

*Date:* May 30, 2018

*To:* NW Region Scoping Files

*From:* Daniel C. Bieberitz, P.E., PTOE  
Traffic Engineer  
WisDOT, DTSD-NW Region, Eau Claire office

*Subject:* Safety Screening Analysis (SSA)  
Project ID: 1560-07-01  
USH 63, CTH N to CTH E  
Towns of Drummond and Grand View  
USH 63, Bayfield County

This report summarizes the Safety Screening Analysis (SSA), per Facilities Development Manual 11-40-4, for the subject project. The SSA process will include a review of the meta-manager data for investigation flags, review of a crash history for the entire project, and determination as to whether any improvements should be considered.

Project Limits

South Limit: CTH N

North Limit: CTH E

Length: 13.06 miles

Crash Rates

Project Crash Rate: 75.17

Statewide Average: 75.77

Metamanager / PDP Segments

MM data: October 2017, 2012 – 2016 crashes

USH 63: 14 segments, PDP ID 13504 - 13517

**SSA Step 1: Analyze project roadway using the Metamanager (MM) safety module.**

There were six segments that had a Level of Problem (LOP) flag within the project area.

|              |                        |        |            |
|--------------|------------------------|--------|------------|
| PDP ID 13504 | RP 191+000 – 191+013   | LOP 4  | 0.13 miles |
| PDP ID 13505 | RP 191+013 – 192G+000  | LOP 99 | 0.28 miles |
| PDP ID 13506 | RP 192G+000 – 192K+000 | LOP 5  | 1.12 miles |
| PDP ID 13508 | RP 194+000 – 194M+057  | LOP 99 | 1.06 miles |
| PDP ID 13514 | RP 200+000 – 202+000   | LOP 1  | 1.38 miles |
| PDP ID 13515 | RP 202+000 – 202+149   | LOP 13 | 1.49 miles |

## **SSA Step 2: Manually review crash summaries.**

Crash data was obtained for years 2012 to 2016. There were 43 crashes identified within the limits of this project. Review of the summary crash data did not reveal any additional segments that should have investigation flags added. One Crash Spot was identified (PDP 13517) just south of CTH E. These crashes were investigated and did not have any crash patterns.

## **SSA Step 3: Evaluate PDP segments investigation flags.**

PDP ID 13504                  RP 191+000 – 191+013                  LOP 4                  0.13 miles

This PDP segment includes a crash rate flag, an intersection flag, and a driver flag. Metamanager identified only two crashes within this segment. One crash occurred on icy pavement and one crash was likely due to the driver falling asleep.

This 3R project may continue.

PDP ID 13505                  RP 191+013 – 192G+000                  LOP 99                  0.28 miles

This PDP segment includes a crash rate flag. Metamanager identified only two crashes within this segment. One crash involved a driver running through a stop sign and hitting guardrail and the other crash involved a vehicle making a left-turn into a private drive and being rear-ended.

This 3R project may continue since there was no pattern of the crashes.

PDP ID 13506                  RP 192G+000 – 192K+000                  LOP 5                  1.12 miles

This PDP segment includes a crash rate flag and a run off the road flag. Metamanager identified six crashes within this segment. Three of the crashes were due to icy/slushy roadways and two other crashes were due to equipment malfunction (tire blowout and shifting of load on trailer).

This 3R project may continue.

PDP ID 13508                  RP 194+000 – 194M+057                  LOP 99                  1.06 miles

This PDP segment includes a KAB crash rate flag. Metamanager identified four crashes within this segment. Two crashes involved drivers falling asleep, one crash possibly vehicle malfunction, and another crash in which the driver swerved to avoid a deer.

This 3R project may continue.

PDP ID 13514          RP 200+000 – 202+000          LOP 1          1.38 miles

This PDP segment includes a crash rate flag and driver flag. Metamanager identified seven crashes within this segment. Two crashes involved animals (turkey & a bear), one on icy roadway, and another where the driver drove around the road closed barricades and landed in the roadway washout area. One crash was a rear-end crash about 200 feet north of CTH D and two other crashes were run off the road crashes at two different locations.

This 3R project may continue since there was no pattern of the crashes.

PDP ID 13515          RP 202+000 – 202+149          LOP 13          1.49 miles

This PDP segment includes a run off the road flag and a driver flag. Metamanager identified five crashes within this segment. Two crashes were weather related (on slushy or snow-covered roadway), one crash where the driver fell asleep and the two remaining crashes occurred in different areas.

This 3R project may continue.

**Recommendations:**

- Crashes were reviewed in the other investigation flag areas; however, additional improvements are not recommended in these areas.
- Since 5-foot shoulders exist within most of the project length, install shoulder rumble strips.
- The project crash rate is at the statewide average.
- This 3R project may continue.

