# 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  No  Signal 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