

**MINNESOTA DEPARTMENT OF TRANSPORTATION
LINCOLN COUNTY
CONSTRUCTION PLAN FOR BITUMINOUS MILL & OVERLAY
COUNTY STATE AID HIGHWAY NO. 7**

LOCATED ON CSAH 7 BETWEEN THE INT. OF 160TH ST. AND THE INT. OF CSAH 15

(Geographic
Description)

FROM 607.44' EAST OF THE NORTH 1/4 CORNER OF SECTION 4-T109N-R44W TO 1374' EAST AND 138' NORTH OF THE NORTH 1/4 CORNER

(Legal
Description)

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THIS PLAN CONTAINS 7 SHEETS

SAP 041-607-053

GROSS LENGTH	44259.1 FT.	8.382 MI.
BRIDGES LENGTH	0.0 FT.	0.000 MI.
EXCEPTIONS LENGTH	0.0 FT.	0.000 MI.
NET LENGTH	44259.1 FT.	8.382 MI.

DESIGN DESIGNATION

(STA. 40+57.88 TO STA. 105+67.20)

Design Strength	10 TON
R-VALUE	10
ADT (2025)	533
PROJ. ADT (2045)	586
PROJ. HCADT (2045)	35 (6%)
SOIL FACTOR	100
SHOULDER WIDTH	5.0 FT.

DESIGN DESIGNATION

(STA. 105+67.20 TO STA. 418+00)

Design Strength	10 TON
R-VALUE	10 (ASSUMED)
ADT (2025)	290
PROJ. ADT (2045)	319
PROJ. HCADT (2045)	19 (6%)
SOIL FACTOR	100
SHOULDER WIDTH	2.0 FT.

DESIGN DESIGNATION

(STA. 418+00 TO STA. 459+50)

Design Strength	10 TON
R-VALUE	10 (ASSUMED)
ADT (2025)	452
PROJ. ADT (2045)	497
PROJ. HCADT (2045)	29 (6%)
SOIL FACTOR	100
SHOULDER WIDTH	2.0 FT.

DESIGN DESIGNATION

(STA. 459+50 TO STA. 483+17)

Design Strength	10 TON
R-VALUE	10 (ASSUMED)
ADT (2025)	311
PROJ. ADT (2045)	342
PROJ. HCADT (2045)	20 (6%)
SOIL FACTOR	100
SHOULDER WIDTH	10.0 FT.

OR

FUNCTIONAL CLASSIFICATION MAJOR COLLECTOR
NO. OF TRAFFIC LANES 2 NO. OF PARKING LANES 0
POSTED SPEED 55 MPH STA.
BASED ON STOPPING SIGHT DISTANCE
HEIGHT OF EYE 3.5 FT. HEIGHT OF OBJECT 2.0 FT.

SECTION 31-T111N-R44W

SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

LAST PROJECTS:

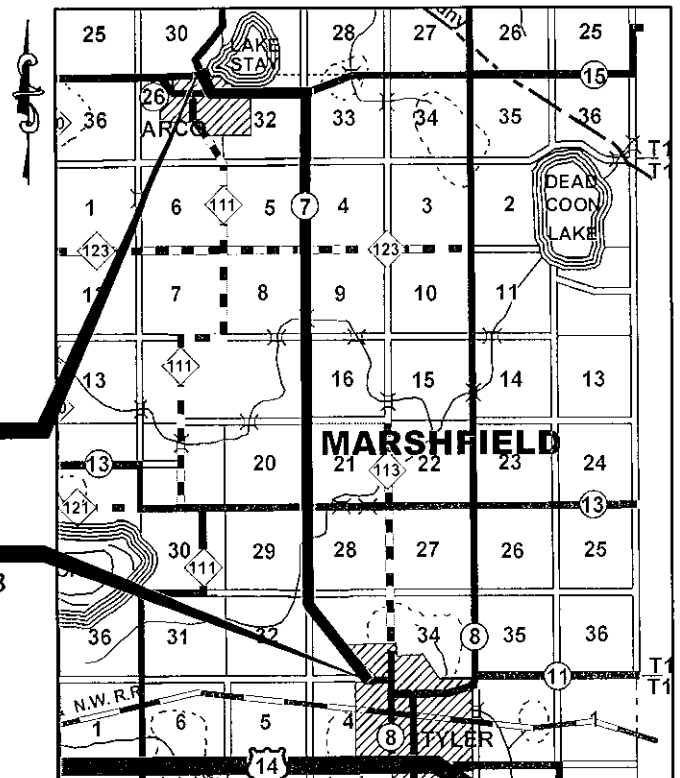
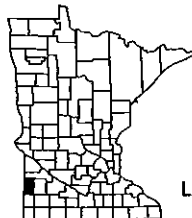
SAP 041-030-018 (MISCELLANEOUS BITUMINOUS FULL DEPTH PATCHES 2024)
SAP 041-607-050 (CULVERT REPLACEMENT 2024)
SAP 041-607-041 (GRADING, SHOULDER WIDENING, AGGREGATE BASE, AND BITUMINOUS SURFACING 2009)
SAP 041-607-29 (BITUMINOUS OVERLAY 1997)
SAP 041-607-28 (BITUMINOUS OVERLAY 1997)
SAP 041-607-25 (BITUMINOUS OVERLAY 1997)
SAP 041-607-24 (BITUMINOUS OVERLAY 1996)
CP 4902 (GRADING 1951)
CP 3903 (GRADING 1939)