**Attachments:**

Project Limits Map

STN Log listing

Metamanager Safety Spreadsheets

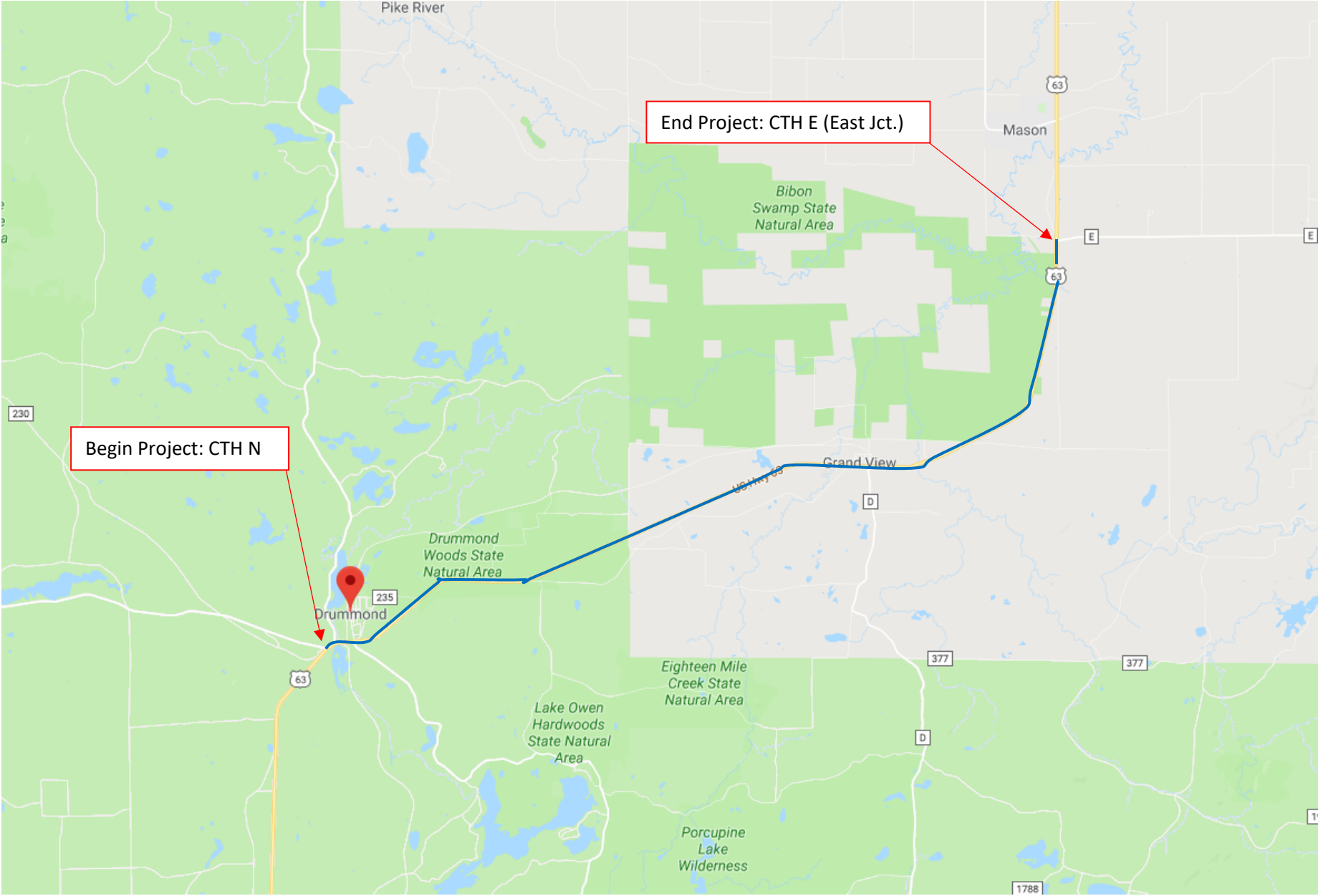
Metamanager Mobility Spreadsheet

Crash Database Spreadsheets

FDM 11-40 attachment 4.4 SSA worksheets

Segment Crash Rate Worksheet

Project ID: 1560-07-01  
USH 63, CTH N to CTH E (East Jct.)



USH 63, Bayfield County (CTH N to CTH E)

| STATE TRUNK HIGHWAY LOG<br>REGION 5<br>YEAR END DATA AS OF 12-31-2014 |      |      |      |        |                    |   |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|-----------------------------------------------------------------------|------|------|------|--------|--------------------|---|---|---|----------|-----|-----------|----|----|----|--------|-----|------|------|-----|----------|-----------|----|----------|-------|-----|-----|----|-------|--|--|--|--|--|
| COUN                                                                  | HWY  | RP   | PLUS | CUM    | FEATURE            |   |   |   | LEFT     |     | LEFT      |    |    |    | MEDIAN |     |      |      |     | PAVEMENT |           |    |          | RIGHT |     |     |    | RIGHT |  |  |  |  |  |
|                                                                       |      |      |      | MILES  |                    | T | F | D | SHOULDER |     | AUXILIARY |    |    |    | TY     |     | YEAR |      | L   |          | AUXILIARY |    | SHOULDER |       | RU  | A   | U  | S     |  |  |  |  |  |
|                                                                       |      |      |      |        |                    |   |   | / | WIDTH    | 1   | 1         | 2  | 2  |    |        |     |      |      |     |          |           |    |          | CH    | C   | R   | S  |       |  |  |  |  |  |
|                                                                       |      |      |      |        |                    |   |   | U | PVD      | TOT | TY        | WD | TY | WD |        | Y   |      | N    | TY  | WD       | TY        | WD | PVD      | TOT   | ME  | L   | F  |       |  |  |  |  |  |
| BAYF                                                                  | 063N | 191  | 0.00 | 160.67 | CTH N              | L | R | U | 008      | 008 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 005 | 010 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 0.04 | 160.71 |                    |   | R | U | 005      | 010 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 005 | 010 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 0.13 | 160.80 | DELTA-DRUMMOND RD  | L | R | U | 005      | 010 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 005 | 005 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 0.14 | 160.81 |                    |   | R | U | 006      | 006 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 005 | 005 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 0.23 | 160.90 |                    |   | R | U | 005      | 009 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 005 | 009 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 0.31 | 160.98 | DRUMMOND LAKE RD   | L |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 0.36 | 161.03 |                    |   | R | U | 006      | 006 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 005 | 009 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 0.37 | 161.04 |                    |   | R | U | 006      | 006 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        | 02        | 10 |          | 00    | 000 | 006 | RU | 6     |  |  |  |  |  |
|                                                                       |      | 192G | 0.00 | 161.08 | WISCONSIN AVE      | L | R | U | 005      | 008 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 005 | 009 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 0.00 | 161.08 | N LK OWEN DR       | R |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 0.00 | 161.08 | NFR 213            | R |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      | 192K | 0.00 | 162.20 | OLD 63 N           | L | R | U | 005      | 008 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 005 | 009 | RU | 6     |  |  |  |  |  |
|                                                                       |      | 194  | 0.00 | 163.31 | BURGESON RD        | L |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 0.00 | 163.31 | NFR 404            | L |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      | 194M | 0.00 | 163.80 | NFR 217            | R | R | U | 005      | 008 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 005 | 009 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 0.00 | 163.80 | OLD 63 S           | R |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      | 196  | 0.00 | 165.35 | >> T OF DRUMMOND   |   |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 0.00 | 165.35 | >> T OF GRAND VIEW |   |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 0.00 | 165.35 | N SWEDEN DR        | L |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 0.00 | 165.35 | S SWEDEN DR        | R |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 2.94 | 168.29 |                    |   | R | U | 003      | 008 |           | 00 |    | 00 |        | 000 | 1    | 2000 | 024 | 2        |           | 00 |          | 00    | 003 | 008 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 2.99 | 168.34 |                    |   | R | U | 007      | 009 |           | 00 |    | 00 |        | 000 | 1    | 2000 | 024 | 2        |           | 00 |          | 00    | 007 | 009 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 3.12 | 168.47 |                    |   | R | U | 003      | 008 |           | 00 |    | 00 |        | 000 | 1    | 2000 | 024 | 2        |           | 00 |          | 00    | 003 | 008 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 3.17 | 168.52 |                    |   | R | U | 005      | 008 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 005 | 008 | RU | 6     |  |  |  |  |  |
|                                                                       |      | 199  | 0.00 | 168.63 |                    |   |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 0.02 | 168.65 | OLD 63 E RD        | R |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 0.11 | 168.74 | BLAKE AVE          | L |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 0.18 | 168.81 | CLARK AVE          | X |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 0.22 | 168.85 |                    |   | R | U | 012      | 012 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 005 | 008 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 0.26 | 168.89 | CUDWORTH AVE       | X |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      | 200  | 0.00 | 168.92 | CTH D              | R |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 0.02 | 168.94 | RAYMOND AVE        | L |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 0.10 | 169.02 | HOOD LA            | L | R | U | 005      | 008 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 005 | 008 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 0.17 | 169.09 | MAGNOLIA DR        | L |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 0.66 | 169.58 |                    |   | R | U | 006      | 006 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 005 | 008 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 0.67 | 169.59 |                    |   | R | U | 006      | 006 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 006 | 006 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 0.75 | 169.67 |                    |   | R | U | 005      | 008 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 006 | 006 | RU | 6     |  |  |  |  |  |
|                                                                       |      |      | 0.77 | 169.69 |                    |   | R | U | 005      | 008 |           | 00 |    | 00 |        | 000 | 1    | 2003 | 024 | 2        |           | 00 |          | 00    | 005 | 008 | RU | 6     |  |  |  |  |  |
|                                                                       |      | 201M | 0.00 | 169.77 | MATTS DR           | L |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      | 202  | 0.00 | 170.30 | DYBEDAL RD         | R |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 0.00 | 170.30 | N SWEDEN RD        | L |   |   |          |     |           |    |    |    |        |     |      |      |     |          |           |    |          |       |     |     |    |       |  |  |  |  |  |
|                                                                       |      |      | 0.78 | 171.08 |                    |   | R | U | 000      | 006 |           | 00 |    | 00 |        | 000 | 1    | 1998 | 024 | 2        |           | 00 |          | 00    | 000 | 006 | RU | 6     |  |  |  |  |  |

