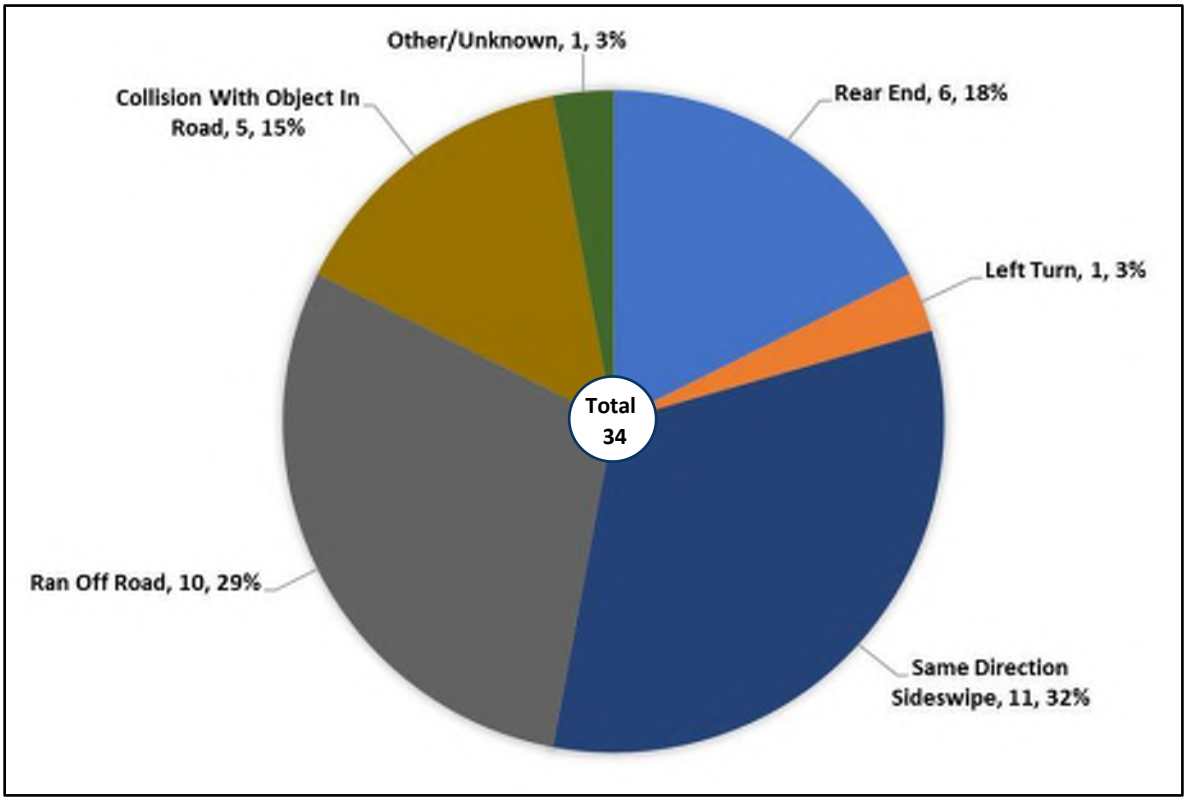
A total of seven incapacitating injury crashes were documented to have occurred along this segment. The two most common causes were unsafe lane movements by the driver (2 crashes) and loss of control by the driver (3 crashes). All three lost control crashes occurred with dry roadway conditions, with two in dark (lighted) conditions and one during daylight hours.

Street lighting is present on this segment. A summary of the ICF value, ICC value, segment crash severity is provided in **Table 42**, and a summary of the segment crash types is provided in **Figure 42**.

Table 42. Crash Analysis Summary - WB I-70, Holt Rd to Sam Jones Expressway

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
-0.25	1.04	7	2	25

Figure 42. Crash Types – WB I-70, Holt Rd to Sam Jones Expressway



I-70E SPOKE

INTERSECTION: N RURAL ST AT BLOYD AVE / ROOSEVELT AVE

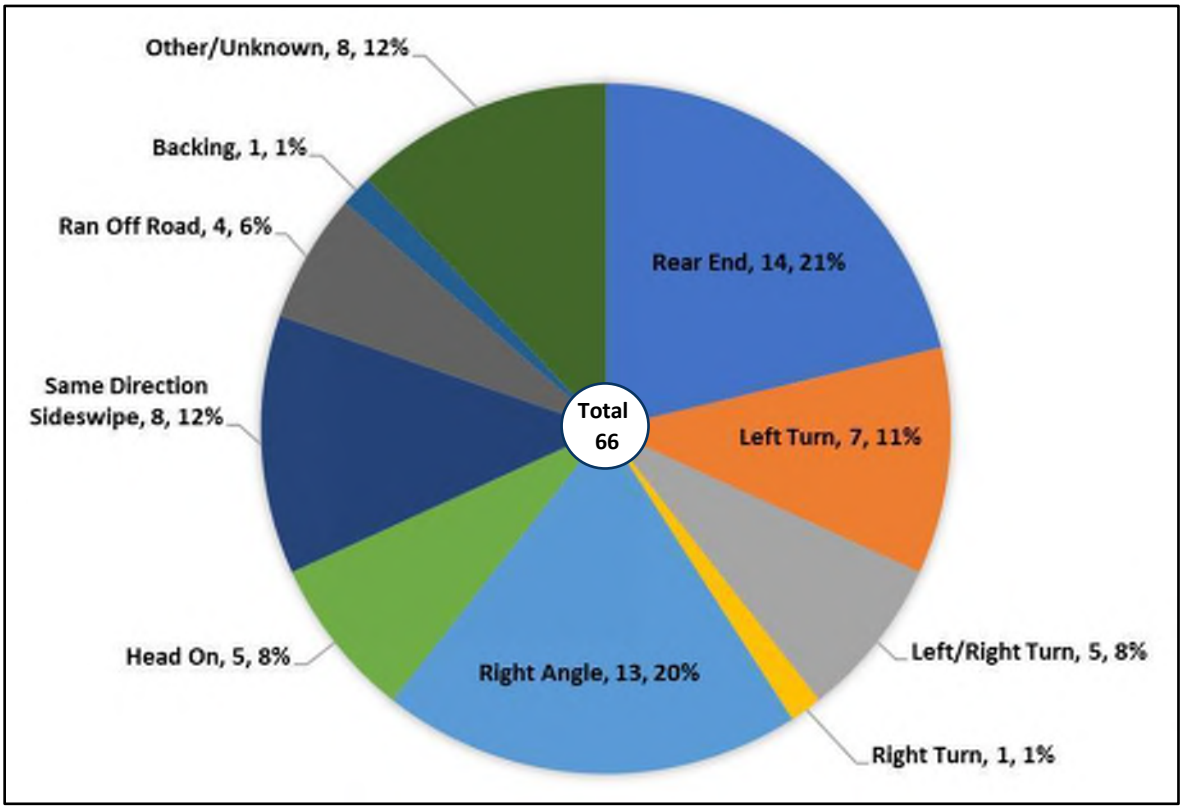
N Rural St at Bloyd Avenue / Roosevelt Avenue is a signalized intersection. Between 2018 and 2022, the most common crash types were rear end (21%), right angle (20%), and same direction sideswipe (12%). Six total incapacitating injury crashes were documented at this intersection with four occurring as the result of the driver having failed to yield the right of way. Over this same period, no fatality crashes were documented.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 43**, and a summary of the intersection crash types is provided in **Figure 43**.

Table 43. Crash Analysis Summary - N Rural St at Bloyd Ave / Roosevelt Ave

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.48	1.23	6	5	55

Figure 43. Crash Types - N Rural St at Bloyd Ave / Roosevelt Ave



INTERSECTION: EAST 21ST ST AT SHADELAND AVE

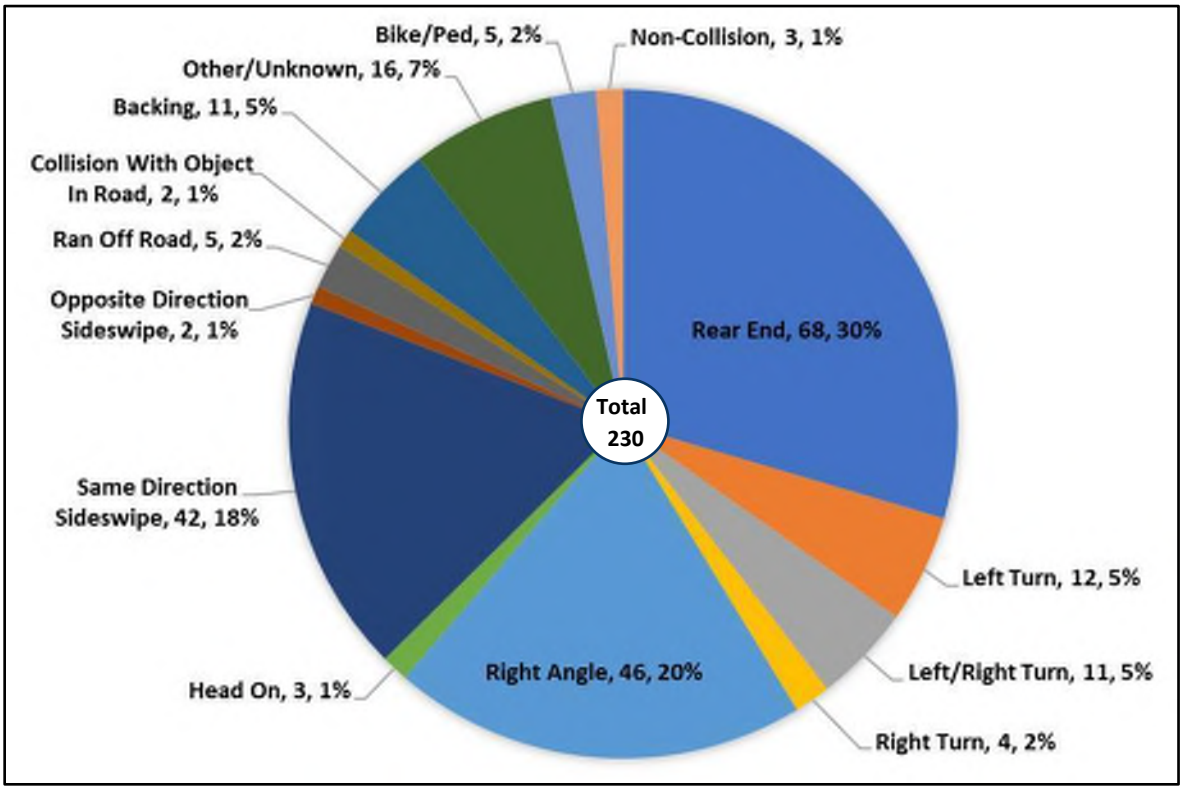
East 21st Street at Shadeland Avenue is a signalized intersection. Between 2018 and 2022, the most common crash types were rear end (30%), right angle (20%), and same direction sideswipe (18%). A total of 13 incapacitating injury crashes were documented at this intersection with the most common causes being drivers disregarding the signal and running a red light (3 crashes), drivers failing to yield the right of way (3 crashes), and pedestrian crashes (2 crashes). Conditions were commonly dry and during daylight hours. There was one reported fatality at the intersection, resulting from a ran off the road collision. This crash occurred during daylight hours with dry roadway conditions.

Street lighting is present at the intersection. A summary of the ICF value, ICC value, intersection crash severity is provided in **Table 44**, and a summary of the intersection crash types is provided in **Figure 44**.

Table 44. Crash Analysis Summary - East 21st St at Shadeland Ave

ICF	ICC	FATAL AND INCAPACITATING INJURY CRASHES	NON- INCAPACITATING CRASHES	PROPERTY DAMAGE ONLY CRASHES
1.34	1.08	14	19	197

Figure 44. Crash Types - East 21st St at Shadeland Ave



ROADHAT ANALYSIS

RoadHAT 4D

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Settings: Indiana state settings	Version: Version 4.1	
Location	201. I-65 NB Ramp at Lafayette Rd	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	21,700
Crossing Road AADT (veh/day)	6,450
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	9
Property Damage Only Crashes	41
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.861
Non-Incapacitating and Possible Injury Crashes	1.08
Property Damage Only Crashes	9.17
All Crashes	11.11
Index of Crash Frequency	**-0.06**
Index of Crash Cost	**-0.15**

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Settings: Indiana state settings	Version: Version 4.1	
Location	201. I-65 NB Ramp at Lafayette Rd	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

RoadHAT 4D

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Settings: Indiana state settings	Version: Version 4.1	
Location	202. I-65 SB Ramp at Lafayette Rd	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	21,900
Crossing Road AADT (veh/day)	6,550
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	7
Non-Incapacitating and Possible Injury Crashes	5
Property Damage Only Crashes	63
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.872
Non-Incapacitating and Possible Injury Crashes	1.10
Property Damage Only Crashes	9.31
All Crashes	11.28
Index of Crash Frequency	**0.45**
Index of Crash Cost	**0.58**

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Settings: Indiana state settings	Version: Version 4.1	
Location	202. I-65 SB Ramp at Lafayette Rd	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

RoadHAT 4D

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Settings: Indiana state settings	Version: Version 4.1	
Location	301. 38th St at Industrial Blvd / Commercial Dr	
GIS		
Post		
Analyst	Maya k	
Date	6/6/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection One AADT
Busiest Road AADT (veh/day)	33,800
T Intersection Indicator (1 if present, 0 otherwise)	0
Crossing Road Principal or Minor Arterial Indicator (1 if present, 0 otherwise)	0
Crossing Road Major or Minor Collector Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	18
Non-Incapacitating and Possible Injury Crashes	18
Property Damage Only Crashes	144
Route or Road Type	Signalized Urban State Intersection One AADT
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.727
Non-Incapacitating and Possible Injury Crashes	0.97
Property Damage Only Crashes	7.22
All Crashes	8.91
Index of Crash Frequency	**3.68**
Index of Crash Cost	**3.37**

RoadHAT 4D

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Settings: Indiana state settings	Version: Version 4.1	
Location	301. 38th St at Industrial Blvd / Commercial Dr	
GIS		
Post		
Analyst	Maya k	
Date	6/6/2023	

Comments:

RoadHAT 4D

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Settings: Indiana state settings	Version: Version 4.1	
Location	302. W Kessler Blvd at 38th St / NB I-65 Ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	15,200
Crossing Road AADT (veh/day)	10,900
T Intersection Indicator (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	3
Property Damage Only Crashes	17
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.578
Non-Incapacitating and Possible Injury Crashes	0.70
Property Damage Only Crashes	6.52
All Crashes	7.80
Index of Crash Frequency	**-0.56**
Index of Crash Cost	**-0.10**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	302. W Kessler Blvd at 38th St / NB I-65 Ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	303. W Kessler Blvd at 38th St / SB I-65 Ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	16,700
Crossing Road AADT (veh/day)	8,100
T Intersection Indicator (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	4
Non-Incapacitating and Possible Injury Crashes	7
Property Damage Only Crashes	41
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.554
Non-Incapacitating and Possible Injury Crashes	0.69
Property Damage Only Crashes	6.21
All Crashes	7.45
Index of Crash Frequency	**0.53**
Index of Crash Cost	**0.62**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	303. W Kessler Blvd at 38th St / SB I-65 Ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	304. 38th St at Knollton Rd / Cold Springs Rd	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	27,500
Crossing Road AADT (veh/day)	5,600
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	8
Non-Incapacitating and Possible Injury Crashes	11
Property Damage Only Crashes	66
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.973
Non-Incapacitating and Possible Injury Crashes	1.36
Property Damage Only Crashes	10.60
All Crashes	12.94
Index of Crash Frequency	**0.43**
Index of Crash Cost	**0.77**

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Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	304. 38th St at Knollton Rd / Cold Springs Rd	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

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Settings: Indiana state settings	Version: Version 4.1	
Location	305. 38th St at Lafayette Rd	
GIS		
Post		
Analyst	J Ashlock	
Date	10/26/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	33800
Crossing Road AADT (veh/day)	25100
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	7
Non-Incapacitating and Possible Injury Crashes	18
Property Damage Only Crashes	251
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	2.000
Non-Incapacitating and Possible Injury Crashes	3.35
Property Damage Only Crashes	24.61
All Crashes	29.96
Index of Crash Frequency	**1.17**
Index of Crash Cost	**0.01**

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Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	305. 38th St at Lafayette Rd	
GIS		
Post		
Analyst	J Ashlock	
Date	10/26/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	401. NB I-65 On Ramp at Dr MLK Jr St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Unsignalized Urban State Intersection
Busiest Road AADT (veh/day)	20,100
Crossing Road AADT (veh/day)	1,400
T Intersection Indicator (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	1
Non-Incapacitating and Possible Injury Crashes	2
Property Damage Only Crashes	9
Route or Road Type	Unsignalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1928400
Non-Incapacitating and Possible Injury Crashes	358900
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.167
Non-Incapacitating and Possible Injury Crashes	0.20
Property Damage Only Crashes	1.74
All Crashes	2.11
Index of Crash Frequency	**0.15**
Index of Crash Cost	**0.20**

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	401. NB I-65 On Ramp at Dr MLK Jr St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	402. Dr MLK Jr St at SB I-65 Ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Unsignalized Urban State Intersection
Busiest Road AADT (veh/day)	16,000
Crossing Road AADT (veh/day)	2,300
T Intersection Indicator (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	0
Non-Incapacitating and Possible Injury Crashes	1
Property Damage Only Crashes	14
Route or Road Type	Unsignalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1928400
Non-Incapacitating and Possible Injury Crashes	358900
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.184
Non-Incapacitating and Possible Injury Crashes	0.21
Property Damage Only Crashes	1.90
All Crashes	2.30
Index of Crash Frequency	**0.32**
Index of Crash Cost	**-0.55**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	402. Dr MLK Jr St at SB I-65 Ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	403. Dr MLK Jr St at 30th St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	16,000
Crossing Road AADT (veh/day)	5,900
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	8
Property Damage Only Crashes	41
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.663
Non-Incapacitating and Possible Injury Crashes	0.71
Property Damage Only Crashes	6.75
All Crashes	8.13
Index of Crash Frequency	**0.38**
Index of Crash Cost	**0.20**

RoadHAT 4D

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Settings: Indiana state settings	Version: Version 4.1	
Location	403. Dr MLK Jr St at 30th St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	501. W 30th St at NB I-65 Ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	11,000
Crossing Road AADT (veh/day)	5,600
T Intersection Indicator (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	1
Non-Incapacitating and Possible Injury Crashes	4
Property Damage Only Crashes	26
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.353
Non-Incapacitating and Possible Injury Crashes	0.35
Property Damage Only Crashes	3.66
All Crashes	4.37
Index of Crash Frequency	**0.54**
Index of Crash Cost	**-0.06**

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Settings: Indiana state settings	Version: Version 4.1	
Location	501. W 30th St at NB I-65 Ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

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Settings: Indiana state settings	Version: Version 4.1	
Location	502. W 29th St at SB I-65 Ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	7,100
Crossing Road AADT (veh/day)	6,900
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	3
Property Damage Only Crashes	16
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.384
Non-Incapacitating and Possible Injury Crashes	0.28
Property Damage Only Crashes	3.55
All Crashes	4.22
Index of Crash Frequency	**0.06**
Index of Crash Cost	**0.51**

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	502. W 29th St at SB I-65 Ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

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Settings: Indiana state settings	Version: Version 4.1	
Location	503. W 29th St at NB I-65 Ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	7,300
Crossing Road AADT (veh/day)	8,849
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	4
Property Damage Only Crashes	58
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.431
Non-Incapacitating and Possible Injury Crashes	0.32
Property Damage Only Crashes	4.06
All Crashes	4.82
Index of Crash Frequency	**2.11**
Index of Crash Cost	**0.76**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	503. W 29th St at NB I-65 Ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	601 . Dr MLK Jr St at W 21st St	
GIS		
Post		
Analyst	Maya K	
Date	7/17/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	17,900
Crossing Road AADT (veh/day)	9,000
T Intersection Indicator (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	5
Non-Incapacitating and Possible Injury Crashes	4
Property Damage Only Crashes	44
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.607
Non-Incapacitating and Possible Injury Crashes	0.79
Property Damage Only Crashes	6.91
All Crashes	8.31
Index of Crash Frequency	**0.37**
Index of Crash Cost	**0.58**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	601 . Dr MLK Jr St at W 21st St	
GIS		
Post		
Analyst	Maya K	
Date	7/17/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	602. W 21st St at SB I-65 ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	8,900
Crossing Road AADT (veh/day)	9,400
T Intersection Indicator (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	5
Non-Incapacitating and Possible Injury Crashes	1
Property Damage Only Crashes	14
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.367
Non-Incapacitating and Possible Injury Crashes	0.34
Property Damage Only Crashes	3.82
All Crashes	4.53
Index of Crash Frequency	**-0.15**
Index of Crash Cost	**0.97**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	602. W 21st St at SB I-65 ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	603. W 21st St at NB I-65 ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Unsignalized Urban State Intersection
Busiest Road AADT (veh/day)	13,600
Crossing Road AADT (veh/day)	5,050
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	2
Non-Incapacitating and Possible Injury Crashes	1
Property Damage Only Crashes	10
Route or Road Type	Unsignalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1928400
Non-Incapacitating and Possible Injury Crashes	358900
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.466
Non-Incapacitating and Possible Injury Crashes	0.40
Property Damage Only Crashes	3.89
All Crashes	4.75
Index of Crash Frequency	**-0.51**
Index of Crash Cost	**-0.20**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	603. W 21st St at NB I-65 ramps	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	604. W 21st St at Senate Blvd / Boulevard Place	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection One AADT
Busiest Road AADT (veh/day)	13,600
T Intersection Indicator (1 if present, 0 otherwise)	0
Crossing Road Principal or Minor Arterial Indicator (1 if present, 0 otherwise)	0
Crossing Road Major or Minor Collector Indicator (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	8
Property Damage Only Crashes	41
Route or Road Type	Signalized Urban State Intersection One AADT
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.470
Non-Incapacitating and Possible Injury Crashes	0.49
Property Damage Only Crashes	4.59
All Crashes	5.55
Index of Crash Frequency	**1.06**
Index of Crash Cost	**0.69**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	604. W 21st St at Senate Blvd / Boulevard Place	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 1/2

Settings: Indiana state settings	Version: Version 4.1	
Location	605 . W 21st St at N Capitol Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/17/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	11,100
Crossing Road AADT (veh/day)	9,000
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	5
Property Damage Only Crashes	38
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.593
Non-Incapacitating and Possible Injury Crashes	0.54
Property Damage Only Crashes	5.91
All Crashes	7.04
Index of Crash Frequency	**0.41**
Index of Crash Cost	**0.20**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	605 . W 21st St at N Capitol Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/17/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	701. SB I-65 Off-ramp at NB I-65 Off-ramp (to 11th St)	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	11,800
Crossing Road AADT (veh/day)	9,000
T Intersection Indicator (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	0
Non-Incapacitating and Possible Injury Crashes	2
Property Damage Only Crashes	53
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.445
Non-Incapacitating and Possible Injury Crashes	0.47
Property Damage Only Crashes	4.80
All Crashes	5.72
Index of Crash Frequency	**1.20**
Index of Crash Cost	**-0.70**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	701. SB I-65 Off-ramp at NB I-65 Off-ramp (to 11th St)	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	702 & 703. 11th St.	
GIS		
Post		
Analyst	Pratik Srivastava	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	38800
Crossing Road AADT (veh/day)	16000
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	8
Non-Incapacitating and Possible Injury Crashes	17
Property Damage Only Crashes	220
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.869
Non-Incapacitating and Possible Injury Crashes	3.28
Property Damage Only Crashes	22.77
All Crashes	27.91
Index of Crash Frequency	**1.05**
Index of Crash Cost	**0.12**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	702 & 703. 11th St.	
GIS		
Post		
Analyst	Pratik Srivastava	
Date	6/1/2023	

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	704 & 705 10th St at Dr MLK Jr St and N West St	
GIS		
Post		
Analyst	Pratik Srivastava	
Date	8/21/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	38800
Crossing Road AADT (veh/day)	5700
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	5
Non-Incapacitating and Possible Injury Crashes	9
Property Damage Only Crashes	182
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.266
Non-Incapacitating and Possible Injury Crashes	2.10
Property Damage Only Crashes	14.44
All Crashes	17.81
Index of Crash Frequency	**1.66**
Index of Crash Cost	**0.13**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	704 & 705 10th St at Dr MLK Jr St and N West St	
GIS		
Post		
Analyst	Pratik Srivastava	
Date	8/21/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	706. N West St at Dr MLK St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	32,600
Crossing Road AADT (veh/day)	6,200
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	0
Non-Incapacitating and Possible Injury Crashes	0
Property Damage Only Crashes	7
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.148
Non-Incapacitating and Possible Injury Crashes	1.76
Property Damage Only Crashes	12.87
All Crashes	15.77
Index of Crash Frequency	**-1.28**
Index of Crash Cost	**-1.58**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	706. N West St at Dr MLK St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	801. 12th St at N Illinois St	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection One AADT
Busiest Road AADT (veh/day)	14,700
T Intersection Indicator (1 if present, 0 otherwise)	0
Crossing Road Principal or Minor Arterial Indicator (1 if present, 0 otherwise)	1
Crossing Road Major or Minor Collector Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	1
Non-Incapacitating and Possible Injury Crashes	3
Property Damage Only Crashes	22
Route or Road Type	Signalized Urban State Intersection One AADT
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.662
Non-Incapacitating and Possible Injury Crashes	0.71
Property Damage Only Crashes	6.90
All Crashes	8.27
Index of Crash Frequency	**-0.47**
Index of Crash Cost	**-0.74**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	801. 12th St at N Illinois St	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	802. 12th St at N Meridian St	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection One AADT
Busiest Road AADT (veh/day)	28,700
T Intersection Indicator (1 if present, 0 otherwise)	0
Crossing Road Principal or Minor Arterial Indicator (1 if present, 0 otherwise)	1
Crossing Road Major or Minor Collector Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	4
Property Damage Only Crashes	30
Route or Road Type	Signalized Urban State Intersection One AADT
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.230
Non-Incapacitating and Possible Injury Crashes	1.71
Property Damage Only Crashes	13.18
All Crashes	16.12
Index of Crash Frequency	**-0.69**
Index of Crash Cost	**-0.74**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	802. 12th St at N Meridian St	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 1/2

Settings: Indiana state settings	Version: Version 4.1	
Location	803. 12th St at N Pennsylvania St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	10,500
Crossing Road AADT (veh/day)	10,100
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	1
Non-Incapacitating and Possible Injury Crashes	10
Property Damage Only Crashes	75
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.594
Non-Incapacitating and Possible Injury Crashes	0.53
Property Damage Only Crashes	5.92
All Crashes	7.05
Index of Crash Frequency	**1.86**
Index of Crash Cost	**0.17**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	803. 12th St at N Pennsylvania St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	804. 11th St at N Illinois St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	14,700
Crossing Road AADT (veh/day)	4,500
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	1
Non-Incapacitating and Possible Injury Crashes	10
Property Damage Only Crashes	31
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.562
Non-Incapacitating and Possible Injury Crashes	0.57
Property Damage Only Crashes	5.56
All Crashes	6.70
Index of Crash Frequency	**0.34**
Index of Crash Cost	**-0.10**

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	804. 11th St at N Illinois St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	805. 11th St at N Meridian St	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection One AADT
Busiest Road AADT (veh/day)	12,600
T Intersection Indicator (1 if present, 0 otherwise)	0
Crossing Road Principal or Minor Arterial Indicator (1 if present, 0 otherwise)	1
Crossing Road Major or Minor Collector Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	4
Non-Incapacitating and Possible Injury Crashes	6
Property Damage Only Crashes	44
Route or Road Type	Signalized Urban State Intersection One AADT
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.574
Non-Incapacitating and Possible Injury Crashes	0.58
Property Damage Only Crashes	5.95
All Crashes	7.10
Index of Crash Frequency	**0.64**
Index of Crash Cost	**0.57**

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	805. 11th St at N Meridian St	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

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Settings: Indiana state settings	Version: Version 4.1	
Location	806. 11th St at N Pennsylvania St	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	10,500
Crossing Road AADT (veh/day)	10,500
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	1
Non-Incapacitating and Possible Injury Crashes	8
Property Damage Only Crashes	54
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.603
Non-Incapacitating and Possible Injury Crashes	0.54
Property Damage Only Crashes	6.02
All Crashes	7.17
Index of Crash Frequency	**0.99**
Index of Crash Cost	**-0.13**

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	806. 11th St at N Pennsylvania St	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

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Settings: Indiana state settings	Version: Version 4.1	
Location	807. 11th St at N Delaware St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	15,000
Crossing Road AADT (veh/day)	10,600
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	1
Non-Incapacitating and Possible Injury Crashes	4
Property Damage Only Crashes	23
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.789
Non-Incapacitating and Possible Injury Crashes	0.84
Property Damage Only Crashes	8.27
All Crashes	9.90
Index of Crash Frequency	**-0.59**
Index of Crash Cost	**-0.86**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	807. 11th St at N Delaware St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	901. E Michigan St at Davidson St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	6,300
Crossing Road AADT (veh/day)	5,700
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	5
Property Damage Only Crashes	68
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.327
Non-Incapacitating and Possible Injury Crashes	0.22
Property Damage Only Crashes	2.94
All Crashes	3.49
Index of Crash Frequency	**3.78**
Index of Crash Cost	**1.31**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	901. E Michigan St at Davidson St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	902. E Michigan St at Pine St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	6,300
Crossing Road AADT (veh/day)	10,100
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	2
Non-Incapacitating and Possible Injury Crashes	5
Property Damage Only Crashes	52
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.406
Non-Incapacitating and Possible Injury Crashes	0.28
Property Damage Only Crashes	3.79
All Crashes	4.48
Index of Crash Frequency	**2.02**
Index of Crash Cost	**0.55**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	902. E Michigan St at Pine St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 1/2

Settings: Indiana state settings	Version: Version 4.1	
Location	903. E Ohio St at N College Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection One AADT
Busiest Road AADT (veh/day)	8,100
T Intersection Indicator (1 if present, 0 otherwise)	0
Crossing Road Principal or Minor Arterial Indicator (1 if present, 0 otherwise)	0
Crossing Road Major or Minor Collector Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	0
Non-Incapacitating and Possible Injury Crashes	11
Property Damage Only Crashes	43
Route or Road Type	Signalized Urban State Intersection One AADT
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.194
Non-Incapacitating and Possible Injury Crashes	0.15
Property Damage Only Crashes	1.81
All Crashes	2.15
Index of Crash Frequency	**3.82**
Index of Crash Cost	**1.21**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	903. E Ohio St at N College Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1001. E Washington St at N College Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection One AADT
Busiest Road AADT (veh/day)	25,300
T Intersection Indicator (1 if present, 0 otherwise)	0
Crossing Road Principal or Minor Arterial Indicator (1 if present, 0 otherwise)	0
Crossing Road Major or Minor Collector Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	10
Non-Incapacitating and Possible Injury Crashes	26
Property Damage Only Crashes	198
Route or Road Type	Signalized Urban State Intersection One AADT
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.556
Non-Incapacitating and Possible Injury Crashes	0.66
Property Damage Only Crashes	5.46
All Crashes	6.67
Index of Crash Frequency	**6.68**
Index of Crash Cost	**3.50**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1001. E Washington St at N College Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1002. E Washington St at SB I-65 & I-70 On-ramp / N Davidson St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	28,400
Crossing Road AADT (veh/day)	12,200
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	13
Property Damage Only Crashes	95
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.338
Non-Incapacitating and Possible Injury Crashes	1.98
Property Damage Only Crashes	15.37
All Crashes	18.69
Index of Crash Frequency	**0.26**
Index of Crash Cost	**-0.39**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1002. E Washington St at SB I-65 & I-70 On-ramp / N Davidson St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1003. E Washington St at NB I-65 & I-70 Off-ramp / Pine St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	28,400
Crossing Road AADT (veh/day)	10,200
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	4
Non-Incapacitating and Possible Injury Crashes	7
Property Damage Only Crashes	117
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.250
Non-Incapacitating and Possible Injury Crashes	1.83
Property Damage Only Crashes	14.21
All Crashes	17.29
Index of Crash Frequency	**0.66**
Index of Crash Cost	**-0.26**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1003. E Washington St at NB I-65 & I-70 Off-ramp / Pine St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1004. E Washington St at Southeastern Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	28,400
Crossing Road AADT (veh/day)	11,100
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	7
Property Damage Only Crashes	52
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.291
Non-Incapacitating and Possible Injury Crashes	1.90
Property Damage Only Crashes	14.75
All Crashes	17.94
Index of Crash Frequency	**-0.43**
Index of Crash Cost	**-0.68**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1004. E Washington St at Southeastern Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1101. Fletcher Ave at SB I-65 & I-70 Off-ramp / S Pine St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	6,100
Crossing Road AADT (veh/day)	4,600
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	0
Non-Incapacitating and Possible Injury Crashes	1
Property Damage Only Crashes	11
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.295
Non-Incapacitating and Possible Injury Crashes	0.19
Property Damage Only Crashes	2.60
All Crashes	3.09
Index of Crash Frequency	**-0.29**
Index of Crash Cost	**-0.89**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1101. Fletcher Ave at SB I-65 & I-70 Off-ramp / S Pine St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1102. Calvary St at NB I-65 & I-70 On-ramp	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Unsignalized Urban State Intersection
Busiest Road AADT (veh/day)	6,700
Crossing Road AADT (veh/day)	6,400
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	0
Non-Incapacitating and Possible Injury Crashes	1
Property Damage Only Crashes	5
Route or Road Type	Unsignalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1928400
Non-Incapacitating and Possible Injury Crashes	358900
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.327
Non-Incapacitating and Possible Injury Crashes	0.24
Property Damage Only Crashes	2.73
All Crashes	3.30
Index of Crash Frequency	**-0.71**
Index of Crash Cost	**-0.80**

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1102. Calvary St at NB I-65 & I-70 On-ramp	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1201. S East St at Commons Dr	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	11,400
Crossing Road AADT (veh/day)	3,800
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	0
Non-Incapacitating and Possible Injury Crashes	2
Property Damage Only Crashes	4
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.436
Non-Incapacitating and Possible Injury Crashes	0.39
Property Damage Only Crashes	4.13
All Crashes	4.96
Index of Crash Frequency	**-1.04**
Index of Crash Cost	**-1.12**

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1201. S East St at Commons Dr	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

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Settings: Indiana state settings	Version: Version 4.1	
Location	1202. Prospect St / E Morris St at I-65 SB On Ramp	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Unsignalized Urban State Intersection
Busiest Road AADT (veh/day)	4,700
Crossing Road AADT (veh/day)	2,800
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	0
Non-Incapacitating and Possible Injury Crashes	0
Property Damage Only Crashes	3
Route or Road Type	Unsignalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1928400
Non-Incapacitating and Possible Injury Crashes	358900
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.172
Non-Incapacitating and Possible Injury Crashes	0.11
Property Damage Only Crashes	1.46
All Crashes	1.75
Index of Crash Frequency	**-0.71**
Index of Crash Cost	**-0.73**

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1202. Prospect St / E Morris St at I-65 SB On Ramp	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1203. E Morris St at I-65 NB Off-ramp / Leonard St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	4,700
Crossing Road AADT (veh/day)	2,500
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	1
Non-Incapacitating and Possible Injury Crashes	0
Property Damage Only Crashes	7
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.193
Non-Incapacitating and Possible Injury Crashes	0.11
Property Damage Only Crashes	1.58
All Crashes	1.88
Index of Crash Frequency	**-0.19**
Index of Crash Cost	**-0.06**

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Settings: Indiana state settings	Version: Version 4.1	
Location	1203. E Morris St at I-65 NB Off-ramp / Leonard St	
GIS		
Post		
Analyst	Maya K	
Date	6/1/2023	

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1501. I-70 WB Ramps at Holt Rd	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	20,800
Crossing Road AADT (veh/day)	7,050
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	6
Non-Incapacitating and Possible Injury Crashes	3
Property Damage Only Crashes	31
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.862
Non-Incapacitating and Possible Injury Crashes	1.06
Property Damage Only Crashes	9.19
All Crashes	11.12
Index of Crash Frequency	**-0.39**
Index of Crash Cost	**0.18**

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Settings: Indiana state settings	Version: Version 4.1	
Location	1501. I-70 WB Ramps at Holt Rd	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

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Settings: Indiana state settings	Version: Version 4.1	
Location	1502.I-70 EB Ramps at Holt Rd	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	22,000
Crossing Road AADT (veh/day)	6,650
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	1
Non-Incapacitating and Possible Injury Crashes	3
Property Damage Only Crashes	39
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.879
Non-Incapacitating and Possible Injury Crashes	1.11
Property Damage Only Crashes	9.41
All Crashes	11.40
Index of Crash Frequency	**-0.34**
Index of Crash Cost	**-0.93**

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Settings: Indiana state settings	Version: Version 4.1	
Location	1502.I-70 EB Ramps at Holt Rd	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1503.W Morris St at Holt Rd	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	18,000
Crossing Road AADT (veh/day)	6,400
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	5
Non-Incapacitating and Possible Injury Crashes	9
Property Damage Only Crashes	72
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.747
Non-Incapacitating and Possible Injury Crashes	0.85
Property Damage Only Crashes	7.76
All Crashes	9.36
Index of Crash Frequency	**1.12**
Index of Crash Cost	**0.69**

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Settings: Indiana state settings	Version: Version 4.1	
Location	1503.W Morris St at Holt Rd	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

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Settings: Indiana state settings	Version: Version 4.1	
Location	1601 . Oliver Ave at S Harding St	
GIS		
Post		
Analyst	Maya K	
Date	7/17/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	15,200
Crossing Road AADT (veh/day)	6,600
T Intersection Indicator (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	0
Non-Incapacitating and Possible Injury Crashes	9
Property Damage Only Crashes	67
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.478
Non-Incapacitating and Possible Injury Crashes	0.56
Property Damage Only Crashes	5.22
All Crashes	6.27
Index of Crash Frequency	**1.84**
Index of Crash Cost	**-0.09**

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1601 . Oliver Ave at S Harding St	
GIS		
Post		
Analyst	Maya K	
Date	7/17/2023	

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1602. I-70 WB Ramps at S Harding St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	15,500
Crossing Road AADT (veh/day)	11,300
T Intersection Indicator (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	1
Property Damage Only Crashes	16
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.594
Non-Incapacitating and Possible Injury Crashes	0.73
Property Damage Only Crashes	6.74
All Crashes	8.06
Index of Crash Frequency	**-0.69**
Index of Crash Cost	**-0.26**

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1602. I-70 WB Ramps at S Harding St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1603. I-70 EB Ramps at S Harding St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	17,700
Crossing Road AADT (veh/day)	10,700
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	4
Property Damage Only Crashes	37
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.895
Non-Incapacitating and Possible Injury Crashes	1.04
Property Damage Only Crashes	9.59
All Crashes	11.53
Index of Crash Frequency	**-0.32**
Index of Crash Cost	**-0.42**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1603. I-70 EB Ramps at S Harding St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1701. W McCarty St at S West St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	13,700
Crossing Road AADT (veh/day)	3,300
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	2
Non-Incapacitating and Possible Injury Crashes	0
Property Damage Only Crashes	21
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.474
Non-Incapacitating and Possible Injury Crashes	0.46
Property Damage Only Crashes	4.56
All Crashes	5.50
Index of Crash Frequency	**-0.22**
Index of Crash Cost	**-0.31**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1701. W McCarty St at S West St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1702. W McCarty St at S Missouri St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	12,200
Crossing Road AADT (veh/day)	3,300
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	2
Non-Incapacitating and Possible Injury Crashes	7
Property Damage Only Crashes	29
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.435
Non-Incapacitating and Possible Injury Crashes	0.40
Property Damage Only Crashes	4.12
All Crashes	4.95
Index of Crash Frequency	**0.70**
Index of Crash Cost	**0.38**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1702. W McCarty St at S Missouri St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1703. W McCarty St at S Capitol Ave / WB I-70 On-ramp	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	3,300
Crossing Road AADT (veh/day)	3,100
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	2
Non-Incapacitating and Possible Injury Crashes	3
Property Damage Only Crashes	14
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.161
Non-Incapacitating and Possible Injury Crashes	0.08
Property Damage Only Crashes	1.28
All Crashes	1.51
Index of Crash Frequency	**1.60**
Index of Crash Cost	**1.02**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1703. W McCarty St at S Capitol Ave / WB I-70 On-ramp	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

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RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1704. W McCarty St at Illinois St / EB I-70 Off-ramp	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	3,700
Crossing Road AADT (veh/day)	3,300
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	0
Non-Incapacitating and Possible Injury Crashes	7
Property Damage Only Crashes	20
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.179
Non-Incapacitating and Possible Injury Crashes	0.09
Property Damage Only Crashes	1.45
All Crashes	1.72
Index of Crash Frequency	**2.24**
Index of Crash Cost	**0.52**

RoadHAT 4D

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Settings: Indiana state settings	Version: Version 4.1	
Location	1704. W McCarty St at Illinois St / EB I-70 Off-ramp	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1705. W McCarty St at S Meridian St / Russell Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	6,600
Crossing Road AADT (veh/day)	3,300
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	1
Non-Incapacitating and Possible Injury Crashes	5
Property Damage Only Crashes	28
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.275
Non-Incapacitating and Possible Injury Crashes	0.18
Property Damage Only Crashes	2.41
All Crashes	2.87
Index of Crash Frequency	**1.64**
Index of Crash Cost	**0.41**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1705. W McCarty St at S Meridian St / Russell Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1706. W McCarty St at I-70 ramps / Madison Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	19,000
Crossing Road AADT (veh/day)	3,300
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	7
Non-Incapacitating and Possible Injury Crashes	9
Property Damage Only Crashes	77
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.605
Non-Incapacitating and Possible Injury Crashes	0.69
Property Damage Only Crashes	6.07
All Crashes	7.37
Index of Crash Frequency	**2.00**
Index of Crash Cost	**1.52**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1706. W McCarty St at I-70 ramps / Madison Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1707. W McCarty St at Pennsylvania St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	7,600
Crossing Road AADT (veh/day)	3,300
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	4
Non-Incapacitating and Possible Injury Crashes	3
Property Damage Only Crashes	6
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.306
Non-Incapacitating and Possible Injury Crashes	0.22
Property Damage Only Crashes	2.72
All Crashes	3.25
Index of Crash Frequency	**-0.26**
Index of Crash Cost	**1.00**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1707. W McCarty St at Pennsylvania St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1708. WB I-70 ramps at S West St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	14,300
Crossing Road AADT (veh/day)	4,300
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	5
Non-Incapacitating and Possible Injury Crashes	4
Property Damage Only Crashes	34
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.541
Non-Incapacitating and Possible Injury Crashes	0.54
Property Damage Only Crashes	5.32
All Crashes	6.41
Index of Crash Frequency	**0.46**
Index of Crash Cost	**0.77**

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1708. WB I-70 ramps at S West St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

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Settings: Indiana state settings	Version: Version 4.1	
Location	1709. WB I-70 ramps at S Missouri St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	13,700
Crossing Road AADT (veh/day)	7,400
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	1
Property Damage Only Crashes	28
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.644
Non-Incapacitating and Possible Injury Crashes	0.65
Property Damage Only Crashes	6.52
All Crashes	7.81
Index of Crash Frequency	**-0.24**
Index of Crash Cost	**-0.21**

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Settings: Indiana state settings	Version: Version 4.1	
Location	1709. WB I-70 ramps at S Missouri St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

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Settings: Indiana state settings	Version: Version 4.1	
Location	1710. EB I-70 ramps at S West St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	14,300
Crossing Road AADT (veh/day)	4,300
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	4
Non-Incapacitating and Possible Injury Crashes	2
Property Damage Only Crashes	24
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.541
Non-Incapacitating and Possible Injury Crashes	0.54
Property Damage Only Crashes	5.32
All Crashes	6.41
Index of Crash Frequency	**-0.09**
Index of Crash Cost	**0.32**

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Settings: Indiana state settings	Version: Version 4.1	
Location	1710. EB I-70 ramps at S West St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

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Settings: Indiana state settings	Version: Version 4.1	
Location	1711. EB I-70 ramps at S Missouri St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	10,000
Crossing Road AADT (veh/day)	6,900
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	1
Non-Incapacitating and Possible Injury Crashes	4
Property Damage Only Crashes	17
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.496
Non-Incapacitating and Possible Injury Crashes	0.42
Property Damage Only Crashes	4.80
All Crashes	5.72
Index of Crash Frequency	**-0.31**
Index of Crash Cost	**-0.46**

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1711. EB I-70 ramps at S Missouri St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1712. W Morris St at S West St / S Missouri St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	11,900
Crossing Road AADT (veh/day)	10,200
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	11
Non-Incapacitating and Possible Injury Crashes	12
Property Damage Only Crashes	98
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.654
Non-Incapacitating and Possible Injury Crashes	0.62
Property Damage Only Crashes	6.64
All Crashes	7.91
Index of Crash Frequency	**2.64**
Index of Crash Cost	**2.35**

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1712. W Morris St at S West St / S Missouri St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1801. Keystone Way at Enterprise Park Pl / 23rd St	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection One AADT
Busiest Road AADT (veh/day)	34,600
T Intersection Indicator (1 if present, 0 otherwise)	0
Crossing Road Principal or Minor Arterial Indicator (1 if present, 0 otherwise)	0
Crossing Road Major or Minor Collector Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	2
Non-Incapacitating and Possible Injury Crashes	9
Property Damage Only Crashes	65
Route or Road Type	Signalized Urban State Intersection One AADT
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.743
Non-Incapacitating and Possible Injury Crashes	1.00
Property Damage Only Crashes	7.38
All Crashes	9.12
Index of Crash Frequency	**0.84**
Index of Crash Cost	**-0.06**

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Settings: Indiana state settings	Version: Version 4.1	
Location	1801. Keystone Way at Enterprise Park Pl / 23rd St	
GIS		
Post		
Analyst	Maya K	
Date	6/6/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1802. WB I-70 ramps at Keystone Way	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	34,600
Crossing Road AADT (veh/day)	6,600
T Intersection Indicator (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	7
Property Damage Only Crashes	69
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.882
Non-Incapacitating and Possible Injury Crashes	1.57
Property Damage Only Crashes	10.73
All Crashes	13.18
Index of Crash Frequency	**0.28**
Index of Crash Cost	**-0.26**

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1802. WB I-70 ramps at Keystone Way	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1803. EB I-70 ramps at Keystone Way / N Rural St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	22,300
Crossing Road AADT (veh/day)	6,400
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	2
Property Damage Only Crashes	30
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.876
Non-Incapacitating and Possible Injury Crashes	1.11
Property Damage Only Crashes	9.36
All Crashes	11.35
Index of Crash Frequency	**-0.53**
Index of Crash Cost	**-0.54**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1803. EB I-70 ramps at Keystone Way / N Rural St	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1804. N Rural St at Bloyd Ave / Roosevelt Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	22,300
Crossing Road AADT (veh/day)	1,600
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	6
Non-Incapacitating and Possible Injury Crashes	5
Property Damage Only Crashes	55
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.519
Non-Incapacitating and Possible Injury Crashes	0.61
Property Damage Only Crashes	5.08
All Crashes	6.21
Index of Crash Frequency	**1.48**
Index of Crash Cost	**1.23**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1804. N Rural St at Bloyd Ave / Roosevelt Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1901. WB I-70 ramps at Emerson Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	30,400
Crossing Road AADT (veh/day)	6,900
T Intersection Indicator (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	5
Non-Incapacitating and Possible Injury Crashes	3
Property Damage Only Crashes	41
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.814
Non-Incapacitating and Possible Injury Crashes	1.36
Property Damage Only Crashes	9.77
All Crashes	11.94
Index of Crash Frequency	**-0.25**
Index of Crash Cost	**0.00**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1901. WB I-70 ramps at Emerson Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1902. EB I-70 ramps at Emerson Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	28,100
Crossing Road AADT (veh/day)	12,100
T Intersection Indicator (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	5
Non-Incapacitating and Possible Injury Crashes	4
Property Damage Only Crashes	65
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.950
Non-Incapacitating and Possible Injury Crashes	1.57
Property Damage Only Crashes	11.69
All Crashes	14.20
Index of Crash Frequency	**0.06**
Index of Crash Cost	**-0.07**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	1902. EB I-70 ramps at Emerson Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	2001. WB I-70 ramps at Shadeland Ave / Western Select Dr	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	26,800
Crossing Road AADT (veh/day)	17,200
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	10
Property Damage Only Crashes	74
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.459
Non-Incapacitating and Possible Injury Crashes	2.13
Property Damage Only Crashes	17.00
All Crashes	20.60
Index of Crash Frequency	**-0.21**
Index of Crash Cost	**-0.64**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	2001. WB I-70 ramps at Shadeland Ave / Western Select Dr	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	2002. EB I-70 ramps at Shadeland Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	34,400
Crossing Road AADT (veh/day)	15,600
T Intersection Indicator (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	2
Property Damage Only Crashes	53
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.215
Non-Incapacitating and Possible Injury Crashes	2.25
Property Damage Only Crashes	15.60
All Crashes	19.06
Index of Crash Frequency	**-0.55**
Index of Crash Cost	**-0.88**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	2002. EB I-70 ramps at Shadeland Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	2003. East 21st St at Shadeland Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

INPUT	
Road Facility Type	Signalized Urban State Intersection
Busiest Road AADT (veh/day)	34,400
Crossing Road AADT (veh/day)	13,600
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	14
Non-Incapacitating and Possible Injury Crashes	19
Property Damage Only Crashes	197
Route or Road Type	Signalized Urban State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1809300
Non-Incapacitating and Possible Injury Crashes	366800
Property Damage Only Crashes	40700
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.607
Non-Incapacitating and Possible Injury Crashes	2.63
Property Damage Only Crashes	19.07
All Crashes	23.31
Index of Crash Frequency	**1.34**
Index of Crash Cost	**1.08**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	2003. East 21st St at Shadeland Ave	
GIS		
Post		
Analyst	Maya K	
Date	6/2/2023	

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 01 - NB I-65 at I-465	
GIS		
Post		
Analyst	Maya K	
Date		

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	122.41
End	123.90
AADT (veh/day)	27000
Diamond Interchange (1 if present, 0 otherwise)	0
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	8
Non-Incapacitating and Possible Injury Crashes	7
Property Damage Only Crashes	55
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.49
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	2.139
Non-Incapacitating and Possible Injury Crashes	1.91
Property Damage Only Crashes	37.80
All Crashes	41.84

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 01 - NB I-65 at I-465	
GIS		
Post		
Analyst	Maya K	
Date		

Index of Crash Frequency	**-0.93**
Index of Crash Cost	**-0.76**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 02- NB I-65, Between 121.5 and 122.4	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	121.50
End	122.40
AADT (veh/day)	28200
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	4
Non-Incapacitating and Possible Injury Crashes	1
Property Damage Only Crashes	38
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.9
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.552
Non-Incapacitating and Possible Injury Crashes	0.28
Property Damage Only Crashes	4.94
All Crashes	5.78
Index of Crash Frequency	**0.76**
Index of Crash Cost	**0.53**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 02- NB I-65, Between 121.5 and 122.4	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 03- NB I-65 at Lafayette Rd	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	120.20
End	121.49
AADT (veh/day)	29300
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	9
Non-Incapacitating and Possible Injury Crashes	3
Property Damage Only Crashes	36
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.29
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.429
Non-Incapacitating and Possible Injury Crashes	1.37
Property Damage Only Crashes	24.37
All Crashes	27.17

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Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 03- NB I-65 at Lafayette Rd	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.91**
Index of Crash Cost	**-0.10**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 04- NB I-65, Between 119.05 and 120.19	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	119.05
End	120.19
AADT (veh/day)	30500
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	7
Non-Incapacitating and Possible Injury Crashes	5
Property Damage Only Crashes	39
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.14
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.730
Non-Incapacitating and Possible Injury Crashes	0.39
Property Damage Only Crashes	5.67
All Crashes	6.79
Index of Crash Frequency	**0.80**
Index of Crash Cost	**1.20**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 04- NB I-65, Between 119.05 and 120.19	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 05- NB I-65, Between 117.24 and 119.04	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	117.24
End	119.04
AADT (veh/day)	36300
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	11
Non-Incapacitating and Possible Injury Crashes	9
Property Damage Only Crashes	95
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.8
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.288
Non-Incapacitating and Possible Injury Crashes	0.72
Property Damage Only Crashes	7.60
All Crashes	9.61
Index of Crash Frequency	**2.30**
Index of Crash Cost	**1.37**

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Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 05- NB I-65, Between 117.24 and 119.04	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 06 - WB 38th St Frontage	
GIS		
Post		
Analyst	Pratik Srivastava	
Date	8/21/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	00.0
End	1.00
AADT (veh/day)	30800
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	5
Non-Incapacitating and Possible Injury Crashes	7
Property Damage Only Crashes	85
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.288
Non-Incapacitating and Possible Injury Crashes	1.13
Property Damage Only Crashes	20.62
All Crashes	23.04

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Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 06 - WB 38th St Frontage	
GIS		
Post		
Analyst	Pratik Srivastava	
Date	8/21/2023	

Index of Crash Frequency	**-0.22**
Index of Crash Cost	**-0.32**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 07- NB I-65, Between 116.4 and 117.23	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	116.40
End	117.23
AADT (veh/day)	42200
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	0
Non-Incapacitating and Possible Injury Crashes	7
Property Damage Only Crashes	59
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.83
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.890
Non-Incapacitating and Possible Injury Crashes	0.48
Property Damage Only Crashes	7.82
All Crashes	9.18
Index of Crash Frequency	**0.70**
Index of Crash Cost	**-1.35**

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Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 07- NB I-65, Between 116.4 and 117.23	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 08 - NB I-65 at Doctor MLK Jr St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	115.60
End	116.39
AADT (veh/day)	41300
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	5
Non-Incapacitating and Possible Injury Crashes	4
Property Damage Only Crashes	66
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.79
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.447
Non-Incapacitating and Possible Injury Crashes	1.11
Property Damage Only Crashes	20.27
All Crashes	22.83

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 08 - NB I-65 at Doctor MLK Jr St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.48**
Index of Crash Cost	**-0.61**

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 09 - NB I-65 at W 30th St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	114.80
End	115.59
AADT (veh/day)	44300
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	9
Non-Incapacitating and Possible Injury Crashes	7
Property Damage Only Crashes	80
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.79
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.537
Non-Incapacitating and Possible Injury Crashes	1.17
Property Damage Only Crashes	21.08
All Crashes	23.78

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 09 - NB I-65 at W 30th St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.27**
Index of Crash Cost	**0.17**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 10 - NB I-65 at W 21st St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	113.90
End	114.79
AADT (veh/day)	50800
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	9
Non-Incapacitating and Possible Injury Crashes	15
Property Damage Only Crashes	125
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.89
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.852
Non-Incapacitating and Possible Injury Crashes	1.42
Property Damage Only Crashes	24.92
All Crashes	28.19

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 10 - NB I-65 at W 21st St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**0.08**
Index of Crash Cost	**0.17**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 11 - NB I-65 at 10th St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	113.40
End	113.89
AADT (veh/day)	55200
Diamond Interchange (1 if present, 0 otherwise)	0
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	8
Non-Incapacitating and Possible Injury Crashes	4
Property Damage Only Crashes	64
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.49
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	2.082
Non-Incapacitating and Possible Injury Crashes	1.14
Property Damage Only Crashes	24.03
All Crashes	27.25

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 11 - NB I-65 at 10th St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.63**
Index of Crash Cost	**-0.54**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 12 - NB I-65, between Illinois St and N Park Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	112.70
End	113.39
AADT (veh/day)	55200
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	6
Non-Incapacitating and Possible Injury Crashes	24
Property Damage Only Crashes	203
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.69
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.717
Non-Incapacitating and Possible Injury Crashes	1.20
Property Damage Only Crashes	21.48
All Crashes	24.40

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 12 - NB I-65, between Illinois St and N Park Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**1.28**
Index of Crash Cost	**0.41**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 15 - NB I-70 at Ohio St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	111.40
End	111.64
AADT (veh/day)	64600
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2020
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	2
Non-Incapacitating and Possible Injury Crashes	1
Property Damage Only Crashes	53
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.24
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.069
Non-Incapacitating and Possible Injury Crashes	0.52
Property Damage Only Crashes	10.45
All Crashes	12.04

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 15 - NB I-70 at Ohio St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**0.76**
Index of Crash Cost	**-0.32**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 16 - NB I-70 at Washington St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	111.07
End	111.39
AADT (veh/day)	64600
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2020
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	4
Non-Incapacitating and Possible Injury Crashes	0
Property Damage Only Crashes	40
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.32
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.262
Non-Incapacitating and Possible Injury Crashes	0.67
Property Damage Only Crashes	13.02
All Crashes	14.96

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 16 - NB I-70 at Washington St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.03**
Index of Crash Cost	**-0.04**

Comments:

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 17 - NB I-70 at Fletcher Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	110.63
End	111.06
AADT (veh/day)	70000
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2020
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	13
Non-Incapacitating and Possible Injury Crashes	12
Property Damage Only Crashes	235
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.43
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.603
Non-Incapacitating and Possible Injury Crashes	0.92
Property Damage Only Crashes	17.07
All Crashes	19.60

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 17 - NB I-70 at Fletcher Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**4.60**
Index of Crash Cost	**2.80**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 20 - EB I-70 West at I-465	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	72.40
End	73.74
AADT (veh/day)	30300
Diamond Interchange (1 if present, 0 otherwise)	0
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	10
Non-Incapacitating and Possible Injury Crashes	5
Property Damage Only Crashes	90
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.34
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	2.222
Non-Incapacitating and Possible Injury Crashes	1.87
Property Damage Only Crashes	37.16
All Crashes	41.25

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 20 - EB I-70 West at I-465	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.69**
Index of Crash Cost	**-0.47**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 21 - EB I-70 at Sam Jones Expressway	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	73.75
End	75.30
AADT (veh/day)	35100
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	6
Non-Incapacitating and Possible Injury Crashes	2
Property Damage Only Crashes	41
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.55
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.856
Non-Incapacitating and Possible Injury Crashes	1.82
Property Damage Only Crashes	31.01
All Crashes	34.69

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 21 - EB I-70 at Sam Jones Expressway	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-1.01**
Index of Crash Cost	**-1.02**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 22- EB I-70, Between 75.93 and 75.31	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	75.31
End	75.93
AADT (veh/day)	39500
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	1
Property Damage Only Crashes	13
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.62
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.657
Non-Incapacitating and Possible Injury Crashes	0.34
Property Damage Only Crashes	6.83
All Crashes	7.84
Index of Crash Frequency	**-0.91**
Index of Crash Cost	**-0.30**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 22- EB I-70, Between 75.93 and 75.31	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 23 - EB I-70 at Holt Rd	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	75.94
End	77.07
AADT (veh/day)	40600
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	4
Non-Incapacitating and Possible Injury Crashes	2
Property Damage Only Crashes	48
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.13
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.753
Non-Incapacitating and Possible Injury Crashes	1.52
Property Damage Only Crashes	26.41
All Crashes	29.68

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 23 - EB I-70 at Holt Rd	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.90**
Index of Crash Cost	**-1.21**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 24- EB I-70, Between 77.95 and 77.08	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	77.08
End	77.95
AADT (veh/day)	41700
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	9
Non-Incapacitating and Possible Injury Crashes	3
Property Damage Only Crashes	45
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.87
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.907
Non-Incapacitating and Possible Injury Crashes	0.49
Property Damage Only Crashes	7.78
All Crashes	9.17
Index of Crash Frequency	**0.39**
Index of Crash Cost	**1.20**

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Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 24- EB I-70, Between 77.95 and 77.08	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 25 - EB I-70 at Harding St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	77.96
End	78.99
AADT (veh/day)	44100
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	9
Non-Incapacitating and Possible Injury Crashes	7
Property Damage Only Crashes	120
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.03
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.784
Non-Incapacitating and Possible Injury Crashes	1.47
Property Damage Only Crashes	25.76
All Crashes	29.02

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 25 - EB I-70 at Harding St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.09**
Index of Crash Cost	**-0.03**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 26 - EB I-70 at S Missouri St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	79.00
End	80.40
AADT (veh/day)	43100
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	20
Non-Incapacitating and Possible Injury Crashes	17
Property Damage Only Crashes	289
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.4
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	2.088
Non-Incapacitating and Possible Injury Crashes	1.91
Property Damage Only Crashes	32.16
All Crashes	36.16

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 26 - EB I-70 at S Missouri St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**1.13**
Index of Crash Cost	**1.63**

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 27 - EB I-70 at Keystone Way	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	84.01
End	85.20
AADT (veh/day)	73100
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	18
Non-Incapacitating and Possible Injury Crashes	14
Property Damage Only Crashes	181
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.19
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	2.994
Non-Incapacitating and Possible Injury Crashes	2.35
Property Damage Only Crashes	38.10
All Crashes	43.45

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 27 - EB I-70 at Keystone Way	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.03**
Index of Crash Cost	**0.31**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 28- EB I-70, Between 85.9 and 85.21	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	85.21
End	85.90
AADT (veh/day)	76100
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	7
Non-Incapacitating and Possible Injury Crashes	7
Property Damage Only Crashes	56
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.69
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.703
Non-Incapacitating and Possible Injury Crashes	0.98
Property Damage Only Crashes	15.09
All Crashes	17.77
Index of Crash Frequency	**-0.35**
Index of Crash Cost	**-0.30**

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Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 28- EB I-70, Between 85.9 and 85.21	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 29 - EB I-70 at Emerson Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	85.91
End	87.10
AADT (veh/day)	68700
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	17
Non-Incapacitating and Possible Injury Crashes	10
Property Damage Only Crashes	116
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.19
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	2.838
Non-Incapacitating and Possible Injury Crashes	2.26
Property Damage Only Crashes	36.81
All Crashes	41.90

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 29 - EB I-70 at Emerson Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.45**
Index of Crash Cost	**0.12**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 30- EB I-70, Between 87.89 and 87.11	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	87.11
End	87.89
AADT (veh/day)	61300
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	6
Non-Incapacitating and Possible Injury Crashes	9
Property Damage Only Crashes	48
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.78
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.398
Non-Incapacitating and Possible Injury Crashes	0.79
Property Damage Only Crashes	11.98
All Crashes	14.17
Index of Crash Frequency	**-0.18**
Index of Crash Cost	**-0.08**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 30- EB I-70, Between 87.89 and 87.11	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 31 - EB I-70 at Shadeland Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	87.90
End	88.80
AADT (veh/day)	64100
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	11
Non-Incapacitating and Possible Injury Crashes	11
Property Damage Only Crashes	114
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.9
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	2.276
Non-Incapacitating and Possible Injury Crashes	1.68
Property Damage Only Crashes	28.60
All Crashes	32.56

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 31 - EB I-70 at Shadeland Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.23**
Index of Crash Cost	**-0.06**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 32 - EB I-70 East at I-465	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	88.81
End	90.10
AADT (veh/day)	60900
Diamond Interchange (1 if present, 0 otherwise)	0
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	14
Non-Incapacitating and Possible Injury Crashes	16
Property Damage Only Crashes	168
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.29
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	3.960
Non-Incapacitating and Possible Injury Crashes	2.88
Property Damage Only Crashes	53.22
All Crashes	60.07

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 32 - EB I-70 East at I-465	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.48**
Index of Crash Cost	**-0.57**

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 01 - SB I-65 at I-465	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	122.41
End	123.90
AADT (veh/day)	27600
Diamond Interchange (1 if present, 0 otherwise)	0
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	9
Non-Incapacitating and Possible Injury Crashes	7
Property Damage Only Crashes	80
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.49
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	2.180
Non-Incapacitating and Possible Injury Crashes	1.93
Property Damage Only Crashes	38.26
All Crashes	42.38

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 01 - SB I-65 at I-465	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.76**
Index of Crash Cost	**-0.58**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 02- SB I-65, Between 121.5 and 122.4	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	121.50
End	122.40
AADT (veh/day)	28000
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	2
Non-Incapacitating and Possible Injury Crashes	1
Property Damage Only Crashes	21
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.9
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.547
Non-Incapacitating and Possible Injury Crashes	0.28
Property Damage Only Crashes	4.90
All Crashes	5.73
Index of Crash Frequency	**-0.26**
Index of Crash Cost	**-0.39**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 02- SB I-65, Between 121.5 and 122.4	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 03- SB I-65 at Lafayette Rd	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	120.20
End	121.49
AADT (veh/day)	29500
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	2
Non-Incapacitating and Possible Injury Crashes	3
Property Damage Only Crashes	31
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.29
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.438
Non-Incapacitating and Possible Injury Crashes	1.38
Property Damage Only Crashes	24.47
All Crashes	27.28

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 03- SB I-65 at Lafayette Rd	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-1.03**
Index of Crash Cost	**-1.51**

Comments:

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 04- SB I-65, Between 119.05 and 120.19	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	119.05
End	120.19
AADT (veh/day)	31,100
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	7
Non-Incapacitating and Possible Injury Crashes	6
Property Damage Only Crashes	25
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.14
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.749
Non-Incapacitating and Possible Injury Crashes	0.40
Property Damage Only Crashes	5.80
All Crashes	6.95
Index of Crash Frequency	**0.15**
Index of Crash Cost	**1.13**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 04- SB I-65, Between 119.05 and 120.19	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 05- SB I-65, Between 117.24 and 119.04	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	117.24
End	119.04
AADT (veh/day)	35,900
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	2
Non-Incapacitating and Possible Injury Crashes	8
Property Damage Only Crashes	78
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.8
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.269
Non-Incapacitating and Possible Injury Crashes	0.71
Property Damage Only Crashes	7.50
All Crashes	9.48
Index of Crash Frequency	**1.44**
Index of Crash Cost	**-0.80**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 05- SB I-65, Between 117.24 and 119.04	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 06 -EB 38th St Frontage	
GIS		
Post		
Analyst	Pratik Srivastava	
Date	8/21/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	00.0
End	1.00
AADT (veh/day)	25900
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	15
Non-Incapacitating and Possible Injury Crashes	18
Property Damage Only Crashes	171
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.110
Non-Incapacitating and Possible Injury Crashes	1.01
Property Damage Only Crashes	18.73
All Crashes	20.85

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Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 06 -EB 38th St Frontage	
GIS		
Post		
Analyst	Pratik Srivastava	
Date	8/21/2023	

Index of Crash Frequency	**1.32**
Index of Crash Cost	**2.41**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 07 SB -I-65, Between 116.4 and 117.23	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	116.40
End	117.23
AADT (veh/day)	40,600
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	9
Non-Incapacitating and Possible Injury Crashes	6
Property Damage Only Crashes	68
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.83
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.845
Non-Incapacitating and Possible Injury Crashes	0.45
Property Damage Only Crashes	7.47
All Crashes	8.77
Index of Crash Frequency	**1.40**
Index of Crash Cost	**1.55**

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Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 07 SB -I-65, Between 116.4 and 117.23	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 08 - SB I-65 at Doctor MLK Jr St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	115.60
End	116.39
AADT (veh/day)	42,200
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	8
Non-Incapacitating and Possible Injury Crashes	10
Property Damage Only Crashes	131
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.79
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.474
Non-Incapacitating and Possible Injury Crashes	1.13
Property Damage Only Crashes	20.52
All Crashes	23.12

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 08 - SB I-65 at Doctor MLK Jr St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**0.41**
Index of Crash Cost	**0.35**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 09 - SB I-65 at W 30th St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	114.80
End	115.59
AADT (veh/day)	47,200
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	15
Non-Incapacitating and Possible Injury Crashes	15
Property Damage Only Crashes	118
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.79
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.623
Non-Incapacitating and Possible Injury Crashes	1.22
Property Damage Only Crashes	21.84
All Crashes	24.68

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 09 - SB I-65 at W 30th St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**0.28**
Index of Crash Cost	**1.30**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 10 - SB I-65 at W 21st St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	113.90
End	114.79
AADT (veh/day)	53,100
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	12
Non-Incapacitating and Possible Injury Crashes	20
Property Damage Only Crashes	201
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.89
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.924
Non-Incapacitating and Possible Injury Crashes	1.47
Property Damage Only Crashes	25.54
All Crashes	28.93

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 10 - SB I-65 at W 21st St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**0.86**
Index of Crash Cost	**0.85**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 11 - SB I-65 at 10th St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	113.40
End	113.89
AADT (veh/day)	57,100
Diamond Interchange (1 if present, 0 otherwise)	0
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	3
Non-Incapacitating and Possible Injury Crashes	13
Property Damage Only Crashes	81
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.49
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	2.144
Non-Incapacitating and Possible Injury Crashes	1.16
Property Damage Only Crashes	24.49
All Crashes	27.79

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 11 - SB I-65 at 10th St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.43**
Index of Crash Cost	**-1.04**

Comments:

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Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 12 - SB I-65, between Illinois St and N Park Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	112.70
End	113.39
AADT (veh/day)	57,100
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	19
Non-Incapacitating and Possible Injury Crashes	22
Property Damage Only Crashes	285
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.69
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.768
Non-Incapacitating and Possible Injury Crashes	1.23
Property Damage Only Crashes	21.89
All Crashes	24.88

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 12 - SB I-65, between Illinois St and N Park Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**2.27**
Index of Crash Cost	**2.29**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 15 - SB I-70 at Ohio St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	111.40
End	111.64
AADT (veh/day)	57700
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2020
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	7
Non-Incapacitating and Possible Injury Crashes	1
Property Damage Only Crashes	69
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.24
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.970
Non-Incapacitating and Possible Injury Crashes	0.48
Property Damage Only Crashes	9.81
All Crashes	11.27

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 15 - SB I-70 at Ohio St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**1.73**
Index of Crash Cost	**1.43**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 16 - SB I-70 at Washington St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	111.07
End	111.39
AADT (veh/day)	57700
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2020
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	4
Non-Incapacitating and Possible Injury Crashes	3
Property Damage Only Crashes	42
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.32
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.145
Non-Incapacitating and Possible Injury Crashes	0.62
Property Damage Only Crashes	12.23
All Crashes	14.00

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 16 - SB I-70 at Washington St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**0.23**
Index of Crash Cost	**0.28**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 17 - SB I-70 at Fletcher Ave and Calvary St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	110.63
End	111.06
AADT (veh/day)	72600
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2020
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	10
Non-Incapacitating and Possible Injury Crashes	7
Property Damage Only Crashes	129
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.43
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.654
Non-Incapacitating and Possible Injury Crashes	0.94
Property Damage Only Crashes	17.42
All Crashes	20.02

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 17 - SB I-70 at Fletcher Ave and Calvary St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**1.99**
Index of Crash Cost	**1.61**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 18 & 19 - EB to NB I-65 and I-70 South Split	
GIS		
Post		
Analyst	Maya K	
Date	7/5/2024	

INPUT	
Road Facility Type	Ramps
Beginning	0
End	0.764
AADT (veh/day)	29600
Diagonal Ramp Indicator (1 if present, 0 otherwise)	0
Loop Ramp Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	7
Non-Incapacitating and Possible Injury Crashes	6
Property Damage Only Crashes	43
Route or Road Type	Ramps
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2115900
Non-Incapacitating and Possible Injury Crashes	383000
Property Damage Only Crashes	38800
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.764
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.118
Non-Incapacitating and Possible Injury Crashes	0.47
Property Damage Only Crashes	5.57
All Crashes	6.16
Index of Crash Frequency	**0.33**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 18 & 19 - EB to NB I-65 and I-70 South Split	
GIS		
Post		
Analyst	Maya K	
Date	7/5/2024	

Index of Crash Cost	**2.13**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 18 & 19 - EB to SB I-65 and I-70 South Split	
GIS		
Post		
Analyst	Maya K	
Date	7/5/2024	

INPUT	
Road Facility Type	Ramps
Beginning	0
End	0.695
AADT (veh/day)	17200
Diagonal Ramp Indicator (1 if present, 0 otherwise)	0
Loop Ramp Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	2
Non-Incapacitating and Possible Injury Crashes	5
Property Damage Only Crashes	17
Route or Road Type	Ramps
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2115900
Non-Incapacitating and Possible Injury Crashes	383000
Property Damage Only Crashes	38800
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.695
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.070
Non-Incapacitating and Possible Injury Crashes	0.26
Property Damage Only Crashes	3.34
All Crashes	3.67
Index of Crash Frequency	**0.12**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 18 & 19 - EB to SB I-65 and I-70 South Split	
GIS		
Post		
Analyst	Maya K	
Date	7/5/2024	

Index of Crash Cost	**1.16**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 18 & 19 - NB to NB I-65 and I-70 South Split	
GIS		
Post		
Analyst	Maya K	
Date	7/5/2024	

INPUT	
Road Facility Type	Ramps
Beginning	0
End	1.2
AADT (veh/day)	26600
Diagonal Ramp Indicator (1 if present, 0 otherwise)	0
Loop Ramp Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	6
Non-Incapacitating and Possible Injury Crashes	3
Property Damage Only Crashes	29
Route or Road Type	Ramps
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2115900
Non-Incapacitating and Possible Injury Crashes	383000
Property Damage Only Crashes	38800
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.2
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.144
Non-Incapacitating and Possible Injury Crashes	0.42
Property Damage Only Crashes	6.42
All Crashes	6.98
Index of Crash Frequency	**0.04**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 18 & 19 - NB to NB I-65 and I-70 South Split	
GIS		
Post		
Analyst	Maya K	
Date	7/5/2024	

Index of Crash Cost	**1.55**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 18 & 19 - NB to WB I-65 and I-70 South Split	
GIS		
Post		
Analyst	Maya K	
Date	7/5/2024	

INPUT	
Road Facility Type	Ramps
Beginning	0
End	0.813
AADT (veh/day)	17800
Diagonal Ramp Indicator (1 if present, 0 otherwise)	0
Loop Ramp Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	4
Non-Incapacitating and Possible Injury Crashes	1
Property Damage Only Crashes	41
Route or Road Type	Ramps
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2115900
Non-Incapacitating and Possible Injury Crashes	383000
Property Damage Only Crashes	38800
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.813
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.080
Non-Incapacitating and Possible Injury Crashes	0.27
Property Damage Only Crashes	3.73
All Crashes	4.08
Index of Crash Frequency	**0.50**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 18 & 19 - NB to WB I-65 and I-70 South Split	
GIS		
Post		
Analyst	Maya K	
Date	7/5/2024	

Index of Crash Cost	**1.58**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 18 & 19 - SB to SB I-65 and I-70 South Split	
GIS		
Post		
Analyst	Maya K	
Date	7/5/2024	

INPUT	
Road Facility Type	Ramps
Beginning	0
End	0.894
AADT (veh/day)	27000
Diagonal Ramp Indicator (1 if present, 0 otherwise)	0
Loop Ramp Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	5
Non-Incapacitating and Possible Injury Crashes	1
Property Damage Only Crashes	12
Route or Road Type	Ramps
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2115900
Non-Incapacitating and Possible Injury Crashes	383000
Property Damage Only Crashes	38800
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.894
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.121
Non-Incapacitating and Possible Injury Crashes	0.42
Property Damage Only Crashes	5.58
All Crashes	6.13
Index of Crash Frequency	**-0.17**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 18 & 19 - SB to SB I-65 and I-70 South Split	
GIS		
Post		
Analyst	Maya K	
Date	7/5/2024	

Index of Crash Cost	**1.25**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 18 & 19 - SB to WB I-65 and I-70 South Split	
GIS		
Post		
Analyst	Maya K	
Date	7/5/2024	

INPUT	
Road Facility Type	Ramps
Beginning	0
End	0.621
AADT (veh/day)	29200
Diagonal Ramp Indicator (1 if present, 0 otherwise)	0
Loop Ramp Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	4
Non-Incapacitating and Possible Injury Crashes	2
Property Damage Only Crashes	26
Route or Road Type	Ramps
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2115900
Non-Incapacitating and Possible Injury Crashes	383000
Property Damage Only Crashes	38800
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.621
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.102
Non-Incapacitating and Possible Injury Crashes	0.46
Property Damage Only Crashes	4.95
All Crashes	5.51
Index of Crash Frequency	**0.07**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 18 & 19 - SB to WB I-65 and I-70 South Split	
GIS		
Post		
Analyst	Maya K	
Date	7/5/2024	

Index of Crash Cost	**1.22**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 1/2

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 20 - WB I-70 West at I-465	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	72.40
End	73.74
AADT (veh/day)	27,900
Diamond Interchange (1 if present, 0 otherwise)	0
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	7
Non-Incapacitating and Possible Injury Crashes	8
Property Damage Only Crashes	71
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.34
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	2.070
Non-Incapacitating and Possible Injury Crashes	1.77
Property Damage Only Crashes	35.49
All Crashes	39.33

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 2/2

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 20 - WB I-70 West at I-465	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.78**
Index of Crash Cost	**-0.76**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 1/2

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 21 - WB I-70 at Sam Jones Expressway	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	73.75
End	75.30
AADT (veh/day)	35,500
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	12
Non-Incapacitating and Possible Injury Crashes	3
Property Damage Only Crashes	42
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.55
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.874
Non-Incapacitating and Possible Injury Crashes	1.84
Property Damage Only Crashes	31.21
All Crashes	34.92

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 21 - WB I-70 at Sam Jones Expressway	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.95**
Index of Crash Cost	**-0.11**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 22- WB I-70, Between 75.93 and 75.31	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	75.31
End	75.93
AADT (veh/day)	40,600
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	7
Non-Incapacitating and Possible Injury Crashes	2
Property Damage Only Crashes	25
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.62
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.682
Non-Incapacitating and Possible Injury Crashes	0.36
Property Damage Only Crashes	7.06
All Crashes	8.10
Index of Crash Frequency	**-0.25**
Index of Crash Cost	**1.04**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 22- WB I-70, Between 75.93 and 75.31	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 1/2

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 23 - WB I-70 at Holt Rd	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	75.94
End	77.07
AADT (veh/day)	42,100
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	9
Non-Incapacitating and Possible Injury Crashes	5
Property Damage Only Crashes	62
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.13
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.808
Non-Incapacitating and Possible Injury Crashes	1.55
Property Damage Only Crashes	26.94
All Crashes	30.31

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 23 - WB I-70 at Holt Rd	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.70**
Index of Crash Cost	**-0.30**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 24- WB I-70, Between 77.95 and 77.08	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	77.08
End	77.95
AADT (veh/day)	43,600
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	5
Non-Incapacitating and Possible Injury Crashes	3
Property Damage Only Crashes	31
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.87
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.962
Non-Incapacitating and Possible Injury Crashes	0.52
Property Damage Only Crashes	8.20
All Crashes	9.68
Index of Crash Frequency	**-0.32**
Index of Crash Cost	**0.02**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 24- WB I-70, Between 77.95 and 77.08	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 1/2

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 25 - WB I-70 at Harding St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	77.96
End	78.99
AADT (veh/day)	46,400
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	4
Non-Incapacitating and Possible Injury Crashes	9
Property Damage Only Crashes	49
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.03
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.864
Non-Incapacitating and Possible Injury Crashes	1.53
Property Damage Only Crashes	26.50
All Crashes	29.89

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 25 - WB I-70 at Harding St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.83**
Index of Crash Cost	**-1.05**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 26 - WB I-70 at S Missouri St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	79.00
End	80.40
AADT (veh/day)	48,800
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	19
Non-Incapacitating and Possible Injury Crashes	23
Property Damage Only Crashes	221
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.4
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	2.323
Non-Incapacitating and Possible Injury Crashes	2.08
Property Damage Only Crashes	34.46
All Crashes	38.86

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 2/2

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 26 - WB I-70 at S Missouri St	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**0.50**
Index of Crash Cost	**1.19**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 1/2

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 27 - WB I-70 at Keystone Way	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	84.01
End	85.20
AADT (veh/day)	73,800
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	18
Non-Incapacitating and Possible Injury Crashes	20
Property Damage Only Crashes	295
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.19
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	3.018
Non-Incapacitating and Possible Injury Crashes	2.37
Property Damage Only Crashes	38.31
All Crashes	43.69

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 2/2

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 27 - WB I-70 at Keystone Way	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**0.75**
Index of Crash Cost	**0.61**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 28- WB I-70, Between 85.9 and 85.21	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	85.21
End	85.90
AADT (veh/day)	77,200
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	6
Non-Incapacitating and Possible Injury Crashes	7
Property Damage Only Crashes	75
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.69
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.736
Non-Incapacitating and Possible Injury Crashes	1.00
Property Damage Only Crashes	15.35
All Crashes	18.08
Index of Crash Frequency	**-0.04**
Index of Crash Cost	**-0.47**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 28- WB I-70, Between 85.9 and 85.21	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 1/2

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 29 - WB I-70 at Emerson Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	85.91
End	87.10
AADT (veh/day)	68,700
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	16
Non-Incapacitating and Possible Injury Crashes	19
Property Damage Only Crashes	172
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.19
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	2.838
Non-Incapacitating and Possible Injury Crashes	2.26
Property Damage Only Crashes	36.81
All Crashes	41.90

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

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Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 29 - WB I-70 at Emerson Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.02**
Index of Crash Cost	**0.29**

Comments:

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 30- WB I-70, Between 87.89 and 87.11	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban freeway Segment
Beginning	87.11
End	87.89
AADT (veh/day)	60,200
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	8
Non-Incapacitating and Possible Injury Crashes	6
Property Damage Only Crashes	82
Route or Road Type	Urban freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2043300
Non-Incapacitating and Possible Injury Crashes	337700
Property Damage Only Crashes	36700
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.78
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.365
Non-Incapacitating and Possible Injury Crashes	0.77
Property Damage Only Crashes	11.73
All Crashes	13.86
Index of Crash Frequency	**0.63**
Index of Crash Cost	**0.43**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 30- WB I-70, Between 87.89 and 87.11	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 1/2

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 31 - WB I-70 at Shadeland Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	87.90
End	88.80
AADT (veh/day)	57,600
Diamond Interchange (1 if present, 0 otherwise)	1
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	14
Non-Incapacitating and Possible Injury Crashes	11
Property Damage Only Crashes	123
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	0.9
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	2.076
Non-Incapacitating and Possible Injury Crashes	1.56
Property Damage Only Crashes	26.95
All Crashes	30.59

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 2/2

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 31 - WB I-70 at Shadeland Ave	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.05**
Index of Crash Cost	**0.51**

Comments:

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 1/2

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 32 - WB I-70 East at I-465	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

INPUT	
Road Facility Type	Urban interchange freeway Segment
Beginning	88.81
End	90.10
AADT (veh/day)	55,600
Diamond Interchange (1 if present, 0 otherwise)	0
Jug Interchange (1 if present, 0 otherwise)	0
Directional Interchange (1 if present, 0 otherwise)	1
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2022
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	20
Non-Incapacitating and Possible Injury Crashes	23
Property Damage Only Crashes	158
Route or Road Type	Urban interchange freeway Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	1840000
Non-Incapacitating and Possible Injury Crashes	321700
Property Damage Only Crashes	38000
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	1.29
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	3.662
Non-Incapacitating and Possible Injury Crashes	2.71
Property Damage Only Crashes	50.59
All Crashes	56.97

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 2/2

Settings: Indiana state settings	Version: Version 4.1	
Location	Segment 32 - WB I-70 East at I-465	
GIS		
Post		
Analyst	Maya K	
Date	7/31/2023	

Index of Crash Frequency	**-0.42**
Index of Crash Cost	**0.11**

Comments:

APPENDIX J: TRAFFIC VOLUMES

PEAK HOUR - TURNING MOVEMENT COUNTS

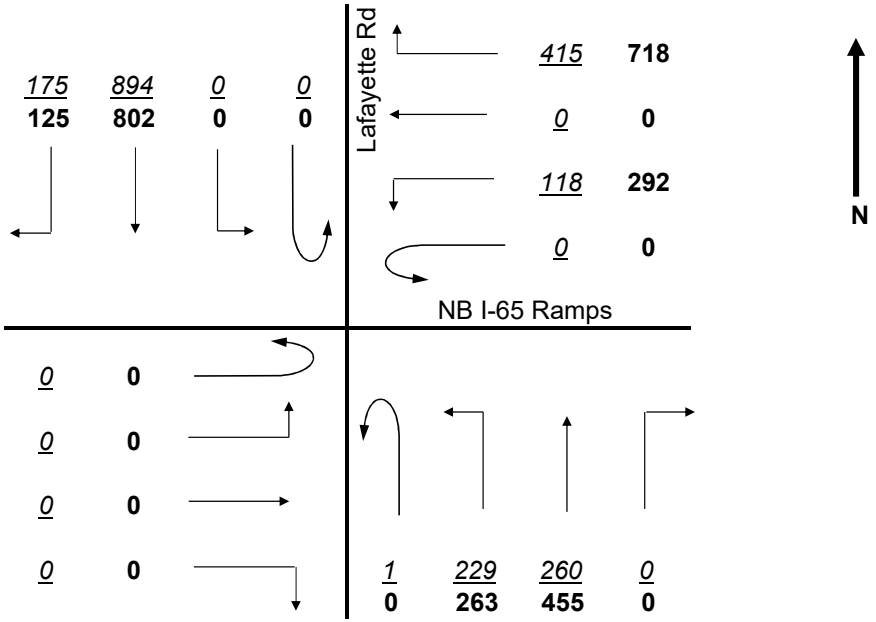
Lafayette Rd at NB I-65 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES NB I-65 Ramps				WB VEHICLES NB I-65 Ramps				NB VEHICLES Lafayette Rd				SB VEHICLES Lafayette Rd				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	0	0	0	0	23	0	84	1	60	49	0	0	0	208	60	485
7:30-7:45	0	0	0	0	0	27	0	100	0	68	73	0	0	0	234	58	560
7:45-8:00	0	0	0	0	0	39	0	129	0	51	72	0	0	0	233	31	555
8:00-8:15	0	0	0	0	0	29	0	102	0	50	66	0	0	0	219	26	492
PM PEAK																	
4:00-4:15	0	0	0	0	0	68	0	155	0	74	109	0	0	0	205	34	645
4:15-4:30	0	0	0	0	0	89	0	179	0	52	114	0	0	0	205	33	672
4:30-4:45	0	0	0	0	0	58	0	184	0	76	117	0	0	0	202	26	663
4:45-5:00	0	0	0	0	0	77	0	200	0	61	115	0	0	0	190	32	675
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	118	0	415	1	229	260	0	0	0	894	175	2092
PM PEAK	0	0	0	0	0	292	0	718	0	263	455	0	0	0	802	125	2655
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	4%	0%	6%	0%	4%	4%	0%	0%	0%	2%	4%	
PM PEAK	0%	0%	0%	0%	0%	2%	0%	1%	0%	3%	1%	0%	0%	0%	2%	0%	

	PHF
AM PEAK	0.93
PM PEAK	0.98

TURNING MOVEMENT COUNTS
Lafayette Rd at NB I-65 Ramps

Count Date: 5/22/23



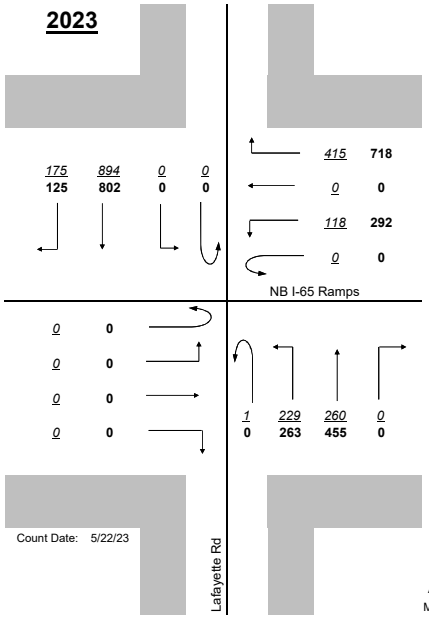
Legend:

000 AM Peak 7:15 AM-8:15 AM

000 PM Peak 4:00 PM-5:00 PM

Raw Counts

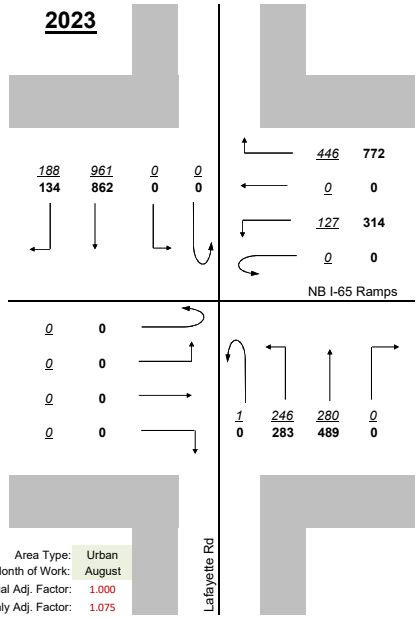
2023



Count Date: 5/22/23

Adjusted Existing Volumes

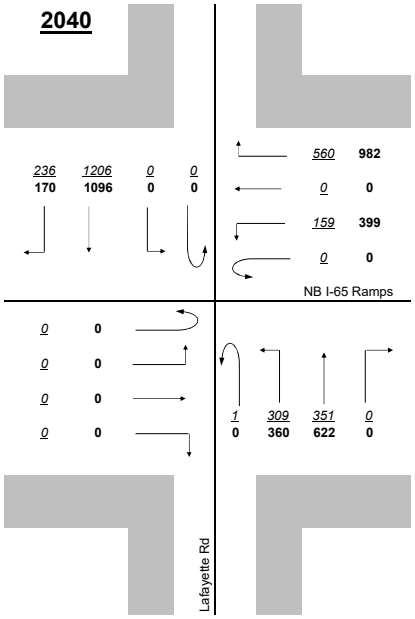
2023



Area Type: Urban
Month of Work: August
Annual Adj. Factor: 1.000
Monthly Adj. Factor: 1.075

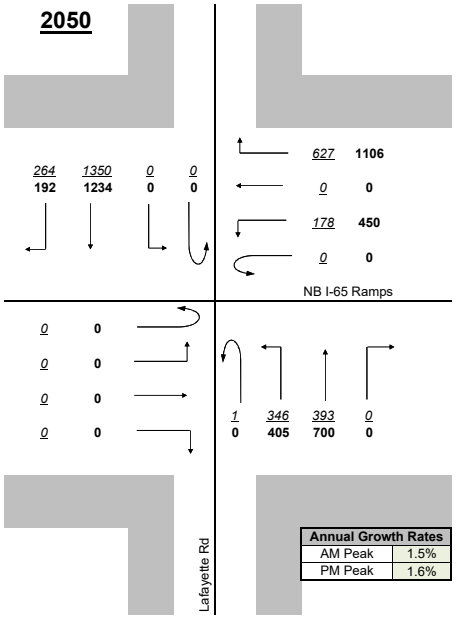
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	1.5%
PM Peak	1.6%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

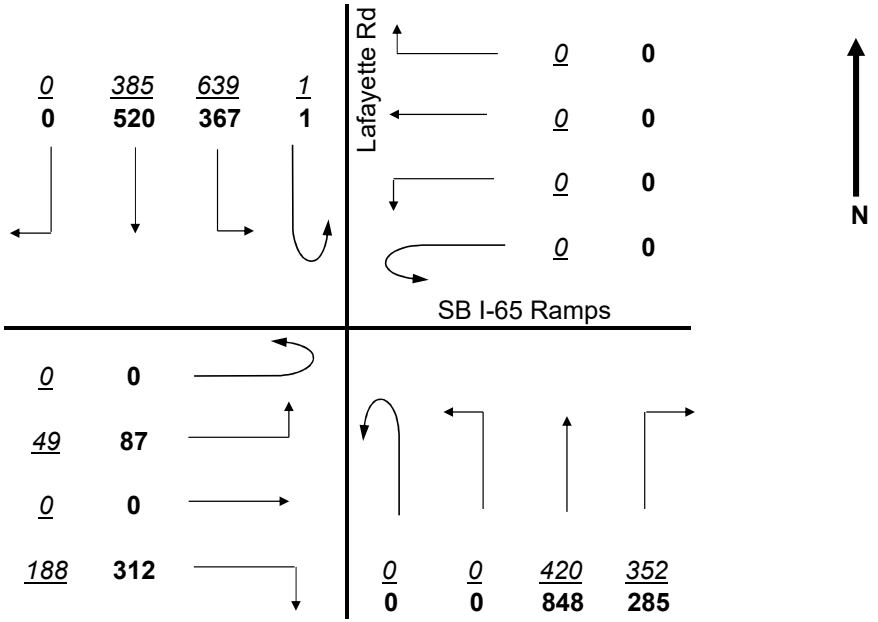
Lafayette Rd at SB I-65 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES SB I-65 Ramps				WB VEHICLES SB I-65 Ramps				NB VEHICLES Lafayette Rd				SB VEHICLES Lafayette Rd				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	14	0	38	0	0	0	0	0	0	116	85	0	196	75	0	524
7:45-8:00	0	10	0	67	0	0	0	0	0	0	114	90	0	147	113	0	541
8:00-8:15	0	10	0	42	0	0	0	0	0	0	105	94	0	155	101	0	507
8:15-8:30	0	15	0	41	0	0	0	0	0	0	85	83	1	141	96	0	462
PM PEAK																	
5:15-5:30	0	26	0	91	0	0	0	0	0	0	166	71	0	115	149	0	618
5:30-5:45	0	21	0	72	0	0	0	0	0	0	192	85	1	90	123	0	584
5:45-6:00	0	18	0	87	0	0	0	0	0	0	260	62	0	74	133	0	634
6:00-6:15	0	22	0	62	0	0	0	0	0	0	230	67	0	88	115	0	584
TOTAL VOLUMES																	
AM PEAK	0	49	0	188	0	0	0	0	0	0	420	352	1	639	385	0	2034
PM PEAK	0	87	0	312	0	0	0	0	0	0	848	285	1	367	520	0	2420
% TRUCKS																	
AM PEAK	0%	8%	0%	6%	0%	0%	0%	0%	0%	0%	4%	1%	0%	1%	3%	0%	
PM PEAK	0%	1%	0%	3%	0%	0%	0%	0%	0%	0%	2%	1%	0%	2%	1%	0%	

TURNING MOVEMENT COUNTS
Lafayette Rd at SB I-65 Ramps

Count Date: 5/22/23

	PHF
AM PEAK	0.94
PM PEAK	0.95

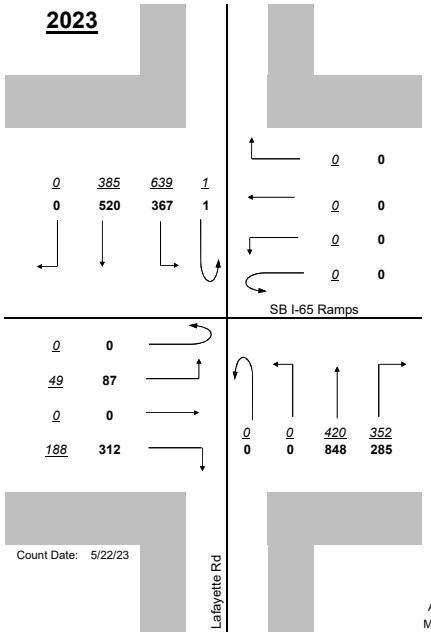


Legend:

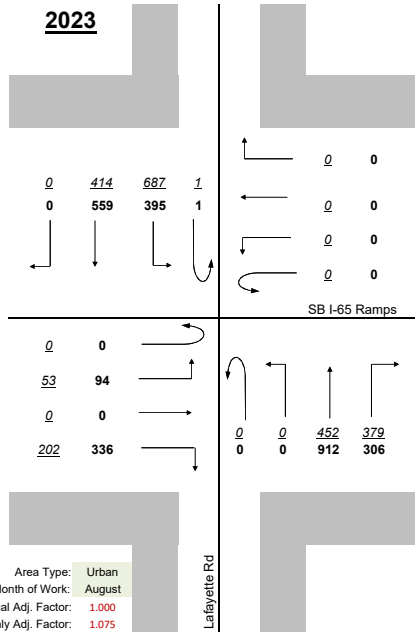
000 AM Peak 7:30 AM-8:30 AM

000 PM Peak 5:15 PM-6:15 PM

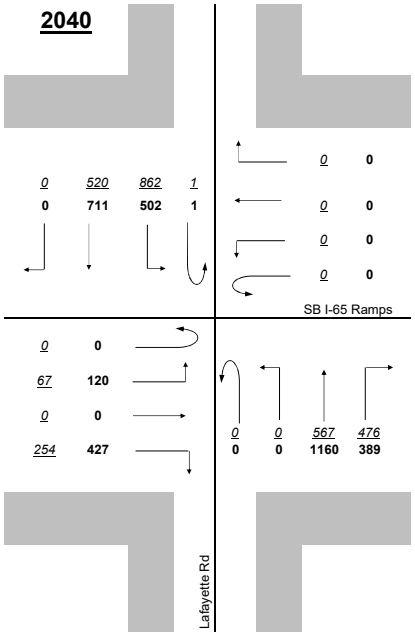
Raw Counts



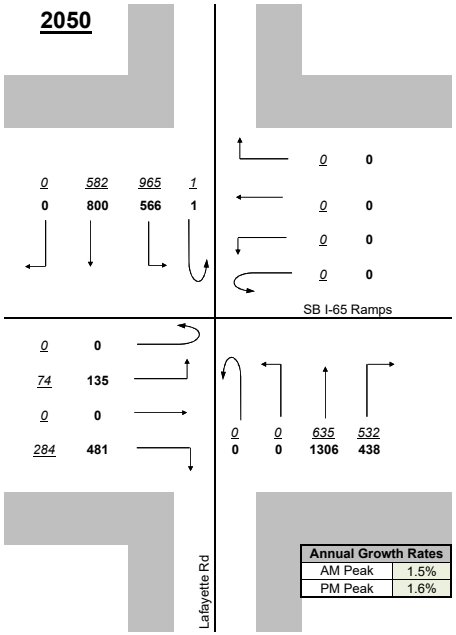
Adjusted Existing Volumes



Interim Year



Design Year



Annual Growth Rates	
AM Peak	1.5%
PM Peak	1.6%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

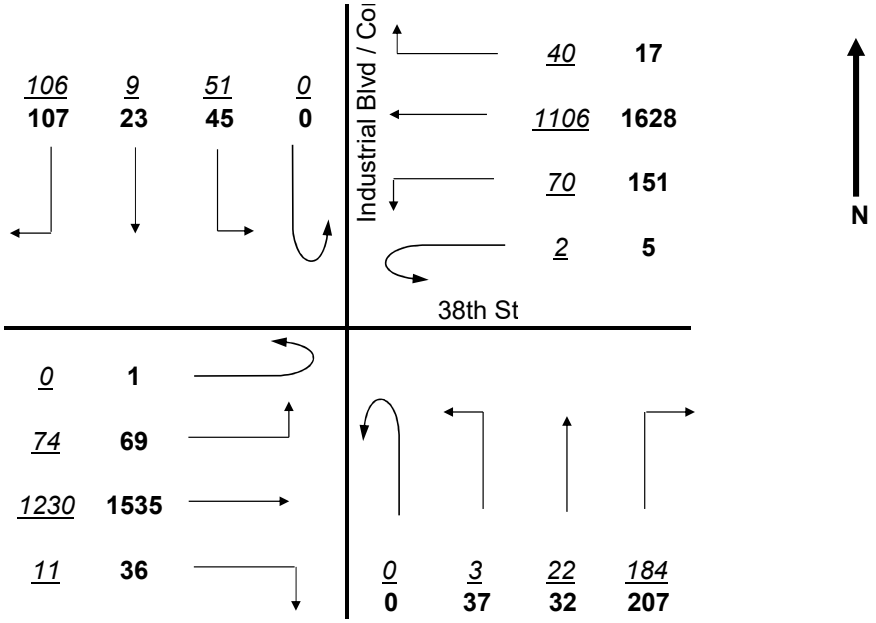
38th St at Industrial Blvd / Commercial Dr **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 38th St				WB VEHICLES 38th St				NB VEHICLES Industrial Blvd / Commercial Dr				SB VEHICLES Industrial Blvd / Commercial Dr				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	11	311	1	0	9	249	9	0	1	5	50	0	15	2	26	689
7:30-7:45	0	18	275	1	0	18	303	5	0	0	8	54	0	15	0	21	718
7:45-8:00	0	29	356	6	0	22	302	13	0	0	7	46	0	10	0	34	825
8:00-8:15	0	16	288	3	2	21	252	13	0	2	2	34	0	11	7	25	676
PM PEAK																	
4:45-5:00	1	17	389	14	3	33	392	8	0	10	9	55	0	11	2	38	982
5:00-5:15	0	12	361	10	1	33	393	3	0	10	8	56	0	6	11	28	932
5:15-5:30	0	21	384	5	0	35	430	3	0	12	7	52	0	14	6	16	985
5:30-5:45	0	19	401	7	1	50	413	3	0	5	8	44	0	14	4	25	994
TOTAL VOLUMES																	
AM PEAK	0	74	1230	11	2	70	1106	40	0	3	22	184	0	51	9	106	2908
PM PEAK	1	69	1535	36	5	151	1628	17	0	37	32	207	0	45	23	107	3893
% TRUCKS																	
AM PEAK	0%	4%	4%	0%	0%	4%	4%	10%	0%	0%	0%	5%	0%	14%	0%	8%	
PM PEAK	0%	1%	3%	0%	0%	1%	3%	12%	0%	3%	3%	1%	0%	4%	9%	4%	

	PHF
AM PEAK	0.88
PM PEAK	0.98

TURNING MOVEMENT COUNTS

38th St at Industrial Blvd / Commercial Dr **Count Date: 02/28/2023**

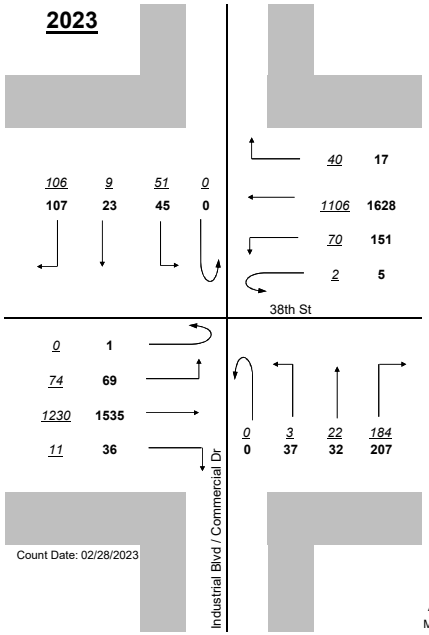


Legend:

000 AM Peak 7:15 AM-8:15 AM

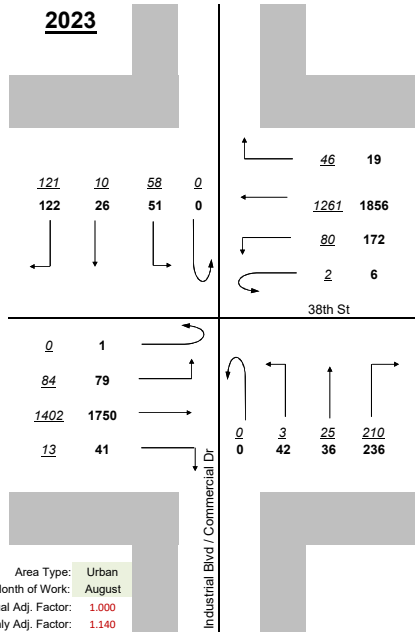
000 PM Peak 4:45 PM-5:45 PM

Raw Counts



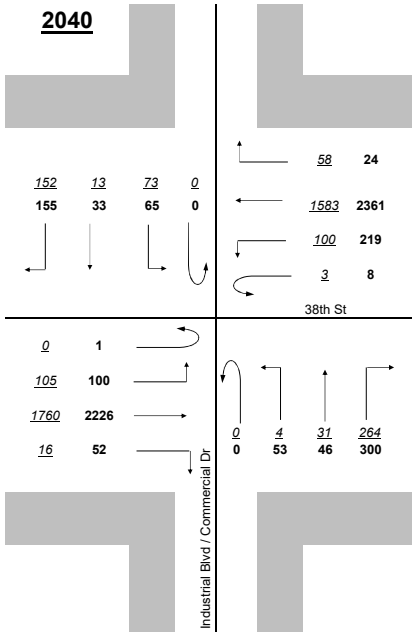
Count Date: 02/28/2023

Adjusted Existing Volumes

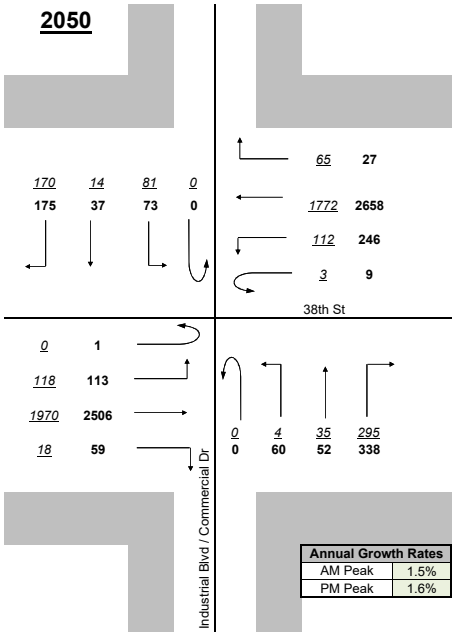


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.140

Interim Year



Design Year



Annual Growth Rates	
AM Peak	1.5%
PM Peak	1.6%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

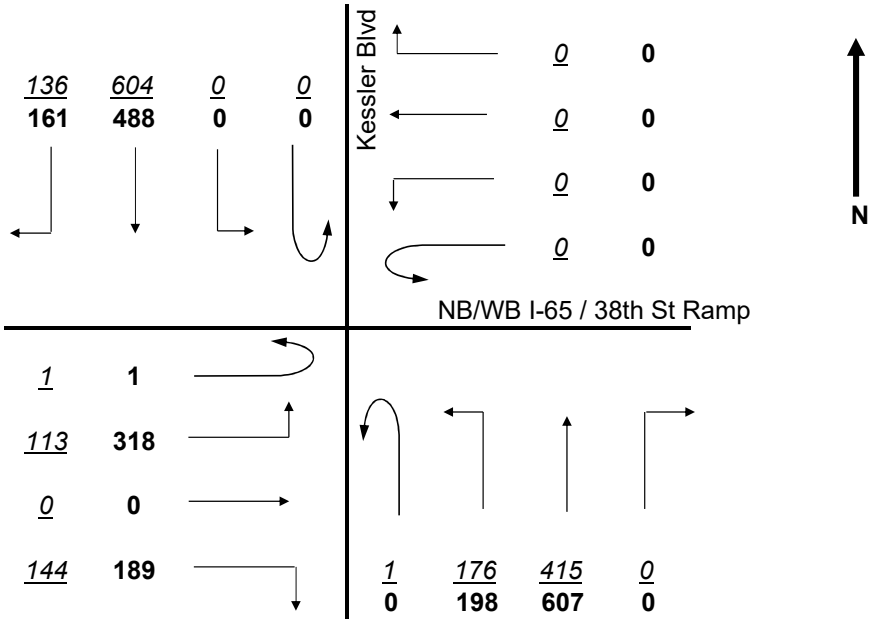
Kessler Blvd at NB/WB I-65 / 38th St Ramp **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES NB/WB I-65 / 38th St Ramp				WB VEHICLES NB/WB I-65 / 38th St Ramp				NB VEHICLES Kessler Blvd				SB VEHICLES Kessler Blvd				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	23	0	33	0	0	0	0	0	51	99	0	0	0	148	21	375
7:30-7:45	0	25	0	34	0	0	0	0	0	52	97	0	0	0	180	49	437
7:45-8:00	0	35	0	44	0	0	0	0	0	42	115	0	0	0	152	43	431
8:00-8:15	1	30	0	33	0	0	0	0	1	31	104	0	0	0	124	23	347
PM PEAK																	
4:30-4:45	0	74	0	51	0	0	0	0	0	47	143	0	0	0	124	36	475
4:45-5:00	1	71	0	48	0	0	0	0	0	55	156	0	0	0	124	44	499
5:00-5:15	0	93	0	28	0	0	0	0	0	53	149	0	0	0	113	37	473
5:15-5:30	0	80	0	62	0	0	0	0	0	43	159	0	0	0	127	44	515
TOTAL VOLUMES																	
AM PEAK	1	113	0	144	0	0	0	0	1	176	415	0	0	0	604	136	1590
PM PEAK	1	318	0	189	0	0	0	0	0	198	607	0	0	0	488	161	1962
% TRUCKS																	
AM PEAK	0%	3%	0%	4%	0%	0%	0%	0%	0%	3%	2%	0%	0%	0%	1%	1%	
PM PEAK	0%	2%	0%	2%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	1%	

	PHF
AM PEAK	0.91
PM PEAK	0.95

TURNING MOVEMENT COUNTS

Kessler Blvd at NB/WB I-65 / 38th St Ramp **Count Date: 02/28/2023**

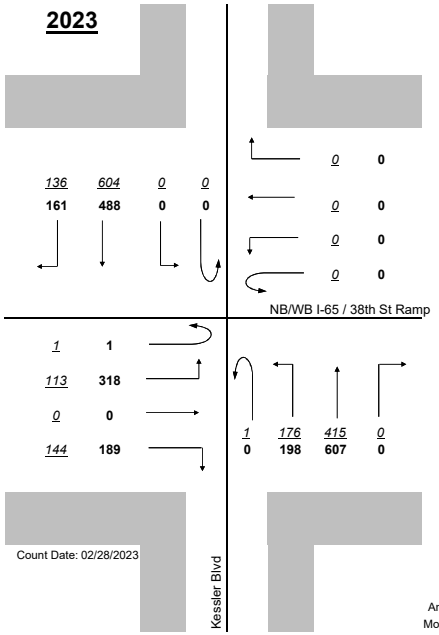


Legend:

000 AM Peak 7:15 AM-8:15 AM

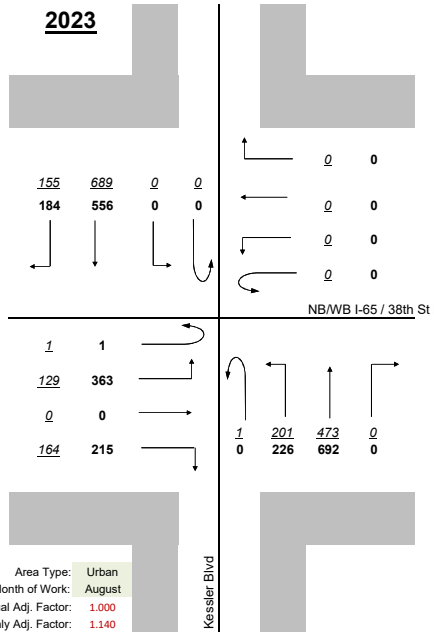
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



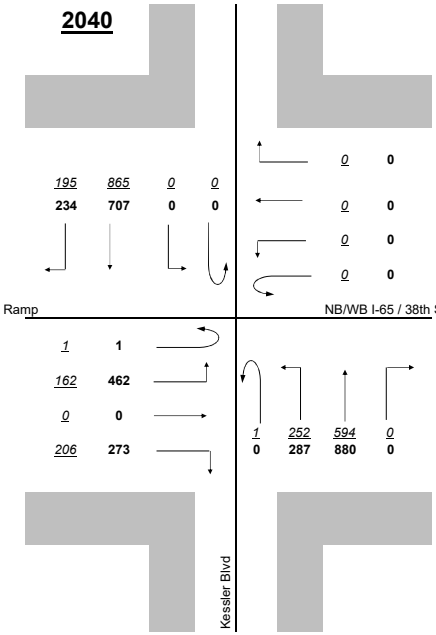
Count Date: 02/28/2023

Adjusted Existing Volumes

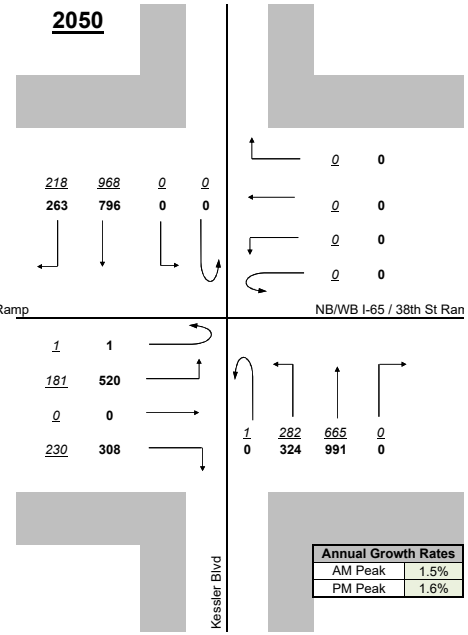


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.140

Interim Year



Design Year



Annual Growth Rates	
AM Peak	1.5%
PM Peak	1.6%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

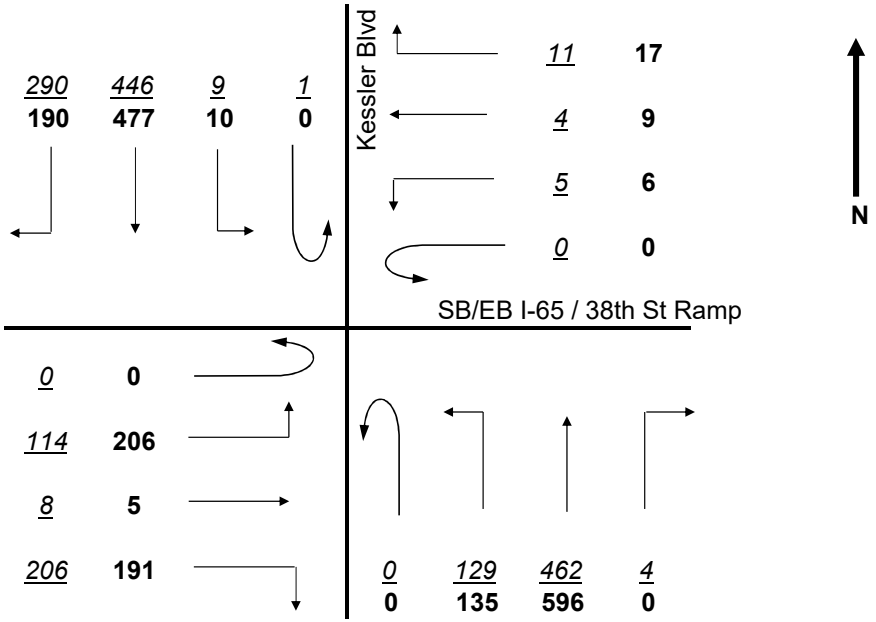
Kessler Blvd at SB/EB I-65 / 38th St Ramp **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES SB/EB I-65 / 38th St Ramp				WB VEHICLES SB/EB I-65 / 38th St Ramp				NB VEHICLES Kessler Blvd				SB VEHICLES Kessler Blvd				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	30	1	44	0	1	2	2	0	31	116	0	0	5	101	72	405
7:30-7:45	0	22	0	80	0	1	1	2	0	41	123	0	0	1	124	89	484
7:45-8:00	0	34	3	51	0	0	0	4	0	43	118	2	0	2	124	71	452
8:00-8:15	0	28	4	31	0	3	1	3	0	14	105	2	1	1	97	58	348
PM PEAK																	
4:30-4:45	0	48	2	41	0	3	3	4	0	37	144	0	0	2	115	54	453
4:45-5:00	0	51	3	57	0	1	3	4	0	27	154	0	0	7	125	45	477
5:00-5:15	0	54	0	45	0	2	3	8	0	44	143	0	0	0	102	40	441
5:15-5:30	0	53	0	48	0	0	0	1	0	27	155	0	0	1	135	51	471
TOTAL VOLUMES																	
AM PEAK	0	114	8	206	0	5	4	11	0	129	462	4	1	9	446	290	1689
PM PEAK	0	206	5	191	0	6	9	17	0	135	596	0	0	10	477	190	1842
% TRUCKS																	
AM PEAK	0%	4%	13%	1%	0%	0%	0%	9%	0%	2%	3%	0%	0%	0%	1%	1%	
PM PEAK	0%	1%	0%	2%	0%	17%	0%	0%	0%	1%	0%	0%	0%	0%	1%	1%	

	PHF
AM PEAK	0.87
PM PEAK	0.97

TURNING MOVEMENT COUNTS

Kessler Blvd at SB/EB I-65 / 38th St Ramp **Count Date: 02/28/2023**



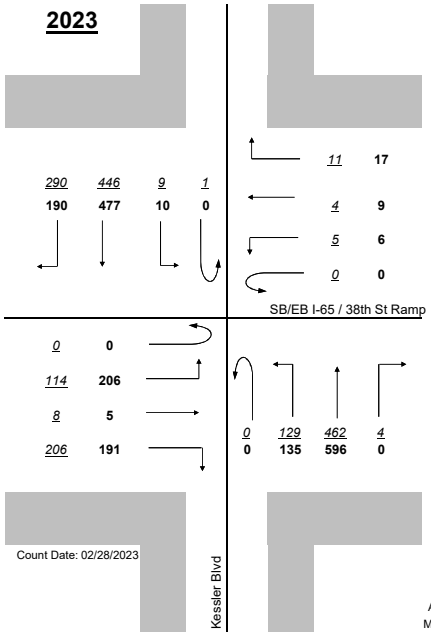
Legend:

000 AM Peak 7:15 AM-8:15 AM

000 PM Peak 4:30 PM-5:30 PM

Raw Counts

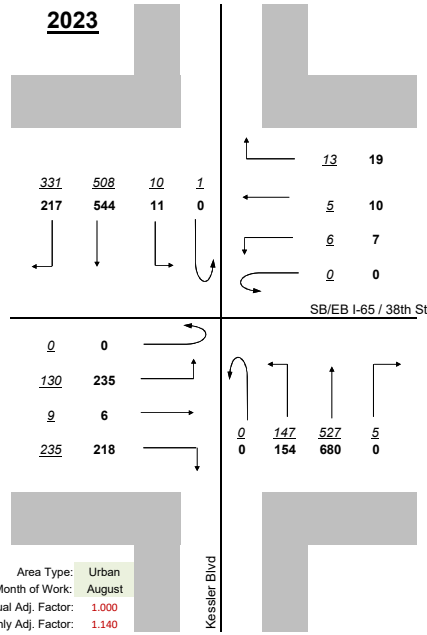
2023



Count Date: 02/28/2023

Adjusted Existing Volumes

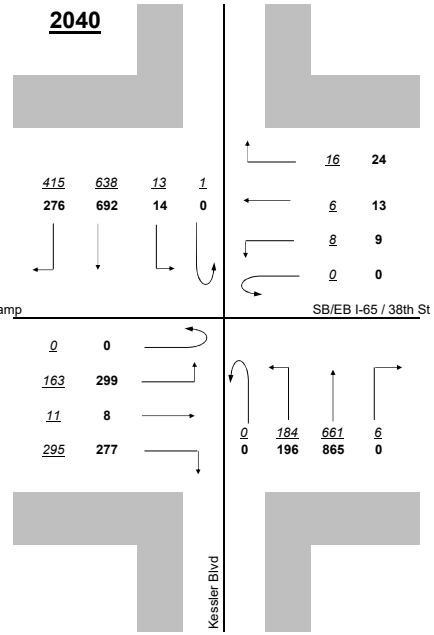
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.140

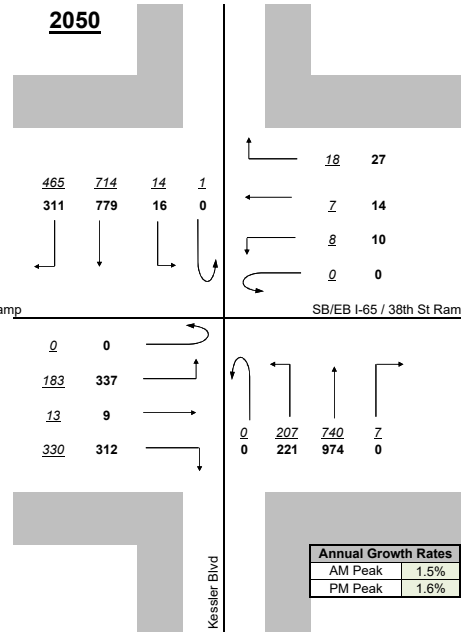
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	1.5%
PM Peak	1.6%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

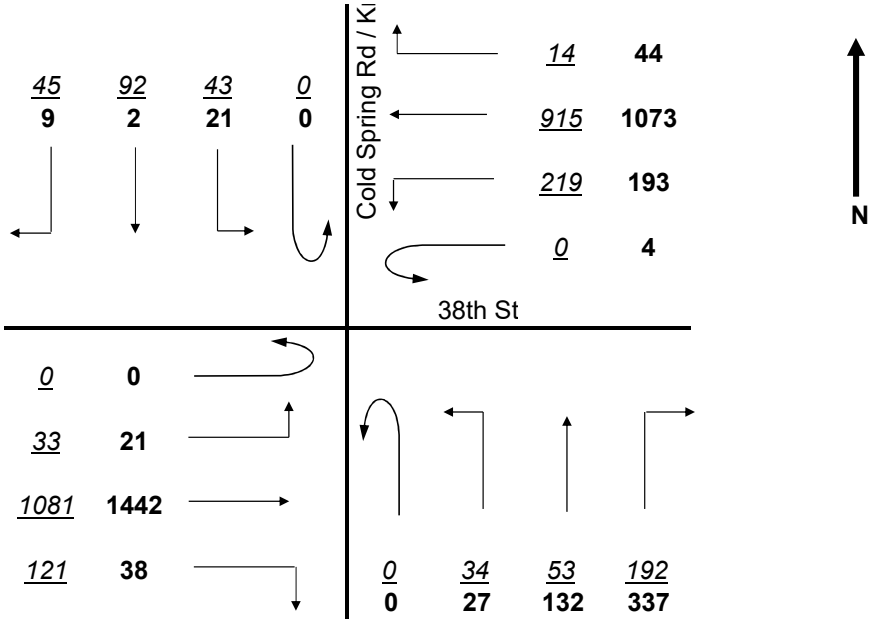
38th St at Cold Spring Rd / Knolton Rd **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 38th St				WB VEHICLES 38th St				NB VEHICLES Cold Spring Rd / Knolton Rd				SB VEHICLES Cold Spring Rd / Knolton Rd				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	10	281	37	0	54	230	2	0	8	12	53	0	8	27	15	737
7:45-8:00	0	11	287	29	0	61	255	4	0	4	12	48	0	14	29	13	767
8:00-8:15	0	7	256	22	0	47	215	4	0	14	13	44	0	13	16	9	660
8:15-8:30	0	5	257	33	0	57	215	4	0	8	16	47	0	8	20	8	678
PM PEAK																	
4:45-5:00	0	3	359	9	1	48	275	7	0	1	38	93	0	5	2	7	848
5:00-5:15	0	13	314	12	1	53	264	12	0	11	39	95	0	5	0	2	821
5:15-5:30	0	5	365	9	1	49	281	14	0	8	28	89	0	5	0	0	854
5:30-5:45	0	0	404	8	1	43	253	11	0	7	27	60	0	6	0	0	820
TOTAL VOLUMES																	
AM PEAK	0	33	1081	121	0	219	915	14	0	34	53	192	0	43	92	45	2842
PM PEAK	0	21	1442	38	4	193	1073	44	0	27	132	337	0	21	2	9	3343
% TRUCKS																	
AM PEAK	0%	3%	2%	2%	0%	2%	3%	0%	0%	0%	0%	2%	0%	0%	0%	2%	
PM PEAK	0%	0%	1%	0%	0%	1%	2%	2%	0%	0%	1%	1%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS

