

SCALE HOR, 1 MILE VER. 1 MILE

LEGEND BITUMINOUS - U.S.
BITUMINOUS - STATE
BITUMINOUS - C.S.A.H.
BITUMINOUS - C.H.
GRAVEL - COUNTY
GRAVEL - TOWNSHIP

75 U.S. 23 STATE (16) C.S.A.H. (79) C.H.

15151

23

BIST ST

26

35

(3)

21ST ST

36

RQ(

24

25

12

13

24

76TH ST

ATPIKLD

0 (2) 12 (16) 7

(C.S.A.H. 18)

63)

0 63 29

#### MINNESOTA DEPARTMENT OF TRANSPORTATION

PROJECT NO. S.P. 059-618-040 MINN, PROJ. NO. STBG 5925(127)

CONSTRUCTION PLAN FOR PLANT MIXED BITUMINOUS WEARING COURSE MILL BIT, SURFACE AND AGGREGATE SHOULDERS

### COUNTY STATE AID HIGHWAY 18

| BETWEEN_CSAH_1         | AND CSAH 8                  |
|------------------------|-----------------------------|
| FROM THE CENTER OF SEC | TIDN 27-105-44              |
| TD THE NE CORNER DF    | SECTION 10-107-44           |
| FROM: EDGERTON TO: _   | 5.789 MILES N. OF WOODSTOCK |

GROSS LENGTH \_\_\_ <u>83818.10</u> FEET <u>15.875</u> MILES BRIDGES LENGTH \_\_\_\_\_ FEET \_\_\_\_\_ MILES EXCEPTIONS LENGTH \_\_\_\_\_ FEET \_\_\_\_\_ MILES NET LENGTH 83818,10 FEET 15,875 MILES

MUNICIPAL = STA, 587+17.7 TO STA, 626+77

#### INDEX OF SHEETS

SHEET NO. 1 TITLE SHEET AND LAYOUT MAP SHEET NO. 2 ESTIMATED QUANTITIES SHEET ND. 3, 4 & 5 TYPICAL SECTIONS SHEET NO. 6 DETAILS SHEET NO. 7, 8, 9 TRAFFIC CONTROL

THIS PLAN CONTAINS 9 SHEETS

#### END S.P. 059-618-040 STA, 918+47,90 REF, PT, 17+00,391

80+29.8 TO 106+48.5 GRADED UNDER SAP 59-618-01 (1963) 108+39 TO 547+30.3 GRADED AND SURFACED UNDER SAP 59-618-04 (1977) 547+30.3 TO 612+78 GRADED AND SURFACED UNDER SAP 59-618-03 (1976) 612+78 TO 918+47.9 GRADED AND SURFACED UNDER SAP 59-618-05 (1979)

80+29.8 TO 106+48.5 SURFACED UNDER SAP 59-618-09 (1988) AND SAP 59-618-26 (2006) 108+39 TO 388+60.8 SURFACED UNDER SAP 59-618-13 (1990) AND SAP 59-618-26 (2006) 388+60.8 TO 612+78 SURFACED UNDER SAP 59-618-14 (1991) AND SAP 59-618-26 (2006) 612+78 TO 918+47.9 SURFACED UNDER SAP 59-618-15 (1992) AND SAP 59-618-25 (2006)

> BEGIN S.P. 059-618-040 STA, 80+29,80 REF, PT, 1+00,516

ПΝ

SHEET NO. 1 DF 9

| PIPESTONE | CHUNTY. | MN |
|-----------|---------|----|

| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  |
|--|
| STOPPING SIGHT DISTANCE BASED DN: 3.5' HEIGHT DF EYE 2.0' HEIGHT DF DBJECT  BFUNCTIONAL CLASSIFICATION MAJOR COLLECTOR 2 TRAFFIC LANES |
| DESIGN DESIGNATION   |
| REGULAR MUNICIPAL  |
| ADT1409(2025)  |
| ADT 2113 (2045) ADT 1343 (2045)  |
| HCADT (HEAVY COMMERCIAL) <150  |
| 7 Ton DESIGN 'R' VALUE 130 %S.F.   |
| ΣN18 FINISHED SHOULDER WIDTH 4' TO 10'   |
| PDSTED SPEED <u>55</u> MPH   |
| DESIGN SPEED NOT ACHIEVED AT   |
|  |
| GOVERNING SPECIFICATIONS   |
| THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION 'STANDARD SPECIFICATIONS FOR CONSTRUCTION' SHALL GOVERN,                |