USH 63, Bayfield County (CTH N to CTH E)

| STATE TRUNK HIGHWAY LOG        |     |      |      |        |                   |   |   |   |          |           |    |    |    |        |          |     |           |          |     |    |       |     |    |    |     |     |    |   |  |  |
|--------------------------------|-----|------|------|--------|-------------------|---|---|---|----------|-----------|----|----|----|--------|----------|-----|-----------|----------|-----|----|-------|-----|----|----|-----|-----|----|---|--|--|
| REGION 5                       |     |      |      |        |                   |   |   |   |          |           |    |    |    |        |          |     |           |          |     |    |       |     |    |    |     |     |    |   |  |  |
| YEAR END DATA AS OF 12-31-2014 |     |      |      |        |                   |   |   |   |          |           |    |    |    |        |          |     |           |          |     |    |       |     |    |    |     |     |    |   |  |  |
|                                |     |      |      |        |                   |   |   |   |          |           |    |    |    |        |          |     |           |          |     |    |       |     |    |    |     |     |    |   |  |  |
| COUN                           | HWY | RP   | PLUS | CUM    | FEATURE           | T | F | D | LEFT     | LEFT      |    |    |    |        |          |     | RIGHT     | RIGHT    |     |    |       |     |    |    |     |     |    |   |  |  |
|                                |     |      |      | MILES  |                   |   |   |   | SHOULDER | AUXILIARY |    |    |    |        |          |     | AUXILIARY | SHOULDER | RU  | A  | U     | S   |    |    |     |     |    |   |  |  |
|                                |     |      |      |        |                   |   |   | / | WIDTH    | 1         | 1  | 2  | 2  | MEDIAN | PAVEMENT | L   | 1         | 1        | 2   | 2  | WIDTH | CH  | C  | R  | S   |     |    |   |  |  |
|                                |     |      |      |        |                   |   |   | U | PVD      | TOT       | TY | WD | TY | WD     | TY       | WD  | TY        | WD       | TY  | WD | PVD   | TOT | ME | L  | F   |     |    |   |  |  |
|                                |     |      | 0.84 | 171.14 |                   | R | U |   | 003      | 008       |    | 00 |    | 00     |          | 000 | 1         | 1980     | 024 | 2  |       | 00  |    | 00 | 003 | 008 | RU | 6 |  |  |
|                                |     | 204M | 0.00 | 173.05 | OLD 63 RD         | R |   |   |          |           |    |    |    |        |          |     |           |          |     |    |       |     |    |    |     |     |    |   |  |  |
|                                |     |      | 0.10 | 173.15 | B-04-0052 BRIDGE  |   |   |   |          |           |    |    |    |        |          |     |           |          |     |    |       |     |    |    |     |     |    |   |  |  |
|                                |     |      | 0.10 | 173.15 | BIBON CREEK UNDER |   |   |   |          |           |    |    |    |        |          |     |           |          |     |    |       |     |    |    |     |     |    |   |  |  |
|                                |     | 204R | 0.00 | 173.73 | CTH E             | R | R | U | 003      | 008       |    | 00 |    | 00     |          | 000 | 1         | 1980     | 024 | 2  |       | 00  |    | 00 | 003 | 008 | RU | 6 |  |  |