38th St at Cold Spring Rd / Knolton Rd **Count Date: 02/28/2023**

	PHF
AM PEAK	0.93
PM PEAK	0.98

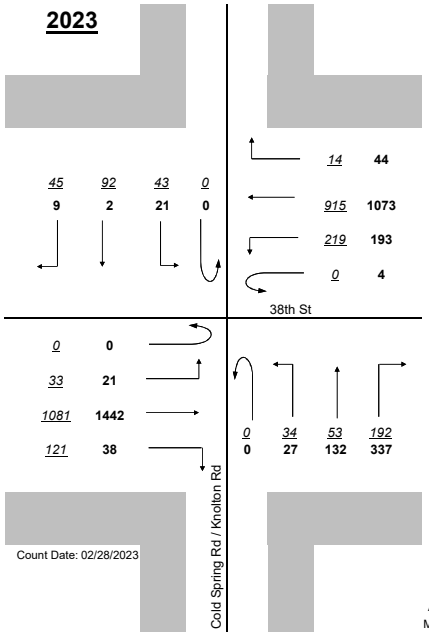


Legend:

000 AM Peak 7:30 AM-8:30 AM

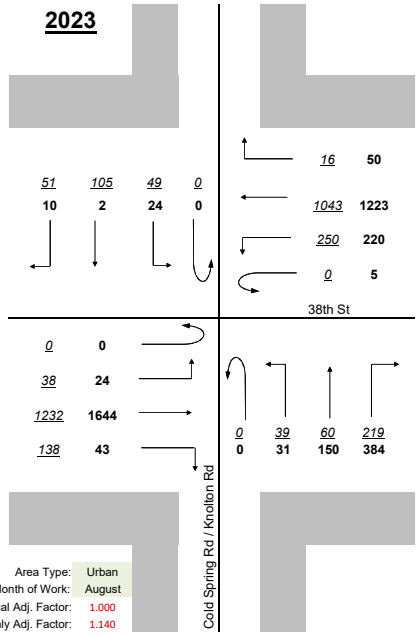
000 PM Peak 4:45 PM-5:45 PM

Raw Counts



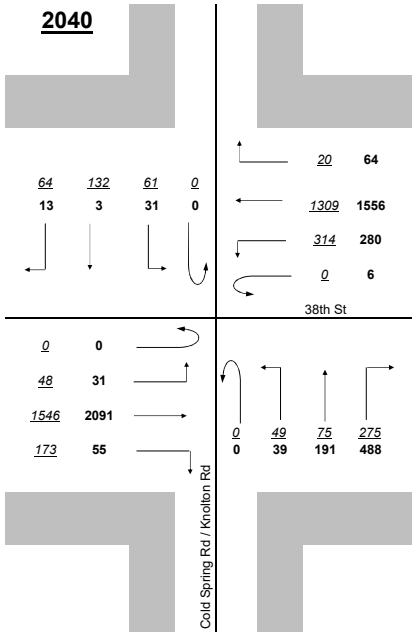
Count Date: 02/28/2023

Adjusted Existing Volumes

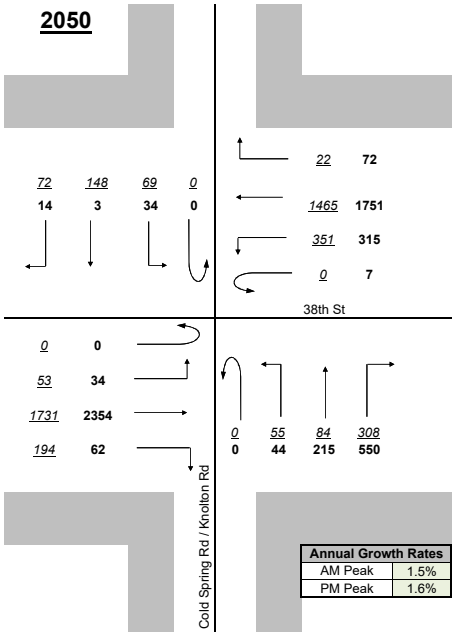


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.140

Interim Year



Design Year



Annual Growth Rates	
AM Peak	1.5%
PM Peak	1.6%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

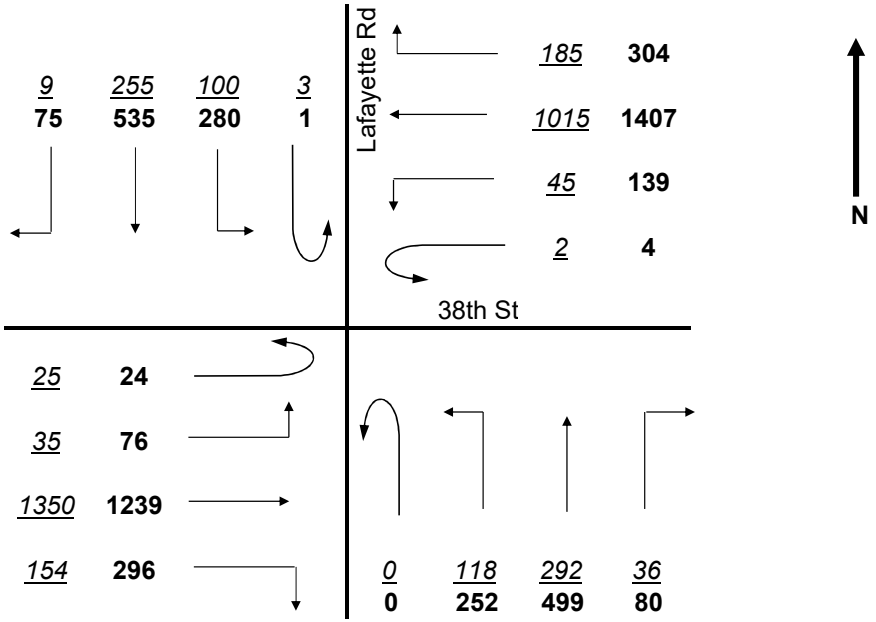
38th St at Lafayette Rd **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 38th St				WB VEHICLES 38th St				NB VEHICLES Lafayette Rd				SB VEHICLES Lafayette Rd				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	8	3	314	46	0	7	243	34	0	17	67	8	0	28	64	1	840
7:30-7:45	4	8	440	34	1	11	241	40	0	33	79	13	1	21	74	1	1001
7:45-8:00	5	11	328	37	0	16	270	57	0	47	97	7	1	29	57	1	963
8:00-8:15	8	13	268	37	1	11	261	54	0	21	49	8	1	22	60	6	820
PM PEAK																	
4:30-4:45	7	23	320	75	2	35	343	75	0	58	122	19	0	68	126	26	1299
4:45-5:00	4	21	279	70	0	44	345	73	0	72	116	21	0	56	114	14	1229
5:00-5:15	5	15	307	70	2	29	338	81	0	68	148	16	0	78	155	13	1325
5:15-5:30	8	17	333	81	0	31	381	75	0	54	113	24	1	78	140	22	1358
TOTAL VOLUMES																	
AM PEAK	25	35	1350	154	2	45	1015	185	0	118	292	36	3	100	255	9	3624
PM PEAK	24	76	1239	296	4	139	1407	304	0	252	499	80	1	280	535	75	5211
% TRUCKS																	
AM PEAK	4%	9%	4%	5%	0%	11%	5%	6%	0%	3%	4%	8%	0%	5%	4%	11%	
PM PEAK	0%	1%	5%	2%	0%	1%	4%	1%	0%	1%	1%	0%	0%	2%	2%	0%	

	PHF
AM PEAK	0.91
PM PEAK	0.96

TURNING MOVEMENT COUNTS
38th St at Lafayette Rd

Count Date: 11/08/2023

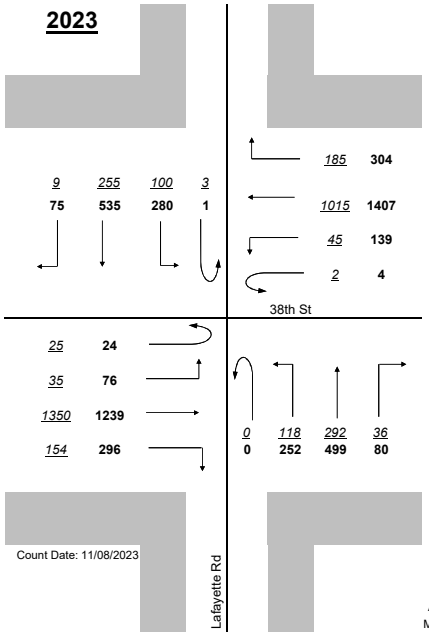


Legend:

000 AM Peak 7:15 AM-8:15 AM

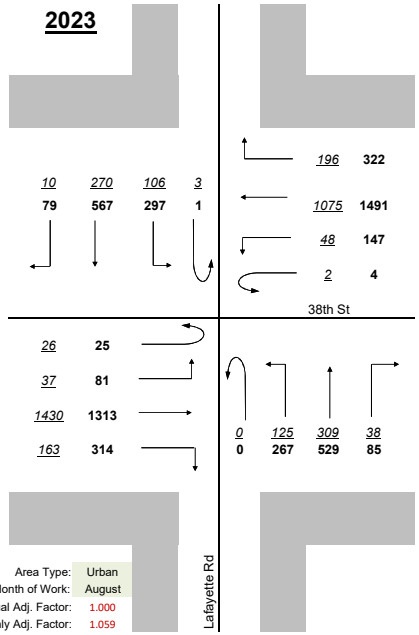
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



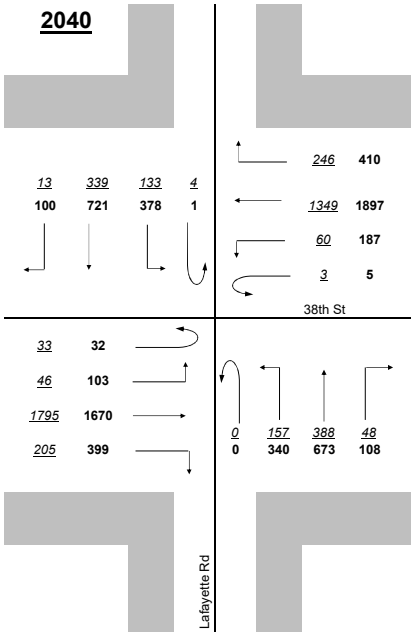
Count Date: 11/08/2023

Adjusted Existing Volumes

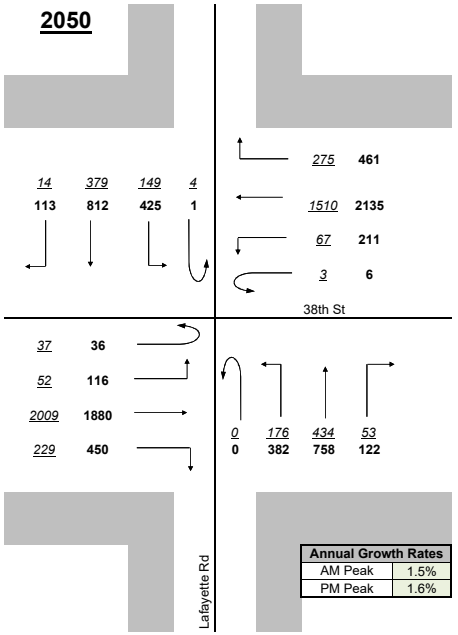


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.059

Interim Year



Design Year



Annual Growth Rates	
AM Peak	1.5%
PM Peak	1.6%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

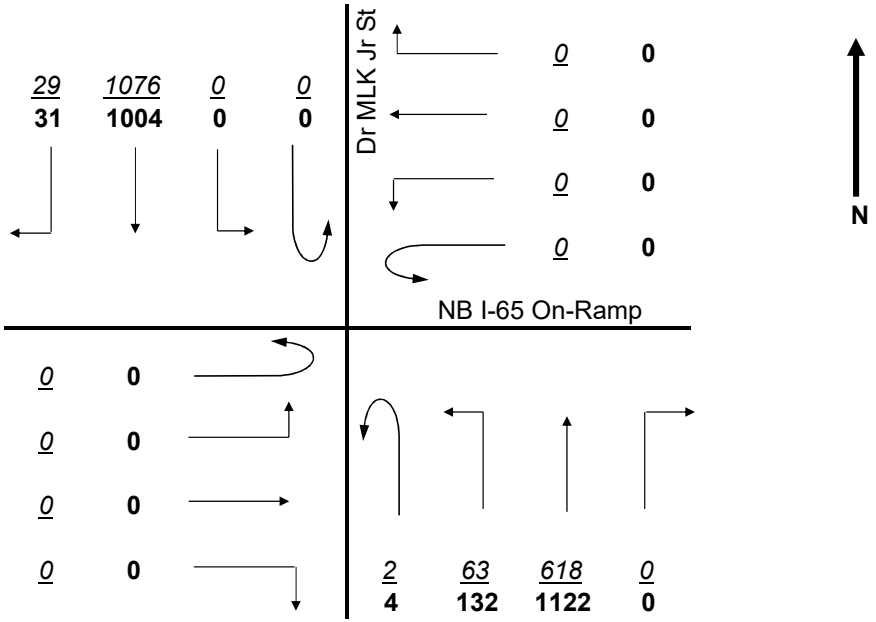
Dr MLK Jr St at NB I-65 On-Ramp **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES NB I-65 On-Ramp				WB VEHICLES NB I-65 On-Ramp				NB VEHICLES Dr MLK Jr St				SB VEHICLES Dr MLK Jr St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	0	0	0	0	0	0	0	0	16	155	0	0	0	276	6	453
7:45-8:00	0	0	0	0	0	0	0	0	1	10	174	0	0	0	251	6	442
8:00-8:15	0	0	0	0	0	0	0	0	0	17	153	0	0	0	279	5	454
8:15-8:30	0	0	0	0	0	0	0	0	1	20	136	0	0	0	270	12	439
PM PEAK																	
4:30-4:45	0	0	0	0	0	0	0	0	2	43	253	0	0	0	245	5	548
4:45-5:00	0	0	0	0	0	0	0	0	1	33	305	0	0	0	234	9	582
5:00-5:15	0	0	0	0	0	0	0	0	0	28	284	0	0	0	269	6	587
5:15-5:30	0	0	0	0	0	0	0	0	1	28	280	0	0	0	256	11	576
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	0	0	0	2	63	618	0	0	0	1076	29	1788
PM PEAK	0	0	0	0	0	0	0	0	4	132	1122	0	0	0	1004	31	2293
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	5%	0%	0%	0%	2%	0%	
PM PEAK	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	2%	0%	

	PHF
AM PEAK	0.98
PM PEAK	0.98

TURNING MOVEMENT COUNTS
Dr MLK Jr St at NB I-65 On-Ramp

Count Date: 05/31/2023

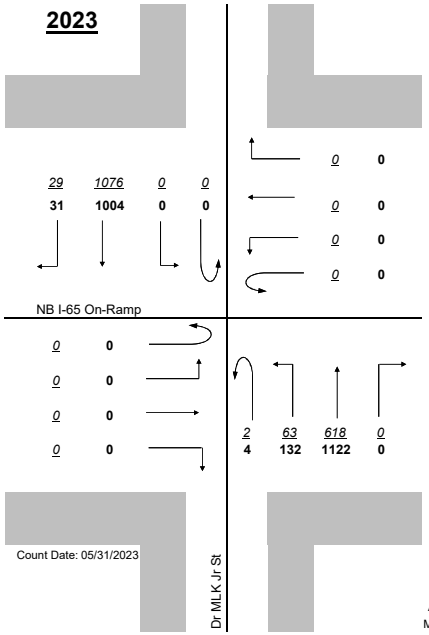


Legend:

000 AM Peak 7:30 AM-8:30 AM

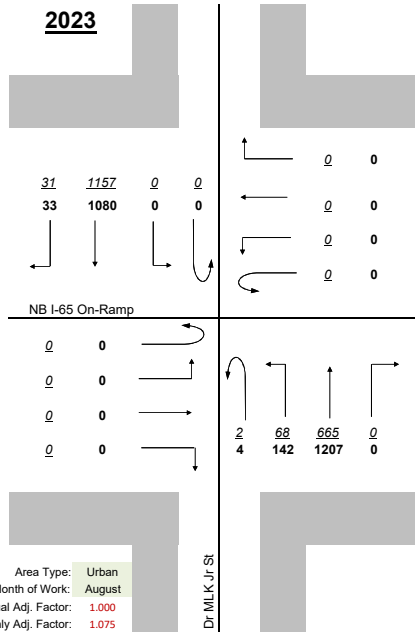
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



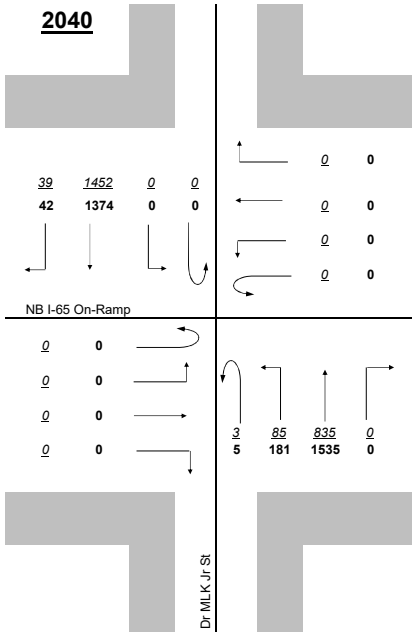
Count Date: 05/31/2023

Adjusted Existing Volumes

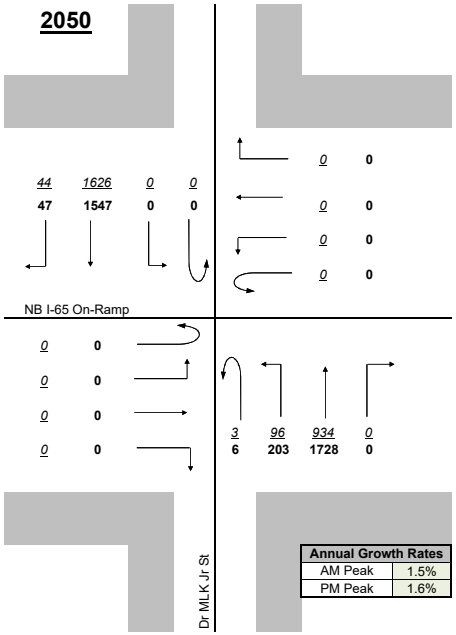


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	1.5%
PM Peak	1.6%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

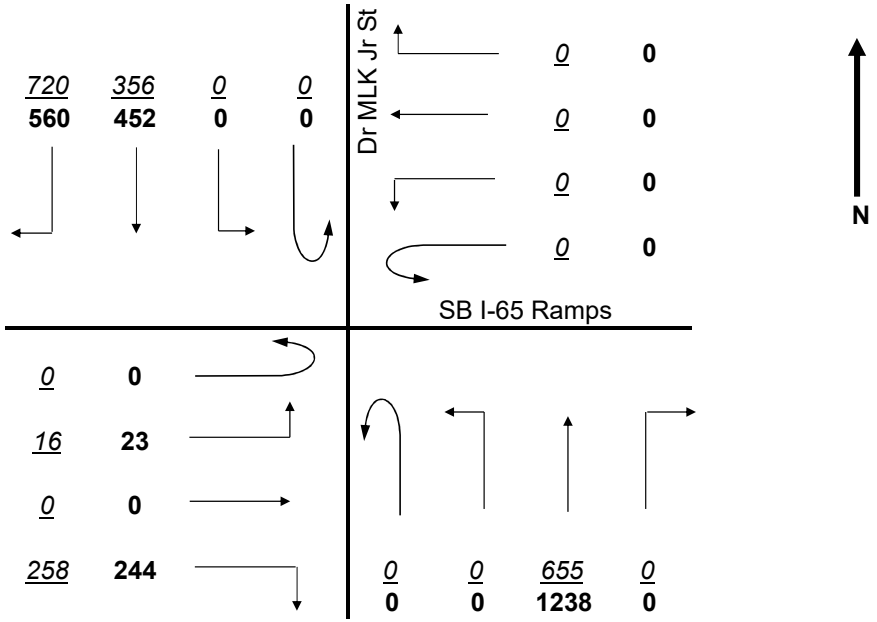
Dr MLK Jr St at SB I-65 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES SB I-65 Ramps				WB VEHICLES SB I-65 Ramps				NB VEHICLES Dr MLK Jr St				SB VEHICLES Dr MLK Jr St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:45-8:00	0	6		72					0	0	176		0	0	75	183	512
8:00-8:15	0	4		67					0	0	164		0	0	97	175	507
8:15-8:30	0	1		50					0	0	158		0	0	87	190	486
8:30-8:45	0	5		69					0	0	157		0	0	97	172	500
PM PEAK																	
4:30-4:45	0	7		61					0	0	296		0	0	119	131	614
4:45-5:00	0	6		47					0	0	331		0	0	103	132	619
5:00-5:15	0	6		64					0	0	307		0	0	126	140	643
5:15-5:30	0	4		72					0	0	304		0	0	104	157	641
TOTAL VOLUMES																	
AM PEAK	0	16	0	258	0	0	0	0	0	0	655	0	0	0	356	720	2005
PM PEAK	0	23	0	244	0	0	0	0	0	0	1238	0	0	0	452	560	2517
% TRUCKS																	
AM PEAK	0%	6%	0%	2%	0%	0%	0%	0%	0%	0%	5%	0%	0%	0%	2%	2%	
PM PEAK	0%	4%	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	3%	

	PHF
AM PEAK	0.98
PM PEAK	0.98

TURNING MOVEMENT COUNTS
Dr MLK Jr St at SB I-65 Ramps

Count Date: 05/31/2023

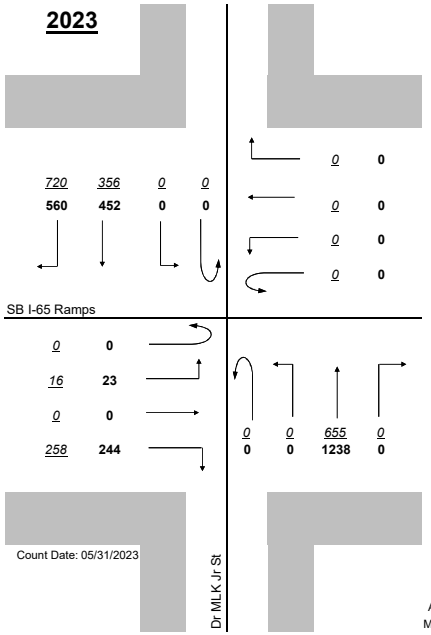


Legend:

000 AM Peak 7:45 AM-8:45 AM

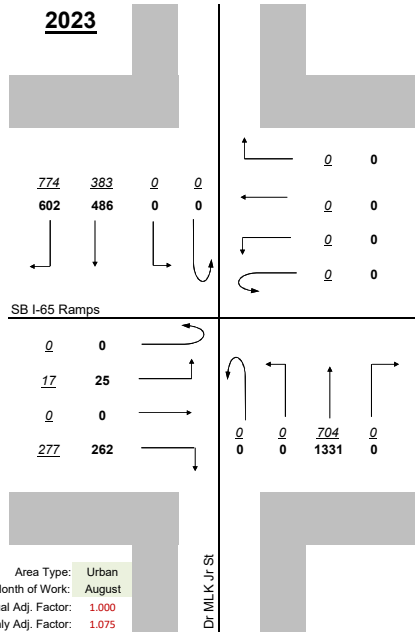
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



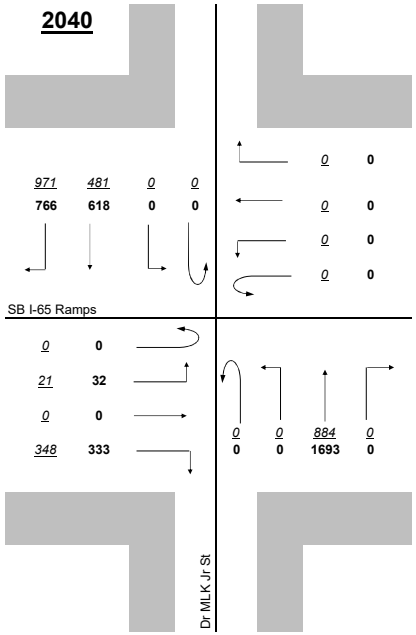
Count Date: 05/31/2023

Adjusted Existing Volumes

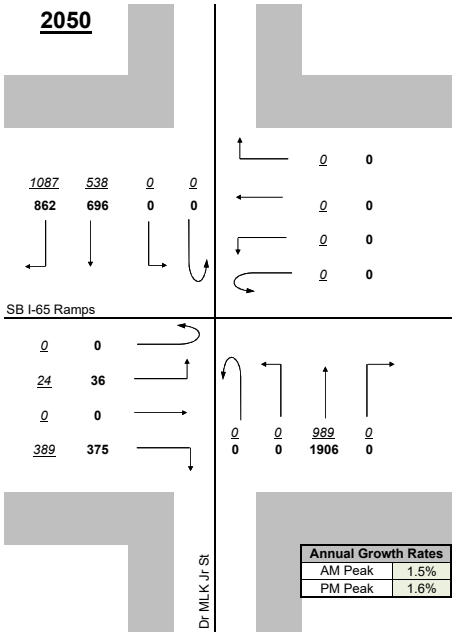


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	1.5%
PM Peak	1.6%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

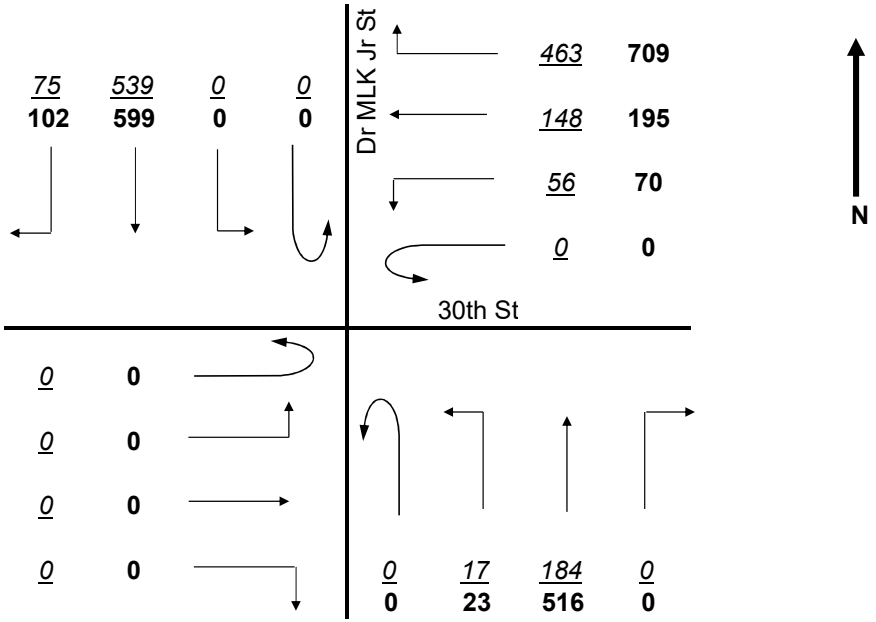
Dr MLK Jr St at 30th St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 30th St				WB VEHICLES 30th St				NB VEHICLES Dr MLK Jr St				SB VEHICLES Dr MLK Jr St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:45-8:00	0	0	0	0	0	10	32	129	0	5	49	0	0	0	130	22	377
8:00-8:15	0	0	0	0	0	18	25	114	0	5	47	0	0	0	134	18	361
8:15-8:30	0	0	0	0	0	15	33	107	0	2	55	0	0	0	129	9	350
8:30-8:45	0	0	0	0	0	13	58	113	0	5	33	0	0	0	146	26	394
PM PEAK																	
4:30-4:45	0	0	0	0	0	18	41	162	0	5	137	0	0	0	145	27	535
4:45-5:00	0	0	0	0	0	15	50	187	0	5	135	0	0	0	134	20	546
5:00-5:15	0	0	0	0	0	17	56	191	0	8	117	0	0	0	167	29	585
5:15-5:30	0	0	0	0	0	20	48	169	0	5	127	0	0	0	153	26	548
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	56	148	463	0	17	184	0	0	0	539	75	1482
PM PEAK	0	0	0	0	0	70	195	709	0	23	516	0	0	0	599	102	2214
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	0%	5%	5%	0%	12%	4%	0%	0%	0%	2%	5%	
PM PEAK	0%	0%	0%	0%	0%	0%	3%	0%	0%	9%	0%	0%	0%	0%	2%	0%	

TURNING MOVEMENT COUNTS
Dr MLK Jr St at 30th St

Count Date: 05/31/2023

	PHF
AM PEAK	0.94
PM PEAK	0.95



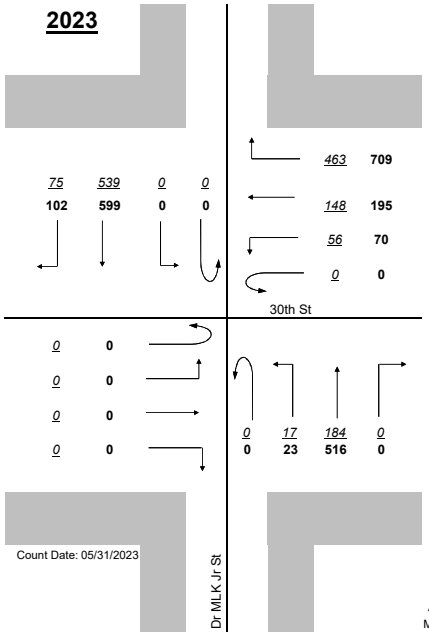
Legend:

000 AM Peak 7:45 AM-8:45 AM

000 PM Peak 4:30 PM-5:30 PM

Raw Counts

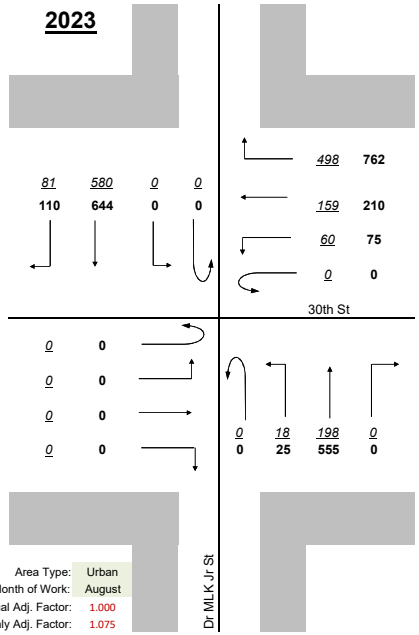
2023



Count Date: 05/31/2023

Adjusted Existing Volumes

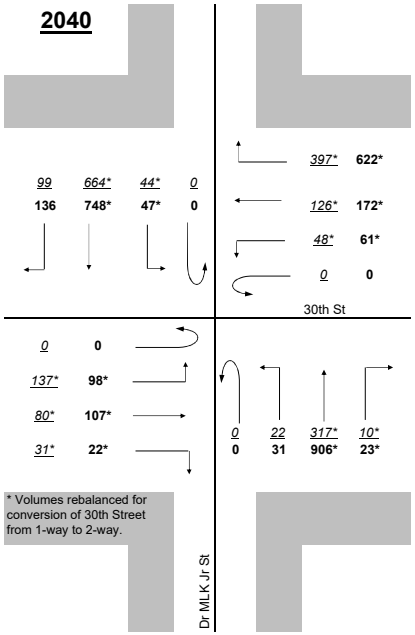
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year

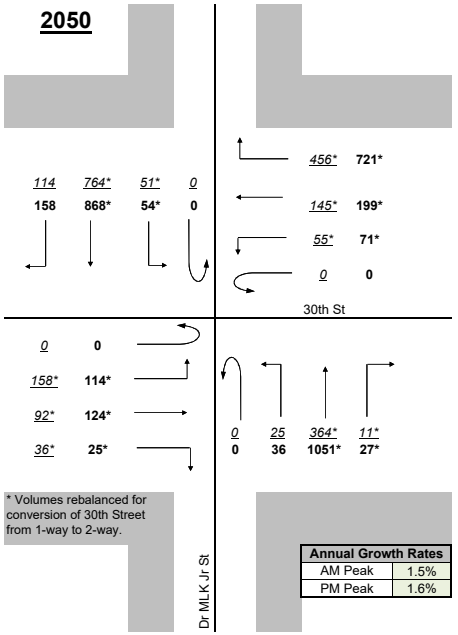
2040



* Volumes rebalanced for conversion of 30th Street from 1-way to 2-way.

Design Year

2050



* Volumes rebalanced for conversion of 30th Street from 1-way to 2-way.

Annual Growth Rates	
AM Peak	1.5%
PM Peak	1.6%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

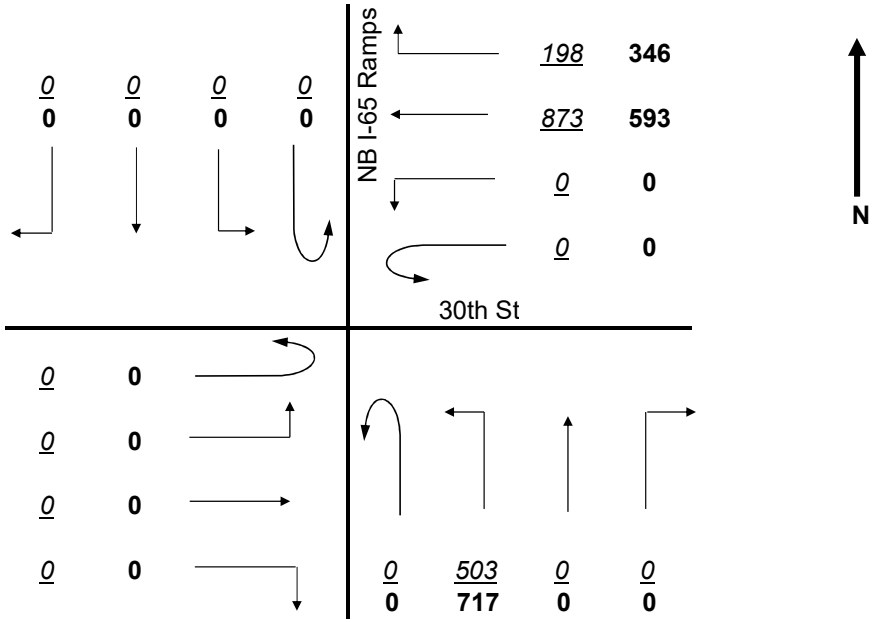
30th St at NB I-65 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 30th St				WB VEHICLES 30th St				NB VEHICLES NB I-65 Ramps				SB VEHICLES NB I-65 Ramps				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0		0	0	0	0	206	44	0	132		0					382
7:30-7:45	0		0	0	0	0	238	59	0	129		0					426
7:45-8:00	0		0	0	0	0	231	52	0	131		0					414
8:00-8:15	0		0	0	0	0	198	43	0	111		0					352
PM PEAK																	
4:30-4:45	0		0	0	0	0	147	82	0	156		0					385
4:45-5:00	0		0	0	0	0	165	85	0	180		0					430
5:00-5:15	0		0	0	0	0	139	101	0	201		0					441
5:15-5:30	0		0	0	0	0	142	78	0	180		0					400
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	0	873	198	0	503	0	0	0	0	0	0	1574
PM PEAK	0	0	0	0	0	0	593	346	0	717	0	0	0	0	0	0	1656
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	0%	1%	3%	0%	4%	0%	0%	0%	0%	0%	0%	
PM PEAK	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	0%	0%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
30th St at NB I-65 Ramps

Count Date: 05/31/2023

	PHF
AM PEAK	0.92
PM PEAK	0.94

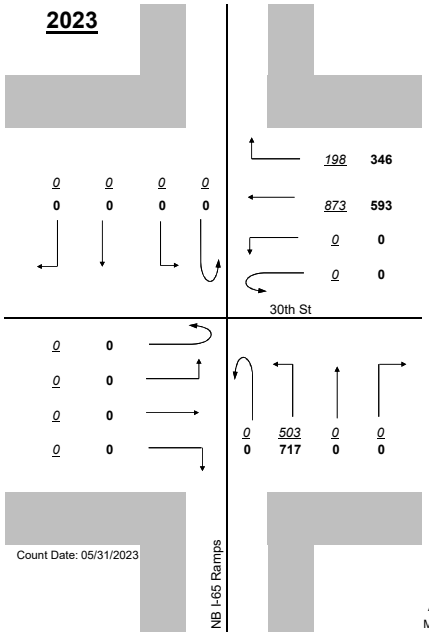


Legend:

000 AM Peak 7:15 AM-8:15 AM

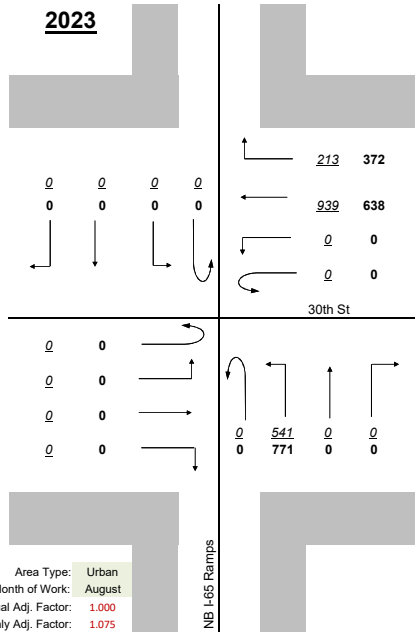
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



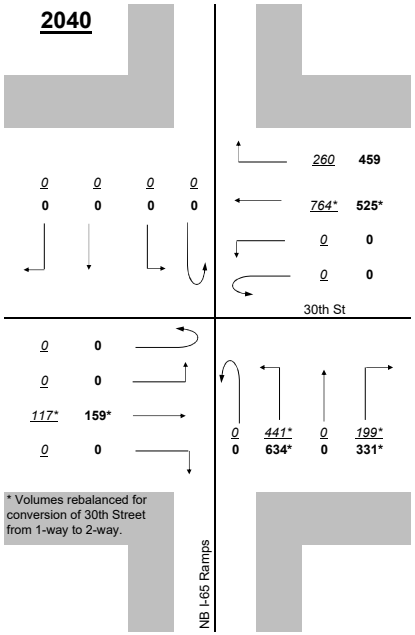
Count Date: 05/31/2023

Adjusted Existing Volumes



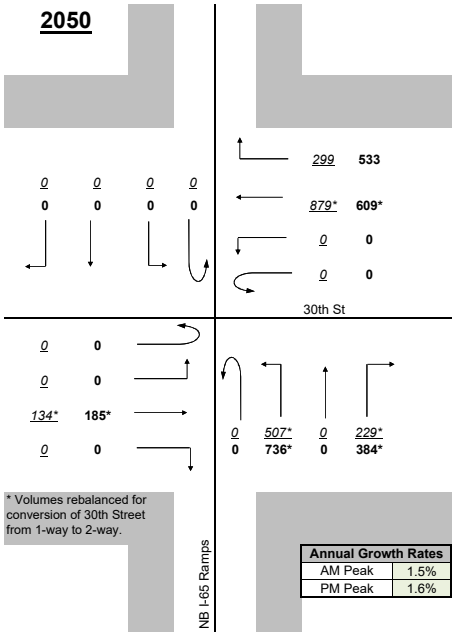
Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



* Volumes rebalanced for conversion of 30th Street from 1-way to 2-way.

Design Year



* Volumes rebalanced for conversion of 30th Street from 1-way to 2-way.

Annual Growth Rates	
AM Peak	1.5%
PM Peak	1.6%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

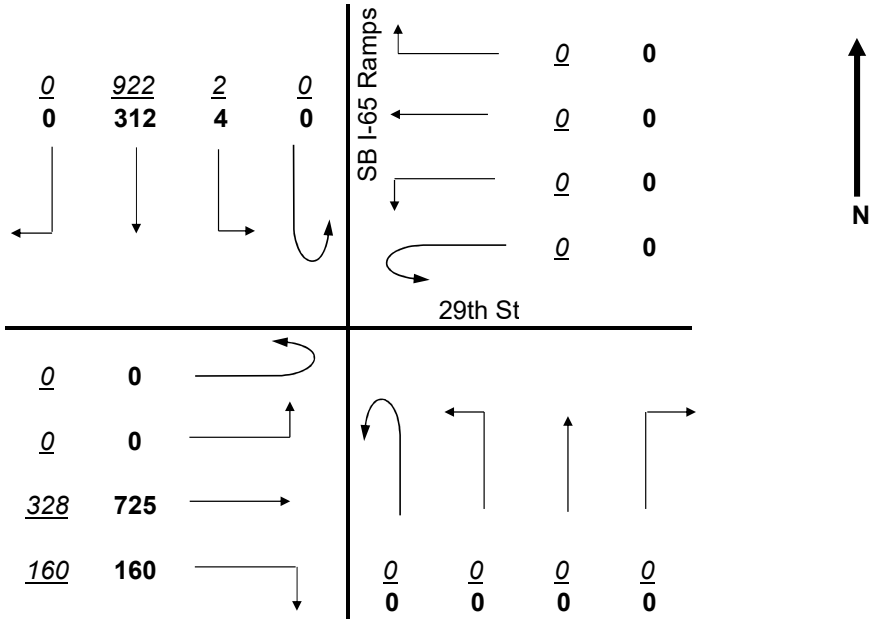
29th St at SB I-65 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 29th St				WB VEHICLES 29th St				NB VEHICLES SB I-65 Ramps				SB VEHICLES SB I-65 Ramps				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	0	71	39	0	0	0	0	0	0	0	0	0	1	235	0	346
7:45-8:00	0	0	96	44	0	0	0	0	0	0	0	0	0	1	259	0	400
8:00-8:15	0	0	76	35	0	0	0	0	0	0	0	0	0	0	213	0	324
8:15-8:30	0	0	85	42	0	0	0	0	0	0	0	0	0	0	215	0	342
PM PEAK																	
4:30-4:45	0	0	182	51	0	0	0	0	0	0	0	0	0	0	86	0	319
4:45-5:00	0	0	171	34	0	0	0	0	0	0	0	0	0	0	61	0	266
5:00-5:15	0	0	194	36	0	0	0	0	0	0	0	0	0	0	79	0	309
5:15-5:30	0	0	178	39	0	0	0	0	0	0	0	0	0	4	86	0	307
TOTAL VOLUMES																	
AM PEAK	0	0	328	160	0	0	0	0	0	0	0	0	0	2	922	0	1412
PM PEAK	0	0	725	160	0	0	0	0	0	0	0	0	0	4	312	0	1201
% TRUCKS																	
AM PEAK	0%	0%	5%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	
PM PEAK	0%	0%	2%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	

TURNING MOVEMENT COUNTS
29th St at SB I-65 Ramps

Count Date: 06/13/2019

	PHF
AM PEAK	0.88
PM PEAK	0.94



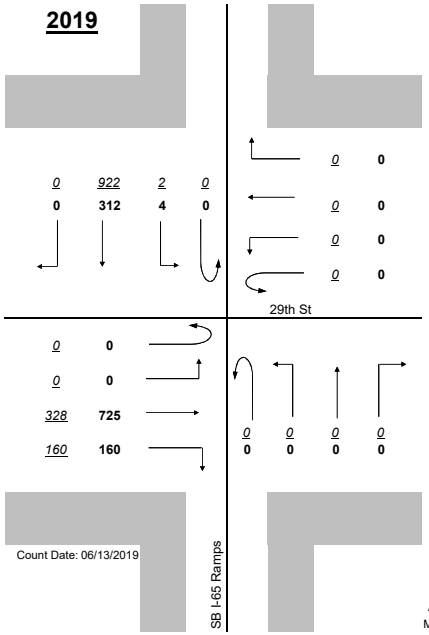
Legend:

000 AM Peak 7:30 AM-8:30 AM

000 PM Peak 4:30 PM-5:30 PM

Raw Counts

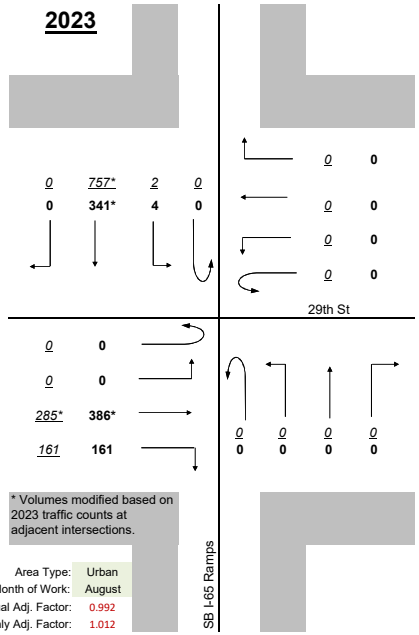
2019



Count Date: 06/13/2019

Adjusted Existing Volumes

2023

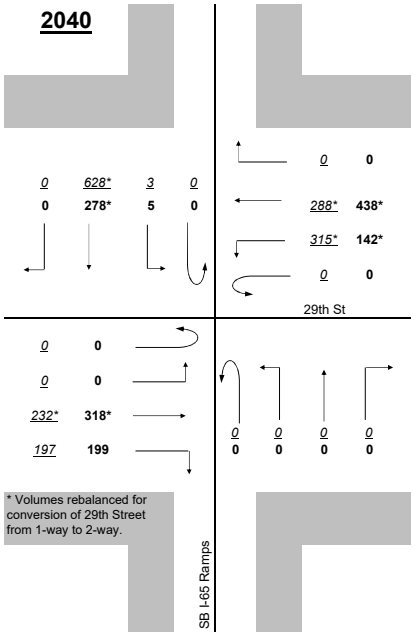


* Volumes modified based on 2023 traffic counts at adjacent intersections.

Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	0.992
Monthly Adj. Factor:	1.012

Interim Year

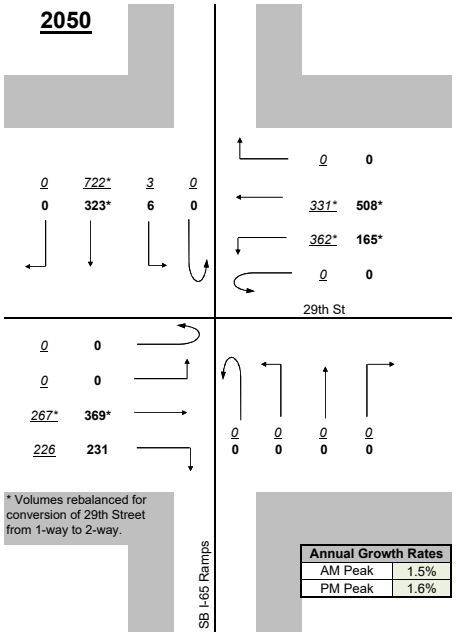
2040



* Volumes rebalanced for conversion of 29th Street from 1-way to 2-way.

Design Year

2050



* Volumes rebalanced for conversion of 29th Street from 1-way to 2-way.

Annual Growth Rates	
AM Peak	1.5%
PM Peak	1.6%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

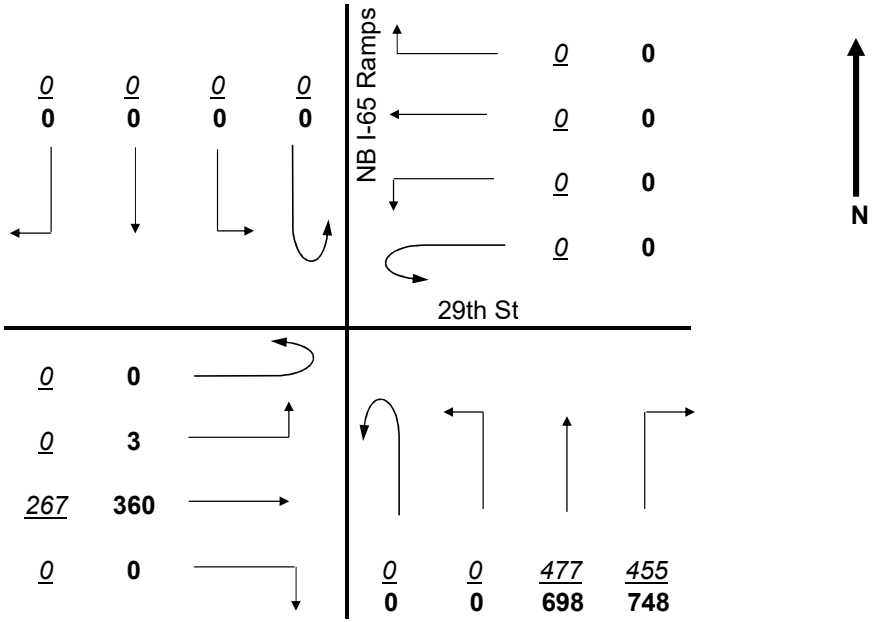
29th St at NB I-65 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 29th St				WB VEHICLES 29th St				NB VEHICLES NB I-65 Ramps				SB VEHICLES NB I-65 Ramps				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:45-8:00	0	0	58	0	0	0	0	0	0	0	128	111	0	0	0	0	297
8:00-8:15	0	0	64	0	0	0	0	0	0	0	112	96	0	0	0	0	272
8:15-8:30	0	0	78	0	0	0	0	0	0	0	106	131	0	0	0	0	315
8:30-8:45	0	0	67	0	0	0	0	0	0	0	131	117	0	0	0	0	315
PM PEAK																	
4:30-4:45	0	0	92	0	0	0	0	0	0	0	149	198	0	0	0	0	439
4:45-5:00	0	1	78	0	0	0	0	0	0	0	173	176	0	0	0	0	428
5:00-5:15	0	1	91	0	0	0	0	0	0	0	198	185	0	0	0	0	475
5:15-5:30	0	1	99	0	0	0	0	0	0	0	178	189	0	0	0	0	467
TOTAL VOLUMES																	
AM PEAK	0	0	267	0	0	0	0	0	0	0	477	455	0	0	0	0	1199
PM PEAK	0	3	360	0	0	0	0	0	0	0	698	748	0	0	0	0	1809
% TRUCKS																	
AM PEAK	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%	5%	4%	0%	0%	0%	0%	
PM PEAK	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
29th St at NB I-65 Ramps

Count Date: 05/31/2023

	PHF
AM PEAK	0.95
PM PEAK	0.95

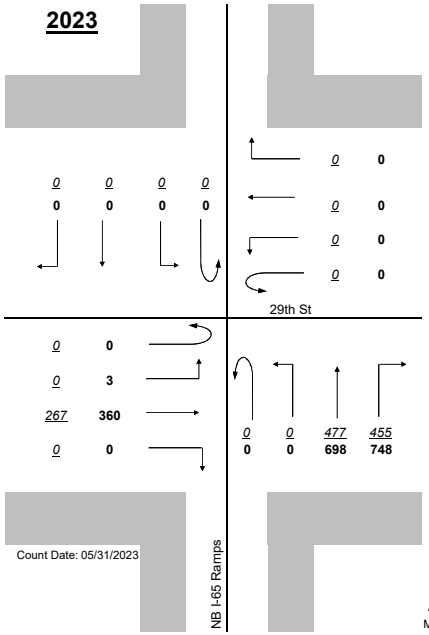


Legend:

000 AM Peak 7:45 AM-8:45 AM

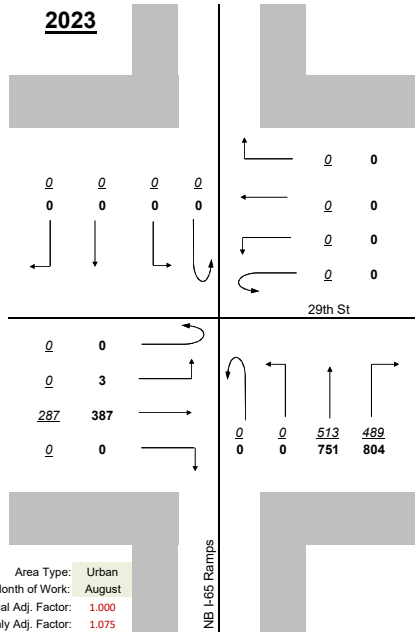
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



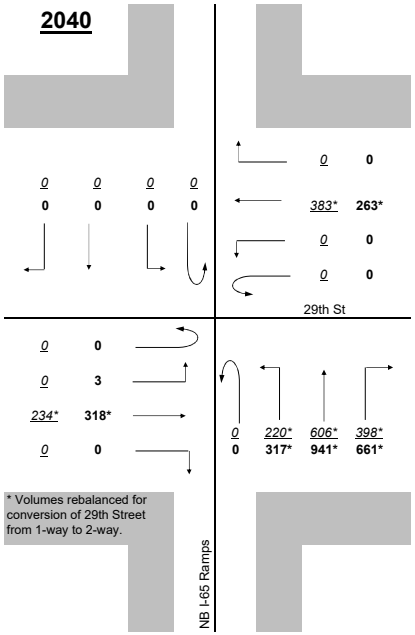
Count Date: 05/31/2023

Adjusted Existing Volumes



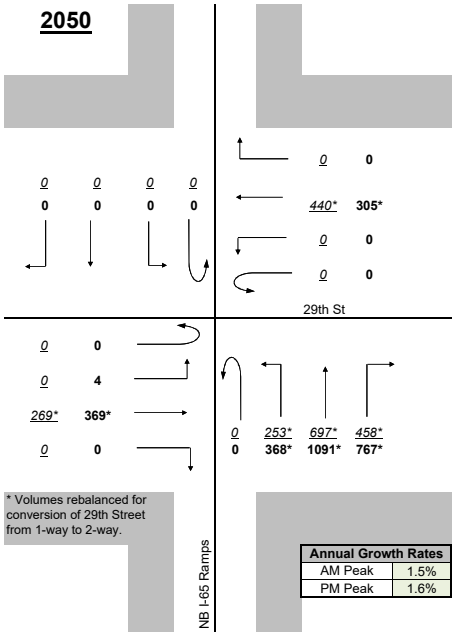
Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



* Volumes rebalanced for conversion of 29th Street from 1-way to 2-way.

Design Year



* Volumes rebalanced for conversion of 29th Street from 1-way to 2-way.

Annual Growth Rates	
AM Peak	1.5%
PM Peak	1.6%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

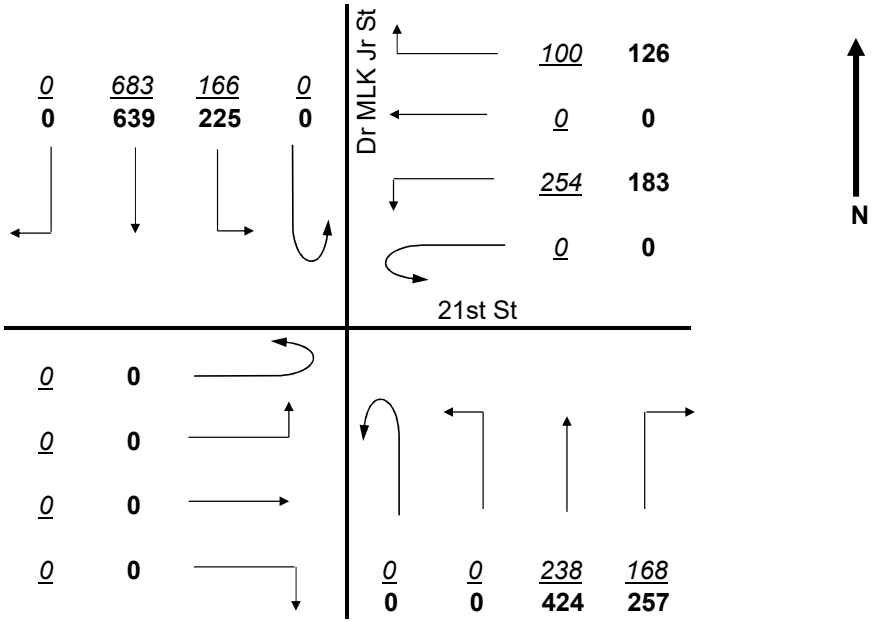
21st St at Dr MLK Jr St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 21st St				WB VEHICLES 21st St				NB VEHICLES Dr MLK Jr St				SB VEHICLES Dr MLK Jr St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:45-8:00					0	63		29	0		54	50	0	43	188		427
8:00-8:15					0	74		19	0		55	34	0	43	164		389
8:15-8:30					0	52		27	0		67	44	0	40	169		399
8:30-8:45					0	65		25	0		62	40	0	40	162		394
PM PEAK																	
3:30-3:45					0	51		35	0		112	76	0	60	161		495
3:45-4:00					0	38		23	0		96	58	0	66	183		464
4:00-4:15					0	54		41	0		97	64	0	61	135		452
4:15-4:30					0	40		27	0		119	59	0	38	160		443
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	254	0	100	0	0	238	168	0	166	683	0	1609
PM PEAK	0	0	0	0	0	183	0	126	0	0	424	257	0	225	639	0	1854
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	3%	0%	6%	0%	0%	4%	10%	0%	8%	2%	0%	
PM PEAK	0%	0%	0%	0%	0%	6%	0%	10%	0%	0%	4%	4%	0%	3%	6%	0%	

	PHF
AM PEAK	0.94
PM PEAK	0.94

TURNING MOVEMENT COUNTS
21st St at Dr MLK Jr St

Count Date: 06/05/2023



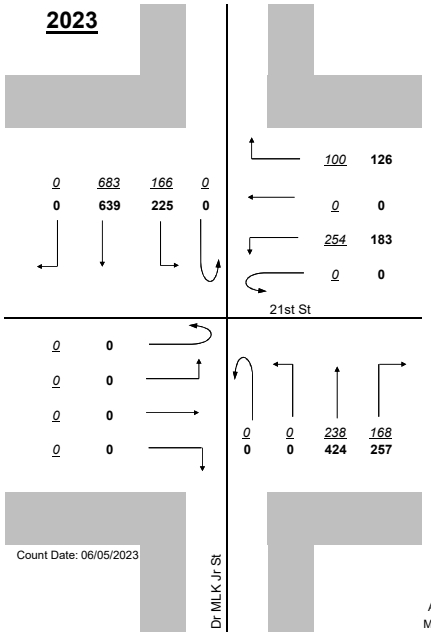
Legend:

000 AM Peak 7:45 AM-8:45 AM

000 PM Peak 3:30 PM-4:30 PM

Raw Counts

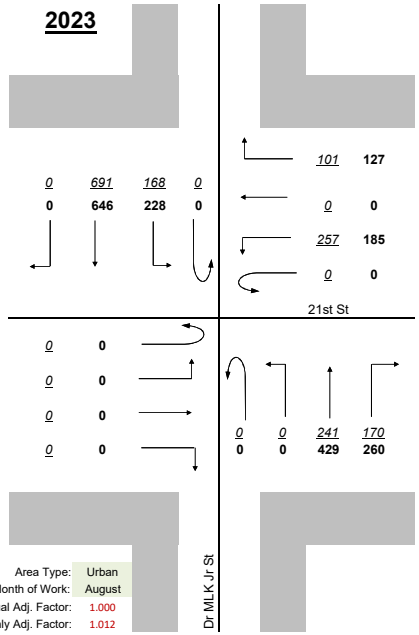
2023



Count Date: 06/05/2023

Adjusted Existing Volumes

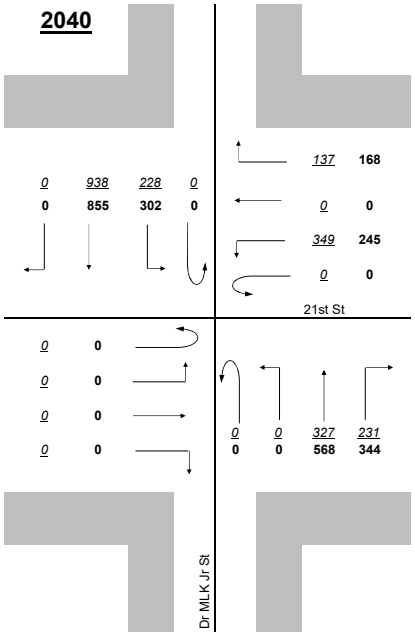
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.012

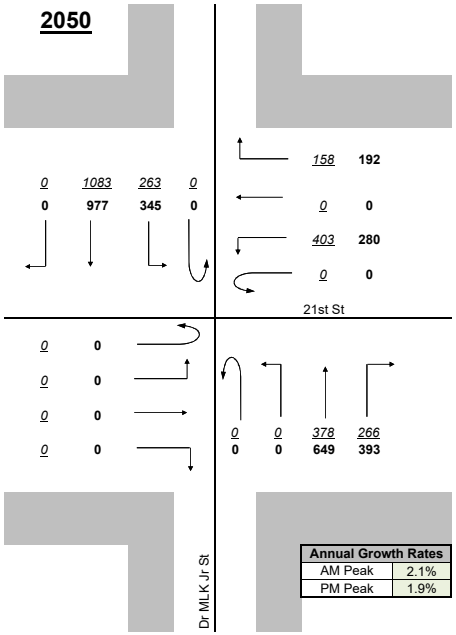
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

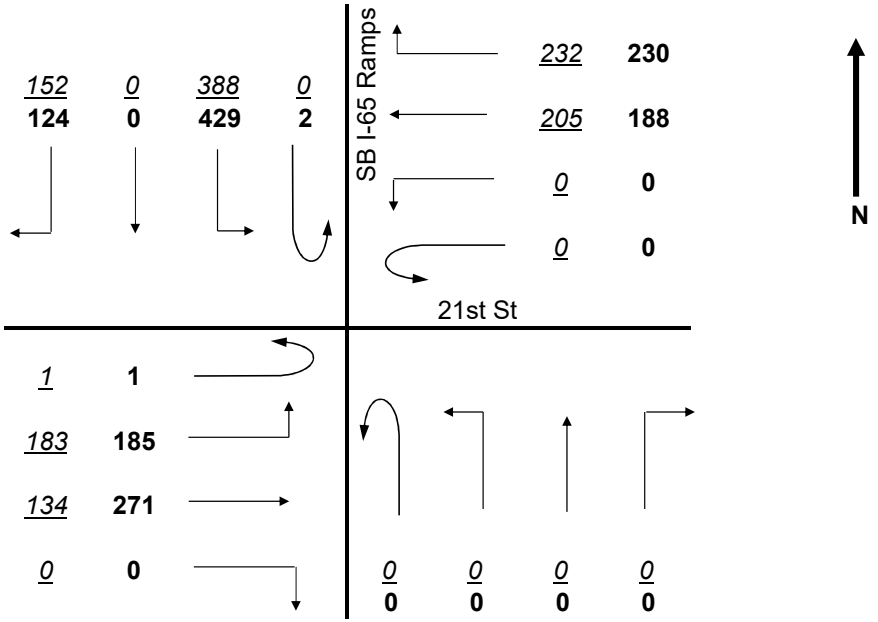
SB I-65 Ramps at 21st St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 21st St				WB VEHICLES 21st St				NB VEHICLES SB I-65 Ramps				SB VEHICLES SB I-65 Ramps				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	43	21		0	0	58	67					0	85		26	300
7:30-7:45	1	50	32		0	0	53	60					0	108		36	340
7:45-8:00	0	46	48		0	0	50	61					0	110		43	358
8:00-8:15	0	44	33		0	0	44	44					0	85		47	297
PM PEAK																	
4:30-4:45	0	54	77		0	0	51	58					0	83		21	344
4:45-5:00	0	50	70		0	0	44	63					0	94		27	348
5:00-5:15	0	38	63		0	0	52	55					2	105		34	349
5:15-5:30	1	43	61		0	0	41	54					0	147		42	389
TOTAL VOLUMES																	
AM PEAK	1	183	134	0	0	0	205	232	0	0	0	0	0	388	0	152	1295
PM PEAK	1	185	271	0	0	0	188	230	0	0	0	0	2	429	0	124	1430
% TRUCKS																	
AM PEAK	0%	11%	5%	0%	0%	0%	2%	7%	0%	0%	0%	0%	0%	1%	0%	2%	
PM PEAK	0%	6%	1%	0%	0%	0%	9%	7%	0%	0%	0%	0%	0%	1%	0%	6%	

TURNING MOVEMENT COUNTS
SB I-65 Ramps at 21st St

Count Date: 06/05/2023

	PHF
AM PEAK	0.90
PM PEAK	0.92

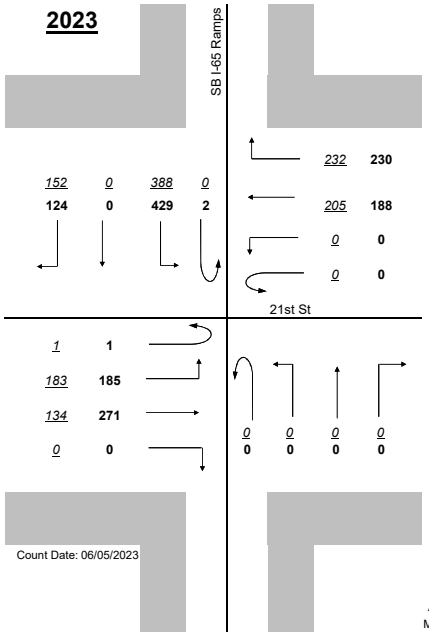


Legend:

000 AM Peak 7:15 AM-8:15 AM

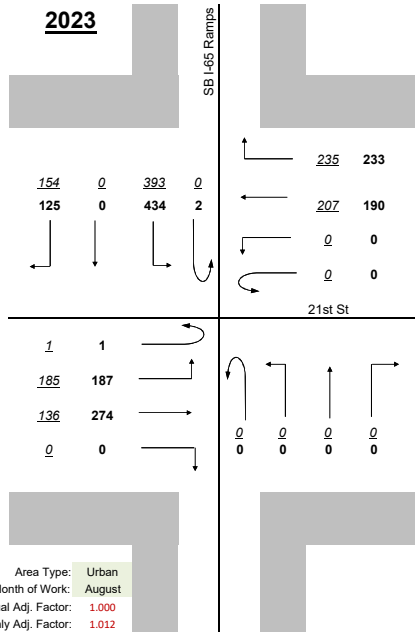
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



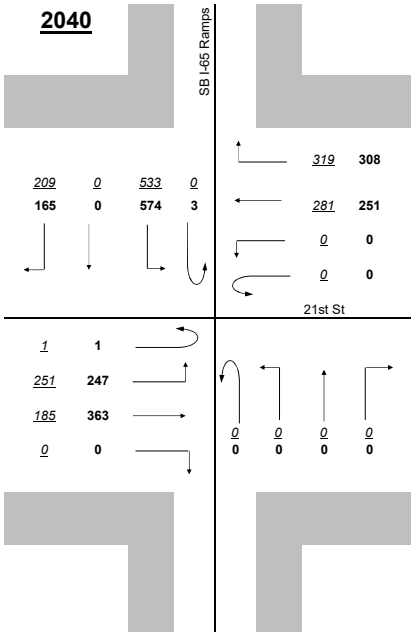
Count Date: 06/05/2023

Adjusted Existing Volumes

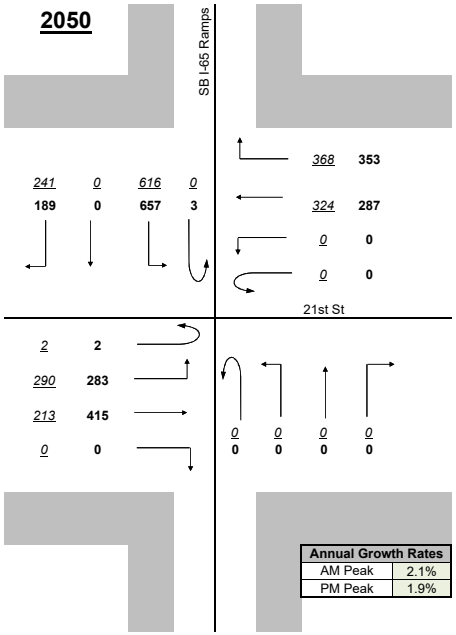


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.012

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

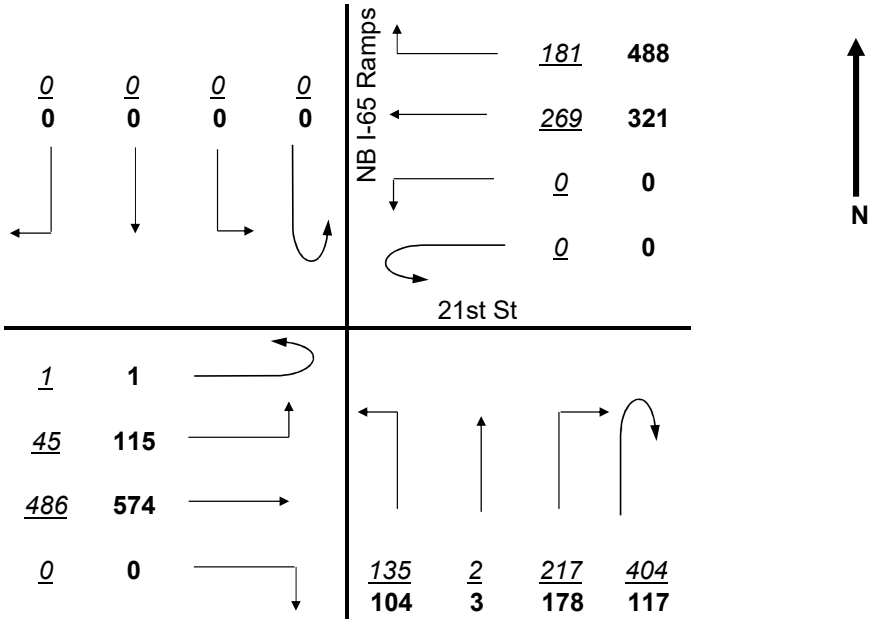
NB I-65 Ramps at 21st St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 21st St				WB VEHICLES 21st St				NB VEHICLES NB I-65 Ramps				SB VEHICLES NB I-65 Ramps				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	10	130	0	0	0	75	52	122	43	1	56	0	0	0	0	489
7:45-8:00	0	14	138	0	0	0	70	43	99	37	0	61	0	0	0	0	462
8:00-8:15	0	7	114	0	0	0	60	47	79	16	1	53	0	0	0	0	377
8:15-8:30	1	14	104	0	0	0	64	39	104	39	0	47	0	0	0	0	412
PM PEAK																	
4:30-4:45	0	21	133	0	0	0	93	132	33	27	1	43	0	0	0	0	483
4:45-5:00	0	35	128	0	0	0	76	107	27	22	0	39	0	0	0	0	434
5:00-5:15	1	32	138	0	0	0	87	139	22	28	0	41	0	0	0	0	488
5:15-5:30	0	27	175	0	0	0	65	110	35	27	2	55	0	0	0	0	496
TOTAL VOLUMES																	
AM PEAK	1	45	486	0	0	0	269	181	404	135	2	217	0	0	0	0	1740
PM PEAK	1	115	574	0	0	0	321	488	117	104	3	178	0	0	0	0	1901
% TRUCKS																	
AM PEAK	0%	20%	2%	0%	0%	0%	3%	3%	3%	10%	0%	3%	0%	0%	0%	0%	
PM PEAK	0%	2%	1%	0%	0%	0%	3%	0%	13%	22%	0%	3%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
NB I-65 Ramps at 21st St

Count Date: 06/05/2023

	PHF
AM PEAK	0.89
PM PEAK	0.96

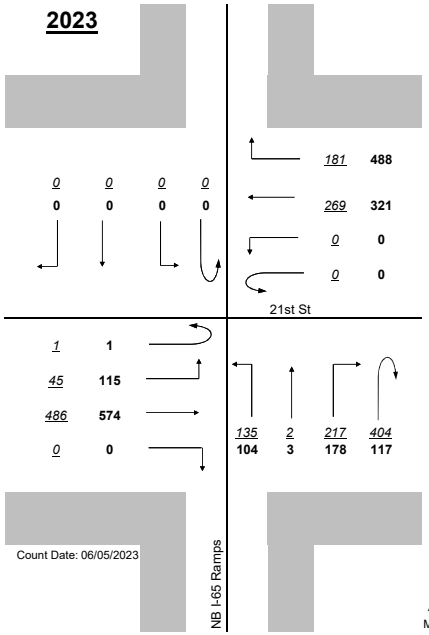


Legend:

000 AM Peak 7:30 AM-8:30 AM

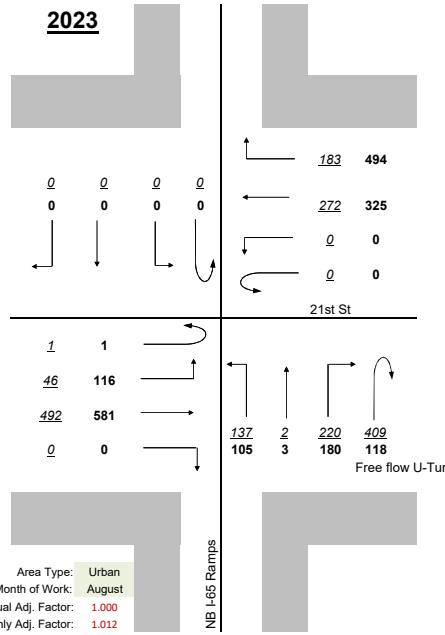
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



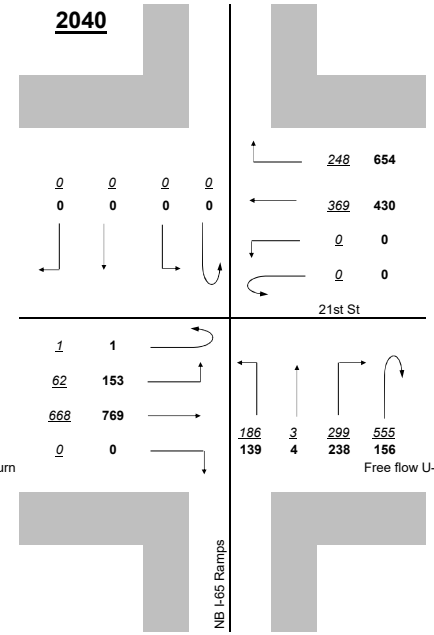
Count Date: 06/05/2023

Adjusted Existing Volumes

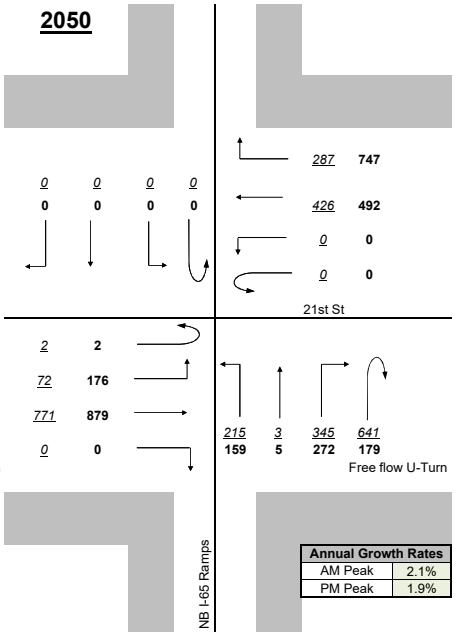


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.012

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

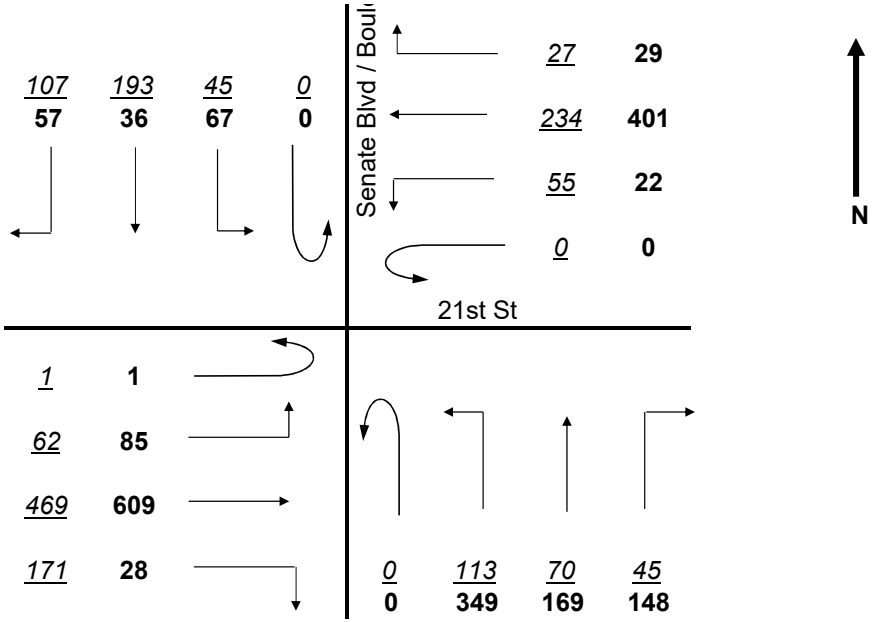
PEAK HOUR - TURNING MOVEMENT COUNTS

21st St at Senate Blvd / Boulevard Pl **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 21st St				WB VEHICLES 21st St				NB VEHICLES Senate Blvd / Boulevard Pl				SB VEHICLES Senate Blvd / Boulevard Pl				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	1	14	116	50	0	19	64	6	0	37	25	11	0	9	57	23	432
7:45-8:00	0	27	126	52	0	15	57	10	0	36	15	10	0	18	62	23	451
8:00-8:15	0	7	124	36	0	11	70	4	0	16	15	14	0	11	37	32	377
8:15-8:30	0	14	103	33	0	10	43	7	0	24	15	10	0	7	37	29	332
PM PEAK																	
4:30-4:45	0	18	143	5	0	5	98	6	0	94	40	46	0	19	8	13	495
4:45-5:00	1	18	129	7	0	5	94	9	0	83	43	30	0	16	8	21	464
5:00-5:15	0	14	151	10	0	5	112	5	0	95	39	33	0	13	10	13	500
5:15-5:30	0	35	186	6	0	7	97	9	0	77	47	39	0	19	10	10	542
TOTAL VOLUMES																	
AM PEAK	1	62	469	171	0	55	234	27	0	113	70	45	0	45	193	107	1592
PM PEAK	1	85	609	28	0	22	401	29	0	349	169	148	0	67	36	57	2001
% TRUCKS																	
AM PEAK	0%	3%	3%	0%	0%	2%	3%	4%	0%	6%	0%	4%	0%	0%	0%	0%	
PM PEAK	0%	1%	2%	0%	0%	0%	1%	0%	0%	0%	1%	0%	0%	1%	3%	7%	

	PHF
AM PEAK	0.88
PM PEAK	0.92

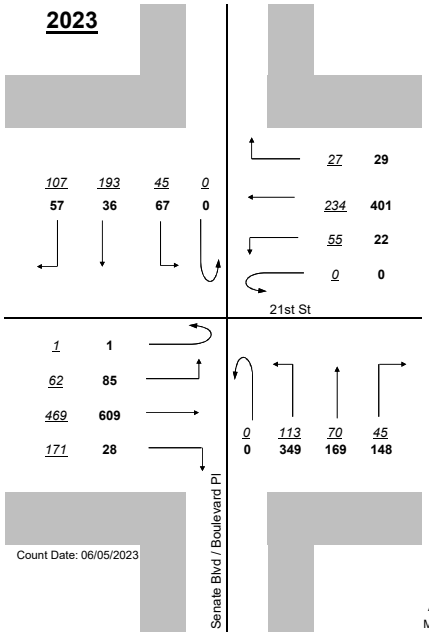
TURNING MOVEMENT COUNTS
21st St at Senate Blvd / Boulevard Pl **Count Date: 06/05/2023**



Legend:
000 AM Peak 7:30 AM-8:30 AM
000 PM Peak 4:30 PM-5:30 PM

Raw Counts

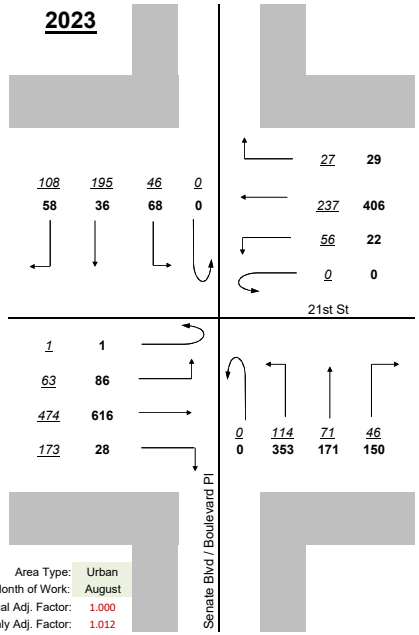
2023



Count Date: 06/05/2023

Adjusted Existing Volumes

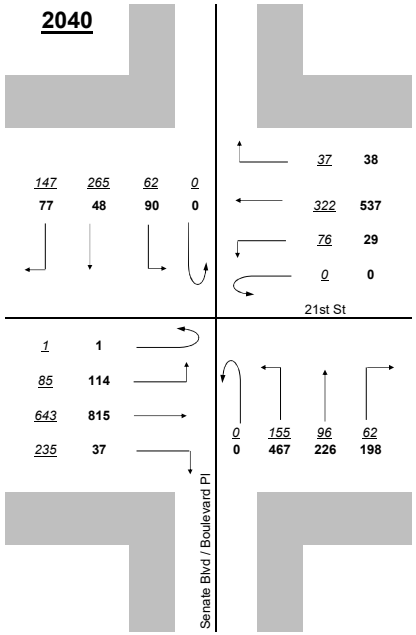
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.012

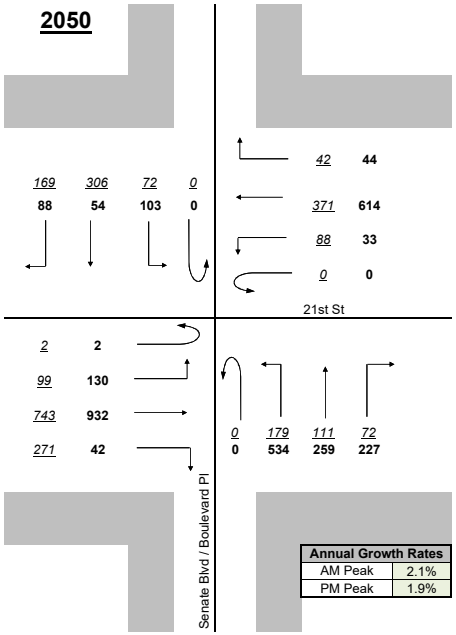
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

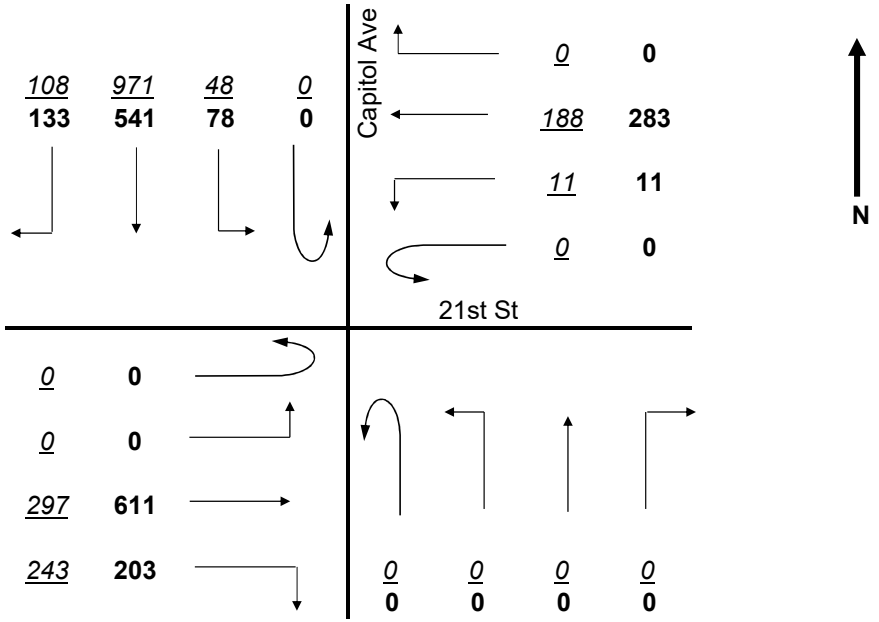
Capitol Ave at 21st St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 21st St				WB VEHICLES 21st St				NB VEHICLES Capitol Ave				SB VEHICLES Capitol Ave				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	0	69	65	0	1	53	0	0	0	0	0	0	10	254	32	484
7:45-8:00	0	0	78	69	0	2	54	0	0	0	0	0	0	12	280	22	517
8:00-8:15	0	0	81	65	0	3	44	0	0	0	0	0	0	11	217	36	457
8:15-8:30	0	0	69	44	0	5	37	0	0	0	0	0	0	15	220	18	408
PM PEAK																	
4:30-4:45	0	0	145	55	0	3	76	0	0	0	0	0	0	19	133	23	454
4:45-5:00	0	0	133	44	0	5	68	0	0	0	0	0	0	20	139	36	445
5:00-5:15	0	0	148	50	0	2	72	0	0	0	0	0	0	11	141	44	468
5:15-5:30	0	0	185	54	0	1	67	0	0	0	0	0	0	28	128	30	493
TOTAL VOLUMES																	
AM PEAK	0	0	297	243	0	11	188	0	0	0	0	0	0	48	971	108	1866
PM PEAK	0	0	611	203	0	11	283	0	0	0	0	0	0	78	541	133	1860
% TRUCKS																	
AM PEAK	0%	0%	3%	2%	0%	0%	3%	0%	0%	0%	0%	0%	0%	4%	1%	2%	
PM PEAK	0%	0%	1%	2%	0%	9%	1%	0%	0%	0%	0%	0%	0%	0%	2%	3%	

TURNING MOVEMENT COUNTS
Capitol Ave at 21st St

Count Date: 06/05/2023

	PHF
AM PEAK	0.90
PM PEAK	0.94

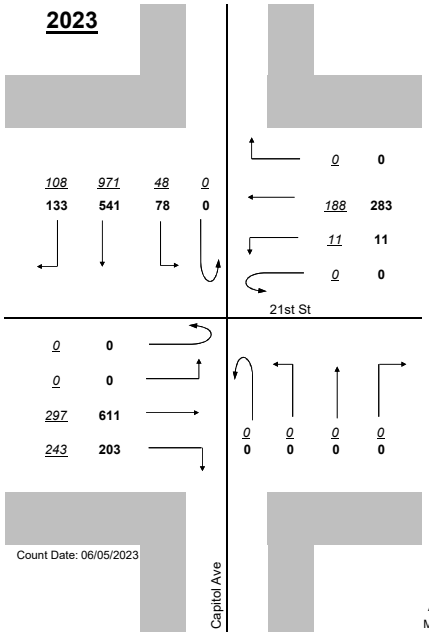


Legend:

000 AM Peak 7:30 AM-8:30 AM

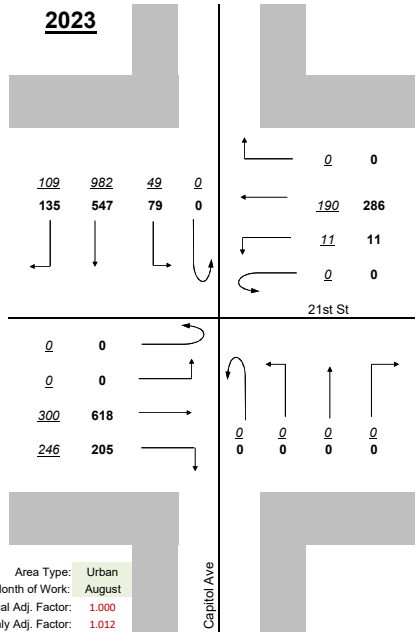
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



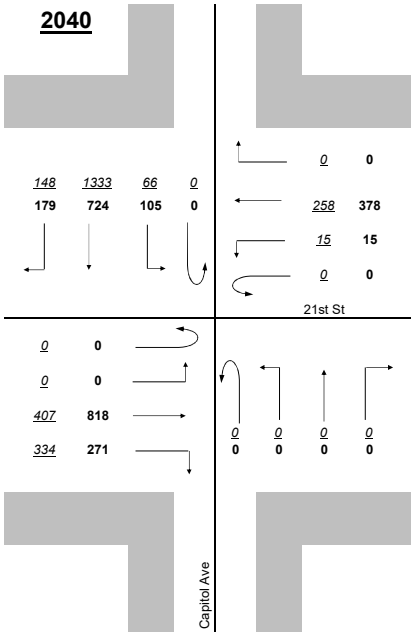
Count Date: 06/05/2023

Adjusted Existing Volumes

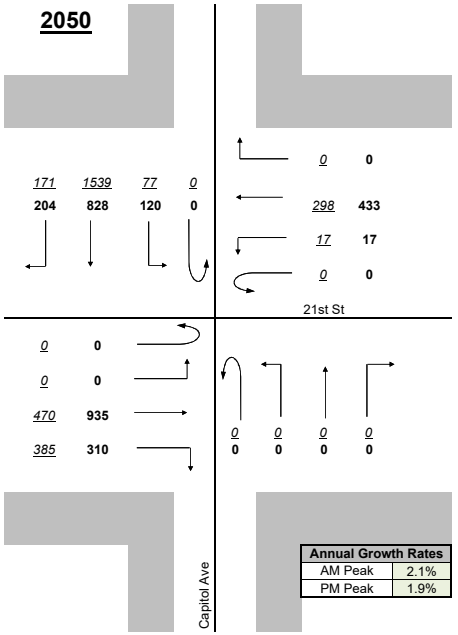


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.012

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

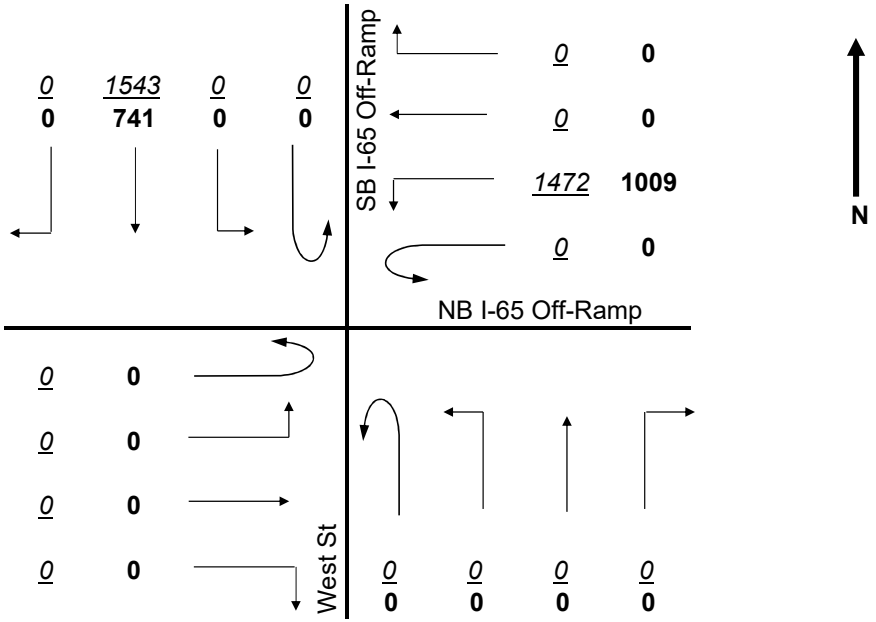
West St at NB/SB I-65 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES -				WB VEHICLES NB I-65 Off-Ramp				NB VEHICLES West St				SB VEHICLES SB I-65 Off-Ramp				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	0	0	0	0	377	0	0	0	0	0	0	0	0	409	0	786
7:45-8:00	0	0	0	0	0	363	0	0	0	0	0	0	0	0	420	0	783
8:00-8:15	0	0	0	0	0	361	0	0	0	0	0	0	0	0	326	0	687
8:15-8:30	0	0	0	0	0	371	0	0	0	0	0	0	0	0	388	0	759
PM PEAK																	
5:15-5:30	0	0	0	0	0	246	0	0	0	0	0	0	0	0	178	0	424
5:30-5:45	0	0	0	0	0	279	0	0	0	0	0	0	0	0	173	0	452
5:45-6:00	0	0	0	0	0	265	0	0	0	0	0	0	0	0	181	0	446
6:00-6:15	0	0	0	0	0	219	0	0	0	0	0	0	0	0	209	0	428
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	1472	0	0	0	0	0	0	0	0	1543	0	3015
PM PEAK	0	0	0	0	0	1009	0	0	0	0	0	0	0	0	741	0	1750
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	
PM PEAK	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	

	PHF
AM PEAK	0.96
PM PEAK	0.97

TURNING MOVEMENT COUNTS
West St at NB/SB I-65 Ramps

Count Date: 05/31/2023



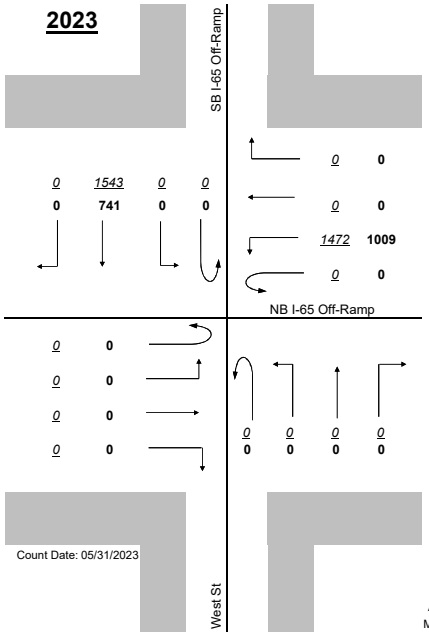
Legend:

000 AM Peak 7:30 AM-8:30 AM

000 PM Peak 5:15 PM-6:15 PM

Raw Counts

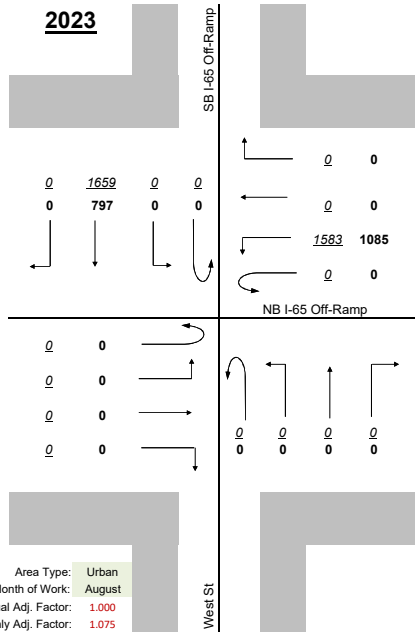
2023



Count Date: 05/31/2023

Adjusted Existing Volumes

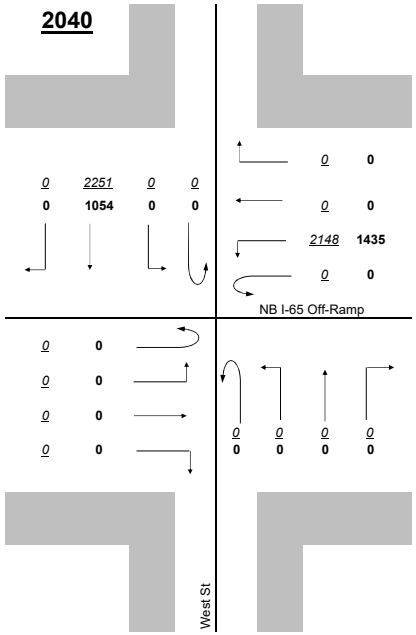
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

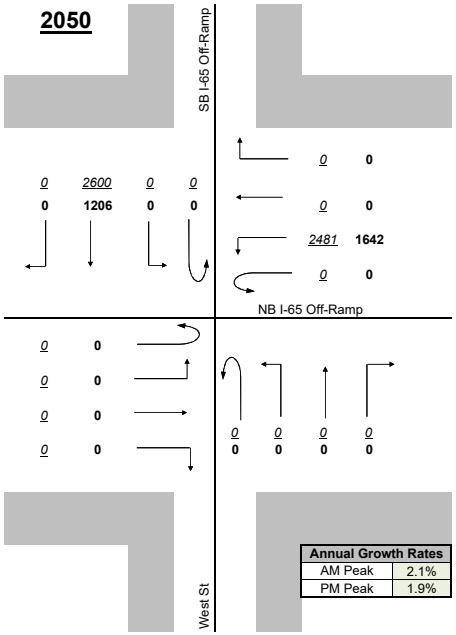
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

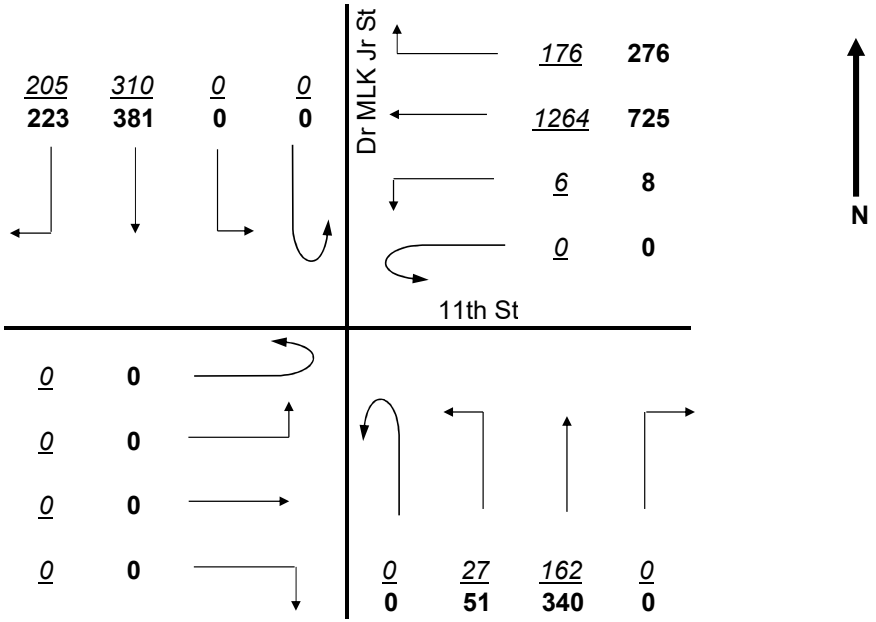
Dr MLK Jr St at 11th St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 11th St				WB VEHICLES 11th St				NB VEHICLES Dr MLK Jr St				SB VEHICLES Dr MLK Jr St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	0	0	0	0	1	372	38	0	5	41	0	0	0	56	50	563
7:30-7:45	0	0	0	0	0	3	319	50	0	11	48	0	0	0	96	57	584
7:45-8:00	0	0	0	0	0	1	316	42	0	6	32	0	0	0	87	49	533
8:00-8:15	0	0	0	0	0	1	257	46	0	5	41	0	0	0	71	49	470
PM PEAK																	
5:00-5:15	0	0	0	0	0	3	193	69	0	11	84	0	0	0	82	54	496
5:15-5:30	0	0	0	0	0	1	174	93	0	13	99	0	0	0	105	50	535
5:30-5:45	0	0	0	0	0	4	182	61	0	16	94	0	0	0	97	59	513
5:45-6:00	0	0	0	0	0	0	176	53	0	11	63	0	0	0	97	60	460
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	6	1264	176	0	27	162	0	0	0	310	205	2150
PM PEAK	0	0	0	0	0	8	725	276	0	51	340	0	0	0	381	223	2004
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	5%	0%	0%	0%	8%	3%	
PM PEAK	0%	0%	0%	0%	0%	0%	2%	9%	0%	0%	4%	0%	0%	0%	3%	2%	

TURNING MOVEMENT COUNTS
Dr MLK Jr St at 11th St

Count Date: 07/18/2023

	PHF
AM PEAK	0.92
PM PEAK	0.94

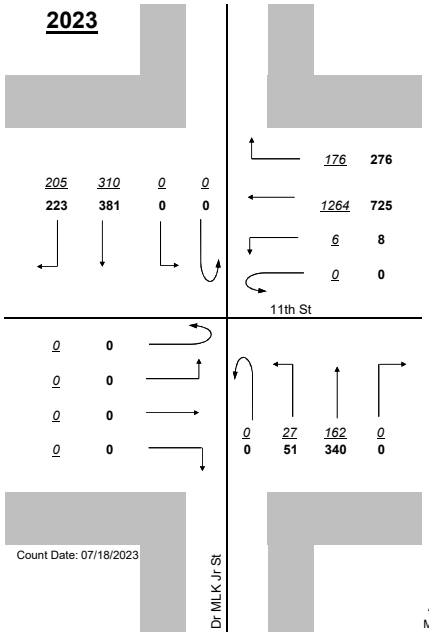


Legend:

000 AM Peak 7:15 AM-8:15 AM

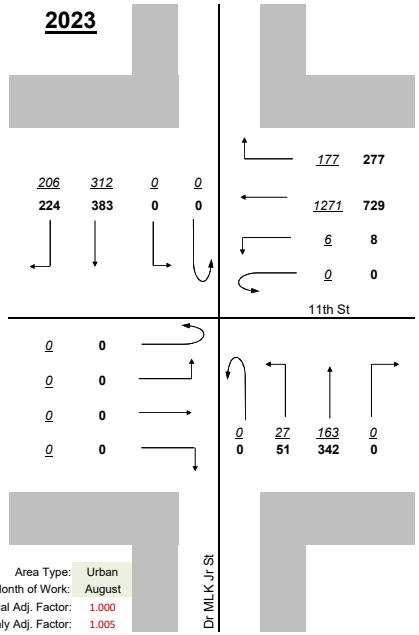
000 PM Peak 5:00 PM-6:00 PM

Raw Counts



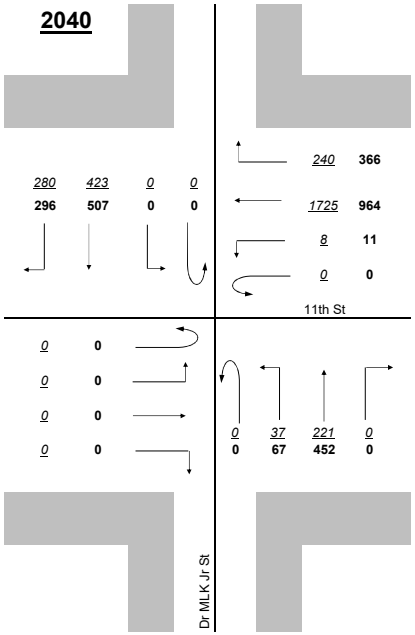
Count Date: 07/18/2023

Adjusted Existing Volumes

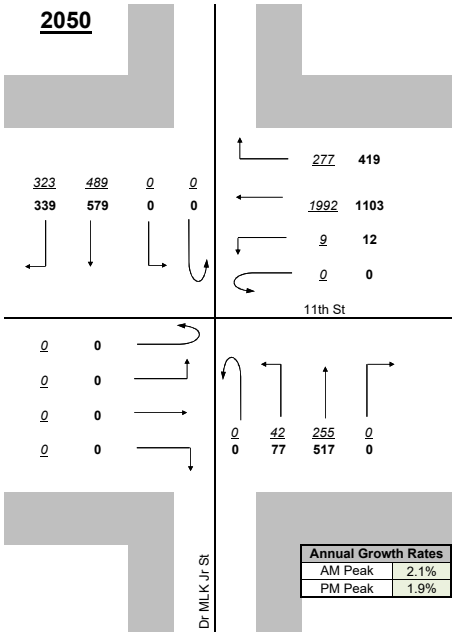


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.005

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

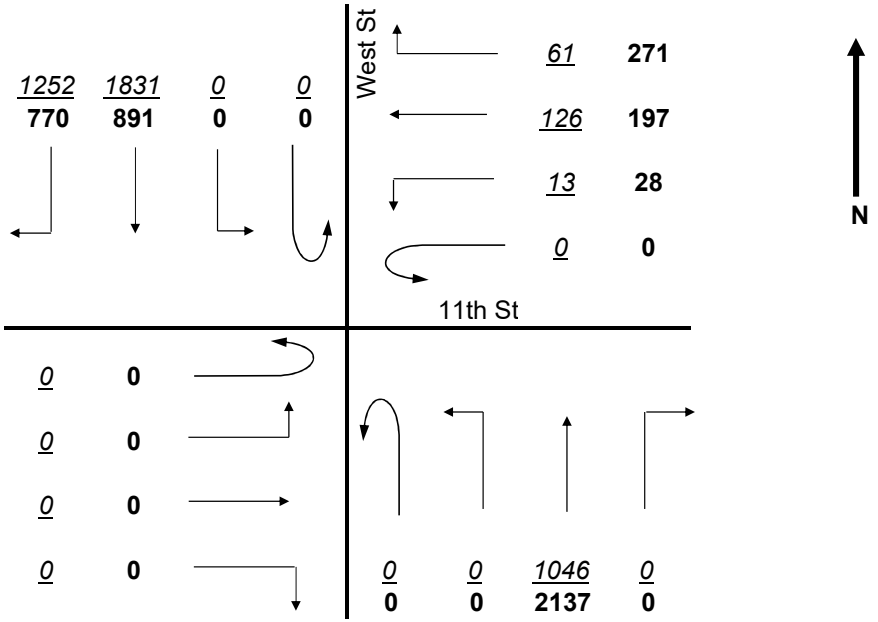
West St at 11th St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 11th St				WB VEHICLES 11th St				NB VEHICLES West St				SB VEHICLES West St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	0	0	0	0	6	34	13	0	0	257	0	0	0	399	351	1060
7:30-7:45	0	0	0	0	0	2	21	21	0	0	291	0	0	0	459	324	1118
7:45-8:00	0	0	0	0	0	2	37	10	0	0	282	0	0	0	475	301	1107
8:00-8:15	0	0	0	0	0	3	34	17	0	0	216	0	0	0	498	276	1044
PM PEAK																	
4:30-4:45	0	0	0	0	0	8	43	80	0	0	534	0	0	0	247	193	1105
4:45-5:00	0	0	0	0	0	6	48	65	0	0	553	0	0	0	232	170	1074
5:00-5:15	0	0	0	0	0	7	68	65	0	0	530	0	0	0	203	197	1070
5:15-5:30	0	0	0	0	0	7	38	61	0	0	520	0	0	0	209	210	1045
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	13	126	61	0	0	1046	0	0	0	1831	1252	4329
PM PEAK	0	0	0	0	0	28	197	271	0	0	2137	0	0	0	891	770	4294
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	0%	6%	16%	0%	0%	3%	0%	0%	0%	1%	1%	
PM PEAK	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	1%	0%	0%	0%	2%	5%	

TURNING MOVEMENT COUNTS
West St at 11th St

Count Date: 5/31/23

	PHF
AM PEAK	0.97
PM PEAK	0.97



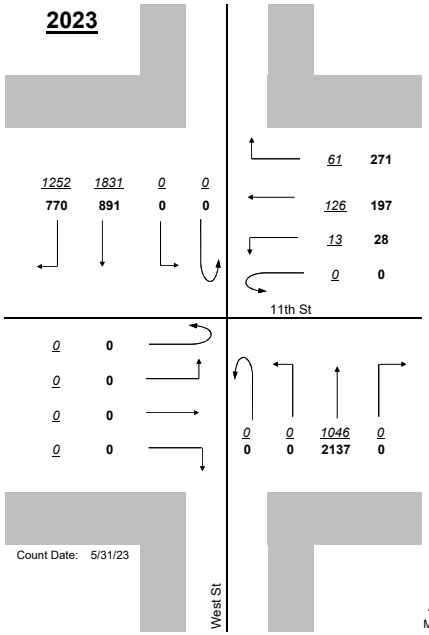
Legend:

000 AM Peak 7:15 AM-8:15 AM

000 PM Peak 4:30 PM-5:30 PM

Raw Counts

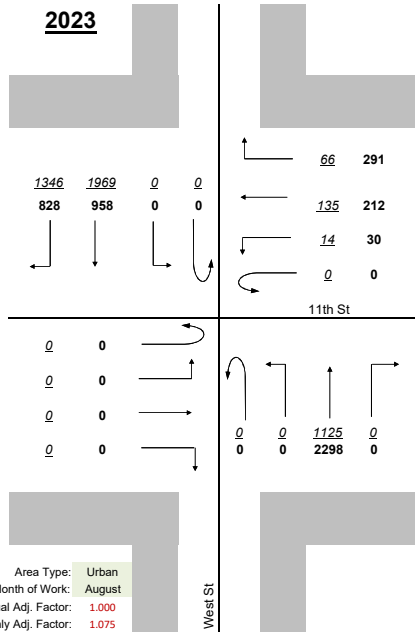
2023



Count Date: 5/31/23

Adjusted Existing Volumes

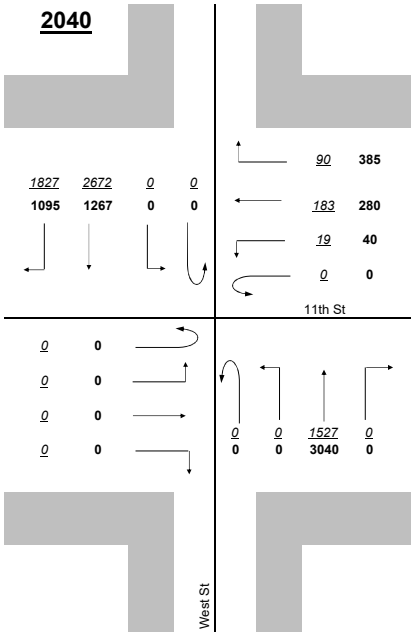
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

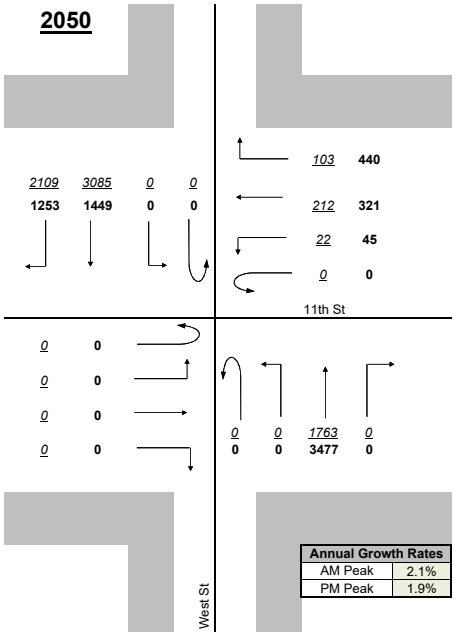
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

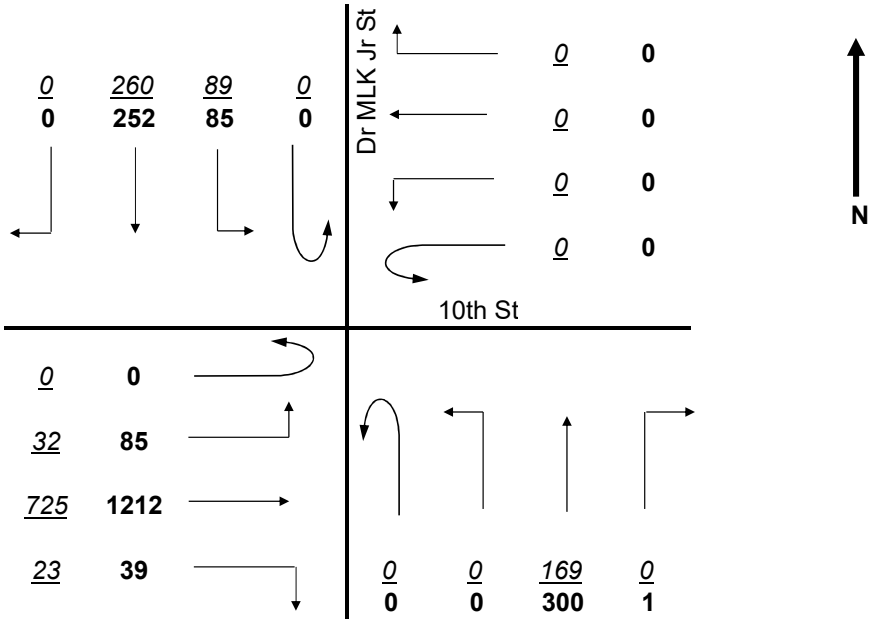
Dr MLK Jr St at 10th St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 10th St				WB VEHICLES 10th St				NB VEHICLES Dr MLK Jr St				SB VEHICLES Dr MLK Jr St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	11	212	7	0	0	0	0	0	0	44	0	0	27	65	0	366
7:45-8:00	0	7	195	5	0	0	0	0	0	0	32	0	0	18	69	0	326
8:00-8:15	0	8	168	3	0	0	0	0	0	0	43	0	0	25	58	0	305
8:15-8:30	0	6	150	8	0	0	0	0	0	0	50	0	0	19	68	0	301
PM PEAK																	
4:30-4:45	0	20	300	6	0	0	0	0	0	0	69	0	0	22	46	0	463
4:45-5:00	0	17	299	13	0	0	0	0	0	0	75	1	0	26	60	0	491
5:00-5:15	0	27	308	4	0	0	0	0	0	0	71	0	0	19	65	0	494
5:15-5:30	0	21	305	16	0	0	0	0	0	0	85	0	0	18	81	0	526
TOTAL VOLUMES																	
AM PEAK	0	32	725	23	0	0	0	0	0	0	169	0	0	89	260	0	1298
PM PEAK	0	85	1212	39	0	0	0	0	0	0	300	1	0	85	252	0	1974
% TRUCKS																	
AM PEAK	0%	0%	2%	22%	0%	0%	0%	0%	0%	0%	5%	0%	0%	2%	10%	0%	
PM PEAK	0%	2%	1%	10%	0%	0%	0%	0%	0%	0%	3%	0%	0%	1%	4%	0%	

TURNING MOVEMENT COUNTS
Dr MLK Jr St at 10th St

Count Date: 07/18/2023

	PHF
AM PEAK	0.89
PM PEAK	0.94



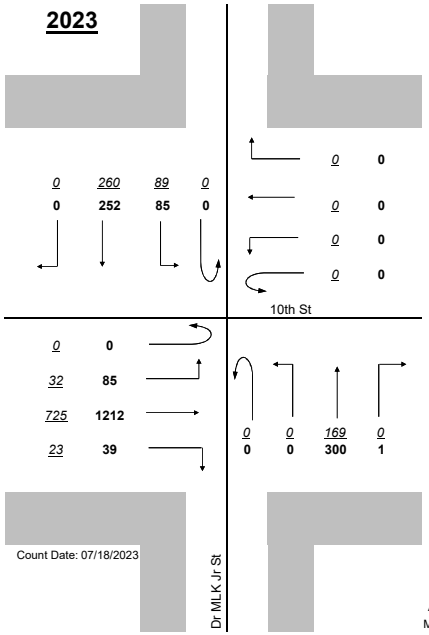
Legend:

000 AM Peak 7:30 AM-8:30 AM

000 PM Peak 4:30 PM-5:30 PM

Raw Counts

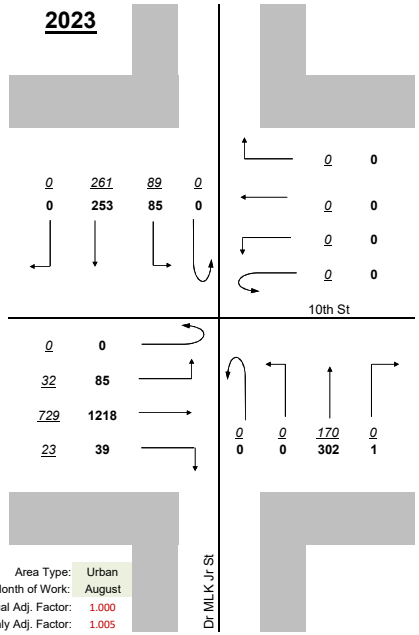
2023



Count Date: 07/18/2023

Adjusted Existing Volumes

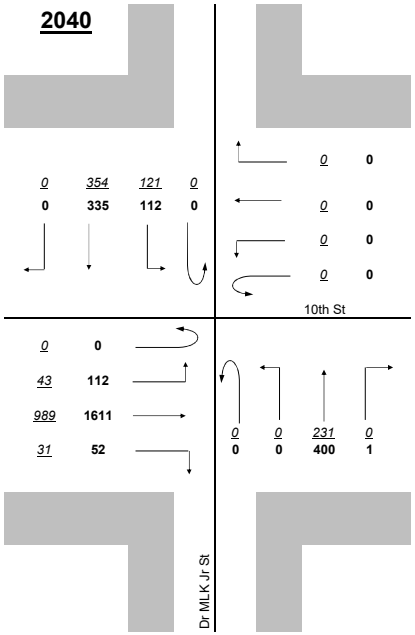
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.005

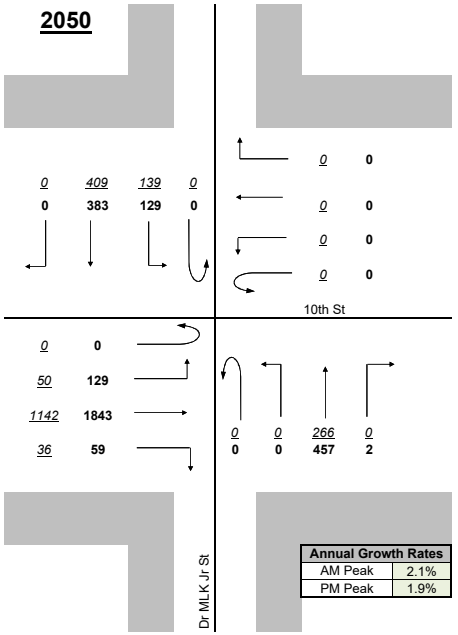
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

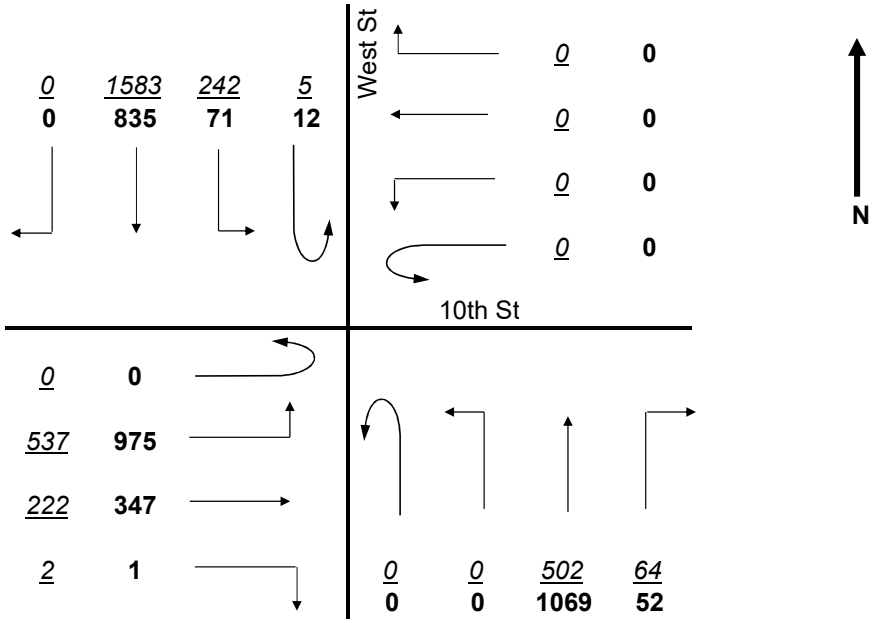
West St at 10th St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 10th St				WB VEHICLES 10th St				NB VEHICLES West St				SB VEHICLES West St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	153	60	0	0	0	0	0	0	0	143	17	2	47	404	0	826
7:45-8:00	0	158	54	2	0	0	0	0	0	0	130	14	1	57	436	0	852
8:00-8:15	0	101	56	0	0	0	0	0	0	0	120	18	1	67	370	0	733
8:15-8:30	0	125	52	0	0	0	0	0	0	0	109	15	1	71	373	0	746
PM PEAK																	
4:30-4:45	0	234	92	0	0	0	0	0	0	0	276	18	2	19	216	0	857
4:45-5:00	0	242	99	0	0	0	0	0	0	0	251	15	3	18	253	0	881
5:00-5:15	0	258	70	0	0	0	0	0	0	0	267	8	0	18	165	0	786
5:15-5:30	0	241	86	1	0	0	0	0	0	0	275	11	7	16	201	0	838
TOTAL VOLUMES																	
AM PEAK	0	537	222	2	0	0	0	0	0	0	502	64	5	242	1583	0	3157
PM PEAK	0	975	347	1	0	0	0	0	0	0	1069	52	12	71	835	0	3362
% TRUCKS																	
AM PEAK	0%	2%	3%	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	1%	1%	0%	
PM PEAK	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	1%	2%	0%	0%	3%	0%	

	PHF
AM PEAK	0.93
PM PEAK	0.95

TURNING MOVEMENT COUNTS
West St at 10th St

Count Date: 05/31/2023



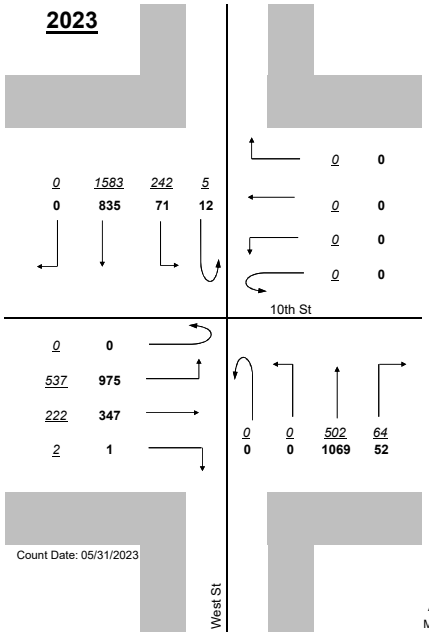
Legend:

000 AM Peak 7:30 AM-8:30 AM

000 PM Peak 4:30 PM-5:30 PM

Raw Counts

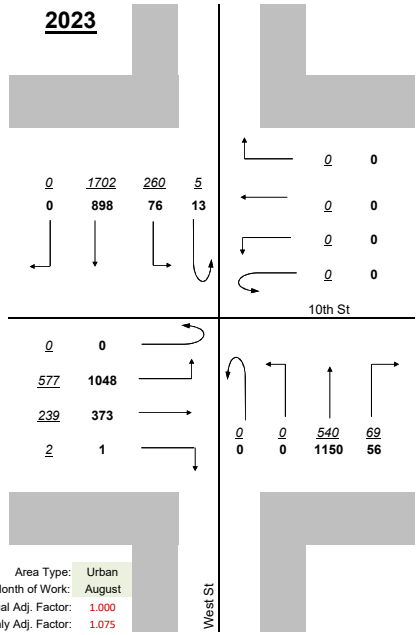
2023



Count Date: 05/31/2023

Adjusted Existing Volumes

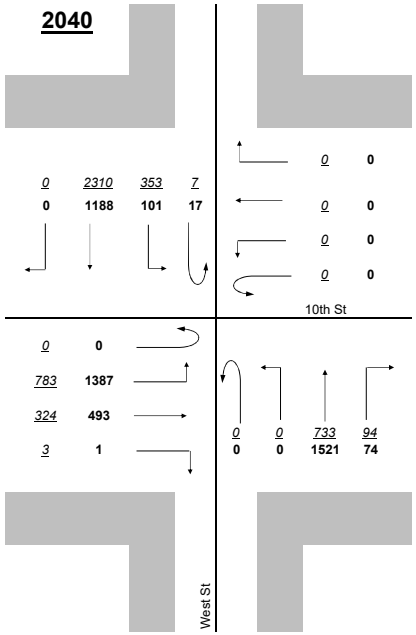
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

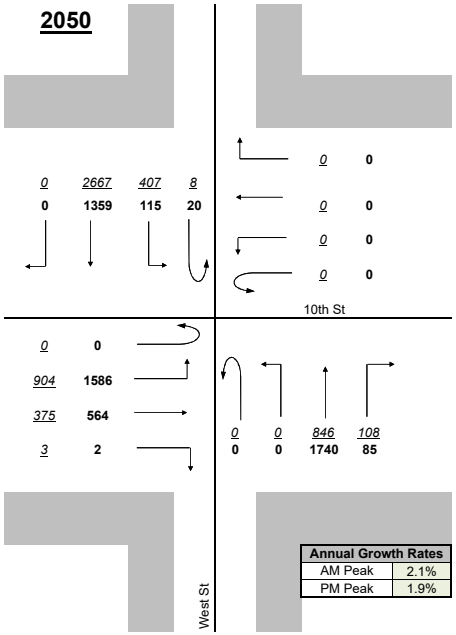
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

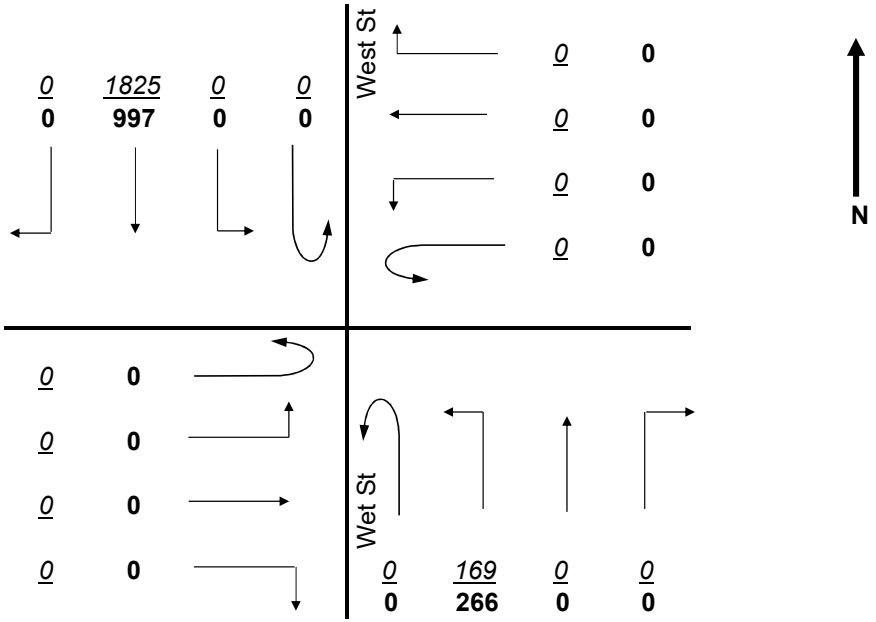
West St at Dr MLK Jr St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES -				WB VEHICLES -				NB VEHICLES West St				SB VEHICLES West St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	0	0	0	0	0	0	0	0	44	0	0	0	0	451	0	495
7:45-8:00	0	0	0	0	0	0	0	0	0	32	0	0	0	0	493	0	525
8:00-8:15	0	0	0	0	0	0	0	0	0	43	0	0	0	0	437	0	480
8:15-8:30	0	0	0	0	0	0	0	0	0	50	0	0	0	0	444	0	494
PM PEAK																	
5:15-5:30	0	0	0	0	0	0	0	0	0	85	0	0	0	0	217	0	302
5:30-5:45	0	0	0	0	0	0	0	0	0	75	0	0	0	0	244	0	319
5:45-6:00	0	0	0	0	0	0	0	0	0	64	0	0	0	0	252	0	316
6:00-6:15	0	0	0	0	0	0	0	0	0	42	0	0	0	0	284	0	326
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	0	0	0	0	169	0	0	0	0	1825	0	1994
PM PEAK	0	0	0	0	0	0	0	0	0	266	0	0	0	0	997	0	1263
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	0%	0%	0%	0%	11%	0%	0%	0%	0%	1%	0%	
PM PEAK	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	0%	0%	2%	0%	

TURNING MOVEMENT COUNTS
West St at Dr MLK Jr St

Count Date: 05/31/2023

	PHF
AM PEAK	0.95
PM PEAK	0.97

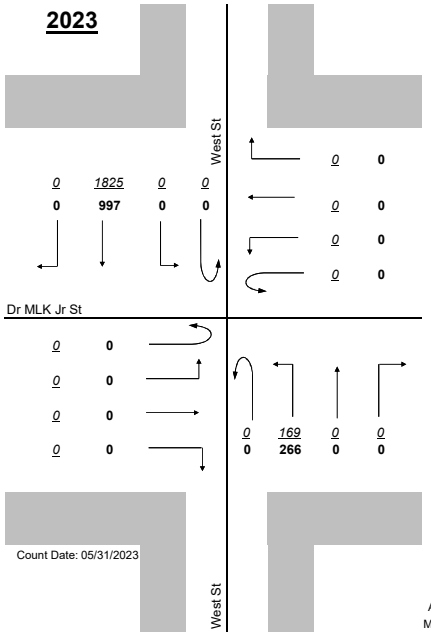


Legend:

000 AM Peak 7:30 AM-8:30 AM

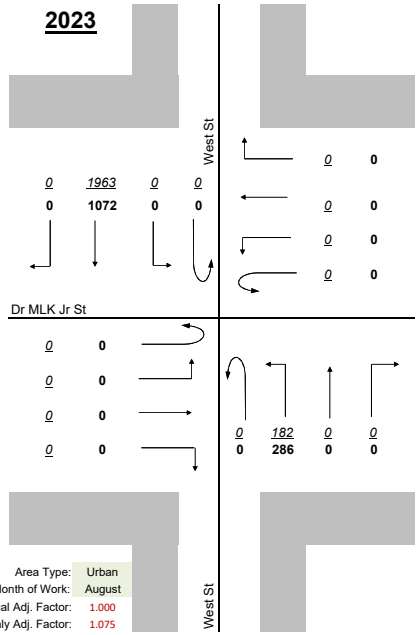
000 PM Peak 5:15 PM-6:15 PM

Raw Counts



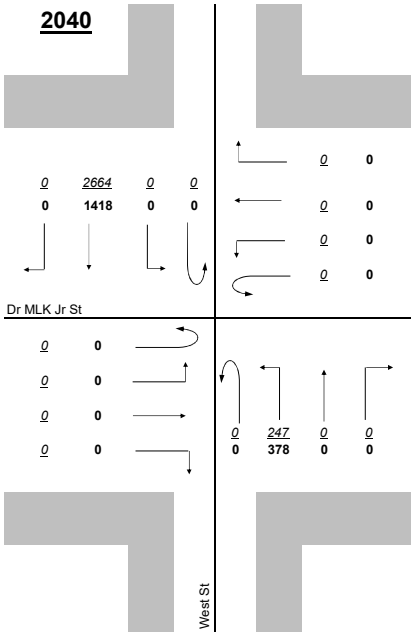
Count Date: 05/31/2023

Adjusted Existing Volumes

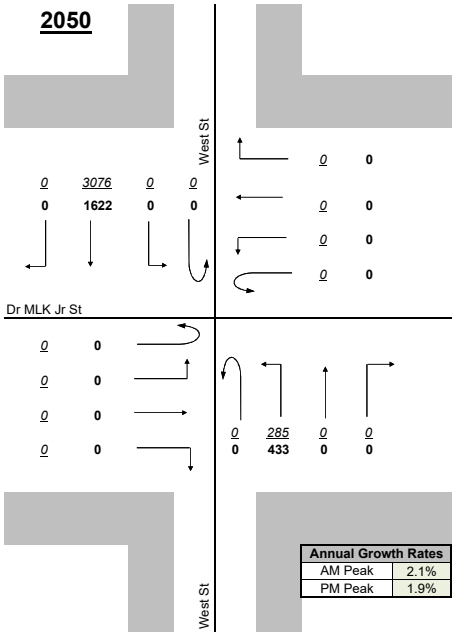


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

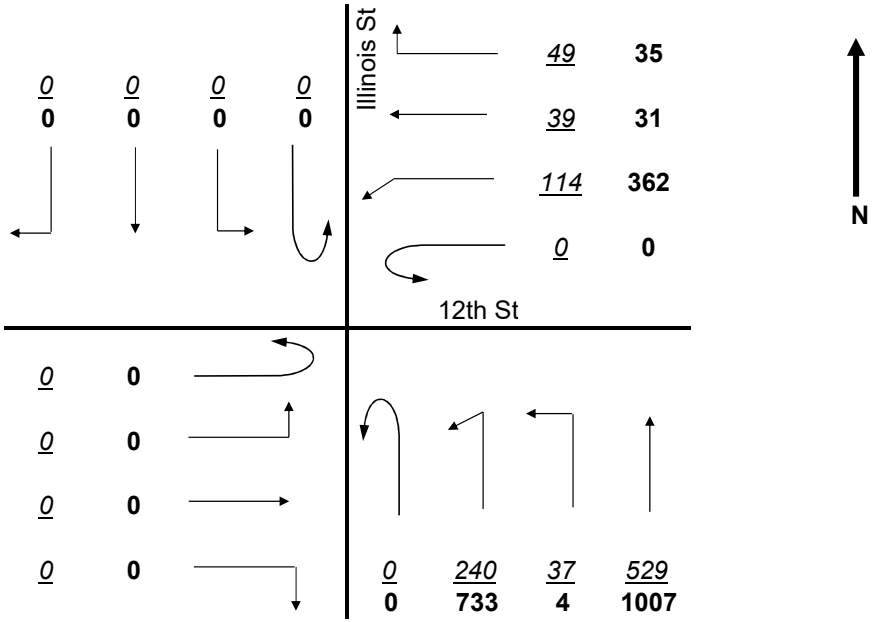
Illinois St at 12th St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 12th St				WB VEHICLES 12th St				NB VEHICLES Illinois St				SB VEHICLES Illinois St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	0	0	0	0	31	10	10	0	63	6	143	0	0	0	0	263
7:45-8:00	0	0	0	0	0	23	14	17	0	56	12	138	0	0	0	0	260
8:00-8:15	0	0	0	0	0	27	11	11	0	60	6	127	0	0	0	0	242
8:15-8:30	0	0	0	0	0	33	4	11	0	61	13	121	0	0	0	0	243
PM PEAK																	
4:30-4:45	0	0	0	0	0	73	3	10	0	164	1	244	0	0	0	0	495
4:45-5:00	0	0	0	0	0	98	9	9	0	183	2	262	0	0	0	0	563
5:00-5:15	0	0	0	0	0	102	9	4	0	203	1	243	0	0	0	0	562
5:15-5:30	0	0	0	0	0	89	10	12	0	183	0	258	0	0	0	0	552
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	114	39	49	0	240	37	529	0	0	0	0	1008
PM PEAK	0	0	0	0	0	362	31	35	0	733	4	1007	0	0	0	0	2172
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	2%	0%	0%	0%	6%	3%	4%	0%	0%	0%	0%	
PM PEAK	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	25%	1%	0%	0%	0%	0%	

	PHF
AM PEAK	0.96
PM PEAK	0.96

TURNING MOVEMENT COUNTS
Illinois St at 12th St

Count Date: 5/24/23

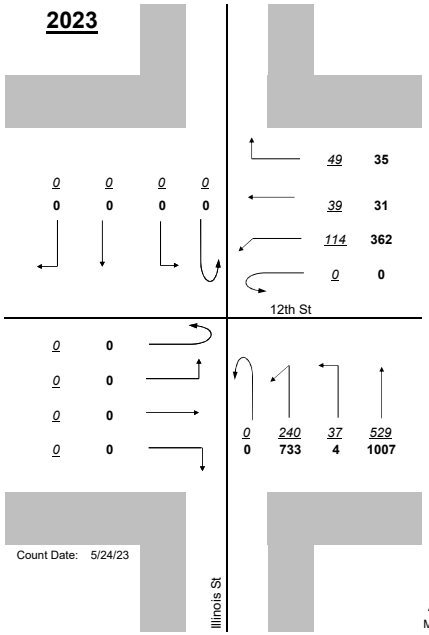


Legend:

000 AM Peak 7:30 AM-8:30 AM

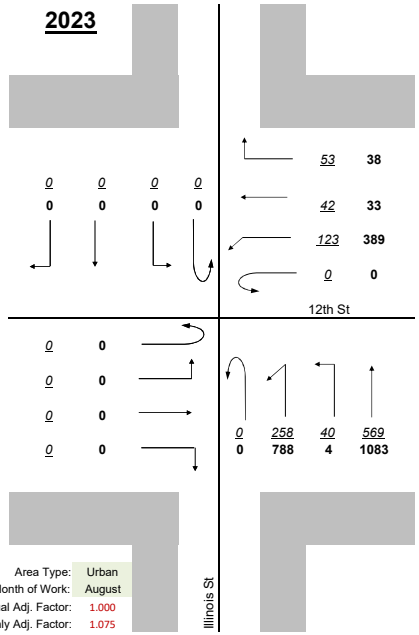
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



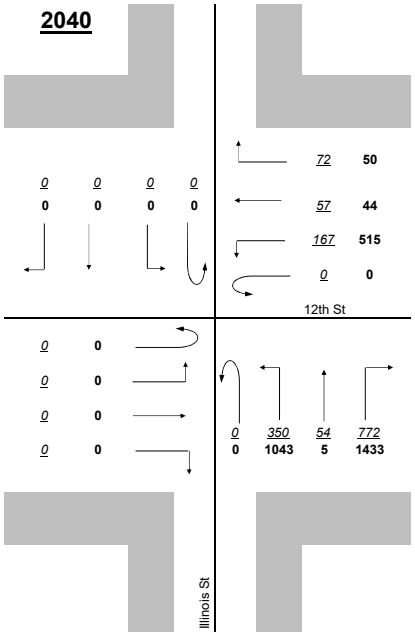
Count Date: 5/24/23

Adjusted Existing Volumes

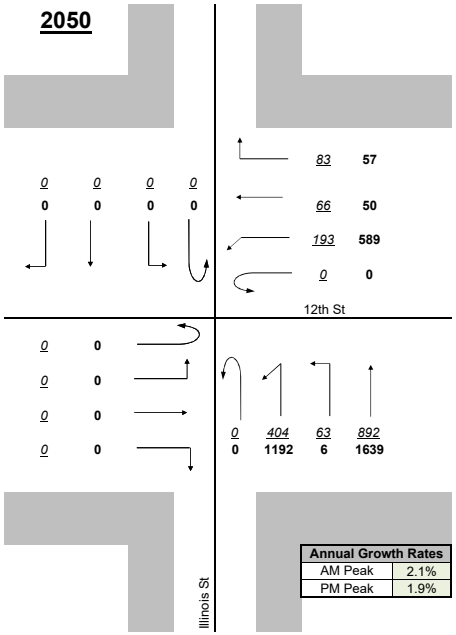


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

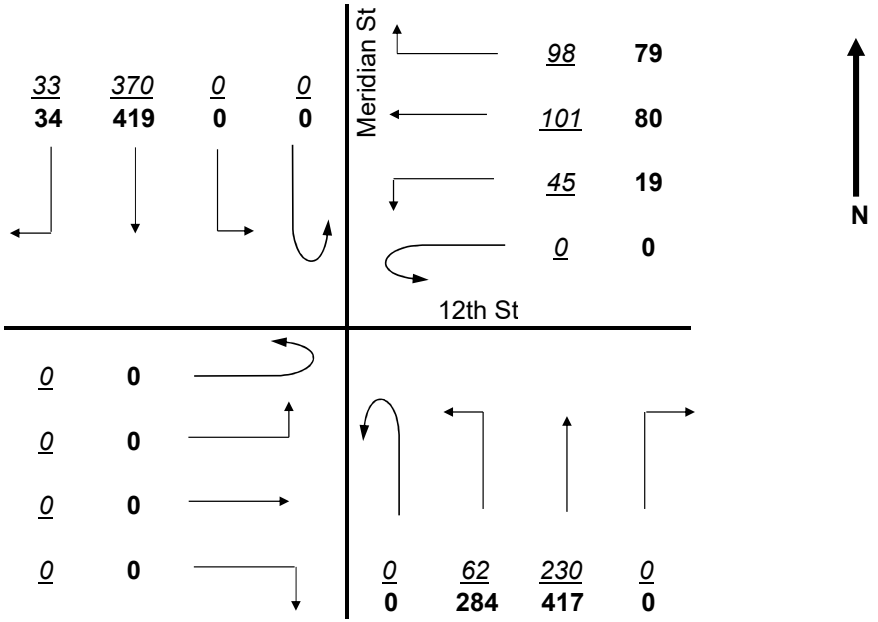
Meridian St at 12th St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 12th St				WB VEHICLES 12th St				NB VEHICLES Meridian St				SB VEHICLES Meridian St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
8:00-8:15	0	0	0	0	0	12	25	30	0	13	55	0	0	0	85	9	229
8:15-8:30	0	0	0	0	0	5	24	20	0	21	60	0	0	0	95	12	237
8:30-8:45	0	0	0	0	0	23	25	24	0	13	57	0	0	0	98	7	247
8:45-9:00	0	0	0	0	0	5	27	24	0	15	58	0	0	0	92	5	226
PM PEAK																	
4:30-4:45	0	0	0	0	0	8	13	20	0	61	98	0	0	0	107	4	311
4:45-5:00	0	0	0	0	0	7	20	17	0	73	111	0	0	0	104	9	341
5:00-5:15	0	0	0	0	0	2	24	21	0	76	113	0	0	0	120	11	367
5:15-5:30	0	0	0	0	0	2	23	21	0	74	95	0	0	0	88	10	313
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	45	101	98	0	62	230	0	0	0	370	33	939
PM PEAK	0	0	0	0	0	19	80	79	0	284	417	0	0	0	419	34	1332
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	0%	3%	4%	0%	5%	3%	0%	0%	0%	1%	0%	
PM PEAK	0%	0%	0%	0%	0%	5%	1%	1%	0%	0%	2%	0%	0%	0%	1%	0%	

TURNING MOVEMENT COUNTS
Meridian St at 12th St

Count Date: 05/24/2023

	PHF
AM PEAK	0.95
PM PEAK	0.91



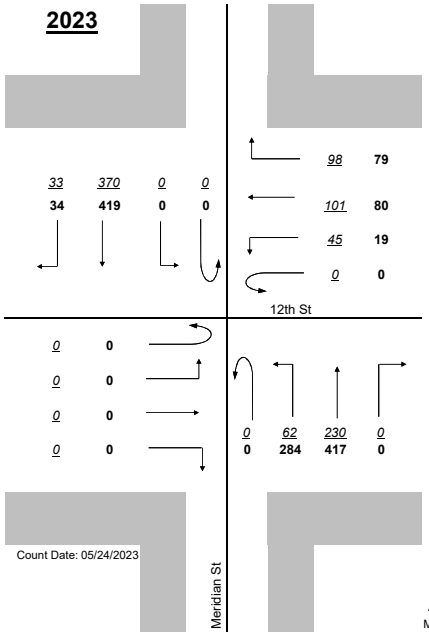
Legend:

000 AM Peak 8:00 AM-9:00 AM

000 PM Peak 4:30 PM-5:30 PM

Raw Counts

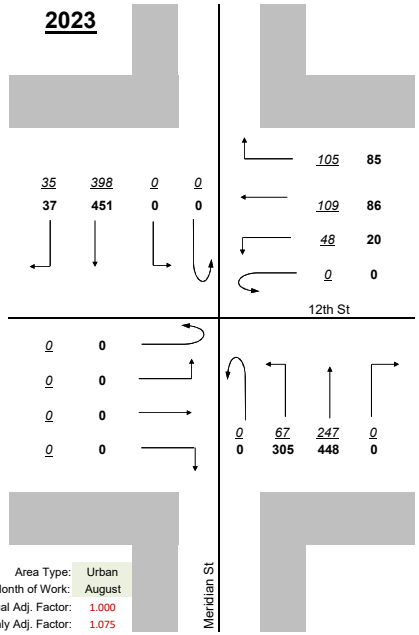
2023



Count Date: 05/24/2023

Adjusted Existing Volumes

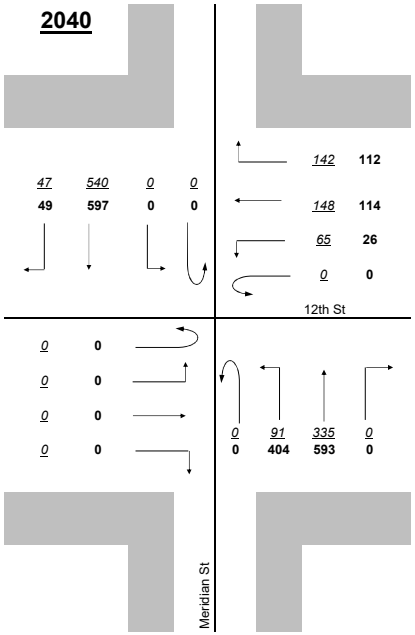
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

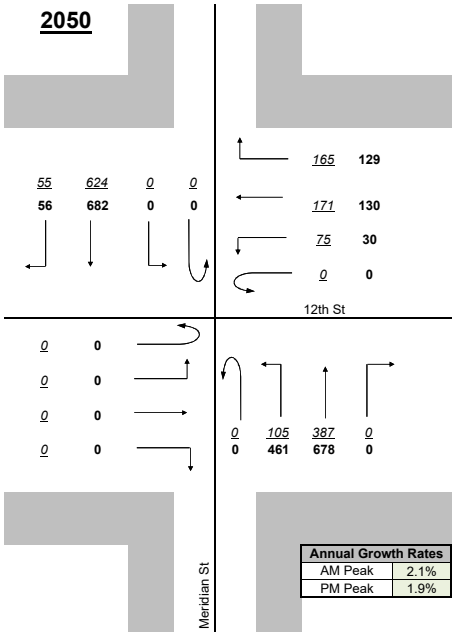
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

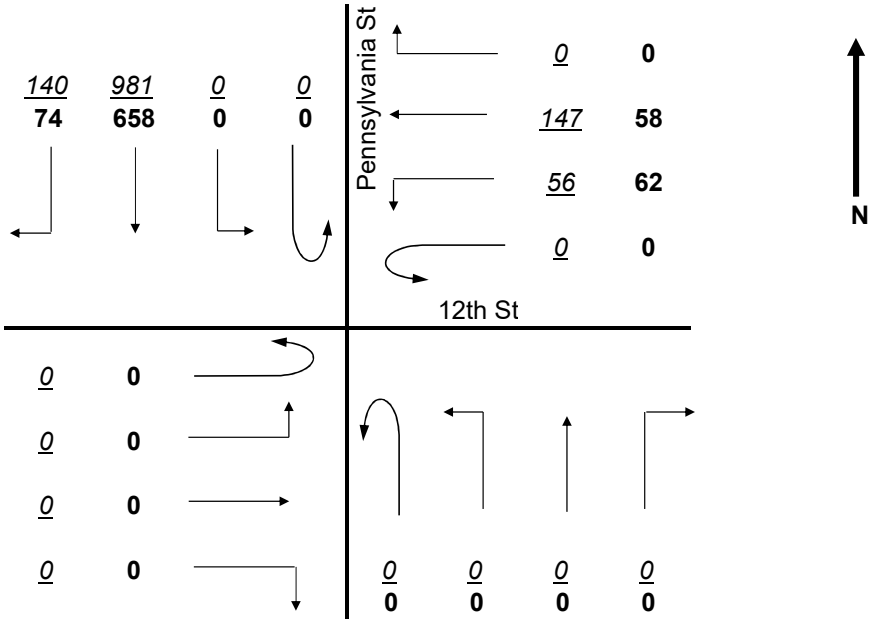
Pennsylvania St at 12th St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 12th St				WB VEHICLES 12th St				NB VEHICLES Pennsylvania St				SB VEHICLES Pennsylvania St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:45-8:00	0	0	0	0	0	16	37	0	0	0	0	0	0	0	240	50	343
8:00-8:15	0	0	0	0	0	14	23	0	0	0	0	0	0	0	260	25	322
8:15-8:30	0	0	0	0	0	13	48	0	0	0	0	0	0	0	250	35	346
8:30-8:45	0	0	0	0	0	13	39	0	0	0	0	0	0	0	231	30	313
PM PEAK																	
4:15-4:30	0	0	0	0	0	12	13	0	0	0	0	0	0	0	165	14	204
4:30-4:45	0	0	0	0	0	18	12	0	0	0	0	0	0	0	174	15	219
4:45-5:00	0	0	0	0	0	17	15	0	0	0	0	0	0	0	138	26	196
5:00-5:15	0	0	0	0	0	15	18	0	0	0	0	0	0	0	181	19	233
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	56	147	0	0	0	0	0	0	0	981	140	1324
PM PEAK	0	0	0	0	0	62	58	0	0	0	0	0	0	0	658	74	852
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	18%	3%	0%	0%	0%	0%	0%	0%	0%	1%	0%	
PM PEAK	0%	0%	0%	0%	0%	8%	3%	0%	0%	0%	0%	0%	0%	0%	1%	3%	

TURNING MOVEMENT COUNTS
Pennsylvania St at 12th St

Count Date: 05/22/2023

	PHF
AM PEAK	0.96
PM PEAK	0.91

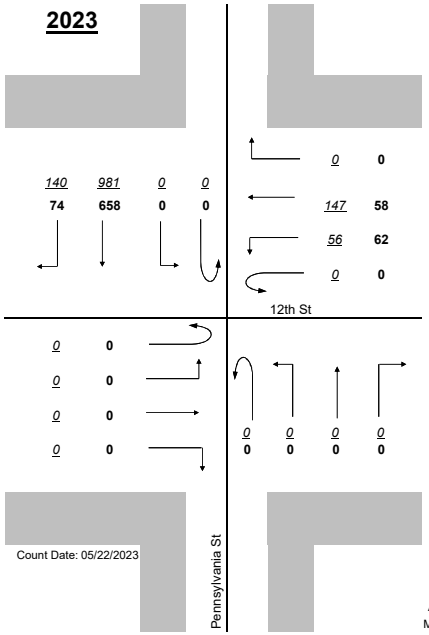


Legend:

000 AM Peak 7:45 AM-8:45 AM

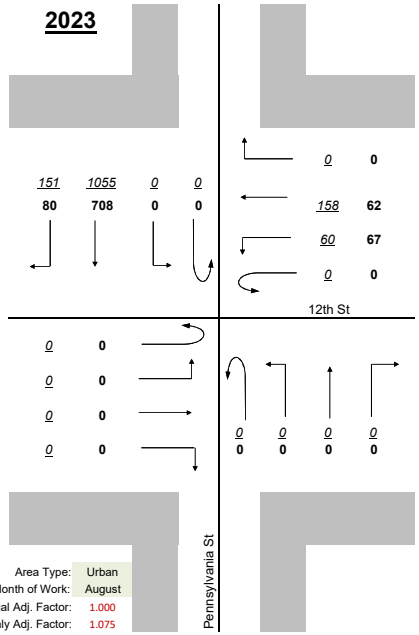
000 PM Peak 4:15 PM-5:15 PM

Raw Counts



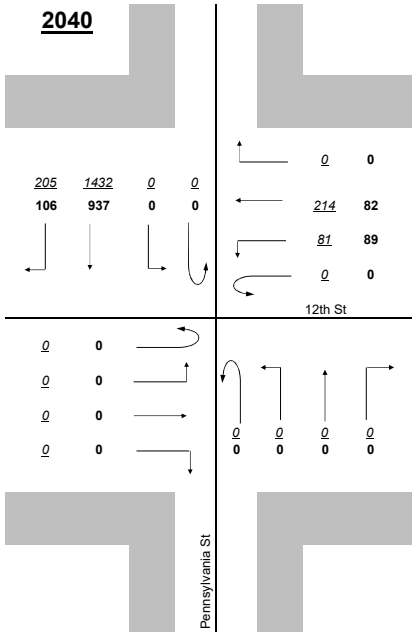
Count Date: 05/22/2023

Adjusted Existing Volumes

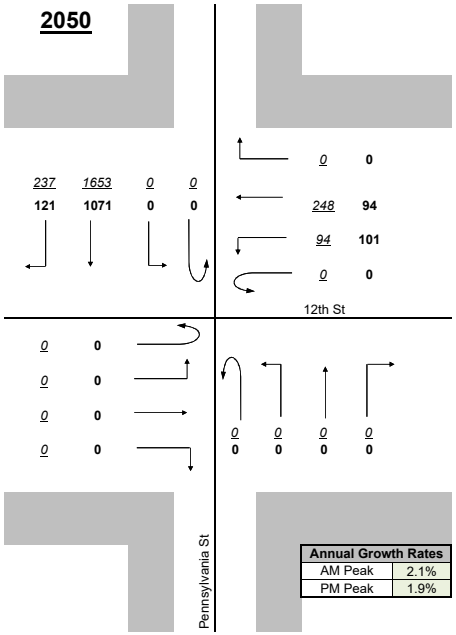


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

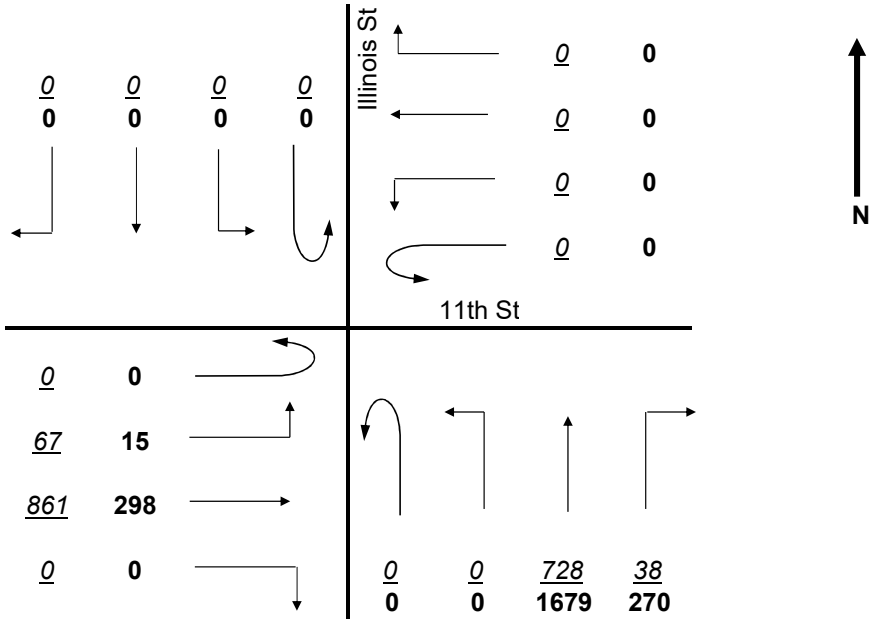
Illinois St at 11th St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 11th St				WB VEHICLES 11th St				NB VEHICLES Illinois St				SB VEHICLES Illinois St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	10	211	0	0	0	0	0	0	0	199	10	0	0	0	0	430
7:45-8:00	0	24	259	0	0	0	0	0	0	0	176	10	0	0	0	0	469
8:00-8:15	0	15	185	0	0	0	0	0	0	0	177	10	0	0	0	0	387
8:15-8:30	0	18	206	0	0	0	0	0	0	0	176	8	0	0	0	0	408
PM PEAK																	
4:15-4:30	0	7	94	0	0	0	0	0	0	0	427	65	0	0	0	0	593
4:30-4:45	0	5	92	0	0	0	0	0	0	0	403	67	0	0	0	0	567
4:45-5:00	0	3	60	0	0	0	0	0	0	0	417	55	0	0	0	0	535
5:00-5:15	0	0	52	0	0	0	0	0	0	0	432	83	0	0	0	0	567
TOTAL VOLUMES																	
AM PEAK	0	67	861	0	0	0	0	0	0	0	728	38	0	0	0	0	1694
PM PEAK	0	15	298	0	0	0	0	0	0	0	1679	270	0	0	0	0	2262
% TRUCKS																	
AM PEAK	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	4%	3%	0%	0%	0%	0%	
PM PEAK	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
Illinois St at 11th St

Count Date: 05/24/2023

	PHF
AM PEAK	0.90
PM PEAK	0.95



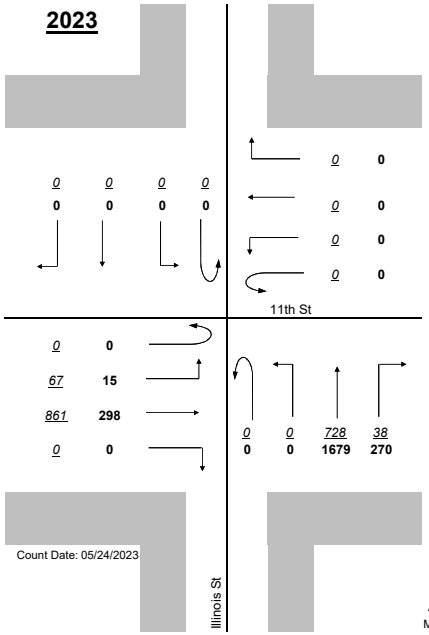
Legend:

000 AM Peak 7:30 AM-8:30 AM

000 PM Peak 4:15 PM-5:15 PM

Raw Counts

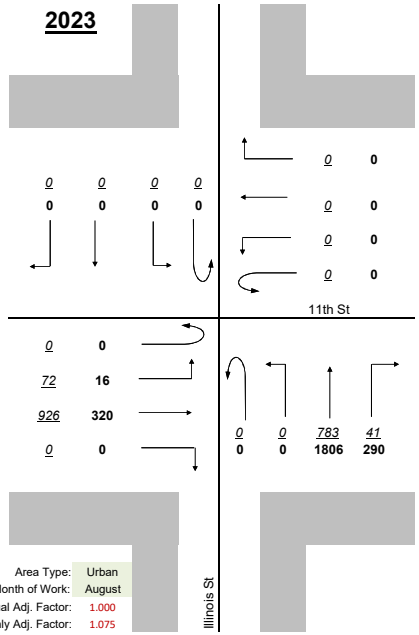
2023



Count Date: 05/24/2023

Adjusted Existing Volumes

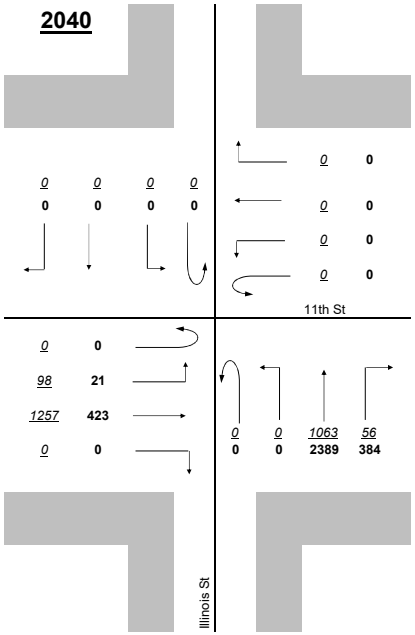
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

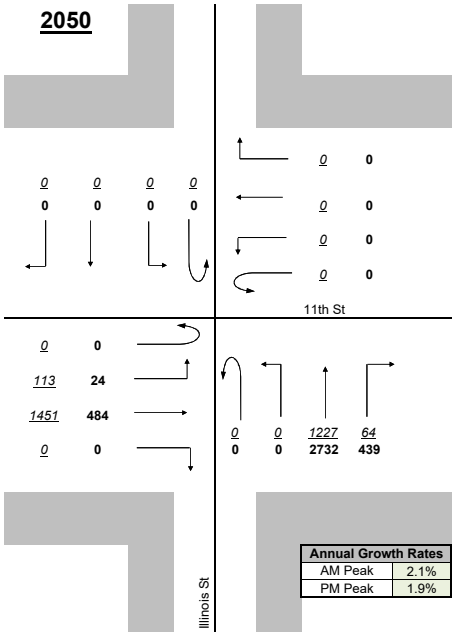
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

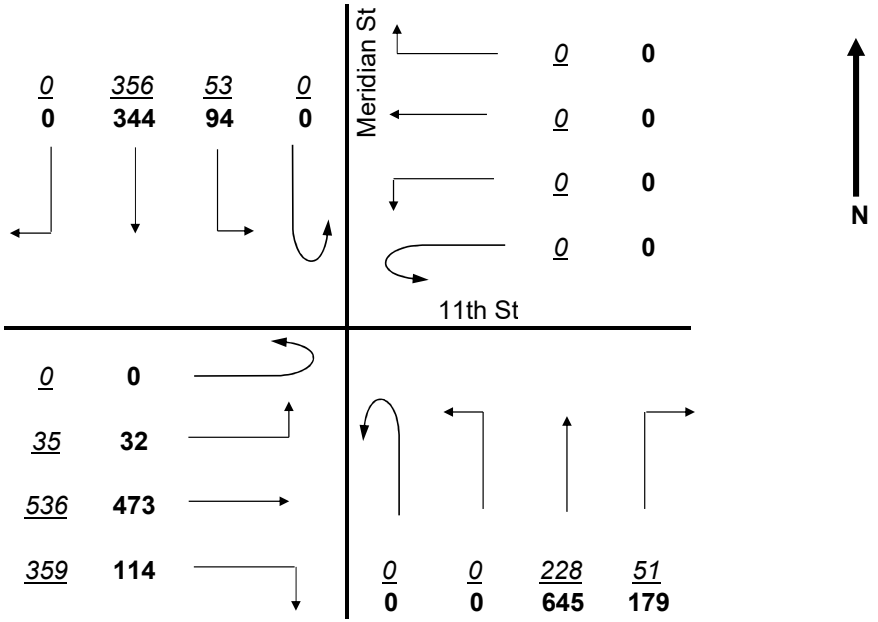
Meridian St at 11th St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 11th St				WB VEHICLES 11th St				NB VEHICLES Meridian St				SB VEHICLES Meridian St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:45-8:00	0	4	179	87	0	0	0	0	0	0	44	17	0	8	92	0	431
8:00-8:15	0	10	97	86	0	0	0	0	0	0	59	11	0	13	83	0	359
8:15-8:30	0	10	122	90	0	0	0	0	0	0	68	12	0	9	88	0	399
8:30-8:45	0	11	138	96	0	0	0	0	0	0	57	11	0	23	93	0	429
PM PEAK																	
4:15-4:30	0	9	128	34	0	0	0	0	0	0	134	45	0	24	65	0	439
4:30-4:45	0	10	131	32	0	0	0	0	0	0	143	37	0	13	104	0	470
4:45-5:00	0	3	103	21	0	0	0	0	0	0	186	46	0	31	80	0	470
5:00-5:15	0	10	111	27	0	0	0	0	0	0	182	51	0	26	95	0	502
TOTAL VOLUMES																	
AM PEAK	0	35	536	359	0	0	0	0	0	0	228	51	0	53	356	0	1618
PM PEAK	0	32	473	114	0	0	0	0	0	0	645	179	0	94	344	0	1881
% TRUCKS																	
AM PEAK	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	5%	2%	0%	0%	1%	0%	
PM PEAK	0%	3%	1%	2%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	2%	0%	

TURNING MOVEMENT COUNTS
Meridian St at 11th St

Count Date: 05/24/2023

	PHF
AM PEAK	0.94
PM PEAK	0.94



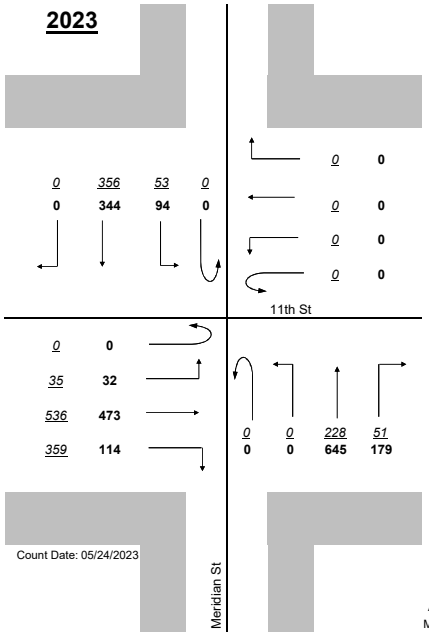
Legend:

000 AM Peak 7:45 AM-8:45 AM

000 PM Peak 4:15 PM-5:15 PM

Raw Counts

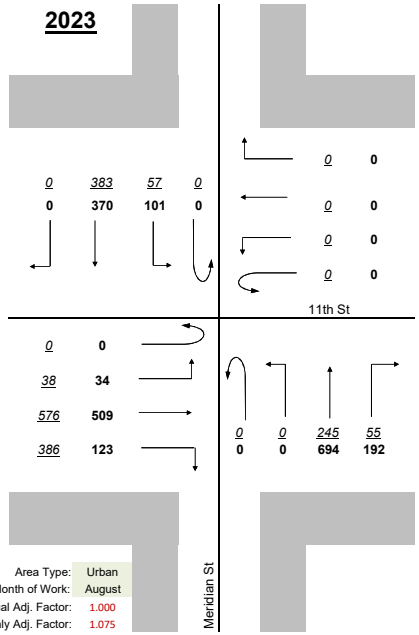
2023



Count Date: 05/24/2023

Adjusted Existing Volumes

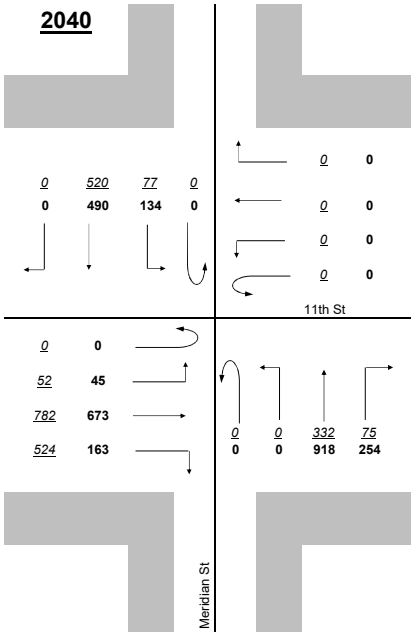
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

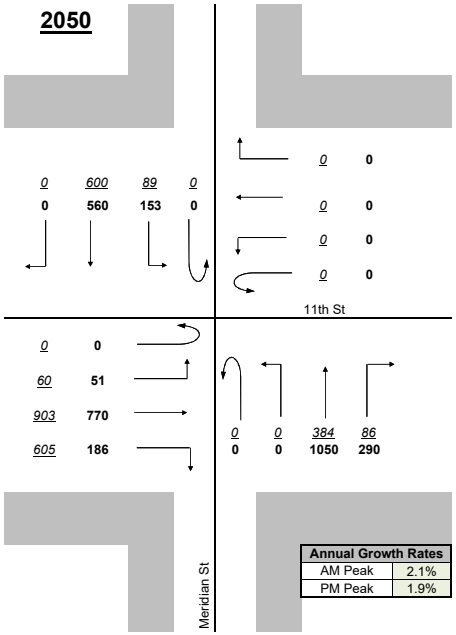
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

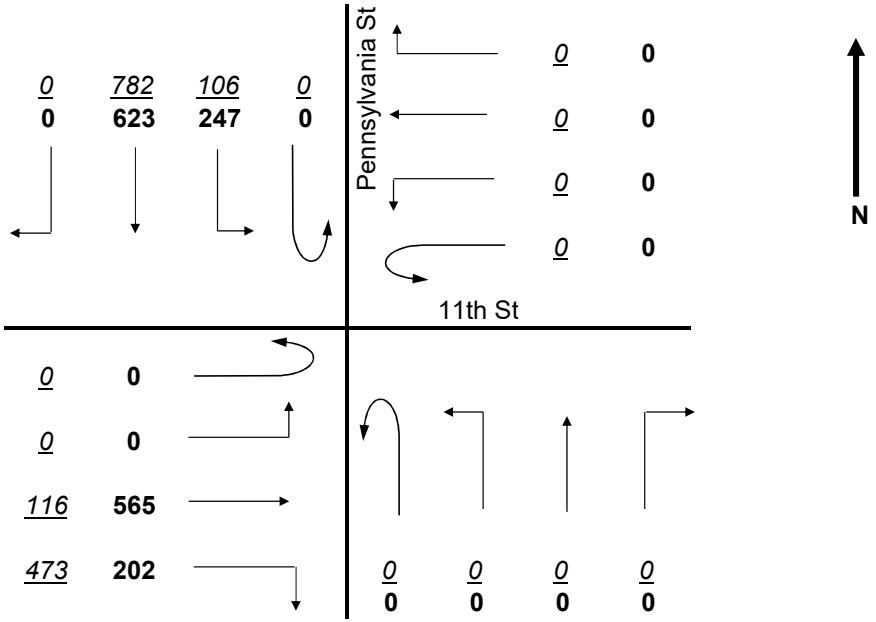
Pennsylvania St at 11th St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 11th St				WB VEHICLES 11th St				NB VEHICLES Pennsylvania St				SB VEHICLES Pennsylvania St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:45-8:00	0	0	33	153	0	0	0	0	0	0	0	0	0	33	216	0	435
8:00-8:15	0	0	27	84	0	0	0	0	0	0	0	0	0	23	200	0	334
8:15-8:30	0	0	28	110	0	0	0	0	0	0	0	0	0	20	188	0	346
8:30-8:45	0	0	28	126	0	0	0	0	0	0	0	0	0	30	178	0	362
PM PEAK																	
4:30-4:45	0	0	129	71	0	0	0	0	0	0	0	0	0	65	161	0	426
4:45-5:00	0	0	144	48	0	0	0	0	0	0	0	0	0	56	169	0	417
5:00-5:15	0	0	158	35	0	0	0	0	0	0	0	0	0	65	155	0	413
5:15-5:30	0	0	134	48	0	0	0	0	0	0	0	0	0	61	138	0	381
TOTAL VOLUMES																	
AM PEAK	0	0	116	473	0	0	0	0	0	0	0	0	0	106	782	0	1477
PM PEAK	0	0	565	202	0	0	0	0	0	0	0	0	0	247	623	0	1637
% TRUCKS																	
AM PEAK	0%	0%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	1%	0%	
PM PEAK	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	2%	0%	

TURNING MOVEMENT COUNTS
Pennsylvania St at 11th St

Count Date: 05/24/2023

	PHF
AM PEAK	0.85
PM PEAK	0.96

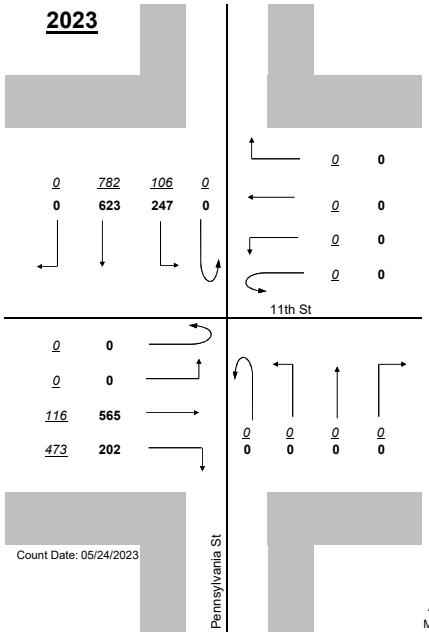


Legend:

000 AM Peak 7:45 AM-8:45 AM

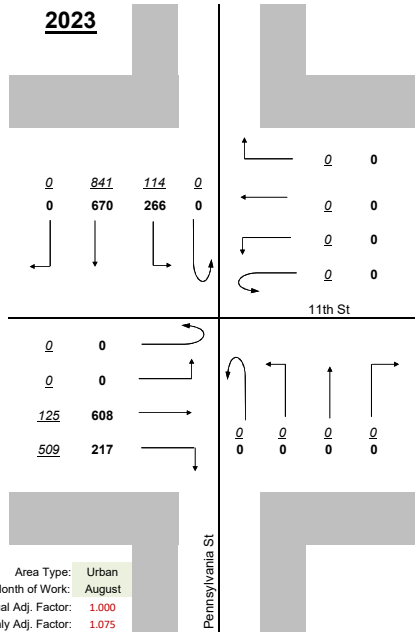
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



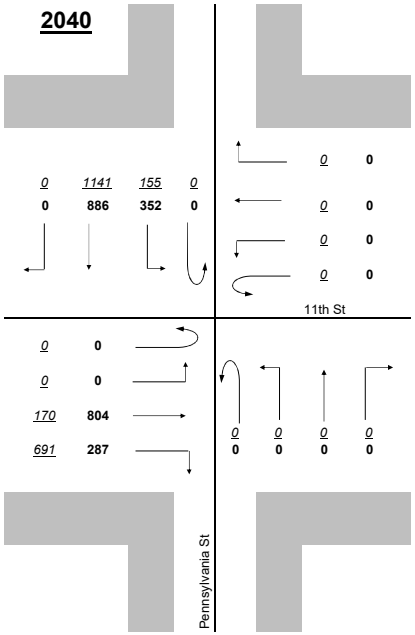
Count Date: 05/24/2023

Adjusted Existing Volumes

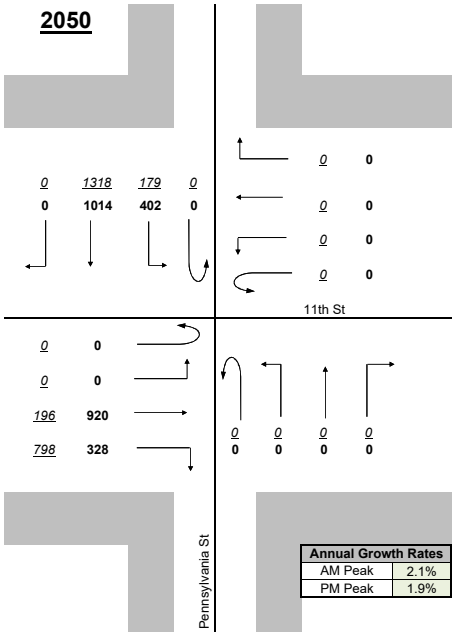


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

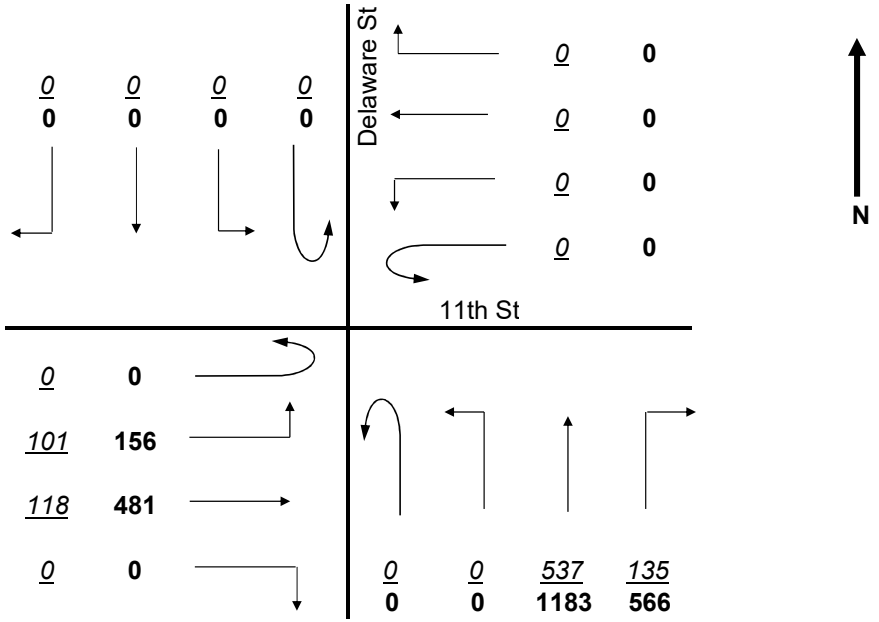
Delaware St at 11th St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 11th St				WB VEHICLES 11th St				NB VEHICLES Delaware St				SB VEHICLES Delaware St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:45-8:00	0	23	30	0	0	0	0	0	0	0	141	33	0	0	0	0	227
8:00-8:15	0	31	31	0	0	0	0	0	0	0	124	45	0	0	0	0	231
8:15-8:30	0	24	28	0	0	0	0	0	0	0	132	30	0	0	0	0	214
8:30-8:45	0	23	29	0	0	0	0	0	0	0	140	27	0	0	0	0	219
PM PEAK																	
4:30-4:45	0	44	135	0	0	0	0	0	0	0	276	145	0	0	0	0	600
4:45-5:00	0	43	103	0	0	0	0	0	0	0	294	121	0	0	0	0	561
5:00-5:15	0	36	122	0	0	0	0	0	0	0	278	150	0	0	0	0	586
5:15-5:30	0	33	121	0	0	0	0	0	0	0	335	150	0	0	0	0	639
TOTAL VOLUMES																	
AM PEAK	0	101	118	0	0	0	0	0	0	0	537	135	0	0	0	0	891
PM PEAK	0	156	481	0	0	0	0	0	0	0	1183	566	0	0	0	0	2386
% TRUCKS																	
AM PEAK	0%	2%	11%	0%	0%	0%	0%	0%	0%	0%	4%	4%	0%	0%	0%	0%	
PM PEAK	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
Delaware St at 11th St

Count Date: 05/22/2023

	PHF
AM PEAK	0.96
PM PEAK	0.93

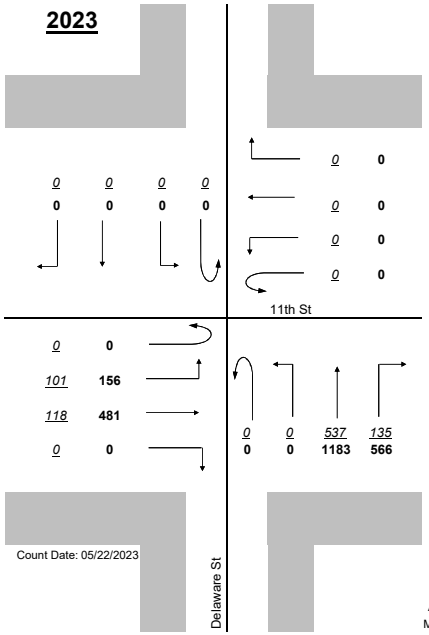


Legend:

000 AM Peak 7:45 AM-8:45 AM

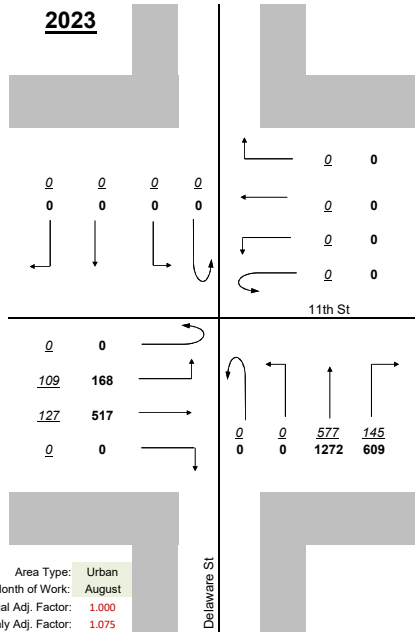
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



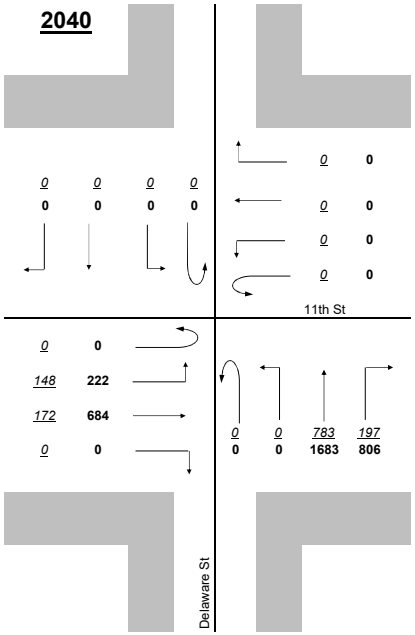
Count Date: 05/22/2023

Adjusted Existing Volumes

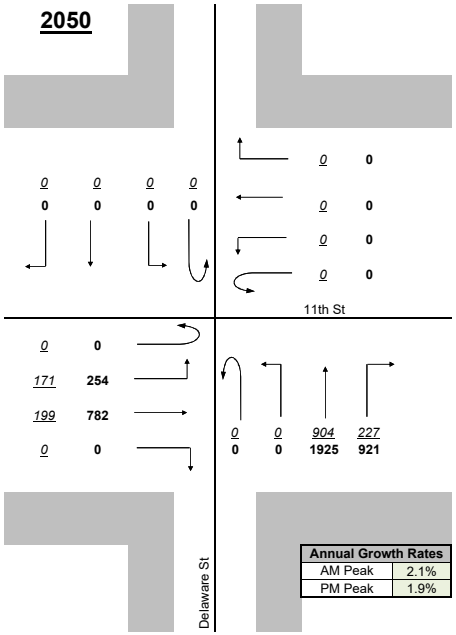


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

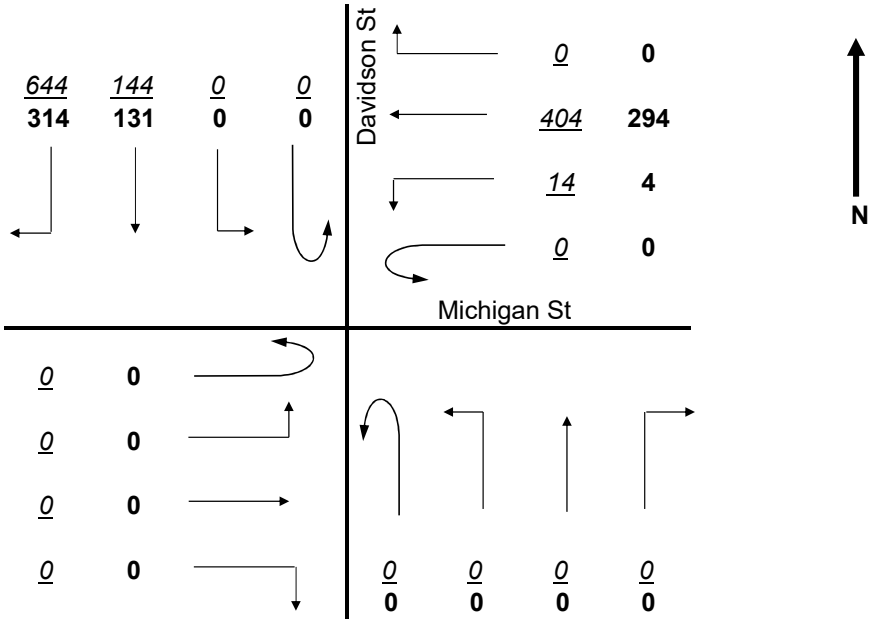
Davidson St at Michigan St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES Michigan St				WB VEHICLES Michigan St				NB VEHICLES Davidson St				SB VEHICLES Davidson St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:45-8:00	0	0	0	0	0	3	126	0	0	0	0	0	0	0	40	168	337
8:00-8:15	0	0	0	0	0	4	87	0	0	0	0	0	0	0	30	164	285
8:15-8:30	0	0	0	0	0	1	92	0	0	0	0	0	0	0	36	162	291
8:30-8:45	0	0	0	0	0	6	99	0	0	0	0	0	0	0	38	150	293
PM PEAK																	
4:45-5:00	0	0	0	0	0	1	73	0	0	0	0	0	0	0	22	92	188
5:00-5:15	0	0	0	0	0	3	80	0	0	0	0	0	0	0	32	68	183
5:15-5:30	0	0	0	0	0	0	60	0	0	0	0	0	0	0	41	75	176
5:30-5:45	0	0	0	0	0	0	81	0	0	0	0	0	0	0	36	79	196
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	14	404	0	0	0	0	0	0	0	144	644	1206
PM PEAK	0	0	0	0	0	4	294	0	0	0	0	0	0	0	131	314	743
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	43%	3%	0%	0%	0%	0%	0%	0%	0%	6%	1%	
PM PEAK	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	2%	1%	

	PHF
AM PEAK	0.89
PM PEAK	0.95

TURNING MOVEMENT COUNTS
Davidson St at Michigan St

Count Date: 05/31/2023

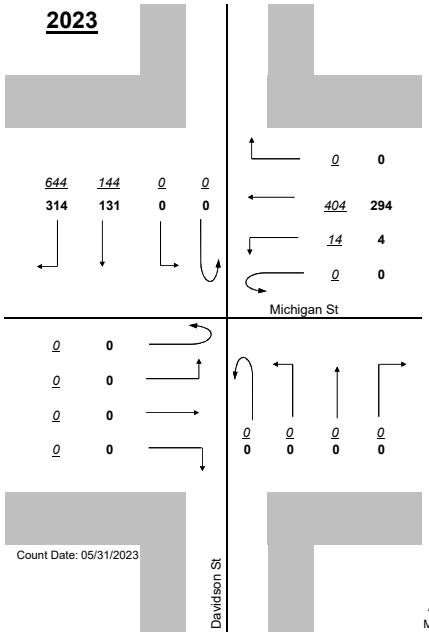


Legend:

000 AM Peak 7:45 AM-8:45 AM

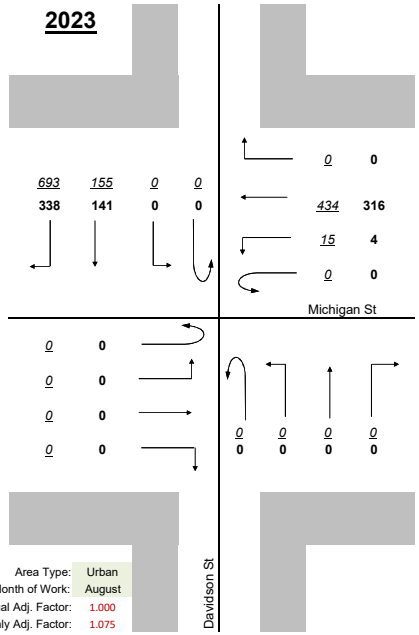
000 PM Peak 4:45 PM-5:45 PM

Raw Counts



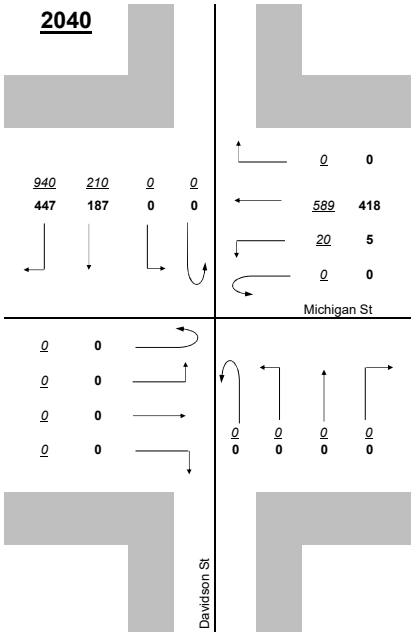
Count Date: 05/31/2023

Adjusted Existing Volumes

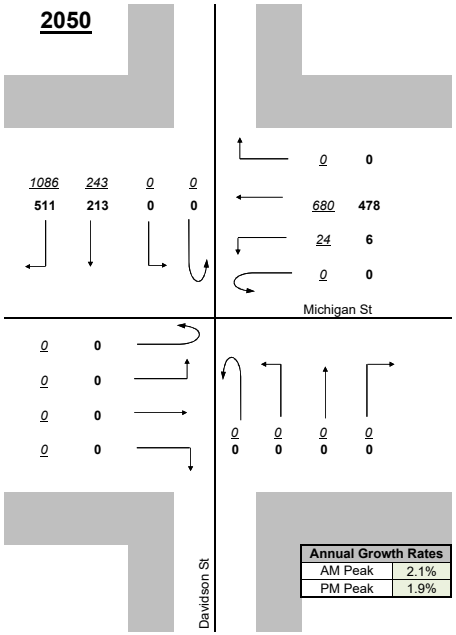


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

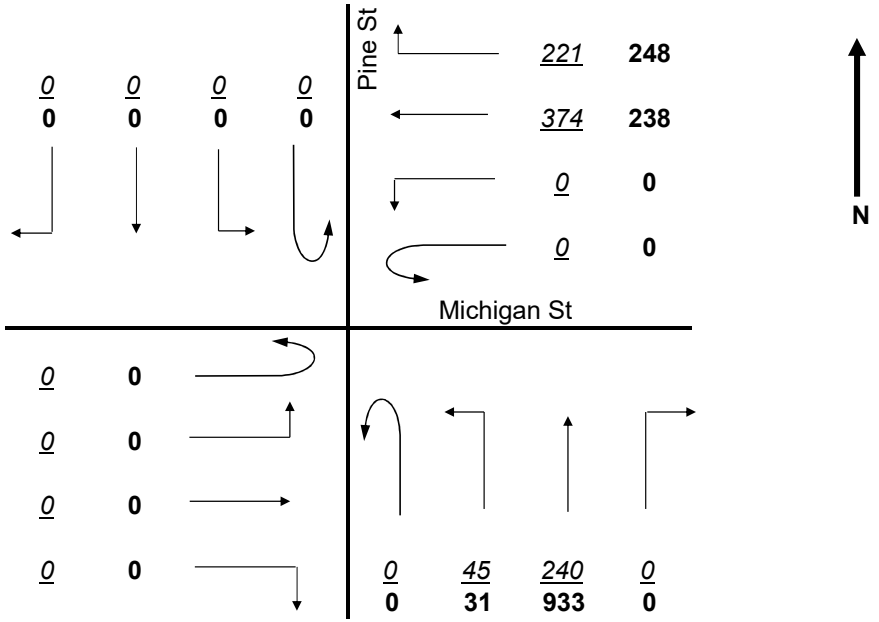
Pine St at Michigan St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES Michigan St				WB VEHICLES Michigan St				NB VEHICLES Pine St				SB VEHICLES Pine St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	0	0	0	0	0	90	55	0	7	62	0	0	0	0	0	214
7:45-8:00	0	0	0	0	0	0	106	72	0	18	47	0	0	0	0	0	243
8:00-8:15	0	0	0	0	0	0	65	41	0	10	72	0	0	0	0	0	188
8:15-8:30	0	0	0	0	0	0	113	53	0	10	59	0	0	0	0	0	235
PM PEAK																	
4:15-4:30	0	0	0	0	0	0	65	70	0	8	221	0	0	0	0	0	364
4:30-4:45	0	0	0	0	0	0	41	49	0	8	232	0	0	0	0	0	330
4:45-5:00	0	0	0	0	0	0	68	63	0	6	262	0	0	0	0	0	399
5:00-5:15	0	0	0	0	0	0	64	66	0	9	218	0	0	0	0	0	357
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	0	374	221	0	45	240	0	0	0	0	0	880
PM PEAK	0	0	0	0	0	0	238	248	0	31	933	0	0	0	0	0	1450
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	0%	3%	4%	0%	11%	8%	0%	0%	0%	0%	0%	
PM PEAK	0%	0%	0%	0%	0%	0%	3%	1%	0%	6%	0%	0%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
Pine St at Michigan St

Count Date: 05/22/2023

	PHF
AM PEAK	0.91
PM PEAK	0.91



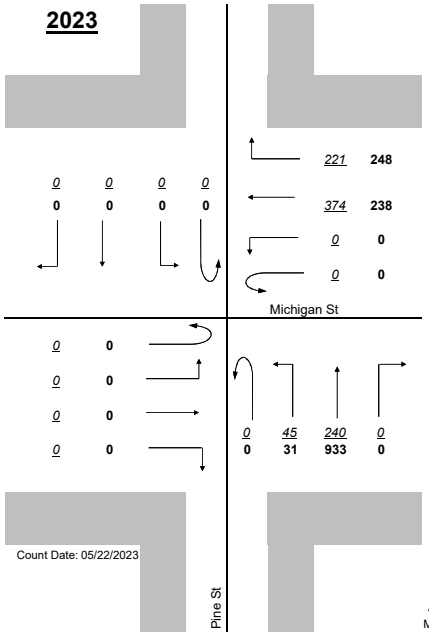
Legend:

000 AM Peak 7:30 AM-8:30 AM

000 PM Peak 4:15 PM-5:15 PM

Raw Counts

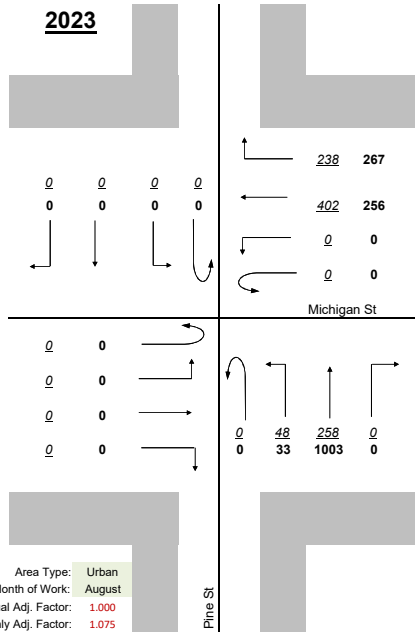
2023



Count Date: 05/22/2023

Adjusted Existing Volumes

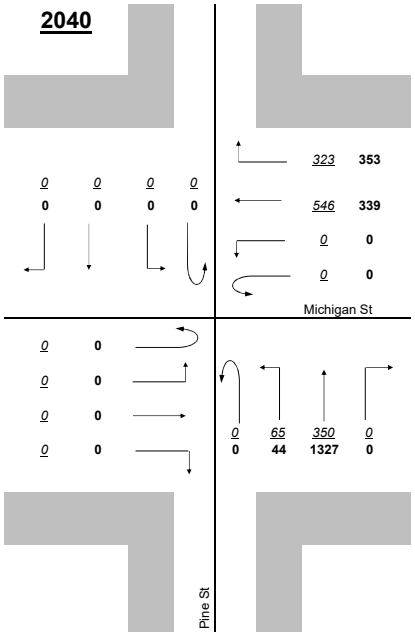
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

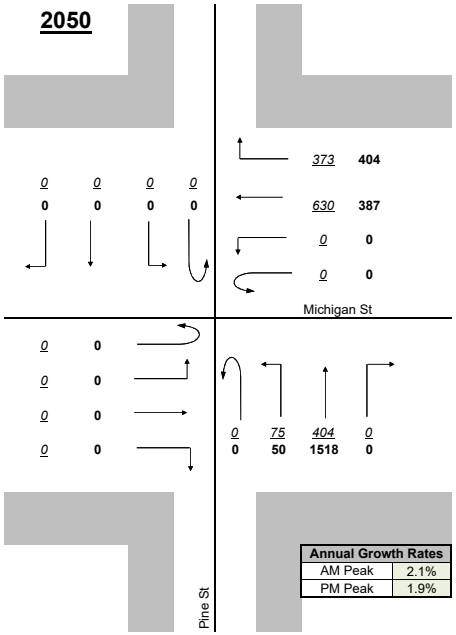
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

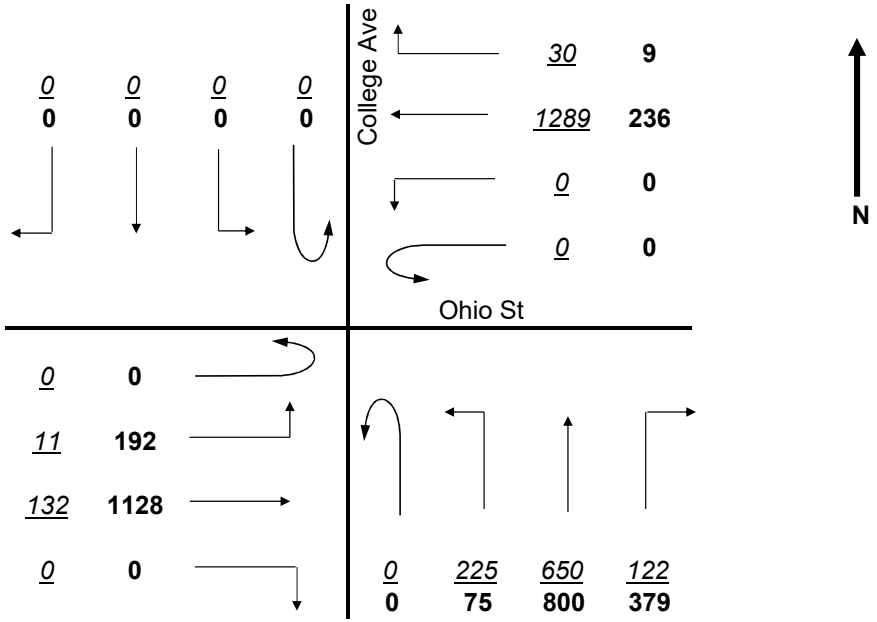
College Ave at Ohio St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES Ohio St				WB VEHICLES Ohio St				NB VEHICLES College Ave				SB VEHICLES College Ave				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	6	29	0	0	0	282	6	0	37	159	38	0	0	0	0	557
7:45-8:00	0	1	36	0	0	0	342	2	0	60	153	38	0	0	0	0	632
8:00-8:15	0	3	28	0	0	0	347	12	0	72	166	23	0	0	0	0	651
8:15-8:30	0	1	39	0	0	0	318	10	0	56	172	23	0	0	0	0	619
PM PEAK																	
4:30-4:45	0	45	270	0	0	0	54	0	0	17	204	95	0	0	0	0	685
4:45-5:00	0	53	293	0	0	0	63	3	0	19	171	112	0	0	0	0	714
5:00-5:15	0	48	280	0	0	0	51	4	0	20	209	78	0	0	0	0	690
5:15-5:30	0	46	285	0	0	0	68	2	0	19	216	94	0	0	0	0	730
TOTAL VOLUMES																	
AM PEAK	0	11	132	0	0	0	1289	30	0	225	650	122	0	0	0	0	2459
PM PEAK	0	192	1128	0	0	0	236	9	0	75	800	379	0	0	0	0	2819
% TRUCKS																	
AM PEAK	0%	9%	3%	0%	0%	0%	1%	0%	0%	0%	4%	4%	0%	0%	0%	0%	
PM PEAK	0%	2%	0%	0%	0%	0%	1%	11%	0%	0%	1%	1%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
College Ave at Ohio St

Count Date: 1/16/20

	PHF
AM PEAK	0.94
PM PEAK	0.97



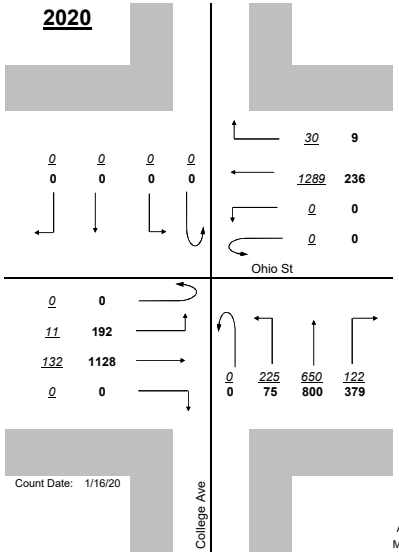
Legend:

000 AM Peak 7:30 AM-8:30 AM

000 PM Peak 4:30 PM-5:30 PM

Raw Counts

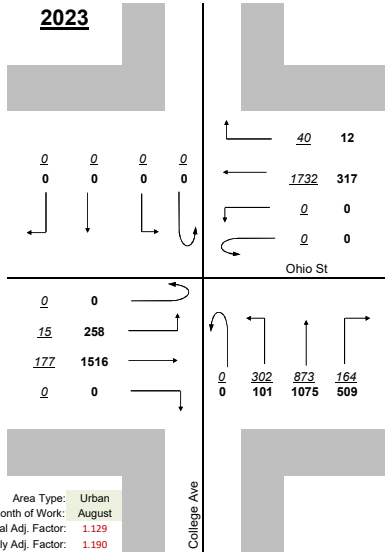
2020



Count Date: 1/16/20

Adjusted Existing Volumes

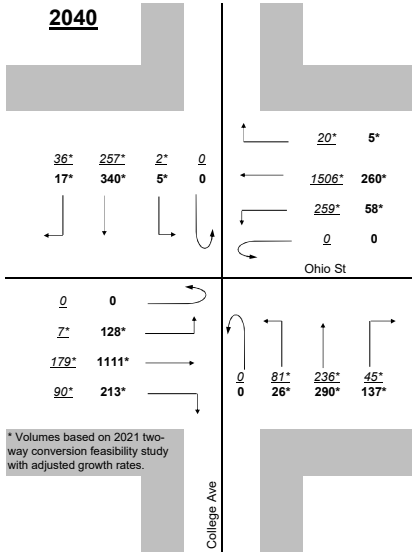
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.129
Monthly Adj. Factor:	1.190

Interim Year

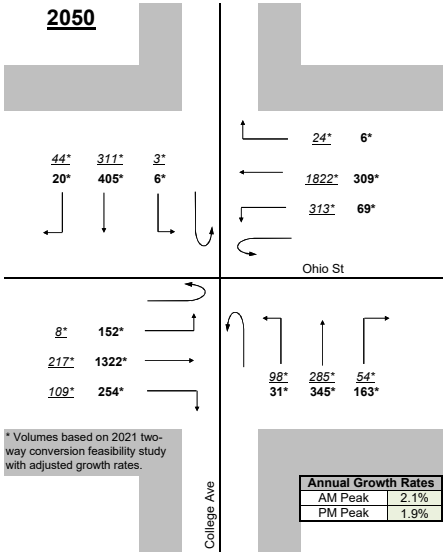
2040



* Volumes based on 2021 two-way conversion feasibility study with adjusted growth rates.

Design Year

2050



* Volumes based on 2021 two-way conversion feasibility study with adjusted growth rates.

Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

College Ave at Washington St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES Washington St				WB VEHICLES Washington St				NB VEHICLES College Ave				SB VEHICLES College Ave				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	0	215	0	0	0	266	150	0	0	91	24	0	0	0	0	746
7:45-8:00	0	0	181	0	0	0	301	147	0	0	101	14	0	0	0	0	744
8:00-8:15	0	0	191	0	0	0	242	121	0	0	74	19	0	0	0	0	647
8:15-8:30	0	0	162	0	0	0	246	110	0	0	85	13	0	0	0	0	616
PM PEAK																	
4:30-4:45	0	0	379	0	0	0	139	87	0	0	141	44	0	0	0	0	790
4:45-5:00	0	0	387	0	0	0	134	113	0	0	94	34	0	0	0	0	762
5:00-5:15	0	0	386	0	0	0	133	120	0	0	125	45	0	0	0	0	809
5:15-5:30	0	0	389	0	0	0	132	90	0	0	112	39	0	0	0	0	762
TOTAL VOLUMES																	
AM PEAK	0	0	749	0	0	0	1055	528	0	0	351	70	0	0	0	0	2753
PM PEAK	0	0	1541	0	0	0	538	410	0	0	472	162	0	0	0	0	3123
% TRUCKS																	
AM PEAK	0%	0%	5%	0%	0%	0%	3%	1%	0%	0%	3%	4%	0%	0%	0%	0%	
PM PEAK	0%	0%	2%	0%	0%	0%	2%	0%	0%	0%	1%	0%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
College Ave at Washington St

Count Date: 05/23/2023

	PHF
AM PEAK	0.92
PM PEAK	0.97



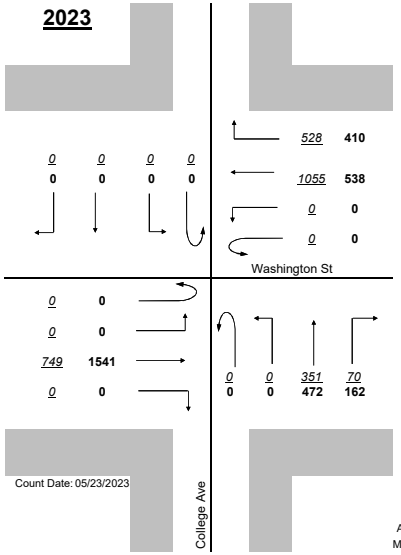
Legend:

000 AM Peak 7:30 AM-8:30 AM

000 PM Peak 4:30 PM-5:30 PM

Raw Counts

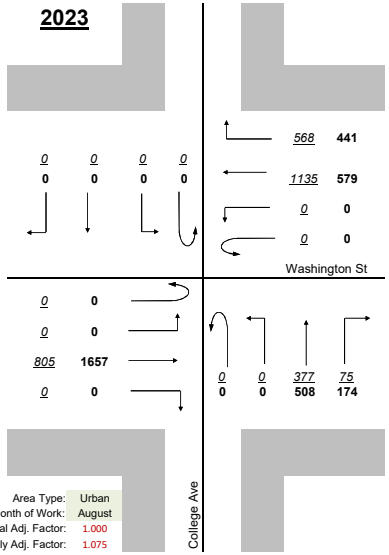
2023



Count Date: 05/23/2023

Adjusted Existing Volumes

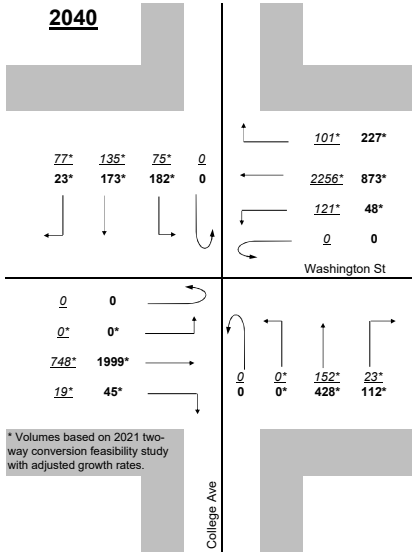
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year

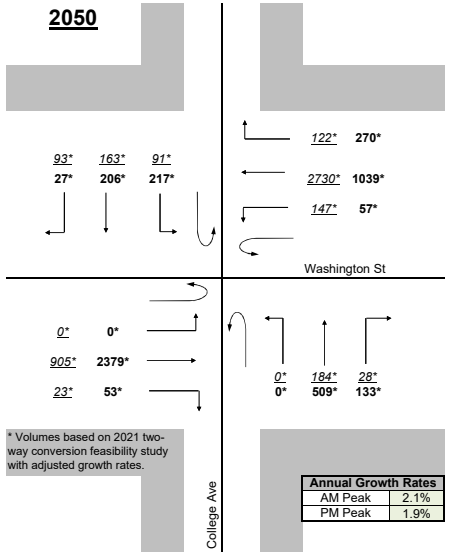
2040



* Volumes based on 2021 two-way conversion feasibility study with adjusted growth rates.

Design Year

2050



* Volumes based on 2021 two-way conversion feasibility study with adjusted growth rates.

Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

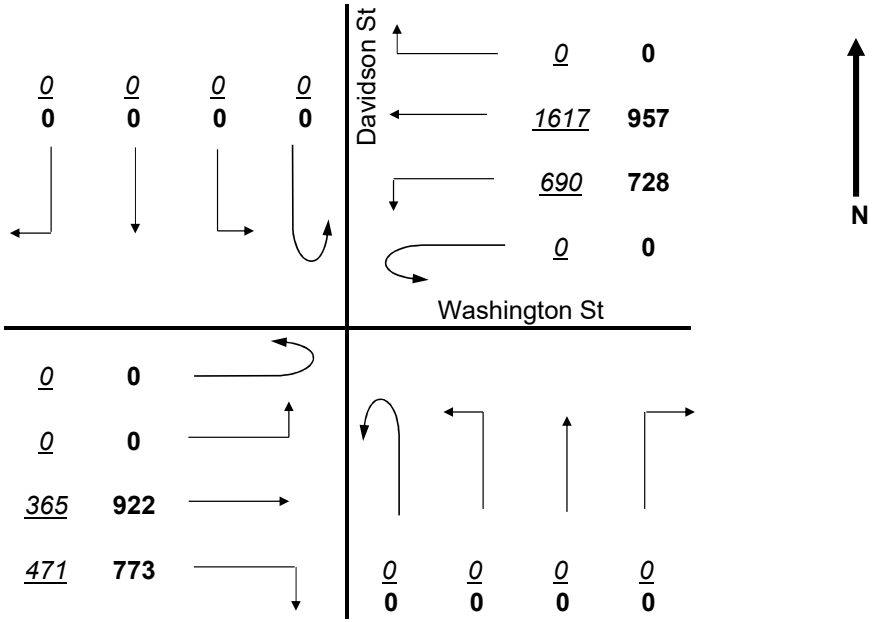
Davidson St at Washington St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES Washington St				WB VEHICLES Washington St				NB VEHICLES Davidson St				SB VEHICLES Davidson St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	0	91	149	0	174	425	0	0	0	0	0	0	0	0	0	839
7:45-8:00	0	0	96	104	0	189	457	0	0	0	0	0	0	0	0	0	846
8:00-8:15	0	0	97	111	0	136	377	0	0	0	0	0	0	0	0	0	721
8:15-8:30	0	0	81	107	0	191	358	0	0	0	0	0	0	0	0	0	737
PM PEAK																	
4:30-4:45	0	0	238	177	0	198	234	0	0	0	0	0	0	0	0	0	847
4:45-5:00	0	0	219	194	0	142	250	0	0	0	0	0	0	0	0	0	805
5:00-5:15	0	0	229	202	0	219	250	0	0	0	0	0	0	0	0	0	900
5:15-5:30	0	0	236	200	0	169	223	0	0	0	0	0	0	0	0	0	828
TOTAL VOLUMES																	
AM PEAK	0	0	365	471	0	690	1617	0	0	0	0	0	0	0	0	0	3143
PM PEAK	0	0	922	773	0	728	957	0	0	0	0	0	0	0	0	0	3380
% TRUCKS																	
AM PEAK	0%	0%	7%	3%	0%	6%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM PEAK	0%	0%	1%	2%	0%	4%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
Davidson St at Washington St

Count Date: 05/23/2023

	PHF
AM PEAK	0.93
PM PEAK	0.94

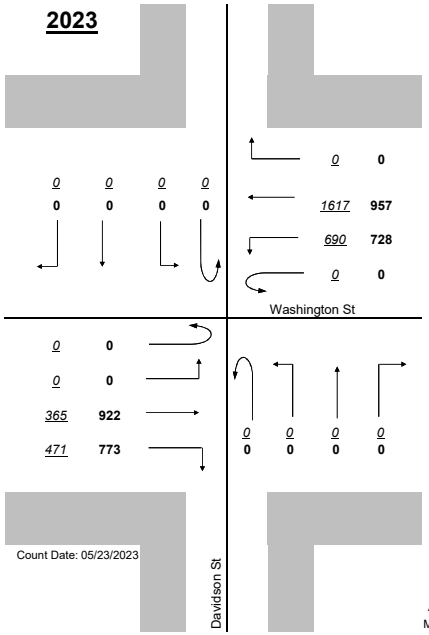


Legend:

000 AM Peak 7:30 AM-8:30 AM

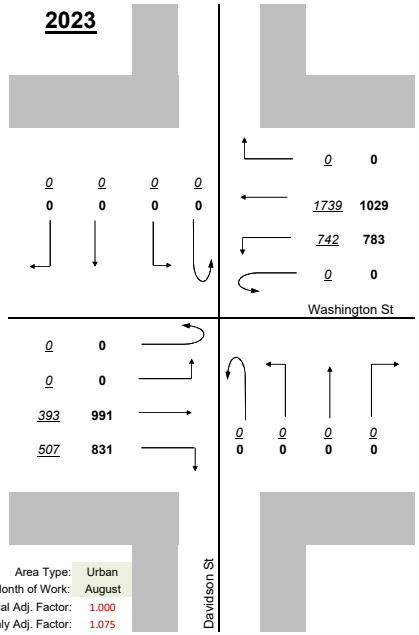
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



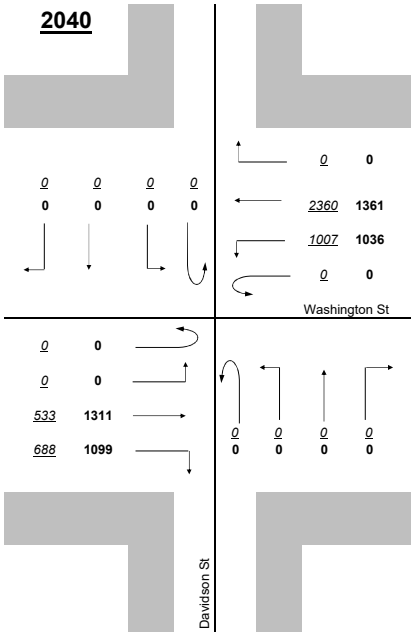
Count Date: 05/23/2023

Adjusted Existing Volumes

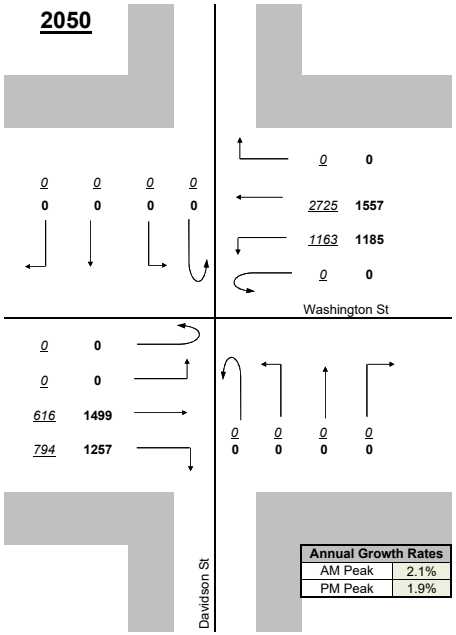


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

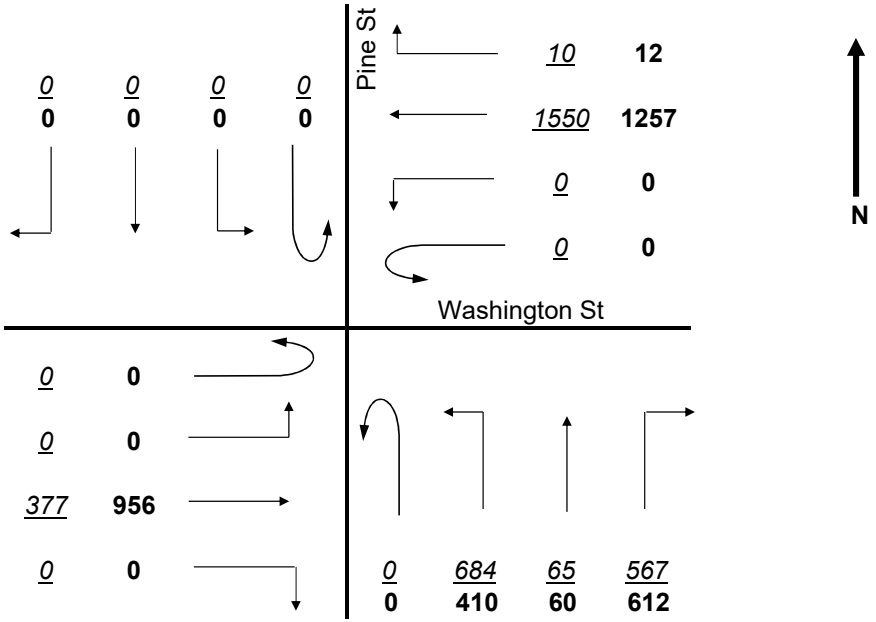
Pine St at Washington St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES Washington St				WB VEHICLES Washington St				NB VEHICLES Pine St				SB VEHICLES Pine St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	0	95	0	0	0	388	3	0	189	19	124	0	0	0	0	818
7:45-8:00	0	0	103	0	0	0	434	4	0	197	19	165	0	0	0	0	922
8:00-8:15	0	0	98	0	0	0	337	0	0	155	9	163	0	0	0	0	762
8:15-8:30	0	0	81	0	0	0	391	3	0	143	18	115	0	0	0	0	751
PM PEAK																	
4:30-4:45	0	0	251	0	0	0	343	1	0	89	13	128	0	0	0	0	825
4:45-5:00	0	0	232	0	0	0	285	4	0	103	14	157	0	0	0	0	795
5:00-5:15	0	0	238	0	0	0	347	4	0	108	16	167	0	0	0	0	880
5:15-5:30	0	0	235	0	0	0	282	3	0	110	17	160	0	0	0	0	807
TOTAL VOLUMES																	
AM PEAK	0	0	377	0	0	0	1550	10	0	684	65	567	0	0	0	0	3253
PM PEAK	0	0	956	0	0	0	1257	12	0	410	60	612	0	0	0	0	3307
% TRUCKS																	
AM PEAK	0%	0%	6%	0%	0%	0%	4%	10%	0%	2%	5%	4%	0%	0%	0%	0%	
PM PEAK	0%	0%	1%	0%	0%	0%	3%	0%	0%	0%	3%	2%	0%	0%	0%	0%	

	PHF
AM PEAK	0.88
PM PEAK	0.94

TURNING MOVEMENT COUNTS
Pine St at Washington St

Count Date: 05/23/2023

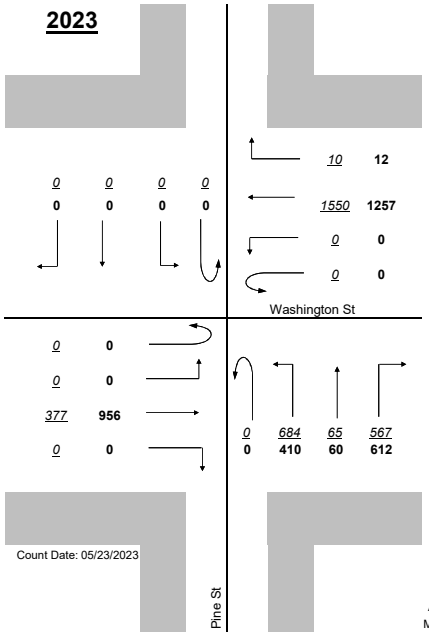


Legend:

000 AM Peak 7:30 AM-8:30 AM

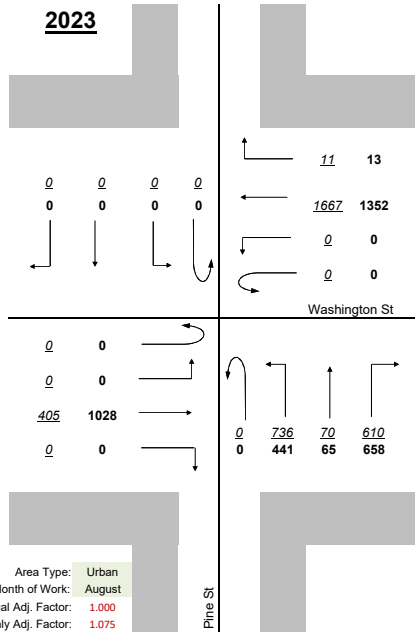
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



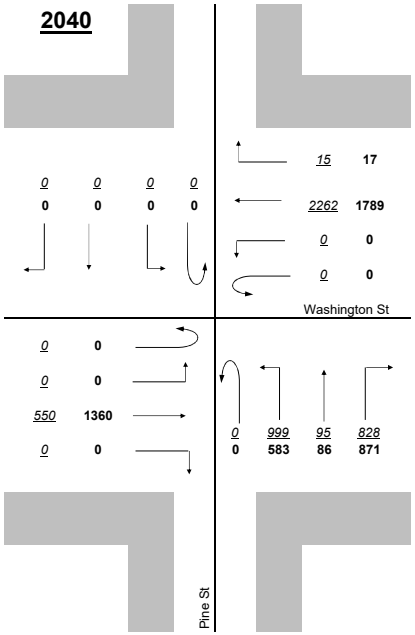
Count Date: 05/23/2023

Adjusted Existing Volumes

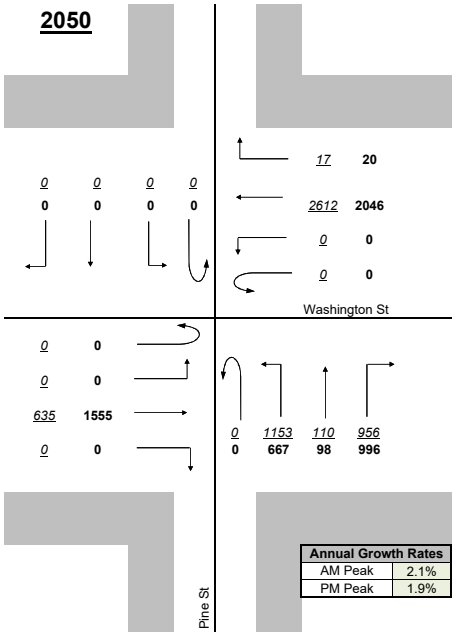


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

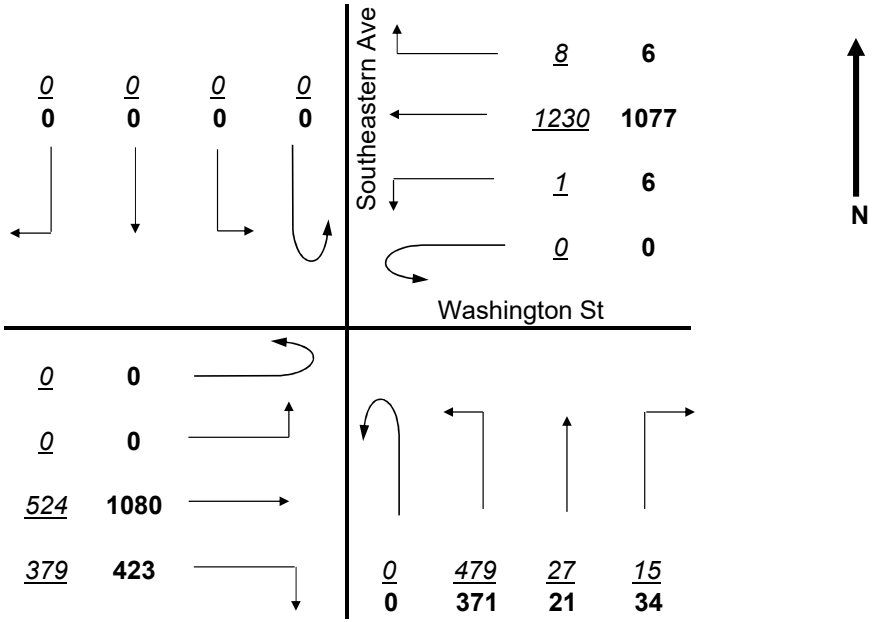
Southeastern Ave at Washington St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES Washington St				WB VEHICLES Washington St				NB VEHICLES Southeastern Ave				SB VEHICLES Southeastern Ave				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	0	138	75	0	0	340	3	0	124	4	3	0	0	0	0	687
7:45-8:00	0	0	128	129	0	0	365	0	0	126	14	2	0	0	0	0	764
8:00-8:15	0	0	127	101	0	1	259	3	0	115	4	4	0	0	0	0	614
8:15-8:30	0	0	131	74	0	0	266	2	0	114	5	6	0	0	0	0	598
PM PEAK																	
4:15-4:30	0	0	266	107	0	2	294	3	0	85	2	14	0	0	0	0	773
4:30-4:45	0	0	285	96	0	3	268	1	0	93	7	3	0	0	0	0	756
4:45-5:00	0	0	289	114	0	1	245	1	0	95	5	7	0	0	0	0	757
5:00-5:15	0	0	240	106	0	0	270	1	0	98	7	10	0	0	0	0	732
TOTAL VOLUMES																	
AM PEAK	0	0	524	379	0	1	1230	8	0	479	27	15	0	0	0	0	2663
PM PEAK	0	0	1080	423	0	6	1077	6	0	371	21	34	0	0	0	0	3018
% TRUCKS																	
AM PEAK	0%	0%	5%	4%	0%	0%	4%	13%	0%	4%	4%	7%	0%	0%	0%	0%	
PM PEAK	0%	0%	2%	3%	0%	17%	4%	0%	0%	2%	0%	3%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
Southeastern Ave at Washington St

Count Date: 02/21/2023

	PHF
AM PEAK	0.87
PM PEAK	0.98

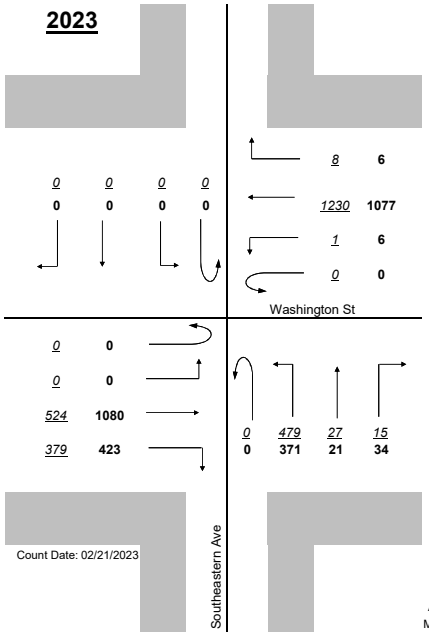


Legend:

000 AM Peak 7:30 AM-8:30 AM

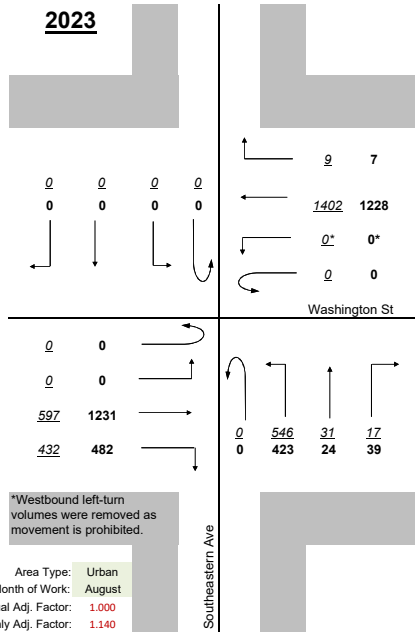
000 PM Peak 4:15 PM-5:15 PM

Raw Counts



Count Date: 02/21/2023

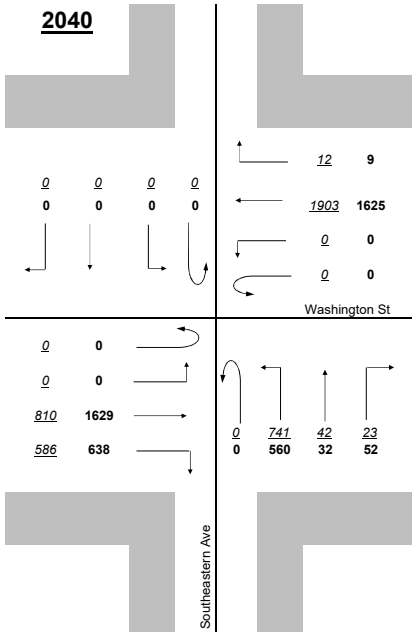
Adjusted Existing Volumes



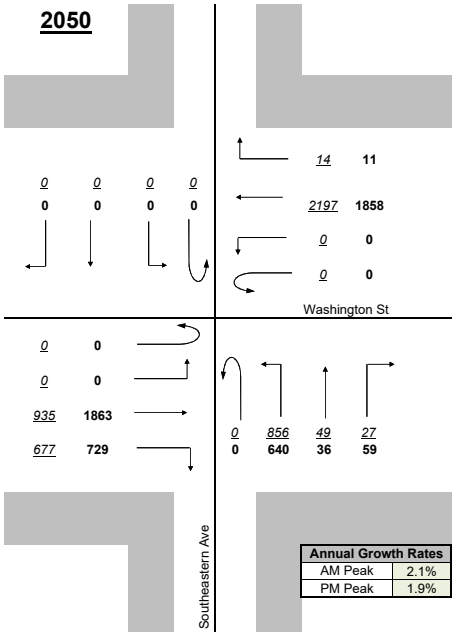
*Westbound left-turn volumes were removed as movement is prohibited.

Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.140

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

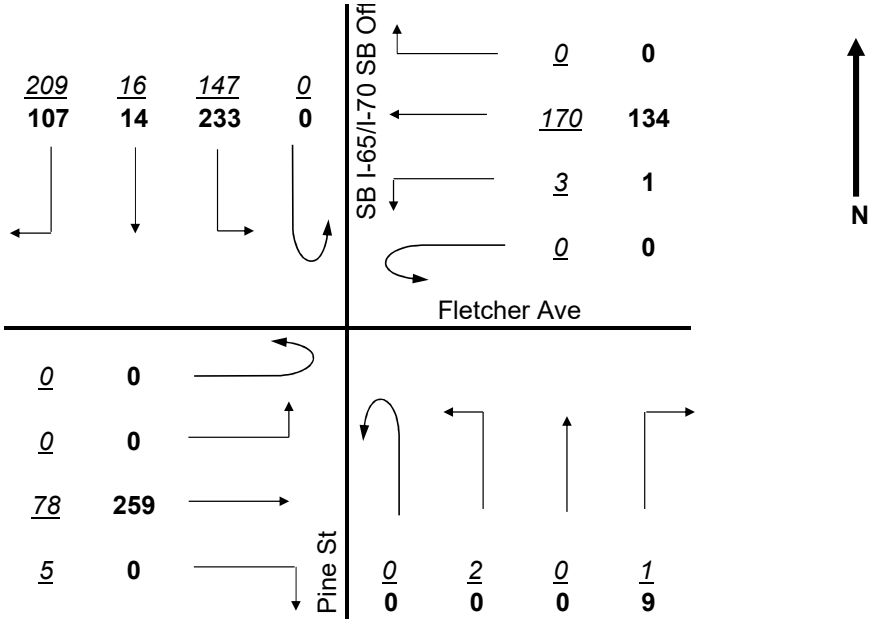
SB I-65/I-70 SB Off-ramp at Fletcher Ave **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES Fletcher Ave				WB VEHICLES Fletcher Ave				NB VEHICLES Pine St				SB VEHICLES SB I-65/I-70 SB Off-ramp				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:45-8:00	0	0	20	1	0	1	39	0	0	1	0	0	0	43	5	57	167
8:00-8:15	0	0	15	1	0	1	45	0	0	1	0	0	0	34	6	51	154
8:15-8:30	0	0	26	3	0	0	51	0	0	0	0	1	0	33	1	46	161
8:30-8:45	0	0	17	0	0	1	35	0	0	0	0	0	0	37	4	55	149
PM PEAK																	
4:45-5:00	0	0	52	0	0	1	28	0	0	0	0	0	0	61	4	38	184
5:00-5:15	0	0	81	0	0	0	38	0	0	0	0	4	0	54	4	19	200
5:15-5:30	0	0	57	0	0	0	31	0	0	0	0	2	0	57	2	28	177
5:30-5:45	0	0	69	0	0	0	37	0	0	0	0	3	0	61	4	22	196
TOTAL VOLUMES																	
AM PEAK	0	0	78	5	0	3	170	0	0	2	0	1	0	147	16	209	631
PM PEAK	0	0	259	0	0	1	134	0	0	0	0	9	0	233	14	107	757
% TRUCKS																	
AM PEAK	0%	0%	3%	0%	0%	0%	4%	0%	0%	0%	0%	0%	0%	5%	0%	0%	
PM PEAK	0%	0%	2%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
SB I-65/I-70 SB Off-ramp at Fletcher Ave

Count Date: 05/31/2023

	PHF
AM PEAK	0.94
PM PEAK	0.95

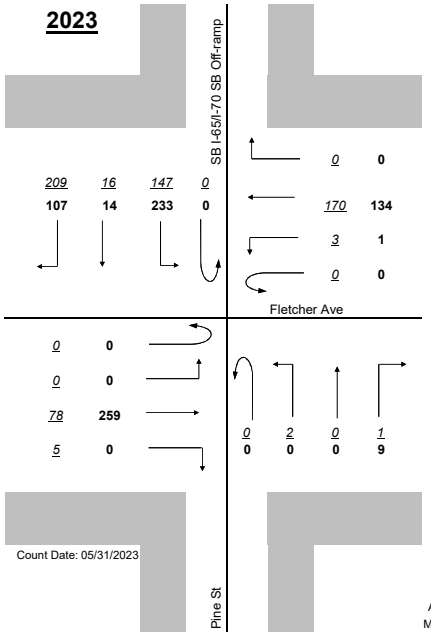


Legend:

000 AM Peak 7:45 AM-8:45 AM

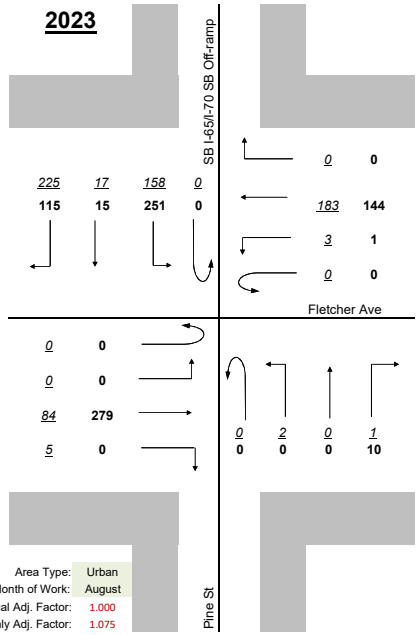
000 PM Peak 4:45 PM-5:45 PM

Raw Counts



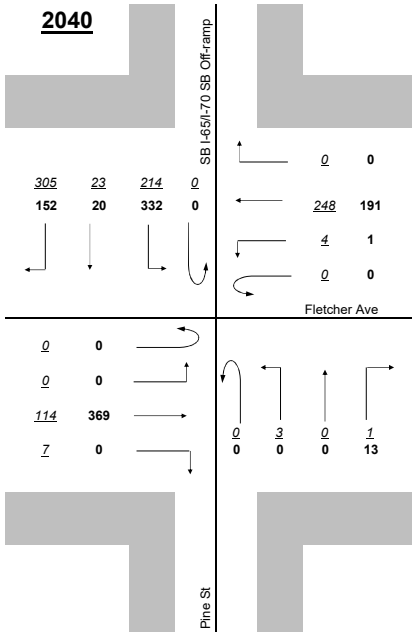
Count Date: 05/31/2023

Adjusted Existing Volumes

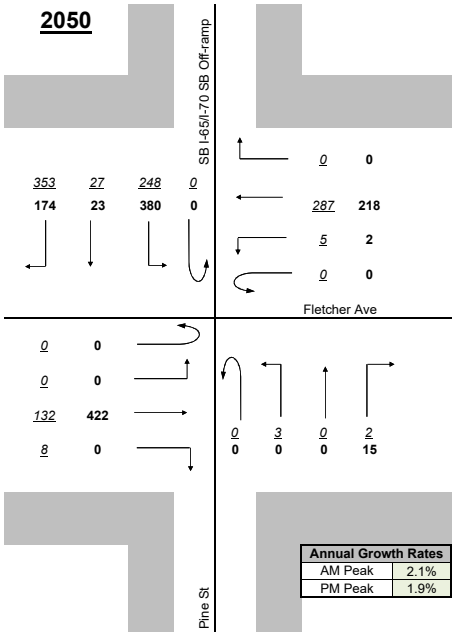


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

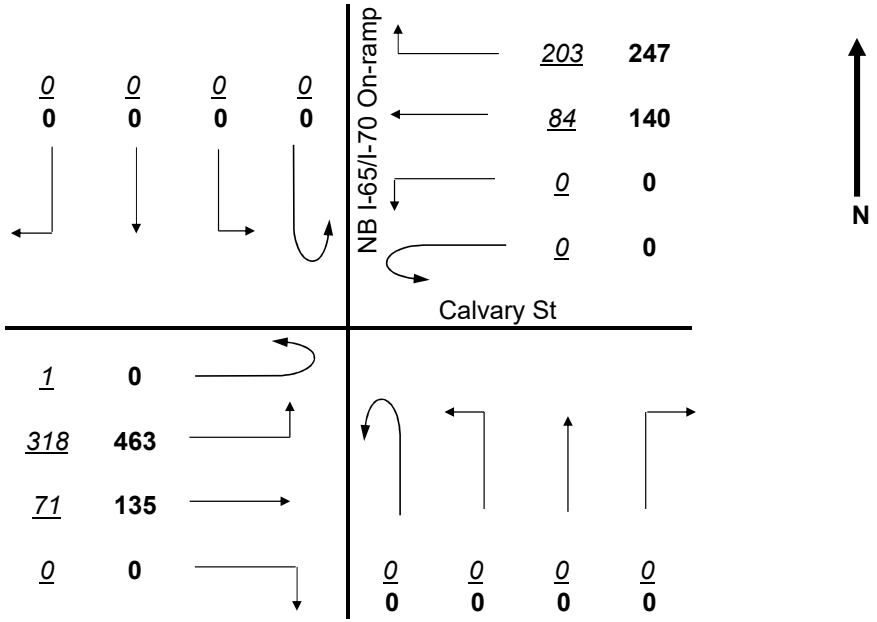
NB I-65/I-70 On-ramp at Calvary St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES Calvary St				WB VEHICLES Calvary St				NB VEHICLES NB I-65/I-70 On-ramp				SB VEHICLES NB I-65/I-70 On-ramp				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	86	12	0	0	0	21	43	0	0	0	0	0	0	0	0	162
7:30-7:45	1	69	19	0	0	0	21	48	0	0	0	0	0	0	0	0	158
7:45-8:00	0	80	24	0	0	0	19	47	0	0	0	0	0	0	0	0	170
8:00-8:15	0	83	16	0	0	0	23	65	0	0	0	0	0	0	0	0	187
PM PEAK																	
4:30-4:45	0	120	28	0	0	0	25	57	0	0	0	0	0	0	0	0	230
4:45-5:00	0	118	39	0	0	0	43	56	0	0	0	0	0	0	0	0	256
5:00-5:15	0	118	35	0	0	0	42	67	0	0	0	0	0	0	0	0	262
5:15-5:30	0	107	33	0	0	0	30	67	0	0	0	0	0	0	0	0	237
TOTAL VOLUMES																	
AM PEAK	1	318	71	0	0	0	84	203	0	0	0	0	0	0	0	0	677
PM PEAK	0	463	135	0	0	0	140	247	0	0	0	0	0	0	0	0	985
% TRUCKS																	
AM PEAK	0%	4%	7%	0%	0%	0%	10%	7%	0%	0%	0%	0%	0%	0%	0%	0%	
PM PEAK	0%	2%	2%	0%	0%	0%	4%	2%	0%	0%	0%	0%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
NB I-65/I-70 On-ramp at Calvary St

Count Date: 05/23/2023

	PHF
AM PEAK	0.91
PM PEAK	0.94

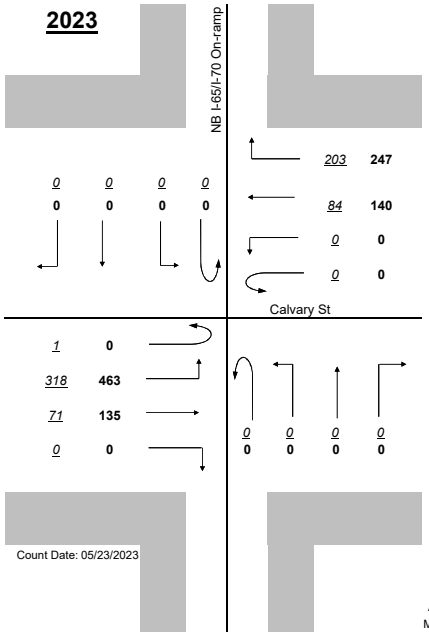


Legend:

000 AM Peak 7:15 AM-8:15 AM

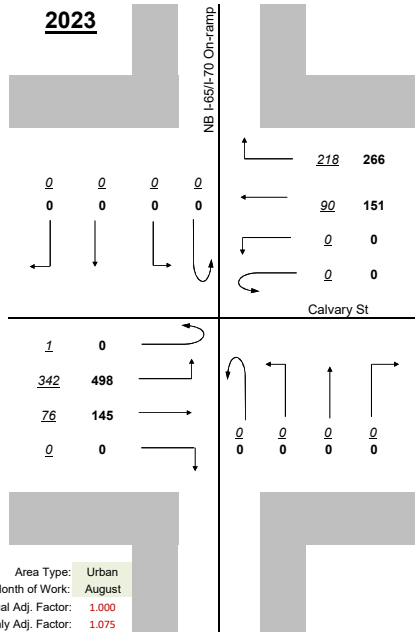
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



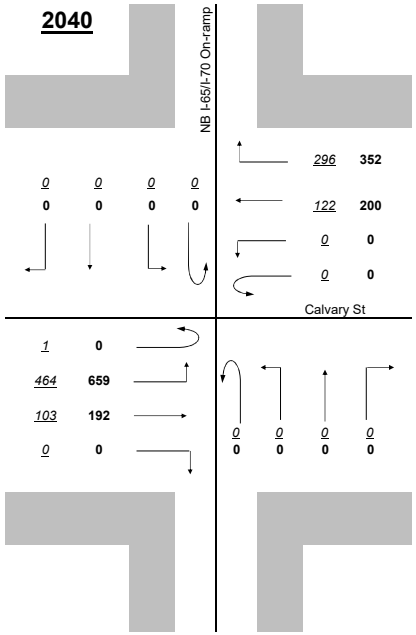
Count Date: 05/23/2023

Adjusted Existing Volumes

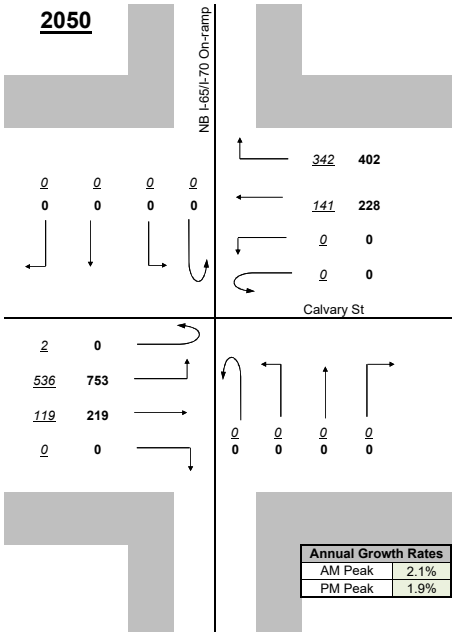


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

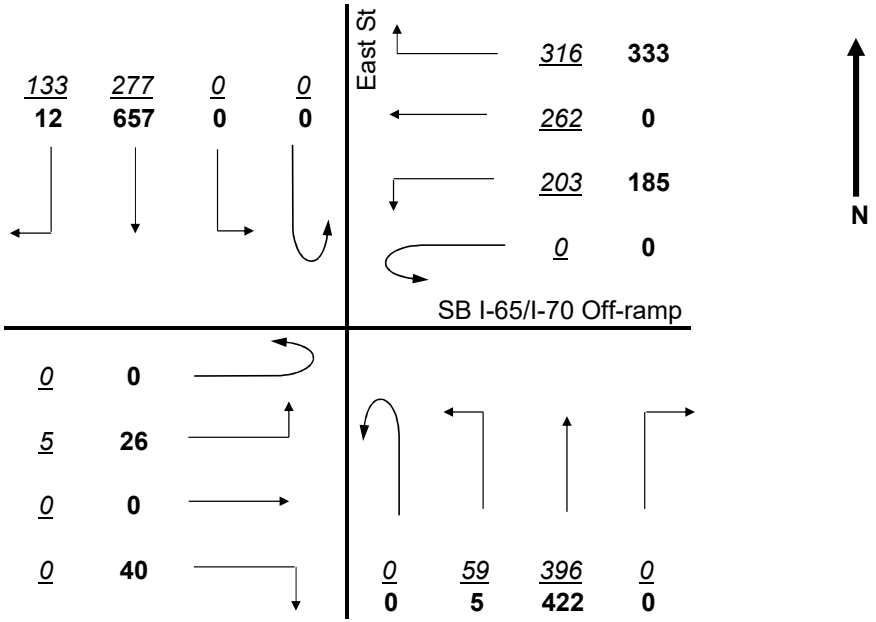
East St at SB I-65/I-70 Off-ramp **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES SB I-65/I-70 Off-ramp				WB VEHICLES SB I-65/I-70 Off-ramp				NB VEHICLES East St				SB VEHICLES East St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	2	0	0	0	52	57	68	0	14	107	0	0	0	59	31	390
7:45-8:00	0	1	0	0	0	49	69	90	0	18	110	0	0	0	65	29	431
8:00-8:15	0	0	0	0	0	51	71	80	0	16	99	0	0	0	78	30	425
8:15-8:30	0	2	0	0	0	51	65	78	0	11	80	0	0	0	75	43	405
PM PEAK																	
4:30-4:45	0	4	0	16	0	41	0	74	0	1	120	0	0	0	168	4	428
4:45-5:00	0	10	0	8	0	49	0	84	0	1	107	0	0	0	136	3	398
5:00-5:15	0	5	0	8	0	43	0	91	0	3	100	0	0	0	169	4	423
5:15-5:30	0	7	0	8	0	52	0	84	0	0	95	0	0	0	184	1	431
TOTAL VOLUMES																	
AM PEAK	0	5	0	0	0	203	262	316	0	59	396	0	0	0	277	133	1651
PM PEAK	0	26	0	40	0	185	0	333	0	5	422	0	0	0	657	12	1680
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	2%	0%	3%	0%	10%	3%	0%	0%	0%	9%	2%	
PM PEAK	0%	0%	0%	0%	0%	2%	0%	4%	0%	0%	1%	0%	0%	0%	2%	8%	

TURNING MOVEMENT COUNTS
East St at SB I-65/I-70 Off-ramp

Count Date: 05/09/2023

	PHF
AM PEAK	0.96
PM PEAK	0.97

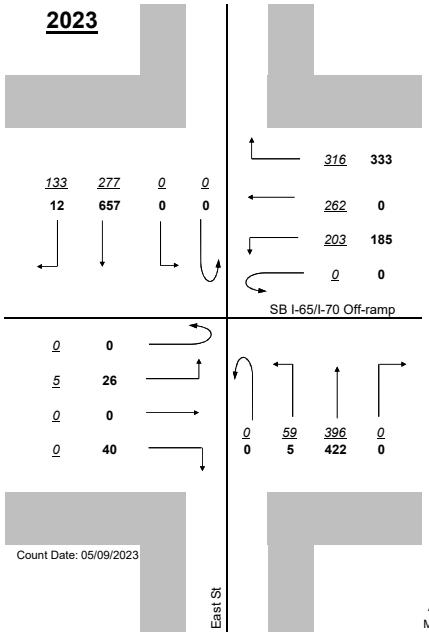


Legend:

000 AM Peak 7:30 AM-8:30 AM

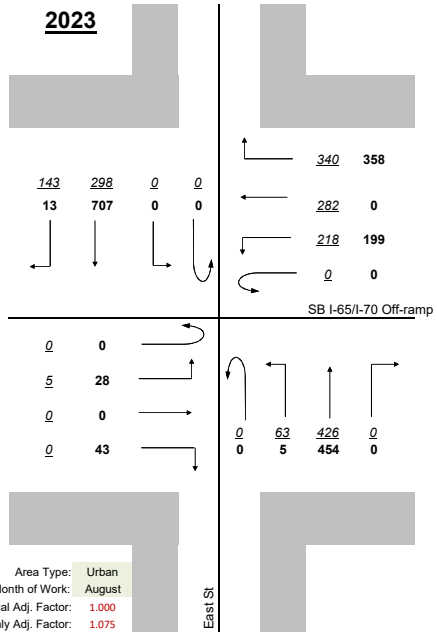
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



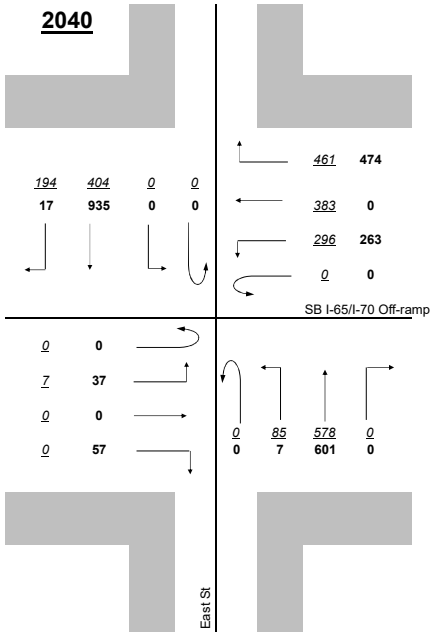
Count Date: 05/09/2023

Adjusted Existing Volumes

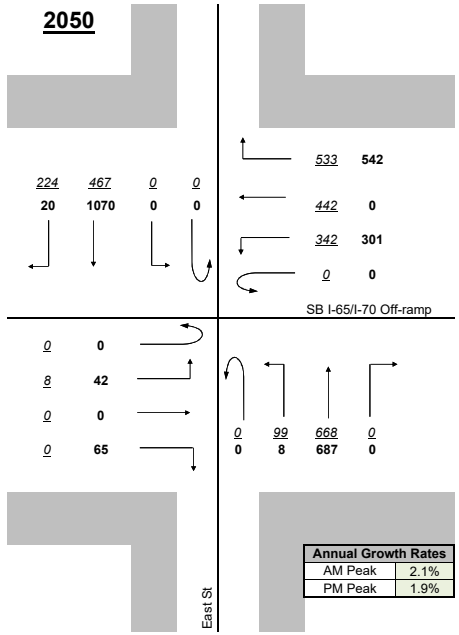


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

Prospect St at Morris St **VEHICLES (CARS & TRUCKS)**

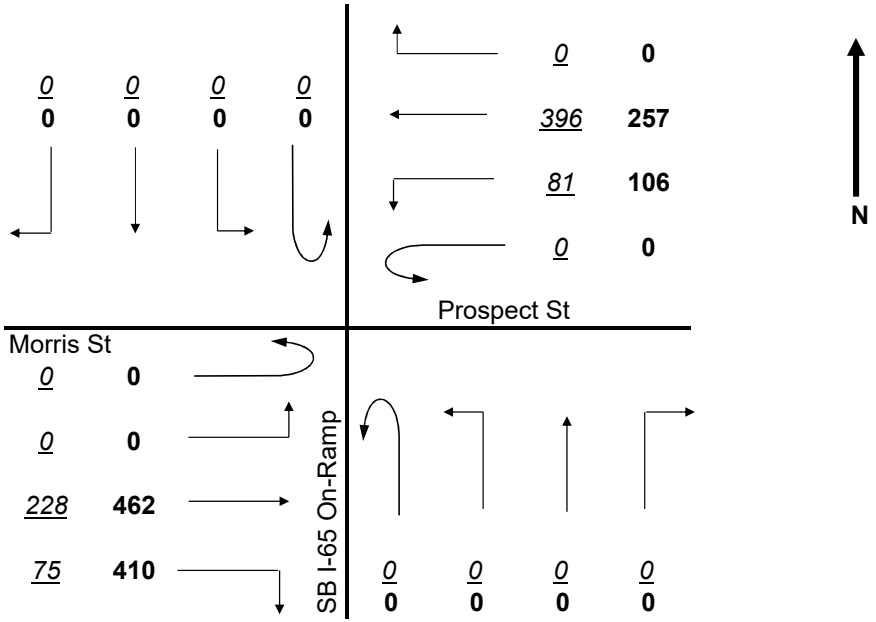
RAW 15-MINUTE VOLUMES	EB VEHICLES Morris St				WB VEHICLES Prospect St				NB VEHICLES -				SB VEHICLES -				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	0	53	10	0	17	96	0	0	0	0	0	0	0	0	0	176
7:30-7:45	0	0	54	16	0	28	93	0	0	0	0	0	0	0	0	0	191
7:45-8:00	0	0	63	24	0	19	113	0	0	0	0	0	0	0	0	0	219
8:00-8:15	0	0	58	25	0	17	94	0	0	0	0	0	0	0	0	0	194
PM PEAK																	
4:30-4:45	0	0	106	115	0	28	52	0	0	0	0	0	0	0	0	0	301
4:45-5:00	0	0	110	100	0	20	60	0	0	0	0	0	0	0	0	0	290
5:00-5:15	0	0	115	94	0	34	72	0	0	0	0	0	0	0	0	0	315
5:15-5:30	0	0	131	101	0	24	73	0	0	0	0	0	0	0	0	0	329
TOTAL VOLUMES																	
AM PEAK	0	0	228	75	0	81	396	0	0	0	0	0	0	0	0	0	780
PM PEAK	0	0	462	410	0	106	257	0	0	0	0	0	0	0	0	0	1235
% TRUCKS																	
AM PEAK	0%	0%	5%	7%	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM PEAK	0%	0%	1%	1%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

	PHF
AM PEAK	0.89
PM PEAK	0.94

TURNING MOVEMENT COUNTS

Prospect St at Morris St

Count Date: 05/09/2023

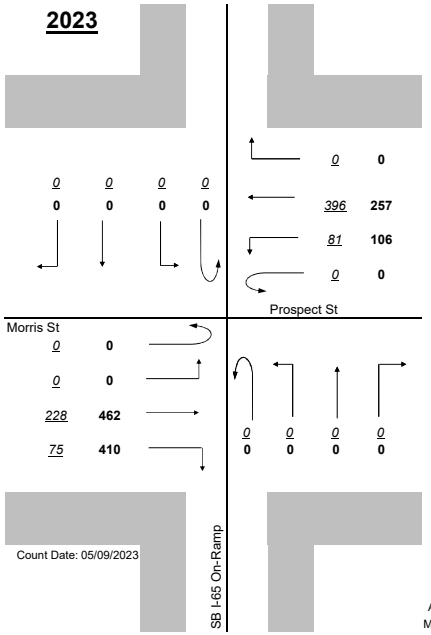


Legend:

000 AM Peak 7:15 AM-8:15 AM

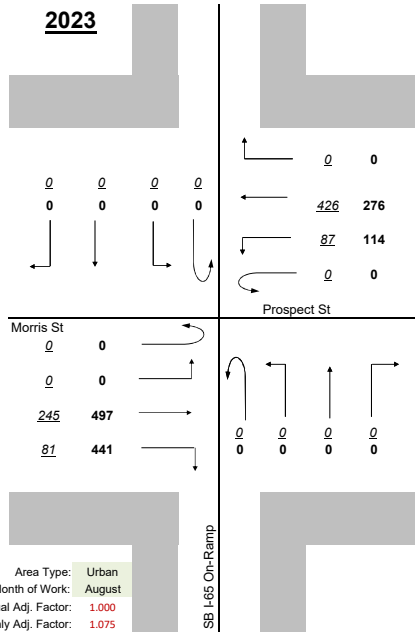
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



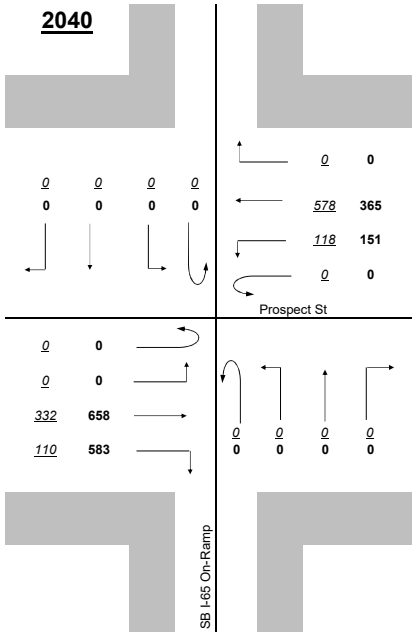
Count Date: 05/09/2023

Adjusted Existing Volumes

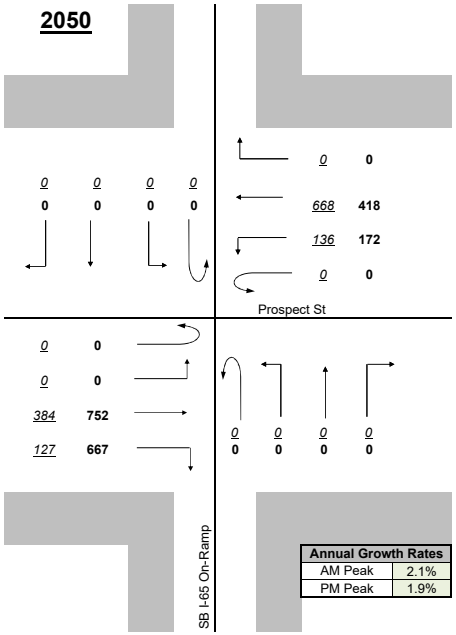


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

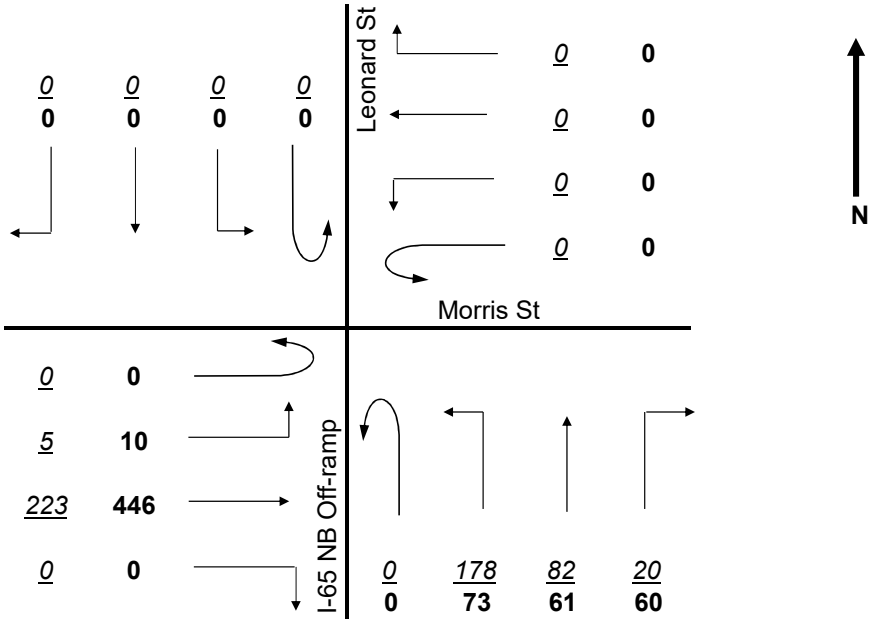
I-65 NB Off-ramp at Morris St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES Morris St				WB VEHICLES Morris St				NB VEHICLES I-65 NB Off-ramp				SB VEHICLES I-65 NB Off-ramp				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	2	49	0	0	0	0	0	0	48	21	8	0	0	0	0	128
7:30-7:45	0	1	60	0	0	0	0	0	0	45	18	3	0	0	0	0	127
7:45-8:00	0	2	60	0	0	0	0	0	0	43	21	3	0	0	0	0	129
8:00-8:15	0	0	54	0	0	0	0	0	0	42	22	6	0	0	0	0	124
PM PEAK																	
4:30-4:45	0	3	101	0	0	0	0	0	0	22	13	10	0	0	0	0	149
4:45-5:00	0	2	111	0	0	0	0	0	0	16	13	22	0	0	0	0	164
5:00-5:15	0	3	110	0	0	0	0	0	0	16	16	11	0	0	0	0	156
5:15-5:30	0	2	124	0	0	0	0	0	0	19	19	17	0	0	0	0	181
TOTAL VOLUMES																	
AM PEAK	0	5	223	0	0	0	0	0	0	178	82	20	0	0	0	0	508
PM PEAK	0	10	446	0	0	0	0	0	0	73	61	60	0	0	0	0	650
% TRUCKS																	
AM PEAK	0%	0%	6%	0%	0%	0%	0%	0%	0%	1%	0%	5%	0%	0%	0%	0%	
PM PEAK	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
I-65 NB Off-ramp at Morris St

Count Date: 05/09/2023

	PHF
AM PEAK	0.98
PM PEAK	0.90

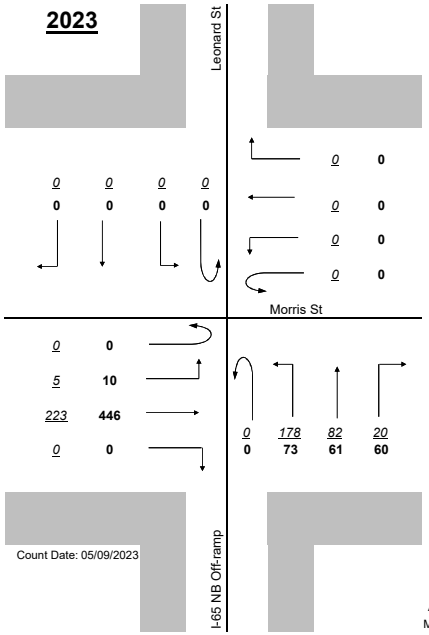


Legend:

000 AM Peak 7:15 AM-8:15 AM

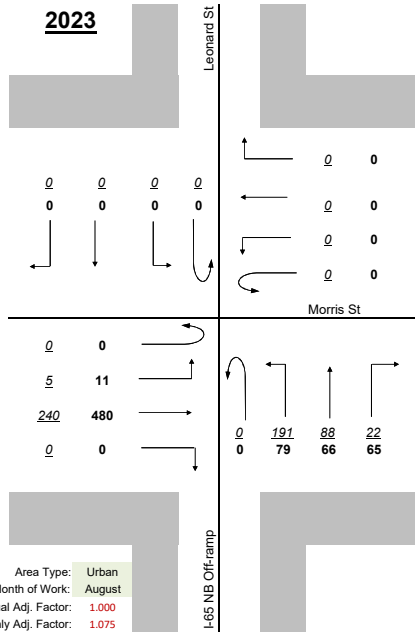
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



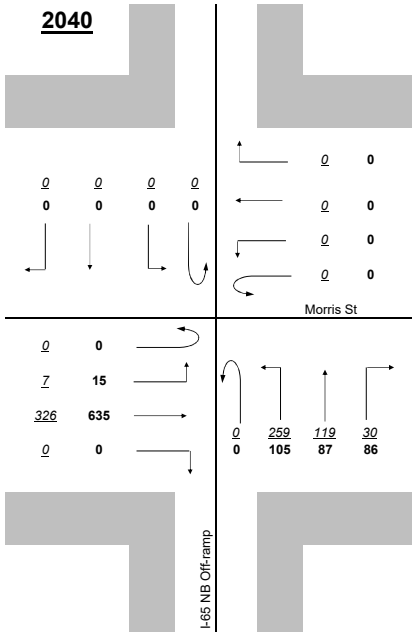
Count Date: 05/09/2023

Adjusted Existing Volumes

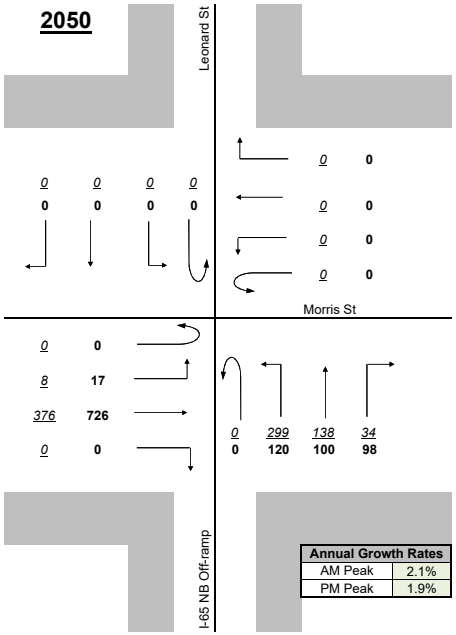


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

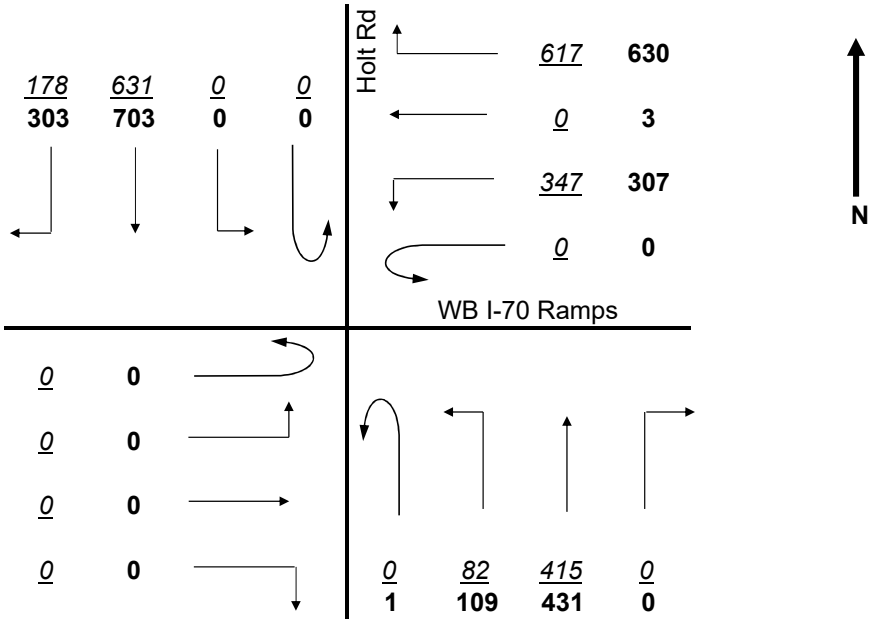
Holt Rd at WB I-70 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES WB I-70 Ramps				WB VEHICLES WB I-70 Ramps				NB VEHICLES Holt Rd				SB VEHICLES Holt Rd				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:00-7:15	0	0	0	0	0	105	0	161	0	18	86	0	0	0	137	36	543
7:15-7:30	0	0	0	0	0	87	0	144	0	19	107	0	0	0	147	44	548
7:30-7:45	0	0	0	0	0	82	0	152	0	22	111	0	0	0	167	44	578
7:45-8:00	0	0	0	0	0	73	0	160	0	23	111	0	0	0	180	54	601
PM PEAK																	
4:00-4:15	0	0	0	0	0	85	0	165	0	19	107	0	0	0	211	72	659
4:15-4:30	0	0	0	0	0	95	2	167	0	32	113	0	0	0	157	74	640
4:30-4:45	0	0	0	0	0	57	1	146	0	28	99	0	0	0	169	81	581
4:45-5:00	0	0	0	0	0	70	0	152	1	30	112	0	0	0	166	76	607
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	347	0	617	0	82	415	0	0	0	631	178	2270
PM PEAK	0	0	0	0	0	307	3	630	1	109	431	0	0	0	703	303	2487
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	12%	0%	6%	0%	41%	7%	0%	0%	0%	7%	7%	
PM PEAK	0%	0%	0%	0%	0%	27%	0%	5%	0%	27%	5%	0%	0%	0%	7%	2%	

TURNING MOVEMENT COUNTS
Holt Rd at WB I-70 Ramps

Count Date: 05/15/2023

	PHF
AM PEAK	0.94
PM PEAK	0.94

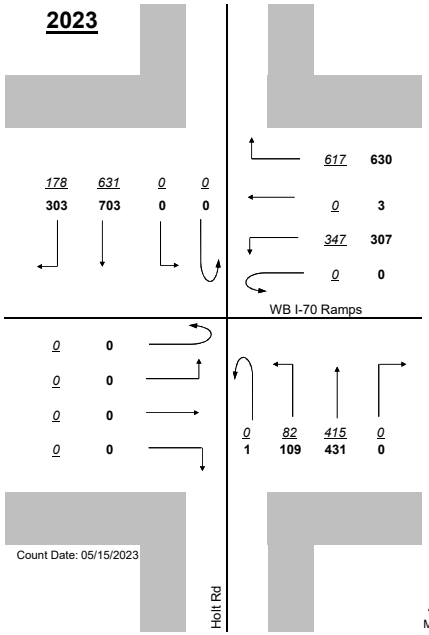


Legend:

000 AM Peak 7:00 AM-8:00 AM

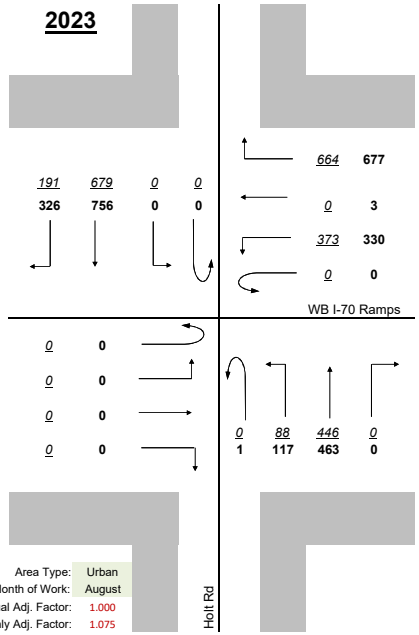
000 PM Peak 4:00 PM-5:00 PM

Raw Counts



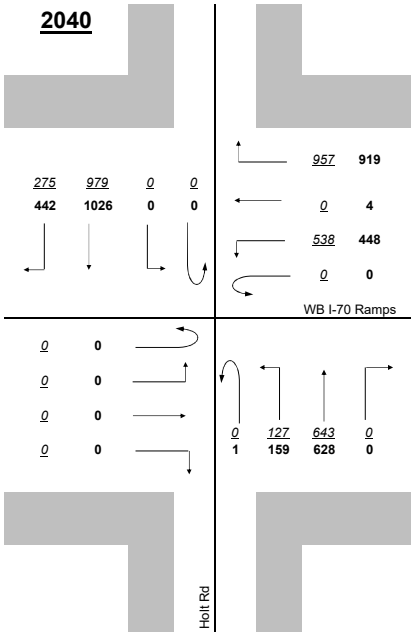
Count Date: 05/15/2023

Adjusted Existing Volumes

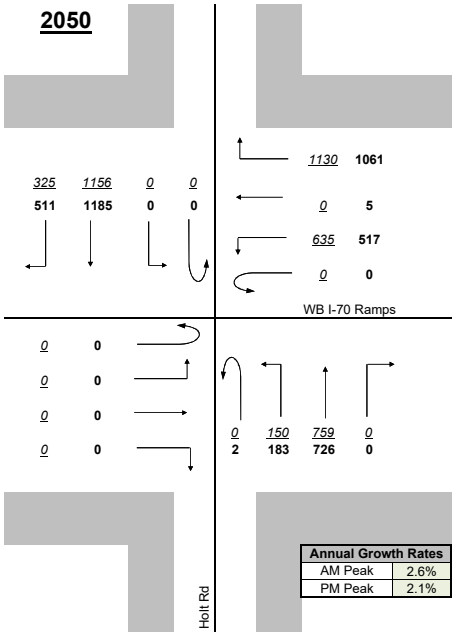


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.6%
PM Peak	2.1%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

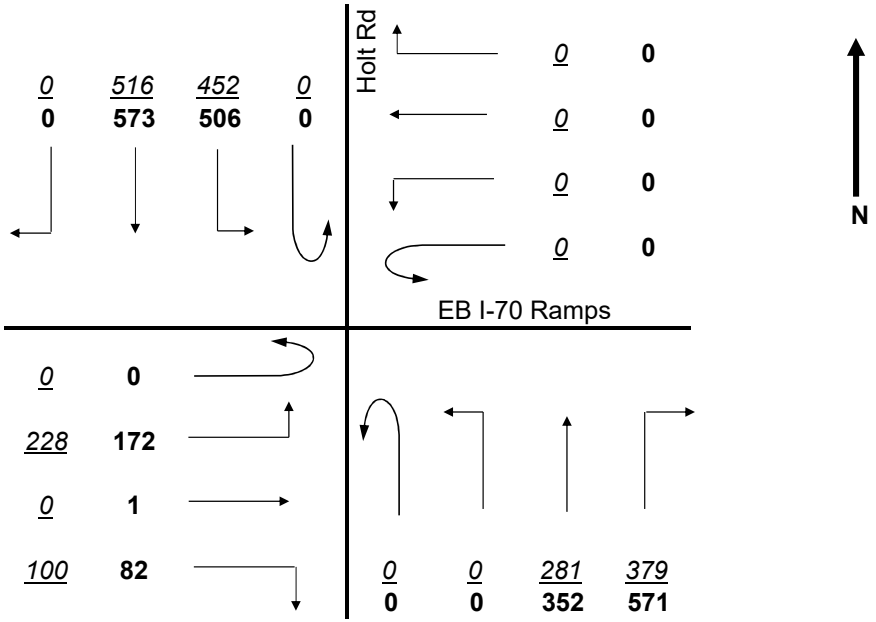
Holt Rd at EB I-70 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES EB I-70 Ramps				WB VEHICLES EB I-70 Ramps				NB VEHICLES Holt Rd				SB VEHICLES Holt Rd				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:00-7:15	0	46	0	21	0	0	0	0	0	0	56	90	0	98	146	0	457
7:15-7:30	0	67	0	21	0	0	0	0	0	0	70	98	0	93	123	0	472
7:30-7:45	0	54	0	28	0	0	0	0	0	0	81	82	0	139	121	0	505
7:45-8:00	0	61	0	30	0	0	0	0	0	0	74	109	0	122	126	0	522
PM PEAK																	
3:15-3:30	0	54	1	18	0	0	0	0	0	0	87	128	0	134	126	0	548
3:30-3:45	0	42	0	24	0	0	0	0	0	0	84	168	0	129	141	0	588
3:45-4:00	0	43	0	18	0	0	0	0	0	0	78	132	0	111	136	0	518
4:00-4:15	0	33	0	22	0	0	0	0	0	0	103	143	0	132	170	0	603
TOTAL VOLUMES																	
AM PEAK	0	228	0	100	0	0	0	0	0	0	281	379	0	452	516	0	1956
PM PEAK	0	172	1	82	0	0	0	0	0	0	352	571	0	506	573	0	2257
% TRUCKS																	
AM PEAK	0%	5%	0%	26%	0%	0%	0%	0%	0%	0%	19%	26%	0%	7%	10%	0%	
PM PEAK	0%	2%	0%	43%	0%	0%	0%	0%	0%	0%	10%	7%	0%	3%	21%	0%	

TURNING MOVEMENT COUNTS
Holt Rd at EB I-70 Ramps

Count Date: 05/15/2023

	PHF
AM PEAK	0.94
PM PEAK	0.94

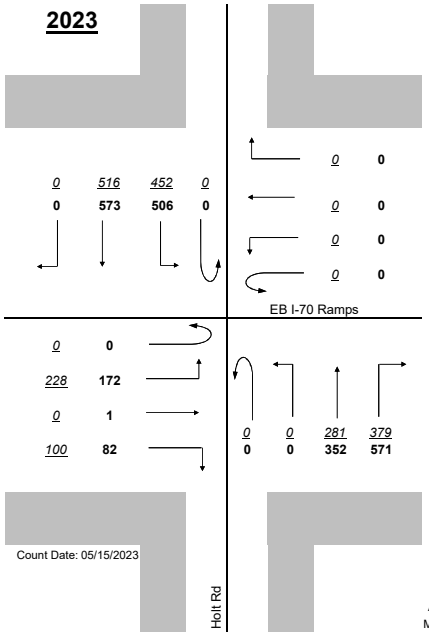


Legend:

000 AM Peak 7:00 AM-8:00 AM

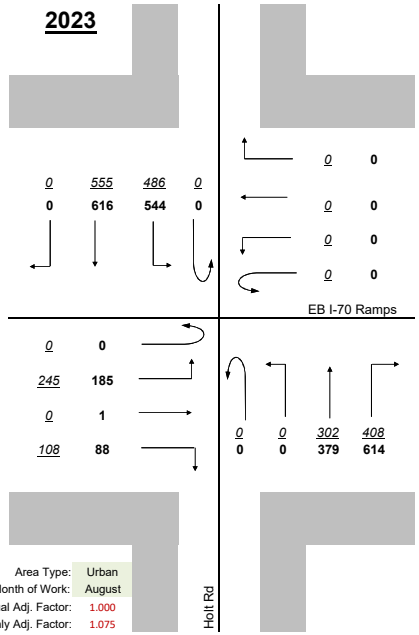
000 PM Peak 3:15 PM-4:15 PM

Raw Counts



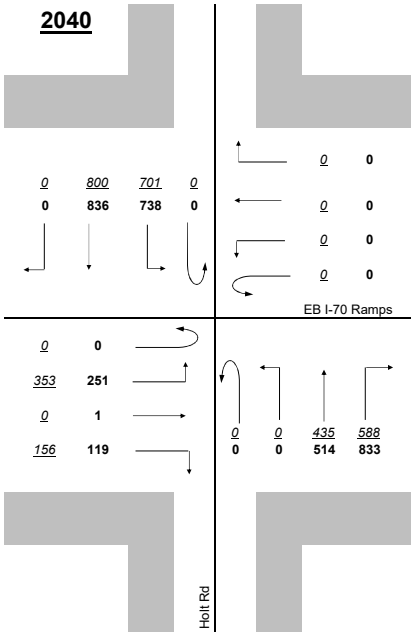
Count Date: 05/15/2023

Adjusted Existing Volumes

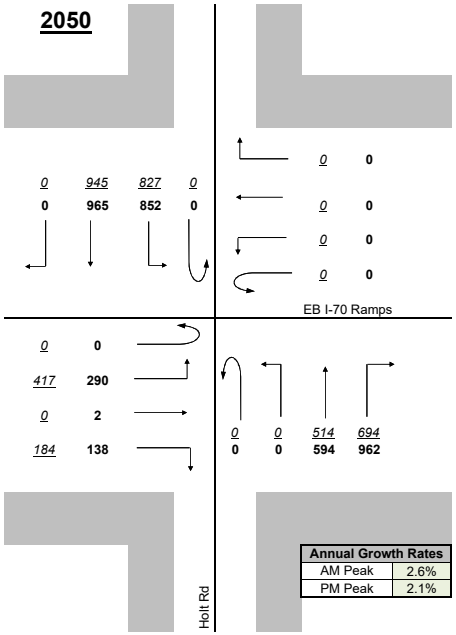


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.6%
PM Peak	2.1%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

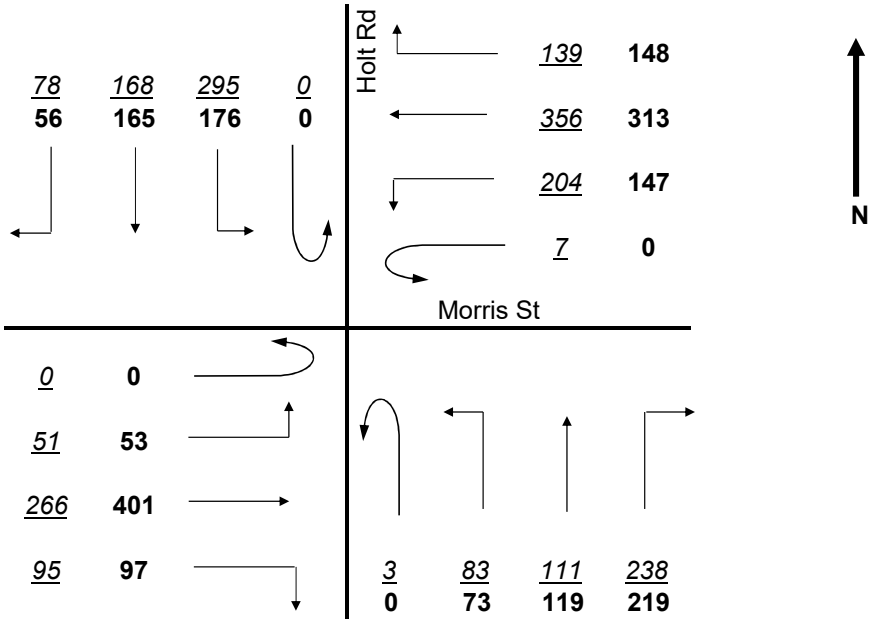
Holt Rd at Morris St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES Morris St				WB VEHICLES Morris St				NB VEHICLES Holt Rd				SB VEHICLES Holt Rd				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	17	63	18	3	39	113	34	1	24	24	43	0	76	49	23	527
7:30-7:45	0	10	84	31	3	59	93	34	0	19	23	55	0	79	42	20	552
7:45-8:00	0	17	68	14	1	56	77	36	0	19	33	66	0	77	43	16	523
8:00-8:15	0	7	51	32	0	50	73	35	2	21	31	74	0	63	34	19	492
PM PEAK																	
3:45-4:00	0	10	96	19	0	48	75	24	0	23	30	51	0	40	30	11	457
4:00-4:15	0	14	118	31	0	42	79	44	0	18	32	67	0	54	55	14	568
4:15-4:30	0	16	88	29	0	26	89	40	0	11	21	49	0	40	40	20	469
4:30-4:45	0	13	99	18	0	31	70	40	0	21	36	52	0	42	40	11	473
TOTAL VOLUMES																	
AM PEAK	0	51	266	95	7	204	356	139	3	83	111	238	0	295	168	78	2094
PM PEAK	0	53	401	97	0	147	313	148	0	73	119	219	0	176	165	56	1967
% TRUCKS																	
AM PEAK	0%	2%	17%	34%	0%	16%	14%	7%	0%	22%	11%	39%	0%	12%	8%	23%	
PM PEAK	0%	26%	6%	18%	0%	22%	20%	21%	0%	11%	12%	14%	0%	11%	5%	7%	

TURNING MOVEMENT COUNTS
Holt Rd at Morris St

Count Date: 11/12/2019

	PHF
AM PEAK	0.95
PM PEAK	0.87



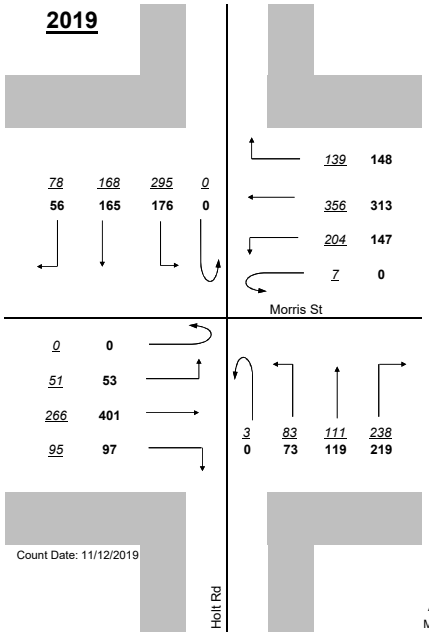
Legend:

000 AM Peak 7:15 AM-8:15 AM

000 PM Peak 3:45 PM-4:45 PM

Raw Counts

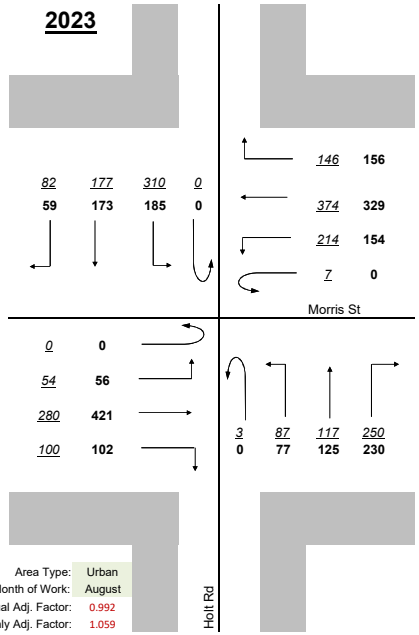
2019



Count Date: 11/12/2019

Adjusted Existing Volumes

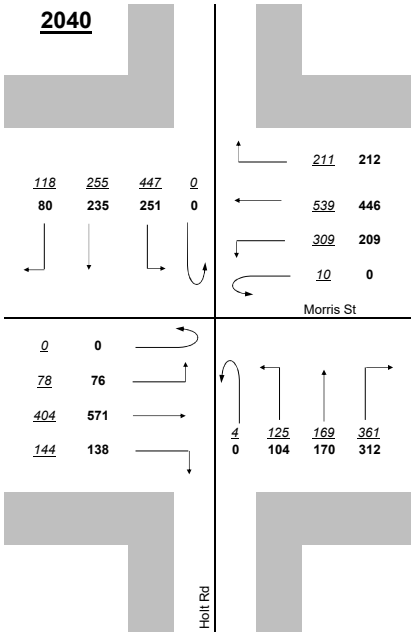
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	0.992
Monthly Adj. Factor:	1.059

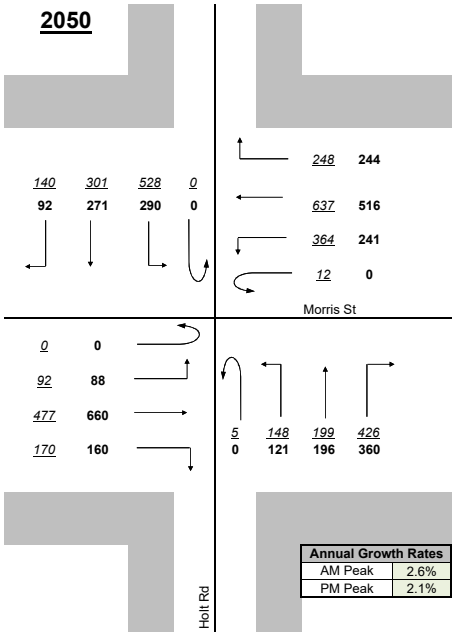
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	2.6%
PM Peak	2.1%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

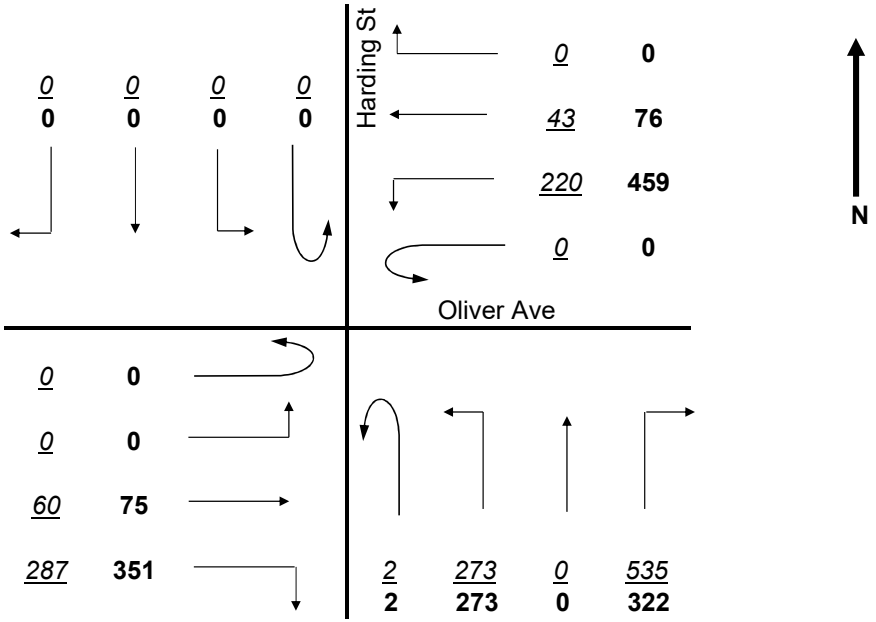
Harding St at Oliver Ave **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES Oliver Ave				WB VEHICLES Oliver Ave				NB VEHICLES Harding St				SB VEHICLES Harding St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:00-7:15	0	0	12	58	0	49	6	0	0	63	0	131	0	0	0	0	319
7:15-7:30	0	0	16	67	0	45	13	0	0	65	0	152	0	0	0	0	358
7:30-7:45	0	0	19	74	0	60	15	0	2	76	0	125	0	0	0	0	371
7:45-8:00	0	0	13	88	0	66	9	0	0	69	0	127	0	0	0	0	372
PM PEAK																	
4:00-4:15	0	0	17	77	0	117	22	0	0	72	0	74	0	0	0	0	379
4:15-4:30	0	0	9	99	0	120	16	0	2	68	0	72	0	0	0	0	386
4:30-4:45	0	0	27	106	0	99	20	0	0	64	0	84	0	0	0	0	400
4:45-5:00	0	0	22	69	0	123	18	0	0	69	0	92	0	0	0	0	393
TOTAL VOLUMES																	
AM PEAK	0	0	60	287	0	220	43	0	2	273	0	535	0	0	0	0	1420
PM PEAK	0	0	75	351	0	459	76	0	2	273	0	322	0	0	0	0	1558
% TRUCKS																	
AM PEAK	0%	0%	2%	15%	0%	10%	5%	0%	0%	10%	0%	8%	0%	0%	0%	0%	
PM PEAK	0%	0%	0%	9%	0%	3%	3%	0%	0%	15%	0%	8%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
Harding St at Oliver Ave

Count Date: 05/09/2023

	PHF
AM PEAK	0.95
PM PEAK	0.97

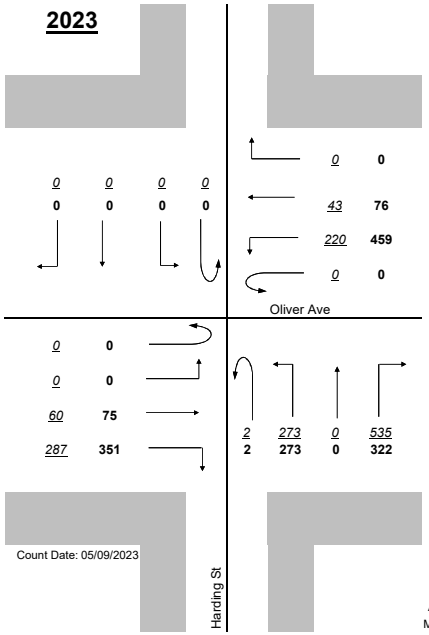


Legend:

000 AM Peak 7:00 AM-8:00 AM

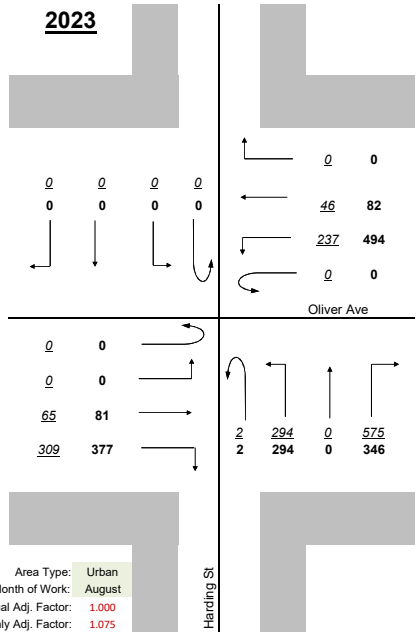
000 PM Peak 4:00 PM-5:00 PM

Raw Counts



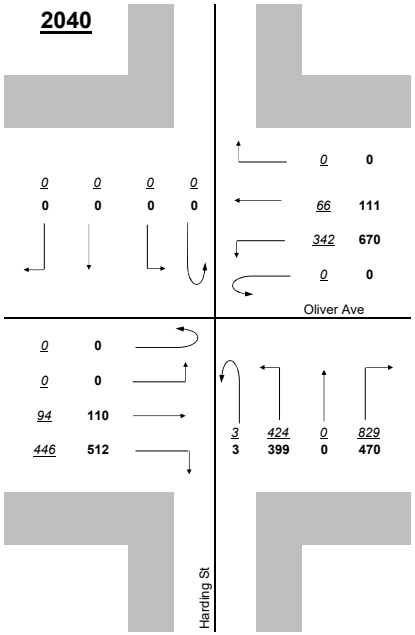
Count Date: 05/09/2023

Adjusted Existing Volumes

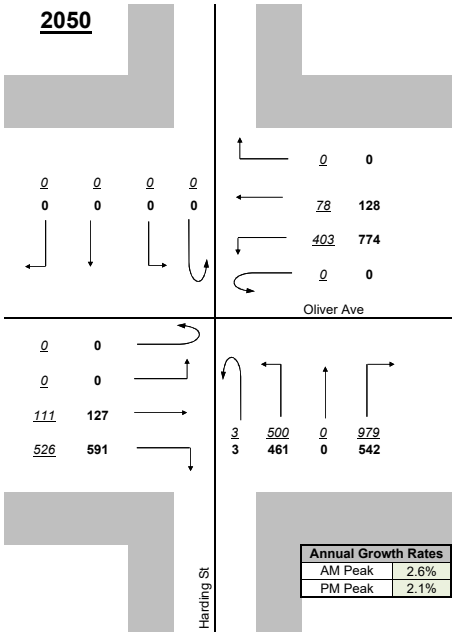


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.6%
PM Peak	2.1%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

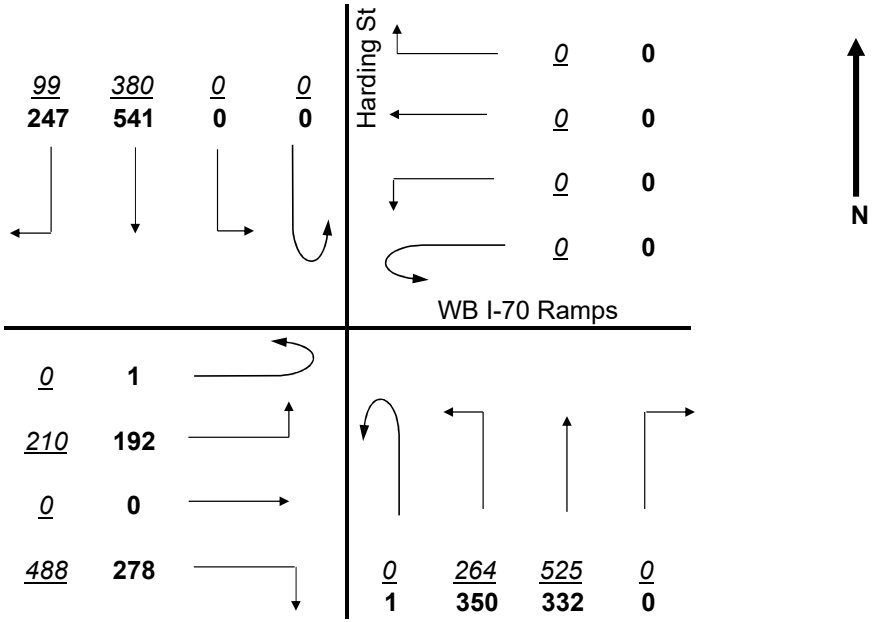
Harding St at WB I-70 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES WB I-70 Ramps				WB VEHICLES WB I-70 Ramps				NB VEHICLES Harding St				SB VEHICLES Harding St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:00-7:15	0	66	0	106	0	0	0	0	0	68	109	0	0		77	26	452
7:15-7:30	0	55	0	128	0	0	0	0	0	58	132	0	0		111	16	500
7:30-7:45	0	40	0	118	0	0	0	0	0	71	128	0	0		92	30	479
7:45-8:00	0	49	0	136	0	0	0	0	0	67	156	0	0		100	27	535
PM PEAK																	
4:00-4:15	0	57	0	70	0	0	0	0	0	108	76	0	0		142	64	517
4:15-4:30	0	55	0	57	0	0	0	0	0	69	92	0	0		128	66	467
4:30-4:45	1	34	0	74	0	0	0	0	0	78	73	0	0		156	62	478
4:45-5:00	0	46	0	77	0	0	0	0	1	95	91	0	0		115	55	480
TOTAL VOLUMES																	
AM PEAK	0	210	0	488	0	0	0	0	0	264	525	0	0	0	380	99	1966
PM PEAK	1	192	0	278	0	0	0	0	1	350	332	0	0	0	541	247	1942
% TRUCKS																	
AM PEAK	0%	9%	0%	7%	0%	0%	0%	0%	0%	27%	7%	0%	0%	0%	14%	25%	
PM PEAK	0%	10%	0%	21%	0%	0%	0%	0%	100%	3%	8%	0%	0%	0%	4%	6%	

TURNING MOVEMENT COUNTS
Harding St at WB I-70 Ramps

Count Date: 05/15/2023

	PHF
AM PEAK	0.92
PM PEAK	0.94



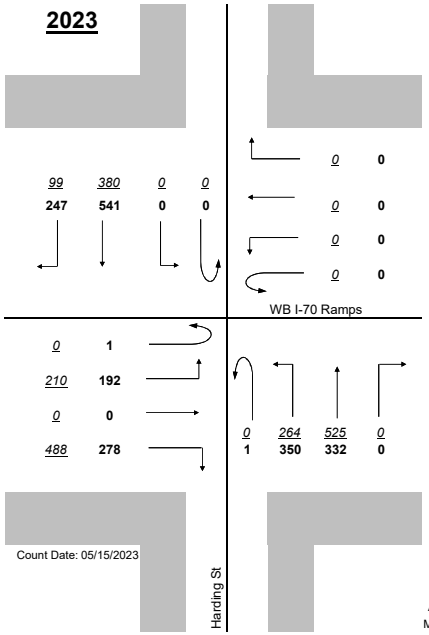
Legend:

000 AM Peak 7:00 AM-8:00 AM

000 PM Peak 4:00 PM-5:00 PM

Raw Counts

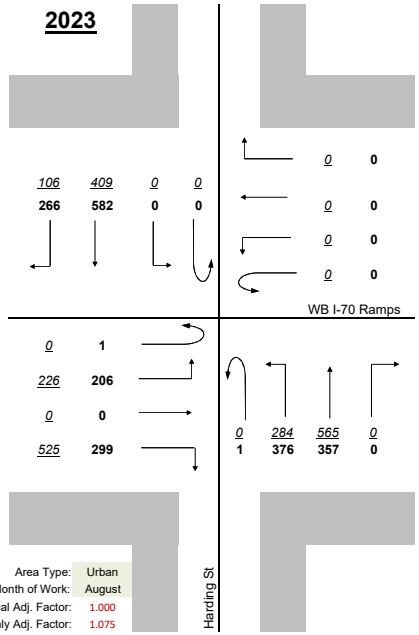
2023



Count Date: 05/15/2023

Adjusted Existing Volumes

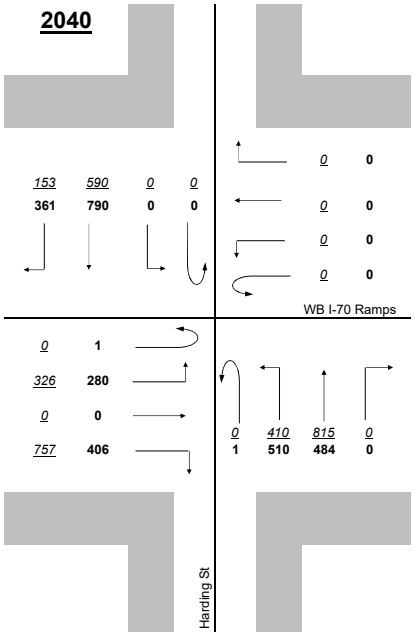
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

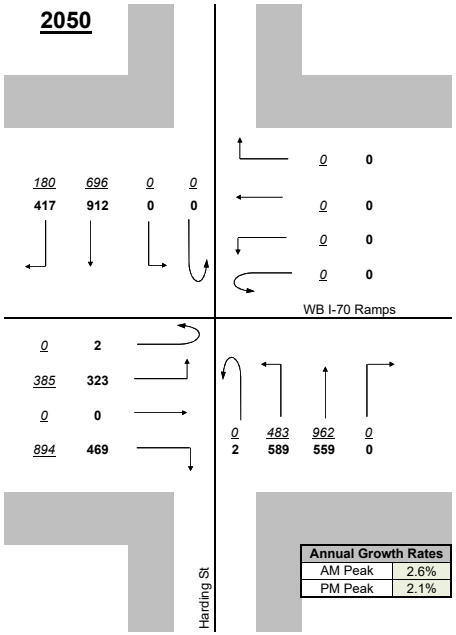
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	2.6%
PM Peak	2.1%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

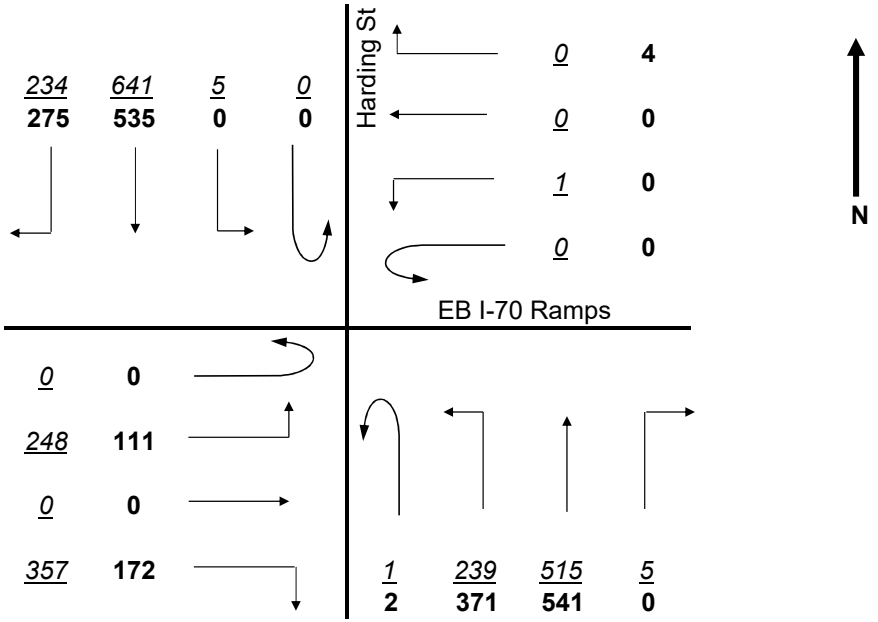
Harding St at EB I-70 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES EB I-70 Ramps				WB VEHICLES EB I-70 Ramps				NB VEHICLES Harding St				SB VEHICLES Harding St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	61	0	72	0	0	0	0	0	60	122	0	0	1	166	58	540
7:30-7:45	0	57	0	110	0	0	0	0	1	53	137	0	0	2	174	63	597
7:45-8:00	0	74	0	93	0	0	0	0	0	74	143	2	0	1	187	62	636
8:00-8:15	0	56	0	82	0	1	0	0	0	52	113	3	0	1	114	51	473
PM PEAK																	
4:00-4:15	0	28	0	29	0	0	0	0	1	102	150	0	0	0	127	80	517
4:15-4:30	0	32	0	61	0	0	0	1	0	93	125	0	0	0	115	56	483
4:30-4:45	0	20	0	20	0	0	0	2	1	96	128	0	0	0	153	78	498
4:45-5:00	0	31	0	62	0	0	0	1	0	80	138	0	0	0	140	61	513
TOTAL VOLUMES																	
AM PEAK	0	248	0	357	0	1	0	0	1	239	515	5	0	5	641	234	2246
PM PEAK	0	111	0	172	0	0	0	4	2	371	541	0	0	0	535	275	2011
% TRUCKS																	
AM PEAK	0%	7%	0%	5%	0%	0%	0%	0%	0%	31%	19%	20%	0%	0%	10%	15%	
PM PEAK	0%	11%	0%	3%	0%	0%	0%	0%	0%	6%	5%	0%	0%	0%	12%	4%	

TURNING MOVEMENT COUNTS
Harding St at EB I-70 Ramps

Count Date: 05/15/2023

	PHF
AM PEAK	0.88
PM PEAK	0.97

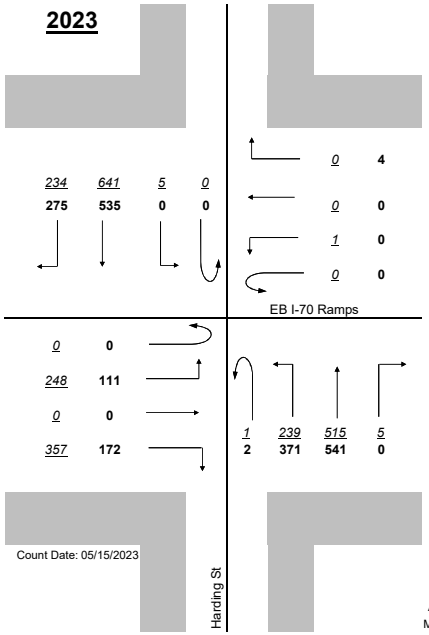


Legend:

000 AM Peak 7:15 AM-8:15 AM

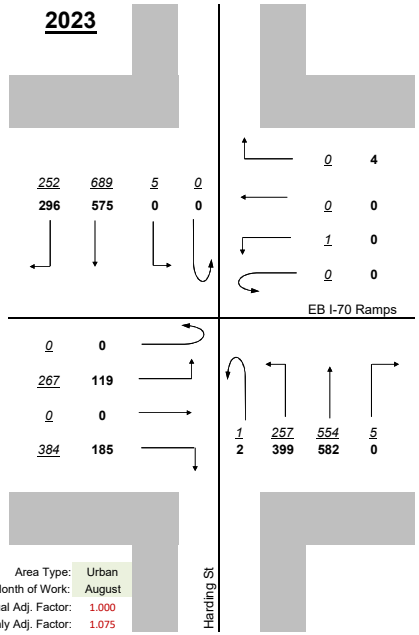
000 PM Peak 4:00 PM-5:00 PM

Raw Counts



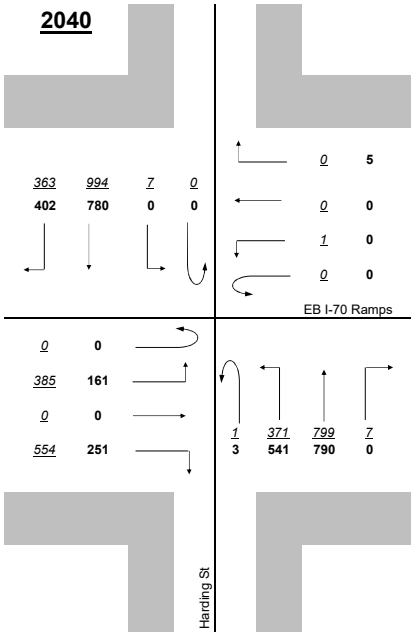
Count Date: 05/15/2023

Adjusted Existing Volumes

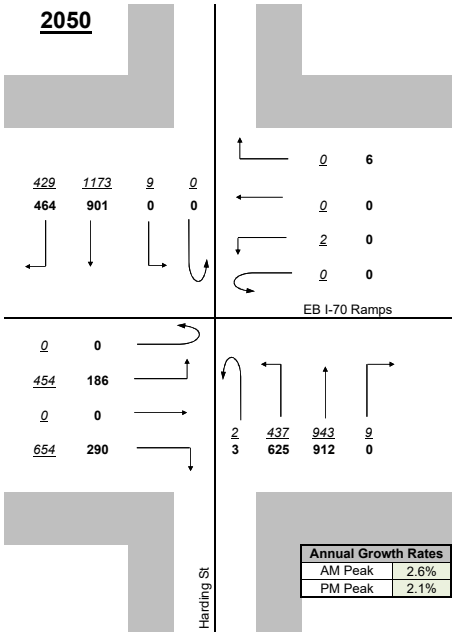


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.6%
PM Peak	2.1%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

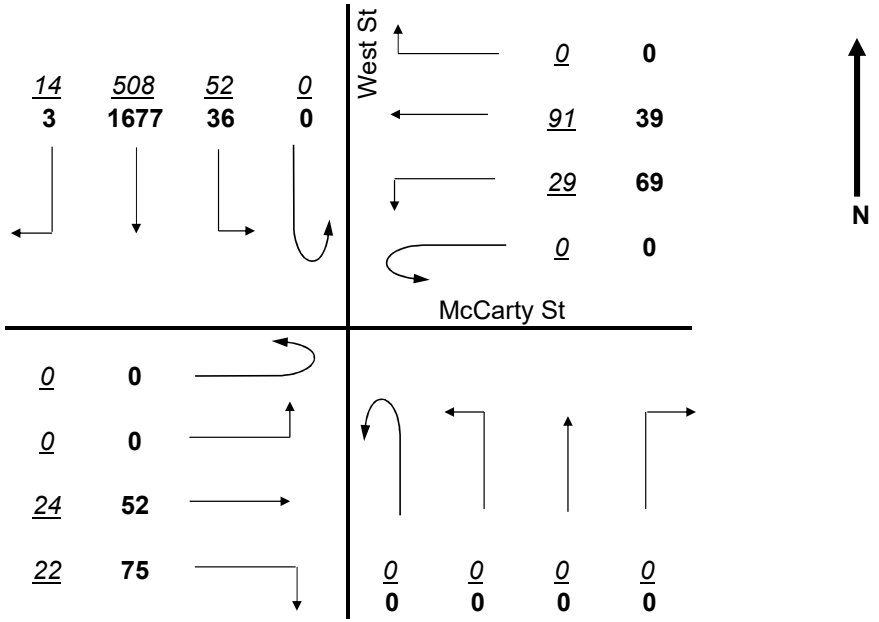
West St at McCarty St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES McCarty St				WB VEHICLES McCarty St				NB VEHICLES West St				SB VEHICLES West St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:00-7:15	0	0	3	3	0	11	24	0	0	0	0	0	0	9	101	5	156
7:15-7:30	0	0	3	13	0	2	26	0	0	0	0	0	0	16	129	4	193
7:30-7:45	0	0	8	3	0	9	19	0	0	0	0	0	0	16	156	3	214
7:45-8:00	0	0	10	3	0	7	22	0	0	0	0	0	0	11	122	2	177
PM PEAK																	
3:45-4:00	0	0	4	16	0	16	10	0	0	0	0	0	0	7	404	0	457
4:00-4:15	0	0	19	26	0	17	10	0	0	0	0	0	0	6	408	0	486
4:15-4:30	0	0	11	15	0	13	8	0	0	0	0	0	0	13	396	1	457
4:30-4:45	0	0	18	18	0	23	11	0	0	0	0	0	0	10	469	2	551
TOTAL VOLUMES																	
AM PEAK	0	0	24	22	0	29	91	0	0	0	0	0	0	52	508	14	740
PM PEAK	0	0	52	75	0	69	39	0	0	0	0	0	0	36	1677	3	1951
% TRUCKS																	
AM PEAK	0%	0%	17%	41%	0%	31%	3%	0%	0%	0%	0%	0%	0%	2%	7%	0%	
PM PEAK	0%	0%	4%	5%	0%	4%	18%	0%	0%	0%	0%	0%	0%	6%	3%	0%	

TURNING MOVEMENT COUNTS
West St at McCarty St

Count Date: 05/15/2023

	PHF
AM PEAK	0.86
PM PEAK	0.89

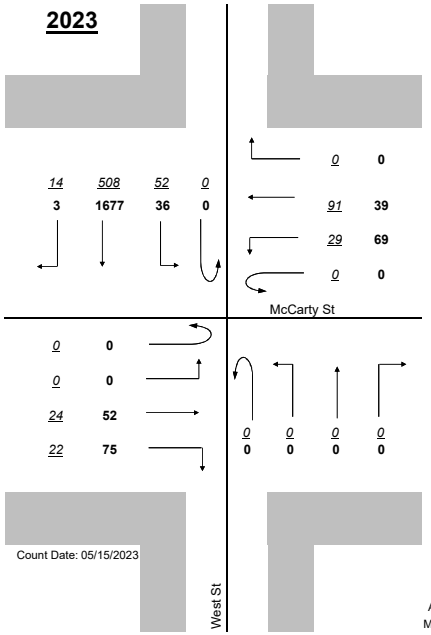


Legend:

000 AM Peak 7:00 AM-8:00 AM

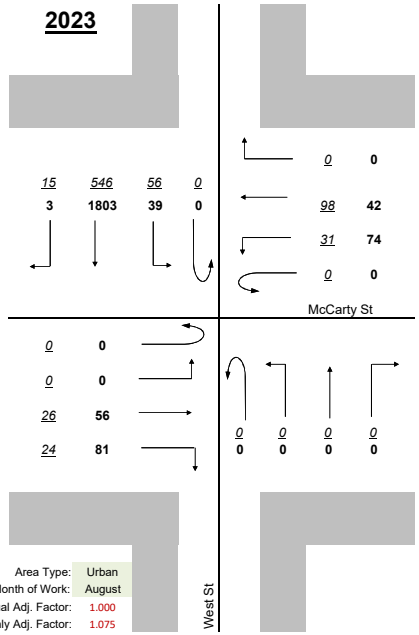
000 PM Peak 3:45 PM-4:45 PM

Raw Counts



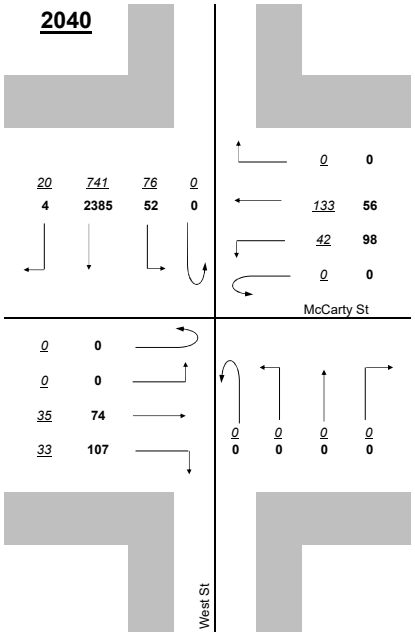
Count Date: 05/15/2023

Adjusted Existing Volumes

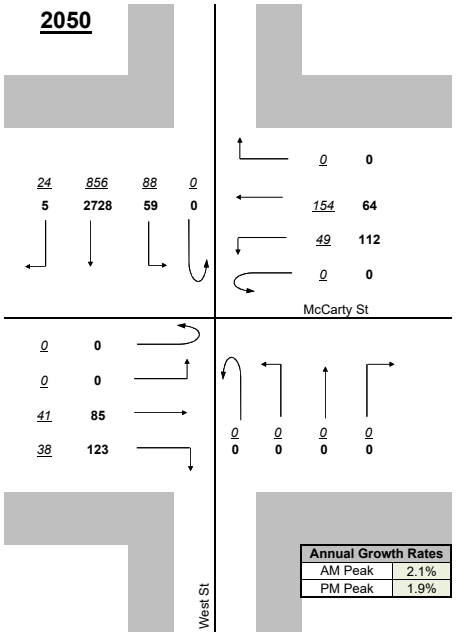


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

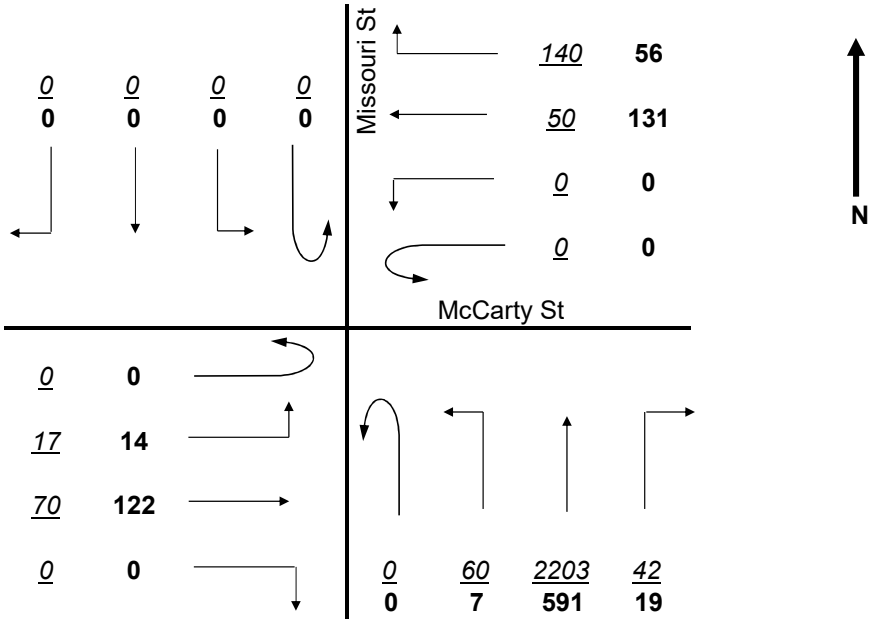
Missouri St at McCarty St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES McCarty St				WB VEHICLES McCarty St				NB VEHICLES Missouri St				SB VEHICLES Missouri St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	4	15	0	0	0	8	27	0	8	553	12	0	0	0	0	627
7:30-7:45	0	3	12	0	0	0	15	33	0	14	595	12	0	0	0	0	684
7:45-8:00	0	4	21	0	0	0	15	42	0	30	549	12	0	0	0	0	673
8:00-8:15	0	6	22	0	0	0	12	38	0	8	506	6	0	0	0	0	598
PM PEAK																	
5:00-5:15	0	2	30	0	0	0	33	15	0	1	137	3	0	0	0	0	221
5:15-5:30	0	0	32	0	0	0	41	10	0	3	157	4	0	0	0	0	247
5:30-5:45	0	7	33	0	0	0	34	18	0	3	162	4	0	0	0	0	261
5:45-6:00	0	5	27	0	0	0	23	13	0	0	135	8	0	0	0	0	211
TOTAL VOLUMES																	
AM PEAK	0	17	70	0	0	0	50	140	0	60	2203	42	0	0	0	0	2582
PM PEAK	0	14	122	0	0	0	131	56	0	7	591	19	0	0	0	0	940
% TRUCKS																	
AM PEAK	0%	12%	4%	0%	0%	0%	16%	4%	0%	8%	2%	7%	0%	0%	0%	0%	
PM PEAK	0%	0%	1%	0%	0%	0%	4%	0%	0%	0%	1%	26%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
Missouri St at McCarty St

Count Date: 09/10/2019

	PHF
AM PEAK	0.94
PM PEAK	0.90



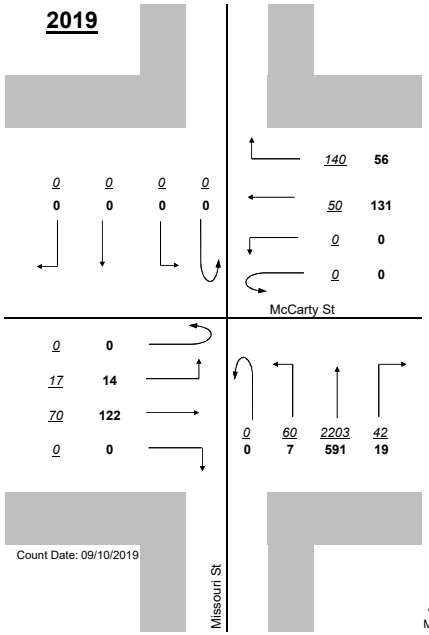
Legend:

000 AM Peak 7:15 AM-8:15 AM

000 PM Peak 5:00 PM-6:00 PM

Raw Counts

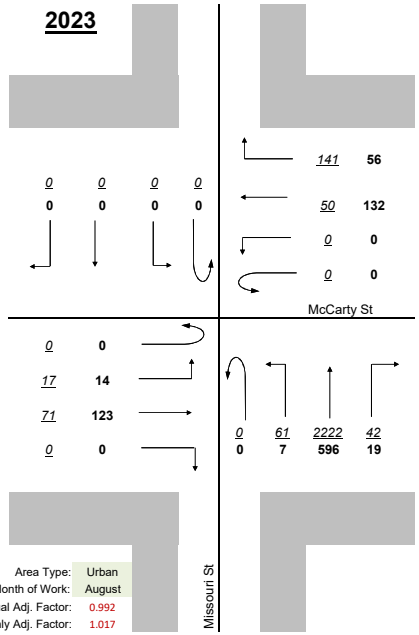
2019



Count Date: 09/10/2019

Adjusted Existing Volumes

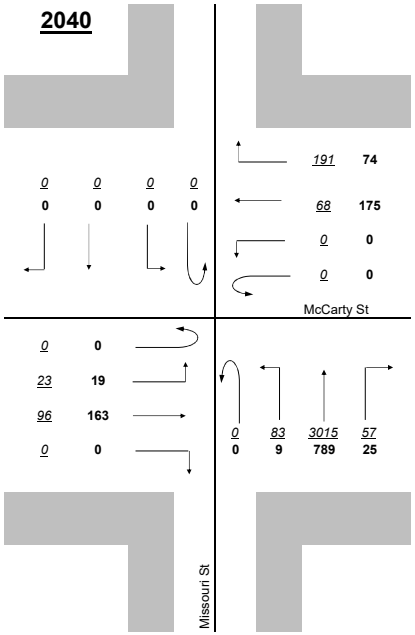
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	0.992
Monthly Adj. Factor:	1.017

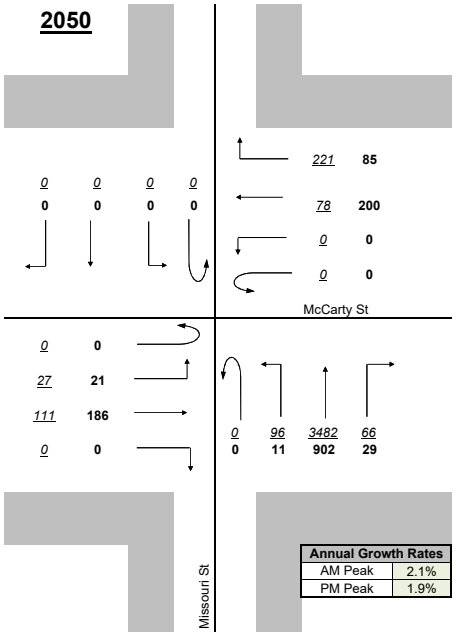
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

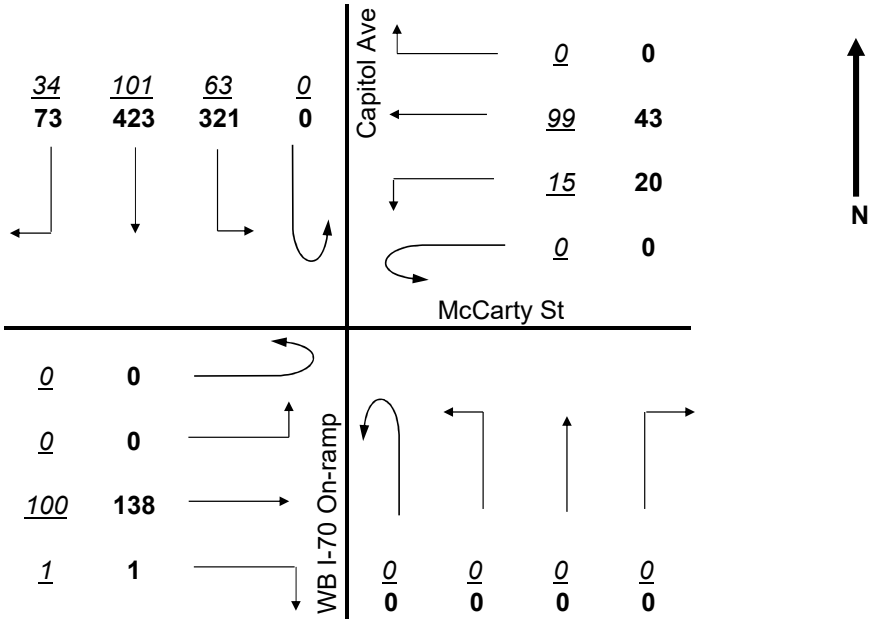
Capitol Ave at McCarty St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES McCarty St				WB VEHICLES McCarty St				NB VEHICLES -				SB VEHICLES Capitol Ave				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	0	26	0	0	5	23	0	0	0	0	0	0	11	26	7	98
7:30-7:45	0	0	34	0	0	5	26	0	0	0	0	0	0	19	25	11	120
7:45-8:00	0	0	21	1	0	2	27	0	0	0	0	0	0	15	25	8	99
8:00-8:15	0	0	19	0	0	3	23	0	0	0	0	0	0	18	25	8	96
PM PEAK																	
4:00-4:15	0	0	32	1	0	3	11	0	0	0	0	0	0	99	103	16	265
4:15-4:30	0	0	29	0	0	5	8	0	0	0	0	0	0	82	88	16	228
4:30-4:45	0	0	42	0	0	3	13	0	0	0	0	0	0	67	117	29	271
4:45-5:00	0	0	35	0	0	9	11	0	0	0	0	0	0	73	115	12	255
TOTAL VOLUMES																	
AM PEAK	0	0	100	1	0	15	99	0	0	0	0	0	0	63	101	34	413
PM PEAK	0	0	138	1	0	20	43	0	0	0	0	0	0	321	423	73	1019
% TRUCKS																	
AM PEAK	0%	0%	8%	100%	0%	0%	4%	0%	0%	0%	0%	0%	0%	3%	9%	29%	
PM PEAK	0%	0%	10%	0%	0%	5%	2%	0%	0%	0%	0%	0%	0%	0%	1%	7%	

TURNING MOVEMENT COUNTS
Capitol Ave at McCarty St

Count Date: 05/15/2023

	PHF
AM PEAK	0.86
PM PEAK	0.94

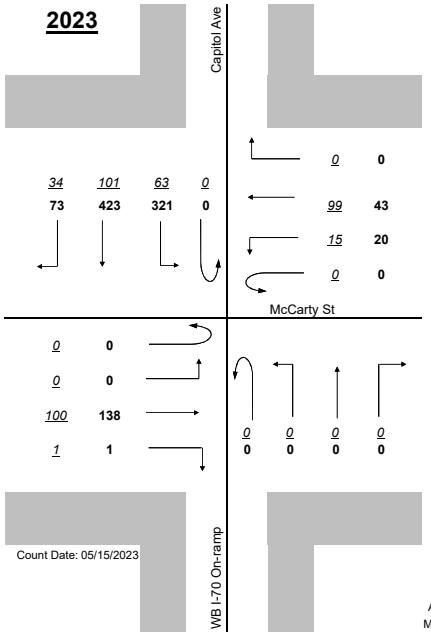


Legend:

000 AM Peak 7:15 AM-8:15 AM

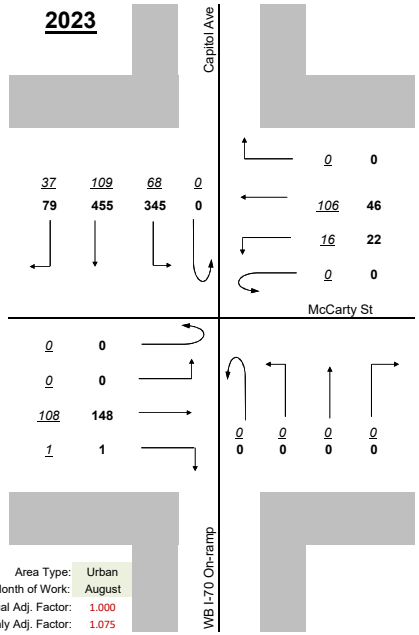
000 PM Peak 4:00 PM-5:00 PM

Raw Counts



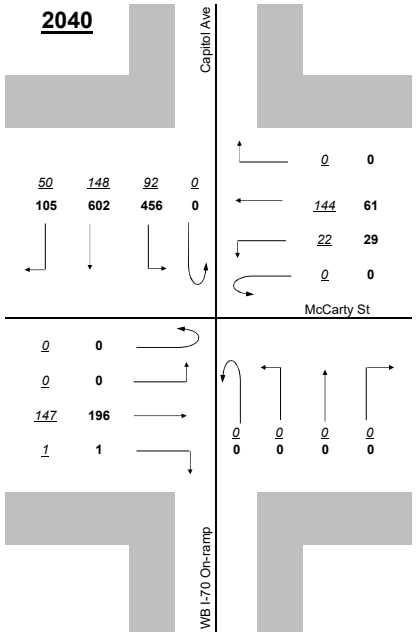
Count Date: 05/15/2023

Adjusted Existing Volumes

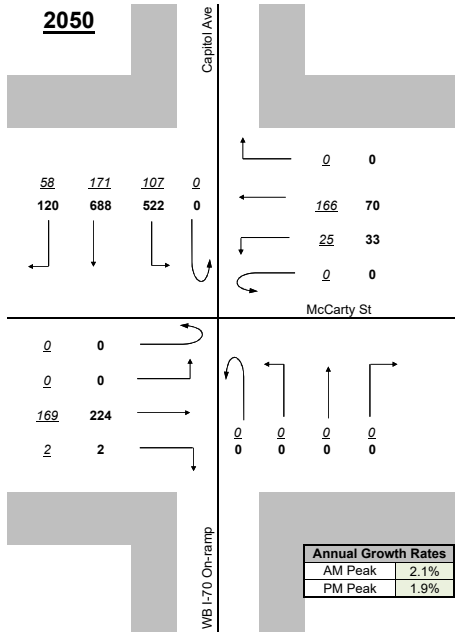


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

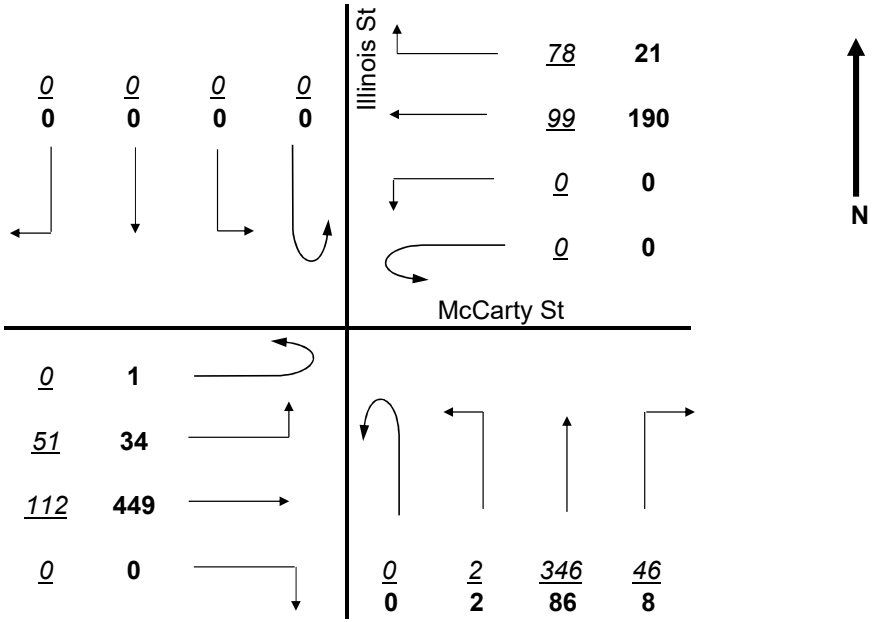
Illinois St at McCarty St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES McCarty St				WB VEHICLES McCarty St				NB VEHICLES Illinois St				SB VEHICLES Illinois St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	12	20	0	0	0	15	25	0	0	76	7	0	0	0	0	155
7:30-7:45	0	19	36	0	0	0	29	19	0	2	89	14	0	0	0	0	208
7:45-8:00	0	11	30	0	0	0	33	18	0	0	104	14	0	0	0	0	210
8:00-8:15	0	9	26	0	0	0	22	16	0	0	77	11	0	0	0	0	161
PM PEAK																	
4:30-4:45	1	11	103	0	0	0	37	8	0	0	25	0	0	0	0	0	185
4:45-5:00	0	6	97	0	0	0	51	3	0	0	23	3	0	0	0	0	183
5:00-5:15	0	9	138	0	0	0	50	7	0	2	20	4	0	0	0	0	230
5:15-5:30	0	8	111	0	0	0	52	3	0	0	18	1	0	0	0	0	193
TOTAL VOLUMES																	
AM PEAK	0	51	112	0	0	0	99	78	0	2	346	46	0	0	0	0	734
PM PEAK	1	34	449	0	0	0	190	21	0	2	86	8	0	0	0	0	791
% TRUCKS																	
AM PEAK	0%	24%	0%	0%	0%	0%	3%	17%	0%	0%	3%	2%	0%	0%	0%	0%	
PM PEAK	0%	24%	1%	0%	0%	0%	2%	19%	0%	0%	6%	0%	0%	0%	0%	0%	

	PHF
AM PEAK	0.87
PM PEAK	0.86

TURNING MOVEMENT COUNTS
Illinois St at McCarty St

Count Date: 05/31/2023

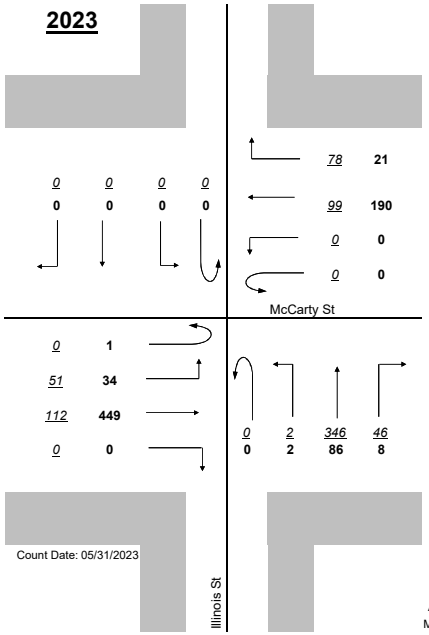


Legend:

000 AM Peak 7:15 AM-8:15 AM

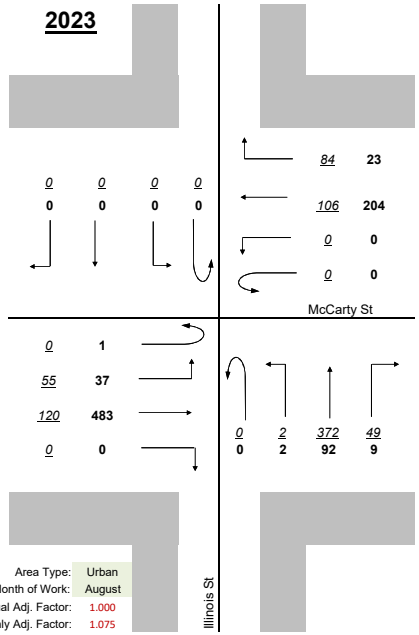
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



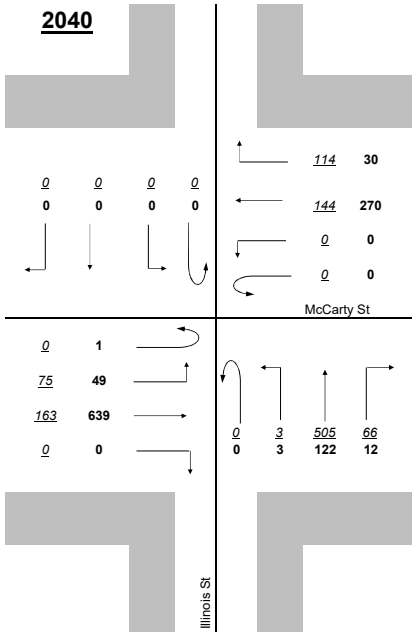
Count Date: 05/31/2023

Adjusted Existing Volumes

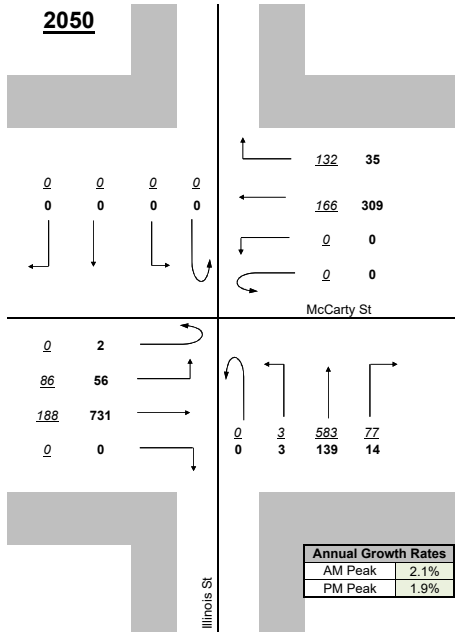


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

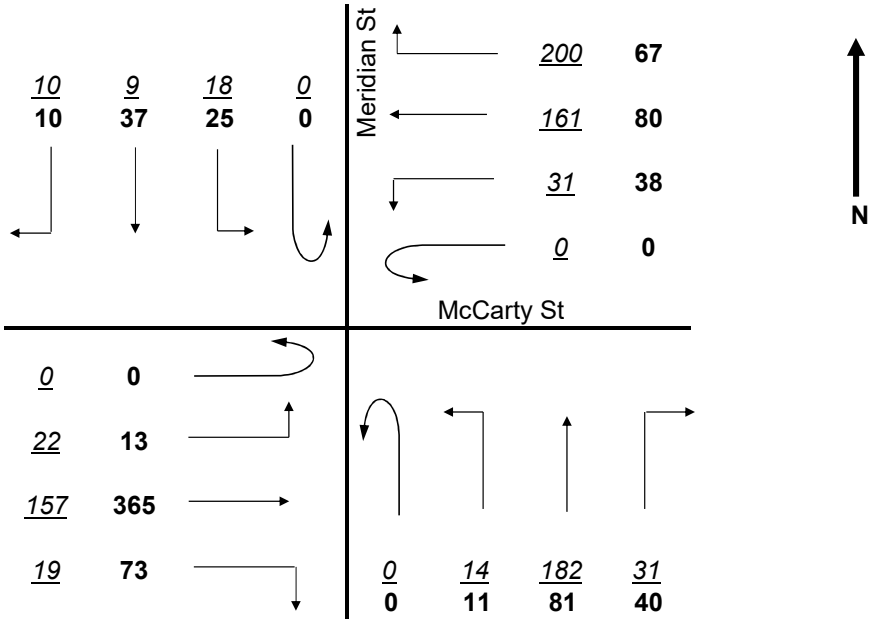
Meridian St at McCarty St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES McCarty St				WB VEHICLES McCarty St				NB VEHICLES Meridian St				SB VEHICLES Meridian St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	2	36	6	0	6	40	38	0	3	43	7	0	1	5	2	189
7:30-7:45	0	12	43	2	0	8	42	50	0	4	57	9	0	12	3	5	247
7:45-8:00	0	4	41	7	0	12	40	58	0	4	41	7	0	1	0	2	217
8:00-8:15	0	4	37	4	0	5	39	54	0	3	41	8	0	4	1	1	201
PM PEAK																	
4:30-4:45	0	5	85	23	0	10	16	15	0	5	20	8	0	13	12	0	212
4:45-5:00	0	1	86	13	0	8	21	19	0	5	26	14	0	5	10	3	211
5:00-5:15	0	2	100	20	0	10	22	13	0	0	18	9	0	5	6	2	207
5:15-5:30	0	5	94	17	0	10	21	20	0	1	17	9	0	2	9	5	210
TOTAL VOLUMES																	
AM PEAK	0	22	157	19	0	31	161	200	0	14	182	31	0	18	9	10	854
PM PEAK	0	13	365	73	0	38	80	67	0	11	81	40	0	25	37	10	840
% TRUCKS																	
AM PEAK	0%	5%	2%	11%	0%	13%	6%	1%	0%	14%	2%	10%	0%	0%	11%	0%	
PM PEAK	0%	0%	1%	0%	0%	5%	5%	3%	0%	0%	5%	3%	0%	4%	0%	0%	

	PHF
AM PEAK	0.86
PM PEAK	0.99

TURNING MOVEMENT COUNTS
Meridian St at McCarty St

Count Date: 05/22/2023

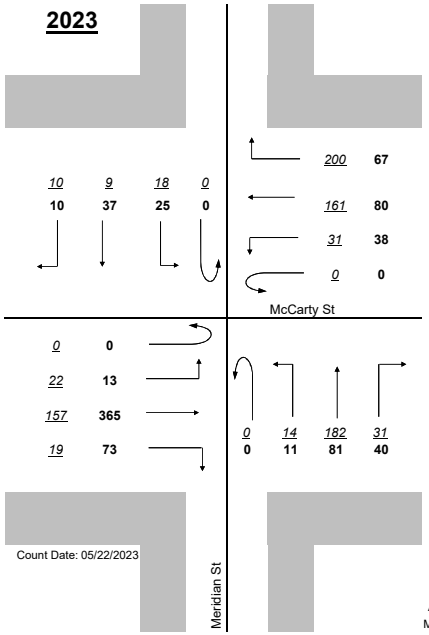


Legend:

000 AM Peak 7:15 AM-8:15 AM

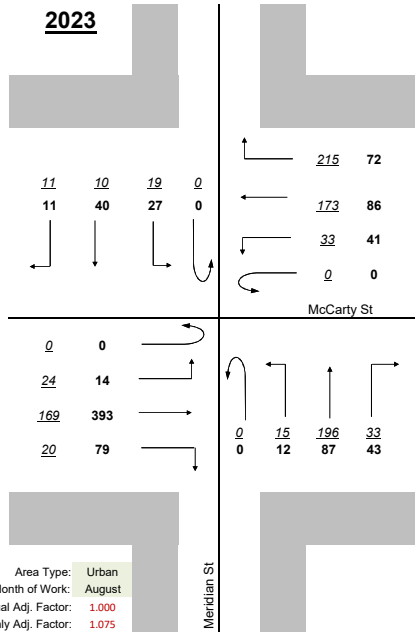
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



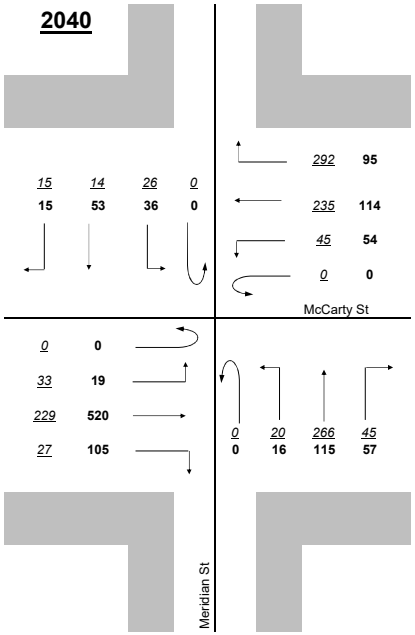
Count Date: 05/22/2023

Adjusted Existing Volumes

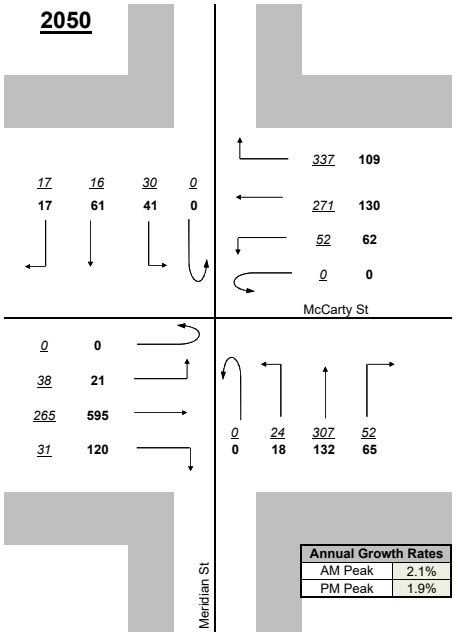


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

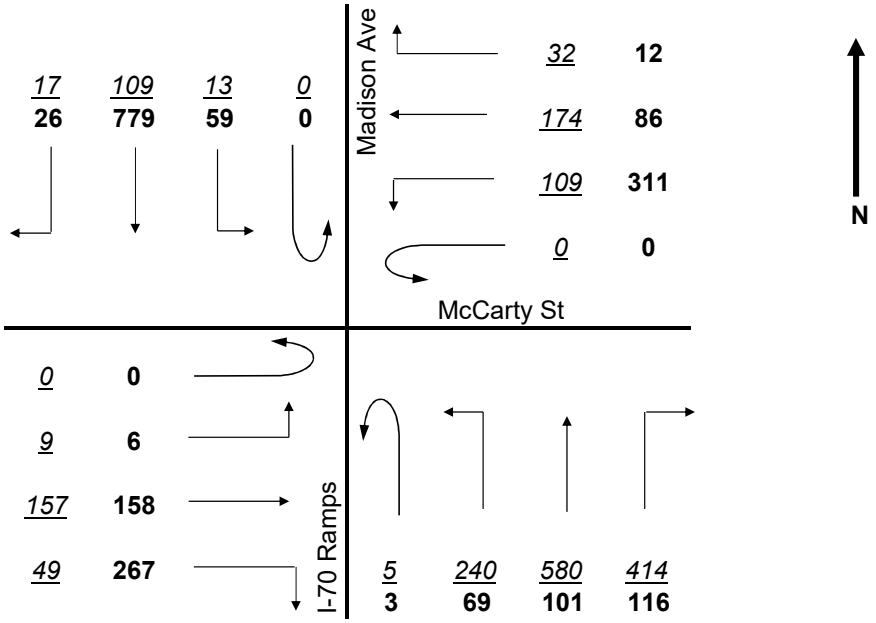
Madison Ave at McCarty St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES McCarty St				WB VEHICLES McCarty St				NB VEHICLES I-70 Ramps				SB VEHICLES Madison Ave				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	2	45	11	0	25	43	6	0	61	143	100	0	6	28	2	472
7:45-8:00	0	2	51	2	0	29	44	9	0	71	152	103	0	0	32	7	502
8:00-8:15	0	1	36	22	0	25	47	4	3	58	139	112	0	3	30	6	486
8:15-8:30	0	4	25	14	0	30	40	13	2	50	146	99	0	4	19	2	448
PM PEAK																	
4:15-4:30	0	3	28	77	0	61	17	4	0	16	22	26	0	15	211	8	488
4:30-4:45	0	1	44	67	0	94	22	2	0	17	32	19	0	9	188	7	502
4:45-5:00	0	0	48	58	0	70	23	3	2	20	22	34	0	17	173	6	476
5:00-5:15	0	2	38	65	0	86	24	3	1	16	25	37	0	18	207	5	527
TOTAL VOLUMES																	
AM PEAK	0	9	157	49	0	109	174	32	5	240	580	414	0	13	109	17	1908
PM PEAK	0	6	158	267	0	311	86	12	3	69	101	116	0	59	779	26	1993
% TRUCKS																	
AM PEAK	0%	0%	2%	2%	0%	7%	2%	0%	0%	3%	1%	1%	0%	0%	6%	6%	
PM PEAK	0%	0%	3%	1%	0%	1%	5%	0%	0%	3%	2%	2%	0%	0%	1%	0%	

	PHF
AM PEAK	0.95
PM PEAK	0.95

TURNING MOVEMENT COUNTS
Madison Ave at McCarty St

Count Date: 05/22/2023

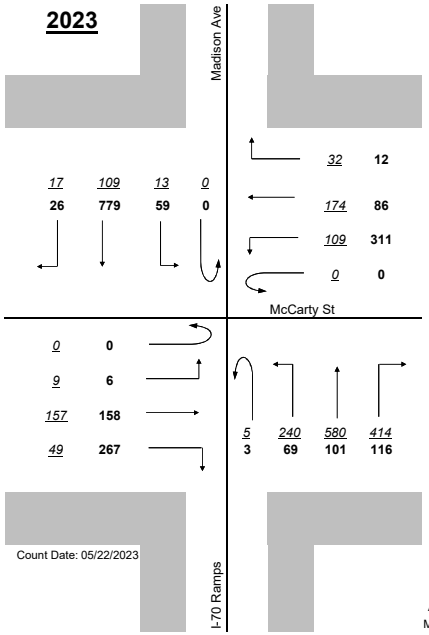


Legend:

000 AM Peak 7:30 AM-8:30 AM

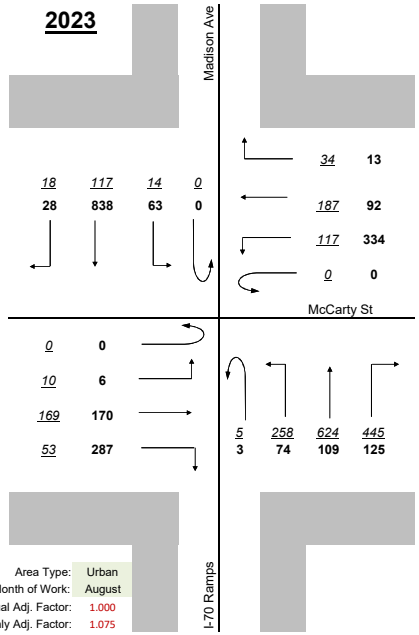
000 PM Peak 4:15 PM-5:15 PM

Raw Counts



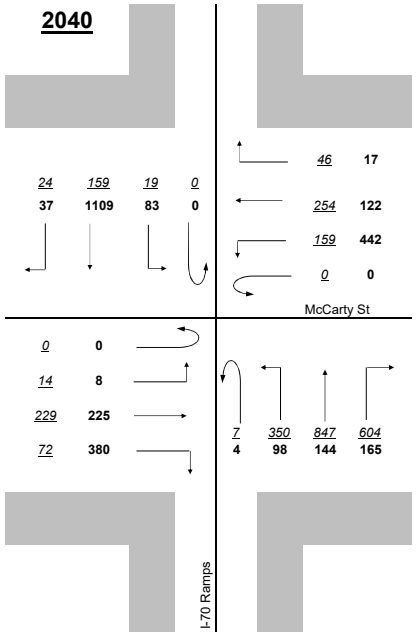
Count Date: 05/22/2023

Adjusted Existing Volumes

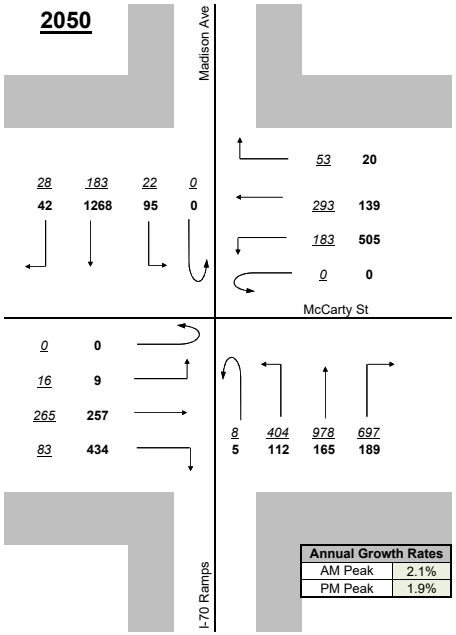


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

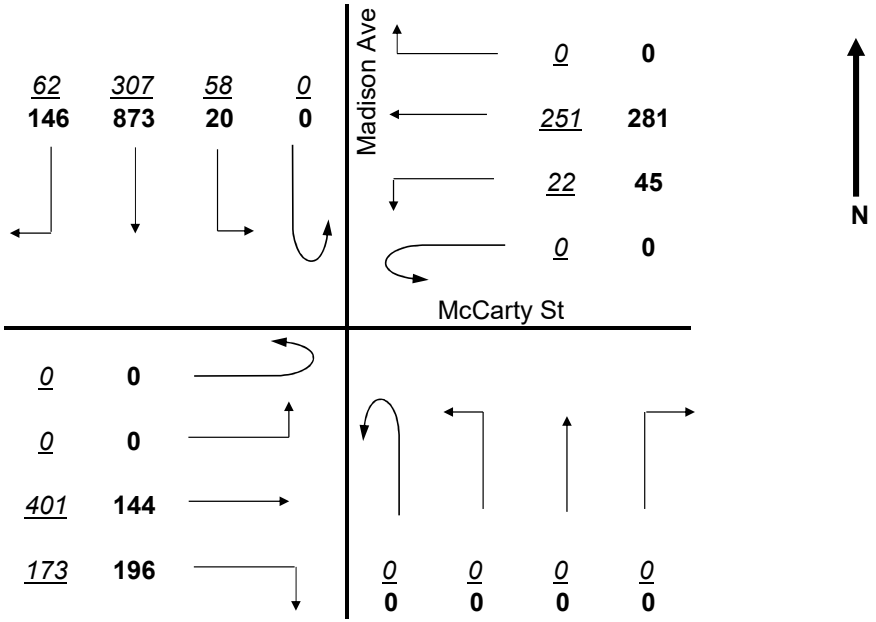
Madison Ave at McCarty St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES McCarty St				WB VEHICLES McCarty St				NB VEHICLES Madison Ave				SB VEHICLES Madison Ave				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	0	100	58	0	7	70	0	0	0	0	0	0	18	78	9	340
7:45-8:00	0	0	112	38	0	6	56	0	0	0	0	0	0	17	80	19	328
8:00-8:15	0	0	99	46	0	6	63	0	0	0	0	0	0	13	70	18	315
8:15-8:30	0	0	90	31	0	3	62	0	0	0	0	0	0	10	79	16	291
PM PEAK																	
4:30-4:45	0	0	32	39	0	13	84	0	0	0	0	0	0	3	212	38	421
4:45-5:00	0	0	30	58	0	15	64	0	0	0	0	0	0	3	217	27	414
5:00-5:15	0	0	43	58	0	7	74	0	0	0	0	0	0	9	214	39	444
5:15-5:30	0	0	39	41	0	10	59	0	0	0	0	0	0	5	230	42	426
TOTAL VOLUMES																	
AM PEAK	0	0	401	173	0	22	251	0	0	0	0	0	0	58	307	62	1274
PM PEAK	0	0	144	196	0	45	281	0	0	0	0	0	0	20	873	146	1705
% TRUCKS																	
AM PEAK	0%	0%	1%	2%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%	1%	6%	
PM PEAK	0%	0%	3%	1%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	1%	3%	

TURNING MOVEMENT COUNTS
Madison Ave at McCarty St

Count Date: 05/22/2023

	PHF
AM PEAK	0.94
PM PEAK	0.96

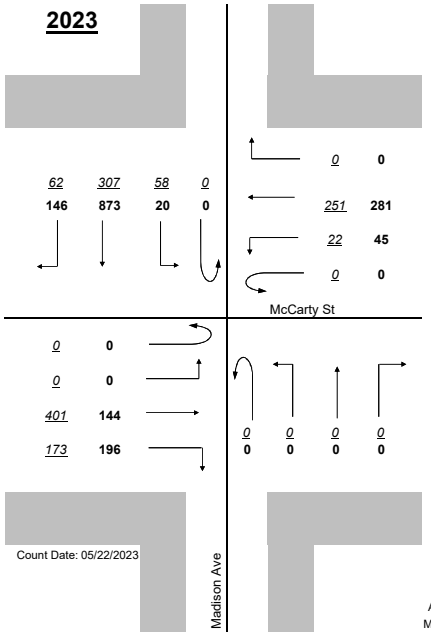


Legend:

000 AM Peak 7:30 AM-8:30 AM

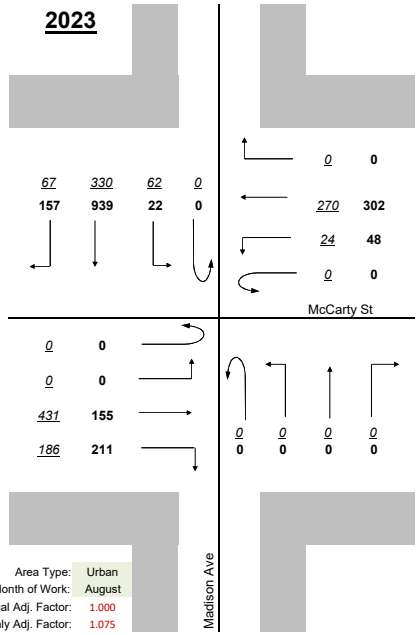
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



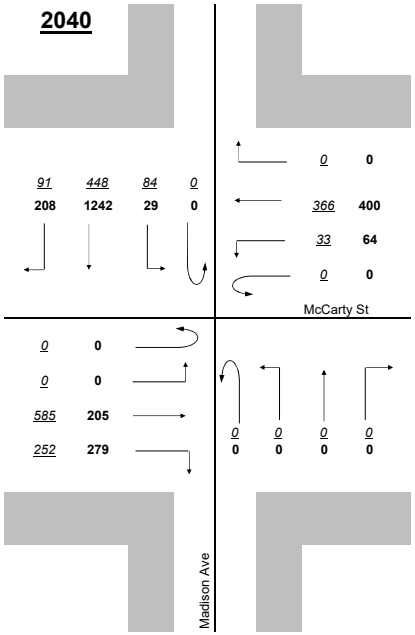
Count Date: 05/22/2023

Adjusted Existing Volumes

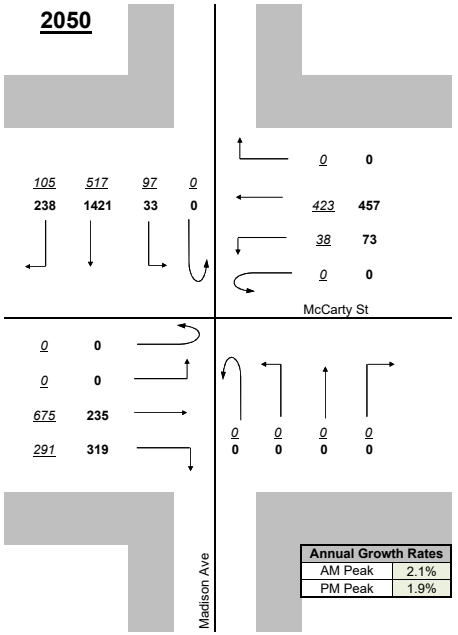


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

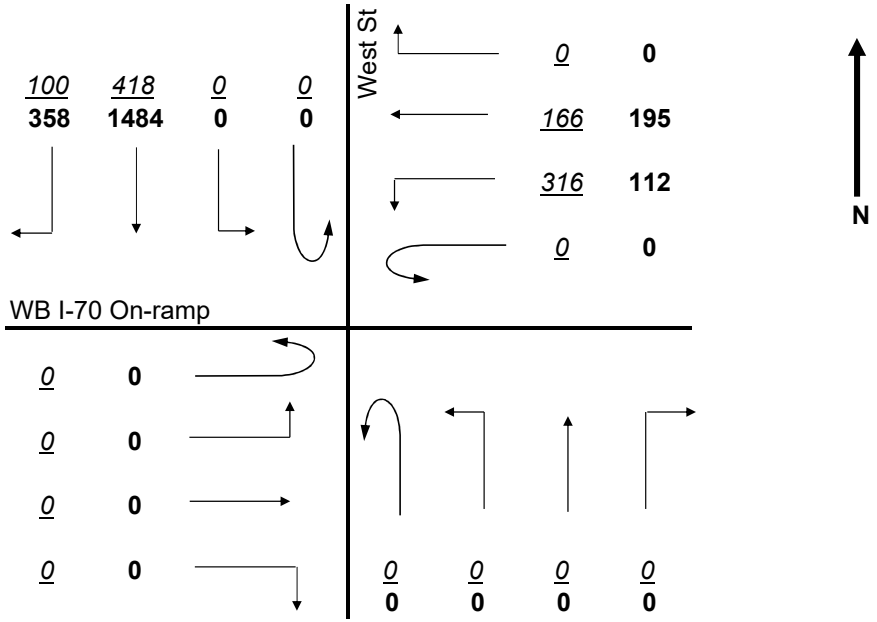
West St at WB I-70 On-ramp **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES WB I-70 On-ramp				WB VEHICLES WB I-70 On-ramp				NB VEHICLES West St				SB VEHICLES West St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
6:45-7:00	0	0	0	0	0	126	40	0	0	0	0	0	0	0	81	20	267
7:00-7:15	0	0	0	0	0	60	35	0	0	0	0	0	0	0	95	15	205
7:15-7:30	0	0	0	0	0	68	44	0	0	0	0	0	0	0	120	34	266
7:30-7:45	0	0	0	0	0	62	47	0	0	0	0	0	0	0	122	31	262
PM PEAK																	
4:00-4:15	0	0	0	0	0	26	54	0	0	0	0	0	0	0	332	103	515
4:15-4:30	0	0	0	0	0	31	38	0	0	0	0	0	0	0	378	80	527
4:30-4:45	0	0	0	0	0	34	53	0	0	0	0	0	0	0	388	101	576
4:45-5:00	0	0	0	0	0	21	50	0	0	0	0	0	0	0	386	74	531
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	316	166	0	0	0	0	0	0	0	418	100	1000
PM PEAK	0	0	0	0	0	112	195	0	0	0	0	0	0	0	1484	358	2149
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	11%	13%	0%	0%	0%	0%	0%	0%	0%	9%	10%	
PM PEAK	0%	0%	0%	0%	0%	25%	11%	0%	0%	0%	0%	0%	0%	0%	2%	3%	

	PHF
AM PEAK	0.94
PM PEAK	0.93

TURNING MOVEMENT COUNTS
West St at WB I-70 On-ramp

Count Date: 05/15/2023

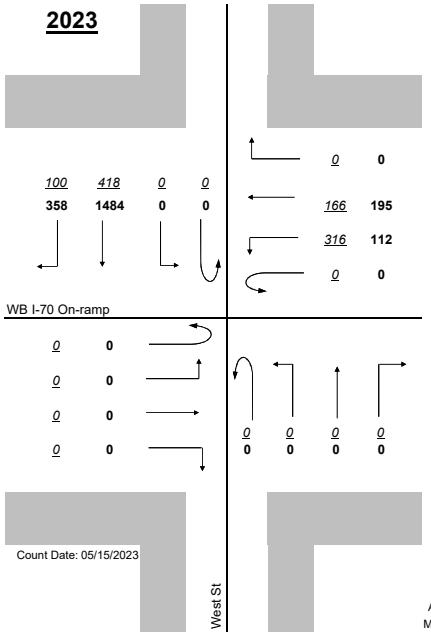


Legend:

000 AM Peak 6:45 AM-7:45 AM

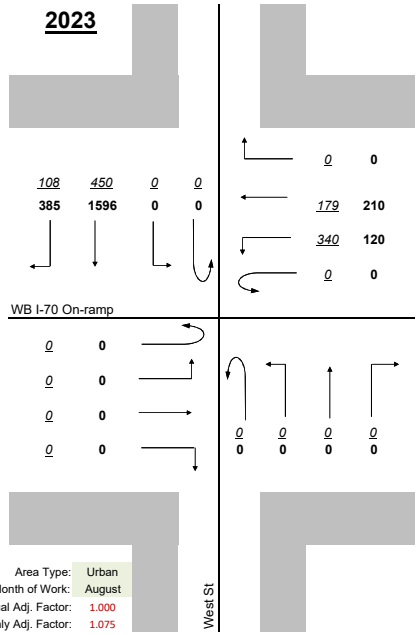
000 PM Peak 4:00 PM-5:00 PM

Raw Counts



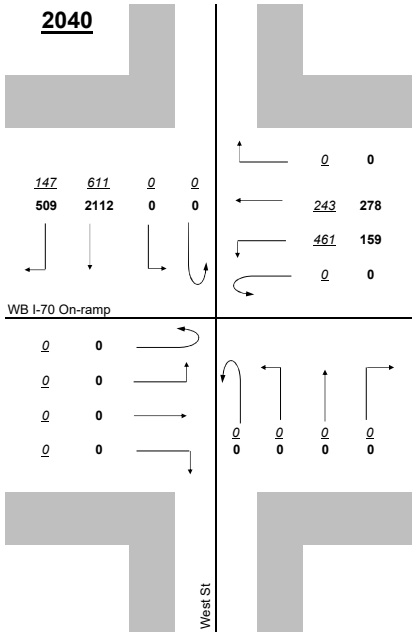
Count Date: 05/15/2023

Adjusted Existing Volumes

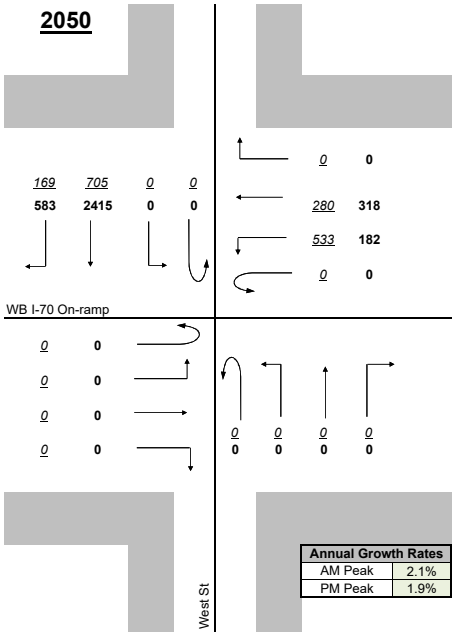


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

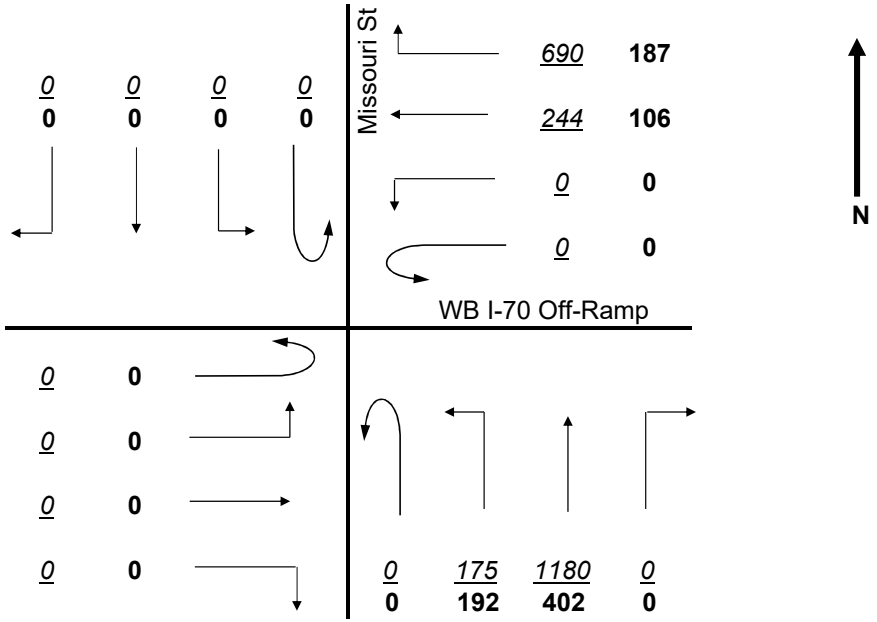
Missouri St at WB I-70 Off-Ramp **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES WB I-70 Off-Ramp				WB VEHICLES WB I-70 Off-Ramp				NB VEHICLES Missouri St				SB VEHICLES Missouri St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	0	0	0	0	0	65	179	0	41	270	0	0	0	0	0	555
7:45-8:00	0	0	0	0	0	0	69	178	0	47	255	0	0	0	0	0	549
8:00-8:15	0	0	0	0	0	0	46	165	0	40	361	0	0	0	0	0	612
8:15-8:30	0	0	0	0	0	0	64	168	0	47	294	0	0	0	0	0	573
PM PEAK																	
4:15-4:30	0	0	0	0	0	0	30	48	0	42	95	0	0	0	0	0	215
4:30-4:45	0	0	0	0	0	0	31	51	0	53	91	0	0	0	0	0	226
4:45-5:00	0	0	0	0	0	0	22	51	0	49	100	0	0	0	0	0	222
5:00-5:15	0	0	0	0	0	0	23	37	0	48	116	0	0	0	0	0	224
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	0	244	690	0	175	1180	0	0	0	0	0	2289
PM PEAK	0	0	0	0	0	0	106	187	0	192	402	0	0	0	0	0	887
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	0%	9%	1%	0%	13%	3%	0%	0%	0%	0%	0%	
PM PEAK	0%	0%	0%	0%	0%	0%	25%	4%	0%	8%	3%	0%	0%	0%	0%	0%	

	PHF
AM PEAK	0.94
PM PEAK	0.98

TURNING MOVEMENT COUNTS
Missouri St at WB I-70 Off-Ramp

Count Date: 05/15/2023



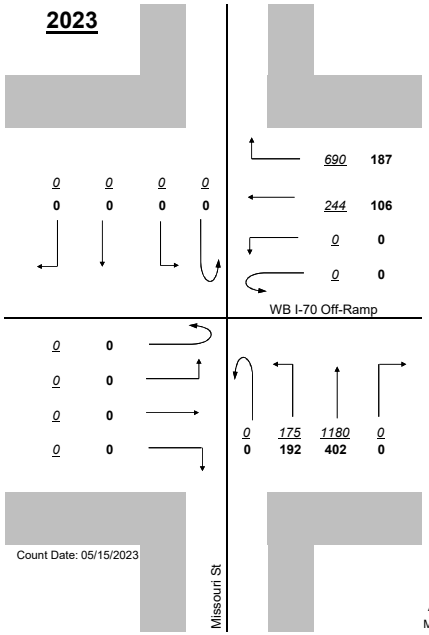
Legend:

000 AM Peak 7:30 AM-8:30 AM

000 PM Peak 4:15 PM-5:15 PM

Raw Counts

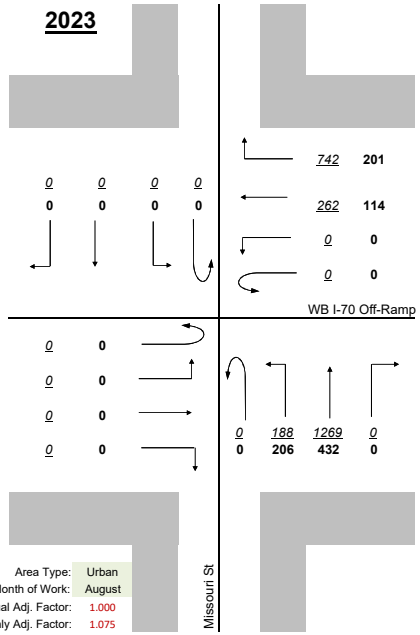
2023



Count Date: 05/15/2023

Adjusted Existing Volumes

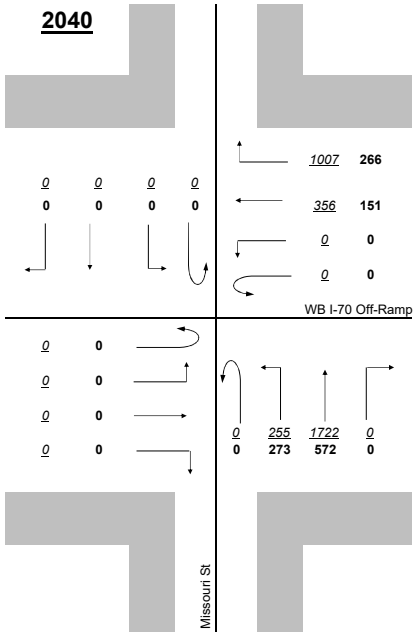
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

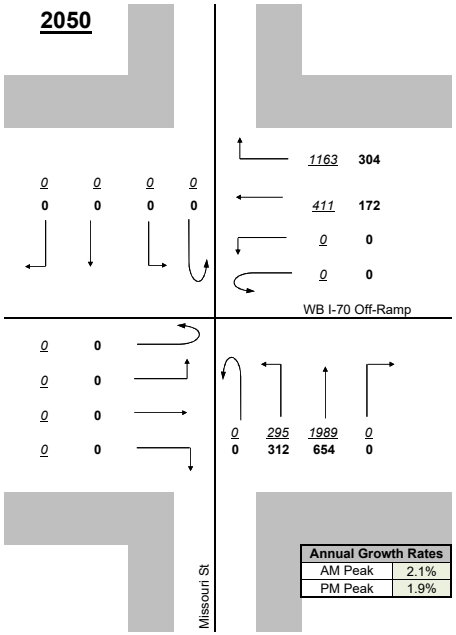
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

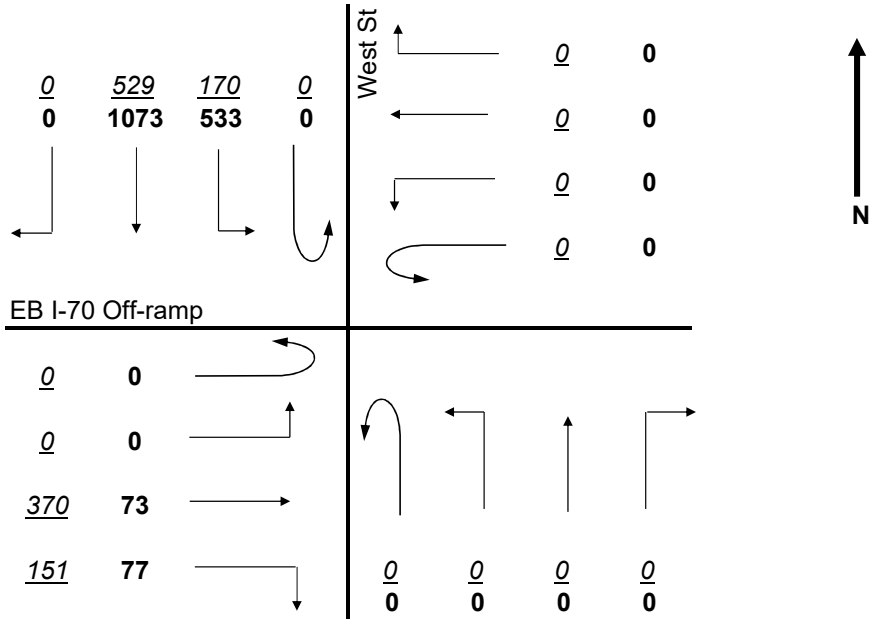
West St at EB I-70 Off-ramp **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES EB I-70 Off-ramp				WB VEHICLES EB I-70 Off-ramp				NB VEHICLES West St				SB VEHICLES West St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	0	94	33	0	0	0	0	0	0	0	0	0	46	138	0	311
7:45-8:00	0	0	110	39	0	0	0	0	0	0	0	0	0	54	151	0	354
8:00-8:15	0	0	89	36	0	0	0	0	0	0	0	0	0	30	119	0	274
8:15-8:30	0	0	77	43	0	0	0	0	0	0	0	0	0	40	121	0	281
PM PEAK																	
4:30-4:45	0	0	15	19	0	0	0	0	0	0	0	0	0	118	284	0	436
4:45-5:00	0	0	20	16	0	0	0	0	0	0	0	0	0	140	273	0	449
5:00-5:15	0	0	22	15	0	0	0	0	0	0	0	0	0	146	252	0	435
5:15-5:30	0	0	16	27	0	0	0	0	0	0	0	0	0	129	264	0	436
TOTAL VOLUMES																	
AM PEAK	0	0	370	151	0	0	0	0	0	0	0	0	0	170	529	0	1220
PM PEAK	0	0	73	77	0	0	0	0	0	0	0	0	0	533	1073	0	1756
% TRUCKS																	
AM PEAK	0%	0%	4%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9%	12%	0%	
PM PEAK	0%	0%	1%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	7%	0%	

TURNING MOVEMENT COUNTS
West St at EB I-70 Off-ramp

Count Date: 08/01/2023

	PHF
AM PEAK	0.86
PM PEAK	0.98

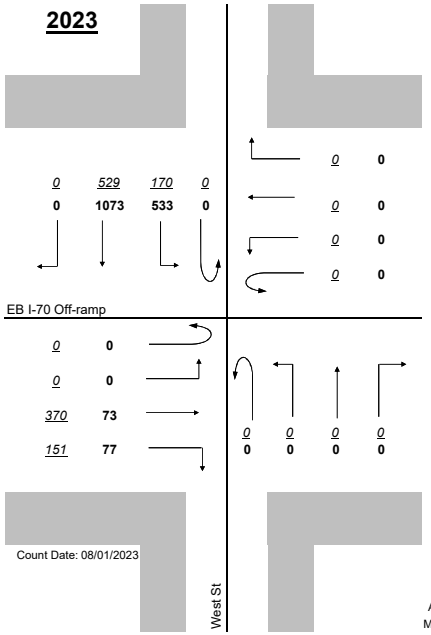


Legend:

000 AM Peak 7:30 AM-8:30 AM

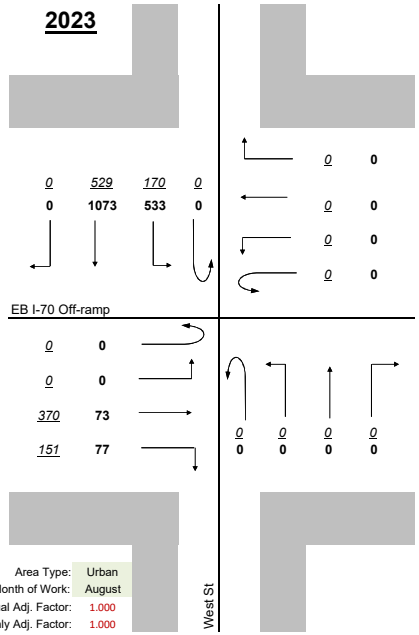
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



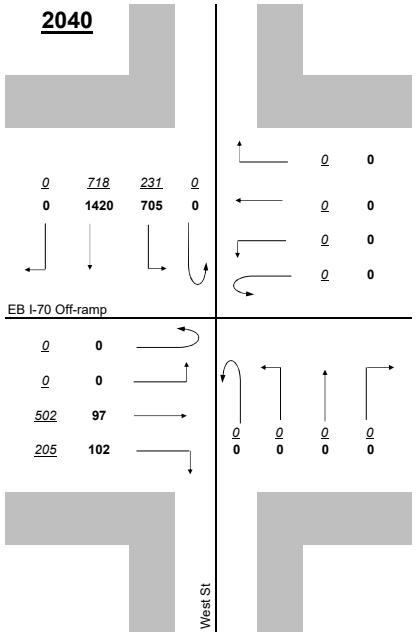
Count Date: 08/01/2023

Adjusted Existing Volumes

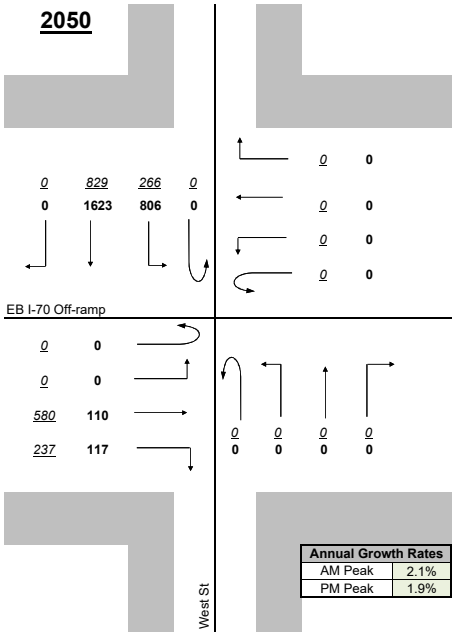


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.000

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

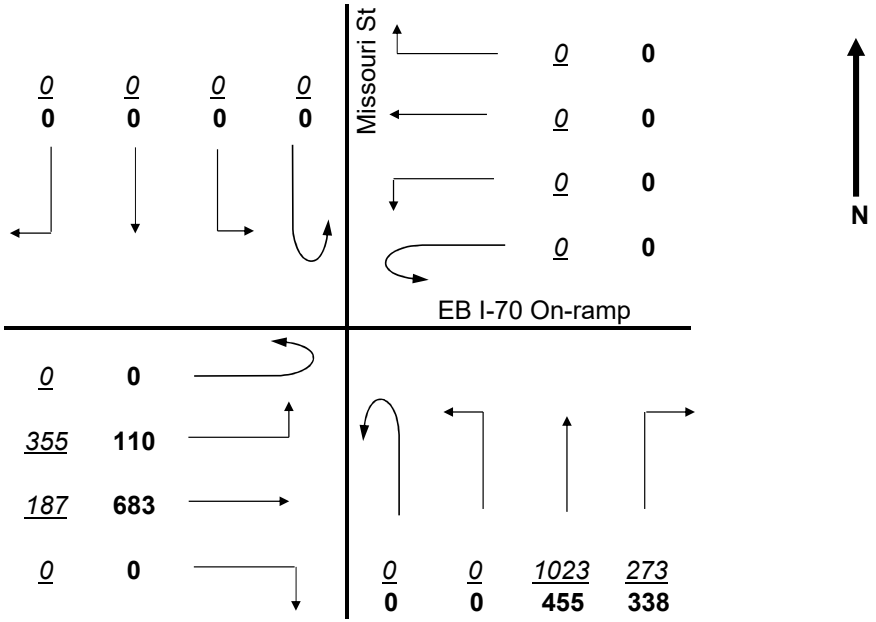
Missouri St at EB I-70 On-ramp **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES EB I-70 On-ramp				WB VEHICLES EB I-70 On-ramp				NB VEHICLES Missouri St				SB VEHICLES Missouri St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	74	58	0	0	0	0	0	0	0	249	75	0	0	0	0	456
7:45-8:00	0	104	47	0	0	0	0	0	0	0	193	69	0	0	0	0	413
8:00-8:15	0	98	43	0	0	0	0	0	0	0	307	68	0	0	0	0	516
8:15-8:30	0	79	39	0	0	0	0	0	0	0	274	61	0	0	0	0	453
PM PEAK																	
3:30-3:45	0	23	172	0	0	0	0	0	0	0	124	112	0	0	0	0	431
3:45-4:00	0	36	165	0	0	0	0	0	0	0	104	80	0	0	0	0	385
4:00-4:15	0	30	171	0	0	0	0	0	0	0	110	79	0	0	0	0	390
4:15-4:30	0	21	175	0	0	0	0	0	0	0	117	67	0	0	0	0	380
TOTAL VOLUMES																	
AM PEAK	0	355	187	0	0	0	0	0	0	0	1023	273	0	0	0	0	1838
PM PEAK	0	110	683	0	0	0	0	0	0	0	455	338	0	0	0	0	1586
% TRUCKS																	
AM PEAK	0%	3%	5%	0%	0%	0%	0%	0%	0%	0%	4%	22%	0%	0%	0%	0%	
PM PEAK	0%	6%	1%	0%	0%	0%	0%	0%	0%	0%	8%	9%	0%	0%	0%	0%	

TURNING MOVEMENT COUNTS
Missouri St at EB I-70 On-ramp

Count Date: 05/15/2023

	PHF
AM PEAK	0.89
PM PEAK	0.92

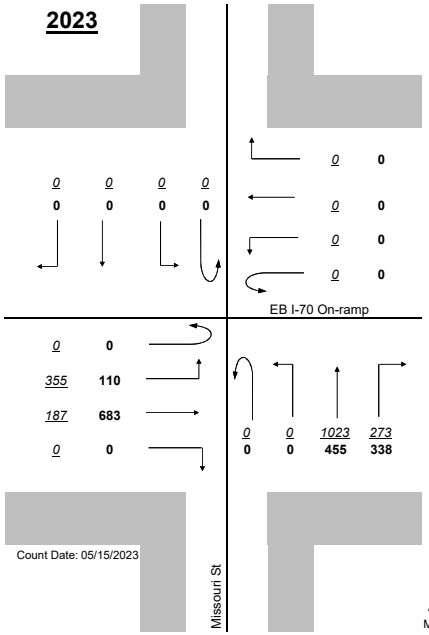


Legend:

000 AM Peak 7:30 AM-8:30 AM

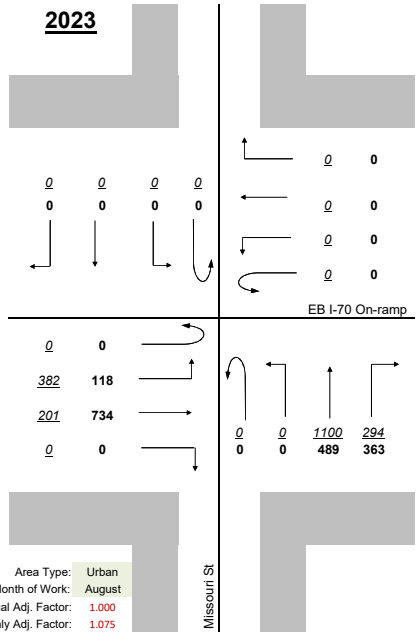
000 PM Peak 3:30 PM-4:30 PM

Raw Counts



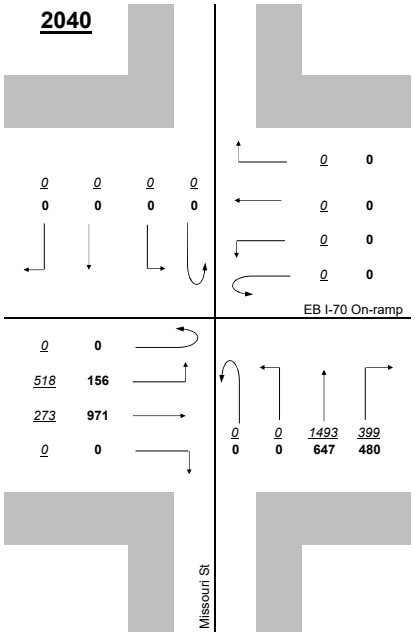
Count Date: 05/15/2023

Adjusted Existing Volumes

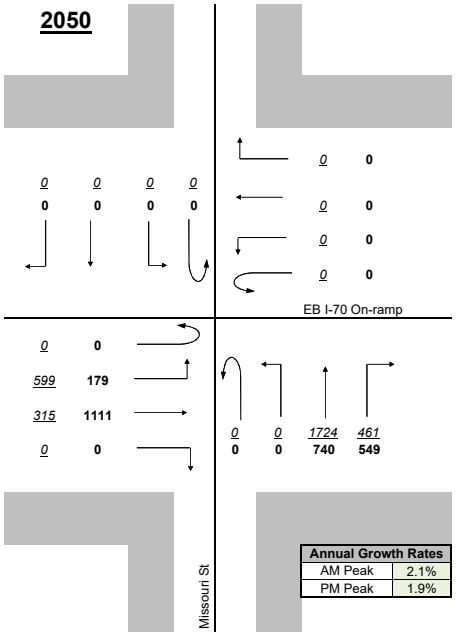


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

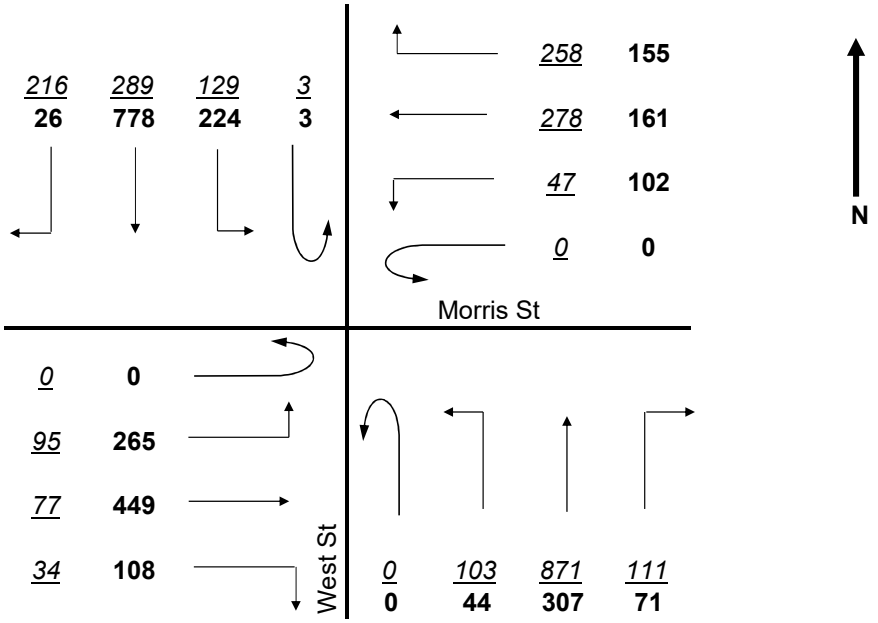
West St at Morris St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES Morris St				WB VEHICLES Morris St				NB VEHICLES West St				SB VEHICLES West St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	37	11	10	0	15	56	58	0	21	221	21	0	29	59	48	586
7:30-7:45	0	20	22	9	0	10	68	72	0	21	217	29	0	29	76	60	633
7:45-8:00	0	22	18	10	0	13	81	68	0	40	217	32	1	38	97	50	687
8:00-8:15	0	16	26	5	0	9	73	60	0	21	216	29	2	33	57	58	605
PM PEAK																	
4:00-4:15	0	80	117	36	0	28	28	50	0	11	70	19	1	50	173	3	666
4:15-4:30	0	53	107	18	0	22	37	29	0	12	77	8	2	62	178	11	616
4:30-4:45	0	70	112	36	0	29	47	30	0	11	79	11	0	58	216	5	704
4:45-5:00	0	62	113	18	0	23	49	46	0	10	81	33	0	54	211	7	707
TOTAL VOLUMES																	
AM PEAK	0	95	77	34	0	47	278	258	0	103	871	111	3	129	289	216	2511
PM PEAK	0	265	449	108	0	102	161	155	0	44	307	71	3	224	778	26	2693
% TRUCKS																	
AM PEAK	0%	35%	19%	29%	0%	9%	3%	7%	0%	5%	7%	15%	0%	6%	16%	4%	
PM PEAK	0%	5%	3%	5%	0%	5%	9%	1%	0%	23%	11%	0%	0%	0%	5%	8%	

TURNING MOVEMENT COUNTS
West St at Morris St

Count Date: 05/22/2023

	PHF
AM PEAK	0.91
PM PEAK	0.95

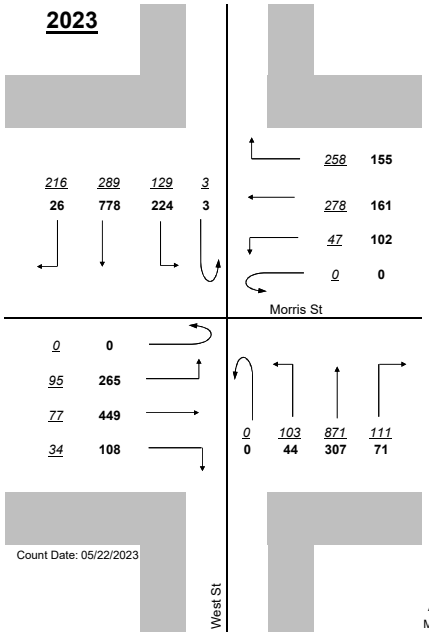


Legend:

000 AM Peak 7:15 AM-8:15 AM

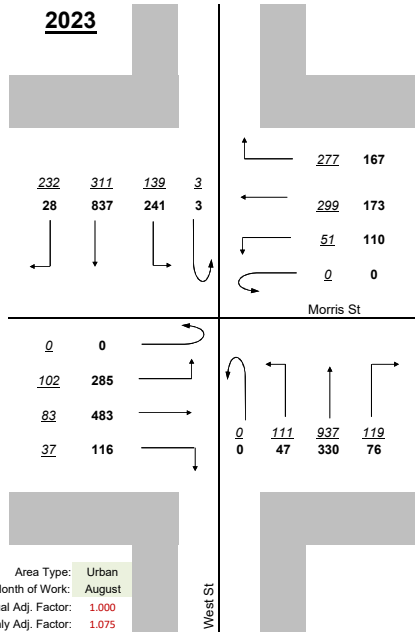
000 PM Peak 4:00 PM-5:00 PM

Raw Counts



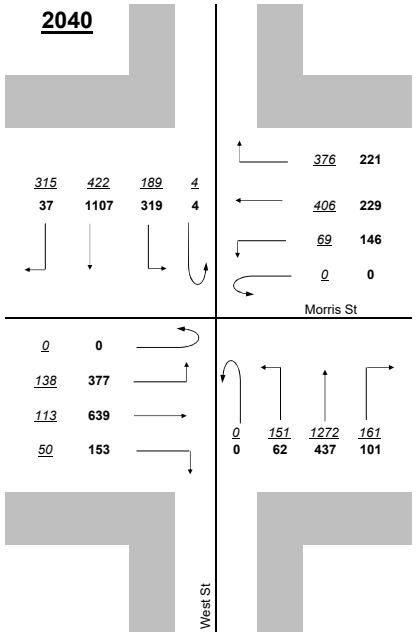
Count Date: 05/22/2023

Adjusted Existing Volumes

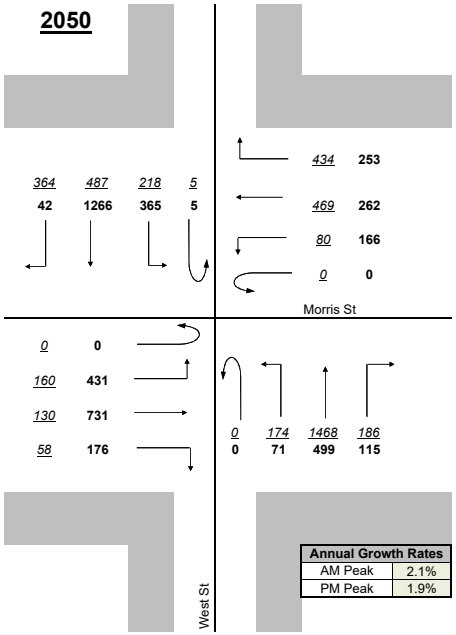


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	2.1%
PM Peak	1.9%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

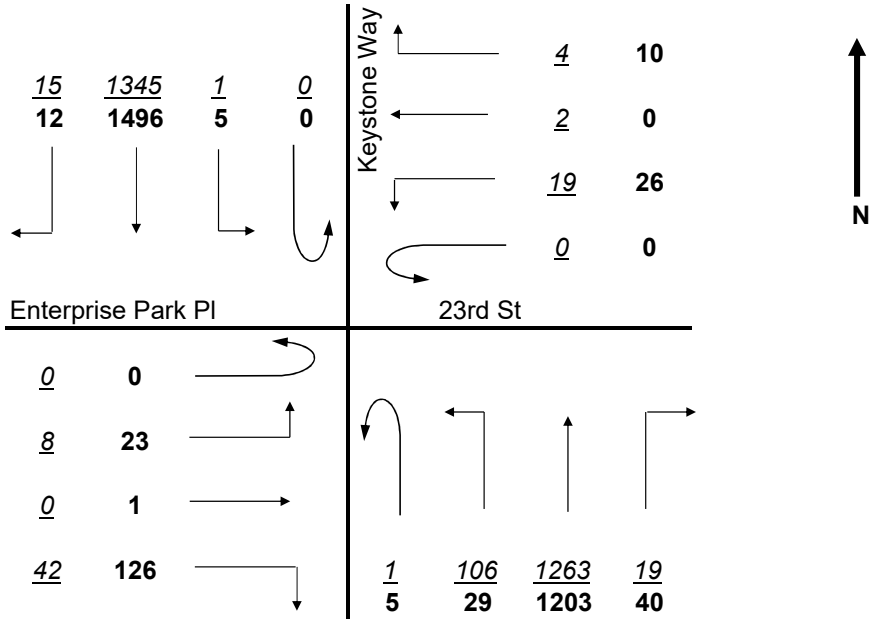
Keystone Way at Enterprise Park Pl / 23rd St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES Enterprise Park Pl				WB VEHICLES 23rd St				NB VEHICLES Keystone Way				SB VEHICLES Keystone Way				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
8:15-8:30	0	1	0	10	0	1	1	1	0	24	326	3	0	0	314	3	684
8:30-8:45	0	1	0	14	0	5	0	1	1	18	291	3	0	0	366	3	703
8:45-9:00	0	1	0	9	0	9	1	1	0	26	337	5	0	0	354	8	751
9:00-9:15	0	5	0	9	0	4	0	1	0	38	309	8	0	1	311	1	687
PM PEAK																	
5:30-5:45	0	7	1	39	0	11	0	2	3	13	309	8	0	0	358	4	755
5:45-6:00	0	7	0	22	0	3	0	4	0	3	266	12	0	0	384	3	704
6:00-6:15	0	8	0	45	0	6	0	3	0	9	312	13	0	4	396	2	798
6:15-6:30	0	1	0	20	0	6	0	1	2	4	316	7	0	1	358	3	719
TOTAL VOLUMES																	
AM PEAK	0	8	0	42	0	19	2	4	1	106	1263	19	0	1	1345	15	2825
PM PEAK	0	23	1	126	0	26	0	10	5	29	1203	40	0	5	1496	12	2976
% TRUCKS																	
AM PEAK	0%	0%	0%	26%	0%	0%	0%	25%	0%	8%	4%	5%	0%	0%	3%	0%	
PM PEAK	0%	0%	0%	3%	0%	4%	0%	10%	0%	10%	1%	0%	0%	0%	2%	0%	

	PHF
AM PEAK	0.94
PM PEAK	0.93

TURNING MOVEMENT COUNTS

Keystone Way at Enterprise Park Pl / 23rd St **Count Date: 11/06/2019**

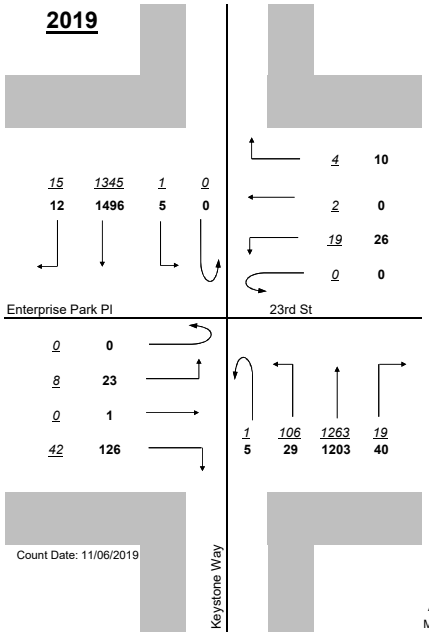


Legend:

000 AM Peak 8:15 AM-9:15 AM

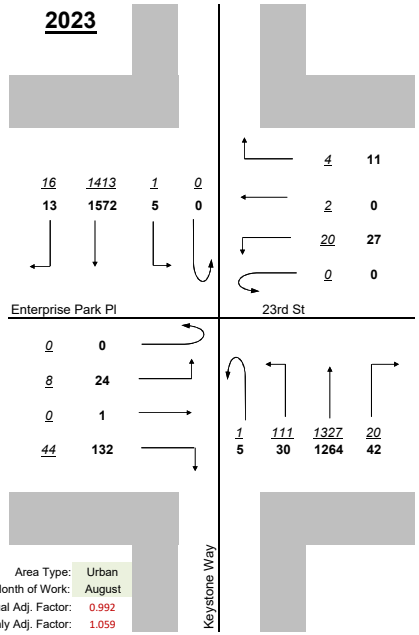
000 PM Peak 5:30 PM-6:30 PM

Raw Counts



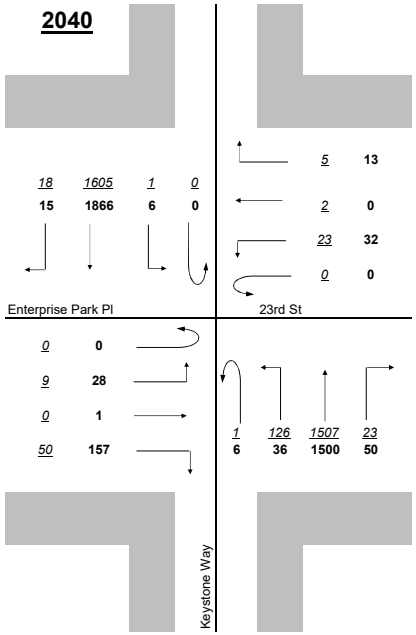
Count Date: 11/06/2019

Adjusted Existing Volumes

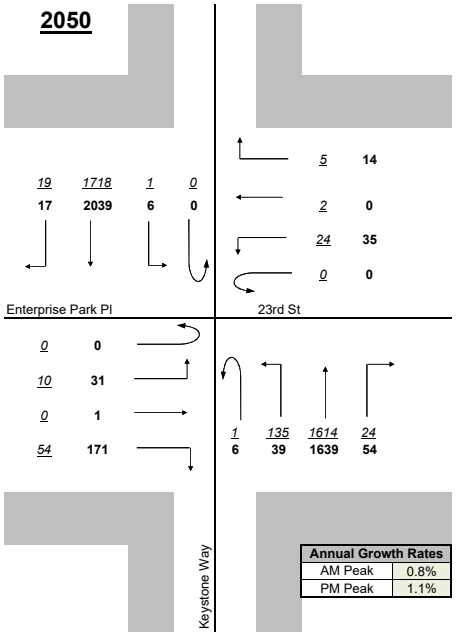


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	0.992
Monthly Adj. Factor:	1.059

Interim Year



Design Year



Annual Growth Rates	
AM Peak	0.8%
PM Peak	1.1%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

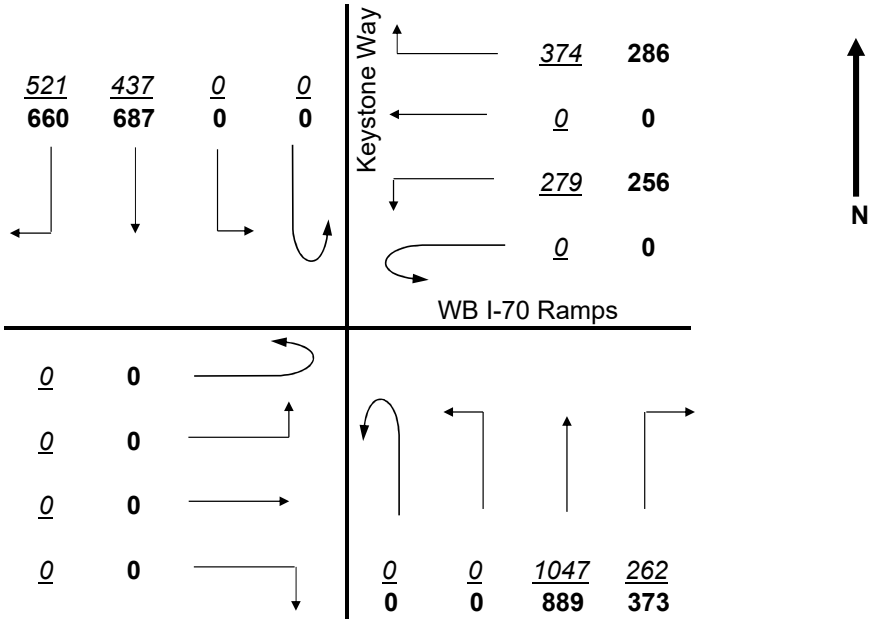
Keystone Way at WB I-70 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES WB I-70 Ramps				WB VEHICLES WB I-70 Ramps				NB VEHICLES Keystone Way				SB VEHICLES Keystone Way				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	0	0	0	0	70	0	77	0	0	241	76	0	0	93	144	701
7:45-8:00	0	0	0	0	0	83	0	106	0	0	306	80	0	0	138	131	844
8:00-8:15	0	0	0	0	0	79	0	89	0	0	251	59	0	0	110	118	706
8:15-8:30	0	0	0	0	0	47	0	102	0	0	249	47	0	0	96	128	669
PM PEAK																	
4:15-4:30	0	0	0	0	0	57	0	70	0	0	204	84	0	0	181	178	774
4:30-4:45	0	0	0	0	0	65	0	77	0	0	239	102	0	0	157	194	834
4:45-5:00	0	0	0	0	0	74	0	66	0	0	198	96	0	0	161	139	734
5:00-5:15	0	0	0	0	0	60	0	73	0	0	248	91	0	0	188	149	809
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	279	0	374	0	0	1047	262	0	0	437	521	2920
PM PEAK	0	0	0	0	0	256	0	286	0	0	889	373	0	0	687	660	3151
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	6%	0%	7%	0%	0%	9%	8%	0%	0%	5%	7%	
PM PEAK	0%	0%	0%	0%	0%	2%	0%	5%	0%	0%	3%	8%	0%	0%	2%	7%	

TURNING MOVEMENT COUNTS
Keystone Way at WB I-70 Ramps

Count Date: 06/28/2023

	PHF
AM PEAK	0.86
PM PEAK	0.94

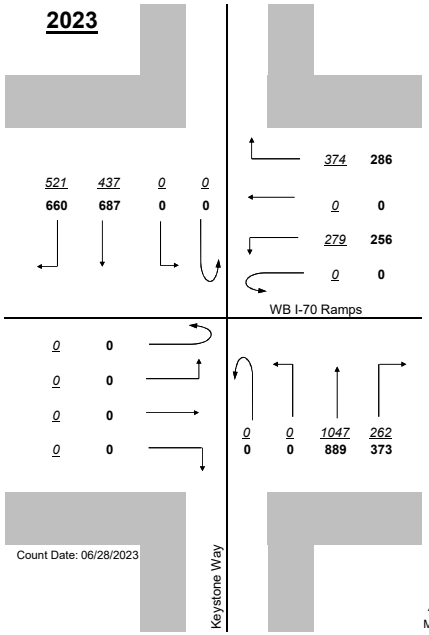


Legend:

000 AM Peak 7:30 AM-8:30 AM

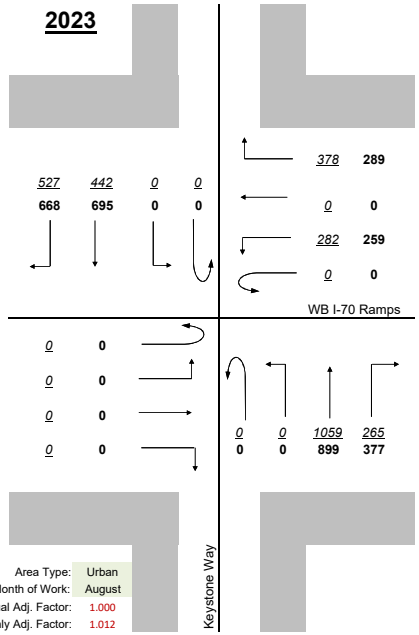
000 PM Peak 4:15 PM-5:15 PM

Raw Counts



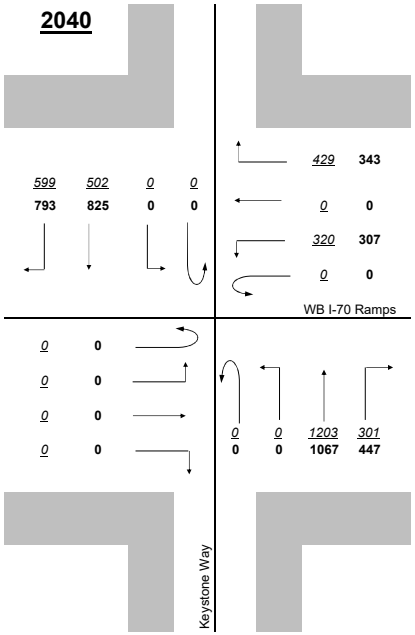
Count Date: 06/28/2023

Adjusted Existing Volumes

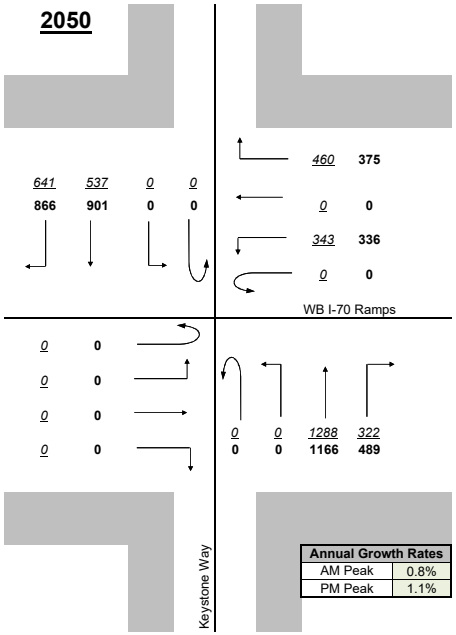


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.012

Interim Year



Design Year



Annual Growth Rates	
AM Peak	0.8%
PM Peak	1.1%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

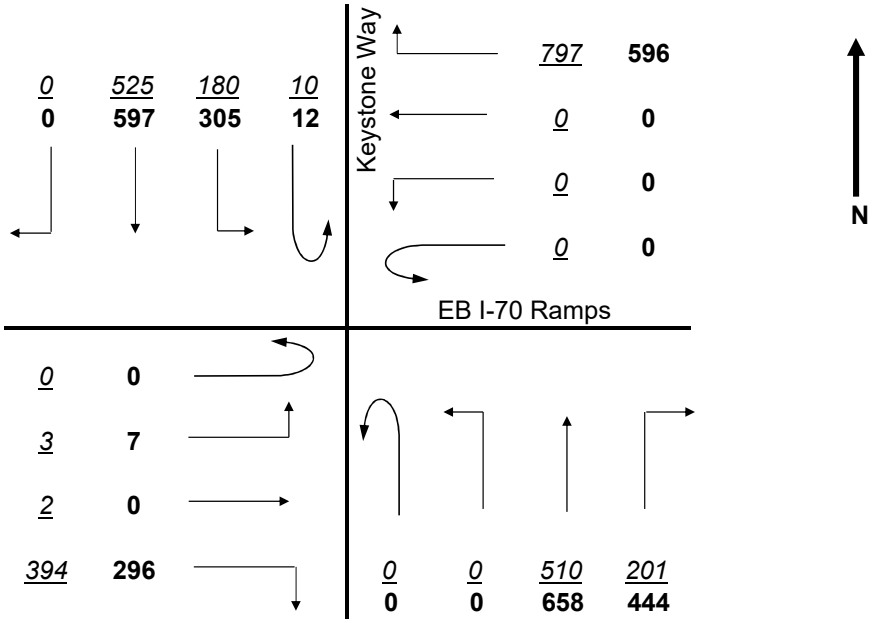
Keystone Way at EB I-70 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES EB I-70 Ramps				WB VEHICLES EB I-70 Ramps				NB VEHICLES Keystone Way				SB VEHICLES Keystone Way				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	1	0	81	0	0	0	169	0	0	154	61	1	33	133	0	633
7:45-8:00	0	2	1	118	0	0	0	240	0	0	134	45	7	48	156	0	751
8:00-8:15	0	0	0	105	0	0	0	195	0	0	114	49	1	50	135	0	649
8:15-8:30	0	0	1	90	0	0	0	193	0	0	108	46	1	49	101	0	589
PM PEAK																	
4:30-4:45	0	3	0	62	0	0	0	148	0	0	182	119	1	68	154	0	737
4:45-5:00	0	1	0	68	0	0	0	141	0	0	163	91	0	73	161	0	698
5:00-5:15	0	1	0	92	0	0	0	153	0	0	175	141	4	88	148	0	802
5:15-5:30	0	2	0	74	0	0	0	154	0	0	138	93	7	76	134	0	678
TOTAL VOLUMES																	
AM PEAK	0	3	2	394	0	0	0	797	0	0	510	201	10	180	525	0	2622
PM PEAK	0	7	0	296	0	0	0	596	0	0	658	444	12	305	597	0	2915
% TRUCKS																	
AM PEAK	0%	0%	50%	9%	0%	0%	0%	11%	0%	0%	5%	7%	0%	6%	6%	0%	
PM PEAK	0%	29%	0%	6%	0%	0%	0%	4%	0%	0%	4%	1%	0%	2%	2%	0%	

	PHF
AM PEAK	0.87
PM PEAK	0.91

TURNING MOVEMENT COUNTS
Keystone Way at EB I-70 Ramps

Count Date: 06/28/2023

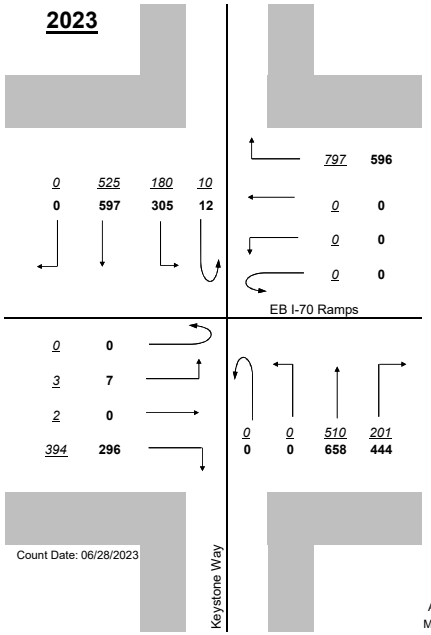


Legend:

000 AM Peak 7:30 AM-8:30 AM

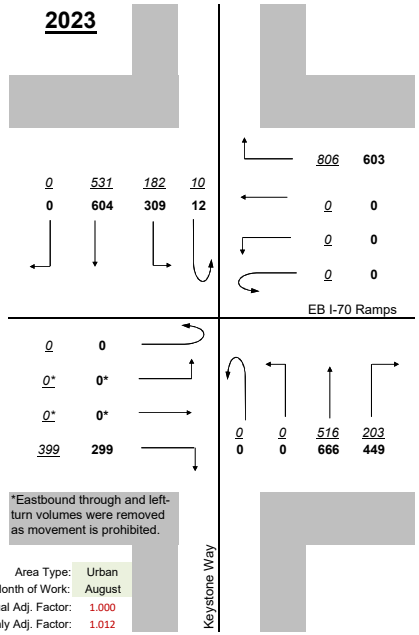
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



Count Date: 06/28/2023

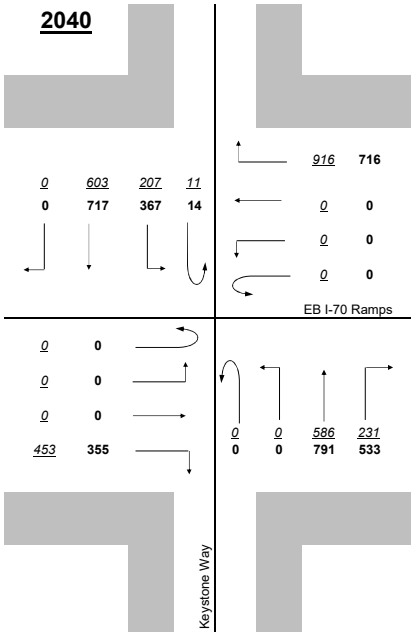
Adjusted Existing Volumes



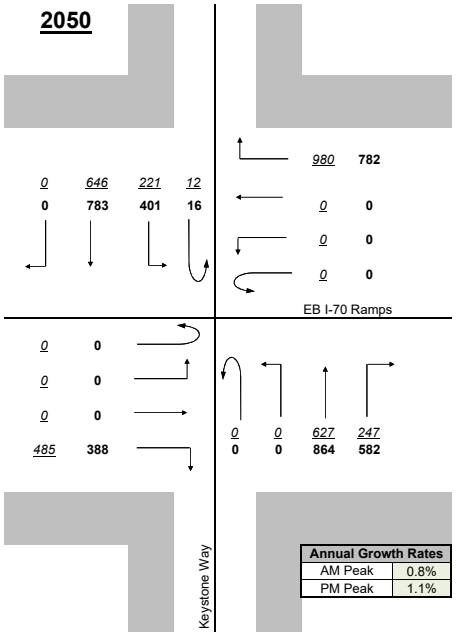
*Eastbound through and left-turn volumes were removed as movement is prohibited.

Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.012

Interim Year



Design Year



Annual Growth Rates	
AM Peak	0.8%
PM Peak	1.1%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

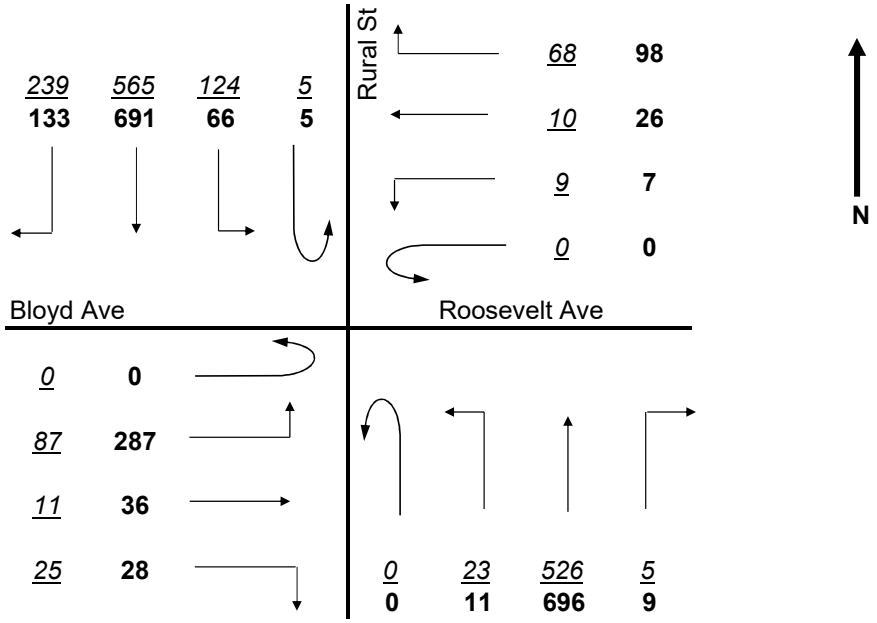
Rural St at Bloyd Ave/Roosevelt Ave **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES Bloyd Ave				WB VEHICLES Roosevelt Ave				NB VEHICLES Rural St				SB VEHICLES Rural St				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	19	2	5	0	2	3	20	0	3	163	2	1	26	119	70	435
7:45-8:00	0	18	4	7	0	4	0	23	0	6	128	1	2	37	171	73	474
8:00-8:15	0	29	2	5	0	2	6	13	0	7	119	0	1	34	150	58	426
8:15-8:30	0	21	3	8	0	1	1	12	0	7	116	2	1	27	125	38	362
PM PEAK																	
4:15-4:30	0	37	8	6	0	1	3	22	0	4	163	2	3	16	171	30	466
4:30-4:45	0	76	15	2	0	3	9	20	0	3	202	1	0	8	178	25	542
4:45-5:00	0	76	7	8	0	3	5	19	0	4	155	1	1	26	166	34	505
5:00-5:15	0	98	6	12	0	0	9	37	0	0	176	5	1	16	176	44	580
TOTAL VOLUMES																	
AM PEAK	0	87	11	25	0	9	10	68	0	23	526	5	5	124	565	239	1697
PM PEAK	0	287	36	28	0	7	26	98	0	11	696	9	5	66	691	133	2093
% TRUCKS																	
AM PEAK	0%	18%	9%	24%	0%	11%	10%	21%	0%	17%	3%	0%	0%	15%	4%	8%	
PM PEAK	0%	3%	3%	0%	0%	14%	8%	7%	0%	9%	2%	0%	0%	18%	2%	7%	

TURNING MOVEMENT COUNTS
Rural St at Bloyd Ave/Roosevelt Ave

Count Date: 06/28/2023

	PHF
AM PEAK	0.90
PM PEAK	0.90

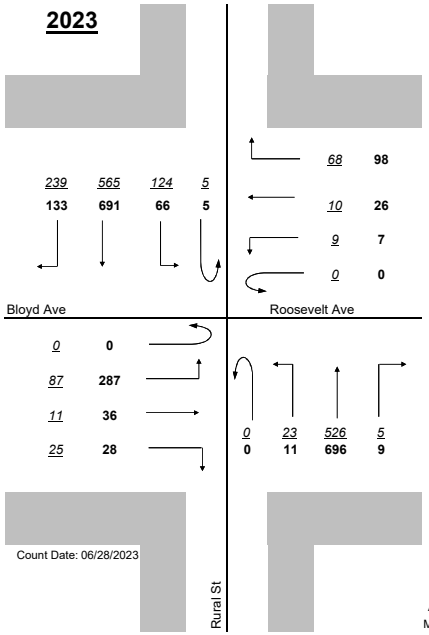


Legend:

000 AM Peak 7:30 AM-8:30 AM

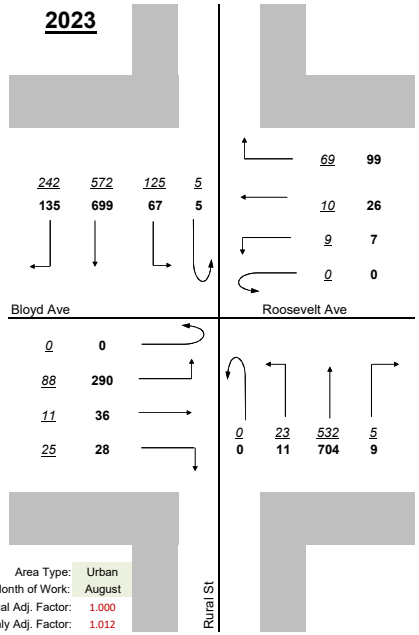
000 PM Peak 4:15 PM-5:15 PM

Raw Counts



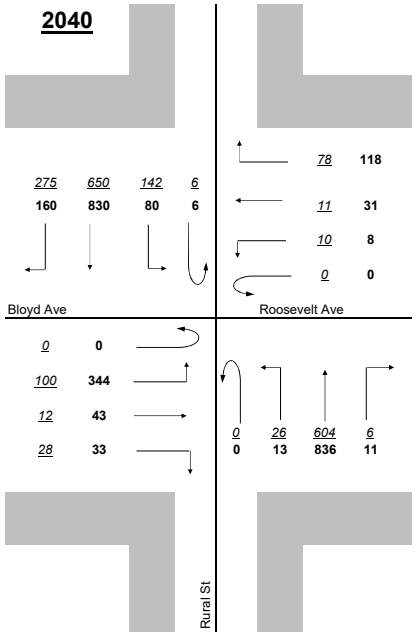
Count Date: 06/28/2023

Adjusted Existing Volumes

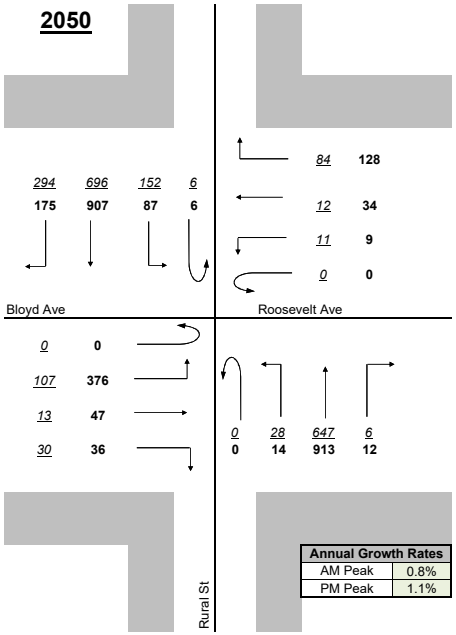


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.012

Interim Year



Design Year



Annual Growth Rates	
AM Peak	0.8%
PM Peak	1.1%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

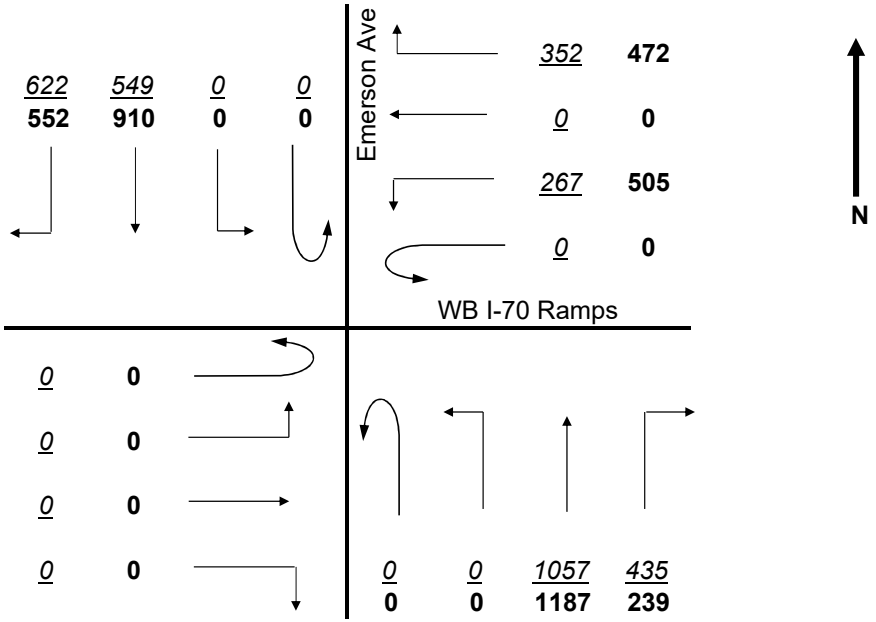
Emerson Ave at WB I-70 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES WB I-70 Ramps				WB VEHICLES WB I-70 Ramps				NB VEHICLES Emerson Ave				SB VEHICLES Emerson Ave				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	0	0	0	0	60	0	85	0	0	228	111	0	0	125	163	772
7:30-7:45	0	0	0	0	0	69	0	87	0	0	267	135	0	0	140	167	865
7:45-8:00	0	0	0	0	0	78	0	91	0	0	289	102	0	0	145	144	849
8:00-8:15	0	0	0	0	0	60	0	89	0	0	273	87	0	0	139	148	796
PM PEAK																	
4:30-4:45	0	0	0	0	0	153	0	133	0	0	307	49	0	0	200	128	970
4:45-5:00	0	0	0	0	0	98	0	95	0	0	291	74	0	0	238	153	949
5:00-5:15	0	0	0	0	0	110	0	90	0	0	274	64	0	0	238	146	922
5:15-5:30	0	0	0	0	0	144	0	154	0	0	315	52	0	0	234	125	1024
TOTAL VOLUMES																	
AM PEAK	0	0	0	0	0	267	0	352	0	0	1057	435	0	0	549	622	3282
PM PEAK	0	0	0	0	0	505	0	472	0	0	1187	239	0	0	910	552	3865
% TRUCKS																	
AM PEAK	0%	0%	0%	0%	0%	3%	0%	4%	0%	0%	6%	5%	0%	0%	5%	7%	
PM PEAK	0%	0%	0%	0%	0%	3%	0%	6%	0%	0%	4%	3%	0%	0%	2%	4%	

TURNING MOVEMENT COUNTS
Emerson Ave at WB I-70 Ramps

Count Date: 05/17/2023

	PHF
AM PEAK	0.95
PM PEAK	0.94

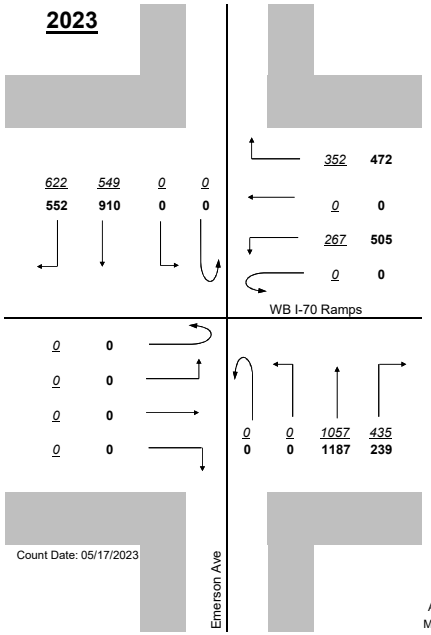


Legend:

000 AM Peak 7:15 AM-8:15 AM

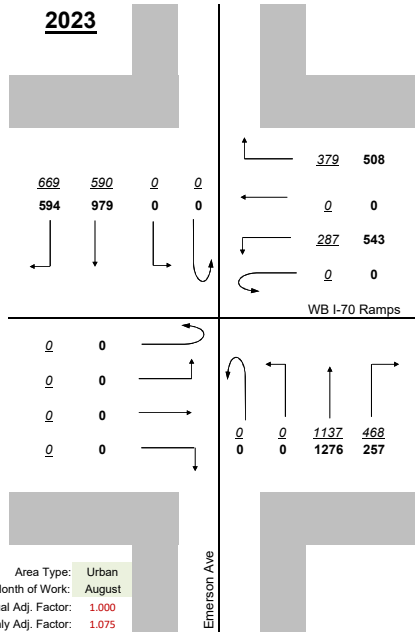
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



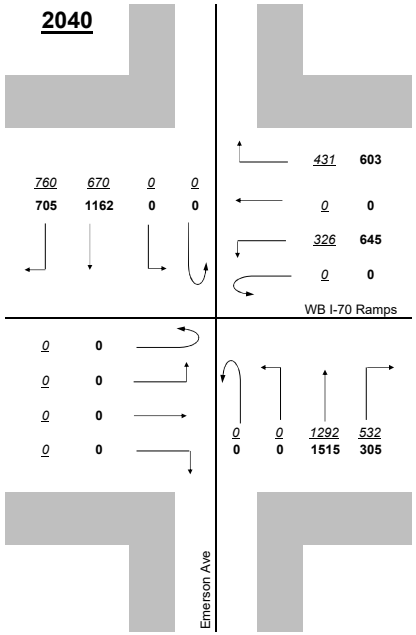
Count Date: 05/17/2023

Adjusted Existing Volumes

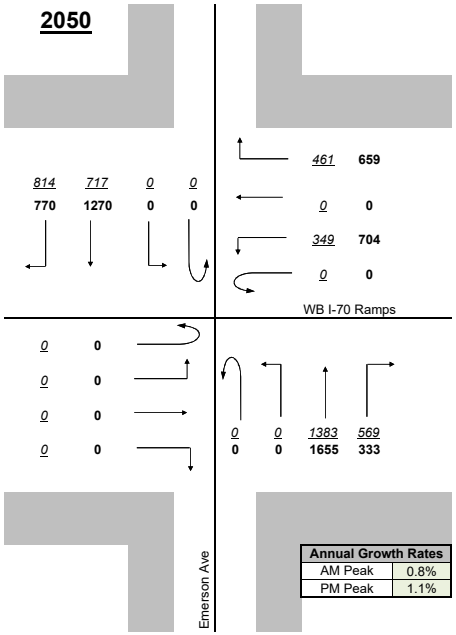


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	0.8%
PM Peak	1.1%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

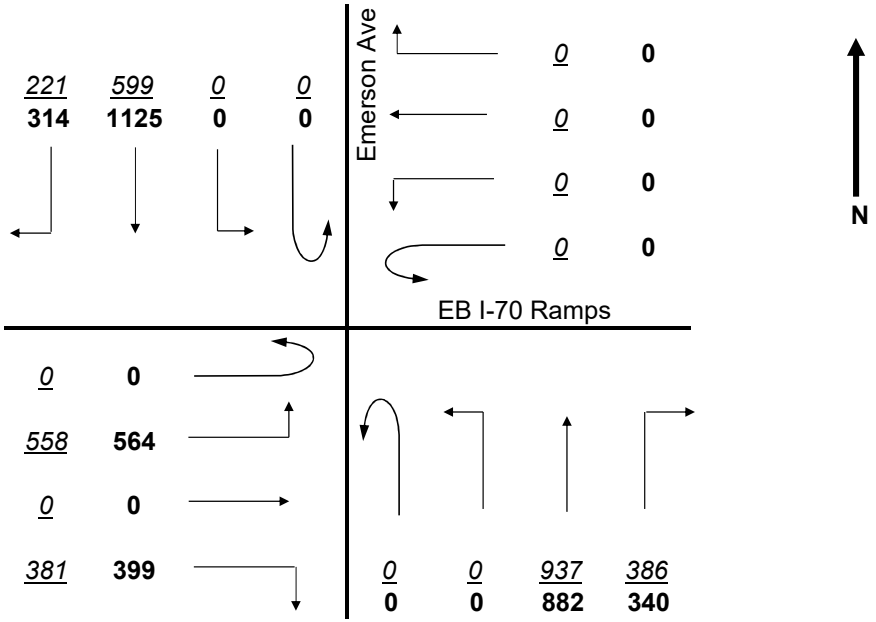
Emerson Ave at EB I-70 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES EB I-70 Ramps				WB VEHICLES EB I-70 Ramps				NB VEHICLES Emerson Ave				SB VEHICLES Emerson Ave				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:15-7:30	0	128	0	89	0	0	0	0	0	0	213	110	0	0	117	59	716
7:30-7:45	0	135	0	105	0	0	0	0	0	0	271	111	0	0	160	57	839
7:45-8:00	0	153	0	107	0	0	0	0	0	0	237	94	0	0	175	58	824
8:00-8:15	0	142	0	80	0	0	0	0	0	0	216	71	0	0	147	47	703
PM PEAK																	
4:30-4:45	0	163	0	108	0	0	0	0	0	0	219	100	0	0	296	75	961
4:45-5:00	0	140	0	109	0	0	0	0	0	0	228	72	0	0	257	82	888
5:00-5:15	0	116	0	88	0	0	0	0	0	0	216	91	0	0	263	86	860
5:15-5:30	0	145	0	94	0	0	0	0	0	0	219	77	0	0	309	71	915
TOTAL VOLUMES																	
AM PEAK	0	558	0	381	0	0	0	0	0	0	937	386	0	0	599	221	3082
PM PEAK	0	564	0	399	0	0	0	0	0	0	882	340	0	0	1125	314	3624
% TRUCKS																	
AM PEAK	0%	10%	0%	4%	0%	0%	0%	0%	0%	0%	3%	3%	0%	0%	3%	9%	
PM PEAK	0%	7%	0%	2%	0%	0%	0%	0%	0%	0%	2%	3%	0%	0%	2%	2%	

TURNING MOVEMENT COUNTS
Emerson Ave at EB I-70 Ramps

Count Date: 05/17/2023

	PHF
AM PEAK	0.92
PM PEAK	0.94

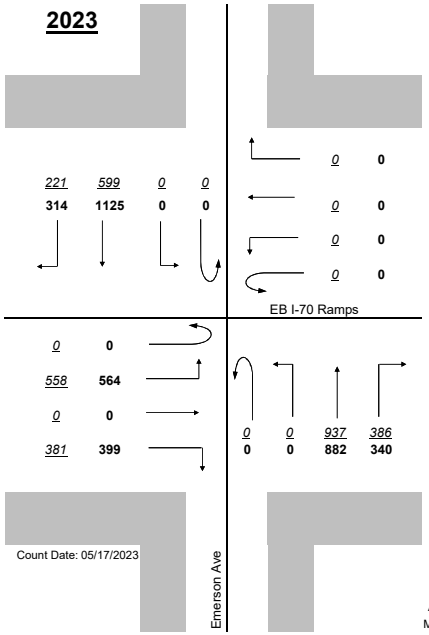


Legend:

000 AM Peak 7:15 AM-8:15 AM

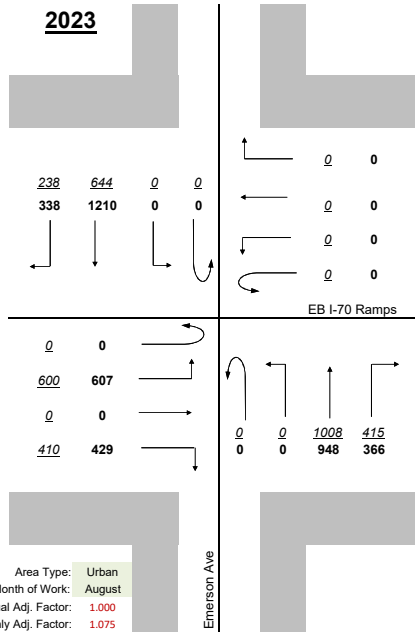
000 PM Peak 4:30 PM-5:30 PM

Raw Counts



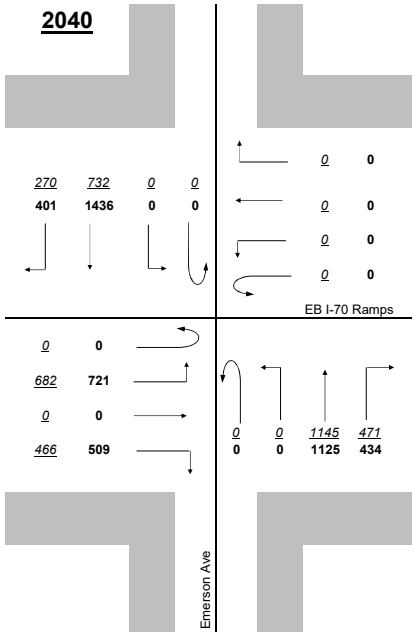
Count Date: 05/17/2023

Adjusted Existing Volumes

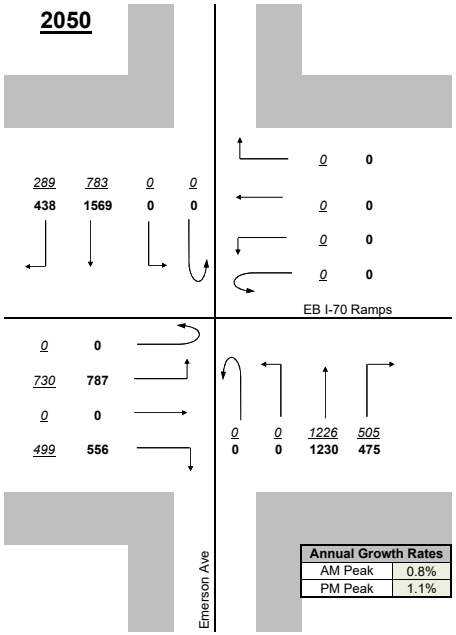


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.075

Interim Year



Design Year



Annual Growth Rates	
AM Peak	0.8%
PM Peak	1.1%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

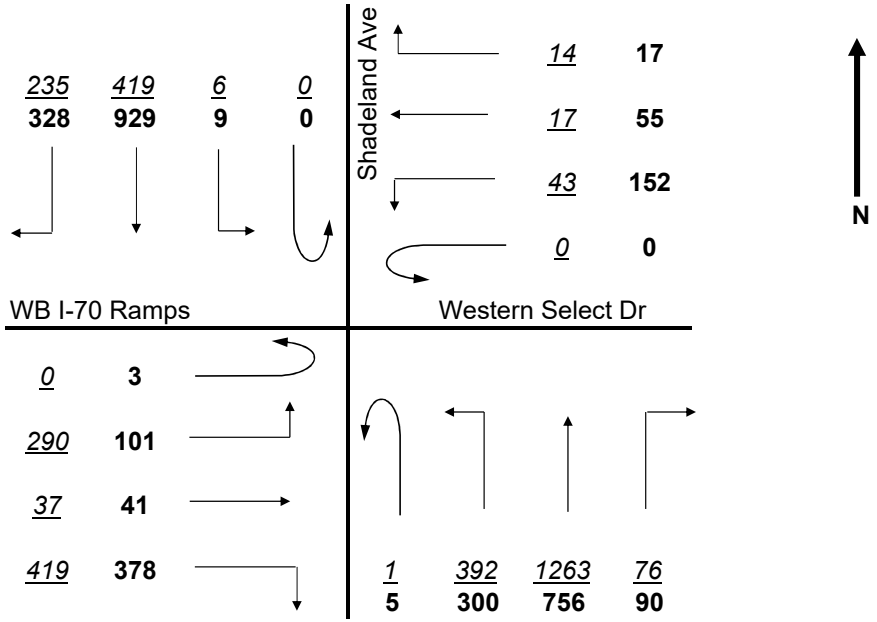
Shadeland Ave at WB I-70 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES WB I-70 Ramps				WB VEHICLES Western Select Dr				NB VEHICLES Shadeland Ave				SB VEHICLES Shadeland Ave				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	110	11	94	0	7	9	3	0	109	297	9	0	2	112	62	825
7:45-8:00	0	90	14	134	0	8	1	7	0	81	363	25	0	1	107	61	892
8:00-8:15	0	56	6	107	0	11	6	1	0	116	346	23	0	3	108	45	828
8:15-8:30	0	34	6	84	0	17	1	3	1	86	257	19	0	0	92	67	667
PM PEAK																	
3:15-3:30	0	23	14	85	0	26	8	2	1	69	181	26	0	4	209	60	708
3:30-3:45	1	26	15	101	0	42	18	8	2	83	204	28	0	3	264	106	901
3:45-4:00	1	25	6	101	0	48	14	5	2	78	163	27	0	1	222	77	770
4:00-4:15	1	27	6	91	0	36	15	2	0	70	208	9	0	1	234	85	785
TOTAL VOLUMES																	
AM PEAK	0	290	37	419	0	43	17	14	1	392	1263	76	0	6	419	235	3212
PM PEAK	3	101	41	378	0	152	55	17	5	300	756	90	0	9	929	328	3164
% TRUCKS																	
AM PEAK	0%	7%	14%	2%	0%	47%	35%	21%	0%	6%	5%	9%	0%	17%	12%	13%	
PM PEAK	0%	17%	39%	2%	0%	10%	15%	18%	0%	6%	6%	17%	0%	22%	3%	7%	

TURNING MOVEMENT COUNTS
Shadeland Ave at WB I-70 Ramps

Count Date: 02/28/2023

	PHF
AM PEAK	0.90
PM PEAK	0.88

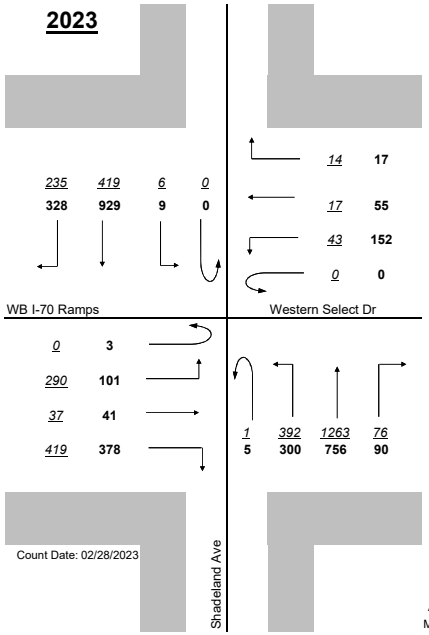


Legend:

000 AM Peak 7:30 AM-8:30 AM

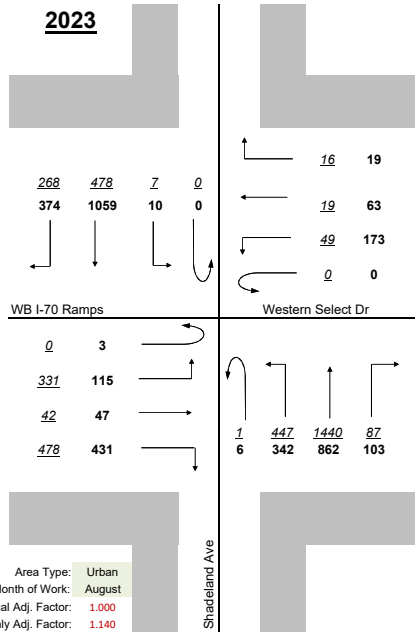
000 PM Peak 3:15 PM-4:15 PM

Raw Counts



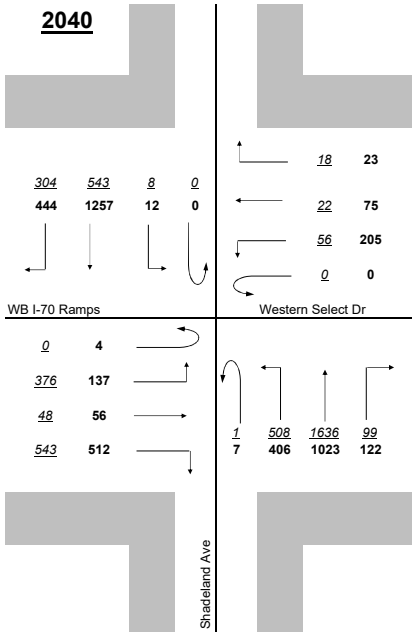
Count Date: 02/28/2023

Adjusted Existing Volumes

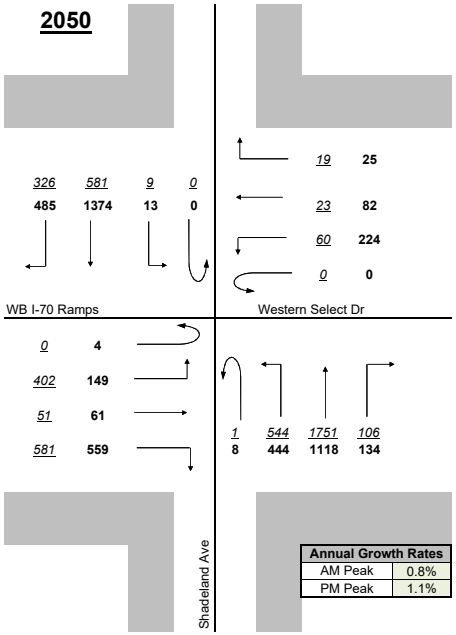


Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.140

Interim Year



Design Year



Annual Growth Rates	
AM Peak	0.8%
PM Peak	1.1%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

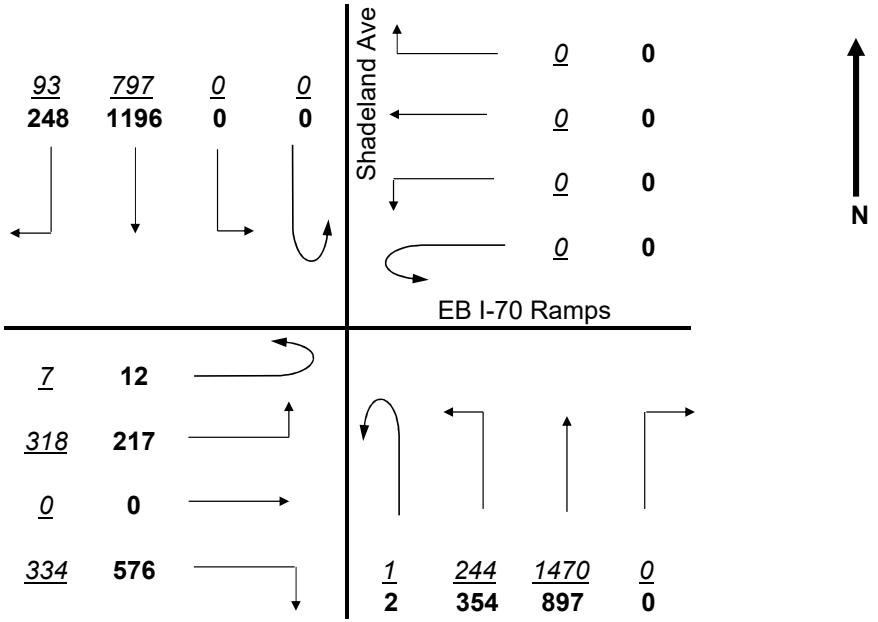
Shadeland Ave at EB I-70 Ramps **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES EB I-70 Ramps				WB VEHICLES EB I-70 Ramps				NB VEHICLES Shadeland Ave				SB VEHICLES Shadeland Ave				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	3	81	0	82	0	0	0	0	0	57	342	0	0	0	189	25	779
7:45-8:00	1	94	0	84	0	0	0	0	1	54	430	0	0	0	221	13	898
8:00-8:15	1	81	0	76	0	0	0	0	0	69	402	0	0	0	207	30	866
8:15-8:30	2	62	0	92	0	0	0	0	0	64	296	0	0	0	180	25	721
PM PEAK																	
3:45-4:00	5	55	0	152	0	0	0	0	0	71	223	0	0	0	319	70	895
4:00-4:15	2	55	0	132	0	0	0	0	1	85	232	0	0	0	296	59	862
4:15-4:30	3	64	0	153	0	0	0	0	1	82	207	0	0	0	270	58	838
4:30-4:45	2	43	0	139	0	0	0	0	0	116	235	0	0	0	311	61	907
TOTAL VOLUMES																	
AM PEAK	7	318	0	334	0	0	0	0	1	244	1470	0	0	0	797	93	3264
PM PEAK	12	217	0	576	0	0	0	0	2	354	897	0	0	0	1196	248	3502
% TRUCKS																	
AM PEAK	0%	9%	0%	7%	0%	0%	0%	0%	0%	4%	4%	0%	0%	0%	6%	35%	
PM PEAK	0%	7%	0%	4%	0%	0%	0%	0%	0%	2%	5%	0%	0%	0%	3%	8%	

TURNING MOVEMENT COUNTS
Shadeland Ave at EB I-70 Ramps

Count Date: 02/28/2023

	PHF
AM PEAK	0.91
PM PEAK	0.97



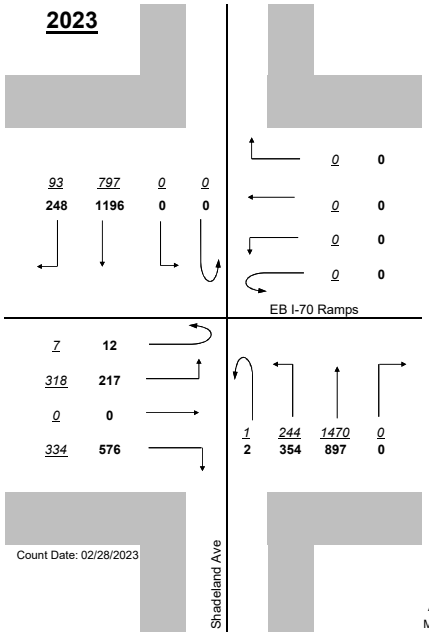
Legend:

000 AM Peak 7:30 AM-8:30 AM

000 PM Peak 3:45 PM-4:45 PM

Raw Counts

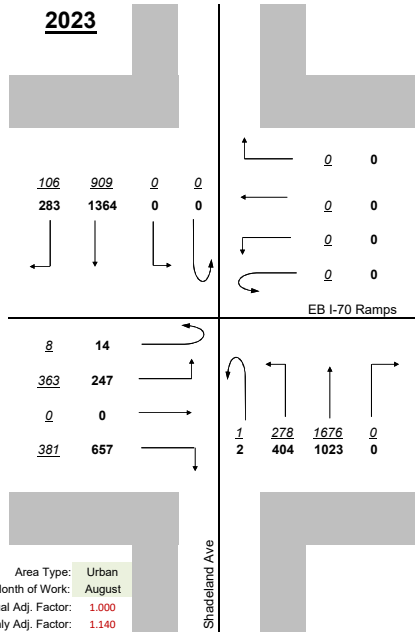
2023



Count Date: 02/28/2023

Adjusted Existing Volumes

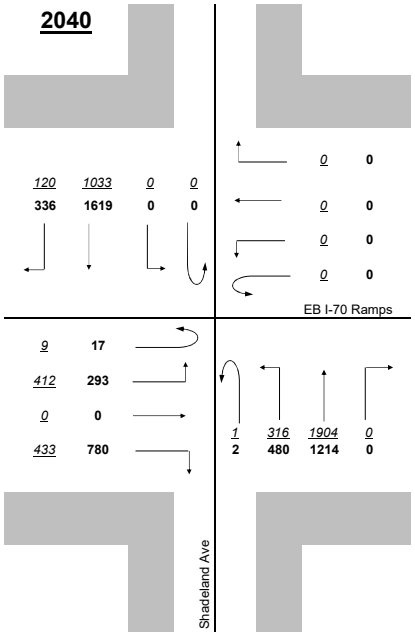
2023



Area Type:	Urban
Month of Work:	August
Annual Adj. Factor:	1.000
Monthly Adj. Factor:	1.140

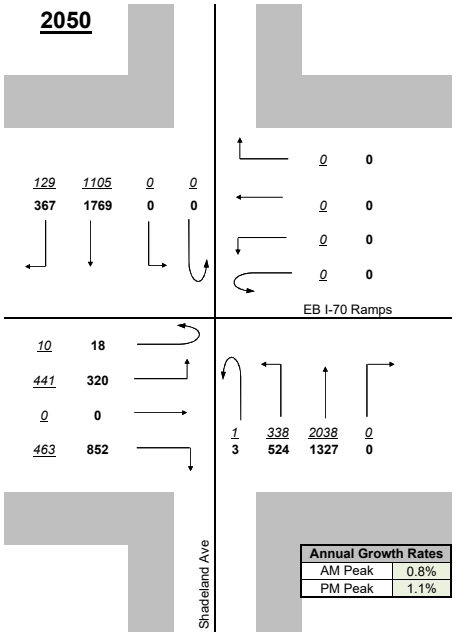
Interim Year

2040



Design Year

2050



Annual Growth Rates	
AM Peak	0.8%
PM Peak	1.1%

Legend:
000 AM Peak
000 PM Peak

PEAK HOUR - TURNING MOVEMENT COUNTS

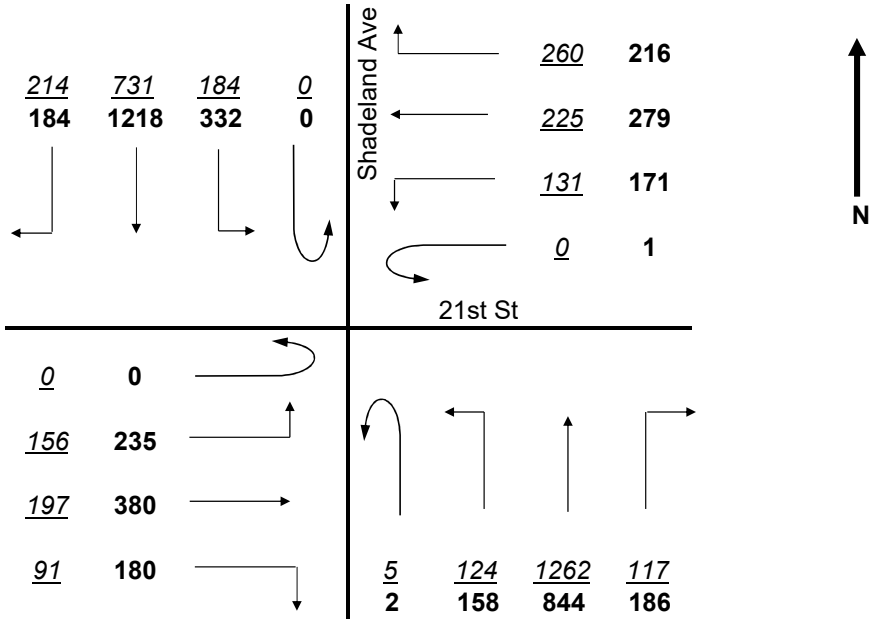
Shadeland Ave at 21st St **VEHICLES (CARS & TRUCKS)**

RAW 15-MINUTE VOLUMES	EB VEHICLES 21st St				WB VEHICLES 21st St				NB VEHICLES Shadeland Ave				SB VEHICLES Shadeland Ave				INTERSECTION TOTAL
	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	UTURN	LT	THRU	RT	VEHICLES
AM PEAK																	
7:30-7:45	0	40	50	22	0	28	39	67	1	30	312	33	0	46	180	46	894
7:45-8:00	0	52	63	26	0	40	72	55	1	18	362	21	0	43	197	61	1011
8:00-8:15	0	32	44	19	0	41	61	73	0	31	335	32	0	45	176	54	943
8:15-8:30	0	32	40	24	0	22	53	65	3	45	253	31	0	50	178	53	849
PM PEAK																	
4:30-4:45	0	65	96	44	0	37	52	65	1	42	218	42	0	96	294	47	1099
4:45-5:00	0	50	98	54	0	42	68	55	0	42	186	49	0	94	291	40	1069
5:00-5:15	0	61	101	44	0	47	72	51	0	39	226	42	0	75	313	43	1114
5:15-5:30	0	59	85	38	1	45	87	45	1	35	214	53	0	67	320	54	1104
TOTAL VOLUMES																	
AM PEAK	0	156	197	91	0	131	225	260	5	124	1262	117	0	184	731	214	3697
PM PEAK	0	235	380	180	1	171	279	216	2	158	844	186	0	332	1218	184	4386
% TRUCKS																	
AM PEAK	0%	5%	4%	2%	0%	3%	3%	3%	0%	2%	5%	4%	0%	4%	6%	3%	
PM PEAK	0%	2%	2%	2%	0%	0%	2%	1%	0%	1%	3%	1%	0%	1%	3%	3%	

TURNING MOVEMENT COUNTS
Shadeland Ave at 21st St

Count Date: 02/28/2023

	PHF
AM PEAK	0.91
PM PEAK	0.98

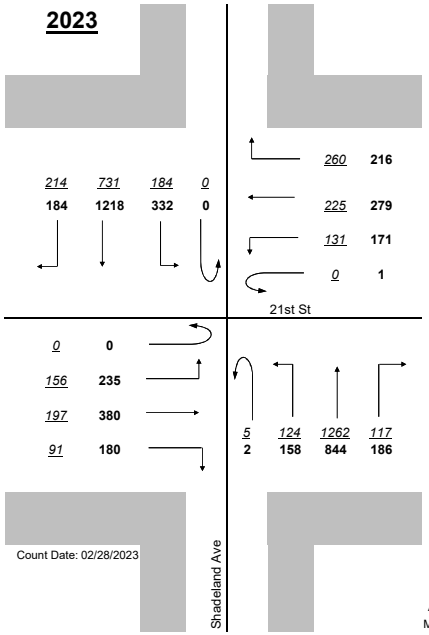


Legend:

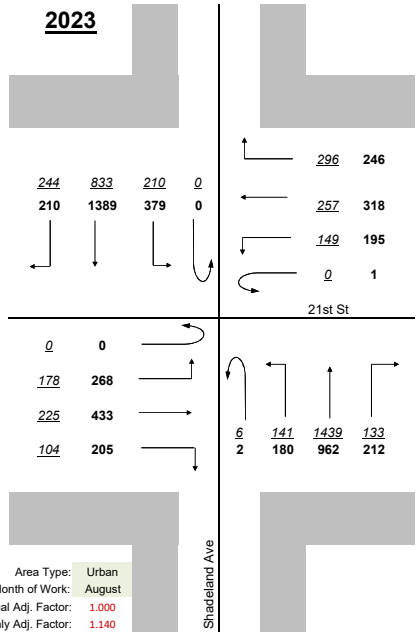
000 AM Peak 7:30 AM-8:30 AM

000 PM Peak 4:30 PM-5:30 PM

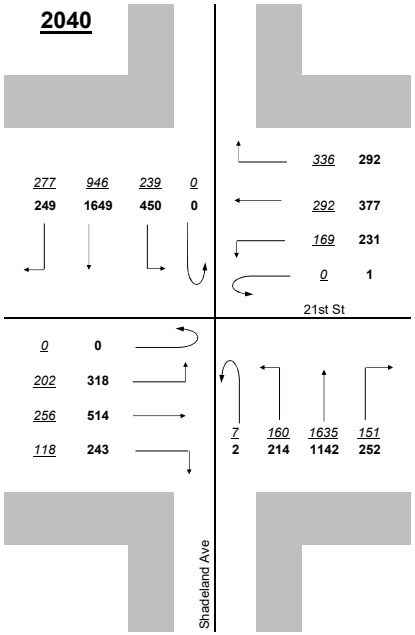
Raw Counts



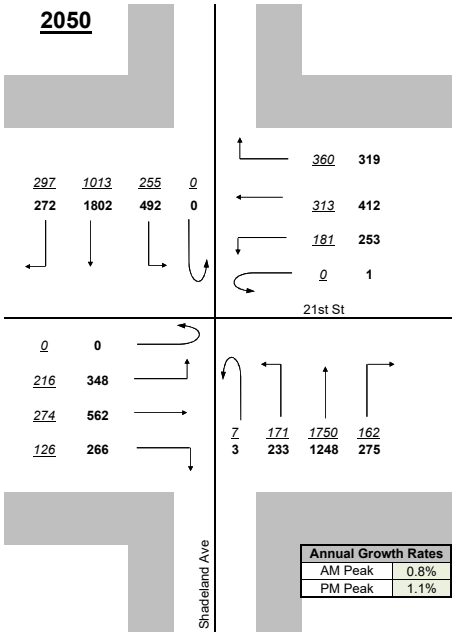
Adjusted Existing Volumes



Interim Year



Design Year



Annual Growth Rates	
AM Peak	0.8%
PM Peak	1.1%

Legend:
000 AM Peak
000 PM Peak

			SB I-65, N of I-465		From SB I-465		2		Lafayette Rd		3		Lafayette Rd		4		38th St		5 and 6		38th St	
			Segment		ON		Segment		OFF		Segment		ON		Segment		Off		Segment		On	
					Ramp				Ramp				Ramp				Ramp				Ramp	
Adjusted Existing Volumes	2023	AM Peak	1629	277 17%	1473	62 4%	3102	339 11%	233	11 5%	2869	328 11%	976	11 1%	3845	339 9%	457	12 3%	3388	327 10%	1316	75 6%
		PM Peak	1501	340 23%	1354	48 4%	2855	388 14%	401	13 3%	2454	375 15%	722	17 2%	3176	392 12%	602	13 2%	2574	379 15%	1125	63 6%
Interim Year	2040	AM Peak	2044		1648		3692		292		3400		1225		4625		574		4051		1652	
		PM Peak	1833		1515		3348		510		2838		918		3756		766		2990		1431	
Design Year	2050	AM Peak	2289		1751		4040		327		3713		1371		5084		642		4442		1849	
		PM Peak	2028		1610		3638		574		3064		1034		4098		862		3236		1611	

1a. SB I-65 I-465 to N Split

			7		Dr MLK Jr St		8		Dr MLK Jr St		9		29th St				21st St				21st St	
			Segment		OFF		Segment		ON		Segment		ON		Segment		OFF		Segment		ON	
					Ramp				Ramp				Ramp				Ramp				Ramp	
Adjusted Existing Volumes	2023	AM Peak	4704	402	209	4	4495	398	698	13	5193	411	564	4	5757	415	479	5	5278	410	402	38
				9%		2%		9%		2%		8%		1%		7%		1%		8%		9%
		PM Peak	3699	442	279	11	3420	431	523	26	3943	457	348	1	4291	458	428	14	3863	444	466	30
				12%		4%		13%		5%		12%		0%		11%		3%		11%		6%
Interim Year	2040	AM Peak	5703		262		5441		876		6317		708		7025		650		6375		546	
		PM Peak	4421		355		4066		665		4731		443		5174		566		4608		617	
Design Year	2050	AM Peak	6291		294		5997		981		6978		792		7770		751		7019		630	
		PM Peak	4847		400		4447		749		5196		498		5694		648		5046		705	

			10		Interchange 7		11		Illinois St		12		11th St		
			Segment		OFF		Segment		OFF		Segment		ON		Segment
					Ramp				Ramp				Ramp		
Adjusted Existing Volumes	2023	AM Peak	5680	448 8%	1768	28 2%	3912	420 11%	876	6 1%	3036	414 14%	748	40 5%	3784	454 12%
		PM Peak	4329	474 11%	671	22 3%	3658	452 12%	388	8 2%	3270	444 14%	702	76 11%	3972	520 13%
Interim Year	2040	AM Peak	6921		2399		4522		1189		3333		1015		4348	
		PM Peak	5225		888		4337		513		3824		929		4753	
Design Year	2050	AM Peak	7649		2770		4879		1373		3506		1172		4678	
		PM Peak	5751		1015		4736		587		4149		1062		5211	

			Segment (38th)		From SB I-65 ON Ramp		Segment (38th)		Weaving Freeway-to-Freeway (38th to 38th)		Weaving Ramp-to-Freeway (I-65 to 38th)		Weaving Ramp-to-Ramp (I-65 to Kessler)		Weaving Freeway-to-Ramp (38th to Kessler)		To Kessler Blvd OFF Ramp		Segment (38th)	
Adjusted Existing Volumes	2023	AM Peak	1652	75 5%	457	12 3%	2109	87 4%	1351	72 5%	260	8 3%	197	4 2%	301	3 1%	498	7 1%	1611	80 5%
		PM Peak	1889	70 4%	602	13 2%	2491	83 3%	1653	66 4%	482	10 2%	120	3 3%	236	4 2%	356	7 2%	2135	76 4%
Interim Year	2040	AM Peak	2073		574		2647		1696		326		247		378		625		2022	
		PM Peak	2403		766		3169		2103		613		153		300		453		2716	
Design Year	2050	AM Peak	2321		642		2963		1898		365		277		423		700		2263	
		PM Peak	2705		862		3567		2367		690		172		338		510		3057	

			From Kessler Blvd				Weaving								To SB I-65			
			ON				Freeway-to-Freeway (38th to 38th)		Ramp-to-Freeway (Kessler to 38th)		Ramp-to-Ramp (Kessler to I-65)		Freeway-to-Ramp (38th to I-65)		OFF			
			Ramp		Segment (38th)										Ramp		Segment (38th)	
Adjusted Existing Volumes	2023	AM Peak	361	9 2%	1972	89 5%	536	13 2%	120	1 1%	241	8 3%	1075	67 6%	1316	75 6%	656	14 2%
		PM Peak	422	11 3%	2557	87 3%	1196	21 2%	236	3 1%	186	8 4%	939	55 6%	1125	63 6%	1432	24 2%
Interim Year	2040	AM Peak	453		2475		673		151		302		1349		1652		823	
		PM Peak	537		3253		1521		300		237		1195		1431		1822	
Design Year	2050	AM Peak	507		2770		752		169		339		1510		1849		921	
		PM Peak	604		3661		1713		338		266		1344		1611		2050	

			Segment (38th)		From NB I-65 ON Ramp		Segment (38th)		Weaving Freeway-to-Freeway (38th to 38th)		Weaving Ramp-to-Freeway (I-65 to 38th)		Weaving Ramp-to-Ramp (I-65 to Kessler)		Weaving Freeway-to-Ramp (38th to Kessler)		To Kessler Blvd OFF Ramp		Segment (38th)	
Adjusted Existing Volumes	2023	AM Peak	1210	25 2%	1023	66 6%	2233	91 4%	1075	22 2%	889	58 7%	134	8 6%	135	3 2%	269	11 4%	1964	80 4%
		PM Peak	1605	46 3%	1633	57 3%	3238	103 3%	1344	38 3%	1367	50 4%	266	7 3%	261	8 3%	527	15 3%	2711	88 3%
Interim Year	2040	AM Peak	1519		1284		2803		1350		1116		168		169		338		2465	
		PM Peak	2042		2077		4119		1710		1739		338		332		670		3449	
Design Year	2050	AM Peak	1700		1437		3137		1510		1249		188		190		378		2759	
		PM Peak	2298		2338		4636		1924		1957		381		374		755		3881	

			From Kessler Blvd				Weaving								To NB I-65			
			ON				Freeway-to-Freeway (38th to 38th)		Ramp-to-Freeway (Kessler to 38th)		Ramp-to-Ramp (Kessler to I-65)		Freeway-to-Ramp (38th to I-65)		OFF			
			Ramp		Segment (38th)										Ramp		Segment	
Adjusted Existing Volumes	2023	AM Peak	269	11 4%	2233	91 4%	1570	68 4%	215	9 4%	54	2 4%	394	12 3%	448	14 3%	1785	77 4%
		PM Peak	527	15 3%	3238	103 3%	2268	85 4%	441	15 3%	86	0 0%	443	3 1%	529	3 1%	2709	100 4%
Interim Year	2040	AM Peak	338		2803		1970		270		68		495		562		2241	
		PM Peak	670		4119		2885		561		109		564		673		3446	
Design Year	2050	AM Peak	378		3137		2205		302		76		554		629		2508	
		PM Peak	755		4636		3248		631		123		634		758		3878	

			15 Frontage Segment		From E Washington St ON Ramp		Frontage Segment		To Fletcher Ave OFF Ramp		Segment (Slip Ramp)	
Adjusted Existing Volumes	2023	AM Peak	849	31 4%	1229	60 5%	2078	91 4%	308	9 3%	1770	82 5%
		PM Peak	440	39 9%	1539	58 4%	1979	97 5%	317	3 1%	1662	94 6%
Interim Year	2040	AM Peak	826		1668		2494		418		2076	
		PM Peak	440		2036		2476		419		2057	
Design Year	2050	AM Peak	812		1926		2738		483		2255	
		PM Peak	438		2329		2767		480		2287	

			Segment		Slip Ramp ON Ramp		Segment		To East St OFF Ramp		Segment		To WB I-70 OFF Ramp		SB I-65 Segment	
Adjusted Existing Volumes	2023	AM Peak	3819	488 13%	1770	82 5%	5589	570 10%	753	22 3%	4836	548 11%	3104	394 13%	1732	154 9%
		PM Peak	4404	648 15%	1662	94 6%	6066	742 12%	462	22 5%	5604	720 13%	2797	514 18%	2807	206 7%
Interim Year	2040	AM Peak	4468		2077		6545		1022		5523		3632		1891	
		PM Peak	5153		2044		7197		611		6586		3272		3314	
Design Year	2050	AM Peak	4850		2255		7105		1180		5925		3942		1983	
		PM Peak	5593		2287		7880		699		7181		3552		3629	

			NB I-65		EB I-70			From Calvary St		17		To Washington St		16	
			Segment		ON		Segment	ON		Segment		OFF		Segment	
					Ramp			Ramp				Ramp			
Adjusted Existing Volumes	2023	AM Peak	3145	228	2713	493	5858	518	25	6376	746	1307	49	5069	697
				7%		18%	12%		5%		12%		4%		14%
		PM Peak	2401	226	3029	414	5430	744	14	6174	654	1050	25	5124	629
				9%		14%	12%		2%		11%		2%		12%
Interim Year	2040	AM Peak	3680		3174		6854	703		7557		1774		5783	
		PM Peak	2809		3544		6353	984		7337		1389		5948	
Design Year	2050	AM Peak	3994		3446		7440	812		8252		2048		6204	
		PM Peak	3049		3847		6896	1126		8022		1589		6433	

			Segment		To 11th OFF Ramp		Segment		From Illinois St ON Ramp		11 Segment		From 11th ON Ramp		Segment		To 21st OFF Ramp	
Adjusted Existing Volumes	2023	AM Peak	5716	431 8%	1520	12 1%	4196	419 10%	337	9 3%	4533	428 9%	643	32 5%	5176	460 9%	1210	53 4%
		PM Peak	4443	397 9%	1002	31 3%	3441	366 11%	1084	5 0%	4525	371 8%	1484	14 1%	6009	385 6%	517	58 11%
Interim Year	2040	AM Peak	6688		2063		4625		457		5082		873		5955		1642	
		PM Peak	5198		1326		3872		1434		5306		1963		7269		684	
Design Year	2050	AM Peak	7259		2382		4877		528		5405		1008		6413		1896	
		PM Peak	5643		1516		4127		1640		5767		2245		8012		782	

			10		From 21st			To 29th St		9		From 30th St		8		From Dr MLK Jr St		7		To 38th St	
			Segment		ON		Segment	OFF		Segment		ON		Segment		ON		Segment		OFF	
					Ramp			Ramp				Ramp				Ramp				Ramp	
Adjusted Existing Volumes	2023	AM Peak	3966	407	197	6	4163	413	831	17	3332	396	201	8	3533	404	73	4	3606	408	1023	66
				10%		3%		10%		2%		12%		4%		11%		5%		11%		6%
		PM Peak	5492	327	560	4	6052	331	1385	15	4667	316	342	5	5009	321	185	1	5194	322	1633	57
				6%		1%		5%		1%		7%		1%		6%		1%		6%		3%
Interim Year	2040	AM Peak	4313		267		4580		1043		3537		252		3789		92		3881		1284	
		PM Peak	6585		741		7326		1762		5564		435		5999		235		6234		2077	
Design Year	2050	AM Peak	4517		309		4826		1168		3658		282		3940		103		4043		1437	
		PM Peak	7230		847		8077		1983		6094		490		6584		265		6849		2338	

4. I-65 NB, N Split to I-465

			5 and 6		From 38th St		4		To Lafayette		3		From Lafayette		2		To NB I-465		1	
			Segment		ON		Segment		OFF		Segment		ON		Segment		OFF		Segment	
					Ramp				Ramp				Ramp				Ramp			
Adjusted Existing Volumes	2023	AM Peak	2583	342 13%	448	14 3%	3031	356 12%	536	30 6%	2495	326 13%	455	18 4%	2950	344 12%	1607	84 5%	1343	260 19%
		PM Peak	3561	265 7%	529	3 1%	4090	268 7%	1086	17 2%	3004	251 8%	417	9 2%	3421	260 8%	1338	54 4%	2083	206 10%
Interim Year	2040	AM Peak	2597		562		3159		673		2486		571		3057		1962		1095	
		PM Peak	4157		673		4830		1381		3449		530		3979		1588		2391	
Design Year	2050	AM Peak	2606		629		3235		753		2482		639		3121		2171		950	
		PM Peak	4511		758		5269		1555		3714		597		4311		1735		2576	

			20		From NB I-465			To Sam Jones Expy		21		From Sam Jones Expy		22		To Holt Rd		23	
			Segment		ON		Segment	OFF		Segment		ON		Segment		OFF		Segment	
					Ramp			Ramp				Ramp				Ramp			
Adjusted Existing Volumes	2023	AM Peak	2822	336	409	29	3231	215	36	3016	329	1231	59	4247	388	353	41	3894	347
				12%		7%			17%		11%		5%		9%		12%		9%
		PM Peak	2098	377	191	12	2289	414	66	1875	323	715	48	2590	371	276	41	2314	330
				18%		6%			16%		17%		7%		14%		15%		14%
Interim Year	2040	AM Peak	3796		479		4275	310		3965		1775		5740		509		5231	
		PM Peak	2741		210		2951	562		2389		970		3359		375		2984	
Design Year	2050	AM Peak	4370		519		4889	366		4523		2095		6618		601		6017	
		PM Peak	3118		222		3340	649		2691		1120		3811		432		3379	

			From Holt Rd		24		To Harding St		25		From Harding St			To West St		26		To Illinois St / Madison Ave	
			ON		Segment		OFF		Segment		ON		Segment	OFF		Segment		OFF	
			Ramp				Ramp				Ramp			Ramp				Ramp	
Adjusted Existing Volumes	2023	AM Peak	894	139 16%	4788	486 10%	627	38 6%	4161	448 11%	493	117 24%	4654	565 12%	508	28 6%	4146	537 13%	734	16 2%
		PM Peak	968	53 5%	3282	383 12%	304	19 6%	2978	364 12%	695	38 5%	3673	402 11%	320	21 7%	3353	381 11%	191	7 4%
Interim Year	2040	AM Peak	1289		6520		904		5616		711		6327		689		5638		996	
		PM Peak	1314		4298		413		3885		943		4828		423		4405		253	
Design Year	2050	AM Peak	1522		7539		1067		6472		839		7311		796		6515		1150	
		PM Peak	1517		4896		476		4420		1089		5509		484		5025		289	

			Segment		From Missouri St ON Ramp		Segment		From Madison Ave ON Ramp		Segment		Weaving Freeway-to-Freeway (I-70 to I-70)		Weaving Ramp-to-Freeway (Madison to I-70)		Weaving Ramp-to-Ramp (Madison to I-65)		Weaving Freeway-to-Ramp (I-70 to I-65)		To SB I-65 OFF Ramp		EB I-70 (in South Split) Segment	
Adjusted Existing Volumes	2023	AM Peak	3412	521	523	80	3935	601	91	5	4026	606	2775	458	64	4	27	1	1160	143	1187	144	2839	462
				15%	15%			15%	5%			15%	17%		6%		4%		12%		12%		16%	
		PM Peak	3162	374	1071	40	4233	414	947	10	5180	424	2191	329	490	8	457	2	2042	85	2499	87	2681	337
				12%	4%			10%	1%			8%	15%		2%		0%		4%		3%		13%	
Interim Year	2040	AM Peak	4642		710		5352		123		5475		3777		87		36		1575		1611		3864	
		PM Peak	4152		1417		5569		1253		6822		2870		646		607		2699		3306		3516	
Design Year	2050	AM Peak	5365		820		6185		143		6328		4367		101		42		1818		1860		4468	
		PM Peak	4736		1620		6356		1433		7789		3271		737		696		3085		3781		4008	

			Segment		To SB Rural St		27		To NB Rural St		27		From Rural St		28		To Emerson Ave		29		From SB Emerson Ave		2
					OFF				OFF				ON				OFF				ON		
					Ramp		Segment		Ramp		Segment		Ramp		Segment		Ramp		Segment		Ramp		Segr
Adjusted Existing Volumes	2023	AM Peak	5256	669 13%	352	20 6%	4904	649 13%	710	66 9%	4194	583 14%	376	32 9%	4570	615 13%	956	68 7%	3614	547 15%	231	18 8%	3845
		PM Peak	8207	637 8%	282	28 10%	7925	609 8%	608	41 7%	7317	568 8%	706	17 2%	8023	585 7%	1089	51 5%	6934	534 8%	345	9 3%	7279
Interim Year	2040	AM Peak	6328		400		5928		807		5121		427		5548		1086		4462		262		4724
		PM Peak	9742		335		9407		722		8685		838		9523		1293		8230		410		8640
Design Year	2050	AM Peak	6959		428		6531		863		5668		457		6125		1162		4963		281		5244
		PM Peak	10644		366		10278		789		9489		916		10405		1412		8993		447		9440

			9		From NB Emerson Ave		30		To Shadeland Ave & I 465		31		From Shadeland Ave		32		From SB I-465		32		From NB I-465		
			nent		ON		Segment		OFF		Segment		ON		Segment		ON		Segment		ON		Segment	
					Ramp				Ramp				Ramp				Ramp				Ramp			
Adjusted Existing Volumes	2023	AM Peak	565	15%	443	13 3%	4288	578 13%	2690	295 11%	1598	283 18%	92	18 20%	1690	301 18%	756	63 8%	2446	364 15%	978	195 20%	3424	559 16%
		PM Peak	543	7%	381	6 2%	7660	549 7%	4634	204 4%	3026	345 11%	189	6 3%	3215	351 11%	1367	105 8%	4582	456 10%	1064	217 20%	5646	673 12%
Interim Year	2040	AM Peak			503		5227		3412		1815		105		1920		833		2753		1327		4080	
		PM Peak			452		9092		5500		3592		224		3816		1460		5276		1317		6593	
Design Year	2050	AM Peak			539		5783		3840		1943		112		2055		878		2933		1533		4466	
		PM Peak			494		9934		6009		3925		245		4170		1515		5685		1466		7151	

			Segment		To I-465 OFF Ramp		32 Segment		To Shadeland Ave OFF Ramp		Segment		From SB I-465 ON Ramp		31 Segment		From NB I-465 ON Ramp		31 Segment	
Adjusted Existing Volumes	2023	AM Peak	5762	618	2163	272	3599	346	224	15	3375	331	3121	106	6496	437	463	42	6959	479
				11%		13%		10%		7%		10%		3%		7%		9%		7%
		PM Peak	4098	608	1944	336	2154	272	113	13	2041	259	1954	185	3995	444	541	35	4536	479
				15%		17%		13%		12%		13%		9%		11%		6%		11%
Interim Year	2040	AM Peak	6937		2898		4039		254		3785		3227		7012		479		7491	
		PM Peak	4864		2572		2292		134		2158		2020		4178		559		4737	
Design Year	2050	AM Peak	7629		3331		4298		272		4026		3290		7316		488		7804	
		PM Peak	5315		2941		2374		147		2227		2060		4287		570		4857	

			From Shadeland Ave		30		To Emerson Ave		29		From NB Emerson Ave		29		From SB Emerson Ave		28		To Keystone Way	
			ON		Segment		OFF		Segment		ON		Segment		ON		Segment		OFF	
			Ramp				Ramp				Ramp				Ramp				Ramp	
Adjusted Existing Volumes	2023	AM Peak	657	31 5%	7616	510 7%	617	29 5%	6999	481 7%	498	20 4%	7497	501 7%	656	47 7%	8153	548 7%	542	40 7%
		PM Peak	681	272 40%	5217	751 14%	948	54 6%	4269	697 16%	294	9 3%	4563	706 15%	624	26 4%	5187	732 14%	534	23 4%
Interim Year	2040	AM Peak	1161		8652		701		7951		566		8517		745		9262		616	
		PM Peak	1456		6193		1125		5068		349		5417		741		6158		634	
Design Year	2050	AM Peak	1457		9261		750		8511		606		9117		798		9915		659	
		PM Peak	1909		6766		1230		5536		381		5917		809		6726		693	

			27 Segment		From NB Keystone Way ON Ramp		27 Segment		From SB Keystone Way ON Ramp		Segment	
Adjusted Existing Volumes	2023	AM Peak	7611	508 7%	292	23 8%	7903	531 7%	507	30 6%	8410	561 7%
		PM Peak	4653	709 15%	396	34 9%	5049	743 15%	684	48 7%	5733	791 14%
Interim Year	2040	AM Peak	8646		332		8978		576		9554	
		PM Peak	5524		470		5994		812		6806	
Design Year	2050	AM Peak	9256		355		9611		617		10228	
		PM Peak	6033		514		6547		887		7434	

			WB I-70		From NB I-65			Weaving						To Madison Ave			From Madison Ave			To Missouri St	
			Segment		ON		Segment	Freeway-to-Freeway (I-70 to I-70)		Ramp-to-Freeway (I-65 to I-70)		Ramp-to-Ramp (I-65 to Madison)		Freeway-to-Ramp (I-70 to Madison)		OFF		Segment		ON		Segment		OFF	
					Ramp											Ramp				Ramp			Ramp	
Adjusted Existing Volumes	2023	AM Peak	3104	394	2795	142	5899	2735	387	2462	139	333	3	369	7	702	10	5197	526	184	2	5381	528	1053	49
				13%		5%	9%		14%		6%		1%		2%		1%		10%		1%		10%		5%
		PM Peak	2797	514	1415	137	4212	2689	511	1360	136	55	1	108	3	163	4	4049	647	514	7	4563	654	325	37
				18%		10%	15%		19%		10%		2%		3%		2%		16%		1%		14%		11%
Interim Year	2040	AM Peak	3632		3270		6902	3131		2818		452		501		953		5949		250		6199		1429	
		PM Peak	3272		1656		4928	3129		1583		73		143		216		4712		680		5392		430	
Design Year	2050	AM Peak	3942		3550		7492	3363		3029		521		579		1100		6392		288		6680		1650	
		PM Peak	3552		1797		5349	3388		1714		83		164		247		5102		778		5880		492	

			Segment		From Capitol Ave		26		From West St			To Harding St		25		From Harding St		24		To Holt Rd		23		From Holt Rd	
					ON				ON			OFF				ON				OFF				ON	
					Ramp		Segment		Ramp		Segment	Ramp		Segment		Ramp		Segment		Ramp		Segment		Ramp	
Adjusted Existing Volumes	2023	AM Peak	4328	479	119	12	4447	491	305	33	4752	524	751	56	4001	468	390	102	4391	570	1037	83	3354	487	280	51
				11%		10%		11%		11%		11%		7%		12%		26%		13%		8%		15%		18%
		PM Peak	4238	617	477	6	4715	623	595	33	5310	656	507	82	4803	574	643	27	5446	601	1011	122	4435	479	446	39
				15%		1%		13%		6%		12%		16%		12%		4%		11%		12%		11%		9%
Interim Year	2040	AM Peak	4770		161		4931		414		5345		1083		4262		562		4824		1495		3329		404	
		PM Peak	4962		631		5593		787		6380		688		5692		873		6565		1372		5193		605	
Design Year	2050	AM Peak	5030		186		5216		478		5694		1278		4416		664		5080		1765		3315		477	
		PM Peak	5388		722		6110		900		7010		794		6216		1008		7224		1584		5640		699	

			22		To Sam Jones Expy		21		From Sam Jones Expy			To NB I-465		20		To SB I-465		
			Segment		OFF		Segment		ON		Segment	OFF		Segment		OFF		Segment
					Ramp				Ramp			Ramp				Ramp		
Adjusted Existing Volumes	2023	AM Peak	3634	538	1114	84	2520	454	110	41	2630	495	98	32	2532	463	199	22	2333	441
				15%		8%		18%		37%		19%		33%		18%		11%		19%
		PM Peak	4881	518	1353	73	3528	445	181	18	3709	463	266	30	3443	433	330	23	3113	410
				11%		5%		13%		10%		12%		11%		13%		7%		13%
Interim Year	2040	AM Peak	3733		1606		2127		159		2286		101		2185		206		1979	
		PM Peak	5798		1836		3962		246		4208		275		3933		341		3592	
Design Year	2050	AM Peak	3792		1896		1896		187		2083		103		1980		210		1770	
		PM Peak	6339		2120		4219		284		4503		280		4223		348		3875	

			9a		ON		SB I-65		ON		SB I-65			9b		Off		NB I-65		OFF			
			South Split, EB I-70		South Split, SB I-65 and EB I-70		Segment		SB I-65, On-ramp from Morris St		SB I-65, south of South Split			NB I-65, south of South Split		NB I-65, Off-ramp to Morris St		Segment		South Split, Off-ramp to I-65		South Split, WB I-70	
Adjusted Existing Volumes	2023	AM Peak	1187	144 12%	1732	154 9%	2919	298 10%	159	9 6%	3078	307 10%		6214	374 6%	274	4 1%	5940	370 6%	3145	228 7%	2795	142 5%
		PM Peak	2499	87 3%	2807	206 7%	5306	293 6%	583	5 1%	5889	298 5%		4006	365 9%	190	2 1%	3816	363 10%	2401	226 9%	1415	137 10%
Design Year	2040	AM Peak	1611		1891		3502		186		3688			7271		321		6950		3680		3270	
		PM Peak	3306		3314		6620		682		7302			4687		222		4465		2809		1656	
Design Year	2050	AM Peak	1860		1983		3843		202		4045			7892		348		7544		3994		3550	
		PM Peak	3781		3629		7410		740		8150			5087		241		4846		3049		1797	

			WB I-70 C-D		From SB I-465		Segment		Weaving								To Shadeland Ave		From NB I-465	
			10a		ON				Freeway-to-Freeway (I-70 CD to I-70 Slip Ramp)		Ramp-to-Freeway (SB I-465 to I-70 Slip Ramp)		Ramp-to-Ramp (SB I-465 to Shadeland)		Freeway-to-Ramp (I-70 CD to Shadeland)		Ramp		to WB I-70	
					Ramp														Ramp	
Adjusted Existing Volumes	2023	AM Peak	687	57	579	8	1266	65	463	42	0	0	579	8	224	15	803	23	463	42
				8%		1%		5%		9%				1%		7%		3%		9%
		PM Peak	654	48	625	20	1279	68	541	35	0	0	625	20	113	13	738	33	541	35
				7%		3%		5%		6%				3%		12%		4%		6%
Design Year	2040	AM Peak	703		697		1400		479		0		697		224		921		479	
		PM Peak	672		742		1414		559		0		742		113		855		559	
Design Year	2050	AM Peak	712		767		1479		488		0		767		224		991		488	
		PM Peak	683		811		1494		570		0		811		113		924		570	

			EB I-70 C-D		To Shadeland Ave		Segment		From Shadeland Ave		Segment		Weaving						Slip ramp to EB I-70		To I-465	
			10b		Off Ramp				ON Ramp				Freeway-to-Freeway (I-70 CD to I-465)		Ramp-to-Freeway (Shadeland to I-465)		Ramp-to-Ramp (Shadeland to I-70 Slip Ramp)		Freeway-to-Ramp (I-70 CD to I-70 Slip Ramp)		OFF Ramp		Segment	
Adjusted Existing Volumes	2023	AM Peak	2690	295	665	54	2025	241	390	47	2415	288	2025	241	298	29	92	18			92	18	2323	270
				11%		8%		12%		12%		12%		12%		10%		20%				20%		12%
		PM Peak	4634	204	908	23	3726	181	667	33	4393	214	3726	181	478	27	189	6			189	6	4204	208
				4%		3%		5%		5%		5%		5%		6%		3%				3%		5%
Design Year	2040	AM Peak	3412		801		2611		470		3081		2611		365		105				105		2976	
		PM Peak	5500		1078		4422		792		5214		4422		568		224				224		4990	
Design Year	2050	AM Peak	3840		880		2960		516		3476		2960		404		112				112		3364	
		PM Peak	6009		1178		4831		865		5696		4831		620		245				245		5451	

APPENDIX K: EXISTING CONDITIONS CAPACITY ANALYSIS RESULTS

FREEWAY ANALYSIS

HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/8/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	I-65 SB, from I-465 to North Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	9
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	5.54		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-65 SB, between Exit 123 (I-465) and Entrance Ramp from SB I-465	2760	2
2	Merge	Basic	I-65 SB, Entrance Ramp from SB I-465	1500	3
3	Basic	Basic	I-65 SB, between I-465 and Lafayette Rd	6500	3
4	Diverge	Diverge	I-65 SB, Exit Ramp to Lafayette Rd	1500	3
5	Basic	Basic	I-65 SB, at Layfayette Rd	2700	3
6	Merge	Merge	I-65 SB, Entrance Ramp from Lafayette Rd	1500	3
7	Basic	Basic	I-65 SB, between Layfayette Rd and 38th St	6100	3
8	Diverge	Diverge	I-65 SB, Exit Ramp to 38th St	1500	3
9	Basic	Basic	I-65 SB, between 38th St Exit and 38th St Entrance	5200	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.855	2190	4700	0.47	65.0	16.8	B

Segment 2: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.87	0.87	0.855	0.962	3950	1760	7050	2000	0.56	0.88	65.0	65.0	20.3	20.3	C

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.901	3957	7050	0.56	65.0	20.3	C

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.87	0.87	0.901	0.952	3957	281	7050	2000	0.56	0.14	58.6	54.6	22.5	22.8	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.901	3660	7050	0.52	64.8	18.8	C

Segment 6: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.87	0.87	0.901	0.990	4793	1133	7050	2000	0.68	0.57	57.5	55.9	27.8	28.0	C

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.917	4820	7050	0.68	64.4	25.0	C

Segment 8: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.87	0.87	0.917	0.971	4820	541	7050	2000	0.68	0.27	58.3	54.0	27.6	25.4	C

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.909	4284	7050	0.61	65.0	22.0	C

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	5112	4292	1.81	45.17	63.5	22.2	20.0	5.20	C

Facility Overall Results

Space Mean Speed, mi/h	63.5	Average Density, veh/mi/ln	20.0
Average Travel Time, min	5.20	Average Density, pc/mi/ln	22.2
Total VMT, veh-mi	5112	Total VHD, veh-h	1.81
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	45.17

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HCS Freeway Facilities Report

Project Information

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Agency	HNTB Corporation	Analysis Year	2023
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Facility Name		Units	U.S. Customary
Project Description	I-65 SB, from I-465 to North Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	3.05		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Merge	Basic	I-65 SB, Entrance Ramp from 38th St	3200	3
2	Basic	Basic	I-65 SB, between 38th St and Dr MLK Jr St	4200	3
3	Diverge	Diverge	I-65 SB, Exit Ramp to Dr MLK Jr St	1500	3
4	Basic	Basic	I-65 SB, at Dr MLK Jr St	1200	3
5	Merge	Merge	I-65 SB, Entrance Ramp from Dr MLK Jr St	1500	3
6	Basic	Basic	I-65 SB, between Dr MLK Jr St and 29th St	2500	3
7	Weaving	Weaving	I-65 SB, between 29th St and 21st St	2000	4

Facility Segment Data

Segment 1: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.87	0.87	0.909	0.943	5888	1604	7050	2000	0.84	0.80	60.5	60.5	32.4	32.4	D

Segment 2: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.917	5896	7050	0.84	60.5	32.5	D

Segment 3: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.87	0.87	0.917	0.980	5896	245	7050	2000	0.84	0.12	58.6	54.6	33.5	29.7	D

Segment 4: Basic

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

			(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
1	0.87	0.917	5634		7050		0.80		61.8		30.4		D

Segment 5: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.87	0.87	0.917	0.980	6453	819	7050	2000	0.92	0.41	55.2	53.5	39.0	30.5	D

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.926	6446	7050	0.91	57.1	37.6	E

Segment 7: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.926	7062	8408	0.84	48.0	36.8	E

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	4317	3464	9.10	227.59	57.2	34.5	30.9	3.20	D

Facility Overall Results

Space Mean Speed, mi/h	57.2	Average Density, veh/mi/ln	30.9
Average Travel Time, min	3.20	Average Density, pc/mi/ln	34.5
Total VMT, veh-mi	4317	Total VHD, veh-h	9.10
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	227.59

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HCS Freeway Facilities Report

Project Information

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Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	I-65 SB, from I-465 to North Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	2
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.98		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-65 SB, between 21st Exit Ramp and 21st St Entrance Ramp	1140	3
2	Weaving	Weaving	I-65 SB, between 21st Entrance Ramp and West St Exit Ramp	4030	4

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.926	5503	7050	0.93	23.9	76.8	F

Segment 2: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.926	6007	6451	1.08	54.9	27.4	F

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1521	1292	10.81	270.32	44.5	36.1	33.7	1.30	F

Facility Overall Results

Space Mean Speed, mi/h	44.5	Average Density, veh/mi/ln	33.7
Average Travel Time, min	1.30	Average Density, pc/mi/ln	36.1
Total VMT, veh-mi	1521	Total VHD, veh-h	10.81
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	270.32

