MINNESOTA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN FOR GRADING, CONCRETE SURFACING, AND BRIDGE NOS. 83025, 83026, 915543, & 83005

LOCATED ON T.H. 60 FROM 7400' WEST OF T.H. 4 TO 1700' WEST OF T.H. 15

EQUATIONS

T.H. 60 E.B. STA. 1222+82.14 BK =
T.H. 60 E.B. STA. 1222+80.84 AH

T.H. 60 E.B. STA. 1247+72.05 BK =
T.H. 60 E.B. STA. 1247+78.66 AH

T.H. 60 E.B. STA. 1278+79.64 BK =
T.H. 60 E.B. STA. 1279+69.62 AH

T.H. 60 E.B. STA. 1322+91.55 BK =
T.H. 60 E.B. STA. 1321+83.20 AH

T.H. 60 E.B. STA. 1528+74.59 BK =
T.H. 60 E.B. STA. 1533+92.04 AH

T.H. 60 E.B. STA. 1566+95.39 BK =
T.H. 60 E.B. STA. 1566+94.28 AH

T.H. 60 E.B. STA. 1619+24.11 BK =
T.H. 60 E.B. STA. 1619+25.47 AH

T.H. 60 E.B. STA. 1676+47.54 BK =
T.H. 60 E.B. STA. 1676+61.41 AH

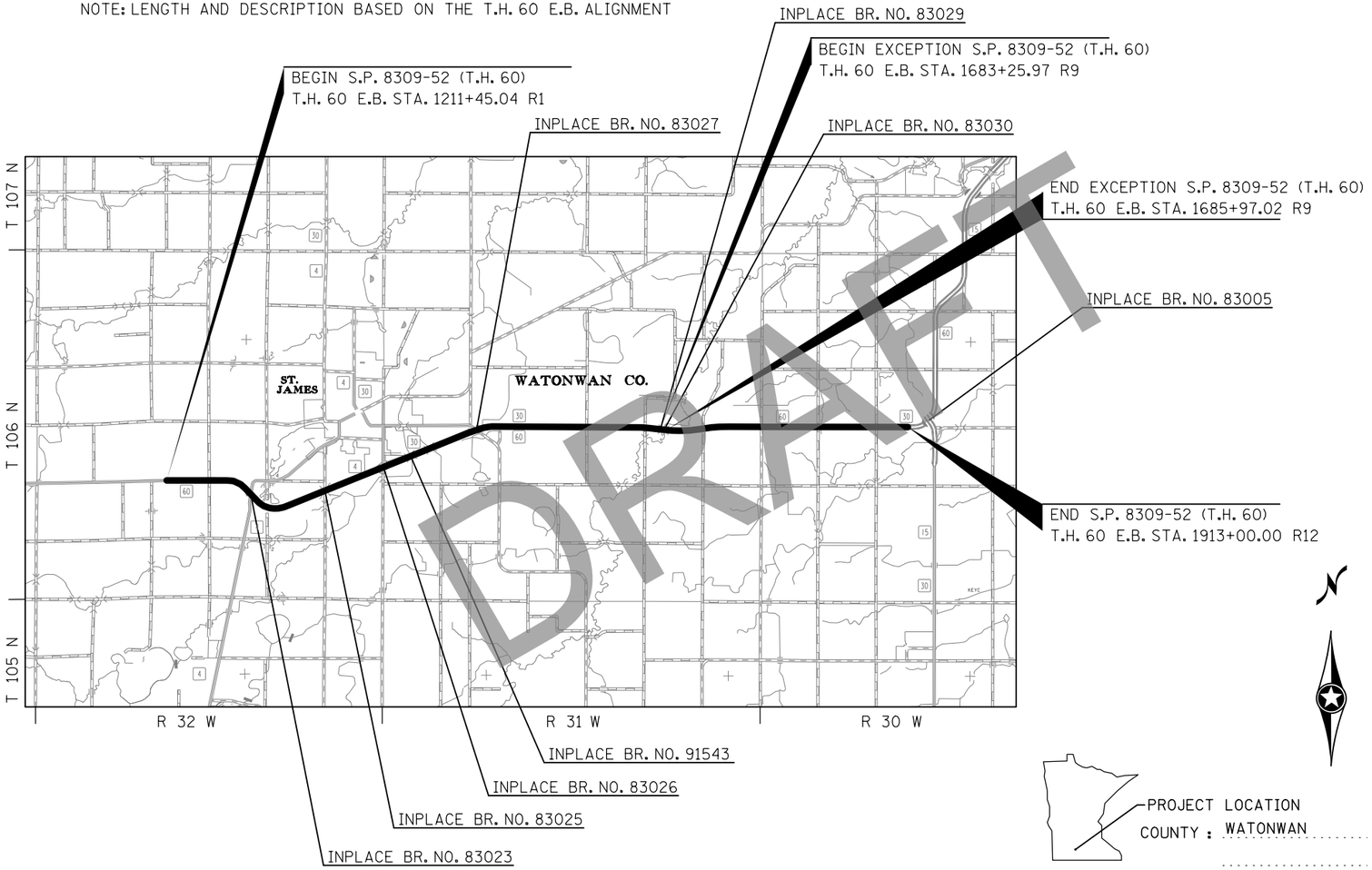
T.H. 60 E.B. STA. 1718+01.50 BK =
T.H. 60 E.B. STA. 1717+65.29 AH

T.H. 60 E.B. STA. 1742+24.31 BK =
T.H. 60 E.B. STA. 1742+11.76 AH

T.H. 60 E.B. STA. 1747+04.48 BK =
T.H. 60 E.B. STA. 1747+05.93 AH

STATE PROJ. NO. 8309-52 (T.H. 60)
GROSS LENGTH 69683.76 FEET 13.198 MILES
BRIDGES-LENGTH FEET MILES
EXCEPTIONS-LENGTH 271.05 FEET 0.051 MILES
NET LENGTH 69412.71 FEET 13.146 MILES
REF. POINT 064+00.077 TO REF. POINT 077+00.275

NOTE: LENGTH AND DESCRIPTION BASED ON THE T.H. 60 E.B. ALIGNMENT



PROJECT LOCATION
COUNTY : WATONWAN
DISTRICT : 7

FOR PLANS AND UTILITIES SYMBOLS SEE TECHNICAL MANUAL

STATE PROJ. NO.	CHARGE IDENTIFIER
8309-52	

SCALES

PLAN	200'
INDEX MAP	5,280'
GENERAL LAYOUT	2,500'
STAGING PLAN	5,000'

DESIGN DESIGNATION

Design ESALS 2052 = XXX
ADT (Current Year) 2016 = 6,600
ADT (Future Year) 2037 = XXX
DHV (Design Hr. Vol.) =
D (Directional Distr.) = NA %
T (Heavy Commercial) = 20 %
Design Speed 70 MPH
Based on STOPPING Sight Distance
Height of eye 3.50' Height of object 2.00'
Design Speed not achieved at:
STA. TO STA. MPH
STA. TO STA. MPH

PLAN REVISIONS		
DATE	SHEET NO.	APPROVER

FED. PROJ. NO.

GOVERNING SPECIFICATIONS

THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

INDEX

THIS PLAN CONTAINS 283 SHEETS

ALLIANT ENGINEERING

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.

PRINT NAME: AARON JAEGER LICENSE # 54364

DATE: XX/XX/XX SIGNATURE:

RECOMMENDED FOR APPROVAL ..... 20.....
DISTRICT TRANSPORTATION ENGINEER

RECOMMENDED FOR APPROVAL ..... 20.....
DISTRICT MATERIALS ENGINEER

RECOMMENDED FOR APPROVAL ..... 20.....
DISTRICT WATER RESOURCES/HYDRAULICS ENGINEER

RECOMMENDED FOR APPROVAL ..... 20.....
DISTRICT TRAFFIC ENGINEER

RECOMMENDED FOR APPROVAL ..... 20.....
STATE PRE-LETTING ENGINEER

OFFICE OF LAND MANAGEMENT APPROVAL ..... 20.....
DIRECTOR, LAND MANAGEMENT

APPROVED ..... 20 .....
STATE DESIGN ENGINEER

I HEREBY CERTIFY THAT THE FINAL FIELD REVISIONS, IF ANY, WERE 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.

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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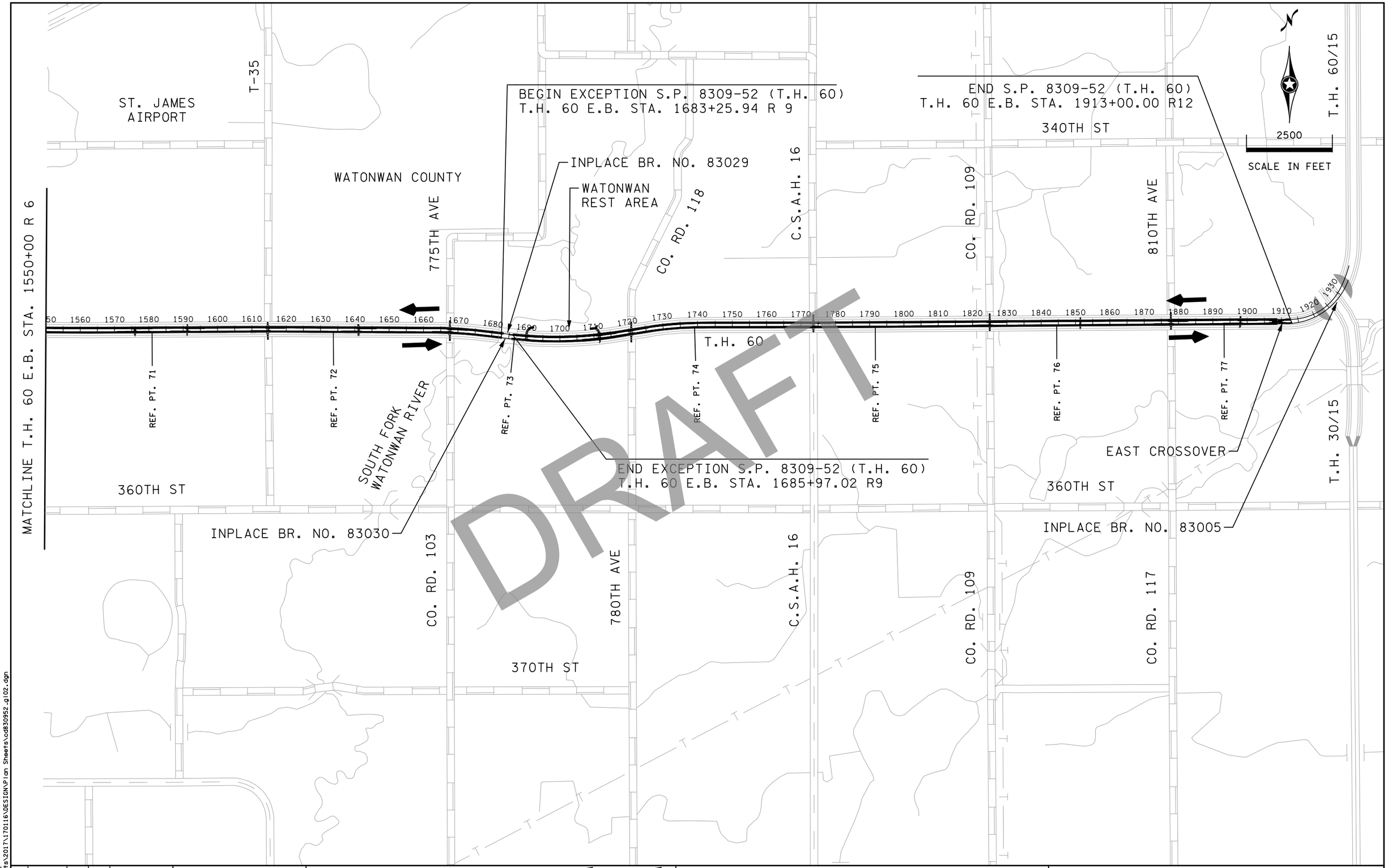
PRINT NAME: DRAFT COPY
SIGNATURE:
DATE _____ LICENSE # DRAFT COPY

GENERAL LAYOUT

BEGIN CONSTRUCTION TO T.H. 60 E.B. STA. 1550+00

SP 8309-52 (T.H. 60)

SHEET NO. 2 OF 283 SHEETS



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SIGNATURE: DRAFT COPY
DATE _____ LICENSE #

GENERAL LAYOUT
T.H. 60 E.B. STA. 1550+00 TO END CONSTRUCTION

SP 8309-52 (T.H. 60)
SHEET NO. 3 OF 283 SHEETS

STATEMENT OF ESTIMATED QUANTITIES

TAB.	SHEET NO.	ITEM NO.	DESCRIPTION	UNITS	TOTAL ESTIMATED QUANTITY
		2011.601	CONSTRUCTION SURVEYING	LUMP SUM	1
		2011.601	AS BUILT	LUMP SUM	1
		2016.601	QUALITY MANAGEMENT	LUMP SUM	1
		2016.601	QUALITY MANAGEMENT SPECIAL	LUMP SUM	1
		2021.501	MOBILIZATION	LUMP SUM	1
		2031.602	COMBINATION FIELD LABORATORY-OFFICE	EACH	1
		2051.501	MAINT AND RESTORATION OF HAUL ROADS	LUMP SUM	1
		2104.502	REMOVE PIPE APRON	EACH	2
		2104.502	REMOVE CATCH BASIN	EACH	8
		2104.502	REMOVE DELINEATOR	EACH	42
		2104.502	REMOVE MARKER	EACH	64
		2104.502	REMOVE SIGN TYPE C	EACH	336
		2104.502	REMOVE SIGN TYPE D	EACH	18
		2104.502	REMOVE ENERGY ABSORBING TERMINAL	EACH	10
		2104.502	SALVAGE MARKER	EACH	2
		2104.502	SALVAGE SIGN TYPE C	EACH	19
		2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	2957
		2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	2873
		2104.503	REMOVE PIPE CULVERTS	LIN FT	944
		2104.503	REMOVE PIPE SEWERS	LIN FT	567
		2104.503	REMOVE GUARDRAIL - PLATE BEAM	LIN FT	3084
		2104.504	REMOVE CONCRETE PAVEMENT	SQ YD	40908
		2104.504	REMOVE BITUMINOUS PAVEMENT	SQ YD	3041
		2104.504	REMOVE BITUMINOUS SHOULDER PAVEMENT	SQ YD	17843
		2104.518	REMOVE CONCRETE SLAB	SQ FT	381
		2104.518	REMOVE CONCRETE WALK	SQ FT	369
		2105.504	GEOTEXTILE FABRIC TYPE 5	SQ YD	18941
		2106.507	EXCAVATION - COMMON (P)	CU YD	9618
		2106.507	COMMON EMBANKMENT (CV) (P)	CU YD	6538
		2112.519	SUBGRADE PREPARATION 6"-12"	ROAD STA	29
		2118.509	AGGREGATE SURFACING CLASS 1	TON	4628
		2118.509	AGGREGATE SURFACING CLASS 2	TON	5923
		2211.507	AGGREGATE BASE (CV) CLASS 5Q (P)	CU YD	59897
		2211.507	AGGREGATE BASE (CV) CLASS 6 (P)	CU YD	2442
		2215.504	FULL DEPTH RECLAMATION	SQ YD	133701
		2231.509	BITUMINOUS PATCHING MIXTURE	TON	200
		2232.504	MILL BITUMINOUS SURFACE (5.0")	SQ YD	115253

STATEMENT OF ESTIMATED QUANTITIES

TAB.	SHEET NO.	ITEM NO.	DESCRIPTION	UNITS	TOTAL ESTIMATED QUANTITY
		2232.603	MILLED RUMBLE STRIPS	LIN FT	108830
		2232.603	MILLED RUMBLE STRIPS (CONCRETE)	LIN FT	116580
		2301.504	PLACE CONCRETE PAVEMENT 7.5"	SQ YD	489193
		2301.507	STRUCTURAL CONCRETE	CU YD	103769
		2301.602	1.0" DOWEL BAR	EACH	120058
		2360.509	TYPE SP 12.5 WEARING COURSE MIXTURE (3,B)	TON	22789
		2360.509	TYPE SP 12.5 WEARING COURSE MIXTURE (4,E)	TON	2078
		2360.509	TYPE SP 12.5 WEARING COURSE MIXTURE (5,E)	TON	2556
		2363.509	BIT MIX FOR PERM ASPHALT STABILIZED STRESS RELIEF CRSE	TON	33133
		2363.509	BITUMINOUS MATERIAL FOR MIXTURE	TON	1170
			METALLIZING ZINC PRIMER	SQ FT	7458
		2501.502	12" GS PIPE APRON	EACH	8
		2501.502	18" GS PIPE APRON	EACH	10
		2501.502	18" CS SAFETY APRON	EACH	12
		2501.502	18" RC SAFETY APRON	EACH	8
		2501.502	24" RC SAFETY APRON	EACH	2
		2501.503	18" CS PIPE CULVERT	LIN FT	879
		2501.503	18" RC PIPE CULVERT DES 3006	LIN FT	311
		2501.503	24" RC PIPE CULVERT DES 3006	LIN FT	68
		2501.602	CLEAN INLET STRUCTURE	EACH	1
		2501.603	CLEAN PIPE CULVERT	LIN FT	657
		2501.603	REPAIR CULVERT	LIN FT	678
		2503.503	12" CP PIPE SEWER	LIN FT	701
		2503.601	CONNECT TO INPLACE CULVERT	LS	1
		2503.602	RECONSTRUCT DRAINAGE OUTLET	EACH	22
		2506.502	CONST DRAINAGE STRUCTURE DESIGN N	LIN FT	31
		2506.502	CASTING ASSEMBLY	EACH	8
		2511.507	RANDOM RIPRAP CLASS III	CU YD	119
		2511.507	GRANULAR FILTER	CU YD	30
		2511.504	GEOTEXTILE FILTER TYPE 4	SQ YD	119
		2521.518	4" CONCRETE WALK	SQ FT	1298
		2521.518	6" CONCRETE WALK	SQ FT	404
		2531.503	CONCRETE CURB & GUTTER DESIGN B624	LIN FT	540
		2533.503	PORTABLE PRECAST CONCRETE BARRIER DESIGN 8337	LIN FT	700
		2533.503	RELOCATE PORTABLE PRECAST CONCRETE BARRIER DESIGN 8337	LIN FT	700
		2540.602	MAIL BOX SUPPORT	EACH	8

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

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DATE _____ LICENSE #

STATEMENT OF ESTIMATED QUANTITIES

SP 8309-52 (T.H. 60)

SHEET NO. 4 OF 283 SHEETS

STATEMENT OF ESTIMATED QUANTITIES

TAB.	SHEET NO.	ITEM NO.	DESCRIPTION	UNITS	TOTAL ESTIMATED QUANTITY
		2554.502	GUIDE POSTS TYPE B	EACH	32
		2554.503	TRAFFIC BARRIER DESIGN BULLNOSE	LIN FT	800
		2554.503	TRAFFIC BARRIER DESIGN TYPE 31	LIN FT	3825
		2554.503	TRAFFIC BARRIER DESIGN TRANSITION TYPE 31	LIN FT	250
		2554.502	GUIDE POST TYPE B	EACH	26
		2554.502	ANCHORAGE ASSEMBLY - TYPE 31	EACH	8
		2554.502	END TREATMENT - TANGENT TERMINAL	EACH	18
		2554.615	IMPACT ATTENUATOR NO 1	ASSEMBLY	4
		2554.615	RELOCATE IMPACT ATTENUATOR NO 1	ASSEMBLY	4
		2563.613	TRAFFIC CONTROL SUPERVISOR	UNIT DAY	45
		2563.601	TRAFFIC CONTROL	LUMP SUM	1
		2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UNIT DAY	70
		2564.518	SIGN PANELS TYPE C	SQ FT	4933
		2564.518	SIGN PANELS TYPE D	SQ FT	855
		2564.502	INSTALL MARKER	EACH	2
		2564.502	INSTALL SIGN TYPE C	EACH	20
		2564.502	DELINEATOR TYPE X4-6	EACH	62
		2564.502	DELINEATOR TYPE X4-13	EACH	60
		2564.502	REFERENCE LOCATION SIGN (1)	EACH	54
		2564.502	OBJECT MARKER TYPE X4-2	EACH	16
		2564.502	OBJECT MARKER TYPE X4-4	EACH	23
		2564.502	BRIDGE NUMBER MARKER X4-12A	EACH	4
		2573.503	SILT FENCE, TYPE MS	LIN FT	34539
		2573.502	STORM DRAIN INLET PROTECTION	EACH	34
		2573.503	SEDIMENT CONTROL LOG TYPE BLANKET SYSTEM	LIN FT	1091
		2573.501	STABILIZED CONSTRUCTION EXIT	LUMP SUM	1
		2573.501	EROSION CONTROL SUPERVISOR	LUMP SUM	1
		2573.502	CULVERT END CONTROLS	EACH	82
		2574.505	SUBSOILING	ACRE	56
		2574.505	SOIL BED PREPARATION	ACRE	56
		2574.508	FERTILIZER TYPE 3	POUND	11200
		2574.508	FERTILIZER TYPE 4	POUND	6720
		2575.505	SEEDING	ACRE	56
		2575.508	SEED MIXTURE 35-241	POUND	2044
		2575.509	MULCH MATERIAL TYPE 3	TON	128
		2575.505	DISK ANCHORING	ACRE	56
		2575.505	WEED SPRAYING	ACRE	28

STATEMENT OF ESTIMATED QUANTITIES

TAB.	SHEET NO.	ITEM NO.	DESCRIPTION	UNITS	TOTAL ESTIMATED QUANTITY
		2575.506	WEED SPRAY MIXTURE	GALLON	51
		2575.508	HYDRAULIC REINFORCED FIBER MATRIX	POUND	168000
		2575.523	RAPID STABILIZATION METHOD 3	M GALLON	336
		2581.503	REMOVABLE PREFORM PAVEMENT MARKING TAPE	LIN FT	72770
		2581.603	REMOVABLE PREFORMED PLASTIC MASK (BLACK)	LIN FT	7970
		2582.503	4" SOLID LINE PAINT	LIN FT	130640
		2582.503	4" DOTTED LINE PAINT	LIN FT	180
		2582.503	4" SOLID LINE MULTI-COMPONENT GROUND IN (WR)	LIN FT	319883
		2582.503	8" SOLID LINE MULTI-COMPONENT GROUND IN (WR)	LIN FT	8325
		2582.503	4" DOTTED LINE MULTI-COMPONENT GROUND IN (WR)	LIN FT	144
		2582.503	4" DOUBLE SOLID LINE MULTI-COMPONENT GROUND IN (WR)	LIN FT	1611
		2582.503	24" SOLID LINE PREFORM TAPE GROUND IN (WR)	LIN FT	511
		2582.503	4" BROKEN LINE PREFORM TAPE GROUND IN (WR)	LIN FT	27520
		2582.503	4" DOTTED LINE PREFORM TAPE GROUND IN (WR)	LIN FT	2325
		2582.503	4" BROKEN LINE PREFORM TAPE GROUND IN (WR) CONTRAST	LIN FT	27480
		2582.503	4" DOTTED LINE PREFORM TAPE GROUND IN (WR) CONTRAST	LIN FT	216
			BRIDGE NO 83026	LUMP SUM	1
			BRIDGE NO 83027	LUMP SUM	2

(1) INCLUDES 24 HIGHWAY NUMBER PLATES

TABULATION INDEX

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STATEMENT OF ESTIMATED QUANTITIES

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL

HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT

STANDARD PLATES

PLATE NO.	DESCRIPTION
1103K	TYPICAL DOWEL BAR ASSEMBLY (2 SHEETS)
1150R	CONCRETE HEADER JOINTS (2 SHEETS)
3000L	REINFORCED CONCRETE PIPE (5 SHEETS)
3006G	GASKET JOINT FOR R.C. PIPE (2 SHEETS)
3007E	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
3022C	PRECAST CONCRETE SAFETY APRON (3 SHEETS)
3040F	CORRUGATED METAL PIPE CULVERT (STANDARD 2-2/3" X 1/2" CORRUGATION)
3041D	CORRUGATED METAL PIPE (3" X 1" CORRUGATION)
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3123J	METAL APRON FOR C.S. PIPE
3124B	METAL APRON CONNECTION
3128H	METAL SAFETY APRON & GRATE (2 SHEETS)
3129A	METAL APRON FOR CORRUGATED POLYETHYLENE PIPE (USE AT ENTRANCES AND DRIVEWAYS)
3131C	PRECAST CONCRETE HEADWALL FOR SUBSURFACE DRAINS
3132A	GRATE FOR 1:4 PRECAST CONCRETE APRONS
3148A	SAFETY SLOPE METAL END SECTION FOR CIRCULAR & ARCHED PIPES (2 SHEETS)
3221C	CORRUGATED STEEL PIPE COUPLING BAND (3 SHEETS)
4003B	30" PRECAST CATCH BASIN - DESIGN N
4011E	PRECAST CONCRETE BASE
4020J	MANHOLE OR CATCH BASIN (FOR USE WITH OR WITHOUT TRAFFIC LOADS) (2 SHEETS)
4022A	MANHOLE OR CATCH BASIN COVER (3 ft. X 2 ft. OPENING)
4026A	CONCRETE ENCASED CONCRETE ADJUSTING RINGS
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN
4110F	COVER CASTING FOR MANHOLE (FOR USE IN ALL TRAFFIC AREAS) - CASTING NO. 715 AND 716
4125D	CATCH BASIN FRAME CASTING (FOR SQUARE GRATE) - CASTING NO. 806
4129G	CATCH BASIN FRAME CASTING (FOR SQUARE GRATE) - CASTING NO. 802A
4180J	MANHOLE OR CATCH BASIN STEP
7038A	DETECTABLE WARNING SURFACE TRUNCATED DOMES
7100H	CONCRETE CURB AND GUTTER (DESIGN B and DESIGN V)
8000J	CHANNELIZERS (3 SHEETS)
8150C	INSTALLATION OF CULVERT MARKERS
8337C	TEMPORARY PORTABLE PRECAST CONCRETE BARRIER (TYPE "F") (3 SHEETS)
8350A	THRIE BEAM ANCHORAGE PLATE
8352A	THRIE BEAM WEDGE PLATE FOR SINGLE SLOPE BARRIER (2 SHEETS)
9000E	APPROACHES AND ENTRANCES - RECOMMENDED STANDARDS
9350A	MAILBOX SUPPORT (SWING-AWAY TYPE)

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STANDARD PLATES

SP 8309-52 (T.H. 60)

SHEET NO. 6 OF 283 SHEETS

SOILS & CONSTRUCTION NOTES

1. MATERIAL GENERATED WITHIN THE LIMITS OF EXCAVATION SHOWN ON THE PLANS MAY BE USED FOR EMBANKMENT ITEMS, PROVIDED ALL MATERIAL REQUIREMENTS SPECIFIED FOR THE POINT OF PLACEMENT ARE MET.

2. MATERIAL STOCKPILES ARE NOT ALLOWED ON THE NEW ROADBED OR ANY ROAD SURFACES.

3. EMBANKMENT MATERIALS USED WITHIN THE ROAD CORE SHALL MEET THE REQUIREMENTS OF SELECT GRADING MATERIAL, MNDOT SPEC. 2106.1.A.6, WHICH EXCLUDES MARL, SOILS CONTAINING 80% OR MORE SILT-SIZED PARTICLES, AND SOILS WITH 5% OR GREATER ORGANIC CONTENT. EXCLUDED SOILS ARE NOT ALLOWED INTO CONSTRUCTION FOR THE ROAD CORE UNLESS SUFFICIENTLY BLENDED WITH OTHER SOILS TO PROVIDE A MATERIAL WITH A RESULTANT SILT CONTENT LESS THAN 80% AND ORGANIC CONTENT LESS THAN 5%.

4. EXISTING INPLACE ROADWAY STRUCTURE MATERIALS INCLUDING BITUMINOUS, CONCRETE, AGGREGATE BASE, AND ANY GRADING MATERIAL DISTURBED BY CONSTRUCTION MAY BE RECYCLED AND REUSED, TO THE EXTENT ALLOWED BY MNDOT SPECIFICATIONS AND SPECIAL PROVISIONS. ANY MATERIAL DISTURBED BY CONSTRUCTION THAT IS NOT USED ON THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OUTSIDE OF THE RIGHT-OF-WAY IN ACCORDANCE WITH MNDOT SPEC. 2104.3.D.3. AS AGREED UPON BY THE ENGINEER.

5. IN ANY PROPOSED WIDENING CONSTRUCTION ADJACENT TO AND PARALLEL TO INPLACE EMBANKMENT MATERIAL, CUT VERTICALLY TO THE BOTTOM OF THE INPLACE PAVEMENT, THEN AT A 1:1 (V:H) TAPER TO THE BOTTOM OF THE PROPOSED PAVEMENT SECTION SUBCUT, WHICH SHALL NOT BE LESS THAN 24" BELOW THE TOP OF THE INPLACE PAVEMENT SURFACE.

6. WHERE MATCHING INPLACE CROSSROADS AND ENTRANCES, CUT VERTICALLY TO THE BOTTOM OF THE INPLACE SURFACING OR TO THE PROPOSED GRADING GRADE, WHICHEVER IS DEEPER, THEN PROVIDE A TRANSVERSE TAPER AT 1:4 (V:H) TO THE BOTTOM OF THE PROPOSED T.H. 60 PAVEMENT SECTION SUBCUT.

7. THE BOTTOM OF ALL EXCAVATIONS SHALL BE SHAPED AND COMPACTED BY THE QUALITY COMPACTION METHOD, MNDOT SPEC. 2106.3.F.2, TO THE SATISFACTION OF THE ENGINEER. A MINIMUM OF FOUR PASSES OF AN APPROVED ROLLER IS REQUIRED AND IS INCIDENTAL.

8. SELECT GRADING MATERIAL WHICH DOES NOT MEET THE GRADATION REQUIREMENTS OF GRANULAR MATERIALS, MNDOT SPEC. 3149.2.B.1, SHALL BE COMPACTED IN ACCORDANCE WITH THE SPECIFIED DENSITY METHOD, MNDOT SPEC. 2106.3.F.1.

9. GRANULAR MATERIAL AND AGGREGATE BASE NOT CONSIDERED A WEARING COURSE SHALL BE COMPACTED IN ACCORDANCE WITH THE PENETRATION INDEX METHOD, MNDOT SPEC. 2106.3.F.3. COMPACT THE ENTIRE LIFT TO ACHIEVE A DYNAMIC CONE PENETRATION INDEX VALUE AS REQUIRED. DURING COMPACTION, MAINTAIN THE MOISTURE CONTENT AS SHOWN IN TABLE 2211-1 OF MNDOT SPEC. 2211.

10. PRIOR TO EMBANKMENT CONSTRUCTION OR SUBCUTTING, STRIP ALL INPLACE TOPSOIL AND SLOPE DRESSING MATERIALS WITHIN THE ROAD CORE (EXCAVATION- COMMON) AND REUSE AS SLOPE DRESSING AND NON-STRUCTURAL GRADING MATERIAL (COMMON EMBANKMENT).

11. PRIOR TO ANY BITUMINOUS SURFACING, A BITUMINOUS TACK COAT SHALL BE APPLIED TO EXISTING BITUMINOUS SURFACES, BETWEEN ALL BITUMINOUS LIFTS, AND AT ALL EDGES WHERE CONCRETE AND BITUMINOUS MEET (INCIDENTAL). ALL SURFACES SHALL BE CLEANED PRIOR TO THE PLACEMENT OF BITUMINOUS TACK. THIS WORK IS INCIDENTAL AND SHALL BE IN ACCORDANCE WITH MNDOT SPEC. 2357.

12. ANY WORK ROADS BUILT TO FACILITATE CONSTRUCTION, INCLUDING REMOVAL OF WORK ROADS AND TURF ESTABLISHMENT, SHALL BE INCIDENTAL. CONTRACTOR SHALL SUBSOIL TO REMOVE COMPACTION AFTER REMOVAL OF WORK ROADS, PRIOR TO PLACEMENT OF SLOPE DRESSING (INCIDENTAL). WORK ROADS SHALL COMPLY WITH ALL REQUIREMENTS OF THE REGULATORY AGENCIES (THE CORPS OF ENGINEERS, DNR, MPCA, ETC.)

13. ALL MEDIAN DITCH BLOCKS AND MEDIAN CROSS-OVERS SHALL HAVE 1:10 INSLOPES IN THE LONGITUDINAL (TRAVEL) DIRECTION OF MAINLINE T.H. 60.

14. ALL SIDE ROADS AND ENTRANCES ADJACENT TO THE T.H. 60 MAINLINE AND DITCH BLOCKS NOT IN THE MEDIAN THAT ARE REGRADED DUE TO PROJECT CONSTRUCTION WORK, SHALL HAVE 1:6 INSLOPES.

15. EXISTING EDGE DRAINS SHALL BE PERPETUATED UNLESS ENGINEER DIRECTS INPLACE EDGE DRAINS CAN BE TAKEN OUT OF SERVICE. THIS SHALL BE INCIDENTAL. THE REMOVAL OF INPLACE PAVEMENT EDGE DRAINS AND SUBDRAINS WHERE SPECIFIED AND AS DIRECTED, SHALL BE CONSIDERED INCIDENTAL WORK. THE REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL PLACE NEW PAVEMENT EDGE DRAINS WHERE SPECIFIED AND DETAILED ELSEWHERE HEREIN.

16. SUBSURFACE DRAIN HEADWALL LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION AND MARKED ON THE ROADWAY. PERMANENTLY MARK THE LOCATION OF ALL NEW AND EXISTING SUBSURFACE DRAIN OUTLETS PER MNDOT SPEC. 2502.3.D.4.

17. SUBSURFACE DRAIN OUTLETS SHALL BE LOCATED A MINIMUM OF 6 INCHES AND NO HIGHER THAN 1 FOOT ABOVE DITCH BOTTOM GRADE.

18. FULL DEPTH RECLAMATION SHALL BE PERFORMED IN ACCORDANCE WITH MNDOT SPEC. 2215. FULL DEPTH RECLAMATION WILL PRODUCE AN APPROXIMATE 10% FLUFF OR GRADE RAISE. BITUMINOUS RECLAIMED MATERIAL SHALL BE GRADED AND REUSED AS DIRECTED BY THE ENGINEER. BITUMINOUS RECLAIMED MATERIAL NOT REUSED ON THE PROJECT TO BE HAULED AND STOCKPILED ON MNDOT PROPERTY AS SPECIFIED IN THE SPECIAL PROVISIONS.

19. NON-STRUCTURAL GRADING MATERIALS, PER MNDOT SPEC. 2106.1.A.8, MAY BE REUSED OUTSIDE OF THE ROAD CORE.

20. AS DIRECTED BY THE ENGINEER AND PRIOR TO PLACING THE PASSRC, EXISTING T.H. 60 DETERIORATED PAVEMENTS SHALL BE PATCHED AS DESCRIBED BELOW.
    * REMOVE DETERIORATED PAVEMENT AS DIRECTED BY THE ENGINEER (INCIDENTAL).
    * AS DIRECTED BY THE ENGINEER AND PRIOR TO PLACING THE PASSRC, THE ENTIRE SURFACE TO BE OVERLAID IS TO BE AIR BLASTED AND/OR SWEPT TO REMOVE ANY LOOSE MATERIAL (INCIDENTAL), AND EXTRA CARE IS TO BE TAKEN AT CRACK AND JOINT LOCATIONS. THE AIR BLASTING SHALL BE DONE WITH HIGH-PRESSURE (100 PSI +/-) EQUIPMENT. SWEEPING IS TO BE DONE WITH A PICK UP STYLE SWEEPER.
    * THE REPAIR AREA SIDES, BOTTOM, AND BITUMINOUS PATCH LIFTS ARE TO BE TACKED AT THE RECOMMENDED APPLICATION RATE (INCIDENTAL).
    * THE REPAIR AREA SHALL BE FILLED WITH BITUMINOUS PATCH MATERIAL MEETING THE REQUIREMENTS OF TYPE SP 4.75 WEARING COURSE MIXTURE (3,B), (SPNWD330B). THE BITUMINOUS MATERIAL SHALL BE PLACED IN A 4" MAXIMUM LIFT. BITUMINOUS MATERIAL WILL NEED TO BE PLACED HIGH TO ALLOW FOR COMPACTION/CONSOLIDATION.
    * BITUMINOUS PATCH MATERIAL SHALL BE COMPACTED BY ORDINARY COMPACTION METHOD. THE USE OF A PNEUMATIC TIRE ROLLER IS REQUIRED. THE USE OF A PLATE COMPACTOR IS PROHIBITED UNLESS ALLOWED BY ENGINEER IN THE FIELD FOR A SPECIFIC NEED OF PERFORMANCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SHOW THAT ADEQUATE COMPACTION IS MET. IF ADEQUATE COMPACTION IS NOT MET THEN THE CONTRACTOR MUST CHANGE THE METHOD OF ROLLING AND/OR PLACEMENT.

21. ALL AREAS DISTURBED BY THE CONTRACTOR'S EQUIPMENT, IN THE OPINION OF THE ENGINEER, WHICH WERE NOT NECESSARY FOR THE PLANNED CONSTRUCTION, SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE.

22. EXCAVATION LIMIT LINES, AS SHOWN IN THE TYPICAL SECTIONS, AND DETAILS IN THIS PLAN ARE FOR THE COMPUTATION OF PAY QUANTITIES. TEMPORARY AND INTERMEDIATE EXCAVATION LIMITS AND SLOPES ARE TO BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION, DEPENDING ON SOIL PROPERTIES AND SAFETY FACTORS. ADDITIONAL EXCAVATION AND BACKFILL BEYOND THE LIMITS SHOWN IN THE PLAN FOR SOIL AND SAFETY ISSUES SHALL BE CONSIDERED THE CONTRACTOR'S RESPONSIBILITY WITH NO DIRECT PAYMENT MADE.

23. THE CONTRACTOR'S ACTIVITIES MUST NOT EXCEED CONSTRUCTION LIMITS IN AREAS OF ENVIRONMENTAL SENSITITY. THIS INCLUDES EQUIPMENT, WORKING, PLACING, OR STOCKPILING MATERIALS, OR IMPACTING THE ENVIRONMENTALLY SENSITIVE AREAS IN ANY OTHER WAY.

24. RECLAIM MATERIAL MAY BE SUBSTITUTED FOR AGGREGATE BASE (CV) CLASS 6 AND AGGREGATE SURFACING CLASS 1 WHERE SPECIFIED IN THE PLANS IF ALL GRADATION REQUIREMENTS ARE MET TO THE SATISFACTION OF THE ENGINEER. SEE MNDOT SPEC. 3138.2.E FOR AGGREGATE BASE (CV) CLASS 6 GRADATION REQUIREMENTS. SEE SPECIAL PROVISIONS FOR AGGREGATE SURFACING CLASS 1 GRADATION REQUIREMENTS.

25. WHEN REMOVING PAVEMENTS, FULL-DEPTH SAWCUTS SHOULD BE MADE PERPENDICULAR TO THE ROADWAY CENTERLINE AND ALONG EXISTING LANE LINES TO ENSURE A UNIFORM JOINT.

26. ALL EXISTING IN-PLACE ROADWAY STRUCTURE MATERIALS, SUCH AS BITUMINOUS, CONCRETE, AND AGGREGATES CAN BE UTILIZED ACCORDING TO THE SPECIFICATIONS AND SPECIAL PROVISIONS, OR AS NOTED IN THIS LETTER. MATERIALS NOT UTILIZED ON THIS PROJECT OR NOT REQUESTED TO BE DELIVERED TO A MNDOT FACILITY WILL BECOME PROPERTY OF THE CONTRACTOR AND DISPOSED OF OFF THE R/W, AS AGREED UPON BY THE ENGINEER.

