

Appendices

- *Appendix A, FAA Memorandum: Terminal B Access Roadway Bridge Reconstruction*
- *Appendix B, Surface Transportation*
- *Appendix C, Air Quality*
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TERMINAL C CANOPY, CONNECTOR, AND ROADWAY PROJECT

Boston-Logan International Airport

East Boston, Massachusetts

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TERMINAL C CANOPY, CONNECTOR, AND ROADWAY PROJECT

Boston-Logan International Airport

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Appendix A

FAA Memorandum: Terminal B Roadway Bridge Reconstruction

TERMINAL C CANOPY, CONNECTOR, AND ROADWAY PROJECT

Boston-Logan International Airport

East Boston, Massachusetts

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TO: Richard Doucette, Lisa Lesperance (FAA)
FROM: Stewart Dalzell
CC: Flavio Leo, David Doane, Laura Castelli (VHB)
SUBJECT: **Logan Terminal B Access Roadway Bridge Reconstruction**
DATE: February 22, 2018

As we discussed at our meeting today, Massport will begin to advance design for the replacement of the existing bridge section that forms a segment of the primary upper-level access roadway serving Terminal B (see Figure 1). That section of the bridge was constructed in the 1960s; in recent years it has required ongoing maintenance and repairs (see Figure 2) and to maintain safe conditions now requires replacement. Replacement is expected to take several months and Massport would like to start that construction this spring in advance of the larger planned program to modify the roadways between Terminals B & C and upgrade the connections and passenger areas primarily between Terminals B & C. We understand that the larger roadway and terminal improvements will need to be addressed in an *Environmental Assessment* (EA) and that these time-sensitive early repairs will be referenced in the EA. We will be back to your shortly to discuss the scope of that EA.

Since the proposed bridge section replacement would of itself not require NEPA review (no ALP change or FAA funding involved), we understand that Massport can move forward with that work; this memorandum is intended to provide a written record of these discussions and we agree to include this memorandum as an attachment to the forthcoming EA. The bridge replacement project will not require any MEPA, City of Boston or MassDOT review/approvals.

Massport will need to maintain full access to Terminal B during construction. As illustrated in the attached Figure 3, to maintain full access during construction, we will need to build some temporary roadway sections to bypass the bridge segment; a portion of an existing ramp will also be demolished to make way for the temporary access roadways. Once the bridge repairs are complete, the temporary roadways will be removed. It is possible that as design for the larger project advances, Massport may find some additional utility for a section of the temporary roadway; in this case, that section of the roadway would become part of the larger EA project and fully addressed in that document.

Based on our current schedule, we would hope to begin these repairs by June for expected completion in 3-4 months.

Terminal B Access Roadway Bridge: Existing Conditions

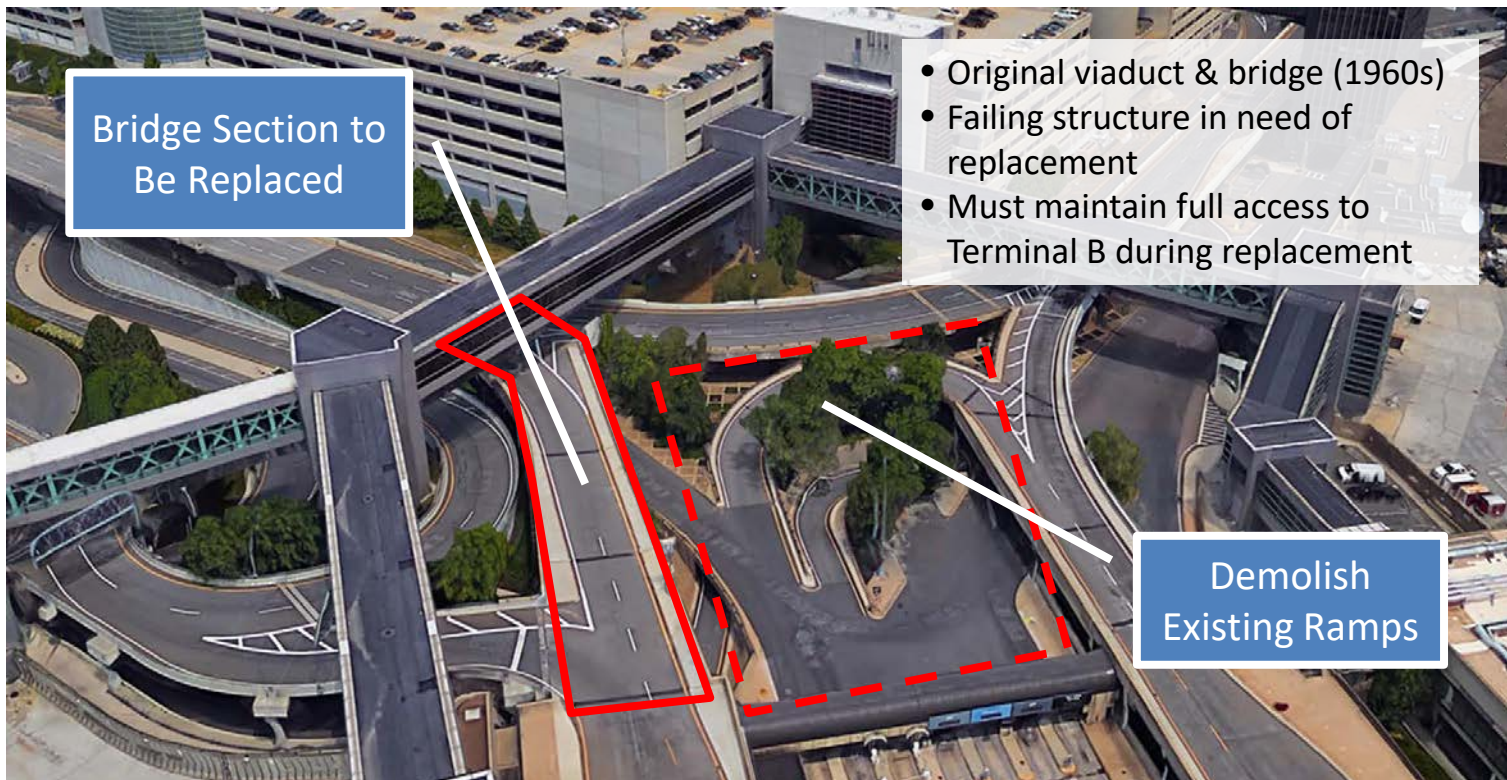


FIGURE 1

Photographs of Existing Conditions (2/21/18)



FIGURE 2

Temporary Terminal B Access Roadways

- Temporary roadways built on arrivals level
- Allows work to occur under bridge (departures stacked over arrivals)
- Maintains uninterrupted traffic flow on arrivals level

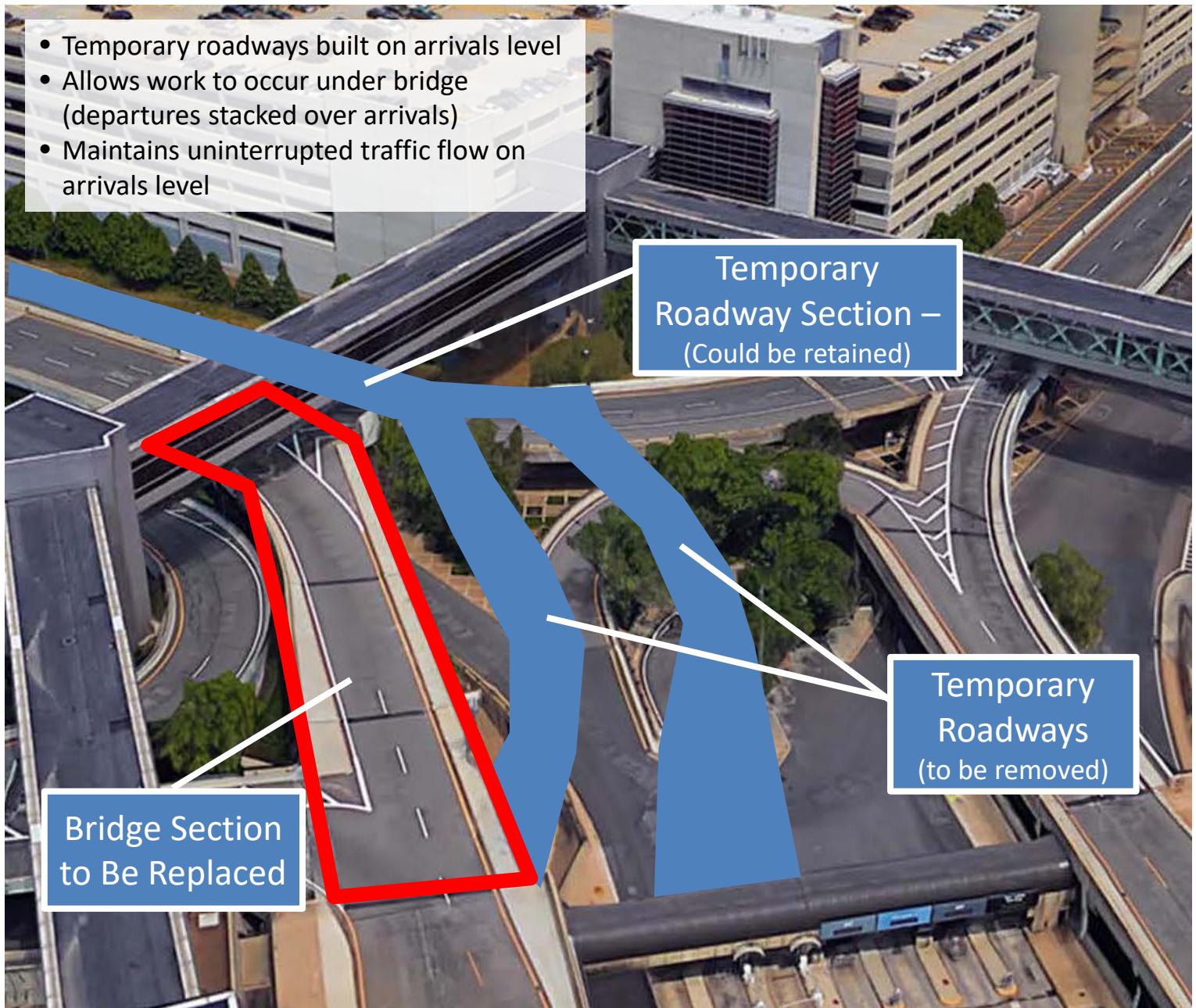


FIGURE 3

TERMINAL C CANOPY, CONNECTOR, AND ROADWAY PROJECT

Boston-Logan International Airport

East Boston, Massachusetts

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TERMINAL C CANOPY, CONNECTOR, AND ROADWAY PROJECT

Boston-Logan International Airport

East Boston, Massachusetts

Appendix B

Surface Transportation

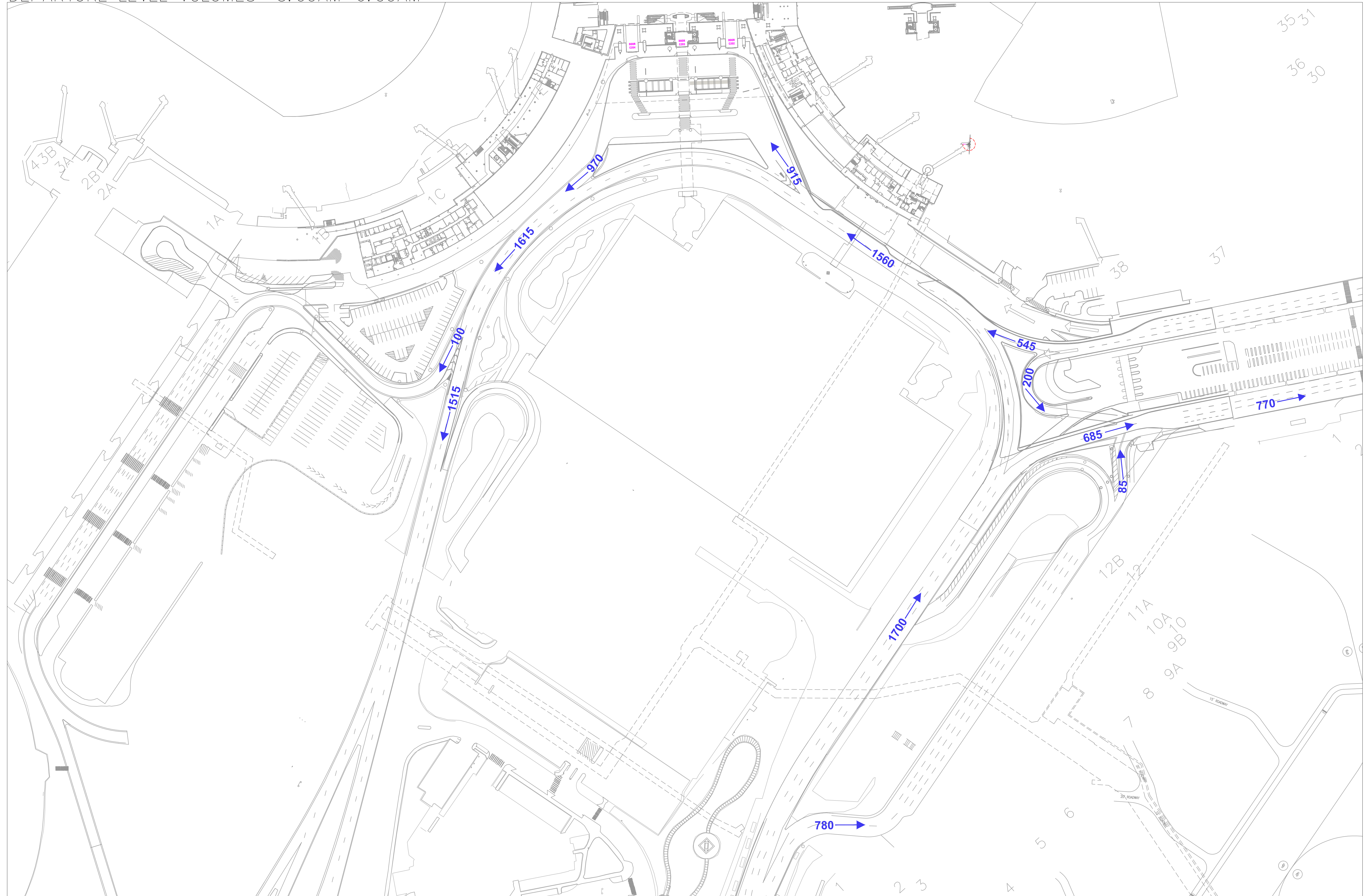
TERMINAL C CANOPY, CONNECTOR, AND ROADWAY PROJECT

Boston-Logan International Airport

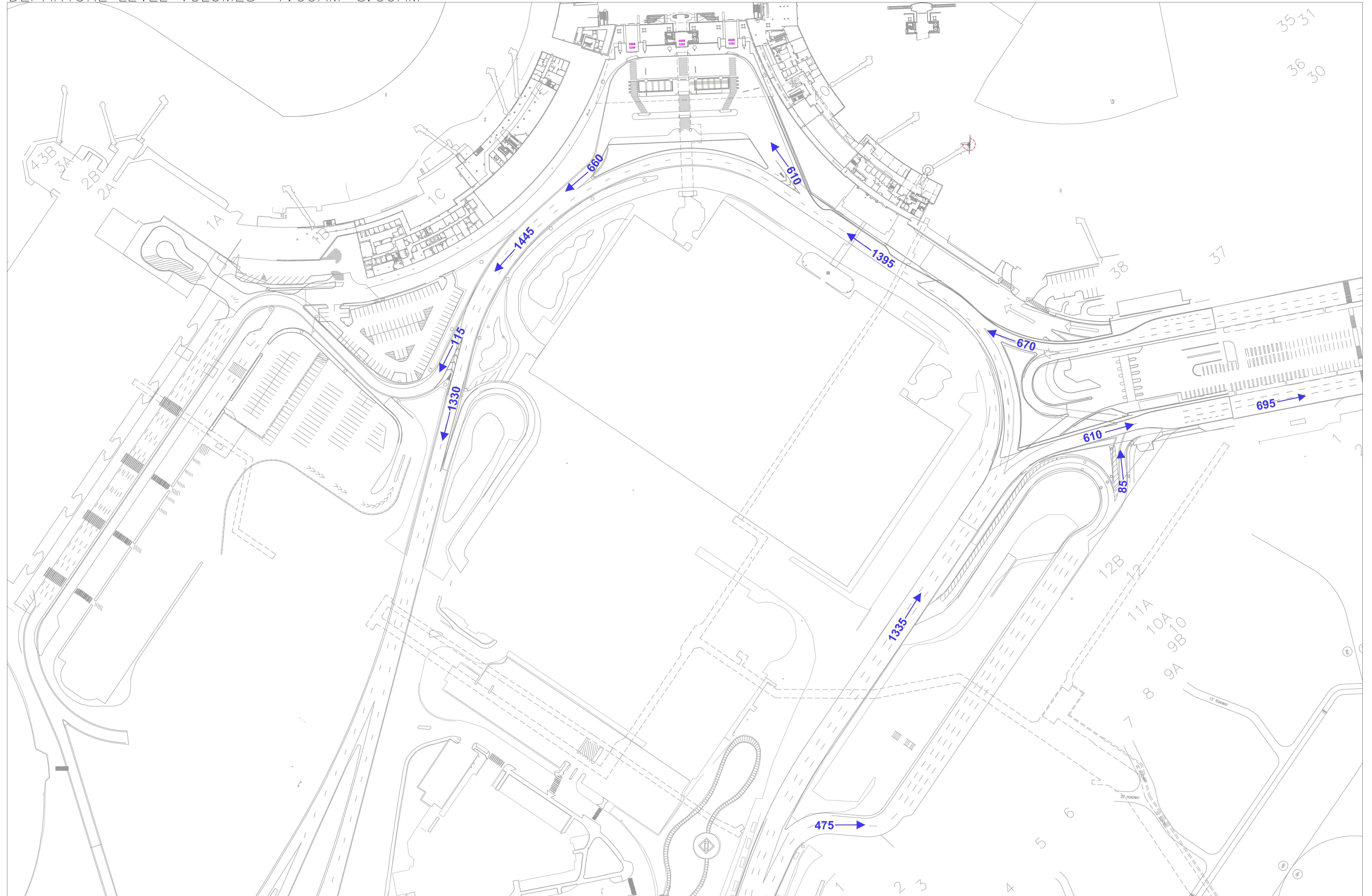
East Boston, Massachusetts

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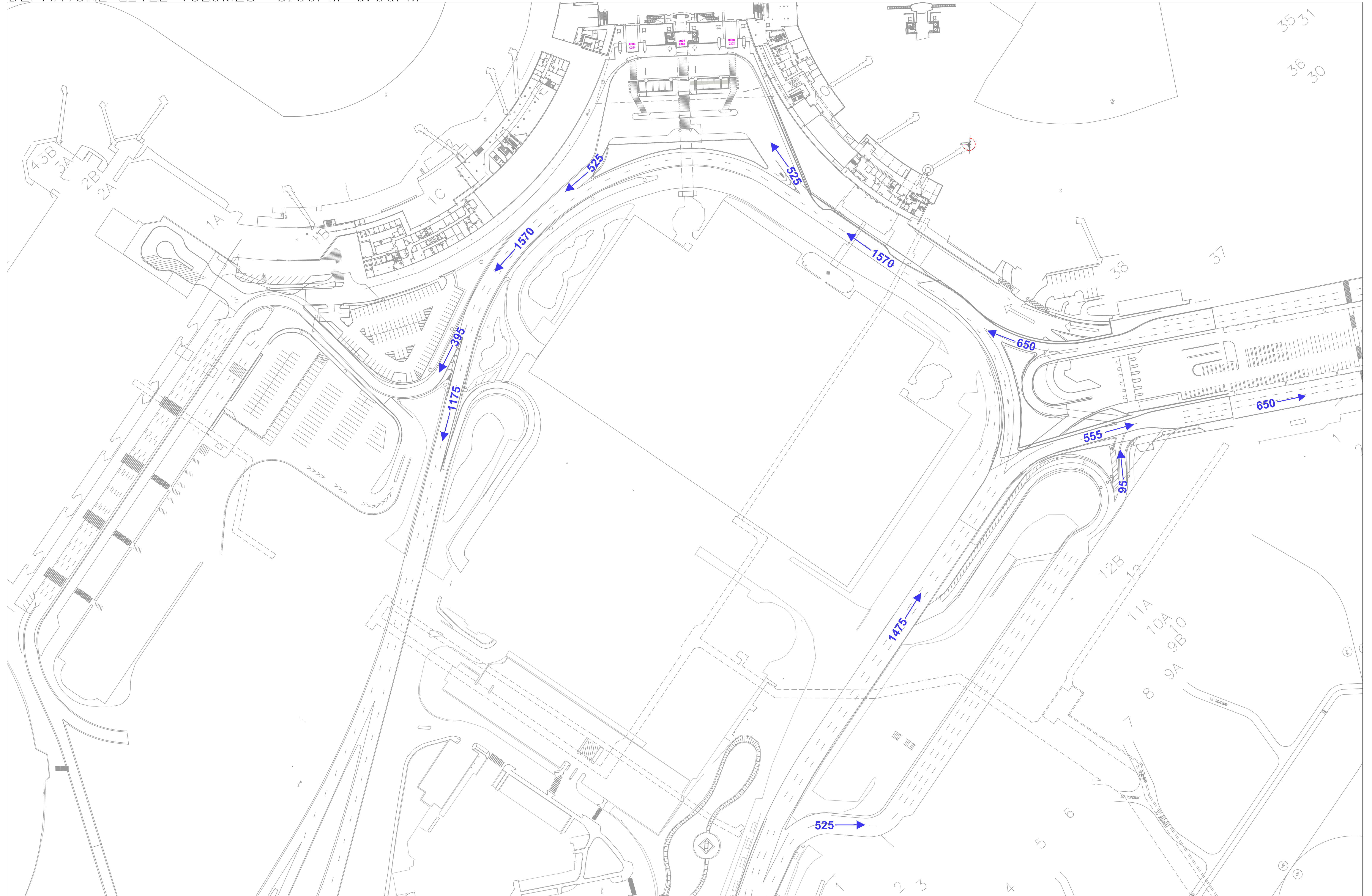
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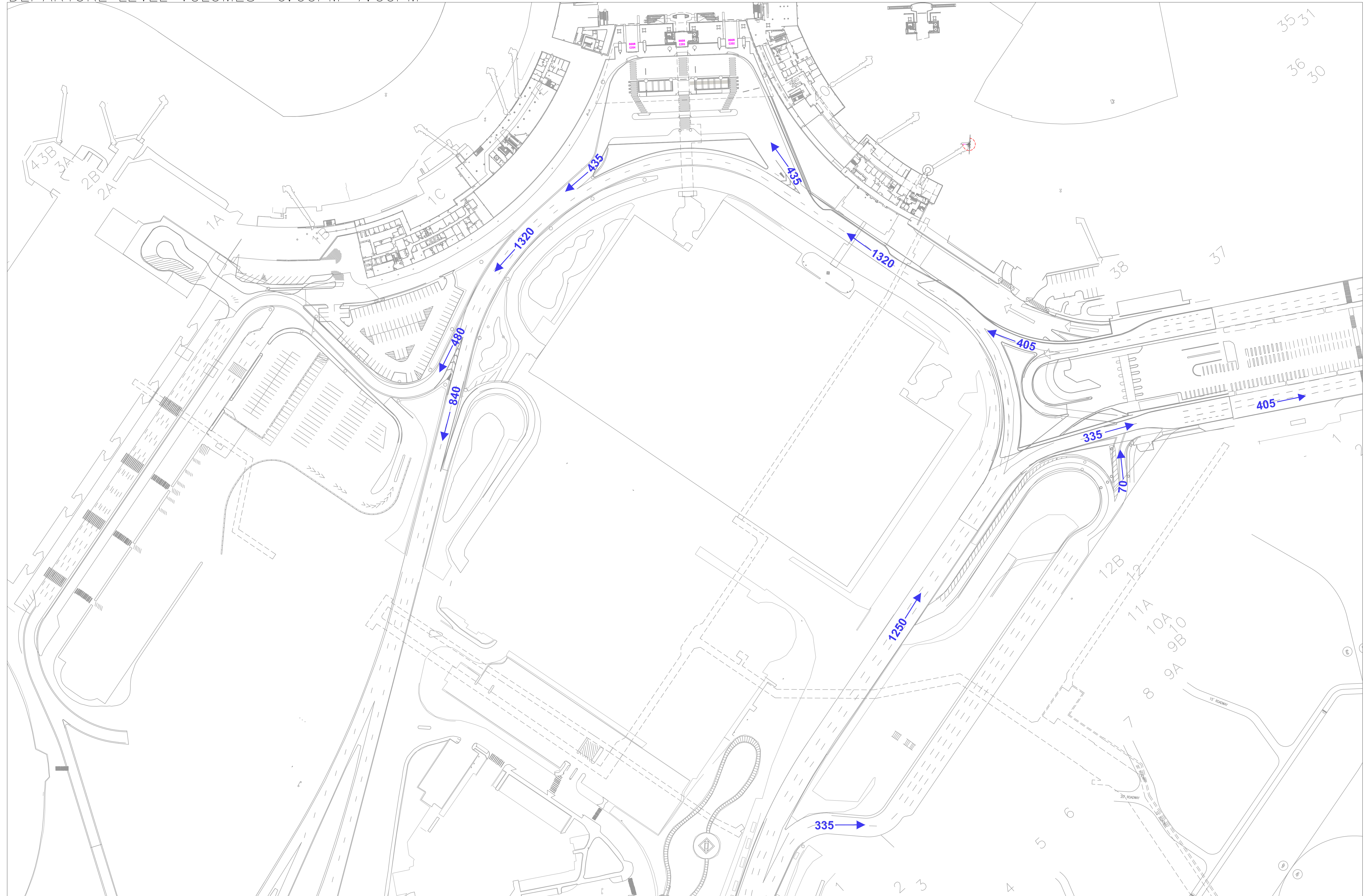
DEPARTURE LEVEL VOLUMES 7:00AM-8:00AM