SAP 041-607-053

EOP STA. 483+17

SAP 041-607-053

BOP STA. 40+57.88



SCALE: 1 MILE

LOCAL AGENCY SIGNATURES:

Signature: Joseph M. Wilson Typed or Printed Name: JOSEPH M. WILSON,
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: 3-26-25

License Number: 54947

Approved: Joseph M. Wilson 3-26-2025
Lincoln County Engineer

District State-Aid Engineer: Reviewed for Compliance with State-Aid Rules/Policy

State-Aid Engineer: Approved for State-Aid Funding

SAP NO. 041-607-053
SHEET NO. 1 OF 7 SHEETS

ESTIMATED QUANTITIES / STANDARD PLATES

NOTES	ITEM NUMBER	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES
	2016.601	QUALITY MANAGEMENT-THERMAL PROFILING	LUMP SUM	1
	2021.501	MOBILIZATION	LUMP SUM	1
1	2221.609	SHOULDER BASE AGGREGATE CLASS 1 MOD	TON	2497
2	2232.504	MILL BITUMINOUS SURFACE (1.5")	SQ YD	105845
3,4,5	2360.509	TYPE SP 12.5 WEARING COURSE MIXTURE (2,B)	TON	11988
6	2506.502	ADJUST FRAME AND RING CASTING	EACH	1
	2563.601	TRAFFIC CONTROL	LUMP SUM	1
7	2582.503	4" SOLID LINE PAINT	LIN FT	140465
8	2582.503	4" BROKEN LINE PAINT	LIN FT	5420

NOTES:

- SEE SPECIAL PROVISION 2211 FOR MODIFICATION OF THE SPECIFICATION FOR BID ITEM 2221.609
- THE CONTRACTOR SHALL MILL 24 FT. THE FULL WIDTH OF PAVEMENT AT A DEPTH OF 1.5" FROM STA. 106+00 TO STA. 459+50. MILL 44 FT. THE FULL WIDTH OF PAVEMENT AT A DEPTH OF 1.5" FROM STA. 459+50 TO STA. 483+17. MILLINGS BECOME PROPERTY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL MILL A BUTT JOINT AT THE BOP. MILLINGS BECOME PROPERTY OF THE CONTRACTOR. MILLING A BUTT JOINT SHALL BE INCLUDED IN THE BID PRICE OF TYPE SP 12.5 WEARING COARSE MIXTURE (2B).
- COUNTY FORCES WILL PREPARE THE SHOULDER FOR 2" DEEP X 2 FT. WIDE BUMP OUT ON THE INSIDE OF THE CURVE FROM STA. 406+00 TO STA. 418+00. CONTRACTOR SHALL PLACE A 2" LIFT OF BITUMINOUS ON THE PREPARED SHOULDER PRIOR THE 1.5" MAINLINE OVERLAY.
- THE CONTRACTOR SHALL REFER TO APPLICATION RATES SPECIFIED IN TABLE 2357.3-1 IN THE MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION. BITUMINOUS TACK MATERIAL SHALL BE INCLUDED IN THE BID PRICE FOR TYPE SP 12.5 WEARING COURSE MIXTURE (2,B).
- THE NEWLY PAVED SURFACE SHALL MEET REQUIREMENTS SPECIFIED IN TABLE 2360.3-5 IN THE MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION. ALL MATERIALS AND LABOR NEEDED FOR ADJUSTMENTS SHALL BE INCLUDED IN THE BID PRICE FOR ADJUST FRAME AND RING CASTING.
- QUANTITY CONTAINS 88518 LINEAR FEET OF WHITE PAINT AND 51947 LINEAR FEET OF YELLOW PAINT.
- QUANTITIES DO NOT INCLUDE 40' SKIP. 4" BROKEN LINE PAINT SHALL BE YELLOW IN COLOR.