(17) (47)

| ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH, IN THE CONSTRUCTION OF THIS PROJECT.   |
|---|
| SIGNATURE PRINTED NAME NICHOLAS G. BERGMAN  |
| DESIGN ENGINEER: I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. |
| DATE: 10/14/2024 LICENSE NUMBER:  |
| DATE: 10/14/202   |
| APPROVED PIPESTONE COUNTY ENGINEER  |
| Todd Broadwell Digitally signed by Todd Broadwell Date: 2024,11,20 10:23:58 -06'00'   |
| TOUG DIOAUVEIL Date: 2024.11.20 10:23:58 -06'00'  |
| DISTRICT STATE AID ENG, REVIEWED FOR COMPLIANCE WITH STATE-AID AND/OR FEDERAL AID RULES/POLICY  |
| Angela Murphy Date: 2025.03.13 21:11:28 -05'00' DATE:   |
| STATE AID ENGINEER, APPROVED FOR STATE AID AND/OR FEDERAL AID FUNDING   |
|   |
| MINN, PROJ. NOCOUNTY PROJ. NO   |
| STATE PROJ. NO. 059-618-040 S.A.P.  |
|   |

| ESTIMATED QUANTITIES |   |        |                    |                      |                   |
|----------------------|---|--------|--------------------|----------------------|-------------------|
| SPEC.<br>NUMBER      | ITEM                                      | UNIT   | REGULAR<br>PARTIC. | MUNICIPAL<br>PARTIC. | TOTAL<br>QUANTITY |
| 2221.509             | SHOULDER BASE AGGREGATE, CLASS 1          | TON    | 25805              | 854                  | 26659             |
| 2232.504             | MILL BITUMINOUS SURFACE (2.0")            | SQ YD  | 8496               | 4516                 | 13012             |
| 2357.506             | BITUMINDUS MATERIAL FOR TACK COAT         | GAL.   | 19557              | 1295                 | 20852             |
| 2360,509             | TYPE SP 12.5 WEARING COURSE MIXTURE (2,B) | TDN    | 26792              | 1673                 | 28465             |
| 2563.601             | TRAFFIC CONTROL                           | LS     | 0.94               | 0.06                 | 1                 |
| 2582,503             | 4" SOLID LINE PAINT                       | LIN FT | 44489              | 540                  | 45029             |
| 2582,503             | 6' SOLID LINE PAINT                       | LIN FT | 171506             | 3085                 | 174591            |
| 2582.503             | 24" SOLID LINE PAINT                      | LIN FT | 96                 | 12                   | 108               |
| 2582,503             | 4' BROKEN LINE PAINT                      | LIN FT | 15927              | 341                  | 16268             |
| 2582,503             | 4' DOUBLE SOLID LINE PAINT                | LIN FT | 6447               | 0                    | 6447              |
| 2582,518             | PAVEMENT MESSAGE PAINT                    | SQ FT  | 200                | 0                    | 200               |

## BASIS FOR PLANNED QUANTITIES

COMPACTED DENSITY AGGREGATE SHOULDERING (140 LBS. / CU. FT.) (DRY WEIGHT)

MIXTURE FOR 2" WEARING COURSE (220 LBS. / SQ. YD.)

MIXTURE FOR 1" LEVELING COURSE (110 LBS. / SQ. YD.)

