# Project and Analyst Information:

|  |  |  |  |
| --- | --- | --- | --- |
| Analyst: |       | Design ID: |       |
| Agency: |       | Construction ID: |       |
| Date: |       | Highway: |       |
|  |  | County |       |
|  |  | Municipality |       |
|  |  | Project Title: |       |
|  |  | Project Subtitle: |       |
| Scheduled Construction Year: |       |
| Improvement Concept Code: |       |

# Background Information:

## Existing Conditions

|  |  |
| --- | --- |
| Existing Conditions: | Operational Site of Promise:       |
| Existing Freight Routes: | [ ]  OSOW-TR [ ]  High Clearance [ ]  Wind Tower [ ]  Long Truck Route[ ]  65’ Restricted Truck Route [ ]  N/A |
| Existing Accommodations: | [ ]  Pedestrian [ ]  Bicycle [ ]  Railroad [ ]  Transit [ ]  N/A  [ ]  Other:            |
| Traffic Generators: | [ ]  Seasonal Event [ ]  Daily Event [ ]  Special Event[ ]  Major Traffic Generator (shopping center, gas station, school, etc.) [ ]  N/A      |
| Do Alternate Routes Exist? | [ ]  Yes [ ]  No       |

# Operational Analysis:

## Traffic Volumes

|  |  |
| --- | --- |
| Operational Site of Promise: |       |
| Annual Growth Rate: |       |
| Existing Counts: | Turning Movement Count (     ):Duration:       | [ ]  Yes [ ]  No [ ]  N/A  |
| Mainline Count (Year      ): | [ ]  Yes [ ]  No [ ]  N/A  |
| Forecast Scenarios: | Start Year (     ): [ ]  Yes [ ]  No  |
| End Year (     ): [ ]  Yes [ ]  No  |
| Other Scenario/Year (     ): [ ]  Yes [ ]  No  |
| NPMRDS Data: | [ ]  Yes [ ]  No [ ]  N/A  |

## Intersection Control

|  |  |
| --- | --- |
| Intersection:       | [ ]  N/A  |
| Existing Control Type: | [ ]  Signalized [ ]  TWSC [ ]  AWSC [ ]  Roundabout [ ]  Other:       |
| Warrant Analysis | AWSC Warrants: [ ]  Yes [ ]  NoSignal Warrants: [ ]  Yes [ ]  No |
| Optimized Signal Timing Evaluated? | [ ]  Yes [ ]  No [ ]  N/A  |
| Results:       |

## Operational Evaluation and Results

|  |  |
| --- | --- |
| Operational Site of Promise: |       |
| Software used for operational analysis |       |
| Version of software |       |
| Analysis periods | [ ]  AM Peak [ ]  Mid-Day Peak [ ]  PM Peak  |
| [ ]  Weekend [ ]  Other:       |
| Scenarios Evaluated | [ ]  No-Build (Start Year) [ ]  No-Build (End Year) [ ]  Build (Start Year) [ ]  Build (End Year)  |
| [ ]  Other:       |
| Software Limitations |       |

| Intersection LOS by Movement and Approach |
| --- |
| Intersection: |       |
| Scenario | Analysis Period | Roadway: |       |       |       |       |
| Direction: |       |       |       |       |
| Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| **No-Build** |
| Start Year(     ) | AM |  LOS |       |       |       |       |       |       |       |       |       |       |       |       |
|  LOS by approach |       |       |       |       |
| PM |  LOS |       |       |       |       |       |       |       |       |       |       |       |       |
|  LOS by approach |       |       |       |       |
| End Year(     ) | AM |  LOS |       |       |       |       |       |       |       |       |       |       |       |       |
|  LOS by approach |       |       |       |       |
| PM |  LOS |       |       |       |       |       |       |       |       |       |       |       |       |
|  LOS by approach |       |       |       |       |
| **Build – Alternative 1 (     )** |
| Start Year(     ) | AM |  LOS |       |       |       |       |       |       |       |       |       |       |       |       |
|  LOS by approach |       |       |       |       |
| PM |  LOS |       |       |       |       |       |       |       |       |       |       |       |       |
|  LOS by approach |       |       |       |       |
| End Year(     ) | AM |  LOS |       |       |       |       |       |       |       |       |       |       |       |       |
|  LOS by approach |       |       |       |       |
| PM |  LOS |       |       |       |       |       |       |       |       |       |       |       |       |
|  LOS by approach |       |       |       |       |