THE FOLLOWING STANDARD PLATES APPROVED BY THE
FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS
PROJECT.

STANDARD PLATES	
PLATE NO.	DESCRIPTION
4010I	ADJUSTING RINGS FOR CATCH BASINS & MANHOLES
4108F	CONCRETE ADJUSTING RINGS
8000K	TEMPORARY CHANNELIZERS
9000E	APPROACHES AND ENTRANCES

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

CERTIFIED BY

Joseph M. Wilson
LICENSED ENGINEER

LIC. NO.

54947

DATE:

3-26-25

SAP 041-607-053

SHEET NO. 2 OF 7 SHEETS

QUANTITY TABLES

BASIS FOR PLANNED QUANTITIES

SHOULDER BASE AGGREGATE CLASS 1 MOD (CV)	140 LBS. / CUBIC FOOT (DRY WEIGHT)
TYPE SP 12.5 WEARING COURSE MIXTURE (2,B)	110 LBS. / INCH SQ. YD.

(2221) SHOULDER BASE AGGREGATE CLASS 1 MOD

STA. 40+57.88 TO STA. 105+67.20 MAINLINE	805	TON
STA. 105+67.20 TO STA. 158+48.61 MAINLINE	166	TON
STA. 158+48.61 TO STA. 399+82.54 MAINLINE	433	TON
STA. 399+82.54 TO STA. 418+00 MAINLINE	24	TON
STA. 418+00 TO STA. 459+50 MAINLINE	217	TON
2 COUNTY ROAD INTERSECTIONS @ 30 TON PER APP	60	TON
1 COUNTY PARK ROAD @ 20 TON PER APP	20	TON
11 TWP. ROAD INTERSECTIONS @ 20 TON PER APP	220	TON
56 FIELD APPROACHES @ 8 TON PER APP	448	TON
13 DRIVEWAYS @ 8 TON PER APP	104	TON

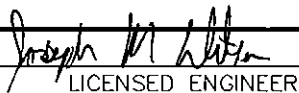
(2232) MILL BITUMINOUS SURFACE (1.5")

STA. 106+00 TO STA. 158+48.61 MILL BITUMINOUS (12' WIDE LT. & RT.)	13996	SQ YD
STA. 158+48.61 TO STA. 399+82.54 MILL BITUMINOUS (12' WIDE LT. & RT.)	64357	SQ YD
STA. 399+82.54 TO STA. 418+00 MILL BITUMINOUS (12' WIDE LT. & RT.)	4847	SQ YD
STA. 418+00 TO STA. 459+50 MILL BITUMINOUS (12' WIDE LT. & RT.)	11067	SQ YD
STA. 459+50 TO STA. 487+17 MILL BITUMINOUS (22' WIDE LT. & RT.)	11578	SQ YD

(2360) BITUMINOUS QUANTITIES

STA. 40+57.88 TO 105+67.20 MAINLINE	1432	TON
STA. 105+67.20 TO STA. 158+48.61 MAINLINE	1550	TON
STA. 158+48.61 TO STA. 399+82.54 MAINLINE	5311	TON
STA. 399+82.54 TO STA. 418+00 MAINLINE	400	TON
STA. 418+00 TO STA. 459+50 MAINLINE	1218	TON
STA. 459+50 TO 483+17 MAINLINE	955	TON
STA. 40+57.88 TO STA. 48+63.89 (RT. SIDE, 1.5" THICK @ 2 FT. CURVE BUMP OUT)	15	TON
STA. 83+81.51 TO STA. 94+66.21 (RT. SIDE, 1.5" THICK @ 2 FT. CURVE BUMP OUT)	20	TON
STA. 406+00 TO STA. 418+00 (LT. SIDE, 3.5" THICK @ 2 FT. CURVE BUMP OUT)	51	TON