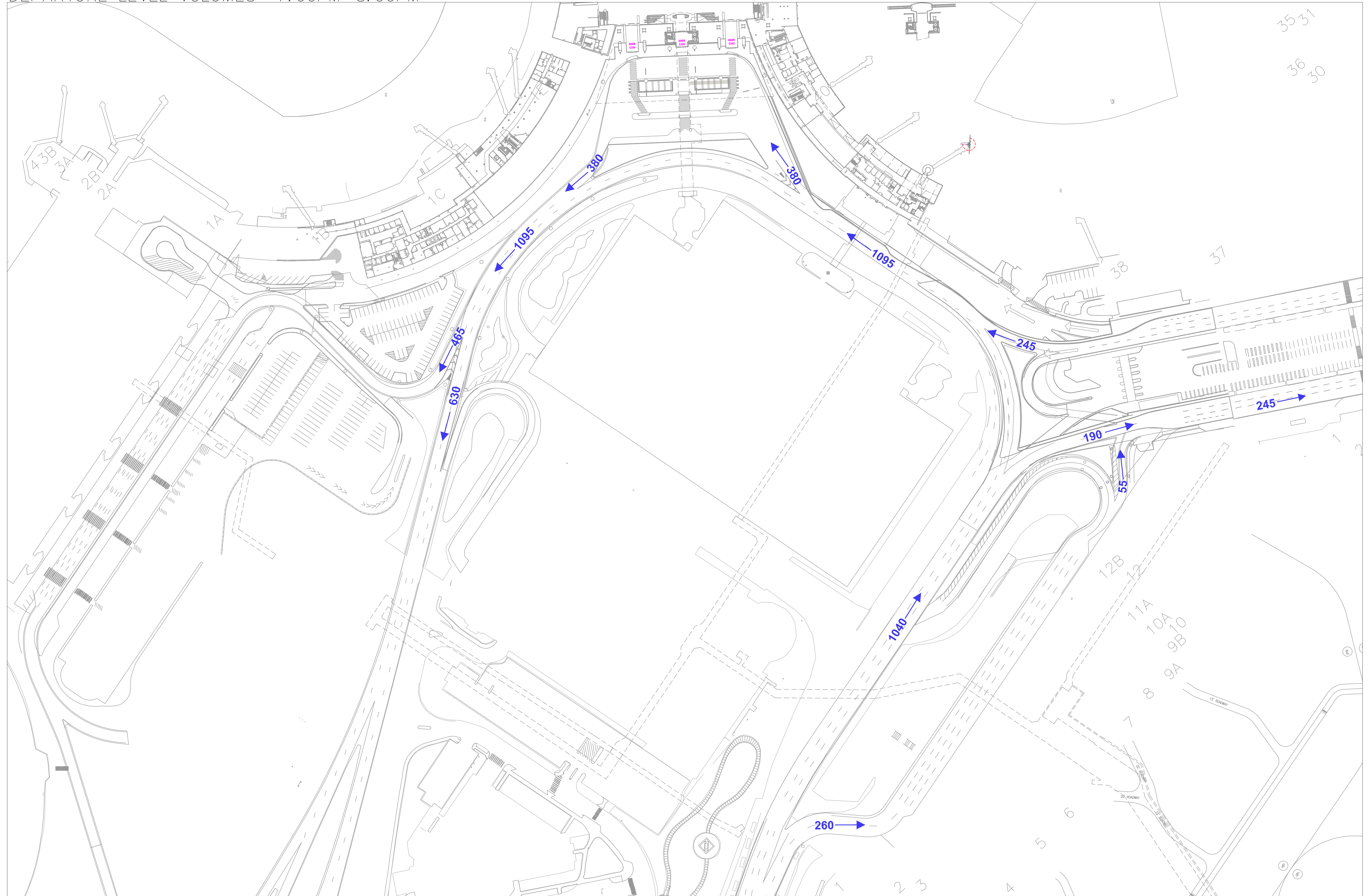
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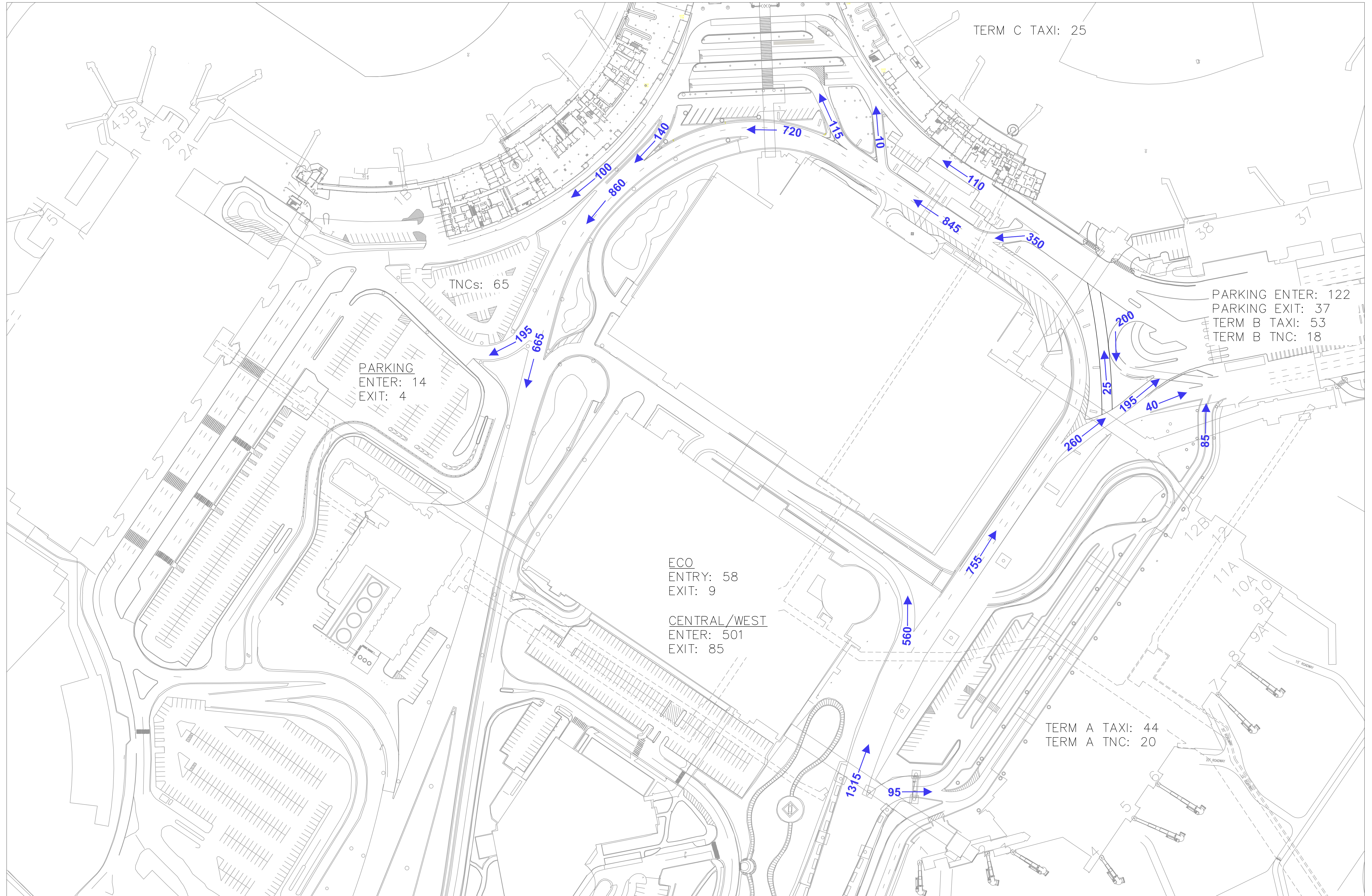
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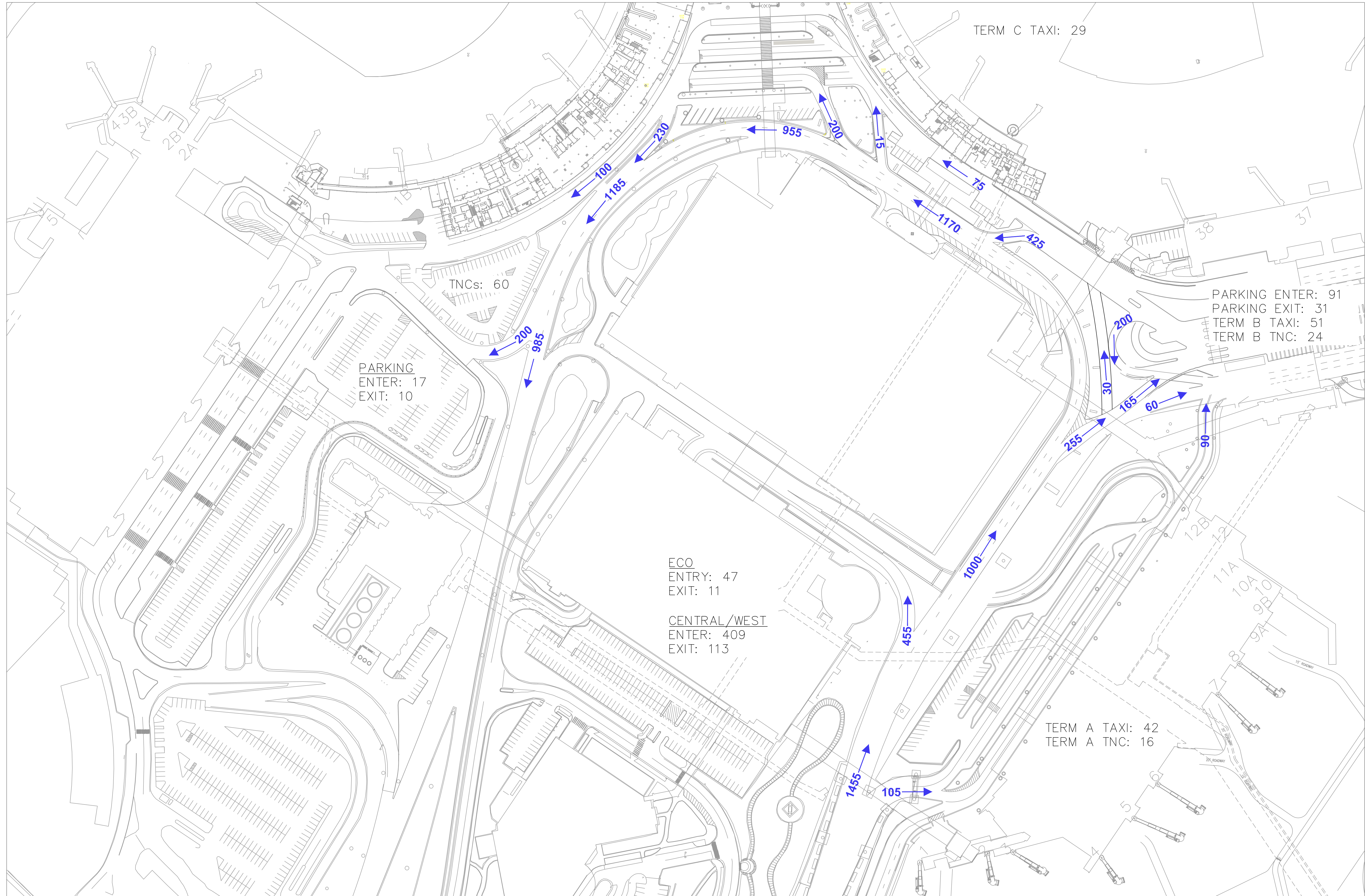
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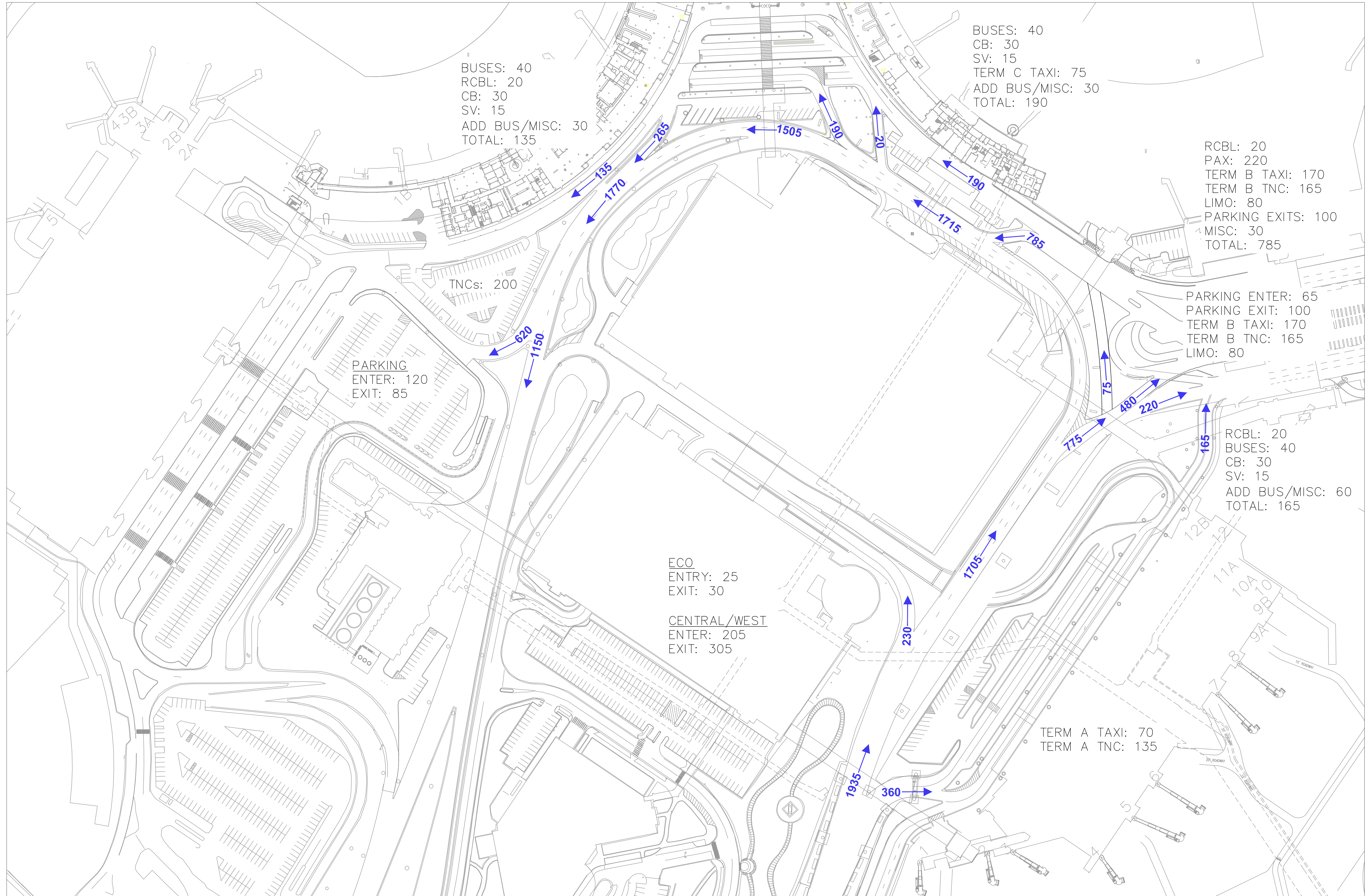
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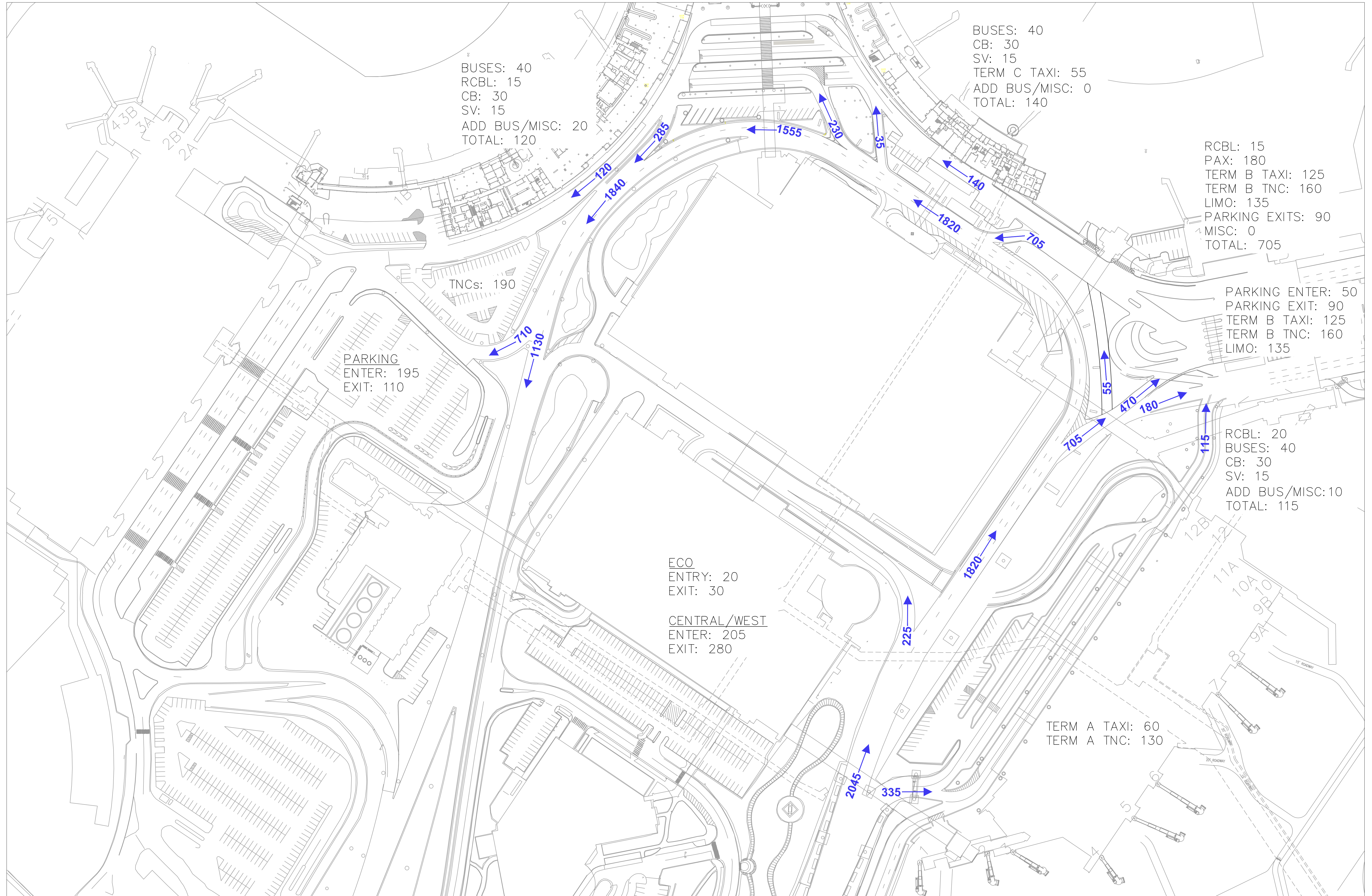
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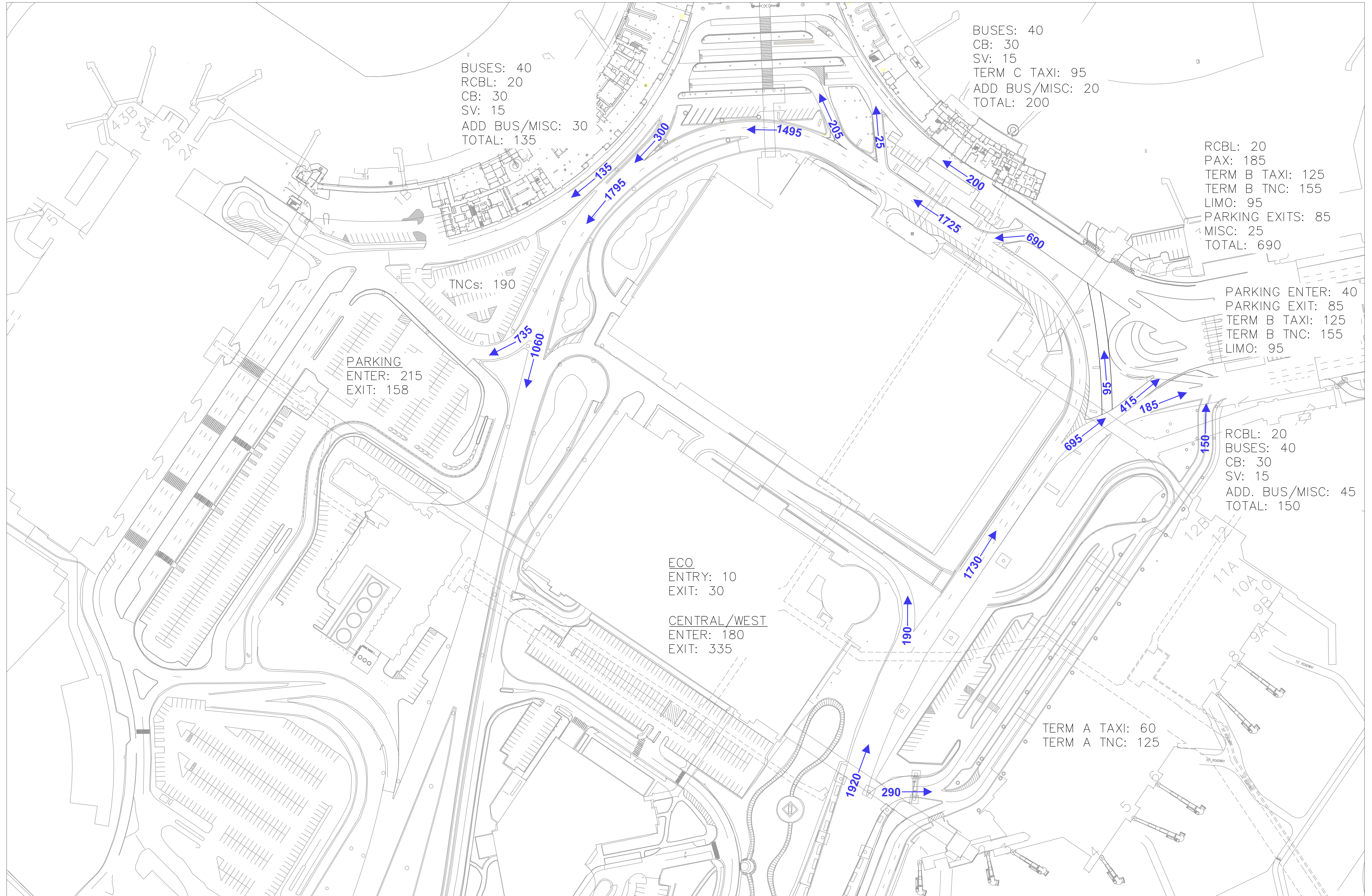
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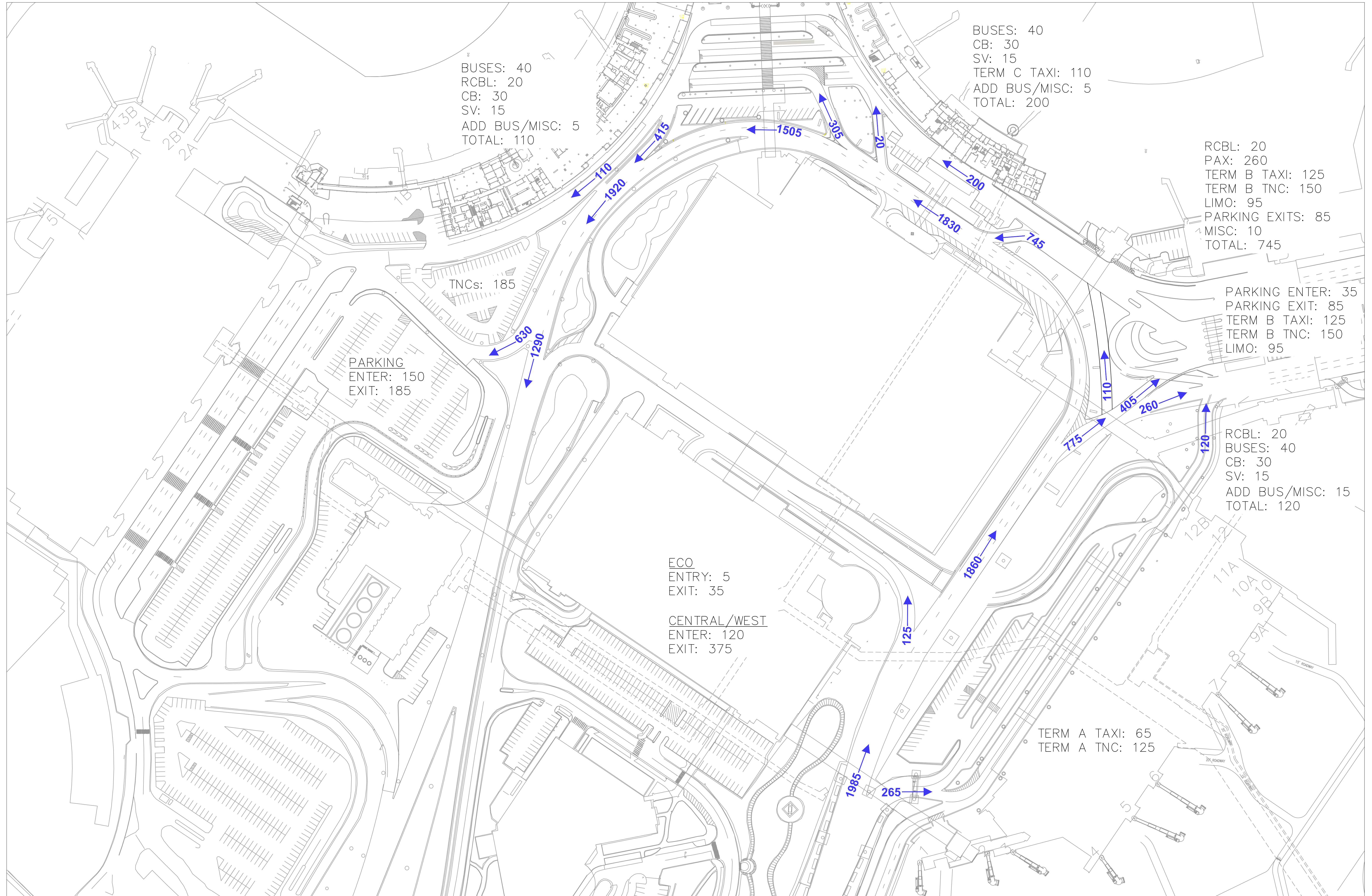
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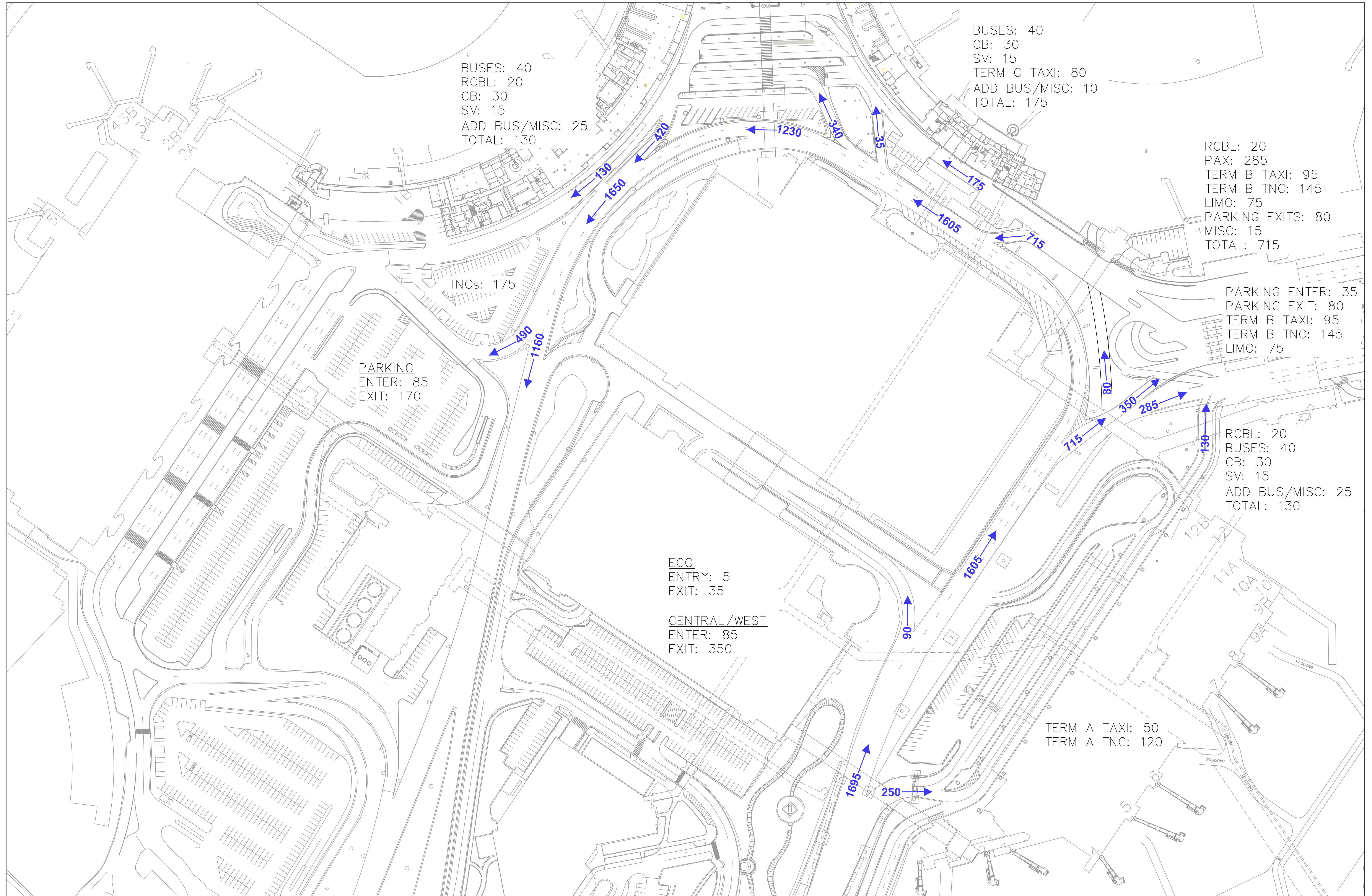
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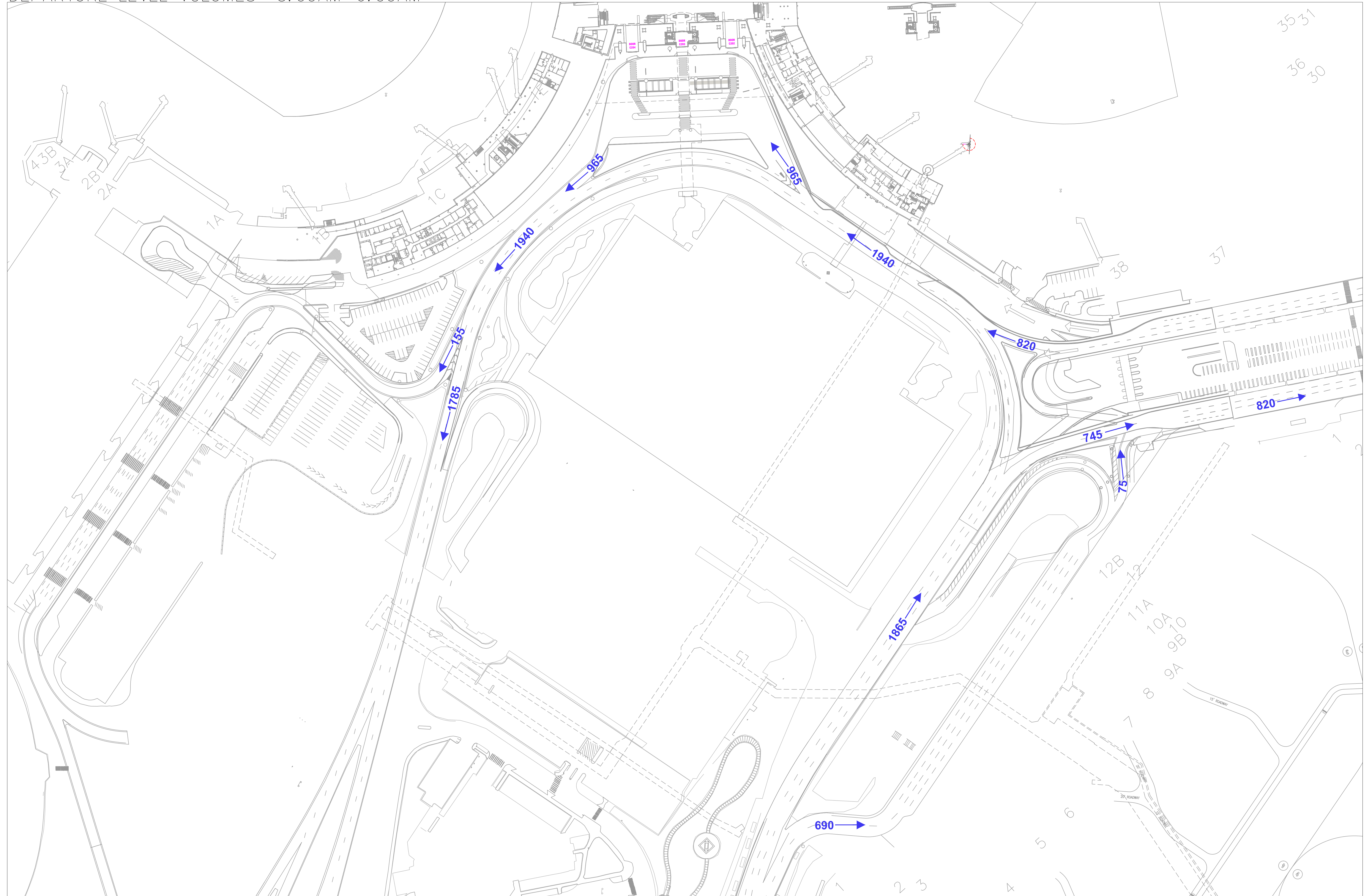
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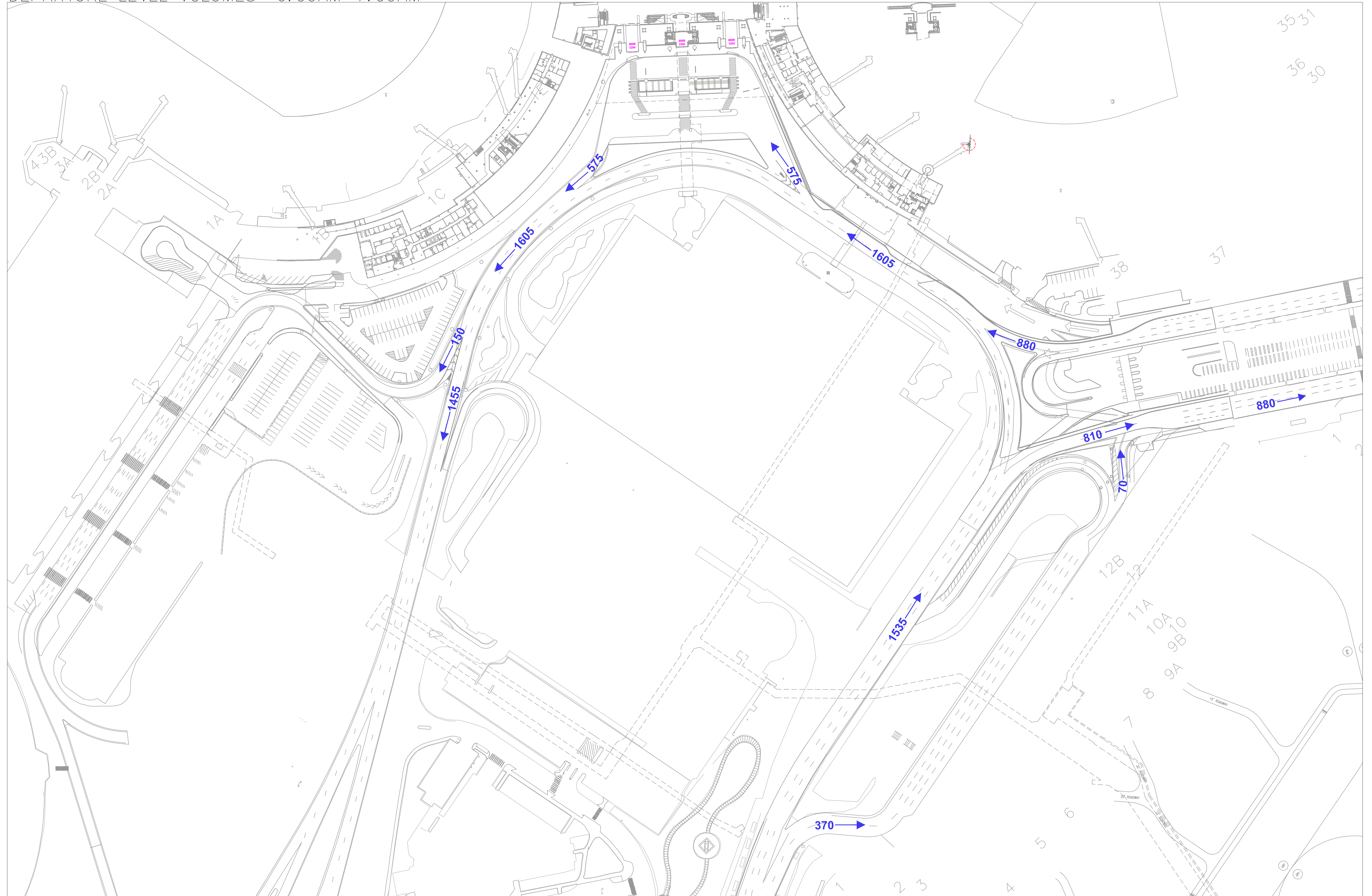
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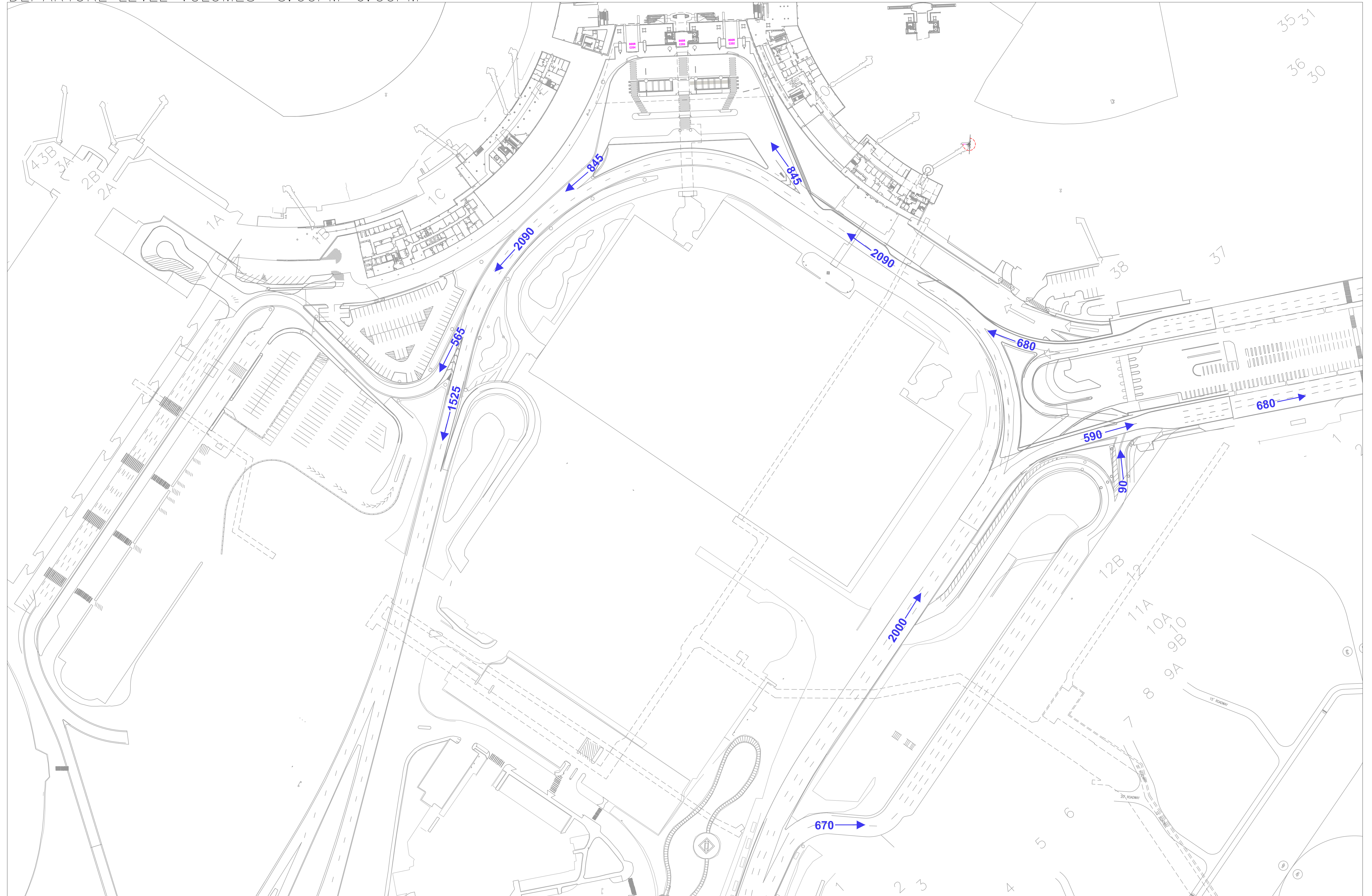
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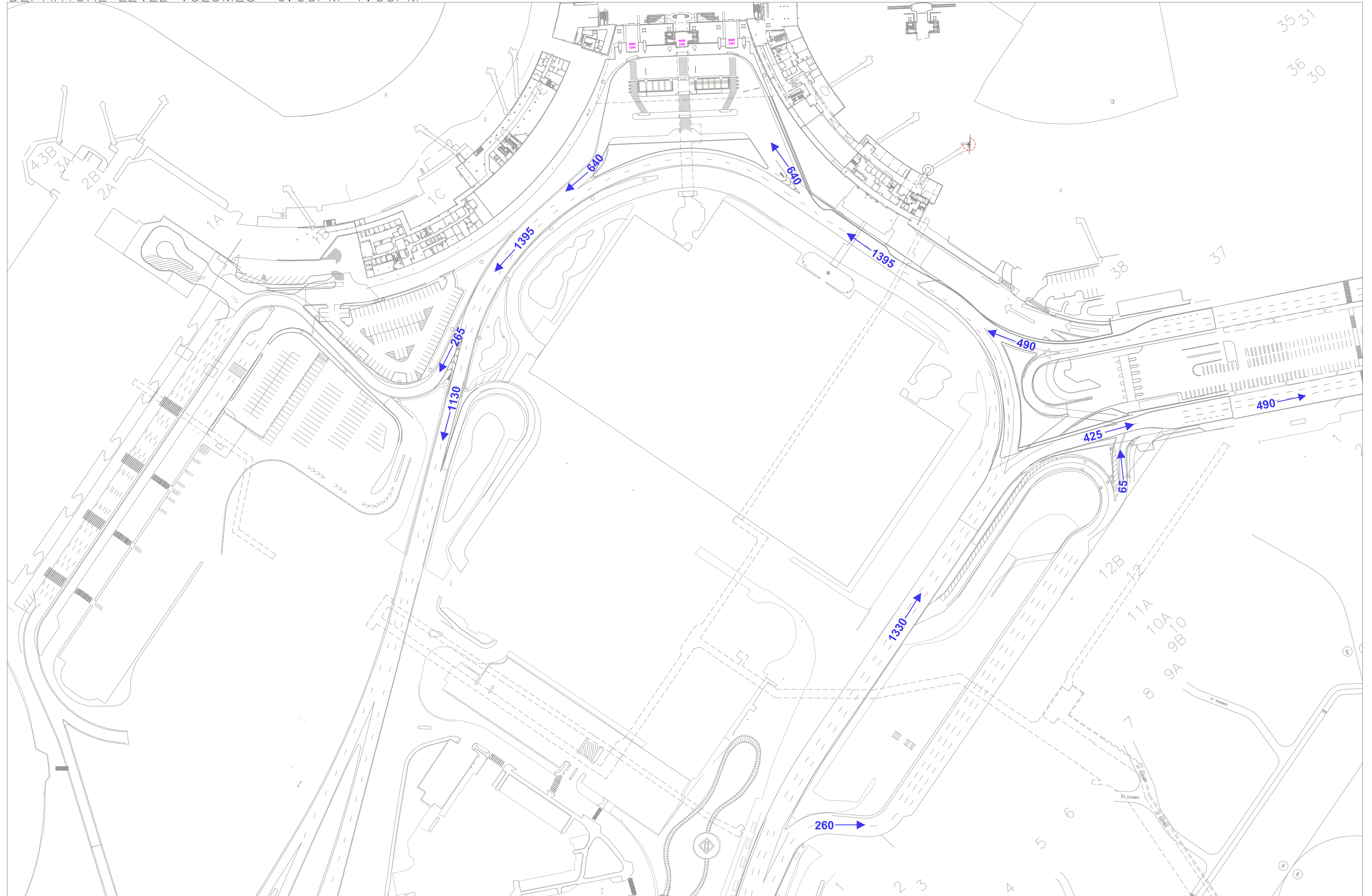
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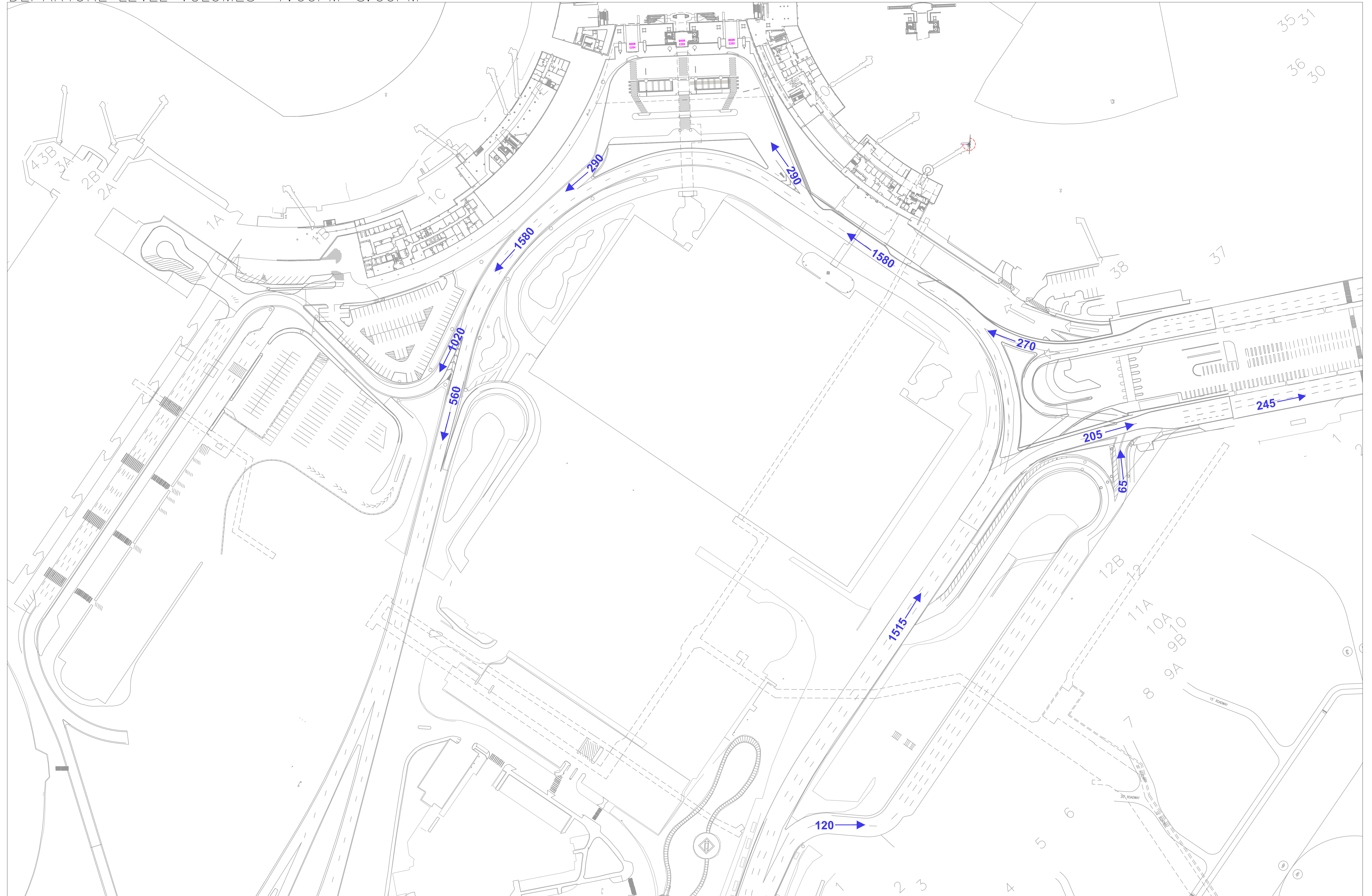
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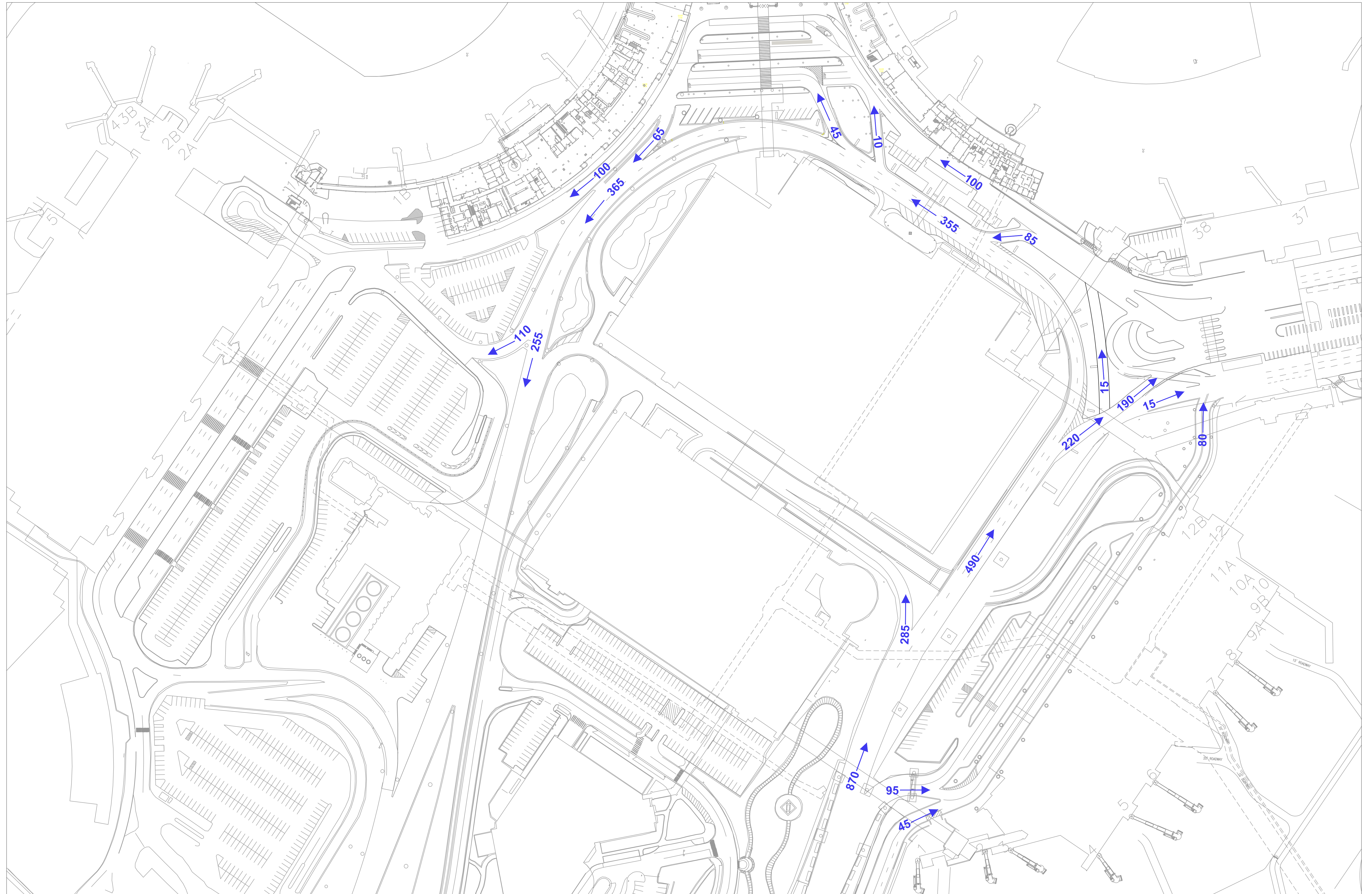
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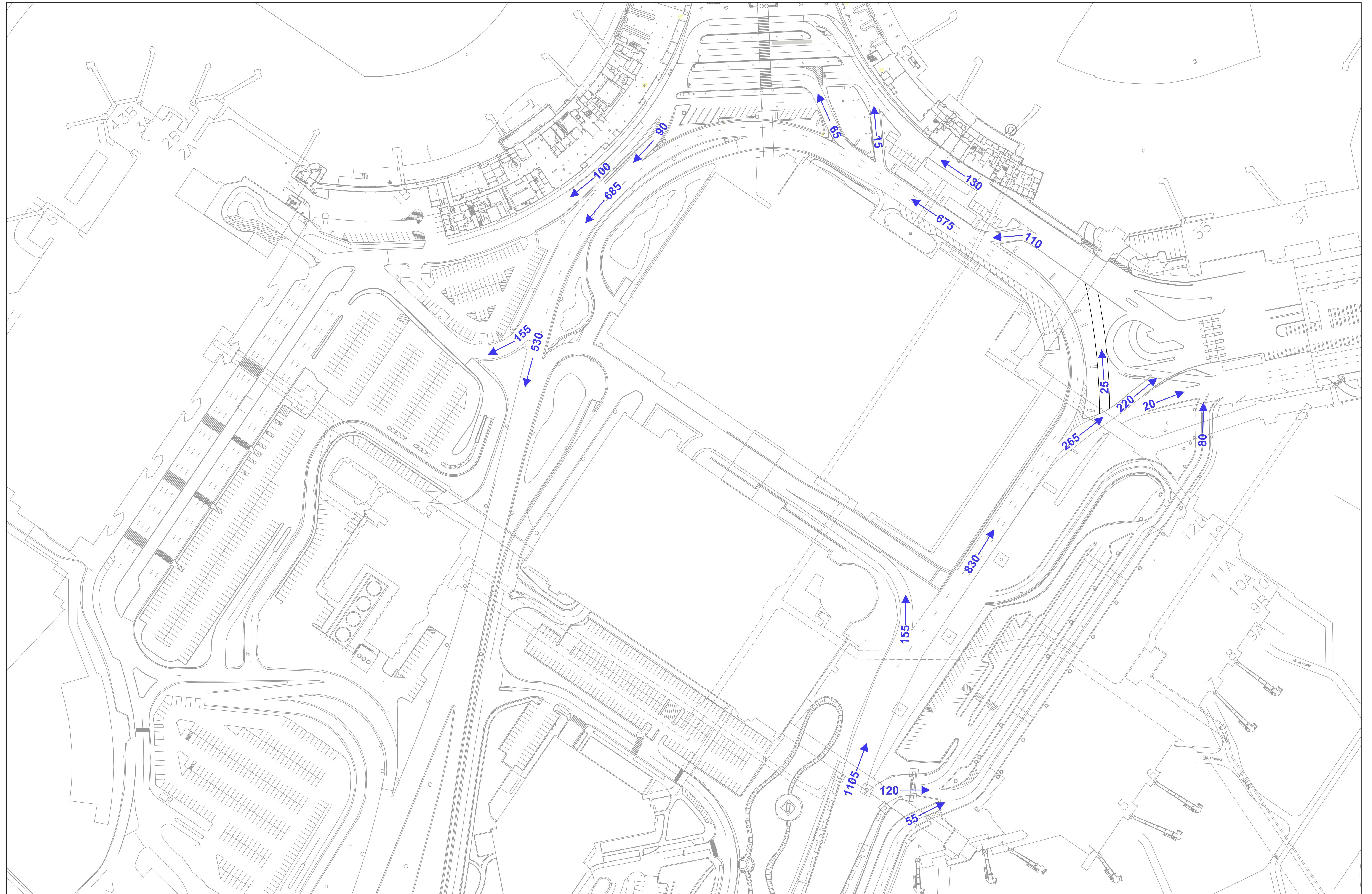
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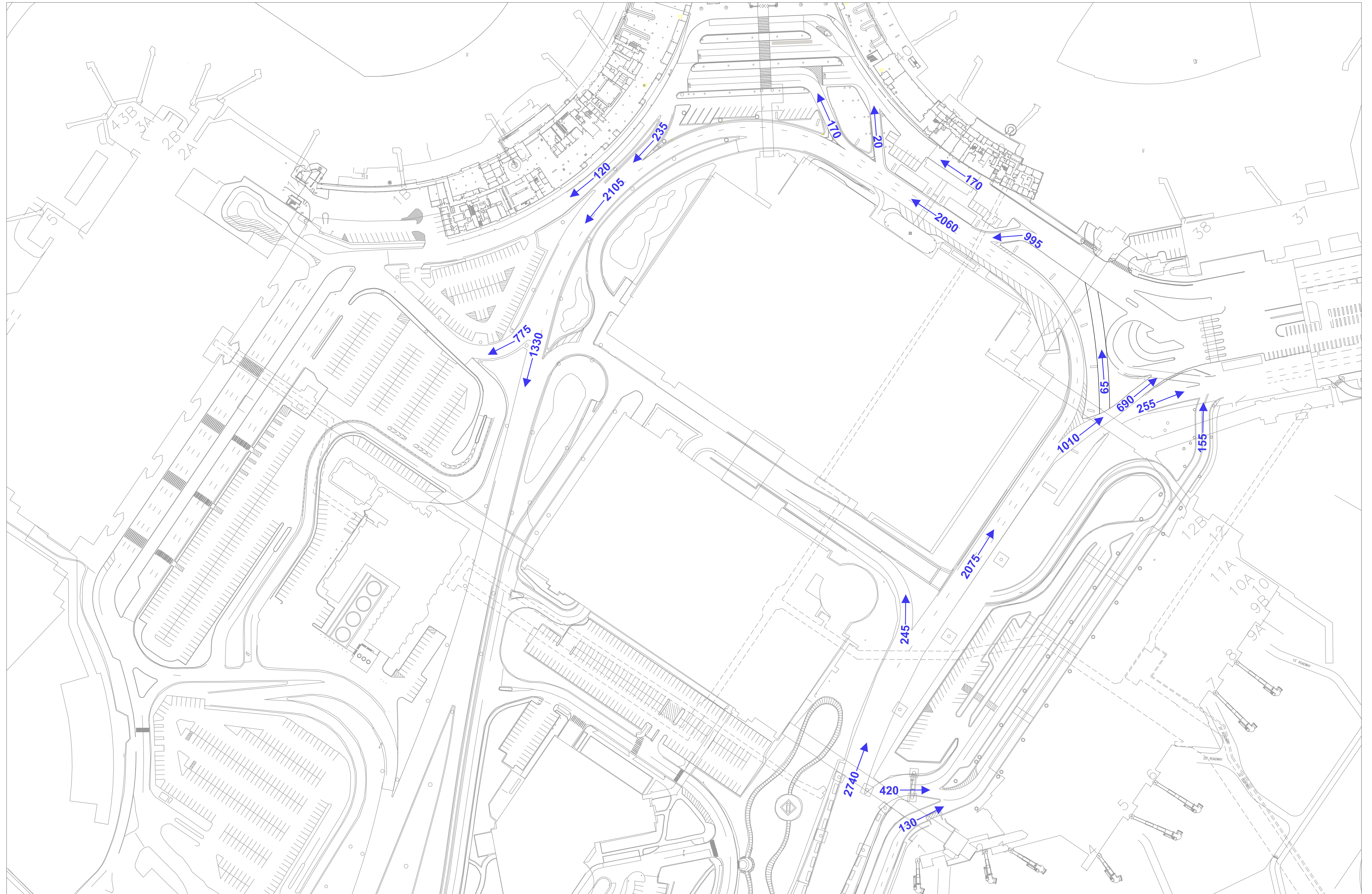
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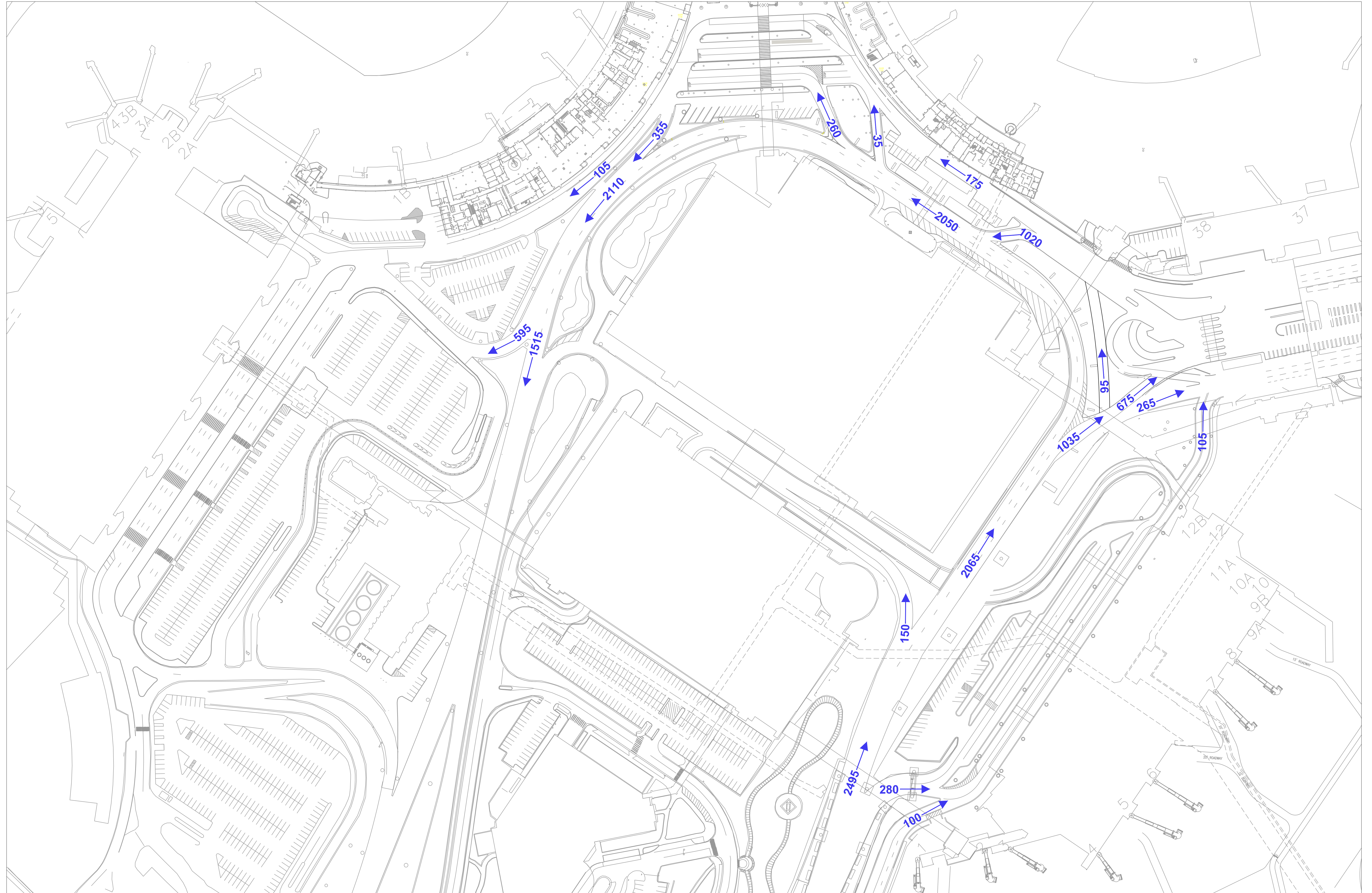
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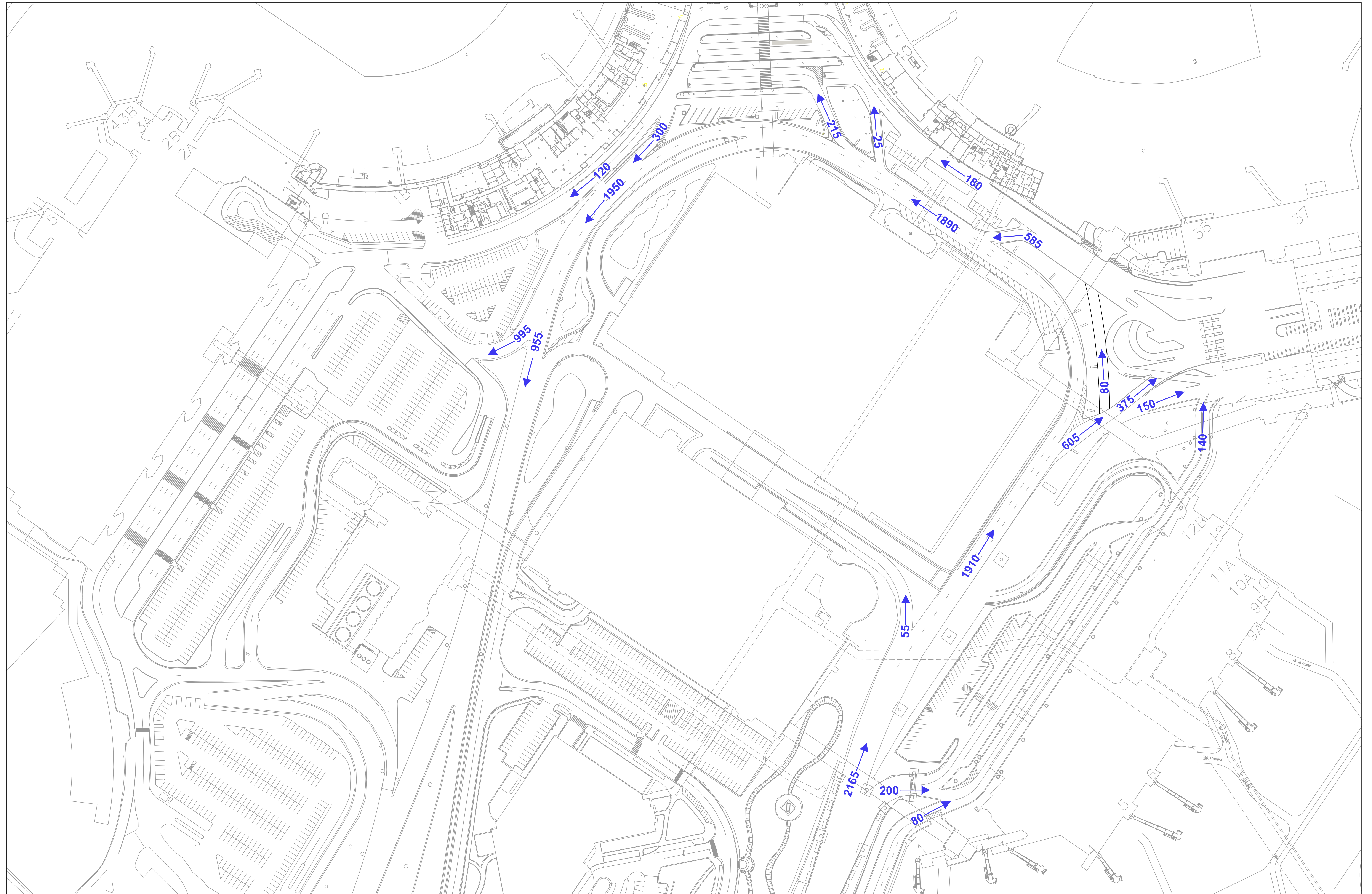
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ARRIVAL LEVEL VOLUMES 6:00PM-7:00PM



