

# MINNESOTA DEPARTMENT OF TRANSPORTATION LINCOLN COUNTY CONSTRUCTION PLAN FOR BITUMINOUS OVERLAY COUNTY STATE AID HIGHWAY NO. 13

LOCATED ON CSAH 13 BETWEEN THE WEST COUNTY LINE AND CSAH 1 FROM 399.99' SOUTH OF THE NORTHWEST (Geographic Description)  
CORNER OF SECTION 25-T110N-R47W TO 11.62' WEST OF THE NORTHEAST CORNER OF SECTION 30-T110N-R46W (Legal Description)  
 AND LOCATED ON CSAH 13 BETWEEN THE INT. OF CSAH 1 AND THE INT. OF TH 75 FROM 229.50' EAST OF THE (Geographic Description)  
NORTHEAST CORNER OF SECTION 19-T110N-R46W TO 182.22' SOUTH & 23.64' WEST OF THE NORTHEAST CORNER OF (Legal Description)  
SECTION 20-T110N-R45W

## SPECIFICATIONS

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

## INDEX

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THIS PLAN CONTAINS 5 SHEETS

## LAST PROJECTS:

SAP 041-613-022 (BITUMINOUS OVERLAY, 2008)  
 SAP 041-613-018 (BITUMINOUS OVERLAY & AGG. SHOULDERING, 1996)  
 SAP 041-613-015 (GRADING & AGG. SURFACE, 1992)  
 SAP 041-613-006 (GRAVEL SUB-BASE, GRAVEL BASE, & ROAD MIXED BIT. BASE, 1964)  
 SAP 041-613-007 (GRAVEL SUB-BASE, GRAVEL BASE, & ROAD MIXED BIT. BASE, 1964)

## DESIGN DESIGNATION

(STA. 25+32 TO STA. 99+45 - WEST COUNTY LINE TO CSAH 1)

Design Strength	10 TON
R-VALUE	10 (ASSUMED)
ADT (2025)	398
PROJ. ADT (2045)	438
PROJ. HCA DT (2045)	26 (6%)
SOIL FACTOR	100
SHOULDER WIDTH	4.0 FT.

SAP 041-613-029

EOP STA. 99+45

SAP 041-613-029

BOP STA. 25+32

## DESIGN DESIGNATION

(STA. 27+50 TO STA. 397+80 - CSAH 1 TO TH 75)

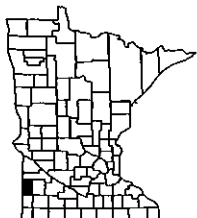
Design Strength	10 TON
R-VALUE	10
ADT (2025)	415
PROJ. ADT (2045)	457
PROJ. HCA DT (2045)	27 (6%)
SOIL FACTOR	100
SHOULDER WIDTH	3.5 FT.

OR

FUNCTIONAL CLASSIFICATION MAJOR COLLECTOR  
 NO. OF TRAFFIC LANES 2 NO. OF PARKING LANES 0  
 POSTED SPEED 55 MPH  
 BASED ON STOPPING SIGHT DISTANCE  
 HEIGHT OF EYE 3.5 FT. HEIGHT OF OBJECT 2.0 FT.  
 DESIGN SPEED NOT ACHIEVED AT:  
 STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

## SAP 041-613-029

GROSS LENGTH	44443.0 FT.	8.417 MI.
BRIDGES LENGTH	0.0 FT.	0.000 MI.
EXCEPTIONS LENGTH	0.0 FT.	0.000 MI.
NET LENGTH	44443.0 FT.	8.417 MI.