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Facility Name		Units	U.S. Customary
Project Description	I-65 SB, from I-465 to North Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.36		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-65 SB, between West St Exit Ramp and Illinois St	500	3
2	Diverge	Diverge	I-65 SB, Exit Ramp to N Illinois St	1500	3
3	Basic	Basic	I-65 SB, between N Illinois St Exit and West St Entrance	350	3
4	Weaving	Weaving	I-65 SB, between Entrance Ramp from West St and North Split	4340	3
5	Basic	Basic	I-65 SB, at North Split	500	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.901	4991	7050	0.71	64.0	26.0	C

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.87	0.87	0.901	0.990	4991	1017	7050	2000	0.71	0.51	57.3	53.0	29.0	29.9	D

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.877	3979	7050	0.56	63.3	20.4	C

Segment 4: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.877	4882	6240	0.78	49.3	33.0	D

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.87	0.893	1811	4700	0.39	64.7	13.9	B

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1416	1078	5.09	127.30	52.7	30.1	24.3	1.60	D

Facility Overall Results

Space Mean Speed, mi/h	52.7	Average Density, veh/mi/ln	24.3
Average Travel Time, min	1.60	Average Density, pc/mi/ln	30.1
Total VMT, veh-mi	1416	Total VHD, veh-h	5.09
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	127.30

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Agency	HNTB Corporation	Analysis Year	2023
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Facility Name		Units	U.S. Customary
Project Description	I-65 SB, EB 38th St Frontage		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	4
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.75		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	38th St Frontage, from Industrial Blvd / Commercial Dr	1640	2
2	Weaving	Weaving	38th St Frontage, Between Entrance from I-65 SB and Kessler Blvd	3330	4
3	Weaving	Weaving	38th St Frontage, Between Kessler Blvd and Exit to I-65 SB	1640	3
4	Basic	Basic	38th St Frontage, to Cold Spring Rd	2640	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.952	1972	4700	0.42	65.0	15.2	B

Segment 2: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.952	2491	8008	0.31	57.0	10.9	B

Segment 3: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.980	2337	5669	0.41	56.9	13.7	B

Segment 4: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.980	761	4700	0.16	64.7	5.8	A

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS

1	791	596	1.20	30.07	59.2	10.9	9.6	1.80	A

Facility Overall Results

Space Mean Speed, mi/h	59.2	Average Density, veh/mi/ln	9.6
Average Travel Time, min	1.80	Average Density, pc/mi/ln	10.9
Total VMT, veh-mi	791	Total VHD, veh-h	1.20
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	30.07

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Facility Name		Units	U.S. Customary
Project Description	I-65 NB, WB 38th St Frontage		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	4
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.55		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	38th St Frontage, from NB I-65	1000	2
2	Weaving	Weaving	38th St Frontage, Between Cold Springs Entrance and Exit to Kessler Blvd	2950	4
3	Weaving	Weaving	38th St Frontage, Between Entrance from Kessler Blvd and NB I-65	2590	4
4	Basic	Basic	38th St Frontage, to Industrial Blvd	1640	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.83	0.980	1488	4700	0.32	65.0	11.4	B

Segment 2: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.83	0.980	2805	5128	0.55	59.3	11.8	B

Segment 3: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.83	0.962	2792	7732	0.36	60.1	11.6	B

Segment 4: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.83	0.962	2236	4700	0.48	64.8	17.2	B

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS

1	942	606	0.98	24.40	60.9	12.3	10.4	1.50	B

Facility Overall Results

Space Mean Speed, mi/h	60.9	Average Density, veh/mi/ln	10.4
Average Travel Time, min	1.50	Average Density, pc/mi/ln	12.3
Total VMT, veh-mi	942	Total VHD, veh-h	0.98
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	24.40

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/13/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	Collector-Distributor I-65 SB, I-70 WB, North Split to South Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.08		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Collector-Distributor I-70/I-65 SB at Washington St	2010	2
2	Weaving	Weaving	Collector-Distributor I-70/I-65 SB Between E Washington St Entrance and Fletcher Ave Exit	1750	3
3	Basic	Basic	Collector-Distributor I-70/I-65 SB, Slip Ramp to Mainline	1940	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.962	992	2300	0.43	59.4	8.4	A

Segment 2: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.962	2439	3239	0.75	43.1	18.9	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.952	2089	4600	0.45	59.1	17.4	B

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	467	314	1.32	33.09	51.3	15.3	13.8	1.30	B

Facility Overall Results

Space Mean Speed, mi/h	51.3	Average Density, veh/mi/ln	13.8
Average Travel Time, min	1.30	Average Density, pc/mi/ln	15.3

Total VMT, veh-mi	467	Total VHD, veh-h	1.32
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	33.09

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/13/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	Main I-65 SB, I-70 WB, North Split to South Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	2
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.41		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-70/I-65 SB from North Split	5750	3
2	Weaving	Weaving	I-70/I-65 SB, Between Slip Ramp and East St	1700	5

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.885	4542	6900	0.66	60.0	25.2	C

Segment 2: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.885	5498	5556	1.16	43.2	25.5	F

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1568	1347	3.07	76.73	53.7	25.3	22.7	1.60	F

Facility Overall Results

Space Mean Speed, mi/h	53.7	Average Density, veh/mi/ln	22.7
Average Travel Time, min	1.60	Average Density, pc/mi/ln	25.3
Total VMT, veh-mi	1568	Total VHD, veh-h	3.07
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	76.73

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/13/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	Main I-65 SB, I-70 WB, North Split to South Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	2
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.53		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Diverge	Diverge	I-70/I-65 SB, to I-70 WB	820	4
2	Basic	Basic	I-65 SB, through South Split	2000	2

Facility Segment Data

Segment 1: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.95	0.901	0.885	5650	3692	9200	4000	0.61	0.92	50.1	46.3	28.2	26.9	C

Segment 2: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.917	1988	4600	0.43	59.0	16.6	B

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	370	352	0.70	17.50	53.9	21.8	19.8	0.60	C

Facility Overall Results

Space Mean Speed, mi/h	53.9	Average Density, veh/mi/ln	19.8
Average Travel Time, min	0.60	Average Density, pc/mi/ln	21.8
Total VMT, veh-mi	370	Total VHD, veh-h	0.70
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	17.50

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/13/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	I-65 NB, I-70 EB, South Split to North Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.39		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-65 NB, through South Split	1950	2
2	Merge	Merge	I-65 NB / I-70 EB, between South Split and Calvary St	1800	4
3	Merge	Merge	I-65 NB / I-70 EB, Entrance Ramp from Calvary St	800	4
4	Diverge	Diverge	I-65 NB / I-70 EB, Exit Ramp to Washington St	800	4
5	Basic	Basic	I-65 NB / I-70 EB, Washington St to South of North Split	2000	4

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.935	3617	4600	0.79	59.2	30.5	D

Segment 2: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.935	0.847	7061	3444	9200	4000	0.77	0.86	51.5	49.1	34.3	32.7	D

Segment 3: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.893	0.952	7639	585	9200	2200	0.83	0.27	53.7	53.1	35.6	28.7	D

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	0.93	0.93	0.893	0.962	7677	1461	9200	2000	0.83	0.73	55.1	49.9	34.8	36.5	E

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.877	6215	9200	0.68	59.5	25.9	C

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1909	1502	2.58	64.54	55.5	31.3	28.4	1.50	D

Facility Overall Results

Space Mean Speed, mi/h	55.5	Average Density, veh/mi/ln	28.4
Average Travel Time, min	1.50	Average Density, pc/mi/ln	31.3
Total VMT, veh-mi	1909	Total VHD, veh-h	2.58
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	64.54

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/8/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	I-65 NB, from North Split to I-465		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	10.83		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-65 NB, between North Split and Delaware St	1800	3
2	Diverge	Diverge	I-65 NB, Exit Ramp to West St	1500	3
3	Basic	Basic	I-65 NB, between West St Exit Ramp and Illinois St Ent Ramp	700	3
4	Merge	Merge	I-65 NB, Entrance Ramp from Illinois St	1500	3
5	Basic	Basic	I-65 NB, between Entrance Ramp from Illinois St and Entrance Ramp from West St	470	3
6	Weaving	Weaving	I-65 NB, between Entrance Ramp from West St and Exit Ramp to 21st St	2300	4
7	Basic	Basic	I-65 NB, at 21st St	970	3
8	Weaving	Weaving	I-65 NB, between 21st St and 29th St	3500	4
9	Basic	Basic	I-65 NB, at W 29th St	2950	3
10	Merge	Merge	I-65 NB, Entrance Ramp from 30th St	1500	3
11	Basic	Basic	I-65 NB, between 30th St and Dr MLK Jr St	1100	3
12	Merge	Merge	I-65 NB, Entrance Ramp from Dr MLK Jr St	1500	3
13	Basic	Basic	I-65 NB, between from Dr MLK Jr St and 38th St	3200	3
14	Diverge	Diverge	I-65 NB, Exit Ramp to 38th St	2500	3
15	Basic	Basic	I-65 NB, between Exit Ramp to 38th St and Entrance Ramp from 38th St	6930	3
16	Merge	Merge	I-65 NB, Entrance Ramp from 38th St	1500	3
17	Basic	Basic	I-65 NB, between 38th St and Lafayette Rd	6400	3
18	Diverge	Diverge	I-65 NB, Exit Ramp to Lafayette Rd	1500	3
19	Basic	Basic	I-65 NB, at Lafayette Rd	2660	3
20	Merge	Merge	I-65 NB, Entrance Ramp from Lafayette	1500	3

			Rd		
21	Basic	Basic	I-65 NB, between Lafayette Rd and I-465	4990	3
22	Diverge	Basic	I-65 NB, Exit Ramp to I-465	1500	3
23	Basic	Basic	I-65 NB, at I-465	4700	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	6710	7050	0.95	55.1	40.6	E

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.92	0.92	0.926	0.990	6710	1669	7050	2000	0.95	0.83	55.8	51.7	40.1	37.8	E

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.909	5017	7050	0.71	63.5	26.1	D

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.92	0.92	0.909	0.971	5394	377	7050	2000	0.77	0.19	57.3	56.0	31.4	27.8	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.909	5420	7050	0.77	62.7	28.8	D

Segment 6: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.909	6075	6936	0.88	44.7	34.0	D

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.909	4742	7050	0.67	63.6	24.5	C

Segment 8: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.909	4892	8668	0.56	51.7	23.7	C

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	4056	7050	0.58	64.9	20.8	C

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.92	0.92	0.893	0.962	4283	227	7050	2000	0.61	0.11	59.2	58.2	24.1	19.0	B

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	4300	7050	0.61	64.3	22.0	C

Segment 12: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.92	0.92	0.893	0.952	4383	83	7050	2000	0.62	0.04	59.0	57.9	24.8	20.2	C

Segment 13: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	4389	7050	0.62	64.9	22.5	C

Segment 14: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.92	0.92	0.893	0.943	4389	1179	7050	4000	0.62	0.29	58.0	52.7	25.2	13.3	B

Segment 15: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.877	3201	7050	0.45	65.0	16.4	B

Segment 16: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.92	0.92	0.877	0.971	3703	502	7050	2000	0.53	0.25	59.3	57.9	20.8	19.2	B

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	3689	7050	0.52	65.0	18.9	C

Segment 18: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.92	0.92	0.893	0.943	3689	618	7050	2000	0.52	0.31	58.1	53.9	21.2	20.9	C

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS

1	0.92		0.877		3092		7050		0.44		64.8		15.9	B

Segment 20: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.92	0.92	0.877	0.962	3606	514	7050	2000	0.51	0.26	59.2	57.7	20.3	19.6	B

Segment 21: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	3591	7050	0.51	65.0	18.4	C

Segment 22: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.92	0.92	0.893	0.952	3591	1835	7050	2000	0.51	0.92	65.0	65.0	18.4	18.4	C

Segment 23: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.820	1780	4700	0.38	65.0	13.7	B

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	9714	8736	13.64	341.01	59.6	22.2	19.6	10.90	C

Facility Overall Results

Space Mean Speed, mi/h	59.6	Average Density, veh/mi/ln	19.6
Average Travel Time, min	10.90	Average Density, pc/mi/ln	22.2
Total VMT, veh-mi	9714	Total VHD, veh-h	13.64
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	341.01

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/13/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	I-70 EB, I-465 to South Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	22
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	7.75		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-70 EB, at I-465	1700	3
2	Merge	Merge	I-70 EB, Entrance Ramp from NB I-465	1500	3
3	Basic	Basic	I-70 EB, between I-465 and Sam Jones Expy	2070	3
4	Diverge	Diverge	I-70 EB, Exit Ramp to Sam Jones Expy	1500	3
5	Basic	Basic	I-70 EB, at Sam Jones Expy	2400	3
6	Merge	Merge	I-70 EB, Entrance Ramp from Sam Jones Expy	1500	3
7	Basic	Basic	I-70 EB, between Sam Jones Expy and Holt Rd	4320	3
8	Diverge	Diverge	I-70 EB, Exit Ramp to Holt Rd	1500	3
9	Basic	Basic	I-70 EB, at Holt Rd	3000	3
10	Merge	Merge	I-70 EB, Entrance Ramp from Holt Rd	1500	3
11	Basic	Basic	I-70 EB, between Holt Rd and Harding St	4700	3
12	Diverge	Diverge	I-70 EB, Exit Ramp to Harding St	1500	3
13	Basic	Basic	I-70 EB, at Harding St	1800	3
14	Merge	Merge	I-70 EB, Entrance Ramp from Harding St	1500	3
15	Basic	Basic	I-70 EB, between Harding St and West St	1550	3
16	Diverge	Diverge	I-70 EB, Exit Ramp to West St	1500	3
17	Basic	Basic	I-70 EB, over West St	650	3
18	Diverge	Diverge	I-70 EB, Exit Ramp to Madison Ave & Illinois St	1000	3
19	Basic	Basic	I-70 EB, between Missouri St and Kenwood Ave	1300	3
20	Merge	Merge	I-70 EB, Entrance Ramp from Missouri St	650	3

21	Weaving	Weaving	I-70 EB, Entrance Ramp from Madison Ave & Exit to SB I-65	3000	4
22	Basic	Basic	I-70 EB at South Split	780	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.893	3551	7050	0.50	65.0	18.2	C

Segment 2: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.89	0.89	0.893	0.935	4042	491	7050	2000	0.57	0.25	59.0	57.7	22.8	20.8	C

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.901	4029	7050	0.57	64.7	20.7	C

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.89	0.89	0.901	0.855	4029	283	7050	2000	0.57	0.14	58.9	54.6	22.8	22.1	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.901	3761	7050	0.53	64.7	19.3	C

Segment 6: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.89	0.89	0.901	0.952	5214	1453	7050	2000	0.74	0.73	56.8	55.1	30.6	29.3	D

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.917	5204	7050	0.74	63.4	27.4	D

Segment 8: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.89	0.89	0.917	0.893	5204	444	7050	2000	0.74	0.22	58.2	54.2	29.8	26.8	C

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS

1	0.89		0.917		4771		7050		0.68		64.5		24.7		C
Segment 10: Merge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.89	0.89	0.917	0.862	5936	1165	7050	2000	0.84	0.58	55.9	54.2	35.4	29.3	D
Segment 11: Basic															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.89		0.909		5918		7050		0.84		60.4		32.7		D
Segment 12: Diverge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.89	0.89	0.909	0.943	5918	747	7050	2000	0.84	0.37	57.8	53.6	34.1	32.3	D
Segment 13: Basic															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.89		0.901		5189		7050		0.74		63.5		27.2		D
Segment 14: Merge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.89	0.89	0.901	0.806	5876	687	7050	2000	0.83	0.34	56.2	54.7	34.9	30.9	D
Segment 15: Basic															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.89		0.893		5856		7050		0.83		60.7		32.2		D
Segment 16: Diverge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.89	0.89	0.893	0.943	5856	605	7050	2000	0.83	0.30	58.0	53.9	33.7	32.8	D
Segment 17: Basic															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.89		0.885		5264		7050		0.75		63.2		27.8		D
Segment 18: Diverge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.89	0.89	0.885	0.980	5264	842	7050	2000	0.75	0.42	57.7	53.4	30.4	30.8	D
Segment 19: Basic															

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.870	4407	7050	0.63	63.9	22.6	C

Segment 20: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.89	0.89	0.870	0.870	5082	675	7050	2000	0.72	0.34	57.6	56.2	29.4	26.9	C

Segment 21: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.855	5215	8135	0.64	57.3	22.8	B

Segment 22: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.89	0.862	3701	4700	0.79	62.1	29.8	D

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	8772	7561	10.17	254.17	60.5	27.2	24.3	7.70	D

Facility Overall Results

Space Mean Speed, mi/h	60.5	Average Density, veh/mi/ln	24.3
Average Travel Time, min	7.70	Average Density, pc/mi/ln	27.2
Total VMT, veh-mi	8772	Total VHD, veh-h	10.17
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	254.17

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/9/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	I-70 EB, North Split to I-465		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	7.10		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-70 EB, between North Split and Keystone Way	4840	5
2	Diverge	Diverge	I-70 EB, Exit Ramp to SB Keystone Way	1500	5
3	Diverge	Basic	I-70 EB, Exit Ramp to NB Keystone Way	1460	5
4	Basic	Basic	I-70 EB, at Keystone Way	1170	4
5	Merge	Merge	I-70 EB, Entrance Ramp from Keystone Way	1500	4
6	Basic	Basic	I-70 EB, between Keystone Way and Emerson Ave	3870	4
7	Diverge	Diverge	I-70 EB, Exit Ramp to Emerson Ave	1500	4
8	Basic	Basic	I-70 EB, West of Emerson Ave	1530	4
9	Merge	Merge	I-70 EB, Entrance Ramp from SB Emerson Ave	1420	4
10	Merge	Merge	I-70 EB, Entrance Ramp from NB Emerson Ave	1600	4
11	Basic	Basic	I-70 EB, between Emerson Ave and Shadeland (5 Lane)	4415	5
12	Diverge	Diverge	I-70 EB, Exit Ramp to Shadeland Ave	1500	5
13	Basic	Basic	I-70 EB, at Shadeland Ave	5360	3
14	Merge	Merge	I-70 EB, Entrance Ramp from Shadeland Ave	1800	3
15	Merge	Merge	I-70 EB, Entrance Ramp from SB I-465	1500	4
16	Merge	Basic	I-70 EB, Entrance Ramp from NB I-465	1500	5
17	Basic	Basic	I-70 EB, East of I-465	1000	5

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS

1	0.94		0.885		6318		11750		0.54		65.0		19.4		C
Segment 2: Diverge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.94	0.94	0.885	0.943	6318	397	11750	2000	0.54	0.20	61.4	54.3	17.5	20.9	C
Segment 3: Diverge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.94	0.94	0.885	0.917	5895	824	11750	2000	0.50	0.41	64.7	65.0	18.1	18.1	C
Segment 4: Basic															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.94		0.877		5087		9400		0.54		65.0		19.6		C
Segment 5: Merge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.94	0.94	0.877	0.917	5523	436	9400	2000	0.59	0.22	59.7	57.8	23.1	19.7	B
Segment 6: Basic															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.94		0.885		5493		9400		0.58		64.9		21.1		C
Segment 7: Diverge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.94	0.94	0.885	0.935	5493	1088	9400	2000	0.58	0.54	59.6	52.9	23.0	24.9	C
Segment 8: Basic															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.94		0.870		4419		9400		0.47		64.5		17.0		B
Segment 9: Merge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.94	0.94	0.870	0.926	4684	265	9400	2000	0.50	0.13	60.3	58.3	19.4	16.0	B
Segment 10: Merge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.94	0.94	0.870	0.971	5187	485	9400	2000	0.55	0.24	59.9	57.9	21.6	18.8	B

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.885	5154	11750	0.44	65.0	15.9	B

Segment 12: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.885	0.901	5154	3176	11750	5000	0.44	0.64	57.1	57.1	18.0	18.0	B

Segment 13: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.847	2007	7050	0.28	65.0	10.3	A

Segment 14: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.847	0.833	2124	117	7050	2000	0.30	0.06	60.4	58.4	11.7	11.6	B

Segment 15: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.847	0.926	2992	869	9400	4000	0.32	0.22	61.5	59.5	12.2	9.1	A

Segment 16: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.870	0.833	4240	1249	11750	2000	0.36	0.62	64.7	65.0	13.0	13.0	B

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.862	4226	11750	0.36	65.0	13.0	B

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	7237	6604	3.22	80.41	63.2	17.2	15.1	6.70	B

Facility Overall Results

Space Mean Speed, mi/h	63.2	Average Density, veh/mi/ln	15.1
Average Travel Time, min	6.70	Average Density, pc/mi/ln	17.2
Total VMT, veh-mi	7237	Total VHD, veh-h	3.22
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	80.41

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/9/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	I-70 WB, I-465 to North Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	20
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	6.54		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-70 WB, east of I-465	500	5
2	Diverge	Diverge	I-70 WB, Exit to I-465 NB/SB	1500	5
3	Basic	Basic	I-70 WB, east of I-465	1600	3
4	Diverge	Diverge	I-70 WB, Exit to Shadeland Ave	1500	3
5	Basic	Basic	I-70 WB, west of I-465	1650	3
6	Merge	Merge	I-70 WB, Entrance Ramp From SB I-465	1500	4
7	Basic	Basic	I-70 WB, East of Entrance Ramp From NB I-465	500	4
8	Merge	Merge	I-70 WB, Entrance Ramp from I-465 N	1350	4
9	Merge	Merge	I-70 WB Entrance Ramp from Shadeland Ave	1500	4
10	Basic	Basic	I-70 WB, between Shadeland Entrance and Emerson Exit	4780	4
11	Diverge	Diverge	I-70 WB, Exit Ramp to Emerson Ave	1500	4
12	Basic	Basic	I-70 WB, East of Emerson Ave	1500	4
13	Merge	Merge	I-70 WB, Entrance Ramp From NB Emerson Ave	1500	4
14	Merge	Merge	I-70 WB, Entrance Ramp From SB Emerson Ave	1500	4
15	Basic	Basic	I-70 WB, between Emerson Ave and Keystone Way	4000	4
16	Diverge	Diverge	I-70 WB, Exit Ramp to Keystone Way	1500	4
17	Basic	Basic	I-70 WB, East of Keystone Way	1350	4
18	Merge	Basic	I-70 WB, Entrance Ramp from NB Keystone Way	1450	5
19	Merge	Merge	I-70 WB, Entrance Ramp from SB Keystone Way	1500	5
20	Basic	Basic	I-70 WB, between Keystone Way and North Split	2370	5

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.901	6803	11750	0.58	65.0	20.9	C

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.901	0.885	6803	2600	11750	4000	0.58	0.65	56.6	49.8	20.4	20.2	C

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.909	4212	7050	0.60	64.3	21.6	C

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.909	0.935	4212	255	7050	2000	0.60	0.13	58.9	54.6	23.8	20.9	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.909	3950	7050	0.56	64.5	20.3	C

Segment 6: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.909	0.971	7369	3419	9400	4000	0.78	0.85	54.3	51.1	33.9	33.6	D

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.935	7391	9400	0.79	62.2	29.7	D

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.935	0.917	7928	537	9400	2000	0.84	0.27	57.5	56.0	34.5	27.5	C

Segment 9: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.935	0.952	8652	734	9400	2000	0.92	0.37	56.4	54.6	38.4	30.3	D

Segment 10: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.94		0.935		8665		9400		0.92		56.7		38.2		E

Segment 11: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.935	0.952	8665	689	9400	2000	0.92	0.34	59.6	53.7	36.3	35.1	E

Segment 12: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.94		0.935		7963		9400		0.85		60.1		33.1		D

Segment 13: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.935	0.962	8514	551	9400	2000	0.91	0.28	56.7	55.2	37.5	29.2	D

Segment 14: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.935	0.935	9276	746	9400	2000	0.99	0.37	55.2	53.2	42.0	32.3	D

Segment 15: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.94		0.935		9276		9400		0.99		53.0		43.8		E

Segment 16: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.935	0.935	9276	617	9400	2000	0.99	0.31	59.5	53.9	39.0	38.9	E

Segment 17: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.94		0.935		8660		9400		0.92		56.7		38.2		E

Segment 18: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.935	0.926	8995	335	11750	2000	0.77	0.17	62.7	62.7	28.7	28.7	D

Segment 19: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	0.94	0.94	0.935	0.943	9564	572	11750	2000	0.81	0.29	58.4	56.7	24.2	25.3	C

Segment 20: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.935	9569	11750	0.81	61.3	31.2	D

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	12223	11069	24.04	600.93	57.6	33.5	31.2	6.80	D

Facility Overall Results

Space Mean Speed, mi/h	57.6	Average Density, veh/mi/ln	31.2
Average Travel Time, min	6.80	Average Density, pc/mi/ln	33.5
Total VMT, veh-mi	12223	Total VHD, veh-h	24.04
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	600.93

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/13/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	I-70 WB, South Split to I-465		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	2
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.70		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-70 WB, at South Split	1600	2
2	Weaving	Weaving	I-70 WB, between I-65 Ramp and Madison Ave	2100	4

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.885	3771	4700	0.80	61.7	30.6	D

Segment 2: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.877	5142	5172	1.34	52.9	24.3	F

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	884	544	2.43	60.69	55.2	26.0	23.6	0.80	F

Facility Overall Results

Space Mean Speed, mi/h	55.2	Average Density, veh/mi/ln	23.6
Average Travel Time, min	0.80	Average Density, pc/mi/ln	26.0
Total VMT, veh-mi	884	Total VHD, veh-h	2.43
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	60.69

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/13/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	I-70 WB, South Split to I-465		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	21
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	8.16		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-70 WB, at Madison Ave	350	3
2	Weaving	Weaving	I-70 WB, Ent from Madison Ave and Exit to Missouri St	1330	4
3	Basic	Basic	I-70 WB, at Kenwood Ave	1050	3
4	Merge	Merge	I-70 WB, Entrance Ramp from Capitol Ave	1600	3
5	Merge	Merge	I-70 WB, Entrance from West St	1500	3
6	Basic	Basic	I-70 WB, between West St and Harding St	1370	3
7	Diverge	Diverge	I-70 WB, Exit to Harding St	1500	3
8	Basic	Basic	I-70 WB, at Harding St	1600	3
9	Merge	Merge	I-70 WB, Entrance from Harding St	1500	3
10	Basic	Basic	I-70 WB, between Harding St and Holt Rd	5200	3
11	Diverge	Diverge	I-70 WB, Exit to Holt Rd	1500	3
12	Basic	Basic	I-70 WB, at Holt Rd	2650	3
13	Merge	Merge	I-70 WB, Entrance Ramp from Holt Rd	1500	3
14	Basic	Basic	I-70 WB, between Holt Rd and Sam Jones Expy	3380	3
15	Diverge	Diverge	I-70 WB, Exit to Sam Jones Expy	1500	3
16	Basic	Basic	I-70 WB, at Sam Jones Expy	3180	3
17	Merge	Merge	I-70 WB, Entrance Ramp from Sam Jones Expy	1400	3
18	Basic	Basic	I-70 WB, Between Sam Jones Expy and I-465	3770	3
19	Diverge	Diverge	I-70 WB, Exit Ramp to NB I-465	1500	4
20	Diverge	Basic	I-70 WB, Exit Ramp to SB I-465	1200	4
21	Basic	Basic	I-70 WB, West of I-465	4500	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.909	6148	7050	0.87	59.0	34.7	D

Segment 2: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.909	6291	8048	0.78	46.0	34.2	D

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.901	5165	7050	0.73	62.2	27.1	D

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.901	0.909	5306	141	7050	2000	0.75	0.07	57.5	56.4	30.8	26.5	C

Segment 5: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.901	0.901	5671	364	7050	2000	0.80	0.18	56.7	55.3	33.3	30.0	D

Segment 6: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.901	5671	7050	0.80	61.6	30.7	D

Segment 7: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.901	0.935	5671	864	7050	2000	0.80	0.43	57.7	53.4	32.8	31.5	D

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.893	4818	7050	0.68	64.4	24.9	C

Segment 9: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.893	0.794	5346	528	7050	2000	0.76	0.26	57.4	56.1	31.0	27.2	C

Segment 10: Basic

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

					(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
1	0.93		0.885		5335		7050		0.76		63.0		28.2		D
Segment 11: Diverge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.93	0.93	0.885	0.926	5335	1204	7050	2000	0.76	0.60	57.0	52.7	31.2	27.7	C
Segment 12: Basic															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.93		0.870		4145		7050		0.59		64.7		21.3		C
Segment 13: Merge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.93	0.93	0.870	0.847	4500	355	7050	2000	0.64	0.18	58.5	57.2	25.6	23.1	C
Segment 14: Basic															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.93		0.870		4491		7050		0.64		64.9		23.1		C
Segment 15: Diverge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.93	0.93	0.870	0.926	4491	1294	7050	2000	0.64	0.65	56.7	52.5	26.4	26.1	C
Segment 16: Basic															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.93		0.847		3199		7050		0.45		64.8		16.4		B
Segment 17: Merge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.93	0.93	0.847	0.730	3361	162	7050	2000	0.48	0.08	59.5	58.0	18.8	17.2	B
Segment 18: Basic															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.93		0.840		3367		7050		0.48		64.9		17.3		B
Segment 19: Diverge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.93	0.93	0.840	0.752	3367	140	9400	2000	0.36	0.07	62.7	54.9	13.4	7.4	A

Segment 20: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.847	0.901	3214	237	9400	2000	0.34	0.12	64.7	65.0	12.4	12.4	B

Segment 21: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.840	2986	7050	0.42	65.0	15.3	B

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	7895	7241	8.75	218.69	60.6	23.5	20.5	8.10	C

Facility Overall Results

Space Mean Speed, mi/h	60.6	Average Density, veh/mi/ln	20.5
Average Travel Time, min	8.10	Average Density, pc/mi/ln	23.5
Total VMT, veh-mi	7895	Total VHD, veh-h	8.75
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	218.69

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	1/23/2024
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	South Split, EB I-70 to SB I-65		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	4
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.91		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	South Split, EB I-70	1050	2
2	Merge	Merge	South Split, SB I-65 and EB I-70	360	4
3	Merge	Merge	SB I-65, On-ramp from Morris St	1500	4
4	Basic	Basic	SB I-65, south of South Split	1900	4

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.84	0.893	1582	4700	0.34	65.0	12.2	B

Segment 2: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.84	0.84	0.893	0.917	3831	2249	9400	4400	0.41	0.51	59.4	57.8	16.1	22.5	C

Segment 3: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.84	0.84	0.909	0.943	4024	201	9400	2000	0.43	0.10	60.7	58.2	16.6	14.6	B

Segment 4: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.84	0.909	4031	9400	0.43	64.7	15.5	B

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS

1	718	563	0.39	9.73	62.8	15.5	14.1	0.90	B

Facility Overall Results

Space Mean Speed, mi/h	62.8	Average Density, veh/mi/ln	14.1
Average Travel Time, min	0.90	Average Density, pc/mi/ln	15.5
Total VMT, veh-mi	718	Total VHD, veh-h	0.39
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	9.73

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	1/23/2024
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	South Split, NB I-65 to WB I-70		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.06		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Diverge	Diverge	NB I-65, Off-ramp to Morris St	1500	3
2	Diverge	Diverge	South Split, Off-ramp to NB I-65	1015	3
3	Basic	Basic	South Split, WB I-70	3100	2

Facility Segment Data

Segment 1: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.943	0.990	7086	298	7200	2000	0.98	0.15	65.4	60.2	36.1	35.2	E

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.943	0.935	6773	3617	7050	4000	0.96	0.90	51.7	47.7	43.7	43.1	E

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.952	3157	4700	0.67	64.5	24.4	C

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1223	1137	2.23	55.68	61.0	32.5	30.7	1.00	D

Facility Overall Results

Space Mean Speed, mi/h	61.0	Average Density, veh/mi/ln	30.7
Average Travel Time, min	1.00	Average Density, pc/mi/ln	32.5

Total VMT, veh-mi	1223	Total VHD, veh-h	2.23
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	55.68

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	1/24/2024
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	I-70 WB C-D near Shadeland Ave and I-465		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.57		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Collector-Distributor I-70 WB	500	2
2	Weaving	Weaving	Collector-Distributor I-70 WB, I-465 and Shadeland Ave	2000	3
3	Basic	Basic	Collector-Distributor I-70 WB, to Shadeland Ave	500	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.81	0.926	916	4500	0.20	55.0	8.3	A

Segment 2: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.81	0.917	1641	6099	0.27	49.9	11.0	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.81	0.917	623	2250	0.28	54.3	5.7	A

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	182	92	0.28	6.95	50.7	10.0	7.8	0.70	A

Facility Overall Results

Space Mean Speed, mi/h	50.7	Average Density, veh/mi/ln	7.8
Average Travel Time, min	0.70	Average Density, pc/mi/ln	10.0
Total VMT, veh-mi	182	Total VHD, veh-h	0.28

Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	6.95

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	1/24/2024
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	AM Peak
Facility Name		Units	U.S. Customary
Project Description	I-70 EB C-D near Shadeland Ave and I-465		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	4
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.02		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Diverge	Basic	Collector-Distributor I-70 EB, Shadeland Exit Ramp	1380	3
2	Basic	Basic	Collector-Distributor I-70 EB	1000	2
3	Weaving	Weaving	Collector-Distributor I-70 EB, Shadeland Entrance Ramp and Slip ramp to EB I-70	2500	3
4	Basic	Basic	Collector-Distributor I-70 EB	500	3

Facility Segment Data

Segment 1: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.86	0.86	0.901	0.926	3472	835	6750	2000	0.51	0.42	55.0	55.0	21.0	21.0	C

Segment 2: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.86	0.893	2637	4500	0.59	55.0	24.0	C

Segment 3: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.86	0.893	3146	5691	0.55	48.1	21.8	C

Segment 4: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.86	0.893	3025	6750	0.45	54.4	18.3	C

Facility Analysis Results

AP	VMT	VMT-Demand	VHD	Total Delay Cost	Speed	Density	Density	TT	LOS

	veh-mi/AP	veh-mi/AP	veh-h/AP	$/AP	mi/h	pc/mi/ln	veh/mi/ln	min	
1	712	566	0.88	22.00	51.5	21.5	17.9	1.20	C

Facility Overall Results

Space Mean Speed, mi/h	51.5	Average Density, veh/mi/ln	17.9
Average Travel Time, min	1.20	Average Density, pc/mi/ln	21.5
Total VMT, veh-mi	712	Total VHD, veh-h	0.88
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	22.00

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/8/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	I-65 SB, from I-465 to North Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	10.93		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-65 SB, between Exit 123 (I-465) and Entrance Ramp from SB I-465	2760	2
2	Merge	Basic	I-65 SB, Entrance Ramp from SB I-465	1500	3
3	Basic	Basic	I-65 SB, between I-465 and Lafayette Rd	6500	3
4	Diverge	Diverge	I-65 SB, Exit Ramp to Lafayette Rd	1500	3
5	Basic	Basic	I-65 SB, at Layfayette Rd	2700	3
6	Merge	Merge	I-65 SB, Entrance Ramp from Lafayette Rd	1500	3
7	Basic	Basic	I-65 SB, between Layfayette Rd and 38th St	6100	3
8	Diverge	Diverge	I-65 SB, Exit Ramp to 38th St	1500	3
9	Basic	Basic	I-65 SB, between 38th St Exit and 38th St Entrance	5200	3
10	Merge	Basic	I-65 SB, Entrance Ramp from 38th St	3200	3
11	Basic	Basic	I-65 SB, between 38th St and Dr MLK Jr St	4200	3
12	Diverge	Diverge	I-65 SB, Exit Ramp to Dr MLK Jr St	1500	3
13	Basic	Basic	I-65 SB, at Dr MLK Jr St	1200	3
14	Merge	Merge	I-65 SB, Entrance Ramp from Dr MLK Jr St	1500	3
15	Basic	Basic	I-65 SB, between Dr MLK Jr St and 29th St	2500	3
16	Weaving	Weaving	I-65 SB, between 29th St and 21st St	2000	4
17	Basic	Basic	I-65 SB, between 21st Exit Ramp and 21st St Entrance Ramp	1140	3
18	Weaving	Weaving	I-65 SB, between 21st Entrance Ramp and West St Exit Ramp	4030	4
19	Basic	Basic	I-65 SB, between West St Exit Ramp and Illinois St	500	3

20	Diverge	Diverge	I-65 SB, Exit Ramp to N Illinois St	1500	3
21	Basic	Basic	I-65 SB, between N Illinois St Exit and West St Entrance	350	3
22	Weaving	Weaving	I-65 SB, between Entrance Ramp from West St and North Split	4340	3
23	Basic	Basic	I-65 SB, at North Split	500	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.813	1985	4700	0.42	65.0	15.3	B

Segment 2: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.813	0.962	3498	1513	7050	2000	0.50	0.76	65.0	65.0	17.9	17.9	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.877	3500	7050	0.50	65.0	18.0	B

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.877	0.971	3500	444	7050	2000	0.50	0.22	58.1	54.2	20.1	20.6	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.870	3033	7050	0.43	64.8	15.6	B

Segment 6: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.870	0.980	3825	792	7050	2000	0.54	0.40	58.7	57.1	21.7	22.7	C

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.893	3824	7050	0.54	65.0	19.6	C

Segment 8: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.893	0.980	3824	661	7050	2000	0.54	0.33	58.0	53.8	22.0	21.1	C

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.870	3181	7050	0.45	65.0	16.3	B

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.870	0.943	4464	1283	7050	2000	0.63	0.64	64.9	64.9	22.9	22.9	C

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.893	4454	7050	0.63	64.9	22.9	C

Segment 12: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.893	0.962	4454	312	7050	2000	0.63	0.16	58.8	54.5	25.2	23.7	C

Segment 13: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.885	4155	7050	0.59	64.3	21.3	C

Segment 14: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.885	0.952	4746	591	7050	2000	0.67	0.30	58.6	57.5	27.0	22.2	C

Segment 15: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.893	4748	7050	0.67	64.5	24.5	C

Segment 16: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.893	5080	8420	0.60	52.6	24.1	C

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.901	4610	7050	0.65	64.0	23.8	C

Segment 18: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.901	5083	8775	0.58	55.3	23.0	C

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.893	4405	7050	0.62	64.8	22.6	C

Segment 20: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.93	0.93	0.893	0.980	4405	426	7050	2000	0.62	0.21	58.6	54.3	25.1	26.3	C

Segment 21: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.877	4009	7050	0.57	63.6	20.6	C

Segment 22: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.877	4847	6249	0.78	49.8	32.4	D

Segment 23: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.93	0.885	1836	4700	0.39	64.7	14.1	B

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	9627	8368	11.01	275.13	60.5	21.6	18.7	10.80	C

Facility Overall Results

Space Mean Speed, mi/h	60.5	Average Density, veh/mi/ln	18.7
Average Travel Time, min	10.80	Average Density, pc/mi/ln	21.6
Total VMT, veh-mi	9627	Total VHD, veh-h	11.01
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	275.13

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/8/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	I-65 SB, EB 38th St Frontage		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	4
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.75		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	38th St Frontage, from Industrial Blvd / Commercial Dr	1640	2
2	Weaving	Weaving	38th St Frontage, Between Entrance from I-65 SB and Kessler Blvd	3330	4
3	Weaving	Weaving	38th St Frontage, Between Kessler Blvd and Exit to I-65 SB	1640	3
4	Basic	Basic	38th St Frontage, to Cold Spring Rd	2640	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.962	2182	4700	0.46	65.0	16.8	B

Segment 2: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.962	2860	8136	0.35	58.5	12.2	B

Segment 3: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.980	2953	5769	0.51	56.9	17.3	B

Segment 4: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.90	0.980	1624	4700	0.35	64.7	12.5	B

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS

1	1019	789	1.24	31.03	60.2	13.8	12.5	1.70	B

Facility Overall Results

Space Mean Speed, mi/h	60.2	Average Density, veh/mi/ln	12.5
Average Travel Time, min	1.70	Average Density, pc/mi/ln	13.8
Total VMT, veh-mi	1019	Total VHD, veh-h	1.24
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	31.03

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/8/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	I-65 NB, WB 38th St Frontage		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	4
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.55		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	38th St Frontage, from NB I-65	1000	2
2	Weaving	Weaving	38th St Frontage, Between Cold Springs Entrance and Exit to Kessler Blvd	2950	4
3	Weaving	Weaving	38th St Frontage, Between Entrance from Kessler Blvd and NB I-65	2590	4
4	Basic	Basic	38th St Frontage, to Industrial Blvd	1640	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	1797	4700	0.38	65.0	13.8	B

Segment 2: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3640	4752	0.77	57.4	15.9	B

Segment 3: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	3636	7728	0.47	58.5	15.5	B

Segment 4: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	3061	4700	0.65	64.8	23.6	C

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS

1	1235	843	1.75	43.77	59.5	16.5	15.0	1.60	B

Facility Overall Results

Space Mean Speed, mi/h	59.5	Average Density, veh/mi/ln	15.0
Average Travel Time, min	1.60	Average Density, pc/mi/ln	16.5
Total VMT, veh-mi	1235	Total VHD, veh-h	1.75
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	43.77

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/13/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	Collector-Distributor I-65 SB, I-70 WB, North Split to South Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.08		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Collector-Distributor I-70/I-65 SB at Washington St	2010	2
2	Weaving	Weaving	Collector-Distributor I-70/I-65 SB Between E Washington St Entrance and Fletcher Ave Exit	1750	3
3	Basic	Basic	Collector-Distributor I-70/I-65 SB, Slip Ramp to Mainline	1940	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.917	545	2300	0.24	60.0	4.5	A

Segment 2: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.917	2334	2567	0.91	42.4	18.3	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.88	0.943	2003	4600	0.44	59.1	16.7	B

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	407	231	1.33	33.31	50.2	13.6	11.8	1.30	B

Facility Overall Results

Space Mean Speed, mi/h	50.2	Average Density, veh/mi/ln	11.8
Average Travel Time, min	1.30	Average Density, pc/mi/ln	13.6

Total VMT, veh-mi	407	Total VHD, veh-h	1.33
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	33.31

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/13/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	Main I-65 SB, I-70 WB, North Split to South Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	4
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.95		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-70/I-65 SB from North Split	5750	3
2	Weaving	Weaving	I-70/I-65 SB, Entrance from Slip Ramp	1700	5
3	Diverge	Diverge	I-70/I-65 SB, to I-70 WB	820	4
4	Basic	Basic	I-65 SB, through South Split	2000	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.97	0.870	5219	6900	0.76	59.6	29.2	D

Segment 2: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.97	0.870	6988	7229	0.97	46.0	30.4	D

Segment 3: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.97	0.97	0.885	0.847	6528	3404	9200	4000	0.71	0.85	52.0	46.8	31.4	27.0	C

Segment 4: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.97	0.935	3095	4600	0.67	59.2	25.8	C

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	2238	2037	3.33	83.24	55.1	29.3	25.6	2.10	D

Facility Overall Results			
Space Mean Speed, mi/h	55.1	Average Density, veh/mi/ln	25.6
Average Travel Time, min	2.10	Average Density, pc/mi/ln	29.3
Total VMT, veh-mi	2238	Total VHD, veh-h	3.33
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	83.24

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/13/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	I-65 NB, I-70 EB, South Split to North Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.39		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-65 NB, through South Split	1950	2
2	Merge	Merge	I-65 NB / I-70 EB, between South Split and Calvary St	1800	4
3	Merge	Merge	I-65 NB / I-70 EB, Entrance Ramp from Calvary St	800	4
4	Diverge	Diverge	I-65 NB / I-70 EB, Exit Ramp to Washington St	800	4
5	Basic	Basic	I-65 NB / I-70 EB, Washington St to South of North Split	2000	4

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.917	2756	4600	0.60	60.0	23.0	C

Segment 2: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.95	0.917	0.877	6392	3636	9200	4400	0.69	0.83	52.2	50.2	30.6	31.4	D

Segment 3: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.95	0.893	0.980	7200	799	9200	2000	0.78	0.40	53.9	52.8	33.4	28.2	D

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	0.95	0.95	0.901	0.980	7213	1128	9200	2000	0.78	0.56	55.8	50.5	32.3	33.2	D

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.893	6040	9200	0.66	59.6	25.2	C

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1733	1351	2.07	51.86	56.0	28.3	25.6	1.50	D

Facility Overall Results

Space Mean Speed, mi/h	56.0	Average Density, veh/mi/ln	25.6
Average Travel Time, min	1.50	Average Density, pc/mi/ln	28.3
Total VMT, veh-mi	1733	Total VHD, veh-h	2.07
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	51.86

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/8/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	I-65 NB, from North Split to I-465		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	10.83		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-65 NB, between North Split and Delaware St	1800	3
2	Diverge	Diverge	I-65 NB, Exit Ramp to West St	1500	3
3	Basic	Basic	I-65 NB, between West St Exit Ramp and Illinois St Ent Ramp	700	3
4	Merge	Merge	I-65 NB, Entrance Ramp from Illinois St	1500	3
5	Basic	Basic	I-65 NB, between Entrance Ramp from Illinois St and Entrance Ramp from West St	470	3
6	Weaving	Weaving	I-65 NB, between Entrance Ramp from West St and Exit Ramp to 21st St	2300	4
7	Basic	Basic	I-65 NB, at 21st St	970	3
8	Weaving	Weaving	I-65 NB, between 21st St and 29th St	3500	4
9	Basic	Basic	I-65 NB, at W 29th St	2950	3
10	Merge	Merge	I-65 NB, Entrance Ramp from 30th St	1500	3
11	Basic	Basic	I-65 NB, between 30th St and Dr MLK Jr St	1100	3
12	Merge	Merge	I-65 NB, Entrance Ramp from Dr MLK Jr St	1500	3
13	Basic	Basic	I-65 NB, between from Dr MLK Jr St and 38th St	3200	3
14	Diverge	Diverge	I-65 NB, Exit Ramp to 38th St	2500	3
15	Basic	Basic	I-65 NB, between Exit Ramp to 38th St and Entrance Ramp from 38th St	6930	3
16	Merge	Merge	I-65 NB, Entrance Ramp from 38th St	1500	3
17	Basic	Basic	I-65 NB, between 38th St and Lafayette Rd	6400	3
18	Diverge	Diverge	I-65 NB, Exit Ramp to Lafayette Rd	1500	3
19	Basic	Basic	I-65 NB, at Lafayette Rd	2660	3
20	Merge	Merge	I-65 NB, Entrance Ramp from Lafayette	1500	3

			Rd		
21	Basic	Basic	I-65 NB, between Lafayette Rd and I-465	4990	3
22	Diverge	Basic	I-65 NB, Exit Ramp to I-465	1500	3
23	Basic	Basic	I-65 NB, at I-465	4700	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.917	5100	7050	0.72	63.7	26.7	D

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.95	0.917	0.971	5100	1086	7050	2000	0.72	0.54	56.9	52.9	29.9	30.2	D

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.901	4020	7050	0.57	63.6	20.6	C

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.95	0.901	1.000	5161	1141	7050	2000	0.73	0.57	57.1	55.5	30.1	28.8	D

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.926	5144	7050	0.73	63.4	27.0	D

Segment 6: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.926	6738	7408	0.91	43.4	38.8	E

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.943	6130	7050	0.87	59.1	34.6	D

Segment 8: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.943	6652	7717	0.86	44.8	37.1	E

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	5254	7050	0.75	63.3	27.7	D

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.95	0.935	0.990	5618	364	7050	2000	0.80	0.18	57.5	56.4	32.6	25.7	C

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.943	5591	7050	0.79	62.0	30.1	D

Segment 12: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.95	0.943	0.990	5788	197	7050	2000	0.82	0.10	57.1	56.0	33.8	27.1	C

Segment 13: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.943	5798	7050	0.82	61.0	31.7	D

Segment 14: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.95	0.943	0.971	5798	1770	7050	4000	0.82	0.44	56.4	51.5	34.3	21.6	C

Segment 15: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	4009	7050	0.57	65.0	20.6	C

Segment 16: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.95	0.935	0.990	4571	562	7050	2000	0.65	0.28	58.5	57.2	26.0	23.4	C

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.935	4605	7050	0.65	64.7	23.7	C

Segment 18: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.95	0.935	0.980	4605	1166	7050	2000	0.65	0.58	56.9	52.7	27.0	26.2	C

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS

1	0.95		0.926		3415		7050		0.48		64.7		17.5		B

Segment 20: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.95	0.926	0.980	3863	448	7050	2000	0.55	0.22	59.0	57.6	21.8	20.6	C

Segment 21: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.926	3889	7050	0.55	65.0	19.9	C

Segment 22: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.95	0.926	0.962	3889	1464	7050	2000	0.55	0.73	65.0	65.0	19.9	19.9	C

Segment 23: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	2412	4700	0.51	65.0	18.6	C

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	11885	10868	20.77	519.27	58.4	26.7	24.6	11.10	D

Facility Overall Results

Space Mean Speed, mi/h	58.4	Average Density, veh/mi/ln	24.6
Average Travel Time, min	11.10	Average Density, pc/mi/ln	26.7
Total VMT, veh-mi	11885	Total VHD, veh-h	20.77
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	519.27

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/13/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	I-70 EB, I-465 to South Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	19
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	6.91		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-70 EB, at I-465	1700	3
2	Merge	Merge	I-70 EB, Entrance Ramp from NB I-465	1500	3
3	Basic	Basic	I-70 EB, between I-465 and Sam Jones Expy	2070	3
4	Diverge	Diverge	I-70 EB, Exit Ramp to Sam Jones Expy	1500	3
5	Basic	Basic	I-70 EB, at Sam Jones Expy	2400	3
6	Merge	Merge	I-70 EB, Entrance Ramp from Sam Jones Expy	1500	3
7	Basic	Basic	I-70 EB, between Sam Jones Expy and Holt Rd	4320	3
8	Diverge	Diverge	I-70 EB, Exit Ramp to Holt Rd	1500	3
9	Basic	Basic	I-70 EB, at Holt Rd	3000	3
10	Merge	Merge	I-70 EB, Entrance Ramp from Holt Rd	1500	3
11	Basic	Basic	I-70 EB, between Holt Rd and Harding St	4700	3
12	Diverge	Diverge	I-70 EB, Exit Ramp to Harding St	1500	3
13	Basic	Basic	I-70 EB, at Harding St	1800	3
14	Merge	Merge	I-70 EB, Entrance Ramp from Harding St	1500	3
15	Basic	Basic	I-70 EB, between Harding St and West St	1550	3
16	Diverge	Diverge	I-70 EB, Exit Ramp to West St	1500	3
17	Basic	Basic	I-70 EB, over West St	650	3
18	Diverge	Diverge	I-70 EB, Exit Ramp to Madison Ave & Illinois St	1000	3
19	Basic	Basic	I-70 EB, between Missouri St and Kenwood Ave	1300	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.847	2635	7050	0.37	65.0	13.5	B

Segment 2: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.847	0.943	2850	215	7050	2000	0.40	0.11	60.0	58.4	15.8	14.4	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.855	2848	7050	0.40	64.7	14.6	B

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.855	0.862	2848	511	7050	2000	0.40	0.26	57.9	54.1	16.4	16.6	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.855	2333	7050	0.33	64.7	12.0	B

Segment 6: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.855	0.935	3147	814	7050	2000	0.45	0.41	59.4	57.9	17.7	18.0	B

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.877	3142	7050	0.45	64.9	16.1	B

Segment 8: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.877	0.870	3142	337	7050	2000	0.45	0.17	58.6	54.5	17.9	16.0	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.877	2807	7050	0.40	64.8	14.4	B

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	0.94	0.94	0.877	0.952	3889	1082	7050	2000	0.55	0.54	59.4	58.1	21.8	19.3	B

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.893	3910	7050	0.55	65.0	20.0	C

Segment 12: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.893	0.943	3910	343	7050	2000	0.55	0.17	58.6	54.4	22.2	23.1	C

Segment 13: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.893	3548	7050	0.50	64.6	18.2	C

Segment 14: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.893	0.952	4325	777	7050	2000	0.61	0.39	58.5	57.0	24.6	23.9	C

Segment 15: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.901	4337	7050	0.62	64.5	22.2	C

Segment 16: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.901	0.935	4337	364	7050	2000	0.62	0.18	58.5	54.4	24.7	26.5	C

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.901	3959	7050	0.56	63.9	20.3	C

Segment 18: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.901	0.962	3959	211	7050	2000	0.56	0.11	59.0	54.7	22.4	23.9	C

Segment 19: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.893	3767	7050	0.53	64.1	19.3	C

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	5151	4674	3.33	83.24	62.4	18.0	15.9	6.60	C

Facility Overall Results

Space Mean Speed, mi/h	62.4	Average Density, veh/mi/ln	15.9
Average Travel Time, min	6.60	Average Density, pc/mi/ln	18.0
Total VMT, veh-mi	5151	Total VHD, veh-h	3.33
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	83.24

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/13/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	I-70 EB, I-465 to South Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.84		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Merge	Merge	I-70 EB, Entrance Ramp from Missouri St	650	3
2	Weaving	Weaving	I-70 EB, Entrance Ramp from Madison Ave & Exit to SB I-65	3000	4
3	Basic	Basic	I-70 EB at South Split	780	2

Facility Segment Data

Segment 1: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.893	0.962	4163	1184	7050	2000	0.70	0.59	13.3	55.9	104.4	27.7	F

Segment 2: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.870	4765	5117	1.16	57.4	20.8	F

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.885	2001	4700	0.69	64.6	15.4	B

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	963	798	8.45	211.15	41.4	30.8	28.0	1.20	F

Facility Overall Results

Space Mean Speed, mi/h	41.4	Average Density, veh/mi/ln	28.0
Average Travel Time, min	1.20	Average Density, pc/mi/ln	30.8

Total VMT, veh-mi	963	Total VHD, veh-h	8.45
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	211.15

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/9/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	I-70 EB, North Split to I-465		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	7.10		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-70 EB, between North Split and Keystone Way	4840	5
2	Diverge	Diverge	I-70 EB, Exit Ramp to SB Keystone Way	1500	5
3	Diverge	Basic	I-70 EB, Exit Ramp to NB Keystone Way	1460	5
4	Basic	Basic	I-70 EB, at Keystone Way	1170	4
5	Merge	Merge	I-70 EB, Entrance Ramp from Keystone Way	1500	4
6	Basic	Basic	I-70 EB, between Keystone Way and Emerson Ave	3870	4
7	Diverge	Diverge	I-70 EB, Exit Ramp to Emerson Ave	1500	4
8	Basic	Basic	I-70 EB, West of Emerson Ave	1530	4
9	Merge	Merge	I-70 EB, Entrance Ramp from SB Emerson Ave	1420	4
10	Merge	Merge	I-70 EB, Entrance Ramp from NB Emerson Ave	1600	4
11	Basic	Basic	I-70 EB, between Emerson Ave and Shadeland (5 Lane)	4415	5
12	Diverge	Diverge	I-70 EB, Exit Ramp to Shadeland Ave	1500	5
13	Basic	Basic	I-70 EB, at Shadeland Ave	5360	3
14	Merge	Merge	I-70 EB, Entrance Ramp from Shadeland Ave	1800	3
15	Merge	Merge	I-70 EB, Entrance Ramp from SB I-465	1500	4
16	Merge	Basic	I-70 EB, Entrance Ramp from NB I-465	1500	5
17	Basic	Basic	I-70 EB, East of I-465	1000	5

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS

1	0.96		0.926		9232		11750		0.79		62.2		29.7	D
Segment 2: Diverge														
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**	**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.96	0.96	0.926	0.909	9232	323	11750	2000	0.79	0.16	60.8	54.5	24.3	28.1	D
Segment 3: Diverge														
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**	**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.96	0.96	0.926	0.935	8915	677	11750	2000	0.76	0.34	62.9	62.9	28.3	28.3	D
Segment 4: Basic														
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**	**LOS**
1	0.96		0.926		8231		9400		0.88		58.9		34.9	D
Segment 5: Merge														
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**	**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.96	0.96	0.926	0.980	8981	750	9400	2000	0.96	0.38	55.8	53.8	40.2	31.8	D
Segment 6: Basic														
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**	**LOS**
1	0.96		0.935		8938		9400		0.95		55.2		40.5	E
Segment 7: Diverge														
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**	**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.96	0.96	0.935	0.952	8938	1192	9400	2000	0.95	0.60	58.7	52.7	38.1	38.3	E
Segment 8: Basic														
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**	**LOS**
1	0.96		0.926		7800		9400		0.83		60.7		32.1	D
Segment 9: Merge														
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**	**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.96	0.96	0.926	0.971	8170	370	9400	2000	0.87	0.19	57.3	56.1	35.6	27.3	C
Segment 10: Merge														
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**	**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.96	0.96	0.935	0.980	8514	405	9400	2000	0.91	0.20	56.7	55.4	37.5	28.9	D

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.96	0.935	8534	11750	0.73	63.7	26.8	D

Segment 12: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.96	0.96	0.935	0.962	8534	5018	11750	6000	0.73	0.84	57.1	57.1	29.9	29.9	D

Segment 13: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.96	0.901	3498	7050	0.50	65.0	17.9	B

Segment 14: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.96	0.96	0.901	0.971	3701	203	7050	2000	0.53	0.10	59.2	57.8	20.8	19.2	B

Segment 15: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.96	0.96	0.901	0.926	5255	1538	9400	4000	0.56	0.38	60.1	58.2	21.9	19.0	B

Segment 16: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.96	0.96	0.909	0.833	6582	1331	11750	2000	0.56	0.67	64.6	65.0	20.3	20.3	C

Segment 17: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.96	0.893	6586	11750	0.56	64.9	20.3	C

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	12268	11489	15.23	380.87	60.2	29.0	26.8	7.10	D

Facility Overall Results

Space Mean Speed, mi/h	60.2	Average Density, veh/mi/ln	26.8
Average Travel Time, min	7.10	Average Density, pc/mi/ln	29.0
Total VMT, veh-mi	12268	Total VHD, veh-h	15.23
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	380.87

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/9/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	I-70 WB, I-465 to North Split		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	20
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	6.54		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-70 WB, east of I-465	500	5
2	Diverge	Diverge	I-70 WB, Exit to I-465 NB/SB	1500	5
3	Basic	Basic	I-70 WB, east of I-465	1600	3
4	Diverge	Diverge	I-70 WB, Exit to Shadeland Ave	1500	3
5	Basic	Basic	I-70 WB, west of I-465	1650	3
6	Merge	Merge	I-70 WB, Entrance Ramp From SB I-465	1500	4
7	Basic	Basic	I-70 WB, East of Entrance Ramp From NB I-465	500	4
8	Merge	Merge	I-70 WB, Entrance Ramp from I-465 N	1350	4
9	Merge	Merge	I-70 WB Entrance Ramp from Shadeland Ave	1500	4
10	Basic	Basic	I-70 WB, between Shadeland Entrance and Emerson Exit	4780	4
11	Diverge	Diverge	I-70 WB, Exit Ramp to Emerson Ave	1500	4
12	Basic	Basic	I-70 WB, East of Emerson Ave	1500	4
13	Merge	Merge	I-70 WB, Entrance Ramp From NB Emerson Ave	1500	4
14	Merge	Merge	I-70 WB, Entrance Ramp From SB Emerson Ave	1500	4
15	Basic	Basic	I-70 WB, between Emerson Ave and Keystone Way	4000	4
16	Diverge	Diverge	I-70 WB, Exit Ramp to Keystone Way	1500	4
17	Basic	Basic	I-70 WB, East of Keystone Way	1350	4
18	Merge	Basic	I-70 WB, Entrance Ramp from NB Keystone Way	1450	5
19	Merge	Merge	I-70 WB, Entrance Ramp from SB Keystone Way	1500	5
20	Basic	Basic	I-70 WB, between Keystone Way and North Split	2370	5

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.870	5011	11750	0.43	65.0	15.4	B

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.870	0.855	5011	2419	11750	4000	0.43	0.60	55.8	50.1	16.2	16.2	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.885	2589	7050	0.37	64.3	13.3	B

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.885	0.893	2589	135	7050	2000	0.37	0.07	58.9	54.9	14.7	16.4	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.885	2453	7050	0.35	64.5	12.6	B

Segment 6: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.885	0.917	4720	2267	9400	4000	0.50	0.57	59.6	57.7	19.8	20.4	C

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.901	4717	9400	0.50	63.9	18.1	C

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.901	0.943	5327	610	9400	2000	0.57	0.31	59.8	57.8	22.3	19.7	B

Segment 9: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.901	0.714	6371	1015	9400	2000	0.68	0.51	58.9	56.9	27.0	24.4	C

Segment 10: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.94		0.877		6328		9400		0.67		64.5		24.5		C

Segment 11: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.877	0.943	6328	1069	9400	2000	0.67	0.53	59.5	52.9	26.6	28.2	D

Segment 12: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.94		0.862		5269		9400		0.56		64.5		20.3		C

Segment 13: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.862	0.971	5591	322	9400	2000	0.59	0.16	59.7	58.0	23.4	19.1	B

Segment 14: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.870	0.962	6270	690	9400	2000	0.67	0.35	59.1	57.3	26.5	22.7	C

Segment 15: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.94		0.877		6292		9400		0.67		64.6		24.3		C

Segment 16: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.877	0.962	6292	591	9400	2000	0.67	0.30	60.6	53.9	26.0	27.6	C

Segment 17: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.94		0.870		5690		9400		0.61		64.6		21.9		C

Segment 18: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.94	0.94	0.870	0.917	6149	459	11750	2000	0.52	0.23	65.0	65.0	18.9	18.9	C

Segment 19: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	0.94	0.94	0.870	0.935	6952	778	11750	2000	0.59	0.39	59.6	57.5	18.4	21.2	C

Segment 20: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.877	6954	11750	0.59	64.8	21.4	C

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	7968	7132	5.62	140.39	62.2	21.5	18.9	6.30	C

Facility Overall Results

Space Mean Speed, mi/h	62.2	Average Density, veh/mi/ln	18.9
Average Travel Time, min	6.30	Average Density, pc/mi/ln	21.5
Total VMT, veh-mi	7968	Total VHD, veh-h	5.62
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	140.39

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	3/13/2023
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	I-70 WB, South Split to I-465		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	23
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	8.86		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-70 WB, at South Split	1600	2
2	Weaving	Weaving	I-70 WB, between I-65 Ramp and Madison Ave	2100	4
3	Basic	Basic	I-70 WB, at Madison Ave	350	3
4	Weaving	Weaving	I-70 WB, Ent from Madison Ave and Exit to Missouri St	1330	4
5	Basic	Basic	I-70 WB, at Kenwood Ave	1050	3
6	Merge	Merge	I-70 WB, Entrance Ramp from Capitol Ave	1600	3
7	Merge	Merge	I-70 WB, Entrance from West St	1500	3
8	Basic	Basic	I-70 WB, between West St and Harding St	1370	3
9	Diverge	Diverge	I-70 WB, Exit to Harding St	1500	3
10	Basic	Basic	I-70 WB, at Harding St	1600	3
11	Merge	Merge	I-70 WB, Entrance from Harding St	1500	3
12	Basic	Basic	I-70 WB, between Harding St and Holt Rd	5200	3
13	Diverge	Diverge	I-70 WB, Exit to Holt Rd	1500	3
14	Basic	Basic	I-70 WB, at Holt Rd	2650	3
15	Merge	Merge	I-70 WB, Entrance Ramp from Holt Rd	1500	3
16	Basic	Basic	I-70 WB, between Holt Rd and Sam Jones Expy	3380	3
17	Diverge	Diverge	I-70 WB, Exit to Sam Jones Expy	1500	3
18	Basic	Basic	I-70 WB, at Sam Jones Expy	3180	3
19	Merge	Merge	I-70 WB, Entrance Ramp from Sam Jones Expy	1400	3
20	Basic	Basic	I-70 WB, Between Sam Jones Expy and I-465	3770	3
21	Diverge	Diverge	I-70 WB, Exit Ramp to NB I-465	1500	4

22	Diverge	Basic	I-70 WB, Exit Ramp to SB I-465	1200	4
23	Basic	Basic	I-70 WB, West of I-465	4500	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.97	0.847	3404	4700	0.72	63.7	26.7	D

Segment 2: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.97	0.840	5015	7273	0.69	56.8	22.1	C

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.97	0.862	4842	7050	0.69	63.9	25.1	C

Segment 4: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.97	0.862	5361	8208	0.65	50.7	26.4	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.97	0.870	5022	7050	0.71	62.9	26.2	D

Segment 6: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.97	0.97	0.870	0.990	5519	497	7050	2000	0.78	0.25	57.0	55.7	32.3	28.5	D

Segment 7: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.97	0.97	0.885	0.943	6142	650	7050	2000	0.87	0.33	55.6	54.0	36.8	32.5	D

Segment 8: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.97	0.893	6130	7050	0.87	59.1	34.6	D

Segment 9: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.97	0.97	0.893	0.862	6130	606	7050	2000	0.87	0.30	58.0	53.9	35.2	32.9	D

Segment 10: Basic

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.97		0.893		5545		7050		0.79		62.2		29.7		D
Segment 11: Merge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.97	0.97	0.893	0.962	6234	689	7050	2000	0.88	0.34	55.6	53.9	37.4	31.8	D
Segment 12: Basic															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.97		0.901		6231		7050		0.88		58.5		35.5		E
Segment 13: Diverge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.97	0.97	0.901	0.893	6231	1167	7050	2000	0.88	0.58	57.0	52.7	36.4	31.1	D
Segment 14: Basic															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.97		0.901		5075		7050		0.72		63.8		26.5		D
Segment 15: Merge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.97	0.97	0.901	0.917	5576	501	7050	2000	0.79	0.25	56.9	55.5	32.7	28.8	D
Segment 16: Basic															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.97		0.901		5585		7050		0.79		62.0		30.0		D
Segment 17: Diverge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.97	0.97	0.901	0.952	5585	1465	7050	2000	0.79	0.73	56.5	52.1	32.9	31.0	D
Segment 18: Basic															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.97		0.885		4110		7050		0.58		64.8		21.1		C
Segment 19: Merge															
AP	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R Infl.**	**F**	**R Infl.**	
1	0.97	0.97	0.885	0.909	4315	205	7050	2000	0.61	0.10	58.7	57.5	24.5	21.8	C

Segment 20: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.97	0.893	4282	7050	0.61	64.9	22.0	C

Segment 21: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.97	0.97	0.893	0.901	4282	304	9400	2000	0.46	0.15	62.0	54.5	17.3	11.6	B

Segment 22: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.97	0.97	0.885	0.935	4011	364	9400	2000	0.43	0.18	64.7	65.0	15.4	15.4	B

Segment 23: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.97	0.885	3626	7050	0.51	65.0	18.6	C

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	10012	9382	13.06	326.56	59.9	27.4	24.2	8.90	D

Facility Overall Results

Space Mean Speed, mi/h	59.9	Average Density, veh/mi/ln	24.2
Average Travel Time, min	8.90	Average Density, pc/mi/ln	27.4
Total VMT, veh-mi	10012	Total VHD, veh-h	13.06
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	326.56

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	1/23/2024
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	South Split, EB I-70 to SB I-65		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	4
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.91		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	South Split, EB I-70	1050	2
2	Merge	Merge	South Split, SB I-65 and EB I-70	360	4
3	Merge	Merge	SB I-65, On-ramp from Morris St	1500	4
4	Basic	Basic	SB I-65, south of South Split	1900	4

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.96	0.971	2681	4700	0.57	65.0	20.6	C

Segment 2: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.96	0.96	0.971	0.935	5808	3127	9400	4000	0.62	0.78	55.5	52.8	26.2	32.3	D

Segment 3: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.96	0.96	0.943	0.990	6474	613	9400	2000	0.69	0.31	58.8	57.0	27.5	23.9	C

Segment 4: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.96	0.952	6444	9400	0.69	64.4	25.0	C

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS

1	1211	1073	1.04	25.89	61.6	25.4	24.2	0.90	C

Facility Overall Results

Space Mean Speed, mi/h	61.6	Average Density, veh/mi/ln	24.2
Average Travel Time, min	0.90	Average Density, pc/mi/ln	25.4
Total VMT, veh-mi	1211	Total VHD, veh-h	1.04
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	25.89

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	1/23/2024
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	South Split, NB I-65 to WB I-70		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.06		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Diverge	Diverge	NB I-65, Off-ramp to Morris St	1500	3
2	Diverge	Diverge	South Split, Off-ramp to NB I-65	1015	3
3	Basic	Basic	South Split, WB I-70	3100	2

Facility Segment Data

Segment 1: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.95	0.917	0.990	4599	202	7050	2000	0.65	0.10	59.0	54.7	26.0	23.3	C

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.95	0.95	0.909	0.917	4419	2756	7050	4000	0.63	0.69	52.8	49.5	27.9	29.9	D

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	1639	4700	0.35	64.6	12.6	B

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	711	676	1.18	29.44	58.7	20.4	18.6	1.10	C

Facility Overall Results

Space Mean Speed, mi/h	58.7	Average Density, veh/mi/ln	18.6
Average Travel Time, min	1.10	Average Density, pc/mi/ln	20.4

Total VMT, veh-mi	711	Total VHD, veh-h	1.18
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	29.44

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	1/24/2024
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	I-70 WB C-D near Shadeland Ave and I-465		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.57		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Collector-Distributor I-70 WB	500	2
2	Weaving	Weaving	Collector-Distributor I-70 WB, I-465 and Shadeland Ave	2000	3
3	Basic	Basic	Collector-Distributor I-70 WB, to Shadeland Ave	500	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.82	0.935	853	4500	0.19	55.0	7.7	A

Segment 2: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.82	0.943	1639	6294	0.26	51.1	10.7	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.82	0.943	700	2250	0.31	54.5	6.4	A

Facility Analysis Results

AP	VMT veh-mi/AP	VMT-Demand veh-mi/AP	VHD veh-h/AP	Total Delay Cost $/AP	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	182	90	0.21	5.19	51.8	9.8	7.9	0.70	A

Facility Overall Results

Space Mean Speed, mi/h	51.8	Average Density, veh/mi/ln	7.9
Average Travel Time, min	0.70	Average Density, pc/mi/ln	9.8
Total VMT, veh-mi	182	Total VHD, veh-h	0.21

Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	5.19

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HCS Freeway Facilities Report

Project Information

Analyst	Katherine Martin	Date	1/24/2024
Agency	HNTB Corporation	Analysis Year	2023
Jurisdiction		Time Analyzed	PM Peak
Facility Name		Units	U.S. Customary
Project Description	I-70 EB C-D near Shadeland Ave and I-465		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	4
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.02		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Diverge	Basic	Collector-Distributor I-70 EB, Shadeland Exit Ramp	1380	3
2	Basic	Basic	Collector-Distributor I-70 EB	1000	2
3	Weaving	Weaving	Collector-Distributor I-70 EB, Shadeland Entrance Ramp and Slip ramp to EB I-70	2500	3
4	Basic	Basic	Collector-Distributor I-70 EB	500	3

Facility Segment Data

Segment 1: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	0.86	0.86	0.962	0.971	5277	1087	6750	2000	0.83	0.54	23.0	23.0	76.6	76.6	F

Segment 2: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.86	0.952	4190	4500	1.01	50.3	39.6	F

Segment 3: Weaving

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.86	0.952	5013	5691	0.94	43.6	38.3	E

Segment 4: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.86	0.952	4793	6750	0.76	54.0	29.0	D

Facility Analysis Results

AP	VMT	VMT-Demand	VHD	Total Delay Cost	Speed	Density	Density	TT	LOS

	veh-mi/AP	veh-mi/AP	veh-h/AP	$/AP	mi/h	pc/mi/ln	veh/mi/ln	min	
1	1233	1020	11.65	291.29	36.2	48.0	45.9	1.70	F

Facility Overall Results

Space Mean Speed, mi/h	36.2	Average Density, veh/mi/ln	45.9
Average Travel Time, min	1.70	Average Density, pc/mi/ln	48.0
Total VMT, veh-mi	1233	Total VHD, veh-h	11.65
Vehicle Value of Time (VOT), $/h	25.00	Total Delay Cost, $	291.29

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INTERSECTION ANALYSIS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	127	0	446	247	280	0	0	961	188
Future Volume (veh/h)	0	0	0	127	0	446	247	280	0	0	961	188
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1841	0	1811	1841	1841	0	0	1870	1841
Adj Flow Rate, veh/h				137	0	47	266	301	0	0	1033	127
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				4	0	6	4	4	0	0	2	4
Cap, veh/h				249	0	197	481	2811	0	0	3459	1057
Arrive On Green				0.07	0.00	0.07	0.07	0.80	0.00	0.00	0.68	0.68
Sat Flow, veh/h				3401	0	2701	1753	3589	0	0	5274	1560
Grp Volume(v), veh/h				137	0	47	266	301	0	0	1033	127
Grp Sat Flow(s),veh/h/ln				1700	0	1351	1753	1749	0	0	1702	1560
Q Serve(g_s), s				3.7	0.0	1.6	3.9	1.8	0.0	0.0	7.8	2.7
Cycle Q Clear(g_c), s				3.7	0.0	1.6	3.9	1.8	0.0	0.0	7.8	2.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				249	0	197	481	2811	0	0	3459	1057
V/C Ratio(X)				0.55	0.00	0.24	0.55	0.11	0.00	0.00	0.30	0.12
Avail Cap(c_a), veh/h				770	0	611	740	2811	0	0	3459	1057
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.98	0.98	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				42.5	0.0	41.5	4.2	2.0	0.0	0.0	6.2	5.4
Incr Delay (d2), s/veh				1.9	0.0	0.6	1.0	0.1	0.0	0.0	0.2	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				2.9	0.0	1.0	2.0	0.7	0.0	0.0	4.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				44.4	0.0	42.1	5.1	2.1	0.0	0.0	6.4	5.6
LnGrp LOS				D	A	D	A	A	A	A	A	A
Approach Vol, veh/h					184			567			1160	
Approach Delay, s/veh					43.8			3.5			6.3	
Approach LOS					D			A			A	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	82.6		12.0	70.5		12.4
Change Period (Y+Rc), s	* 6.2		* 5.4	* 6.2		5.5
Max Green Setting (Gmax), s	* 62		* 21	* 36		21.5
Max Q Clear Time (g_c+I1), s	3.8		5.9	9.8		5.7
Green Ext Time (p_c), s	2.2		0.7	8.8		0.5

Intersection Summary		
HCM 6th Ctrl Delay		9.1
HCM 6th LOS		A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	0	202	0	0	0	0	452	379	688	414	0
Future Volume (veh/h)	53	0	202	0	0	0	0	452	379	688	414	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1781	0	1811				0	1841	1885	1885	1856	0
Adj Flow Rate, veh/h	56	0	20				0	481	0	732	440	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	8	0	6				0	4	1	1	3	0
Cap, veh/h	80	0	72				0	3055		922	2981	0
Arrive On Green	0.05	0.00	0.05				0.00	0.61	0.00	0.18	0.85	0.00
Sat Flow, veh/h	1697	0	1535				0	5191	1598	1795	3618	0
Grp Volume(v), veh/h	56	0	20				0	481	0	732	440	0
Grp Sat Flow(s),veh/h/ln	1697	0	1535				0	1675	1598	1795	1763	0
Q Serve(g_s), s	3.1	0.0	1.2				0.0	3.9	0.0	12.4	2.1	0.0
Cycle Q Clear(g_c), s	3.1	0.0	1.2				0.0	3.9	0.0	12.4	2.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	80	0	72				0	3055		922	2981	0
V/C Ratio(X)	0.70	0.00	0.28				0.00	0.16		0.79	0.15	0.00
Avail Cap(c_a), veh/h	232	0	210				0	3055		1327	2981	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.95	0.95	0.00
Uniform Delay (d), s/veh	44.6	0.0	43.7				0.0	8.1	0.0	3.8	1.3	0.0
Incr Delay (d2), s/veh	10.5	0.0	2.0				0.0	0.1	0.0	2.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.7	0.0	0.9				0.0	2.4	0.0	5.6	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	0.0	45.7				0.0	8.2	0.0	5.9	1.4	0.0
LnGrp LOS	E	A	D				A	A		A	A	A
Approach Vol, veh/h		76						481			1172	
Approach Delay, s/veh		52.7						8.2			4.2	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	22.6	63.9				86.5		8.5				
Change Period (Y+Rc), s	* 5.4	* 6.2				* 6.2		4.0				
Max Green Setting (Gmax), s	* 39	* 28				* 72		13.0				
Max Q Clear Time (g_c+I1), s	14.4	5.9				4.1		5.1				
Green Ext Time (p_c), s	2.7	3.3				3.3		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	7.4
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	1402	13	82	1261	46	3	25	210	58	10	121
Future Volume (veh/h)	84	1402	13	82	1261	46	3	25	210	58	10	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1900	1841	1841	1752	1900	1900	1826	1693	1900	1781
Adj Flow Rate, veh/h	95	1593	7	93	1433	26	3	28	17	66	11	13
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	0	4	4	10	0	0	5	14	0	8
Cap, veh/h	534	2952	946	118	1755	519	55	57	47	90	15	87
Arrive On Green	0.61	1.00	1.00	0.07	0.35	0.35	0.03	0.03	0.03	0.06	0.06	0.06
Sat Flow, veh/h	1753	5025	1610	1753	5025	1485	1810	1900	1547	1562	260	1510
Grp Volume(v), veh/h	95	1593	7	93	1433	26	3	28	17	77	0	13
Grp Sat Flow(s),veh/h/ln	1753	1675	1610	1753	1675	1485	1810	1900	1547	1822	0	1510
Q Serve(g_s), s	2.3	0.0	0.0	5.0	24.7	1.1	0.2	1.4	1.0	3.9	0.0	0.8
Cycle Q Clear(g_c), s	2.3	0.0	0.0	5.0	24.7	1.1	0.2	1.4	1.0	3.9	0.0	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.86		1.00
Lane Grp Cap(c), veh/h	534	2952	946	118	1755	519	55	57	47	106	0	87
V/C Ratio(X)	0.18	0.54	0.01	0.79	0.82	0.05	0.05	0.49	0.36	0.73	0.00	0.15
Avail Cap(c_a), veh/h	534	2952	946	186	1957	578	324	340	277	201	0	167
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.3	0.0	0.0	43.6	28.1	20.5	44.7	45.3	45.2	44.0	0.0	42.5
Incr Delay (d2), s/veh	0.1	0.4	0.0	10.9	4.3	0.2	0.4	6.3	4.7	9.2	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.2	0.0	4.4	15.1	0.7	0.1	1.3	0.8	3.7	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.4	0.4	0.0	54.5	32.5	20.7	45.2	51.6	49.8	53.3	0.0	43.3
LnGrp LOS	B	A	A	D	C	C	D	D	D	D	A	D
Approach Vol, veh/h		1695			1552			48			90	
Approach Delay, s/veh		1.2			33.6			50.6			51.8	
Approach LOS		A			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.3	62.8		12.0	35.9	40.2		6.9
Change Period (Y+Rc), s	6.9	* 7		6.5	* 7	* 7		4.0
Max Green Setting (Gmax), s	10.1	* 33		10.5	* 6.5	* 37		17.0
Max Q Clear Time (g_c+I1), s	7.3	2.0		5.9	4.3	26.7		3.4
Green Ext Time (p_c), s	0.0	14.3		0.1	0.0	6.5		0.1

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	130	164	202	473	689	155
Future Volume (veh/h)	130	164	202	473	689	155
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1841	1856	1870	1885	1885
Adj Flow Rate, veh/h	143	33	222	520	757	62
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	4	3	2	1	1
Cap, veh/h	206	181	542	2133	1423	635
Arrive On Green	0.12	0.12	0.11	0.60	0.40	0.40
Sat Flow, veh/h	1767	1560	1767	3647	3676	1598
Grp Volume(v), veh/h	143	33	222	520	757	62
Grp Sat Flow(s),veh/h/ln	1767	1560	1767	1777	1791	1598
Q Serve(g_s), s	2.9	0.7	2.4	2.6	6.1	0.9
Cycle Q Clear(g_c), s	2.9	0.7	2.4	2.6	6.1	0.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	206	181	542	2133	1423	635
V/C Ratio(X)	0.70	0.18	0.41	0.24	0.53	0.10
Avail Cap(c_a), veh/h	599	529	745	4376	3272	1460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	15.1	5.5	3.5	8.7	7.1
Incr Delay (d2), s/veh	4.2	0.5	0.5	0.1	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.2	0.4	0.9	0.7	3.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.2	15.5	6.0	3.6	9.0	7.2
LnGrp LOS	C	B	A	A	A	A
Approach Vol, veh/h	176			742	819	
Approach Delay, s/veh	19.4			4.3	8.9	
Approach LOS	B			A	A	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	28.2		7.7	20.5	9.6
Change Period (Y+Rc), s	5.5		3.5	5.5	5.2
Max Green Setting (Gmax), s	46.5		8.5	34.5	12.8
Max Q Clear Time (g_c+I1), s	4.6		4.4	8.1	4.9
Green Ext Time (p_c), s	4.0		0.2	6.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	9	235	6	5	13	147	527	5	11	508	331
Future Volume (veh/h)	130	9	235	6	5	13	147	527	5	11	508	331
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1707	1885	1900	1900	1767	1870	1856	1900	1900	1885	1885
Adj Flow Rate, veh/h	149	10	54	7	6	4	169	606	5	13	584	146
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	13	1	0	0	9	2	3	0	0	1	1
Cap, veh/h	388	14	232	167	110	44	550	1684	14	511	1404	626
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.09	0.47	0.47	0.01	0.39	0.39
Sat Flow, veh/h	1417	95	1598	236	755	305	1781	3583	30	1810	3582	1598
Grp Volume(v), veh/h	159	0	54	17	0	0	169	298	313	13	584	146
Grp Sat Flow(s),veh/h/ln	1512	0	1598	1297	0	0	1781	1763	1850	1810	1791	1598
Q Serve(g_s), s	0.0	0.0	1.1	0.0	0.0	0.0	1.9	4.1	4.1	0.2	4.5	2.3
Cycle Q Clear(g_c), s	3.5	0.0	1.1	3.5	0.0	0.0	1.9	4.1	4.1	0.2	4.5	2.3
Prop In Lane	0.94		1.00	0.41		0.24	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	402	0	232	321	0	0	550	828	870	511	1404	626
V/C Ratio(X)	0.40	0.00	0.23	0.05	0.00	0.00	0.31	0.36	0.36	0.03	0.42	0.23
Avail Cap(c_a), veh/h	649	0	535	619	0	0	969	1405	1475	1078	2856	1274
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.5	0.0	14.5	14.1	0.0	0.0	5.4	6.5	6.5	6.8	8.4	7.8
Incr Delay (d2), s/veh	0.6	0.0	0.5	0.1	0.0	0.0	0.3	0.3	0.3	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	0.0	0.7	0.2	0.0	0.0	0.8	1.9	2.0	0.1	2.3	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	0.0	15.0	14.2	0.0	0.0	5.8	6.7	6.7	6.8	8.6	8.0
LnGrp LOS	B	A	B	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		213			17			780			743	
Approach Delay, s/veh		15.8			14.2			6.5			8.5	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.0	23.5		10.8	7.0	20.5		10.8
Change Period (Y+Rc), s	3.5	5.5		* 5.2	3.5	5.5		* 5.2
Max Green Setting (Gmax), s	12.5	30.5		* 13	12.5	30.5		* 13
Max Q Clear Time (g_c+I1), s	2.2	6.1		5.5	3.9	6.5		5.5
Green Ext Time (p_c), s	0.0	3.9		0.0	0.3	4.7		0.6

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	1232	138	250	1043	16	39	60	219	49	105	51
Future Volume (veh/h)	38	1232	138	250	1043	16	39	60	219	49	105	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1856	1900	1900	1900	1870	1900	1900	1870
Adj Flow Rate, veh/h	41	1325	136	269	1122	9	42	65	235	53	113	31
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	2	2	2	3	0	0	0	2	0	0	2
Cap, veh/h	66	1469	150	293	2038	931	214	319	267	243	241	66
Arrive On Green	0.04	0.45	0.45	0.16	0.58	0.58	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1767	3255	333	1781	3526	1610	1264	1900	1585	1096	1435	394
Grp Volume(v), veh/h	41	721	740	269	1122	9	42	65	235	53	0	144
Grp Sat Flow(s),veh/h/ln	1767	1777	1810	1781	1763	1610	1264	1900	1585	1096	0	1829
Q Serve(g_s), s	1.8	29.6	30.0	11.8	15.6	0.2	2.5	2.3	11.5	3.5	0.0	5.6
Cycle Q Clear(g_c), s	1.8	29.6	30.0	11.8	15.6	0.2	8.1	2.3	11.5	5.8	0.0	5.6
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	66	802	817	293	2038	931	214	319	267	243	0	308
V/C Ratio(X)	0.62	0.90	0.91	0.92	0.55	0.01	0.20	0.20	0.88	0.22	0.00	0.47
Avail Cap(c_a), veh/h	134	822	838	293	2038	931	214	319	267	243	0	308
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.5	20.0	20.1	32.5	10.3	7.1	33.4	28.3	32.1	30.8	0.0	29.7
Incr Delay (d2), s/veh	5.6	12.7	13.4	31.7	0.4	0.0	0.2	0.1	26.3	0.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	20.1	20.8	12.0	9.1	0.1	1.3	1.9	10.3	1.6	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	32.8	33.5	64.2	10.7	7.1	33.5	28.5	58.5	31.0	0.0	30.1
LnGrp LOS	D	C	C	E	B	A	C	C	E	C	A	C
Approach Vol, veh/h		1502			1400			342			197	
Approach Delay, s/veh		33.4			20.9			49.7			30.4	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	52.1		19.0	18.0	42.1		19.0
Change Period (Y+Rc), s	5.0	6.4		5.7	5.0	6.4		5.7
Max Green Setting (Gmax), s	6.0	43.6		13.3	13.0	36.6		13.3
Max Q Clear Time (g_c+I1), s	3.8	17.6		13.5	13.8	32.0		7.8
Green Ext Time (p_c), s	0.0	11.1		0.0	0.0	3.7		0.3

Intersection Summary		
HCM 6th Ctrl Delay		29.8
HCM 6th LOS		C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1430	163	50	1075	196	125	309	38	109	270	10
Future Volume (veh/h)	63	1430	163	50	1075	196	125	309	38	109	270	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1841	1826	1737	1826	1811	1856	1841	1781	1826	1841	1737
Adj Flow Rate, veh/h	69	1571	165	55	1181	123	137	340	0	120	297	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	7	4	5	11	5	6	3	4	8	5	4	11
Cap, veh/h	146	1789	188	508	2499	853	201	408		185	405	
Arrive On Green	0.04	0.39	0.39	0.16	0.50	0.50	0.06	0.12	0.00	0.05	0.12	0.00
Sat Flow, veh/h	3319	4619	485	3209	4985	1535	3428	3497	1510	3374	3497	1472
Grp Volume(v), veh/h	69	1139	597	55	1181	123	137	340	0	120	297	0
Grp Sat Flow(s),veh/h/ln	1659	1675	1754	1605	1662	1535	1714	1749	1510	1687	1749	1472
Q Serve(g_s), s	1.9	30.0	30.1	1.4	14.7	0.9	3.7	9.0	0.0	3.3	7.8	0.0
Cycle Q Clear(g_c), s	1.9	30.0	30.1	1.4	14.7	0.9	3.7	9.0	0.0	3.3	7.8	0.0
Prop In Lane	1.00		0.28	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	146	1297	679	508	2499	853	201	408		185	405	
V/C Ratio(X)	0.47	0.88	0.88	0.11	0.47	0.14	0.68	0.83		0.65	0.73	
Avail Cap(c_a), veh/h	227	1322	692	508	2499	853	235	412		469	670	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.79	0.79	0.79	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.3	27.0	27.0	34.3	15.5	2.5	43.8	41.0	0.0	44.0	40.6	0.0
Incr Delay (d2), s/veh	0.9	8.6	15.1	0.0	0.5	0.3	4.3	14.9	0.0	2.1	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	18.5	20.7	1.0	8.5	0.9	3.0	8.1	0.0	2.5	6.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	35.6	42.2	34.3	16.0	2.8	48.2	55.9	0.0	46.1	42.0	0.0
LnGrp LOS	D	D	D	C	B	A	D	E		D	D	
Approach Vol, veh/h		1805			1359			477			417	
Approach Delay, s/veh		38.2			15.5			53.7			43.2	
Approach LOS		D			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.8	43.3	12.0	17.9	10.7	54.4	12.1	17.8
Change Period (Y+Rc), s	* 6.8	* 6.5	* 6.8	* 6.8	* 6.5	* 6.8	* 6.5	* 6.8
Max Green Setting (Gmax), s	* 6.5	* 38	* 13	* 11	* 6.5	* 37	* 6.5	* 18
Max Q Clear Time (g_c+I1), s	13.4	32.1	5.3	11.0	3.9	16.7	5.7	9.8
Green Ext Time (p_c), s	0.0	4.7	0.1	0.1	0.0	11.3	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	0	70	665	0	0	1157	31
Future Vol, veh/h	0	0	0	0	0	0	70	665	0	0	1157	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	0	150	-	-	-	-	100
Veh in Median Storage, #	-	3	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	92	98	92	92	92	98	98	92	92	98	98
Heavy Vehicles, %	0	2	0	2	2	2	2	5	2	2	2	0
Mvmt Flow	0	0	0	0	0	0	71	679	0	0	1181	32

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	-	-	340	1181	0	-	-	-	0	
Stage 1	-	-	-	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	-	-	-	
Critical Hdwy	-	-	6.94	5.34	-	-	-	-	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	
Follow-up Hdwy	-	-	3.32	3.12	-	-	-	-	-	
Pot Cap-1 Maneuver	0	0	656	320	-	0	0	-	-	
Stage 1	0	0	-	-	-	0	0	-	-	
Stage 2	0	0	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	-	0	656	320	-	-	-	-	-	
Mov Cap-2 Maneuver	-	0	-	-	-	-	-	-	-	
Stage 1	-	0	-	-	-	-	-	-	-	
Stage 2	-	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	0	1.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBT	SBR
Capacity (veh/h)	320	-	-	-	-
HCM Lane V/C Ratio	0.223	-	-	-	-
HCM Control Delay (s)	19.5	-	0	-	-
HCM Lane LOS	C	-	A	-	-
HCM 95th %tile Q(veh)	0.8	-	-	-	-

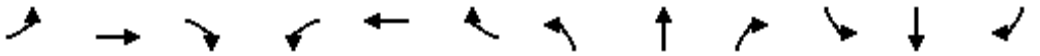
Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	277	0	704	383	774
Future Vol, veh/h	17	277	0	704	383	774
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Free
Storage Length	0	300	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	6	2	0	5	2	2
Mvmt Flow	17	283	0	718	391	790

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	750	196	-	0	-	0
Stage 1	391	-	-	-	-	-
Stage 2	359	-	-	-	-	-
Critical Hdwy	6.37	7.14	-	-	-	-
Critical Hdwy Stg 1	6.72	-	-	-	-	-
Critical Hdwy Stg 2	5.92	-	-	-	-	-
Follow-up Hdwy	3.71	3.92	-	-	-	-
Pot Cap-1 Maneuver	370	691	0	-	-	0
Stage 1	568	-	0	-	-	0
Stage 2	643	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	370	691	-	-	-	-
Mov Cap-2 Maneuver	370	-	-	-	-	-
Stage 1	568	-	-	-	-	-
Stage 2	643	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	370	691	-
HCM Lane V/C Ratio	-	0.047	0.409	-
HCM Control Delay (s)	-	15.2	13.8	-
HCM Lane LOS	-	C	B	-
HCM 95th %tile Q(veh)	-	0.1	2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	60	159	498	18	198	0	0	580	81
Future Volume (veh/h)	0	0	0	60	159	498	18	198	0	0	580	81
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1826	1826	1722	1841	0	0	1870	1826
Adj Flow Rate, veh/h				64	169	109	19	211	0	0	617	54
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	5	5	12	4	0	0	2	5
Cap, veh/h				310	354	216	516	2299	0	0	2336	1017
Arrive On Green				0.17	0.17	0.17	0.66	0.66	0.00	0.00	0.66	0.66
Sat Flow, veh/h				1810	2069	1264	706	3589	0	0	3647	1547
Grp Volume(v), veh/h				64	140	138	19	211	0	0	617	54
Grp Sat Flow(s),veh/h/ln				1810	1735	1598	706	1749	0	0	1777	1547
Q Serve(g_s), s				2.1	5.1	5.5	0.8	1.5	0.0	0.0	5.0	0.9
Cycle Q Clear(g_c), s				2.1	5.1	5.5	5.8	1.5	0.0	0.0	5.0	0.9
Prop In Lane				1.00		0.79	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				310	297	274	516	2299	0	0	2336	1017
V/C Ratio(X)				0.21	0.47	0.50	0.04	0.09	0.00	0.00	0.26	0.05
Avail Cap(c_a), veh/h				879	843	776	516	2299	0	0	2336	1017
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				24.9	26.2	26.3	6.2	4.4	0.0	0.0	5.0	4.3
Incr Delay (d2), s/veh				0.3	1.2	1.4	0.1	0.1	0.0	0.0	0.3	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				1.6	3.8	3.8	0.2	0.8	0.0	0.0	2.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				25.2	27.3	27.7	6.3	4.5	0.0	0.0	5.2	4.4
LnGrp LOS				C	C	C	A	A	A	A	A	A
Approach Vol, veh/h					342			230			671	
Approach Delay, s/veh					27.1			4.6			5.2	
Approach LOS					C			A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	52.0	18.0	52.0
Change Period (Y+Rc), s	* 6	* 6	* 6
Max Green Setting (Gmax), s	* 24	* 34	* 24
Max Q Clear Time (g_c+I1), s	7.8	7.5	7.0
Green Ext Time (p_c), s	1.2	1.9	4.1

Intersection Summary	
HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	939	213	541	0	0	0	0	0
Future Volume (vph)	0	0	0	0	939	213	541	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.8	5.8	5.7					
Lane Util. Factor					0.86	1.00	0.97					
Frt					1.00	0.85	1.00					
Flt Protected					1.00	1.00	0.95					
Satd. Flow (prot)					6471	1568	3367					
Flt Permitted					1.00	1.00	0.95					
Satd. Flow (perm)					6471	1568	3367					
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	1021	232	588	0	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	87	121	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1021	145	467	0	0	0	0	0
Heavy Vehicles (%)	0%	0%	0%	0%	1%	3%	4%	0%	0%	0%	0%	0%
Turn Type					NA	Perm	Prot					
Protected Phases					6		4					
Permitted Phases						6						
Actuated Green, G (s)					43.7	43.7	14.8					
Effective Green, g (s)					43.7	43.7	14.8					
Actuated g/C Ratio					0.62	0.62	0.21					
Clearance Time (s)					5.8	5.8	5.7					
Vehicle Extension (s)					3.0	3.0	3.0					
Lane Grp Cap (vph)					4039	978	711					
v/s Ratio Prot					c0.16		c0.14					
v/s Ratio Perm						0.09						
v/c Ratio					0.25	0.15	0.66					
Uniform Delay, d1					5.9	5.4	25.3					
Progression Factor					1.00	1.00	1.83					
Incremental Delay, d2					0.2	0.3	2.1					
Delay (s)					6.0	5.8	48.4					
Level of Service					A	A	D					
Approach Delay (s)		0.0			6.0			48.4			0.0	
Approach LOS		A			A			D			A	

Intersection Summary			
HCM 2000 Control Delay	19.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	285	161	0	0	0	0	0	0	2	757	0
Future Volume (veh/h)	0	285	161	0	0	0	0	0	0	2	757	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1826	1826							1900	1870	0
Adj Flow Rate, veh/h	0	324	88							2	860	0
Peak Hour Factor	0.88	0.88	0.88							0.88	0.88	0.88
Percent Heavy Veh, %	0	5	5							0	2	0
Cap, veh/h	0	519	232							0	2463	0
Arrive On Green	0.00	0.15	0.15							0.69	0.69	0.00
Sat Flow, veh/h	0	3561	1547							0	3647	0
Grp Volume(v), veh/h	0	324	88							0	860	0
Grp Sat Flow(s),veh/h/ln	0	1735	1547							0	1777	0
Q Serve(g_s), s	0.0	6.1	3.6							0.0	6.9	0.0
Cycle Q Clear(g_c), s	0.0	6.1	3.6							0.0	6.9	0.0
Prop In Lane	0.00		1.00							0.00		0.00
Lane Grp Cap(c), veh/h	0	519	232							0	2463	0
V/C Ratio(X)	0.00	0.62	0.38							0.00	0.35	0.00
Avail Cap(c_a), veh/h	0	1462	652							0	2463	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	27.9	26.8							0.0	4.3	0.0
Incr Delay (d2), s/veh	0.0	1.2	1.0							0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	4.6	5.8							0.0	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.1	27.9							0.0	4.7	0.0
LnGrp LOS	A	C	C							A	A	A
Approach Vol, veh/h		412									860	
Approach Delay, s/veh		28.9									4.7	
Approach LOS		C									A	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	54.0	16.0
Change Period (Y+Rc), s	5.5	5.5
Max Green Setting (Gmax), s	29.5	29.5
Max Q Clear Time (g_c+I1), s	8.9	8.1
Green Ext Time (p_c), s	6.2	2.3

Intersection Summary	
HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	287	0	0	0	0	0	513	489	0	0	0
Future Volume (veh/h)	0	287	0	0	0	0	0	513	489	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1900	1856	0				0	1826	1841			
Adj Flow Rate, veh/h	0	302	0				0	540	148			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	0	3	0				0	5	4			
Cap, veh/h	1112	3114	0				0	792	627			
Arrive On Green	0.00	0.61	0.00				0.00	0.23	0.23			
Sat Flow, veh/h	1810	5233	0				0	3561	2745			
Grp Volume(v), veh/h	0	302	0				0	540	148			
Grp Sat Flow(s),veh/h/ln	1810	1689	0				0	1735	1373			
Q Serve(g_s), s	0.0	1.7	0.0				0.0	10.0	3.1			
Cycle Q Clear(g_c), s	0.0	1.7	0.0				0.0	10.0	3.1			
Prop In Lane	1.00		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1112	3114	0				0	792	627			
V/C Ratio(X)	0.00	0.10	0.00				0.00	0.68	0.24			
Avail Cap(c_a), veh/h	1112	3114	0				0	1462	1157			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.86	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	0.0	5.5	0.0				0.0	24.7	22.0			
Incr Delay (d2), s/veh	0.0	0.1	0.0				0.0	1.0	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	0.0	0.9	0.0				0.0	7.2	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.6	0.0				0.0	25.7	22.2			
LnGrp LOS	A	A	A				A	C	C			
Approach Vol, veh/h		302						688				
Approach Delay, s/veh		5.6						25.0				
Approach LOS		A						C				

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	48.5	21.5
Change Period (Y+Rc), s	5.5	5.5
Max Green Setting (Gmax), s	29.5	29.5
Max Q Clear Time (g_c+I1), s	3.7	12.0
Green Ext Time (p_c), s	2.1	4.0

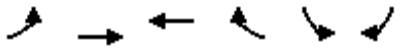
Intersection Summary	
HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	257	101	241	170	168	691
Future Volume (veh/h)	257	101	241	170	168	691
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1811	1841	1752	1781	1870
Adj Flow Rate, veh/h	273	23	256	80	179	735
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	6	4	10	8	2
Cap, veh/h	325	282	1832	777	714	2322
Arrive On Green	0.18	0.18	0.52	0.52	0.08	0.65
Sat Flow, veh/h	1767	1535	3589	1485	1697	3647
Grp Volume(v), veh/h	273	23	256	80	179	735
Grp Sat Flow(s),veh/h/ln	1767	1535	1749	1485	1697	1777
Q Serve(g_s), s	10.4	0.9	2.6	1.9	3.1	6.3
Cycle Q Clear(g_c), s	10.4	0.9	2.6	1.9	3.1	6.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	325	282	1832	777	714	2322
V/C Ratio(X)	0.84	0.08	0.14	0.10	0.25	0.32
Avail Cap(c_a), veh/h	462	401	1832	777	834	2322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	23.7	8.6	8.4	5.6	5.3
Incr Delay (d2), s/veh	9.1	0.1	0.2	0.3	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.7	0.6	1.7	1.1	1.6	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.7	23.8	8.7	8.7	5.8	5.7
LnGrp LOS	D	C	A	A	A	A
Approach Vol, veh/h	296		336			914
Approach Delay, s/veh	35.7		8.7			5.7
Approach LOS	D		A			A

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	51.4		9.1	42.4	18.6
Change Period (Y+Rc), s	5.7		3.8	5.7	5.7
Max Green Setting (Gmax), s	40.3		10.2	26.3	18.3
Max Q Clear Time (g_c+I1), s	8.3		5.1	4.6	12.4
Green Ext Time (p_c), s	5.8		0.2	1.8	0.5

Intersection Summary	
HCM 6th Ctrl Delay	12.1
HCM 6th LOS	B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	186	136	207	235	393	154
Future Volume (veh/h)	186	136	207	235	393	154
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1737	1826	1870	1796	1885	1870
Adj Flow Rate, veh/h	207	151	230	0	437	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	11	5	2	7	1	2
Cap, veh/h	669	2088	1610		485	
Arrive On Green	0.09	0.60	0.45	0.00	0.27	0.00
Sat Flow, veh/h	1654	3561	3647	1522	1795	1585
Grp Volume(v), veh/h	207	151	230	0	437	0
Grp Sat Flow(s),veh/h/ln	1654	1735	1777	1522	1795	1585
Q Serve(g_s), s	5.6	1.6	3.4	0.0	21.1	0.0
Cycle Q Clear(g_c), s	5.6	1.6	3.4	0.0	21.1	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	669	2088	1610		485	
V/C Ratio(X)	0.31	0.07	0.14		0.90	
Avail Cap(c_a), veh/h	790	2088	1610		738	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	10.0	7.5	14.4	0.0	31.7	0.0
Incr Delay (d2), s/veh	0.3	0.1	0.2	0.0	9.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.5	1.0	2.5	0.0	15.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.3	7.5	14.6	0.0	41.5	0.0
LnGrp LOS	B	A	B		D	
Approach Vol, veh/h		358	230		437	
Approach Delay, s/veh		9.1	14.6		41.5	
Approach LOS		A	B		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		59.7		30.3	13.4	46.3
Change Period (Y+Rc), s		* 5.5		6.0	* 5.5	* 5.5
Max Green Setting (Gmax), s		* 42		37.0	* 15	* 22
Max Q Clear Time (g_c+I1), s		3.6		23.1	7.6	5.4
Green Ext Time (p_c), s		1.0		1.2	0.3	1.2

Intersection Summary		
HCM 6th Ctrl Delay		24.2
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

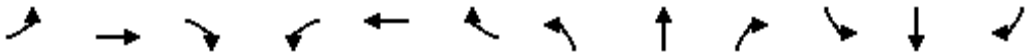
Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	492	0	0	272	183	137	2	220	0	0	0
Future Vol, veh/h	47	492	0	0	272	183	137	2	220	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	270	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	20	2	0	0	3	3	10	0	3	0	0	0
Mvmt Flow	53	553	0	0	306	206	154	2	247	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	306	0	-	-	-	0	812	965	277
Stage 1	-	-	-	-	-	-	659	659	-
Stage 2	-	-	-	-	-	-	153	306	-
Critical Hdwy	4.5	-	-	-	-	-	7	6.5	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6	5.5	-
Follow-up Hdwy	2.4	-	-	-	-	-	3.6	4	3.33
Pot Cap-1 Maneuver	1131	-	0	0	-	0	301	257	717
Stage 1	-	-	0	0	-	0	455	464	-
Stage 2	-	-	0	0	-	0	836	665	-
Platoon blocked, %		-			-				
Mov Cap-1 Maneuver	1131	-	-	-	-	-	287	0	717
Mov Cap-2 Maneuver	-	-	-	-	-	-	287	0	-
Stage 1	-	-	-	-	-	-	434	0	-
Stage 2	-	-	-	-	-	-	836	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.7	0	20
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT
Capacity (veh/h)	287	717	1131	-	-
HCM Lane V/C Ratio	0.544	0.345	0.047	-	-
HCM Control Delay (s)	31.6	12.6	8.3	-	-
HCM Lane LOS	D	B	A	-	-
HCM 95th %tile Q(veh)	3	1.5	0.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	474	173	56	237	27	114	71	46	46	195	108
Future Volume (veh/h)	64	474	173	56	237	27	114	71	46	46	195	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1900	1870	1856	1841	1811	1900	1841	1900	1900	1900
Adj Flow Rate, veh/h	73	539	171	64	269	25	130	81	9	52	222	22
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	3	3	0	2	3	4	6	0	4	0	0	0
Cap, veh/h	793	1745	551	505	2161	199	242	389	319	304	679	67
Arrive On Green	0.66	0.66	0.66	1.00	1.00	1.00	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1077	2636	833	739	3263	301	1100	1900	1560	1327	3320	326
Grp Volume(v), veh/h	73	360	350	64	144	150	130	81	9	52	120	124
Grp Sat Flow(s),veh/h/ln	1077	1763	1706	739	1763	1801	1100	1900	1560	1327	1805	1841
Q Serve(g_s), s	2.2	7.8	7.9	1.2	0.0	0.0	10.3	3.2	0.4	3.0	5.1	5.2
Cycle Q Clear(g_c), s	2.2	7.8	7.9	9.0	0.0	0.0	15.5	3.2	0.4	6.2	5.1	5.2
Prop In Lane	1.00		0.49	1.00		0.17	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	793	1167	1129	505	1167	1193	242	389	319	304	369	377
V/C Ratio(X)	0.09	0.31	0.31	0.13	0.12	0.13	0.54	0.21	0.03	0.17	0.32	0.33
Avail Cap(c_a), veh/h	793	1167	1129	505	1167	1193	493	823	676	608	782	798
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.5	6.5	6.5	0.6	0.0	0.0	37.1	29.7	28.6	32.3	30.5	30.5
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.5	0.2	0.2	1.9	0.3	0.0	0.3	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	4.6	4.5	0.1	0.1	0.1	5.1	2.6	0.3	1.8	4.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.6	6.6	6.6	1.1	0.2	0.2	39.0	30.0	28.7	32.6	31.0	31.0
LnGrp LOS	A	A	A	A	A	A	D	C	C	C	C	C
Approach Vol, veh/h		783			358			220			296	
Approach Delay, s/veh		6.5			0.4			35.3			31.3	
Approach LOS		A			A			D			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		65.6		24.4		65.6		24.4				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		39.0		39.0		39.0		39.0				
Max Q Clear Time (g_c+I1), s		11.0		8.2		9.9		17.5				
Green Ext Time (p_c), s		2.3		1.6		5.4		0.9				

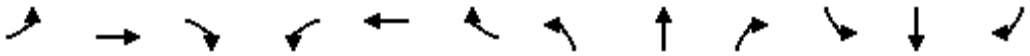
Intersection Summary												
HCM 6th Ctrl Delay			13.4									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	300	246	11	190	0	0	0	0	49	982	109
Future Volume (veh/h)	0	300	246	11	190	0	0	0	0	49	982	109
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1856	1870	1900	1856	0				1841	1885	1870
Adj Flow Rate, veh/h	0	333	172	12	211	0				54	1091	80
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	3	2	0	3	0				4	1	2
Cap, veh/h	0	433	219	53	582	0				112	2366	1071
Arrive On Green	0.00	0.19	0.19	0.19	0.19	0.00				0.68	0.68	0.68
Sat Flow, veh/h	0	2358	1147	45	3129	0				165	3502	1585
Grp Volume(v), veh/h	0	258	247	113	110	0				613	532	80
Grp Sat Flow(s),veh/h/ln	0	1763	1649	1485	1604	0				1877	1791	1585
Q Serve(g_s), s	0.0	12.5	12.8	0.2	5.3	0.0				14.2	12.3	1.6
Cycle Q Clear(g_c), s	0.0	12.5	12.8	13.1	5.3	0.0				14.2	12.3	1.6
Prop In Lane	0.00		0.70	0.11		0.00				0.09		1.00
Lane Grp Cap(c), veh/h	0	337	315	328	307	0				1268	1210	1071
V/C Ratio(X)	0.00	0.76	0.78	0.35	0.36	0.00				0.48	0.44	0.07
Avail Cap(c_a), veh/h	0	509	476	491	463	0				1268	1210	1071
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.96	0.96	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	34.5	34.6	31.4	31.6	0.0				7.0	6.7	5.0
Incr Delay (d2), s/veh	0.0	3.6	4.7	0.6	0.7	0.0				1.3	1.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	9.4	9.2	3.9	3.8	0.0				9.0	7.8	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	38.1	39.3	32.0	32.3	0.0				8.4	7.9	5.1
LnGrp LOS	A	D	D	C	C	A				A	A	A
Approach Vol, veh/h		505			223						1225	
Approach Delay, s/veh		38.7			32.2						8.0	
Approach LOS		D			C						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	66.8	23.2	23.2
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	52.0	26.0	26.0
Max Q Clear Time (g_c+I1), s	16.2	15.1	14.8
Green Ext Time (p_c), s	10.1	0.9	2.4

Intersection Summary	
HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1583	0	0	0	0	0	0	1659	0
Future Volume (vph)	0	0	0	1583	0	0	0	0	0	0	1659	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.6							6.0	
Lane Util. Factor				0.97							0.86	
Frt				1.00							1.00	
Flt Protected				0.95							1.00	
Satd. Flow (prot)				3467							6471	
Flt Permitted				0.95							1.00	
Satd. Flow (perm)				3467							6471	
Peak-hour factor, PHF	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Adj. Flow (vph)	0	0	0	1649	0	0	0	0	0	0	1728	0
RTOR Reduction (vph)	0	0	0	15	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1634	0	0	0	0	0	0	1728	0
Heavy Vehicles (%)	2%	2%	2%	1%	2%	0%	2%	0%	0%	0%	1%	2%
Turn Type				Prot							NA	
Protected Phases				3							2	
Permitted Phases												
Actuated Green, G (s)				55.5							41.9	
Effective Green, g (s)				55.5							41.9	
Actuated g/C Ratio				0.50							0.38	
Clearance Time (s)				6.6							6.0	
Vehicle Extension (s)				3.0							3.0	
Lane Grp Cap (vph)				1749							2464	
v/s Ratio Prot				c0.47							c0.27	
v/s Ratio Perm												
v/c Ratio				0.93							0.70	
Uniform Delay, d1				25.5							28.8	
Progression Factor				1.00							1.00	
Incremental Delay, d2				9.8							1.7	
Delay (s)				35.3							30.5	
Level of Service				D							C	
Approach Delay (s)		0.0			35.3			0.0			30.5	
Approach LOS		A			D			A			C	

Intersection Summary			
HCM 2000 Control Delay	32.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.6
Intersection Capacity Utilization	77.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

702: Dr MLK Jr St & 11th St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	6	1271	177	27	163	0	0	312	206
Future Volume (veh/h)	0	0	0	6	1271	177	27	163	0	0	312	206
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1885	1885	1900	1826	0	0	1781	1856
Adj Flow Rate, veh/h				7	1382	169	29	177	0	0	339	197
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	1	1	0	5	0	0	8	3
Cap, veh/h				10	2013	256	178	1151	0	0	832	735
Arrive On Green				0.14	0.14	0.14	0.47	0.47	0.00	0.00	0.47	0.47
Sat Flow, veh/h				23	4750	603	290	2548	0	0	1781	1572
Grp Volume(v), veh/h				580	480	498	100	106	0	0	339	197
Grp Sat Flow(s),veh/h/ln				1884	1716	1777	1176	1578	0	0	1781	1572
Q Serve(g_s), s				32.4	29.2	29.2	0.7	4.2	0.0	0.0	13.8	8.4
Cycle Q Clear(g_c), s				32.4	29.2	29.2	14.5	4.2	0.0	0.0	13.8	8.4
Prop In Lane				0.01		0.34	0.29		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				798	727	753	592	737	0	0	832	735
V/C Ratio(X)				0.73	0.66	0.66	0.17	0.14	0.00	0.00	0.41	0.27
Avail Cap(c_a), veh/h				1028	936	969	592	737	0	0	832	735
HCM Platoon Ratio				0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.77	0.77	0.77	0.99	0.99	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				41.2	39.8	39.8	16.9	16.7	0.0	0.0	19.3	17.8
Incr Delay (d2), s/veh				1.4	0.9	0.8	0.6	0.4	0.0	0.0	1.5	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				22.5	18.9	19.5	2.7	2.9	0.0	0.0	10.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				42.6	40.7	40.7	17.5	17.1	0.0	0.0	20.8	18.7
LnGrp LOS				D	D	D	B	B	A	A	C	B
Approach Vol, veh/h					1558			206			536	
Approach Delay, s/veh					41.4			17.3			20.0	
Approach LOS					D			B			C	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	57.4	52.6	57.4
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	38.0	60.0	38.0
Max Q Clear Time (g_c+I1), s	15.8	34.4	16.5
Green Ext Time (p_c), s	2.7	12.2	1.2

Intersection Summary	
HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	14	135	66	0	1125	0	0	1969	1346
Future Volume (veh/h)	0	0	0	14	135	66	0	1125	0	0	1969	1346
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1811	1663	0	1856	0	0	1885	1885
Adj Flow Rate, veh/h				14	139	0	0	1160	0	0	2624	809
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	6	16	0	3	0	0	1	1
Cap, veh/h				71	754		0	3669	0	0	4096	1157
Arrive On Green				0.16	0.16	0.00	0.00	1.00	0.00	0.00	0.72	0.72
Sat Flow, veh/h				436	4813	0	0	5400	0	0	5656	1598
Grp Volume(v), veh/h				58	95	0	0	1160	0	0	2624	809
Grp Sat Flow(s),veh/h/ln				1789	1648	0	0	1689	0	0	1885	1598
Q Serve(g_s), s				3.1	2.7	0.0	0.0	0.0	0.0	0.0	26.3	31.1
Cycle Q Clear(g_c), s				3.1	2.7	0.0	0.0	0.0	0.0	0.0	26.3	31.1
Prop In Lane				0.24		0.00	0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				290	534		0	3669	0	0	4096	1157
V/C Ratio(X)				0.20	0.18		0.00	0.32	0.00	0.00	0.64	0.70
Avail Cap(c_a), veh/h				397	731		0	3669	0	0	4096	1157
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00	0.00	0.93	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				39.9	39.8	0.0	0.0	0.0	0.0	0.0	7.8	8.5
Incr Delay (d2), s/veh				0.3	0.2	0.0	0.0	0.2	0.0	0.0	0.8	3.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				2.5	2.0	0.0	0.0	0.1	0.0	0.0	14.4	15.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.2	39.9	0.0	0.0	0.2	0.0	0.0	8.6	12.0
LnGrp LOS				D	D		A	A	A	A	A	B
Approach Vol, veh/h					153			1160			3433	
Approach Delay, s/veh					40.0			0.2			9.4	
Approach LOS					D			A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	85.6	24.4	85.6
Change Period (Y+Rc), s	* 5.9	6.6	* 5.9
Max Green Setting (Gmax), s	* 73	24.4	* 73
Max Q Clear Time (g_c+I1), s	33.1	5.1	2.0
Green Ext Time (p_c), s	36.0	0.8	11.7

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	729	23	0	0	0	0	170	0	89	261	0
Future Volume (veh/h)	32	729	23	0	0	0	0	170	0	89	261	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1870	1574				0	1826	1900	1870	1752	0
Adj Flow Rate, veh/h	36	819	23				0	191	0	100	293	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	2	22				0	5	0	2	10	0
Cap, veh/h	46	1110	32				0	389	0	210	373	0
Arrive On Green	0.22	0.22	0.22				0.00	0.21	0.00	0.14	0.14	0.00
Sat Flow, veh/h	209	5051	146				0	1826	0	1192	1752	0
Grp Volume(v), veh/h	321	267	290				0	191	0	100	293	0
Grp Sat Flow(s),veh/h/ln	1860	1702	1844				0	1826	0	1192	1752	0
Q Serve(g_s), s	17.9	16.0	16.0				0.0	10.1	0.0	9.0	17.8	0.0
Cycle Q Clear(g_c), s	17.9	16.0	16.0				0.0	10.1	0.0	19.1	17.8	0.0
Prop In Lane	0.11		0.08				0.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	409	374	405				0	389	0	210	373	0
V/C Ratio(X)	0.79	0.71	0.72				0.00	0.49	0.00	0.48	0.79	0.00
Avail Cap(c_a), veh/h	541	495	536				0	1096	0	671	1051	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.64	0.00	0.90	0.90	0.00
Uniform Delay (d), s/veh	40.5	39.7	39.7				0.0	38.1	0.0	50.2	44.7	0.0
Incr Delay (d2), s/veh	5.5	3.2	3.0				0.0	2.8	0.0	1.5	3.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.6	11.3	12.1				0.0	7.7	0.0	5.1	12.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	43.0	42.8				0.0	40.9	0.0	51.7	48.1	0.0
LnGrp LOS	D	D	D				A	D	A	D	D	A
Approach Vol, veh/h		878						191			393	
Approach Delay, s/veh		44.0						40.9			49.0	
Approach LOS		D						D			D	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	29.4	30.2	29.4
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	66.0	32.0	66.0
Max Q Clear Time (g_c+I1), s	21.1	19.9	12.1
Green Ext Time (p_c), s	2.3	4.3	1.2

Intersection Summary	
HCM 6th Ctrl Delay	44.9
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	577	239	2	0	0	0	0	540	69	265	1702	0
Future Volume (veh/h)	577	239	2	0	0	0	0	540	69	265	1702	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1900				0	1841	1900	1885	1885	0
Adj Flow Rate, veh/h	620	257	2				0	581	60	285	1830	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	3	0				0	4	0	1	1	0
Cap, veh/h	759	392	3				0	2072	212	407	2303	0
Arrive On Green	0.21	0.21	0.21				0.00	0.89	0.89	0.89	0.89	0.00
Sat Flow, veh/h	3563	1839	14				0	4798	473	794	5316	0
Grp Volume(v), veh/h	620	0	259				0	418	223	285	1830	0
Grp Sat Flow(s),veh/h/ln	1781	0	1853				0	1675	1756	794	1716	0
Q Serve(g_s), s	18.2	0.0	14.1				0.0	1.9	2.0	19.7	14.2	0.0
Cycle Q Clear(g_c), s	18.2	0.0	14.1				0.0	1.9	2.0	21.7	14.2	0.0
Prop In Lane	1.00		0.01				0.00		0.27	1.00		0.00
Lane Grp Cap(c), veh/h	759	0	395				0	1499	785	407	2303	0
V/C Ratio(X)	0.82	0.00	0.66				0.00	0.28	0.28	0.70	0.79	0.00
Avail Cap(c_a), veh/h	1036	0	539				0	2010	1053	528	3088	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	0.72	0.00	0.72				0.00	1.00	1.00	0.55	0.55	0.00
Uniform Delay (d), s/veh	41.2	0.0	39.6				0.0	3.3	3.3	4.8	3.9	0.0
Incr Delay (d2), s/veh	2.7	0.0	1.3				0.0	0.5	0.9	1.6	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.2	0.0	10.1				0.0	1.2	1.4	1.8	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.0	0.0	40.9				0.0	3.8	4.2	6.4	4.5	0.0
LnGrp LOS	D	A	D				A	A	A	A	A	A
Approach Vol, veh/h		879						641			2115	
Approach Delay, s/veh		43.1						3.9			4.8	
Approach LOS		D						A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	55.2	29.4	55.2
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	66.0	32.0	66.0
Max Q Clear Time (g_c+I1), s	23.7	20.2	4.0
Green Ext Time (p_c), s	25.6	3.2	4.9

Intersection Summary	
HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

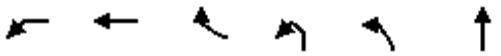
Notes

User approved volume balancing among the lanes for turning movement.



Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	182	0	1963	0	0	0
Future Volume (vph)	182	0	1963	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0			
Lane Util. Factor	1.00		0.91			
Frt	1.00		1.00			
Flt Protected	0.95		1.00			
Satd. Flow (prot)	1626		5136			
Flt Permitted	0.95		1.00			
Satd. Flow (perm)	1626		5136			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	192	0	2066	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	192	0	2066	0	0	0
Heavy Vehicles (%)	11%	0%	1%	0%	0%	0%
Turn Type	Prot		NA			Perm
Protected Phases	1	6	2			
Permitted Phases						6
Actuated Green, G (s)	18.3		79.7			
Effective Green, g (s)	18.3		79.7			
Actuated g/C Ratio	0.17		0.72			
Clearance Time (s)	6.0		6.0			
Vehicle Extension (s)	3.0		3.0			
Lane Grp Cap (vph)	270		3721			
v/s Ratio Prot	c0.12		c0.40			
v/s Ratio Perm						
v/c Ratio	0.71		0.56			
Uniform Delay, d1	43.4		7.0			
Progression Factor	1.00		0.99			
Incremental Delay, d2	8.5		0.2			
Delay (s)	51.9		7.1			
Level of Service	D		A			
Approach Delay (s)		51.9	7.1		0.0	
Approach LOS		D	A		A	

Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBT	WBR	NBL2	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	123	42	53	258	40	569
Future Volume (vph)	123	42	53	258	40	569
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3			5.0	5.8
Lane Util. Factor	0.97	0.95			1.00	0.95
Frt	1.00	0.92			1.00	1.00
Flt Protected	0.95	1.00			0.95	1.00
Satd. Flow (prot)	3433	3309			1709	3471
Flt Permitted	0.95	1.00			0.95	1.00
Satd. Flow (perm)	3433	3309			1709	3471
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	128	44	55	269	42	593
RTOR Reduction (vph)	0	46	0	0	76	0
Lane Group Flow (vph)	128	53	0	0	235	593
Heavy Vehicles (%)	2%	0%	0%	6%	3%	4%
Turn Type	Split	NA		Prot	Prot	NA
Protected Phases	4	4		5	5	2
Permitted Phases						
Actuated Green, G (s)	15.0	15.0			64.7	63.9
Effective Green, g (s)	15.0	15.0			64.7	63.9
Actuated g/C Ratio	0.17	0.17			0.72	0.71
Clearance Time (s)	5.3	5.3			5.0	5.8
Vehicle Extension (s)	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	572	551			1228	2464
v/s Ratio Prot	c0.04	0.02			0.14	c0.17
v/s Ratio Perm						
v/c Ratio	0.22	0.10			0.19	0.24
Uniform Delay, d1	32.5	31.8			4.1	4.6
Progression Factor	0.68	0.53			1.00	1.00
Incremental Delay, d2	0.2	0.1			0.1	0.2
Delay (s)	22.2	16.9			4.2	4.8
Level of Service	C	B			A	A
Approach Delay (s)		19.9				4.6
Approach LOS		B				A

Intersection Summary			
HCM 2000 Control Delay	7.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	11.1
Intersection Capacity Utilization	37.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	49	109	105	67	247	0	0	398	35
Future Volume (veh/h)	0	0	0	49	109	105	67	247	0	0	398	35
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1856	1841	1826	1856	0	0	1885	1900
Adj Flow Rate, veh/h				52	115	13	71	260	0	0	419	33
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	3	4	5	3	0	0	1	0
Cap, veh/h				199	387	171	697	2668	0	0	2198	172
Arrive On Green				0.11	0.11	0.11	0.07	1.00	0.00	0.00	0.65	0.65
Sat Flow, veh/h				1810	3526	1560	1739	3618	0	0	3459	264
Grp Volume(v), veh/h				52	115	13	71	260	0	0	222	230
Grp Sat Flow(s),veh/h/ln				1810	1763	1560	1739	1763	0	0	1791	1838
Q Serve(g_s), s				2.4	2.7	0.7	1.1	0.0	0.0	0.0	4.4	4.5
Cycle Q Clear(g_c), s				2.4	2.7	0.7	1.1	0.0	0.0	0.0	4.4	4.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.14
Lane Grp Cap(c), veh/h				199	387	171	697	2668	0	0	1170	1200
V/C Ratio(X)				0.26	0.30	0.08	0.10	0.10	0.00	0.00	0.19	0.19
Avail Cap(c_a), veh/h				603	1175	520	768	2668	0	0	1170	1200
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.97	0.97	0.97	0.99	0.99	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				36.7	36.9	36.0	4.0	0.0	0.0	0.0	6.2	6.2
Incr Delay (d2), s/veh				0.7	0.4	0.2	0.1	0.1	0.0	0.0	0.4	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				1.9	2.1	0.5	0.6	0.0	0.0	0.0	2.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				37.4	37.3	36.1	4.0	0.1	0.0	0.0	6.5	6.5
LnGrp LOS				D	D	D	A	A	A	A	A	A
Approach Vol, veh/h					180			331			452	
Approach Delay, s/veh					37.2			0.9			6.5	
Approach LOS					D			A			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.3	64.8		15.9		74.1						
Change Period (Y+Rc), s	6.0	6.0		6.0		6.0						
Max Green Setting (Gmax), s	7.3	35.0		30.0		48.0						
Max Q Clear Time (g_c+I1), s	13.1	6.5		4.7		2.0						
Green Ext Time (p_c), s	0.0	2.8		0.8		1.9						

Intersection Summary		
HCM 6th Ctrl Delay		10.3
HCM 6th LOS		B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	60	158	0	0	0	0	0	1055	151
Future Volume (veh/h)	0	0	0	60	158	0	0	0	0	0	1055	151
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1633	1856	0				0	1885	1900
Adj Flow Rate, veh/h				62	165	0				0	1099	151
Peak Hour Factor				0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %				18	3	0				0	1	0
Cap, veh/h				258	616	0				0	2266	311
Arrive On Green				0.17	0.17	0.00				0.00	0.72	0.72
Sat Flow, veh/h				1555	3711	0				0	3258	434
Grp Volume(v), veh/h				62	165	0				0	621	629
Grp Sat Flow(s),veh/h/ln				1555	1856	0				0	1791	1807
Q Serve(g_s), s				3.1	3.5	0.0				0.0	13.6	13.6
Cycle Q Clear(g_c), s				3.1	3.5	0.0				0.0	13.6	13.6
Prop In Lane				1.00		0.00				0.00		0.24
Lane Grp Cap(c), veh/h				258	616	0				0	1283	1294
V/C Ratio(X)				0.24	0.27	0.00				0.00	0.48	0.49
Avail Cap(c_a), veh/h				774	1847	0				0	1283	1294
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				32.6	32.7	0.0				0.0	5.6	5.6
Incr Delay (d2), s/veh				0.5	0.2	0.0				0.0	1.3	1.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				2.1	2.8	0.0				0.0	7.9	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				33.1	33.0	0.0				0.0	6.9	6.9
LnGrp LOS				C	C	A				A	A	A
Approach Vol, veh/h					227						1250	
Approach Delay, s/veh					33.0						6.9	
Approach LOS					C						A	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	69.9	20.1
Change Period (Y+Rc), s	5.4	* 5.2
Max Green Setting (Gmax), s	34.6	* 45
Max Q Clear Time (g_c+I1), s	15.6	5.5
Green Ext Time (p_c), s	8.7	1.3

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	926	0	0	0	0	0	783	41	0	0	0
Future Volume (veh/h)	72	926	0	0	0	0	0	783	41	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1900	1885	0				0	1841	1856			
Adj Flow Rate, veh/h	80	1029	0				0	870	38			
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90			
Percent Heavy Veh, %	0	1	0				0	4	3			
Cap, veh/h	643	1340	0				0	3233	140			
Arrive On Green	0.36	0.36	0.00				0.00	0.52	0.52			
Sat Flow, veh/h	1810	3770	0				0	6526	272			
Grp Volume(v), veh/h	80	1029	0				0	658	250			
Grp Sat Flow(s),veh/h/ln	1810	1885	0				0	1583	1792			
Q Serve(g_s), s	2.7	21.8	0.0				0.0	7.0	7.1			
Cycle Q Clear(g_c), s	2.7	21.8	0.0				0.0	7.0	7.1			
Prop In Lane	1.00		0.00				0.00		0.15			
Lane Grp Cap(c), veh/h	643	1340	0				0	2449	924			
V/C Ratio(X)	0.12	0.77	0.00				0.00	0.27	0.27			
Avail Cap(c_a), veh/h	929	1935	0				0	2449	924			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	19.6	25.7	0.0				0.0	12.2	12.3			
Incr Delay (d2), s/veh	0.1	1.2	0.0				0.0	0.3	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	2.0	14.7	0.0				0.0	4.3	5.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	26.9	0.0				0.0	12.5	13.0			
LnGrp LOS	B	C	A				A	B	B			
Approach Vol, veh/h		1109						908				
Approach Delay, s/veh		26.4						12.6				
Approach LOS		C						B				

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	52.2	37.8
Change Period (Y+Rc), s	* 5.8	* 5.8
Max Green Setting (Gmax), s	* 32	* 46
Max Q Clear Time (g_c+I1), s	9.1	23.8
Green Ext Time (p_c), s	6.5	8.2

Intersection Summary	
HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	576	386	0	0	0	0	245	55	57	383	0
Future Volume (veh/h)	38	576	386	0	0	0	0	245	55	57	383	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1885				0	1826	1870	1900	1885	0
Adj Flow Rate, veh/h	40	613	93				0	261	41	61	407	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	1	1				0	5	2	0	1	0
Cap, veh/h	58	954	305				0	1729	268	727	2421	0
Arrive On Green	0.19	0.19	0.19				0.00	0.57	0.57	0.07	1.00	0.00
Sat Flow, veh/h	305	4996	1598				0	3101	467	1810	3676	0
Grp Volume(v), veh/h	245	408	93				0	149	153	61	407	0
Grp Sat Flow(s),veh/h/ln	1870	1716	1598				0	1735	1742	1810	1791	0
Q Serve(g_s), s	11.0	9.8	4.5				0.0	3.6	3.7	1.2	0.0	0.0
Cycle Q Clear(g_c), s	11.0	9.8	4.5				0.0	3.6	3.7	1.2	0.0	0.0
Prop In Lane	0.16		1.00				0.00		0.27	1.00		0.00
Lane Grp Cap(c), veh/h	357	655	305				0	996	1000	727	2421	0
V/C Ratio(X)	0.69	0.62	0.30				0.00	0.15	0.15	0.08	0.17	0.00
Avail Cap(c_a), veh/h	623	1144	533				0	996	1000	804	2421	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.61	0.61	0.61				0.00	1.00	1.00	0.99	0.99	0.00
Uniform Delay (d), s/veh	33.9	33.4	31.3				0.0	8.9	8.9	6.3	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.6	0.3				0.0	0.3	0.3	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.9	6.7	3.1				0.0	2.4	2.5	0.7	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.3	34.0	31.6				0.0	9.2	9.3	6.3	0.1	0.0
LnGrp LOS	D	C	C				A	A	A	A	A	A
Approach Vol, veh/h		746						302			468	
Approach Delay, s/veh		34.2						9.3			1.0	
Approach LOS		C						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	9.1	57.7	23.2	66.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	7.0	35.0	30.0	48.0
Max Q Clear Time (g_c+I1), s	13.2	5.7	13.0	2.0
Green Ext Time (p_c), s	0.0	1.8	4.2	3.0

Intersection Summary	
HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	125	509	0	0	0	0	0	0	114	841	0
Future Volume (veh/h)	0	125	509	0	0	0	0	0	0	114	841	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1885							1752	1885	0
Adj Flow Rate, veh/h	0	147	338							134	989	0
Peak Hour Factor	0.85	0.85	0.85							0.85	0.85	0.85
Percent Heavy Veh, %	0	2	1							10	1	0
Cap, veh/h	0	551	471							1200	3702	0
Arrive On Green	0.00	0.15	0.15							0.24	0.24	0.00
Sat Flow, veh/h	0	3741	3195							1668	5316	0
Grp Volume(v), veh/h	0	147	338							134	989	0
Grp Sat Flow(s),veh/h/ln	0	1870	1598							1668	1716	0
Q Serve(g_s), s	0.0	3.1	9.1							5.7	14.1	0.0
Cycle Q Clear(g_c), s	0.0	3.1	9.1							5.7	14.1	0.0
Prop In Lane	0.00		1.00							1.00		0.00
Lane Grp Cap(c), veh/h	0	551	471							1200	3702	0
V/C Ratio(X)	0.00	0.27	0.72							0.11	0.27	0.00
Avail Cap(c_a), veh/h	0	1247	1065							1200	3702	0
HCM Platoon Ratio	1.00	1.00	1.00							0.33	0.33	1.00
Upstream Filter(I)	0.00	0.86	0.86							0.87	0.87	0.00
Uniform Delay (d), s/veh	0.0	34.0	36.6							11.8	15.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	1.8							0.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	2.6	6.5							3.6	10.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	34.3	38.4							12.0	15.2	0.0
LnGrp LOS	A	C	D							B	B	A
Approach Vol, veh/h		485									1123	
Approach Delay, s/veh		37.1									14.8	
Approach LOS		D									B	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	70.7	19.3
Change Period (Y+Rc), s	6.0	6.0
Max Green Setting (Gmax), s	48.0	30.0
Max Q Clear Time (g_c+I1), s	16.1	11.1
Green Ext Time (p_c), s	8.9	2.2

Intersection Summary	
HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	127	0	0	0	0	0	577	145	0	0	0
Future Volume (veh/h)	109	127	0	0	0	0	0	577	145	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1737	0				0	1841	1841			
Adj Flow Rate, veh/h	114	132	0				0	601	111			
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96			
Percent Heavy Veh, %	2	11	0				0	4	4			
Cap, veh/h	575	549	0				0	3941	1113			
Arrive On Green	0.05	0.05	0.00				0.00	0.71	0.71			
Sat Flow, veh/h	3456	3387	0				0	5522	1560			
Grp Volume(v), veh/h	114	132	0				0	601	111			
Grp Sat Flow(s),veh/h/ln	1728	1650	0				0	1841	1560			
Q Serve(g_s), s	2.8	3.4	0.0				0.0	3.1	2.0			
Cycle Q Clear(g_c), s	2.8	3.4	0.0				0.0	3.1	2.0			
Prop In Lane	1.00		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	575	549	0				0	3941	1113			
V/C Ratio(X)	0.20	0.24	0.00				0.00	0.15	0.10			
Avail Cap(c_a), veh/h	1524	1456	0				0	3941	1113			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	0.95	0.95	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	36.8	37.1	0.0				0.0	4.1	4.0			
Incr Delay (d2), s/veh	0.2	0.2	0.0				0.0	0.1	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	2.2	2.6	0.0				0.0	1.8	1.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.0	37.3	0.0				0.0	4.2	4.2			
LnGrp LOS	D	D	A				A	A	A			
Approach Vol, veh/h		246						712				
Approach Delay, s/veh		37.1						4.2				
Approach LOS		D						A				

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	69.7	20.3
Change Period (Y+Rc), s	5.5	* 5.3
Max Green Setting (Gmax), s	39.5	* 40
Max Q Clear Time (g_c+I1), s	5.1	5.4
Green Ext Time (p_c), s	5.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	15	434	0	0	0	0	0	155	693
Future Volume (veh/h)	0	0	0	15	434	0	0	0	0	0	155	693
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1263	1856	0				0	1811	1885
Adj Flow Rate, veh/h				17	488	0				0	174	658
Peak Hour Factor				0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %				43	3	0				0	6	1
Cap, veh/h				35	1084	0				0	1113	981
Arrive On Green				0.21	0.21	0.00				0.00	0.61	0.61
Sat Flow, veh/h				165	5226	0				0	1811	1598
Grp Volume(v), veh/h				190	315	0				0	174	658
Grp Sat Flow(s),veh/h/ln				1847	1689	0				0	1811	1598
Q Serve(g_s), s				6.3	5.7	0.0				0.0	2.9	18.9
Cycle Q Clear(g_c), s				6.3	5.7	0.0				0.0	2.9	18.9
Prop In Lane				0.09		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				396	724	0				0	1113	981
V/C Ratio(X)				0.48	0.44	0.00				0.00	0.16	0.67
Avail Cap(c_a), veh/h				765	1399	0				0	1113	981
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.84	0.84	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				24.1	23.8	0.0				0.0	5.8	8.9
Incr Delay (d2), s/veh				0.8	0.3	0.0				0.0	0.3	3.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				4.9	3.9	0.0				0.0	1.8	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.8	24.2	0.0				0.0	6.1	12.5
LnGrp LOS				C	C	A				A	A	B
Approach Vol, veh/h					505						832	
Approach Delay, s/veh					24.4						11.2	
Approach LOS					C						B	

Timer - Assigned Phs	4	6
Phs Duration (G+Y+Rc), s	21.0	49.0
Change Period (Y+Rc), s	6.0	6.0
Max Green Setting (Gmax), s	29.0	29.0
Max Q Clear Time (g_c+I1), s	8.3	20.9
Green Ext Time (p_c), s	3.1	2.5

Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	402	238	48	258	0	0	0	0
Future Volume (veh/h)	0	0	0	0	402	238	48	258	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1856	1841	1737	1781	0			
Adj Flow Rate, veh/h				0	442	42	53	284	0			
Peak Hour Factor				0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %				0	3	4	11	8	0			
Cap, veh/h				0	711	219	662	3901	0			
Arrive On Green				0.00	0.14	0.14	0.72	0.72	0.00			
Sat Flow, veh/h				0	5233	1560	919	5662	0			
Grp Volume(v), veh/h				0	442	42	100	237	0			
Grp Sat Flow(s),veh/h/ln				0	1689	1560	1735	1532	0			
Q Serve(g_s), s				0.0	7.4	2.1	1.5	1.4	0.0			
Cycle Q Clear(g_c), s				0.0	7.4	2.1	1.5	1.4	0.0			
Prop In Lane				0.00		1.00	0.53		0.00			
Lane Grp Cap(c), veh/h				0	711	219	1251	3313	0			
V/C Ratio(X)				0.00	0.62	0.19	0.08	0.07	0.00			
Avail Cap(c_a), veh/h				0	1914	589	1251	3313	0			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	36.4	34.2	3.7	3.7	0.0			
Incr Delay (d2), s/veh				0.0	0.9	0.4	0.1	0.0	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln				0.0	5.5	1.5	0.9	0.6	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	37.3	34.6	3.8	3.7	0.0			
LnGrp LOS				A	D	C	A	A	A			
Approach Vol, veh/h					484			337				
Approach Delay, s/veh					37.1			3.8				
Approach LOS					D			A				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						71.4		18.6				
Change Period (Y+Rc), s						6.5		6.0				
Max Green Setting (Gmax), s						43.5		34.0				
Max Q Clear Time (g_c+I1), s						3.5		9.4				
Green Ext Time (p_c), s						2.4		3.2				

Intersection Summary	
HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	132	0	0	1289	30	225	650	122	0	0	0
Future Volume (veh/h)	11	132	0	0	1289	30	225	650	122	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1485	1900	0	0	1870	1900	1900	1856	1737			
Adj Flow Rate, veh/h	12	140	0	0	1371	31	239	691	73			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	28	0	0	0	2	0	0	3	11			
Cap, veh/h	208	2320	0	0	2283	52	421	1078	113			
Arrive On Green	0.64	0.64	0.00	0.00	0.64	0.64	0.23	0.23	0.23			
Sat Flow, veh/h	305	3705	0	0	3646	80	1810	4630	485			
Grp Volume(v), veh/h	12	140	0	0	685	717	239	502	262			
Grp Sat Flow(s),veh/h/ln	305	1805	0	0	1777	1856	1810	1689	1738			
Q Serve(g_s), s	2.1	1.3	0.0	0.0	20.2	20.2	10.5	12.1	12.2			
Cycle Q Clear(g_c), s	22.4	1.3	0.0	0.0	20.2	20.2	10.5	12.1	12.2			
Prop In Lane	1.00		0.00	0.00		0.04	1.00		0.28			
Lane Grp Cap(c), veh/h	208	2320	0	0	1142	1193	421	787	405			
V/C Ratio(X)	0.06	0.06	0.00	0.00	0.60	0.60	0.57	0.64	0.65			
Avail Cap(c_a), veh/h	208	2320	0	0	1142	1193	1054	1966	1012			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	15.9	6.0	0.0	0.0	9.4	9.4	30.5	31.1	31.2			
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.9	0.8	1.2	0.9	1.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	0.3	0.8	0.0	0.0	11.4	11.8	8.2	8.5	8.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.4	6.0	0.0	0.0	10.2	10.2	31.7	32.0	32.9			
LnGrp LOS	B	A	A	A	B	B	C	C	C			
Approach Vol, veh/h		152			1402			1003				
Approach Delay, s/veh		6.8			10.2			32.2				
Approach LOS		A			B			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		63.4				63.4		26.6				
Change Period (Y+Rc), s		5.6				5.6		5.6				
Max Green Setting (Gmax), s		26.4				26.4		52.4				
Max Q Clear Time (g_c+I1), s		24.4				22.2		14.2				
Green Ext Time (p_c), s		0.2				3.1		6.7				
Intersection Summary												
HCM 6th Ctrl Delay			18.6									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	805	0	0	1135	568	0	377	75	0	0	0
Future Volume (veh/h)	0	805	0	0	1135	568	0	377	75	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1826	0	0	1856	1885	0	1856	1841	0	1900	0
Adj Flow Rate, veh/h	0	875	0	0	1234	551	0	410	36	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	5	0	0	3	1	0	3	4	0	0	0
Cap, veh/h	0	2249	0	0	1550	687	0	643	56	0	257	0
Arrive On Green	0.00	0.45	0.00	0.00	0.60	0.60	0.00	0.14	0.14	0.00	0.00	0.00
Sat Flow, veh/h	0	5313	0	0	3603	1523	0	4914	411	0	1900	0
Grp Volume(v), veh/h	0	875	0	0	1213	572	0	290	156	0	0	0
Grp Sat Flow(s),veh/h/ln	0	1662	0	0	1689	1581	0	1689	1782	0	1900	0
Q Serve(g_s), s	0.0	10.5	0.0	0.0	24.7	25.1	0.0	7.3	7.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	10.5	0.0	0.0	24.7	25.1	0.0	7.3	7.5	0.0	0.0	0.0
Prop In Lane	0.00		0.00	0.00		0.96	0.00		0.23	0.00		0.00
Lane Grp Cap(c), veh/h	0	2249	0	0	1524	713	0	458	241	0	257	0
V/C Ratio(X)	0.00	0.39	0.00	0.00	0.80	0.80	0.00	0.63	0.65	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2647	0	0	1794	840	0	1107	584	0	623	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	0.94	0.94	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	16.4	0.0	0.0	14.8	14.9	0.0	36.8	36.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	2.1	4.6	0.0	1.5	2.9	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	7.1	0.0	0.0	12.0	12.1	0.0	5.5	6.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.0	0.0	0.0	16.9	19.5	0.0	38.2	39.7	0.0	0.0	0.0
LnGrp LOS	A	B	A	A	B	B	A	D	D	A	A	A
Approach Vol, veh/h		875			1785			446			0	
Approach Delay, s/veh		17.0			17.7			38.8			0.0	
Approach LOS		B			B			D				

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	46.8	18.7	46.8	18.7
Change Period (Y+Rc), s	* 6.2	6.5	* 6.2	6.5
Max Green Setting (Gmax), s	* 48	29.5	* 48	29.5
Max Q Clear Time (g_c+I1), s	27.1	9.5	12.5	0.0
Green Ext Time (p_c), s	13.5	2.7	7.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	393	507	742	1739	0	0	0	0	0	0	0
Future Volume (veh/h)	0	393	507	742	1739	0	0	0	0	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1796	1856	1811	1870	0				1900	1900	1900
Adj Flow Rate, veh/h	0	423	339	798	1870	0				0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	7	3	6	2	0				0	0	0
Cap, veh/h	0	2229	1952	853	4788	0				0	4	2
Arrive On Green	0.00	1.00	1.00	0.51	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	3593	3145	3346	5274	0				0	3705	1610
Grp Volume(v), veh/h	0	423	339	798	1870	0				0	0	0
Grp Sat Flow(s),veh/h/ln	0	1796	1572	1673	1702	0				0	1805	1610
Q Serve(g_s), s	0.0	0.0	0.0	20.1	0.0	0.0				0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	20.1	0.0	0.0				0.0	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h	0	2229	1952	853	4788	0				0	4	2
V/C Ratio(X)	0.00	0.19	0.17	0.94	0.39	0.00				0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2229	1952	907	4788	0				0	477	213
HCM Platoon Ratio	1.00	1.67	1.67	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.98	0.82	0.82	0.00				0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	21.4	0.0	0.0				0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.2	13.8	0.2	0.0				0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.1	0.1	10.4	0.2	0.0				0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.2	0.2	35.1	0.2	0.0				0.0	0.0	0.0
LnGrp LOS	A	A	A	D	A	A				A	A	A
Approach Vol, veh/h		762			2668						0	
Approach Delay, s/veh		0.2			10.6						0.0	
Approach LOS		A			B							

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	28.5	61.5		0.0		90.0
Change Period (Y+Rc), s	5.6	5.6		6.1		5.6
Max Green Setting (Gmax), s	24.4	36.4		11.9		66.4
Max Q Clear Time (g_c+I1), s	22.1	2.0		0.0		2.0
Green Ext Time (p_c), s	0.8	4.7		0.0		26.7

Intersection Summary	
HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	405	0	0	1667	11	736	70	610	0	0	0
Future Volume (veh/h)	0	405	0	0	1667	11	736	70	610	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1811	0	0	1841	1752	1870	1826	1841			
Adj Flow Rate, veh/h	0	460	0	0	1894	6	836	80	200			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	0	6	0	0	4	10	2	5	4			
Cap, veh/h	0	3161	0	0	4049	949	1155	395	674			
Arrive On Green	0.00	0.21	0.00	0.00	0.64	0.64	0.22	0.22	0.22			
Sat Flow, veh/h	0	5270	0	0	6590	1485	5344	1826	3120			
Grp Volume(v), veh/h	0	460	0	0	1894	6	836	80	200			
Grp Sat Flow(s),veh/h/ln	0	1648	0	0	1583	1485	1781	1826	1560			
Q Serve(g_s), s	0.0	6.8	0.0	0.0	13.9	0.1	13.1	3.2	4.8			
Cycle Q Clear(g_c), s	0.0	6.8	0.0	0.0	13.9	0.1	13.1	3.2	4.8			
Prop In Lane	0.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3161	0	0	4049	949	1155	395	674			
V/C Ratio(X)	0.00	0.15	0.00	0.00	0.47	0.01	0.72	0.20	0.30			
Avail Cap(c_a), veh/h	0	3161	0	0	4049	949	1847	631	1078			
HCM Platoon Ratio	1.00	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.97	0.00	0.00	0.77	0.77	1.00	1.00	1.00			
Uniform Delay (d), s/veh	0.0	15.5	0.0	0.0	8.3	5.9	32.8	28.9	29.5			
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.3	0.0	0.9	0.3	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	0.0	4.7	0.0	0.0	7.2	0.1	9.5	2.6	3.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.6	0.0	0.0	8.7	5.9	33.6	29.2	29.8			
LnGrp LOS	A	B	A	A	A	A	C	C	C			
Approach Vol, veh/h		460			1900			1116				
Approach Delay, s/veh		15.6			8.6			32.6				
Approach LOS		B			A			C				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		63.6				63.6		26.4				
Change Period (Y+Rc), s		6.1				6.1		6.9				
Max Green Setting (Gmax), s		45.9				45.9		31.1				
Max Q Clear Time (g_c+I1), s		15.9				8.8		15.1				
Green Ext Time (p_c), s		18.8				3.5		4.4				

Intersection Summary		
HCM 6th Ctrl Delay	17.3	
HCM 6th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	597	432	0	1402	9	546	31	17	0	0	0
Future Volume (veh/h)	0	597	432	0	1402	9	546	31	17	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1826	1841	0	1841	1707	1841	1841	1796			
Adj Flow Rate, veh/h	0	686	299	0	1611	10	669	0	0			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	5	4	0	4	13	4	4	7			
Cap, veh/h	0	2167	974	0	3218	20	810	425	0			
Arrive On Green	0.00	1.00	1.00	0.00	0.62	0.62	0.23	0.00	0.00			
Sat Flow, veh/h	0	3561	1560	0	5319	32	3506	1841	0			
Grp Volume(v), veh/h	0	686	299	0	1047	574	669	0	0			
Grp Sat Flow(s),veh/h/ln	0	1735	1560	0	1675	1835	1753	1841	0			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	15.4	15.4	16.3	0.0	0.0			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	15.4	15.4	16.3	0.0	0.0			
Prop In Lane	0.00		1.00	0.00		0.02	1.00		0.00			
Lane Grp Cap(c), veh/h	0	2167	974	0	2092	1146	810	425	0			
V/C Ratio(X)	0.00	0.32	0.31	0.00	0.50	0.50	0.83	0.00	0.00			
Avail Cap(c_a), veh/h	0	2167	974	0	2092	1146	1461	767	0			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.96	0.96	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	9.2	9.2	32.9	0.0	0.0			
Incr Delay (d2), s/veh	0.0	0.4	0.8	0.0	0.2	0.3	2.2	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	0.0	0.2	0.4	0.0	8.7	9.4	11.3	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.4	0.8	0.0	9.4	9.6	35.1	0.0	0.0			
LnGrp LOS	A	A	A	A	A	A	D	A	A			
Approach Vol, veh/h		985			1621			669				
Approach Delay, s/veh		0.5			9.5			35.1				
Approach LOS		A			A			D				

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	62.7	27.3	62.7
Change Period (Y+Rc), s	6.5	6.5	6.5
Max Green Setting (Gmax), s	39.5	37.5	39.5
Max Q Clear Time (g_c+I1), s	2.0	18.3	17.4
Green Ext Time (p_c), s	6.9	2.5	12.4

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	84	5	3	183	0	2	0	1	158	17	225
Future Volume (veh/h)	0	84	5	3	183	0	2	0	1	158	17	225
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1856	1900	1900	1841	0	1900	1900	1900	1826	1900	1900
Adj Flow Rate, veh/h	0	89	3	3	195	0	2	0	0	181	0	37
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	3	0	0	4	0	0	0	0	5	0	0
Cap, veh/h	0	522	18	39	512	0	90	0	0	520	0	241
Arrive On Green	0.00	0.15	0.15	0.15	0.15	0.00	0.05	0.00	0.00	0.15	0.00	0.15
Sat Flow, veh/h	0	3573	117	14	3496	0	1809	0	0	3478	0	1610
Grp Volume(v), veh/h	0	45	47	106	92	0	2	0	0	181	0	37
Grp Sat Flow(s),veh/h/ln	0	1763	1835	1835	1591	0	1810	0	0	1739	0	1610
Q Serve(g_s), s	0.0	2.2	2.2	0.0	5.2	0.0	0.1	0.0	0.0	4.7	0.0	2.0
Cycle Q Clear(g_c), s	0.0	2.2	2.2	5.2	5.2	0.0	0.1	0.0	0.0	4.7	0.0	2.0
Prop In Lane	0.00		0.06	0.03		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	264	275	312	239	0	90	0	0	520	0	241
V/C Ratio(X)	0.00	0.17	0.17	0.34	0.38	0.00	0.02	0.00	0.00	0.35	0.00	0.15
Avail Cap(c_a), veh/h	0	529	550	585	477	0	262	0	0	1339	0	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	37.1	37.1	38.3	38.3	0.0	45.2	0.0	0.0	38.1	0.0	37.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	2.9	4.6	0.0	0.1	0.0	0.0	0.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	1.8	1.8	4.7	4.2	0.0	0.1	0.0	0.0	3.6	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	37.4	37.4	41.3	43.0	0.0	45.3	0.0	0.0	38.5	0.0	37.3
LnGrp LOS	A	D	D	D	D	A	D	A	A	D	A	D
Approach Vol, veh/h		92			198			2			218	
Approach Delay, s/veh		37.4			42.1			45.3			38.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	21.0	10.5	21.0	20.5
Change Period (Y+Rc), s	6.0	5.5	6.0	5.5
Max Green Setting (Gmax), s	30.0	14.5	30.0	38.5
Max Q Clear Time (g_c+I1), s	4.2	2.1	7.2	6.7
Green Ext Time (p_c), s	0.4	0.0	1.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	39.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

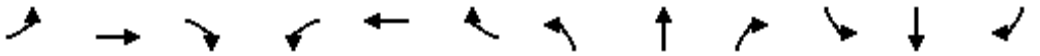
Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	343	76	0	0	90	218	0	0	0	0	0	0
Future Vol, veh/h	343	76	0	0	90	218	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	200	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	4	7	0	0	10	7	0	0	0	0	0	0
Mvmt Flow	377	84	0	0	99	240	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	99	0	-	-	-	0	888	937	42
Stage 1	-	-	-	-	-	-	838	838	-
Stage 2	-	-	-	-	-	-	50	99	-
Critical Hdwy	4.18	-	-	-	-	-	6.8	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	5.8	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.8	5.5	-
Follow-up Hdwy	2.24	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1477	-	0	0	-	-	287	267	1026
Stage 1	-	-	0	0	-	-	390	384	-
Stage 2	-	-	0	0	-	-	972	817	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1477	-	-	-	-	-	214	0	1026
Mov Cap-2 Maneuver	-	-	-	-	-	-	214	0	-
Stage 1	-	-	-	-	-	-	291	0	-
Stage 2	-	-	-	-	-	-	972	0	-

Approach	EB	WB	NB
HCM Control Delay, s	6.8	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	-	1477	-	-	-
HCM Lane V/C Ratio	-	0.255	-	-	-
HCM Control Delay (s)	0	8.3	-	-	-
HCM Lane LOS	A	A	-	-	-
HCM 95th %tile Q(veh)	-	1	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	0	218	282	340	63	426	0	0	298	143
Future Volume (veh/h)	5	0	0	218	282	340	63	426	0	0	298	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	0	1900	1870	1900	1856	1752	1856	0	0	1767	1870
Adj Flow Rate, veh/h	5	0	0	227	294	181	66	444	0	0	310	73
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	2	0	3	10	3	0	0	9	2
Cap, veh/h	0	0	0	267	362	233	264	1693	0	0	1615	375
Arrive On Green	0.00	0.00	0.00	0.24	0.24	0.24	0.60	0.60	0.00	0.00	0.60	0.60
Sat Flow, veh/h		0		1107	1499	965	334	2920	0	0	2793	628
Grp Volume(v), veh/h		0.0		378	0	324	259	251	0	0	191	192
Grp Sat Flow(s),veh/h/ln				1845	0	1726	1565	1604	0	0	1678	1654
Q Serve(g_s), s				13.7	0.0	12.3	0.0	5.2	0.0	0.0	3.6	3.7
Cycle Q Clear(g_c), s				13.7	0.0	12.3	4.6	5.2	0.0	0.0	3.6	3.7
Prop In Lane				0.60		0.56	0.26		0.00	0.00		0.38
Lane Grp Cap(c), veh/h				446	0	417	999	958	0	0	1002	987
V/C Ratio(X)				0.85	0.00	0.78	0.26	0.26	0.00	0.00	0.19	0.19
Avail Cap(c_a), veh/h				488	0	456	999	958	0	0	1002	987
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				25.3	0.0	24.8	6.6	6.7	0.0	0.0	6.4	6.4
Incr Delay (d2), s/veh				12.5	0.0	7.6	0.6	0.7	0.0	0.0	0.4	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				11.6	0.0	9.5	3.0	3.0	0.0	0.0	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				37.8	0.0	32.4	7.2	7.4	0.0	0.0	6.8	6.9
LnGrp LOS				D	A	C	A	A	A	A	A	A
Approach Vol, veh/h					702			510			383	
Approach Delay, s/veh					35.3			7.3			6.9	
Approach LOS					D			A			A	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		47.6				47.6		22.4				
Change Period (Y+Rc), s		* 5.8				* 5.8		5.5				
Max Green Setting (Gmax), s		* 27				* 26		18.5				
Max Q Clear Time (g_c+I1), s		7.2				5.7		15.7				
Green Ext Time (p_c), s		3.1				2.2		1.2				

Intersection Summary		
HCM 6th Ctrl Delay		19.5
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

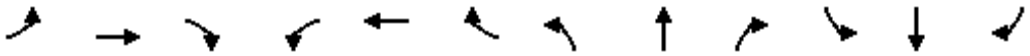
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SEL	SER
Lane Configurations		↑↑	↱	↰	↑↑					↱
Traffic Vol, veh/h	0	245	81	87	426	0	0	0	0	0
Future Vol, veh/h	0	245	81	87	426	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	None	-	-
Storage Length	-	-	80	220	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	0	-	0	-
Grade, %	-	0	-	-	0	-	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	5	7	1	2	0	0	0	0	0
Mvmt Flow	0	275	91	98	479	0	0	0	0	0

Major/Minor	Major1			Major2			Minor2	
Conflicting Flow All	-	0	0	275	0	0	-	240
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.12	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.21	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	1292	-	0	0	767
Stage 1	0	-	-	-	-	0	0	-
Stage 2	0	-	-	-	-	0	0	-
Platoon blocked, %		-	-		-			
Mov Cap-1 Maneuver	-	-	-	1292	-	-	-	767
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	SE
HCM Control Delay, s	0	1.4	0
HCM LOS			A

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SELn1
Capacity (veh/h)	-	-	1292	-	-
HCM Lane V/C Ratio	-	-	0.076	-	-
HCM Control Delay (s)	-	-	8	-	0
HCM Lane LOS	-	-	A	-	A
HCM 95th %tile Q(veh)	-	-	0.2	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	240	0	0	0	0	191	88	22	0	0	0
Future Volume (veh/h)	5	240	0	0	0	0	191	88	22	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1900	1811	0				1885	1900	1826			
Adj Flow Rate, veh/h	5	245	0				195	90	15			
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98			
Percent Heavy Veh, %	0	6	0				1	0	5			
Cap, veh/h	10	491	0				863	398	1063			
Arrive On Green	0.14	0.14	0.00				0.69	0.69	0.69			
Sat Flow, veh/h	67	3551	0				1257	580	1547			
Grp Volume(v), veh/h	134	116	0				285	0	15			
Grp Sat Flow(s),veh/h/ln	1808	1721	0				1837	0	1547			
Q Serve(g_s), s	4.8	4.3	0.0				4.0	0.0	0.2			
Cycle Q Clear(g_c), s	4.8	4.3	0.0				4.0	0.0	0.2			
Prop In Lane	0.04		0.00				0.68		1.00			
Lane Grp Cap(c), veh/h	256	244	0				1262	0	1063			
V/C Ratio(X)	0.52	0.48	0.00				0.23	0.00	0.01			
Avail Cap(c_a), veh/h	516	492	0				1262	0	1063			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				1.00	0.00	1.00			
Uniform Delay (d), s/veh	27.8	27.6	0.0				4.1	0.0	3.5			
Incr Delay (d2), s/veh	1.7	1.4	0.0				0.4	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	3.8	3.3	0.0				2.2	0.0	0.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.5	29.1	0.0				4.5	0.0	3.5			
LnGrp LOS	C	C	A				A	A	A			
Approach Vol, veh/h		250						300				
Approach Delay, s/veh		29.3						4.4				
Approach LOS		C						A				

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		54.1		15.9								
Change Period (Y+Rc), s		6.0		6.0								
Max Green Setting (Gmax), s		38.0		20.0								
Max Q Clear Time (g_c+I1), s		6.0		6.8								
Green Ext Time (p_c), s		1.9		1.1								

Intersection Summary												
HCM 6th Ctrl Delay			15.7									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	373	0	664	88	446	0	0	679	191
Future Volume (veh/h)	0	0	0	373	0	664	88	446	0	0	679	191
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1722	1900	1811	1292	1796	0	0	1796	1796
Adj Flow Rate, veh/h				397	0	551	94	474	0	0	722	66
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				12	0	6	41	7	0	0	7	7
Cap, veh/h				1301	0	609	109	1642	0	0	1138	508
Arrive On Green				0.40	0.00	0.40	0.03	0.16	0.00	0.00	0.33	0.33
Sat Flow, veh/h				3280	0	1535	1231	3503	0	0	3503	1522
Grp Volume(v), veh/h				397	0	551	94	474	0	0	722	66
Grp Sat Flow(s),veh/h/ln				1640	0	1535	1231	1706	0	0	1706	1522
Q Serve(g_s), s				7.1	0.0	28.7	6.5	10.4	0.0	0.0	15.2	2.6
Cycle Q Clear(g_c), s				7.1	0.0	28.7	6.5	10.4	0.0	0.0	15.2	2.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1301	0	609	109	1642	0	0	1138	508
V/C Ratio(X)				0.31	0.00	0.91	0.86	0.29	0.00	0.00	0.63	0.13
Avail Cap(c_a), veh/h				1605	0	751	130	1642	0	0	1138	508
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.82	0.82	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.6	0.0	24.2	40.7	22.9	0.0	0.0	23.9	19.7
Incr Delay (d2), s/veh				0.1	0.0	12.7	31.1	0.4	0.0	0.0	2.7	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				4.7	0.0	30.9	5.4	8.0	0.0	0.0	10.4	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				17.7	0.0	36.9	71.9	23.3	0.0	0.0	26.6	20.3
LnGrp LOS				B	A	D	E	C	A	A	C	C
Approach Vol, veh/h					948			568			788	
Approach Delay, s/veh					28.9			31.3			26.1	
Approach LOS					C			C			C	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	45.9	39.1	12.6	33.3
Change Period (Y+Rc), s	5.0	* 5.4	5.0	5.0
Max Green Setting (Gmax), s	33.0	* 42	9.0	19.0
Max Q Clear Time (g_c+I1), s	12.4	30.7	8.5	17.2
Green Ext Time (p_c), s	3.1	3.0	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	0	108	0	0	0	0	302	408	486	555	0
Future Volume (veh/h)	245	0	108	0	0	0	0	302	408	486	555	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1826	1900	1515				0	1618	1515	1796	1752	0
Adj Flow Rate, veh/h	261	0	22				0	321	0	517	590	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	0	26				0	19	26	7	10	0
Cap, veh/h	304	0	282				0	1126		523	2394	0
Arrive On Green	0.17	0.00	0.17				0.00	0.12	0.00	0.20	0.48	0.00
Sat Flow, veh/h	1739	0	1610				0	3156	1284	1711	3416	0
Grp Volume(v), veh/h	261	0	22				0	321	0	517	590	0
Grp Sat Flow(s),veh/h/ln	1739	0	1610				0	1537	1284	1711	1664	0
Q Serve(g_s), s	12.4	0.0	1.0				0.0	8.1	0.0	25.6	8.9	0.0
Cycle Q Clear(g_c), s	12.4	0.0	1.0				0.0	8.1	0.0	25.6	8.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	304	0	282				0	1126		523	2394	0
V/C Ratio(X)	0.86	0.00	0.08				0.00	0.29		0.99	0.25	0.00
Avail Cap(c_a), veh/h	430	0	398				0	1126		523	2394	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	0.67	0.67	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.93	0.00	0.75	0.75	0.00
Uniform Delay (d), s/veh	34.0	0.0	29.3				0.0	27.2	0.0	33.6	8.5	0.0
Incr Delay (d2), s/veh	11.6	0.0	0.1				0.0	0.6	0.0	31.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.1	0.0	0.7				0.0	5.8	0.0	21.0	5.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	0.0	29.5				0.0	27.8	0.0	64.6	8.7	0.0
LnGrp LOS	D	A	C				A	C		E	A	A
Approach Vol, veh/h		283						321			1107	
Approach Delay, s/veh		44.4						27.8			34.8	
Approach LOS		D						C			C	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	30.0	36.1	18.9	66.1
Change Period (Y+Rc), s	4.0	5.0	4.0	* 5
Max Green Setting (Gmax), s	26.0	25.0	21.0	* 56
Max Q Clear Time (g_c+I1), s	27.6	10.1	14.4	10.9
Green Ext Time (p_c), s	0.0	1.8	0.5	4.7

Intersection Summary	
HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	280	100	221	374	146	90	117	250	310	177	82
Future Volume (veh/h)	54	280	100	221	374	146	90	117	250	310	177	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1648	1396	1663	1693	1796	1574	1737	1322	1722	1781	1559
Adj Flow Rate, veh/h	57	295	59	233	394	48	95	123	65	326	186	28
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	17	34	16	14	7	22	11	39	12	8	23
Cap, veh/h	161	464	92	308	408	367	532	783	391	674	1524	595
Arrive On Green	0.04	0.18	0.18	0.10	0.24	0.24	0.06	0.37	0.37	0.05	0.15	0.15
Sat Flow, veh/h	1781	2607	514	1584	1693	1522	1499	2132	1064	1640	3385	1321
Grp Volume(v), veh/h	57	176	178	233	394	48	95	94	94	326	186	28
Grp Sat Flow(s),veh/h/ln	1781	1566	1555	1584	1693	1522	1499	1650	1545	1640	1692	1321
Q Serve(g_s), s	2.2	8.8	9.1	8.5	19.6	2.1	3.3	3.2	3.5	9.4	4.1	1.5
Cycle Q Clear(g_c), s	2.2	8.8	9.1	8.5	19.6	2.1	3.3	3.2	3.5	9.4	4.1	1.5
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.69	1.00		1.00
Lane Grp Cap(c), veh/h	161	279	277	308	408	367	532	606	568	674	1524	595
V/C Ratio(X)	0.35	0.63	0.64	0.76	0.97	0.13	0.18	0.15	0.17	0.48	0.12	0.05
Avail Cap(c_a), veh/h	273	378	375	308	408	367	754	606	568	781	1524	595
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	28.3	32.3	32.4	27.1	31.9	25.3	15.0	18.0	18.1	13.1	21.6	20.5
Incr Delay (d2), s/veh	1.3	2.3	2.5	10.2	35.4	0.2	0.2	0.5	0.6	0.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	6.2	6.3	8.1	17.4	1.4	2.0	2.3	2.4	7.0	2.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.6	34.7	34.9	37.3	67.3	25.4	15.2	18.6	18.8	13.6	21.8	20.7
LnGrp LOS	C	C	C	D	E	C	B	B	B	B	C	C
Approach Vol, veh/h		411			675			283			540	
Approach Delay, s/veh		34.1			54.0			17.5			16.8	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	44.0	12.0	20.6	15.4	36.9	6.6	26.0
Change Period (Y+Rc), s	3.5	5.7	3.5	5.5	3.5	5.7	3.5	5.5
Max Green Setting (Gmax), s	17.5	20.3	8.5	20.5	17.5	20.3	8.5	20.5
Max Q Clear Time (g_c+I1), s	5.3	6.1	10.5	11.1	11.4	5.5	4.2	21.6
Green Ext Time (p_c), s	0.2	1.0	0.0	1.4	0.5	0.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	33.8
HCM 6th LOS	C



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	65	309	237	46	296	575
Future Volume (vph)	65	309	237	46	296	575
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0	6.0	6.0
Lane Util. Factor	0.95			0.95	0.97	1.00
Frt	0.88			1.00	1.00	0.85
Flt Protected	1.00			0.96	0.95	1.00
Satd. Flow (prot)	2805			3173	3183	1495
Flt Permitted	1.00			0.58	0.95	1.00
Satd. Flow (perm)	2805			1902	3183	1495
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	68	325	249	48	312	605
RTOR Reduction (vph)	154	0	0	0	0	487
Lane Group Flow (vph)	239	0	0	297	312	118
Heavy Vehicles (%)	2%	15%	10%	5%	10%	8%
Turn Type	NA		pm+pt	NA	Prot	Prot
Protected Phases	2		1	6	4	4
Permitted Phases			6			
Actuated Green, G (s)	42.1			52.4	15.6	15.6
Effective Green, g (s)	42.1			52.4	15.6	15.6
Actuated g/C Ratio	0.53			0.65	0.19	0.19
Clearance Time (s)	6.0			6.0	6.0	6.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1476			1333	620	291
v/s Ratio Prot	0.09			c0.02	c0.10	0.08
v/s Ratio Perm				c0.13		
v/c Ratio	0.16			0.22	0.50	0.41
Uniform Delay, d1	9.8			5.6	28.7	28.1
Progression Factor	1.00			1.00	0.82	2.03
Incremental Delay, d2	0.2			0.1	0.6	0.9
Delay (s)	10.0			5.7	24.2	58.1
Level of Service	B			A	C	E
Approach Delay (s)	10.0			5.7	46.6	
Approach LOS	B			A	D	

Intersection Summary			
HCM 2000 Control Delay	30.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.8
Intersection Capacity Utilization	62.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	226	525	284	565	409	106
Future Volume (veh/h)	226	525	284	565	409	106
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1767	1796	1500	1796	1693	1530
Adj Flow Rate, veh/h	246	0	309	614	445	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	9	7	27	7	14	25
Cap, veh/h	294		366	2331	2223	
Arrive On Green	0.17	0.00	0.26	1.00	0.48	0.00
Sat Flow, veh/h	1682	1522	2771	3503	4773	1296
Grp Volume(v), veh/h	246	0	309	614	445	0
Grp Sat Flow(s),veh/h/ln	1682	1522	1386	1706	1540	1296
Q Serve(g_s), s	11.3	0.0	8.5	0.0	4.4	0.0
Cycle Q Clear(g_c), s	11.3	0.0	8.5	0.0	4.4	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	294		366	2331	2223	
V/C Ratio(X)	0.84		0.85	0.26	0.20	
Avail Cap(c_a), veh/h	715		395	2331	2223	
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.9	0.0	28.7	0.0	11.9	0.0
Incr Delay (d2), s/veh	6.3	0.0	14.6	0.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.7	0.0	5.5	0.2	2.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.2	0.0	43.3	0.3	12.1	0.0
LnGrp LOS	D		D	A	B	
Approach Vol, veh/h	246			923	445	
Approach Delay, s/veh	38.2			14.7	12.1	
Approach LOS	D			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.0		20.0	16.2	43.9
Change Period (Y+Rc), s		5.4		6.0	5.6	5.4
Max Green Setting (Gmax), s		34.6		34.0	11.4	17.6
Max Q Clear Time (g_c+I1), s		2.0		13.3	10.5	6.4
Green Ext Time (p_c), s		4.3		0.7	0.1	2.1

Intersection Summary	
HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	267	0	384	1	1	0	258	554	5	5	689	252
Future Volume (veh/h)	267	0	384	1	1	0	258	554	5	5	689	252
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1900	1826	1900	1900	1900	1441	1618	1604	1900	1752	1678
Adj Flow Rate, veh/h	303	0	0	1	1	0	293	630	5	6	783	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	7	0	5	0	0	0	31	19	20	0	10	15
Cap, veh/h	409	0		58	58	0	367	1858	15	398	1830	
Arrive On Green	0.12	0.00	0.00	0.06	0.06	0.00	0.14	0.59	0.59	0.77	0.77	0.00
Sat Flow, veh/h	3421	0	1547	927	927	0	2662	3127	25	805	4782	1422
Grp Volume(v), veh/h	303	0	0	2	0	0	293	310	325	6	783	0
Grp Sat Flow(s),veh/h/ln	1711	0	1547	1854	0	0	1331	1537	1614	805	1594	1422
Q Serve(g_s), s	6.8	0.0	0.0	0.1	0.0	0.0	8.5	8.2	8.2	0.1	4.6	0.0
Cycle Q Clear(g_c), s	6.8	0.0	0.0	0.1	0.0	0.0	8.5	8.2	8.2	0.1	4.6	0.0
Prop In Lane	1.00		1.00	0.50		0.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	409	0		116	0	0	367	914	959	398	1830	
V/C Ratio(X)	0.74	0.00		0.02	0.00	0.00	0.80	0.34	0.34	0.02	0.43	
Avail Cap(c_a), veh/h	770	0		116	0	0	536	914	959	398	1830	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.0	0.0	0.0	35.2	0.0	0.0	33.4	8.2	8.2	5.8	6.3	0.0
Incr Delay (d2), s/veh	2.7	0.0	0.0	0.1	0.0	0.0	5.3	1.0	1.0	0.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.3	0.0	0.0	0.1	0.0	0.0	5.3	4.7	4.9	0.1	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.7	0.0	0.0	35.3	0.0	0.0	38.7	9.3	9.2	5.9	7.1	0.0
LnGrp LOS	D	A		D	A	A	D	A	A	A	A	
Approach Vol, veh/h		303			2			928			789	
Approach Delay, s/veh		36.7			35.3			18.5			7.1	
Approach LOS		D			D			B			A	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		53.4		15.6	16.9	36.5		11.0				
Change Period (Y+Rc), s		5.9		6.0	5.9	5.9		6.0				
Max Green Setting (Gmax), s		39.1		18.0	16.1	17.1		5.0				
Max Q Clear Time (g_c+I1), s		10.2		8.8	10.5	6.6		2.1				
Green Ext Time (p_c), s		4.3		0.7	0.5	4.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		16.8
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	26	24	31	98	0	0	0	0	56	546	15
Future Volume (veh/h)	0	26	24	31	98	0	0	0	0	56	546	15
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1648	1292	1441	1856	0				1870	1796	1900
Adj Flow Rate, veh/h	0	30	2	36	114	0				65	635	16
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	17	41	31	3	0				2	7	0
Cap, veh/h	0	270	18	152	319	0				354	3699	96
Arrive On Green	0.00	0.09	0.09	0.09	0.09	0.00				0.80	0.80	0.80
Sat Flow, veh/h	0	3064	197	1061	3618	0				442	4622	120
Grp Volume(v), veh/h	0	16	16	36	114	0				261	218	237
Grp Sat Flow(s),veh/h/ln	0	1566	1613	1061	1763	0				1774	1635	1775
Q Serve(g_s), s	0.0	1.0	1.0	3.6	3.3	0.0				3.8	3.4	3.4
Cycle Q Clear(g_c), s	0.0	1.0	1.0	4.6	3.3	0.0				3.8	3.4	3.4
Prop In Lane	0.00		0.12	1.00		0.00				0.25		0.07
Lane Grp Cap(c), veh/h	0	142	146	152	319	0				1420	1308	1420
V/C Ratio(X)	0.00	0.11	0.11	0.24	0.36	0.00				0.18	0.17	0.17
Avail Cap(c_a), veh/h	0	384	396	316	865	0				1420	1308	1420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.79	0.79	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	45.9	46.0	48.1	47.0	0.0				2.6	2.5	2.5
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.6	0.5	0.0				0.3	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.7	0.8	1.7	2.7	0.0				2.0	1.6	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	46.3	46.3	48.7	47.5	0.0				2.9	2.8	2.8
LnGrp LOS	A	D	D	D	D	A				A	A	A
Approach Vol, veh/h		32			150						716	
Approach Delay, s/veh		46.3			47.8						2.8	
Approach LOS		D			D						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	94.0	16.0	16.0
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	71.0	27.0	27.0
Max Q Clear Time (g_c+I1), s	5.8	3.0	6.6
Green Ext Time (p_c), s	5.0	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	71	0	0	50	141	61	2222	42	0	0	0
Future Volume (veh/h)	17	71	0	0	50	141	61	2222	42	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1722	1841	0	0	1663	1841	1781	1870	1796			
Adj Flow Rate, veh/h	18	76	0	0	53	140	65	2364	44			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	12	4	0	0	16	4	8	2	7			
Cap, veh/h	67	252	0	0	195	174	131	5090	97			
Arrive On Green	0.12	0.12	0.00	0.00	0.12	0.12	0.25	0.25	0.25			
Sat Flow, veh/h	149	2128	0	0	1663	1409	170	6630	126			
Grp Volume(v), veh/h	38	56	0	0	53	140	712	1118	643			
Grp Sat Flow(s),veh/h/ln	602	1591	0	0	1580	1409	1862	1609	1848			
Q Serve(g_s), s	0.2	3.5	0.0	0.0	3.3	10.6	35.9	32.3	32.3			
Cycle Q Clear(g_c), s	10.9	3.5	0.0	0.0	3.3	10.6	35.9	32.3	32.3			
Prop In Lane	0.48		0.00	0.00		1.00	0.09		0.07			
Lane Grp Cap(c), veh/h	123	196	0	0	195	174	1429	2470	1418			
V/C Ratio(X)	0.31	0.29	0.00	0.00	0.27	0.81	0.50	0.45	0.45			
Avail Cap(c_a), veh/h	299	391	0	0	388	346	1429	2470	1418			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.99	0.99	0.00	0.00	1.00	1.00	0.69	0.69	0.69			
Uniform Delay (d), s/veh	43.5	43.8	0.0	0.0	43.8	46.9	22.9	21.6	21.6			
Incr Delay (d2), s/veh	1.4	0.8	0.0	0.0	0.7	8.5	0.9	0.4	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	1.7	2.6	0.0	0.0	2.4	7.4	24.0	19.1	21.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	44.6	0.0	0.0	44.5	55.5	23.8	22.0	22.3			
LnGrp LOS	D	D	A	A	D	E	C	C	C			
Approach Vol, veh/h		94			193			2473				
Approach Delay, s/veh		44.7			52.4			22.6				
Approach LOS		D			D			C				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	90.4	19.6	19.6
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	71.0	27.0	27.0
Max Q Clear Time (g_c+I1), s	37.9	12.9	12.6
Green Ext Time (p_c), s	24.2	0.3	0.9

Intersection Summary	
HCM 6th Ctrl Delay	25.4
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	108	1	16	106	0	0	0	0	68	109	37
Future Volume (veh/h)	0	108	1	16	106	0	0	0	0	68	109	37
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1781	418	1900	1841	0				1856	1767	1470
Adj Flow Rate, veh/h	0	126	1	19	123	0				79	127	5
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	8	100	0	4	0				3	9	29
Cap, veh/h	0	2427	19	994	2466	0				248	472	175
Arrive On Green	0.00	0.71	0.71	0.71	0.71	0.00				0.14	0.14	0.14
Sat Flow, veh/h	0	3531	27	1284	3589	0				1767	3357	1246
Grp Volume(v), veh/h	0	62	65	19	123	0				79	127	5
Grp Sat Flow(s),veh/h/ln	0	1692	1777	1284	1749	0				1767	1678	1246
Q Serve(g_s), s	0.0	0.8	0.8	0.3	0.8	0.0				2.8	2.4	0.2
Cycle Q Clear(g_c), s	0.0	0.8	0.8	1.1	0.8	0.0				2.8	2.4	0.2
Prop In Lane	0.00		0.02	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1193	1253	994	2466	0				248	472	175
V/C Ratio(X)	0.00	0.05	0.05	0.02	0.05	0.00				0.32	0.27	0.03
Avail Cap(c_a), veh/h	0	1193	1253	994	2466	0				649	1232	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.97	0.97	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	3.2	3.2	3.3	3.2	0.0				27.1	26.9	26.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	0.0	0.0				0.7	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.4	0.4	0.1	0.3	0.0				2.1	1.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	3.2	3.2	3.4	3.2	0.0				27.8	27.2	26.0
LnGrp LOS	A	A	A	A	A	A				C	C	C
Approach Vol, veh/h		127			142						211	
Approach Delay, s/veh		3.2			3.2						27.4	
Approach LOS		A			A						C	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	54.9	15.1	54.9
Change Period (Y+Rc), s	5.5	* 5.3	5.5
Max Green Setting (Gmax), s	33.5	* 26	33.5
Max Q Clear Time (g_c+I1), s	3.1	4.8	2.8
Green Ext Time (p_c), s	0.8	0.9	0.7

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	120	0	0	106	84	2	372	49	0	0	0
Future Volume (veh/h)	55	120	0	0	106	84	2	372	49	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1544	1900	0	0	1856	1648	1900	1856	1870			
Adj Flow Rate, veh/h	63	138	0	0	122	66	2	428	9			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	24	0	0	0	3	17	0	3	2			
Cap, veh/h	668	1570	0	0	1585	809	3	749	228			
Arrive On Green	0.70	0.70	0.00	0.00	0.70	0.70	0.14	0.14	0.14			
Sat Flow, veh/h	834	2323	0	0	2351	1152	23	5209	1585			
Grp Volume(v), veh/h	104	97	0	0	94	94	162	268	9			
Grp Sat Flow(s),veh/h/ln	1429	1643	0	0	1763	1648	1854	1689	1585			
Q Serve(g_s), s	0.0	1.3	0.0	0.0	1.2	1.3	5.7	5.2	0.3			
Cycle Q Clear(g_c), s	1.2	1.3	0.0	0.0	1.2	1.3	5.7	5.2	0.3			
Prop In Lane	0.61		0.00	0.00		0.70	0.01		1.00			
Lane Grp Cap(c), veh/h	1085	1153	0	0	1237	1157	267	486	228			
V/C Ratio(X)	0.10	0.08	0.00	0.00	0.08	0.08	0.61	0.55	0.04			
Avail Cap(c_a), veh/h	1085	1153	0	0	1237	1157	601	1095	514			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.81	0.81	1.00	1.00	1.00			
Uniform Delay (d), s/veh	3.3	3.3	0.0	0.0	3.3	3.3	28.1	27.9	25.8			
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.0	0.1	0.1	2.2	1.0	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	0.7	0.6	0.0	0.0	0.6	0.6	4.7	3.7	0.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.5	3.4	0.0	0.0	3.4	3.4	30.3	28.8	25.9			
LnGrp LOS	A	A	A	A	A	A	C	C	C			
Approach Vol, veh/h		201			188			439				
Approach Delay, s/veh		3.5			3.4			29.3				
Approach LOS		A			A			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		54.6				54.6		15.4				
Change Period (Y+Rc), s		5.5				5.5		5.3				
Max Green Setting (Gmax), s		36.5				36.5		22.7				
Max Q Clear Time (g_c+I1), s		3.3				3.3		7.7				
Green Ext Time (p_c), s		1.1				1.2		2.3				
Intersection Summary												
HCM 6th Ctrl Delay			17.2									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	169	20	33	173	215	15	196	33	19	10	11
Future Volume (veh/h)	24	169	20	33	173	215	15	196	33	19	10	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1870	1737	1707	1811	1885	1693	1870	1752	1900	1737	1900
Adj Flow Rate, veh/h	28	197	8	38	201	35	17	228	30	22	12	10
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	5	2	11	13	6	1	14	2	10	0	11	0
Cap, veh/h	74	370	15	88	342	213	165	2132	276	801	593	506
Arrive On Green	0.13	0.13	0.13	0.22	0.22	0.22	0.73	0.73	0.73	0.73	0.73	0.73
Sat Flow, veh/h	183	2777	115	258	2562	1598	164	2908	376	985	808	690
Grp Volume(v), veh/h	116	0	117	115	124	35	145	0	130	23	0	21
Grp Sat Flow(s),veh/h/ln	1395	0	1681	1254	1566	1598	1814	0	1634	1027	0	1456
Q Serve(g_s), s	1.5	0.0	5.8	2.7	6.4	1.6	0.0	0.0	2.1	0.4	0.0	0.4
Cycle Q Clear(g_c), s	7.8	0.0	5.8	8.5	6.4	1.6	2.0	0.0	2.1	2.5	0.0	0.4
Prop In Lane	0.24		0.07	0.33		1.00	0.12		0.23	0.96		0.47
Lane Grp Cap(c), veh/h	236	0	224	221	209	213	1375	0	1198	831	0	1068
V/C Ratio(X)	0.49	0.00	0.52	0.52	0.59	0.16	0.11	0.00	0.11	0.03	0.00	0.02
Avail Cap(c_a), veh/h	722	0	729	675	678	692	1375	0	1198	831	0	1068
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.90	0.90	0.90	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.5	0.0	36.3	33.3	32.8	30.9	3.5	0.0	3.5	3.7	0.0	3.2
Incr Delay (d2), s/veh	1.6	0.0	1.9	1.7	2.4	0.3	0.2	0.0	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.5	0.0	4.4	4.0	4.3	1.1	1.2	0.0	1.1	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	0.0	38.2	35.0	35.2	31.3	3.6	0.0	3.7	3.7	0.0	3.3
LnGrp LOS	D	A	D	C	D	C	A	A	A	A	A	A
Approach Vol, veh/h		233			274			275			44	
Approach Delay, s/veh		38.2			34.6			3.6			3.5	
Approach LOS		D			C			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	72.0	18.0	72.0	18.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	39.0	39.0	39.0	39.0
Max Q Clear Time (g_c+I1), s	4.1	9.8	4.5	10.5
Green Ext Time (p_c), s	1.7	1.4	0.2	1.5

Intersection Summary	
HCM 6th Ctrl Delay	23.6
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	169	53	117	187	34	263	624	445	14	117	18
Future Volume (veh/h)	10	169	53	117	187	34	263	624	445	14	117	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1870	1870	1796	1870	1900	1856	1885	1885	1900	1811	1811
Adj Flow Rate, veh/h	11	178	13	123	197	28	277	657	287	15	123	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	7	2	0	3	1	1	0	6	6
Cap, veh/h	24	284	21	226	244	35	831	2205	934	405	1688	95
Arrive On Green	0.01	0.08	0.08	0.07	0.15	0.15	0.08	0.58	0.58	0.01	0.51	0.51
Sat Flow, veh/h	1810	3360	243	3319	1602	228	1767	3770	1598	1810	3311	187
Grp Volume(v), veh/h	11	93	98	123	0	225	277	657	287	15	63	67
Grp Sat Flow(s),veh/h/ln	1810	1777	1827	1659	0	1829	1767	1885	1598	1810	1721	1777
Q Serve(g_s), s	0.5	4.6	4.6	3.2	0.0	10.7	6.5	7.9	4.2	0.4	1.7	1.7
Cycle Q Clear(g_c), s	0.5	4.6	4.6	3.2	0.0	10.7	6.5	7.9	4.2	0.4	1.7	1.7
Prop In Lane	1.00		0.13	1.00		0.12	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	24	150	154	226	0	279	831	2205	934	405	877	906
V/C Ratio(X)	0.46	0.62	0.63	0.54	0.00	0.81	0.33	0.30	0.31	0.04	0.07	0.07
Avail Cap(c_a), veh/h	141	529	544	258	0	545	831	2205	934	541	877	906
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.88	0.00	0.88	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	39.8	39.8	40.6	0.0	36.9	8.2	9.4	2.5	10.3	11.2	11.2
Incr Delay (d2), s/veh	10.8	3.5	3.6	1.8	0.0	4.8	0.2	0.3	0.9	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	3.8	4.0	2.4	0.0	8.5	4.1	5.5	4.5	0.3	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.9	43.3	43.4	42.4	0.0	41.7	8.5	9.7	3.3	10.3	11.4	11.4
LnGrp LOS	D	D	D	D	A	D	A	A	A	B	B	B
Approach Vol, veh/h		202			348			1221			145	
Approach Delay, s/veh		44.0			41.9			7.9			11.3	
Approach LOS		D			D			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.3	58.6	12.3	13.8	12.0	51.9	6.2	19.9
Change Period (Y+Rc), s	4.0	6.0	* 6.2	* 6.2	5.0	6.0	5.0	* 6.2
Max Green Setting (Gmax), s	8.0	27.0	* 7	* 27	7.0	27.0	7.0	* 27
Max Q Clear Time (g_c+I1), s	2.5	9.9	5.2	6.6	8.5	3.7	2.5	12.7
Green Ext Time (p_c), s	0.0	5.2	0.1	1.0	0.0	0.6	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	431	186	24	270	0	0	0	0	62	330	67
Future Volume (veh/h)	0	431	186	24	270	0	0	0	0	62	330	67
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1870	1900	1856	0				1900	1885	1811
Adj Flow Rate, veh/h	0	459	94	26	287	0				66	351	71
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	1	2	0	3	0				0	1	6
Cap, veh/h	0	642	131	63	599	0				1166	2784	545
Arrive On Green	0.00	0.07	0.07	0.22	0.22	0.00				0.64	0.64	0.64
Sat Flow, veh/h	0	3059	603	77	2849	0				1810	4319	845
Grp Volume(v), veh/h	0	276	277	155	158	0				66	276	146
Grp Sat Flow(s),veh/h/ln	0	1791	1777	1238	1604	0				1810	1716	1733
Q Serve(g_s), s	0.0	13.6	13.7	0.6	7.7	0.0				1.2	2.8	2.9
Cycle Q Clear(g_c), s	0.0	13.6	13.7	14.3	7.7	0.0				1.2	2.8	2.9
Prop In Lane	0.00		0.34	0.17		0.00				1.00		0.49
Lane Grp Cap(c), veh/h	0	388	385	315	347	0				1166	2212	1117
V/C Ratio(X)	0.00	0.71	0.72	0.49	0.46	0.00				0.06	0.12	0.13
Avail Cap(c_a), veh/h	0	1035	1026	874	927	0				1166	2212	1117
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.91	0.91	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	39.0	39.1	30.3	30.6	0.0				5.9	6.2	6.2
Incr Delay (d2), s/veh	0.0	2.2	2.3	1.2	0.9	0.0				0.1	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	10.8	10.8	5.3	5.4	0.0				0.8	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	41.3	41.4	31.5	31.6	0.0				6.0	6.3	6.4
LnGrp LOS	A	D	D	C	C	A				A	A	A
Approach Vol, veh/h		553			313						488	
Approach Delay, s/veh		41.3			31.5						6.3	
Approach LOS		D			C						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	64.5	25.5	25.5
Change Period (Y+Rc), s	6.5	6.0	6.0
Max Green Setting (Gmax), s	25.5	52.0	52.0
Max Q Clear Time (g_c+I1), s	4.9	15.7	16.3
Green Ext Time (p_c), s	2.8	3.8	2.0

Intersection Summary	
HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	340	179	0	0	0	0	0	450	108
Future Volume (veh/h)	0	0	0	340	179	0	0	0	0	0	450	108
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1737	1707	0				0	1767	1752
Adj Flow Rate, veh/h				362	190	0				0	479	0
Peak Hour Factor				0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %				11	13	0				0	9	10
Cap, veh/h				1911	986	0				0	746	
Arrive On Green				0.58	0.58	0.00				0.00	0.07	0.00
Sat Flow, veh/h				3309	1707	0				0	3445	1485
Grp Volume(v), veh/h				362	190	0				0	479	0
Grp Sat Flow(s),veh/h/ln				1654	1707	0				0	1678	1485
Q Serve(g_s), s				2.9	2.9	0.0				0.0	7.6	0.0
Cycle Q Clear(g_c), s				2.9	2.9	0.0				0.0	7.6	0.0
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1911	986	0				0	746	
V/C Ratio(X)				0.19	0.19	0.00				0.00	0.64	
Avail Cap(c_a), veh/h				1911	986	0				0	1373	
HCM Platoon Ratio				1.00	1.00	1.00				1.00	0.33	0.33
Upstream Filter(I)				0.95	0.95	0.00				0.00	0.99	0.00
Uniform Delay (d), s/veh				5.5	5.5	0.0				0.0	23.4	0.0
Incr Delay (d2), s/veh				0.2	0.4	0.0				0.0	0.9	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				1.4	1.6	0.0				0.0	5.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				5.7	5.9	0.0				0.0	24.3	0.0
LnGrp LOS				A	A	A				A	C	
Approach Vol, veh/h					552						479	
Approach Delay, s/veh					5.8						24.3	
Approach LOS					A						C	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	37.3	17.7
Change Period (Y+Rc), s	5.5	5.5
Max Green Setting (Gmax), s	21.5	22.5
Max Q Clear Time (g_c+I1), s	4.9	9.6
Green Ext Time (p_c), s	2.3	2.6

Intersection Summary	
HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	262	742	188	1269	0	0	0	0
Future Volume (veh/h)	0	0	0	0	262	742	188	1269	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1767	1885	1707	1856	0			
Adj Flow Rate, veh/h				0	279	757	200	1350	0			
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %				0	9	1	13	3	0			
Cap, veh/h				0	767	1220	595	1854	0			
Arrive On Green				0.00	0.43	0.43	0.37	0.37	0.00			
Sat Flow, veh/h				0	1767	2812	1626	5233	0			
Grp Volume(v), veh/h				0	279	757	200	1350	0			
Grp Sat Flow(s),veh/h/ln				0	1767	1406	1626	1689	0			
Q Serve(g_s), s				0.0	5.8	11.5	4.9	12.7	0.0			
Cycle Q Clear(g_c), s				0.0	5.8	11.5	4.9	12.7	0.0			
Prop In Lane				0.00		1.00	1.00		0.00			
Lane Grp Cap(c), veh/h				0	767	1220	595	1854	0			
V/C Ratio(X)				0.00	0.36	0.62	0.34	0.73	0.00			
Avail Cap(c_a), veh/h				0	767	1220	665	2072	0			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.85	0.85	0.00			
Uniform Delay (d), s/veh				0.0	10.5	12.1	12.6	15.1	0.0			
Incr Delay (d2), s/veh				0.0	1.3	2.4	0.3	1.0	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln				0.0	4.0	6.1	2.9	7.5	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	11.8	14.4	12.9	16.1	0.0			
LnGrp LOS				A	B	B	B	B	A			
Approach Vol, veh/h					1036			1550				
Approach Delay, s/veh					13.7			15.7				
Approach LOS					B			B				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						29.4		25.6				
Change Period (Y+Rc), s						5.5		5.5				
Max Green Setting (Gmax), s						21.5		22.5				
Max Q Clear Time (g_c+I1), s						13.5		14.7				
Green Ext Time (p_c), s						3.2		5.5				
Intersection Summary												
HCM 6th Ctrl Delay			14.9									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	370	151	0	0	0	0	0	0	170	529	0
Future Volume (veh/h)	0	370	151	0	0	0	0	0	0	170	529	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1841	1648							1767	1722	0
Adj Flow Rate, veh/h	0	430	0							198	615	0
Peak Hour Factor	0.86	0.86	0.86							0.86	0.86	0.86
Percent Heavy Veh, %	0	4	17							9	12	0
Cap, veh/h	0	2599								476	926	0
Arrive On Green	0.00	0.52	0.00							0.09	0.09	0.00
Sat Flow, veh/h	0	5191	1397							1682	3358	0
Grp Volume(v), veh/h	0	430	0							198	615	0
Grp Sat Flow(s),veh/h/ln	0	1675	1397							1682	1636	0
Q Serve(g_s), s	0.0	2.5	0.0							6.1	10.0	0.0
Cycle Q Clear(g_c), s	0.0	2.5	0.0							6.1	10.0	0.0
Prop In Lane	0.00		1.00							1.00		0.00
Lane Grp Cap(c), veh/h	0	2599								476	926	0
V/C Ratio(X)	0.00	0.17								0.42	0.66	0.00
Avail Cap(c_a), veh/h	0	2599								688	1339	0
HCM Platoon Ratio	1.00	1.00	1.00							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	0.00							0.89	0.89	0.00
Uniform Delay (d), s/veh	0.0	7.0	0.0							20.6	22.4	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0							0.5	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	1.3	0.0							4.4	7.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.1	0.0							21.2	23.1	0.0
LnGrp LOS	A	A								C	C	A
Approach Vol, veh/h		430									813	
Approach Delay, s/veh		7.1									22.7	
Approach LOS		A									C	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	33.9	21.1
Change Period (Y+Rc), s	5.5	5.5
Max Green Setting (Gmax), s	21.5	22.5
Max Q Clear Time (g_c+I1), s	4.5	12.0
Green Ext Time (p_c), s	2.7	3.6

Intersection Summary	
HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	382	201	0	0	0	0	0	1100	294	0	0	0
Future Volume (veh/h)	382	201	0	0	0	0	0	1100	294	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1856	1826	0				0	1841	1574			
Adj Flow Rate, veh/h	429	226	0				0	1236	0			
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89			
Percent Heavy Veh, %	3	5	0				0	4	22			
Cap, veh/h	1556	829	0				0	1739				
Arrive On Green	0.15	0.15	0.00				0.00	0.35	0.00			
Sat Flow, veh/h	3428	1826	0				0	5191	1334			
Grp Volume(v), veh/h	429	226	0				0	1236	0			
Grp Sat Flow(s),veh/h/ln	1714	1826	0				0	1675	1334			
Q Serve(g_s), s	6.1	6.0	0.0				0.0	11.7	0.0			
Cycle Q Clear(g_c), s	6.1	6.0	0.0				0.0	11.7	0.0			
Prop In Lane	1.00		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1556	829	0				0	1739				
V/C Ratio(X)	0.28	0.27	0.00				0.00	0.71				
Avail Cap(c_a), veh/h	1556	829	0				0	2056				
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	0.98	0.98	0.00				0.00	0.77	0.00			
Uniform Delay (d), s/veh	15.4	15.3	0.0				0.0	15.6	0.0			
Incr Delay (d2), s/veh	0.4	0.8	0.0				0.0	0.7	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	4.2	4.6	0.0				0.0	6.9	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.8	16.1	0.0				0.0	16.3	0.0			
LnGrp LOS	B	B	A				A	B				
Approach Vol, veh/h		655						1236				
Approach Delay, s/veh		15.9						16.3				
Approach LOS		B						B				

Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						30.5		24.5				
Change Period (Y+Rc), s						5.5		5.5				
Max Green Setting (Gmax), s						21.5		22.5				
Max Q Clear Time (g_c+I1), s						8.1		13.7				
Green Ext Time (p_c), s						2.5		5.3				

Intersection Summary												
HCM 6th Ctrl Delay			16.2									
HCM 6th LOS			B									

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR2	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	102	83	37	51	299	277	111	937	119	142	311	232
Future Volume (vph)	102	83	37	51	299	277	111	937	119	142	311	232
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.7	6.7	5.0	6.7	6.7	5.0	6.5	5.0	5.0	6.5	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1337	3034	1252	1656	3505	1509	1719	3374	1404	1703	3112	1553
Flt Permitted	0.51	1.00	1.00	0.63	1.00	1.00	0.55	1.00	1.00	0.16	1.00	1.00
Satd. Flow (perm)	714	3034	1252	1098	3505	1509	988	3374	1404	291	3112	1553
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	112	91	41	56	329	304	122	1030	131	156	342	255
RTOR Reduction (vph)	0	0	35	0	0	238	0	0	116	0	0	230
Lane Group Flow (vph)	112	91	6	56	329	66	122	1030	15	156	342	25
Heavy Vehicles (%)	35%	19%	29%	9%	3%	7%	5%	7%	15%	6%	16%	4%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Over	pm+pt	NA	custom
Protected Phases	3	8		7	4		1	6	7	5	2	3
Permitted Phases	8		8	4		4	6			2		
Actuated Green, G (s)	27.1	16.5	16.5	30.5	18.2	18.2	57.2	48.8	12.3	58.8	49.6	10.6
Effective Green, g (s)	27.1	16.5	16.5	30.5	18.2	18.2	57.2	48.8	12.3	58.8	49.6	10.6
Actuated g/C Ratio	0.25	0.15	0.15	0.28	0.17	0.17	0.52	0.44	0.11	0.53	0.45	0.10
Clearance Time (s)	5.0	6.7	6.7	5.0	6.7	6.7	5.0	6.5	5.0	5.0	6.5	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	235	455	187	366	579	249	569	1496	156	273	1403	149
v/s Ratio Prot	c0.05	0.03		0.02	c0.09		0.02	c0.31	0.01	c0.05	0.11	0.02
v/s Ratio Perm	0.07		0.00	0.03		0.04	0.09			0.26		
v/c Ratio	0.48	0.20	0.03	0.15	0.57	0.27	0.21	0.69	0.09	0.57	0.24	0.16
Uniform Delay, d1	34.1	41.0	39.9	29.7	42.3	40.1	13.6	24.5	43.8	15.9	18.6	45.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.44	0.81	2.33
Incremental Delay, d2	1.5	0.2	0.1	0.2	1.3	0.6	0.2	2.6	0.3	2.7	0.4	0.5
Delay (s)	35.6	41.2	40.0	29.9	43.6	40.6	13.8	27.1	44.1	25.7	15.4	106.8
Level of Service	D	D	D	C	D	D	B	C	D	C	B	F
Approach Delay (s)		38.4			41.2			27.6			48.5	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	36.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	23.2
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	0	44	20	2	4	112	1327	20	1	1413	16
Future Volume (veh/h)	8	0	44	20	2	4	112	1327	20	1	1413	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1515	1900	1900	1530	1781	1841	1826	1900	1856	1900
Adj Flow Rate, veh/h	9	0	4	21	2	0	119	1412	20	1	1503	11
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	26	0	0	25	8	4	5	0	3	0
Cap, veh/h	208	0	133	188	14	0	148	2592	37	2	2286	1044
Arrive On Green	0.08	0.00	0.08	0.08	0.08	0.00	0.09	0.73	0.73	0.00	0.65	0.65
Sat Flow, veh/h	1437	0	1610	1301	176	0	1697	3530	50	1810	3526	1610
Grp Volume(v), veh/h	9	0	4	23	0	0	119	699	733	1	1503	11
Grp Sat Flow(s),veh/h/ln	1437	0	1610	1477	0	0	1697	1749	1832	1810	1763	1610
Q Serve(g_s), s	0.0	0.0	0.2	1.0	0.0	0.0	5.9	15.0	15.1	0.0	22.2	0.2
Cycle Q Clear(g_c), s	0.4	0.0	0.2	1.2	0.0	0.0	5.9	15.0	15.1	0.0	22.2	0.2
Prop In Lane	1.00		1.00	0.91		0.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	208	0	133	203	0	0	148	1284	1345	2	2286	1044
V/C Ratio(X)	0.04	0.00	0.03	0.11	0.00	0.00	0.81	0.54	0.55	0.47	0.66	0.01
Avail Cap(c_a), veh/h	420	0	369	418	0	0	164	1284	1345	175	2286	1044
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.62	0.62	0.62	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	0.0	35.9	36.3	0.0	0.0	38.1	5.0	5.0	42.4	9.2	5.3
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.2	0.0	0.0	15.4	1.0	1.0	110.6	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	0.0	0.1	0.8	0.0	0.0	5.3	7.0	7.2	0.2	12.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	0.0	36.0	36.6	0.0	0.0	53.5	6.0	6.0	153.0	10.7	5.3
LnGrp LOS	D	A	D	D	A	A	D	A	A	F	B	A
Approach Vol, veh/h		13			23			1551			1515	
Approach Delay, s/veh		36.0			36.6			9.7			10.7	
Approach LOS		D			D			A			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.9	67.6		12.5	12.2	60.3		12.5
Change Period (Y+Rc), s	* 4.8	5.2		5.5	* 4.8	5.2		5.5
Max Green Setting (Gmax), s	* 8.2	41.8		19.5	* 8.2	41.8		19.5
Max Q Clear Time (g_c+I1), s	2.0	17.1		3.2	7.9	24.2		2.4
Green Ext Time (p_c), s	0.0	11.8		0.0	0.0	10.8		0.0

Intersection Summary	
HCM 6th Ctrl Delay	10.5
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	282	0	378	0	1059	265	0	442	527	0	0
Future Volume (veh/h)	282	0	378	0	1059	265	0	442	527	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach		No			No			No			
Adj Sat Flow, veh/h/ln	1811	1811	1796	0	1767	1781	0	1826	1796		
Adj Flow Rate, veh/h	328	328	0	0	1231	0	0	514	0		
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86		
Percent Heavy Veh, %	6	6	7	0	9	8	0	5	7		
Cap, veh/h	373	373		0	2202		0	2276			
Arrive On Green	0.22	0.22	0.00	0.00	0.66	0.00	0.00	0.66	0.00		
Sat Flow, veh/h	1725	1725	1522	0	3445	1510	0	3561	1522		
Grp Volume(v), veh/h	328	328	0	0	1231	0	0	514	0		
Grp Sat Flow(s),veh/h/ln	1725	1725	1522	0	1678	1510	0	1735	1522		
Q Serve(g_s), s	16.6	16.6	0.0	0.0	17.9	0.0	0.0	5.4	0.0		
Cycle Q Clear(g_c), s	16.6	16.6	0.0	0.0	17.9	0.0	0.0	5.4	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	373	373		0	2202		0	2276			
V/C Ratio(X)	0.88	0.88		0.00	0.56		0.00	0.23			
Avail Cap(c_a), veh/h	652	652		0	2202		0	2276			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.61	0.00		
Uniform Delay (d), s/veh	34.1	34.1	0.0	0.0	8.4	0.0	0.0	6.2	0.0		
Incr Delay (d2), s/veh	6.9	6.9	0.0	0.0	1.0	0.0	0.0	0.1	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	12.0	12.0	0.0	0.0	9.8	0.0	0.0	3.2	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	41.1	41.1	0.0	0.0	9.4	0.0	0.0	6.4	0.0		
LnGrp LOS	D	D		A	A		A	A			
Approach Vol, veh/h	328	328			1231			514			
Approach Delay, s/veh	41.1	41.1			9.4			6.4			
Approach LOS	D	D			A			A			

Timer - Assigned Phs	2			6		8			
Phs Duration (G+Y+Rc), s	64.6			64.6		25.4			
Change Period (Y+Rc), s	5.5			5.5		6.0			
Max Green Setting (Gmax), s	44.5			44.5		34.0			
Max Q Clear Time (g_c+I1), s	19.9			7.4		18.6			
Green Ext Time (p_c), s	10.4			3.9		0.9			

Intersection Summary									
HCM 6th Ctrl Delay		13.7							
HCM 6th LOS		B							

Notes

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

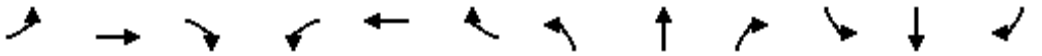
Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	399	0	0	806	0	516	203	192	531	0
Future Vol, veh/h	0	0	399	0	0	806	0	516	203	192	531	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	Yield	-	-	None
Storage Length	-	-	0	-	-	0	-	-	300	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	9	0	0	11	0	5	7	6	6	0
Mvmt Flow	0	0	459	0	0	926	0	593	233	221	610	0

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	-	-	305			-	0	0	593	0	0
Stage 1	-	-	-			-	-	-	-	-	-
Stage 2	-	-	-			-	-	-	-	-	-
Critical Hdwy	-	-	7.08			-	-	-	4.22	-	-
Critical Hdwy Stg 1	-	-	-			-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-			-	-	-	-	-	-
Follow-up Hdwy	-	-	3.39			-	-	-	2.26	-	-
Pot Cap-1 Maneuver	0	0	671			0	-	-	952	-	0
Stage 1	0	0	-			0	-	-	-	-	0
Stage 2	0	0	-			0	-	-	-	-	0
Platoon blocked, %							-	-		-	
Mov Cap-1 Maneuver	-	0	671			-	-	-	952	-	-
Mov Cap-2 Maneuver	-	0	-			-	-	-	-	-	-
Stage 1	-	0	-			-	-	-	-	-	-
Stage 2	-	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.1	0	2.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	671	952	-
HCM Lane V/C Ratio	-	-	0.683	0.232	-
HCM Control Delay (s)	-	-	21.1	9.9	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	5.4	0.9	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	11	25	9	10	69	23	532	5	130	572	242
Future Volume (veh/h)	88	11	25	9	10	69	23	532	5	130	572	242
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1633	1767	1544	1737	1752	1589	1648	1856	1900	1678	1841	1781
Adj Flow Rate, veh/h	98	12	8	10	11	11	26	591	5	144	636	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	18	9	24	11	10	21	17	3	0	15	4	8
Cap, veh/h	216	22	10	277	96	96	114	2351	20	578	2479	
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.71	0.71	0.71	0.71	0.71	0.00
Sat Flow, veh/h	1014	184	87	1293	804	804	82	3317	28	737	3497	1510
Grp Volume(v), veh/h	118	0	0	10	0	22	318	0	304	144	636	0
Grp Sat Flow(s),veh/h/ln	1285	0	0	1293	0	1607	1744	0	1684	737	1749	1510
Q Serve(g_s), s	5.5	0.0	0.0	0.0	0.0	0.9	0.0	0.0	4.5	6.0	4.5	0.0
Cycle Q Clear(g_c), s	6.4	0.0	0.0	0.4	0.0	0.9	4.2	0.0	4.5	10.5	4.5	0.0
Prop In Lane	0.83		0.07	1.00		0.50	0.08		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	248	0	0	277	0	193	1291	0	1193	578	2479	
V/C Ratio(X)	0.48	0.00	0.00	0.04	0.00	0.11	0.25	0.00	0.25	0.25	0.26	
Avail Cap(c_a), veh/h	590	0	0	603	0	597	1291	0	1193	578	2479	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.1	0.0	0.0	27.3	0.0	27.5	3.6	0.0	3.6	5.5	3.6	0.0
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.1	0.0	0.3	0.5	0.0	0.5	1.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.5	0.0	0.0	0.3	0.0	0.6	2.2	0.0	2.2	1.6	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	0.0	0.0	27.3	0.0	27.8	4.0	0.0	4.1	6.5	3.9	0.0
LnGrp LOS	C	A	A	C	A	C	A	A	A	A	A	
Approach Vol, veh/h		118			32			622			780	
Approach Delay, s/veh		31.5			27.6			4.1			4.4	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		55.6		14.4		55.6		14.4				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		32.0		26.0		32.0		26.0				
Max Q Clear Time (g_c+I1), s		6.5		8.4		12.5		2.9				
Green Ext Time (p_c), s		4.1		0.5		5.5		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			6.8									
HCM 6th LOS			A									

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	287	0	379	0	1137	468	0	590	669	0	0
Future Volume (veh/h)	287	0	379	0	1137	468	0	590	669	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach		No			No			No			
Adj Sat Flow, veh/h/ln	1856	1856	1841	0	1811	1826	0	1826	1796		
Adj Flow Rate, veh/h	302	302	0	0	1197	0	0	621	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	3	3	4	0	6	5	0	5	7		
Cap, veh/h	397	397		0	3818		0	3849			
Arrive On Green	0.12	0.12	0.00	0.00	1.00	0.00	0.00	0.77	0.00		
Sat Flow, veh/h	3428	3428	1560	0	5107	1547	0	5149	1522		
Grp Volume(v), veh/h	302	302	0	0	1197	0	0	621	0		
Grp Sat Flow(s),veh/h/ln	1714	1714	1560	0	1648	1547	0	1662	1522		
Q Serve(g_s), s	8.5	8.5	0.0	0.0	0.0	0.0	0.0	3.2	0.0		
Cycle Q Clear(g_c), s	8.5	8.5	0.0	0.0	0.0	0.0	0.0	3.2	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	397	397		0	3818		0	3849			
V/C Ratio(X)	0.76	0.76		0.00	0.31		0.00	0.16			
Avail Cap(c_a), veh/h	1731	1731		0	3818		0	3849			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	42.9	42.9	0.0	0.0	0.0	0.0	0.0	3.0	0.0		
Incr Delay (d2), s/veh	3.0	3.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	6.6	6.6	0.0	0.0	0.1	0.0	0.0	1.3	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	45.9	45.9	0.0	0.0	0.2	0.0	0.0	3.1	0.0		
LnGrp LOS	D	D		A	A		A	A			
Approach Vol, veh/h	302	302			1197			621			
Approach Delay, s/veh	45.9	45.9			0.2			3.1			
Approach LOS	D	D			A			A			

Timer - Assigned Phs	2	6	8
Phs Duration (G+Y+Rc), s	82.9	82.9	17.1
Change Period (Y+Rc), s	* 5.7	* 5.7	5.5
Max Green Setting (Gmax), s	* 38	* 38	50.5
Max Q Clear Time (g_c+I1), s	2.0	5.2	10.5
Green Ext Time (p_c), s	10.2	4.4	1.0

Intersection Summary	
HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	600	0	410	0	1008	415	0	644	238	0	0
Future Volume (veh/h)	600	0	410	0	1008	415	0	644	238	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach		No			No			No			
Adj Sat Flow, veh/h/ln	1752	1752	1841	0	1856	1856	0	1856	1767		
Adj Flow Rate, veh/h	652	652	0	0	1096	0	0	700	0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	10	10	4	0	3	3	0	3	9		
Cap, veh/h	767	767		0	2253		0	3238			
Arrive On Green	0.24	0.24	0.00	0.00	0.64	0.00	0.00	1.00	0.00		
Sat Flow, veh/h	3237	3237	1560	0	3618	1572	0	5233	1497		
Grp Volume(v), veh/h	652	652	0	0	1096	0	0	700	0		
Grp Sat Flow(s),veh/h/ln	1618	1618	1560	0	1763	1572	0	1689	1497		
Q Serve(g_s), s	19.3	19.3	0.0	0.0	16.3	0.0	0.0	0.0	0.0		
Cycle Q Clear(g_c), s	19.3	19.3	0.0	0.0	16.3	0.0	0.0	0.0	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	767	767		0	2253		0	3238			
V/C Ratio(X)	0.85	0.85		0.00	0.49		0.00	0.22			
Avail Cap(c_a), veh/h	1612	1612		0	2253		0	3238			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	36.5	36.5	0.0	0.0	9.4	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	2.8	2.8	0.0	0.0	0.8	0.0	0.0	0.2	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	12.0	12.0	0.0	0.0	9.4	0.0	0.0	0.1	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	39.2	39.2	0.0	0.0	10.2	0.0	0.0	0.2	0.0		
LnGrp LOS	D	D		A	B		A	A			
Approach Vol, veh/h	652	652			1096			700			
Approach Delay, s/veh	39.2	39.2			10.2			0.2			
Approach LOS	D	D			B			A			

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	70.1	29.9	70.1
Change Period (Y+Rc), s	6.2	6.2	6.2
Max Green Setting (Gmax), s	37.8	49.8	37.8
Max Q Clear Time (g_c+I1), s	18.3	21.3	2.0
Green Ext Time (p_c), s	7.5	2.4	5.1

Intersection Summary	
HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	331	42	478	49	19	16	448	1440	87	7	478	268
Future Volume (veh/h)	331	42	478	49	19	16	448	1440	87	7	478	268
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1693	1870	1203	1381	1589	1811	1826	1767	1648	1722	1707
Adj Flow Rate, veh/h	368	47	0	54	21	1	498	1600	89	8	531	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	7	14	2	47	35	21	6	5	9	17	12	13
Cap, veh/h	402	362		148	215	110	568	2233	124	184	1422	
Arrive On Green	0.18	0.21	0.00	0.05	0.08	0.08	0.34	0.92	0.92	0.01	0.30	0.00
Sat Flow, veh/h	1711	1693	1585	1146	2624	1346	3346	4832	269	1570	4701	1447
Grp Volume(v), veh/h	368	47	0	54	21	1	498	1100	589	8	531	0
Grp Sat Flow(s),veh/h/ln	1711	1693	1585	1146	1312	1346	1673	1662	1778	1570	1567	1447
Q Serve(g_s), s	12.6	1.8	0.0	3.8	0.6	0.0	11.2	5.9	5.9	0.3	7.1	0.0
Cycle Q Clear(g_c), s	12.6	1.8	0.0	3.8	0.6	0.0	11.2	5.9	5.9	0.3	7.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	402	362		148	215	110	568	1536	821	184	1422	
V/C Ratio(X)	0.92	0.13		0.37	0.10	0.01	0.88	0.72	0.72	0.04	0.37	
Avail Cap(c_a), veh/h	402	362		185	282	145	632	1536	821	405	1422	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.4	25.4	0.0	37.8	34.0	24.3	25.6	1.9	1.9	19.0	21.9	0.0
Incr Delay (d2), s/veh	25.4	0.2	0.0	1.5	0.2	0.0	12.3	2.9	5.3	0.1	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.1	1.2	0.0	1.9	0.3	0.0	7.7	2.3	3.5	0.2	4.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.8	25.6	0.0	39.3	34.2	24.3	37.9	4.7	7.2	19.1	22.7	0.0
LnGrp LOS	E	C		D	C	C	D	A	A	B	C	
Approach Vol, veh/h		415			76			2187			539	
Approach Delay, s/veh		52.4			37.7			12.9			22.6	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	42.4	9.4	22.5	18.5	29.6	20.0	11.9
Change Period (Y+Rc), s	* 4.9	* 5.4	* 5.4	* 5.4	* 4.9	* 5.4	* 5.4	* 5.4
Max Green Setting (Gmax), s	* 12	* 24	* 6.6	* 17	* 15	* 21	* 15	* 8.6
Max Q Clear Time (g_c+I1), s	2.3	7.9	5.8	3.8	13.2	9.1	14.6	2.6
Green Ext Time (p_c), s	0.0	9.5	0.0	0.1	0.4	2.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	371	381	279	1676	909	106
Future Volume (veh/h)	371	381	279	1676	909	106
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1767	1796	1841	1841	1811	1381
Adj Flow Rate, veh/h	408	0	307	1842	999	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	9	7	4	4	6	35
Cap, veh/h	509		402	3531	3252	
Arrive On Green	0.16	0.00	0.24	1.00	1.00	0.00
Sat Flow, veh/h	3264	2679	3401	5191	6484	1171
Grp Volume(v), veh/h	408	0	307	1842	999	0
Grp Sat Flow(s),veh/h/ln	1632	1340	1700	1675	1558	1171
Q Serve(g_s), s	9.6	0.0	6.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.6	0.0	6.7	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	509		402	3531	3252	
V/C Ratio(X)	0.80		0.76	0.52	0.31	
Avail Cap(c_a), veh/h	743		808	3531	3252	
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.47	0.47	1.00	0.00
Uniform Delay (d), s/veh	32.6	0.0	29.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	4.0	0.0	1.4	0.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.1	0.0	4.1	0.2	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.5	0.0	30.9	0.3	0.2	0.0
LnGrp LOS	D		C	A	A	
Approach Vol, veh/h	408			2149	999	
Approach Delay, s/veh	36.5			4.6	0.2	
Approach LOS	D			A	A	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	61.7		18.3	14.5	47.3
Change Period (Y+Rc), s	5.5		* 5.8	5.0	5.5
Max Green Setting (Gmax), s	50.5		* 18	19.0	26.5
Max Q Clear Time (g_c+I1), s	2.0		11.6	8.7	2.0
Green Ext Time (p_c), s	20.4		0.8	0.7	6.9

Intersection Summary	
HCM 6th Ctrl Delay	7.1
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	178	225	104	149	257	296	147	1439	133	210	833	244
Future Volume (veh/h)	178	225	104	149	257	296	147	1439	133	210	833	244
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1841	1870	1856	1856	1856	1870	1826	1841	1841	1811	1856
Adj Flow Rate, veh/h	196	247	38	164	282	236	162	1581	127	231	915	159
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	5	4	2	3	3	3	2	5	4	4	6	3
Cap, veh/h	207	475	72	199	529	384	246	2036	163	320	1817	765
Arrive On Green	0.12	0.16	0.16	0.11	0.15	0.15	0.07	0.34	0.34	0.09	0.37	0.37
Sat Flow, veh/h	1739	3044	462	1767	3526	1572	3456	5971	479	3401	4944	1572
Grp Volume(v), veh/h	196	141	144	164	282	236	162	1247	461	231	915	159
Grp Sat Flow(s),veh/h/ln	1739	1749	1758	1767	1763	1572	1728	1570	1740	1700	1648	1572
Q Serve(g_s), s	9.0	5.9	6.0	7.3	5.9	10.7	3.7	19.0	19.0	5.3	11.5	4.6
Cycle Q Clear(g_c), s	9.0	5.9	6.0	7.3	5.9	10.7	3.7	19.0	19.0	5.3	11.5	4.6
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	207	273	274	199	529	384	246	1606	593	320	1817	765
V/C Ratio(X)	0.95	0.52	0.53	0.82	0.53	0.61	0.66	0.78	0.78	0.72	0.50	0.21
Avail Cap(c_a), veh/h	207	273	274	210	529	384	462	1606	593	485	1817	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	35.0	31.0	31.1	34.7	31.4	26.9	36.2	23.6	23.6	35.2	19.6	11.7
Incr Delay (d2), s/veh	48.2	1.7	1.9	21.6	1.0	2.9	3.0	3.8	9.6	2.8	0.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.6	4.6	4.8	7.6	4.6	7.5	2.9	11.6	13.9	4.1	7.6	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.2	32.7	32.9	56.3	32.5	29.8	39.2	27.4	33.3	38.1	20.6	12.3
LnGrp LOS	F	C	C	E	C	C	D	C	C	D	C	B
Approach Vol, veh/h		481			682			1870			1305	
Approach Delay, s/veh		53.3			37.3			29.9			22.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	36.0	13.5	18.5	14.1	33.9	14.0	18.0
Change Period (Y+Rc), s	* 6.3	* 6.6	4.5	6.0	* 6.6	* 6.6	4.5	6.0
Max Green Setting (Gmax), s	* 11	* 24	9.5	12.0	* 11	* 24	9.5	12.0
Max Q Clear Time (g_c+I1), s	15.7	13.5	9.3	8.0	7.3	21.0	11.0	12.7
Green Ext Time (p_c), s	0.2	5.1	0.0	0.6	0.3	2.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	314	0	772	283	489	0	0	862	134
Future Volume (veh/h)	0	0	0	314	0	772	283	489	0	0	862	134
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1885	1856	1885	0	0	1870	1900
Adj Flow Rate, veh/h				320	0	265	289	499	0	0	880	79
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				2	0	1	3	1	0	0	2	0
Cap, veh/h				452	0	368	525	2714	0	0	3213	1013
Arrive On Green				0.13	0.00	0.13	0.08	0.76	0.00	0.00	0.63	0.63
Sat Flow, veh/h				3456	0	2812	1767	3676	0	0	5274	1610
Grp Volume(v), veh/h				320	0	265	289	499	0	0	880	79
Grp Sat Flow(s),veh/h/ln				1728	0	1406	1767	1791	0	0	1702	1610
Q Serve(g_s), s				9.3	0.0	9.5	5.6	4.1	0.0	0.0	8.1	2.0
Cycle Q Clear(g_c), s				9.3	0.0	9.5	5.6	4.1	0.0	0.0	8.1	2.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				452	0	368	525	2714	0	0	3213	1013
V/C Ratio(X)				0.71	0.00	0.72	0.55	0.18	0.00	0.00	0.27	0.08
Avail Cap(c_a), veh/h				1168	0	951	618	2714	0	0	3213	1013
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.93	0.93	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				43.7	0.0	43.8	5.7	3.6	0.0	0.0	8.7	7.6
Incr Delay (d2), s/veh				2.1	0.0	2.7	0.8	0.1	0.0	0.0	0.2	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				7.4	0.0	6.2	3.4	2.3	0.0	0.0	5.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.8	0.0	46.5	6.5	3.7	0.0	0.0	8.9	7.7
LnGrp LOS				D	A	D	A	A	A	A	A	A
Approach Vol, veh/h					585			788			959	
Approach Delay, s/veh					46.1			4.8			8.8	
Approach LOS					D			A			A	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	85.8		13.5	72.3		19.2
Change Period (Y+Rc), s	* 6.2		* 5.4	* 6.2		5.5
Max Green Setting (Gmax), s	* 58		* 14	* 39		35.5
Max Q Clear Time (g_c+I1), s	6.1		7.6	10.1		11.5
Green Ext Time (p_c), s	3.8		0.5	7.4		2.2

Intersection Summary	
HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	0	336	0	0	0	0	912	306	396	559	0
Future Volume (veh/h)	94	0	336	0	0	0	0	912	306	396	559	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1885	0	1856				0	1870	1885	1870	1885	0
Adj Flow Rate, veh/h	99	0	69				0	960	0	417	588	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	3				0	2	1	2	1	0
Cap, veh/h	138	0	121				0	3383		585	2907	0
Arrive On Green	0.08	0.00	0.08				0.00	0.66	0.00	0.10	0.81	0.00
Sat Flow, veh/h	1795	0	1572				0	5274	1598	1781	3676	0
Grp Volume(v), veh/h	99	0	69				0	960	0	417	588	0
Grp Sat Flow(s),veh/h/ln	1795	0	1572				0	1702	1598	1781	1791	0
Q Serve(g_s), s	5.7	0.0	4.4				0.0	8.2	0.0	7.1	3.9	0.0
Cycle Q Clear(g_c), s	5.7	0.0	4.4				0.0	8.2	0.0	7.1	3.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	138	0	121				0	3383		585	2907	0
V/C Ratio(X)	0.72	0.00	0.57				0.00	0.28		0.71	0.20	0.00
Avail Cap(c_a), veh/h	573	0	502				0	3383		828	2907	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.93	0.93	0.00
Uniform Delay (d), s/veh	47.4	0.0	46.8				0.0	7.4	0.0	5.1	2.2	0.0
Incr Delay (d2), s/veh	6.8	0.0	4.2				0.0	0.2	0.0	1.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.0	0.0	3.4				0.0	5.1	0.0	3.9	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.1	0.0	51.0				0.0	7.6	0.0	6.6	2.4	0.0
LnGrp LOS	D	A	D				A	A		A	A	A
Approach Vol, veh/h		168						960			1005	
Approach Delay, s/veh		52.9						7.6			4.1	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	15.7	75.8				91.4		13.6				
Change Period (Y+Rc), s	* 5.4	* 6.2				* 6.2		5.5				
Max Green Setting (Gmax), s	* 25	* 30				* 60		33.5				
Max Q Clear Time (g_c+I1), s	9.1	10.2				5.9		7.7				
Green Ext Time (p_c), s	1.2	6.8				4.7		0.5				

Intersection Summary	
HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1750	41	178	1856	19	42	36	236	51	26	122
Future Volume (veh/h)	80	1750	41	178	1856	19	42	36	236	51	26	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1856	1900	1885	1856	1722	1856	1856	1885	1841	1767	1841
Adj Flow Rate, veh/h	82	1786	19	182	1894	10	40	41	20	52	27	11
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	3	0	1	3	12	3	3	1	4	9	4
Cap, veh/h	350	2624	834	215	2239	645	80	84	72	68	36	95
Arrive On Green	0.13	0.35	0.35	0.12	0.44	0.44	0.05	0.05	0.05	0.06	0.06	0.06
Sat Flow, veh/h	1795	5066	1610	1795	5066	1459	1767	1856	1598	1126	585	1560
Grp Volume(v), veh/h	82	1786	19	182	1894	10	40	41	20	79	0	11
Grp Sat Flow(s),veh/h/ln	1795	1689	1610	1795	1689	1459	1767	1856	1598	1710	0	1560
Q Serve(g_s), s	4.3	31.6	0.8	10.4	35.0	0.4	2.3	2.3	1.3	4.8	0.0	0.7
Cycle Q Clear(g_c), s	4.3	31.6	0.8	10.4	35.0	0.4	2.3	2.3	1.3	4.8	0.0	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.66		1.00
Lane Grp Cap(c), veh/h	350	2624	834	215	2239	645	80	84	72	104	0	95
V/C Ratio(X)	0.23	0.68	0.02	0.85	0.85	0.02	0.50	0.49	0.28	0.76	0.00	0.12
Avail Cap(c_a), veh/h	350	2624	834	309	2364	681	210	221	190	171	0	156
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.36	0.36	0.36	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.6	26.9	16.8	45.3	26.1	16.5	49.0	49.0	48.5	48.6	0.0	46.6
Incr Delay (d2), s/veh	0.1	0.5	0.0	13.6	4.2	0.0	4.8	4.4	2.1	10.8	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.3	17.1	0.5	9.2	20.6	0.3	2.0	2.1	1.0	4.2	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.7	27.4	16.8	58.8	30.3	16.5	53.8	53.3	50.5	59.4	0.0	47.2
LnGrp LOS	D	C	B	E	C	B	D	D	D	E	A	D
Approach Vol, veh/h		1887			2086			101			90	
Approach Delay, s/veh		27.8			32.7			53.0			57.9	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.5	61.4		12.9	27.5	53.4		11.2
Change Period (Y+Rc), s	6.9	* 7		6.5	* 7	* 7		6.5
Max Green Setting (Gmax), s	18.1	* 37		10.5	* 6.5	* 49		12.5
Max Q Clear Time (g_c+I1), s	12.4	33.6		6.8	6.3	37.0		4.3
Green Ext Time (p_c), s	0.2	2.9		0.1	0.0	9.4		0.2

Intersection Summary	
HCM 6th Ctrl Delay	31.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	364	215	226	692	556	184
Future Volume (veh/h)	364	215	226	692	556	184
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1885	1900	1885	1885
Adj Flow Rate, veh/h	383	62	238	728	585	59
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	1	0	1	1
Cap, veh/h	469	417	516	1848	1129	504
Arrive On Green	0.26	0.26	0.12	0.51	0.32	0.32
Sat Flow, veh/h	1781	1585	1795	3705	3676	1598
Grp Volume(v), veh/h	383	62	238	728	585	59
Grp Sat Flow(s),veh/h/ln	1781	1585	1795	1805	1791	1598
Q Serve(g_s), s	9.6	1.4	3.8	5.9	6.4	1.2
Cycle Q Clear(g_c), s	9.6	1.4	3.8	5.9	6.4	1.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	469	417	516	1848	1129	504
V/C Ratio(X)	0.82	0.15	0.46	0.39	0.52	0.12
Avail Cap(c_a), veh/h	741	660	729	2997	1844	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.4	13.4	8.5	7.1	13.3	11.6
Incr Delay (d2), s/veh	3.9	0.2	0.6	0.1	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.9	0.8	2.1	3.0	4.0	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.4	13.6	9.1	7.2	13.7	11.7
LnGrp LOS	C	B	A	A	B	B
Approach Vol, veh/h	445			966	644	
Approach Delay, s/veh	19.4			7.7	13.5	
Approach LOS	B			A	B	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	29.9		9.4	20.5	17.7
Change Period (Y+Rc), s	5.5		3.5	5.5	5.2
Max Green Setting (Gmax), s	39.5		11.5	24.5	19.8
Max Q Clear Time (g_c+I1), s	7.9		5.8	8.4	11.6
Green Ext Time (p_c), s	5.7		0.3	3.8	1.0

Intersection Summary	
HCM 6th Ctrl Delay	12.1
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	235	6	218	7	10	19	154	680	0	11	544	217
Future Volume (veh/h)	235	6	218	7	10	19	154	680	0	11	544	217
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1900	1870	1648	1900	1900	1885	1900	1900	1900	1885	1885
Adj Flow Rate, veh/h	242	6	58	7	10	6	159	701	0	11	561	81
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	0	2	17	0	0	1	0	0	0	1	1
Cap, veh/h	374	6	508	95	117	41	442	1374	0	342	1089	486
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.09	0.38	0.00	0.01	0.30	0.30
Sat Flow, veh/h	719	18	1585	0	366	129	1795	3705	0	1810	3582	1598
Grp Volume(v), veh/h	248	0	58	23	0	0	159	701	0	11	561	81
Grp Sat Flow(s),veh/h/ln	737	0	1585	495	0	0	1795	1805	0	1810	1791	1598
Q Serve(g_s), s	0.0	0.0	1.3	0.0	0.0	0.0	2.7	7.4	0.0	0.2	6.4	1.8
Cycle Q Clear(g_c), s	15.8	0.0	1.3	15.8	0.0	0.0	2.7	7.4	0.0	0.2	6.4	1.8
Prop In Lane	0.98		1.00	0.30		0.26	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	380	0	508	254	0	0	442	1374	0	342	1089	486
V/C Ratio(X)	0.65	0.00	0.11	0.09	0.00	0.00	0.36	0.51	0.00	0.03	0.52	0.17
Avail Cap(c_a), veh/h	380	0	508	254	0	0	630	2232	0	670	2215	988
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.1	0.0	11.8	12.9	0.0	0.0	9.6	11.7	0.0	11.8	14.2	12.6
Incr Delay (d2), s/veh	3.9	0.0	0.1	0.2	0.0	0.0	0.5	0.3	0.0	0.0	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.1	0.0	0.7	0.3	0.0	0.0	1.6	4.5	0.0	0.1	4.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.1	0.0	11.9	13.0	0.0	0.0	10.1	12.0	0.0	11.8	14.5	12.7
LnGrp LOS	C	A	B	B	A	A	B	B	A	B	B	B
Approach Vol, veh/h		306			23			860			653	
Approach Delay, s/veh		19.4			13.0			11.7			14.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.1	24.3		21.0	7.8	20.5		21.0
Change Period (Y+Rc), s	3.5	5.5		* 5.2	3.5	5.5		* 5.2
Max Green Setting (Gmax), s	9.5	30.5		* 16	9.5	30.5		* 16
Max Q Clear Time (g_c+I1), s	2.3	9.4		17.8	4.7	8.4		17.8
Green Ext Time (p_c), s	0.0	4.9		0.0	0.2	4.1		0.0

Intersection Summary	
HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	1644	43	225	1223	50	31	150	384	24	2	10
Future Volume (veh/h)	24	1644	43	225	1223	50	31	150	384	24	2	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1900	1885	1870	1870	1900	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	24	1678	42	230	1248	29	32	153	392	24	2	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	1	0	1	2	2	0	1	1	0	0	0
Cap, veh/h	47	1678	42	180	1934	863	398	408	345	219	188	188
Arrive On Green	0.03	0.47	0.47	0.10	0.54	0.54	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1810	3571	89	1795	3554	1585	1435	1885	1598	875	872	872
Grp Volume(v), veh/h	24	839	881	230	1248	29	32	153	392	24	0	4
Grp Sat Flow(s),veh/h/ln	1810	1791	1869	1795	1777	1585	1435	1885	1598	875	0	1743
Q Serve(g_s), s	1.0	37.4	37.6	8.0	19.7	0.7	1.4	5.5	17.3	1.9	0.0	0.1
Cycle Q Clear(g_c), s	1.0	37.4	37.6	8.0	19.7	0.7	1.6	5.5	17.3	7.5	0.0	0.1
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	47	842	878	180	1934	863	398	408	345	219	0	377
V/C Ratio(X)	0.51	1.00	1.00	1.28	0.65	0.03	0.08	0.38	1.13	0.11	0.00	0.01
Avail Cap(c_a), veh/h	113	842	878	180	1934	863	398	408	345	219	0	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.5	21.1	21.2	36.0	12.8	8.5	25.2	26.7	31.4	29.9	0.0	24.6
Incr Delay (d2), s/veh	3.2	30.3	30.9	162.1	0.8	0.0	0.0	0.2	90.1	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	28.7	30.1	18.6	11.6	0.4	0.9	4.4	22.9	0.7	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	51.5	52.1	198.1	13.6	8.5	25.3	27.0	121.5	30.0	0.0	24.6
LnGrp LOS	D	D	F	F	B	A	C	C	F	C	A	C
Approach Vol, veh/h		1744			1507			577			28	
Approach Delay, s/veh		51.7			41.7			91.1			29.2	
Approach LOS		D			D			F			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	44.0		23.0	7.1	49.9		23.0
Change Period (Y+Rc), s	5.0	6.4		5.7	5.0	6.4		5.7
Max Green Setting (Gmax), s	8.0	37.6		17.3	5.0	40.6		17.3
Max Q Clear Time (g_c+I1), s	10.0	39.6		19.3	3.0	21.7		9.5
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	10.5		0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.5
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	1313	314	151	1491	322	267	529	85	298	567	79
Future Volume (veh/h)	106	1313	314	151	1491	322	267	529	85	298	567	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1826	1870	1885	1841	1885	1885	1885	1900	1870	1870	1900
Adj Flow Rate, veh/h	110	1368	288	157	1553	281	278	551	0	310	591	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	5	2	1	4	1	1	1	0	2	2	0
Cap, veh/h	168	1467	308	375	2085	837	344	615		377	656	
Arrive On Green	0.05	0.36	0.36	0.22	0.83	0.83	0.10	0.17	0.00	0.11	0.18	0.00
Sat Flow, veh/h	3483	4125	867	3483	5025	1598	3483	3582	1610	3456	3554	1610
Grp Volume(v), veh/h	110	1102	554	157	1553	281	278	551	0	310	591	0
Grp Sat Flow(s),veh/h/ln	1742	1662	1670	1742	1675	1598	1742	1791	1610	1728	1777	1610
Q Serve(g_s), s	3.3	33.6	33.6	4.1	14.5	0.9	8.2	15.8	0.0	9.2	17.1	0.0
Cycle Q Clear(g_c), s	3.3	33.6	33.6	4.1	14.5	0.9	8.2	15.8	0.0	9.2	17.1	0.0
Prop In Lane	1.00		0.52	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	168	1181	594	375	2085	837	344	615		377	656	
V/C Ratio(X)	0.65	0.93	0.93	0.42	0.74	0.34	0.81	0.90		0.82	0.90	
Avail Cap(c_a), veh/h	249	1187	596	375	2085	837	448	621		467	656	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.63	0.63	0.63	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.1	32.6	32.6	38.4	6.5	1.1	46.3	42.6	0.0	45.8	41.9	0.0
Incr Delay (d2), s/veh	1.6	14.3	23.8	0.2	1.6	0.7	6.2	16.4	0.0	8.2	15.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.6	21.9	23.9	3.0	4.8	0.9	6.9	13.1	0.0	7.8	13.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	46.9	56.5	38.5	8.0	1.8	52.6	59.0	0.0	54.0	57.1	0.0
LnGrp LOS	D	D	E	D	A	A	D	E		D	E	
Approach Vol, veh/h		1766			1991			829			901	
Approach Delay, s/veh		50.2			9.5			56.9			56.0	
Approach LOS		D			A			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.1	43.8	18.2	24.8	11.6	50.4	16.9	26.2
Change Period (Y+Rc), s	* 6.8	* 6.5	* 6.8	* 6.8	* 6.5	* 6.8	* 6.5	* 6.8
Max Green Setting (Gmax), s	* 8.5	* 38	* 14	* 18	* 7.5	* 38	* 14	* 19
Max Q Clear Time (g_c+I1), s	16.1	35.6	11.2	17.8	5.3	16.5	10.2	19.1
Green Ext Time (p_c), s	0.0	1.7	0.2	0.2	0.0	16.3	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	37.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	0	146	1207	0	0	1080	33
Future Vol, veh/h	0	0	0	0	0	0	146	1207	0	0	1080	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	0	150	-	-	-	-	100
Veh in Median Storage, #	-	3	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	92	98	92	92	92	98	98	92	92	98	98
Heavy Vehicles, %	0	2	0	2	2	2	2	0	2	2	2	0
Mvmt Flow	0	0	0	0	0	0	149	1232	0	0	1102	34

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	-	-	616	1102	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	5.34	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	3.12	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	433	349	-	0	0	-	-
Stage 1	0	0	-	-	-	0	0	-	-
Stage 2	0	0	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	-	0	433	349	-	-	-	-	-
Mov Cap-2 Maneuver	-	0	-	-	-	-	-	-	-
Stage 1	-	0	-	-	-	-	-	-	-
Stage 2	-	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	2.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBT	SBR
Capacity (veh/h)	349	-	-	-	-
HCM Lane V/C Ratio	0.427	-	-	-	-
HCM Control Delay (s)	22.8	-	0	-	-
HCM Lane LOS	C	-	A	-	-
HCM 95th %tile Q(veh)	2.1	-	-	-	-

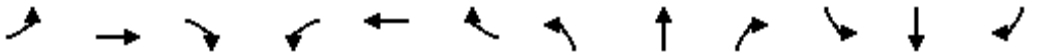
Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	262	0	1331	486	602
Future Vol, veh/h	25	262	0	1331	486	602
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Free
Storage Length	0	300	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	4	3	0	0	1	3
Mvmt Flow	26	267	0	1358	496	614

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1175	248	-	0	-	0
Stage 1	496	-	-	-	-	-
Stage 2	679	-	-	-	-	-
Critical Hdwy	6.33	7.16	-	-	-	-
Critical Hdwy Stg 1	6.68	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.69	3.93	-	-	-	-
Pot Cap-1 Maneuver	213	638	0	-	-	0
Stage 1	496	-	0	-	-	0
Stage 2	447	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	213	638	-	-	-	-
Mov Cap-2 Maneuver	213	-	-	-	-	-
Stage 1	496	-	-	-	-	-
Stage 2	447	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	213	638	-
HCM Lane V/C Ratio	-	0.12	0.419	-
HCM Control Delay (s)	-	24.2	14.7	-
HCM Lane LOS	-	C	B	-
HCM 95th %tile Q(veh)	-	0.4	2.1	-



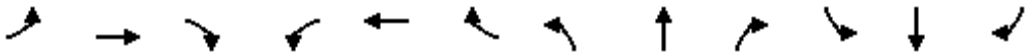
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	75	210	762	25	555	0	0	644	110
Future Volume (veh/h)	0	0	0	75	210	762	25	555	0	0	644	110
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1856	1900	1767	1900	0	0	1870	1900
Adj Flow Rate, veh/h				79	221	721	26	584	0	0	678	50
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	3	0	9	0	0	0	2	0
Cap, veh/h				869	846	755	237	1258	0	0	1239	561
Arrive On Green				0.48	0.48	0.48	0.35	0.35	0.00	0.00	0.35	0.35
Sat Flow, veh/h				1810	1763	1572	687	3705	0	0	3647	1610
Grp Volume(v), veh/h				79	221	721	26	584	0	0	678	50
Grp Sat Flow(s),veh/h/ln				1810	1763	1572	687	1805	0	0	1777	1610
Q Serve(g_s), s				1.7	5.2	30.8	2.2	8.8	0.0	0.0	10.8	1.5
Cycle Q Clear(g_c), s				1.7	5.2	30.8	13.0	8.8	0.0	0.0	10.8	1.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				869	846	755	237	1258	0	0	1239	561
V/C Ratio(X)				0.09	0.26	0.96	0.11	0.46	0.00	0.00	0.55	0.09
Avail Cap(c_a), veh/h				879	856	764	237	1258	0	0	1239	561
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				9.9	10.8	17.5	23.6	17.7	0.0	0.0	18.4	15.3
Incr Delay (d2), s/veh				0.0	0.2	22.1	0.9	1.2	0.0	0.0	1.7	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				1.1	3.4	20.4	0.7	6.5	0.0	0.0	7.8	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				9.9	11.0	39.6	24.5	19.0	0.0	0.0	20.1	15.6
LnGrp LOS				A	B	D	C	B	A	A	C	B
Approach Vol, veh/h					1021			610			728	
Approach Delay, s/veh					31.1			19.2			19.8	
Approach LOS					C			B			B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	30.4	39.6	30.4
Change Period (Y+Rc), s	* 6	* 6	* 6
Max Green Setting (Gmax), s	* 24	* 34	* 24
Max Q Clear Time (g_c+I1), s	15.0	32.8	12.8
Green Ext Time (p_c), s	2.7	0.8	3.7

Intersection Summary	
HCM 6th Ctrl Delay	24.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	638	372	771	0	0	0	0	0
Future Volume (vph)	0	0	0	0	638	372	771	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.8	5.8	5.7					
Lane Util. Factor					0.86	1.00	0.97					
Frt					1.00	0.85	1.00					
Flt Protected					1.00	1.00	0.95					
Satd. Flow (prot)					6408	1615	3467					
Flt Permitted					1.00	1.00	0.95					
Satd. Flow (perm)					6408	1615	3467					
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	0	679	396	820	0	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	131	363	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	679	265	457	0	0	0	0	0
Heavy Vehicles (%)	0%	0%	0%	0%	2%	0%	1%	0%	0%	0%	0%	0%
Turn Type					NA	Perm	Prot					
Protected Phases					6		4					
Permitted Phases						6						
Actuated Green, G (s)					56.2	56.2	16.3					
Effective Green, g (s)					56.2	56.2	16.3					
Actuated g/C Ratio					0.67	0.67	0.19					
Clearance Time (s)					5.8	5.8	5.7					
Vehicle Extension (s)					3.0	3.0	3.0					
Lane Grp Cap (vph)					4287	1080	672					
v/s Ratio Prot					0.11		c0.13					
v/s Ratio Perm						c0.16						
v/c Ratio					0.16	0.25	0.68					
Uniform Delay, d1					5.1	5.5	31.4					
Progression Factor					1.00	1.00	1.00					
Incremental Delay, d2					0.1	0.5	2.7					
Delay (s)					5.2	6.0	34.2					
Level of Service					A	A	C					
Approach Delay (s)		0.0			5.5			34.2			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	84.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	386	161	0	0	0	0	0	0	4	341	0
Future Volume (veh/h)	0	386	161	0	0	0	0	0	0	4	341	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1841							1900	1870	0
Adj Flow Rate, veh/h	0	411	34							4	363	0
Peak Hour Factor	0.94	0.94	0.94							0.94	0.94	0.94
Percent Heavy Veh, %	0	2	4							0	2	0
Cap, veh/h	0	623	274							0	2372	0
Arrive On Green	0.00	0.18	0.18							0.67	0.67	0.00
Sat Flow, veh/h	0	3647	1560							0	3647	0
Grp Volume(v), veh/h	0	411	34							0	363	0
Grp Sat Flow(s),veh/h/ln	0	1777	1560							0	1777	0
Q Serve(g_s), s	0.0	7.5	1.3							0.0	2.6	0.0
Cycle Q Clear(g_c), s	0.0	7.5	1.3							0.0	2.6	0.0
Prop In Lane	0.00		1.00							0.00		0.00
Lane Grp Cap(c), veh/h	0	623	274							0	2372	0
V/C Ratio(X)	0.00	0.66	0.12							0.00	0.15	0.00
Avail Cap(c_a), veh/h	0	1498	657							0	2372	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	26.9	24.3							0.0	4.3	0.0
Incr Delay (d2), s/veh	0.0	1.2	0.2							0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	5.7	2.2							0.0	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.1	24.5							0.0	4.4	0.0
LnGrp LOS	A	C	C							A	A	A
Approach Vol, veh/h		445									363	
Approach Delay, s/veh		27.8									4.4	
Approach LOS		C									A	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	52.2	17.8
Change Period (Y+Rc), s	5.5	5.5
Max Green Setting (Gmax), s	29.5	29.5
Max Q Clear Time (g_c+I1), s	4.6	9.5
Green Ext Time (p_c), s	2.4	2.7