CERTIFIED BY


LICENSED ENGINEER

LIC. NO. 54947

DATE: 3-26-25

SAP 041-607-053

SHEET NO. 3 OF 7 SHEETS

QUANTITY TABLES

BASIS FOR PLANNED QUANTITIES

SHOULDER BASE AGGREGATE CLASS 1 MOD (CV)	140 LBS. / CUBIC FOOT (DRY WEIGHT)
TYPE SP 12.5 WEARING COURSE MIXTURE (2,B)	110 LBS. / INCH SQ. YD.

(2360) BITUMINOUS QUANTITIES

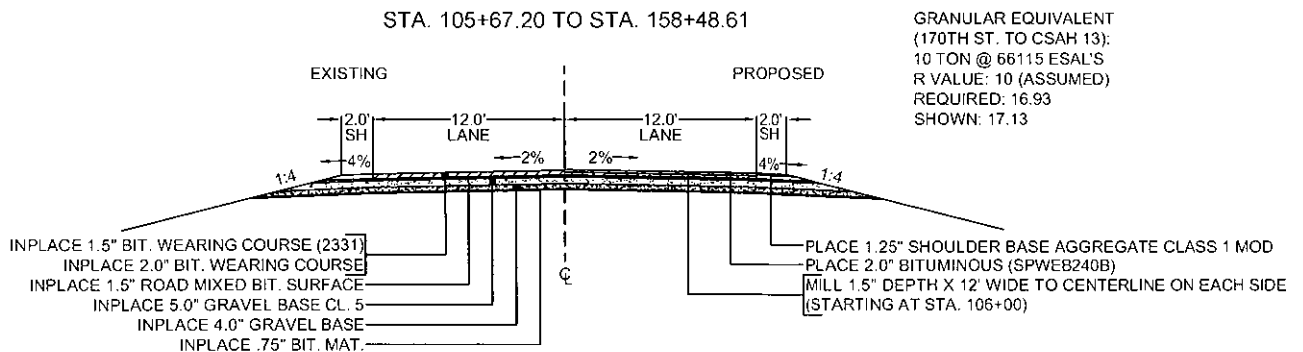
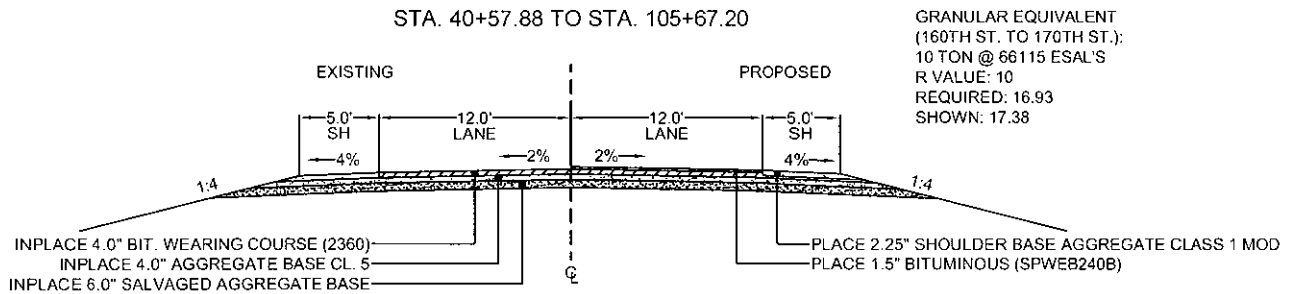
5 CSAH ROAD INTERSECTIONS @ 40 TON PER APP	200	TON
2 COUNTY ROAD INTERSECTIONS @ 40 TON PER APP	80	TON
1 COUNTY PARK ROAD INTERSECTION @ 30 TON PER APP	30	TON
11 TWP. ROAD INTERSECTIONS @ 30 TON PER APP	330	TON
13 DRIVEWAYS @ 20 TON PER APP	260	TON
1 FIELD APPROACH @ 10 TON PER APP	10	TON
56 FIELD APPROACHES @ 2 TON PER APP	112	TON
7 MAILBOXES @ 2 TON PER APP	14	TON