ARRIVAL LEVEL VOLUMES 7:00PM-8:00PM



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|-------------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | B 46.5 MAP - Departures Curb1 |
| Level / type of roadway | Departures |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 3 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|--------------------------|-------------------------------|------------------------------|
| Private Vehicle Drop-Off | 25.0 | 1.2 |
| Taxicabs | 25.0 | 1.0 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.9 |
| MPA Employee | 40.0 | 0.9 |
| MPA Water Taxi | 40.0 | 0.9 |
| MPA Interterminal | 40.0 | 0.9 |
| Courtesy Shuttle | 40.0 | 0.9 |
| RCBL | 70.0 | 0.9 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.9 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 2 |
| Scheduled Bus Service | 50 | 2 |
| Charter Bus | 50 | 2 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|--------------------------|--------|--------|--------|
| Name | AllBus | CW | AllBus |
| Type | active | xwalk | active |
| Curbside frontage (feet) | 155 | 20 | 155 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | |
|--------------------------|----|----|----|
| Private Vehicle Drop-Off | - | - | - |
| Taxicabs | - | - | - |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | 15 | 15 | 15 |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | 22 | 22 | 22 |
| RCBL | 10 | 10 | 10 |
| Limo | - | - | - |
| Shared Van | 15 | 15 | 15 |
| Silver Line | - | - | - |
| Logan Express | 10 | 10 | 10 |
| Scheduled Bus Service | 2 | 2 | 2 |
| Charter Bus | - | - | - |