27. CLASS 1 AGGREGATE MATERIAL FOR SHOULDER ROUNDING TO BE COMPACTED BY THE QUALITY COMPACTION METHOD.

28. AGGREGRATE BASE CLASS 6 IS TO BE PRODUCED FROM EITHER QUARRIED MATERIALS OR RECYCLED BITUMINOUS/CONCRETE PAVEMENTS.

NO	DATE	DWN	CKD	REVISIONS

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SOILS & CONSTRUCTION NOTES

SP 8309-52 (T.H. 60)

SHEET NO. 7 OF 283 SHEETS

EARTHWORK SUMMARY

A

STATION		LOCATION	GEOTEXTILE FABRIC TYPE V	EXCAVATION - COMMON	COMMON EMBANKMENT (CV)
FROM	TO		SQ YD	CU YD	CU YD
T.H. 60 E.B. (XTH60EB)					
1211+45.3	1218+20.1	WEST CROSSOVER (1)	3723	621	2628
1225+50.0	1228+50.0	FULL DEPTH RECONSTRUCTION		76	
1281+38.6	1290+97.0	FULL DEPTH RECONSTRUCTION		404	
1356+40.9	1365+39.7	FULL DEPTH RECONSTRUCTION		362	
1394+59.2	1406+16.5	TEMPORARY ENTRANCE RAMP (2)	1214	631	631
1413+00.0	1422+40.0	FULL DEPTH RECONSTRUCTION		391	
1431+21.0	1434+91.1	TEMPORARY EXIT RAMP (2)	317	668	668
1504+72.5	1514+31.2	FULL DEPTH RECONSTRUCTION		404	
1575+54.2	1580+48.5	TEMPORARY TURN LANE (3)	382	255	255
1679+90.1	1688+97.0	FULL DEPTH RECONSTRUCTION		152	
1712+48.1	1715+97.3	SHOULDER WIDENING (3)	310	116	173
1903+96.5	1908+66.5	FULL DEPTH RECONSTRUCTION		366	
1905+32.0	1913+00.0	EAST CROSSOVER (1)	3705	617	524
T.H. 60 W.B. (XTH60WB)					
1223+94.0	1226+94.0	FULL DEPTH RECONSTRUCTION		76	
1280+74.6	1290+32.9	FULL DEPTH RECONSTRUCTION		404	
1356+76.5	1365+75.1	FULL DEPTH RECONSTRUCTION		362	
1400+37.0	1404+54.2	TEMPORARY EXIT RAMP (1)	426	620	620
1413+38.5	1422+78.2	FULL DEPTH RECONSTRUCTION		393	
1429+80.1	1440+76.6	TEMPORARY ENTRANCE RAMP (1)	1186	947	947
1504+12.7	1513+68.4	FULL DEPTH RECONSTRUCTION		402	
1711+79.1	1714+66.0	TEMPORARY WIDENING (3)	139	93	93
1680+26.0	1689+18.4	FULL DEPTH RECONSTRUCTION		152	
1902+96.1	1908+66.4	FULL DEPTH RECONSTRUCTION		266	
T.H. 4 N.W. RAMP (XTH4RPA)					
1280+75.5	1283+75.5	PAVEMENT TRANSITION		57	
T.H. 4 N.E. RAMP (XTH4RPB)					
1285+17.6	1288+67.6	PAVEMENT TRANSITION		83	
T.H. 4 S.W. RAMP (XTH4RPC)					
1283+71.3	1287+21.3	PAVEMENT TRANSITION		83	
T.H. 4 S.E. RAMP (XTH4RPD)					
1288+85.3	1290+85.3	PAVEMENT TRANSITION		57	
C.S.A.H. 27 N.W. RAMP (XCSAH27RPE)					
1416+05.9	1419+05.9	PAVEMENT TRANSITION		57	
C.S.A.H. 27 N.E. RAMP (XCSAH27RPF)					
1419+52.6	1423+02.6	PAVEMENT TRANSITION		83	
C.S.A.H. 27 S.W. RAMP (XCSAH27RPG)					
1414+17.3	1416+67.3	PAVEMENT TRANSITION		83	
C.S.A.H. 27 S.E. RAMP (XCSAH27RPH)					
1417+15.4	1420+15.4	PAVEMENT TRANSITION		57	
C.S.A.H. 12 N.W. RAMP (XCSAH12RPI)					
1425+26	1428+26.5	PAVEMENT TRANSITION		57	
C.S.A.H. 12 N.E. RAMP (XCSAH12RPJ)					
1507+90	1511+39.7	PAVEMENT TRANSITION		83	
C.S.A.H. 12 S.W. RAMP (XCSAH12RPK)					
1508+14.9	1511+64.9	PAVEMENT TRANSITION		83	
C.S.A.H. 12 S.E. RAMP (XCSAH12RPL)					
1513+28.2	1515+28.2	PAVEMENT TRANSITION		57	
PROJECT TOTALS:			**11402**	**9618**	**6538**

SPECIFIC NOTES

(1) TO BE CONSTRUCTED IN STAGE 0

(2) TO BE CONSTRUCTED IN STAGE 2 PHASE 0

(3) TO BE CONSTRUCTED IN STAGE 1 PHASE 1

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TABULATIONS

EARTHWORK

PAVEMENT REMOVAL — B

STATION		LOCATION	REMOVE CONCRETE SLAB	REMOVE CONCRETE WALK	REMOVE CONCRETE MEDIAN	REMOVE CONCRETE PAVEMENT			REMOVE BITUMINOUS PAVEMENT (1)		REMOVE BITUMINOUS SHOULDER PAVEMENT	
						AREA	DEPTH	REINF	AREA	DEPTH	AREA	DEPTH
FROM	TO		SQ FT	SQ FT	SQ FT	SQ YD	INCHES	TYPE	SQ YD	INCHES	SQ YD	INCHES
T.H. 60 E.B.												
1212+48.6	1219+28.7	SHLD LT									227	1.5
1225+50.0	1228+50.0	MAINLINE				800	9.0				133	1.5
1270+13.2	1275+39.6	SHLD RT									351	8.0
1281+38.6	1290+97.0	MAINLINE				2556	9.0				426	1.5
1297+23.8	1307+63.5	SHLD RT									693	8.0
1356+40.9	1365+39.4	MAINLINE				2396	9.0				399	1.5
1401+44.7	1406+99.6	SHLD RT									370	8.0
1412+99.9	1422+39.6	MAINLINE				2506	9.0				418	1.5
1426+81.0	1438+69.0	SHLD RT									792	8.0
1494+41.6	1499+99.6	SHLD RT									372	8.0
1504+72.5	1514+31.2	MAINLINE				2557	9.0				426	1.5
1521+97.2	1538+91.0	SHLD RT									1129	8.0
1636+20.2	1641+79.3	RT TURN LANE				746	9.0					
1679+90.1	1682+90.1	MAINLINE				800	10.0				100	1.5
1685+97.0	1688+97.0	MAINLINE				800	10.0				100	1.5
1902+96.5	1908+66.5	MAINLINE				1520	9.0		1520	5.0	190	5.0
1908+66.5	1912+99.8	SHLD LT									144	5.0
T.H. 60 W.B.												
1212+47.5	1219+24.9	SHLD RT									226	1.5
1223+94.0	1226+94.0	MAINLINE				800	9.0				133	1.5
1263+75.6	1275+40.7	SHLD LT									777	8.0
1280+74.6	1290+32.9	MAINLINE				2555	9.0				426	1.5
1294+70.7	1300+29.2	SHLD LT									372	8.0
1356+76.5	1365+75.1	MAINLINE				2396	9.0				399	1.5
1397+11.0	1408+99.1	SHLD LT									792	8.0
1413+38.5	1422+78.2	MAINLINE				2506	9.0				418	1.5
1428+80.6	1434+38.5	SHLD LT									372	8.0
1486+41.2	1498+28.6	SHLD LT									792	8.0
1504+12.7	1513+68.4	MAINLINE				2548	9.0				425	1.5
1517+56.0	1523+12.3	SHLD LT									371	8.0
1575+79.6	1575+99.4	SLAB LT	381									
1680+26.0	1683+26.0	MAINLINE				800	10.0				100	1.5
1686+18.4	1689+18.4	MAINLINE				800	10.0				100	1.5
1902+96.1	1908+66.4	MAINLINE				1521	9.0		1521	5.0	190	5.0
1908+66.4	1912+56.1	SHLD LT									130	5.0
T.H. 4 RAMPS												
1280+75.5	1283+75.5	NW RAMP				819	8.0				277	8.0
1283+24.5	1283+33.0	NW RAMP LT		109								
1283+40.2	1283+50.9	NW RAMP RT		83								
1285+17.6	1288+67.6	NE RAMP				773	8.0				408	8.0
1283+71.3	1287+21.3	SW RAMP				993	8.0				270	8.0
1286+83.0	1286+93.4	SW RAMP LT		91								
1286+84.4	1286+94.6	SW RAMP RT		86								
1287+85.3	1290+85.3	SE RAMP				799	8.0				468	8.0
C.S.A.H. 27 RAMPS												
1416+05.9	1418+05.9	NW RAMP				783	8.0				327	8.0
1419+52.6	1423+02.6	NE RAMP				852	8.0				379	8.0
1413+17.3	1416+67.3	SW RAMP				867	8.0				419	8.0
1417+15.4	1420+15.4	SE RAMP				761	8.0				313	8.0

PAVEMENT REMOVAL — B

STATION		LOCATION	REMOVE CONCRETE SLAB	REMOVE CONCRETE WALK	REMOVE CONCRETE MEDIAN	REMOVE CONCRETE PAVEMENT			REMOVE BITUMINOUS PAVEMENT (1)		REMOVE BITUMINOUS SHOULDER PAVEMENT	
						AREA	DEPTH	REINF	AREA	DEPTH	AREA	DEPTH
FROM	TO		SQ FT	SQ FT	SQ FT	SQ YD	INCHES	TYPE	SQ YD	INCHES	SQ YD	INCHES
C.S.A.H. 27												
211+59.2	211+75.9	MAINLINE			215							
215+29.3	215+46.9	MAINLINE			217							
C.S.A.H. 12 RAMPS												
1416+05.9	1418+05.9	NW RAMP				776	8.0				273	8.0
1419+52.6	1423+02.6	NE RAMP				1055	8.0				257	8.0
1413+17.3	1416+67.3	SW RAMP				753	8.0				413	8.0
1417+15.4	1420+15.4	SE RAMP				787	8.0				276	8.0
C.S.A.H. 12												
315+28.2	315+55.7	MAINLINE			148							
319+62.2	320+72.1	MAINLINE			660							
WEST REST AREA												
426+48.0	429+97.9	MAINLINE				1141	9.0				680	6.0
EAST REST AREA												
452+00.0	455+49.2	MAINLINE				1142	9.0				790	6.0
TOTAL			**381**	**369**	**1240**	**40908**			**3041**		**17843**	

(1) PAVEMENT DEPTHS STATED ARE APPROXIMATE

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NO	DATE	DWN	CKD	REVISIONS

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TABULATIONS
PAVEMENT REMOVALS

SP 8309-52 (T.H. 60)
SHEET NO. 9 OF 283 SHEETS

SAWING C

STATION		LOCATION	SAWING CONCRETE PAVEMENT (FULL DEPTH) (1)	SAWING BITUMINOUS PAVEMENT (FULL DEPTH) (1)
FROM	TO		LIN FT	LIN FT
T.H. 60 E.B.				
1212+48.6	1219+28.7	SHLD LT		686
1225+50.0	1225+50.0	MAINLINE	24	14
1228+50.0	1228+50.0	MAINLINE	25	14
1281+38.6	1281+38.6	MAINLINE	24	14
1290+97.0	1290+97.0	MAINLINE	24	14
1356+40.9	1356+40.9	MAINLINE	24	14
1365+39.4	1365+39.4	MAINLINE	24	14
1412+99.9	1412+99.9	MAINLINE	24	14
1422+39.6	1422+39.6	MAINLINE	24	14
1504+72.5	1504+72.5	MAINLINE	24	14
1514+31.2	1514+31.2	MAINLINE	24	14
1636+20.2	1641+79.3	RT TURN LANE	571	
1679+90.1	1679+90.1	MAINLINE	24	14
1682+90.1	1682+90.1	MAINLINE	24	14
1685+97.0	1685+97.0	MAINLINE	24	14
1688+97.0	1688+97.0	MAINLINE	24	14
1902+96.5	1902+96.5	MAINLINE	25	14
1908+66.5	1908+66.5	MAINLINE	26	14
1908+66.5	1912+99.8	SHLD LT		439
T.H. 60 W.B.				
1212+47.5	1219+24.9	SHLD RT		683
1223+94.0	1223+94.0	MAINLINE	24	14
1226+94.0	1226+94.0	MAINLINE	24	14
1280+74.6	1280+74.6	MAINLINE	24	14
1290+32.9	1290+32.9	MAINLINE	24	14
1356+76.5	1356+76.5	MAINLINE	24	14
1365+75.1	1365+75.1	MAINLINE	24	14
1413+38.5	1413+38.5	MAINLINE	24	14
1422+78.2	1422+78.2	MAINLINE	24	14
1504+12.7	1504+12.7	MAINLINE	24	14
1513+68.4	1513+68.4	MAINLINE	24	14
1575+79.6	1575+99.4	SLAB LT	20	
1680+26.0	1680+26.0	MAINLINE	24	14
1683+26.0	1683+26.0	MAINLINE	24	14
1686+18.4	1686+18.4	MAINLINE	24	14
1689+18.4	1689+18.4	MAINLINE	24	14
1902+96.1	1902+96.1	MAINLINE	24	14
1908+66.4	1908+66.4	MAINLINE	24	14
1908+66.4	1912+56.1	SHLD RT		396
T.H. 4 RAMPS				
1280+75.5	1280+75.5	NW RAMP	16	10
1283+71.3	1283+71.3	SW RAMP	16	10
1288+67.6	1288+67.6	NE RAMP	16	10
1290+85.3	1290+85.3	SE RAMP	16	10
T.H. 4				
94+65.1	95+83.1	SE RAMP	118	12
95+11.6	96+29.9	SW RAMP	118	10
102+71.2	103+72.9	NE RAMP	112	20
103+09.9	104+29.7	NW RAMP	114	8

SAWING C

STATION		LOCATION	SAWING CONCRETE PAVEMENT (FULL DEPTH) (1)	SAWING BITUMINOUS PAVEMENT (FULL DEPTH) (1)
FROM	TO		LIN FT	LIN FT
C.S.A.H. 27 RAMPS				
1416+05.9	1416+05.9	NW RAMP	16	10
1413+17.3	1413+17.3	SW RAMP	16	10
1420+15.4	1420+15.4	SE RAMP	16	10
1423+02.6	1423+02.6	NE RAMP	16	10
C.S.A.H. 27				
209+52.4	210+74.7	SW RAMP	134	10
210+04.8	211+09.7	SE RAMP	129	
215+96.6	217+15.6	NW RAMP	131	
216+40.0	217+17.8	NE RAMP	102	
C.S.A.H. 12 RAMPS				
1413+17.3	1413+17.3	SW RAMP	16	10
1416+05.9	1416+05.9	NW RAMP	16	10
1420+15.4	1420+15.4	SE RAMP	16	10
1423+02.6	1423+02.6	NE RAMP	16	10
C.S.A.H. 12				
313+33.4	314+31.5	NW RAMP	100	6
313+74.2	314+77.9	NE RAMP	128	
321+14.7	322+13.4	SW RAMP	101	25
321+64.3	322+77.1	SE RAMP	115	10
WEST REST AREA				
426+48.0	426+48.0	MAINLINE	126	
429+97.9	429+97.9	MAINLINE	24	20
EAST REST AREA				
452+00.0	452+00.0	MAINLINE	24	20
455+49.2	455+49.2	MAINLINE	113	50
TOTAL			**2957**	**2873**

(1) REFER TO TABULATION B FOR DEPTH OF EXISTING CONCRETE AND BITUMINOUS PAVEMENT.

SUBGRADE PREPARATION D

STATION		LOCATION	SUBGRADE PREPARATION 6"-12"
FROM	TO		ROAD STA
T.H. 60 E.B.			
1211+50.0	1218+20.1	CROSSOVER	7
1905+32.0	1912+99.8	CROSSOVER	8
T.H. 60 W.B.			
1211+46.1	1218+18.9	DRWY LT	7
1905+31.6	1912+56.1	CROSSOVER	7
TOTAL			**29**

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0	11/10/17			

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TABULATIONS
SAWING & SUBGRADE PREPARATION

SP 8309-52 (T.H. 60)
SHEET NO. 10 OF 283 SHEETS

AGGREGATE SURFACING TABULATION
WILL BE PROVIDED AT 90% SUMBITTAL

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TABULATIONS
AGGREGATE SURFACING

SP 8309-52 (T.H. 60)
SHEET NO. 11 OF 283 SHEETS

FULL DEPTH RECLAMATION F

STATION FROM	STATION TO	LOCATION	FULL DEPTH RECLAMATION (1) (2) SQ YD
T.H. 60 E.B.			
1228+50.0	1238+92.8	SHLD RT	1159
1230+97.0	1238+80.9	CROSSOVER	5384
1243+28.9	1244+35.9	MEDIAN CROSSING	447
1243+29.2	1244+27.3	CO. RD. 114	407
1244+52.9	1270+13.2	SHLD RT	2837
1256+77.2	1257+61.9	MEDIAN CROSSING	412
1275+39.8	1281+38.6	SHLD RT	565
1290+97.0	1297+32.6	SHLD RT	706
1297+32.6	1298+30.8	GORE RT	149
1307+63.5	1356+40.9	SHLD RT	5540
1365+39.4	1401+44.7	SHLD RT	4006
1406+97.4	1412+99.9	SHLD RT	669
1422+39.6	1426+82.5	SHLD RT	492
1426+82.5	1427+79.3	GORE RT	158
1438+69.0	1494+41.6	SHLD RT	6192
1500+00.2	1504+72.5	SHLD RT	525
1514+31.2	1521+96.1	SHLD RT	850
1521+96.1	1522+97.1	GORE RT	166
1538+91.0	1609+66.2	SHLD RT	7863
1574+96.1	1576+05.6	MEDIAN CROSSING	414
1575+53.6	1576+21.9	DRWY RT	100
1590+24.0	1591+37.2	MEDIAN CROSSING	349
1613+64.3	1614+95.8	MEDIAN CROSSING	456
1614+07.6	1614+95.6	TWP. 35	359
1615+28.6	1636+20.2	SHLD RT	2322
1641+79.3	1662+75.3	SHLD RT	2329
1640+08.4	1641+34.3	MEDIAN CROSSING	381
1640+53.6	1641+48.1	DRWY RT	288
1667+01.3	1668+05.8	CO. RD. 103	720
1668+34.4	1679+90.1	SHLD RT	1269
1688+97.0	1716+01.5	SHLD RT	3005
1719+82.4	1720+88.9	CO. RD. 118	362
1721+22.1	1768+71.2	SHLD RT	5289
1772+56.6	1773+97.6	MEDIAN CROSSING	484
1772+97.6	1773+96.4	C.S.A.H. 16	503
1774+15.7	1820+04.7	SHLD RT	5099
1823+86.4	1825+34.1	MEDIAN CROSSING	447
1824+40.6	1825+53.4	CO. RD. 109	347
1825+62.9	1872+77.7	SHLD RT	5239
1850+51.9	1852+24.0	MEDIAN CROSSING	455
1876+72.3	1878+16.4	MEDIAN CROSSING	448
1877+22.2	1878+12.4	CO. RD. 117	384
1878+47.3	1893+03.0	SHLD RT	1617
1896+96.0	1898+31.8	MEDIAN CROSSING	397
1897+65.2	1898+36.7	DRWY RT	110
1897+36.6	1902+96.5	SHLD RT	622

FULL DEPTH RECLAMATION F

STATION FROM	STATION TO	LOCATION	FULL DEPTH RECLAMATION (1) (2) SQ YD
T.H. 60 W.B.			
1224+32.0	1225+08.2	DRWY LT	180
1226+94.0	1243+16.3	SHLD LT	1803
1243+37.3	1244+40.3	CO. RD. 114	277
1248+50.4	1263+75.6	SHLD LT	1695
1257+00.0	1257+65.6	DRWY LT	135
1274+42.5	1275+38.6	GORE LT	167
1275+39.5	1280+74.6	SHLD LT	595
1290+32.9	1294+69.6	SHLD LT	485
1300+29.2	1356+76.5	SHLD LT	6275
1365+75.1	1397+11.0	SHLD LT	3484
1408+02.7	1408+97.8	GORE LT	158
1408+97.8	1413+38.5	SHLD LT	490
1422+78.2	1428+81.0	SHLD LT	670
1434+38.5	1486+41.2	SHLD LT	5781
1497+29.4	1498+24.3	GORE LT	155
1498+24.3	1504+12.7	SHLD LT	654
1513+68.4	1517+66.1	SHLD LT	442
1523+12.3	1613+98.8	SHLD LT	9570
1590+82.8	1591+52.4	DRWY LT	203
1614+26.7	1615+16.6	TWP. 35	362
1619+62.8	1667+03.2	SHLD LT	5267
1667+40.1	1668+24.2	CO. RD. 103	201
1672+57.0	1680+26.0	SHLD LT	854
1689+18.4	1689+43.4	SHLD LT	28
1695+01.2	1710+66.0	SHLD LT	1739
1716+22.8	1719+91.5	SHLD LT	411
1720+42.8	1721+56.1	CO. RD. 118	366
1725+50.1	1772+96.5	SHLD LT	5309
1773+25.2	1774+26.8	C.S.A.H. 16	260
1778+52.9	1824+34.7	SHLD LT	5090
1824+65.9	1825+62.6	CO. RD. 109	339
1829+96.0	1877+12.9	SHLD LT	5241
1877+46.5	1878+31.7	TWP. 94	343
1882+72.4	1902+96.1	SHLD LT	2249
1897+67.3	1898+34.7	DRWY LT	101
TOTAL			**133701**

(1) FULL DEPTH RECLAMATION ITEM INCLUDES ALL REQUIRED GRADING AND SHAPING OF RECLAIMED MATERIAL TO MATCH DETAILS OF THE PLAN OF AS DIRECTED BY THE ENGINEER.

(2) CONTRACTOR SHALL MAKE APPROPRIATE ADJUSTMENTS TO EQUIPMENT AND/OR PROCEDURE TO ENSURE DETERIORATED PAVEMENT IS PROPERLY TO MEET THE GRADATION REQUIREMENTS AND ENSURE THAT OVERSIZED MATERIALS ARE NOT PASSING THROUGH.

MILLING G

STATION FROM	STATION TO	LOCATION	MILL BITUMINOUS SURFACE (5.0") SQ YD
T.H. 60 E.B.			
1745+99.3	1902+96.5	MAINLINE	41855
1745+99.3	1902+96.5	SHLD RT	17440
1745+99.3	1902+96.5	SHLD LT	5232
T.H. 60 W.B.			
1535+90.9	1659+29.5	MAINLINE	32903
1535+90.9	1659+29.5	SHLD RT	4113
1535+90.9	1659+29.5	SHLD LT	13710
TOTAL			**115253**

NO	DATE	DWN	CKD	REVISIONS
0	11/10/17			

ALLIANT ENGINEERING

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TABULATIONS
FULL DEPTH RECLAIMATION & MILLING

SP 8309-52 (T.H. 60)
SHEET NO. 12 OF 283 SHEETS

RUMBLE STRIPS				H
STATION		LOCATION	MILLED RUMBLE STRIPS	MILLED RUMBLE STRIPS (CONCRETE)
FROM	TO		LIN FT	LIN FT
T.H. 60 E.B.				
1225+50.0	1238+42.8	RT	1293	
1225+50.0	1238+31.8	LT		1282
1244+52.9	1251+89.3	RT	723	
1244+54.3	1251+89.3	LT		721
1258+01.7	1269+63.5	RT	1162	
1258+01.7	1570+43.8	LT		30246
1275+40.5	1297+32.6	RT	2012	
1307+63.5	1400+94.7	RT	9548	
1406+97.7	1426+82.5	RT	1985	
1438+69.0	1493+91.6	RT	5523	
1500+00.2	1521+96.1	RT	2196	
1538+91.0	1570+43.8	RT	3155	
1576+66.9	1585+73.3	LT		906
1576+66.9	1609+16.2	RT	3249	
1591+96.9	1609+08.5	LT		1712
1615+28.6	1639+37.3	RT	2406	
1615+44.8	1635+67.6	LT		2020
1641+79.3	1662+25.3	RT	2046	
1641+91.9	1662+17.8	LT		2026
1668+34.4	1682+90.1	RT	1428	
1668+59.4	1682+90.1	LT		1403
1685+97.0	1706+07.8	RT	2011	
1691+06.4	1706+07.7	LT		1501
1712+48.1	1715+47.2	LT		299
1712+52.1	1715+51.5	RT	299	
1721+22.1	1768+21.2	RT	4721	
1721+49.8	1768+21.2	LT		4693
1774+15.7	1819+54.7	RT	4539	
1774+41.8	1819+54.8	LT		4513
1825+62.9	1872+27.7	RT	4665	
1825+84.7	1872+27.7	LT		4643
1878+47.3	1892+53.0	RT	1406	
1878+58.3	1892+53.0	LT		1395
1898+36.6	1908+66.5	RT	1030	
1898+68.1	1905+32.0	LT		664

RUMBLE STRIPS				H
STATION		LOCATION	MILLED RUMBLE STRIPS	MILLED RUMBLE STRIPS (CONCRETE)
FROM	TO		LIN FT	LIN FT
T.H. 60 W.B.				
1231+27.6	1243+16.3	LT	1189	
1231+27.6	1243+39.7	RT		1212
1249+00.4	1256+83.9	LT	784	
1249+41.4	1256+83.9	RT		743
1262+21.6	1263+75.6	LT	154	
1262+22.2	1590+53.7	RT		31885
1275+39.5	1294+69.6	LT	1930	
1300+79.5	1397+11.0	LT	9631	
1408+97.8	1428+81.0	LT	1983	
1434+88.5	1486+41.2	LT	5153	
1498+24.3	1517+66.1	LT	1942	
1523+12.3	1590+53.7	LT	5795	
1596+65.3	1613+98.8	LT	1734	
1596+65.3	1613+98.8	RT		1734
1620+12.8	1640+52.5	RT		2040
1620+12.8	1640+52.8	LT	2040	
1646+68.0	1666+83.7	RT		2016
1646+68.0	1667+03.2	LT	2035	
1673+07.0	1683+26.0	LT	1019	
1673+21.9	1683+26.0	RT		1004
1686+18.4	1689+21.0	RT		303
1686+18.4	1689+43.4	LT	325	
1691+64.6	1710+39.9	RT		1875
1695+51.3	1710+66.0	LT	1515	
1716+72.9	1719+91.5	LT	321	
1716+80.4	1719+81.2	RT		303
1726+00.0	1772+96.5	LT	4760	
1726+23.3	1772+66.3	RT		4707
1779+02.9	1824+34.7	LT	4530	
1779+09.0	1824+18.1	RT		4508
1830+46.0	1877+12.6	LT	4667	
1830+49.1	1876+87.9	RT		4639
1883+22.4	1897+27.0	LT	1405	
1883+25.7	1897+27.0	RT		1401
1903+46.1	1905+31.6	RT		186
1903+46.1	1908+66.4	LT	520	
TOTAL			**108830**	**116580**

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NO	DATE	DWN	CKD	REVISIONS
0	11/10/17			

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TABULATIONS
RUMBLE STRIPS

SP 8309-52 (T.H. 60)
SHEET NO. 13 OF 283 SHEETS

CONCRETE SURFACING — J

STATION FROM	STATION TO	LOCATION	PLACE CONCRETE PAVEMENT 7.5" (1) SQ YD	STRUCTURAL CONCRETE CU YD	1.0" DOWEL BAR EACH	BIT MIX FOR PERM ASPHALT STABILIZED STRESS RELIEF CRSE TON	BITUMINOUS MATERIAL FOR MIXTURE TON	AGGREGATE BASE (CV) CLASS 5Q CU YD
T.H. 60 E.B.								
1225+50.0	1228+50.0	MAINLINE - RECON	933	194	240			254
1228+50.0	1281+38.6	MAINLINE	15852	3303	4154	1192	42	
1238+81.8	1244+54.3	TURN LANE - LT	572	119	114	43	2	342
1238+92.8	1244+52.9	TURN LANE - RT	685	143	224	51	2	376
1252+39.3	1258+01.7	TURN LANE - LT	562	117	112	42	1	335
1270+13.5	1275+40.7	GORE - RT	1044	218		74	3	
1281+38.6	1290+97.0	MAINLINE - RECON	2982	621	767			812
1290+97.0	1356+40.9	MAINLINE	21033	4382	5322	1527	53	
1297+21.8	1307+63.5	GORE - RT	1320	275		94	3	
1356+40.9	1365+39.4	MAINLINE - RECON	2795	582	719			761
1365+39.4	1412+99.9	MAINLINE	14810	3085	3808	1093	38	
1401+44.7	1407+00.8	GORE - RT	1104	230		79	3	
1412+99.9	1422+39.6	MAINLINE - RECON	2924	609	752			796
1422+39.6	1504+72.5	MAINLINE	25613	5336	6586	1890	66	
1426+78.9	1438+69.0	GORE - RT	1481	309		106	4	
1494+41.6	1500+00.7	GORE - RT	1118	233		80	3	
1504+72.5	1514+31.2	MAINLINE - RECON	2983	621	767			812
1514+31.2	1679+90.1	MAINLINE	48209	10044	12822	3680	129	
1521+95.3	1538+91.0	GORE - RT	1464	305		104	4	
1570+93.8	1576+66.9	TURN LANE - LT	573	119	115	43	2	342
1586+23.3	1591+96.9	TURN LANE - LT	574	120	115	43	2	342
1609+58.5	1615+44.8	TURN LANE - LT	586	122	117	44	2	350
1609+66.2	1615+28.6	TURN LANE - RT	687	143	225	51	2	377
1636+17.6	1641+91.9	TURN LANE - LT	574	120	115	43	2	343
1662+67.8	1668+59.4	TURN LANE - LT	592	123	118	44	2	353
1662+75.3	1668+34.4	TURN LANE - RT	683	142	224	51	2	376
1666+65.8	1668+59.4	MEDIAN CROSSING	593	124		42	1	
1679+90.1	1682+90.1	MAINLINE - RECON	933	194	240			254
1685+97.0	1688+97.0	MAINLINE - RECON	933	194	240			254
1686+64.5	1691+06.4	TURN LANE - LT	442	92	88	33	1	264
1688+97.0	1902+96.5	MAINLINE	66871	13931	17157	4924	172	
1689+12.0	1691+06.4	MEDIAN CROSSING	636	133		45	2	
1706+57.8	1712+48.1	TURN LANE - LT	590	123	118	44	2	353
1710+53.8	1712+48.1	MEDIAN CROSSING	599	125		43	2	
1715+97.3	1721+49.8	TURN LANE - LT	625	130	118	44	2	363
1716+01.5	1721+22.1	TURN LANE - RT	725	151	223	51	2	389
1719+57.5	1721+49.8	MEDIAN CROSSING	595	124		42	1	
1768+71.2	1774+15.7	TURN LANE - RT	666	139	218	50	2	366
1768+71.2	1774+41.8	TURN LANE - LT	571	119	114	43	2	341
1820+04.7	1825+62.9	TURN LANE - LT	558	116	112	42	1	333
1820+04.8	1825+84.7	TURN LANE - RT	709	148	232	53	2	389
1872+77.7	1878+47.3	TURN LANE - RT	696	145	228	52	2	382
1872+77.7	1878+58.3	TURN LANE - LT	581	121	116	44	2	347
1893+03.0	1898+36.6	TURN LANE - RT	652	136	213	49	2	358
1893+03.0	1898+68.1	TURN LANE - LT	565	118	113	42	1	337
1902+96.5	1908+66.5	MAINLINE - RECON	1773	369	456			483
T.H. 60 W.B.								
1223+94.0	1226+94.0	MAINLINE - RECON	933	194	240			254
1223+94.0	1226+94.0	TURN LANE - RT RECON	300	63	60			
1226+94.0	1280+74.6	MAINLINE	16740	3488	4304	1235	43	
1226+94.0	1230+77.6	TURN LANE - RT	384	80	77	29	1	229
1243+16.3	1248+50.4	TURN LANE - LT	653	136	214	49	2	359
1243+39.7	1248+91.4	TURN LANE - RT	552	115	110	41	1	330
1256+83.9	1261+71.9	TURN LANE - RT	488	102	98	37	1	292
1263+75.6	1275+42.9	GORE LT	1460	304		104	4	
1280+74.6	1290+32.9	MAINLINE - RECON	2981	621	767			811
1290+32.9	1356+76.5	MAINLINE	20669	4306	5315	1525	53	
1294+69.6	1300+29.2	GORE LT	1109	231		79	3	
1356+76.5	1365+75.1	MAINLINE - RECON	2795	582	719			761
1365+75.1	1413+38.5	MAINLINE	14820	3088	3811	1094	38	
1397+11.0	1409+01.1	GORE LT	1485	309		106	4	
1413+38.5	1422+78.2	MAINLINE - RECON	2924	609	752			796
1422+78.2	1504+12.7	MAINLINE	25307	5272	6508	1868	65	
1428+79.5	1434+38.5	GORE LT	1122	234		80	3	
1486+41.2	1498+30.7	GORE LT	1481	309		106	4	
1504+12.7	1513+68.4	MAINLINE - RECON	2973	619	765			809
1513+68.4	1680+26.0	MAINLINE	48869	10181	12946	3715	130	
1517+54.3	1523+12.3	GORE LT	1101	229		78	3	
1575+06.9	1580+89.8	TURN LANE - RT	583	121	117	44	2	348
1590+53.7	1596+15.3	TURN LANE - RT	562	117	112	42	1	335
1613+98.8	1619+62.8	TURN LANE - RT	561	117	112	42	1	335

CONCRETE SURFACING — J

STATION FROM	STATION TO	LOCATION	PLACE CONCRETE PAVEMENT 7.5" (1) SQ YD	STRUCTURAL CONCRETE CU YD	1.0" DOWEL BAR EACH	BIT MIX FOR PERM ASPHALT STABILIZED STRESS RELIEF CRSE TON	BITUMINOUS MATERIAL FOR MIXTURE TON	AGGREGATE BASE (CV) CLASS 5Q CU YD
T.H. 60 W.B.								
1613+98.8	1619+62.8	TURN LANE - LT	685	143	225	51	2	376
1640+52.5	1646+18.0	TURN LANE - RT	565	118	113	43	2	337
1666+83.7	1672+71.8	TURN LANE - RT	588	123	118	44	2	351
1667+03.2	1672+57.0	TURN LANE - LT	677	141	222	50	2	372
1680+26.0	1683+26.0	MAINLINE - RECON	933	194	240			254
1686+18.4	1689+18.4	MAINLINE - RECON	933	194	240			254
1689+18.4	1902+96.1	MAINLINE	66709	15751	17128	4915	172	
1689+43.4	1695+01.2	TURN LANE - LT	682	142	223	51	2	374
1710+39.9	1716+30.4	TURN LANE - RT	591	123	118	44	2	353
1710+66.0	1716+22.8	TURN LANE - LT	681	142	223	51	2	374
1719+81.2	1725+73.2	TURN LANE - RT	592	123	118	45	2	353
1719+91.5	1725+50.1	TURN LANE - LT	683	142	223	51	2	375
1772+66.3	1778+59.0	TURN LANE - RT	593	124	119	45	2	354
1772+96.5	1778+52.9	TURN LANE - LT	680	142	223	51	2	374
1824+18.1	1829+99.1	TURN LANE - RT	581	121	116	44	2	347
1824+34.7	1829+96.0	TURN LANE - LT	686	143	225	51	2	377
1876+87.9	1882+75.7	TURN LANE - RT	588	123	118	44	2	351
1877+12.8	1882+72.4	TURN LANE - LT	684	143	224	51	2	376
1897+27.0	1902+96.1	TURN LANE - RT	569	119	114	43	2	340
1902+96.1	1908+66.4	MAINLINE - RECON	1774	370	456			483
T.H. 4 N.W. RAMP								
1275+41.9	1280+75.5	MAINLINE	1008	210	213	76	3	
1280+75.5	1283+75.5	MAINLINE - RECON	812	169	120			334
T.H. 4 N.E. RAMP								
1285+17.6	1288+67.6	MAINLINE - RECON	809	169	140			345
1288+67.6	1296+35.9	MAINLINE	1451	302	307	109	4	
T.H. 4 S.W. RAMP								
1275+40.0	1283+71.3	MAINLINE	1570	327	333	118	4	
1283+71.3	1287+21.3	MAINLINE - RECON	1043	217	140			420
T.H. 4 S.E. RAMP								
1287+85.3	1290+85.3	MAINLINE - RECON	822	171	120			338
1290+85.3	1297+03.1	MAINLINE	1167	243	247	88	3	
C.S.A.H. 27 N.W. RAMP								
1409+00.0	1416+05.9	MAINLINE	1333	278	282	101	4	
1416+05.9	1419+05.9	MAINLINE - RECON	799	166	120			330
C.S.A.H. 27 N.E. RAMP								
1419+52.6	1423+02.6	MAINLINE - RECON	886	185	140			370
1423+02.6	1429+22.5	MAINLINE	1171	244	248	88	3	
C.S.A.H. 27 S.W. RAMP								
1407+00.0	1413+17.3	MAINLINE	1166	243	247	88	3	
1413+17.3	1416+67.3	MAINLINE - RECON	901	188	140			375
C.S.A.H. 27 S.E. RAMP								
1417+15.4	1420+15.4	MAINLINE - RECON	784	163	120			325
1420+15.4	1427+22.4	MAINLINE	1335	278	283	101	4	
C.S.A.H. 12 N.W. RAMP								
1419+29.3	1425+26.2	MAINLINE	1128	235	239	85	3	
1425+26.2	1428+26.5	MAINLINE - RECON	807	168	120			333
C.S.A.H. 12 N.E. RAMP								
1507+90.0	1511+39.7	MAINLINE - RECON	1058	220	140			425
1511+39.7	1518+37.5	MAINLINE	1318	275	279	99	3	
C.S.A.H. 12 S.W. RAMP								
1500+00.0	1508+14.8	MAINLINE	1539	321	326	116	4	
1508+14.8	1511+64.9	MAINLINE - RECON	788	164	140			339
C.S.A.H. 12 S.E. RAMP								
1512+28.2	1515+28.4	MAINLINE - RECON	789	164	120			327
1515+28.4	1522+25.6	MAINLINE	1317	274	279	99	3	
TOTAL			**489193**	**103769**	**120058**	**33133**	**1170**	**28879**

(1) AREA DOES NOT INCLUDE SAFETY EDGE. SAFETY EDGE SHALL BE INCIDENTAL.

NO	DATE	DWN	CKD	REVISIONS
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TABULALATIONS

CONCRETE SURFACING

SP 8309-52 (T.H. 60)

SHEET NO. 14 OF 283 SHEETS

BITUMINOUS SURFACING — K

STATION FROM	STATION TO	LOCATION	GEOTEXTILE FABRIC TYPE 5	AGGREGATE BASE (CV) CLASS 5Q	AGGREGATE BASE (CV) CLASS 6	TYPE SP 12.5 WEARING COURSE MIXTURE (3,B) (SPWEB330B)	TYPE SP 12.5 WEARING COURSE MIXTURE (4,E) (SPWEB440E)	TYPE SP 12.5 WEARING COURSE MIXTURE (5,E) (SPWEB540E)
			SQ YD	CU YD	CU YD	TON	TON	TON
T.H. 60 E.B.								
1211+50.0	1218+20.1	CROSSOVER	3723	1241				1262
1225+50.0	1228+50.0	SHLD RT - RECON		134		53		
1228+50.0	1238+92.8	SHLD RT		181		183		
1243+33.8	1244+35.4	CO. RD. 114					65	
1243+34.3	1244+10.2	MEDIAN CROSSING					87	
1244+52.9	1252+39.3	SHLD RT		135		137		
1252+39.3	1258+01.7	SHLD RT - WIDENED				191		
1256+72.7	1257+42.6	MEDIAN CROSSING					67	
1256+77.8	1257+76.8	DRWY RT					41	
1258+01.7	1270+13.2	SHLD RT		210		213		
1270+13.2	1275+39.6	SHLD RT - GORE				79		
1275+40.5	1281+38.6	SHLD RT		88		89		
1281+38.6	1290+97.0	SHLD RT - RECON		427		168		
1290+97.0	1297+32.6	SHLD RT		110		112		
1297+23.8	1307+63.5	SHLD RT - GORE				157		
1297+32.6	1298+30.8	GORE RT				34		
1307+63.5	1356+40.9	SHLD RT		863		876		
1356+40.9	1365+39.4	SHLD RT - RECON		400		158		
1365+39.4	1401+44.7	SHLD RT		623		634		
1401+44.7	1406+99.6	SHLD RT - GORE				84		
1406+97.7	1412+99.9	SHLD RT		104		106		
1412+99.9	1422+39.6	SHLD RT - RECON		419		165		
1422+39.6	1426+82.5	SHLD RT		77		78		
1426+81.0	1438+69.0	SHLD RT - GORE				179		
1426+82.5	1427+79.3	GORE RT				36		
1438+69.0	1494+41.6	SHLD RT		964		980		
1494+41.6	1499+99.6	SHLD RT - GORE				84		
1500+00.2	1504+72.5	SHLD RT		82		83		
1504+72.5	1514+31.2	SHLD RT - RECON		427		169		
1514+31.2	1521+96.1	SHLD RT		133		134		
1521+96.1	1522+97.1	GORE RT				37		
1521+97.2	1538+91.0	SHLD RT - GORE				177		
1538+91.0	1570+93.8	SHLD RT		554		563		
1570+93.8	1576+66.9	SHLD RT - WIDENED				194		
1575+40.2	1576+10.2	MEDIAN CROSSING					67	
1575+51.5	1576+33.7	DRWY RT					33	
1576+66.9	1609+66.2	SHLD RT		570		580		
1590+70.2	1591+40.2	MEDIAN CROSSING					67	
1614+06.7	1614+99.6	TWP. 35					120	
1614+11.9	1614+88.4	MEDIAN CROSSING					85	
1615+28.6	1640+67.3	SHLD RT		439		446		
1640+63.9	1641+33.9	MEDIAN CROSSING					67	
1640+67.3	1641+49.3	DRWY RT					45	
1641+49.3	1662+75.3	SHLD RT		368		374		
1666+98.4	1668+05.9	CO. RD. 103					246	
1668+34.4	1679+90.1	SHLD RT		197		201		
1679+90.1	1682+90.1	SHLD RT - RECON		134		53		
1685+97.0	1688+97.0	SHLD RT - RECON		134		53		
1688+97.0	1706+57.8	SHLD RT		304		310		
1706+57.8	1711+88.1	SHLD RT - WIDENED				180		
1711+17.8	1711+88.1	DRWY RT					45	
1711+88.1	1712+52.1	SHLD RT - WIDENED				22		
1712+52.1	1716+01.5	SHLD RT		61		61		
1719+93.3	1720+96.6	DRWY RT					51	
1721+22.1	1745+99.3	SHLD RT		431		438		
1745+99.3	1768+71.2	SHLD RT				399		
1773+10.0	1774+11.8	C.S.A.H. 16					147	
1773+10.8	1773+86.9	MEDIAN CROSSING					85	
1774+15.7	1820+04.7	SHLD RT				807		
1824+49.4	1825+51.5	CO. RD. 109					66	
1824+50.5	1825+26.4	MEDIAN CROSSING					85	
1825+62.9	1872+77.7	SHLD RT				829		
1850+88.6	1851+58.6	MEDIAN CROSSING					79	
1877+26.9	1878+28.9	CO. RD. 117					65	
1877+28.0	1878+04.0	MEDIAN CROSSING					85	
1878+47.3	1893+03.0	SHLD RT				256		
1897+52.5	1898+22.5	MEDIAN CROSSING					67	
1897+57.0	1898+31.6	DRWY RT					29	
1898+36.6	1902+96.5	SHLD RT				81		
1902+96.5	1908+66.5	SHLD RT - RECON		255		100		
1905+32.0	1912+99.8	CROSSOVER	3816	1457				1294

BITUMINOUS SURFACING — K

STATION FROM	STATION TO	LOCATION	GEOTEXTILE FABRIC TYPE 5	AGGREGATE BASE (CV) CLASS 5Q	AGGREGATE BASE (CV) CLASS 6	TYPE SP 12.5 WEARING COURSE MIXTURE (3,B) (SPWEB330B)	TYPE SP 12.5 WEARING COURSE MIXTURE (4,E) (SPWEB440E)	TYPE SP 12.5 WEARING COURSE MIXTURE (5,E) (SPWEB540E)
			SQ YD	CU YD	CU YD	TON	TON	TON
T.H. 60 W.B.								
1223+94.0	1226+94.0	SHLD LT - RECON		134		53		
1224+29.4	1224+99.5	DRWY LT					44	
1226+94.0	1230+77.6	SHLD LT - WIDENED		199		87		
1230+77.6	1243+16.3	SHLD LT		214		218		
1243+36.3	1244+37.9	CO. RD. 114					65	
1248+50.4	1256+83.9	SHLD LT		144		147		
1256+83.9	1261+71.9	SHLD LT - WIDENED				110		
1256+89.8	1257+78.5	DRWY LT					45	
1261+71.9	1263+75.6	SHLD LT		35		36		
1263+75.6	1275+40.7	SHLD LT - GORE				176		
1274+42.5	1275+39.5	GORE LT				37		
1275+39.5	1280+74.6	SHLD LT		93		94		
1280+74.6	1290+32.9	SHLD LT - RECON		427		168		
1290+32.9	1294+69.6	SHLD LT		75		77		
1294+70.7	1300+29.2	SHLD LT - GORE				84		
1300+29.2	1356+76.5	SHLD LT		977		993		
1356+76.5	1365+75.1	SHLD LT - RECON		400		158		
1365+75.1	1397+11.0	SHLD LT		543		551		
1397+11.0	1408+99.1	SHLD LT - GORE				179		
1408+02.7	1408+97.8	GORE LT				36		
1408+97.8	1413+38.5	SHLD LT		77		77		
1413+38.5	1422+78.2	SHLD LT - RECON		419		165		
1422+78.2	1428+80.6	SHLD LT		104		106		
1428+80.6	1434+38.5	SHLD LT - GORE				84		
1434+38.5	1486+41.2	SHLD LT		900		915		
1486+41.2	1498+28.6	SHLD LT - GORE				179		
1497+29.4	1498+24.3	GORE LT				35		
1498+24.3	1504+12.7	SHLD LT		102		103		
1504+12.7	1513+68.4	SHLD LT - RECON		426		168		
1513+68.4	1517+66.1	SHLD LT		69		70		
1517+56.0	1523+12.3	SHLD LT - GORE				84		
1523+12.3	1590+53.7	SHLD LT		1084		1102		
1590+53.7	1596+15.3	SHLD LT - WIDENED				127		
1590+84.7	1591+51.5	DRWY LT					42	
1596+15.3	1613+98.8	SHLD LT		309		314		
1614+23.6	1615+16.2	TWP. 35						
1619+62.8	1640+52.8	SHLD LT		362		367		
1640+52.8	1641+66.0	DRWY LT					62	
1640+52.8	1646+18.0	SHLD LT - WIDENED				128		
1646+18.0	1667+03.2	SHLD LT		360		367		
1667+38.0	1668+25.1	CO. RD. 103						
1672+57.0	1680+26.0	SHLD LT		133		135		
1680+26.0	1683+26.0	SHLD LT - RECON		134		53		
1686+18.4	1689+18.4	SHLD LT - RECON		134		53		
1689+18.4	1689+43.4	SHLD LT		5		4		
1698+01.2	1710+66.0	SHLD LT		219		222		
1716+22.8	1719+91.5	SHLD LT		64		65		
1720+33.4	1721+36.7	CO. RD. 118						
1725+50.1	1772+96.5	SHLD LT		826		840		
1773+09.5	1774+11.7	C.S.A.H. 16						
1778+52.9	1824+34.7	SHLD LT		793		805		
1824+49.0	1825+51.0	CO. RD. 109						
1829+96.0	1877+12.8	SHLD LT		816		829		
1877+26.7	1878+28.7	CO. RD. 117						
1882+72.4	1897+27.0	SHLD LT		251		256		
1897+27.0	1902+96.1	SHLD LT - WIDENED				129		
1897+67.7	1898+41.7	DRWY LT					26	
1902+96.1	1908+66.4	SHLD LT - RECON		255		100		

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TABULATIONS
BITUMINOUS SURFACING

SP 8309-52 (T.H. 60)
SHEET NO. 15 OF 283 SHEETS

BITUMINOUS SURFACING — K

STATION FROM	STATION TO	LOCATION	GEOTEXTILE FABRIC TYPE 5	AGGREGATE BASE (CV) CLASS 5Q	AGGREGATE BASE (CV) CLASS 6	TYPE SP 12.5 WEARING COURSE MIXTURE (3,B) (SPWEB330B)	TYPE SP 12.5 WEARING COURSE MIXTURE (4,E) (SPWEB440E)	TYPE SP 12.5 WEARING COURSE MIXTURE (5,E) (SPWEB540E)
			SQ YD	CU YD	CU YD	TON	TON	TON
T.H. 4 N.W. RAMP								
1275+41.9	1277+41.9	SHLD LT		32	30	30		
T.H. 4 N.E. RAMP								
1294+35.9	1296+35.9	SHLD LT		32	30	30		
T.H. 4 S.W. RAMP								
1275+40.0	1277+40.0	SHLD RT		32	30	30		
T.H. 4 S.E. RAMP								
1295+03.1	1297+03.1	SHLD RT		32	30	30		
C.S.A.H. 27 N.W. RAMP								
1409+00.0	1411+00.0	SHLD LT		32	30	30		
C.S.A.H. 27 N.E. RAMP								
1427+22.5	1429+22.5	SHLD LT		32	30	30		
C.S.A.H. 27 S.W. RAMP								
1407+00.0	1409+00.0	SHLD RT		32	30	30		
C.S.A.H. 27 S.E. RAMP								
1425+22.4	1427+22.4	SHLD RT		32	30	30		
C.S.A.H. 12 N.W. RAMP								
1419+29.3	1421+29.3	SHLD LT		32	30	30		
C.S.A.H. 12 N.E. RAMP								
1516+37.5	1518+37.5	SHLD LT		32	30	30		
C.S.A.H. 12 S.W. RAMP								
1500+00.0	1502+00.0	SHLD RT		32	30	30		
C.S.A.H. 12 S.E. RAMP								
1520+25.6	1522+25.6	SHLD RT		32	30	30		
TOTAL			**7539**	**22989**	**360**	**22789**	**2078**	**2556**

CONCRETE WALK — L

STATION FROM	STATION TO	LOCATION	CONCRETE CURB & GUTTER DESIGN B624	4" CONCRETE WALK	6" CONCRETE WALK	AGGREGATE BASE (CV) CLASS 5
			LIN FT	SQ FT	SQ FT	CU YD
T.H. 4 SW RAMP						
1283+25.4	1283+33.9	LT			161	3
1283+40.5	1283+51.3	RT			75	1
T.H. 4 NW RAMP						
1286+82.6	1286+93.7	LT			97	2
1286+85.1	1286+94.7	RT			71	1
C.S.A.H. 27						
211+59.2	211+75.9	MAINLINE	93	244		10
215+29.3	215+46.9	MAINLINE	95	226		9
C.S.A.H. 12						
315+28.2	315+55.7	MAINLINE	96	226		9
319+62.2	320+72.1	MAINLINE	256	602		25
TOTAL			**540**	**1298**	**404**	**60**

MAIL BOX — M

STATION	LOCATION	MAIL BOX SUPPORT (3) (4) EACH
T.H. 60 E.B.		
1256+55	RT	2
T.H. 60 W.B.		
1225+16	RT	1
1575+60	LT	1
1591+62	LT	1
1641+58	LT	1
1898+72	LT	2
TOTAL		**8**

(3) REMOVAL OF MAIL BOX SUPPORTS AND SALVAGE AND INSTALLATION OF MAIL BOXES ARE INCIDENTAL
(4) PROVIDE TEMPORARY MAIL BOXES TO MAINTAIN POSTAL SERVICES (INCIDENTAL)

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TABULATIONS
BITUMINOUS SURFACING, CONCRETE WALK, & MAILBOX

SP 8309-52 (T.H. 60)
SHEET NO. 16 OF 283 SHEETS

GUARDRAIL

N

SITE NO.	STATION (1)		LOCATION	REMOVE GUARDRAIL - PLATE BEAM	REMOVE ENERGY ABSORBING TERMINAL	TRAFFIC BARRIER DESIGN BULLNOSE	TRAFFIC BARRIER DESIGN TYPE 31	TRAFFIC BARRIER DESIGN TRANSITION TYPE 31	ANCHORAGE ASSEMBLY - TYPE 31	END TREATMENT - TANGENT TERMINAL (2)	NOTES
	FROM	TO		LIN FT	EACH	LIN FT	LIN FT	LIN FT	EACH	EACH	
T.H. 60 E.B.											
	1284+03	1286+78	SHLD RT				275		1	1	
	1285+24	1286+49	MEDIAN	376		100	125				
	1285+24	1286+49	MEDIAN			100	125				
	1358+49	1360+74	SHLD RT				225		1	1	
	1360+77	1361+39	MEDIAN	276		100	62.5				
	1360+77	1361+39	MEDIAN			100	62.5				
	1415+11	1417+74	SHLD RT				262.5		1	1	
	1417+32	1418+45	MEDIAN	350		100	112.5				
	1417+32	1418+45	MEDIAN			100	112.5				
	1507+35	1510+10	SHLD RT				275		1	1	
	1508+63	1509+76	MEDIAN	377		100	112.5				
	1508+63	1509+76	MEDIAN			100	112.5				
	1680+93	1683+05	SHLD LT	312	1		212.5	25		1	
	1681+27	1683+02	SHLD RT	274	1		175	25		1	
T.H. 60 W.B.											
	1284+94	1287+81	SHLD LT				287.5		1	1	
	1361+42	1363+67	SHLD LT				225		1	1	
	1418+05	1420+80	SHLD LT				275		1	1	
	1508+34	1511+09	SHLD LT				275		1	1	
	1685+93	1688+06	SHLD RT	314	1		212.5	25		1	
	1685+97	1687+72	SHLD LT	276	1		175	25		1	
C.S.A.H. 27											
	211+32	211+45	SHLD LT	73	1		12.5	25		1	
	211+62	211+75	SHLD RT	78	1		12.5	25		1	
	215+31	215+44	SHLD LT	77	1		12.5	25		1	
	215+60	215+72	SHLD RT	78	1		12.5	25		1	
C.S.A.H. 12											
	315+03	315+16	SHLD RT	100	1		12.5	25		1	
	320+02	320+64	SHLD LT	123	1		62.5	25		1	
TOTAL				**3084**	**10**	**800**	**3825**	**250**	**8**	**18**	

(1) STATIONS REFER TO BEGIN AND END OF BARRIER ITEMS BID BY LIN FT AND DO NOT INCLUDE THE END TERMINALS.
(2) SHALL BE SOFTSTOP OF MKT.
(3) ET PLUS
(4) FLEAT 350
(5) LEAVE INPLACE DESIGN SPECIAL ON BRIDGE AND TRANSITION TO TYPE 31 HEIGHT AS PER DETAIL. CONNECTION TO INPLACE DESIGN SPECIAL IS INCIDENTAL.
(6) INCLUDES REMOVAL OF BULLNOSE.