(2506) ADJUST FRAME AND RING CASTING

MANHOLE - STA. 482+12.51 @ 72.88 FT. LT.	1	EACH
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TYPICAL SECTIONS

NO SCALE



CERTIFIED BY

Joseph M. Wilson
LICENSED ENGINEER

LIC. NO.

54947

DATE:

3-26-25

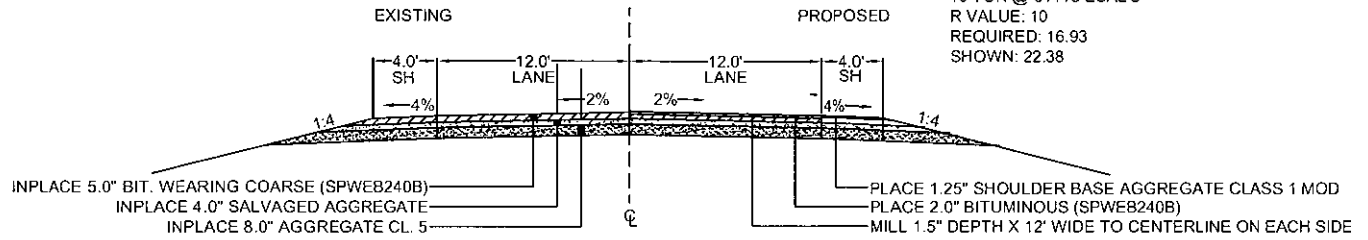
SAP 041-607-053

SHEET NO. 4 OF 7 SHEETS

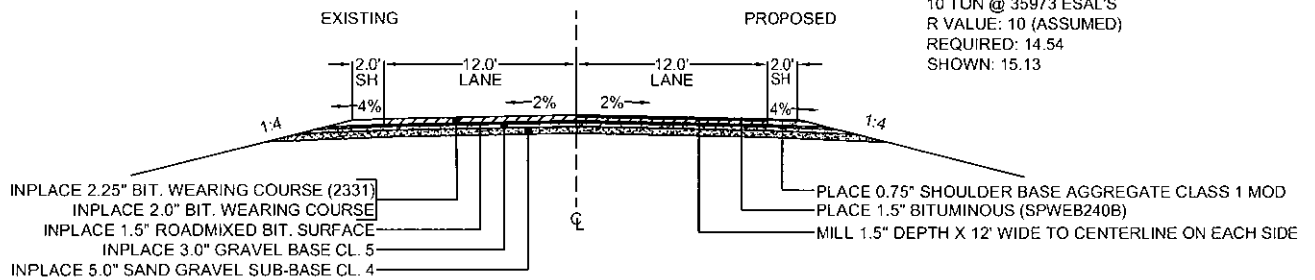
TYPICAL SECTIONS

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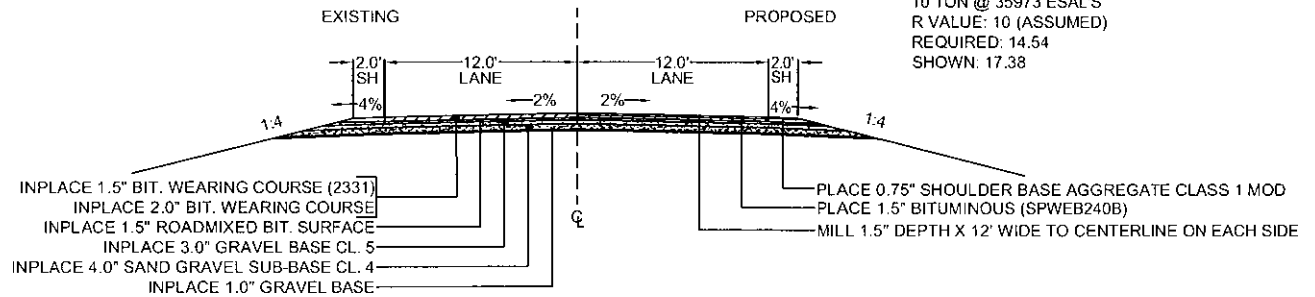
CULVERT STATIONS 118+22, 133+57, 146+69 & 154+19