BITUMINOUS MATERIAL FOR TACK COAT, EACH APPLICATION (0.08 GAL, / SQ, YD.) (EST.) UNMILLED AREAS BITUMINOUS MATERIAL FOR TACK COAT, EACH APPLICATION (0.10 GAL, / SQ, YD.) (EST.) MILLED AREAS

2 STREET INTERSECTIONS, 26 INTERSECTIONS, 48 FARM ENTRANCES, 84 FIELD ENTRANCES, 26 MAILBOX APPROACHES, 2 RIGHT LANES AND 7 LEVELING LOCATIONS

ITEM 2221,509 INCLUDES 8756 TONS FOR EXISTING 1'-2' LOW SHOULDERS

ITEM 2332,504 AREAS TO BE MILLED AS SHOWN IN THE TYPICAL SECTIONS, IN ADDITION TO 2 STREET INTERSECTIONS AND AS DIRECTED BY THE ENGINEER

ITEM 2332,504 TRANSITION TAPERS ARE TO BE PAID AS MILL BITUMINOUS SURFACE (2.0°)

ITEM 2357.506 INCLUDES 2660 GAL. FOR INTERSECTIONS, ENTRANCES, MAILBOX APPROACHES, TURN LANES AND LEVELING

ITEM 2360.509 INCLUDES 3584 TONS FOR INTERSECTIONS, ENTRANCES, MAILBOX APPROACHES, TURN LANES AND LEVELING

ITEM 2582,503 4' LINE PAINT SHALL BE YELLOW, 6' SOLID LINE PAINT SHALL BE WHITE

ITEM 2582,503 24' SOLID LINE PAINT, SHALL BE WHITE STOP BARS FOR 9 INTERSECTIONS

ITEM 2582,518 INCLUDES 4 STOP AHEAD MESSAGES AT 50 SQ, FT, EACH

LEVELING LOCATIONS: 226+03 (125×24); 270+39 (140×24); 354+27 (95×24); 365+57 (80×24); 382+00 (180×24); 467+14 (140×24) AND 678+88 (85×24)

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST MMUTCD, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE ALL TRAFFIC CONTROL DEVICES REQUIRED TO PROVIDE SAFE MOVEMENT OF VEHICULAR AND/OR PEDESTRIAN TRAFFIC PASSING THROUGH THE WORK ZONE DURING THE LIFE OF THE CONTRACT OPERATIONS TO THE FINAL COMPLETION THEREOF. THE ENGINEER WILL HAVE THE RIGHT TO MODIFY THE REQUIREMENTS FOR TRAFFIC CONTROL AS DEEMED NECESSARY DUE TO EXISTING FIELD CONDITIONS. THE COST FOR SAID SIGNAGE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR 2563.601 TRAFFIC CONTROL.

UTILITIES: GOPHER STATE ONE CALL 1-800-252-1166

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22 ENTITLED "STANDARD GUIDELINES FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES.

CONTRACTORS SHALL CONTACT PUBLIC UTILITIES PRIOR TO CONSTRUCTION, SO THAT LOCATIONS OF ALL UNDERGROUND OR ABOVE GROUND FACILITIES ARE IDENTIFIED AND RELOCATED IF NECESSARY SO AS NOT TO CONFLICT WITH CONSTRUCTION OPERATIONS.

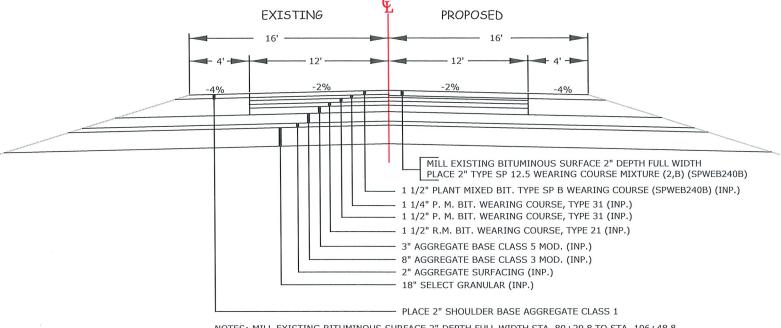
|           | STANDARD PLATES  |
|-----------|--|
| THE FOLLO | WING STANDARD PLATES AS APPROVED BY THE F.H.W.A. SHALL APPLY ON THIS PROJECT |
| PLATE NO. | DESCRIPTION  |
| 8000K     | TEMPORARY CHANNELIZERS   |

| SIGNATURE: MA    | PRINTED NAME: NICHOLAS G. BERGMAN |
|------------------|-----------------------------------|
| DATE: 10/14/7024 | LICENSE NUMBERI 50636             |