Volume of vehicles using curbside (vph)

| | | | |
|--------------------------|----|---|----|
| Private Vehicle Drop-Off | - | - | - |
| Taxicabs | - | - | - |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | 8 | - | 7 |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | 11 | - | 11 |
| RCBL | 5 | - | 5 |
| Limo | - | - | - |
| Shared Van | 7 | - | 8 |
| Silver Line | - | - | - |
| Logan Express | 5 | - | 5 |
| Scheduled Bus Service | 1 | - | 1 |
| Charter Bus | - | - | - |

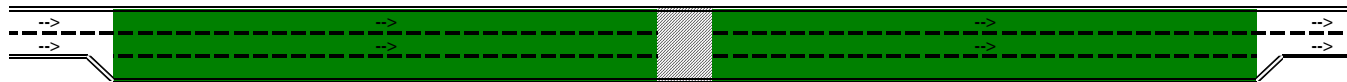
Quick Analysis Tool for Airport Roadways

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Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario B 46.5 MAP - Departures Curb1
 Level / type of roadway Departures
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 3



| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|------------------------------------|--------|--------|--------|
| Name/description | AllBus | CW | AllBus |
| Curb length (feet) | 155 | 20 | 155 |
| Zone type | active | xwalk | active |
| Roadway volume (vph) | 74 | 74 | 74 |
| Roadway capacity (vph) | 2,343 | 2,657 | 2,343 |
| Roadway V/C ratio | 0.032 | 0.028 | 0.032 |
| Roadway LOS | A | A | A |
| Curb demand (# in sys 95% of time) | 2.0 | N/A | 2.0 |
| Curb capacity per lane (vehicles) | 4.0 | N/A | 4.0 |
| Curb utilization ratio | 0.500 | N/A | 0.500 |
| Curb LOS | A | N/A | A |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 |
|--|--------|--------|--------|
| Name | AllBus | CW | AllBus |
| Type of zone | active | xwalk | active |
| Curbside length (feet) | 155 | 20 | 155 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |
| Roadway volume (vph) | 74 | 74 | 74 |
| Curbside demand (vph) | 37 | - | 37 |
| Average dwell time (minutes) | 1.09 | - | 1.09 |
| Average vehicle length (feet) | 43.78 | - | 43.51 |
| Average vehicle arrival rate (vph) | 37.00 | - | 37.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,468 | 2,797 | 2,468 |
| Adjusted through lane roadway capacity | 2,343 | 2,657 | 2,343 |
| Estimated roadway V/C ratio | 0.032 | 0.028 | 0.032 |
| Curb capacity per lane (vehicles) | 4.00 | - | 4.00 |
| Curb utilization ratio | 0.500 | - | 0.500 |
| % occupancy in lane 1 | 0.490 | - | 0.490 |
| % occupancy in lane 2 | - | - | - |
| % occupancy in lane 3 | - | - | - |
| # of cars in curbside lane | 1.96 | - | 1.96 |
| # of double-parked cars | - | - | - |
| # of triple-parked cars | - | - | - |
| Curbside LOS | A | | A |
| Roadway LOS | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|-----------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | EXISTING - Departures Curb1 |
| Level / type of roadway | Departures |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 7 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|--------------------------|-------------------------------|------------------------------|
| Private Vehicle Drop-Off | 25.0 | 1.2 |
| Taxicabs | 25.0 | 1.0 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.9 |
| MPA Employee | 40.0 | 0.9 |
| MPA Water Taxi | 40.0 | 0.9 |
| MPA Interterminal | 40.0 | 0.9 |
| Courtesy Shuttle | 40.0 | 0.9 |
| RCBL | 70.0 | 0.9 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.9 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 2 |
| Scheduled Bus Service | 50 | 2 |
| Charter Bus | 50 | 2 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 6 | Zone 7 |
|--------------------------|--------|--------|--------|--------|--------|--------|--------|
| Name | PDO | CW | PDO | CW | PDO | CW | PDO |
| Type | active | xwalk | active | xwalk | active | xwalk | active |
| Curbside frontage (feet) | 60 | 12 | 60 | 21 | 60 | 12 | 60 |
| Number of lanes | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | | | | | |
|--------------------------|-----|-----|-----|-----|-----|-----|-----|
| Private Vehicle Drop-Off | 395 | 395 | 395 | 395 | 395 | 395 | 395 |
| Taxicabs | 41 | 41 | 41 | 41 | 41 | 41 | 41 |
| TNC | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| MPA Economy Parking | - | - | - | - | - | - | - |
| MPA Employee | - | - | - | - | - | - | - |
| MPA Water Taxi | - | - | - | - | - | - | - |
| MPA Interterminal | - | - | - | - | - | - | - |
| Courtesy Shuttle | - | - | - | - | - | - | - |
| RCBL | - | - | - | - | - | - | - |
| Limo | - | - | - | - | - | - | - |
| Shared Van | - | - | - | - | - | - | - |
| Silver Line | - | - | - | - | - | - | - |
| Logan Express | - | - | - | - | - | - | - |
| Scheduled Bus Service | - | - | - | - | - | - | - |
| Charter Bus | - | - | - | - | - | - | - |

Volume of vehicles using curbside (vph)

| | | | | | | | |
|--------------------------|----|---|----|---|----|---|----|
| Private Vehicle Drop-Off | 99 | - | 99 | - | 99 | - | 98 |
| Taxicabs | 10 | - | 10 | - | 10 | - | 11 |
| TNC | 50 | - | 50 | - | 50 | - | 50 |
| MPA Economy Parking | - | - | - | - | - | - | - |
| MPA Employee | - | - | - | - | - | - | - |
| MPA Water Taxi | - | - | - | - | - | - | - |
| MPA Interterminal | - | - | - | - | - | - | - |
| Courtesy Shuttle | - | - | - | - | - | - | - |
| RCBL | - | - | - | - | - | - | - |
| Limo | - | - | - | - | - | - | - |
| Shared Van | - | - | - | - | - | - | - |
| Silver Line | - | - | - | - | - | - | - |
| Logan Express | - | - | - | - | - | - | - |
| Scheduled Bus Service | - | - | - | - | - | - | - |
| Charter Bus | - | - | - | - | - | - | - |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario EXISTING - Departures Curb1
 Level / type of roadway Departures
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 7



| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 6 | Zone 7 |
|------------------------------------|-------------|--------|-------------|--------|-------------|--------|-------------|
| Name/description | PDO | CW | PDO | CW | PDO | CW | PDO |
| Curb length (feet) | 60 | 12 | 60 | 21 | 60 | 12 | 60 |
| Zone type | active | xwalk | active | xwalk | active | xwalk | active |
| Roadway volume (vph) | 636 | 636 | 636 | 636 | 636 | 636 | 636 |
| Roadway capacity (vph) | 0 | 2,657 | 0 | 2,657 | 0 | 2,657 | 0 |
| Roadway V/C ratio | 1000000.000 | 0.239 | 1000000.000 | 0.239 | 1000000.000 | 0.239 | 1000000.000 |
| Roadway LOS | F | A | F | A | F | A | F |
| Curb demand (# in sys 95% of time) | 5.0 | N/A | 5.0 | N/A | 5.0 | N/A | 5.0 |
| Curb capacity per lane (vehicles) | 2.0 | N/A | 2.0 | N/A | 2.0 | N/A | 2.0 |
| Curb utilization ratio | 2.500 | N/A | 2.500 | N/A | 2.500 | N/A | 2.500 |
| Curb LOS | F | N/A | F | N/A | F | N/A | F |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 6 | Zone 7 |
|--|---------------|--------|--------|--------|--------|--------|--------|
| Name | PDO | CW | PDO | CW | PDO | CW | PDO |
| Type of zone | active | xwalk | active | xwalk | active | xwalk | active |
| Curbside length (feet) | 60 | 12 | 60 | 21 | 60 | 12 | 60 |
| Number of lanes | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Roadway volume (vph) | 636 | 636 | 636 | 636 | 636 | 636 | 636 |
| Curbside demand (vph) | 159 | - | 159 | - | 159 | - | 159 |
| Average dwell time (minutes) | 0.97 | - | 0.97 | - | 0.97 | - | 0.97 |
| Average vehicle length (feet) | 25.00 | - | 25.00 | - | 25.00 | - | 25.00 |
| Average vehicle arrival rate (vph) | 159.00 | - | 159.00 | - | 159.00 | - | 159.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% | 95.0% | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | - | 2,797 | - | 2,797 | - | 2,797 | - |
| Adjusted through lane roadway capacity | - | 2,657 | - | 2,657 | - | 2,657 | - |
| Estimated roadway V/C ratio | 1,000,000.000 | 0.239 | ##### | 0.239 | ##### | 0.239 | ##### |
| Curb capacity per lane (vehicles) | 2.00 | - | 2.00 | - | 2.00 | - | 2.00 |
| Curb utilization ratio | 2.500 | - | 2.500 | - | 2.500 | - | 2.500 |
| % occupancy in lane 1 | 1.000 | - | 1.000 | - | 1.000 | - | 1.000 |
| % occupancy in lane 2 | 1.000 | - | 1.000 | - | 1.000 | - | 1.000 |
| % occupancy in lane 3 | 0.50 | - | 0.50 | - | 0.50 | - | 0.50 |
| # of cars in curbside lane | 2.00 | - | 2.00 | - | 2.00 | - | 2.00 |
| # of double-parked cars | 2.00 | - | 2.00 | - | 2.00 | - | 2.00 |
| # of triple-parked cars | 1.000 | - | 1.000 | - | 1.000 | - | 1.000 |
| Curbside LOS | F | | F | | F | | F |
| Roadway LOS | F | A | F | A | F | A | F |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|--------------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | NB 46.5 MAP - Departures Curb1 |
| Level / type of roadway | Departures |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 7 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|--------------------------|-------------------------------|------------------------------|
| Private Vehicle Drop-Off | 25.0 | 1.2 |
| Taxicabs | 25.0 | 1.0 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.9 |
| MPA Employee | 40.0 | 0.9 |
| MPA Water Taxi | 40.0 | 0.9 |
| MPA Interterminal | 40.0 | 0.9 |
| Courtesy Shuttle | 40.0 | 0.9 |
| RCBL | 70.0 | 0.9 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.9 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 2 |
| Scheduled Bus Service | 50 | 2 |
| Charter Bus | 50 | 2 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 6 | Zone 7 |
|--------------------------|--------|--------|--------|--------|--------|--------|--------|
| Name | PDO | CW | PDO | CW | PDO | CW | PDO |
| Type | active | xwalk | active | xwalk | active | xwalk | active |
| Curbside frontage (feet) | 60 | 12 | 60 | 21 | 60 | 12 | 60 |
| Number of lanes | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | | | | | |
|--------------------------|-----|-----|-----|-----|-----|-----|-----|
| Private Vehicle Drop-Off | 365 | 365 | 365 | 365 | 365 | 365 | 365 |
| Taxicabs | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| TNC | 343 | 343 | 343 | 343 | 343 | 343 | 343 |
| MPA Economy Parking | - | - | - | - | - | - | - |
| MPA Employee | - | - | - | - | - | - | - |
| MPA Water Taxi | - | - | - | - | - | - | - |
| MPA Interterminal | - | - | - | - | - | - | - |
| Courtesy Shuttle | - | - | - | - | - | - | - |
| RCBL | - | - | - | - | - | - | - |
| Limo | - | - | - | - | - | - | - |
| Shared Van | - | - | - | - | - | - | - |
| Silver Line | - | - | - | - | - | - | - |
| Logan Express | - | - | - | - | - | - | - |
| Scheduled Bus Service | - | - | - | - | - | - | - |
| Charter Bus | - | - | - | - | - | - | - |

Volume of vehicles using curbside (vph)

| | | | | | | | |
|--------------------------|----|---|----|---|----|---|----|
| Private Vehicle Drop-Off | 91 | - | 91 | - | 91 | - | 90 |
| Taxicabs | 10 | - | 10 | - | 10 | - | 10 |
| TNC | 86 | - | 86 | - | 86 | - | 85 |
| MPA Economy Parking | - | - | - | - | - | - | - |
| MPA Employee | - | - | - | - | - | - | - |
| MPA Water Taxi | - | - | - | - | - | - | - |
| MPA Interterminal | - | - | - | - | - | - | - |
| Courtesy Shuttle | - | - | - | - | - | - | - |
| RCBL | - | - | - | - | - | - | - |
| Limo | - | - | - | - | - | - | - |
| Shared Van | - | - | - | - | - | - | - |
| Silver Line | - | - | - | - | - | - | - |
| Logan Express | - | - | - | - | - | - | - |
| Scheduled Bus Service | - | - | - | - | - | - | - |
| Charter Bus | - | - | - | - | - | - | - |

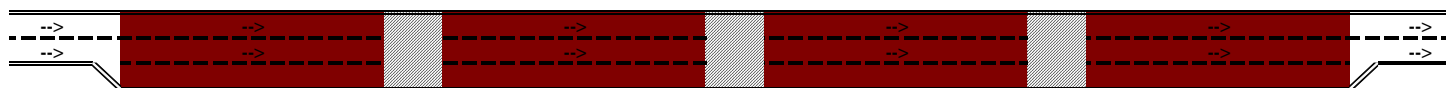
Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario NB 46.5 MAP - Departures Curb1
 Level / type of roadway Departures
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 7



| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 6 | Zone 7 |
|------------------------------------|-------------|--------|-------------|--------|-------------|--------|-------------|
| Name/description | PDO | CW | PDO | CW | PDO | CW | PDO |
| Curb length (feet) | 60 | 12 | 60 | 21 | 60 | 12 | 60 |
| Zone type | active | xwalk | active | xwalk | active | xwalk | active |
| Roadway volume (vph) | 748 | 748 | 748 | 748 | 748 | 748 | 748 |
| Roadway capacity (vph) | 0 | 2,657 | 0 | 2,657 | 0 | 2,657 | 0 |
| Roadway V/C ratio | 1000000.000 | 0.282 | 1000000.000 | 0.282 | 1000000.000 | 0.282 | 1000000.000 |
| Roadway LOS | F | B | F | B | F | B | F |
| Curb demand (# in sys 95% of time) | 6.0 | N/A | 6.0 | N/A | 6.0 | N/A | 6.0 |
| Curb capacity per lane (vehicles) | 2.0 | N/A | 2.0 | N/A | 2.0 | N/A | 2.0 |
| Curb utilization ratio | 3.000 | N/A | 3.000 | N/A | 3.000 | N/A | 3.000 |
| Curb LOS | F | N/A | F | N/A | F | N/A | F |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 | Zone 6 | Zone 7 |
|--|---------------|--------|--------|--------|--------|--------|--------|
| Name | PDO | CW | PDO | CW | PDO | CW | PDO |
| Type of zone | active | xwalk | active | xwalk | active | xwalk | active |
| Curbside length (feet) | 60 | 12 | 60 | 21 | 60 | 12 | 60 |
| Number of lanes | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Roadway volume (vph) | 748 | 748 | 748 | 748 | 748 | 748 | 748 |
| Curbside demand (vph) | 187 | - | 187 | - | 187 | - | 185 |
| Average dwell time (minutes) | 0.89 | - | 0.89 | - | 0.89 | - | 0.89 |
| Average vehicle length (feet) | 25.00 | - | 25.00 | - | 25.00 | - | 25.00 |
| Average vehicle arrival rate (vph) | 187.00 | - | 187.00 | - | 187.00 | - | 185.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% | 95.0% | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | - | 2,797 | - | 2,797 | - | 2,797 | - |
| Adjusted through lane roadway capacity | - | 2,657 | - | 2,657 | - | 2,657 | - |
| Estimated roadway V/C ratio | 1,000,000.000 | 0.282 | ##### | 0.282 | ##### | 0.282 | ##### |
| Curb capacity per lane (vehicles) | 2.00 | - | 2.00 | - | 2.00 | - | 2.00 |
| Curb utilization ratio | 3.000 | - | 3.000 | - | 3.000 | - | 3.000 |
| % occupancy in lane 1 | 1.000 | - | 1.000 | - | 1.000 | - | 1.000 |
| % occupancy in lane 2 | 1.000 | - | 1.000 | - | 1.000 | - | 1.000 |
| % occupancy in lane 3 | 1.00 | - | 1.00 | - | 1.00 | - | 1.00 |
| # of cars in curbside lane | 2.00 | - | 2.00 | - | 2.00 | - | 2.00 |
| # of double-parked cars | 2.00 | - | 2.00 | - | 2.00 | - | 2.00 |
| # of triple-parked cars | 2.000 | - | 2.000 | - | 2.000 | - | 2.000 |
| Curbside LOS | F | | F | | F | | F |
| Roadway LOS | F | B | F | B | F | B | F |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|-------------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | B 46.5 MAP - Departures Curb2 |
| Level / type of roadway | Departures |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 3 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|--------------------------|-------------------------------|------------------------------|
| Private Vehicle Drop-Off | 25.0 | 1.2 |
| Taxicabs | 25.0 | 1.0 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.9 |
| MPA Employee | 40.0 | 0.9 |
| MPA Water Taxi | 40.0 | 0.9 |
| MPA Interterminal | 40.0 | 0.9 |
| Courtesy Shuttle | 40.0 | 0.9 |
| RCBL | 70.0 | 0.9 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.9 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 2 |
| Scheduled Bus Service | 50 | 2 |
| Charter Bus | 50 | 2 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|--------------------------|--------------|--------|--------------|
| Name | JO/Taxi/Limo | CW | JO/Taxi/Limo |
| Type | active | xwalk | active |
| Curbside frontage (feet) | 105 | 20 | 105 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | |
|--------------------------|----|----|----|
| Private Vehicle Drop-Off | 87 | 87 | 87 |
| Taxicabs | 32 | 32 | 32 |
| TNC | 82 | 82 | 82 |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | - |
| Limo | 11 | 11 | 11 |
| Shared Van | - | - | - |
| Silver Line | - | - | - |
| Logan Express | - | - | - |
| Scheduled Bus Service | - | - | - |
| Charter Bus | - | - | - |

Volume of vehicles using curbside (vph)

| | | | |
|--------------------------|----|---|----|
| Private Vehicle Drop-Off | 44 | - | 43 |
| Taxicabs | 16 | - | 16 |
| TNC | 41 | - | 41 |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | - |
| Limo | 5 | - | 6 |
| Shared Van | - | - | - |
| Silver Line | - | - | - |
| Logan Express | - | - | - |
| Scheduled Bus Service | - | - | - |
| Charter Bus | - | - | - |

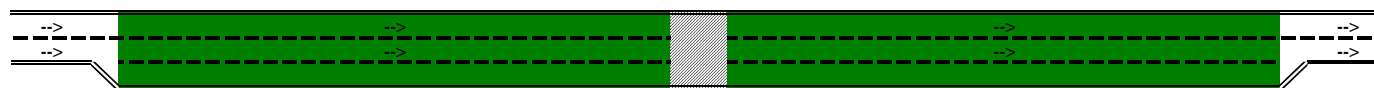
Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario B 46.5 MAP - Departures Curb2
 Level / type of roadway Departures
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 3



| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|------------------------------------|---------------|--------|---------------|
| Name/description | PDO/Taxi/Limo | CW | PDO/Taxi/Limo |
| Curb length (feet) | 105 | 20 | 105 |
| Zone type | active | xwalk | active |
| Roadway volume (vph) | 212 | 212 | 212 |
| Roadway capacity (vph) | 1,976 | 2,657 | 1,976 |
| Roadway V/C ratio | 0.107 | 0.080 | 0.107 |
| Roadway LOS | A | A | A |
| Curb demand (# in sys 95% of time) | 4.0 | N/A | 4.0 |
| Curb capacity per lane (vehicles) | 4.0 | N/A | 4.0 |
| Curb utilization ratio | 1.000 | N/A | 1.000 |
| Curb LOS | A | N/A | A |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 |
|--|---------------|--------|---------------|
| Name | PDO/Taxi/Limo | CW | PDO/Taxi/Limo |
| Type of zone | active | xwalk | active |
| Curbside length (feet) | 105 | 20 | 105 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |
| Roadway volume (vph) | 212 | 212 | 212 |
| Curbside demand (vph) | 106 | - | 106 |
| Average dwell time (minutes) | 0.90 | - | 0.90 |
| Average vehicle length (feet) | 25.24 | - | 25.28 |
| Average vehicle arrival rate (vph) | 106.00 | - | 106.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,082 | 2,797 | 2,082 |
| Adjusted through lane roadway capacity | 1,976 | 2,657 | 1,976 |
| Estimated roadway V/C ratio | 0.107 | 0.080 | 0.107 |
| Curb capacity per lane (vehicles) | 4.00 | - | 4.00 |
| Curb utilization ratio | 1.000 | - | 1.000 |
| % occupancy in lane 1 | 0.895 | - | 0.895 |
| % occupancy in lane 2 | 0.095 | - | 0.095 |
| % occupancy in lane 3 | - | - | - |
| # of cars in curbside lane | 3.58 | - | 3.58 |
| # of double-parked cars | 0.38 | - | 0.38 |
| # of triple-parked cars | - | - | - |
| Curbside LOS | A | | A |
| Roadway LOS | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|-----------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | EXISTING - Departures Curb2 |
| Level / type of roadway | Departures |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 5 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|--------------------------|-------------------------------|------------------------------|
| Private Vehicle Drop-Off | 25.0 | 1.2 |
| Taxicabs | 25.0 | 1.0 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.9 |
| MPA Employee | 40.0 | 0.9 |
| MPA Water Taxi | 40.0 | 0.9 |
| MPA Interterminal | 40.0 | 0.9 |
| Courtesy Shuttle | 40.0 | 0.9 |
| RCBL | 70.0 | 0.9 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.9 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 2 |
| Scheduled Bus Service | 50 | 2 |
| Charter Bus | 50 | 2 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 |
|--------------------------|--------|--------|--------|--------|--------|
| Name | CW | RCBL | CW | AllBus | CW |
| Type | xwalk | active | xwalk | active | xwalk |
| Curbside frontage (feet) | 12 | 80 | 21 | 80 | 12 |
| Number of lanes | 3 | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | | | |
|--------------------------|----|----|----|----|----|
| Private Vehicle Drop-Off | - | - | - | - | - |
| Taxicabs | - | - | - | - | - |
| TNC | - | - | - | - | - |
| MPA Economy Parking | - | - | - | - | - |
| MPA Employee | 15 | 15 | 15 | 15 | 15 |
| MPA Water Taxi | - | - | - | - | - |
| MPA Interterminal | - | - | - | - | - |
| Courtesy Shuttle | 22 | 22 | 22 | 22 | 22 |
| RCBL | 10 | 10 | 10 | 10 | 10 |
| Limo | - | - | - | - | - |
| Shared Van | 15 | 15 | 15 | 15 | 15 |
| Silver Line | - | - | - | - | - |
| Logan Express | 10 | 10 | 10 | 10 | 10 |
| Scheduled Bus Service | 2 | 2 | 2 | 2 | 2 |
| Charter Bus | - | - | - | - | - |

Volume of vehicles using curbside (vph)

| | | | | | |
|--------------------------|---|----|---|----|---|
| Private Vehicle Drop-Off | - | - | - | - | - |
| Taxicabs | - | - | - | - | - |
| TNC | - | - | - | - | - |
| MPA Economy Parking | - | - | - | - | - |
| MPA Employee | - | - | - | 15 | - |
| MPA Water Taxi | - | - | - | - | - |
| MPA Interterminal | - | - | - | - | - |
| Courtesy Shuttle | - | - | - | 22 | - |
| RCBL | - | 10 | - | - | - |
| Limo | - | - | - | - | - |
| Shared Van | - | - | - | 15 | - |
| Silver Line | - | - | - | - | - |
| Logan Express | - | - | - | 10 | - |
| Scheduled Bus Service | - | - | - | 2 | - |
| Charter Bus | - | - | - | - | - |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario EXISTING - Departures Curb2
 Level / type of roadway Departures
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 5



| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 |
|------------------------------------|--------|--------|--------|--------|--------|
| Name/description | CW | RCBL | CW | AllBus | CW |
| Curb length (feet) | 12 | 80 | 21 | 80 | 12 |
| Zone type | xwalk | active | xwalk | active | xwalk |
| Roadway volume (vph) | 74 | 74 | 74 | 74 | 74 |
| Roadway capacity (vph) | 2,657 | 1,976 | 2,657 | 1,139 | 2,657 |
| Roadway V/C ratio | 0.028 | 0.037 | 0.028 | 0.065 | 0.028 |
| Roadway LOS | A | A | A | A | A |
| Curb demand (# in sys 95% of time) | N/A | 1.0 | N/A | 3.0 | N/A |
| Curb capacity per lane (vehicles) | N/A | 1.0 | N/A | 2.0 | N/A |
| Curb utilization ratio | N/A | 1.000 | N/A | 1.500 | N/A |
| Curb LOS | N/A | A | N/A | D | N/A |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 |
|--|--------|--------|--------|--------|--------|
| Name | CW | RCBL | CW | AllBus | CW |
| Type of zone | xwalk | active | xwalk | active | xwalk |
| Curbside length (feet) | 12 | 80 | 21 | 80 | 12 |
| Number of lanes | 3 | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 | 2 |
| Roadway volume (vph) | 74 | 74 | 74 | 74 | 74 |
| Curbside demand (vph) | - | 10 | - | 64 | - |
| Average dwell time (minutes) | - | 0.90 | - | 1.12 | - |
| Average vehicle length (feet) | - | 70.00 | - | 39.53 | - |
| Average vehicle arrival rate (vph) | - | 10.00 | - | 64.00 | - |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,797 | 2,082 | 2,797 | 1,200 | 2,797 |
| Adjusted through lane roadway capacity | 2,657 | 1,976 | 2,657 | 1,139 | 2,657 |
| Estimated roadway V/C ratio | 0.028 | 0.037 | 0.028 | 0.065 | 0.028 |
| Curb capacity per lane (vehicles) | - | 1.00 | - | 2.00 | - |
| Curb utilization ratio | - | 1.000 | - | 1.500 | - |
| % occupancy in lane 1 | - | 0.895 | - | 1.000 | - |
| % occupancy in lane 2 | - | 0.095 | - | 0.490 | - |
| % occupancy in lane 3 | - | - | - | - | - |
| # of cars in curbside lane | - | 0.90 | - | 2.00 | - |
| # of double-parked cars | - | 0.10 | - | 0.98 | - |
| # of triple-parked cars | - | - | - | - | - |
| Curbside LOS | | A | | D | |
| Roadway LOS | A | A | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|--------------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | NB 46.5 MAP - Departures Curb2 |
| Level / type of roadway | Departures |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 5 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|--------------------------|-------------------------------|------------------------------|
| Private Vehicle Drop-Off | 25.0 | 1.2 |
| Taxicabs | 25.0 | 1.0 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.9 |
| MPA Employee | 40.0 | 0.9 |
| MPA Water Taxi | 40.0 | 0.9 |
| MPA Interterminal | 40.0 | 0.9 |
| Courtesy Shuttle | 40.0 | 0.9 |
| RCBL | 70.0 | 0.9 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.9 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 2 |
| Scheduled Bus Service | 50 | 2 |
| Charter Bus | 50 | 2 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 |
|--------------------------|--------|--------|--------|--------|--------|
| Name | CW | RCBL | CW | AllBus | CW |
| Type | xwalk | active | xwalk | active | xwalk |
| Curbside frontage (feet) | 12 | 80 | 21 | 80 | 12 |
| Number of lanes | 3 | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | | | |
|--------------------------|----|----|----|----|----|
| Private Vehicle Drop-Off | - | - | - | - | - |
| Taxicabs | - | - | - | - | - |
| TNC | - | - | - | - | - |
| MPA Economy Parking | - | - | - | - | - |
| MPA Employee | 15 | 15 | 15 | 15 | 15 |
| MPA Water Taxi | - | - | - | - | - |
| MPA Interterminal | - | - | - | - | - |
| Courtesy Shuttle | 22 | 22 | 22 | 22 | 22 |
| RCBL | 10 | 10 | 10 | 10 | 10 |
| Limo | - | - | - | - | - |
| Shared Van | 15 | 15 | 15 | 15 | 15 |
| Silver Line | - | - | - | - | - |
| Logan Express | 10 | 10 | 10 | 10 | 10 |
| Scheduled Bus Service | 2 | 2 | 2 | 2 | 2 |
| Charter Bus | - | - | - | - | - |

