## QUENTIN ROAD: LEVEL 2 ALTERNATIVES

RECOMMENDED ALTERNATIVE

Q1.5B

|  |                  | _        |          |               |           | T                           |          |          |          |          |          |
|--|------------------|----------|----------|---------------|-----------|-----------------------------|----------|----------|----------|----------|----------|
| Evaluation Criteria  | Unit of Measure  | Existing |          | 2050 No Build |           | Range of Build Alternatives |          |          |          |          |          |
| L valuation Critcha  | omit of Wicasure |          |          |               |           | Q1B                         |          | Q1.5B    |          | Q2B      |          |
| Transportation Performance   |                  |          |          |               |           |                             |          |          |          |          |          |
| Quentin Road Average Daily Traffic (ADT) - North of Ensell           | veh/day          | 14,500   |          | 17,500        |           | 18,200                      |          | 18,200   |          | 18,600   |          |
| Quentin Road Average Daily Traffic (ADT) - South of Ensell           | veh/day          | 18,500   |          | 22,700        |           | 23,800                      |          | 23,800   |          | 24,200   |          |
| Intersection Level of Service (LOS) and Average Delay                |                  | AM       | PM       | AM            | PM        | AM                          | PM       | AM       | PM       | AM       | PM       |
| Quentin Road at IL-22 Intersection                                   | LOS (sec/veh)    | E (57.8) | E (42.6) | E (71.6)      | D (48.3)  | D (45.8)                    | D (41.1) | D (44.5) | D (42.3) | D (45.0) | D (43.3) |
| Quentin Road at Ensell Road Intersection                             | LOS (sec/veh)    | B (13.1) | B (12.7) | C (34.4)      | C (21.3)  | B (11.8)                    | B (12.8) | B (11.9) | B (10.4) | B (13.6) | B (11.1) |
| Quentin Road at Highland Drive Intersection                          | LOS (sec/veh)    | B (11.9) | D (33.2) | F (69.0)      | F (130.5) | B (15.7)                    | B (14.5) | B (11.3) | B (12.6) | B (11.4) | A (9.2)  |
| Queue Lengths (AM = southbound, PM = northbound)                     |                  |          |          |               |           |                             |          |          |          |          |          |
| Quentin Road at IL-22 Intersection                                   | Feet             | 300      | 550      | 500           | 575       | 400                         | 300      | 400      | 300      | 450      | 300      |
| Comparison to No Build at IL-22                                      | % change         |          |          |               |           | -20%                        | -48%     | -20%     | -48%     | -10%     | -48%     |
| Quentin Road at Ensell Road Intersection                             | Feet             | 600      | 575      | 1000          | 1000      | 250                         | 300      | 250      | 300      | 275      | 150      |
| Comparison to No Build at Ensell Road                                | % change         |          |          |               |           | -75%                        | -70%     | -75%     | -70%     | -73%     | -85%     |
| Quentin Road at Highland Drive                                       | Feet             | -        | -        | -             | -         | 350                         | 350      | 150      | 350      | 175      | 150      |
| Comparison to Baseline Improvement at Highland Drive                 | % change         |          |          |               |           | -55%                        | 27%      | -81%     | 27%      | -77%     | -45%     |
| Safety (Illinois Highway Safety Design Manual)                       |                  |          |          |               |           |                             |          |          |          |          |          |
| Average Predicted Crashes  | crashes/year     | 3        | 2.1      | 41            | 1.8       | 42                          | 2.8      | 42       | 2.4      | 42       | 0        |
| Fatal & Injury Predicted Crashes (segments)                          | crashes/year     | 4        | l.1      | 5.1           |           | 4.4                         |          | 4.2      |          | 4.0      |          |
| Fatal & Injury Crash Reduction from Baseline Improvements (segments) | % change         |          | _        | -             |           | -18.5%                      |          | -21.3%   |          | -25.1%   |          |
| Mobility & Accessibility   |                  |          |          |               |           |                             |          |          |          |          |          |
| Total Travel Time IL-22 to OMR (AM = southbound, PM = northbound)    | minutes          | 3.3      | 5.3      | 4.2           | 7.7       | 3.8                         | 4.3      | 3.7      | 4.3      | 3.7      | 4.0      |