| 1560-07-01 Meta Safety |           |             |                                                                                  |                                                                                   |             |             |       |              |                      |         |                  |         |          |               |              |              |              |              |              |     |      |        |        |         |         |         |          |          |         |         |     |         |            |      |                 |   |   |    |   |    |          |         |            |                         |                          |                             |                         |                  |                      |                  |                     |             |
|------------------------|-----------|-------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------|-------------|-------|--------------|----------------------|---------|------------------|---------|----------|---------------|--------------|--------------|--------------|--------------|--------------|-----|------|--------|--------|---------|---------|---------|----------|----------|---------|---------|-----|---------|------------|------|-----------------|---|---|----|---|----|----------|---------|------------|-------------------------|--------------------------|-----------------------------|-------------------------|------------------|----------------------|------------------|---------------------|-------------|
| PDP_ID                 | SEQNO     | TRAF_SEG_ID | RECKEY                                                                           | PROJECT_ID                                                                        | FROM        | TO          | MILES | PDP_START    | DIVIDED OR UNDIVIDED | HWY&DIR | PROJECT TITLE    | RATE    | RATEFLAG | TOTAL CRASHES | 2016 CRASHES | 2015 CRASHES | 2014 CRASHES | 2013 CRASHES | 2012 CRASHES | CPM | AKNO | AKPROP | AKFLAG | RORPROP | RORFLAG | INTPROP | INTEFLAG | CRSHSPOT | SEVINDX | SIREduc | LOP | INPFLAG | PEER GROUP | AADT | WEATHER CRASHES | K | A | B  | C | PD | COUNTY   | YRS_OIT | MMGR_HMVMT | MMGR_FATL_INJY_OCCP_TOT | MMGR_INCAP_INJY_OCCP_TOT | MMGR_NONINCAP_INJY_OCCP_TOT | MMGR_PSBL_INJY_OCCP_TOT | MMGR_KAB_INJY_RT | KAB Injury Rate Flag | MMGR_KAB_CRSH_RT | KAB Crash Rate Flag | Driver Flag |
| 13504                  | 85550     | 10043       | 452122                                                                           | 15600770                                                                          | 063N191 000 | 063N191 013 | 0.13  | CTH N        | U                    | 063N    | DRUMMOND - USH 2 | 384.928 | 1.96     | 0.4           | 0            | 1            | 0            | 0            | 1            | 3.1 | 0.0  | 0.0%   | 0.00   | 0.0%    | 0.00    | 100.0%  | 1.53     | 1        | 2       | 3       | 4   | YES     | 420        | 2190 | 2               | 0 | 0 | 0  | 0 | 2  | BAYFIELD | 5       | 0.0052     | 0                       | 0                        | 0                           | 0                       | 0.000            | 0.00                 | 0.000            | 0.00                | 1           |
| 13505                  | 85550     | 10044       | 452122                                                                           | 15600770                                                                          | 063N191 013 | 063N192G000 | 0.28  | DELTA-DRUMM  | U                    | 063N    | DRUMMOND - USH 2 | 175.511 | 1.12     | 0.4           | 1            | 0            | 0            | 1            | 0            | 1.4 | 0.0  | 0.0%   | 0.00   | 0.0%    | 0.00    | 50.0%   | 0.00     | 0        | 2       | 0       | 99  | YES     | 420        | 2230 | 1               | 0 | 0 | 0  | 0 | 2  | BAYFIELD | 5       | 0.0114     | 0                       | 0                        | 0                           | 0                       | 0.000            | 0.00                 | 0.000            | 0.00                | 0           |
| 13506                  | 85550     | 866         | 452122                                                                           | 15600770                                                                          | 063N192K000 | 063N192K000 | 1.12  | N LK OWEN DR | U                    | 063N    | DRUMMOND - USH 2 | 127.961 | 1.10     | 1.2           | 1            | 3            | 0            | 0            | 2            | 1.1 | 0.2  | 16.7%  | 0.00   | 100.0%  | 1.49    | 0.0%    | 0.00     | 0        | 14      | 10      | 5   | YES     | 420        | 2294 | 3               | 0 | 1 | 0  | 1 | 4  | BAYFIELD | 5       | 0.0469     | 0                       | 1                        | 1                           | 1                       | 42.654           | 0.00                 | 21.327           | 0.00                | 0           |
| 13507                  | 85560     | 866         | 452122                                                                           | 15600770                                                                          | 063N192K000 | 063N194 000 | 1.11  | OLD 63 N     | U                    | 063N    | DRUMMOND - USH 2 | 86.076  | 0.00     | 0.8           | 1            | 1            | 2            | 0            | 0            | 0.7 | 0.0  | 0.0%   | 0.00   | 75.0%   | 0.00    | 25.0%   | 0.00     | 0        | 8       |         |     |         | 420        | 2294 | 3               | 0 | 0 | 1  | 1 | 2  | BAYFIELD | 5       | 0.0465     | 0                       | 0                        | 1                           | 1                       | 21.519           | 0.00                 | 21.519           | 0.00                | 0           |
| 13508                  | 85570     | 866         | 452122                                                                           | 15600770                                                                          | 063N194 000 | 063N194M057 | 1.06  | BURGESON RD  | U                    | 063N    | DRUMMOND - USH 2 | 90.136  | 0.00     | 0.8           | 0            | 1            | 1            | 0            | 2            | 0.8 | 0.2  | 25.0%  | 0.00   | 50.0%   | 0.00    | 50.0%   | 0.00     | 0        | 15      | 0       | 99  | YES     | 420        | 2294 | 1               | 0 | 1 | 1  | 1 | 1  | BAYFIELD | 5       | 0.0444     | 0                       | 1                        | 2                           | 2                       | 67.602           | 1.39                 | 45.068           | 1.21                | 0           |
| 13509                  | 85580     | 866         | 452122                                                                           | 15600770                                                                          | 063N194M057 | 063N196 000 | 0.98  |              | U                    | 063N    | DRUMMOND - USH 2 | 48.747  | 0.00     | 0.4           | 0            | 0            | 2            | 0            | 0            | 0.4 | 0.0  | 0.0%   | 0.00   | 100.0%  | 0.00    | 0.0%    | 0.00     | 0        | 2       |         |     |         | 420        | 2294 | 1               | 0 | 0 | 0  | 0 | 2  | BAYFIELD | 5       | 0.0410     | 0                       | 0                        | 0                           | 0                       | 0.000            | 0.00                 | 0.000            | 0.00                | 0           |
| 13510                  | 85590     | 866         | 452122                                                                           | 15600770                                                                          | 063N196 000 | 063N196 127 | 1.27  | S SWEDEN DR  | U                    | 063N    | DRUMMOND - USH 2 | 56.424  | 0.00     | 0.6           | 1            | 0            | 0            | 2            | 0            | 0.5 | 0.0  | 0.0%   | 0.00   | 33.3%   | 0.00    | 66.7%   | 0.00     | 0        | 6       |         |     |         | 420        | 2294 | 1               | 0 | 0 | 1  | 0 | 2  | BAYFIELD | 5       | 0.0532     | 0                       | 0                        | 1                           | 0                       | 18.808           | 0.00                 | 18.808           | 0.00                | 0           |
| 13511                  | 85600     | 866         | 452122                                                                           | 15600770                                                                          | 063N196 127 | 063N196 235 | 1.08  |              | U                    | 063N    | DRUMMOND - USH 2 | 66.350  | 0.00     | 0.6           | 1            | 1            | 0            | 0            | 1            | 0.6 | 0.0  | 0.0%   | 0.00   | 66.7%   | 0.00    | 0.0%    | 0.00     | 0        | 3       |         |     |         | 420        | 2294 | 1               | 0 | 0 | 0  | 0 | 3  | BAYFIELD | 5       | 0.0452     | 0                       | 0                        | 0                           | 0                       | 0.000            | 0.00                 | 0.000            | 0.00                | 0           |
| 13512                  | 85610     | 866         | 452122                                                                           | 15600770                                                                          | 063N196 235 | 063N199 000 | 0.93  |              | U                    | 063N    | DRUMMOND - USH 2 | 25.684  | 0.00     | 0.2           | 0            | 0            | 0            | 1            | 0            | 0.2 | 0.0  | 0.0%   | 0.00   | 100.0%  | 0.00    | 0.0%    | 0.00     | 0        | 1       |         |     |         | 420        | 2294 | 1               | 0 | 0 | 0  | 0 | 1  | BAYFIELD | 5       | 0.0389     | 0                       | 0                        | 0                           | 0                       | 0.000            | 0.00                 | 0.000            | 0.00                | 0           |
| 13513                  | 85620     | 866         | 452122                                                                           | 15600770                                                                          | 063N199 000 | 063N200 000 | 0.29  |              | U                    | 063N    | DRUMMOND - USH 2 | 0.000   | 0.00     | 0.0           | 0            | 0            | 0            | 0            | 0            | 0.0 | 0.0  | 0.0%   | 0.00   | 0.0%    | 0.00    | 0.0%    | 0.00     | 0        | 0       |         |     |         | 440        | 2294 | 0               | 0 | 0 | 0  | 0 | 0  | BAYFIELD | 5       | 0.0121     | 0                       | 0                        | 0                           | 0                       | 0.000            | 0.00                 | 0.000            | 0.00                | 0           |
| 13514                  | 85620     | 10045       | 452122                                                                           | 15600770                                                                          | 063N200 000 | 063N202 000 | 1.38  | CTH D        | U                    | 063N    | DRUMMOND - USH 2 | 113.911 | 1.03     | 1.4           | 2            | 1            | 1            | 2            | 1            | 1.0 | 0.0  | 0.0%   | 0.00   | 57.1%   | 0.00    | 0.0%    | 0.00     | 0        | 8       |         | 1   |         | 420        | 2440 | 1               | 0 | 0 | 0  | 1 | 6  | BAYFIELD | 5       | 0.0615     | 0                       | 0                        | 0                           | 1                       | 0.000            | 0.00                 | 0.000            | 0.00                | 1           |
| 13515                  | 85630     | 10046       | 452122                                                                           | 15600770                                                                          | 063N202 000 | 063N202 149 | 1.49  | DYBEDAL RD   | U                    | 063N    | DRUMMOND - USH 2 | 83.201  | 0.00     | 1.0           | 2            | 0            | 0            | 1            | 2            | 0.7 | 0.4  | 40.0%  | 0.00   | 80.0%   | 1.16    | 0.0%    | 0.00     | 1        | 21      | 10      | 13  | YES     | 420        | 2210 | 3               | 1 | 1 | 0  | 0 | 3  | BAYFIELD | 5       | 0.0601     | 1                       | 3                        | 1                           | 0                       | 83.201           | 1.84                 | 33.280           | 0.00                | 1           |