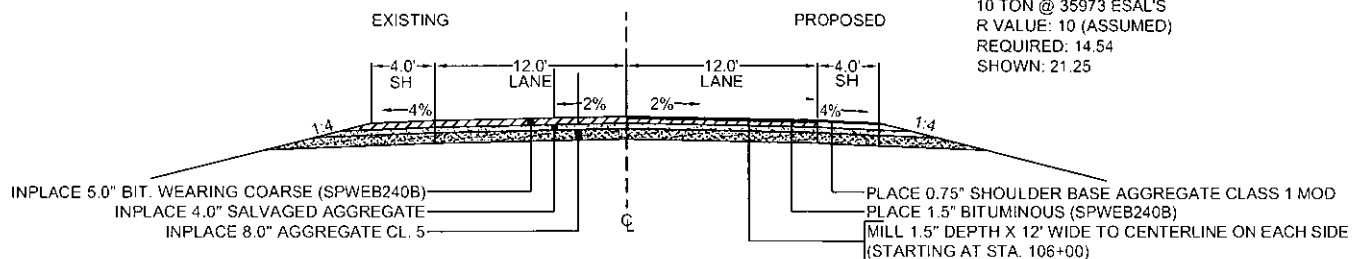
STA. 158+48.61 TO STA. 399+82.54



STA. 399+82.54 TO STA. 418+00



CULVERT STATIONS 162+85, 223+63, 237+55, 251+37, 320+82, 337+21, 353+96, 365+95, 390+22, 401+84, 412+00



CERTIFIED BY

Joseph M. Latta
LICENSED ENGINEER

LIC. NO.

54947

DATE:

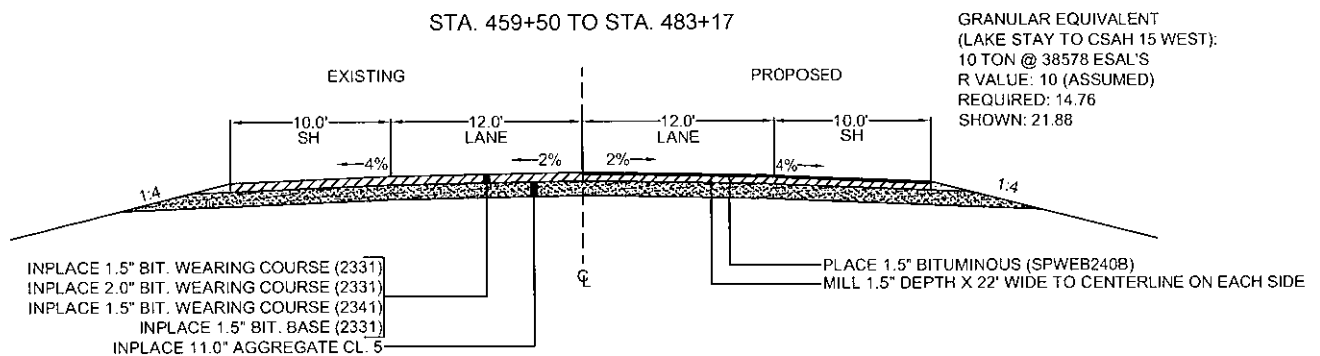
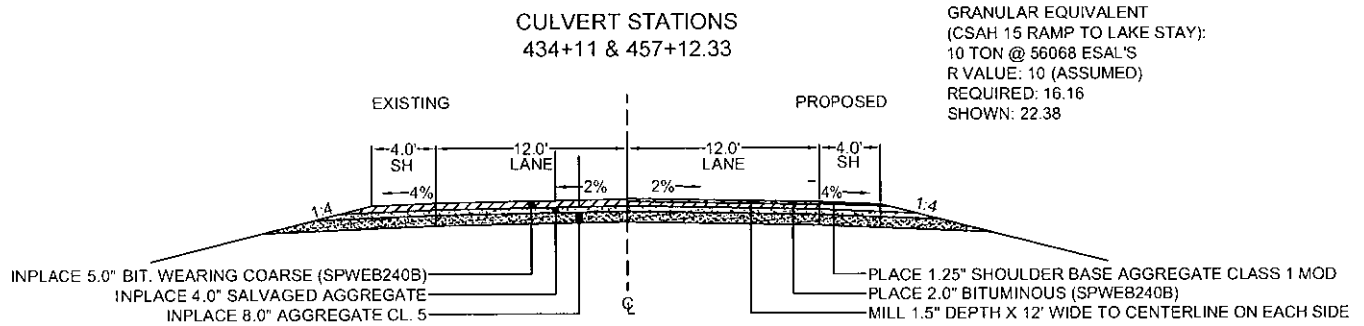
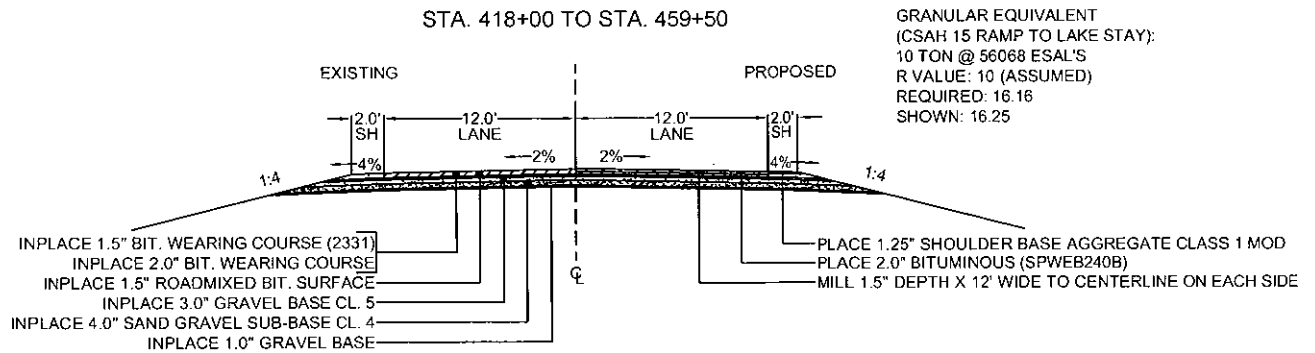
3-26-25