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TABULATIONS
BITUMINOUS SURFACING, CONCRETE WALK, & MAILBOX

TEMPORARY EROSION CONTROL & TURF ESTABLISHMENT (1)

STATION		LOCATION	SILT FENCE, TYPE MS	STORM DRAIN INLET PROTECTION	SEDIMENT CONTROL LOG TYPE BLANKET SYSTEM	CULVERT END CONTROLS	SUBSOILING	SOIL BED PREPARATION	FERTILIZER TYPE 3 (6)	FERTILIZER TYPE 4 (6)	SEEDING (6)	SEED MIXTURE 35-241 (6)	DISK ANCHORING (6)	WEED SPRAYING (6)	WEED SPRAY MIXTURE (5) (6)	MULCH MATERIAL, TYPE 3 (6)	HYDRAULIC STABILIZED FIBER MATRIX (4) (6)	RAPID STABILIZATION METHOD 3 (3) (7)
FROM	TO		LIN FT	EACH	LIN FT	EACH	ACRE	ACRE	POUND	POUND	ACRE	POUND	ACRE	ACRE	GALLON	TON	POUND	MGAL
T.H. 60 E.B.																		
1211+45	1211+45	LT			65													
1211+45	1218+20	LT					0.65	0.65	130	78	0.65	24	0.65	0.35	1	2	1950	4
1223+49		LT				1												
1224+31		RT				1												
1225+50	1913+00	LT					12.60	12.60	2520	1512	12.60	460	12.60	6.30	6	25	37800	76
1225+50	1902+97	RT					12.40	12.40	2480	1488	12.40	453	12.40	6.20	6	25	37200	74
1232+22		LT				1												
1232+37		RT				1												
1232+48	1236+52	LT					0.75	0.75	150	90	0.75	27	0.75	0.40	1	2	2250	5
1242+77		LT				1												
1243+43		RT				1												
1246+12		RT				1												
1246+36		LT				1												
1264+81		LT				1												
1273+13	1275+38	RT	219															
1273+64	1273+68	RT			13													
1290+51		LT				1												
1290+66		RT				1												
1297+28	1307+67	RT	1073															
1305+10		LT		1														
1305+49		RT				1												
1317+21		LT				1												
1317+28		RT				1												
1317+38		LT				1												
1322+73	1328+80	RT	715															
1328+40	1328+44	RT			31													
1345+93	1345+94	RT			35													
1345+94	1364+16	RT	1822															
1351+00		LT				1												
1358+99		LT				1												
1363+51	1363+53	RT			35													
1366+01		LT		1														
1385+99		LT				1												
1396+99		LT				1												
1405+22	1405+39	RT			87													
1405+39	1406+96	RT	158															
1407+99		LT		1														
1413+92	1417+48	RT	771															
1416+54		LT				1												
1421+37		LT		1														
1426+85	1442+63	RT	1578															
1444+53	1459+63	RT	1510															
1445+39		LT		1														
1459+63	1459+69	RT			50													
1464+48		LT		1														
1465+09		RT				1												
1484+64	1493+47	RT	883															
1486+16	1486+18	RT			37													
1487+00		LT				1												
1494+99		LT		1														
1496+05	1499+97	RT	393															
1496+33	1496+38	RT			34													
1507+90		LT				1												
1513+04		RT		1														
1513+60		LT		1														
1522+00	1537+28	RT	1006															
1545+99		LT				1												
1566+07		RT		1														
SUBTOTAL			10128	10	387	24	26.40	26.40	5280	3168	26.40	964	26.40	13.25	15	54	79200	158

1) PLACE AT LOCATIONS AS DIRECTED BY ENGINEER.
2) AREAS ARE ROUNDED TO THE NEAREAST 0.05 ACRE, WITH ALL AREAS LESS THAN 0.05 ACRES ROUNDED UP TO 0.05 (PER SPEC)
3) RAPID STABILIZATOIN TO BE USED FOR TEMPORARY COVER AS APPROVED BY THE ENGINEER. CONTRACTOR SHALL CHOOSE APPRIPRIATE METHOD BASED ON SITE CONDITIONS.
4) APPLY AT A RATE OF 3000 LBS/ACRE.
5) WEED SPRAY MIXTURE QUANTITY BASED ON 0.5 GAL/ACRE.
6) TURF ESTABLISHMENT BASED ON 8 FT. WIDE STRIP FROM EDGE OF PAVEMENT.
7) INCLUDES ALL REQUIRED MAINTENANCE AND REPLACEMENT FOR THE DURATION OF THE PROJECT.

TEMPORARY EROSION CONTROL & TURF ESTABLISHMENT (1)

STATION		LOCATION	SILT FENCE, TYPE MS	STORM DRAIN INLET PROTECTION	SEDIMENT CONTROL LOG TYPE BLANKET SYSTEM	CULVERT END CONTROLS	SUBSOILING	SOIL BED PREP	FERTILIZER TYPE 3 (6)	FERTILIZER TYPE 4 (6)	SEEDING (6)	SEED MIXTURE 35-241 (6)	DISK ANCHORING (6)	WEED SPRAYING (6)	WEED SPRAY MIXTURE (5) (6)	MULCH MATERIAL, TYPE 3 (6)	HYDRAULIC STABILIZED FIBER MATRIX (4) (6)	RAPID STABILIZATION METHOD 3 (3) (7)
FROM	TO		LIN FT	EACH	LIN FT	EACH	ACRE	ACRE	POUND	POUND	ACRE	POUND	ACRE	ACRE	GALLON	TON	POUND	MGAL
T.H. 60 E.B.																		
1566+09		LT				1												
1567+95		RT		1														
1572+25		RT		1														
1572+26		LT				1												
1575+67		RT				1												
1576+98		LT				1												
1576+99		RT		1														
1581+48		RT		1														
1584+77		RT		1														
1590+05		RT		1														
1595+01		RT		1														
1600+51		RT				1												
1600+57		RT		1														
1602+81		RT		1														
1603+42		RT		1														
1628+78		LT		1														
1640+83		RT				1												
1641+44		LT				1												
1658+18		RT				1												
1658+20		LT		1														
1666+80		LT				1												
1667+20		RT				1												
1682+69	1683+14	RT	73															
1683+21		LT		1														
1683+22		RT		1														
1683+35	1683+51	LT	64															
1685+46		RT				1												
1685+84	1685+90	LT	54															
1685+91	1686+08	RT	59															
1686+97		LT				1												
1705+79	1711+35	RT	575															
1711+80	1720+09	RT	926															
1712+69		LT		1														
1712+70		RT				1												
1720+62	1731+72	RT	1158															
1720+76		RT				1												
1721+99		LT				1												
1731+68	1731+72	RT			46													
1738+07	1753+66	RT	1569															
1753+48		LT		1														
1773+25		RT				1												
1824+59		RT				1												
1827+61		LT		1														
1850+68		LT		1														
1851+51		RT				1												
1878+27		LT		1														
1897+69		RT				1												
1903+75		LT		1														
1914+59	1914+69	LT			55													
1916+28	1916+33	RT			70													
T.H. 60 W.B.																		
1223+94	1912+56	LT					12.60	12.60	2520	1512	12.60	460	12.60	6.30	6	25	37800	76
1223+94	1908+66	RT					12.50	12.50	2500	1500	12.50	456	12.50	6.25	6	25	37500	75
1224+43		LT				1												
1256+95		LT				1												
1282+47	1284+69	LT	496															
1283+99		RT				1												
SUBTOTAL			4974	20	171	22	25.10	25.10	5020	3012	25.10	916	25.10	12.55	13	50	75300	151

1) PLACE AT LOCATIONS AS DIRECTED BY ENGINEER.
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6) TURF ESTABLISHMENT BASED ON 8 FT. WIDE STRIP FROM EDGE OF PAVEMENT.
7) INCLUDES ALL REQUIRED MAINTENANCE AND REPLACEMENT FOR THE DURATION OF THE PROJECT.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
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TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 19 OF 283 SHEETS

TEMPORARY EROSION CONTROL & TURF ESTABLISHMENT (1)

STATION		LOCATION	SILT FENCE, TYPE MS	STORM DRAIN INLET PROTECTION	SEDIMENT CONTROL LOG TYPE BLANKET SYSTEM	CULVERT END CONTROLS	SUBSOILING	SOIL BED PREP	FERTILIZER TYPE 3 (6)	FERTILIZER TYPE 4 (6)	SEEDING (6)	SEED MIXTURE 35-241 (6)	DISK ANCHORING (6)	WEED SPRAYING (6)	WEED SPRAY MIXTURE (5) (6)	MULCH MATERIAL, TYPE 3 (6)	HYDRAULIC STABILIZED FIBER MATRIX (4) (6)	RAPID STABILIZATION METHOD 3 (3) (7)
FROM	TO		LIN FT	EACH	LIN FT	EACH	ACRE	ACRE	POUND	POUND	ACRE	POUND	ACRE	ACRE	GALLON	TON	POUND	MGAL
T.H. 60 W.B.																		
1294+75	1315+27	LT	2005															
1315+30	1315+34	LT			35													
1327+80		LT				1												
1366+00		LT				1												
1403+29	1408+94	LT	567															
1404+22	1404+24	LT			30													
1407+99		LT				1												
1418+75	1424+93	LT	1267															
1421+36		LT				1												
1428+82	1443+19	LT	1437															
1434+49		RT				1												
1444+89	1445+12	LT			30													
1445+76	1445+89	LT			26													
1446+03	1459+79	LT	1377															
1459+69	1459+79	LT			59													
1495+01		LT				1												
1514+30		LT		1														
1517+62	1518+62	LT	102															
1518+62	1518+70	LT			35													
1524+31		RT				1												
1566+07		LT				1												
1572+22		LT				1												
1575+66		LT				1												
1577+02		LT				1												
1600+50		RT				1												
1604+00		LT		1														
1628+75		LT				1												
1639+12		RT				1												
1641+28		LT				1												
1667+29		LT				1												
1681+14		RT				1												
1683+33		RT		1														
1683+35		LT		1														
1683+55	1683+59	LT	98															
1685+63	1685+72	LT	60															
1691+44		RT				1												
1712+09	1720+83	LT	957															
1721+40	1747+01	LT	2661															
1747+00	1747+01	LT			49													
1773+22		LT				1												
1775+01		RT				1												
1785+00		RT				1												
1794+03		RT				1												
1816+04		RT				1												
1816+93	1824+69	LT	869															
1819+10	1819+12	LT			42													
1823+78		RT				1												
1824+61		LT				1												
1827+69		LT				1												
1850+63		LT				1												
1851+59		LT				1												
1852+70		RT				1												
1876+47		RT				1												
1877+32		LT				1												
1878+39		LT				1												
1897+01		RT				1												
1897+66		LT				1												
1914+29	1914+37	LT			55													
SUBTOTAL			11400	4	361	34												

1) PLACE AT LOCATIONS AS DIRECTED BY ENGINEER.
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6) TURF ESTABLISHMENT BASED ON 8 FT. WIDE STRIP FROM EDGE OF PAVEMENT.
7) INCLUDES ALL REQUIRED MAINTENANCE AND REPLACEMENT FOR THE DURATION OF THE PROJECT.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 20 OF 283 SHEETS

TEMPORARY EROSION CONTROL & TURF ESTABLISHMENT (1)

STATION		LOCATION	SILT FENCE, TYPE MS	STORM DRAIN INLET PROTECTION	SEDIMENT CONTROL LOG TYPE BLANKET SYSTEM	CULVERT END CONTROLS	SUBSOILING	SOIL BED PREP	FERTILIZER TYPE 3 (6)	FERTILIZER TYPE 4 (6)	SEEDING (6)	SEED MIXTURE 35-241 (6)	DISK ANCHORING (6)	WEED SPRAYING (6)	WEED SPRAY MIXTURE (5) (6)	MULCH MATERIAL, TYPE 3 (6)	HYDRAULIC STABILIZED FIBER MATRIX (4) (6)	RAPID STABILIZATION METHOD 3 (3) (7)
FROM	TO		LIN FT	EACH	LIN FT	EACH	ACRE	ACRE	POUND	POUND	ACRE	POUND	ACRE	ACRE	GALLON	TON	POUND	MGAL
T.H. 4 N.W. RAMP																		
1275+42	1283+76	LT					0.15	0.15	30	18	0.15	5	0.15	0.10	1	1	450	1
1275+42	1283+76	RT					0.15	0.15	30	18	0.15	5	0.15	0.10	1	1	450	1
T.H. 4 N.E. RAMP																		
1285+18	1296+36	LT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1285+18	1296+36	RT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1290+78	1290+91	LT			105													
1290+91	1296.35.9	LT	526															
1292+49		RT				1												
T.H. 4 S.W. RAMP																		
1275+40	1287+21	LT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1275+40	1287+21	RT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1275+40	1287+12	RT	1329															
T.H. 4 S.E. RAMP																		
1287+85	1297+03	LT					0.15	0.15	30	18	0.15	5	0.15	0.10	1	1	450	1
1287+85	1297+03	RT					0.15	0.15	30	18	0.15	5	0.15	0.10	1	1	450	1
1289+44	1297+03	RT	922															
C.S.A.H. 27 N.W. RAMP																		
1409+00	1419+06	LT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1409+00	1419+06	RT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1409+00	1418+80	LT	1017															
C.S.A.H. 27 N.E. RAMP																		
1419+53	1429+23	LT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1419+53	1429+23	RT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1423+30	1429+23	LT	588															
C.S.A.H. 27 S.W. RAMP																		
1407+00	1416+67	LT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1407+00	1416+67	RT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1407+00	1415+51	RT	953															
C.S.A.H. 27 S.E. RAMP																		
1417+15	1427+22	LT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1417+15	1427+22	RT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1418+65	1427+22	RT	869															
1421+94		LT				1												
C.S.A.H. 12 N.W. RAMP																		
1419+29	1428+27	LT					0.15	0.15	30	18	0.15	5	0.15	0.10	1	1	450	1
1419+29	1428+27	RT					0.15	0.15	30	18	0.15	5	0.15	0.10	1	1	450	1
C.S.A.H. 12 N.E. RAMP																		
1507+90	1518+38	LT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1507+90	1518+38	RT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1513+41	1518+38	LT	331															
1513+41	1513+46	LT			29													
C.S.A.H. 12. S.W. RAMP																		
1500+00	1511+65	LT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1500+00	1511+65	RT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1500+00	1511+78	RT	1317															
C.S.A.H. 12 S.E. RAMP																		
1512+28	1522+26	LT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1512+28	1522+26	RT					0.20	0.20	40	24	0.20	7	0.20	0.10	1	1	600	1
1520+37	1522+26	RT	185															
1521+38	1521+38	RT			38													
SUBTOTAL			8037		172	2	5	5	900	540	4.50	164	5	2	24	24	13500	27
PROJECT TOTAL			34539	34	1091	82	56.00	56.00	11200	6720	56.00	2044	56.00	28.20	51	128	168000	336

1) PLACE AT LOCATIONS AS DIRECTED BY ENGINEER.
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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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TABULATIONS

SP 8309-52 (T.H. 60)
SHEET NO. 21 OF 283 SHEETS

TEMPORARY CONSTRUCTION TABULATIONS WILL BE
PROVIDED WITH THE 90% SUBMITTAL

NO	DATE	DWN	CKD	REVISIONS
0	11/10/17			

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TABULATIONS
TEMPORARY CONSTRUCTION

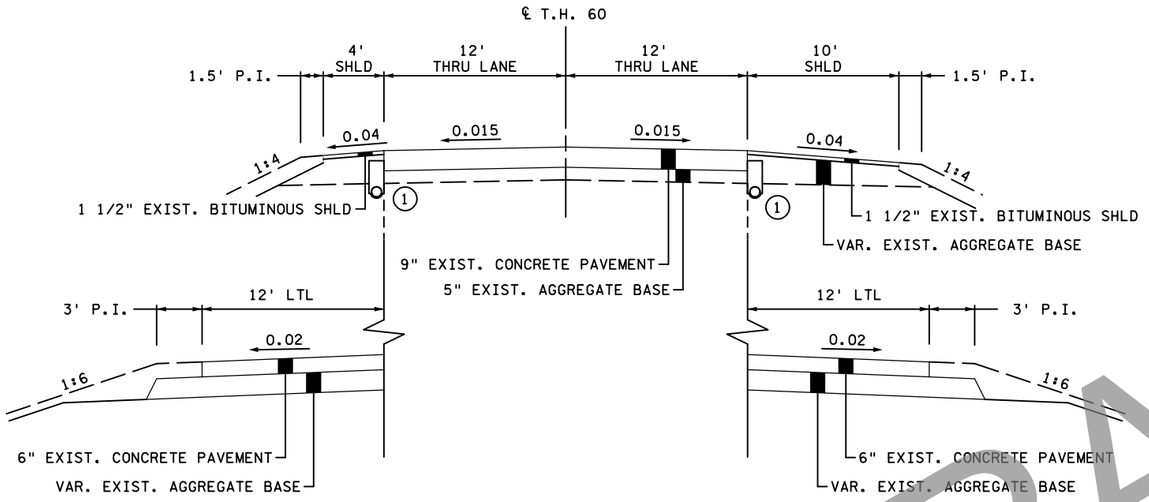
SP 8309-52 (T.H. 60)
SHEET NO. 22 OF 283 SHEETS

EXISTING T.H. 60

(CONCRETE)

T.H. 60 W.B. STA. 1223+94.0 R 1 TO STA. STA. 1535+91.2 R 2

T.H. 60 E.B. STA. 1225+50.0 R 2 TO STA. 1539+06.0 R 6



LEFT TURN LANE

T.H. 60 W.B. STA. 1226+94.0 R 1 TO STA. 1230+77.6 R 1
T.H. 60 W.B. STA. 1243+39.7 R 1 TO STA. 1248+91.4 R 1
T.H. 60 W.B. STA. 1256+83.9 R 1 TO STA. 1261+77.6 R 1
T.H. 60 W.B. STA. 1223+94.0 R 1 TO STA. 1226+94.0 R 1

T.H. 60 E.B. STA. 1238+81.8 R 2 TO STA. 1244+54.3 R 2
T.H. 60 E.B. STA. 1252+39.3 R 3 TO STA. 1258+01.7 R 3

RIGHT TURN LANE

T.H. 60 W.B. STA. 1243+16.3 R 1 TO STA. 1248+50.4 R 1

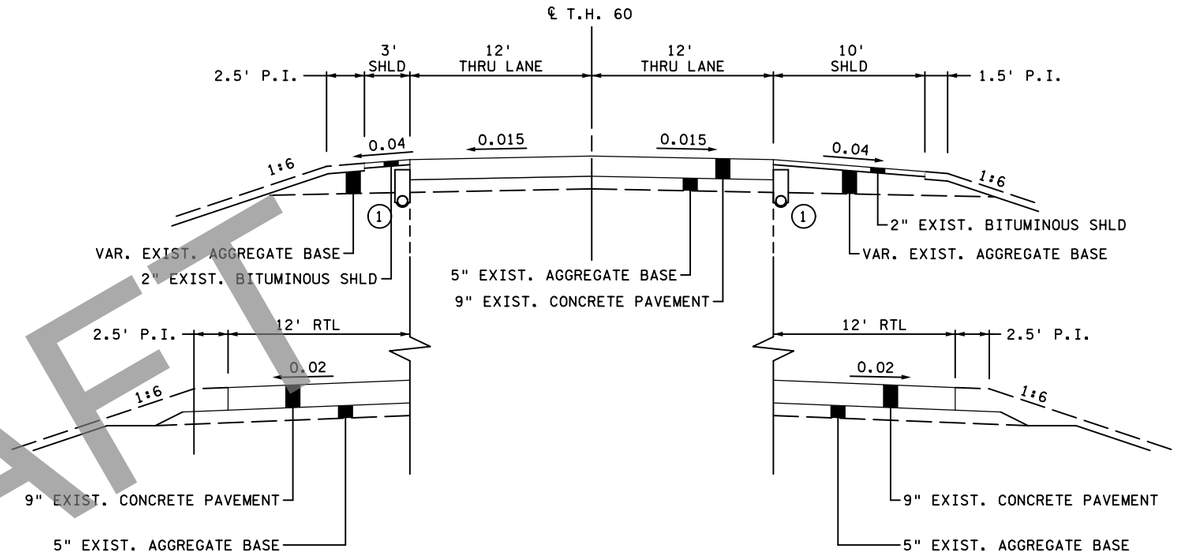
T.H. 60 E.B. STA. 1238+92.8 R 2 TO STA. 1244+52.9 R 2

EXISTING T.H. 60

(CONCRETE)

T.H. 60 W.B. STA. 1904+50.0 R 8 TO STA. 1908+66.4 R 8

T.H. 60 E.B. STA. 1539+06.0 R 6 TO STA. 1666+65.8 R 8



LEFT TURN LANE

T.H. 60 E.B. STA. 1570+93.8 R 7 TO STA. 1576+66.9 R 7
T.H. 60 E.B. STA. 1586+23.3 R 7 TO STA. 1591+96.9 R 7
T.H. 60 E.B. STA. 1609+58.5 R 7 TO STA. 1615+44.8 R 7
T.H. 60 E.B. STA. 1636+17.6 R 8 TO STA. 1641+91.9 R 8
T.H. 60 E.B. STA. 1662+67.8 R 8 TO STA. 1668+52.0 R 8

RIGHT TURN LANE

T.H. 60 E.B. STA. 1609+66.2 R 7 TO STA. 1615+28.6 R 7
T.H. 60 E.B. STA. 1662+75.3 R 8 TO STA. 1668+34.4 R 8

GENERAL NOTES

A. ALL CROSS SLOPES ARE IN FT. PER FT.

SPECIFIC NOTES

(1) INPLACE SUBSURFACE DRAIN.

9:05:40 PM
11/10/2017
..\Projects\2017\170116\DESIGN\Plan Sheets\cd830952-ts01.dgn

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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TYPICAL SECTIONS
INPLACE TH 60

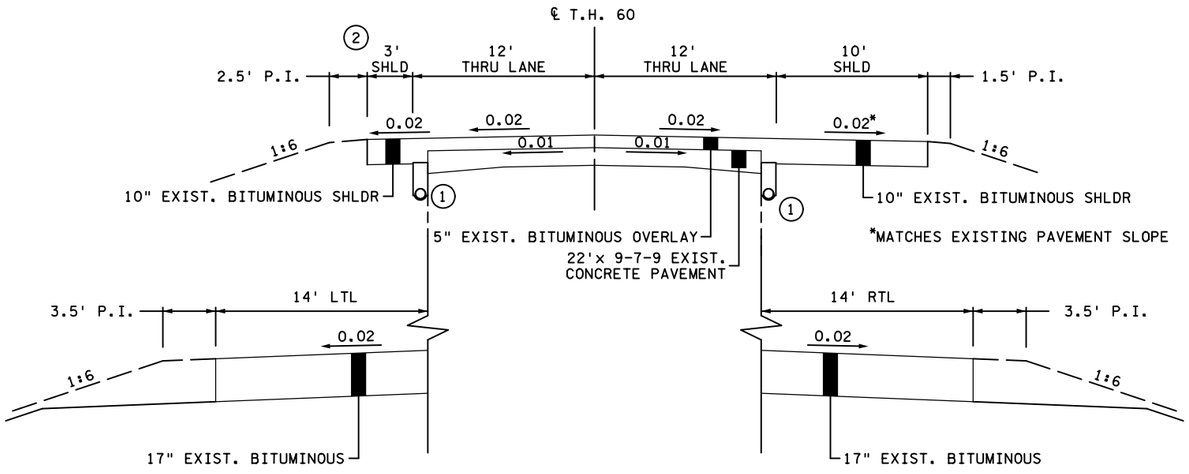
SP 8309-52 (T.H. 60)
SHEET NO. 23 OF 283 SHEETS

EXISTING T.H. 60

(5" BIT OVERLAY OVER CONCRETE)

T.H. 60 W.B. STA. 1535+91.2 R 2 TO STA. 1659+29.6 R 4

T.H. 60 E.B. STA. 1745+99.3 R 11 TO STA. 1908+66.5 R 12



LEFT TURN LANE

T.H. 60 W.B. STA. 1575+06.7 R 3 TO STA. 1580+89.8 R 3
T.H. 60 W.B. STA. 1590+53.7 R 3 TO STA. 1596+15.6 R 3
T.H. 60 W.B. STA. 1614+02.8 R 3 TO STA. 1619+62.8 R 3
T.H. 60 W.B. STA. 1640+57.5 R 4 TO STA. 1646+18.0 R 4

T.H. 60 E.B. STA. 1768+71.2 R 12 TO STA. 1774+41.8 R 12
T.H. 60 E.B. STA. 1820+04.8 R 12 TO STA. 1825+84.7 R 12
T.H. 60 E.B. STA. 1872+77.6 R 12 TO STA. 1878+58.3 R 12
T.H. 60 E.B. STA. 1893+03.0 R 12 TO STA. 1898+68.0 R 12

RIGHT TURN LANE

T.H. 60 W.B. STA. 1613+89.3 R 3 TO STA. 1619+62.8 R 3

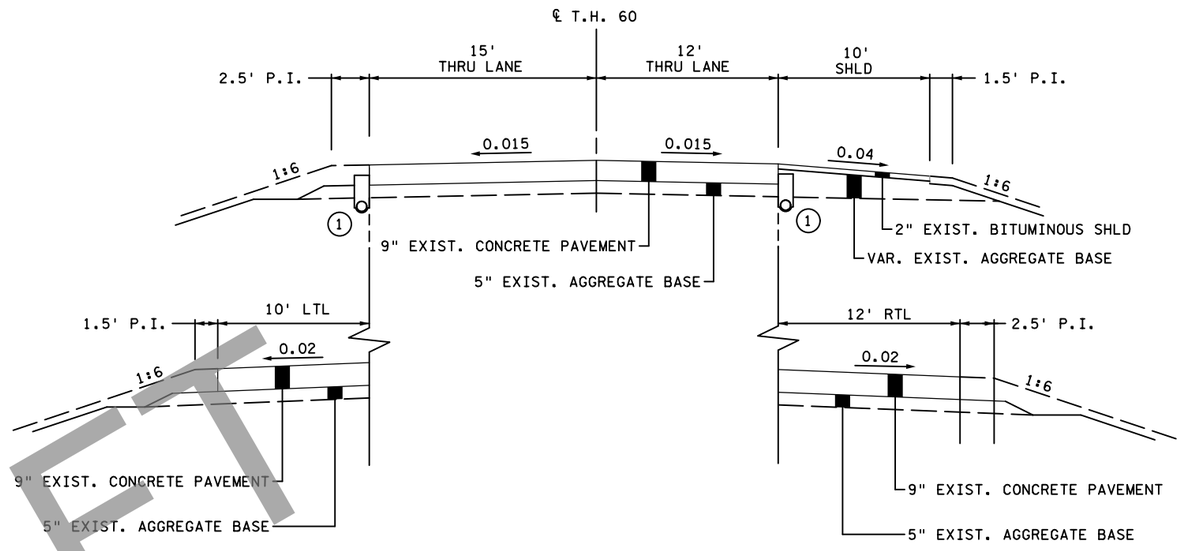
T.H. 60 E.B. STA. 1768+71.2 R 12 TO STA. 1774+15.7 R 12
T.H. 60 E.B. STA. 1820+04.7 R 12 TO STA. 1825+62.9 R 12
T.H. 60 E.B. STA. 1872+77.6 R 12 TO STA. 1878+47.3 R 12
T.H. 60 E.B. STA. 1893+03.0 R 12 TO STA. 1898+36.6 R 12

EXISTING T.H. 60

(CONCRETE)

T.H. 60 W.B. STA. 1659+29.3 R 4 TO STA. STA. 1904+50.0 R 8

T.H. 60 E.B. STA. 1666+65.8 R 8 TO STA. 1745+99.3 R 11



LEFT TURN LANE

T.H. 60 W.B. STA. 1666+83.1 R 4 TO STA. 1672+71.8 R 4
T.H. 60 W.B. STA. 1710+70.4 R 4 TO STA. 1716+30.4 R 4
T.H. 60 W.B. STA. 1719+65.4 R 5 TO STA. 1725+73.2 R 5
T.H. 60 W.B. STA. 1772+66.3 R 7 TO STA. 1778+59.0 R 7
T.H. 60 W.B. STA. 1824+12.1 R 8 TO STA. 1829+99.1 R 8
T.H. 60 W.B. STA. 1876+87.9 R 8 TO STA. 1882+75.7 R 8
T.H. 60 W.B. STA. 1897+27.0 R 8 TO STA. 1902+96.1 R 8

T.H. 60 E.B. STA. 1685+61.4 R 9 TO STA. 1688+97 R 9
T.H. 60 E.B. STA. 1688+97 R 9 TO STA. 1691+06.3 R 9
T.H. 60 E.B. STA. 1706+57.8 R 9 TO STA. 1712+52.1 R 9
T.H. 60 E.B. STA. 1715+97.3 R 9 TO STA. 1721+39.8 R 10

RIGHT TURN LANE

T.H. 60 W.B. STA. 1667+03.2 R 4 TO STA. 1672+57.0 R 4
T.H. 60 W.B. STA. 1689+43.4 R 4 TO STA. 1695+01.2 R 4
T.H. 60 W.B. STA. 1710+66.0 R 4 TO STA. 1716+22.8 R 4
T.H. 60 W.B. STA. 1719+91.5 R 5 TO STA. 1725+50.0 R 5
T.H. 60 W.B. STA. 1772+96.5 R 7 TO STA. 1778+52.9 R 7
T.H. 60 W.B. STA. 1824+34.7 R 8 TO STA. 1829+96.0 R 8
T.H. 60 W.B. STA. 1877+12.8 R 8 TO STA. 1882+72.4 R 8

T.H. 60 E.B. STA. 1716+01.5 R 9 TO STA. 1721+22.0 R 10

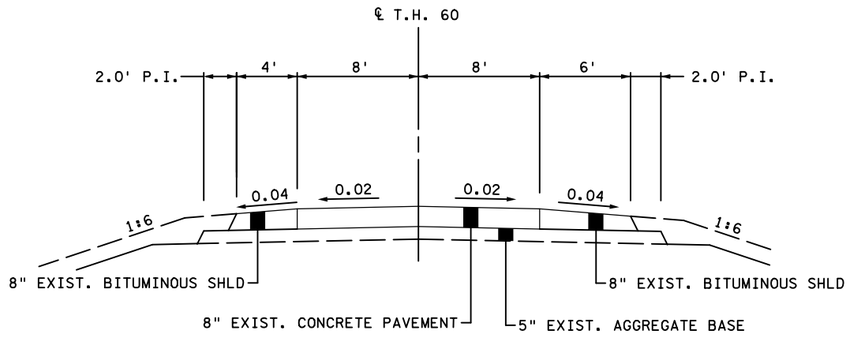
EXISTING T.H. 60 RAMPS

(CONCRETE)

T.H. 60 W.B. RAMP STA. 1275+41.9 TO STA. 1283+75.5
T.H. 60 E.B. RAMP STA. 1285+17.6 TO STA. 1296+35.9
T.H. 60 W.B. RAMP STA. 1275+40.0 TO STA. 1287+21.3
T.H. 60 E.B. RAMP STA. 1287+85.3 TO STA. 1297+03.1

C.S.A.H. 60 W.B. RAMP STA. 1409+00.0 TO STA. 1419+05.9
C.S.A.H. 60 E.B. RAMP STA. 1419+52.6 TO STA. 1429+22.5
C.S.A.H. 60 E.B. RAMP STA. 1407+00.0 TO STA. 1416+67.3
C.S.A.H. 60 W.B. RAMP STA. 1417+15.4 TO STA. 1427+22.4

C.S.A.H. 12 W.B. RAMP STA. 1419+29.3 TO STA. 1428+26.0
C.S.A.H. 12 E.B. RAMP STA. 1507+90.0 TO STA. 1518+37.5
C.S.A.H. 12 W.B. RAMP STA. 1500+00.0 TO STA. 1511+64.9
C.S.A.H. 12 E.B. RAMP STA. 1512+28.2 TO STA. 1522+25.6



GENERAL NOTES

A. ALL CROSS SLOPES ARE IN FT. PER FT.

SPECIFIC NOTES

(1) INPLACE SUBSURFACE DRAIN.

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TYPICAL SECTIONS
INPLACE TH 60

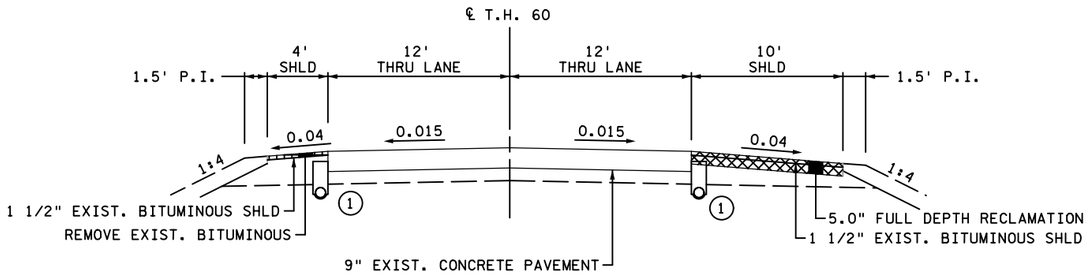
SP 8309-52 (T.H. 60)
SHEET NO. 24 OF 283 SHEETS

T.H. 60 FULL DEPTH RECLAMATION/REMOVAL TYPICAL

(CONCRETE)

T.H. 60 W.B. STA. 1226+94.0 R 1 TO STA. 1280+74.6 R 1
T.H. 60 W.B. STA. 1290+32.9 R 1 TO STA. 1356+76.5 R 1
T.H. 60 W.B. STA. 1365+75.1 R 1 TO STA. 1413+38.5 R 1
T.H. 60 W.B. STA. 1422+78.2 R 1 TO STA. 1504+12.7 R 1
T.H. 60 W.B. STA. 1513+68.4 R 1 TO STA. 1535+91.2 R 2

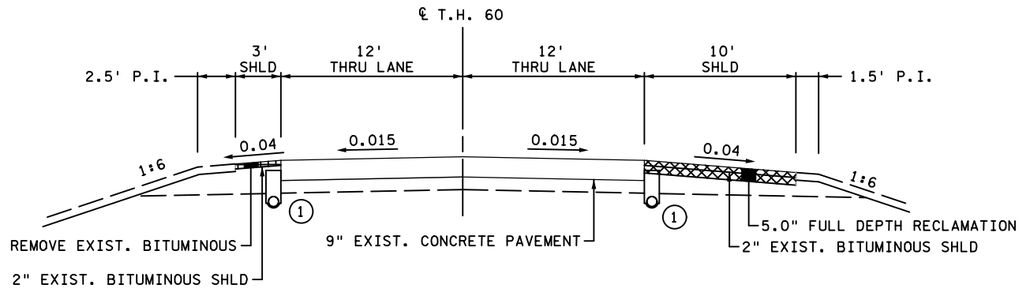
T.H. 60 E.B. STA. 1228+50.0 R 2 TO STA. 1281+38.6 R 4
T.H. 60 E.B. STA. 1290+97.0 R 4 TO STA. 1356+40.9 R 5
T.H. 60 E.B. STA. 1365+39.4 R 5 TO STA. 1412+99.9 R 5
T.H. 60 E.B. STA. 1422+39.6 R 5 TO STA. 1504+72.5 R 5
T.H. 60 E.B. STA. 1514+31.2 R 5 TO STA. 1539+06.0 R 6



T.H. 60 FULL DEPTH RECLAMATION/REMOVAL TYPICAL

(CONCRETE)

T.H. 60 E.B. STA. 1539+06.0 R 6 TO STA. 1666+65.8 R 8

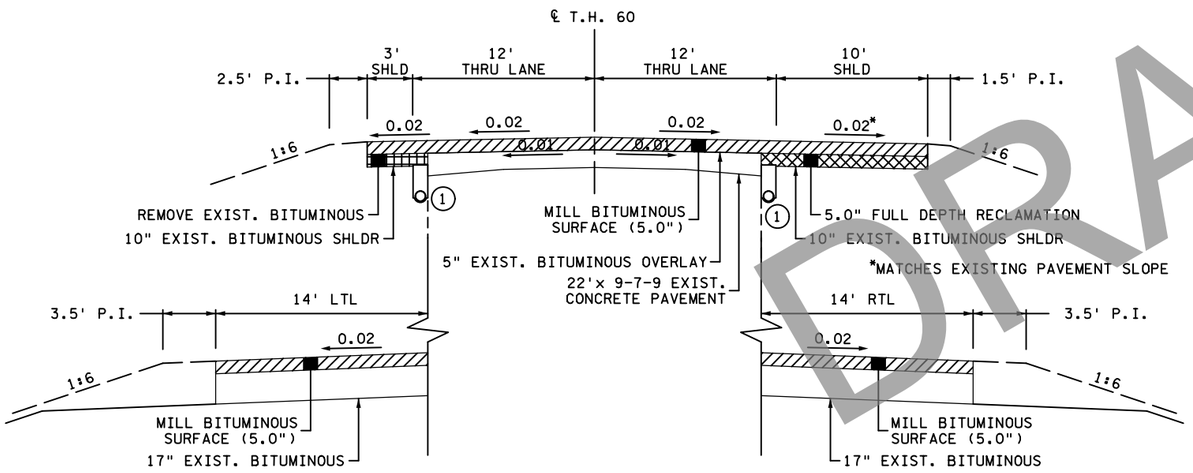


T.H. 60 MILLING/REMOVAL/FULL DEPTH RECLAMATION TYPICAL

(5" BIT OVERLAY OVER CONCRETE)

T.H. 60 W.B. STA. 1535+91.2 R 2 TO STA. 1659+29.6 R 4

T.H. 60 E.B. STA. 1745+99.3 R 11 TO STA. 1908+66.5 R 12



LEFT TURN LANE

T.H. 60 W.B. STA. 1575+06.7 R 3 TO STA. 1580+89.8 R 3
T.H. 60 W.B. STA. 1590+53.7 R 3 TO STA. 1596+15.6 R 3
T.H. 60 W.B. STA. 1614+02.8 R 3 TO STA. 1619+62.8 R 3
T.H. 60 W.B. STA. 1640+57.5 R 4 TO STA. 1646+18.0 R 4

T.H. 60 E.B. STA. 1768+71.2 R 12 TO STA. 1774+41.8 R 12
T.H. 60 E.B. STA. 1820+04.8 R 12 TO STA. 1825+84.7 R 12
T.H. 60 E.B. STA. 1872+77.6 R 12 TO STA. 1878+58.3 R 12
T.H. 60 E.B. STA. 1893+03.0 R 12 TO STA. 1898+68.0 R 12

RIGHT TURN LANE

T.H. 60 W.B. STA. 1613+89.3 R 3 TO STA. 1619+62.8 R 3

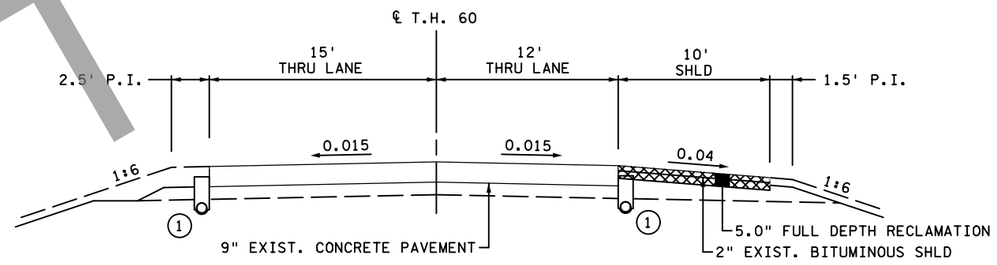
T.H. 60 E.B. STA. 1768+71.2 R 12 TO STA. 1774+15.7 R 12
T.H. 60 E.B. STA. 1820+04.7 R 12 TO STA. 1825+62.9 R 12
T.H. 60 E.B. STA. 1872+77.6 R 12 TO STA. 1878+47.3 R 12
T.H. 60 E.B. STA. 1893+03.0 R 12 TO STA. 1898+36.6 R 12

T.H. 60 FULL DEPTH RECLAMATION TYPICAL

(CONCRETE)

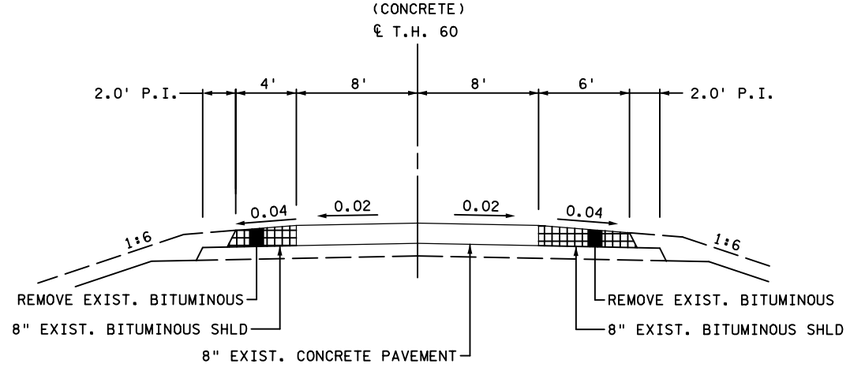
T.H. 60 W.B. STA. 1659+29.3 R 4 TO STA. 1680+26.0 R 4
T.H. 60 W.B. STA. 1689+18.4 R 4 TO STA. 1902+96.1 R 8

T.H. 60 E.B. STA. 1666+65.8 R 8 TO STA. 1679+90.1 R 9
T.H. 60 E.B. STA. 1688+97.0 R 9 TO STA. 1745+99.3 R 11



T.H. 60 RAMPS REMOVAL TYPICAL

(CONCRETE)



T.H. 60 W.B. RAMP STA. 1275+41.9 TO STA. 1283+75.5
T.H. 60 E.B. RAMP STA. 1285+17.6 TO STA. 1296+35.9
T.H. 60 W.B. RAMP STA. 1275+40.0 TO STA. 1287+21.3
T.H. 60 E.B. RAMP STA. 1287+85.3 TO STA. 1297+03.1

C.S.A.H. 60 W.B. RAMP STA. 1409+00.0 TO STA. 1419+05.9
C.S.A.H. 60 E.B. RAMP STA. 1419+52.6 TO STA. 1429+22.5
C.S.A.H. 60 E.B. RAMP STA. 1407+00.0 TO STA. 1416+67.3
C.S.A.H. 60 W.B. RAMP STA. 1417+15.4 TO STA. 1427+22.4

C.S.A.H. 12 W.B. RAMP STA. 1419+29.3 TO STA. 1428+26.0
C.S.A.H. 12 E.B. RAMP STA. 1507+90.0 TO STA. 1518+37.5
C.S.A.H. 12 W.B. RAMP STA. 1500+00.0 TO STA. 1511+64.9
C.S.A.H. 12 E.B. RAMP STA. 1512+28.2 TO STA. 1522+25.6

GENERAL NOTES

A. ALL CROSS SLOPES ARE IN FT. PER FT.

SPECIFIC NOTES

(1) INPLACE SUBSURFACE DRAIN. PROTECT IN PLACE (INCIDENTAL).