| 13516                  | 85640     | 10046       | 452123                                                                           | 15600770                                                                          | 063N202 149 | 063N202 247 | 0.98  |              | U                    | 063N    | DRUMMOND - USH 2 | 0.000   | 0.00     | 0.0           | 0            | 0            | 0            | 0            | 0            | 0.0 | 0.0  | 0.0%   | 0.00   | 0.0%    | 0.00    | 0.0%    | 0.00     | 0        | 0       |         |     |         | 420        | 2210 | 0               | 0 | 0 | 0  | 0 | 0  | BAYFIELD | 5       | 0.0395     | 0                       | 0                        | 0                           | 0                       | 0.000            | 0.00                 | 0.000            | 0.00                | 0           |
| 13517                  | 85650     | 10046       | 452123                                                                           | 15600770                                                                          | 063N202 247 | 063N204R000 | 0.96  |              | U                    | 063N    | DRUMMOND - USH 2 | 103.308 | 0.00     | 0.8           | 1            | 0            | 1            | 2            | 0            | 0.8 | 0.0  | 0.0%   | 0.00   | 50.0%   | 0.00    | 0.0%    | 0.00     | 1        | 4       |         | 2   |         | 420        | 2210 | 2               | 0 | 0 | 0  | 0 | 4  | BAYFIELD | 5       | 0.0387     | 0                       | 0                        | 0                           | 0                       | 0.000            | 0.00                 | 0.000            | 0.00                | 0           |
|                        |           |             |                                                                                  |                                                                                   |             |             | 13.06 |              |                      |         |                  |         |          |               | 10           | 8            | 7            | 9            | 9            |     | 43   |        |        |         |         |         |          |          |         |         |     |         |            | 1    | 3               | 3 | 4 | 32 |   | 43 |          |         |            |                         |                          |                             |                         |                  |                      |                  |                     |             |
|                        | PDP Flags |             | Crash Reports                                                                    |                                                                                   |             |             |       |              |                      |         |                  |         |          |               |              |              |              |              |              |     |      |        |        |         |         |         |          |          |         |         |     |         |            |      |                 |   |   |    |   |    |          |         |            |                         |                          |                             |                         |                  |                      |                  |                     |             |
|                        |           | 13504       | CTH N                                                                            |                                                                                   |             |             |       |              |                      |         |                  |         |          |               |              |              |              |              |              |     |      |        |        |         |         |         |          |          |         |         |     |         |            |      |                 |   |   |    |   |    |          |         |            |                         |                          |                             |                         |                  |                      |                  |                     |             |
|                        |           |             | DPCBRR3                                                                          | Driver ran off road when skidded on icy pavement                                  |             |             |       |              |                      |         |                  |         |          |               |              |              |              |              |              |     |      |        |        |         |         |         |          |          |         |         |     |         |            |      |                 |   |   |    |   |    |          |         |            |                         |                          |                             |                         |                  |                      |                  |                     |             |
|                        |           |             | DPC3CL3                                                                          | Driver was on CTH N and ran through the stop sign - driver may have fallen asleep |             |             |       |              |                      |         |                  |         |          |               |              |              |              |              |              |     |      |        |        |         |         |         |          |          |         |         |     |         |            |      |                 |   |   |    |   |    |          |         |            |                         |                          |                             |                         |                  |                      |                  |                     |             |
|                        |           |             | Investigation flag: Remove flag since no crash trend or pattern at intersection. |                                                                                   |             |             |       |              |                      |         |                  |         |          |               |              |              |              |              |              |     |      |        |        |         |         |         |          |          |         |         |     |         |            |      |                 |   |   |    |   |    |          |         |            |                         |                          |                             |                         |                  |                      |                  |                     |             |
|                        |           | 13505       | Delta-Drummond Road                                                              |                                                                                   |             |             |       |              |                      |         |                  |         |          |               |              |              |              |              |              |     |      |        |        |         |         |         |          |          |         |         |     |         |            |      |                 |   |   |    |   |    |          |         |            |                         |                          |                             |                         |                  |                      |                  |                     |             |
|                        |           |             | DPC2MCC                                                                          | Driver was inattentive and ran through stop sign and hit guardrail                |             |             |       |              |                      |         |                  |         |          |               |              |              |              |              |              |     |      |        |        |         |         |         |          |          |         |         |     |         |            |      |                 |   |   |    |   |    |          |         |            |                         |                          |                             |                         |                  |                      |                  |                     |             |
|                        |           |             | DPD2862                                                                          | Driver was making a left-turn into private drive and was rear-ended.              |             |             |       |              |                      |         |                  |         |          |               |              |              |              |              |              |     |      |        |        |         |         |         |          |          |         |         |     |         |            |      |                 |   |   |    |   |    |          |         |            |                         |                          |                             |                         |                  |                      |                  |                     |             |
|                        |           |             | Investigation flag: Remove flag since no crash trend or pattern at intersection. |                                                                                   |             |             |       |              |                      |         |                  |         |          |               |              |              |              |              |              |     |      |        |        |         |         |         |          |          |         |         |     |         |            |      |                 |   |   |    |   |    |          |         |            |                         |                          |                             |                         |                  |                      |                  |                     |             |
|                        |           | 13506       | DPC6BFJ                                                                          | Driver ran off road and overturned on icy pavement - type C injury                |             |             |       |              |                      |         |                  |         |          |               |              |              |              |              |              |     |      |        |        |         |         |         |          |          |         |         |     |         |            |      |                 |   |   |    |   |    |          |         |            |                         |                          |                             |                         |                  |                      |                  |                     |             |
|                        |           |             | DPC72NP                                                                          | Motorcycle didn't negotiate the curve and ran off road - type A injury            |             |             |       |              |                      |         |                  |         |          |               |              |              |              |              |              |     |      |        |        |         |         |         |          |          |         |         |     |         |            |      |                 |   |   |    |   |    |          |         |            |                         |                          |                             |                         |                  |                      |                  |                     |             |