Volume of vehicles using curbside (vph)

| | | | | | |
|--------------------------|---|----|---|----|---|
| Private Vehicle Drop-Off | - | - | - | - | - |
| Taxicabs | - | - | - | - | - |
| TNC | - | - | - | - | - |
| MPA Economy Parking | - | - | - | - | - |
| MPA Employee | - | - | - | 15 | - |
| MPA Water Taxi | - | - | - | - | - |
| MPA Interterminal | - | - | - | - | - |
| Courtesy Shuttle | - | - | - | 22 | - |
| RCBL | - | 10 | - | - | - |
| Limo | - | - | - | - | - |
| Shared Van | - | - | - | 15 | - |
| Silver Line | - | - | - | - | - |
| Logan Express | - | - | - | 10 | - |
| Scheduled Bus Service | - | - | - | 2 | - |
| Charter Bus | - | - | - | - | - |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario NB 46.5 MAP - Departures Curb2
 Level / type of roadway Departures
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 5



| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 |
|------------------------------------|--------|--------|--------|--------|--------|
| Name/description | CW | RCBL | CW | AllBus | CW |
| Curb length (feet) | 12 | 80 | 21 | 80 | 12 |
| Zone type | xwalk | active | xwalk | active | xwalk |
| Roadway volume (vph) | 74 | 74 | 74 | 74 | 74 |
| Roadway capacity (vph) | 2,657 | 1,976 | 2,657 | 1,139 | 2,657 |
| Roadway V/C ratio | 0.028 | 0.037 | 0.028 | 0.065 | 0.028 |
| Roadway LOS | A | A | A | A | A |
| Curb demand (# in sys 95% of time) | N/A | 1.0 | N/A | 3.0 | N/A |
| Curb capacity per lane (vehicles) | N/A | 1.0 | N/A | 2.0 | N/A |
| Curb utilization ratio | N/A | 1.000 | N/A | 1.500 | N/A |
| Curb LOS | N/A | A | N/A | D | N/A |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Zone 5 |
|--|--------|--------|--------|--------|--------|
| Name | CW | RCBL | CW | AllBus | CW |
| Type of zone | xwalk | active | xwalk | active | xwalk |
| Curbside length (feet) | 12 | 80 | 21 | 80 | 12 |
| Number of lanes | 3 | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 | 2 |
| Roadway volume (vph) | 74 | 74 | 74 | 74 | 74 |
| Curbside demand (vph) | - | 10 | - | 64 | - |
| Average dwell time (minutes) | - | 0.90 | - | 1.12 | - |
| Average vehicle length (feet) | - | 70.00 | - | 39.53 | - |
| Average vehicle arrival rate (vph) | - | 10.00 | - | 64.00 | - |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,797 | 2,082 | 2,797 | 1,200 | 2,797 |
| Adjusted through lane roadway capacity | 2,657 | 1,976 | 2,657 | 1,139 | 2,657 |
| Estimated roadway V/C ratio | 0.028 | 0.037 | 0.028 | 0.065 | 0.028 |
| Curb capacity per lane (vehicles) | - | 1.00 | - | 2.00 | - |
| Curb utilization ratio | - | 1.000 | - | 1.500 | - |
| % occupancy in lane 1 | - | 0.895 | - | 1.000 | - |
| % occupancy in lane 2 | - | 0.095 | - | 0.490 | - |
| % occupancy in lane 3 | - | - | - | - | - |
| # of cars in curbside lane | - | 0.90 | - | 2.00 | - |
| # of double-parked cars | - | 0.10 | - | 0.98 | - |
| # of triple-parked cars | - | - | - | - | - |
| Curbside LOS | | A | | D | |
| Roadway LOS | A | A | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|-------------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | B 46.5 MAP - Departures Curb3 |
| Level / type of roadway | Departures |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 3 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|--------------------------|-------------------------------|------------------------------|
| Private Vehicle Drop-Off | 25.0 | 1.2 |
| Taxicabs | 25.0 | 1.0 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.9 |
| MPA Employee | 40.0 | 0.9 |
| MPA Water Taxi | 40.0 | 0.9 |
| MPA Interterminal | 40.0 | 0.9 |
| Courtesy Shuttle | 40.0 | 0.9 |
| RCBL | 70.0 | 0.9 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.9 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 2 |
| Scheduled Bus Service | 50 | 2 |
| Charter Bus | 50 | 2 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|--------------------------|--------------|--------|--------------|
| Name | JO/Taxi/Limo | CW | JO/Taxi/Limo |
| Type | active | xwalk | active |
| Curbside frontage (feet) | 125 | 20 | 125 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | |
|--------------------------|-----|-----|-----|
| Private Vehicle Drop-Off | 115 | 115 | 115 |
| Taxicabs | 42 | 42 | 42 |
| TNC | 108 | 108 | 108 |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | - |
| Limo | 14 | 14 | 14 |
| Shared Van | - | - | - |
| Silver Line | - | - | - |
| Logan Express | - | - | - |
| Scheduled Bus Service | - | - | - |
| Charter Bus | - | - | - |

Volume of vehicles using curbside (vph)

| | | | |
|--------------------------|----|---|----|
| Private Vehicle Drop-Off | 58 | - | 57 |
| Taxicabs | 21 | - | 21 |
| TNC | 54 | - | 54 |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | - |
| Limo | 7 | - | 7 |
| Shared Van | - | - | - |
| Silver Line | - | - | - |
| Logan Express | - | - | - |
| Scheduled Bus Service | - | - | - |
| Charter Bus | - | - | - |

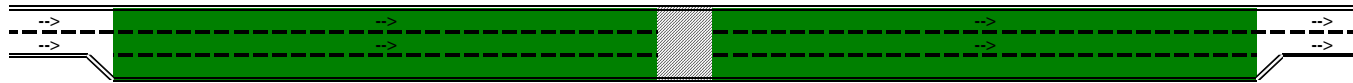
Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario B 46.5 MAP - Departures Curb3
 Level / type of roadway Departures
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 3



| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|------------------------------------|---------------|--------|---------------|
| Name/description | PDO/Taxi/Limo | CW | PDO/Taxi/Limo |
| Curb length (feet) | 125 | 20 | 125 |
| Zone type | active | xwalk | active |
| Roadway volume (vph) | 279 | 279 | 279 |
| Roadway capacity (vph) | 1,976 | 2,657 | 1,976 |
| Roadway V/C ratio | 0.141 | 0.105 | 0.141 |
| Roadway LOS | A | A | A |
| Curb demand (# in sys 95% of time) | 5.0 | N/A | 5.0 |
| Curb capacity per lane (vehicles) | 5.0 | N/A | 5.0 |
| Curb utilization ratio | 1.000 | N/A | 1.000 |
| Curb LOS | A | N/A | A |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 |
|--|---------------|--------|---------------|
| Name | PDO/Taxi/Limo | CW | PDO/Taxi/Limo |
| Type of zone | active | xwalk | active |
| Curbside length (feet) | 125 | 20 | 125 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |
| Roadway volume (vph) | 279 | 279 | 279 |
| Curbside demand (vph) | 140 | - | 139 |
| Average dwell time (minutes) | 0.90 | - | 0.90 |
| Average vehicle length (feet) | 25.25 | - | 25.25 |
| Average vehicle arrival rate (vph) | 140.00 | - | 139.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,082 | 2,797 | 2,082 |
| Adjusted through lane roadway capacity | 1,976 | 2,657 | 1,976 |
| Estimated roadway V/C ratio | 0.141 | 0.105 | 0.141 |
| Curb capacity per lane (vehicles) | 5.00 | - | 5.00 |
| Curb utilization ratio | 1.000 | - | 1.000 |
| % occupancy in lane 1 | 0.895 | - | 0.895 |
| % occupancy in lane 2 | 0.095 | - | 0.095 |
| % occupancy in lane 3 | - | - | - |
| # of cars in curbside lane | 4.48 | - | 4.48 |
| # of double-parked cars | 0.48 | - | 0.48 |
| # of triple-parked cars | - | - | - |
| Curbside LOS | A | | A |
| Roadway LOS | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|-----------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | EXISTING - Departures Curb3 |
| Level / type of roadway | Departures |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 3 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|--------------------------|-------------------------------|------------------------------|
| Private Vehicle Drop-Off | 25.0 | 1.2 |
| Taxicabs | 25.0 | 1.0 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.9 |
| MPA Employee | 40.0 | 0.9 |
| MPA Water Taxi | 40.0 | 0.9 |
| MPA Interterminal | 40.0 | 0.9 |
| Courtesy Shuttle | 40.0 | 0.9 |
| RCBL | 70.0 | 0.9 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.9 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 2 |
| Scheduled Bus Service | 50 | 2 |
| Charter Bus | 50 | 2 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|--------------------------|-----------|--------|-----------|
| Name | Limo/taxi | CW | Limo/taxi |
| Type | active | xwalk | active |
| Curbside frontage (feet) | 85 | 20 | 85 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | |
|--------------------------|-----|-----|-----|
| Private Vehicle Drop-Off | - | - | - |
| Taxicabs | 95 | 95 | 95 |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | - |
| Limo | 100 | 100 | 100 |
| Shared Van | - | - | - |
| Silver Line | - | - | - |
| Logan Express | - | - | - |
| Scheduled Bus Service | - | - | - |
| Charter Bus | - | - | - |

Volume of vehicles using curbside (vph)

| | | | |
|--------------------------|----|---|----|
| Private Vehicle Drop-Off | - | - | - |
| Taxicabs | 48 | - | 47 |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | - |
| Limo | 50 | - | 50 |
| Shared Van | - | - | - |
| Silver Line | - | - | - |
| Logan Express | - | - | - |
| Scheduled Bus Service | - | - | - |
| Charter Bus | - | - | - |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario EXISTING - Departures Curb3
 Level / type of roadway Departures
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 3



| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|------------------------------------|-----------|--------|-----------|
| Name/description | Limo/taxi | CW | Limo/taxi |
| Curb length (feet) | 85 | 20 | 85 |
| Zone type | active | xwalk | active |
| Roadway volume (vph) | 195 | 195 | 195 |
| Roadway capacity (vph) | 1,446 | 2,657 | 1,446 |
| Roadway V/C ratio | 0.135 | 0.073 | 0.135 |
| Roadway LOS | A | A | A |
| Curb demand (# in sys 95% of time) | 4.0 | N/A | 4.0 |
| Curb capacity per lane (vehicles) | 3.0 | N/A | 3.0 |
| Curb utilization ratio | 1.333 | N/A | 1.333 |
| Curb LOS | D | N/A | D |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 |
|--|-----------|--------|-----------|
| Name | Limo/taxi | CW | Limo/taxi |
| Type of zone | active | xwalk | active |
| Curbside length (feet) | 85 | 20 | 85 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |
| Roadway volume (vph) | 195 | 195 | 195 |
| Curbside demand (vph) | 98 | - | 97 |
| Average dwell time (minutes) | 0.93 | - | 0.93 |
| Average vehicle length (feet) | 27.55 | - | 27.58 |
| Average vehicle arrival rate (vph) | 98.00 | - | 97.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 1,523 | 2,797 | 1,523 |
| Adjusted through lane roadway capacity | 1,446 | 2,657 | 1,446 |
| Estimated roadway V/C ratio | 0.135 | 0.073 | 0.135 |
| Curb capacity per lane (vehicles) | 3.00 | - | 3.00 |
| Curb utilization ratio | 1.333 | - | 1.333 |
| % occupancy in lane 1 | 1.000 | - | 1.000 |
| % occupancy in lane 2 | 0.330 | - | 0.330 |
| % occupancy in lane 3 | - | - | - |
| # of cars in curbside lane | 3.00 | - | 3.00 |
| # of double-parked cars | 0.99 | - | 0.99 |
| # of triple-parked cars | - | - | - |
| Curbside LOS | D | | D |
| Roadway LOS | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|--------------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | NB 46.5 MAP - Departures Curb3 |
| Level / type of roadway | Departures |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 3 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|--------------------------|-------------------------------|------------------------------|
| Private Vehicle Drop-Off | 25.0 | 1.2 |
| Taxicabs | 25.0 | 1.0 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.9 |
| MPA Employee | 40.0 | 0.9 |
| MPA Water Taxi | 40.0 | 0.9 |
| MPA Interterminal | 40.0 | 0.9 |
| Courtesy Shuttle | 40.0 | 0.9 |
| RCBL | 70.0 | 0.9 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.9 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 2 |
| Scheduled Bus Service | 50 | 2 |
| Charter Bus | 50 | 2 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|--------------------------|-----------|--------|-----------|
| Name | Limo/taxi | CW | Limo/taxi |
| Type | active | xwalk | active |
| Curbside frontage (feet) | 85 | 20 | 85 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | |
|--------------------------|----|----|----|
| Private Vehicle Drop-Off | - | - | - |
| Taxicabs | 94 | 94 | 94 |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | - |
| Limo | 46 | 46 | 46 |
| Shared Van | - | - | - |
| Silver Line | - | - | - |
| Logan Express | - | - | - |
| Scheduled Bus Service | - | - | - |
| Charter Bus | - | - | - |

Volume of vehicles using curbside (vph)

| | | | |
|--------------------------|----|---|----|
| Private Vehicle Drop-Off | - | - | - |
| Taxicabs | 47 | - | 47 |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | - |
| Limo | 23 | - | 23 |
| Shared Van | - | - | - |
| Silver Line | - | - | - |
| Logan Express | - | - | - |
| Scheduled Bus Service | - | - | - |
| Charter Bus | - | - | - |

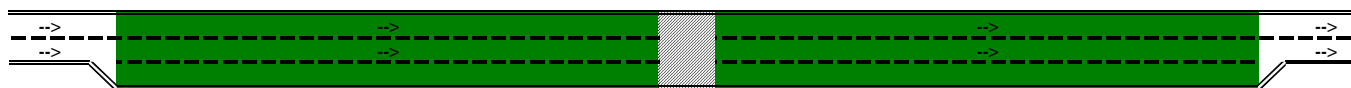
Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario NB 46.5 MAP - Departures Curb3
 Level / type of roadway Departures
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 3



| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|------------------------------------|-----------|--------|-----------|
| Name/description | Limo/taxi | CW | Limo/taxi |
| Curb length (feet) | 85 | 20 | 85 |
| Zone type | active | xwalk | active |
| Roadway volume (vph) | 140 | 140 | 140 |
| Roadway capacity (vph) | 1,976 | 2,657 | 1,976 |
| Roadway V/C ratio | 0.071 | 0.053 | 0.071 |
| Roadway LOS | A | A | A |
| Curb demand (# in sys 95% of time) | 3.0 | N/A | 3.0 |
| Curb capacity per lane (vehicles) | 3.0 | N/A | 3.0 |
| Curb utilization ratio | 1.000 | N/A | 1.000 |
| Curb LOS | A | N/A | A |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 |
|--|-----------|--------|-----------|
| Name | Limo/taxi | CW | Limo/taxi |
| Type of zone | active | xwalk | active |
| Curbside length (feet) | 85 | 20 | 85 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |
| Roadway volume (vph) | 140 | 140 | 140 |
| Curbside demand (vph) | 70 | - | 70 |
| Average dwell time (minutes) | 0.95 | - | 0.95 |
| Average vehicle length (feet) | 26.64 | - | 26.64 |
| Average vehicle arrival rate (vph) | 70.00 | - | 70.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,082 | 2,797 | 2,082 |
| Adjusted through lane roadway capacity | 1,976 | 2,657 | 1,976 |
| Estimated roadway V/C ratio | 0.071 | 0.053 | 0.071 |
| Curb capacity per lane (vehicles) | 3.00 | - | 3.00 |
| Curb utilization ratio | 1.000 | - | 1.000 |
| % occupancy in lane 1 | 0.895 | - | 0.895 |
| % occupancy in lane 2 | 0.095 | - | 0.095 |
| % occupancy in lane 3 | - | - | - |
| # of cars in curbside lane | 2.69 | - | 2.69 |
| # of double-parked cars | 0.29 | - | 0.29 |
| # of triple-parked cars | - | - | - |
| Curbside LOS | A | | A |
| Roadway LOS | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|-----------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | B 46.5 MAP - Arrivals Curb1 |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 3 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|-------------------------|-------------------------------|------------------------------|
| Private Vehicle Pick-Up | 25.0 | 2.9 |
| Taxicabs | 25.0 | 0.6 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.7 |
| MPA Employee | 40.0 | 0.7 |
| MPA Water Taxi | 40.0 | 0.7 |
| MPA Interterminal | 40.0 | 0.7 |
| Courtesy Shuttle | 40.0 | 0.7 |
| RCBL | 70.0 | 1.0 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.7 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 3 |
| Scheduled Bus | 50 | 2 |
| Charter Bus | 50 | 3 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|--------------------------|--------|--------|--------|
| Name | Taxi | CW | MPA |
| Type | active | xwalk | active |
| Curbside frontage (feet) | 230 | 20 | 100 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | |
|-------------------------|----|----|----|
| Private Vehicle Pick-Up | - | - | - |
| Taxicabs | 95 | 95 | 95 |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | 16 | 16 | 16 |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | - |
| Limo | - | - | - |
| Shared Van | - | - | - |
| Silver Line | - | - | - |
| Logan Express | - | - | - |
| Scheduled Bus | - | - | - |
| Charter Bus | - | - | - |

Volume of vehicles using curbside (vph)

| | | | |
|-------------------------|----|---|----|
| Private Vehicle Pick-Up | - | - | - |
| Taxicabs | 95 | - | - |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | 16 |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | - |
| Limo | - | - | - |
| Shared Van | - | - | - |
| Silver Line | - | - | - |
| Logan Express | - | - | - |
| Scheduled Bus | - | - | - |
| Charter Bus | - | - | - |

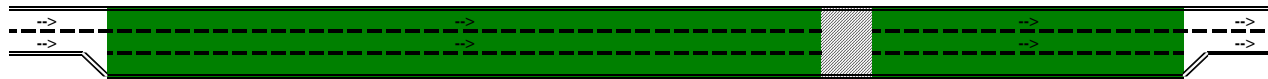
Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario B 46.5 MAP - Arrivals Curb1
 Level / type of roadway Arrivals
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 3



| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|------------------------------------|--------|--------|--------|
| Name/description | Taxi | CW | MPA |
| Curb length (feet) | 230 | 20 | 100 |
| Zone type | active | xwalk | active |
| Roadway volume (vph) | 111 | 111 | 111 |
| Roadway capacity (vph) | 2,395 | 2,657 | 2,395 |
| Roadway V/C ratio | 0.046 | 0.042 | 0.046 |
| Roadway LOS | A | A | A |
| Curb demand (# in sys 95% of time) | 3.0 | N/A | 1.0 |
| Curb capacity per lane (vehicles) | 9.0 | N/A | 3.0 |
| Curb utilization ratio | 0.333 | N/A | 0.333 |
| Curb LOS | A | N/A | A |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 |
|--|--------|--------|--------|
| Name | Taxi | CW | MPA |
| Type of zone | active | xwalk | active |
| Curbside length (feet) | 230 | 20 | 100 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |
| Roadway volume (vph) | 111 | 111 | 111 |
| Curbside demand (vph) | 95 | - | 16 |
| Average dwell time (minutes) | 0.60 | - | 0.68 |
| Average vehicle length (feet) | 25.00 | - | 40.00 |
| Average vehicle arrival rate (vph) | 95.00 | - | 16.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,522 | 2,797 | 2,522 |
| Adjusted through lane roadway capacity | 2,395 | 2,657 | 2,395 |
| Estimated roadway V/C ratio | 0.046 | 0.042 | 0.046 |
| Curb capacity per lane (vehicles) | 9.00 | - | 3.00 |
| Curb utilization ratio | 0.333 | - | 0.333 |
| % occupancy in lane 1 | 0.330 | - | 0.330 |
| % occupancy in lane 2 | - | - | - |
| % occupancy in lane 3 | - | - | - |
| # of cars in curbside lane | 2.97 | - | 0.99 |
| # of double-parked cars | - | - | - |
| # of triple-parked cars | - | - | - |
| Curbside LOS | A | | A |
| Roadway LOS | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|--------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | EXISTING- Arrivals Curb1 |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 3 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|-------------------------|-------------------------------|------------------------------|
| Private Vehicle Pick-Up | 25.0 | 2.9 |
| Taxicabs | 25.0 | 0.6 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.7 |
| MPA Employee | 40.0 | 0.7 |
| MPA Water Taxi | 40.0 | 0.7 |
| MPA Interterminal | 40.0 | 0.7 |
| Courtesy Shuttle | 40.0 | 0.7 |
| RCBL | 70.0 | 1.0 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.7 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 3 |
| Scheduled Bus | 50 | 2 |
| Charter Bus | 50 | 3 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|--------------------------|--------|--------|--------|
| Name | Taxi | CW | MPA |
| Type | active | xwalk | active |
| Curbside frontage (feet) | 230 | 20 | 100 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | |
|-------------------------|----|----|----|
| Private Vehicle Pick-Up | - | - | - |
| Taxicabs | 55 | 55 | 55 |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | 16 | 16 | 16 |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | - |
| Limo | - | - | - |
| Shared Van | - | - | - |
| Silver Line | - | - | - |
| Logan Express | - | - | - |
| Scheduled Bus | - | - | - |
| Charter Bus | - | - | - |

Volume of vehicles using curbside (vph)

| | | | |
|-------------------------|----|---|----|
| Private Vehicle Pick-Up | - | - | - |
| Taxicabs | 55 | - | - |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | 16 |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | - |
| Limo | - | - | - |
| Shared Van | - | - | - |
| Silver Line | - | - | - |
| Logan Express | - | - | - |
| Scheduled Bus | - | - | - |
| Charter Bus | - | - | - |

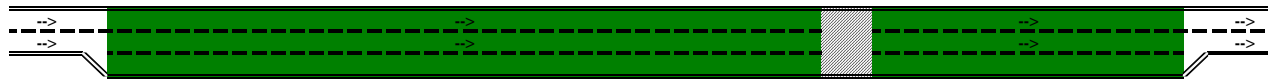
Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario EXISTING- Arrivals Curb1
 Level / type of roadway Arrivals
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 3



| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|------------------------------------|--------|--------|--------|
| Name/description | Taxi | CW | MPA |
| Curb length (feet) | 230 | 20 | 100 |
| Zone type | active | xwalk | active |
| Roadway volume (vph) | 71 | 71 | 71 |
| Roadway capacity (vph) | 2,442 | 2,657 | 2,395 |
| Roadway V/C ratio | 0.029 | 0.027 | 0.030 |
| Roadway LOS | A | A | A |
| Curb demand (# in sys 95% of time) | 2.0 | N/A | 1.0 |
| Curb capacity per lane (vehicles) | 9.0 | N/A | 3.0 |
| Curb utilization ratio | 0.222 | N/A | 0.333 |
| Curb LOS | A | N/A | A |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 |
|--|--------|--------|--------|
| Name | Taxi | CW | MPA |
| Type of zone | active | xwalk | active |
| Curbside length (feet) | 230 | 20 | 100 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |
| Roadway volume (vph) | 71 | 71 | 71 |
| Curbside demand (vph) | 55 | - | 16 |
| Average dwell time (minutes) | 0.60 | - | 0.68 |
| Average vehicle length (feet) | 25.00 | - | 40.00 |
| Average vehicle arrival rate (vph) | 55.00 | - | 16.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,572 | 2,797 | 2,522 |
| Adjusted through lane roadway capacity | 2,442 | 2,657 | 2,395 |
| Estimated roadway V/C ratio | 0.029 | 0.027 | 0.030 |
| Curb capacity per lane (vehicles) | 9.00 | - | 3.00 |
| Curb utilization ratio | 0.222 | - | 0.333 |
| % occupancy in lane 1 | 0.220 | - | 0.330 |
| % occupancy in lane 2 | - | - | - |
| % occupancy in lane 3 | - | - | - |
| # of cars in curbside lane | 1.98 | - | 0.99 |
| # of double-parked cars | - | - | - |
| # of triple-parked cars | - | - | - |
| Curbside LOS | A | | A |
| Roadway LOS | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|------------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | NB 46.5 MAP - Arrivals Curb1 |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 3 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|-------------------------|-------------------------------|------------------------------|
| Private Vehicle Pick-Up | 25.0 | 2.9 |
| Taxicabs | 25.0 | 0.6 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.7 |
| MPA Employee | 40.0 | 0.7 |
| MPA Water Taxi | 40.0 | 0.7 |
| MPA Interterminal | 40.0 | 0.7 |
| Courtesy Shuttle | 40.0 | 0.7 |
| RCBL | 70.0 | 1.0 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.7 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 3 |
| Scheduled Bus | 50 | 2 |
| Charter Bus | 50 | 3 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|--------------------------|--------|--------|--------|
| Name | Taxi | CW | MPA |
| Type | active | xwalk | active |
| Curbside frontage (feet) | 230 | 20 | 100 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | |
|-------------------------|----|----|----|
| Private Vehicle Pick-Up | - | - | - |
| Taxicabs | 95 | 95 | 95 |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | 16 | 16 | 16 |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | - |
| Limo | - | - | - |
| Shared Van | - | - | - |
| Silver Line | - | - | - |
| Logan Express | - | - | - |
| Scheduled Bus | - | - | - |
| Charter Bus | - | - | - |

Volume of vehicles using curbside (vph)

| | | | |
|-------------------------|----|---|----|
| Private Vehicle Pick-Up | - | - | - |
| Taxicabs | 95 | - | - |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | 16 |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | - |
| Limo | - | - | - |
| Shared Van | - | - | - |
| Silver Line | - | - | - |
| Logan Express | - | - | - |
| Scheduled Bus | - | - | - |
| Charter Bus | - | - | - |

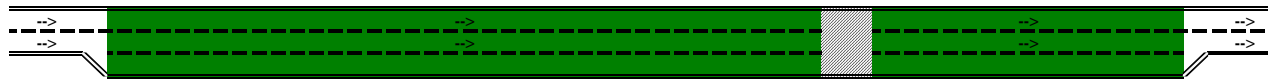
Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario NB 46.5 MAP - Arrivals Curb1
 Level / type of roadway Arrivals
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 3



| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|------------------------------------|--------|--------|--------|
| Name/description | Taxi | CW | MPA |
| Curb length (feet) | 230 | 20 | 100 |
| Zone type | active | xwalk | active |
| Roadway volume (vph) | 111 | 111 | 111 |
| Roadway capacity (vph) | 2,395 | 2,657 | 2,395 |
| Roadway V/C ratio | 0.046 | 0.042 | 0.046 |
| Roadway LOS | A | A | A |
| Curb demand (# in sys 95% of time) | 3.0 | N/A | 1.0 |
| Curb capacity per lane (vehicles) | 9.0 | N/A | 3.0 |
| Curb utilization ratio | 0.333 | N/A | 0.333 |
| Curb LOS | A | N/A | A |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 |
|--|--------|--------|--------|
| Name | Taxi | CW | MPA |
| Type of zone | active | xwalk | active |
| Curbside length (feet) | 230 | 20 | 100 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |
| Roadway volume (vph) | 111 | 111 | 111 |
| Curbside demand (vph) | 95 | - | 16 |
| Average dwell time (minutes) | 0.60 | - | 0.68 |
| Average vehicle length (feet) | 25.00 | - | 40.00 |
| Average vehicle arrival rate (vph) | 95.00 | - | 16.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,522 | 2,797 | 2,522 |
| Adjusted through lane roadway capacity | 2,395 | 2,657 | 2,395 |
| Estimated roadway V/C ratio | 0.046 | 0.042 | 0.046 |
| Curb capacity per lane (vehicles) | 9.00 | - | 3.00 |
| Curb utilization ratio | 0.333 | - | 0.333 |
| % occupancy in lane 1 | 0.330 | - | 0.330 |
| % occupancy in lane 2 | - | - | - |
| % occupancy in lane 3 | - | - | - |
| # of cars in curbside lane | 2.97 | - | 0.99 |
| # of double-parked cars | - | - | - |
| # of triple-parked cars | - | - | - |
| Curbside LOS | A | | A |
| Roadway LOS | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|-----------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | B 46.5 MAP - Arrivals Curb2 |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 3 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|-------------------------|-------------------------------|------------------------------|
| Private Vehicle Pick-Up | 25.0 | 2.9 |
| Taxicabs | 25.0 | 0.6 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.7 |
| MPA Employee | 40.0 | 0.7 |
| MPA Water Taxi | 40.0 | 0.7 |
| MPA Interterminal | 40.0 | 0.7 |
| Courtesy Shuttle | 40.0 | 0.7 |
| RCBL | 70.0 | 1.0 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.7 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 3 |
| Scheduled Bus | 50 | 2 |
| Charter Bus | 50 | 3 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|--------------------------|--------|--------|--------|
| Name | SL | CW | RCBL |
| Type | active | xwalk | active |
| Curbside frontage (feet) | 110 | 20 | 110 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | |
|-------------------------|----|----|----|
| Private Vehicle Pick-Up | - | - | - |
| Taxicabs | - | - | - |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | 30 | 30 | 30 |
| RCBL | 12 | 12 | 12 |
| Limo | - | - | - |
| Shared Van | - | - | - |
| Silver Line | 8 | 8 | 8 |
| Logan Express | 10 | 10 | 10 |
| Scheduled Bus | 10 | 10 | 10 |
| Charter Bus | 3 | 3 | 3 |