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

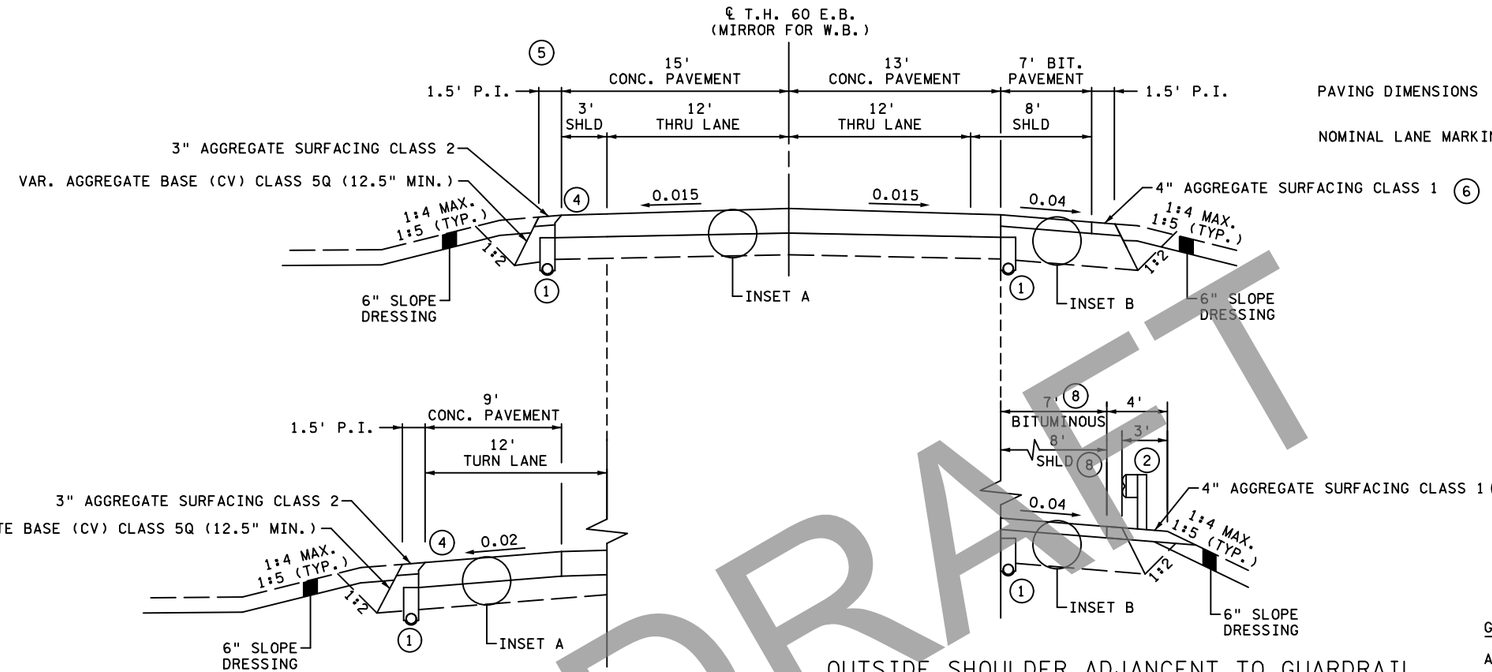
TYPICAL SECTIONS
TH 60 REMOVAL TYPICAL SECTIONS

SP 8309-52 (T.H. 60)
SHEET NO. 25 OF 283 SHEETS

T.H. 60 FULL PAVEMENT RECONSTRUCTION (3) (7)

T.H. 60 W.B. STA. 1223+94.0 R 1 TO STA. 1226+94.0 R 1
T.H. 60 W.B. STA. 1280+74.6 R 1 TO STA. 1290+32.9 R 1
T.H. 60 W.B. STA. 1356+76.5 R 1 TO STA. 1365+75.1 R 1
T.H. 60 W.B. STA. 1413+38.5 R 1 TO STA. 1422+78.2 R 1
T.H. 60 W.B. STA. 1504+12.7 R 1 TO STA. 1513+68.4 R 1
T.H. 60 W.B. STA. 1680+26.0 R 4 TO STA. 1683+26.0 R 4
T.H. 60 W.B. STA. 1686+18.4 R 4 TO STA. 1689+18.4 R 4
T.H. 60 W.B. STA. 1902+96.1 R 8 TO STA. 1908+66.4 R 8

T.H. 60 E.B. STA. 1225+50.0 R 2 TO STA. 1228+50.0 R 2
T.H. 60 E.B. STA. 1281+38.6 R 4 TO STA. 1290+97.0 R 4
T.H. 60 E.B. STA. 1356+40.9 R 5 TO STA. 1365+39.4 R 5
T.H. 60 E.B. STA. 1412+99.8 R 5 TO STA. 1422+39.6 R 5
T.H. 60 E.B. STA. 1504+72.5 R 5 TO STA. 1514+31.2 R 5
T.H. 60 E.B. STA. 1679+90.1 R 9 TO STA. 1682+90.1 R 9
T.H. 60 E.B. STA. 1685+97.0 R 9 TO STA. 1688+97.0 R 9
T.H. 60 E.B. STA. 1902+96.5 R 12 TO STA. 1908+66.5 R 12



LEFT TURN LANE

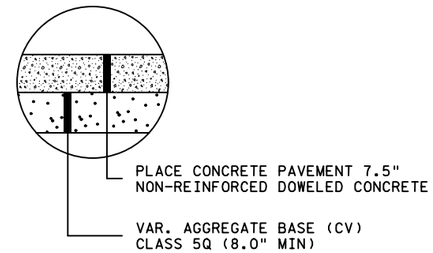
T.H. 60 W.B. STA. 1223+94 R 1 TO STA. 1226+94.0 R 1

T.H. 60 E.B. STA. 1685+97.0 R 9 TO STA. 1688+97.0 R 9

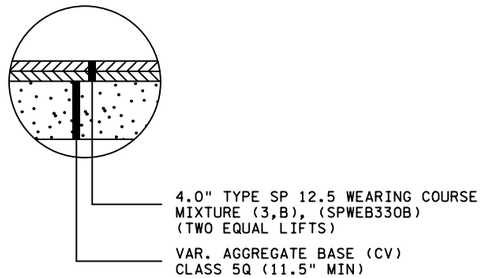
INSIDE SHOULDER ADJACENT TO GUARDRAIL

OUTSIDE SHOULDER ADJACENT TO GUARDRAIL

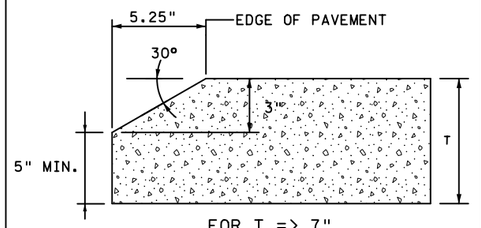
INSET A



INSET B



SAFETY EDGE DETAIL



GENERAL NOTES

A. THE EDGE OF PAVEMENT LABEL CORRESPONDS TO THE OUTSIDE EDGE OF THE DIMENSIONED WIDTH SHOWN IN THE TYPICAL SECTIONS.

B. SAFETY EDGE SHALL BE ELIMINATED WHEN THERE IS ADJACENT PAVEMENT ALONG THE OUTSIDE EDGE.

GENERAL NOTES

A. ALL CROSS SLOPES ARE IN FT. PER FT.

B. UNLESS OTHERWISE SPECIFIED, THE GRADING GRADE CROSS SLOPES WILL BE THE SAME AS THE PROPOSED DRIVING SURFACE.

C. SEE THE CONSTRUCTION PLAN DETAILS SHEETS FOR PROFILE GRADE TRANSITION DETAILS BETWEEN PROPOSED TYPICAL SECTIONS.

D. UNLESS OTHERWISE SPECIFIED, THE UNBONDED OVERLAY CROSS SLOPES WILL BE THE SAME AS THE EXISTING CONCRETE PAVEMENT.

SPECIFIC NOTES

(1) 4" SUBSURFACE DRAIN SEE STANDARD PLAN SHEETS FOR DETAILS.

(2) PLATE BEAM GUARDRAIL. SEE TRAFFIC BARRIER TABULATION AND CONSTRUCTION PLANS FOR DETAILS.

(3) STATION RANGE INCLUDES TURN LANE LOCATIONS. SEE TURN LANE TYPICALS FOR STATION RANGES.

(4) SEE SAFETY EDGE DETAIL ON THIS SHEET.

(5) PROPOSED TRAFFIC CROSSOVER LOCATED IN MEDIAN AND ADJACENT TO INSIDE SHOULDER FROM T.H. 60 E.B. AND W.B. STA. 1905+31.99 R 12 TO STA. 1908+66.5 R 12.SEE CONSTRUCTION PLAN DETAILS FOR TRAFFIC CROSSOVER DETAILS.

(6) AGGREGATE SURFACING CLASS 1 OR RECLAIMED MATERIAL.DEPTH SHALL MATCH ADJACENT SHOULDER DEPTH.

(7) REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS.

(8) 11' SHOULDER/10'BITUMINOUS ADJACENT TO GUARDRAIL AT BRIDGE NO. 83029 AND 83030.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY
SIGNATURE:
DATE _____ LICENSE # DRAFT COPY

TYPICAL SECTIONS
TH 60 CONCRETE OVERLAY

SP 8309-52 (T.H. 60)
SHEET NO. 26 OF 283 SHEETS

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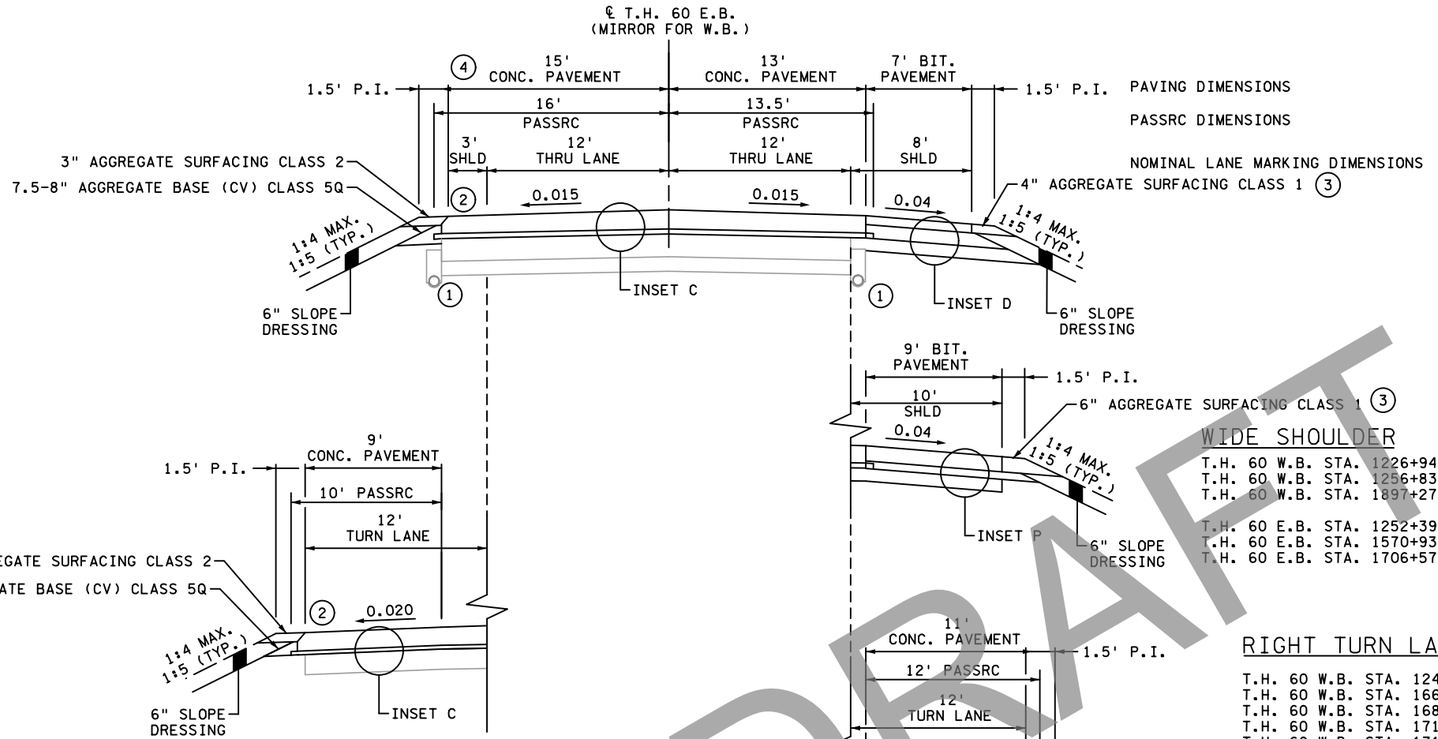
T.H. 60 UNBONDED CONCRETE OVERLAY (1)

(9.0" GRADE RAISE)

T.H. 60 W.B. STA. 1226+94.0 R 1 TO STA. 1281+74.6 R 1
T.H. 60 W.B. STA. 1290+32.9 R 1 TO STA. 1356+76.5 R 1
T.H. 60 W.B. STA. 1365+75.1 R 1 TO STA. 1413+38.5 R 1
T.H. 60 W.B. STA. 1422+78.2 R 1 TO STA. 1504+12.7 R 1
T.H. 60 W.B. STA. 1513+68.4 R 1 TO STA. 1535+91.2 R 2
T.H. 60 W.B. STA. 1659+29.3 R 4 TO STA. 1680+26.0 R 4
T.H. 60 W.B. STA. 1689+18.4 R 4 TO STA. 1902+96.1 R 8

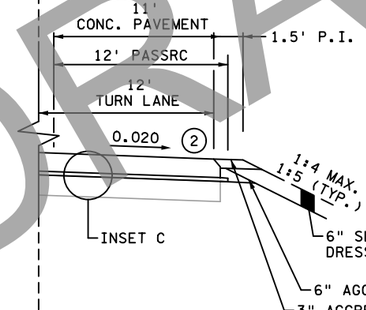
T.H. 60 E.B. STA. 1228+50.0 R 2 TO STA. 1281+38.6 R 2
T.H. 60 E.B. STA. 1290+97.0 R 4 TO STA. 1356+40.9 R 5
T.H. 60 E.B. STA. 1365+39.4 R 5 TO STA. 1412.99.8 R 5
T.H. 60 E.B. STA. 1422+39.6 R 5 TO STA. 1504+72.5 R 5
T.H. 60 E.B. STA. 1514+31.2 R 5 TO STA. 1679+90.1 R 9
T.H. 60 E.B. STA. 1688+97.0 R 9 TO STA. 1745+99.3 R 12



LEFT TURN LANE

T.H. 60 W.B. STA. 1226+94.0 R 1 TO STA. 1230+77.6 R 1
T.H. 60 W.B. STA. 1243+39.7 R 1 TO STA. 1248+91.4 R 1
T.H. 60 W.B. STA. 1256+83.9 R 1 TO STA. 1261+71.9 R 1
T.H. 60 W.B. STA. 1666+83.7 R 4 TO STA. 1672+71.8 R 4
T.H. 60 W.B. STA. 1710+39.9 R 4 TO STA. 1716+30.4 R 4
T.H. 60 W.B. STA. 1719+81.2 R 5 TO STA. 1725+73.2 R 5
T.H. 60 W.B. STA. 1772+66.3 R 7 TO STA. 1778+59.0 R 7
T.H. 60 W.B. STA. 1824+18.1 R 8 TO STA. 1829+99.1 R 8
T.H. 60 W.B. STA. 1876+87.9 R 8 TO STA. 1882+75.7 R 8
T.H. 60 W.B. STA. 1897+27.0 R 8 TO STA. 1902+96.1 R 8

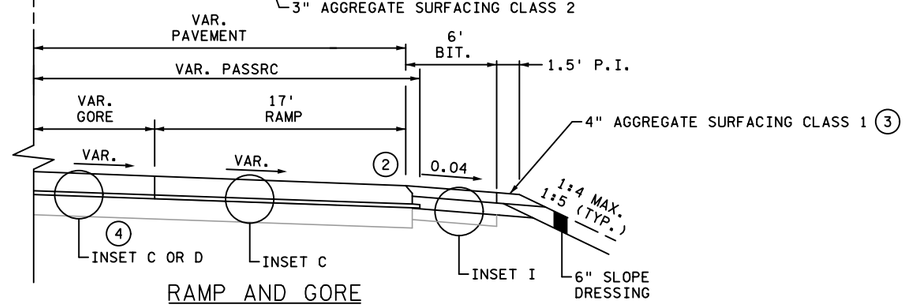
T.H. 60 E.B. STA. 1238+81.8 R 2 TO STA. 1244+54.3 R 2
T.H. 60 E.B. STA. 1252+39.3 R 3 TO STA. 1258+01.7 R 3
T.H. 60 E.B. STA. 1570+93.8 R 7 TO STA. 1576+66.9 R 7
T.H. 60 E.B. STA. 1586+23.3 R 7 TO STA. 1591+96.9 R 7
T.H. 60 E.B. STA. 1609+58.5 R 7 TO STA. 1615+44.8 R 7
T.H. 60 E.B. STA. 1636+17.6 R 8 TO STA. 1641+91.9 R 8
T.H. 60 E.B. STA. 1662+67.8 R 8 TO STA. 1668+52.0 R 8
T.H. 60 E.B. STA. 1688+97.0 R 9 TO STA. 1691+06.3 R 9
T.H. 60 E.B. STA. 1706+57.8 R 9 TO STA. 1712+48.1 R 9
T.H. 60 E.B. STA. 1715+97.3 R 9 TO STA. 1721+49.8 R 10



RIGHT TURN LANE

T.H. 60 W.B. STA. 1243+16.3 R 1 TO STA. 1248+50.4 R 1
T.H. 60 W.B. STA. 1667+03.2 R 4 TO STA. 1672+57.0 R 4
T.H. 60 W.B. STA. 1689+43.4 R 4 TO STA. 1695+01.2 R 4
T.H. 60 W.B. STA. 1710+66.0 R 4 TO STA. 1716+22.8 R 4
T.H. 60 W.B. STA. 1719+91.5 R 5 TO STA. 1725+50.0 R 5
T.H. 60 W.B. STA. 1772+96.5 R 7 TO STA. 1778+52.9 R 7
T.H. 60 W.B. STA. 1824+34.7 R 8 TO STA. 1829+96.0 R 8
T.H. 60 W.B. STA. 1877+12.8 R 8 TO STA. 1882+72.4 R 8

T.H. 60 E.B. STA. 1238+92.8 R 2 TO STA. 1244+52.9 R 2
T.H. 60 E.B. STA. 1609+66.2 R 7 TO STA. 1615+28.6 R 7
T.H. 60 E.B. STA. 1662+75.3 R 8 TO STA. 1668+34.4 R 8
T.H. 60 E.B. STA. 1716+01.5 R 9 TO STA. 1721+22.0 R 10



RAMP AND GORE

T.H. 60 W.B. STA. 1263+59.2 R 3 TO STA. 1274+70.5 R 3
T.H. 60 W.B. STA. 1294+71.2 R 4 TO STA. 1300+52.9 R 4
T.H. 60 W.B. STA. 1397+11.0 R 5 TO STA. 1409+00.1 R 5
T.H. 60 W.B. STA. 1428+80.1 R 5 TO STA. 1434+38.5 R 5
T.H. 60 W.B. STA. 1486+41.2 R 5 TO STA. 1498+29.6 R 5
T.H. 60 W.B. STA. 1517+35.1 R 5 TO STA. 1522+81.9 R 5

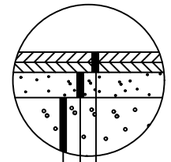
T.H. 60 E.B. STA. 1270+13.2 R 3 TO STA. 1275+40.1 R 3
T.H. 60 E.B. STA. 1297+22.9 R 4 TO STA. 1307+63.5 R 4
T.H. 60 E.B. STA. 1401+44.7 R 5 TO STA. 1407+00.2 R 5
T.H. 60 E.B. STA. 1426+80.0 R 5 TO STA. 1438+69.0 R 5
T.H. 60 E.B. STA. 1494+41.6 R 5 TO STA. 1500+00.2 R 5
T.H. 60 E.B. STA. 1521+96.1 R 5 TO STA. 1538+91.0 R 6

WIDE SHOULDER

T.H. 60 W.B. STA. 1226+94.0 R 1 TO STA. 1230+77.6 R 1
T.H. 60 W.B. STA. 1256+83.9 R 1 TO STA. 1261+71.9 R 1
T.H. 60 W.B. STA. 1897+27.0 R 8 TO STA. 1902+96.1 R 8

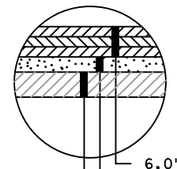
T.H. 60 E.B. STA. 1252+39.3 R 3 TO STA. 1258+01.7 R 3
T.H. 60 E.B. STA. 1570+93.8 R 7 TO STA. 1576+66.9 R 7
T.H. 60 E.B. STA. 1706+57.8 R 9 TO STA. 1712+52.1 R 9

INSET I



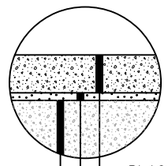
4.0" TYPE SP 12.5 WEARING COURSE MIXTURE (3,B), (SPWEB330B) (TWO EQUAL LIFTS)
5.0" AGGREGATE BASE (CV) CLASS 5Q
8.0" AGGREGATE BASE (CV) CLASS 6

INSET P



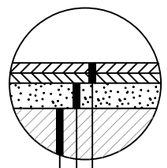
6.0" TYPE SP 12.5 WEARING COURSE MIXTURE (3,B), (SPWEB330B) (THREE EQUAL LIFTS)
VAR. AGGREGATE BASE (CV) CLASS 5Q (3" MIN.)
5" RECLAMATION MATERIAL

INSET C



PLACE CONCRETE PAVEMENT 7.5" NON-REINFORCED DOWELED CONCRETE
1.5" BIT MIX FOR PERM ASPHALT STABILIZED STRESS RELIEF CRSE (PASSRC)
INPLACE CONCRETE PAVEMENT

INSET D



4.0" TYPE SP 12.5 WEARING COURSE MIXTURE (3,B), (SPWEB330B) (TWO EQUAL LIFTS)
5.0" AGGREGATE BASE (CV) CLASS 5Q
5" RECLAMATION MATERIAL

GENERAL NOTES

A. ALL CROSS SLOPES ARE IN FT. PER FT.

B. UNLESS OTHERWISE SPECIFIED, THE GRADING GRADE CROSS SLOPES WILL BE THE SAME AS THE PROPOSED DRIVING SURFACE.

C. SEE THE CONSTRUCTION PLAN DETAILS SHEETS FOR PROFILE GRADE TRANSITION DETAILS BETWEEN PROPOSED TYPICAL SECTIONS.

D. UNLESS OTHERWISE SPECIFIED, THE UNBONDED OVERLAY CROSS SLOPES WILL BE THE SAME AS THE EXISTING CONCRETE PAVEMENT.

SPECIFIC NOTES

(1) STATION RANGE INCLUDES TURN LANE LOCATIONS. SEE TURN LANE TYPICALS FOR STATION RANGES.

(2) SEE SAFETY EDGE DETAIL, SEE SHEET TYPICAL SECTIONS TH 60 FULL PAVEMENT RECONSTRUCTION.

(3) AGGREGATE SURFACING CLASS 1 OR RECLAIMED MATERIAL. DEPTH SHALL MATCH ADJACENT SHOULDER DEPTH.

(4) SEE CONSTRUCTION PLANS FOR LOCATIONS OF GORE AND PAVEMENT TYPE.

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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TYPICAL SECTIONS
TH 60 FULL PAVEMENT RECONSTRUCTION

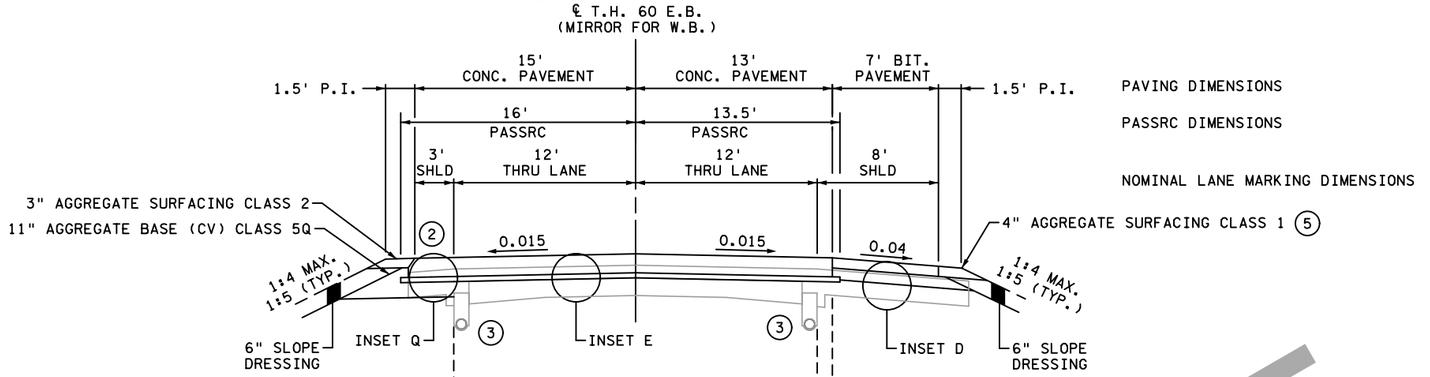
SP 8309-52 (T.H. 60)
SHEET NO. 27 OF 283 SHEETS

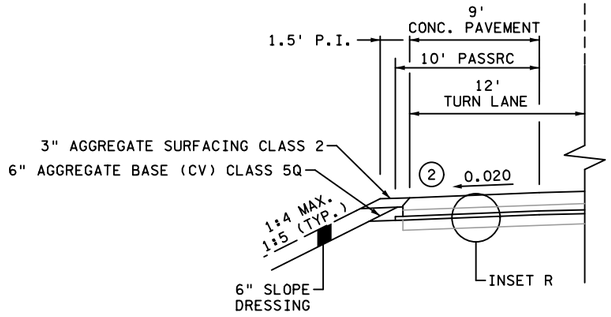
T.H. 60 UNBONDED CONCRETE OVERLAY (1)

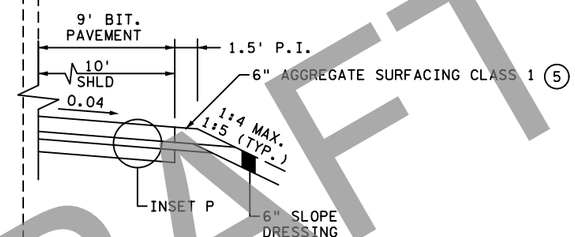
(4.0" GRADE RAISE)

T.H. 60 W.B. STA. 1535+91.2 R 2 TO STA. 1537+58.2 R 2 (4)
T.H. 60 W.B. STA. 1537+58.2 R 2 TO STA. 1657+62.6 R 4
T.H. 60 W.B. STA. 1657+62.6 R 4 TO STA. 1659+29.6 R 4 (4)

T.H. 60 E.B. STA. 1745+99.3 R 11 TO STA. 1747+67.8 R 12 (4)
T.H. 60 E.B. STA. 1747+67.8 R 12 TO STA. 1902+96.5 R 12

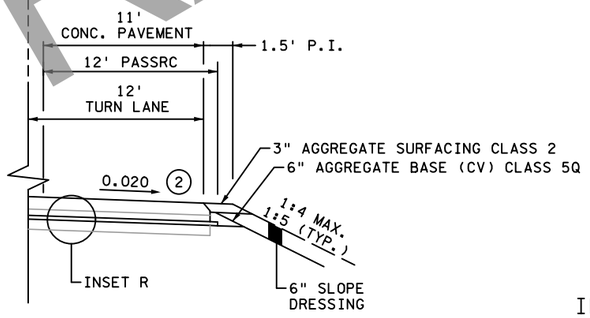






WIDE SHOULDER

T.H. 60 W.B. STA. 1590+53.7 R 3 TO STA. 1596+15.3 R 3
T.H. 60 W.B. STA. 1640+52.5 R 4 TO STA. 1646+18.0 R 4



LEFT TURN LANE RECONSTRUCTION

T.H. 60 W.B. STA. 1575+06.9 R 3 TO STA. 1580+89.8 R 3
T.H. 60 W.B. STA. 1590+53.7 R 3 TO STA. 1596+15.3 R 3
T.H. 60 W.B. STA. 1613+98.8 R 3 TO STA. 1619+62.8 R 3
T.H. 60 W.B. STA. 1640+52.5 R 4 TO STA. 1646+18.0 R 4

T.H. 60 E.B. STA. 1768+71.2 R 12 TO STA. 1774+41.8 R 12
T.H. 60 E.B. STA. 1820+04.8 R 12 TO STA. 1825+84.7 R 12
T.H. 60 E.B. STA. 1872+77.6 R 12 TO STA. 1878+58.3 R 12
T.H. 60 E.B. STA. 1893+03.0 R 12 TO STA. 1898+68.0 R 12

RIGHT TURN LANE RECONSTRUCTION

T.H. 60 W.B. STA. 1613+98.8 R 3 TO STA. 1619+62.8 R 3

T.H. 60 E.B. STA. 1768+71.2 R 12 TO STA. 1774+15.7 R 12
T.H. 60 E.B. STA. 1820+04.7 R 12 TO STA. 1825+62.9 R 12
T.H. 60 E.B. STA. 1872+77.6 R 12 TO STA. 1878+47.3 R 12
T.H. 60 E.B. STA. 1893+03.0 R 12 TO STA. 1898+36.6 R 12

GENERAL NOTES

A. ALL CROSS SLOPES ARE IN FT. PER FT.

B. UNLESS OTHERWISE SPECIFIED, THE GRADING GRADE CROSS SLOPES WILL BE THE SAME AS THE PROPOSED DRIVING SURFACE.

C. SEE THE CONSTRUCTION PLAN DETAILS SHEETS FOR PROFILE GRADE TRANSITION DETAILS BETWEEN PROPOSED TYPICAL SECTIONS.

D. UNLESS OTHERWISE SPECIFIED, THE UNBONDED OVERLAY CROSS SLOPES WILL BE THE SAME AS THE EXISTING CONCRETE PAVEMENT.

SPECIFIC NOTES

(1) STATION RANGE INCLUDES TURN LANE LOCATIONS. SEE TURN LANE TYPICALS FOR STATION RANGES.

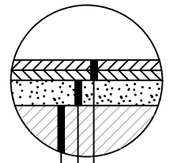
(2) SEE SAFETY EDGE DETAIL, SEE SHEET TYPICAL SECTIONS TH 60 FULL PAVEMENT RECONSTRUCTION.

(3) INPLACE SUBSURFACE DRAIN. PROTECT IN PLACE (INCIDENTAL).

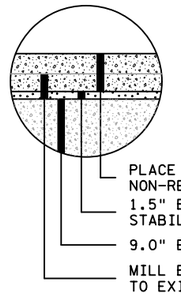
(4) SEE DETAIL C IN CONSTRUCTION PLAN SHEETS.

(5) AGGREGATE SURFACING CLASS 1 OR RECLAIMED MATERIAL. DEPTH SHALL MATCH ADJACENT SHOULDER DEPTH.

INSET D



INSET E



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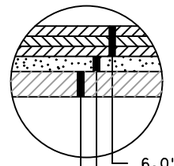

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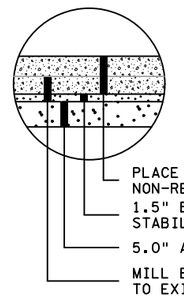

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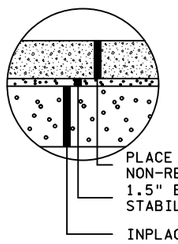

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NO	DATE	DWN	CKD	REVISIONS

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TYPICAL SECTIONS
TH 60 UNBONDED CONCRETE OVERLAY

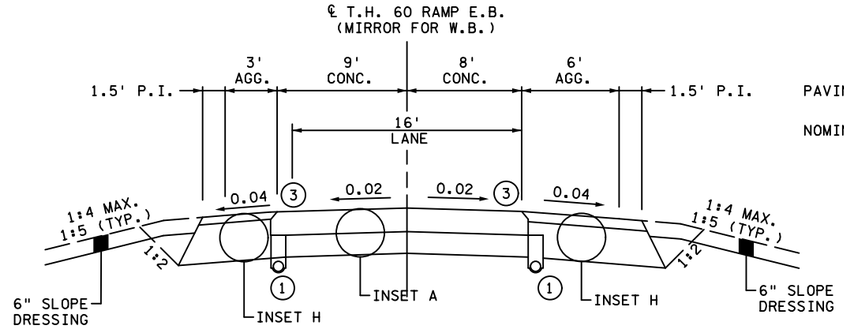
SP 8309-52 (T.H. 60)
SHEET NO. 28 OF 283 SHEETS

T.H. 60 FULL RAMP RECONSTRUCTION

T.H. 4 N.W. RAMP STA. 1280+75.5 TO STA. 1283+75.5
T.H. 4 N.E. RAMP STA. 1285+17.6 TO STA. 1288+67.6
T.H. 4 S.W. RAMP STA. 1283+71.3 TO STA. 1287+21.3
T.H. 4 S.E. RAMP STA. 1287+85.3 TO STA. 1290+85.3

C.S.A.H. 27 N.W. RAMP STA. 1416+05.9 TO STA. 1419+05.9
C.S.A.H. 27 N.E. RAMP STA. 1419+52.6 TO STA. 1423+02.6
C.S.A.H. 27 S.W. RAMP STA. 1413+17.3 TO STA. 1416+67.3
C.S.A.H. 27 S.E. RAMP STA. 1417+15.4 TO STA. 1420+15.4

C.S.A.H. 12 N.W. RAMP STA. 1425+26.0 TO STA. 1428+26.0
C.S.A.H. 12 N.E. RAMP STA. 1507+90.0 TO STA. 1511+39.7
C.S.A.H. 12 S.W. RAMP STA. 1508+14.9 TO STA. 1511+64.9
C.S.A.H. 12 S.E. RAMP STA. 1512+28.2 TO STA. 1515+28.2



PAVING DIMENSIONS

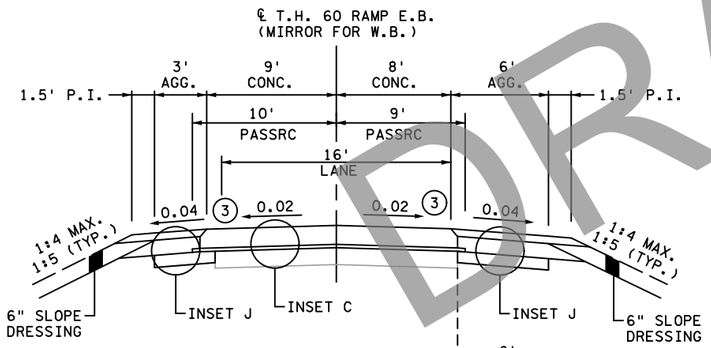
NOMINAL LANE MARKING DIMENSIONS

T.H. 60 UNBONDED OVERLAY ON RAMP (2)

T.H. 4 N.W. RAMP STA. 1275+41.9 TO STA. 1280+75.5
T.H. 4 N.E. RAMP STA. 1288+67.6 TO STA. 1296+35.9
T.H. 4 S.W. RAMP STA. 1275+40.0 TO STA. 1283.71.3
T.H. 4 S.E. RAMP STA. 1290+85.3 TO STA. 1297+03.1

C.S.A.H. 27 N.W. RAMP STA. 1409+00.0 TO STA. 1416+05.9
C.S.A.H. 27 N.E. RAMP STA. 1423+02.6 TO STA. 1429+22.5
C.S.A.H. 27 S.W. RAMP STA. 1407+00.0 TO STA. 1413+17.3
C.S.A.H. 27 S.E. RAMP STA. 1420+15.4 TO STA. 1427+22.4

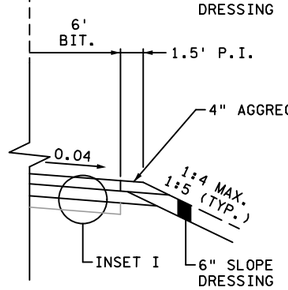
C.S.A.H. 12 N.W. RAMP STA. 1419+29.3 TO STA. 1425+26.0
C.S.A.H. 12 N.E. RAMP STA. 1511+39.7 TO STA. 1518+37.5
C.S.A.H. 12 S.W. RAMP STA. 1500+00.0 TO STA. 1508+14.9
C.S.A.H. 12 S.E. RAMP STA. 1515+28.2 TO STA. 1522+25.6



PAVING DIMENSIONS

PASSRC DIMENSIONS

NOMINAL LANE MARKING DIMENSIONS



PAVED SHOULDER

GENERAL NOTES

A. ALL CROSS SLOPES ARE IN FT. PER FT.

B. UNLESS OTHERWISE SPECIFIED, THE GRADING GRADE CROSS SLOPES WILL BE THE SAME AS THE PROPOSED DRIVING SURFACE.

C. SEE THE CONSTRUCTION PLAN DETAILS SHEETS FOR PROFILE GRADE TRANSITION DETAILS BETWEEN PROPOSED TYPICAL SECTIONS.

D. UNLESS OTHERWISE SPECIFIED, THE UNBONDED OVERLAY CROSS SLOPES WILL BE THE SAME AS THE EXISTING CONCRETE PAVEMENT.

SPECIFIC NOTES

(1) 4" SUBSURFACE DRAIN SEE STANDARD PLAN SHEETS FOR DETAILS.

(2) STATION RANGE INCLUDES PAVED SHOULDER. SEE PAVED SHOULDER TYPICALS FOR STATION RANGES.

(3) SEE SAFETY EDGE DETAIL, SEE SHEET TYPICAL SECTIONS TH 60 FULL PAVEMENT RECONSTRUCTION.

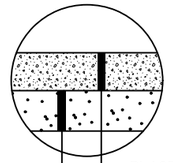
(4) AGGREGATE SURFACING CLASS 1 OR RECLAMATION MATERIAL.