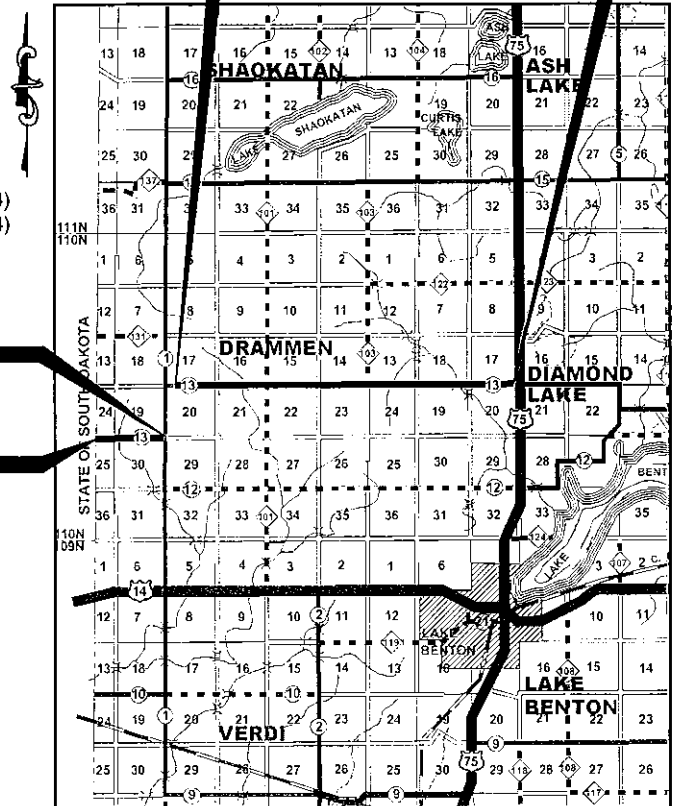


SAP 041-613-029

BOP STA. 27+50

SAP 041-613-029

EOP STA. 397+80



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: 3-28-25

License Number: 54947

Approved: Joseph M. Wilson 3-28 20 25  
 Approved: Lincoln County Engineer

District State-Aid Engineer: 20  
 Reviewed for Compliance with State-Aid Rules/Policy

State-Aid Engineer: 20  
 Approved for State-Aid Funding

SAP NO. 041-613-029

SHEET NO. 1 OF 5 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	2104.607	SALVAGE AGGREGATE	CU YD	48
2	2221.609	SHOULDER BASE AGGREGATE CLASS 1 MOD	TON	5353
3,4,5	2360.509	TYPE SP 12.5 WEARING COURSE MIXTURE (2,B)	TON	10183
	2563.601	TRAFFIC CONTROL	LUMP SUM	1
6	2582.503	4" SOLID LINE PAINT	LIN FT	109886
7	2582.503	4" BROKEN LINE PAINT	LIN FT	8254
8	2582.518	PAVEMENT MESSAGE PAINT	SQ FT	196

## NOTES:

1. THE CONTRACTOR SHALL MILL 10 FT. TAPERS FROM A DEPTH OF 0" TO A DEPTH OF 6.5" AT CULVERT LOCATIONS. PLACEMENT OF 6.5" BITUMINOUS SHALL OCCUR IMMEDIATELY AFTER MILLING. ALL WORK SHALL BE PERFORMED IN A MANNER THAT ALLOWS TRAFFIC TO FLOW THROUGH THESE AREAS. MILLING SHALL BE INCIDENTAL TO SALVAGE AGGREGATE.
2. SHOULDER BASE AGGREGATE CLASS 1 MOD INCLUDES AN ADDITIONAL 100 TON PER LANE MILE TO ACCOUNT FOR THE EXISTING SHOULDER MATERIAL BEING LOW. SEE SPECIAL PROVISION 2211 FOR MODIFICATION OF THE SPECIFICATION FOR BID ITEM 2221.609.
3. THE CONTRACTOR SHALL MILL BUTT JOINTS AT THE BOP, EOP, AND AT APRONS THAT ADJOIN A LAND OWNERS PAVED DRIVEWAY. MILLINGS BECOME THE PROPERTY OF THE CONTRACTOR. MILLING BUTT JOINTS SHALL BE INCLUDED IN THE BID PRICE FOR TYPE SP 12.5 WEARING COURSE MIXTURE (2,B).
4. COUNTY FORCES WILL PREPARE THE SHOULDER FOR 2" DEEP AND 2 FT. WIDE BUMP OUT ON THE INSIDE OF THE CURVE FROM STA. 27+56 TO STA. 35+43 RT. THE CONTRACTOR SHALL PLACE A 2" LIFT OF BITUMINOUS ON THE PREPARED SHOULDER PRIOR TO THE 1.5" MAINLINE OVERLAY.
5. BITUMINOUS TACK MATERIAL SHALL BE INCLUDED IN THE BID PRICE OF TYPE SP 12.5 WEARING COURSE MIXTURE (2,B). THE CONTRACTOR SHALL REFER TO APPLICATION RATES SPECIFIED IN TABLE 2357.3-1 IN THE MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
6. QUANTITY CONTAINS 88366 LINEAR FEET OF WHITE PAINT AND 21520 LINEAR FEET OF YELLOW PAINT.
7. QUANTITIES DO NOT INCLUDE 40' SKIP. 4" BROKEN LINE PAINT SHALL BE YELLOW IN COLOR.
8. FOUR "STOP AHEAD" MESSAGES SHALL BE WHITE IN COLOR AND PLACED IN ACCORDANCE WITH THE MnMUTCD.