### TYPICAL SECTIONS

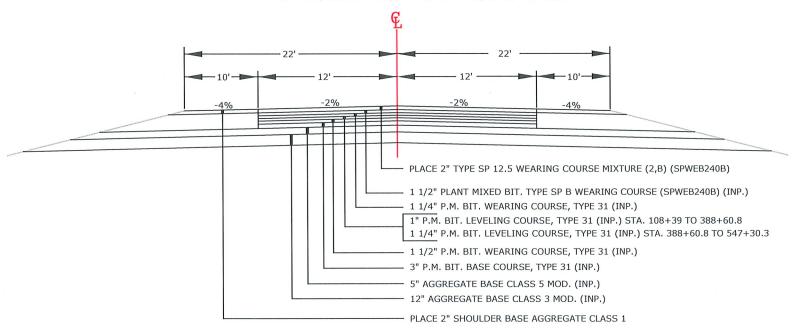
(NOT TO SCALE)

#### STA. 80+29.8 TO STA. 106+48.8



NOTES: MILL EXISTING BITUMINOUS SURFACE 2" DEPTH FULL WIDTH STA. 80+29.8 TO STA. 106+48.8 PAVE A 2' WIDE SHOULDER FROM STA. 105+50 TO STA. 105+84 (4" DEPTH 1 LIFT WITH OVERLAY) (THIS MAY REQUIRE REMOVING 2" DEPTH OF EXISTING AGGREGATE SHOULDER WHICH SHALL BE INCIDENTAL TO TYPE 12.5 WEARING COURSE MIXTURE)

#### STA. 106+48.8 TO STA. 547+30.3



NOTE: MILL EXISTING BITUMINOUS SURFACE 2" DEPTH FULL WIDTH STA. 106+48.8 TO STA. 110+40 (TAPER 2" TO 0" IN THE LAST 75')

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE:

PRINTED NAME: NICHOLAS G. BERGMAN

LICENSE NUMBER: 50636

(C.S.A.H. 18)

SHEET NO. 3 OF 9

ALL DIMENSIONS AND SLOPES ON TYPICAL SECTIONS AND DETAILS ARE APPROXIMATE. FIELD CONDITIONS MAY REQUIRE SOME VARIATION FROM THAT

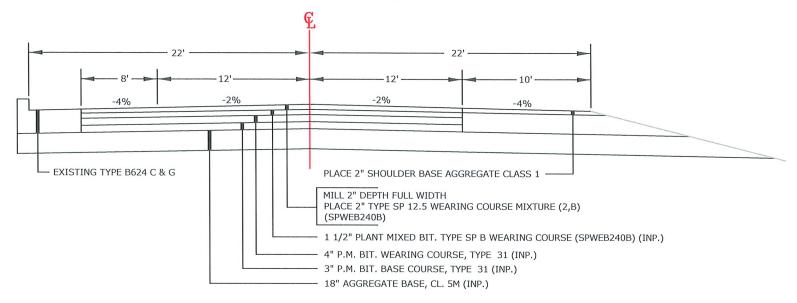
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PROJECT S.P. 059-618-040

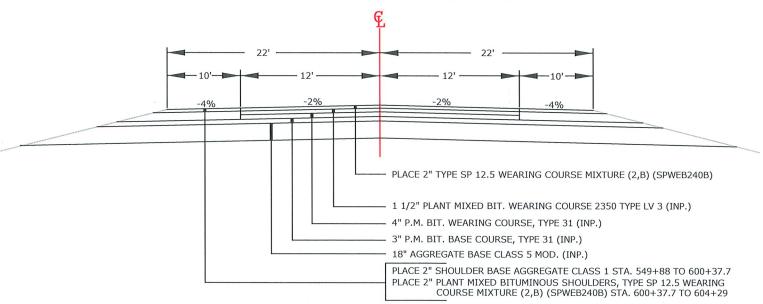
### TYPICAL SECTIONS

(NOT TO SCALE)