Volume of vehicles using curbside (vph)

| | | | |
|-------------------------|---|---|----|
| Private Vehicle Pick-Up | - | - | - |
| Taxicabs | - | - | - |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | 12 |
| Limo | - | - | - |
| Shared Van | - | - | - |
| Silver Line | 8 | - | - |
| Logan Express | - | - | - |
| Scheduled Bus | - | - | - |
| Charter Bus | - | - | - |

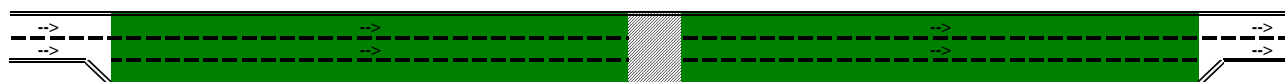
Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

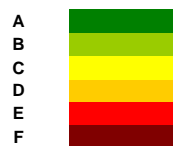
Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario B 46.5 MAP - Arrivals Curb2
 Level / type of roadway Arrivals
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 3



| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|------------------------------------|--------|--------|--------|
| Name/description | SL | CW | RCBL |
| Curb length (feet) | 110 | 20 | 110 |
| Zone type | active | xwalk | active |
| Roadway volume (vph) | 73 | 73 | 73 |
| Roadway capacity (vph) | 2,343 | 2,657 | 2,343 |
| Roadway V/C ratio | 0.031 | 0.027 | 0.031 |
| Roadway LOS | A | A | A |
| Curb demand (# in sys 95% of time) | 1.0 | N/A | 1.0 |
| Curb capacity per lane (vehicles) | 2.0 | N/A | 2.0 |
| Curb utilization ratio | 0.500 | N/A | 0.500 |
| Curb LOS | A | N/A | A |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 |
|--|--------|--------|--------|
| Name | SL | CW | RCBL |
| Type of zone | active | xwalk | active |
| Curbside length (feet) | 110 | 20 | 110 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |
| Roadway volume (vph) | 73 | 73 | 73 |
| Curbside demand (vph) | 8 | - | 12 |
| Average dwell time (minutes) | 0.80 | - | 0.95 |
| Average vehicle length (feet) | 70.00 | - | 70.00 |
| Average vehicle arrival rate (vph) | 8.00 | - | 12.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,468 | 2,797 | 2,468 |
| Adjusted through lane roadway capacity | 2,343 | 2,657 | 2,343 |
| Estimated roadway V/C ratio | 0.031 | 0.027 | 0.031 |
| Curb capacity per lane (vehicles) | 2.00 | - | 2.00 |
| Curb utilization ratio | 0.500 | - | 0.500 |
| % occupancy in lane 1 | 0.490 | - | 0.490 |
| % occupancy in lane 2 | - | - | - |
| % occupancy in lane 3 | - | - | - |
| # of cars in curbside lane | 0.98 | - | 0.98 |
| # of double-parked cars | - | - | - |
| # of triple-parked cars | - | - | - |
| Curbside LOS | A | | A |
| Roadway LOS | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|--------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | EXISTING- Arrivals Curb2 |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 3 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|-------------------------|-------------------------------|------------------------------|
| Private Vehicle Pick-Up | 25.0 | 2.9 |
| Taxicabs | 25.0 | 0.6 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.7 |
| MPA Employee | 40.0 | 0.7 |
| MPA Water Taxi | 40.0 | 0.7 |
| MPA Interterminal | 40.0 | 0.7 |
| Courtesy Shuttle | 40.0 | 0.7 |
| RCBL | 70.0 | 1.0 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.7 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 3 |
| Scheduled Bus | 50 | 2 |
| Charter Bus | 50 | 3 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|--------------------------|--------|--------|--------|
| Name | SL | CW | RCBL |
| Type | active | xwalk | active |
| Curbside frontage (feet) | 75 | 20 | 115 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | |
|-------------------------|----|----|----|
| Private Vehicle Pick-Up | - | - | - |
| Taxicabs | - | - | - |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | 30 | 30 | 30 |
| RCBL | 12 | 12 | 12 |
| Limo | - | - | - |
| Shared Van | - | - | - |
| Silver Line | 8 | 8 | 8 |
| Logan Express | 10 | 10 | 10 |
| Scheduled Bus | 10 | 10 | 10 |
| Charter Bus | 3 | 3 | 3 |

Volume of vehicles using curbside (vph)

| | | | |
|-------------------------|---|---|----|
| Private Vehicle Pick-Up | - | - | - |
| Taxicabs | - | - | - |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | 12 |
| Limo | - | - | - |
| Shared Van | - | - | - |
| Silver Line | 8 | - | - |
| Logan Express | - | - | - |
| Scheduled Bus | - | - | - |
| Charter Bus | - | - | - |

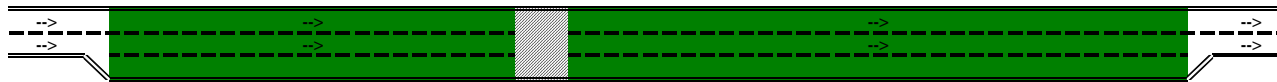
Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario EXISTING- Arrivals Curb2
 Level / type of roadway Arrivals
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 3



| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|------------------------------------|--------|--------|--------|
| Name/description | SL | CW | RCBL |
| Curb length (feet) | 75 | 20 | 115 |
| Zone type | active | xwalk | active |
| Roadway volume (vph) | 73 | 73 | 73 |
| Roadway capacity (vph) | 1,976 | 2,657 | 2,343 |
| Roadway V/C ratio | 0.037 | 0.027 | 0.031 |
| Roadway LOS | A | A | A |
| Curb demand (# in sys 95% of time) | 1.0 | N/A | 1.0 |
| Curb capacity per lane (vehicles) | 1.0 | N/A | 2.0 |
| Curb utilization ratio | 1.000 | N/A | 0.500 |
| Curb LOS | A | N/A | A |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 |
|--|--------|--------|--------|
| Name | SL | CW | RCBL |
| Type of zone | active | xwalk | active |
| Curbside length (feet) | 75 | 20 | 115 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |
| Roadway volume (vph) | 73 | 73 | 73 |
| Curbside demand (vph) | 8 | - | 12 |
| Average dwell time (minutes) | 0.80 | - | 0.95 |
| Average vehicle length (feet) | 70.00 | - | 70.00 |
| Average vehicle arrival rate (vph) | 8.00 | - | 12.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,082 | 2,797 | 2,468 |
| Adjusted through lane roadway capacity | 1,976 | 2,657 | 2,343 |
| Estimated roadway V/C ratio | 0.037 | 0.027 | 0.031 |
| Curb capacity per lane (vehicles) | 1.00 | - | 2.00 |
| Curb utilization ratio | 1.000 | - | 0.500 |
| % occupancy in lane 1 | 0.895 | - | 0.490 |
| % occupancy in lane 2 | 0.095 | - | - |
| % occupancy in lane 3 | - | - | - |
| # of cars in curbside lane | 0.90 | - | 0.98 |
| # of double-parked cars | 0.10 | - | - |
| # of triple-parked cars | - | - | - |
| Curbside LOS | A | | A |
| Roadway LOS | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|------------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | NB 46.5 MAP - Arrivals Curb2 |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 3 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|-------------------------|-------------------------------|------------------------------|
| Private Vehicle Pick-Up | 25.0 | 2.9 |
| Taxicabs | 25.0 | 0.6 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.7 |
| MPA Employee | 40.0 | 0.7 |
| MPA Water Taxi | 40.0 | 0.7 |
| MPA Interterminal | 40.0 | 0.7 |
| Courtesy Shuttle | 40.0 | 0.7 |
| RCBL | 70.0 | 1.0 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.7 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 3 |
| Scheduled Bus | 50 | 2 |
| Charter Bus | 50 | 3 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|--------------------------|--------|--------|--------|
| Name | SL | CW | RCBL |
| Type | active | xwalk | active |
| Curbside frontage (feet) | 75 | 20 | 115 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | |
|-------------------------|----|----|----|
| Private Vehicle Pick-Up | - | - | - |
| Taxicabs | - | - | - |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | 30 | 30 | 30 |
| RCBL | 12 | 12 | 12 |
| Limo | - | - | - |
| Shared Van | - | - | - |
| Silver Line | 8 | 8 | 8 |
| Logan Express | 10 | 10 | 10 |
| Scheduled Bus | 10 | 10 | 10 |
| Charter Bus | 3 | 3 | 3 |

Volume of vehicles using curbside (vph)

| | | | |
|-------------------------|---|---|----|
| Private Vehicle Pick-Up | - | - | - |
| Taxicabs | - | - | - |
| TNC | - | - | - |
| MPA Economy Parking | - | - | - |
| MPA Employee | - | - | - |
| MPA Water Taxi | - | - | - |
| MPA Interterminal | - | - | - |
| Courtesy Shuttle | - | - | - |
| RCBL | - | - | 12 |
| Limo | - | - | - |
| Shared Van | - | - | - |
| Silver Line | 8 | - | - |
| Logan Express | - | - | - |
| Scheduled Bus | - | - | - |
| Charter Bus | - | - | - |

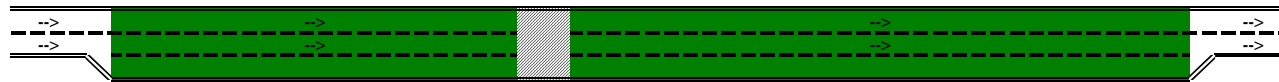
Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario NB 46.5 MAP - Arrivals Curb2
 Level / type of roadway Arrivals
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 3



| Zone ID | Zone 1 | Zone 2 | Zone 3 |
|------------------------------------|--------|--------|--------|
| Name/description | SL | CW | RCBL |
| Curb length (feet) | 75 | 20 | 115 |
| Zone type | active | xwalk | active |
| Roadway volume (vph) | 73 | 73 | 73 |
| Roadway capacity (vph) | 1,976 | 2,657 | 2,343 |
| Roadway V/C ratio | 0.037 | 0.027 | 0.031 |
| Roadway LOS | A | A | A |
| Curb demand (# in sys 95% of time) | 1.0 | N/A | 1.0 |
| Curb capacity per lane (vehicles) | 1.0 | N/A | 2.0 |
| Curb utilization ratio | 1.000 | N/A | 0.500 |
| Curb LOS | A | N/A | A |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 |
|--|--------|--------|--------|
| Name | SL | CW | RCBL |
| Type of zone | active | xwalk | active |
| Curbside length (feet) | 75 | 20 | 115 |
| Number of lanes | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 |
| Roadway volume (vph) | 73 | 73 | 73 |
| Curbside demand (vph) | 8 | - | 12 |
| Average dwell time (minutes) | 0.80 | - | 0.95 |
| Average vehicle length (feet) | 70.00 | - | 70.00 |
| Average vehicle arrival rate (vph) | 8.00 | - | 12.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,082 | 2,797 | 2,468 |
| Adjusted through lane roadway capacity | 1,976 | 2,657 | 2,343 |
| Estimated roadway V/C ratio | 0.037 | 0.027 | 0.031 |
| Curb capacity per lane (vehicles) | 1.00 | - | 2.00 |
| Curb utilization ratio | 1.000 | - | 0.500 |
| % occupancy in lane 1 | 0.895 | - | 0.490 |
| % occupancy in lane 2 | 0.095 | - | - |
| % occupancy in lane 3 | - | - | - |
| # of cars in curbside lane | 0.90 | - | 0.98 |
| # of double-parked cars | 0.10 | - | - |
| # of triple-parked cars | - | - | - |
| Curbside LOS | A | | A |
| Roadway LOS | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|-----------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | B 46.5 MAP - Arrivals Curb3 |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 4 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|-------------------------|-------------------------------|------------------------------|
| Private Vehicle Pick-Up | 25.0 | 2.9 |
| Taxicabs | 25.0 | 0.6 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.7 |
| MPA Employee | 40.0 | 0.7 |
| MPA Water Taxi | 40.0 | 0.7 |
| MPA Interterminal | 40.0 | 0.7 |
| Courtesy Shuttle | 40.0 | 0.7 |
| RCBL | 70.0 | 1.0 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.7 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 3 |
| Scheduled Bus | 50 | 2 |
| Charter Bus | 50 | 3 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|--------------------------|--------|--------|--------|--------|
| Name | SV | PP | CW | PP |
| Type | active | active | xwalk | active |
| Curbside frontage (feet) | 70 | 60 | 20 | 130 |
| Number of lanes | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | | |
|-------------------------|----|----|----|----|
| Private Vehicle Pick-Up | 93 | 93 | 93 | 93 |
| Taxicabs | - | - | - | - |
| TNC | - | - | - | - |
| MPA Economy Parking | - | - | - | - |
| MPA Employee | - | - | - | - |
| MPA Water Taxi | - | - | - | - |
| MPA Interterminal | - | - | - | - |
| Courtesy Shuttle | - | - | - | - |
| RCBL | - | - | - | - |
| Limo | - | - | - | - |
| Shared Van | 15 | 15 | 15 | 15 |
| Silver Line | - | - | - | - |
| Logan Express | - | - | - | - |
| Scheduled Bus | - | - | - | - |
| Charter Bus | - | - | - | - |

Volume of vehicles using curbside (vph)

| | | | | |
|-------------------------|----|----|---|----|
| Private Vehicle Pick-Up | - | 29 | - | 64 |
| Taxicabs | - | - | - | - |
| TNC | - | - | - | - |
| MPA Economy Parking | - | - | - | - |
| MPA Employee | - | - | - | - |
| MPA Water Taxi | - | - | - | - |
| MPA Interterminal | - | - | - | - |
| Courtesy Shuttle | - | - | - | - |
| RCBL | - | - | - | - |
| Limo | - | - | - | - |
| Shared Van | 15 | - | - | - |
| Silver Line | - | - | - | - |
| Logan Express | - | - | - | - |
| Scheduled Bus | - | - | - | - |
| Charter Bus | - | - | - | - |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario B 46.5 MAP - Arrivals Curbside
 Level / type of roadway Arrivals
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 4



| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|------------------------------------|--------|--------|--------|--------|
| Name/description | SV | PP | CW | PP |
| Curb length (feet) | 70 | 60 | 20 | 130 |
| Zone type | active | active | xwalk | active |
| Roadway volume (vph) | 108 | 108 | 108 | 108 |
| Roadway capacity (vph) | 2,343 | 722 | 2,657 | 1,676 |
| Roadway V/C ratio | 0.046 | 0.150 | 0.041 | 0.064 |
| Roadway LOS | A | A | A | A |
| Curb demand (# in sys 95% of time) | 1.0 | 4.0 | N/A | 6.0 |
| Curb capacity per lane (vehicles) | 2.0 | 2.0 | N/A | 5.0 |
| Curb utilization ratio | 0.500 | 2.000 | N/A | 1.200 |
| Curb LOS | A | E | N/A | C |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|--|--------|--------|--------|--------|
| Name | SV | PP | CW | PP |
| Type of zone | active | active | xwalk | active |
| Curbside length (feet) | 70 | 60 | 20 | 130 |
| Number of lanes | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 |
| Roadway volume (vph) | 108 | 108 | 108 | 108 |
| Curbside demand (vph) | 15 | 29 | - | 64 |
| Average dwell time (minutes) | 0.65 | 2.90 | - | 2.90 |
| Average vehicle length (feet) | 30.00 | 25.00 | - | 25.00 |
| Average vehicle arrival rate (vph) | 15.00 | 29.00 | - | 64.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,468 | 760 | 2,797 | 1,765 |
| Adjusted through lane roadway capacity | 2,343 | 722 | 2,657 | 1,676 |
| Estimated roadway V/C ratio | 0.046 | 0.150 | 0.041 | 0.064 |
| Curb capacity per lane (vehicles) | 2.00 | 2.00 | - | 5.00 |
| Curb utilization ratio | 0.500 | 2.000 | - | 1.200 |
| % occupancy in lane 1 | 0.490 | 1.000 | - | 0.995 |
| % occupancy in lane 2 | - | 0.745 | - | 0.195 |
| % occupancy in lane 3 | - | 0.25 | - | - |
| # of cars in curbside lane | 0.98 | 2.00 | - | 4.98 |
| # of double-parked cars | - | 1.49 | - | 0.98 |
| # of triple-parked cars | - | 0.490 | - | - |
| Curbside LOS | A | E | | C |
| Roadway LOS | A | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|--------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | EXISTING- Arrivals Curb3 |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 4 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|-------------------------|-------------------------------|------------------------------|
| Private Vehicle Pick-Up | 25.0 | 2.9 |
| Taxicabs | 25.0 | 0.6 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.7 |
| MPA Employee | 40.0 | 0.7 |
| MPA Water Taxi | 40.0 | 0.7 |
| MPA Interterminal | 40.0 | 0.7 |
| Courtesy Shuttle | 40.0 | 0.7 |
| RCBL | 70.0 | 1.0 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.7 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 3 |
| Scheduled Bus | 50 | 2 |
| Charter Bus | 50 | 3 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|--------------------------|--------|--------|--------|--------|
| Name | SV | PP | CW | PP |
| Type | active | active | xwalk | active |
| Curbside frontage (feet) | 70 | 60 | 20 | 130 |
| Number of lanes | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | | |
|-------------------------|-----|-----|-----|-----|
| Private Vehicle Pick-Up | 118 | 118 | 118 | 118 |
| Taxicabs | - | - | - | - |
| TNC | - | - | - | - |
| MPA Economy Parking | - | - | - | - |
| MPA Employee | - | - | - | - |
| MPA Water Taxi | - | - | - | - |
| MPA Interterminal | - | - | - | - |
| Courtesy Shuttle | - | - | - | - |
| RCBL | - | - | - | - |
| Limo | - | - | - | - |
| Shared Van | 15 | 15 | 15 | 15 |
| Silver Line | - | - | - | - |
| Logan Express | - | - | - | - |
| Scheduled Bus | - | - | - | - |
| Charter Bus | - | - | - | - |

Volume of vehicles using curbside (vph)

| | | | | |
|-------------------------|----|----|---|----|
| Private Vehicle Pick-Up | - | 38 | - | 80 |
| Taxicabs | - | - | - | - |
| TNC | - | - | - | - |
| MPA Economy Parking | - | - | - | - |
| MPA Employee | - | - | - | - |
| MPA Water Taxi | - | - | - | - |
| MPA Interterminal | - | - | - | - |
| Courtesy Shuttle | - | - | - | - |
| RCBL | - | - | - | - |
| Limo | - | - | - | - |
| Shared Van | 15 | - | - | - |
| Silver Line | - | - | - | - |
| Logan Express | - | - | - | - |
| Scheduled Bus | - | - | - | - |
| Charter Bus | - | - | - | - |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario EXISTING- Arrivals Curb3
 Level / type of roadway Arrivals
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 4



| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|------------------------------------|--------|--------|--------|--------|
| Name/description | SV | PP | CW | PP |
| Curb length (feet) | 70 | 60 | 20 | 130 |
| Zone type | active | active | xwalk | active |
| Roadway volume (vph) | 133 | 133 | 133 | 133 |
| Roadway capacity (vph) | 2,343 | 722 | 2,657 | 1,318 |
| Roadway V/C ratio | 0.057 | 0.184 | 0.050 | 0.101 |
| Roadway LOS | A | A | A | A |
| Curb demand (# in sys 95% of time) | 1.0 | 4.0 | N/A | 7.0 |
| Curb capacity per lane (vehicles) | 2.0 | 2.0 | N/A | 5.0 |
| Curb utilization ratio | 0.500 | 2.000 | N/A | 1.400 |
| Curb LOS | A | E | N/A | D |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|--|--------|--------|--------|--------|
| Name | SV | PP | CW | PP |
| Type of zone | active | active | xwalk | active |
| Curbside length (feet) | 70 | 60 | 20 | 130 |
| Number of lanes | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 |
| Roadway volume (vph) | 133 | 133 | 133 | 133 |
| Curbside demand (vph) | 15 | 38 | - | 80 |
| Average dwell time (minutes) | 0.65 | 2.90 | - | 2.90 |
| Average vehicle length (feet) | 30.00 | 25.00 | - | 25.00 |
| Average vehicle arrival rate (vph) | 15.00 | 38.00 | - | 80.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,468 | 760 | 2,797 | 1,389 |
| Adjusted through lane roadway capacity | 2,343 | 722 | 2,657 | 1,318 |
| Estimated roadway V/C ratio | 0.057 | 0.184 | 0.050 | 0.101 |
| Curb capacity per lane (vehicles) | 2.00 | 2.00 | - | 5.00 |
| Curb utilization ratio | 0.500 | 2.000 | - | 1.400 |
| % occupancy in lane 1 | 0.490 | 1.000 | - | 1.000 |
| % occupancy in lane 2 | - | 0.745 | - | 0.390 |
| % occupancy in lane 3 | - | 0.25 | - | - |
| # of cars in curbside lane | 0.98 | 2.00 | - | 5.00 |
| # of double-parked cars | - | 1.49 | - | 1.95 |
| # of triple-parked cars | - | 0.490 | - | - |
| Curbside LOS | A | E | | D |
| Roadway LOS | A | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|------------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | NB 46.5 MAP - Arrivals Curb3 |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 4 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|-------------------------|-------------------------------|------------------------------|
| Private Vehicle Pick-Up | 25.0 | 2.9 |
| Taxicabs | 25.0 | 0.6 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.7 |
| MPA Employee | 40.0 | 0.7 |
| MPA Water Taxi | 40.0 | 0.7 |
| MPA Interterminal | 40.0 | 0.7 |
| Courtesy Shuttle | 40.0 | 0.7 |
| RCBL | 70.0 | 1.0 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.7 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 3 |
| Scheduled Bus | 50 | 2 |
| Charter Bus | 50 | 3 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|--------------------------|--------|--------|--------|--------|
| Name | SV | PP | CW | PP |
| Type | active | active | xwalk | active |
| Curbside frontage (feet) | 70 | 60 | 20 | 130 |
| Number of lanes | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | | |
|-------------------------|-----|-----|-----|-----|
| Private Vehicle Pick-Up | 129 | 129 | 129 | 129 |
| Taxicabs | - | - | - | - |
| TNC | - | - | - | - |
| MPA Economy Parking | - | - | - | - |
| MPA Employee | - | - | - | - |
| MPA Water Taxi | - | - | - | - |
| MPA Interterminal | - | - | - | - |
| Courtesy Shuttle | - | - | - | - |
| RCBL | - | - | - | - |
| Limo | - | - | - | - |
| Shared Van | 15 | 15 | 15 | 15 |
| Silver Line | - | - | - | - |
| Logan Express | - | - | - | - |
| Scheduled Bus | - | - | - | - |
| Charter Bus | - | - | - | - |

Volume of vehicles using curbside (vph)

| | | | | |
|-------------------------|----|----|---|----|
| Private Vehicle Pick-Up | - | 41 | - | 88 |
| Taxicabs | - | - | - | - |
| TNC | - | - | - | - |
| MPA Economy Parking | - | - | - | - |
| MPA Employee | - | - | - | - |
| MPA Water Taxi | - | - | - | - |
| MPA Interterminal | - | - | - | - |
| Courtesy Shuttle | - | - | - | - |
| RCBL | - | - | - | - |
| Limo | - | - | - | - |
| Shared Van | 15 | - | - | - |
| Silver Line | - | - | - | - |
| Logan Express | - | - | - | - |
| Scheduled Bus | - | - | - | - |
| Charter Bus | - | - | - | - |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario NB 46.5 MAP - Arrivals Curb3
 Level / type of roadway Arrivals
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 4



| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|------------------------------------|--------|-------------|--------|--------|
| Name/description | SV | PP | CW | PP |
| Curb length (feet) | 70 | 60 | 20 | 130 |
| Zone type | active | active | xwalk | active |
| Roadway volume (vph) | 144 | 144 | 144 | 144 |
| Roadway capacity (vph) | 2,343 | 0 | 2,657 | 974 |
| Roadway V/C ratio | 0.061 | 1000000.000 | 0.054 | 0.148 |
| Roadway LOS | A | F | A | A |
| Curb demand (# in sys 95% of time) | 1.0 | 5.0 | N/A | 8.0 |
| Curb capacity per lane (vehicles) | 2.0 | 2.0 | N/A | 5.0 |
| Curb utilization ratio | 0.500 | 2.500 | N/A | 1.600 |
| Curb LOS | A | F | N/A | D |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|--|--------|--------|--------|--------|
| Name | SV | PP | CW | PP |
| Type of zone | active | active | xwalk | active |
| Curbside length (feet) | 70 | 60 | 20 | 130 |
| Number of lanes | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 |
| Roadway volume (vph) | 144 | 144 | 144 | 144 |
| Curbside demand (vph) | 15 | 41 | - | 88 |
| Average dwell time (minutes) | 0.65 | 2.90 | - | 2.90 |
| Average vehicle length (feet) | 30.00 | 25.00 | - | 25.00 |
| Average vehicle arrival rate (vph) | 15.00 | 41.00 | - | 88.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,468 | - | 2,797 | 1,026 |
| Adjusted through lane roadway capacity | 2,343 | - | 2,657 | 974 |
| Estimated roadway V/C ratio | 0.061 | ##### | 0.054 | 0.148 |
| Curb capacity per lane (vehicles) | 2.00 | 2.00 | - | 5.00 |
| Curb utilization ratio | 0.500 | 2.500 | - | 1.600 |
| % occupancy in lane 1 | 0.490 | 1.000 | - | 1.000 |
| % occupancy in lane 2 | - | 1.000 | - | 0.545 |
| % occupancy in lane 3 | - | 0.50 | - | 0.05 |
| # of cars in curbside lane | 0.98 | 2.00 | - | 5.00 |
| # of double-parked cars | - | 2.00 | - | 2.73 |
| # of triple-parked cars | - | 1.000 | - | 0.225 |
| Curbside LOS | A | F | | D |
| Roadway LOS | A | F | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|-----------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | B 46.5 MAP - Arrivals Curb4 |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 1 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|-------------------------|-------------------------------|------------------------------|
| Private Vehicle Pick-Up | 25.0 | 2.9 |
| Taxicabs | 25.0 | 0.6 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.7 |
| MPA Employee | 40.0 | 0.7 |
| MPA Water Taxi | 40.0 | 0.7 |
| MPA Interterminal | 40.0 | 0.7 |
| Courtesy Shuttle | 40.0 | 0.7 |
| RCBL | 70.0 | 1.0 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.7 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 3 |
| Scheduled Bus | 50 | 2 |
| Charter Bus | 50 | 3 |

Assumptions by zone

| | |
|--------------------------|--------|
| Zone ID | Zone 1 |
| Name | PP |
| Type | active |
| Curbside frontage (feet) | 310 |
| Number of lanes | 3 |
| Number of approach lanes | 2 |

Volume of vehicles using roadway (vph)

| | |
|-------------------------|-----|
| Private Vehicle Pick-Up | 165 |
| Taxicabs | - |
| TNC | - |
| MPA Economy Parking | - |
| MPA Employee | - |
| MPA Water Taxi | - |
| MPA Interterminal | - |
| Courtesy Shuttle | - |
| RCBL | - |
| Limo | - |
| Shared Van | - |
| Silver Line | - |
| Logan Express | - |
| Scheduled Bus | - |
| Charter Bus | - |

Volume of vehicles using curbside (vph)

| | |
|-------------------------|-----|
| Private Vehicle Pick-Up | 165 |
| Taxicabs | - |
| TNC | - |
| MPA Economy Parking | - |
| MPA Employee | - |
| MPA Water Taxi | - |
| MPA Interterminal | - |
| Courtesy Shuttle | - |
| RCBL | - |
| Limo | - |
| Shared Van | - |
| Silver Line | - |
| Logan Express | - |
| Scheduled Bus | - |
| Charter Bus | - |

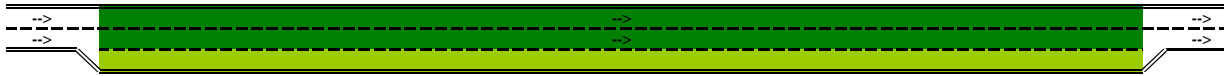
Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

| | |
|------------------------------|-----------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | B 46.5 MAP - Arrivals Curb4 |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 1 |



| | |
|------------------------------------|--------|
| Zone ID | Zone 1 |
| Name/description | PP |
| Curb length (feet) | 310 |
| Zone type | active |
| Roadway volume (vph) | 165 |
| Roadway capacity (vph) | 1,866 |
| Roadway V/C ratio | 0.088 |
| Roadway LOS | A |
| Curb demand (# in sys 95% of time) | 13.0 |
| Curb capacity per lane (vehicles) | 12.0 |
| Curb utilization ratio | 1.083 |
| Curb LOS | B |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| | |
|--|--------|
| ID | Zone 1 |
| Name | PP |
| Type of zone | active |
| Curbside length (feet) | 310 |
| Number of lanes | 3 |
| Number of approach lanes | 2 |
| Roadway volume (vph) | 165 |
| Curbside demand (vph) | 165 |
| Average dwell time (minutes) | 2.90 |
| Average vehicle length (feet) | 25.00 |
| Average vehicle arrival rate (vph) | 165.00 |
| Crosswalk adjustment factor | 100.0% |
| Regional adjustment factor | 95.0% |
| Through lane roadway capacity | 1,965 |
| Adjusted through lane roadway capacity | 1,866 |
| Estimated roadway V/C ratio | 0.088 |
| Curb capacity per lane (vehicles) | 12.00 |
| Curb utilization ratio | 1.083 |
| % occupancy in lane 1 | 0.940 |
| % occupancy in lane 2 | 0.140 |
| % occupancy in lane 3 | - |
| # of cars in curbside lane | 11.28 |
| # of double-parked cars | 1.68 |
| # of triple-parked cars | - |
| Curbside LOS | B |
| Roadway LOS | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|--------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | EXISTING- Arrivals Curb4 |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 1 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|-------------------------|-------------------------------|------------------------------|
| Private Vehicle Pick-Up | 25.0 | 2.9 |
| Taxicabs | 25.0 | 0.6 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.7 |
| MPA Employee | 40.0 | 0.7 |
| MPA Water Taxi | 40.0 | 0.7 |
| MPA Interterminal | 40.0 | 0.7 |
| Courtesy Shuttle | 40.0 | 0.7 |
| RCBL | 70.0 | 1.0 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.7 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 3 |
| Scheduled Bus | 50 | 2 |
| Charter Bus | 50 | 3 |