| Comparison to No Build   | % change         |          |          |               |           | -9%                         | -44%     | -12%     | -44%     | -12%     | -48%     |
| Average Delay - Ravine turn onto Quentin Road                        | sec/veh          | 11.9     | 22.8     | 15.5          | 30.9      | 17.7                        | 34.0     | 15.0     | 35.8     | 21.1     | 37.2     |
| Delay Comparison to No Build   | % change         |          |          |               |           | 14%                         | 10%      | -3%      | 16%      | 36%      | 20%      |
| Average Delay - Glendale turn onto Quentin Road                      | sec/veh          | 11.5     | 30.2     | 12.9          | 287.9     | 15.9                        | 26.4     | 21.7     | 34.9     | 22.9     | 37.9     |
| Delay Comparison to No Build   | % change         |          |          |               |           | 23%                         | -91%     | 68%      | -88%     | 78%      | -87%     |
| Residential Driveways Blocked by Quentin Road Queues                 | # driveways      | 3        | 2        | 6             | 3         | 3                           | 3        | 1        | 2        | 0        | 1        |
| Non-Motorized Accommodations   |                  |          |          |               |           |                             |          |          |          |          |          |
| Non-Motorized Accommodations   | Yes/No           | N        | No       | Ν             | lo        | Υ                           | es       | Ye       | es       | Y        | es       |
| Environmental Resource Impacts                                       |                  |          |          |               |           |                             |          |          |          |          |          |
| Wetland Impacts  | acres            | -        |          | -             |           | 0.44                        |          | 0.44     |          | 0.44     |          |
| Stormwater Facility Impacts  | acres            | -        |          | -             |           | 0.21                        |          | 0.21     |          | 0.21     |          |
| Surface Waters Impacts   | acres            | -        |          | -             |           | 0.01                        |          | 0.01     |          | 0.01     |          |
| Floodway Impacts   | acres            | -        |          | -             |           | 0                           |          | 0        |          | 0        |          |
| Floodplain Impacts   | acres            | -        |          | -             |           | 0                           |          | 0        |          | 0        |          |
| Park Impacts (Section 4f)  | acres            | -        |          | -             |           | 0                           |          | 0        |          | 0        |          |
| OSLAD Recreational Property Impacts                                  | acres            | -        |          | -             |           | 0                           |          | 0        |          | 0        |          |
| Historic Property Impacts  | acres            | -        |          | -             |           | 0                           |          | 0        |          | 0        |          |
| Historic Structure Impacts   | each             | -        |          | -             |           | 0                           |          | 0        |          | 0        |          |
| Cemetery Impacts   | acres            | -        |          | -             |           | 0                           |          | 0        |          | 0        |          |
| Tree Impacts   | each             |          | -        |               | -         | 4                           | 32       | 43       | 33       | 43       | 33       |
| Socio-Economic Impacts   |                  |          |          |               |           |                             |          |          |          |          |          |
| Residential Building Impacts   | each             | -        |          | -             |           | 0                           |          | 0        |          | 0        |          |
| Commercial Building Impacts  | each             | -        |          | -             |           | 0                           |          | 0        |          | 0        |          |
| Total Property Acquisition   | acres            | -        |          | -             |           | 1.31                        |          | 1.37     |          | 1.37     |          |
| Parcels Affected   | each             | -        |          | -             |           | 19                          |          | 20       |          | 20       |          |
| Access Changes   | each             | -        |          | _             |           | 0                           |          | 0        |          | 0        |          |
| Cost   |                  | -        |          |               |           |                             |          |          |          |          |          |
| Cost   | scale            |          |          |               | -         |                             | \$       |          |          | \$       | \$       |