#### STA. 547+30.3 TO STA. 549+88



#### STA. 549+88 TO STA. 604+29



NOTES: SHOULDER SLOPES FROM STA. 600+37.7 TO 604+29 ARE -2% MILL A TAPER 2" TO 0" DEPTH STA. 549+88 TO STA. 550+38 (FULL WIDTH) TO BE PAID AS MILL BITUMINOUS SURFACE (2.0") MILL A TAPER 0" TO 2" DEPTH STA. 603+79 TO STA. 604+29 (FULL WIDTH) TO BE PAID AS MILL BITUMINOUS SURFACE (2.0")

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SIGNATURE PRINTED NAME: NICHOLAS G. BERGMAN

LICENSE NUMBER: 50636 DATE:

(C.S.A.H. 18)

SHEET NO. 4 OF 9

NOTE: ALL DIMENSIONS AND SLOPES ON TYPICAL SECTIONS AND DETAILS ARE APPROXIMATE. FIELD CONDITIONS MAY REQUIRE SOME VARIATION FROM THAT

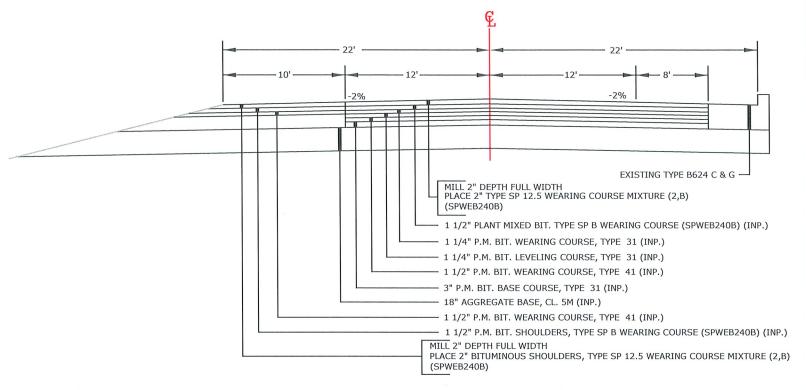
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PROJECT S.P. 059-618-040

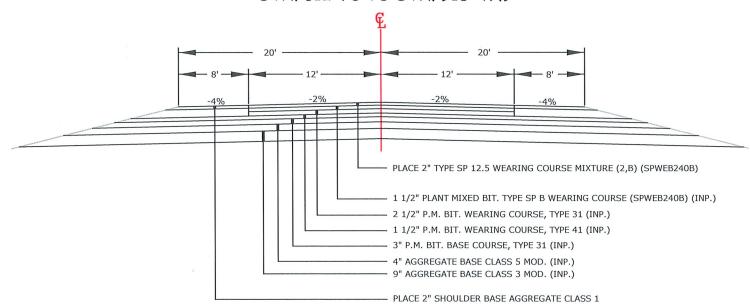
### TYPICAL SECTIONS

(NOT TO SCALE)

#### STA. 604+29 TO STA. 612+78



#### STA, 612+78 TO STA, 918+47.9



NOTES: MILL A TAPER 2" TO 0" DEPTH STA. 612+78 TO STA. 613+53 (FULL WIDTH) TO BE PAID A MILL BITUMINOUS SURFACE (2.0")
MILL A TAPER 0" TO 2" DEPTH STA. 917+97.9 TO STA. 918+47.9 (FULL WIDTH) TO BE PAID AS MILL BITUMINOUS SURFACE (2.0")