| Mainline LOS by Direction |
| --- |
| Mainline: |       |
| Segment | Direction | No-Build | Build Alternative 1 (     ) |
| Start Year(     ) | End Year(     ) | Start Year(     ) | End Year(     ) |
| AM | PM | AM | PM | AM | PM | AM | PM |
|       |       |   |   |   |   |   |   |   |   |
|       |   |   |   |   |   |   |   |   |
|       |       |   |   |   |   |   |   |   |   |
|       |   |   |   |   |   |   |   |   |

## Queue Analysis

|  |  |
| --- | --- |
| Operational Site of Promise:  |       |
| Are there existing/no-build queuing issues?  | [ ]  Yes [ ]  No  |
| Existing/No-Build Queuing Issues | Intersection/Mainline Approach  |
| Queues block access to:  | [ ]  Left turn lane -----------------------------[ ]  Right turn lane ---------------------------[ ]  Driveways----------------------------------[ ]  Adjacent Intersection-------------------[ ]  Railroad Crossing-------------------------[ ]  On/off-ramp ------------------------------[ ]  Other Critical Location -----------------      | [ ] E/NE; [ ]  W/SW; [ ]  N/NW; [ ]  S/SE[ ] E/NE; [ ]  W/SW; [ ]  N/NW; [ ]  S/SE[ ] E/NE; [ ]  W/SW; [ ]  N/NW; [ ]  S/SE[ ] E/NE; [ ]  W/SW; [ ]  N/NW; [ ]  S/SE[ ] E/NE; [ ]  W/SW; [ ]  N/NW; [ ]  S/SE[ ] E/NE; [ ]  W/SW; [ ]  N/NW; [ ]  S/SE[ ] E/NE; [ ]  W/SW; [ ]  N/NW; [ ]  S/SE |
| Are there any access control issues? | [ ]  Yes [ ]  No  | [ ] E/NE; [ ]  W/SW; [ ]  N/NW; [ ]  S/SE |

# Economic Appraisal:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Operational Site of Promise |       |       |       |       |
| Alternative |       |       |       |       |
| Safety B/C ratio check | [ ]  Pass [ ]  Fail | [ ]  Pass [ ]  Fail | [ ]  Pass [ ]  Fail | [ ]  Pass [ ]  Fail |
| Fatal and injury crash check | [ ]  Pass [ ]  Fail | [ ]  Pass [ ]  Fail | [ ]  Pass [ ]  Fail | [ ]  Pass [ ]  Fail |
| Safety and operations B/C ratio check | [ ]  Pass [ ]  Fail | [ ]  Pass [ ]  Fail | [ ]  Pass [ ]  Fail | [ ]  Pass [ ]  Fail |
| STN-only B/C ratio check (intersections only) | [ ]  Pass [ ]  Fail [ ]  N/A | [ ]  Pass [ ]  Fail [ ]  N/A | [ ]  Pass [ ]  Fail [ ]  N/A | [ ]  Pass [ ]  Fail [ ]  N/A |

# Summary of Findings:

# Attachments:

1. Operational Analysis
	1. Turning Movement Counts (Intersection Traffic Volume Report)
	2. Diagram of traffic volumes for each analysis period
	3. AWSC warrants
	4. Signal warrants
	5. Software reports for operational analysis
	6. DT 1887
	7. Exhibit highlighting queues vs. available storage for each analysis period
2. Economic Appraisal
	1. All printouts from the Intersection Benefit-Cost Tool and/or Mainline Facility Benefit-Cost Tool