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

STANDARD PLATES	
PLATE NO.	DESCRIPTION
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. White*  
LICENSED ENGINEER

LIC. NO.

54947

DATE:

3-28-25

SAP 041-613-029

SHEET NO. 2 OF 5 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.

## (2104) SALVAGE AGGREGATE QUANTITIES

STA. 116+65 TO STA. 117+31 CULVERT PATCH DIG OUT (6.5" DEEP)	24	CU YD
STA. 396+74 TO STA. 397+40 CULVERT PATCH DIG OUT (6.5" DEEP)	24	CU YD

## (2221) SHOULDER BASE AGGREGATE CLASS 1 MOD

STA. 25+32 TO STA. 98+50 MAINLINE - WEST COUNTY LINE TO CSAH 1	789	TON
STA. 27+50 TO STA. 397+80 MAINLINE - CSAH 1 TO TH 75	3672	TON
1 TH ROAD INTERSECTION @ 40 TON PER APP	40	TON
2 COUNTY ROAD INTERSECTIONS @ 30 TON PER APP	60	TON
12 TWP. ROAD INTERSECTIONS @ 20 TON PER APP	240	TON
17 DRIVEWAYS @ 8 TON PER APP	136	TON
4 WIND TOWER DRIVEWAYS @ 8 TON PER APP	32	TON
48 FIELD APPROACHES @ 8 TON PER APP	384	TON

## (2360) BITUMINOUS QUANTITIES

PATCH STA. 116+65 TO STA. 117+31 (6.5" THICK)	48	TON
PATCH STA. 396+74 TO STA. 397+40 (6.5" THICK)	48	TON
STA. 27+56 TO STA. 35+43 RT. - WEST COUNTY LINE TO CSAH 1 (3.5" THICK @ 2 FT. CURVE BUMP OUT)	34	TON
STA. 25+32 TO STA. 98+50 MAINLINE - WEST COUNTY LINE TO CSAH 1	1610	TON
STA. 27+50 TO STA. 397+80 MAINLINE - CSAH 1 TO TH 75	7467	TON
1 TH ROAD INTERSECTIONS @ 50 TON PER APP	50	TON
1 CSAH ROAD INTERSECTIONS @ 40 TON PER APP	40	TON
2 COUNTY ROAD INTERSECTIONS @ 40 TON PER APP	80	TON
12 TWP. ROAD INTERSECTIONS @ 30 TON PER APP	360	TON
17 DRIVEWAYS @ 20 TON PER APP	340	TON
4 WIND TOWER DRIVEWAYS @ 2 TON PER APP	8	TON
48 FIELD APPROACHES @ 2 TON PER APP	96	TON
1 MAILBOXES @ 2 TON PER APP	2	TON