| 1560-07-01 Meta Mobility |            |       |        |             |             |          |              |            |        |             |                |         |         |          |          |          |          |         |          |         |          |         |         |          |          |          |       |        |         |          |        |         |           |          |         |         |         |         |           |         |         |           |          |         |            |  |  |  |  |  |  |  |  |  |  |
|--------------------------|------------|-------|--------|-------------|-------------|----------|--------------|------------|--------|-------------|----------------|---------|---------|----------|----------|----------|----------|---------|----------|---------|----------|---------|---------|----------|----------|----------|-------|--------|---------|----------|--------|---------|-----------|----------|---------|---------|---------|---------|-----------|---------|---------|-----------|----------|---------|------------|--|--|--|--|--|--|--|--|--|--|
| RPT_ID                   | RPT_SEQ_ID | RECNO | HCKEY  | FOS_PROJ_ID | PDP_FIRM    | PDP_MILE | PDP_TO       | ASLTNTS_NW | DIVAND | HAWBOIR     | PRPOR_GRP_DESC | OVSFR_1 | OVSFR_5 | OVSFR_10 | OVSFR_15 | OVSFR_20 | SLOSHOLD | LOI_M_H | LOI_M_LO | TGR_M_H | TGR_M_LO | AADTR_1 | AADTR_5 | AADTR_10 | AADTR_15 | AADTR_20 | KVR_1 | KVR_20 | KNOWR_1 | KNOWR_20 | FACTOR | HCHTYPE | 2_PDSPEED | NUMLANES | TRWAYWD | LSTHTWD | RSHOTWD | TERRAIN | ACTYELLOW | ACCESSM | RSHITYP | UBRCCLASS | SIGDENSE | LTURNIN | DRVE_STEID |  |  |  |  |  |  |  |  |  |  |
| 13504                    | 85550      | 10043 | 4521   | 15600770    | 063N191001  | 0.13     | CTH N        | U          | 063N   | DRUMMOND-US | 2.69           | 2.70    | 2.72    | 2.72     | 2.73     | 4.00     | 00       |         |          |         |          | 22      | 2260    | 2310     | 2350     | 2390     | 14.3  | 12.0   | 17.6    | 17.6     | 6      | TWO     | 55        | 2        | 24      | 8       | 9       | LEVEL   | 100       | 7       | 3       | 0         | 040357   |         |            |  |  |  |  |  |  |  |  |  |  |
| 13505                    | 85550      | 10044 | 452122 | 15600770    | 063N191013  | 0.28     | DELTA-DRUMM  | U          | 063N   | DRUMMOND-US | 2.69           | 2.69    | 2.70    | 2.71     | 2.73     | 4.00     | 00       | P2      | P2       |         |          | 2270    | 2330    | 2350     | 2390     | 2440     | 14.8  | 14.7   | 13.5    | 13.5     | 58     | 6       | TWO       | 55       | 2       | 24      | 8       | 9       | LEVEL     | 100     | 7       | 3         | 0        | 040358  |            |  |  |  |  |  |  |  |  |  |  |
| 13506                    | 85550      | 8666  | 452122 | 15600770    | 063N192G000 | 1.12     | N LK OWEN DR | U          | 063N   | DRUMMOND-US | 2.87           | 2.91    | 3.01    | 3.05     | 3.09     | 4.00     | 00       | P2      | P2       |         |          | 2400    | 2500    | 2620     | 2730     | 2840     | 12.3  | 12.0   | 12.1    | 12.1     | 56     | 4       | TWO       | 55       | 2       | 24      | 8       | 9       | LEVEL     | 69      | 1       | 3         | 0        | 040218  |            |  |  |  |  |  |  |  |  |  |  |
| 13507                    | 85560      | 8666  | 452122 | 15600770    | 063N192K000 | 1.11     | OLD G S N    | U          | 063N   | DRUMMOND-US | 2.87           | 2.91    | 3.01    | 3.05     | 3.09     | 4.00     | 00       | P2      | P2       |         |          | 2400    | 2500    | 2620     | 2730     | 2840     | 12.3  | 12.0   | 12.1    | 12.1     | 56     | 4       | TWO       | 55       | 2       | 24      | 8       | 9       | LEVEL     | 69      | 1       | 3         | 0        | 040218  |            |  |  |  |  |  |  |  |  |  |  |
| 13508                    | 85570      | 8666  | 452122 | 15600770    | 063N194004  | 1.06     | BURGESS RD   | U          | 063N   | DRUMMOND-US | 2.87           | 2.91    | 3.01    | 3.05     | 3.09     | 4.00     | 00       | P2      | P2       |         |          | 2400    | 2500    | 2620     | 2730     | 2840     | 12.3  | 12.0   | 12.1    | 12.1     | 56     | 4       | TWO       | 55       | 2       | 24      | 8       | 9       | LEVEL     | 69      | 1       | 3         | 0        | 040218  |            |  |  |  |  |  |  |  |  |  |  |
| 13509                    | 85580      | 8666  | 452122 | 15600770    | 063N194M057 | 0.98     |              | U          | 063N   | DRUMMOND-US | 2.87           | 2.91    | 3.01    | 3.05     | 3.09     | 4.00     | 00       | P2      | P2       |         |          | 2400    | 2500    | 2620     | 2730     | 2840     | 12.3  | 12.0   | 12.1    | 12.1     | 56     | 4       | TWO       | 55       | 2       | 24      | 8       | 9       | LEVEL     | 69      | 1       | 3         | 0        | 040218  |            |  |  |  |  |  |  |  |  |  |  |
| 13510                    | 85590      | 8666  | 452122 | 15600770    | 063N196000  | 1.27     | S SWEDEN DR  | U          | 063N   | DRUMMOND-US | 2.87           | 2.91    | 3.01    | 3.05     | 3.09     | 4.00     | 00       | P2      | P2       |         |          | 2400    | 2500    | 2620     | 2730     | 2840     | 12.3  | 12.0   | 12.1    | 12.1     | 56     | 4       | TWO       | 55       | 2       | 24      | 8       | 9       | LEVEL     | 69      | 1       | 3         | 0        | 040218  |            |  |  |  |  |  |  |  |  |  |  |
| 13511                    | 85600      | 8666  | 452122 | 15600770    | 063N196127  | 1.08     |              | U          | 063N   | DRUMMOND-US | 2.87           | 2.91    | 3.01    | 3.05     | 3.09     | 4.00     | 00       | P2      | P2       |         |          | 2400    | 2500    | 2620     | 2730     | 2840     | 12.3  | 12.0   | 12.1    | 12.1     | 56     | 4       | TWO       | 55       | 2       | 24      | 8       | 9       | LEVEL     | 69      | 1       | 3         | 0        | 040218  |            |  |  |  |  |  |  |  |  |  |  |
| 13512                    | 85610      | 8666  | 452122 | 15600770    | 063N196235  | 0.93     |              | U          | 063N   | DRUMMOND-US | 2.87           | 2.91    | 3.01    | 3.05     | 3.09     | 4.00     | 00       | P2      | P2       |         |          | 2400    | 2500    | 2620     | 2730     | 2840     | 12.3  | 12.0   | 12.1    | 12.1     | 56     | 4       | TWO       | 55       | 2       | 24      | 8       | 9       | LEVEL     | 69      | 1       | 3         | 0        | 040218  |            |  |  |  |  |  |  |  |  |  |  |
| 13513                    | 85620      | 8666  | 452122 | 15600770    | 063N199000  | 0.29     |              | U          | 063N   | DRUMMOND-US | 2.87           | 2.91    | 3.01    | 3.05     | 3.09     | 4.00     | 00       | P2      | P2       |         |          | 2400    | 2500    | 2620     | 2730     | 2840     | 12.3  | 12.0   | 12.1    | 12.1     | 56     | 4       | TWO       | 55       | 2       | 24      | 8       | 9       | LEVEL     | 69      | 1       | 3         | 0        | 040218  |            |  |  |  |  |  |  |  |  |  |  |
| 13514                    | 85630      | 10045 | 452122 | 15600770    | 063N200000  | 1.38     | CTH D        | U          | 063N   | DRUMMOND-US | 3.10           | 3.11    | 3.14    | 3.16     | 3.18     | 4.00     | 00       |         |          |         |          | 2480    | 2520    | 2570     | 2620     | 2670     | 14.6  | 14.5   | 13.5    | 13.5     | 58     | 6       | TWO       | 55       | 2       | 24      | 8       | 8       | LEVEL     | 51      | 4       | 3         | 0        | 040353  |            |  |  |  |  |  |  |  |  |  |  |
| 13515                    | 85630      | 10046 | 452122 | 15600770    | 063N202000  | 1.49     | DYBEDAL RD   | U          | 063N   | DRUMMOND-US | 2.33           | 2.34    | 2.36    | 2.49     | 2.51     | 4.00     | 00       |         |          |         |          | 2250    | 2280    | 2330     | 2370     | 2420     | 14.8  | 14.7   | 13.5    | 13.5     | 58     | 6       | TWO       | 55       | 2       | 24      | 8       | 8       | LEVEL     | 19      | 1       | 3         | 0        | 040352  |            |  |  |  |  |  |  |  |  |  |  |
| 13516                    | 85640      | 10046 | 452123 | 15600770    | 063N202149  | 0.98     |              | U          | 063N   | DRUMMOND-US | 2.33           | 2.34    | 2.36    | 2.49     | 2.51     | 4.00     | 00       |         |          |         |          | 2250    | 2280    | 2330     | 2370     | 2420     | 14.8  | 14.7   | 13.5    | 13.5     | 58     | 6       | TWO       | 55       | 2       | 24      | 8       | 8       | LEVEL     | 19      | 1       | 3         | 0        | 040352  |            |  |  |  |  |  |  |  |  |  |  |
| 13517                    | 85650      | 10046 | 452123 | 15600770    | 063N202247  | 0.96     |              | U          | 063N   | DRUMMOND-US | 2.33           | 2.34    | 2.36    | 2.49     | 2.51     | 4.00     | 00       |         |          |         |          | 2250    | 2280    | 2330     | 2370     | 2420     | 14.8  | 14.7   | 13.5    | 13.5     | 58     | 6       | TWO       | 55       | 2       | 24      | 8       | 8       | LEVEL     | 19      | 1       | 3         | 0        | 040352  |            |  |  |  |  |  |  |  |  |  |  |