SAP 041-607-053

SHEET NO. 5 OF 7 SHEETS

TYPICAL SECTIONS

NO SCALE



CERTIFIED BY

Joseph M. Allen
LICENSED ENGINEER

LIC. NO. 54947

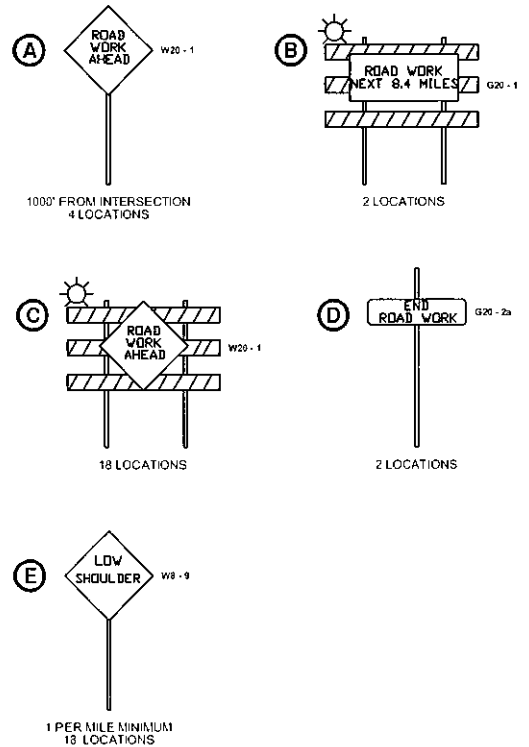
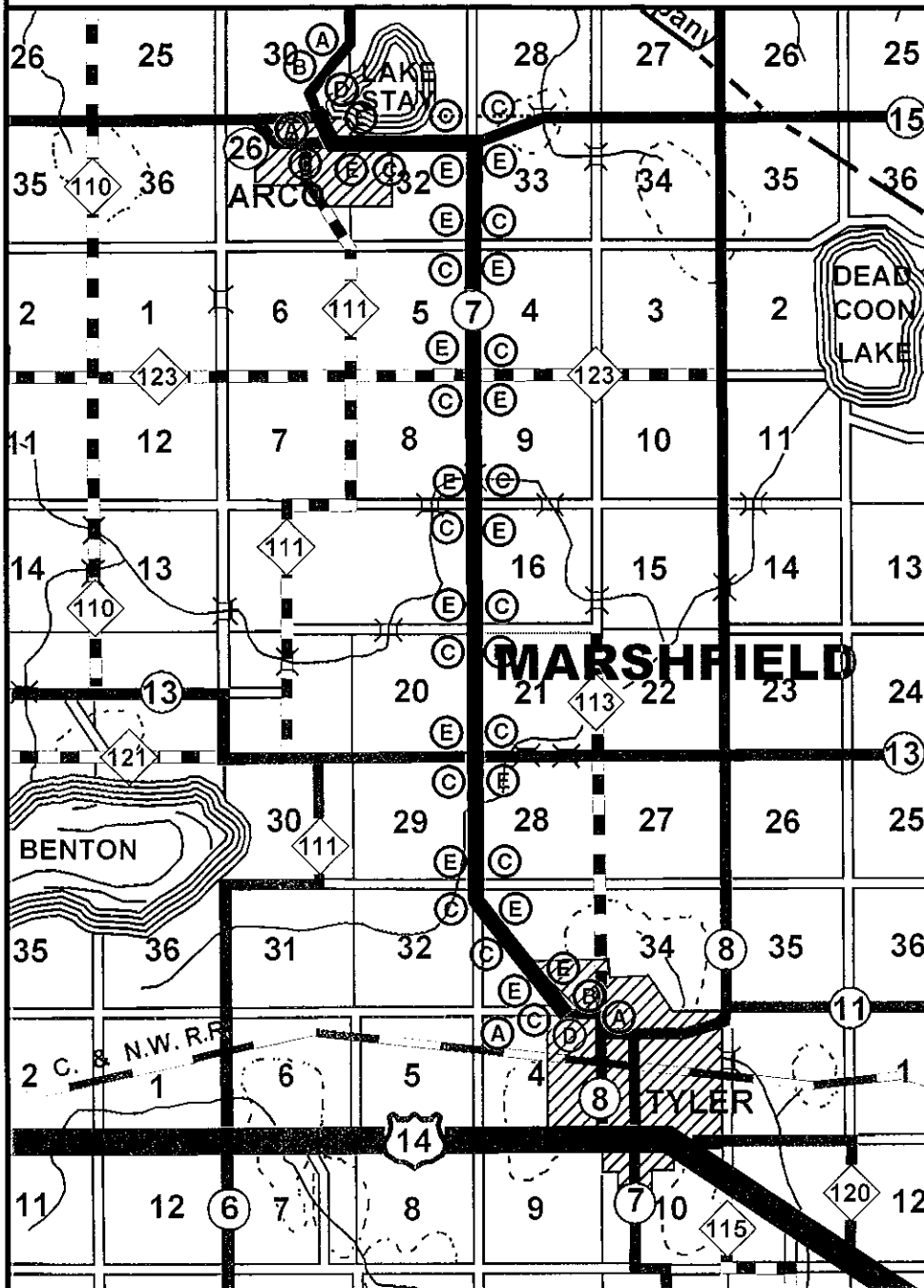
DATE: 3-26-25

SAP 041-607-053

SHEET NO. 6 OF 7 SHEETS

TRAFFIC CONTROL

NO SCALE



SIGN	SIGN NO.	QUANTITY	SIZE	COLOR	FLASHERS
	TYPE III BARRICADE	20	60" X 48"	ORANGE ON WHITE	20
	W20 - 1	22	36" X 36"	BLACK ON ORANGE	
	G20 - 1	2	60" X 24"	BLACK ON ORANGE	
	G20 - 2a	2	48" X 24"	BLACK ON ORANGE	
	W8 - 9	18	48" X 48"	BLACK ON ORANGE	

THE ATTACHED LAYOUT AND TABULATION SHOULD BE CONSIDERED A MINIMUM. ADDITIONAL SIGNING MAY BE REQUIRED TO MEET SAFETY STANDARDS BASED ON THE CONTRACTOR'S OPERATIONS.

ALL NECESSARY TRAFFIC CONTROL DEVICES ON THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST MnMUTCD, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

CERTIFIED BY Joseph M. White
LICENSED ENGINEER

LIC. NO. 54947 DATE: 3-26-25

SAP 041-607-053

SHEET NO. 7 OF 7 SHEETS