T.H. 4 N.W. RAMP STA. 1275+41.9 TO STA. 1277+41.9
T.H. 4 N.E. RAMP STA. 1294+35.9 TO STA. 1296+35.9
T.H. 4 S.W. RAMP STA. 1275+40.0 TO STA. 1277+40.0
T.H. 4 S.E. RAMP STA. 1295+03.1 TO STA. 1297+03.1

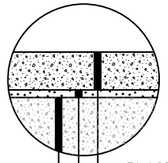
C.S.A.H. 27 N.W. RAMP STA. 1409+00.0 TO STA. 1411+00.0
C.S.A.H. 27 N.E. RAMP STA. 1427+22.5 TO STA. 1429+22.5
C.S.A.H. 27 S.W. RAMP STA. 1407+00.0 TO STA. 1409+00.0
C.S.A.H. 27 S.E. RAMP STA. 1425+22.4 TO STA. 1427+22.4

C.S.A.H. 12 N.W. RAMP STA. 1419+29.3 TO STA. 1421+29.3
C.S.A.H. 12 N.E. RAMP STA. 1516+37.5 TO STA. 1518+37.5
C.S.A.H. 12 S.W. RAMP STA. 1500+00.0 TO STA. 1502+00.0
C.S.A.H. 12 S.E. RAMP STA. 1520+25.6 TO STA. 1522+25.6

INSET A



INSET C



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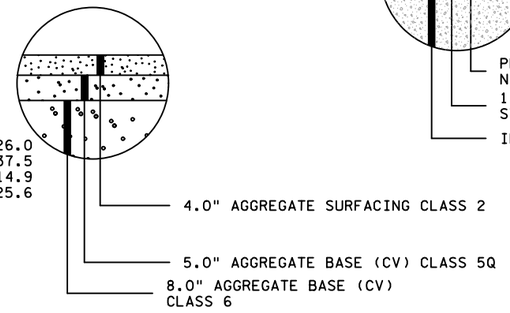

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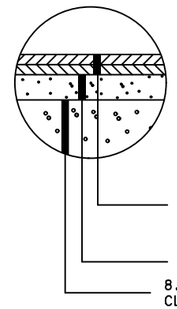

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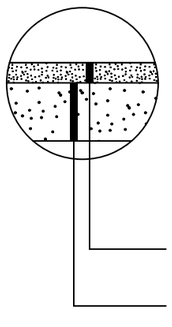

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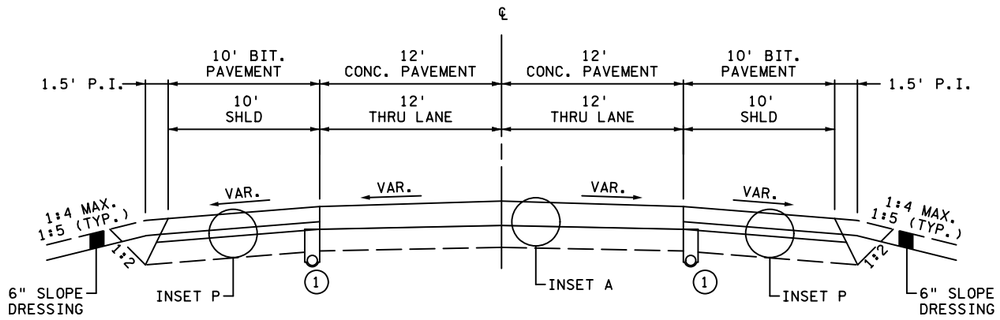
TYPICAL SECTIONS
TH 60 RAMP CONSTRUCTION

SP 8309-52 (T.H. 60)
SHEET NO. 29 OF 283 SHEETS

REST AREA FULL PAVEMENT RECONSTRUCTION

WEST REST AREA STA. 426+48.00 TO STA. STA. 429+97.88

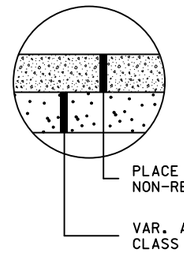
EAST REST AREA STA. 452+00.00 TO STA. 455+49.15



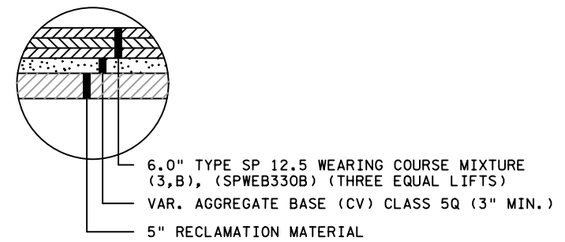
PAVING DIMENSIONS

NOMINAL LANE MARKING DIMENSIONS

INSET A



INSET P



GENERAL NOTES

A. ALL CROSS SLOPES ARE IN FT. PER FT.

B. UNLESS OTHERWISE SPECIFIED, THE GRADING GRADE CROSS SLOPES WILL BE THE SAME AS THE PROPOSED DRIVING SURFACE.

C. SEE THE CONSTRUCTION PLAN DETAILS SHEETS FOR PROFILE GRADE TRANSITION DETAILS BETWEEN PROPOSED TYPICAL SECTIONS.

D. UNLESS OTHERWISE SPECIFIED, THE CROSS SLOPES WILL BE THE SAME AS THE EXISTING CONCRETE PAVEMENT.

SPECIFIC NOTES

(1) 4" SUBSURFACE DRAIN SEE STANDARD PLAN SHEETS FOR DETAILS.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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TYPICAL SECTIONS

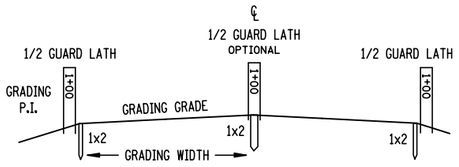
REST AREA RECONSTRUCTION

SP 8309-52 (T.H. 60)

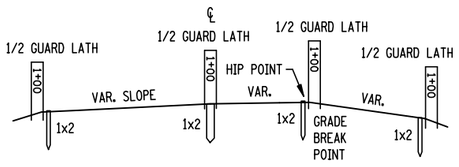
SHEET NO. 30 OF 283 SHEETS

BLUE TOPS

NORMAL SECTION

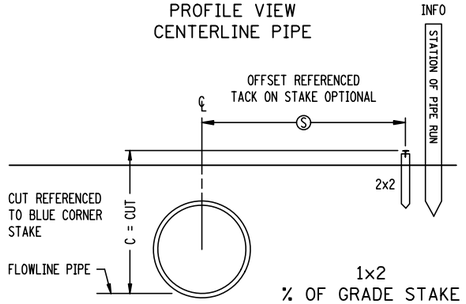


TRANSITION SECTION

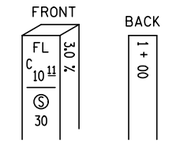


PIPE STAKING

PROFILE VIEW CENTERLINE PIPE

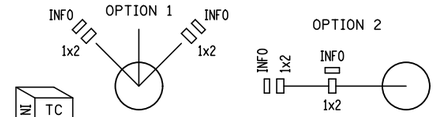


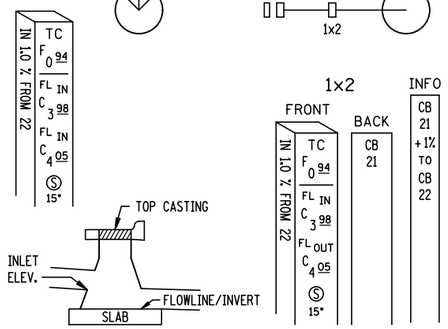
1x2 % OF GRADE STAKE



CATCH BASIN OR MANHOLE (CB/MH)

TOP VIEWS



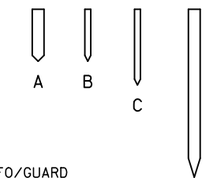


FLOWLINE/INVERT + 0.7'

STANDARD STAKES

TYPES:

REFERENCE (REF)
INFORMATIONAL (INFO)
VISIBILITY (VIS)
GUARD (GUARD)



SIZES:

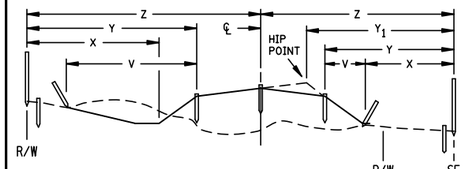
A = 2" X 2" X VAR. REF/INFO/GUARD
B = 1" X 2" X VAR. REF/INFO/GUARD
C = 1" X 2" X VAR. REF
D = LATH INFO/VIS/GUARD
1x2 OR LATH = INFO STAKES

ABBREVIATIONS

BBL = BARREL (PIPE)
B.C. = BACK CURB
C & G = CURB & GUTTER
C = CUT
CAP = CORR. ALUM. PIPE
CB = CATCH BASIN
℄ = CENTERLINE
CL & GR = CLEAR & GRUB
CMP = CORR. METAL PIPE
COR = CORNER
CR = CROWN
CSP = CORR. STEEL PIPE
D = DITCH CUT
D.E. = DRAINAGE EASEMENT
DI = DROP INLET
EB = EASTBOUND
E.M. = EDGE BITUMINOUS MAT
E.S. = EDGE CONCRETE SLAB
F = FILL
FF = FRONT FACE
FL = FLOW LINE
FL IN = FLOWLINE INLET
FL OUT = FLOWLINE OUTLET
GR = GRADE
GW = GRADING WIDTH
HH = HANDHOLE
HP = HIP POINT
LT = LEFT
MH = MANHOLE
NB = NORTHBOUND
Ⓢ = OFFSET
PAR = PARCEL
% = PERCENT GRADE
P.E. = PERM. EASEMENT
RAD = RADIUS POINT
RCP = REINF. CONC. PIPE
RP = REFERENCE POINT
RSC = REINF. SECT. CONC.
RT = RIGHT
R/W = RIGHT OF WAY
SB = SOUTHBOUND
SCP = SECT. CONC. PIPE
SH = SHOULDER
TC = TOP CASTING OR TOP CURB
T.E. = TEMP. EASEMENT
3 :1 = SLOPE (EXAMPLE)
WB = WESTBOUND
WP = WORKING POINTS

SLOPE STAKES

SINGLE ROADWAY - EXAMPLE 'A'



STAKE 'A'

FULL LATH AND HUB-STATION
DIST. TO ℄ WITH CUT/FILL TO ℄ (Z)
DIST. TO SHLD. WITH CUT/FILL TO SHLD. (Y) (Y1)
DIST. TO TOE OF SLOPE, CUT/FILL FROM HUB (X)
OFFSET TO SAFTY SLOPE
OFFSET TO HIP POINT

STAKE 'B'

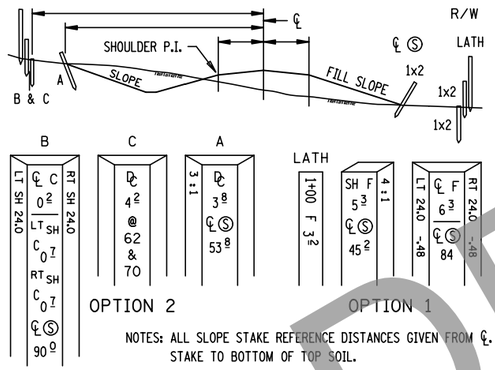
FULL LATH
DITCH CUT/SHLD. FILL
SLOPE RATED
DISTANCE TO INSLOPE TOE (V1) OR SHOULDER (AS APPLIES) (V)

NOTE:

BLUE TOPS REQUIRED ON ℄ AND BOTH SHOULDERS AT MINIMUM
ALL CULVERTS TO BE STAKED
MINIMUM DATA TO BE PROVIDED
STAKE TO BOTTOM OF TOPSOIL

SLOPE STAKES

SINGLE ROADWAY - EXAMPLE 'B'

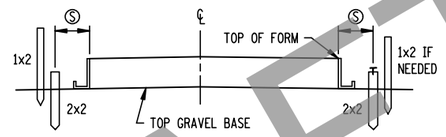


OPTION 2 OPTION 1

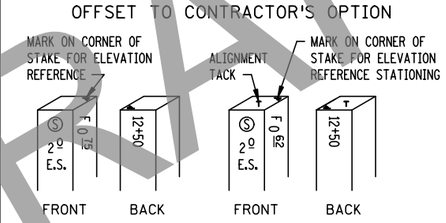
NOTES: ALL SLOPE STAKE REFERENCE DISTANCES GIVEN FROM ℄. STAKE TO BOTTOM OF TOP SOIL.

KEY STAKES: BLUE TOP SET AT R/W BOUNDARY LT. & RT. MAY BE EXCEPTIONS TO SETTING STAKE ON R/W.

CONCRETE PAVING STATIONARY FORM



OFFSET TO CONTRACTOR'S OPTION



NOTE INFORMATION ON STAKE IF NECESSARY

RECOMMENDED STAKING INTERVALS

FIGURE A

	SLOPE STAKES	SUB GRADE B.T.	CLASS MATERIAL B.T.	CONC PAVT	C & G	CL & GR LIMITS	MUCK EXC.	R/W	TEMP. EASE.
TANGENT	100	100	100	50	50	ALL CORNERS	100	ALL CORNERS	ALL CORNERS
HORIZ. CURVE									
0 - 3°	100	100	100	50	50	ALL CORNERS	100	ALL CORNERS	ALL CORNERS
OVER 3° -	100	50	50	25	25	ALL CORNERS	100	ALL CORNERS	ALL CORNERS
VERT. CURVE									
'M' 100' CHORD 0 - .25	100	100	100	50	50				
'M' OVER .25	100	50	50	25	25				
TRAN.		50	50						

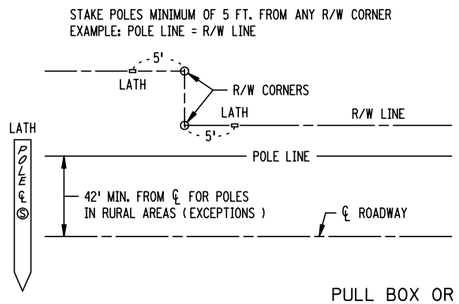
STAKING TOLERANCES (FEET)

	HORIZONTAL	VERTICAL
CONSTRUCTION LIMITS	± 1.5	
CLEARING & GRUBBING	2.0	
SLOPES STAKES	2.0	± 0.2
KEY STAKES	0.2	0.03
DRAINAGE STAKES	0.05	0.05
CURB & GUTTER	0.07	0.03
PAVING	0.05	0.03
ALIGNMENT	0.07	
UTILITY	0.10	0.05
STRUCTURAL	0.02	0.02
GUARD RAIL	0.5	
BUILDINGS	0.04	
O.H. SIGNS	0.05	0.05
MUCK EXCAVATION LIMITS	2.0	
R/W B-POINTS	0.10	
NOISE WALLS	1.0	0.5

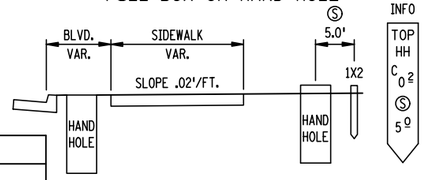
THE TOLERANCES ARE RELATIVE TO PROJECT DATUM

UTILITY (UTIL)

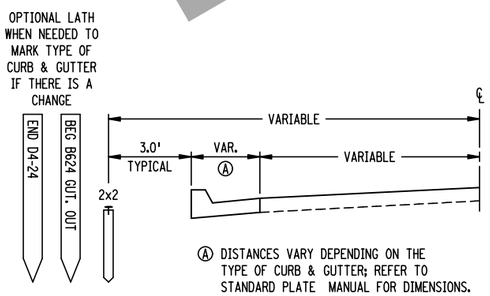
STAKE POLES MINIMUM OF 5 FT. FROM ANY R/W CORNER
EXAMPLE: POLE LINE = R/W LINE

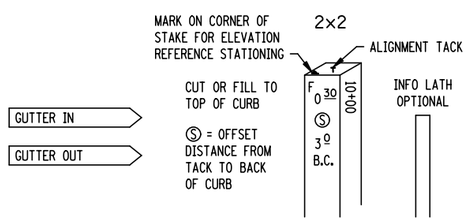


PULL BOX OR HAND HOLE

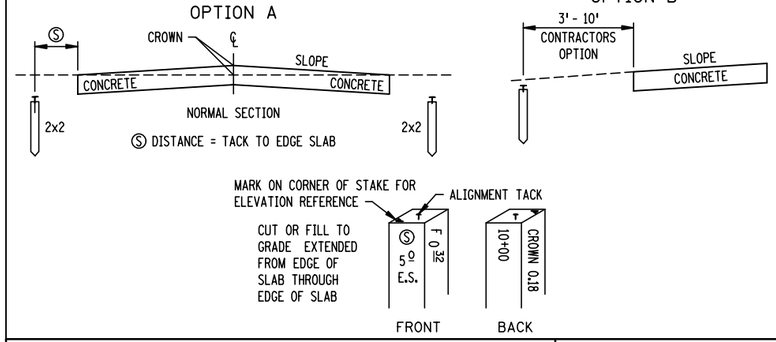


CURB & GUTTER (CURB)





CONCRETE PAVING - SLIP FORM



DISCLAIMER

THESE STAKING INFORMATION SHEETS ARE FOR INFORMATION PURPOSES ONLY. STAKING PROCEDURES VARY AND MAY BE SUBJECT TO CHANGE DURING CONSTRUCTION BY CIRCUMSTANCES AND/OR AGREEMENTS BETWEEN SURVEY CREW AND CONTRACTOR.

REVISION:

APPROVED: 8-6-2014
DIRECTOR, OFFICE OF LAND MANAGEMENT

REVISED:

APPROVED: 8-6-2014
STATE DESIGN ENGINEER

STANDARD PLAN SHEETS

STAKING INFORMATION SHEET

STANDARD PLAN 5-297.115 | 1 OF 2

SP 8309-52 (T.H. 60)

SHEET NO. 31 OF 283 SHEETS

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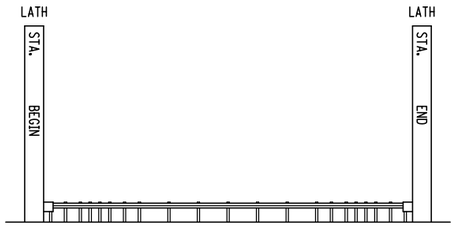
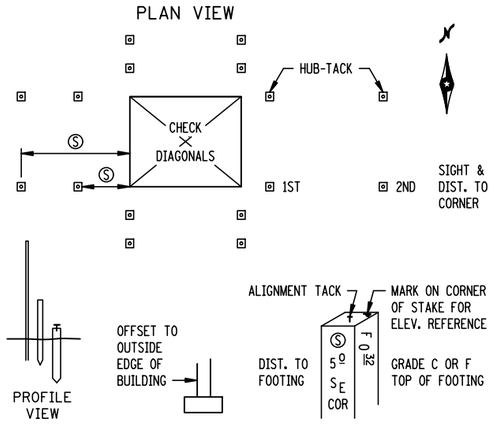
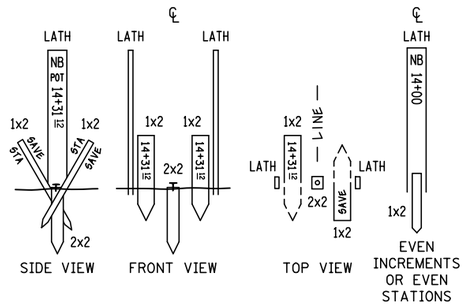
GUARDRAIL (GUARD)



BUILDING (BUILD) FOUNDATION / FOOTING



ALIGNMENT POINTS (ALIGN)



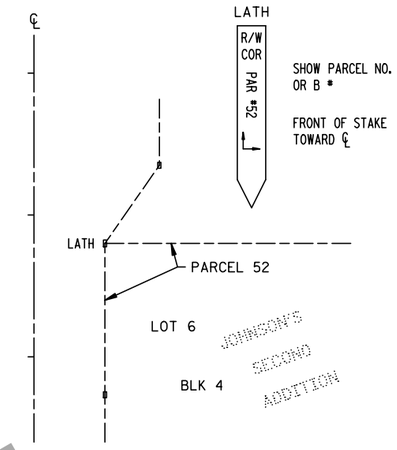
STAKE C = 2" X 2" HUB (LENGTH MAY VARY) SET AS TEMPORARY STAKE. MAY BE REPLACED BY MnDOT MARKER AFTER CONSTRUCTION IS COMPLETED.

SET AT GROUND LEVEL (TEMPORARY CONSTRUCTION STAKE).

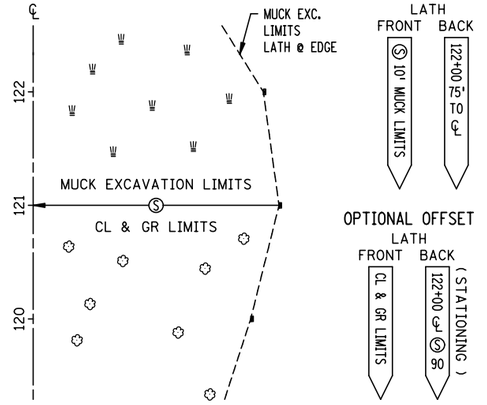
TACK SET AT ALIGNMENT POINTS.

STAKE A = GUARD STAKES SET AT ANGLE IN GROUND 6" EACH SIDE OF STAKE D, WITH STATIONING READ WHEN LOOKING UP STATION.

R/W & TEMP. EASEMENT (R/W)

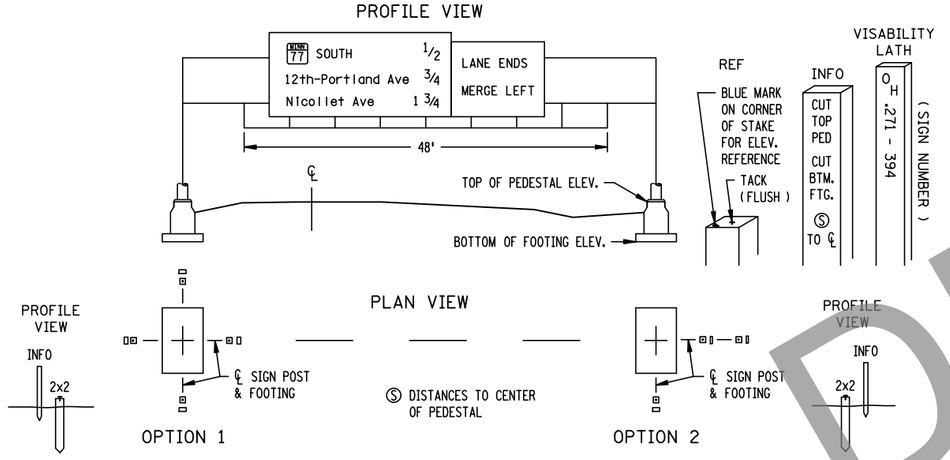


CLEAR & GRUBBING LIMITS (CLEAR) OR MUCK EXCAVATION LIMITS (MUCK)



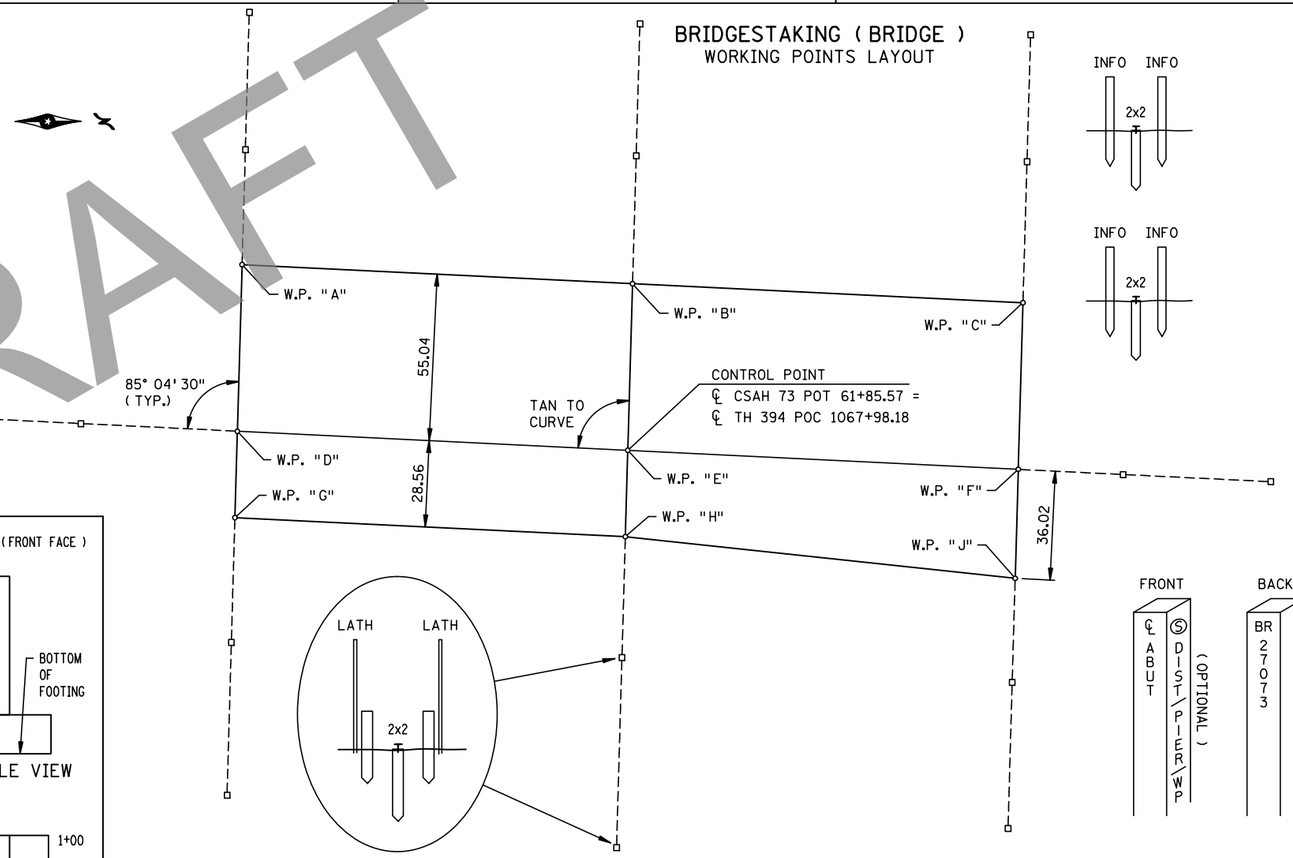
NOTE: FRONT OF LATH GOES TOWARD ℄

OVERHEAD SIGNS (SIGN)

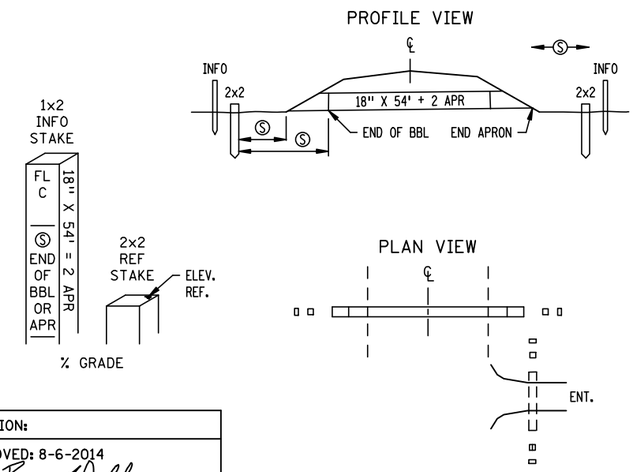


BRIDGESTAKING (BRIDGE)

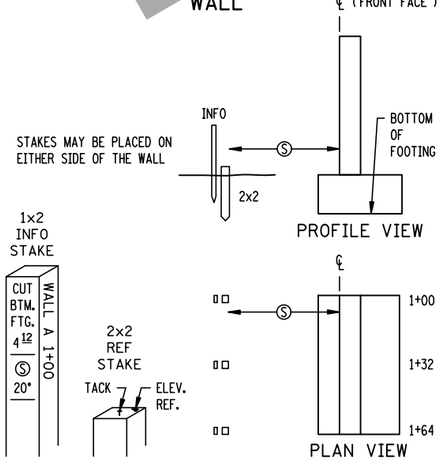
WORKING POINTS LAYOUT



CULVERT



WALL



REVISION:

APPROVED: 8-6-2014

DIRECTOR, OFFICE OF LAND MANAGEMENT

REVISED:

APPROVED: 8-6-2014

STATE DESIGN ENGINEER

STAKING INFORMATION SHEET

STANDARD PLAN 5-297.115 | 2 OF 2

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 32 OF 283 SHEETS

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11/10/2017
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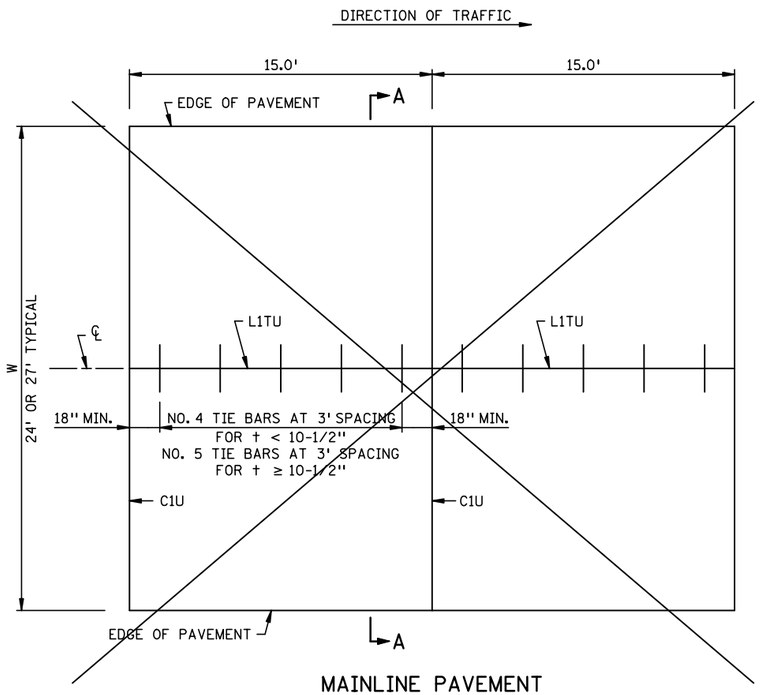
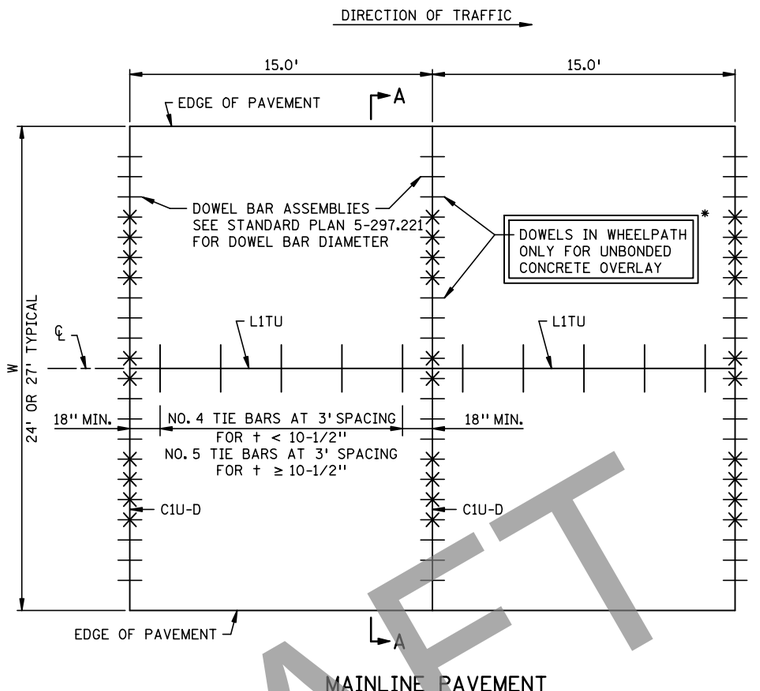
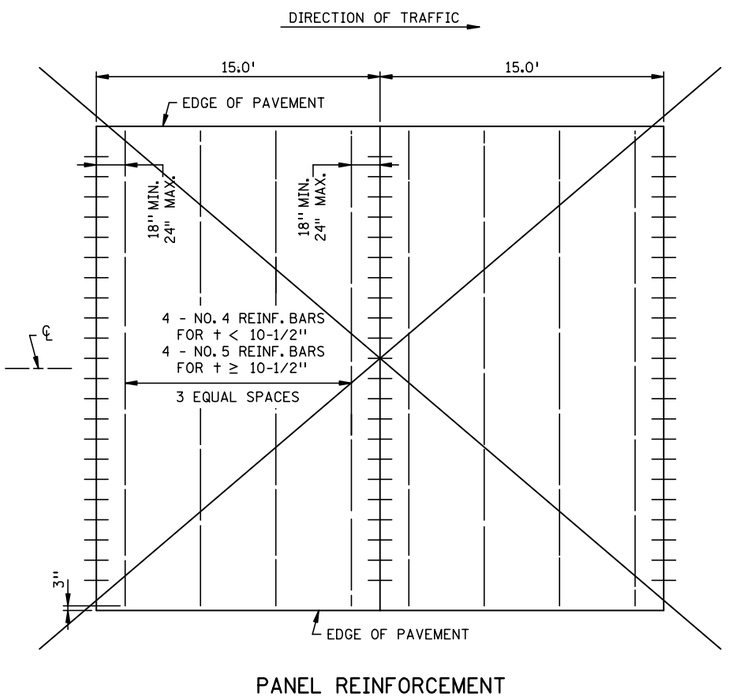


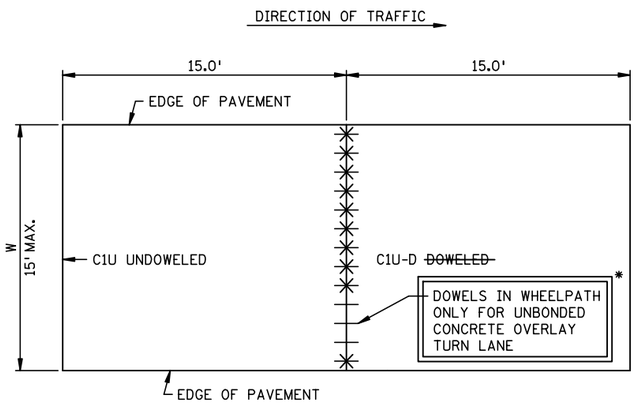
MAINLINE PAVEMENT
UNDOWELED



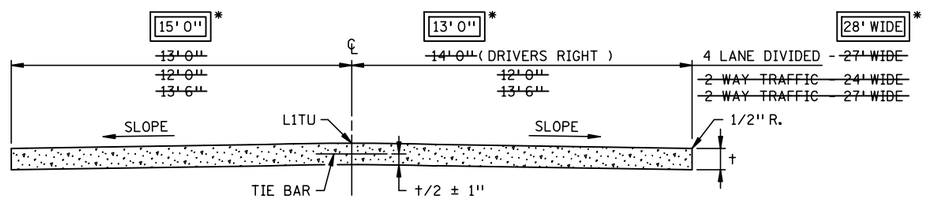
MAINLINE PAVEMENT
DOWELED



PANEL REINFORCEMENT



PAVEMENT 2 FT. THRU 15 FT. WIDTH
UNDOWELED OR DOWELED



SECTION A-A

GENERAL NOTES:

SEE TYPICAL SECTIONS AND PLAN SHEETS FOR CROSS SLOPES AND PAVEMENT THICKNESS, †.

DOWEL BAR ASSEMBLIES, WHEN REQUIRED, SHALL BE SIMILAR TO THOSE SHOWN ON STANDARD PLATE 1103.

ALL REINFORCING BARS SHALL BE EPOXY COATED AND COMPLY WITH SPEC 3301.

FOR SUPPLEMENTAL PAVEMENT REINFORCEMENT, SEE STANDARD PLATE 1070.

~~PANEL REINFORCEMENT:~~
~~PLACE IN PANELS WHERE PAVEMENT WIDTH EXCEEDS 15.0' WITHOUT A LONGITUDINAL JOINT, PLACEMENT DEPTH SHALL BE PLANNED †/2 ± 1". IT IS PREFERRED TO ADD A LONGITUDINAL JOINT RATHER THAN PAVE GREATER THAN 15' IN WIDTH.~~

* DENOTES MODIFICATION FROM STANDARD PLAN

REVISION:
APPROVED: FEBRUARY 16, 2016
DIRECTOR, OFFICE OF MATERIALS AND ROAD RESEARCH

I HEREBY CERTIFY THAT THIS SHEET 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.
PRINT NAME: DRAFT
SIGNATURE: DRAFT
DATE _____ LICENSE # COPY COPY

REVISED:
APPROVED: 2-16-2016
STATE DESIGN ENGINEER

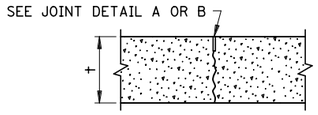
STANDARD PLAN SHEETS

CONCRETE MAINLINE PAVEMENT
15.0 FT. PANEL LENGTH
RURAL

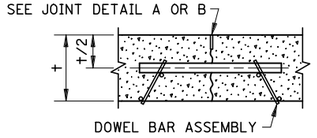
STANDARD ~~PLAN 5-297.217~~ | 1 OF 2

SP 8309-52 (T.H. 60)

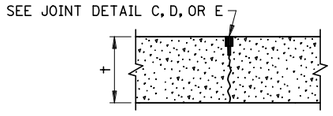
SHEET NO. 33 OF 283 SHEETS



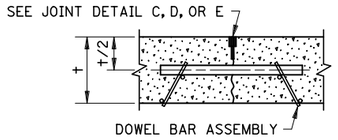
C1U & C2H



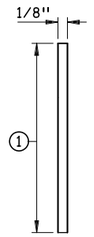
C1U-D & C2H-D



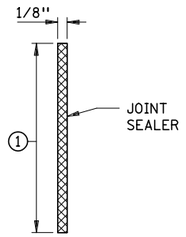
C3P, C4S, C5H



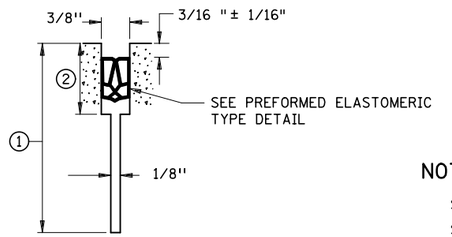
C3P-D, C4S-D, C5H-D



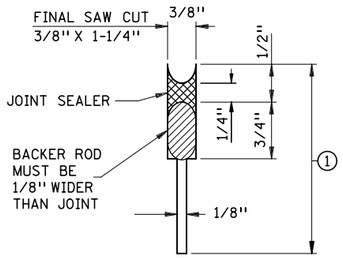
JOINT DETAIL A
SAWED & UNSEALED



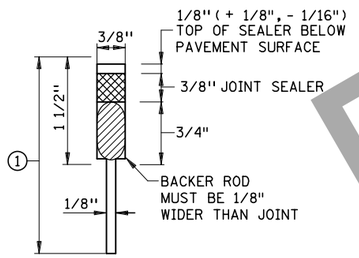
JOINT DETAIL B ③
SAWED & SEALED



JOINT DETAIL C ③
SAWED AND SEALED



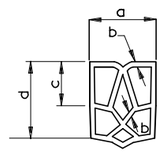
JOINT DETAIL D ③④
SAWED AND SEALED



JOINT DETAIL E ③⑤
SAWED AND SEALED

REQUIRED DIMENSIONS

JOINT TYPE	TRANSVERSE
NOMINAL SEALER SIZE	11/16" USE IN ALL 3/8" JOINTS
a	0.69" + 0.13" - 0.05"
b	0.08" ± 0.02"
c	0.25" MIN.
d	0.63" MIN.



SPEC. REFERENCE 3721

TYPICAL SHAPE FOR SATISFACTORY INSTALLATION IN JOINT (5 CELL MIN.)

PREFORMED ELASTOMERIC TYPE DETAIL

CONTRACTION JOINT REFERENCE, DETAIL & SEALER SPEC. TABLE

JOINT REFERENCE WITHOUT DOWELS	JOINT REFERENCE WITH DOWELS	JOINT DETAIL	JOINT SEALER SPEC.	JOINT WIDTH
C1U	C1U-D	A	UNSEALED	1/8"
C2H	C2H-D	B	3725	1/8"
C3P	C3P-D	C	3721	3/8"
C4S	C4S-D	D	3722	3/8"
C5H	C5H-D	E	3725	3/8"

LEGEND — EXAMPLE: C2H-D
C = CONTRACTION JOINT
NO. = JOINT REFERENCE
U = UNSEALED
H = HOT POURED
P = PREFORMED
S = SILICONE
-D = DOWEL BARS

DOWEL BAR DIAMETER TABLE

PAVEMENT THICKNESS †	DOWEL BAR DIAMETER
LESS THAN 6"	NONE
6" - 6 1/2"	1" OR NONE
7" - 7 1/2"	1"
8" - 10"	1 1/4"
10 1/2" AND GREATER	1 1/2"

NOTES:

SEE STANDARD PLATE 1103 FOR DOWEL BAR ASSEMBLY.

SEE STANDARD PLATE 1150 FOR CONSTRUCTION OF HEADER JOINTS.

JOINT WIDTH TOLERANCE IS + 1/16" TO - 1/32"

FURNISH AND INSTALL ALL JOINT SEALER IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

SEE STANDARD PLANS 5-297.217 AND 5-297.219, FOR CONCRETE MAINLINE/RAMP PAVEMENT.

SEE PAVING LAYOUTS IN THE PLANS FOR JOINT CLASS DESIGNATION TO BE USED AND SPECIAL REINFORCEMENT REQUIRED.

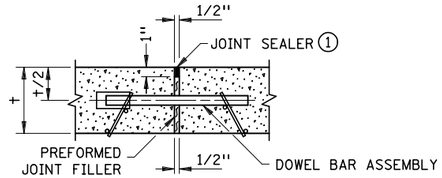
① JOINT DEPTH SHALL BE:
FOR CONCRETE OVERLAYS - 1/3 THE PAVEMENT THICKNESS
FOR CONCRETE PAVEMENT - 1/4 THE PAVEMENT THICKNESS

② SEE CONTRACTION JOINT SEALER DETAIL. WHEN USING PREFORMED JOINT SEALER, THE DEPTH SHALL BE 1/4" MORE THAN THE PREFORMED SEALER, WHEN COMPRESSED, TO FIT THE JOINT DESIGN WIDTH. "a" DIMENSION SHALL APPLY AT ANY POINT THROUGHOUT "c" DEPTH. SHARP INTERNAL CORNERS WILL NOT BE PERMITTED. ALL CORNERS SHALL BE PROVIDED WITH SUITABLE FILLET.

③ WHEN SEALING, THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING.

④ PRIOR TO SEALING THE JOINT, A 1/2" DIA. CLOSED CELL BACKER ROD SHALL BE PLACED SUCH THAT THE TOP OF THE BACKER ROD IS 1/2" BELOW THE SURFACE OF THE PAVEMENT. NON SELF-LEVELING SILICONE SHALL BE TOOLED INTO THE JOINT MAINTAINING A SEAL AND BEAD THICKNESS OF 1/4".

⑤ PRIOR TO SEALING THE JOINT, A 1/2" DIA. CLOSED CELL BACKER ROD CAPABLE OF WITHSTANDING SEALANT TEMPERATURES OF 400 DEGREES F. SHALL BE PLACED 1/2" BELOW THE TOP OF PAVEMENT.



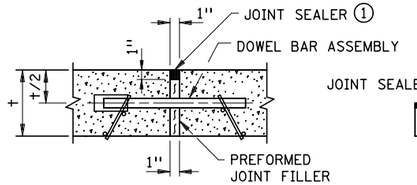
E1H-D (W/DOWELS) E1H (W/O DOWELS)

JOINT DETAIL A

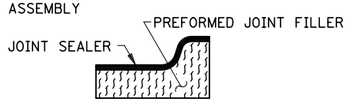
EXPANSION JOINT REFERENCE, DETAIL & SEALER SPEC. TABLE

JOINT REFERENCE WITHOUT DOWELS	JOINT REFERENCE WITH DOWELS	JOINT DETAIL	JOINT SEALER SPEC.	JOINT WIDTH
E1H	E1H-D	A	3725	1/2"
E2H	E2H-D	B	3725	1"
E4H		C	3725	2"
	E4H-D	D	3725	2"
E8H		STANDARD PLAN 5-297.229	3725	4"

LEGEND — EXAMPLE: E4H-D
E = EXPANSION JOINT
NO. = JOINT REFERENCE
H = HOT POURED
-D = DOWEL BARS

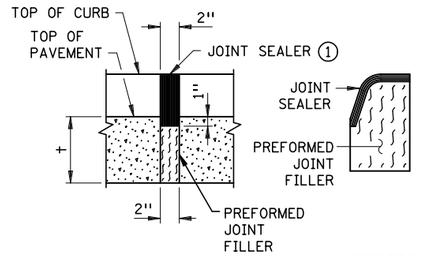


E2H-D (W/DOWELS) E2H (W/O DOWELS)

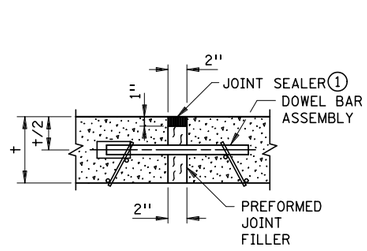


SECTION THRU CURB

JOINT DETAIL B

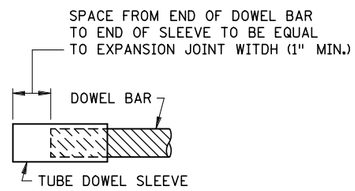


E4H (W/O DOWELS) SECTION THRU CURB



E4H-D (W/DOWELS)

JOINT DETAIL C JOINT DETAIL D



DOWEL BAR SLEEVE DETAIL

NOTES:

PREFORMED JOINT FILLER MATERIAL, SPEC. 3702.

FOR DOWEL BAR ASSEMBLY, SEE STANDARD PLATE 1103.