CERTIFIED BY Joseph M. Hiltner  
 LICENSED ENGINEER

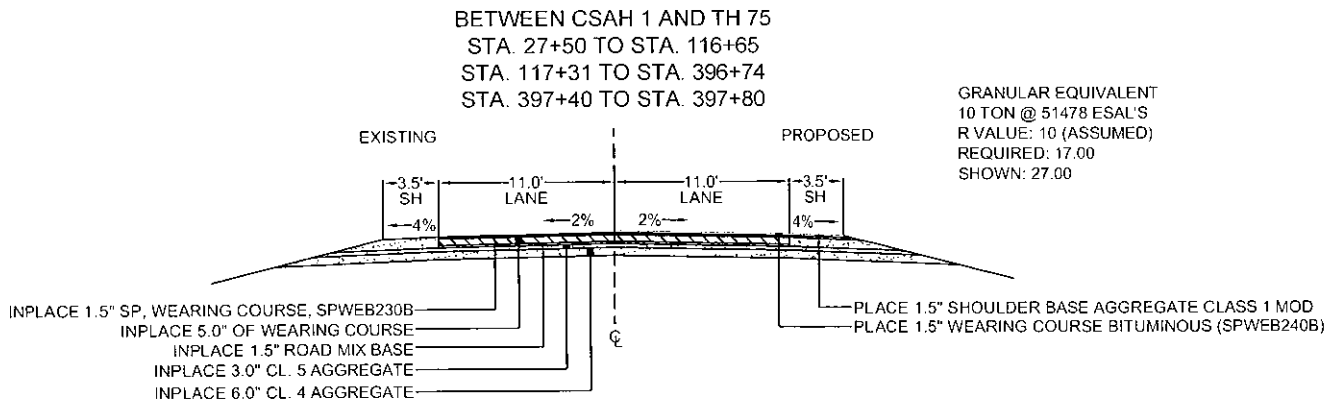
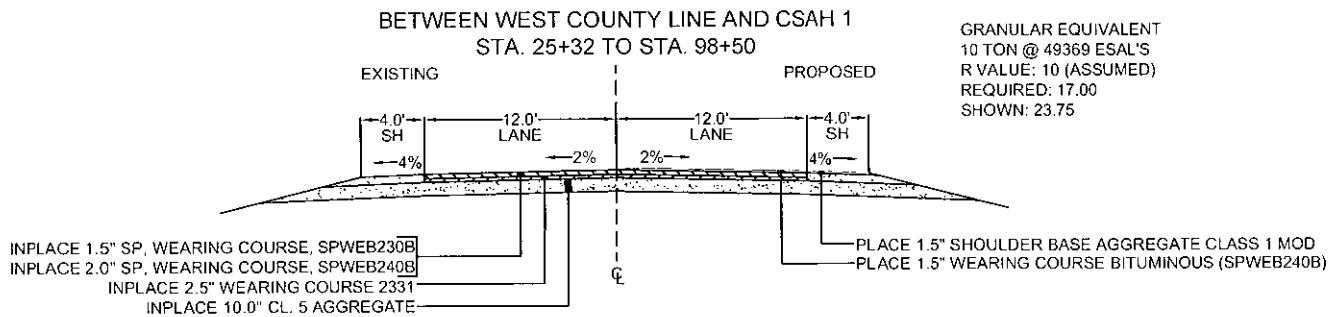
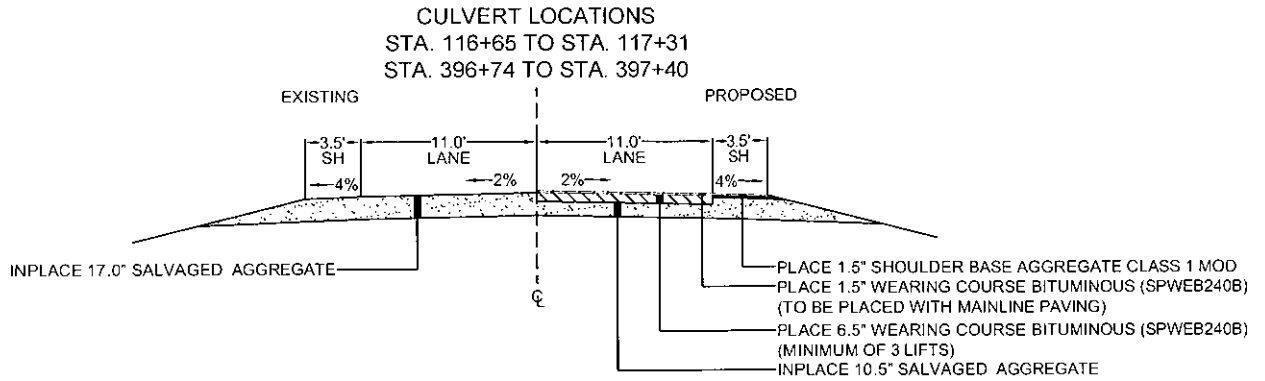
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SAP 041-613-029

SHEET NO. 3 OF 5 SHEETS

# TYPICAL SECTIONS

NO SCALE



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*Joseph M. Laska*  
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54947