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SIGNATURE: PRINTED NAME: NICHOLAS G. BERGMAN

DATE: 10/14/7624 LICENSE NUMBER: 50636

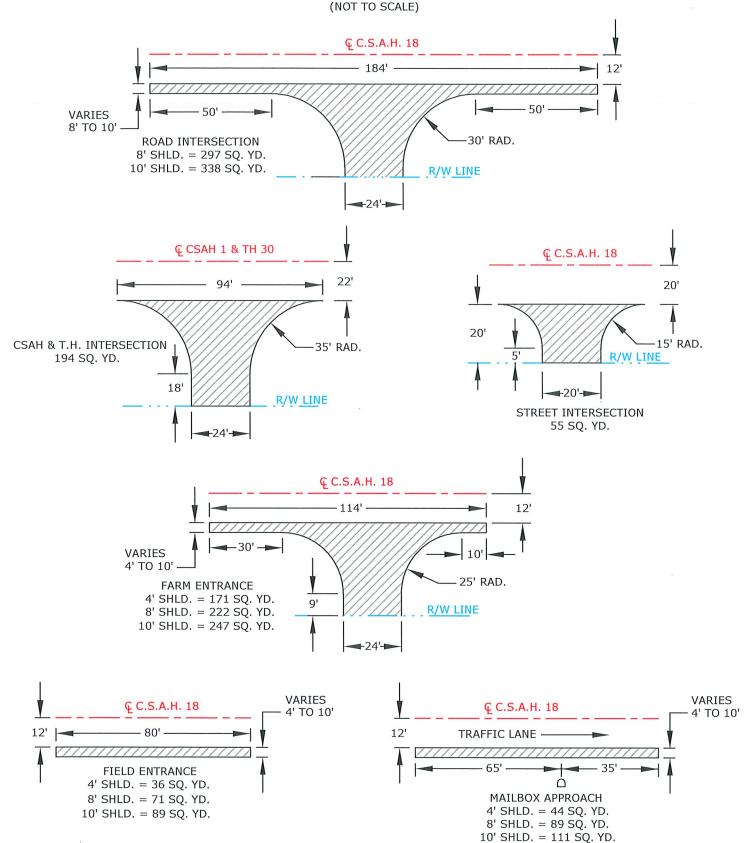
OTE: ALL DIMENSIONS AND SLOPES ON TYPICAL SECTIONS AND DETAILS ARE APPROXIMATE. FIELD CONDITIONS MAY REQUIRE SOME VARIATION FROM THAT SHOWN.

(C.S.A.H. 18)

SHEET NO. 5 OF 9

PROJECT S.P. 059-618-040

# DETAILS



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

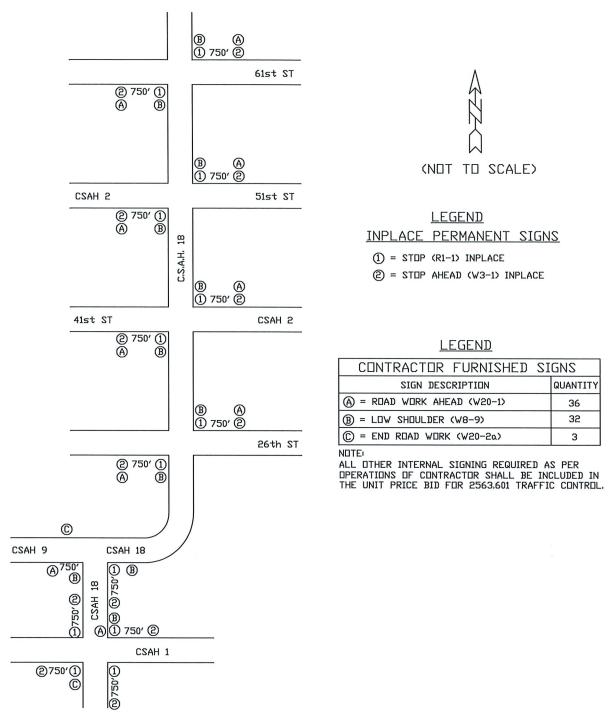
SIGNATURE: PRINTED NAME: NICHOLAS G. BERGMAN

DATE: 10/14/7074 LICENSE NUMBER: 50636

NOTE: ALL DIMENSIONS AND SLOPES ON TYPICAL SECTIONS AND DETAILS ARE APPROXIMATE. FIELD CONDITIONS MAY REQUIRE SOME VARIATION FROM THAT SHOWN.

(C.S.A.H. 18)

### TRAFFIC CONTROL FOR SP 059-618-040



NOTES

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING 'FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS'.