Assumptions by zone

| | |
|--------------------------|--------|
| Zone ID | Zone 1 |
| Name | PP |
| Type | active |
| Curbside frontage (feet) | 170 |
| Number of lanes | 3 |
| Number of approach lanes | 2 |

Volume of vehicles using roadway (vph)

| | |
|-------------------------|-----|
| Private Vehicle Pick-Up | 118 |
| Taxicabs | - |
| TNC | - |
| MPA Economy Parking | - |
| MPA Employee | - |
| MPA Water Taxi | - |
| MPA Interterminal | - |
| Courtesy Shuttle | - |
| RCBL | - |
| Limo | - |
| Shared Van | - |
| Silver Line | - |
| Logan Express | - |
| Scheduled Bus | - |
| Charter Bus | - |

Volume of vehicles using curbside (vph)

| | |
|-------------------------|-----|
| Private Vehicle Pick-Up | 118 |
| Taxicabs | - |
| TNC | - |
| MPA Economy Parking | - |
| MPA Employee | - |
| MPA Water Taxi | - |
| MPA Interterminal | - |
| Courtesy Shuttle | - |
| RCBL | - |
| Limo | - |
| Shared Van | - |
| Silver Line | - |
| Logan Express | - |
| Scheduled Bus | - |
| Charter Bus | - |

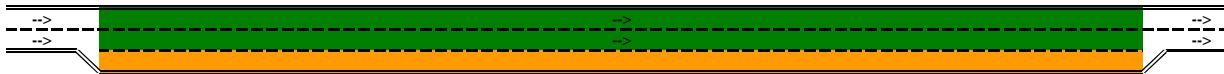
Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

| | |
|------------------------------|--------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | EXISTING- Arrivals Curb4 |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 1 |



| | |
|------------------------------------|--------|
| Zone ID | Zone 1 |
| Name/description | PP |
| Curb length (feet) | 170 |
| Zone type | active |
| Roadway volume (vph) | 118 |
| Roadway capacity (vph) | 1,282 |
| Roadway V/C ratio | 0.092 |
| Roadway LOS | A |
| Curb demand (# in sys 95% of time) | 10.0 |
| Curb capacity per lane (vehicles) | 7.0 |
| Curb utilization ratio | 1.429 |
| Curb LOS | D |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| | |
|--|--------|
| ID | Zone 1 |
| Name | PP |
| Type of zone | active |
| Curbside length (feet) | 170 |
| Number of lanes | 3 |
| Number of approach lanes | 2 |
| Roadway volume (vph) | 118 |
| Curbside demand (vph) | 118 |
| Average dwell time (minutes) | 2.90 |
| Average vehicle length (feet) | 25.00 |
| Average vehicle arrival rate (vph) | 118.00 |
| Crosswalk adjustment factor | 100.0% |
| Regional adjustment factor | 95.0% |
| Through lane roadway capacity | 1,350 |
| Adjusted through lane roadway capacity | 1,282 |
| Estimated roadway V/C ratio | 0.092 |
| Curb capacity per lane (vehicles) | 7.00 |
| Curb utilization ratio | 1.429 |
| % occupancy in lane 1 | 1.000 |
| % occupancy in lane 2 | 0.420 |
| % occupancy in lane 3 | - |
| # of cars in curbside lane | 7.00 |
| # of double-parked cars | 2.94 |
| # of triple-parked cars | - |
| Curbside LOS | D |
| Roadway LOS | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|------------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | NB 46.5 MAP - Arrivals Curb4 |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 1 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|-------------------------|-------------------------------|------------------------------|
| Private Vehicle Pick-Up | 25.0 | 2.9 |
| Taxicabs | 25.0 | 0.6 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.7 |
| MPA Employee | 40.0 | 0.7 |
| MPA Water Taxi | 40.0 | 0.7 |
| MPA Interterminal | 40.0 | 0.7 |
| Courtesy Shuttle | 40.0 | 0.7 |
| RCBL | 70.0 | 1.0 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.7 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 3 |
| Scheduled Bus | 50 | 2 |
| Charter Bus | 50 | 3 |

Assumptions by zone

| | |
|--------------------------|--------|
| Zone ID | Zone 1 |
| Name | PP |
| Type | active |
| Curbside frontage (feet) | 170 |
| Number of lanes | 3 |
| Number of approach lanes | 2 |

Volume of vehicles using roadway (vph)

| | |
|-------------------------|-----|
| Private Vehicle Pick-Up | 129 |
| Taxicabs | - |
| TNC | - |
| MPA Economy Parking | - |
| MPA Employee | - |
| MPA Water Taxi | - |
| MPA Interterminal | - |
| Courtesy Shuttle | - |
| RCBL | - |
| Limo | - |
| Shared Van | - |
| Silver Line | - |
| Logan Express | - |
| Scheduled Bus | - |
| Charter Bus | - |

Volume of vehicles using curbside (vph)

| | |
|-------------------------|-----|
| Private Vehicle Pick-Up | 129 |
| Taxicabs | - |
| TNC | - |
| MPA Economy Parking | - |
| MPA Employee | - |
| MPA Water Taxi | - |
| MPA Interterminal | - |
| Courtesy Shuttle | - |
| RCBL | - |
| Limo | - |
| Shared Van | - |
| Silver Line | - |
| Logan Express | - |
| Scheduled Bus | - |
| Charter Bus | - |

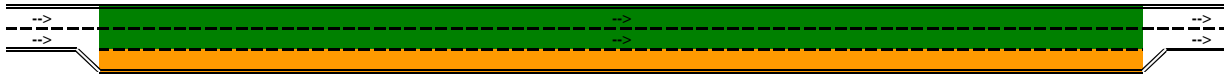
Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

| | |
|------------------------------|------------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | NB 46.5 MAP - Arrivals Curb4 |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 1 |



| | |
|------------------------------------|--------|
| Zone ID | Zone 1 |
| Name/description | PP |
| Curb length (feet) | 170 |
| Zone type | active |
| Roadway volume (vph) | 129 |
| Roadway capacity (vph) | 1,021 |
| Roadway V/C ratio | 0.126 |
| Roadway LOS | A |
| Curb demand (# in sys 95% of time) | 11.0 |
| Curb capacity per lane (vehicles) | 7.0 |
| Curb utilization ratio | 1.571 |
| Curb LOS | D |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| | |
|--|--------|
| ID | Zone 1 |
| Name | PP |
| Type of zone | active |
| Curbside length (feet) | 170 |
| Number of lanes | 3 |
| Number of approach lanes | 2 |
| Roadway volume (vph) | 129 |
| Curbside demand (vph) | 129 |
| Average dwell time (minutes) | 2.90 |
| Average vehicle length (feet) | 25.00 |
| Average vehicle arrival rate (vph) | 129.00 |
| Crosswalk adjustment factor | 100.0% |
| Regional adjustment factor | 95.0% |
| Through lane roadway capacity | 1,076 |
| Adjusted through lane roadway capacity | 1,021 |
| Estimated roadway V/C ratio | 0.126 |
| Curb capacity per lane (vehicles) | 7.00 |
| Curb utilization ratio | 1.571 |
| % occupancy in lane 1 | 1.000 |
| % occupancy in lane 2 | 0.535 |
| % occupancy in lane 3 | 0.04 |
| # of cars in curbside lane | 7.00 |
| # of double-parked cars | 3.75 |
| # of triple-parked cars | 0.245 |
| Curbside LOS | D |
| Roadway LOS | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|-----------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | B 46.5 MAP - Arrivals CurbD |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 4 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|-------------------------|-------------------------------|------------------------------|
| Private Vehicle Pick-Up | 25.0 | 2.9 |
| Taxicabs | 25.0 | 0.6 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.7 |
| MPA Employee | 40.0 | 0.7 |
| MPA Water Taxi | 40.0 | 0.7 |
| MPA Interterminal | 40.0 | 0.7 |
| Courtesy Shuttle | 40.0 | 0.7 |
| RCBL | 70.0 | 1.0 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.7 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 3 |
| Scheduled Bus | 50 | 2 |
| Charter Bus | 50 | 3 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|--------------------------|--------|--------|---------|----------|
| Name | LE | SchBus | Charter | Courtesy |
| Type | active | active | active | active |
| Curbside frontage (feet) | 80 | 65 | 60 | 50 |
| Number of lanes | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | | |
|-------------------------|----|----|----|----|
| Private Vehicle Pick-Up | - | - | - | - |
| Taxicabs | - | - | - | - |
| TNC | - | - | - | - |
| MPA Economy Parking | - | - | - | - |
| MPA Employee | - | - | - | - |
| MPA Water Taxi | - | - | - | - |
| MPA Interterminal | 16 | 16 | 16 | 16 |
| Courtesy Shuttle | 30 | 30 | 30 | 30 |
| RCBL | 12 | 12 | 12 | 12 |
| Limo | - | - | - | - |
| Shared Van | 15 | 15 | 15 | 15 |
| Silver Line | 8 | 8 | 8 | 8 |
| Logan Express | 10 | 10 | 10 | 10 |
| Scheduled Bus | 10 | 10 | 10 | 10 |
| Charter Bus | 3 | 3 | 3 | 3 |

Volume of vehicles using curbside (vph)

| | | | | |
|-------------------------|----|----|---|----|
| Private Vehicle Pick-Up | - | - | - | - |
| Taxicabs | - | - | - | - |
| TNC | - | - | - | - |
| MPA Economy Parking | - | - | - | - |
| MPA Employee | - | - | - | - |
| MPA Water Taxi | - | - | - | - |
| MPA Interterminal | - | - | - | - |
| Courtesy Shuttle | - | - | - | 30 |
| RCBL | - | - | - | - |
| Limo | - | - | - | - |
| Shared Van | - | - | - | - |
| Silver Line | - | - | - | - |
| Logan Express | 10 | - | - | - |
| Scheduled Bus | - | 10 | - | - |
| Charter Bus | - | - | 3 | - |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario B 46.5 MAP - Arrivals CurbD
 Level / type of roadway Arrivals
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 4



| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|------------------------------------|--------|--------|---------|----------|
| Name/description | LE | SchBus | Charter | Courtesy |
| Curb length (feet) | 80 | 65 | 60 | 50 |
| Zone type | active | active | active | active |
| Roadway volume (vph) | 104 | 104 | 104 | 104 |
| Roadway capacity (vph) | 1,976 | 722 | 1,976 | 1,976 |
| Roadway V/C ratio | 0.053 | 0.144 | 0.053 | 0.053 |
| Roadway LOS | A | A | A | A |
| Curb demand (# in sys 95% of time) | 2.0 | 2.0 | 1.0 | 1.0 |
| Curb capacity per lane (vehicles) | 2.0 | 1.0 | 1.0 | 1.0 |
| Curb utilization ratic | 1.000 | 2.000 | 1.000 | 1.000 |
| Curb LOS | A | E | A | A |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|--|--------|--------|---------|----------|
| Name | LE | SchBus | Charter | Courtesy |
| Type of zone | active | active | active | active |
| Curbside length (feet) | 80 | 65 | 60 | 50 |
| Number of lanes | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 |
| Roadway volume (vph) | 104 | 104 | 104 | 104 |
| Curbside demand (vph) | 10 | 10 | 3 | 30 |
| Average dwell time (minutes) | 3.00 | 2.40 | 2.97 | 0.65 |
| Average vehicle length (feet) | 50.00 | 50.00 | 50.00 | 40.00 |
| Average vehicle arrival rate (vph) | 10.00 | 10.00 | 3.00 | 30.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,082 | 760 | 2,082 | 2,082 |
| Adjusted through lane roadway capacity | 1,976 | 722 | 1,976 | 1,976 |
| Estimated roadway V/C ratio | 0.053 | 0.144 | 0.053 | 0.053 |
| Curb capacity per lane (vehicles) | 2.00 | 1.00 | 1.00 | 1.00 |
| Curb utilization ratio | 1.000 | 2.000 | 1.000 | 1.000 |
| % occupancy in lane 1 | 0.895 | 1.000 | 0.895 | 0.895 |
| % occupancy in lane 2 | 0.095 | 0.745 | 0.095 | 0.095 |
| % occupancy in lane 3 | - | 0.25 | - | - |
| # of cars in curbside lane | 1.79 | 1.00 | 0.90 | 0.90 |
| # of double-parked cars | 0.19 | 0.75 | 0.10 | 0.10 |
| # of triple-parked cars | - | 0.245 | - | - |
| Curbside LOS | A | E | A | A |
| Roadway LOS | A | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|--------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | EXISTING- Arrivals CurbD |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 4 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|-------------------------|-------------------------------|------------------------------|
| Private Vehicle Pick-Up | 25.0 | 2.9 |
| Taxicabs | 25.0 | 0.6 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.7 |
| MPA Employee | 40.0 | 0.7 |
| MPA Water Taxi | 40.0 | 0.7 |
| MPA Interterminal | 40.0 | 0.7 |
| Courtesy Shuttle | 40.0 | 0.7 |
| RCBL | 70.0 | 1.0 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.7 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 3 |
| Scheduled Bus | 50 | 2 |
| Charter Bus | 50 | 3 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|--------------------------|--------|--------|---------|----------|
| Name | LE | SchBus | Charter | Courtesy |
| Type | active | active | active | active |
| Curbside frontage (feet) | 80 | 65 | 60 | 50 |
| Number of lanes | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | | |
|-------------------------|----|----|----|----|
| Private Vehicle Pick-Up | - | - | - | - |
| Taxicabs | - | - | - | - |
| TNC | - | - | - | - |
| MPA Economy Parking | - | - | - | - |
| MPA Employee | - | - | - | - |
| MPA Water Taxi | - | - | - | - |
| MPA Interterminal | 16 | 16 | 16 | 16 |
| Courtesy Shuttle | 30 | 30 | 30 | 30 |
| RCBL | 12 | 12 | 12 | 12 |
| Limo | - | - | - | - |
| Shared Van | 15 | 15 | 15 | 15 |
| Silver Line | 8 | 8 | 8 | 8 |
| Logan Express | 10 | 10 | 10 | 10 |
| Scheduled Bus | 10 | 10 | 10 | 10 |
| Charter Bus | 3 | 3 | 3 | 3 |

Volume of vehicles using curbside (vph)

| | | | | |
|-------------------------|----|----|---|----|
| Private Vehicle Pick-Up | - | - | - | - |
| Taxicabs | - | - | - | - |
| TNC | - | - | - | - |
| MPA Economy Parking | - | - | - | - |
| MPA Employee | - | - | - | - |
| MPA Water Taxi | - | - | - | - |
| MPA Interterminal | - | - | - | - |
| Courtesy Shuttle | - | - | - | 30 |
| RCBL | - | - | - | - |
| Limo | - | - | - | - |
| Shared Van | - | - | - | - |
| Silver Line | - | - | - | - |
| Logan Express | 10 | - | - | - |
| Scheduled Bus | - | 10 | - | - |
| Charter Bus | - | - | 3 | - |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario EXISTING- Arrivals CurbD
 Level / type of roadway Arrivals
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 4



| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|------------------------------------|--------|--------|---------|----------|
| Name/description | LE | SchBus | Charter | Courtesy |
| Curb length (feet) | 80 | 65 | 60 | 50 |
| Zone type | active | active | active | active |
| Roadway volume (vph) | 104 | 104 | 104 | 104 |
| Roadway capacity (vph) | 1,976 | 722 | 1,976 | 1,976 |
| Roadway V/C ratio | 0.053 | 0.144 | 0.053 | 0.053 |
| Roadway LOS | A | A | A | A |
| Curb demand (# in sys 95% of time) | 2.0 | 2.0 | 1.0 | 1.0 |
| Curb capacity per lane (vehicles) | 2.0 | 1.0 | 1.0 | 1.0 |
| Curb utilization ratic | 1.000 | 2.000 | 1.000 | 1.000 |
| Curb LOS | A | E | A | A |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|--|--------|--------|---------|----------|
| Name | LE | SchBus | Charter | Courtesy |
| Type of zone | active | active | active | active |
| Curbside length (feet) | 80 | 65 | 60 | 50 |
| Number of lanes | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 |
| Roadway volume (vph) | 104 | 104 | 104 | 104 |
| Curbside demand (vph) | 10 | 10 | 3 | 30 |
| Average dwell time (minutes) | 3.00 | 2.40 | 2.97 | 0.65 |
| Average vehicle length (feet) | 50.00 | 50.00 | 50.00 | 40.00 |
| Average vehicle arrival rate (vph) | 10.00 | 10.00 | 3.00 | 30.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,082 | 760 | 2,082 | 2,082 |
| Adjusted through lane roadway capacity | 1,976 | 722 | 1,976 | 1,976 |
| Estimated roadway V/C ratio | 0.053 | 0.144 | 0.053 | 0.053 |
| Curb capacity per lane (vehicles) | 2.00 | 1.00 | 1.00 | 1.00 |
| Curb utilization ratio | 1.000 | 2.000 | 1.000 | 1.000 |
| % occupancy in lane 1 | 0.895 | 1.000 | 0.895 | 0.895 |
| % occupancy in lane 2 | 0.095 | 0.745 | 0.095 | 0.095 |
| % occupancy in lane 3 | - | 0.25 | - | - |
| # of cars in curbside lane | 1.79 | 1.00 | 0.90 | 0.90 |
| # of double-parked cars | 0.19 | 0.75 | 0.10 | 0.10 |
| # of triple-parked cars | - | 0.245 | - | - |
| Curbside LOS | A | E | A | A |
| Roadway LOS | A | A | A | A |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Summary of Inputs and Assumptions

Model run by: ACF on 5/8/2018

| | |
|---|------------------------------|
| Airport | BOS |
| Roadway location | Terminal C |
| Scenario | NB 46.5 MAP - Arrivals CurbD |
| Level / type of roadway | Arrivals |
| Total lanes / approach lanes | 3 / 2 |
| Number of curbside zones | 4 |
| % of 1st lane full when next vehicle double parks | 80% |
| % of 2nd lane full when next vehicle triple parks | 50% |
| Crosswalk adjustment factor | 100% |
| Regional adjustment factor | 95% |

Frontage and dwell time per curbside operation

| Vehicle class | Vehicle parking length (feet) | Average dwell time (minutes) |
|-------------------------|-------------------------------|------------------------------|
| Private Vehicle Pick-Up | 25.0 | 2.9 |
| Taxicabs | 25.0 | 0.6 |
| TNC | 25.0 | 0.6 |
| MPA Economy Parking | 40.0 | 0.7 |
| MPA Employee | 40.0 | 0.7 |
| MPA Water Taxi | 40.0 | 0.7 |
| MPA Interterminal | 40.0 | 0.7 |
| Courtesy Shuttle | 40.0 | 0.7 |
| RCBL | 70.0 | 1.0 |
| Limo | 30.0 | 0.9 |
| Shared Van | 30.0 | 0.7 |
| Silver Line | 70 | 1 |
| Logan Express | 50 | 3 |
| Scheduled Bus | 50 | 2 |
| Charter Bus | 50 | 3 |

Assumptions by zone

| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|--------------------------|--------|--------|---------|----------|
| Name | LE | SchBus | Charter | Courtesy |
| Type | active | active | active | active |
| Curbside frontage (feet) | 80 | 65 | 60 | 50 |
| Number of lanes | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 |

Volume of vehicles using roadway (vph)

| | | | | |
|-------------------------|----|----|----|----|
| Private Vehicle Pick-Up | - | - | - | - |
| Taxicabs | - | - | - | - |
| TNC | - | - | - | - |
| MPA Economy Parking | - | - | - | - |
| MPA Employee | - | - | - | - |
| MPA Water Taxi | - | - | - | - |
| MPA Interterminal | 16 | 16 | 16 | 16 |
| Courtesy Shuttle | 30 | 30 | 30 | 30 |
| RCBL | 12 | 12 | 12 | 12 |
| Limo | - | - | - | - |
| Shared Van | 15 | 15 | 15 | 15 |
| Silver Line | 8 | 8 | 8 | 8 |
| Logan Express | 10 | 10 | 10 | 10 |
| Scheduled Bus | 10 | 10 | 10 | 10 |
| Charter Bus | 3 | 3 | 3 | 3 |

Volume of vehicles using curbside (vph)

| | | | | |
|-------------------------|----|----|---|----|
| Private Vehicle Pick-Up | - | - | - | - |
| Taxicabs | - | - | - | - |
| TNC | - | - | - | - |
| MPA Economy Parking | - | - | - | - |
| MPA Employee | - | - | - | - |
| MPA Water Taxi | - | - | - | - |
| MPA Interterminal | - | - | - | - |
| Courtesy Shuttle | - | - | - | 30 |
| RCBL | - | - | - | - |
| Limo | - | - | - | - |
| Shared Van | - | - | - | - |
| Silver Line | - | - | - | - |
| Logan Express | 10 | - | - | - |
| Scheduled Bus | - | 10 | - | - |
| Charter Bus | - | - | 3 | - |

Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Level-of-Service by Zone

Model run by: ACF on 5/8/2018

Airport BOS
 Roadway location Terminal C
 Scenario NB 46.5 MAP - Arrivals CurbD
 Level / type of roadway Arrivals
 Total lanes / approach lanes 3 / 2
 Number of curbside zones 4



| Zone ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|------------------------------------|--------|--------|---------|----------|
| Name/description | LE | SchBus | Charter | Courtesy |
| Curb length (feet) | 80 | 65 | 60 | 50 |
| Zone type | active | active | active | active |
| Roadway volume (vph) | 104 | 104 | 104 | 104 |
| Roadway capacity (vph) | 1,976 | 722 | 1,976 | 1,976 |
| Roadway V/C ratio | 0.053 | 0.144 | 0.053 | 0.053 |
| Roadway LOS | A | A | A | A |
| Curb demand (# in sys 95% of time) | 2.0 | 2.0 | 1.0 | 1.0 |
| Curb capacity per lane (vehicles) | 2.0 | 1.0 | 1.0 | 1.0 |
| Curb utilization ratic | 1.000 | 2.000 | 1.000 | 1.000 |
| Curb LOS | A | E | A | A |

Level-of-service (LOS) key:



Quick Analysis Tool for Airport Roadways

QATAR v0.6 developed by LeighFisher in association with Dowling Associates, Inc.

Results: Detailed Report By Zone

Model run by: ACF on 5/8/2018

| ID | Zone 1 | Zone 2 | Zone 3 | Zone 4 |
|--|--------|--------|---------|----------|
| Name | LE | SchBus | Charter | Courtesy |
| Type of zone | active | active | active | active |
| Curbside length (feet) | 80 | 65 | 60 | 50 |
| Number of lanes | 3 | 3 | 3 | 3 |
| Number of approach lanes | 2 | 2 | 2 | 2 |
| Roadway volume (vph) | 104 | 104 | 104 | 104 |
| Curbside demand (vph) | 10 | 10 | 3 | 30 |
| Average dwell time (minutes) | 3.00 | 2.40 | 2.97 | 0.65 |
| Average vehicle length (feet) | 50.00 | 50.00 | 50.00 | 40.00 |
| Average vehicle arrival rate (vph) | 10.00 | 10.00 | 3.00 | 30.00 |
| Crosswalk adjustment factor | 100.0% | 100.0% | 100.0% | 100.0% |
| Regional adjustment factor | 95.0% | 95.0% | 95.0% | 95.0% |
| Through lane roadway capacity | 2,082 | 760 | 2,082 | 2,082 |
| Adjusted through lane roadway capacity | 1,976 | 722 | 1,976 | 1,976 |
| Estimated roadway V/C ratio | 0.053 | 0.144 | 0.053 | 0.053 |
| Curb capacity per lane (vehicles) | 2.00 | 1.00 | 1.00 | 1.00 |
| Curb utilization ratio | 1.000 | 2.000 | 1.000 | 1.000 |
| % occupancy in lane 1 | 0.895 | 1.000 | 0.895 | 0.895 |
| % occupancy in lane 2 | 0.095 | 0.745 | 0.095 | 0.095 |
| % occupancy in lane 3 | - | 0.25 | - | - |
| # of cars in curbside lane | 1.79 | 1.00 | 0.90 | 0.90 |
| # of double-parked cars | 0.19 | 0.75 | 0.10 | 0.10 |
| # of triple-parked cars | - | 0.245 | - | - |
| Curbside LOS | A | E | A | A |
| Roadway LOS | A | A | A | A |

TERMINAL C CANOPY, CONNECTOR, AND ROADWAY PROJECT

Boston-Logan International Airport

East Boston, Massachusetts

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TERMINAL C CANOPY, CONNECTOR, AND ROADWAY PROJECT

Boston-Logan International Airport

East Boston, Massachusetts

Appendix C

Air Quality

- MOVES Output Supporting Documents
- Aermoc Outputs Supporting Documents
- Background Concentrations
- Emission Assessment

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Moves Output Supporting Documents

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Boston-Logan International Airport

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2030 MOVES Output

| yearID | monthID | dayID | hourID | stateID | countyID | zoneID | linkID | pollutantID | emissionQuant | massUnits |
|--------|---------|-------|--------|---------|----------|--------|--------|-------------|---------------|-----------|
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 4 | 119 | | 0 g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 3 | 119 | | 0 g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 2 | 119 | | 0 g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 1 | 119 | | 0 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 1 | 2 | 4.749787807 | g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 2 | 2 | 4.047399998 | g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 3 | 2 | 0.553353071 | g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 4 | 2 | 3.787410259 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 4 | 118 | 0.017243501 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 3 | 118 | 0.025426401 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 2 | 118 | 0.228446007 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 1 | 118 | 0.191393003 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 4 | 115 | 0.00345051 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 3 | 115 | 0.00113259 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 2 | 115 | 0.169049993 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 1 | 115 | 0.138254002 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 4 | 112 | 0.00276776 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 3 | 112 | 0.00433226 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 2 | 112 | 0.0253384 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 1 | 112 | 0.021344 | g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 1 | 110 | 0.236818001 | g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 2 | 110 | 0.283291996 | g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 3 | 110 | 0.0298509 | g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 4 | 110 | 0.0201481 | g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 4 | 119 | | 0 g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 3 | 119 | | 0 g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 2 | 119 | | 0 g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 1 | 119 | | 0 g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 4 | 118 | 0.01723 | g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 3 | 118 | 0.024930499 | g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 2 | 118 | 0.228446007 | g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 1 | 118 | 0.191393003 | g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 4 | 115 | 0.00344918 | g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 3 | 115 | 0.00111396 | g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 2 | 115 | 0.169049993 | g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 1 | 115 | 0.138254002 | g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 4 | 112 | 0.00276561 | g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 3 | 112 | 0.00424779 | g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 2 | 112 | 0.0253384 | g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 1 | 112 | 0.021344 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 1 | 110 | 0.212736994 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 2 | 110 | 0.253785014 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 3 | 110 | 0.029758699 | g |
| 2030 | 4 | 5 | 9 | 25 | 25025 | 250250 | 4 | 110 | 0.0200112 | g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 4 | 119 | | 0 g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 3 | 119 | | 0 g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 2 | 119 | | 0 g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 1 | 119 | | 0 g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 4 | 118 | 0.0172337 | g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 3 | 118 | 0.025290599 | g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 2 | 118 | 0.228446007 | g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 1 | 118 | 0.191393003 | g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 4 | 115 | 0.00345015 | g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 3 | 115 | 0.0011276 | g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 2 | 115 | 0.169049993 | g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 1 | 115 | 0.138254002 | g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 4 | 112 | 0.0027661 | g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 3 | 112 | 0.0043091 | g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 2 | 112 | 0.0253384 | g |

| | | | | | | | | | |
|------|----|---|---|----|-------|--------|---|-----|---------------|
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 1 | 112 | 0.021344 g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 1 | 110 | 0.212736994 g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 2 | 110 | 0.253785014 g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 3 | 110 | 0.0291782 g |
| 2030 | 7 | 5 | 9 | 25 | 25025 | 250250 | 4 | 110 | 0.0199956 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 4 | 119 | 0 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 3 | 119 | 0 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 2 | 119 | 0 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 1 | 119 | 0 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 4 | 118 | 0.0174265 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 3 | 118 | 0.025487 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 2 | 118 | 0.257952988 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 1 | 118 | 0.215478003 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 4 | 115 | 0.00388104 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 3 | 115 | 0.00101466 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 2 | 115 | 0.198557004 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 1 | 115 | 0.162364006 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 4 | 112 | 0.00272156 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 3 | 112 | 0.00436385 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 2 | 112 | 0.0253384 g |
| 2030 | 1 | 5 | 9 | 25 | 25025 | 250250 | 1 | 112 | 0.021339601 g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 1 | 110 | 0.212736994 g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 2 | 110 | 0.253785014 g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 3 | 110 | 0.0295997 g |
| 2030 | 10 | 5 | 9 | 25 | 25025 | 250250 | 4 | 110 | 0.0199998 g |

TERMINAL C CANOPY, CONNECTOR, AND ROADWAY PROJECT

Boston-Logan International Airport

East Boston, Massachusetts

Aermod Outputs Supporting Documents

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BREEZE AERMOD Model Results

Highest Results of Pollutant: CO

| Avg. Per. | Grp ID | High | Type | Val | Units | Date | UTM | | Elev. (m) | Hill Ht. (m) | Flag Ht. (m) | Rec. Type | Grid ID |
|-----------|--------|------|------------|------------|---------|----------|-----------|------------|-----------|--------------|--------------|-----------|----------|
| | | | | | | YYMMDDHH | East (m) | North (m) | | | | | |
| 1-HR | ALL | 2ND | Avg. Conc. | 1299.54631 | ug/m**3 | 13010805 | 333884.10 | 4692429.55 | 0.00 | 0.00 | 1.82 | GP | UXFOB000 |
| 8-HR | ALL | 2ND | Avg. Conc. | 577.50514 | ug/m**3 | 13052324 | 333895.10 | 4692414.60 | 0.00 | 0.00 | 1.82 | GP | UXFOB000 |

Summary of Total Messages

| # | Message Type |
|------|--|
| 0 | Fatal Error Message(s) |
| 3 | Warning Message(s) |
| 17 | Informational Message(s) |
| 8760 | Hours Were Processed |
| 10 | Calm Hours Identified |
| 7 | Missing Hours Identified (0.08 Percent) |