Intersection Summary	
HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	387	0	0	0	0	0	751	804	0	0	0
Future Volume (veh/h)	3	387	0	0	0	0	0	751	804	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1900	1856	0				0	1885	1885			
Adj Flow Rate, veh/h	3	407	0				0	791	419			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	0	3	0				0	1	1			
Cap, veh/h	1003	2809	0				0	1033	811			
Arrive On Green	0.55	0.55	0.00				0.00	0.29	0.29			
Sat Flow, veh/h	1810	5233	0				0	3676	2812			
Grp Volume(v), veh/h	3	407	0				0	791	419			
Grp Sat Flow(s),veh/h/ln	1810	1689	0				0	1791	1406			
Q Serve(g_s), s	0.1	2.7	0.0				0.0	14.1	8.7			
Cycle Q Clear(g_c), s	0.1	2.7	0.0				0.0	14.1	8.7			
Prop In Lane	1.00		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1003	2809	0				0	1033	811			
V/C Ratio(X)	0.00	0.14	0.00				0.00	0.77	0.52			
Avail Cap(c_a), veh/h	1003	2809	0				0	1202	944			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	0.81	0.81	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	7.0	7.6	0.0				0.0	22.7	20.8			
Incr Delay (d2), s/veh	0.0	0.1	0.0				0.0	2.6	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	0.0	1.6	0.0				0.0	9.9	5.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.0	7.6	0.0				0.0	25.3	21.3			
LnGrp LOS	A	A	A				A	C	C			
Approach Vol, veh/h		410						1210				
Approach Delay, s/veh		7.6						23.9				
Approach LOS		A						C				

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	44.3	25.7
Change Period (Y+Rc), s	5.5	5.5
Max Green Setting (Gmax), s	35.5	23.5
Max Q Clear Time (g_c+I1), s	4.7	16.1
Green Ext Time (p_c), s	3.0	4.1

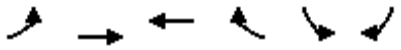
Intersection Summary	
HCM 6th Ctrl Delay	19.8
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	185	127	429	260	228	646
Future Volume (veh/h)	185	127	429	260	228	646
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1752	1841	1841	1856	1811
Adj Flow Rate, veh/h	197	25	456	168	243	687
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	10	4	4	3	6
Cap, veh/h	247	212	1939	865	641	2389
Arrive On Green	0.14	0.14	0.55	0.55	0.09	0.69
Sat Flow, veh/h	1725	1485	3589	1560	1767	3532
Grp Volume(v), veh/h	197	25	456	168	243	687
Grp Sat Flow(s),veh/h/ln	1725	1485	1749	1560	1767	1721
Q Serve(g_s), s	7.7	1.0	4.7	3.8	3.7	5.3
Cycle Q Clear(g_c), s	7.7	1.0	4.7	3.8	3.7	5.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	247	212	1939	865	641	2389
V/C Ratio(X)	0.80	0.12	0.24	0.19	0.38	0.29
Avail Cap(c_a), veh/h	451	388	1939	865	748	2389
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	26.2	8.0	7.8	4.9	4.1
Incr Delay (d2), s/veh	5.8	0.2	0.3	0.5	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.2	0.7	2.9	2.2	1.9	2.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.9	26.4	8.3	8.3	5.3	4.4
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	222		624			930
Approach Delay, s/veh	33.9		8.3			4.6
Approach LOS	C		A			A

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	54.3		9.8	44.5	15.7
Change Period (Y+Rc), s	5.7		3.8	5.7	5.7
Max Green Setting (Gmax), s	40.3		10.2	26.3	18.3
Max Q Clear Time (g_c+I1), s	7.3		5.7	6.7	9.7
Green Ext Time (p_c), s	5.4		0.3	3.5	0.4

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	188	274	190	233	436	125
Future Volume (veh/h)	188	274	190	233	436	125
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1811	1885	1767	1796	1885	1811
Adj Flow Rate, veh/h	204	298	207	0	474	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	1	9	7	1	6
Cap, veh/h	680	2081	1457		523	
Arrive On Green	0.09	0.58	0.43	0.00	0.29	0.00
Sat Flow, veh/h	1725	3676	3445	1522	1795	1535
Grp Volume(v), veh/h	204	298	207	0	474	0
Grp Sat Flow(s),veh/h/ln	1725	1791	1678	1522	1795	1535
Q Serve(g_s), s	5.5	3.4	3.3	0.0	22.9	0.0
Cycle Q Clear(g_c), s	5.5	3.4	3.3	0.0	22.9	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	680	2081	1457		523	
V/C Ratio(X)	0.30	0.14	0.14		0.91	
Avail Cap(c_a), veh/h	771	2081	1457		758	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	10.9	8.6	15.4	0.0	30.7	0.0
Incr Delay (d2), s/veh	0.2	0.1	0.2	0.0	11.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.6	2.3	2.3	0.0	16.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.1	8.7	15.6	0.0	41.7	0.0
LnGrp LOS	B	A	B		D	
Approach Vol, veh/h		502	207		474	
Approach Delay, s/veh		9.7	15.6		41.7	
Approach LOS		A	B		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		57.8		32.2	13.2	44.6
Change Period (Y+Rc), s		* 5.5		6.0	* 5.5	* 5.5
Max Green Setting (Gmax), s		* 41		38.0	* 13	* 23
Max Q Clear Time (g_c+I1), s		5.4		24.9	7.5	5.3
Green Ext Time (p_c), s		2.1		1.3	0.2	1.1

Intersection Summary		
HCM 6th Ctrl Delay		23.5
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

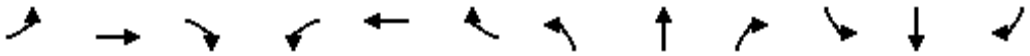
Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	117	581	0	0	325	494	105	3	180	0	0	0
Future Vol, veh/h	117	581	0	0	325	494	105	3	180	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	270	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	1	0	0	3	0	22	0	3	0	0	0
Mvmt Flow	122	605	0	0	339	515	109	3	188	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	339	0	-	-	-	0	1019	1188	303
Stage 1	-	-	-	-	-	-	849	849	-
Stage 2	-	-	-	-	-	-	170	339	-
Critical Hdwy	4.14	-	-	-	-	-	7.24	6.5	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.24	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.24	5.5	-
Follow-up Hdwy	2.22	-	-	-	-	-	3.72	4	3.33
Pot Cap-1 Maneuver	1217	-	0	0	-	0	202	190	690
Stage 1	-	-	0	0	-	0	334	380	-
Stage 2	-	-	0	0	-	0	786	643	-
Platoon blocked, %		-			-				
Mov Cap-1 Maneuver	1217	-	-	-	-	-	182	0	690
Mov Cap-2 Maneuver	-	-	-	-	-	-	182	0	-
Stage 1	-	-	-	-	-	-	301	0	-
Stage 2	-	-	-	-	-	-	786	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.4	0	27.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT
Capacity (veh/h)	182	690	1217	-	-
HCM Lane V/C Ratio	0.618	0.272	0.1	-	-
HCM Control Delay (s)	52.4	12.2	8.3	-	-
HCM Lane LOS	F	B	A	-	-
HCM 95th %tile Q(veh)	3.5	1.1	0.3	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	616	28	22	406	29	353	171	150	68	36	58
Future Volume (veh/h)	87	616	28	22	406	29	353	171	150	68	36	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1870	1900	1900	1885	1900	1900	1885	1900	1885	1856	1796
Adj Flow Rate, veh/h	95	670	27	24	441	27	384	186	55	74	39	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	2	0	0	1	0	0	1	0	1	3	7
Cap, veh/h	583	1879	76	407	1851	113	508	616	526	371	733	381
Arrive On Green	0.54	0.54	0.54	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	932	3482	140	760	3429	209	1363	1885	1610	1148	2242	1166
Grp Volume(v), veh/h	95	342	355	24	230	238	384	186	55	74	30	31
Grp Sat Flow(s),veh/h/ln	932	1777	1845	760	1791	1847	1363	1885	1610	1148	1763	1646
Q Serve(g_s), s	4.7	9.9	9.9	0.6	0.0	0.0	24.2	6.6	2.1	4.6	1.0	1.2
Cycle Q Clear(g_c), s	4.7	9.9	9.9	10.5	0.0	0.0	25.4	6.6	2.1	11.3	1.0	1.2
Prop In Lane	1.00		0.08	1.00		0.11	1.00		1.00	1.00		0.71
Lane Grp Cap(c), veh/h	583	959	996	407	967	997	508	616	526	371	576	538
V/C Ratio(X)	0.16	0.36	0.36	0.06	0.24	0.24	0.76	0.30	0.10	0.20	0.05	0.06
Avail Cap(c_a), veh/h	583	959	996	407	967	997	653	817	698	493	764	713
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	11.8	11.8	1.1	0.0	0.0	29.5	22.6	21.1	26.8	20.7	20.8
Incr Delay (d2), s/veh	0.1	0.2	0.2	0.3	0.6	0.6	3.8	0.3	0.1	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.7	6.7	6.9	0.1	0.3	0.3	12.8	5.3	1.4	2.3	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.7	12.0	12.0	1.3	0.6	0.6	33.3	22.9	21.2	27.1	20.8	20.8
LnGrp LOS	B	B	B	A	A	A	C	C	C	C	C	C
Approach Vol, veh/h		792			492			625			135	
Approach Delay, s/veh		11.9			0.6			29.1			24.2	
Approach LOS		B			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.6		35.4		54.6		35.4				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		39.0		39.0		39.0		39.0				
Max Q Clear Time (g_c+I1), s		12.5		13.3		11.9		27.4				
Green Ext Time (p_c), s		3.1		0.6		5.3		2.0				

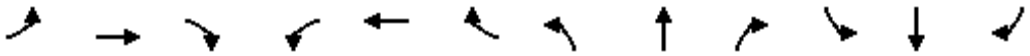
Intersection Summary												
HCM 6th Ctrl Delay			15.2									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	618	205	11	286	0	0	0	0	79	547	135
Future Volume (veh/h)	0	618	205	11	286	0	0	0	0	79	547	135
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1870	1767	1885	0				1900	1870	1856
Adj Flow Rate, veh/h	0	657	178	12	304	0				84	582	81
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	1	2	9	1	0				0	2	3
Cap, veh/h	0	783	212	50	872	0				256	1867	921
Arrive On Green	0.00	0.28	0.28	0.28	0.28	0.00				0.59	0.59	0.59
Sat Flow, veh/h	0	2880	754	26	3188	0				437	3188	1572
Grp Volume(v), veh/h	0	422	413	161	155	0				355	311	81
Grp Sat Flow(s),veh/h/ln	0	1791	1749	1498	1630	0				1849	1777	1572
Q Serve(g_s), s	0.0	20.0	20.0	0.5	6.8	0.0				8.9	7.9	2.0
Cycle Q Clear(g_c), s	0.0	20.0	20.0	20.5	6.8	0.0				8.9	7.9	2.0
Prop In Lane	0.00		0.43	0.07		0.00				0.24		1.00
Lane Grp Cap(c), veh/h	0	503	492	464	458	0				1083	1041	921
V/C Ratio(X)	0.00	0.84	0.84	0.35	0.34	0.00				0.33	0.30	0.09
Avail Cap(c_a), veh/h	0	597	583	551	543	0				1083	1041	921
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.94	0.94	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	30.4	30.4	25.6	25.7	0.0				9.6	9.4	8.1
Incr Delay (d2), s/veh	0.0	8.5	8.7	0.4	0.4	0.0				0.8	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	14.4	14.2	4.9	4.7	0.0				6.4	5.4	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	38.9	39.2	26.0	26.1	0.0				10.4	10.1	8.3
LnGrp LOS	A	D	D	C	C	A				B	B	A
Approach Vol, veh/h		835			316						747	
Approach Delay, s/veh		39.0			26.1						10.0	
Approach LOS		D			C						B	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	58.7	31.3	31.3
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	48.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	10.9	22.5	22.0
Green Ext Time (p_c), s	4.9	1.1	3.3

Intersection Summary	
HCM 6th Ctrl Delay	25.5
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1085	0	0	0	0	0	0	797	0
Future Volume (vph)	0	0	0	1085	0	0	0	0	0	0	797	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.6							6.0	
Lane Util. Factor				0.97							0.86	
Frt				1.00							1.00	
Flt Protected				0.95							1.00	
Satd. Flow (prot)				3400							6408	
Flt Permitted				0.95							1.00	
Satd. Flow (perm)				3400							6408	
Peak-hour factor, PHF	0.92	0.92	0.92	0.97	0.92	0.97	0.92	0.97	0.97	0.97	0.97	0.92
Adj. Flow (vph)	0	0	0	1119	0	0	0	0	0	0	822	0
RTOR Reduction (vph)	0	0	0	117	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1002	0	0	0	0	0	0	822	0
Heavy Vehicles (%)	2%	2%	2%	3%	2%	0%	2%	0%	0%	0%	2%	2%
Turn Type				Prot							NA	
Protected Phases				3							2	
Permitted Phases												
Actuated Green, G (s)				39.5							57.9	
Effective Green, g (s)				39.5							57.9	
Actuated g/C Ratio				0.36							0.53	
Clearance Time (s)				6.6							6.0	
Vehicle Extension (s)				3.0							3.0	
Lane Grp Cap (vph)				1220							3372	
v/s Ratio Prot				c0.29							c0.13	
v/s Ratio Perm												
v/c Ratio				0.82							0.24	
Uniform Delay, d1				32.0							14.2	
Progression Factor				1.00							1.00	
Incremental Delay, d2				4.6							0.2	
Delay (s)				36.6							14.3	
Level of Service				D							B	
Approach Delay (s)		0.0			36.6			0.0			14.3	
Approach LOS		A			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	27.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.6
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

702: Dr MLK Jr St & 11th St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	8	729	277	51	342	0	0	383	224
Future Volume (veh/h)	0	0	0	8	729	277	51	342	0	0	383	224
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1870	1767	1900	1841	0	0	1856	1870
Adj Flow Rate, veh/h				9	776	192	54	364	0	0	407	158
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	2	9	0	4	0	0	3	2
Cap, veh/h				13	1147	293	228	1588	0	0	1140	974
Arrive On Green				0.09	0.09	0.09	0.61	0.61	0.00	0.00	0.61	0.61
Sat Flow, veh/h				46	4144	1060	304	2669	0	0	1856	1585
Grp Volume(v), veh/h				368	305	304	204	214	0	0	407	158
Grp Sat Flow(s),veh/h/ln				1868	1702	1680	1298	1591	0	0	1856	1585
Q Serve(g_s), s				21.0	19.0	19.3	1.1	6.6	0.0	0.0	11.9	4.7
Cycle Q Clear(g_c), s				21.0	19.0	19.3	13.0	6.6	0.0	0.0	11.9	4.7
Prop In Lane				0.02		0.63	0.27		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				517	471	465	839	977	0	0	1140	974
V/C Ratio(X)				0.71	0.65	0.65	0.24	0.22	0.00	0.00	0.36	0.16
Avail Cap(c_a), veh/h				1019	928	916	839	977	0	0	1140	974
HCM Platoon Ratio				0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.82	0.82	0.82	0.94	0.94	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				45.7	44.8	44.9	9.4	9.5	0.0	0.0	10.5	9.1
Incr Delay (d2), s/veh				1.5	1.2	1.3	0.6	0.5	0.0	0.0	0.9	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				15.6	13.3	13.3	3.9	4.2	0.0	0.0	8.6	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				47.2	46.0	46.2	10.1	9.9	0.0	0.0	11.4	9.4
LnGrp LOS				D	D	D	B	A	A	A	B	A
Approach Vol, veh/h					977			418			565	
Approach Delay, s/veh					46.5			10.0			10.8	
Approach LOS					D			B			B	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	73.6		73.6		36.4			
Change Period (Y+Rc), s	6.0		6.0		6.0			
Max Green Setting (Gmax), s	38.0		38.0		60.0			
Max Q Clear Time (g_c+I1), s	13.9		15.0		23.0			
Green Ext Time (p_c), s	3.1		2.7		7.4			

Intersection Summary		
HCM 6th Ctrl Delay	28.4	
HCM 6th LOS	C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	30	212	291	0	2298	0	0	958	828
Future Volume (veh/h)	0	0	0	30	212	291	0	2298	0	0	958	828
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1870	1900	0	1885	0	0	1870	1826
Adj Flow Rate, veh/h				31	219	0	0	2369	0	0	929	729
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	2	0	0	1	0	0	2	5
Cap, veh/h				99	758		0	3720	0	0	2704	2237
Arrive On Green				0.16	0.16	0.00	0.00	0.96	0.00	0.00	0.72	0.72
Sat Flow, veh/h				608	4804	0	0	5486	0	0	3741	3095
Grp Volume(v), veh/h				94	156	0	0	2369	0	0	929	729
Grp Sat Flow(s),veh/h/ln				1840	1702	0	0	1716	0	0	1870	1547
Q Serve(g_s), s				4.9	4.4	0.0	0.0	5.0	0.0	0.0	10.1	9.4
Cycle Q Clear(g_c), s				4.9	4.4	0.0	0.0	5.0	0.0	0.0	10.1	9.4
Prop In Lane				0.33		0.00	0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				301	557		0	3720	0	0	2704	2237
V/C Ratio(X)				0.31	0.28		0.00	0.64	0.00	0.00	0.34	0.33
Avail Cap(c_a), veh/h				442	817		0	3720	0	0	2704	2237
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00	0.00	0.75	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				40.5	40.3	0.0	0.0	0.7	0.0	0.0	5.6	5.5
Incr Delay (d2), s/veh				0.6	0.3	0.0	0.0	0.6	0.0	0.0	0.3	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				4.1	3.4	0.0	0.0	1.6	0.0	0.0	6.4	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				41.1	40.6	0.0	0.0	1.3	0.0	0.0	6.0	5.9
LnGrp LOS				D	D		A	A	A	A	A	A
Approach Vol, veh/h					250			2369			1658	
Approach Delay, s/veh					40.8			1.3			5.9	
Approach LOS					D			A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	85.4	24.6	85.4
Change Period (Y+Rc), s	* 5.9	6.6	* 5.9
Max Green Setting (Gmax), s	* 71	26.4	* 71
Max Q Clear Time (g_c+I1), s	12.1	6.9	7.0
Green Ext Time (p_c), s	14.8	1.4	40.5

Intersection Summary	
HCM 6th Ctrl Delay	5.4
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	1218	39	0	0	0	0	302	1	85	253	0
Future Volume (veh/h)	85	1218	39	0	0	0	0	302	1	85	253	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1885	1752				0	1856	1900	1885	1841	0
Adj Flow Rate, veh/h	90	1296	37				0	321	1	90	269	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	1	10				0	3	0	1	4	0
Cap, veh/h	117	1794	53				0	500	2	191	498	0
Arrive On Green	0.36	0.36	0.36				0.00	0.27	0.27	0.09	0.09	0.00
Sat Flow, veh/h	324	4973	146				0	1849	6	1066	1841	0
Grp Volume(v), veh/h	519	434	470				0	0	322	90	269	0
Grp Sat Flow(s),veh/h/ln	1869	1716	1859				0	0	1855	1066	1841	0
Q Serve(g_s), s	27.1	23.8	23.8				0.0	0.0	16.9	9.2	15.4	0.0
Cycle Q Clear(g_c), s	27.1	23.8	23.8				0.0	0.0	16.9	26.0	15.4	0.0
Prop In Lane	0.17		0.08				0.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	674	619	671				0	0	502	191	498	0
V/C Ratio(X)	0.77	0.70	0.70				0.00	0.00	0.64	0.47	0.54	0.00
Avail Cap(c_a), veh/h	918	842	913				0	0	742	329	736	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.00	0.58	0.93	0.93	0.00
Uniform Delay (d), s/veh	31.1	30.1	30.1				0.0	0.0	35.4	56.7	43.5	0.0
Incr Delay (d2), s/veh	2.8	1.6	1.5				0.0	0.0	3.6	1.7	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.3	15.1	16.1				0.0	0.0	11.6	4.9	12.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.9	31.7	31.6				0.0	0.0	39.0	58.4	44.4	0.0
LnGrp LOS	C	C	C				A	A	D	E	D	A
Approach Vol, veh/h		1423						322			359	
Approach Delay, s/veh		32.5						39.0			47.9	
Approach LOS		C						D			D	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	35.8	45.7	35.8
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	44.0	54.0	44.0
Max Q Clear Time (g_c+I1), s	28.0	29.1	18.9
Green Ext Time (p_c), s	1.7	10.6	2.0

Intersection Summary	
HCM 6th Ctrl Delay	36.1
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1048	373	1	0	0	0	0	1150	56	89	898	0
Future Volume (veh/h)	1048	373	1	0	0	0	0	1150	56	89	898	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1900				0	1885	1870	1900	1856	0
Adj Flow Rate, veh/h	1103	393	1				0	1211	55	94	945	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	0				0	1	2	0	3	0
Cap, veh/h	1318	690	2				0	2018	92	143	2026	0
Arrive On Green	0.37	0.37	0.37				0.00	0.13	0.13	0.80	0.80	0.00
Sat Flow, veh/h	3591	1880	5				0	5216	229	445	5233	0
Grp Volume(v), veh/h	1103	0	394				0	823	443	94	945	0
Grp Sat Flow(s),veh/h/ln	1795	0	1884				0	1716	1844	445	1689	0
Q Serve(g_s), s	30.9	0.0	18.4				0.0	24.9	24.9	19.1	6.5	0.0
Cycle Q Clear(g_c), s	30.9	0.0	18.4				0.0	24.9	24.9	44.0	6.5	0.0
Prop In Lane	1.00		0.00				0.00		0.12	1.00		0.00
Lane Grp Cap(c), veh/h	1318	0	692				0	1372	738	143	2026	0
V/C Ratio(X)	0.84	0.00	0.57				0.00	0.60	0.60	0.66	0.47	0.00
Avail Cap(c_a), veh/h	1763	0	925				0	1372	738	143	2026	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	2.00	2.00	1.00
Upstream Filter(I)	0.70	0.00	0.70				0.00	1.00	1.00	0.90	0.90	0.00
Uniform Delay (d), s/veh	31.8	0.0	27.9				0.0	39.4	39.4	25.1	7.3	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.5				0.0	1.9	3.6	9.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	18.5	0.0	12.2				0.0	17.4	18.9	4.8	3.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	28.4				0.0	41.4	43.0	34.7	7.4	0.0
LnGrp LOS	C	A	C				A	D	D	C	A	A
Approach Vol, veh/h		1497						1266			1039	
Approach Delay, s/veh		32.4						42.0			9.9	
Approach LOS		C						D			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	50.0	46.4	50.0
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	44.0	54.0	44.0
Max Q Clear Time (g_c+I1), s	46.0	32.9	26.9
Green Ext Time (p_c), s	0.0	7.5	8.1

Intersection Summary	
HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

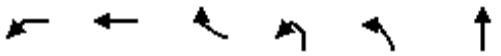
Notes

User approved volume balancing among the lanes for turning movement.



Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	286	0	1072	0	0	0
Future Volume (vph)	286	0	1072	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0			
Lane Util. Factor	1.00		0.91			
Frt	1.00		1.00			
Flt Protected	0.95		1.00			
Satd. Flow (prot)	1703		5085			
Flt Permitted	0.95		1.00			
Satd. Flow (perm)	1703		5085			
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	295	0	1105	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	295	0	1105	0	0	0
Heavy Vehicles (%)	6%	0%	2%	0%	0%	0%
Turn Type	Prot		NA			Perm
Protected Phases	1	6	2			
Permitted Phases						6
Actuated Green, G (s)	25.3		72.7			
Effective Green, g (s)	25.3		72.7			
Actuated g/C Ratio	0.23		0.66			
Clearance Time (s)	6.0		6.0			
Vehicle Extension (s)	3.0		3.0			
Lane Grp Cap (vph)	391		3360			
v/s Ratio Prot	c0.17		c0.22			
v/s Ratio Perm						
v/c Ratio	0.75		0.33			
Uniform Delay, d1	39.5		8.1			
Progression Factor	1.00		1.40			
Incremental Delay, d2	8.0		0.1			
Delay (s)	47.5		11.4			
Level of Service	D		B			
Approach Delay (s)		47.5	11.4		0.0	
Approach LOS		D	B		A	

Intersection Summary			
HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBT	WBR	NBL2	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	389	33	38	788	4	1083
Future Volume (vph)	389	33	38	788	4	1083
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.3			5.0	5.8
Lane Util. Factor	0.97	0.95			1.00	0.95
Frt	1.00	0.92			1.00	1.00
Flt Protected	0.95	1.00			0.95	1.00
Satd. Flow (prot)	3467	3317			1803	3574
Flt Permitted	0.95	1.00			0.95	1.00
Satd. Flow (perm)	3467	3317			1803	3574
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	405	34	40	821	4	1128
RTOR Reduction (vph)	0	32	0	0	52	0
Lane Group Flow (vph)	405	42	0	0	773	1128
Heavy Vehicles (%)	1%	0%	0%	0%	25%	1%
Turn Type	Split	NA		Prot	Prot	NA
Protected Phases	4	4		5	5	2
Permitted Phases						
Actuated Green, G (s)	17.3	17.3			62.4	61.6
Effective Green, g (s)	17.3	17.3			62.4	61.6
Actuated g/C Ratio	0.19	0.19			0.69	0.68
Clearance Time (s)	5.3	5.3			5.0	5.8
Vehicle Extension (s)	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	666	637			1250	2446
v/s Ratio Prot	c0.12	0.01			c0.43	0.32
v/s Ratio Perm						
v/c Ratio	0.61	0.07			0.62	0.46
Uniform Delay, d1	33.2	29.7			7.4	6.5
Progression Factor	1.02	1.06			1.00	1.00
Incremental Delay, d2	1.5	0.0			0.9	0.6
Delay (s)	35.5	31.7			8.3	7.2
Level of Service	D	C			A	A
Approach Delay (s)		34.9				7.7
Approach LOS		C				A

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	11.1
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	20	86	85	305	448	0	0	451	37
Future Volume (veh/h)	0	0	0	20	86	85	305	448	0	0	451	37
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1826	1885	1885	1900	1870	0	0	1885	1900
Adj Flow Rate, veh/h				22	95	8	335	492	0	0	496	36
Peak Hour Factor				0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %				5	1	1	0	2	0	0	1	0
Cap, veh/h				185	380	170	723	2702	0	0	2021	146
Arrive On Green				0.11	0.11	0.11	0.19	1.00	0.00	0.00	0.60	0.60
Sat Flow, veh/h				1739	3582	1598	1810	3647	0	0	3481	245
Grp Volume(v), veh/h				22	95	8	335	492	0	0	262	270
Grp Sat Flow(s),veh/h/ln				1739	1791	1598	1810	1777	0	0	1791	1841
Q Serve(g_s), s				1.0	2.2	0.4	6.7	0.0	0.0	0.0	6.2	6.2
Cycle Q Clear(g_c), s				1.0	2.2	0.4	6.7	0.0	0.0	0.0	6.2	6.2
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.13
Lane Grp Cap(c), veh/h				185	380	170	723	2702	0	0	1069	1098
V/C Ratio(X)				0.12	0.25	0.05	0.46	0.18	0.00	0.00	0.24	0.25
Avail Cap(c_a), veh/h				464	955	426	728	2702	0	0	1069	1098
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.99	0.99	0.99	0.87	0.87	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				36.4	36.9	36.1	4.6	0.0	0.0	0.0	8.6	8.6
Incr Delay (d2), s/veh				0.3	0.3	0.1	0.4	0.1	0.0	0.0	0.5	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				0.8	1.7	0.3	2.8	0.1	0.0	0.0	4.3	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				36.7	37.3	36.2	5.0	0.1	0.0	0.0	9.1	9.1
LnGrp LOS				D	D	D	A	A	A	A	A	A
Approach Vol, veh/h					125			827			532	
Approach Delay, s/veh					37.1			2.1			9.1	
Approach LOS					D			A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.7	59.7		15.6		74.4
Change Period (Y+Rc), s	6.0	6.0		6.0		6.0
Max Green Setting (Gmax), s	9.0	39.0		24.0		54.0
Max Q Clear Time (g_c+I1), s	8.7	8.2		4.2		2.0
Green Ext Time (p_c), s	0.0	3.5		0.5		3.8

Intersection Summary	
HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	67	62	0	0	0	0	0	708	80
Future Volume (veh/h)	0	0	0	67	62	0	0	0	0	0	708	80
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1781	1856	0				0	1885	1856
Adj Flow Rate, veh/h				79	61	0				0	778	83
Peak Hour Factor				0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %				8	3	0				0	1	3
Cap, veh/h				548	300	0				0	2353	251
Arrive On Green				0.16	0.16	0.00				0.00	0.72	0.72
Sat Flow, veh/h				3393	1856	0				0	3359	348
Grp Volume(v), veh/h				79	61	0				0	427	434
Grp Sat Flow(s),veh/h/ln				1697	1856	0				0	1791	1822
Q Serve(g_s), s				1.8	2.6	0.0				0.0	7.9	7.9
Cycle Q Clear(g_c), s				1.8	2.6	0.0				0.0	7.9	7.9
Prop In Lane				1.00		0.00				0.00		0.19
Lane Grp Cap(c), veh/h				548	300	0				0	1291	1313
V/C Ratio(X)				0.14	0.20	0.00				0.00	0.33	0.33
Avail Cap(c_a), veh/h				1312	717	0				0	1291	1313
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				32.4	32.7	0.0				0.0	4.6	4.6
Incr Delay (d2), s/veh				0.1	0.3	0.0				0.0	0.7	0.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				1.3	2.1	0.0				0.0	4.6	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.5	33.0	0.0				0.0	5.3	5.3
LnGrp LOS				C	C	A				A	A	A
Approach Vol, veh/h					140						861	
Approach Delay, s/veh					32.7						5.3	
Approach LOS					C						A	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	70.3	19.7
Change Period (Y+Rc), s	5.4	* 5.2
Max Green Setting (Gmax), s	44.6	* 35
Max Q Clear Time (g_c+I1), s	9.9	4.6
Green Ext Time (p_c), s	6.5	0.6

Intersection Summary	
HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	320	0	0	0	0	0	1806	290	0	0	0
Future Volume (veh/h)	16	320	0	0	0	0	0	1806	290	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1900	1870	0				0	1885	1900			
Adj Flow Rate, veh/h	17	337	0				0	1901	287			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	0	2	0				0	1	0			
Cap, veh/h	242	500	0				0	4225	637			
Arrive On Green	0.13	0.13	0.00				0.00	0.74	0.74			
Sat Flow, veh/h	1810	3741	0				0	5993	864			
Grp Volume(v), veh/h	17	337	0				0	1613	575			
Grp Sat Flow(s),veh/h/ln	1810	1870	0				0	1621	1730			
Q Serve(g_s), s	0.7	7.7	0.0				0.0	11.7	11.8			
Cycle Q Clear(g_c), s	0.7	7.7	0.0				0.0	11.7	11.8			
Prop In Lane	1.00		0.00				0.00		0.50			
Lane Grp Cap(c), veh/h	242	500	0				0	3587	1276			
V/C Ratio(X)	0.07	0.67	0.00				0.00	0.45	0.45			
Avail Cap(c_a), veh/h	728	1505	0				0	3587	1276			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	34.1	37.1	0.0				0.0	4.6	4.6			
Incr Delay (d2), s/veh	0.1	1.6	0.0				0.0	0.4	1.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	0.6	6.5	0.0				0.0	5.6	6.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	38.7	0.0				0.0	5.1	5.8			
LnGrp LOS	C	D	A				A	A	A			
Approach Vol, veh/h		354						2188				
Approach Delay, s/veh		38.5						5.2				
Approach LOS		D						A				

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	72.2	17.8
Change Period (Y+Rc), s	* 5.8	* 5.8
Max Green Setting (Gmax), s	* 42	* 36
Max Q Clear Time (g_c+I1), s	13.8	9.7
Green Ext Time (p_c), s	19.9	2.3

Intersection Summary	
HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	509	123	0	0	0	0	694	192	101	370	0
Future Volume (veh/h)	34	509	123	0	0	0	0	694	192	101	370	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1885	1870				0	1885	1900	1900	1870	0
Adj Flow Rate, veh/h	36	541	25				0	738	181	107	394	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	1	2				0	1	0	0	2	0
Cap, veh/h	51	822	261				0	1691	415	435	2495	0
Arrive On Green	0.16	0.16	0.16				0.00	0.59	0.59	0.08	1.00	0.00
Sat Flow, veh/h	311	4990	1585				0	2945	699	1810	3647	0
Grp Volume(v), veh/h	216	361	25				0	464	455	107	394	0
Grp Sat Flow(s),veh/h/ln	1870	1716	1585				0	1791	1759	1810	1777	0
Q Serve(g_s), s	9.8	8.8	1.2				0.0	12.8	12.8	2.0	0.0	0.0
Cycle Q Clear(g_c), s	9.8	8.8	1.2				0.0	12.8	12.8	2.0	0.0	0.0
Prop In Lane	0.17		1.00				0.00		0.40	1.00		0.00
Lane Grp Cap(c), veh/h	308	565	261				0	1062	1044	435	2495	0
V/C Ratio(X)	0.70	0.64	0.10				0.00	0.44	0.44	0.25	0.16	0.00
Avail Cap(c_a), veh/h	499	915	423				0	1062	1044	540	2495	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.75	0.75	0.75				0.00	1.00	1.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	35.5	35.1	31.9				0.0	10.0	10.0	6.8	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.9	0.1				0.0	1.3	1.3	0.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.6	6.4	0.8				0.0	8.6	8.5	1.2	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	36.0	32.0				0.0	11.3	11.4	7.0	0.1	0.0
LnGrp LOS	D	D	C				A	B	B	A	A	A
Approach Vol, veh/h		602						919			501	
Approach Delay, s/veh		36.5						11.4			1.6	
Approach LOS		D						B			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.8	59.4		20.8		69.2
Change Period (Y+Rc), s	6.0	6.0		6.0		6.0
Max Green Setting (Gmax), s	9.8	39.0		24.0		54.0
Max Q Clear Time (g_c+I1), s	4.0	14.8		11.8		2.0
Green Ext Time (p_c), s	0.1	6.5		3.0		2.9

Intersection Summary	
HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	608	217	0	0	0	0	0	0	266	670	0
Future Volume (veh/h)	0	608	217	0	0	0	0	0	0	266	670	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1900	1885							1870	1870	0
Adj Flow Rate, veh/h	0	633	69							277	698	0
Peak Hour Factor	0.96	0.96	0.96							0.96	0.96	0.96
Percent Heavy Veh, %	0	0	1							2	2	0
Cap, veh/h	0	1023	287							1224	3509	0
Arrive On Green	0.00	0.06	0.06							0.23	0.23	0.00
Sat Flow, veh/h	0	5700	1598							1781	5274	0
Grp Volume(v), veh/h	0	633	69							277	698	0
Grp Sat Flow(s),veh/h/ln	0	1900	1598							1781	1702	0
Q Serve(g_s), s	0.0	9.8	3.7							11.4	10.0	0.0
Cycle Q Clear(g_c), s	0.0	9.8	3.7							11.4	10.0	0.0
Prop In Lane	0.00		1.00							1.00		0.00
Lane Grp Cap(c), veh/h	0	1023	287							1224	3509	0
V/C Ratio(X)	0.00	0.62	0.24							0.23	0.20	0.00
Avail Cap(c_a), veh/h	0	1900	533							1224	3509	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	0.82	0.82							0.96	0.96	0.00
Uniform Delay (d), s/veh	0.0	39.3	36.5							15.3	14.7	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.4							0.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	8.2	2.7							9.3	7.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	39.8	36.8							15.7	14.9	0.0
LnGrp LOS	A	D	D							B	B	A
Approach Vol, veh/h		702									975	
Approach Delay, s/veh		39.5									15.1	
Approach LOS		D									B	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	67.9	22.1
Change Period (Y+Rc), s	6.0	6.0
Max Green Setting (Gmax), s	48.0	30.0
Max Q Clear Time (g_c+I1), s	13.4	11.8
Green Ext Time (p_c), s	6.6	4.4

Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	517	0	0	0	0	0	1272	609	0	0	0
Future Volume (veh/h)	168	517	0	0	0	0	0	1272	609	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1885	1885	0				0	1885	1885			
Adj Flow Rate, veh/h	181	556	0				0	1477	480			
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93			
Percent Heavy Veh, %	1	1	0				0	1	1			
Cap, veh/h	783	805	0				0	3706	1047			
Arrive On Green	0.07	0.07	0.00				0.00	0.66	0.66			
Sat Flow, veh/h	3483	3676	0				0	5656	1598			
Grp Volume(v), veh/h	181	556	0				0	1477	480			
Grp Sat Flow(s),veh/h/ln	1742	1791	0				0	1885	1598			
Q Serve(g_s), s	4.4	13.6	0.0				0.0	11.0	13.3			
Cycle Q Clear(g_c), s	4.4	13.6	0.0				0.0	11.0	13.3			
Prop In Lane	1.00		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	783	805	0				0	3706	1047			
V/C Ratio(X)	0.23	0.69	0.00				0.00	0.40	0.46			
Avail Cap(c_a), veh/h	1536	1580	0				0	3706	1047			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	0.86	0.86	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	34.3	38.6	0.0				0.0	7.2	7.6			
Incr Delay (d2), s/veh	0.1	0.9	0.0				0.0	0.3	1.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	3.4	10.5	0.0				0.0	7.1	7.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	39.5	0.0				0.0	7.6	9.1			
LnGrp LOS	C	D	A				A	A	A			
Approach Vol, veh/h		737						1957				
Approach Delay, s/veh		38.3						7.9				
Approach LOS		D						A				

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	64.5	25.5
Change Period (Y+Rc), s	5.5	* 5.3
Max Green Setting (Gmax), s	39.5	* 40
Max Q Clear Time (g_c+I1), s	15.3	15.6
Green Ext Time (p_c), s	14.5	4.6

Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	4	316	0	0	0	0	0	141	338
Future Volume (veh/h)	0	0	0	4	316	0	0	0	0	0	141	338
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1900	1870	0				0	1870	1885
Adj Flow Rate, veh/h				4	333	0				0	148	259
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				0	2	0				0	2	1
Cap, veh/h				13	1115	0				0	1150	982
Arrive On Green				0.21	0.21	0.00				0.00	0.61	0.61
Sat Flow, veh/h				59	5381	0				0	1870	1598
Grp Volume(v), veh/h				127	210	0				0	148	259
Grp Sat Flow(s),veh/h/ln				1867	1702	0				0	1870	1598
Q Serve(g_s), s				4.0	3.6	0.0				0.0	2.3	5.2
Cycle Q Clear(g_c), s				4.0	3.6	0.0				0.0	2.3	5.2
Prop In Lane				0.03		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				400	728	0				0	1150	982
V/C Ratio(X)				0.32	0.29	0.00				0.00	0.13	0.26
Avail Cap(c_a), veh/h				507	924	0				0	1150	982
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.98	0.98	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				23.2	23.0	0.0				0.0	5.6	6.2
Incr Delay (d2), s/veh				0.4	0.2	0.0				0.0	0.2	0.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				3.1	2.5	0.0				0.0	1.5	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				23.6	23.3	0.0				0.0	5.9	6.9
LnGrp LOS				C	C	A				A	A	A
Approach Vol, veh/h					337						407	
Approach Delay, s/veh					23.4						6.5	
Approach LOS					C						A	

Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				21.0		49.0						
Change Period (Y+Rc), s				6.0		6.0						
Max Green Setting (Gmax), s				19.0		39.0						
Max Q Clear Time (g_c+I1), s				6.0		7.2						
Green Ext Time (p_c), s				1.6		1.8						

Intersection Summary		
HCM 6th Ctrl Delay	14.2	
HCM 6th LOS	B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	256	267	33	1003	0	0	0	0
Future Volume (veh/h)	0	0	0	0	256	267	33	1003	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1856	1885	1811	1900	0			
Adj Flow Rate, veh/h				0	281	257	36	1102	0			
Peak Hour Factor				0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %				0	3	1	6	0	0			
Cap, veh/h				0	1048	330	131	4312	0			
Arrive On Green				0.00	0.21	0.21	0.65	0.65	0.00			
Sat Flow, veh/h				0	5233	1598	201	6857	0			
Grp Volume(v), veh/h				0	281	257	339	799	0			
Grp Sat Flow(s),veh/h/ln				0	1689	1598	1890	1634	0			
Q Serve(g_s), s				0.0	4.2	13.7	6.8	6.1	0.0			
Cycle Q Clear(g_c), s				0.0	4.2	13.7	6.8	6.1	0.0			
Prop In Lane				0.00		1.00	0.11		0.00			
Lane Grp Cap(c), veh/h				0	1048	330	1236	3207	0			
V/C Ratio(X)				0.00	0.27	0.78	0.27	0.25	0.00			
Avail Cap(c_a), veh/h				0	2702	852	1236	3207	0			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	30.0	33.7	6.6	6.4	0.0			
Incr Delay (d2), s/veh				0.0	0.1	4.0	0.5	0.2	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln				0.0	3.0	9.4	4.6	3.4	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	30.1	37.7	7.1	6.6	0.0			
LnGrp LOS				A	C	D	A	A	A			
Approach Vol, veh/h					538			1138				
Approach Delay, s/veh					33.7			6.8				
Approach LOS					C			A				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						65.4		24.6				
Change Period (Y+Rc), s						6.5		6.0				
Max Green Setting (Gmax), s						29.5		48.0				
Max Q Clear Time (g_c+I1), s						8.8		15.7				
Green Ext Time (p_c), s						7.9		2.9				

Intersection Summary	
HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	1128	0	0	236	9	75	800	379	0	0	0
Future Volume (veh/h)	192	1128	0	0	236	9	75	800	379	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1900	0	0	1885	1737	1900	1885	1885			
Adj Flow Rate, veh/h	198	1163	0	0	243	6	77	825	346			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	0	0	0	1	11	0	1	1			
Cap, veh/h	702	2097	0	0	2075	51	533	1050	438			
Arrive On Green	0.58	0.58	0.00	0.00	0.58	0.58	0.29	0.29	0.29			
Sat Flow, veh/h	1131	3705	0	0	3667	88	1810	3563	1486			
Grp Volume(v), veh/h	198	1163	0	0	122	127	77	794	377			
Grp Sat Flow(s),veh/h/ln	1131	1805	0	0	1791	1869	1810	1716	1618			
Q Serve(g_s), s	8.6	17.9	0.0	0.0	2.7	2.8	2.8	19.1	19.3			
Cycle Q Clear(g_c), s	11.4	17.9	0.0	0.0	2.7	2.8	2.8	19.1	19.3			
Prop In Lane	1.00		0.00	0.00		0.05	1.00		0.92			
Lane Grp Cap(c), veh/h	702	2097	0	0	1040	1086	533	1011	477			
V/C Ratio(X)	0.28	0.55	0.00	0.00	0.12	0.12	0.14	0.79	0.79			
Avail Cap(c_a), veh/h	702	2097	0	0	1040	1086	611	1159	546			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	11.0	11.7	0.0	0.0	8.5	8.5	23.4	29.1	29.2			
Incr Delay (d2), s/veh	1.0	1.1	0.0	0.0	0.2	0.2	0.1	3.2	6.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	4.0	11.1	0.0	0.0	1.9	2.0	2.2	12.7	12.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.0	12.7	0.0	0.0	8.7	8.7	23.5	32.3	36.0			
LnGrp LOS	B	B	A	A	A	A	C	C	D			
Approach Vol, veh/h		1361			249			1248				
Approach Delay, s/veh		12.6			8.7			32.9				
Approach LOS		B			A			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		57.9				57.9		32.1				
Change Period (Y+Rc), s		5.6				5.6		5.6				
Max Green Setting (Gmax), s		48.4				48.4		30.4				
Max Q Clear Time (g_c+I1), s		19.9				4.8		21.3				
Green Ext Time (p_c), s		11.3				1.5		5.3				
Intersection Summary												
HCM 6th Ctrl Delay			21.1									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑↱			↑↑↑↱			↑	
Traffic Volume (veh/h)	0	1657	0	0	579	441	0	508	174	0	0	0
Future Volume (veh/h)	0	1657	0	0	579	441	0	508	174	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	1900	0	1885	1900	0	1900	0
Adj Flow Rate, veh/h	0	1708	0	0	597	403	0	524	167	0	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	2	0	0	2	0	0	1	0	0	0	0
Cap, veh/h	0	3378	0	0	2252	1049	0	768	238	0	375	0
Arrive On Green	0.00	0.66	0.00	0.00	1.00	1.00	0.00	0.20	0.20	0.00	0.00	0.00
Sat Flow, veh/h	0	5443	0	0	3572	1585	0	4063	1206	0	1900	0
Grp Volume(v), veh/h	0	1708	0	0	597	403	0	460	231	0	0	0
Grp Sat Flow(s),veh/h/ln	0	1702	0	0	1702	1585	0	1716	1668	0	1900	0
Q Serve(g_s), s	0.0	15.3	0.0	0.0	0.0	0.0	0.0	11.2	11.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	15.3	0.0	0.0	0.0	0.0	0.0	11.2	11.6	0.0	0.0	0.0
Prop In Lane	0.00		0.00	0.00		1.00	0.00		0.72	0.00		0.00
Lane Grp Cap(c), veh/h	0	3378	0	0	2252	1049	0	677	329	0	375	0
V/C Ratio(X)	0.00	0.51	0.00	0.00	0.27	0.38	0.00	0.68	0.70	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	3378	0	0	2252	1049	0	1125	547	0	623	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	0.97	0.97	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	7.7	0.0	0.0	0.0	0.0	0.0	33.5	33.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.3	1.0	0.0	1.2	2.7	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	8.4	0.0	0.0	0.2	0.5	0.0	8.2	8.5	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.9	0.0	0.0	0.3	1.0	0.0	34.7	36.4	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	C	D	A	A	A
Approach Vol, veh/h		1708			1000			691			0	
Approach Delay, s/veh		7.9			0.6			35.3			0.0	
Approach LOS		A			A			D				

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	65.7	24.3	65.7	24.3
Change Period (Y+Rc), s	* 6.2	6.5	* 6.2	6.5
Max Green Setting (Gmax), s	* 48	29.5	* 48	29.5
Max Q Clear Time (g_c+I1), s	2.0	13.6	17.3	0.0
Green Ext Time (p_c), s	8.8	4.1	16.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	991	831	783	1029	0	0	0	0	0	0	0
Future Volume (veh/h)	0	991	831	783	1029	0	0	0	0	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1870	1841	1885	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1322	411	833	1095	0				0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	1	2	4	1	0				0	0	0
Cap, veh/h	0	3458	969	898	4826	0				0	4	2
Arrive On Green	0.00	0.61	0.61	0.53	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	5656	1585	3401	5316	0				0	3705	1610
Grp Volume(v), veh/h	0	1322	411	833	1095	0				0	0	0
Grp Sat Flow(s),veh/h/ln	0	1885	1585	1700	1716	0				0	1805	1610
Q Serve(g_s), s	0.0	10.7	12.2	20.4	0.0	0.0				0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	10.7	12.2	20.4	0.0	0.0				0.0	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h	0	3458	969	898	4826	0				0	4	2
V/C Ratio(X)	0.00	0.38	0.42	0.93	0.23	0.00				0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	3458	969	998	4826	0				0	477	213
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.84	0.84	0.93	0.93	0.00				0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	8.9	9.2	20.4	0.0	0.0				0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	1.1	12.7	0.1	0.0				0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	7.0	7.1	10.5	0.1	0.0				0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.1	10.3	33.1	0.1	0.0				0.0	0.0	0.0
LnGrp LOS	A	A	B	C	A	A				A	A	A
Approach Vol, veh/h		1733			1928						0	
Approach Delay, s/veh		9.4			14.4						0.0	
Approach LOS		A			B							

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	29.4	60.6		0.0		90.0
Change Period (Y+Rc), s	5.6	5.6		6.1		5.6
Max Green Setting (Gmax), s	26.4	34.4		11.9		66.4
Max Q Clear Time (g_c+I1), s	22.4	14.2		0.0		2.0
Green Ext Time (p_c), s	1.4	11.5		0.0		10.6

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1028	0	0	1352	13	441	65	658	0	0	0
Future Volume (veh/h)	0	1028	0	0	1352	13	441	65	658	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1885	0	0	1856	1900	1900	1856	1870			
Adj Flow Rate, veh/h	0	1094	0	0	1438	8	469	69	566			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	1	0	0	3	0	0	3	2			
Cap, veh/h	0	3215	0	0	3988	1006	1253	428	732			
Arrive On Green	0.00	0.21	0.00	0.00	0.62	0.62	0.23	0.23	0.23			
Sat Flow, veh/h	0	5486	0	0	6643	1610	5429	1856	3170			
Grp Volume(v), veh/h	0	1094	0	0	1438	8	469	69	566			
Grp Sat Flow(s),veh/h/ln	0	1716	0	0	1596	1610	1810	1856	1585			
Q Serve(g_s), s	0.0	16.3	0.0	0.0	9.8	0.2	6.5	2.7	15.0			
Cycle Q Clear(g_c), s	0.0	16.3	0.0	0.0	9.8	0.2	6.5	2.7	15.0			
Prop In Lane	0.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3215	0	0	3988	1006	1253	428	732			
V/C Ratio(X)	0.00	0.34	0.00	0.00	0.36	0.01	0.37	0.16	0.77			
Avail Cap(c_a), veh/h	0	3215	0	0	3988	1006	1695	579	990			
HCM Platoon Ratio	1.00	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.60	0.00	0.00	0.90	0.90	1.00	1.00	1.00			
Uniform Delay (d), s/veh	0.0	19.9	0.0	0.0	8.2	6.4	29.1	27.7	32.4			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.2	0.0	0.2	0.2	2.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	0.0	10.9	0.0	0.0	5.5	0.1	5.1	2.1	9.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.1	0.0	0.0	8.4	6.4	29.3	27.8	35.1			
LnGrp LOS	A	C	A	A	A	A	C	C	D			
Approach Vol, veh/h		1094			1446			1104				
Approach Delay, s/veh		20.1			8.4			32.2				
Approach LOS		C			A			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		62.3				62.3		27.7				
Change Period (Y+Rc), s		6.1				6.1		6.9				
Max Green Setting (Gmax), s		48.9				48.9		28.1				
Max Q Clear Time (g_c+I1), s		11.8				18.3		17.0				
Green Ext Time (p_c), s		14.5				9.4		3.7				

Intersection Summary	
HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1231	482	0	1228	7	423	24	39	0	0	0
Future Volume (veh/h)	0	1231	482	0	1228	7	423	24	39	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	1856	0	1841	1900	1870	1900	1856			
Adj Flow Rate, veh/h	0	1256	315	0	1253	7	477	0	0			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	2	3	0	4	0	2	0	3			
Cap, veh/h	0	2437	1078	0	3536	20	605	323	0			
Arrive On Green	0.00	1.00	1.00	0.00	0.69	0.69	0.17	0.00	0.00			
Sat Flow, veh/h	0	3647	1572	0	5323	29	3563	1900	0			
Grp Volume(v), veh/h	0	1256	315	0	814	446	477	0	0			
Grp Sat Flow(s),veh/h/ln	0	1777	1572	0	1675	1836	1781	1900	0			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	9.1	9.1	11.5	0.0	0.0			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	9.1	9.1	11.5	0.0	0.0			
Prop In Lane	0.00		1.00	0.00		0.02	1.00		0.00			
Lane Grp Cap(c), veh/h	0	2437	1078	0	2297	1259	605	323	0			
V/C Ratio(X)	0.00	0.52	0.29	0.00	0.35	0.35	0.79	0.00	0.00			
Avail Cap(c_a), veh/h	0	2437	1078	0	2297	1259	1484	792	0			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.88	0.88	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	5.9	5.9	35.8	0.0	0.0			
Incr Delay (d2), s/veh	0.0	0.7	0.6	0.0	0.1	0.2	2.3	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	0.0	0.4	0.3	0.0	4.9	5.4	8.8	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.7	0.6	0.0	6.0	6.0	38.1	0.0	0.0			
LnGrp LOS	A	A	A	A	A	A	D	A	A			
Approach Vol, veh/h		1571			1260			477				
Approach Delay, s/veh		0.7			6.0			38.1				
Approach LOS		A			A			D				

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	68.2	21.8	68.2
Change Period (Y+Rc), s	6.5	6.5	6.5
Max Green Setting (Gmax), s	39.5	37.5	39.5
Max Q Clear Time (g_c+I1), s	2.0	13.5	11.1
Green Ext Time (p_c), s	14.5	1.7	10.3

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	279	0	1	144	0	0	0	10	251	15	115
Future Volume (veh/h)	0	279	0	1	144	0	0	0	10	251	15	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1900	1900	1885	0	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	294	0	1	152	0	0	0	0	275	0	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	0	0	1	0	0	0	0	0	0	0
Cap, veh/h	0	533	0	37	526	0	0	2	0	543	0	241
Arrive On Green	0.00	0.15	0.00	0.15	0.15	0.00	0.00	0.00	0.00	0.15	0.00	0.15
Sat Flow, veh/h	0	3741	0	5	3593	0	0	1900	0	3619	0	1610
Grp Volume(v), veh/h	0	294	0	82	71	0	0	0	0	275	0	20
Grp Sat Flow(s),veh/h/ln	0	1777	0	1882	1630	0	0	1900	0	1810	0	1610
Q Serve(g_s), s	0.0	7.7	0.0	0.0	3.9	0.0	0.0	0.0	0.0	7.0	0.0	1.1
Cycle Q Clear(g_c), s	0.0	7.7	0.0	3.9	3.9	0.0	0.0	0.0	0.0	7.0	0.0	1.1
Prop In Lane	0.00		0.00	0.01		0.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	533	0	319	244	0	0	2	0	543	0	241
V/C Ratio(X)	0.00	0.55	0.00	0.26	0.29	0.00	0.00	0.00	0.00	0.51	0.00	0.08
Avail Cap(c_a), veh/h	0	1066	0	599	489	0	0	276	0	1393	0	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	39.4	0.0	37.8	37.8	0.0	0.0	0.0	0.0	39.1	0.0	36.6
Incr Delay (d2), s/veh	0.0	0.9	0.0	1.9	3.0	0.0	0.0	0.0	0.0	0.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	6.1	0.0	3.5	3.1	0.0	0.0	0.0	0.0	5.7	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	40.3	0.0	39.7	40.7	0.0	0.0	0.0	0.0	39.8	0.0	36.7
LnGrp LOS	A	D	A	D	D	A	A	A	A	D	A	D
Approach Vol, veh/h		294			153			0			295	
Approach Delay, s/veh		40.3			40.2			0.0			39.6	
Approach LOS		D			D						D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	21.0	0.0	21.0	20.5
Change Period (Y+Rc), s	6.0	5.5	6.0	5.5
Max Green Setting (Gmax), s	30.0	14.5	30.0	38.5
Max Q Clear Time (g_c+I1), s	9.7	0.0	5.9	9.0
Green Ext Time (p_c), s	1.8	0.0	0.8	1.0

Intersection Summary	
HCM 6th Ctrl Delay	40.0
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

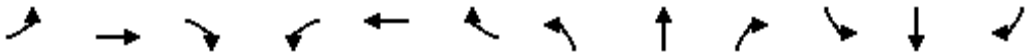
Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	498	145	0	0	151	266	0	0	0	0	0	0
Future Vol, veh/h	498	145	0	0	151	266	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	200	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	0	0	4	2	0	0	0	0	0	0
Mvmt Flow	530	154	0	0	161	283	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	161	0	-	-	-	0	1295	1375	77
Stage 1	-	-	-	-	-	-	1214	1214	-
Stage 2	-	-	-	-	-	-	81	161	-
Critical Hdwy	4.14	-	-	-	-	-	6.8	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	5.8	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.8	5.5	-
Follow-up Hdwy	2.22	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1416	-	0	0	-	-	157	147	975
Stage 1	-	-	0	0	-	-	248	257	-
Stage 2	-	-	0	0	-	-	939	769	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1416	-	-	-	-	-	98	0	975
Mov Cap-2 Maneuver	-	-	-	-	-	-	98	0	-
Stage 1	-	-	-	-	-	-	155	0	-
Stage 2	-	-	-	-	-	-	939	0	-

Approach	EB	WB	NB
HCM Control Delay, s	7	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	-	1416	-	-	-
HCM Lane V/C Ratio	-	0.374	-	-	-
HCM Control Delay (s)	0	9.1	-	-	-
HCM Lane LOS	A	A	-	-	-
HCM 95th %tile Q(veh)	-	1.8	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	0	43	199	0	358	5	454	0	0	707	13
Future Volume (veh/h)	28	0	43	199	0	358	5	454	0	0	707	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	0	1900	1870	1900	1841	1900	1885	0	0	1870	1781
Adj Flow Rate, veh/h	29	0	3	205	0	63	5	468	0	0	729	12
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	2	0	4	0	1	0	0	2	8
Cap, veh/h	0	0	0	256	0	228	58	2437	0	0	2494	41
Arrive On Green	0.00	0.00	0.00	0.14	0.00	0.14	0.70	0.70	0.00	0.00	0.70	0.70
Sat Flow, veh/h		0		1810	0	1610	8	3580	0	0	3671	59
Grp Volume(v), veh/h		0.0		205	0	63	253	220	0	0	362	379
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1873	1630	0	0	1777	1860
Q Serve(g_s), s				7.7	0.0	2.4	0.0	3.3	0.0	0.0	5.4	5.4
Cycle Q Clear(g_c), s				7.7	0.0	2.4	3.3	3.3	0.0	0.0	5.4	5.4
Prop In Lane				1.00		1.00	0.02		0.00	0.00		0.03
Lane Grp Cap(c), veh/h				256	0	228	1358	1136	0	0	1239	1297
V/C Ratio(X)				0.80	0.00	0.28	0.19	0.19	0.00	0.00	0.29	0.29
Avail Cap(c_a), veh/h				297	0	265	1358	1136	0	0	1239	1297
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				29.1	0.0	26.9	3.7	3.7	0.0	0.0	4.0	4.0
Incr Delay (d2), s/veh				12.8	0.0	0.7	0.3	0.4	0.0	0.0	0.6	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				7.4	0.0	1.7	1.8	1.6	0.0	0.0	2.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				41.9	0.0	27.5	4.0	4.1	0.0	0.0	4.6	4.6
LnGrp LOS				D	A	C	A	A	A	A	A	A
Approach Vol, veh/h					268			473			741	
Approach Delay, s/veh					38.5			4.0			4.6	
Approach LOS					D			A			A	

Timer - Assigned Phs	2			6		8						
Phs Duration (G+Y+Rc), s	54.6			54.6		15.4						
Change Period (Y+Rc), s	* 5.8			* 5.8		5.5						
Max Green Setting (Gmax), s	* 27			* 26		11.5						
Max Q Clear Time (g_c+I1), s	5.3			7.4		9.7						
Green Ext Time (p_c), s	2.8			4.5		0.3						

Intersection Summary		
HCM 6th Ctrl Delay	10.6	
HCM 6th LOS	B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

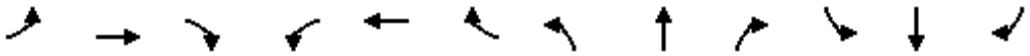
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SEL	SER
Lane Configurations		↑↑	↱	↰	↑↑					↱
Traffic Vol, veh/h	0	497	441	114	276	0	0	0	0	0
Future Vol, veh/h	0	497	441	114	276	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	None	-	-
Storage Length	-	-	80	220	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	0	-	0	-
Grade, %	-	0	-	-	0	-	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	1	1	0	2	0	0	0	0	0
Mvmt Flow	0	529	469	121	294	0	0	0	0	0

Major/Minor	Major1			Major2			Minor2	
Conflicting Flow All	-	0	0	529	0	0	-	147
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	1048	-	0	0	880
Stage 1	0	-	-	-	-	0	0	-
Stage 2	0	-	-	-	-	0	0	-
Platoon blocked, %		-	-		-			
Mov Cap-1 Maneuver	-	-	-	1048	-	-	-	880
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	SE
HCM Control Delay, s	0	2.6	0
HCM LOS			A

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SELn1
Capacity (veh/h)	-	-	1048	-	-
HCM Lane V/C Ratio	-	-	0.116	-	-
HCM Control Delay (s)	-	-	8.9	-	0
HCM Lane LOS	-	-	A	-	A
HCM 95th %tile Q(veh)	-	-	0.4	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	480	0	0	0	0	79	66	65	0	0	0
Future Volume (veh/h)	11	480	0	0	0	0	79	66	65	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1900	1885	0				1900	1900	1870			
Adj Flow Rate, veh/h	12	533	0				88	73	43			
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90			
Percent Heavy Veh, %	0	1	0				0	0	2			
Cap, veh/h	17	786	0				617	512	967			
Arrive On Green	0.22	0.22	0.00				0.61	0.61	0.61			
Sat Flow, veh/h	77	3689	0				1011	839	1585			
Grp Volume(v), veh/h	292	253	0				161	0	43			
Grp Sat Flow(s),veh/h/ln	1881	1791	0				1849	0	1585			
Q Serve(g_s), s	10.1	9.0	0.0				2.6	0.0	0.8			
Cycle Q Clear(g_c), s	10.1	9.0	0.0				2.6	0.0	0.8			
Prop In Lane	0.04		0.00				0.55		1.00			
Lane Grp Cap(c), veh/h	411	391	0				1128	0	967			
V/C Ratio(X)	0.71	0.65	0.00				0.14	0.00	0.04			
Avail Cap(c_a), veh/h	887	844	0				1128	0	967			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.3	24.9	0.0				5.8	0.0	5.5			
Incr Delay (d2), s/veh	2.3	1.8	0.0				0.3	0.0	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	8.0	6.9	0.0				1.6	0.0	0.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	26.7	0.0				6.1	0.0	5.6			
LnGrp LOS	C	C	A				A	A	A			
Approach Vol, veh/h		545						204				
Approach Delay, s/veh		27.2						6.0				
Approach LOS		C						A				

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		48.7		21.3								
Change Period (Y+Rc), s		6.0		6.0								
Max Green Setting (Gmax), s		25.0		33.0								
Max Q Clear Time (g_c+I1), s		4.6		12.1								
Green Ext Time (p_c), s		1.0		3.2								

Intersection Summary												
HCM 6th Ctrl Delay			21.4									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	330	3	677	118	463	0	0	756	326
Future Volume (veh/h)	0	0	0	330	3	677	118	463	0	0	756	326
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1500	1900	1826	1500	1826	0	0	1796	1870
Adj Flow Rate, veh/h				353	0	537	126	493	0	0	804	110
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				27	0	5	27	5	0	0	7	2
Cap, veh/h				1085	0	588	151	1700	0	0	1098	510
Arrive On Green				0.38	0.00	0.38	0.03	0.16	0.00	0.00	0.32	0.32
Sat Flow, veh/h				2857	0	1547	1428	3561	0	0	3503	1585
Grp Volume(v), veh/h				353	0	537	126	493	0	0	804	110
Grp Sat Flow(s),veh/h/ln				1428	0	1547	1428	1735	0	0	1706	1585
Q Serve(g_s), s				7.0	0.0	26.4	7.0	10.0	0.0	0.0	16.7	4.0
Cycle Q Clear(g_c), s				7.0	0.0	26.4	7.0	10.0	0.0	0.0	16.7	4.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1085	0	588	151	1700	0	0	1098	510
V/C Ratio(X)				0.33	0.00	0.91	0.83	0.29	0.00	0.00	0.73	0.22
Avail Cap(c_a), veh/h				1236	0	669	161	1700	0	0	1098	510
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.85	0.85	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.5	0.0	23.6	37.9	21.3	0.0	0.0	24.1	19.8
Incr Delay (d2), s/veh				0.2	0.0	15.8	25.1	0.4	0.0	0.0	4.3	1.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				4.0	0.0	29.6	6.5	7.8	0.0	0.0	11.4	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				17.7	0.0	39.4	63.0	21.7	0.0	0.0	28.4	20.7
LnGrp LOS				B	A	D	E	C	A	A	C	C
Approach Vol, veh/h					890			619			914	
Approach Delay, s/veh					30.8			30.1			27.5	
Approach LOS					C			C			C	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	44.2	35.8	13.5	30.7
Change Period (Y+Rc), s	5.0	* 5.4	5.0	5.0
Max Green Setting (Gmax), s	35.0	* 35	9.0	21.0
Max Q Clear Time (g_c+I1), s	12.0	28.4	9.0	18.7
Green Ext Time (p_c), s	3.4	2.0	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	1	88	0	0	0	0	379	614	544	616	0
Future Volume (veh/h)	185	1	88	0	0	0	0	379	614	544	616	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1900	1263				0	1752	1796	1856	1589	0
Adj Flow Rate, veh/h	197	1	16				0	403	0	579	655	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	0	43				0	10	7	3	21	0
Cap, veh/h	244	13	209				0	1209		596	2266	0
Arrive On Green	0.14	0.14	0.14				0.00	0.12	0.00	0.11	0.25	0.00
Sat Flow, veh/h	1781	96	1529				0	3416	1522	1767	3098	0
Grp Volume(v), veh/h	197	0	17				0	403	0	579	655	0
Grp Sat Flow(s),veh/h/ln	1781	0	1625				0	1664	1522	1767	1509	0
Q Serve(g_s), s	8.6	0.0	0.7				0.0	8.9	0.0	26.1	14.1	0.0
Cycle Q Clear(g_c), s	8.6	0.0	0.7				0.0	8.9	0.0	26.1	14.1	0.0
Prop In Lane	1.00		0.94				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	244	0	222				0	1209		596	2266	0
V/C Ratio(X)	0.81	0.00	0.08				0.00	0.33		0.97	0.29	0.00
Avail Cap(c_a), veh/h	468	0	426				0	1209		596	2266	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.93	0.00	0.60	0.60	0.00
Uniform Delay (d), s/veh	33.5	0.0	30.1				0.0	26.3	0.0	35.2	12.8	0.0
Incr Delay (d2), s/veh	6.3	0.0	0.1				0.0	0.7	0.0	21.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.3	0.0	0.5				0.0	7.0	0.0	20.8	8.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	0.0	30.3				0.0	27.0	0.0	56.8	13.0	0.0
LnGrp LOS	D	A	C				A	C		E	B	A
Approach Vol, veh/h		214						403			1234	
Approach Delay, s/veh		39.0						27.0			33.6	
Approach LOS		D						C			C	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	31.0	34.1	14.9	65.1
Change Period (Y+Rc), s	4.0	5.0	4.0	* 5
Max Green Setting (Gmax), s	27.0	19.0	21.0	* 51
Max Q Clear Time (g_c+I1), s	28.1	10.9	10.6	16.1
Green Ext Time (p_c), s	0.0	1.6	0.5	5.3

Intersection Summary	
HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	421	102	154	329	156	77	125	230	185	173	59
Future Volume (veh/h)	56	421	102	154	329	156	77	125	230	185	173	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1515	1811	1633	1574	1604	1589	1737	1722	1693	1737	1826	1796
Adj Flow Rate, veh/h	64	484	86	177	378	57	89	144	70	213	199	21
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	26	6	18	22	20	21	11	12	14	11	5	7
Cap, veh/h	187	600	106	282	427	358	562	783	362	595	1421	623
Arrive On Green	0.05	0.21	0.21	0.11	0.27	0.27	0.05	0.36	0.36	0.03	0.14	0.14
Sat Flow, veh/h	1443	2922	517	1499	1604	1346	1654	2172	1005	1654	3469	1522
Grp Volume(v), veh/h	64	284	286	177	378	57	89	107	107	213	199	21
Grp Sat Flow(s),veh/h/ln	1443	1721	1718	1499	1604	1346	1654	1636	1541	1654	1735	1522
Q Serve(g_s), s	2.8	12.6	12.7	7.1	18.1	2.6	2.7	3.6	3.8	5.9	4.0	1.0
Cycle Q Clear(g_c), s	2.8	12.6	12.7	7.1	18.1	2.6	2.7	3.6	3.8	5.9	4.0	1.0
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.65	1.00		1.00
Lane Grp Cap(c), veh/h	187	353	353	282	427	358	562	590	556	595	1421	623
V/C Ratio(X)	0.34	0.80	0.81	0.63	0.89	0.16	0.16	0.18	0.19	0.36	0.14	0.03
Avail Cap(c_a), veh/h	274	441	440	282	427	358	694	590	556	646	1421	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	24.7	30.2	30.3	21.7	28.2	22.5	14.6	17.5	17.6	13.3	22.2	20.8
Incr Delay (d2), s/veh	1.1	8.4	8.9	4.3	19.5	0.2	0.1	0.7	0.8	0.3	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	9.8	9.9	4.9	13.9	1.5	1.8	2.5	2.6	4.2	3.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.8	38.6	39.2	26.1	47.7	22.7	14.8	18.2	18.4	13.6	22.4	20.9
LnGrp LOS	C	D	D	C	D	C	B	B	B	B	C	C
Approach Vol, veh/h		634			612			303			433	
Approach Delay, s/veh		37.6			39.1			17.2			18.0	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	38.5	12.0	21.9	11.5	34.5	7.2	26.8
Change Period (Y+Rc), s	3.5	5.7	3.5	5.5	3.5	5.7	3.5	5.5
Max Green Setting (Gmax), s	10.5	22.3	8.5	20.5	10.5	22.3	8.5	20.5
Max Q Clear Time (g_c+I1), s	4.7	6.0	9.1	14.7	7.9	5.8	4.8	20.1
Green Ext Time (p_c), s	0.1	1.1	0.0	1.7	0.2	1.1	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	81	377	494	82	296	346
Future Volume (vph)	81	377	494	82	296	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0	6.0	6.0
Lane Util. Factor	0.95			0.95	0.97	1.00
Frt	0.88			1.00	1.00	0.85
Flt Protected	1.00			0.96	0.95	1.00
Satd. Flow (prot)	2947			3361	3045	1495
Flt Permitted	1.00			0.57	0.95	1.00
Satd. Flow (perm)	2947			2005	3045	1495
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	84	389	509	85	305	357
RTOR Reduction (vph)	125	0	0	0	0	296
Lane Group Flow (vph)	348	0	0	594	305	61
Heavy Vehicles (%)	0%	9%	3%	3%	15%	8%
Turn Type	NA		pm+pt	NA	Prot	Prot
Protected Phases	2		1	6	4	4
Permitted Phases			6			
Actuated Green, G (s)	54.3			54.3	13.7	13.7
Effective Green, g (s)	54.3			54.3	13.7	13.7
Actuated g/C Ratio	0.68			0.68	0.17	0.17
Clearance Time (s)	6.0			6.0	6.0	6.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2000			1360	521	256
v/s Ratio Prot	0.12				c0.10	0.04
v/s Ratio Perm				c0.30		
v/c Ratio	0.17			0.44	0.59	0.24
Uniform Delay, d1	4.7			5.9	30.5	28.6
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.0			0.2	1.7	0.5
Delay (s)	4.7			6.1	32.2	29.1
Level of Service	A			A	C	C
Approach Delay (s)	4.7			6.1	30.6	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.8
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	207	299	377	357	582	266
Future Volume (veh/h)	207	299	377	357	582	266
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1752	1589	1856	1781	1841	1811
Adj Flow Rate, veh/h	220	0	401	380	619	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	10	21	3	8	4	6
Cap, veh/h	261		480	2427	2587	
Arrive On Green	0.16	0.00	0.05	0.24	0.51	0.00
Sat Flow, veh/h	1668	1346	3428	3474	5191	1535
Grp Volume(v), veh/h	220	0	401	380	619	0
Grp Sat Flow(s),veh/h/ln	1668	1346	1714	1692	1675	1535
Q Serve(g_s), s	11.5	0.0	10.4	8.0	6.1	0.0
Cycle Q Clear(g_c), s	11.5	0.0	10.4	8.0	6.1	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	261		480	2427	2587	
V/C Ratio(X)	0.84		0.84	0.16	0.24	
Avail Cap(c_a), veh/h	575		510	2427	2587	
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.9	0.0	41.9	12.8	12.1	0.0
Incr Delay (d2), s/veh	7.3	0.0	11.0	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.9	0.0	9.2	5.0	3.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.2	0.0	52.9	12.9	12.3	0.0
LnGrp LOS	D		D	B	B	
Approach Vol, veh/h	220			781	619	
Approach Delay, s/veh	44.2			33.4	12.3	
Approach LOS	D			C	B	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	69.9		20.1	18.2	51.7
Change Period (Y+Rc), s	5.4		6.0	5.6	5.4
Max Green Setting (Gmax), s	47.6		31.0	13.4	28.6
Max Q Clear Time (g_c+I1), s	10.0		13.5	12.4	8.1
Green Ext Time (p_c), s	2.5		0.6	0.2	3.9

Intersection Summary	
HCM 6th Ctrl Delay	26.8
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	0	185	0	0	4	401	582	0	0	575	296
Future Volume (veh/h)	119	0	185	0	0	4	401	582	0	0	575	296
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1900	1856	1900	1900	1900	1811	1826	1900	1900	1722	1841
Adj Flow Rate, veh/h	123	0	0	0	0	0	413	600	0	0	593	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	11	0	3	0	0	0	6	5	0	0	12	4
Cap, veh/h	194	0		0	2	0	518	2830	0	80	2799	
Arrive On Green	0.06	0.00	0.00	0.00	0.00	0.00	0.15	0.82	0.00	0.00	0.20	0.00
Sat Flow, veh/h	3309	0	1572	0	1900	0	3346	3561	0	832	4701	1560
Grp Volume(v), veh/h	123	0	0	0	0	0	413	600	0	0	593	0
Grp Sat Flow(s),veh/h/ln	1654	0	1572	0	1900	0	1673	1735	0	832	1567	1560
Q Serve(g_s), s	3.3	0.0	0.0	0.0	0.0	0.0	10.7	3.5	0.0	0.0	9.5	0.0
Cycle Q Clear(g_c), s	3.3	0.0	0.0	0.0	0.0	0.0	10.7	3.5	0.0	0.0	9.5	0.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	194	0		0	2	0	518	2830	0	80	2799	
V/C Ratio(X)	0.63	0.00		0.00	0.00	0.00	0.80	0.21	0.00	0.00	0.21	
Avail Cap(c_a), veh/h	647	0		0	106	0	933	2830	0	80	2799	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	41.4	0.0	0.0	0.0	0.0	0.0	36.7	1.8	0.0	0.0	18.5	0.0
Incr Delay (d2), s/veh	3.4	0.0	0.0	0.0	0.0	0.0	2.9	0.2	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	0.0	0.0	0.0	0.0	0.0	8.0	1.2	0.0	0.0	6.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.8	0.0	0.0	0.0	0.0	0.0	39.5	2.0	0.0	0.0	18.6	0.0
LnGrp LOS	D	A		A	A	A	D	A	A	A	B	
Approach Vol, veh/h		123			0			1013			593	
Approach Delay, s/veh		44.8			0.0			17.3			18.6	
Approach LOS		D						B			B	

Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	79.3	10.7	19.8	59.5	0.0
Change Period (Y+Rc), s	5.9	5.4	5.9	5.9	6.0
Max Green Setting (Gmax), s	50.1	17.6	25.1	19.1	5.0
Max Q Clear Time (g_c+I1), s	5.5	5.3	12.7	11.5	0.0
Green Ext Time (p_c), s	4.8	0.3	1.2	2.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	56	81	74	42	0	0	0	0	39	1803	3
Future Volume (veh/h)	0	56	81	74	42	0	0	0	0	39	1803	3
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1826	1841	1633	0				1811	1856	1900
Adj Flow Rate, veh/h	0	63	66	83	47	0				44	2026	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	4	5	4	18	0				6	3	0
Cap, veh/h	0	220	196	173	390	0				82	4038	6
Arrive On Green	0.00	0.13	0.13	0.13	0.13	0.00				0.77	0.77	0.77
Sat Flow, veh/h	0	1841	1560	1241	3185	0				108	5277	8
Grp Volume(v), veh/h	0	63	66	83	47	0				756	628	689
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1241	1552	0				1850	1689	1854
Q Serve(g_s), s	0.0	3.6	4.2	7.2	1.5	0.0				17.8	15.3	15.3
Cycle Q Clear(g_c), s	0.0	3.6	4.2	11.4	1.5	0.0				17.8	15.3	15.3
Prop In Lane	0.00		1.00	1.00		0.00				0.06		0.00
Lane Grp Cap(c), veh/h	0	220	196	173	390	0				1416	1292	1419
V/C Ratio(X)	0.00	0.29	0.34	0.48	0.12	0.00				0.53	0.49	0.49
Avail Cap(c_a), veh/h	0	429	383	322	762	0				1416	1292	1419
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.83	0.83	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	43.6	43.9	49.1	42.7	0.0				5.1	4.8	4.8
Incr Delay (d2), s/veh	0.0	0.7	1.0	1.7	0.1	0.0				1.4	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	2.9	3.1	4.2	1.0	0.0				10.1	8.3	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	44.3	44.9	50.8	42.8	0.0				6.6	6.1	6.0
LnGrp LOS	A	D	D	D	D	A				A	A	A
Approach Vol, veh/h		129			130						2073	
Approach Delay, s/veh		44.6			47.9						6.3	
Approach LOS		D			D						A	

Timer - Assigned Phs	2	4			8							
Phs Duration (G+Y+Rc), s	90.2	19.8			19.8							
Change Period (Y+Rc), s	6.0	6.0			6.0							
Max Green Setting (Gmax), s	71.0	27.0			27.0							
Max Q Clear Time (g_c+I1), s	19.8	6.2			13.4							
Green Ext Time (p_c), s	25.7	0.6			0.4							

Intersection Summary												
HCM 6th Ctrl Delay		10.7										
HCM 6th LOS		B										



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	123	0	0	132	56	7	596	19	0	0	0
Future Volume (veh/h)	14	123	0	0	132	56	7	596	19	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1885	0	0	1841	1900	1900	1885	1515			
Adj Flow Rate, veh/h	16	137	0	0	147	5	8	662	19			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	1	0	0	4	0	0	1	26			
Cap, veh/h	56	284	0	0	314	11	61	5361	157			
Arrive On Green	0.18	0.18	0.00	0.00	0.09	0.09	0.26	0.26	0.26			
Sat Flow, veh/h	186	3212	0	0	3543	117	76	6702	196			
Grp Volume(v), veh/h	82	71	0	0	74	78	199	311	179			
Grp Sat Flow(s),veh/h/ln	1682	1630	0	0	1749	1820	1881	1621	1850			
Q Serve(g_s), s	0.5	4.3	0.0	0.0	4.4	4.5	8.9	8.0	8.1			
Cycle Q Clear(g_c), s	4.9	4.3	0.0	0.0	4.4	4.5	8.9	8.0	8.1			
Prop In Lane	0.20		0.00	0.00		0.06	0.04		0.11			
Lane Grp Cap(c), veh/h	192	148	0	0	159	165	1505	2594	1480			
V/C Ratio(X)	0.42	0.48	0.00	0.00	0.47	0.47	0.13	0.12	0.12			
Avail Cap(c_a), veh/h	457	400	0	0	429	447	1505	2594	1480			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.93	0.93	0.00	0.00	1.00	1.00	0.96	0.96	0.96			
Uniform Delay (d), s/veh	42.7	42.7	0.0	0.0	47.5	47.5	11.4	11.0	11.1			
Incr Delay (d2), s/veh	1.4	2.2	0.0	0.0	2.1	2.1	0.2	0.1	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	3.6	3.2	0.0	0.0	3.6	3.8	7.0	5.2	6.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	44.9	0.0	0.0	49.6	49.6	11.5	11.1	11.2			
LnGrp LOS	D	D	A	A	D	D	B	B	B			
Approach Vol, veh/h		153			152			689				
Approach Delay, s/veh		44.5			49.6			11.3				
Approach LOS		D			D			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		94.0		16.0				16.0				
Change Period (Y+Rc), s		6.0		6.0				6.0				
Max Green Setting (Gmax), s		71.0		27.0				27.0				
Max Q Clear Time (g_c+I1), s		10.9		6.9				6.5				
Green Ext Time (p_c), s		5.0		0.7				0.7				
Intersection Summary												
HCM 6th Ctrl Delay			22.2									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	148	1	22	46	0	0	0	0	345	455	79
Future Volume (veh/h)	0	148	1	22	46	0	0	0	0	345	455	79
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1752	1900	1826	1870	0				1900	1885	1796
Adj Flow Rate, veh/h	0	157	1	23	49	0				367	484	25
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	10	0	5	2	0				0	1	7
Cap, veh/h	0	1934	12	762	2027	0				498	986	419
Arrive On Green	0.00	0.57	0.57	0.57	0.57	0.00				0.28	0.28	0.28
Sat Flow, veh/h	0	3478	22	1199	3647	0				1810	3582	1522
Grp Volume(v), veh/h	0	77	81	23	49	0				367	484	25
Grp Sat Flow(s),veh/h/ln	0	1664	1748	1199	1777	0				1810	1791	1522
Q Serve(g_s), s	0.0	1.5	1.5	0.6	0.4	0.0				12.9	7.9	0.8
Cycle Q Clear(g_c), s	0.0	1.5	1.5	2.1	0.4	0.0				12.9	7.9	0.8
Prop In Lane	0.00		0.01	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	949	997	762	2027	0				498	986	419
V/C Ratio(X)	0.00	0.08	0.08	0.03	0.02	0.00				0.74	0.49	0.06
Avail Cap(c_a), veh/h	0	949	997	762	2027	0				871	1724	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.88	0.88	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	6.8	6.8	7.2	6.5	0.0				23.1	21.3	18.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0				2.1	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.8	0.8	0.3	0.3	0.0				9.3	5.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.8	6.8	7.3	6.6	0.0				25.2	21.6	18.8
LnGrp LOS	A	A	A	A	A	A				C	C	B
Approach Vol, veh/h		158			72						876	
Approach Delay, s/veh		6.8			6.8						23.1	
Approach LOS		A			A						C	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	45.4	24.6	45.4
Change Period (Y+Rc), s	5.5	* 5.3	5.5
Max Green Setting (Gmax), s	25.5	* 34	25.5
Max Q Clear Time (g_c+I1), s	4.1	14.9	3.5
Green Ext Time (p_c), s	0.3	4.4	0.8

Intersection Summary	
HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	483	0	0	204	23	2	92	9	0	0	0
Future Volume (veh/h)	38	483	0	0	204	23	2	92	9	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1544	1885	0	0	1870	1618	1900	1811	1900			
Adj Flow Rate, veh/h	44	562	0	0	237	19	2	107	1			
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86			
Percent Heavy Veh, %	24	1	0	0	2	19	0	6	0			
Cap, veh/h	185	2259	0	0	2343	186	13	716	230			
Arrive On Green	0.70	0.70	0.00	0.00	0.70	0.70	0.14	0.14	0.14			
Sat Flow, veh/h	180	3300	0	0	3428	265	88	5015	1610			
Grp Volume(v), veh/h	317	289	0	0	125	131	41	68	1			
Grp Sat Flow(s),veh/h/ln	1765	1630	0	0	1777	1823	1807	1648	1610			
Q Serve(g_s), s	0.0	4.5	0.0	0.0	1.6	1.6	1.4	1.3	0.0			
Cycle Q Clear(g_c), s	4.2	4.5	0.0	0.0	1.6	1.6	1.4	1.3	0.0			
Prop In Lane	0.14		0.00	0.00		0.15	0.05		1.00			
Lane Grp Cap(c), veh/h	1299	1145	0	0	1249	1281	258	471	230			
V/C Ratio(X)	0.24	0.25	0.00	0.00	0.10	0.10	0.16	0.14	0.00			
Avail Cap(c_a), veh/h	1299	1145	0	0	1249	1281	586	1069	522			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.89	0.89	0.00	0.00	0.97	0.97	1.00	1.00	1.00			
Uniform Delay (d), s/veh	3.7	3.8	0.0	0.0	3.3	3.3	26.3	26.3	25.7			
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.0	0.2	0.2	0.3	0.1	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	2.1	1.9	0.0	0.0	0.8	0.8	1.1	0.9	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.8	3.9	0.0	0.0	3.5	3.5	26.6	26.4	25.7			
LnGrp LOS	A	A	A	A	A	A	C	C	C			
Approach Vol, veh/h		606			256			110				
Approach Delay, s/veh		3.8			3.5			26.5				
Approach LOS		A			A			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		54.7				54.7		15.3				
Change Period (Y+Rc), s		5.5				5.5		5.3				
Max Green Setting (Gmax), s		36.5				36.5		22.7				
Max Q Clear Time (g_c+I1), s		3.6				6.5		3.4				
Green Ext Time (p_c), s		1.5				4.1		0.5				
Intersection Summary												
HCM 6th Ctrl Delay			6.3									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	393	79	41	86	72	12	87	43	27	40	11
Future Volume (veh/h)	14	393	79	41	86	72	12	87	43	27	40	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			Yes			No	
Adj Sat Flow, veh/h/ln	1900	1885	1900	1826	1826	1856	1900	1826	1856	1841	1900	1900
Adj Flow Rate, veh/h	14	397	55	41	87	15	12	88	28	27	40	7
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	1	0	5	5	3	0	5	3	4	0	0
Cap, veh/h	52	601	82	148	311	310	220	1537	475	725	1197	221
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.67	0.67	0.67	0.67	0.67	0.67
Sat Flow, veh/h	47	3045	413	344	1578	1572	258	2296	709	982	1789	330
Grp Volume(v), veh/h	248	0	218	41	87	15	67	0	61	39	0	35
Grp Sat Flow(s),veh/h/ln	1864	0	1641	344	1578	1572	1729	0	1534	1431	0	1670
Q Serve(g_s), s	1.2	0.0	11.1	3.9	4.2	0.7	0.0	0.0	1.2	0.0	0.0	0.6
Cycle Q Clear(g_c), s	11.0	0.0	11.1	15.0	4.2	0.7	1.1	0.0	1.2	1.2	0.0	0.6
Prop In Lane	0.06		0.25	1.00		1.00	0.18		0.46	0.70		0.20
Lane Grp Cap(c), veh/h	410	0	324	148	311	310	1204	0	1027	1026	0	1118
V/C Ratio(X)	0.60	0.00	0.67	0.28	0.28	0.05	0.06	0.00	0.06	0.04	0.00	0.03
Avail Cap(c_a), veh/h	844	0	711	364	684	681	1204	0	1027	1026	0	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.00	0.97	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.4	0.0	33.5	40.4	30.7	29.3	5.1	0.0	5.1	5.0	0.0	5.0
Incr Delay (d2), s/veh	1.4	0.0	2.4	1.0	0.5	0.1	0.1	0.0	0.1	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.7	0.0	8.0	1.6	2.9	0.5	0.7	0.0	0.7	0.4	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	0.0	35.8	41.4	31.2	29.3	5.2	0.0	5.2	5.1	0.0	5.1
LnGrp LOS	C	A	D	D	C	C	A	A	A	A	A	A
Approach Vol, veh/h		466			143			128			74	
Approach Delay, s/veh		35.3			33.9			5.2			5.1	
Approach LOS		D			C			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	66.2	23.8	66.2	23.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	39.0	39.0	39.0	39.0
Max Q Clear Time (g_c+I1), s	3.2	13.1	3.2	17.0
Green Ext Time (p_c), s	0.7	2.9	0.4	0.8

Intersection Summary	
HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	170	287	334	92	13	77	109	125	63	838	28
Future Volume (veh/h)	6	170	287	334	92	13	77	109	125	63	838	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1885	1885	1826	1900	1856	1870	1870	1900	1885	1900
Adj Flow Rate, veh/h	6	179	161	352	97	9	81	115	46	66	882	26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	3	1	1	5	0	3	2	2	0	1	0
Cap, veh/h	14	252	213	442	447	41	302	1638	694	668	1536	45
Arrive On Green	0.00	0.05	0.05	0.13	0.27	0.27	0.04	0.44	0.44	0.04	0.43	0.43
Sat Flow, veh/h	1810	1812	1530	3483	1646	153	1767	3741	1585	1810	3553	105
Grp Volume(v), veh/h	6	174	166	352	0	106	81	115	46	66	445	463
Grp Sat Flow(s),veh/h/ln	1810	1763	1580	1742	0	1798	1767	1870	1585	1810	1791	1866
Q Serve(g_s), s	0.3	8.7	9.4	8.8	0.0	4.1	2.3	1.6	0.8	1.8	16.9	16.9
Cycle Q Clear(g_c), s	0.3	8.7	9.4	8.8	0.0	4.1	2.3	1.6	0.8	1.8	16.9	16.9
Prop In Lane	1.00		0.97	1.00		0.08	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	14	245	220	442	0	489	302	1638	694	668	775	807
V/C Ratio(X)	0.43	0.71	0.76	0.80	0.00	0.22	0.27	0.07	0.07	0.10	0.57	0.57
Avail Cap(c_a), veh/h	121	368	330	619	0	575	328	1638	694	703	775	807
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	0.67	0.64	0.00	0.64	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.7	41.1	41.4	38.2	0.0	25.4	14.9	14.7	4.2	13.2	19.3	19.3
Incr Delay (d2), s/veh	13.3	2.5	3.6	3.2	0.0	0.1	0.5	0.1	0.2	0.1	3.1	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	7.0	6.8	6.5	0.0	3.1	1.6	1.2	1.0	1.3	11.8	12.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	43.7	45.1	41.3	0.0	25.5	15.4	14.8	4.3	13.3	22.4	22.2
LnGrp LOS	E	D	D	D	A	C	B	B	A	B	C	C
Approach Vol, veh/h		346			458			242			974	
Approach Delay, s/veh		44.6			37.7			13.0			21.7	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	45.4	17.6	18.7	8.7	44.9	5.7	30.7
Change Period (Y+Rc), s	5.0	6.0	* 6.2	* 6.2	5.0	6.0	5.0	* 6.2
Max Green Setting (Gmax), s	5.0	28.0	* 16	* 19	5.0	28.0	6.0	* 29
Max Q Clear Time (g_c+I1), s	3.3	3.6	10.8	11.4	4.3	18.9	2.3	6.1
Green Ext Time (p_c), s	0.0	0.8	0.6	1.2	0.0	3.9	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	155	211	48	302	0	0	0	0	22	939	157
Future Volume (veh/h)	0	155	211	48	302	0	0	0	0	22	939	157
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1856	1885	1870	1900	0				1900	1885	1856
Adj Flow Rate, veh/h	0	161	114	50	315	0				23	978	164
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	3	1	2	0	0				0	1	3
Cap, veh/h	0	369	246	94	497	0				1229	3015	504
Arrive On Green	0.00	0.06	0.06	0.18	0.18	0.00				0.68	0.68	0.68
Sat Flow, veh/h	0	2118	1350	239	2816	0				1810	4440	743
Grp Volume(v), veh/h	0	139	136	185	180	0				23	755	387
Grp Sat Flow(s),veh/h/ln	0	1763	1613	1326	1643	0				1810	1716	1752
Q Serve(g_s), s	0.0	6.8	7.3	5.4	9.1	0.0				0.4	8.2	8.2
Cycle Q Clear(g_c), s	0.0	6.8	7.3	12.8	9.1	0.0				0.4	8.2	8.2
Prop In Lane	0.00		0.84	0.27		0.00				1.00		0.42
Lane Grp Cap(c), veh/h	0	321	294	292	299	0				1229	2330	1189
V/C Ratio(X)	0.00	0.43	0.46	0.63	0.60	0.00				0.02	0.32	0.33
Avail Cap(c_a), veh/h	0	509	466	463	475	0				1229	2330	1189
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.78	0.78	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	37.8	38.0	35.3	33.8	0.0				4.7	5.9	6.0
Incr Delay (d2), s/veh	0.0	0.7	0.9	2.3	2.0	0.0				0.0	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	5.7	5.6	7.2	6.7	0.0				0.2	4.7	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	38.5	38.9	37.5	35.8	0.0				4.7	6.3	6.7
LnGrp LOS	A	D	D	D	D	A				A	A	A
Approach Vol, veh/h		275			365						1165	
Approach Delay, s/veh		38.7			36.7						6.4	
Approach LOS		D			D						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	67.6	22.4	22.4
Change Period (Y+Rc), s	6.5	6.0	6.0
Max Green Setting (Gmax), s	51.5	26.0	26.0
Max Q Clear Time (g_c+I1), s	10.2	9.3	14.8
Green Ext Time (p_c), s	10.2	1.4	1.6

Intersection Summary	
HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	120	210	0	0	0	0	0	1596	385
Future Volume (veh/h)	0	0	0	120	210	0	0	0	0	0	1596	385
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1530	1737	0				0	1870	1856
Adj Flow Rate, veh/h				118	241	0				0	1716	0
Peak Hour Factor				0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %				25	11	0				0	2	3
Cap, veh/h				437	1042	0				0	1777	
Arrive On Green				0.10	0.10	0.00				0.00	0.17	0.00
Sat Flow, veh/h				1457	3474	0				0	3647	1572
Grp Volume(v), veh/h				118	241	0				0	1716	0
Grp Sat Flow(s),veh/h/ln				1457	1737	0				0	1777	1572
Q Serve(g_s), s				4.1	3.5	0.0				0.0	26.4	0.0
Cycle Q Clear(g_c), s				4.1	3.5	0.0				0.0	26.4	0.0
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				437	1042	0				0	1777	
V/C Ratio(X)				0.27	0.23	0.00				0.00	0.97	
Avail Cap(c_a), veh/h				437	1042	0				0	1777	
HCM Platoon Ratio				0.33	0.33	1.00				1.00	0.33	0.33
Upstream Filter(I)				0.96	0.96	0.00				0.00	0.83	0.00
Uniform Delay (d), s/veh				19.2	18.9	0.0				0.0	22.5	0.0
Incr Delay (d2), s/veh				1.5	0.5	0.0				0.0	12.4	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				2.7	2.5	0.0				0.0	20.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.7	19.4	0.0				0.0	34.9	0.0
LnGrp LOS				C	B	A				A	C	
Approach Vol, veh/h					359						1716	
Approach Delay, s/veh					19.8						34.9	
Approach LOS					B						C	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	22.0	33.0
Change Period (Y+Rc), s	5.5	5.5
Max Green Setting (Gmax), s	16.5	27.5
Max Q Clear Time (g_c+I1), s	6.1	28.4
Green Ext Time (p_c), s	1.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	114	201	206	432	0	0	0	0
Future Volume (veh/h)	0	0	0	0	114	201	206	432	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1530	1841	1781	1856	0			
Adj Flow Rate, veh/h				0	116	117	210	441	0			
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %				0	25	4	8	3	0			
Cap, veh/h				0	909	1632	349	1041	0			
Arrive On Green				0.00	0.59	0.59	0.21	0.21	0.00			
Sat Flow, veh/h				0	1530	2745	1697	5233	0			
Grp Volume(v), veh/h				0	116	117	210	441	0			
Grp Sat Flow(s),veh/h/ln				0	1530	1373	1697	1689	0			
Q Serve(g_s), s				0.0	1.8	1.0	6.2	4.2	0.0			
Cycle Q Clear(g_c), s				0.0	1.8	1.0	6.2	4.2	0.0			
Prop In Lane				0.00		1.00	1.00		0.00			
Lane Grp Cap(c), veh/h				0	909	1632	349	1041	0			
V/C Ratio(X)				0.00	0.13	0.07	0.60	0.42	0.00			
Avail Cap(c_a), veh/h				0	909	1632	694	2072	0			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.92	0.92	0.00			
Uniform Delay (d), s/veh				0.0	4.9	4.7	19.8	19.0	0.0			
Incr Delay (d2), s/veh				0.0	0.3	0.1	1.5	0.3	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln				0.0	0.9	0.4	4.3	2.7	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	5.2	4.8	21.3	19.3	0.0			
LnGrp LOS				A	A	A	C	B	A			
Approach Vol, veh/h					233			651				
Approach Delay, s/veh					5.0			19.9				
Approach LOS					A			B				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						38.2		16.8				
Change Period (Y+Rc), s						5.5		5.5				
Max Green Setting (Gmax), s						21.5		22.5				
Max Q Clear Time (g_c+I1), s						3.8		8.2				
Green Ext Time (p_c), s						1.0		3.1				

Intersection Summary	
HCM 6th Ctrl Delay	16.0
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	73	77	0	0	0	0	0	0	533	1073	0
Future Volume (veh/h)	0	73	77	0	0	0	0	0	0	533	1073	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1885	1781							1885	1796	0
Adj Flow Rate, veh/h	0	74	0							544	1095	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	1	8							1	7	0
Cap, veh/h	0	1603								861	1636	0
Arrive On Green	0.00	0.31	0.00							0.16	0.16	0.00
Sat Flow, veh/h	0	5316	1510							1795	3503	0
Grp Volume(v), veh/h	0	74	0							544	1095	0
Grp Sat Flow(s),veh/h/ln	0	1716	1510							1795	1706	0
Q Serve(g_s), s	0.0	0.6	0.0							15.6	16.6	0.0
Cycle Q Clear(g_c), s	0.0	0.6	0.0							15.6	16.6	0.0
Prop In Lane	0.00		1.00							1.00		0.00
Lane Grp Cap(c), veh/h	0	1603								861	1636	0
V/C Ratio(X)	0.00	0.05								0.63	0.67	0.00
Avail Cap(c_a), veh/h	0	1603								1028	1955	0
HCM Platoon Ratio	1.00	1.00	1.00							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	0.00							0.57	0.57	0.00
Uniform Delay (d), s/veh	0.0	13.2	0.0							18.6	19.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0							0.5	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.4	0.0							10.7	10.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	13.3	0.0							19.1	19.4	0.0
LnGrp LOS	A	B								B	B	A
Approach Vol, veh/h		74									1639	
Approach Delay, s/veh		13.3									19.3	
Approach LOS		B									B	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	23.1	31.9
Change Period (Y+Rc), s	6.0	5.5
Max Green Setting (Gmax), s	12.0	31.5
Max Q Clear Time (g_c+I1), s	2.6	18.6
Green Ext Time (p_c), s	0.2	7.8

Intersection Summary	
HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	734	0	0	0	0	0	489	363	0	0	0
Future Volume (veh/h)	118	734	0	0	0	0	0	489	363	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1811	1885	0				0	1781	1767			
Adj Flow Rate, veh/h	128	798	0				0	532	0			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	6	1	0				0	8	9			
Cap, veh/h	2069	1165	0				0	884				
Arrive On Green	0.20	0.20	0.00				0.00	0.18	0.00			
Sat Flow, veh/h	3346	1885	0				0	5024	1497			
Grp Volume(v), veh/h	128	798	0				0	532	0			
Grp Sat Flow(s),veh/h/ln	1673	1885	0				0	1621	1497			
Q Serve(g_s), s	1.7	21.5	0.0				0.0	5.5	0.0			
Cycle Q Clear(g_c), s	1.7	21.5	0.0				0.0	5.5	0.0			
Prop In Lane	1.00		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	2069	1165	0				0	884				
V/C Ratio(X)	0.06	0.68	0.00				0.00	0.60				
Avail Cap(c_a), veh/h	2069	1165	0				0	1105				
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	0.92	0.92	0.00				0.00	0.78	0.00			
Uniform Delay (d), s/veh	9.0	16.9	0.0				0.0	20.7	0.0			
Incr Delay (d2), s/veh	0.1	3.0	0.0				0.0	0.5	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	0.8	16.7	0.0				0.0	3.5	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.1	20.0	0.0				0.0	21.2	0.0			
LnGrp LOS	A	B	A				A	C				
Approach Vol, veh/h		926						532				
Approach Delay, s/veh		18.5						21.2				
Approach LOS		B						C				

Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						39.5		15.5				
Change Period (Y+Rc), s						5.5		5.5				
Max Green Setting (Gmax), s						31.5		12.5				
Max Q Clear Time (g_c+I1), s						23.5		7.5				
Green Ext Time (p_c), s						3.8		1.6				

Intersection Summary												
HCM 6th Ctrl Delay			19.4									
HCM 6th LOS			B									

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR2	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	285	483	116	110	173	167	47	330	76	244	837	28
Future Volume (vph)	285	483	116	110	173	167	47	330	76	244	837	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.7	6.7	5.0	6.7	6.7	5.0	6.5	5.0	5.0	6.5	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	3505	1538	1719	3312	1599	1467	3252	1615	1805	3438	1495
Flt Permitted	0.45	1.00	1.00	0.47	1.00	1.00	0.26	1.00	1.00	0.47	1.00	1.00
Satd. Flow (perm)	806	3505	1538	841	3312	1599	399	3252	1615	889	3438	1495
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	300	508	122	116	182	176	49	347	80	257	881	29
RTOR Reduction (vph)	0	0	95	0	0	157	0	0	74	0	0	24
Lane Group Flow (vph)	300	508	27	116	182	19	49	347	6	257	881	5
Heavy Vehicles (%)	5%	3%	5%	5%	9%	1%	23%	11%	0%	0%	5%	8%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Over	pm+pt	NA	custom
Protected Phases	3	8		7	4		1	6	7	5	2	3
Permitted Phases	8		8	4		4	6			2		
Actuated Green, G (s)	37.2	24.1	24.1	19.7	11.6	11.6	47.5	40.5	8.1	59.6	47.6	20.6
Effective Green, g (s)	37.2	24.1	24.1	19.7	11.6	11.6	47.5	40.5	8.1	59.6	47.6	20.6
Actuated g/C Ratio	0.34	0.22	0.22	0.18	0.11	0.11	0.43	0.37	0.07	0.54	0.43	0.19
Clearance Time (s)	5.0	6.7	6.7	5.0	6.7	6.7	5.0	6.5	5.0	5.0	6.5	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	443	767	336	215	349	168	240	1197	118	599	1487	279
v/s Ratio Prot	c0.13	0.14		0.04	0.05		0.01	0.11	0.00	c0.05	c0.26	0.00
v/s Ratio Perm	c0.10		0.02	0.06		0.01	0.08			0.18		
v/c Ratio	0.68	0.66	0.08	0.54	0.52	0.11	0.20	0.29	0.05	0.43	0.59	0.02
Uniform Delay, d1	29.3	39.2	34.1	39.7	46.6	44.5	18.7	24.6	47.4	13.7	23.8	36.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.40	1.31	1.00
Incremental Delay, d2	4.1	2.2	0.1	2.6	1.4	0.3	0.4	0.6	0.2	0.4	1.5	0.0
Delay (s)	33.4	41.4	34.2	42.3	48.0	44.8	19.1	25.2	47.5	19.7	32.8	36.5
Level of Service	C	D	C	D	D	D	B	C	D	B	C	D
Approach Delay (s)		37.9			45.4			28.3			30.0	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	34.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	23.2
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	1	132	27	0	11	35	1264	42	5	1572	13
Future Volume (veh/h)	24	1	132	27	0	11	35	1264	42	5	1572	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1856	1841	1900	1752	1752	1885	1900	1900	1870	1900
Adj Flow Rate, veh/h	26	1	13	29	0	2	38	1359	44	5	1690	10
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	3	4	0	10	10	1	0	0	2	0
Cap, veh/h	213	10	124	182	3	7	47	2585	84	9	2514	1139
Arrive On Green	0.08	0.08	0.08	0.08	0.00	0.08	0.03	0.73	0.73	0.01	0.71	0.71
Sat Flow, veh/h	1437	116	1512	1211	35	86	1668	3541	115	1810	3554	1610
Grp Volume(v), veh/h	26	0	14	31	0	0	38	687	716	5	1690	10
Grp Sat Flow(s),veh/h/ln	1437	0	1628	1331	0	0	1668	1791	1865	1810	1777	1610
Q Serve(g_s), s	0.0	0.0	0.7	1.6	0.0	0.0	1.9	14.3	14.3	0.2	22.6	0.2
Cycle Q Clear(g_c), s	1.1	0.0	0.7	2.2	0.0	0.0	1.9	14.3	14.3	0.2	22.6	0.2
Prop In Lane	1.00		0.93	0.94		0.06	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	213	0	134	192	0	0	47	1307	1361	9	2514	1139
V/C Ratio(X)	0.12	0.00	0.10	0.16	0.00	0.00	0.82	0.53	0.53	0.53	0.67	0.01
Avail Cap(c_a), veh/h	424	0	373	402	0	0	239	1307	1361	260	2514	1139
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	0.0	36.1	37.0	0.0	0.0	41.1	5.0	5.0	42.2	6.9	3.7
Incr Delay (d2), s/veh	0.3	0.0	0.3	0.4	0.0	0.0	24.7	1.3	1.3	38.7	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	0.0	0.5	1.1	0.0	0.0	2.0	7.5	7.8	0.4	11.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	0.0	36.4	37.4	0.0	0.0	65.8	6.3	6.3	80.9	8.4	3.7
LnGrp LOS	D	A	D	D	A	A	E	A	A	F	A	A
Approach Vol, veh/h		40			31			1441			1705	
Approach Delay, s/veh		36.5			37.4			7.9			8.6	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.2	67.3		12.5	7.2	65.3		12.5
Change Period (Y+Rc), s	* 4.8	5.2		5.5	* 4.8	5.2		5.5
Max Green Setting (Gmax), s	* 1.2	37.8		19.5	* 12	37.8		19.5
Max Q Clear Time (g_c+I1), s	2.2	16.3		4.2	3.9	24.6		3.1
Green Ext Time (p_c), s	0.0	10.6		0.1	0.0	9.7		0.1

Intersection Summary	
HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	259	0	289	0	899	377	0	695	668	0	0
Future Volume (veh/h)	259	0	289	0	899	377	0	695	668	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach		No			No			No			
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1856	1781	0	1870	1796		
Adj Flow Rate, veh/h	276	276	0	0	956	0	0	739	0		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	5	0	3	8	0	2	7		
Cap, veh/h	322	322		0	2438		0	2458			
Arrive On Green	0.18	0.18	0.00	0.00	0.69	0.00	0.00	0.69	0.00		
Sat Flow, veh/h	1781	1781	1547	0	3618	1510	0	3647	1522		
Grp Volume(v), veh/h	276	276	0	0	956	0	0	739	0		
Grp Sat Flow(s),veh/h/ln	1781	1781	1547	0	1763	1510	0	1777	1522		
Q Serve(g_s), s	13.5	13.5	0.0	0.0	10.3	0.0	0.0	7.3	0.0		
Cycle Q Clear(g_c), s	13.5	13.5	0.0	0.0	10.3	0.0	0.0	7.3	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	322	322		0	2438		0	2458			
V/C Ratio(X)	0.86	0.86		0.00	0.39		0.00	0.30			
Avail Cap(c_a), veh/h	673	673		0	2438		0	2458			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.65	0.00		
Uniform Delay (d), s/veh	35.8	35.8	0.0	0.0	5.9	0.0	0.0	5.4	0.0		
Incr Delay (d2), s/veh	6.6	6.6	0.0	0.0	0.5	0.0	0.0	0.2	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	10.5	10.5	0.0	0.0	6.0	0.0	0.0	4.2	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	42.4	42.4	0.0	0.0	6.3	0.0	0.0	5.6	0.0		
LnGrp LOS	D	D		A	A		A	A			
Approach Vol, veh/h	276	276			956			739			
Approach Delay, s/veh	42.4	42.4			6.3			5.6			
Approach LOS	D	D			A			A			

Timer - Assigned Phs	2	6	8
Phs Duration (G+Y+Rc), s	67.7	67.7	22.3
Change Period (Y+Rc), s	5.5	5.5	6.0
Max Green Setting (Gmax), s	44.5	44.5	34.0
Max Q Clear Time (g_c+I1), s	12.3	9.3	15.5
Green Ext Time (p_c), s	8.2	6.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

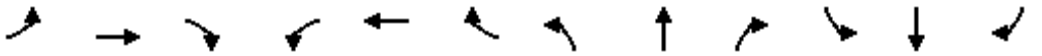
Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	299	0	0	603	0	666	449	321	604	0
Future Vol, veh/h	0	0	299	0	0	603	0	666	449	321	604	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	Yield	-	-	None
Storage Length	-	-	0	-	-	0	-	-	300	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	6	0	0	4	0	4	1	2	2	0
Mvmt Flow	0	0	329	0	0	663	0	732	493	353	664	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	-	-	332	-	0	0	732	0	0
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.02	-	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.36	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	652	0	-	-	868	-	0
Stage 1	0	0	-	0	-	-	-	-	0
Stage 2	0	0	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	-	0	652	-	-	-	868	-	-
Mov Cap-2 Maneuver	-	0	-	-	-	-	-	-	-
Stage 1	-	0	-	-	-	-	-	-	-
Stage 2	-	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16	0	4.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	652	868	-
HCM Lane V/C Ratio	-	-	0.504	0.406	-
HCM Control Delay (s)	-	-	16	12	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	2.8	2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	36	28	7	26	99	11	704	9	72	699	135
Future Volume (veh/h)	290	36	28	7	26	99	11	704	9	72	699	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1900	1693	1781	1796	1767	1870	1900	1633	1870	1796
Adj Flow Rate, veh/h	322	40	25	8	29	38	12	782	9	80	777	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	0	14	8	7	9	2	0	18	2	7
Cap, veh/h	455	45	28	576	240	314	61	1691	19	303	1727	
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.49	0.49	0.49	0.49	0.49	0.00
Sat Flow, veh/h	1052	131	82	1210	700	917	17	3481	40	599	3554	1522
Grp Volume(v), veh/h	387	0	0	8	0	67	419	0	384	80	777	0
Grp Sat Flow(s),veh/h/ln	1264	0	0	1210	0	1616	1842	0	1695	599	1777	1522
Q Serve(g_s), s	18.7	0.0	0.0	0.0	0.0	2.0	0.0	0.0	10.6	7.2	10.1	0.0
Cycle Q Clear(g_c), s	20.7	0.0	0.0	0.3	0.0	2.0	10.4	0.0	10.6	17.7	10.1	0.0
Prop In Lane	0.83		0.06	1.00		0.57	0.03		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	528	0	0	576	0	554	948	0	823	303	1727	
V/C Ratio(X)	0.73	0.00	0.00	0.01	0.00	0.12	0.44	0.00	0.47	0.26	0.45	
Avail Cap(c_a), veh/h	626	0	0	663	0	670	948	0	823	303	1727	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.9	0.0	0.0	15.2	0.0	15.8	11.9	0.0	12.0	17.9	11.8	0.0
Incr Delay (d2), s/veh	3.7	0.0	0.0	0.0	0.0	0.1	1.5	0.0	1.9	2.1	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.2	0.0	0.0	0.1	0.0	1.3	7.6	0.0	7.1	2.0	6.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	0.0	0.0	15.2	0.0	15.9	13.4	0.0	13.9	20.0	12.7	0.0
LnGrp LOS	C	A	A	B	A	B	B	A	B	B	B	
Approach Vol, veh/h		387			75			803			857	
Approach Delay, s/veh		26.5			15.8			13.6			13.4	
Approach LOS		C			B			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		40.0		30.0		40.0		30.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		29.0		29.0		29.0		29.0				
Max Q Clear Time (g_c+I1), s		19.7		22.7		12.6		4.0				
Green Ext Time (p_c), s		4.1		1.3		4.8		0.3				

Intersection Summary												
HCM 6th Ctrl Delay			16.0									
HCM 6th LOS			B									

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	543	0	508	0	1276	257	0	979	594	0	0
Future Volume (veh/h)	543	0	508	0	1276	257	0	979	594	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach		No			No			No			
Adj Sat Flow, veh/h/ln	1856	1856	1811	0	1841	1856	0	1870	1841		
Adj Flow Rate, veh/h	578	578	0	0	1357	0	0	1041	0		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	3	3	6	0	4	3	0	2	4		
Cap, veh/h	699	699		0	3438		0	3493			
Arrive On Green	0.20	0.20	0.00	0.00	0.23	0.00	0.00	0.68	0.00		
Sat Flow, veh/h	3428	3428	1535	0	5191	1572	0	5274	1560		
Grp Volume(v), veh/h	578	578	0	0	1357	0	0	1041	0		
Grp Sat Flow(s),veh/h/ln	1714	1714	1535	0	1675	1572	0	1702	1560		
Q Serve(g_s), s	16.1	16.1	0.0	0.0	23.0	0.0	0.0	8.1	0.0		
Cycle Q Clear(g_c), s	16.1	16.1	0.0	0.0	23.0	0.0	0.0	8.1	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	699	699		0	3438		0	3493			
V/C Ratio(X)	0.83	0.83		0.00	0.39		0.00	0.30			
Avail Cap(c_a), veh/h	1766	1766		0	3438		0	3493			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	38.1	38.1	0.0	0.0	21.1	0.0	0.0	6.3	0.0		
Incr Delay (d2), s/veh	2.6	2.6	0.0	0.0	0.3	0.0	0.0	0.2	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	11.3	11.3	0.0	0.0	15.6	0.0	0.0	4.7	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	40.7	40.7	0.0	0.0	21.5	0.0	0.0	6.5	0.0		
LnGrp LOS	D	D		A	C		A	A			
Approach Vol, veh/h	578	578			1357			1041			
Approach Delay, s/veh	40.7	40.7			21.5			6.5			
Approach LOS	D	D			C			A			

Timer - Assigned Phs	2	6	8
Phs Duration (G+Y+Rc), s	74.1	74.1	25.9
Change Period (Y+Rc), s	* 5.7	* 5.7	5.5
Max Green Setting (Gmax), s	* 37	* 37	51.5
Max Q Clear Time (g_c+I1), s	25.0	10.1	18.1
Green Ext Time (p_c), s	7.4	8.5	2.2

Intersection Summary	
HCM 6th Ctrl Delay	20.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	607	0	429	0	948	366	0	1210	338	0	0
Future Volume (veh/h)	607	0	429	0	948	366	0	1210	338	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach		No			No			No			
Adj Sat Flow, veh/h/ln	1796	1796	1870	0	1870	1856	0	1870	1870		
Adj Flow Rate, veh/h	646	646	0	0	1009	0	0	1287	0		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	7	7	2	0	2	3	0	2	2		
Cap, veh/h	764	764		0	2295		0	3298			
Arrive On Green	0.23	0.23	0.00	0.00	0.65	0.00	0.00	0.21	0.00		
Sat Flow, veh/h	3319	3319	1585	0	3647	1572	0	5274	1585		
Grp Volume(v), veh/h	646	646	0	0	1009	0	0	1287	0		
Grp Sat Flow(s),veh/h/ln	1659	1659	1585	0	1777	1572	0	1702	1585		
Q Serve(g_s), s	18.6	18.6	0.0	0.0	14.0	0.0	0.0	21.6	0.0		
Cycle Q Clear(g_c), s	18.6	18.6	0.0	0.0	14.0	0.0	0.0	21.6	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	764	764		0	2295		0	3298			
V/C Ratio(X)	0.85	0.85		0.00	0.44		0.00	0.39			
Avail Cap(c_a), veh/h	1686	1686		0	2295		0	3298			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	36.8	36.8	0.0	0.0	8.8	0.0	0.0	22.4	0.0		
Incr Delay (d2), s/veh	2.7	2.7	0.0	0.0	0.6	0.0	0.0	0.3	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	11.9	11.9	0.0	0.0	8.4	0.0	0.0	15.0	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	39.5	39.5	0.0	0.0	9.4	0.0	0.0	22.8	0.0		
LnGrp LOS	D	D		A	A		A	C			
Approach Vol, veh/h	646	646			1009			1287			
Approach Delay, s/veh	39.5	39.5			9.4			22.8			
Approach LOS	D	D			A			C			

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	70.8	29.2	70.8
Change Period (Y+Rc), s	6.2	6.2	6.2
Max Green Setting (Gmax), s	36.8	50.8	36.8
Max Q Clear Time (g_c+I1), s	16.0	20.6	23.6
Green Ext Time (p_c), s	6.9	2.4	7.0

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	47	431	173	63	19	348	862	103	10	1059	374
Future Volume (veh/h)	118	47	431	173	63	19	348	862	103	10	1059	374
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1648	1322	1870	1752	1678	1633	1811	1811	1648	1574	1856	1796
Adj Flow Rate, veh/h	134	53	0	197	72	3	395	980	105	11	1203	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	17	39	2	10	15	18	6	6	17	22	3	7
Cap, veh/h	323	103		326	313	136	473	2525	270	288	2172	
Arrive On Green	0.10	0.08	0.00	0.12	0.10	0.10	0.28	1.00	1.00	0.01	0.43	0.00
Sat Flow, veh/h	1570	1322	1585	1668	3188	1384	3346	4535	485	1499	5066	1522
Grp Volume(v), veh/h	134	53	0	197	72	3	395	712	373	11	1203	0
Grp Sat Flow(s),veh/h/ln	1570	1322	1585	1668	1594	1384	1673	1648	1724	1499	1689	1522
Q Serve(g_s), s	6.9	3.5	0.0	9.7	1.9	0.2	10.0	0.0	0.0	0.4	16.0	0.0
Cycle Q Clear(g_c), s	6.9	3.5	0.0	9.7	1.9	0.2	10.0	0.0	0.0	0.4	16.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	323	103		326	313	136	473	1835	960	288	2172	
V/C Ratio(X)	0.41	0.52		0.60	0.23	0.02	0.84	0.39	0.39	0.04	0.55	
Avail Cap(c_a), veh/h	425	273		326	517	225	673	1835	960	569	2172	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.5	39.9	0.0	33.1	37.4	36.7	31.3	0.0	0.0	14.1	19.3	0.0
Incr Delay (d2), s/veh	0.9	4.0	0.0	3.1	0.4	0.1	6.3	0.6	1.2	0.1	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	2.1	0.0	7.4	1.3	0.1	6.6	0.3	0.6	0.2	10.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	43.8	0.0	36.3	37.8	36.7	37.6	0.6	1.2	14.2	20.3	0.0
LnGrp LOS	C	D		D	D	D	D	A	A	B	C	
Approach Vol, veh/h		187			272			1480			1214	
Approach Delay, s/veh		37.0			36.7			10.6			20.2	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	55.5	16.0	12.4	17.6	44.0	14.2	14.2
Change Period (Y+Rc), s	* 4.9	* 5.4	* 5.4	* 5.4	* 4.9	* 5.4	* 5.4	* 5.4
Max Green Setting (Gmax), s	* 18	* 22	* 11	* 19	* 18	* 22	* 15	* 15
Max Q Clear Time (g_c+I1), s	12.4	2.0	11.7	5.5	12.0	18.0	8.9	3.9
Green Ext Time (p_c), s	0.0	6.6	0.0	0.1	0.7	2.4	0.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	261	657	406	1023	1364	283
Future Volume (veh/h)	261	657	406	1023	1364	283
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1796	1841	1870	1826	1856	1781
Adj Flow Rate, veh/h	269	0	419	1055	1406	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	4	2	5	3	8
Cap, veh/h	362		500	3815	3608	
Arrive On Green	0.11	0.00	0.29	1.00	1.00	0.00
Sat Flow, veh/h	3319	2745	3456	5149	6643	1510
Grp Volume(v), veh/h	269	0	419	1055	1406	0
Grp Sat Flow(s),veh/h/ln	1659	1373	1728	1662	1596	1510
Q Serve(g_s), s	7.1	0.0	10.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.1	0.0	10.2	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	362		500	3815	3608	
V/C Ratio(X)	0.74		0.84	0.28	0.39	
Avail Cap(c_a), veh/h	892		691	3815	3608	
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.65	0.65	1.00	0.00
Uniform Delay (d), s/veh	38.9	0.0	31.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	3.0	0.0	4.4	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.2	0.0	6.3	0.1	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.9	0.0	35.4	0.1	0.3	0.0
LnGrp LOS	D		D	A	A	
Approach Vol, veh/h	269			1474	1406	
Approach Delay, s/veh	41.9			10.1	0.3	
Approach LOS	D			B	A	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	74.4		15.6	18.0	56.4
Change Period (Y+Rc), s	5.5		* 5.8	5.0	5.5
Max Green Setting (Gmax), s	54.5		* 24	18.0	31.5
Max Q Clear Time (g_c+I1), s	2.0		9.1	12.2	2.0
Green Ext Time (p_c), s	8.6		0.8	0.8	11.8

Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	268	433	205	196	318	246	182	962	212	379	1389	210
Future Volume (veh/h)	268	433	205	196	318	246	182	962	212	379	1389	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1900	1870	1885	1885	1856	1885	1885	1856	1856
Adj Flow Rate, veh/h	273	442	145	200	324	144	186	982	172	387	1417	156
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	0	2	1	1	3	1	1	3	3
Cap, veh/h	306	506	164	211	485	432	259	1623	280	467	1809	832
Arrive On Green	0.17	0.19	0.19	0.12	0.14	0.14	0.07	0.29	0.29	0.27	0.71	0.71
Sat Flow, veh/h	1781	2636	857	1810	3554	1598	3483	5518	954	3483	5066	1572
Grp Volume(v), veh/h	273	297	290	200	324	144	186	850	304	387	1417	156
Grp Sat Flow(s),veh/h/ln	1781	1777	1716	1810	1777	1598	1742	1596	1684	1742	1689	1572
Q Serve(g_s), s	13.5	14.6	14.8	9.9	7.8	6.5	4.7	13.7	14.0	9.4	16.3	2.3
Cycle Q Clear(g_c), s	13.5	14.6	14.8	9.9	7.8	6.5	4.7	13.7	14.0	9.4	16.3	2.3
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.57	1.00		1.00
Lane Grp Cap(c), veh/h	306	341	329	211	485	432	259	1408	495	467	1809	832
V/C Ratio(X)	0.89	0.87	0.88	0.95	0.67	0.33	0.72	0.60	0.61	0.83	0.78	0.19
Avail Cap(c_a), veh/h	307	355	343	211	553	463	298	1408	495	635	1809	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	36.4	35.3	35.4	39.5	36.9	26.3	40.7	27.3	27.4	32.0	10.6	4.7
Incr Delay (d2), s/veh	26.0	19.7	21.9	47.1	2.6	0.4	6.9	1.9	5.6	5.6	2.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.6	12.7	12.7	11.4	6.3	4.5	4.0	9.1	10.3	6.6	6.5	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	54.9	57.3	86.6	39.5	26.8	47.6	29.2	32.9	37.6	13.5	5.1
LnGrp LOS	E	D	E	F	D	C	D	C	C	D	B	A
Approach Vol, veh/h		860			668			1340			1960	
Approach Delay, s/veh		58.1			50.8			32.6			17.6	
Approach LOS		E			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	38.7	15.0	23.3	18.7	33.1	20.0	18.3
Change Period (Y+Rc), s	* 6.3	* 6.6	4.5	6.0	* 6.6	* 6.6	4.5	6.0
Max Green Setting (Gmax), s	* 7.3	* 29	10.5	18.0	* 16	* 21	15.5	14.0
Max Q Clear Time (g_c+I1), s	16.3	18.3	11.9	16.8	11.4	16.0	15.5	9.8
Green Ext Time (p_c), s	0.1	7.4	0.0	0.5	0.7	3.2	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.