CONTRACTOR FURNISHED SIGNS SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR AND AS DIRECTED BY THE ENGINEER,

| SIGNATURE:       | PRINTED NAME: NICHOLAS G. BERGMAN |
|------------------|-----------------------------------|
| DATE: 10/14/2014 | LICENSE NUMBERI <u>50636</u>      |

# TRAFFIC CONTROL FOR SP 059-618-040

|         |             |                     |             | ®<br>① 750′ (A)    |                 |   |
|---------|-------------|---------------------|-------------|--------------------|-----------------|---|
|         |             |                     |             |                    | 121st ST        |   |
|         | ② 750'<br>④ | ①<br>⑧              |             | ① 300' A  ③ 300' A | 3rd AVE 2nd AVE | , A   |
|         |             | (L) 750' (R) (B)(L) |             | @<br>              |                 | LEGEND  INPLACE PERMANENT SIGNS  (1) = STOP (R1-1) INPLACE (2) = STOP AHEAD (W3-1) INPLACE  |
| TH 30   |             | ٧                   |             | <u>₩ 730 ₩</u>     | TH 30           | •   |
|         | A 750′      | B                   | m           | 750′ 🕒             |                 | LEGEND  |
|         |             | @                   | C.S.A.H. 18 | @                  |                 | CONTRACTOR FURNISHED SIGNS  SIGN DESCRIPTION  |
|         |             |                     | C.S.A       | B                  |                 | A = RDAD WORK AHEAD (W20-1)   |
|         |             |                     |             | ① 750′ (A)         |                 | B = LOW SHOULDER (W8-9)   |
|         | 0 ===:      | $\overline{}$       |             |                    | 91st ST         | © = END ROAD WORK (W8-9)  |
|         | (A) 750°    | ①<br>B              |             |                    |                 | NOTE:<br>ALL OTHER INTERNAL SIGNING REQUIRED AS PER<br>OPERATIONS OF CONTRACTOR SHALL BE INCLUDED IN<br>THE UNIT PRICE BID FOR 2563.601 TRAFFIC CONTROL |
|         |             |                     |             | B A<br>1) 750' (2) |                 |   |
|         |             |                     |             |                    | 81st ST         | ·   |
|         | ② 750′<br>⑥ | ①<br>B              |             |                    |                 |   |
|         |             |                     |             | B (A)              |                 | _   |
| 71st ST |             |                     |             |                    | CSAH 3          |   |
|         | A 750′      | ①<br>B              |             |                    |                 | -   |

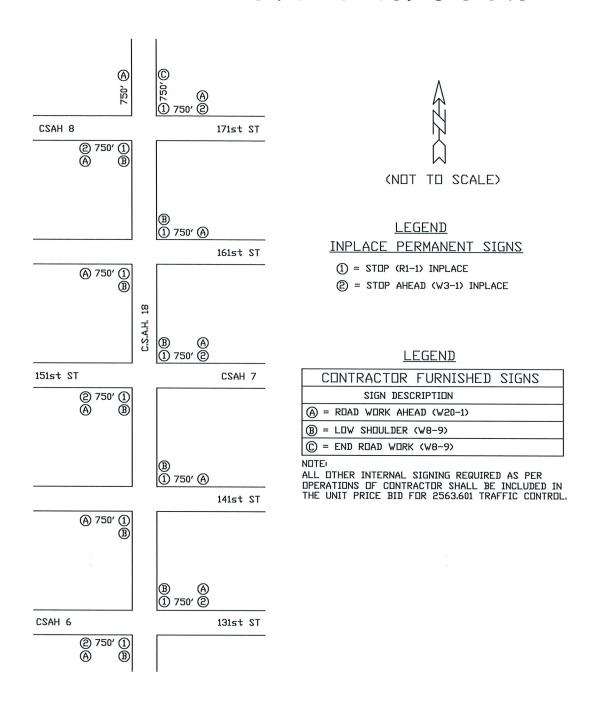
NOTES

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CONTRACTOR FURNISHED SIGNS SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR AND AS DIRECTED BY THE ENGINEER.

| SIGNATURE: MA    | PRINTED NAME: <u>NICHOLAS G. BERGMAN</u> |
|------------------|--|
| DATE: 10/14/2014 | LICENSE NUMBERI <u>50636</u>             |

# TRAFFIC CONTROL FOR SP 059-618-040



#### NOTES

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