Error & Warning Messages

| Msg. Type | Pathway | Ref. # | Description |
|-----------|---------|----------------------|---|
| WARNING | ME | W186 | THRESH_1MIN 1-min ASOS wind speed threshold used 0.50 |
| WARNING | OU | W565 | Possible Conflict With Dynamically Allocated FUNIT PLOTFILE |
| WARNING | OU | W565 | Possible Conflict With Dynamically Allocated FUNIT PLOTFILE |

BREEZE AERMOD Model Results

Max. Annual (1 YEARS) Results of Pollutant: PM25 (ug/m**3)

| Group ID | High | Avg. Conc. | UTM | | Elev. (m) | Hill Ht. (m) | Flag Ht. (m) | Rec. Type | Grid ID |
|----------|------|------------|-----------|------------|--------------|-----------------|-----------------|-----------|----------|
| | | | East (m) | North (m) | | | | | |
| ALL | 1ST | 1.56480 | 333878.19 | 4692454.76 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | 2ND | 1.53650 | 333879.10 | 4692448.60 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | 3RD | 1.53026 | 333876.31 | 4692455.44 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | 4TH | 1.51516 | 333877.37 | 4692451.73 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | 5TH | 1.50866 | 333875.40 | 4692452.07 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | 6TH | 1.47402 | 333879.34 | 4692451.38 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | 7TH | 1.44821 | 333880.06 | 4692454.07 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | 8TH | 1.44677 | 333877.10 | 4692448.60 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | 9TH | 1.44004 | 333872.55 | 4692456.81 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | 10TH | 1.43120 | 333874.43 | 4692456.12 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |

Maximum Period 24-HR Results Averaged Over (1 YEARS) of Pollutant: PM25 (ug/m**3)

| Highest (Conc.) | Group ID | Highest (Receptor) | Avg. Conc. | UTM | | Elevation (m) | Hill Ht (m) | Flag HT (m) | Rec.Type | Grid ID |
|-----------------|----------|--------------------|------------|-----------|------------|------------------|----------------|----------------|----------|----------|
| | | | | East (m) | North (m) | | | | | |
| 8TH-Highest | ALL | 1ST | 3.50970 | 333915.67 | 4692473.11 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | | 2ND | 3.48926 | 333895.10 | 4692406.60 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | | 3RD | 3.44935 | 333905.81 | 4692483.84 | 0.00 | 0.00 | 1.82 | DC | |
| | | 4TH | 3.36433 | 333889.26 | 4692488.20 | 0.00 | 0.00 | 1.82 | DC | |
| | | 5TH | 3.33780 | 333916.95 | 4692474.65 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | | 6TH | 3.24815 | 333910.15 | 4692489.95 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | | 7TH | 3.24744 | 333909.46 | 4692488.07 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | | 8TH | 3.21679 | 333908.78 | 4692486.19 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | | 9TH | 3.14218 | 333910.83 | 4692491.83 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |
| | | 10TH | 3.12819 | 333895.10 | 4692408.60 | 0.00 | 0.00 | 1.82 | GP | B6C8T000 |

Summary of Total Messages

| # | Message Type |
|------|--|
| 0 | Fatal Error Message(s) |
| 3 | Warning Message(s) |
| 17 | Informational Message(s) |
| 8760 | Hours Were Processed |
| 10 | Calm Hours Identified |
| 7 | Missing Hours Identified (0.08 Percent) |

BREEZE AERMOD Model Results

Highest Results of Pollutant: CO

| Avg. Per. | Grp ID | High | Type | Val | Units | Date | UTM | | Elev. (m) | Hill Ht. (m) | Flag Ht. (m) | Rec. Type | Grid ID |
|-----------|--------|------|------------|------------|---------|----------|-----------|------------|-----------|--------------|--------------|-----------|----------|
| | | | | | | YYMMDDHH | East (m) | North (m) | | | | | |
| 1-HR | ALL | 2ND | Avg. Conc. | 1383.95136 | ug/m**3 | 14011001 | 333884.10 | 4692429.55 | 0.00 | 0.00 | 1.82 | GP | XE32S000 |
| 8-HR | ALL | 2ND | Avg. Conc. | 503.35770 | ug/m**3 | 14090524 | 333884.10 | 4692429.55 | 0.00 | 0.00 | 1.82 | GP | XE32S000 |

Summary of Total Messages

| # | Message Type |
|------|--|
| 0 | Fatal Error Message(s) |
| 3 | Warning Message(s) |
| 29 | Informational Message(s) |
| 8760 | Hours Were Processed |
| 10 | Calm Hours Identified |
| 19 | Missing Hours Identified (0.22 Percent) |

Error & Warning Messages

| Msg. Type | Pathway | Ref. # | Description |
|-----------|---------|----------------------|---|
| WARNING | ME | W186 | THRESH_1MIN 1-min ASOS wind speed threshold used 0.50 |
| WARNING | OU | W565 | Possible Conflict With Dynamically Allocated FUNIT PLOTFILE |
| WARNING | OU | W565 | Possible Conflict With Dynamically Allocated FUNIT PLOTFILE |

BREEZE AERMOD Model Results

Max. Annual (1 YEARS) Results of Pollutant: PM25 (ug/m**3)

| Group ID | High | Avg. Conc. | UTM | | Elev. (m) | Hill Ht. (m) | Flag Ht. (m) | Rec. Type | Grid ID |
|----------|------|------------|-----------|------------|--------------|-----------------|-----------------|-----------|----------|
| | | | East (m) | North (m) | | | | | |
| ALL | 1ST | 1.49997 | 333878.19 | 4692454.76 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | 2ND | 1.49317 | 333879.10 | 4692448.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | 3RD | 1.48273 | 333876.31 | 4692455.44 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | 4TH | 1.46538 | 333875.40 | 4692452.07 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | 5TH | 1.46434 | 333877.37 | 4692451.73 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | 6TH | 1.42706 | 333877.10 | 4692448.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | 7TH | 1.41325 | 333879.34 | 4692451.38 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | 8TH | 1.40582 | 333872.55 | 4692456.81 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | 9TH | 1.40129 | 333870.85 | 4692462.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | 10TH | 1.39903 | 333874.43 | 4692456.12 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |

Maximum Period 24-HR Results Averaged Over (1 YEARS) of Pollutant: PM25 (ug/m**3)

| Highest (Conc.) | Group ID | Highest (Receptor) | Avg. Conc. | UTM | | Elevation (m) | Hill Ht (m) | Flag HT (m) | Rec.Type | Grid ID |
|-----------------|----------|--------------------|------------|-----------|------------|------------------|----------------|----------------|----------|----------|
| | | | | East (m) | North (m) | | | | | |
| 8TH-Highest | ALL | 1ST | 4.07676 | 333916.95 | 4692474.65 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | | 2ND | 3.82915 | 333915.67 | 4692473.11 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | | 3RD | 3.75329 | 333894.41 | 4692452.54 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | | 4TH | 3.74675 | 333893.73 | 4692452.36 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | | 5TH | 3.74235 | 333894.06 | 4692454.51 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | | 6TH | 3.59872 | 333893.05 | 4692454.24 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | | 7TH | 3.58513 | 333893.10 | 4692452.06 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | | 8TH | 3.51647 | 333895.10 | 4692406.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | | 9TH | 3.40409 | 333892.53 | 4692451.66 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |
| | | 10TH | 3.40016 | 333891.63 | 4692468.30 | 0.00 | 0.00 | 1.82 | GP | E7YFP000 |

Summary of Total Messages

| # | Message Type |
|------|--|
| 0 | Fatal Error Message(s) |
| 3 | Warning Message(s) |
| 29 | Informational Message(s) |
| 8760 | Hours Were Processed |
| 10 | Calm Hours Identified |
| 19 | Missing Hours Identified (0.22 Percent) |

BREEZE AERMOD Model Results

Highest Results of Pollutant: CO

| Avg. Per. | Grp ID | High | Type | Val | Units | Date | UTM | | Elev. (m) | Hill Ht. (m) | Flag Ht. (m) | Rec. Type | Grid ID |
|-----------|--------|------|------------|------------|---------|----------|-----------|------------|-----------|--------------|--------------|-----------|----------|
| | | | | | | YYMMDDHH | East (m) | North (m) | | | | | |
| 1-HR | ALL | 2ND | Avg. Conc. | 1359.37999 | ug/m**3 | 15010622 | 333884.10 | 4692429.55 | 0.00 | 0.00 | 1.82 | GP | XE32S001 |
| 8-HR | ALL | 2ND | Avg. Conc. | 518.59441 | ug/m**3 | 15041708 | 333884.10 | 4692429.55 | 0.00 | 0.00 | 1.82 | GP | XE32S001 |

Summary of Total Messages

| # | Message Type |
|------|--|
| 0 | Fatal Error Message(s) |
| 3 | Warning Message(s) |
| 23 | Informational Message(s) |
| 8760 | Hours Were Processed |
| 11 | Calm Hours Identified |
| 12 | Missing Hours Identified (0.14 Percent) |

Error & Warning Messages

| Msg. Type | Pathway | Ref. # | Description |
|-----------|---------|----------------------|---|
| WARNING | ME | W186 | THRESH_1MIN 1-min ASOS wind speed threshold used 0.50 |
| WARNING | OU | W565 | Possible Conflict With Dynamically Allocated FUNIT PLOTFILE |
| WARNING | OU | W565 | Possible Conflict With Dynamically Allocated FUNIT PLOTFILE |

BREEZE AERMOD Model Results

Max. Annual (1 YEARS) Results of Pollutant: PM25 (ug/m**3)

| Group ID | High | Avg. Conc. | UTM | | Elev. (m) | Hill Ht. (m) | Flag Ht. (m) | Rec. Type | Grid ID |
|----------|------|------------|-----------|------------|--------------|-----------------|-----------------|-----------|----------|
| | | | East (m) | North (m) | | | | | |
| ALL | 1ST | 1.59366 | 333879.10 | 4692448.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | 2ND | 1.57404 | 333878.19 | 4692454.76 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | 3RD | 1.53770 | 333877.37 | 4692451.73 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | 4TH | 1.53064 | 333876.31 | 4692455.44 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | 5TH | 1.51062 | 333875.40 | 4692452.07 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | 6TH | 1.50409 | 333877.10 | 4692448.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | 7TH | 1.49436 | 333879.34 | 4692451.38 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | 8TH | 1.46492 | 333880.06 | 4692454.07 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | 9TH | 1.45113 | 333870.85 | 4692462.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | 10TH | 1.44915 | 333879.51 | 4692457.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |

Maximum Period 24-HR Results Averaged Over (1 YEARS) of Pollutant: PM25 (ug/m**3)

| Highest (Conc.) | Group ID | Highest (Receptor) | Avg. Conc. | UTM | | Elevation (m) | Hill Ht (m) | Flag HT (m) | Rec.Type | Grid ID |
|-----------------|----------|--------------------|------------|-----------|------------|------------------|----------------|----------------|----------|----------|
| | | | | East (m) | North (m) | | | | | |
| 8TH-Highest | ALL | 1ST | 4.18412 | 333891.63 | 4692468.30 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | | 2ND | 4.04061 | 333893.73 | 4692452.36 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | | 3RD | 3.93807 | 333916.95 | 4692474.65 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | | 4TH | 3.93767 | 333894.41 | 4692452.54 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | | 5TH | 3.92145 | 333893.10 | 4692452.06 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | | 6TH | 3.86969 | 333859.86 | 4692419.03 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | | 7TH | 3.84586 | 333858.33 | 4692417.75 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | | 8TH | 3.84322 | 333915.67 | 4692473.11 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | | 9TH | 3.81918 | 333894.06 | 4692454.51 | 0.00 | 0.00 | 1.82 | GP | E7YFP001 |
| | | 10TH | 3.80778 | 333890.77 | 4692468.26 | 0.00 | 0.00 | 1.82 | DC | |

Summary of Total Messages

| # | Message Type |
|------|--|
| 0 | Fatal Error Message(s) |
| 3 | Warning Message(s) |
| 23 | Informational Message(s) |
| 8760 | Hours Were Processed |
| 11 | Calm Hours Identified |
| 12 | Missing Hours Identified (0.14 Percent) |

BREEZE AERMOD Model Results

Highest Results of Pollutant: CO

| Avg. Per. | Grp ID | High | Type | Val | Units | Date | UTM | | Elev. (m) | Hill Ht. (m) | Flag Ht. (m) | Rec. Type | Grid ID |
|-----------|--------|------|------------|------------|---------|----------|-----------|------------|-----------|--------------|--------------|-----------|----------|
| | | | | | | YYMMDDHH | East (m) | North (m) | | | | | |
| 1-HR | ALL | 2ND | Avg. Conc. | 1341.16028 | ug/m**3 | 16111407 | 333895.10 | 4692414.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP002 |
| 8-HR | ALL | 2ND | Avg. Conc. | 597.79787 | ug/m**3 | 16010708 | 333884.10 | 4692429.55 | 0.00 | 0.00 | 1.82 | GP | E7YFP002 |

Summary of Total Messages

| # | Message Type |
|------|--|
| 0 | Fatal Error Message(s) |
| 3 | Warning Message(s) |
| 49 | Informational Message(s) |
| 8784 | Hours Were Processed |
| 12 | Calm Hours Identified |
| 37 | Missing Hours Identified (0.42 Percent) |

Error & Warning Messages

| Msg. Type | Pathway | Ref. # | Description |
|-----------|---------|----------------------|---|
| WARNING | ME | W186 | THRESH_1MIN 1-min ASOS wind speed threshold used 0.50 |
| WARNING | OU | W565 | Possible Conflict With Dynamically Allocated FUNIT PLOTFILE |
| WARNING | OU | W565 | Possible Conflict With Dynamically Allocated FUNIT PLOTFILE |

BREEZE AERMOD Model Results

Max. Annual (1 YEARS) Results of Pollutant: PM25 (ug/m**3)

| Group ID | High | Avg. Conc. | UTM | | Elev. (m) | Hill Ht. (m) | Flag Ht. (m) | Rec. Type | Grid ID |
|----------|------|------------|-----------|------------|--------------|-----------------|-----------------|-----------|----------|
| | | | East (m) | North (m) | | | | | |
| ALL | 1ST | 1.53436 | 333878.19 | 4692454.76 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | 2ND | 1.51848 | 333879.10 | 4692448.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | 3RD | 1.50049 | 333876.31 | 4692455.44 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | 4TH | 1.48212 | 333877.37 | 4692451.73 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | 5TH | 1.45543 | 333879.34 | 4692451.38 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | 6TH | 1.45416 | 333875.40 | 4692452.07 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | 7TH | 1.43833 | 333877.10 | 4692448.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | 8TH | 1.42810 | 333880.06 | 4692454.07 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | 9TH | 1.40450 | 333874.43 | 4692456.12 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | 10TH | 1.40437 | 333879.51 | 4692457.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |

Maximum Period 24-HR Results Averaged Over (1 YEARS) of Pollutant: PM25 (ug/m**3)

| Highest (Conc.) | Group ID | Highest (Receptor) | Avg. Conc. | UTM | | Elevation (m) | Hill Ht (m) | Flag HT (m) | Rec.Type | Grid ID |
|-----------------|----------|--------------------|------------|-----------|------------|------------------|----------------|----------------|----------|----------|
| | | | | East (m) | North (m) | | | | | |
| 8TH-Highest | ALL | 1ST | 4.17235 | 333916.95 | 4692474.65 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | | 2ND | 4.13308 | 333915.67 | 4692473.11 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | | 3RD | 3.89717 | 333891.63 | 4692468.30 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | | 4TH | 3.57721 | 333859.86 | 4692419.03 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | | 5TH | 3.55032 | 333858.33 | 4692417.75 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | | 6TH | 3.45004 | 333856.80 | 4692416.46 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | | 7TH | 3.44882 | 333890.77 | 4692468.26 | 0.00 | 0.00 | 1.82 | DC | |
| | | 8TH | 3.36908 | 333861.39 | 4692420.32 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | | 9TH | 3.36467 | 333860.46 | 4692428.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |
| | | 10TH | 3.32505 | 333914.38 | 4692471.58 | 0.00 | 0.00 | 1.82 | GP | E7YFP003 |

Summary of Total Messages

| # | Message Type |
|------|--|
| 0 | Fatal Error Message(s) |
| 3 | Warning Message(s) |
| 49 | Informational Message(s) |
| 8784 | Hours Were Processed |
| 12 | Calm Hours Identified |
| 37 | Missing Hours Identified (0.42 Percent) |

BREEZE AERMOD Model Results

Highest Results of Pollutant: CO

| Avg. Per. | Grp ID | High | Type | Val | Units | Date | UTM | | Elev. (m) | Hill Ht. (m) | Flag Ht. (m) | Rec. Type | Grid ID |
|-----------|--------|------|------------|------------|---------|----------|-----------|------------|-----------|--------------|--------------|-----------|----------|
| | | | | | | YYMMDDHH | East (m) | North (m) | | | | | |
| 1-HR | ALL | 2ND | Avg. Conc. | 1283.06021 | ug/m**3 | 17011001 | 333884.10 | 4692429.55 | 0.00 | 0.00 | 1.82 | GP | E7YFP004 |
| 8-HR | ALL | 2ND | Avg. Conc. | 507.91173 | ug/m**3 | 17051808 | 333889.26 | 4692488.20 | 0.00 | 0.00 | 1.82 | DC | |

Summary of Total Messages

| # | Message Type |
|------|--|
| 0 | Fatal Error Message(s) |
| 3 | Warning Message(s) |
| 29 | Informational Message(s) |
| 8760 | Hours Were Processed |
| 0 | Calm Hours Identified |
| 29 | Missing Hours Identified (0.33 Percent) |

Error & Warning Messages

| Msg. Type | Pathway | Ref. # | Description |
|-----------|---------|----------------------|---|
| WARNING | ME | W186 | THRESH_1MIN 1-min ASOS wind speed threshold used 0.50 |
| WARNING | OU | W565 | Possible Conflict With Dynamically Allocated FUNIT PLOTFILE |
| WARNING | OU | W565 | Possible Conflict With Dynamically Allocated FUNIT PLOTFILE |

BREEZE AERMOD Model Results

Max. Annual (1 YEARS) Results of Pollutant: PM25 (ug/m**3)

| Group ID | High | Avg. Conc. | UTM | | Elev. (m) | Hill Ht. (m) | Flag Ht. (m) | Rec. Type | Grid ID |
|----------|------|------------|-----------|------------|--------------|-----------------|-----------------|--------------|----------|
| | | | East (m) | North (m) | | | | | |
| ALL | 1ST | 1.52954 | 333878.19 | 4692454.76 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | 2ND | 1.50193 | 333879.10 | 4692448.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | 3RD | 1.49921 | 333876.31 | 4692455.44 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | 4TH | 1.47242 | 333877.37 | 4692451.73 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | 5TH | 1.45602 | 333875.40 | 4692452.07 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | 6TH | 1.44372 | 333879.34 | 4692451.38 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | 7TH | 1.44335 | 333870.85 | 4692462.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | 8TH | 1.43315 | 333870.67 | 4692457.49 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | 9TH | 1.42918 | 333880.06 | 4692454.07 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | 10TH | 1.42585 | 333872.55 | 4692456.81 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |

Maximum Period 24-HR Results Averaged Over (1 YEARS) of Pollutant: PM25 (ug/m**3)

| Highest (Conc.) | Group ID | Highest (Receptor) | Avg. Conc. | UTM | | Elevation (m) | Hill Ht (m) | Flag HT (m) | Rec.Type | Grid ID |
|--------------------|-------------|-----------------------|---------------|-----------|------------|------------------|----------------|-------------------|----------|----------|
| | | | | East (m) | North (m) | | | | | |
| 8TH- Highest | ALL | 1ST | 4.86320 | 333915.67 | 4692473.11 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | | 2ND | 4.56786 | 333916.95 | 4692474.65 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | | 3RD | 3.66195 | 333914.38 | 4692471.58 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | | 4TH | 3.62201 | 333862.19 | 4692429.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | | 5TH | 3.49322 | 333858.33 | 4692417.75 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | | 6TH | 3.48892 | 333895.10 | 4692460.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | | 7TH | 3.48337 | 333859.86 | 4692419.03 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | | 8TH | 3.47759 | 333860.46 | 4692428.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | | 9TH | 3.44951 | 333865.66 | 4692465.60 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |
| | | 10TH | 3.37804 | 333856.80 | 4692416.46 | 0.00 | 0.00 | 1.82 | GP | E7YFP005 |

Summary of Total Messages

| # | Message Type |
|------|--|
| 0 | Fatal Error Message(s) |
| 4 | Warning Message(s) |
| 29 | Informational Message(s) |
| 8760 | Hours Were Processed |
| 0 | Calm Hours Identified |
| 29 | Missing Hours Identified (0.33 Percent) |

TERMINAL C CANOPY, CONNECTOR, AND ROADWAY PROJECT

Boston-Logan International Airport

East Boston, Massachusetts

Background Concentrations

TERMINAL C CANOPY, CONNECTOR, AND ROADWAY PROJECT

Boston-Logan International Airport

East Boston, Massachusetts

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Summary of Background Concentrations

| Carbon Monoxide (CO) Background Concentrations | | | |
|---|----------------------------------|----------------------------|-----------------------|
| 19 Von Hillern, Boston MA | | | |
| Time Period | Background Concentration* | | NAAQS Standard |
| | (ppm) | (Micrograms/meter3) | ug/m3 (ppm) |
| 1-Hour | 1.9 | 2201.3 | 40,000 (35) |
| 8-Hour | 1.1 | 1281.2 | 10,000 (9) |
| Calculated Persistence Factor | 0.58 | | |

* Highest value of 2014, 2015 and 2016

| Particulate Matter (PM2.5) Background Concentrations | | | |
|---|----------------------------------|----------------------------|-----------------------|
| 174 North St, Boston MA | | | |
| Time Period | Background Concentration* | | NAAQS Standard |
| | (ppm) | (Micrograms/meter3) | ug/m3 |
| 24-Hour | - | 15.4 | 35.0 |
| Annual | - | 7.1 | 15.0 |

* Average value of 2014, 2015 and 2016

| Adjustment from 1-hour (DEP Standards, not project-specific) | | | |
|---|-----------------------|----------------------|----------------------|
| <u>Annual</u> | <u>24-Hour</u> | <u>8-Hour</u> | <u>3-Hour</u> |
| 0.08 | 0.40 | 0.70 | 0.90 |

Carbon Monoxide (CO) Background Concentrations

| Year | 1-Hour* (ppm) | 8-Hour** (ppm) |
|------|------------------|-------------------|
| 2014 | 1.9 | 0.9 |
| 2015 | 1.8 | 1.1 |
| 2016 | 1.4 | 1.0 |

* 1-Hour values represent 2nd highest

** 8-Hour values represent 2nd highest

1- Hour Background Calculation

19 Von Hillern, Boston MA

| Pollutant | 1-Hour* (ppm) | Molecular weight | Background Concentration (Micrograms/meter ³) |
|-----------------|------------------|------------------|--|
| Carbon Monoxide | 1.9 | 28.0 | 2201.3 |

* Highest value of 2014, 2015 and 2016

8-Hour Background Calculation

19 Von Hillern, Boston MA

| Pollutant | 8-Hour* (ppm) | Molecular weight | Background Concentration (Micrograms/meter ³) |
|-----------------|------------------|------------------|--|
| Carbon Monoxide | 1.1 | 28.0 | 1281.2 |

* Highest value of 2014, 2015 and 2016

Particulate Matter (PM_{2.5}) Background Concentrations

Data from Massachusetts Air Quality Reports, MassDEP

| Year | Arithmetic Mean* (Micrograms/meter ³) | 24-Hour** (Micrograms/meter ³) |
|------|--|---|
| 2014 | 7.0 | 14.5 |
| 2015 | 7.4 | 16.7 |
| 2016 | 7.0 | 14.9 |

* Values represent annual arithmetic mean

** 24-Hour values represent 98th percentile

Annual Background Calculation

174 North St, Boston MA

| Pollutant | Arithmetic Mean* (Micrograms/meter ³) | Molecular Weight | Background Concentration (Micrograms/meter ³) |
|-----------|--|------------------|--|
| PM2.5 | 7.1 | --- | 7.1 |

* Average value of 2014, 2015 and 2016

24-Hour Background Calculation

174 North St, Boston MA

| Pollutant | 24-Hour* (Micrograms/meter ³) | Molecular Weight | Background Concentration (Micrograms/meter ³) |
|-----------|--|------------------|--|
| PM2.5 | 15.4 | --- | 15.4 |

* Average 98th percentile value of 2014, 2015 and 2016

TERMINAL C CANOPY, CONNECTOR, AND ROADWAY PROJECT

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Emission Assessment

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| Design Concentrations | | | | | | |
|-----------------------|-------------------|-------------------|------|------|-------------------|-------------------|
| Year | CO | | | | PM 2.5 (Max) | |
| | 1-HR | 8-HR | 1-HR | 8-HR | 24-HR | Annual |
| | ug/m ³ | ug/m ³ | ppm | ppm | ug/m ³ | ug/m ³ |
| 2013 | 1299.55 | 577.51 | 1.12 | 0.50 | 3.51 | 1.56 |
| 2014 | 1383.95 | 503.36 | 1.19 | 0.43 | 4.08 | 1.50 |
| 2015 | 1359.38 | 518.59 | 1.17 | 0.45 | 4.18 | 1.59 |
| 2016 | 1341.16 | 597.80 | 1.15 | 0.51 | 4.17 | 1.53 |
| 2017 | 1283.06 | 507.91 | 1.10 | 0.44 | 4.86 | 1.53 |

| Background Concentration | | | | | | |
|--------------------------|-------------------|-------------------|------|------|-------------------|-------------------|
| | CO | | | | PM 2.5 | |
| | 1-HR | 8-HR | 1-HR | 8-HR | 24-HR | Annual |
| | ug/m ³ | ug/m ³ | ppm | ppm | ug/m ³ | ug/m ³ |
| | 2201.33 | 1281.20 | 1.89 | 1.10 | 15.37 | 7.14 |

| Total Concentrations | | | | | | |
|----------------------|-------------------|-------------------|------|------|-------------------|-------------------|
| Year | CO | | | | PM 2.5 (Max) | |
| | 1-HR | 8-HR | 1-HR | 8-HR | 24-HR | Annual |
| | ug/m ³ | ug/m ³ | ppm | ppm | ug/m ³ | ug/m ³ |
| 2013 | 3500.88 | 1858.70 | 3.01 | 1.60 | 18.88 | 8.70 |
| 2014 | 3585.28 | 1784.56 | 3.08 | 1.53 | 19.44 | 8.64 |
| 2015 | 3560.71 | 1799.79 | 3.06 | 1.55 | 19.55 | 8.73 |
| 2016 | 3542.49 | 1879.00 | 3.04 | 1.61 | 19.54 | 8.67 |
| 2017 | 3484.39 | 1789.11 | 2.99 | 1.54 | 20.23 | 8.67 |

| Max Concentration | | | | | | |
|-------------------|-------------------|-------------------|----------|----------|-------------------|-------------------|
| | CO | | | | PM 2.5 | |
| | ug/m ³ | ug/m ³ | ppm | ppm | ug/m ³ | ug/m ³ |
| | 1 HR Max | 8 HR Max | 1 HR Max | 8 HR Max | 24 HR Max | Annual Max |
| | | 3585.28 | 1879.00 | 3.08 | 1.61 | 20.23 |

| NAAQS | | | | | | |
|-------|-------------------|-------------------|-------|------|-------------------|-------------------|
| | CO | | | | PM 2.5 | |
| | ug/m ³ | ug/m ³ | ppm | ppm | ug/m ³ | ug/m ³ |
| | 1-HR | 8-HR | 1-HR | 8-HR | 24-HR | Annual |
| | | 40000 | 10000 | 9 | 35 | 35 |

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Appendix D

Comment Letters on Draft Environmental Assessment

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John Vitagliano
19 Seymour Street
Winthrop, MA 02152
Seagullconsult@msn.com

November 26, 2018

Richard Doucette
Environmental Program Manager
Federal Aviation Administration
1200 District Avenue
Burlington, MA 01803

Subject: Environmental Assessment, Logan International Airport-Terminal C Canopy, Connector and Roadway Project/Massport

Dear Mr. Doucette:

I am a lifelong resident of Winthrop and East Boston, residing near Logan International Airport. I am also a semi-regular Logan passenger with familiarity of the airport's airside and groundside facilities. I fully support the three projects included in the Environmental Assessment (EA)-the Terminal C Canopy, Connector and Roadway-as being required for the reasons stated in the EA.

I have experienced firsthand the excessive passenger congestion associated with Terminal C's existing security system which is often unable to adequately cope with current levels of passenger traffic and predictably will degrade as Logan's passenger volumes increase.

I have also experienced the significant deficiencies of the current Terminal C canopy and curbside facilities, in particular their shortcomings in providing adequate inclement weather protection to passengers waiting for the various ground transportation modes serving the terminal. The existing canopy's role as a transition from airside travel to environmentally preferable high occupancy vehicle (HOV) groundside connectivity is significantly limited by not only the current canopy/curbside design but also the severely deficient Terminal B to Terminal C roadway connections which restrict HOV access to the critical Terminal C curbside.

There isn't any aspect of the Terminal C Canopy, Connector and Roadway EA that would adversely affect the environment of Logan Airport's neighboring communities. In fact the potential reduction of existing roadway traffic congestion would improve airport air quality.

Sincerely,

John Vitagliano

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Dalzell, Stewart

From: Dalzell, Stewart
Sent: Tuesday, November 27, 2018 2:47 PM
To: 'richard.doucette@faa.gov'
Subject: Logan Terminal C Canopy, Connector, and Roadway Project EA - NHESP Comment

Richard – I received this note yesterday from NHESP regarding the Logan/Terminal C EA project:

The Division received a copy of the Draft EA for the proposed Terminal C Canopy, Connector, and Roadway Project at Boston Logan International Airport. Based on the information presented in the submitted materials it appears that all proposed activities, inclusive of staging and access, are located outside of Priority Habitat of State-listed species. Thus, I do not anticipate providing a formal NEPA comment letter on the Draft EA.

If the need arises for formal comments or I've misunderstood the proposed activities, please do not hesitate to call or email.

Sincerely,

Amy Hoenig

Endangered Species Review Biologist
Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries & Wildlife
1 Rabbit Hill Road, Westborough, MA 01581
p: (508) 389-6364 | e: Amy.Hoenig@state.ma.us
mass.gov/masswildlife | facebook.com/masswildlife

Stewart Dalzell, Deputy Director
Environmental Planning & Permitting
Massachusetts Port Authority
617-568-3524 (Office)
617-594-5731 (Cell)

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