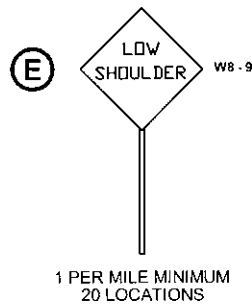
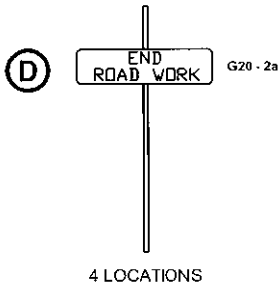
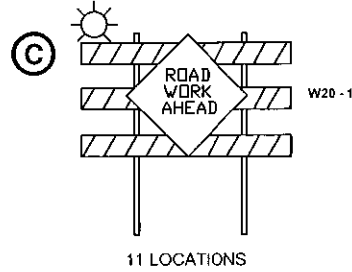
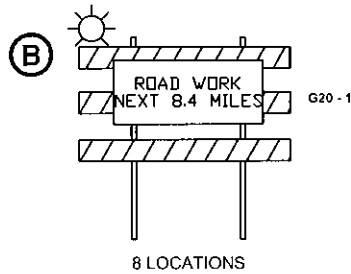
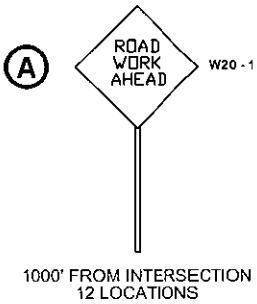
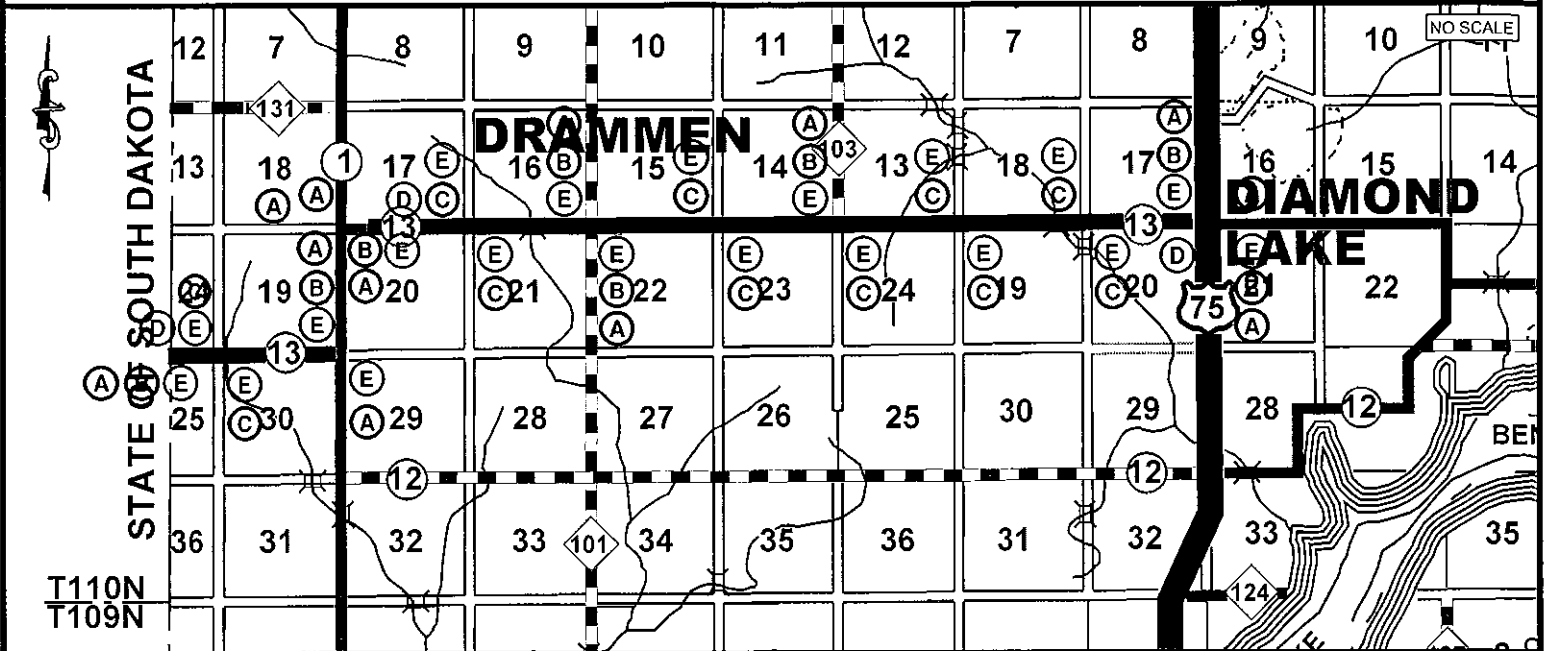
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# TRAFFIC CONTROL



SIGN	SIGN NO.	QUANTITY	SIZE	COLOR	FLASHERS
	TYPE III BARRICADE	19	60" X 48"	ORANGE ON WHITE	19
	W20 - 1	23	36" X 36"	BLACK ON ORANGE	
	G20 - 1	8	60" X 24"	BLACK ON ORANGE	
	G20 - 2a	4	48" X 24"	BLACK ON ORANGE	
	W8 - 9	20	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. Wilson*  
LICENSED ENGINEER

LIC. NO.

54947

DATE:

3-28-25

SAP 041-613-029

SHEET NO. 5 OF 5 SHEETS