[illegible]

Safety Screening Analysis (SSA) Worksheet

|                      |                |
|----------------------|----------------|
| Project ID:          | 1560-07-01     |
| Highway:             | USH 63         |
| Project Limits:      | CTH N to CTH E |
| Project Description: | Resurface      |
| Design Year:         | 2040           |

|             |        |             |                   |             |                          |                                               |                                               |                                                                     |                                                         |                                                                                         | Conduct Manual Safety Analysis (Man-SA) to validate MetaManager Safety Analysis (Meta-SA) |                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                          |
|-------------|--------|-------------|-------------------|-------------|--------------------------|-----------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| source      |        |             | (from STN Log)    |             | PDP_Mile* in MetaManager | RATEFLAG* in MetaManager                      | MMGR_KAB_CRSH_RT* in MetaManager              | RORFLAG* or 'INTFLAG' or 'CRSHSPOT' or 'MMGR_DRV_FL' in MetaManager |                                                         | (pull from col. 19 in SS-CC worksheet)                                                  | (pull from col. 8 in SS-CC worksheet)                                                     |                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      | Col. 20 of the Design Criteria Evaluation worksheet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                          |
| destination |        |             |                   |             |                          |                                               |                                               |                                                                     |                                                         |                                                                                         |                                                                                           |                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                          |
| notes       |        |             |                   |             |                          | (Insert value if≥ 1.0, otherwise leave blank) | (Insert value if≥ 1.0, otherwise leave blank) | (Insert column name and value(s) if ≥ 1.0, otherwise leave blank)   | Yes = Crash Rate Flag or KAB Crash Rate Flag ≥ 1.0      | SS-CC = Sub-Standard Controlling Criteria                                               |                                                                                           | Using engineering judgement, validate the crashes that produced the Investigation Flag. If additional crashes are identified or if crashes were identified to be removed, explain why in column 13. | Identify the most likely cause(s) of the crashes including roadway, human and vehicle factors. If crashes were added or removed, explain why. This information should include a justification for how it was determined whether the existing SS-CC contributed to the Investigation Flag. | Yes if improving the eligible SS-CC would help to reduce the frequency or severity of the crashes that generated the IF<br><br>No if improving the eligible SS-CC would NOT help to reduce the frequency or severity of the crashes that generated the IF<br><br>NA (not applicable) if there is no eligible SS-CC in the roadway segment (i.e., col. (10) = No | Yes = PES Applies<br>* if col. (14) = No<br>* OR, if there is an eligible SS-CC but there is no IF<br><br>No = PES does not Apply<br>* if col. (14) = Yes<br><br>NA (not applicable)<br>* if there is no eligible SS-CC in the roadway segment (i.e., col. (10) = No | Yes<br>* if there is no eligible SS-CC and no countermeasures have been employed to address the causes of the IF<br>* OR,if a PES Applies and no countermeasures have been employed to address the causes of the IF<br>* OR, if a PES does not Apply and improving the SS-CC is not sufficient to address the causes of the crashes<br><br>No<br>* if there is no IF<br>* OR, if a PES Applies and other countermeasures have been employed to address the causes of the IF<br>* OR, if a PES does not apply and improving the SS-CC is a sufficient countermeasure | What are proposed countermeasures for IF?<br><br>Consider countermeasures such as geometric improvements, education, enforcement, other low-cost safety treatments, etc., either singly or in combination<br><br>Explain if Existing Dimension in col. (14) of Design Criteria Evaluation Worksheet needs to be improved |
| col. No.    | (1)    | (2)         | (3)               | (4)         | (5)                      | (6)                                           | (7)                                           | (8)                                                                 | (9)                                                     | (10)                                                                                    | (11)                                                                                      | (12)                                                                                                                                                                                                | (13)                                                                                                                                                                                                                                                                                      | (14)                                                                                                                                                                                                                                                                                                                                                            | (15)                                                                                                                                                                                                                                                                 | (16)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | (17)                                                                                                                                                                                                                                                                                                                     |
| Heading:    | PDP ID | From RP     | RP Description    | To RP       | Length                   | Crash Rate Flag                               | KAB Crash Rate Flag                           | Possible Contributing Factors identified in MetaManager             | Did MetaManager generate Investigation Flag? (Yes / No) | Are there existing SS-CC in the roadway segment that are eligible for a PES? (Yes / No) | Which SS-CC Exist?                                                                        | If Crash Rate Flag or KAB Crash Rate Flag ≥ 1.0, was the flag verified? (Yes / No / N/A)                                                                                                            | What are possible causes of the crash trend?                                                                                                                                                                                                                                              | Does the existing eligible SS-CC contribute to the Investigation Flag (i.e. crashes)? (Yes / No / N/A)                                                                                                                                                                                                                                                          | Does PES Apply for eligible SS-CC? (Yes / No / N/A)                                                                                                                                                                                                                  | Does roadway segment contain un-addressed Investigation Flags? (Yes / No)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Proposed Recommendation from SSA                                                                                                                                                                                                                                                                                         |
|             | 13504  | 063N191 000 | CTH N             | 063N191 013 | 0.13                     | 1.96                                          |                                               | Int. Flag = 1.53; Driver Flag = 1.0                                 | Yes                                                     |                                                                                         |                                                                                           | Yes                                                                                                                                                                                                 | Weather & human factors (falling asleep behind the wheel)                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proceed with 3R Project                                                                                                                                                                                                                                                                                                  |
|             | 13505  | 063N191 013 | DELTA-DRUMMOND RD | 063N192G000 | 0.28                     | 1.12                                          |                                               |                                                                     | Yes                                                     |                                                                                         |                                                                                           | Yes                                                                                                                                                                                                 | Inattentive driving                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proceed with 3R Project                                                                                                                                                                                                                                                                                                  |
|             | 13506  | 063N192G000 | N LK OWEN DR      | 063N192K000 | 1.12                     | 1.10                                          |                                               | ROR Flag = 1.49                                                     | Yes                                                     |                                                                                         |                                                                                           | Yes                                                                                                                                                                                                 | weather related & equipment malfunction crashes                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proceed with 3R Project                                                                                                                                                                                                                                                                                                  |
|             | 13507  | 063N192K000 | OLD 63 N          | 063N194 000 | 1.11                     |                                               |                                               |                                                                     |                                                         |                                                                                         |                                                                                           | N/A                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proceed with 3R Project                                                                                                                                                                                                                                                                                                  |
|             | 13508  | 063N194 000 | BURGESSON RD      | 063N194M057 | 1.06                     |                                               | 1.21                                          |                                                                     | Yes                                                     |                                                                                         |                                                                                           | Yes                                                                                                                                                                                                 | Human factors (fell asleep - 2 crashes), swerve to avoid deer, and possible vehicle malfunction.                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proceed with 3R Project                                                                                                                                                                                                                                                                                                  |
|             | 13509  | 063N194M057 |                   | 063N196 000 | 0.98                     |                                               |                                               |                                                                     |                                                         |                                                                                         |                                                                                           | N/A                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proceed with 3R Project                                                                                                                                                                                                                                                                                                  |
|             | 13510  | 063N196 000 | S SWEDEN DR       | 063N196 127 | 1.27                     |                                               |                                               |                                                                     |                                                         |                                                                                         |                                                                                           | N/A                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proceed with 3R Project                                                                                                                                                                                                                                                                                                  |
|             | 13511  | 063N196 127 |                   | 063N196 235 | 1.08                     |                                               |                                               |                                                                     |                                                         |                                                                                         |                                                                                           | N/A                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proceed with 3R Project                                                                                                                                                                                                                                                                                                  |
|             | 13512  | 063N196 235 |                   | 063N199 000 | 0.93                     |                                               |                                               |                                                                     |                                                         |                                                                                         |                                                                                           | N/A                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proceed with 3R Project                                                                                                                                                                                                                                                                                                  |
|             | 13513  | 063N199 000 |                   | 063N200 000 | 0.29                     |                                               |                                               |                                                                     |                                                         |                                                                                         |                                                                                           | N/A                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proceed with 3R Project                                                                                                                                                                                                                                                                                                  |
|             | 13514  | 063N200 000 | CTH D             | 063N202 000 | 1.38                     | 1.03                                          |                                               | Driver Flag = 1.0                                                   |                                                         |                                                                                         |                                                                                           | Yes                                                                                                                                                                                                 | Two crashes involved animals, one weather related, one rear-end and two run off road crashes.                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proceed with 3R Project                                                                                                                                                                                                                                                                                                  |
|             | 13515  | 063N202 000 | DYBEDAL RD        | 063N202 149 | 1.49                     |                                               |                                               | ROR Flag = 1.16; Crash Spot; Driver Flag = 1.0                      | Yes                                                     |                                                                                         |                                                                                           | N/A                                                                                                                                                                                                 | Two crashes were weather related, one driver fell asleep and two run off road crashes.                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proceed with 3R Project                                                                                                                                                                                                                                                                                                  |
|             | 13516  | 063N202 149 |                   | 063N202 247 | 0.98                     |                                               |                                               |                                                                     |                                                         |                                                                                         |                                                                                           | N/A                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proceed with 3R Project                                                                                                                                                                                                                                                                                                  |
|             | 13517  | 063N202 247 |                   | 063N204R000 | 0.96                     |                                               |                                               | Crash Spot = 1.0                                                    |                                                         |                                                                                         |                                                                                           | N/A                                                                                                                                                                                                 | Weather relates & one crash involved driver swerving to avoid a deer.                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proceed with 3R Project                                                                                                                                                                                                                                                                                                  |

# Segment Crash Rate Worksheet

6/4/2018

## Segment Crash Rate Worksheet

Project ID: 1560-07-01

County Bayfield

Town of Drummond & Grandview

Highway: USH 63

Location: CTH N to CTH E

Crash Data (Year - Year): 2012-2016

Number of Years (n): → 5

Total Number of Crashes: → 43

Total Number of FAT Crashes: 1 2.3%

Total Number of INJ A Crashes: 3 7.0%

Total Number of INJ B Crashes: 3 7.0%

Total Number of INJ C Crashes: 4 9.3%

Total Number of PD Crashes: 32 74.4%

Average Daily Traffic (ADT): → 2400

Segment Length (Miles): → 13.06

Average Yearly Total Crash Rate: → 75.171

(total crashes/n) \* 100000000 / (adt \* 365 \* length)

Average Yearly Fatal Crash Rate: → 1.748

(FAT crashes/n) \* 100000000 / (adt \* 365 \* length)

Average Yearly Type A Crash Rate: → 5.244

(INJ A crashes/n) \* 100000000 / (adt \* 365 \* length)

Average Yearly Type B Crash Rate: → 5.244

(INJ B crashes/n) \* 100000000 / (adt \* 365 \* length)

Average Yearly Type C Crash Rate: → 6.993

(INJ C crashes/n) \* 100000000 / (adt \* 365 \* length)

Average Yearly PD Crash Rate: → 55.941

(PD crashes/n) \* 100000000 / (adt \* 365 \* length)

Rate unit is # of crashes/100 million vehicle miles

State Avg.

75.77