① JOINT SEALER SPEC. 3725. THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING. TOP OF SEALER, FLUSH TO 1/8" BELOW TOP OF PAVEMENT SURFACE. MAKE TOP OF SEALER FOR CURB SECTION D JOINTS FLUSH WITH SURFACE ±1/8".

REVISION:

APPROVED: 8-6-2014
DIRECTOR, OFFICE OF MATERIALS AND ROAD RESEARCH

CONTRACTION JOINTS
DESIGN C

REVISED:

MINNESOTA DEPARTMENT OF TRANSPORTATION
STATE DESIGN ENGINEER

APPROVED: 8-6-2014

PAVEMENT JOINTS
CONTRACTION (DESIGN C) AND EXPANSION (DESIGN E)

STANDARD PLAN 5-297.221 | 1 OF 2

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 34 OF 283 SHEETS

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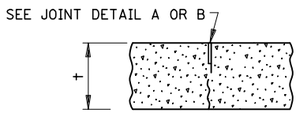
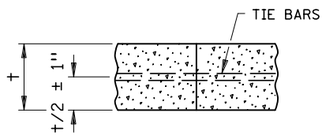
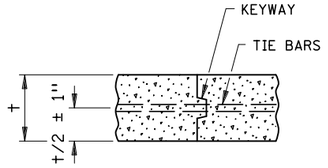


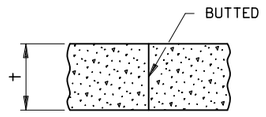
L1U & L1H ①



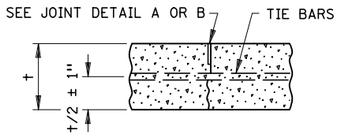
L2TU ②



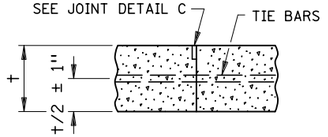
L2KTU ③



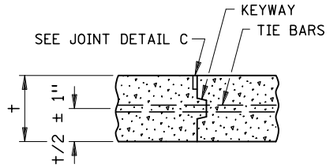
L3U



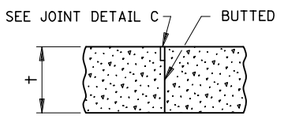
L1TU & L1TH ①



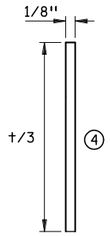
L2TH ②



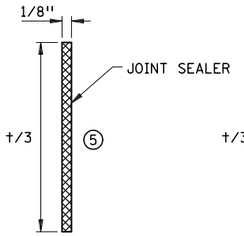
L2KTH ③



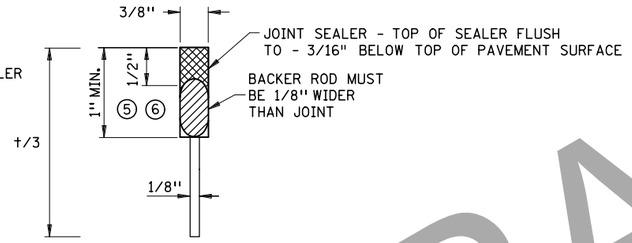
L3H



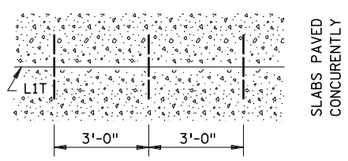
JOINT DETAIL A
SAWED & UNSEALED



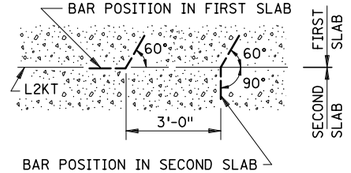
JOINT DETAIL B
SAWED & SEALED



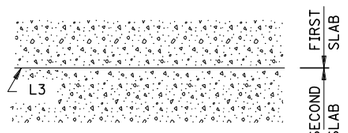
JOINT DETAIL C
SAWED & SEALED



L1T PAVING DETAIL



L2T & L2KT TIE BAR BENDING
AND PAVING DETAIL



L3 PAVING DETAIL

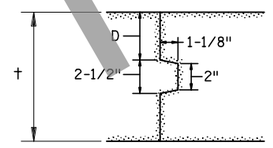
TIEBAR TABLE

PAVEMENT THICKNESS	TIEBAR SIZE	LENGTH
< 10-1/2"	NO. 4	30"
≥ 10-1/2"	NO. 5	36"
ALL THICKNESS WHEN TYING TO CURB AND GUTTER	NO. 4	30"

THE TIE BAR SPACING FOR ALL L2T AND L2KT JOINTS SHALL BE 3'-0" CENTER TO CENTER AND BENT 60° AS SHOWN, EXCEPT WHEN NOTED OTHERWISE IN THE PLANS.

TIE BARS IN THE L2T AND L2KT JOINTS SHALL BE THE SAME SIZE AND LENGTH AS USED FOR THE L1T JOINTS, WHEN TYING PAVEMENT TO PAVEMENT. TIE BARS IN THE L2KT JOINTS SHALL BE NO. 4 X 2' - 6", WHEN TYING CURB & GUTTER TO PAVEMENT.

ALL TIE BARS SHALL BE EPOXY COATED AND COMPLY WITH SPEC. 3301.



PAVEMENT KEYWAY DETAIL

KEYWAY DIMENSION TABLE

† PAVEMENT THICKNESS	D (TOLERANCE ± 1/4")
< 7"	NO KEYWAY
7" TO 7-1/2"	3"
8" TO 10"	4"
≥ 10-1/2"	5"

KEYWAY (1-1/8" × 2" × 2-1/2") MAY BE FORMED WITH MOLD OR METAL FORM. OTHER APPROVED KEYWAY SHAPES GIVING EQUIVALENT CONSTRUCTION FEATURES MAY BE USED WITH APPROVAL OF THE ENGINEER.

LONGITUDINAL JOINT REFERENCE, DETAIL & SEALER SPECIFICATION TABLE

JOINT REFERENCE			JOINT DETAIL	JOINT SEALER SPEC	JOINT WIDTH
WITHOUT TIE BARS	WITH TIE BARS	WITH KEYWAY & TIE BARS			
L1U	L1TU		A	UNSEALED	1/8"
L1H	L1TH		B	3725	1/8"
	L2TU	L2KTU	NONE	UNSEALED	
	L2TH	L2KTH	C	3725	3/8"
L3U			NONE	UNSEALED	
L3H			C	3725	3/8"

LEGEND — EXAMPLE: L2KTH

- L = LONGITUDINAL JOINT
- NO. = JOINT REFERENCE
- 1 = PAVED CONSTRUCTION JOINT
- 2 = TIED/KEYED CONSTRUCTION JOINT
- 3 = BUTTED CONSTRUCTION JOINT
- K = KEYWAY
- T = TIE BARS
- U = UNSEALED
- H = HOT POURED

NOTES:

NORMALLY, TIED PAVEMENT WIDTHS SHALL NOT EXCEED FOUR LANES, EXCEPT BRIDGE APPROACH PANELS AND PAVEMENT TAPERS.

JOINT WIDTH TOLERANCE IS + 1/16 IN. TO - 1/32 IN.

FURNISH AND INSTALL ALL JOINT SEALER IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

TIED/KEYED AND BUTTED CONSTRUCTION JOINTS SHALL BE UNSEALED EXCEPT AS OTHERWISE NOTED IN THE PLAN OR REQUIRED BY THE ENGINEER.

SEE STANDARD PLANS 5-297.217 AND 5-297.219 FOR CONCRETE MAINLINE AND RAMP PAVEMENT.

SEE PAVING LAYOUTS IN THE PLANS FOR JOINT CLASS DESIGNATIONS TO BE USED AND SPECIAL REINFORCEMENT REQUIRED.

WHEN CURB AND GUTTER IS PLACED ADJACENT TO CONCRETE MAINLINE, THE TIEBARS SHALL BE PLACED A MINIMUM OF 2" ABOVE THE CURB AND GUTTER GRADE.

① SEE THE LONGITUDINAL JOINT REFERENCE, DETAIL & SEALER SPECIFICATION TABLE TO DETERMINE JOINT DETAIL.

② CONCRETE PAVEMENTS LESS THAN 7" SHALL USE L2TU AND L2TH JOINTS UNLESS OTHERWISE ALLOWED BY THE ENGINEER.

③ CONCRETE PAVEMENTS GREATER THAN OR EQUAL TO 7" SHALL USE L2KTU AND L2KTH JOINTS UNLESS OTHERWISE ALLOWED BY THE ENGINEER.

④ THE JOINT FACES SHALL BE CLEANED WITH WATER DURING THE SAW CUTTING OPERATION OR BY WATER BLASTING AFTER SAWING.

⑤ THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING.

⑥ PRIOR TO SEALING THE JOINT, A 1/2" DIAMETER CLOSED CELL BACKER ROD CAPABLE OF WITHSTANDING SEALANT TEMPERATURES OF 400 DEGREES F. SHALL BE PLACED 1/2" BELOW THE TOP OF THE PAVEMENT.

REVISION:

APPROVED: 8-6-2014

DIRECTOR, OFFICE OF MATERIALS AND ROAD RESEARCH

REVISED:

APPROVED: 8-6-2014

STATE DESIGN ENGINEER

STANDARD PLAN SHEETS

PAVEMENT JOINTS

LONGITUDINAL (DESIGN L)

STANDARD PLAN 5-297.221 | 2 OF 2

SP 8309-52 (T.H. 60)

SHEET NO. 35 OF 283 SHEETS

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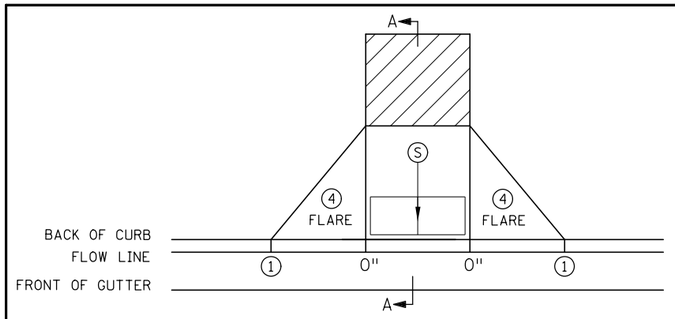
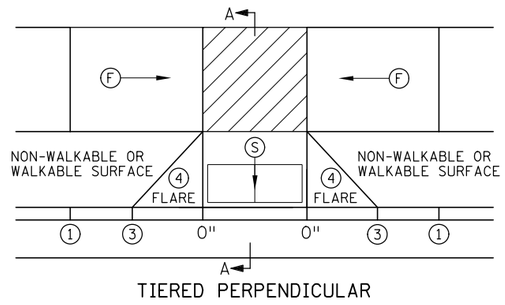
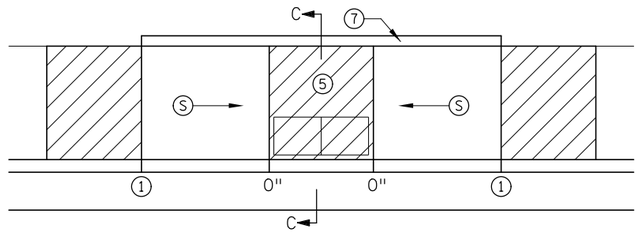


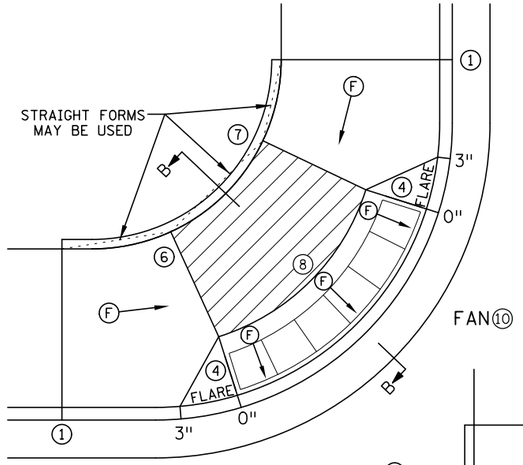
PERPENDICULAR



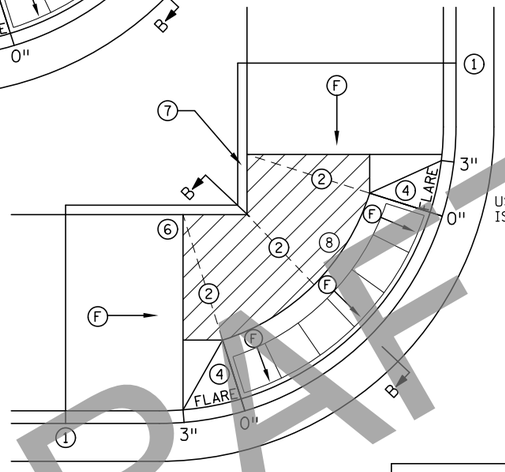
TIERED PERPENDICULAR



PARALLEL

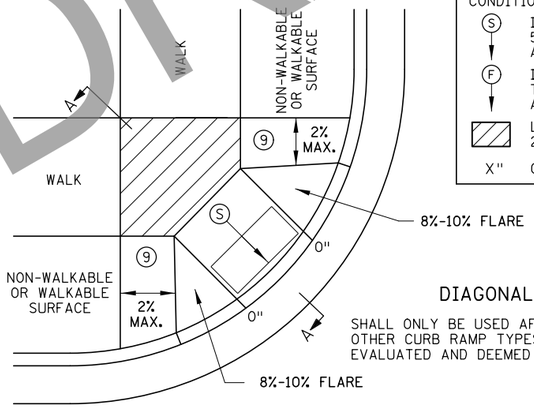


FAN⑩



MODIFIED FAN⑩

USED WHEN RIGHT-OF-WAY IS CONSTRAINED

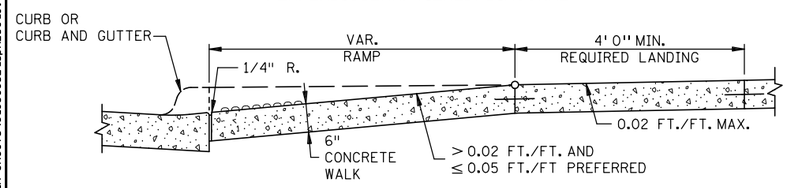


DIAGONAL

SHALL ONLY BE USED AFTER ALL OTHER CURB RAMP TYPES HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL

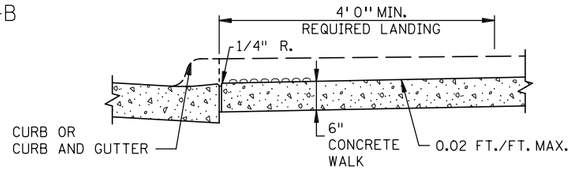
SECTION A-A

PERPENDICULAR/TIERED/DIAGONAL



SECTION B-B

FAN



SECTION C-C

PARALLEL/DEPRESSED CORNER

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH. (EXCEPT AS STATED IN ⑥ BELOW.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISIONS - PROSECUTION OF WORK (ADA).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER ENTIRE WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK. DETECTABLE WARNING SHOULD BE 6" LESS THAN THE PAR/TRAIL WIDTH. ARC LENGTH OF RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.

① MATCH FULL HEIGHT CURB.
② 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.
③ 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.
④ SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS, WHEN INITIAL LANDING IS AT FULL CURB HEIGHT.
⑤ DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.
⑥ THE GRADE BREAK SHALL BE PERPENDICULAR TO THE BACK OF WALK. THIS WILL ENSURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL. (TYPICAL FOR ALL)
⑦ WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
⑧ A 7' MIN TOP RADIUS GRADE BREAK REQUIRED TO BE CONSTRUCTIBLE.
⑨ PAVE FULL WALK WIDTH.
⑩ "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.

LEGEND

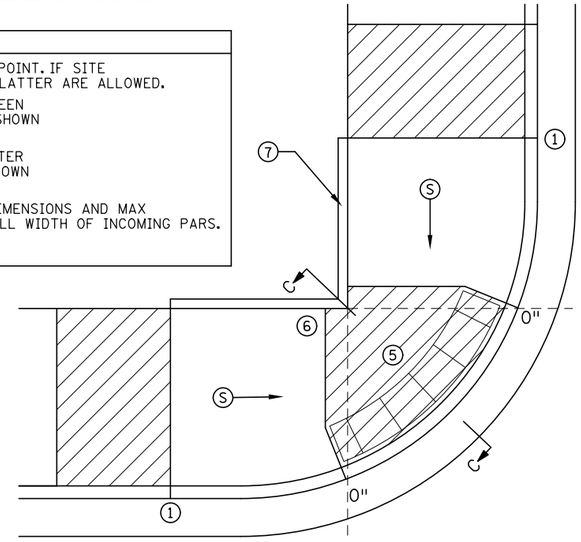
THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

(F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

X" CURB HEIGHT



DEPRESSED CORNER

REVISION:

APPROVED: JANUARY 23, 2017

OPERATIONS ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STATE DESIGN ENGINEER

REVISED:

APPROVED: 1-23-2017

PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 1 OF 6

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 36 OF 283 SHEETS

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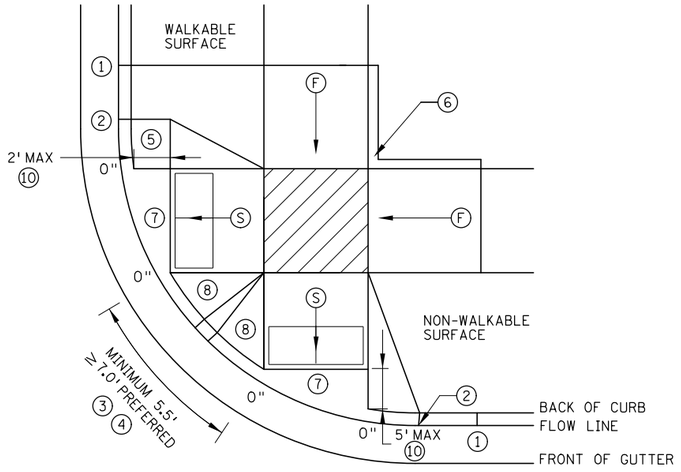
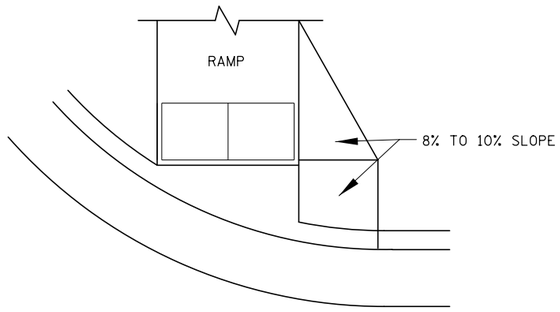


COMBINED DIRECTIONAL ⑨



DIRECTIONAL RAMP WALKABLE FLARE

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOP GRADE BREAK OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISION (PROSECUTION OF WORK).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER ENTIRE WIDTH OF SHARED-USE PATH AND THE ENTIRE PAR WIDTH OF THE WALK. DETECTABLE WARNING SHOULD BE 6" LESS THAN THE PAR/PATH WIDTH. ARC LENGTH OF RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB. SEE NOTES ⑩ & ⑪ FOR INFORMATION REGARDING RECTANGULAR DETECTABLE WARNING PLACEMENT.

① MATCH FULL CURB HEIGHT.

② 3" HIGH CURB WHEN USING A 3' LONG RAMP
4" HIGH CURB WHEN USING A 4' LONG RAMP.

③ 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)
4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).

④ THE "BUMP" IN BETWEEN THE RAMPS SHOULD NOT BE IN THE PATH OF TRAVEL FOR COMBINED DIRECTIONAL RAMPS. IF THIS OCCURS MODIFY THE RAMP LOCATION OR SWITCH RAMP TO A FAN/DEPRESSED CORNER.

⑤ WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, DIRECTIONAL RAMP FLARES SHOULD BE USED. SEE THE DETAIL ON THIS SHEET.

⑥ GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.

⑦ MAX. 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK AND DRAIN TO FLOW LINE. SHALL BE CONSTRUCTED INTEGRAL WITH CURB AND GUTTER.

⑧ 8% TO 10% WALKABLE FLARE.

⑨ PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.

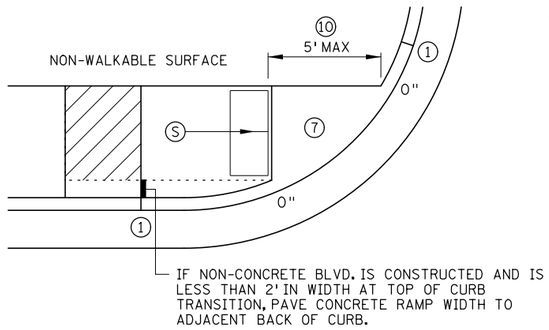
⑩ FRONT EDGE OF DETECTABLE WARNING SHALL BE SET BACK 2' MAXIMUM WHEN ADJACENT TO WALKABLE SURFACE, AND 5' MAXIMUM WHEN ADJACENT TO NON-WALKABLE SURFACE WITH ONE CORNER SET 3" FROM BACK OF CURB. A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

⑪ RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK UP TO 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB. IF 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNINGS.

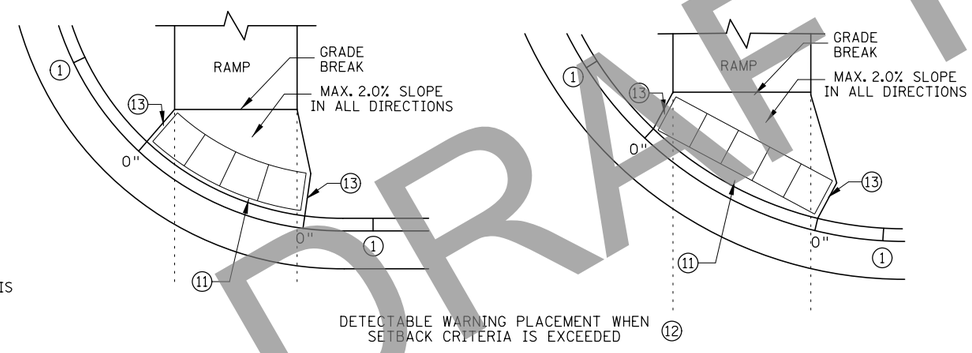
⑫ FOR DIRECTIONAL RAMPS WITH THE DETECTABLE WARNINGS PLACED AT THE BACK OF CURB, THE DETECTABLE WARNINGS SHALL COVER THE ENTIRE WIDTH OF THE WALK/PATH. THIS ENSURES A DETECTABLE EDGE AND HELPS ELIMINATE THE CURB TAPER OBSTRUCTING THE PATH OF PEDESTRIAN TRAVEL.

⑬ THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

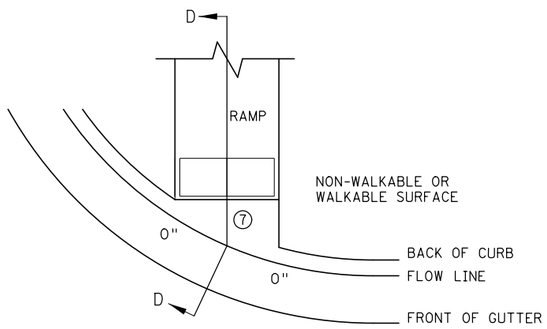
⑭ TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.



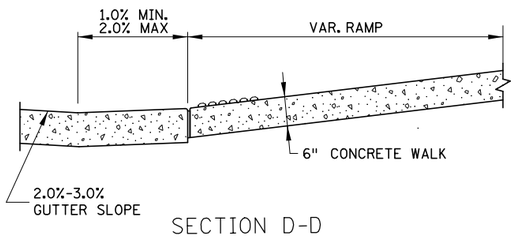
STANDARD ONE-WAY DIRECTIONAL ⑨



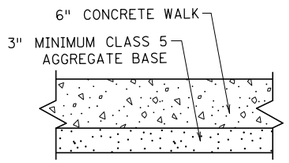
ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB



CURB FOR DIRECTIONAL RAMPS ⑭



SECTION D-D



TYPICAL SIDEWALK SECTION WITHIN INTERSECTION CORNER

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

Ⓢ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

Ⓕ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

X" CURB HEIGHT

REVISION:

APPROVED: JANUARY 23, 2017

OPERATIONS ENGINEER

REVISED:

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STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 2 OF 6

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 37 OF 283 SHEETS

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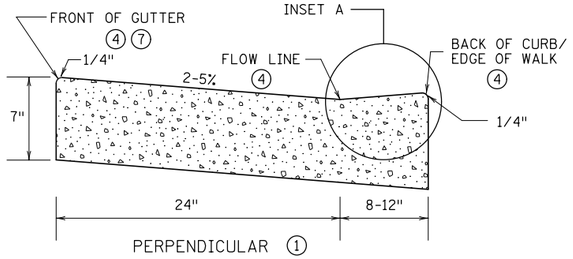
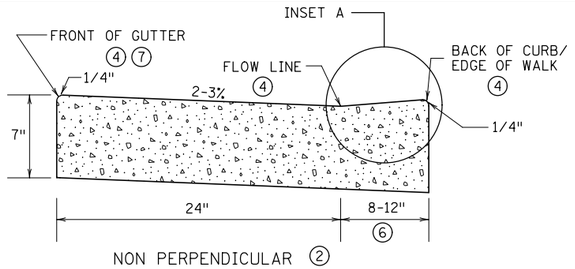
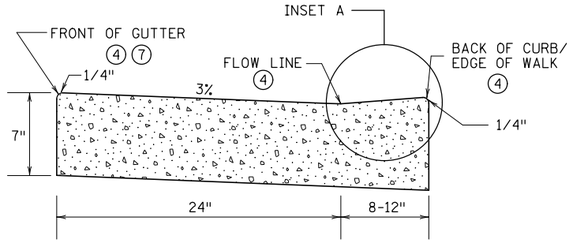


PERPENDICULAR ①

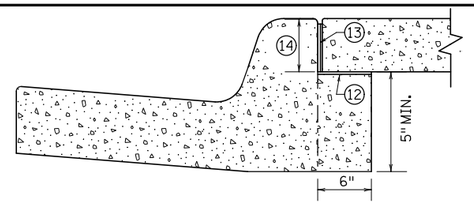


NON PERPENDICULAR ②

PEDESTRIAN ACCESS ROUTE CURB & GUTTER DETAIL

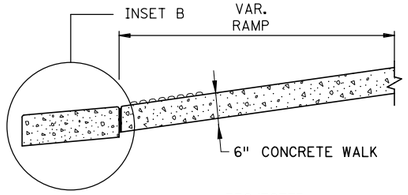


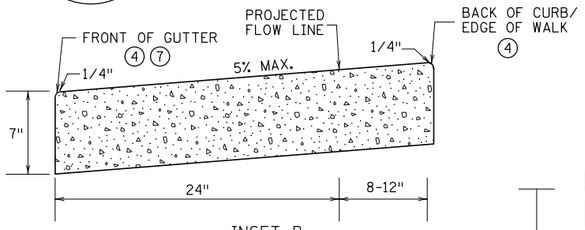
FOR CURB MACHINE PLACEMENT AROUND RADIUS ③
(REGARDLESS OF RAMP TYPE)



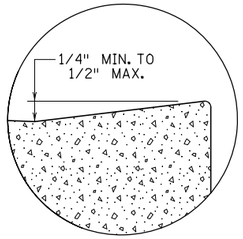
OPTIONAL SILL CURB WHEN SIDEWALK
IS AT BACK OF CURB

CONCRETE SILL TO BE USED ONLY WHEN
SPECIFIED IN THE PLAN.

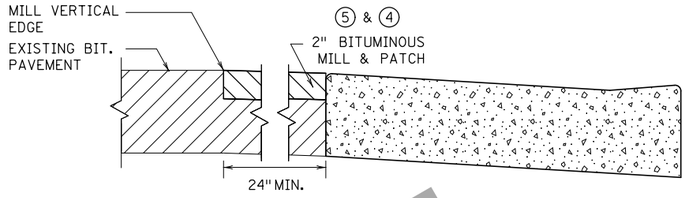


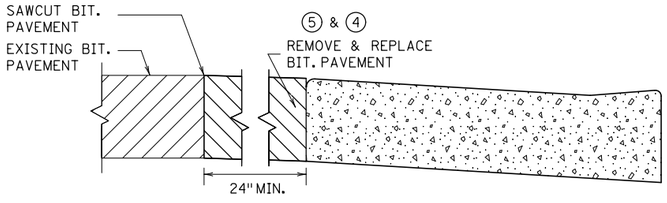


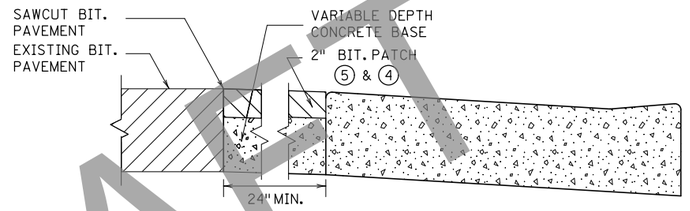
INSET B
OUTFLOW GUTTER ⑧



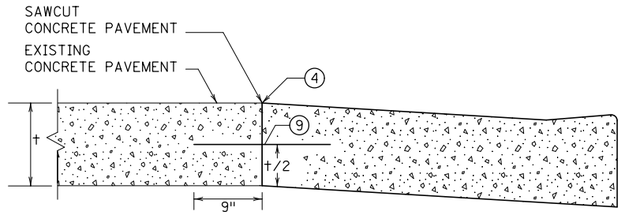
INSET A

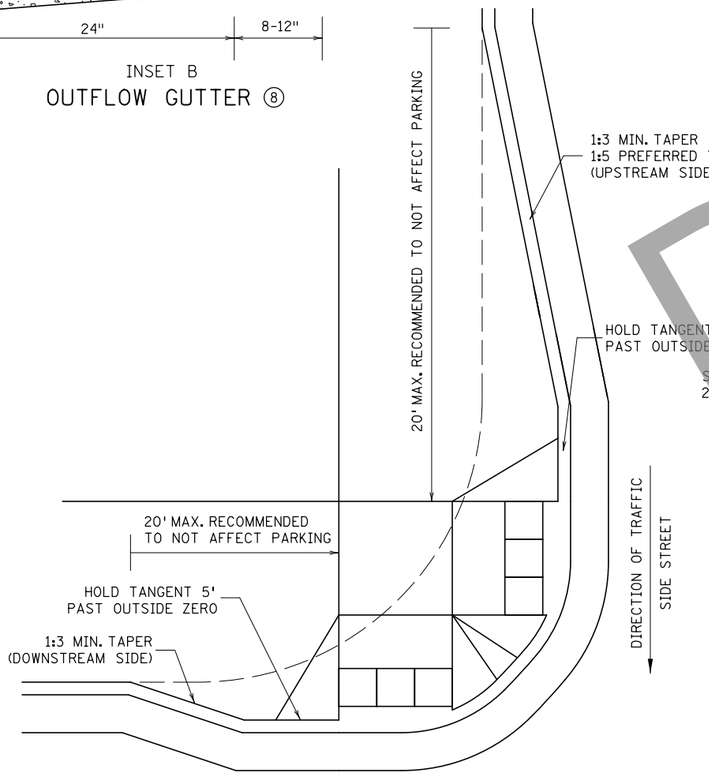






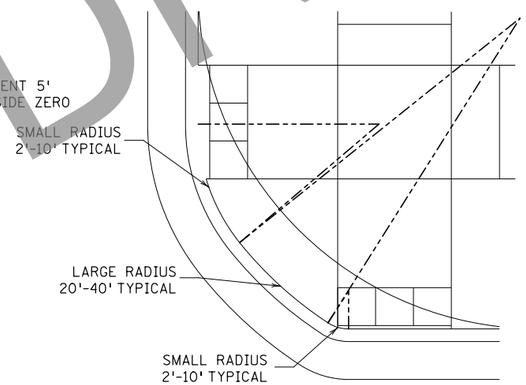
ONLY ALLOWED PER ENGINEER'S APPROVAL





ADA CURB EXTENSION WITH COMPOUND RADIUS (BUMP OUT) ⑪

DIRECTION OF TRAFFIC
MAIN STREET



COMBINED DIRECTIONAL ⑩
(COMPOUND RADIUS)

PAVEMENT TREATMENT OPTIONS IN FRONT OF CURB & GUTTER

FOR USE ON CURB RAMP RETROFITS

NOTES:

POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM.

NO PONDING SHALL BE PRESENT IN THE PAR.

ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.

① FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: PERPENDICULAR, TIERED PERPENDICULAR, PARALLEL, AND DIAGONAL RAMPS.

② FOR USE AT CURB RAMPS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS & DEPRESSED CORNERS.

③ BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMPS.

④ THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".

⑤ ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER. PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.

⑥ VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.

⑦ TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. TOP 1.5" OF THE GUTTER FACE MUST BE A FORMED EDGE. PAR GUTTER SHALL NOT BE OVERLAID.

⑧ SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.

⑨ DRILL AND GROUT NO. 4 EPOXY-COATED 18" LONG TIE BARS AT 30" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT 1' MINIMUM FROM ALL JOINTS.

⑩ HELPS PROVIDE TWO SEPARATE RAMPS, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.

⑪ CURB EXTENSIONS SHOULD BE USED IN VERTICALLY CONSTRAINED AREAS, USUALLY IN DOWNTOWN ROADWAY SEGMENTS WHERE ON-STREET PARKING IS AVAILABLE. CURB EXTENSIONS SHOULD BE CONSIDERED FOR APS INTERSECTIONS WHERE SPACE IS LIMITED. PUSH BUTTONS MUST MEET APS CRITERIA AS DESCRIBED IN THE PUSH BUTTON LOCATION DETAIL SHEET.

⑫ PLACE BOND BREAKER BETWEEN WALK AND TOP OF SILL.

⑬ 1/2" PREFORMED JOINT FILLER PER MNDOT SPEC. 3702.

⑭ DIMENSION TO BE SAME AS SIDEWALK THICKNESS, 4" MIN.

REVISION:

APPROVED: JANUARY 23, 2017

OPERATIONS ENGINEER

REVISED:

APPROVED: 1-23-2017

STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 3 OF 6

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 38 OF 283 SHEETS

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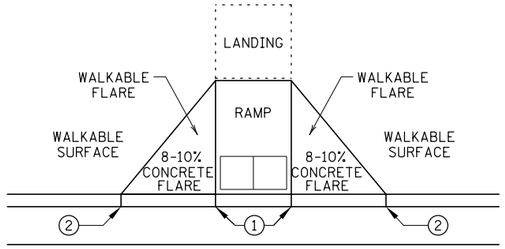
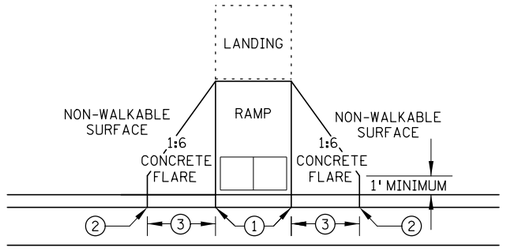
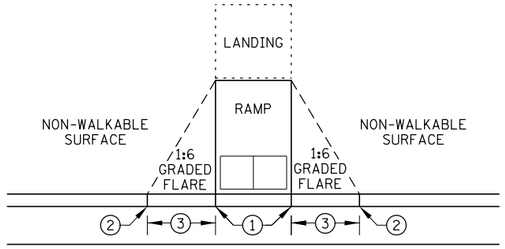


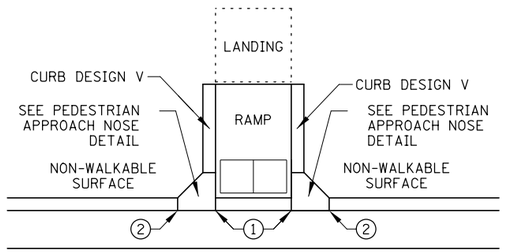
PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

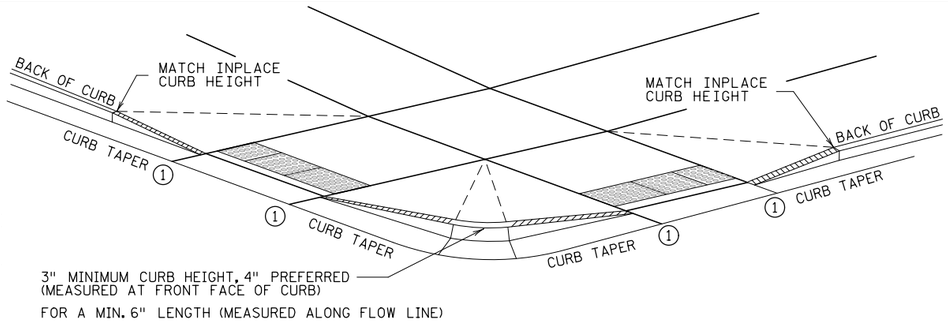


GRADED FLARES

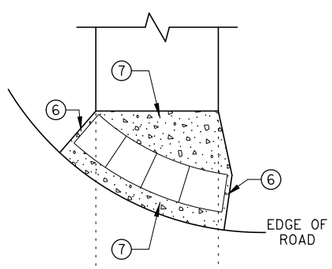


RETURNED CURB ⑤

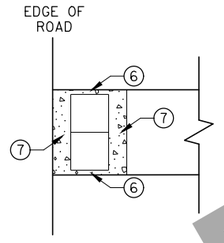
TYPICAL SIDE TREATMENT OPTIONS ④ ⑪



DETECTABLE EDGE WITH ⑧
CURB AND GUTTER

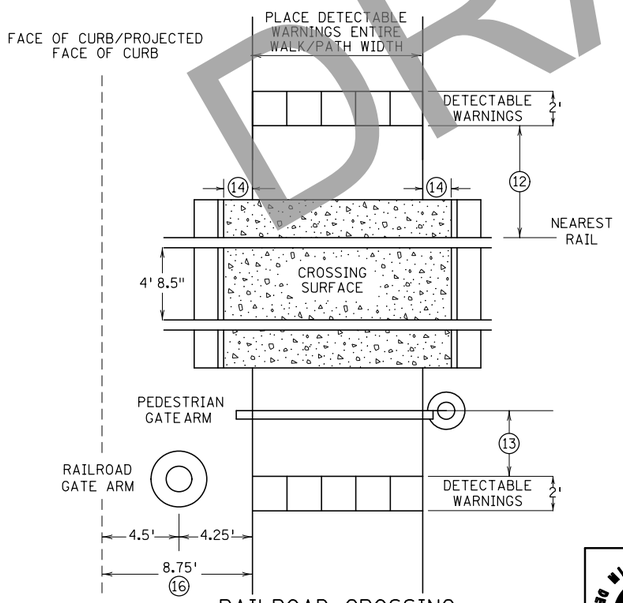


RADIAL DETECTABLE WARNING



RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER



RAILROAD CROSSING
PLAN VIEW

NOTES:

SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.

A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.

① 0" CURB HEIGHT.

② FULL CURB HEIGHT.

③ 2' FOR 4" HIGH CURB AND 3' FOR 6" HIGH CURB.

④ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.

⑤ TYPICALLY USED FOR MEDIANS AND ISLANDS.

⑥ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑦ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.

⑧ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.

⑨ DRILL AND GROUT 1 - NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.

⑩ DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.

⑪ SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6' LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE.

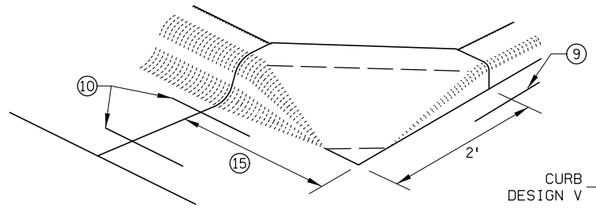
⑫ NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL. FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.

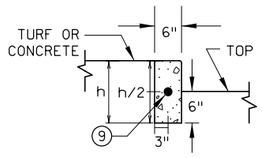
⑬ WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM. THIS CRITERIA GOVERNS OVER NOTE ⑫.

⑭ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.

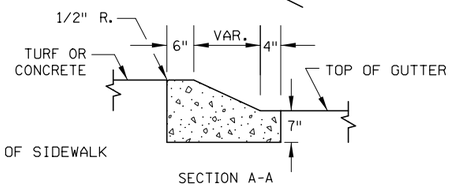
⑮ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.

⑯ SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.



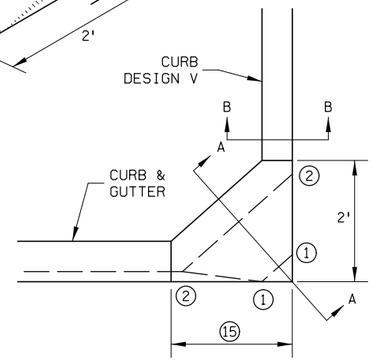


SECTION B-B



SECTION A-A

PEDESTRIAN APPROACH
NOSE DETAIL
(FOR RETURNED CURB
SIDE TREATMENT)



REVISION:
APPROVED: JANUARY 23, 2017
OPERATIONS ENGINEER

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MINNESOTA DEPARTMENT OF TRANSPORTATION

REVISED:

STATE DESIGN ENGINEER

APPROVED: 1-23-2017

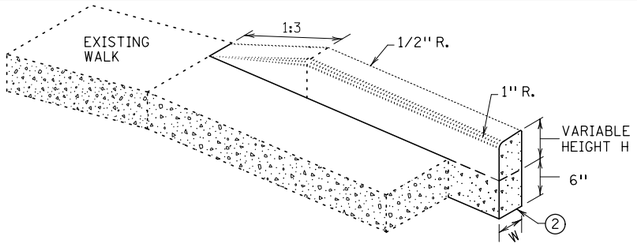
PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 4 OF 6

STANDARD PLAN SHEETS

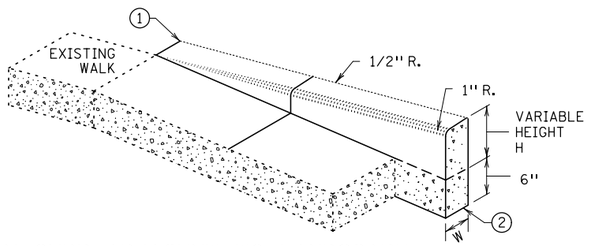
SP 8309-52 (T.H. 60)

SHEET NO. 39 OF 283 SHEETS



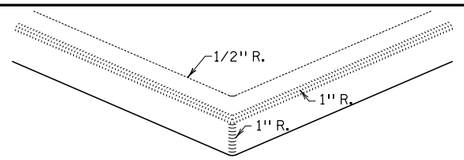
V CURB ADJACENT TO LANDSCAPE

CURB WITHIN SIDEWALK LIMITS

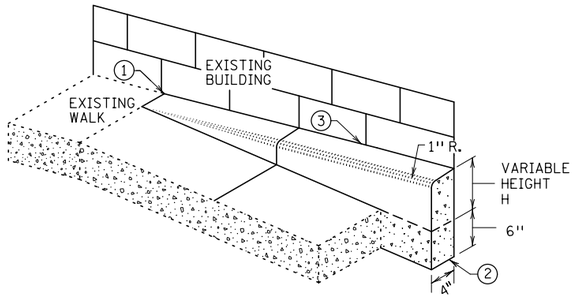


V CURB ADJACENT TO LANDSCAPE

CURB OUTSIDE SIDEWALK LIMITS

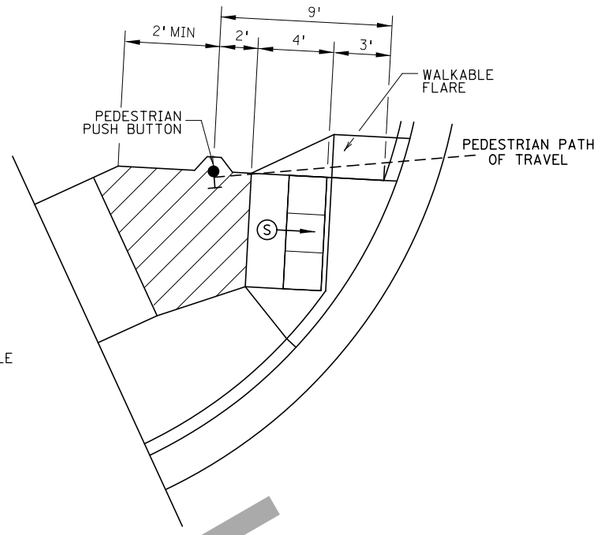


V CURB INTERSECTION



V CURB ADJACENT TO BUILDING OR BARRIER

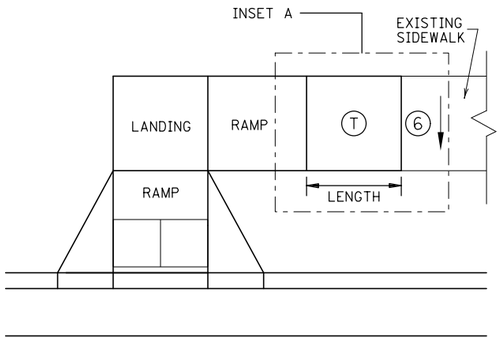
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
< 6"	4"
≥ 6"	6"

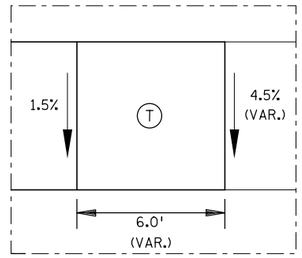


SEMI-DIRECTIONAL RAMP (3,4,9)

3' DOME SETBACK, 4' LONG RAMP AND PUSH BUTTON 9' FROM THE BACK OF CURB

PRIMARILY USED FOR APS APPLICATIONS WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK)





TRANSITION PANEL ④⑤

NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.

ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.

WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.

V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.

V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.

(1) END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.

(2) ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.

(3) EDGE BETWEEN NEW V CURB AND INPLACE STRUCTURE SHALL BE SEALED AND BOND BREAKER SHALL BE USED BETWEEN EXISTING STRUCTURE AND PLACED V-CURB.

(4) THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1' LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6' OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.

(5) TRANSITION PANELS ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).

(6) EXISTING CROSS SLOPE GREATER THAN 2.0%.

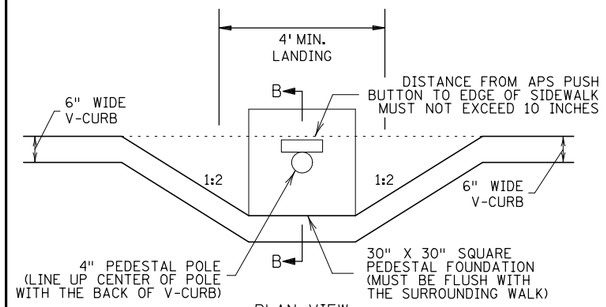
LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

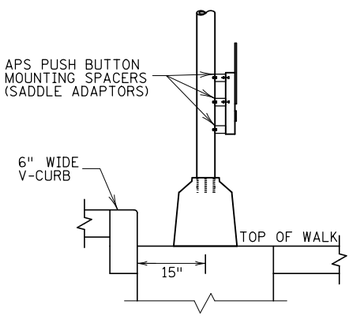
(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

(T) TRANSITION PANEL(S) - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

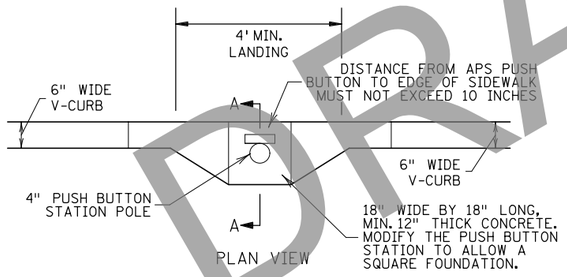


PLAN VIEW

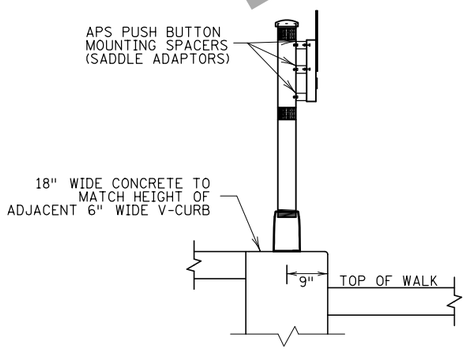


SECTION B-B

SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)



PLAN VIEW



SECTION A-A

PUSH BUTTON STATION (V-CURB)

REVISION:

APPROVED: JANUARY 23, 2017

OPERATIONS ENGINEER

REVISED:

APPROVED: 1-23-2017

STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 5 OF 6

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 40 OF 283 SHEETS

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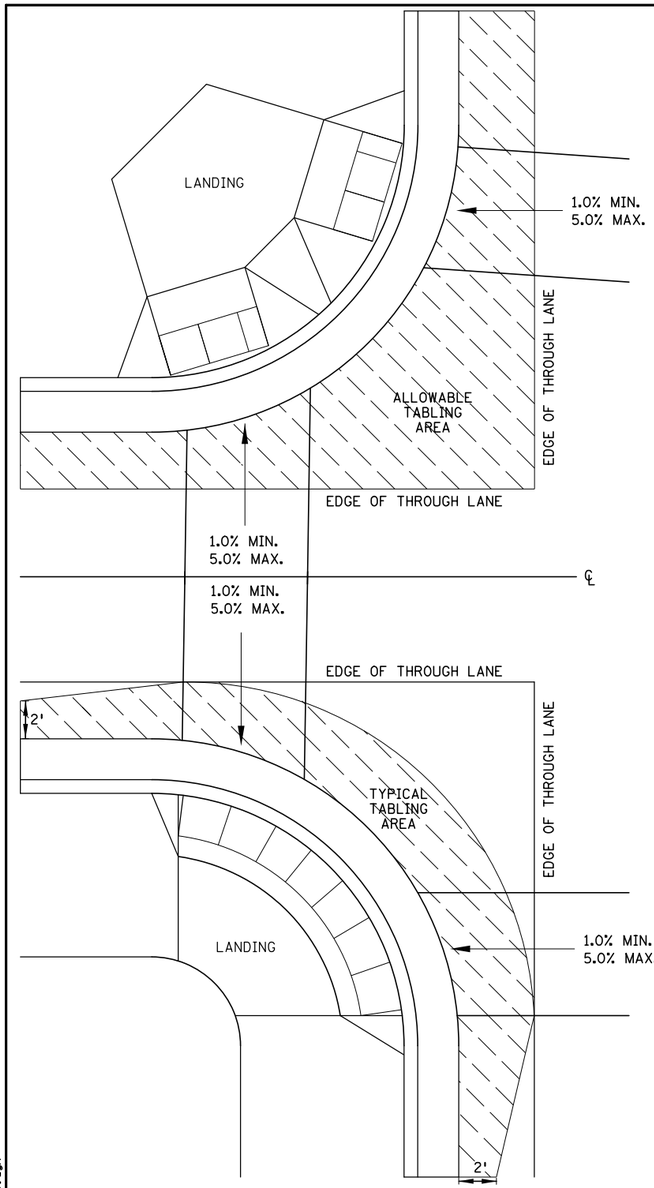
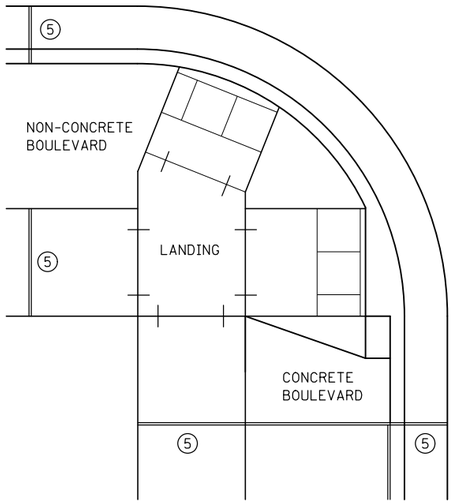
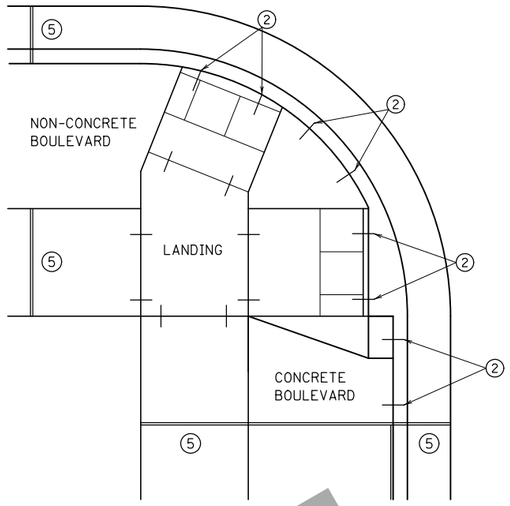


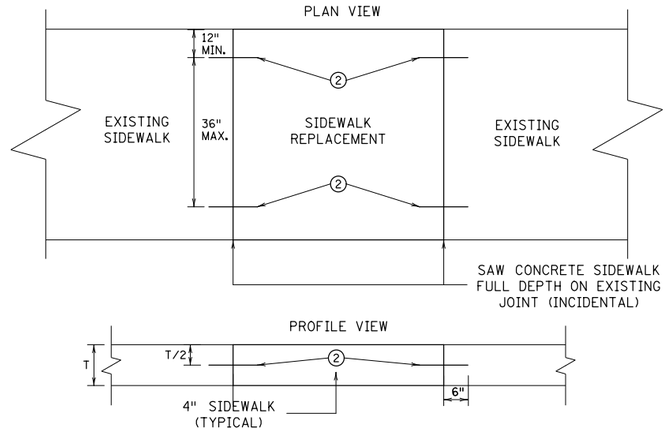
CURB LINE AND ROAD CROSSING ADJUSTMENTS



EXPANSION MATERIAL PLACEMENT FOR CONCRETE AND BITUMINOUS ROADWAYS

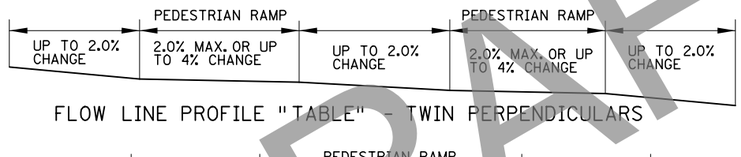


OPTIONAL CURB LINE REINFORCEMENT ④ PLACEMENT ON BITUMINOUS ROADWAYS

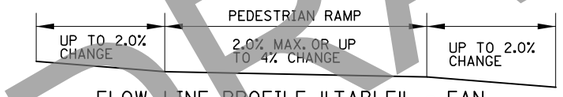


OPTIONAL SIDEWALK REINFORCEMENT

SIDEWALK REINFORCEMENT TO BE USED ONLY WHEN SPECIFIED IN THE PLAN.



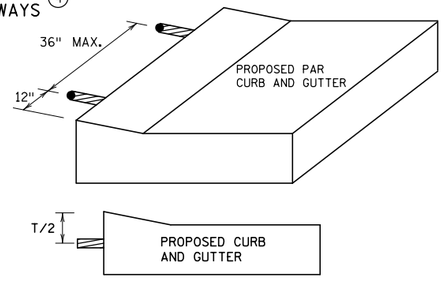
FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS



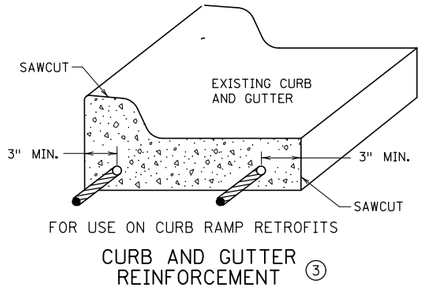
FLOW LINE PROFILE "TABLE" - FAN

FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS

FLOW LINE PROFILE RAISE - FAN

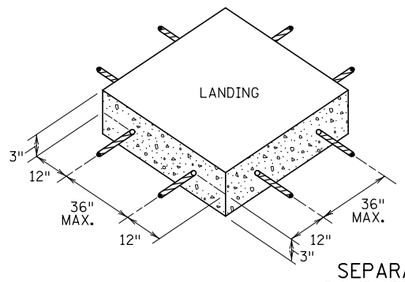


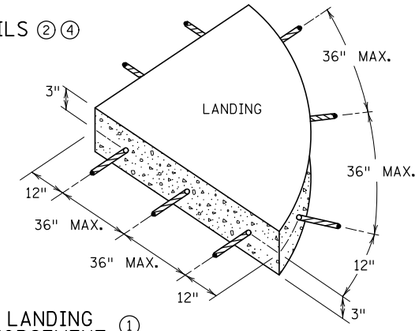
OPTIONAL CURB LINE REINFORCEMENT DETAILS ②④



FOR USE ON CURB RAMP RETROFITS

CURB AND GUTTER REINFORCEMENT ③





SEPARATE LANDING POUR REINFORCEMENT ①

NOTES:

① TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.

② DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS AT 36" MAXIMUM CENTER TO CENTER (EPOXY COATED). BARS TO BE ADJUSTED TO MATCH RAMP GRADE.

③ DRILL AND GROUT 2 - NO. 4 X 12" LONG REINFORCEMENT BARS (EPOXY COATED). REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS WITHIN RADIUS.

④ THIS OPTIONAL CURB LINE REINFORCEMENT DETAIL SHOULD ONLY BE USED ON BITUMINOUS ROADWAYS WHEN SPECIFIED IN THE PLAN.

⑤ 1/2 IN. PREFORMED JOINT FILLER MATERIAL PER MNDOT SPEC. 3702.

"TABLING" OF CROSSWALKS MEANS MAINTAINING LESS THAN 2% CROSS SLOPE WITHIN A CROSSWALK, IS REQUIRED WHEN A ROADWAY IS IN A STOP OR YIELD CONDITION AND THE PROJECT SCOPE ALLOWS.

RECONSTRUCTION PROJECTS: ON FULL PAVEMENT REPLACEMENT PROJECTS "TABLING" OF ENTIRE CROSSWALK SHALL OCCUR WHEN FEASIBLE.

MILL & OVERLAY PROJECTS: "TABLING" OF FLOW LINES, IN FRONT OF THE PEDESTRIAN RAMP, IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2%. WARPING OF THE BITUMINOUS PAVEMENT CAN NOT EXTEND INTO THE THROUGH LANE. TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA;

1) 1.0% MIN. CROSS-SLOPE OF THE ROAD
2) 5.0% MAX. CROSS-SLOPE OF THE ROAD
3) "TABLE" FLOW LINE UP TO 4% CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
4) UP TO 2% CHANGE IN FLOW LINE FROM EXISTING SLOPE BEYOND THE PEDESTRIAN CURB RAMP

STAND-ALONE ADA RETROFITS: FOLLOW MILL & OVERLAY CRITERIA ABOVE HOWEVER ALL PAVEMENT WARPING IS DONE WITH BITUMINOUS PATCHING ON BITUMINOUS ROADWAYS AND FULL-DEPTH APRON REPLACEMENT ON CONCRETE ROADWAYS.

RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA;

1) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
2) 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE
3) 5.0% RECOMMENDED MAX. FLOW LINE
4) LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

REVISION:

APPROVED: JANUARY 23, 2017

OPERATIONS ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

REVISED:

STATE DESIGN ENGINEER

APPROVED: 1-23-2017

PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 | 6 OF 6

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 41 OF 283 SHEETS

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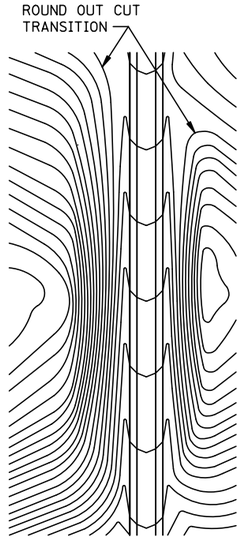
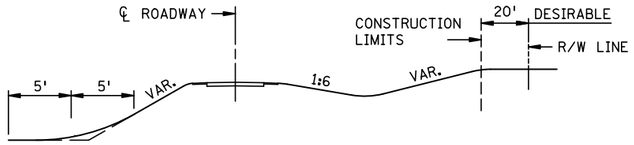
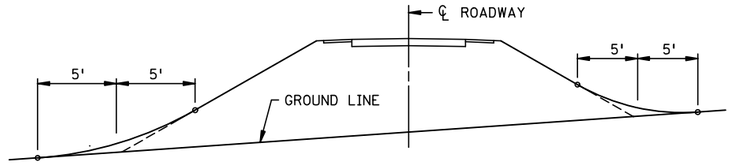


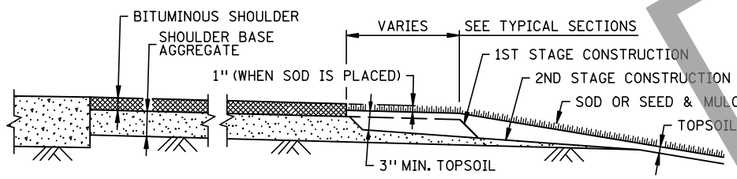
CONTOURING ROAD CUTS



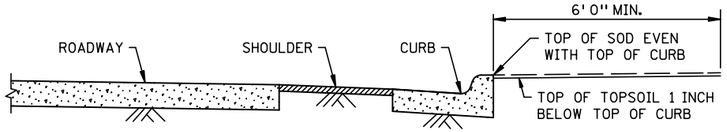
ROUNDING SHOULDERS AND BACKSLOPES



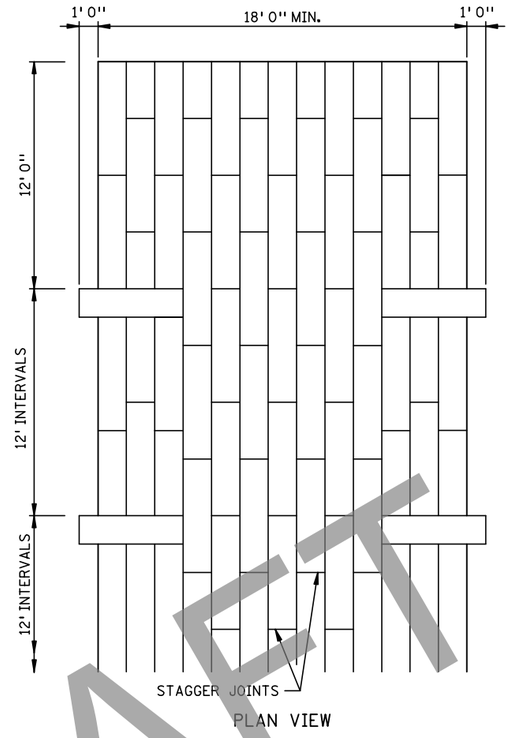
SHAPING FOR DRAINAGE ALONG THE TOE OF FILL SLOPES



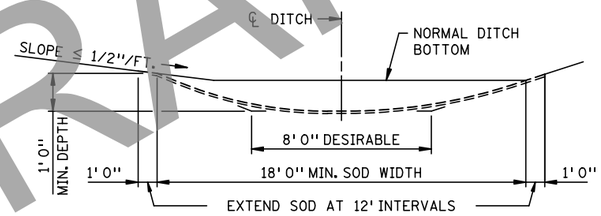
SHAPING AND TOPSOILING INSLOPES



SHAPING ADJACENT TO CURBS WHEN SOD IS PLACED

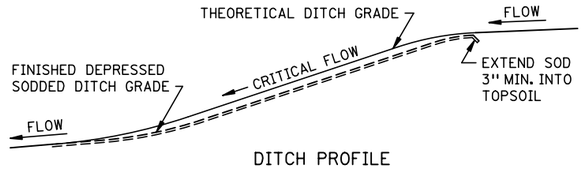


PLAN VIEW



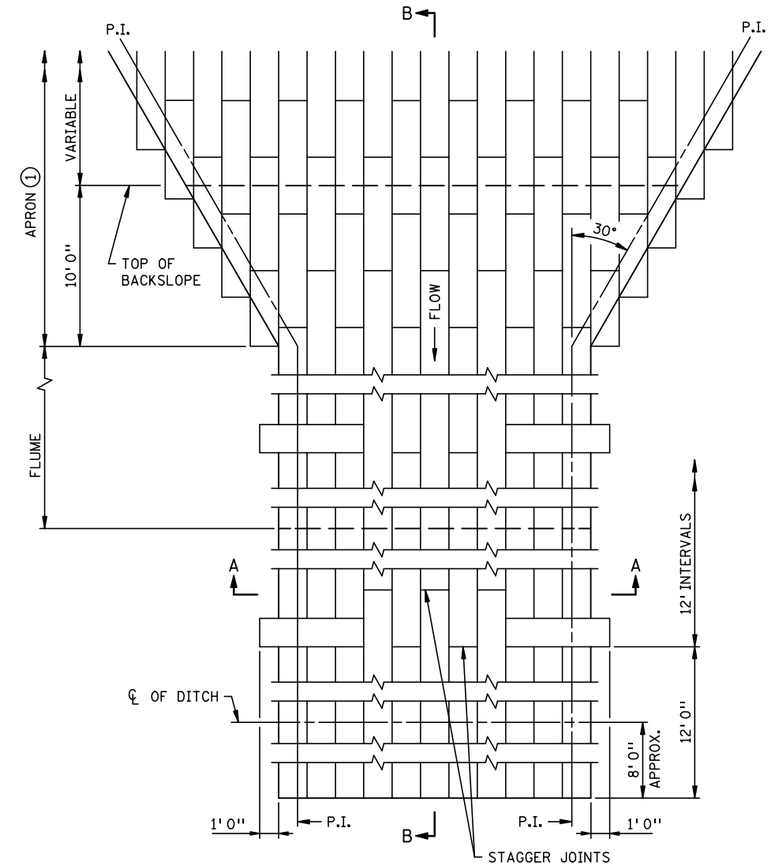
SODDED DITCH CROSS SECTION

WHERE FRONT OR BACK SLOPE IS FLAT (LESS THAN 1/2"/FT.), FIRST NOTCH DITCH AND THEN PROVIDE ROUNDING.

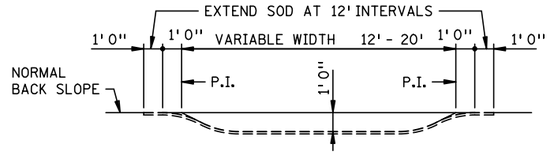


DITCH PROFILE

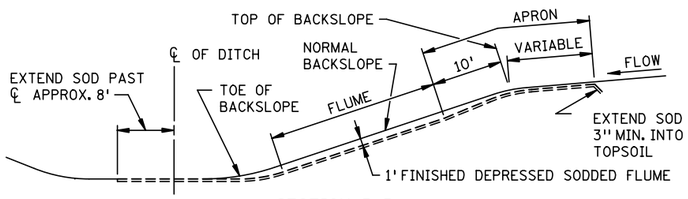
SODDED DITCH DETAILS



PLAN VIEW



SECTION A-A



SECTION B-B

SODDED FLUME DETAILS

NOTES:

SEE SPEC. 2575.3 FOR ADDITIONAL INFORMATION.

① CONSTRUCT TAPER AS DIRECTED BY THE ENGINEER.

REVISION:

APPROVED: 2-28-2017

CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STATE DESIGN ENGINEER

REVISED:

APPROVED: 2-28-2017

PERMANENT EROSION CONTROL

ALONG ROADWAYS, DITCHES AND FLUMES

STANDARD PLAN 5-297.404 | 1 OF 3

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 42 OF 283 SHEETS

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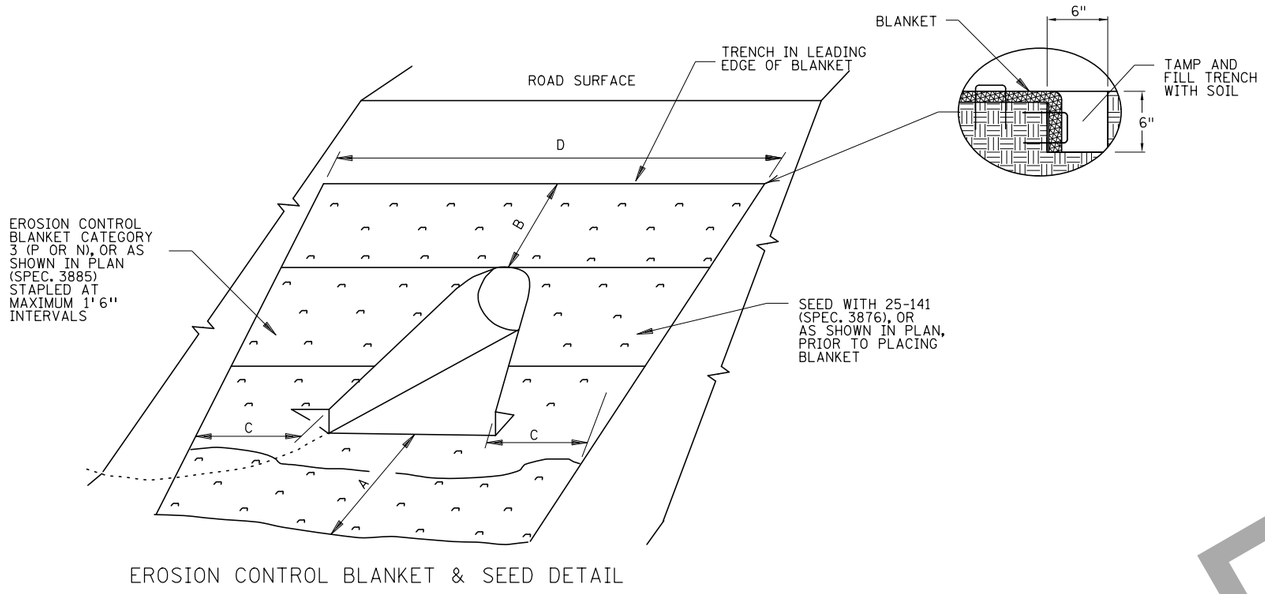
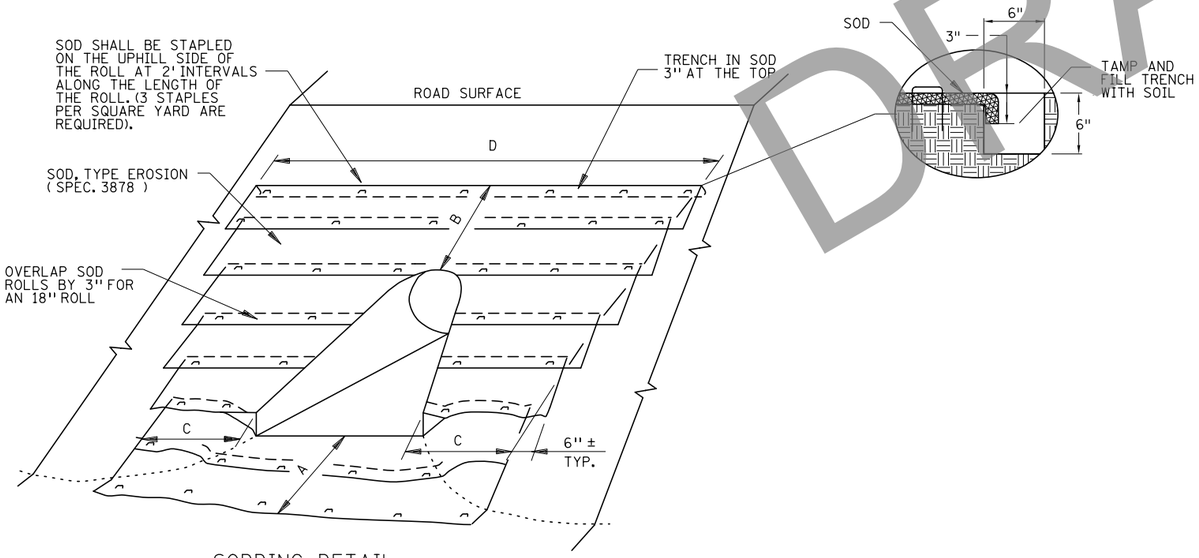


EROSION CONTROL BLANKET & SEED DETAIL



SODDING DETAIL

CULVERT INLET APRON (1)

CULVERT DIAMETER (2)	SOD OR EROSION CONTROL BLANKET (SQ. YDS.)						"A"	"B"	"C"	"D"
	CIRCULAR AND ARCH PIPE METAL APRON (PLATE 3123, PLATE 3122)	CIRCULAR AND ARCH PIPE CONCRETE APRON (PLATE 3100, PLATE 3110)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1:4 SLOPE (PLATE 3148)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1:6 SLOPE (PLATE 3148)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1:6 SLOPE (PLATE 3128)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1:4 SLOPE (PLATE 3128)				
15"	9	9	8	8	N/A	N/A	3'	1.5'	3'	13'
18"	13	12	12	14	16	N/A	3'	3'	3'	16'
21"	14	14	14	16	18	14	3'	3'	3'	17'
24"	16	15	16	19	21	17	3'	3'	3'	18'
27"	N/A	20	N/A	N/A	N/A	N/A	3'	4.5'	3'	20'
30"	23	22	25	30	32	N/A	3'	4.5'	3'	22'
36"	34	34	39	48	51	37	4.5'	4.5'	4.5'	27'
42"	43	40	51	64	N/A	N/A	4.5'	6'	4.5'	30'
48"	54	50	66	82	N/A	N/A	4.5'	7.5'	4.5'	34'
54"	65	58	81	102	N/A	N/A	4.5'	9'	4.5'	37'
60"	69	59	91	115	N/A	N/A	4.5'	9'	4.5'	39'
66"	69	63	N/A	N/A	N/A	N/A	4.5'	9'	4.5'	39'
72"	78	72	99	122	N/A	N/A	4.5'	10.5'	4.5'	41'

CULVERT OUTLET APRON (1)

CULVERT DIAMETER (2)	SOD OR EROSION CONTROL BLANKET (SQ. YDS.)						"A"	"B"	"C"	"D"
	CIRCULAR AND ARCH PIPE METAL APRON (PLATE 3123, PLATE 3122)	CIRCULAR AND ARCH PIPE CONCRETE APRON (PLATE 3100, PLATE 3110)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1:4 SLOPE (PLATE 3148)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1:6 SLOPE (PLATE 3148)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1:6 SLOPE (PLATE 3128)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1:4 SLOPE (PLATE 3128)				
15"	10	10	9	10	N/A	N/A	4.5'	1.5'	3'	13'
18"	13	13	12	14	15	N/A	6'	1.5'	3'	14'
21"	16	14	16	18	19	15	6'	1.5'	3'	15'
24"	18	18	18	21	22	18	7.5'	1.5'	3'	16'
27"	N/A	19	N/A	N/A	N/A	N/A	7.5'	1.5'	3'	17'
30"	23	23	24	28	29	N/A	9'	1.5'	3'	18'
36"	36	35	38	47	48	37	10.5'	1.5'	4.5'	23'
42"	43	40	47	58	N/A	N/A	12'	1.5'	4.5'	25'
48"	50	46	57	70	N/A	N/A	13.5'	1.5'	4.5'	27'
54"	57	50	67	84	N/A	N/A	15'	1.5'	4.5'	29'
60"	74	63	90	113	N/A	N/A	16.5'	1.5'	6'	33'
66"	75	67	N/A	N/A	N/A	N/A	16.5'	1.5'	6'	33'
72"	77	70	92	114	N/A	N/A	16.5'	1.5'	6'	34'

NOTES:

AREA SHOWN IN SQUARE YARDS IS FOR ONE CULVERT END.

QUANTITIES ARE CALCULATED TO INCLUDE SOD REQUIRED TO PROVIDE A 3" OVERLAP ON ALL 18" WIDE ROLLS. THIS ALLOWS FOR SHRINKAGE OF THE SOD.

FOR PIPE ARCHES USE EQUIVALENT PIPE DIAMETER TO APPROXIMATE AREA.

FOR CORRUGATED POLYETHYLENE PIPE METAL APRON (PLATE 3129), USE THE METAL APRON COLUMN (PLATE 3123).

AREAS AND DIMENSIONS ARE APPROXIMATE AND ARE BASED ON APRON SIDE SLOPES OF NO STEEPER THAN 1:2, UNLESS INDICATED AS FOR SAFETY APRONS.

CARE SHOULD BE TAKEN IN SELECTING SOD TO STABILIZE THE APRON. RIP-RAP SHOULD BE USED FOR FLOW VELOCITIES GREATER THAN 6 FPS.

(1) ADDITIONAL QUANTITIES MAY BE SHOWN IN THE PLAN OR REQUIRED BY THE ENGINEER.

(2) FOR ARCH PIPE USE CLOSEST CIRCULAR PIPE DIAMETER AND APRON SLOPE. (DIAMETERS LARGER THAN 72" REQUIRE SPECIAL DESIGNS.)

REVISION:
APPROVED: 2-28-2017
CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

REVISED:

STATE DESIGN ENGINEER

APPROVED: 2-28-2017

PERMANENT EROSION CONTROL
TURF ESTABLISHMENT DETAIL AT CULVERT ENDS

STANDARD PLAN 5-297.404 | 2 OF 3

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 43 OF 283 SHEETS

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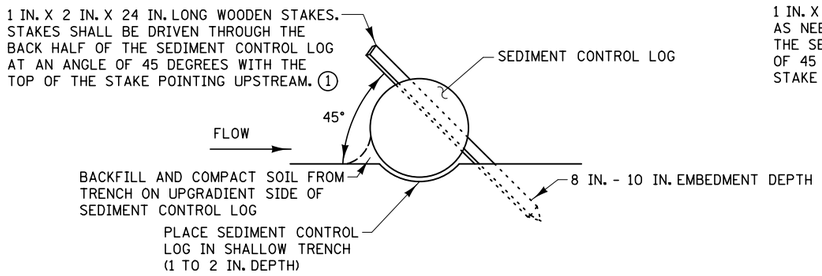
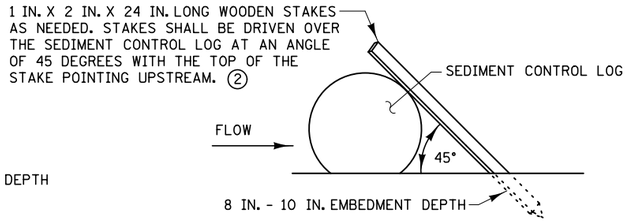
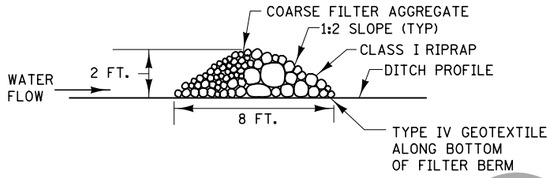


TYPES: STRAW, WOOD FIBER, OR COIR

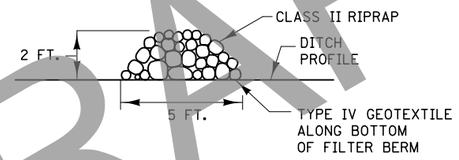


TYPES: WOOD CHIP, COMPOST, OR ROCK

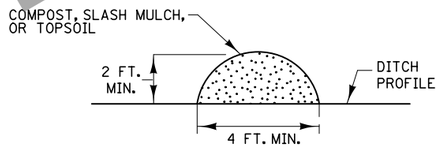
SEDIMENT CONTROL LOGS



TYPE 3 (ROCK WEEPER)

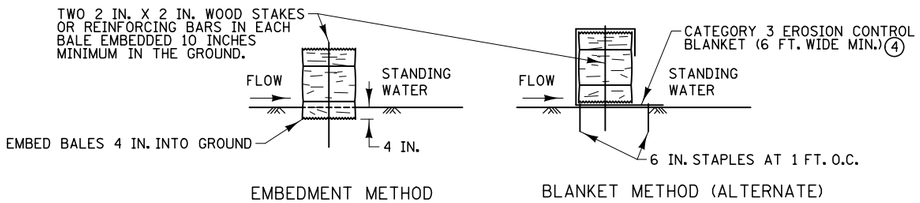


TYPE 5 (ROCK)



TYPE 1 (COMPOST), TYPE 2 (SLASH MULCH), OR TYPE 4 (TOPSOIL)

FILTER BERMS



EMBEDMENT METHOD

BLANKET METHOD (ALTERNATE)

BALE BARRIERS (3)

NOTES:

SEE SPECS. 2573, 3149, 3874, 3882, 3886, & 3897.

(1) SPACE BETWEEN STAKES SHALL BE A MAXIMUM OF 1 FOOT FOR DITCH CHECKS OR 2 FEET FOR OTHER APPLICATIONS.

(2) PLACE STAKES AS NEEDED TO PREVENT MOVEMENT OF SEDIMENT CONTROL LOGS PLACED ON SLOPES OR AS NEEDED DUE TO OTHER FACTORS. STAKES SHALL BE INCIDENTAL.

(3) TO BE USED FOR CRITICAL PERIMETER CONTROL AREAS WHERE STANDING WATER OCCURS (6 INCH MAX. DEPTH). BALES SHALL CONSIST OF TYPE 1 MULCH OF APPROXIMATELY 14 IN. X 18 IN. X 36 IN. LONG. BALES SHALL BE PLACED ON EDGE AND BUTTED TIGHT TO ADJACENT BALES.

(4) INSTEAD OF TRENCHING, PLACE BALE ON THE BLANKET AND WRAP BLANKET AROUND THE BALE. PLACE STAKE THROUGH BALE AND BLANKET.

REVISION:
APPROVED: 2-28-2017 CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STATE DESIGN ENGINEER

REVISED:

APPROVED: 2-28-2017

TEMPORARY SEDIMENT CONTROL
FILTER BERMS, SEDIMENT CONTROL LOGS, AND BALE BARRIERS

STANDARD PLAN 5-297.405 | 2 OF 8

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 44 OF 283 SHEETS

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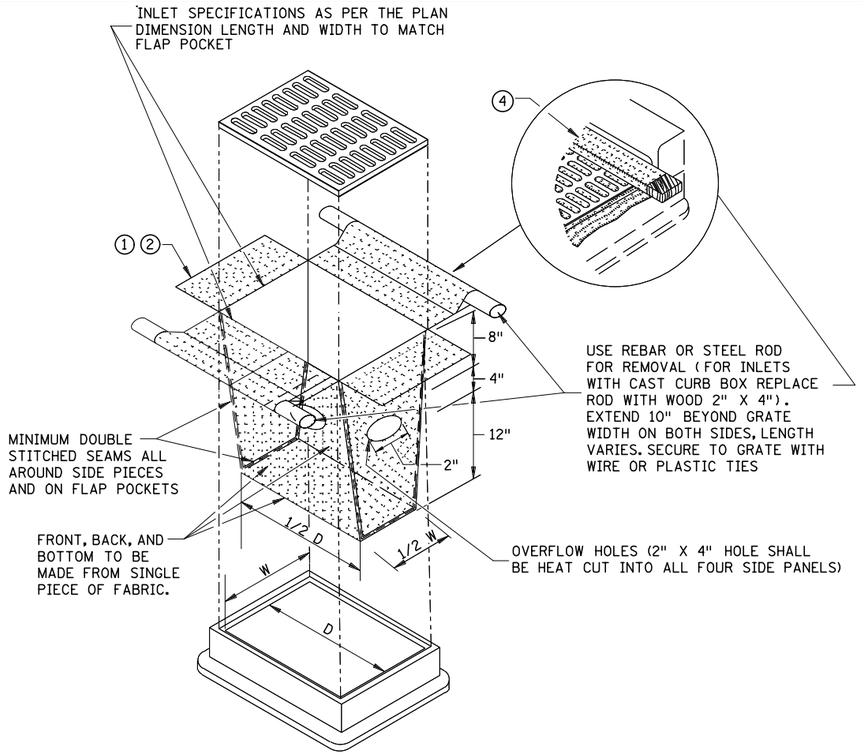
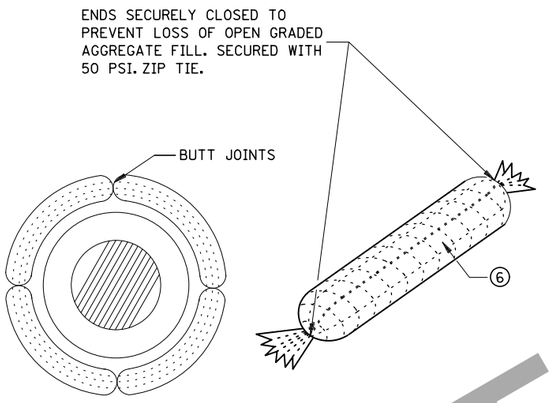
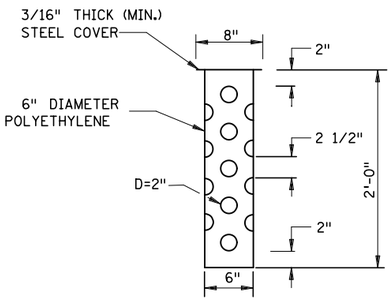


FILTER BAG INSERT ③

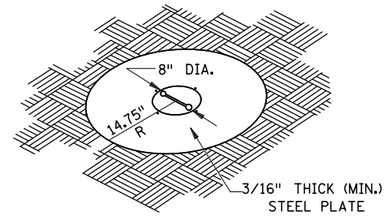
(CAN BE INSTALLED IN ANY INLET TYPE
WITH OR WITHOUT A CURB BOX)



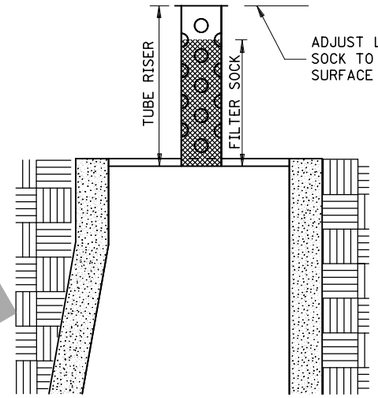
ROCK LOG/COMPOST LOG



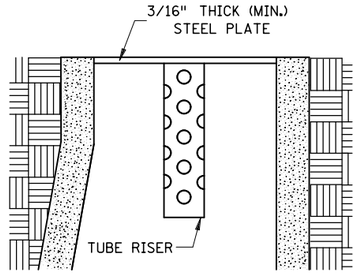
TUBE RISER



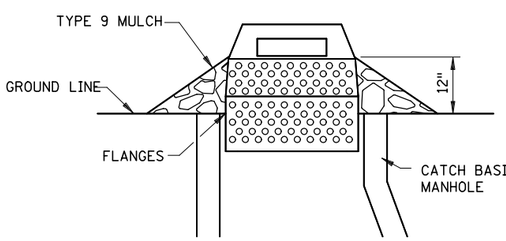
PERSPECTIVE VIEW



SECTION
(UP POSITION)

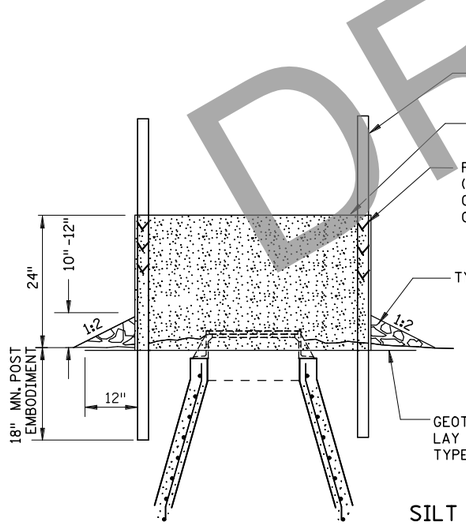


SECTION
(DOWN POSITION)



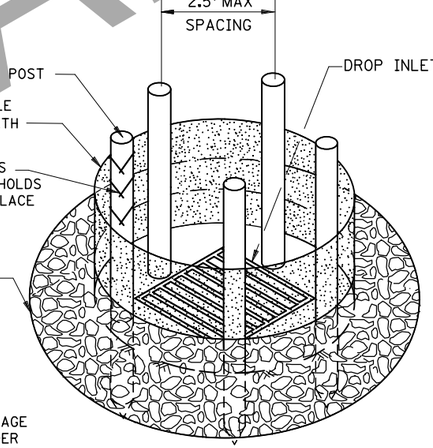
SEDIMENT CONTROL INLET HAT

NOTE:
THE SEDIMENT CONTROL BARRIER SHALL BE A METAL OR PLASTIC/POLYETHYLENE RISER SIZED TO FIT INSIDE THE CATCH BASIN/MANHOLE; HAVE PERFORATIONS TO ALLOW FOR WATER INFILTRATION; HAVE AN OVERFLOW OPENING, FLANGES AND A LID/COVER.



SILT FENCE RING AND ROCK FILTER BERM

USE WHERE INLET DRAINS IN AN AREA WITH SLOPES AT 1:3 or LESS



POP-UP HEAD

NOTES:
SEE SPECS. 2573, 3137, & 3886.

DEVICES MUST BE ADJUSTED ACCORDINGLY AS TO NOT CAUSE FLOODING ON ROADWAY THAT WOULD IMPEED TRAFFIC FLOW.

1. ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.
2. FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
3. INSTALLATION NOTES:
   DO NOT PLACE FILTER BAG INSERT IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE PLACED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES. WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCH SIDE CLEARANCE.
4. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A ROCK SOCK OR SAND BAGS IN PLACE OF THE FLAP POCKETS.
5. SOCK HEIGHT MUST NOT BE SO HIGH AS TO SLOW DOWN WATER FILTRATION TO CAUSE FLOODING OF THE ROADWAY.
6. GEOTEXTILE SOCK BETWEEN 4-10 FEET LONG AND 4-6 INCH DIAMETER. SEAM TO BE JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A HEAT BONDED SEAM (OR APPROVED EQUIVALENT). FILL ROCK LOG WITH OPEN GRADED AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE CONFORMING TO SPEC. 3137 TABLE 3137-1; CA-3 GRADATION.

REVISION:
APPROVED: 2-28-2017
CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STATE DESIGN ENGINEER

REVISED:

APPROVED: 2-28-2017

TEMPORARY SEDIMENT CONTROL
STORM DRAIN INLET PROTECTION

STANDARD PLAN 5-297.405 | 4 OF 8

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 45 OF 283 SHEETS

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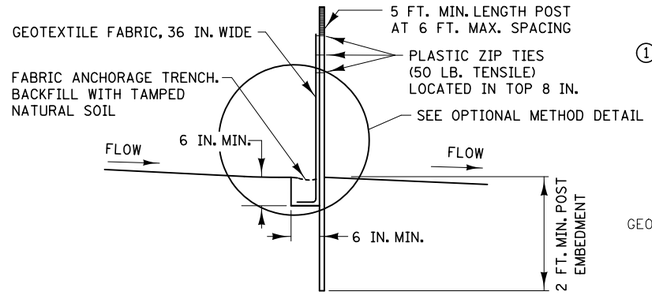
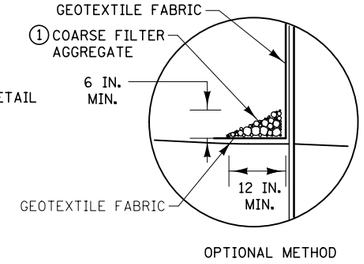
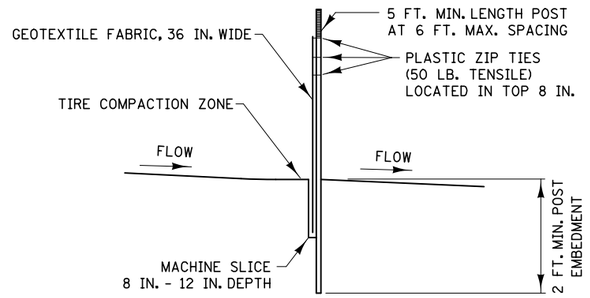


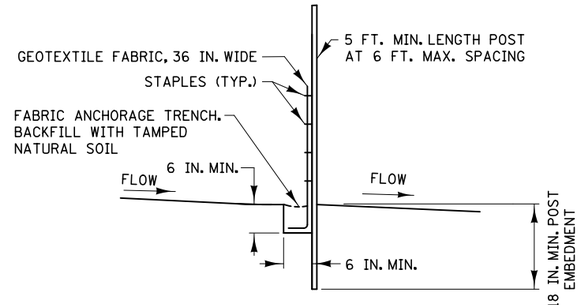


OPTIONAL METHOD

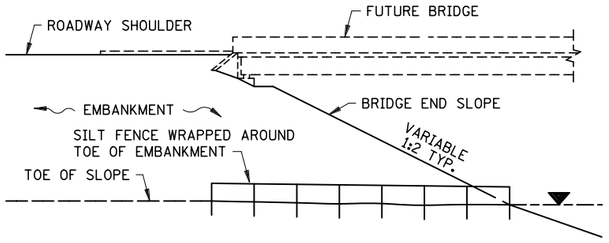
SILT FENCE TYPE HI ②
(HAND INSTALLED)



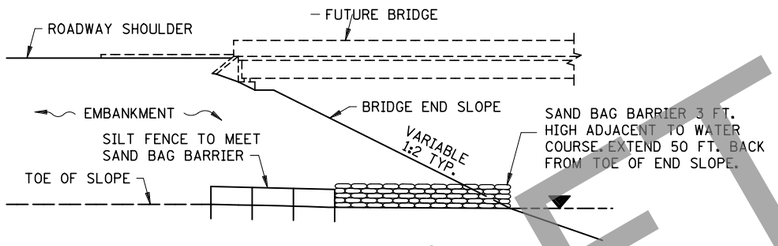
SILT FENCE TYPE MS ②
(MACHINE SLICED)



SILT FENCE TYPE PA ③
(PREASSEMBLED)

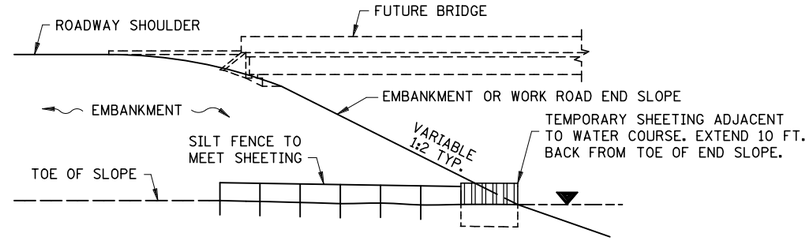


SILT FENCE ONLY ④

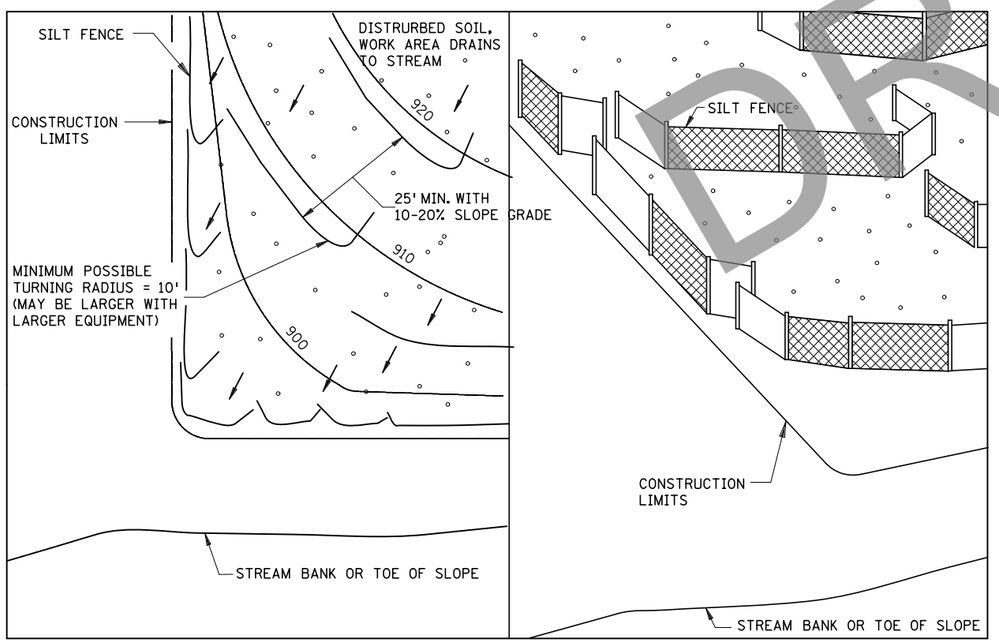


SILT FENCE WITH SAND BAGS ⑤

INSTALLATION AT BRIDGE EMBANKMENT ADJACENT TO WATER



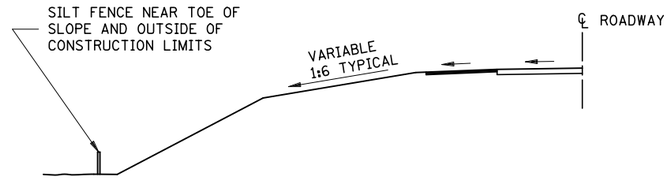
SILT FENCE WITH SHEETING ⑥



PLAN VIEW

PERSPECTIVE VIEW

J-HOOK INSTALLATION



LOCATION AT TOE OF ROADWAY EMBANKMENT

NOTES:

SEE SPECS. 2573, 3149 & 3886.

1. COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.
2. TO PROTECT AREAS FROM SHEET FLOW. MAXIMUM CONTRIBUTING AREA: 1 ACRE.
3. TO PROTECT AREAS FROM SHEET FLOW. MAXIMUM CONTRIBUTING AREA: 0.25 ACRE.
4. WATER COURSE FLOW VELOCITY: STANDING. CONTRIBUTING SLOPE AREA: 1./2 ACRE.
5. WATER COURSE FLOW VELOCITY: 1 TO 7 FT./SEC. CONTRIBUTING SLOPE AREA: 1. ACRE.
6. WATER COURSE FLOW VELOCITY: 8 TO 15 FT./SEC. CONTRIBUTING SLOPE AREA: 3 ACRES.

REVISION:
APPROVED: 2-28-2017 CHIEF ENVIRONMENTAL OFFICER

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APPROVED: 2-28-2017

TEMPORARY SEDIMENT CONTROL
SILT FENCE

STANDARD PLAN 5-297.405 | 6 OF 8

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 46 OF 283 SHEETS

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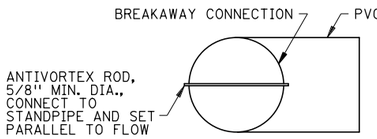
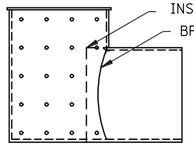
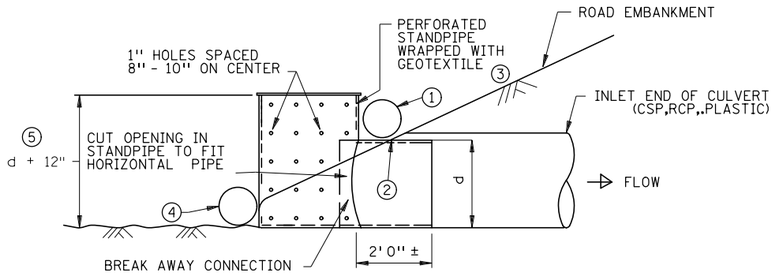


PLAN VIEW



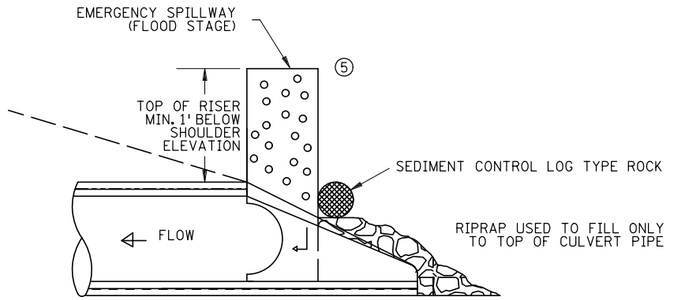
CULVERT STANDPIPE



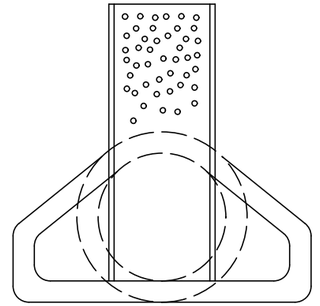
ELEVATION VIEW OF CULVERT INSTALLATION

CULVERT STANDPIPE INSERT (D-RISER)

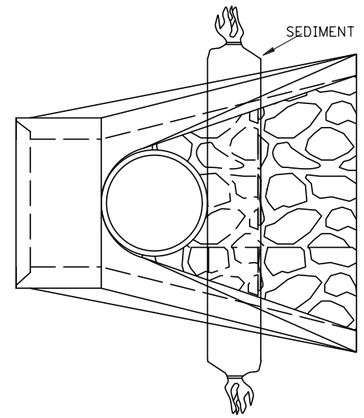
d= CULVERT SIZE: 12" - 36"



LONGITUDINAL SECTION



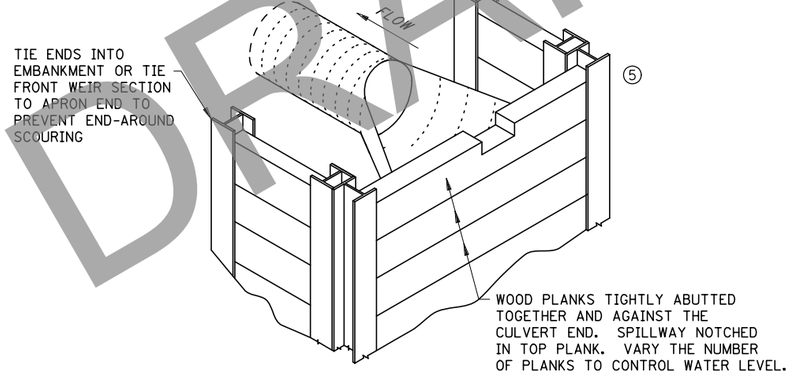
END VIEW



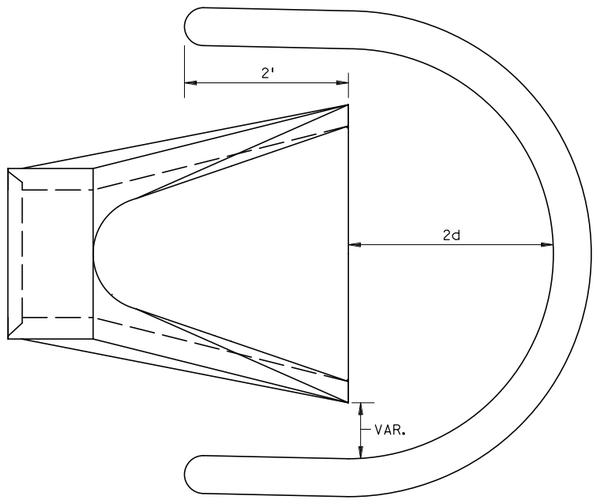
NOTE: SEDIMENT CONTROL LOG TYPE ROCK MAY BE WRAPPED AROUND RISER

TOP VIEW

CULVERT STANDPIPE INSERT (D-RISER)



WOOD PLANK WEIR



SEDIMENT CONTROL LOG WEIR
(COMPOST, WOOD CHIP, OR ROCK)

d = CULVERT SIZE: 12"-36"

NOTES:

SEE SPECS. 2573, 3891 & 3893.

FOR USE WHEN TEMPORARY PONDING IS NEEDED IN DITCH SECTIONS FOR SEDIMENT CONTROL.

MANUFACTURED ALTERNATIVES LISTED ON MnDOT'S APPROVED PRODUCTS LIST MAY BE SUBSTITUTED AT NO ADDITIONAL COST.

① ROCK LOG OR SANDBAG TO HOLD STANDPIPE AND ACT AS A SEAL BETWEEN RISER PIPE AND CULVERT.

② PLACE CULVERT APRON AND SLIDE TEMPORARY STANDPIPE INTO CSP OR RCP CULVERT.

③ ALL GEOTEXTILE USED FOR CULVERT PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886 FOR MACHINE SLICED.

④ ROCK LOG OR RIP RAP TO HOLD STANDPIPE AND ACT AS A FILTER BETWEEN RISER PIPE AND CULVERT.

⑤ HEIGHT OVERFLOW NOT TO CAUSE FLOODING OF ROAD OR ADJACENT PROPERTIES.

REVISION:
APPROVED: 2-28-2017 CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STATE DESIGN ENGINEER

REVISED:

APPROVED: 2-28-2017

TEMPORARY SEDIMENT CONTROL
CULVERT END CONTROLS

STANDARD PLAN 5-297.405 | 8 OF 8

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 47 OF 283 SHEETS

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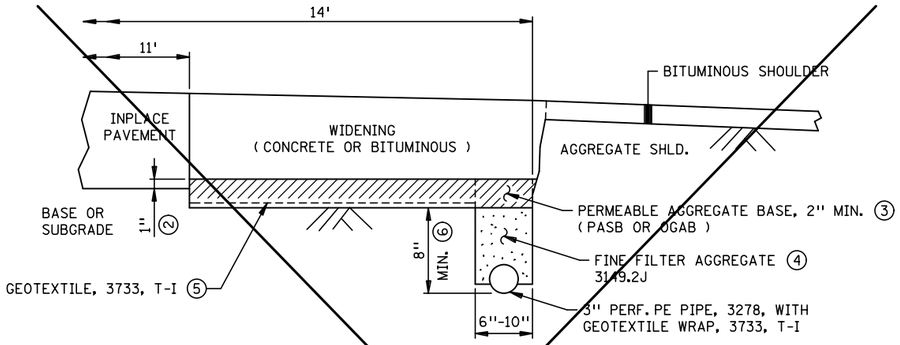


SUBSURFACE DRAIN, WIDENED PAVEMENT DESIGN WITH PAVEMENT EDGE DRAIN ①

NOTES:

① SEE SPECIAL PROVISIONS FOR MATERIAL AND CONSTRUCTION DETAILS.

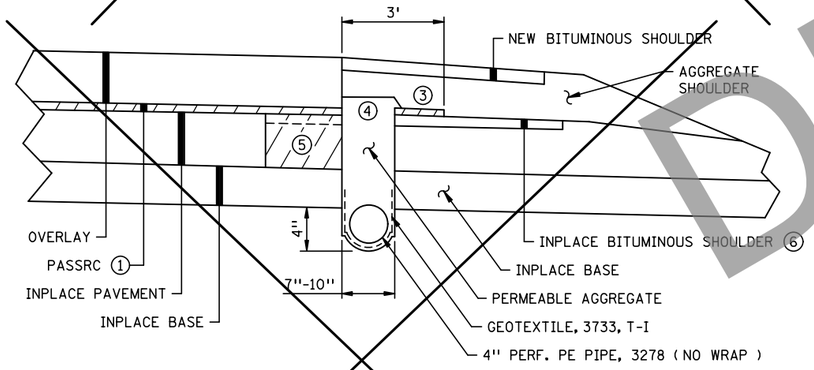
② PERMEABLE BASE SHOULD OVERLAP PAVEMENT MAXIMUM AMOUNT PERMITTED BY STRUCTURAL DESIGN, BUT BOTTOM SHOULD NOT BE ABOVE THE BOTTOM OF INPLACE PAVEMENT.

③ AS REQUIRED BY DESIGN STANDARDS.
PASB - PERMEABLE ASPHALT STABILIZED BASE.
OGAB - OPEN GRADED AGGREGATE BASE.
PAB - OPTION

④ DRAIN SHALL BE PAVEMENT EDGE DRAIN TYPE. AFTER COMPACTION, FINE FILTER AGGREGATE IN DRAIN SHALL EXTEND AT LEAST 4" ABOVE THE BOTTOM OF THE FUTURE PERMEABLE AGGREGATE BASE.

⑤ GEOTEXTILE MAY BE DELETED IF CLASS 5 OR 6 BASE EXISTS INPLACE UNDER PERMEABLE BASE.

⑥ IF CLASS 5 OR 6 BASE IS INPLACE BELOW THE PAB, BOTTOM OF PIPE SHOULD BE A MINIMUM OF 3" BELOW BASE/SUBGRADE INTERFACE OR A MINIMUM OF 8", WHICHEVER IS DEEPER.



SUBSURFACE DRAIN, PERMEABLE BASE & DRAIN USED WITH PASSRC ①②

NOTES:

① PASSRC - PERMEABLE ASPHALT STABILIZED STRESS RELIEF COURSE.

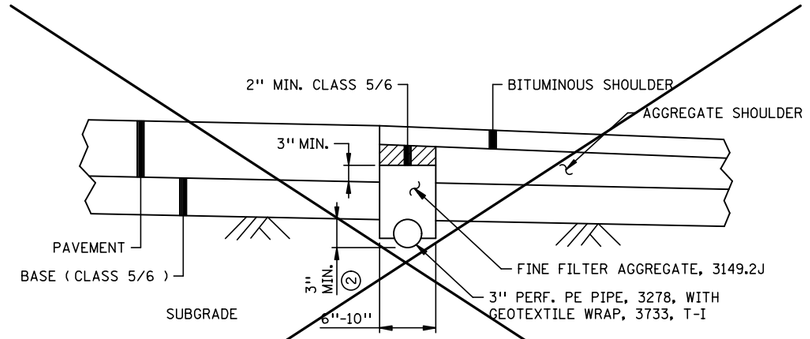
② SEE SPECIAL PROVISIONS FOR MATERIAL AND CONSTRUCTION DETAILS.

③ WIDTH AS NEEDED TO SUPPORT PAVER TRACK.

④ PERMEABLE AGGREGATE TO BE HEAPED 2" ABOVE TOP OF PASSRC AFTER COMPACTION.

⑤ INTERCEPTOR DRAINS TYPICALLY USED AT THIS LOCATION. SEE DETAIL & SPECIAL PROVISIONS IF APPLICABLE.

⑥ IF THE BITUMINOUS SHOULDER REMAINS INPLACE, THE PASSRC AND SHOULDER CAN BE REMOVED BY MILLING, TRENCHING, OR OTHER METHOD, PROVIDED THE REMAINING BITUMINOUS SHOULDER IS NOT DISTURBED/DISPLACED.

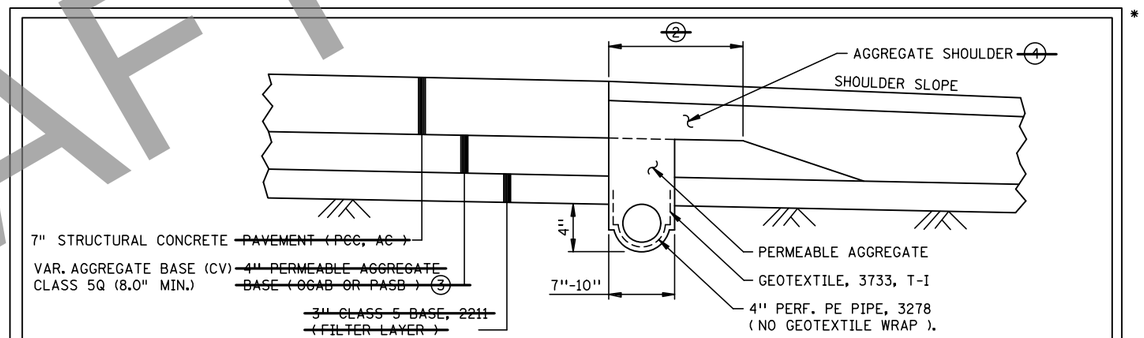


SUBSURFACE DRAIN, PAVEMENT EDGE DRAIN TYPE ①

NOTES:

① SEE SPECIAL PROVISIONS FOR MATERIAL AND CONSTRUCTION DETAILS.

② DESIGN FOR 15" COVER FROM TOP OF PIPE TO TOP OF SHOULDER (12" MINIMUM).



SUBSURFACE DRAIN, PERMEABLE AGGREGATE BASE TYPE ①

(RIGHT SIDE OF ROADWAY SHOWN)

NOTES:

① SEE SPECIAL PROVISIONS FOR MATERIAL AND CONSTRUCTION DETAILS. TYPICAL SECTION SHOWN IS FOR PERMEABLE ASPHALT STABILIZED BASE (PASB). DRAIN TRENCH FOR OPEN GRADED AGGREGATE BASE (OGAB) IS MOVED 6" AWAY FROM THE PAVEMENT EDGE.

~~② USE 36" FOR EITHER PASB OR OGAB UNDER PCC PAVEMENT. USE 12" FOR PASB UNDER AC PAVEMENT.~~

~~③ OGAB - OPEN GRADED AGGREGATE BASE. PASB - PERMEABLE ASPHALT STABILIZED BASE. USE PASB WITH AC PAVEMENTS. USE PASB OR OGAB WITH PCC PAVEMENTS.~~

~~④ CLASS 3, 5 OR 6, AS SPECIFIED~~

*DENOTES MODIFICATION FROM STANDARD PLAN

REVISION:

APPROVED: 8-6-2014

DIRECTOR, OFFICE OF MATERIALS AND ROAD RESEARCH

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT
SIGNATURE: DRAFT
DATE _____ LICENSE # COPY COPY

REVISED:

APPROVED: 8-6-2014

STATE DESIGN ENGINEER

STANDARD PLAN SHEETS

SUBSURFACE DRAINS

~~STANDARD PLAN 5-297.432~~ | 1 OF 1

SP 8309-52 (T.H. 60)

SHEET NO. 48 OF 283 SHEETS

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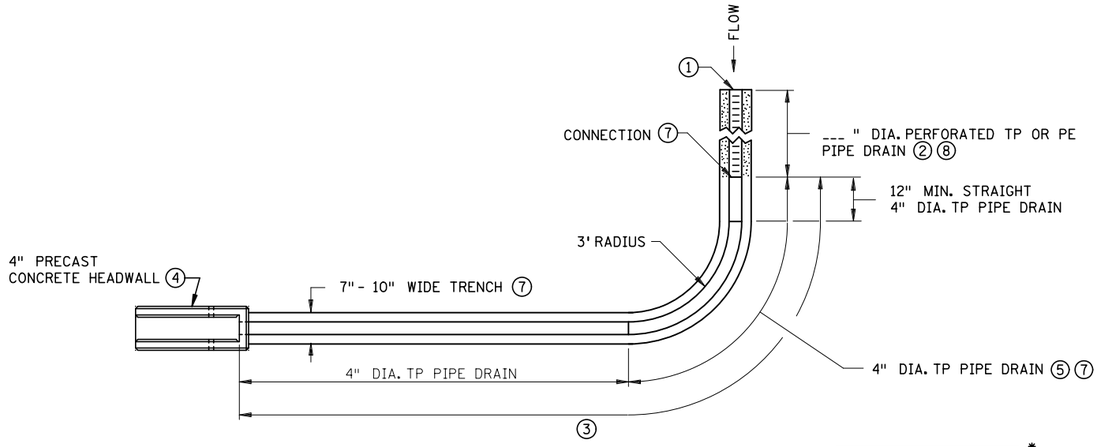
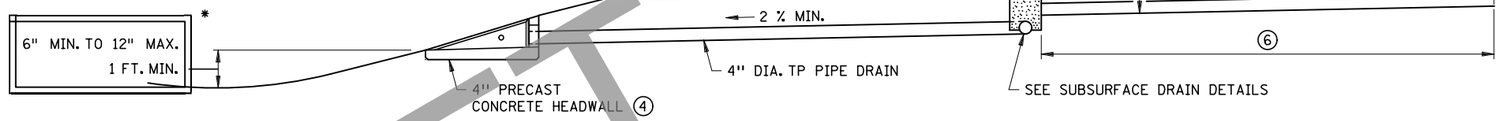


TYPICAL PLAN VIEW (SINGLE DISCHARGE) 7

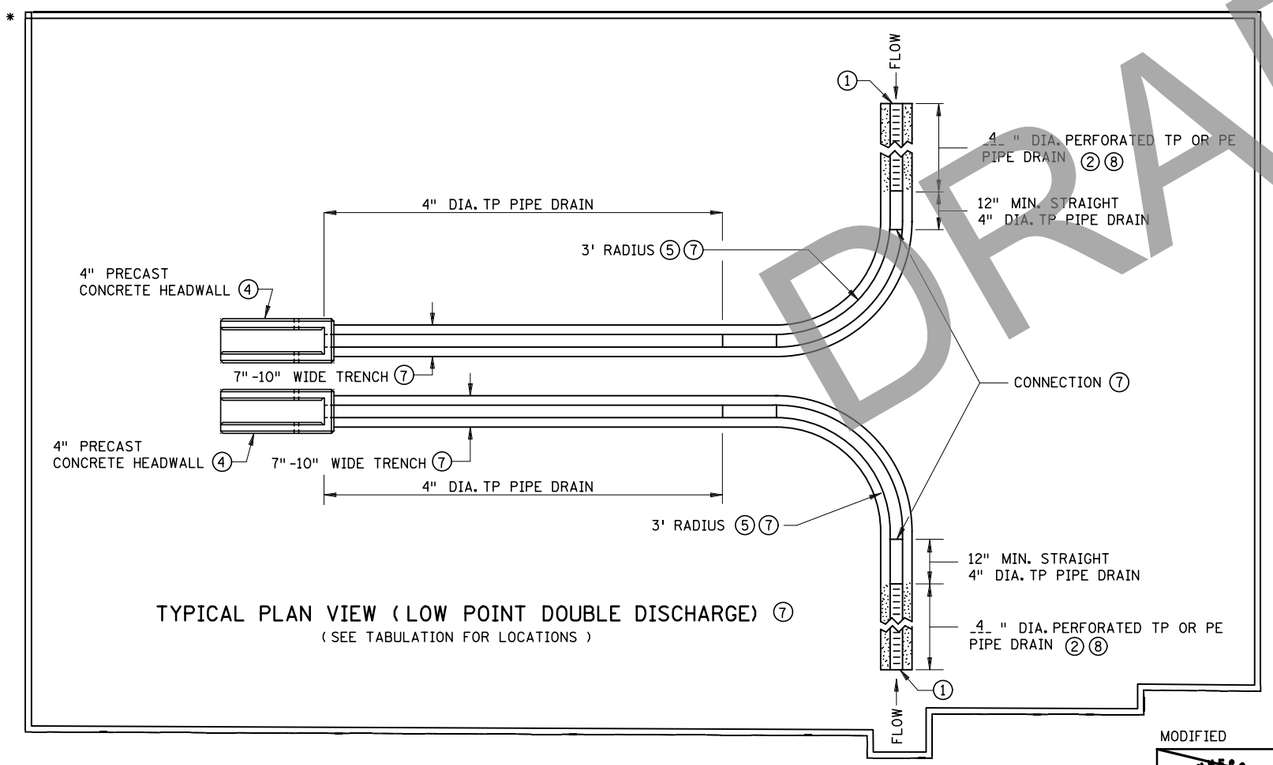
(SEE TABULATION FOR LOCATIONS)



SECTION VIEW

TYPICAL EDGE DRAIN AND DISCHARGE CROSS SECTION 7

(SEE TABULATION FOR LOCATIONS)



TYPICAL PLAN VIEW (LOW POINT DOUBLE DISCHARGE) 7

(SEE TABULATION FOR LOCATIONS)

* DENOTES MODIFICATION FROM STANDARD PLAN

- SEE STANDARD PLAN 5-297.432 (MOD.) FOR ADDITIONAL DETAILS REGARDING THE SUBSURFACE DRAINS.

*

NOTES:

1. THE UPSTREAM ENDS OF THE PERFORATED PIPE SHALL BE CAPPED AS APPROVED BY THE PROJECT ENGINEER. END CAPS, CONNECTIONS TO OTHER PIPES, PIPE BENDS, FINE FILTER AGGREGATE, TYPE I GEOTEXTILE FABRIC WRAP, ETC. SHALL BE CONSIDERED INCIDENTAL. PLACE PERFORATED PIPE WITH THE PERFORATIONS DOWN.
2. MAXIMUM LENGTH 500 FT., EXCEPT 300 FT. MAXIMUM FOR GRADES LESS THAN 0.2% . LENGTH INCLUDED AND PAID FOR AS SPEC. 2502, 4 INCH PERFORATED PE PIPE DRAIN.
3. LENGTH INCLUDED AND PAID FOR AS SPEC. 2502, 4 INCH DIA. TP PIPE DRAIN.
4. PRECAST CONCRETE HEADWALL STANDARD PLATE 3131 PAID FOR AS SPEC. 2502, 4 INCH PRECAST CONCRETE HEADWALL.

*

5. DETAILS OF CONNECTION AND COUPLING TO PIPE SHALL BE APPROVED BY THE ENGINEER.
6. SEE ROADWAY TYPICAL SECTIONS FOR ADDITIONAL INFORMATION.
7. SEE SPECIAL PROVISIONS FOR MATERIAL AND CONSTRUCTION DETAILS.
8. 4 INCH DIAMETER.

MODIFIED

REVISED:

APPROVED: 8-6-2014

STATE DESIGN ENGINEER

SUBSURFACE DRAINS

OUTLET PIPES FOR EDGE AND SUBCUT DRAINS

STANDARD PLAN 5-297.433 | 1 OF 1

REVISION:

APPROVED: 8-6-2014

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STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

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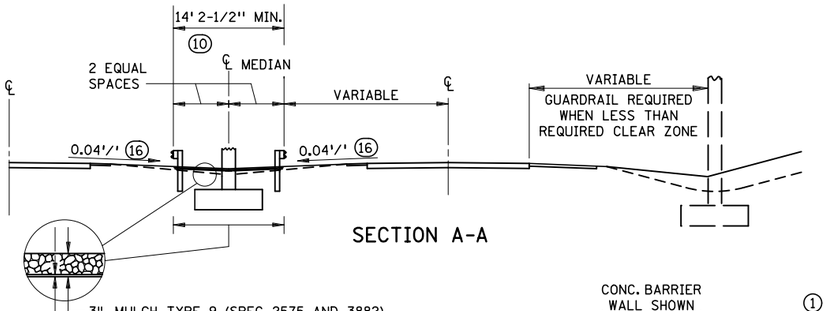
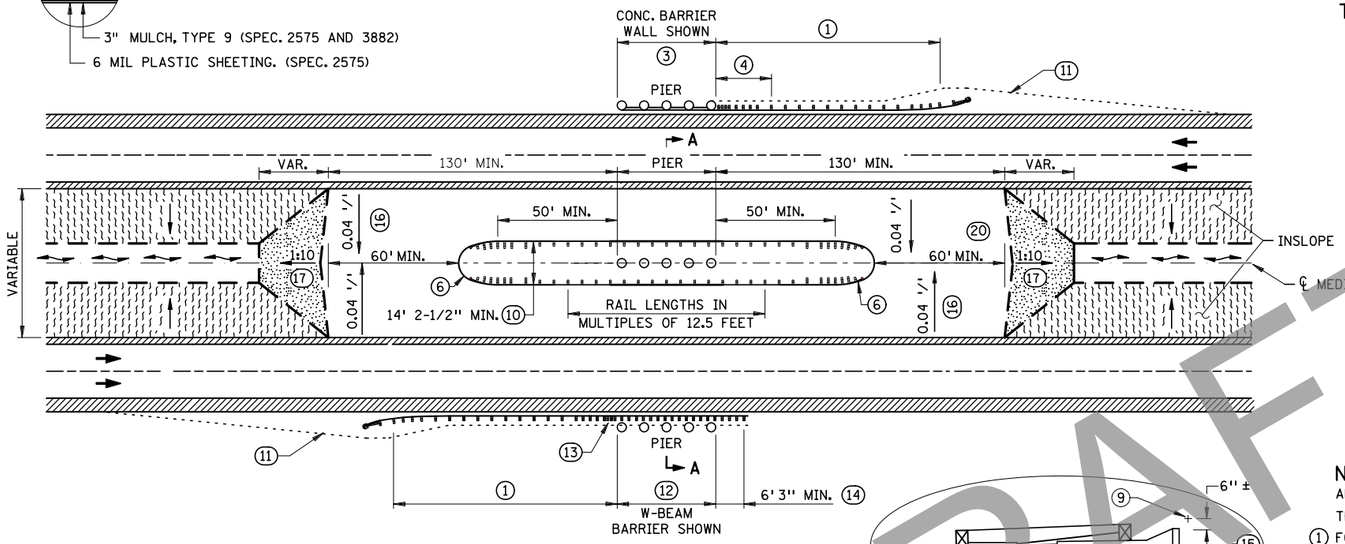
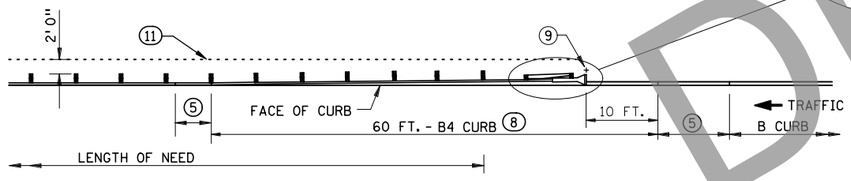


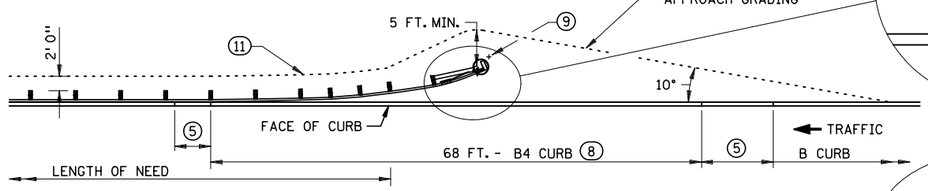
SECTION A-A



UNDERPASS-DEPRESSED MEDIAN (19)

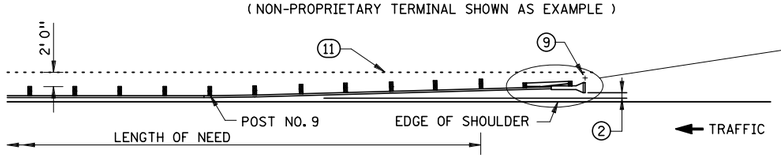


PLAN VIEW MODIFIED CURB (18)

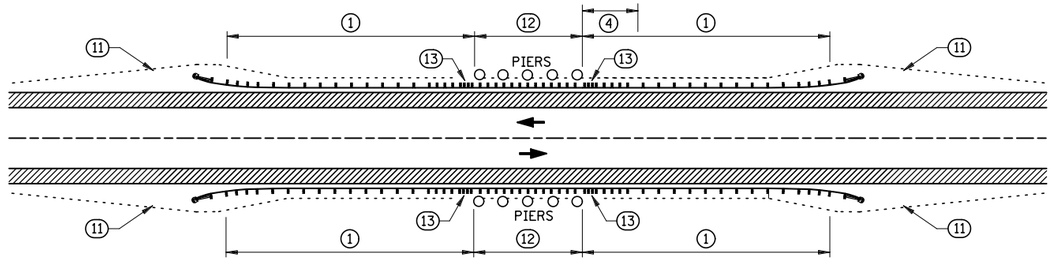


PLAN VIEW MODIFIED CURB AND SLOPE (18)

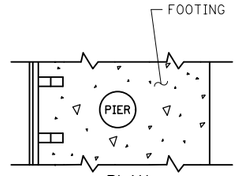
(NON-PROPRIETARY TERMINAL SHOWN AS EXAMPLE)



PLAN VIEW NO CURB (18)



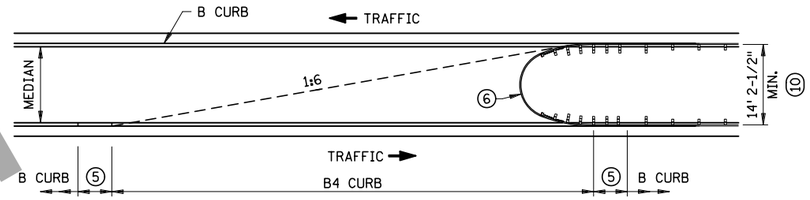
TWO-WAY UNDERPASS



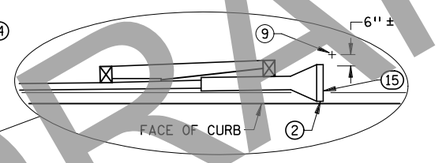
POST REQUIREMENTS AT PIERS

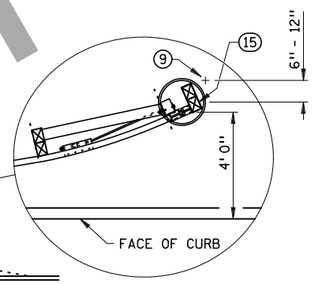
ESTIMATED DESIGN DEFLECTION TABLE FOR DESIGN B W-BEAM GUARDRAIL

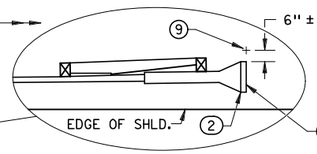
6'3" POST SPACING	3' 0"
6'3" POST SPACING WITH DOUBLE NESTED RAIL	2' 8"
MODIFIED 3'1-1/2" POST SPACING	2' 3"
MODIFIED POST SPACING WITH DOUBLE NESTED RAIL	2' 0"



MODIFIED CURB AT RAISED MEDIAN







NOTES:

ALL GUARDRAIL POSTS SHALL BE 6 FT. 3 IN. CENTER TO CENTER (DESIGN B), EXCEPT WHERE NOTED.

THE LATEST APPROVED VERSION OF STANDARD PLATES SHOWN OR AS INDICATED IN THE PLANS SHALL APPLY.

(1) FOR REQUIRED LENGTH OF INSTALLATION SEE ROAD DESIGN MANUAL CHAPTER 10.

(2) THE LAST 50 FT. OF TANGENT TERMINALS MAY BE FLARED AT 1:50 TAPER.

(3) CONC. BARRIER WALL BETWEEN PIER COLUMNS MAY BE USED. IF USED, SEE BARRIER WALL DETAILS.

(4) AN APPROVED TRANSITION MUST BE USED.

(5) 10 FT. CURB TRANSITION, USE IF ADJACENT CURB IS GREATER THAN 4 INCHES.

(6) THRIE BEAM BULLNOSE. SEE STANDARD PLAN 5-297.611 FOR DETAILS.

(7) IF EMBEDMENT IS GREATER THAN 3 FT. 0 IN., OR IF EMBEDMENT IS 2 FT. 6 IN. TO 3 FT. 0 IN. AND ADJACENT POSTS ARE EMBEDDED 3 FT. 0 IN. OR MORE, POST SEAT IS NOT REQUIRED.

(8) FOR CURB 6 IN. OR HIGHER, MILL TO 3 IN. HEIGHT.

(9) SNOWPLOW MARKER (X4-5) WITH A 2 LB./FT. DELINEATOR POST 8 FT. LONG (SPEC. 3401) DRIVEN INTO THE GROUND. EXTEND 3 FT. ABOVE TERMINAL. THE MARKER IS INCIDENTAL FOR WHICH NO DIRECT PAYMENT WILL BE MADE.

(10) MEASUREMENT IS FROM BACK OF RAIL TO BACK OF RAIL.

(11) 1:10 OR FLATTER SLOPE P.I.

(12) SEE ESTIMATED DESIGN DEFLECTION TABLE FOR DESIGN B W-BEAM GUARDRAIL.

(13) WHEN CLOSE POST SPACING OR DOUBLE NESTED RAIL IS USED, THIS POST SPACING SHOULD EXTEND A MINIMUM OF 12 FT. IN THE DIRECTION OF APPROACHING TRAFFIC.

(14) THE ANCHOR ASSEMBLY MUST BE LOCATED DOWNSTREAM OF THE HAZARD.

(15) MARK THE APPROACH END OF PLATE BEAM GUARDRAIL INSTALLATIONS WITH A STRIPED OBJECT MARKER SIZED TO FIT THE END TERMINAL, HAVING ALTERNATING BLACK AND REFLECTIVE YELLOW (WIDE ANGLE PRISMATIC RETROREFLECTIVE SHEETING) STRIPES SLOPED DOWNWARD AT A 45 DEGREE ANGLE TOWARD THE SIDE ON WHICH TRAFFIC PASSES. FOR FLAT END TREATMENTS THE OBJECT MARKER SHALL FIT INSIDE THE RECESSED AREA. FOR ROUNDED END TREATMENTS THE OBJECT MARKER SHALL WRAP AROUND THE CIRCULAR END AND BE MOUNTED SO THE TOP OF THE OBJECT MARKER LINES UP WITH THE TOP OF THE END TREATMENT.

(16) 0.04 FT./FT. CROSS SLOPE TYPICAL. 0.10 FT./FT. CROSS SLOPE MAXIMUM.

(17) 1:10 SLOPE OR FLATTER.

(18) USE ONLY FOR RETROFITS WITH SITE RESTRICTIONS. FOR RETROFITS WITHOUT SITE RESTRICTIONS AND NEW CONSTRUCTION, SEE SHEET 3.

(19) MEDIAN GRADING DETAIL SHOWN APPLIES TO THRIE-BEAM BULLNOSE ONLY.

(20) DRAINAGE DETAILS SHOWN ON GRADING PLAN.

REVISED:

APPROVED: 5-27-2014

STATE DESIGN ENGINEER

GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS

STANDARD PLAN 5-297.601 | 1 OF 3

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 50 OF 283 SHEETS

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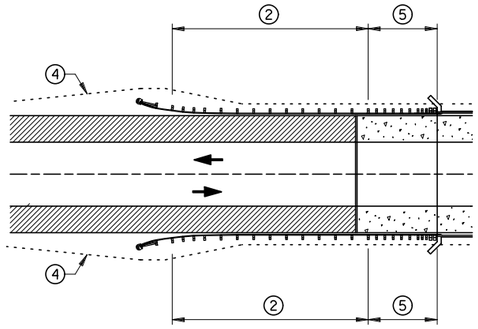
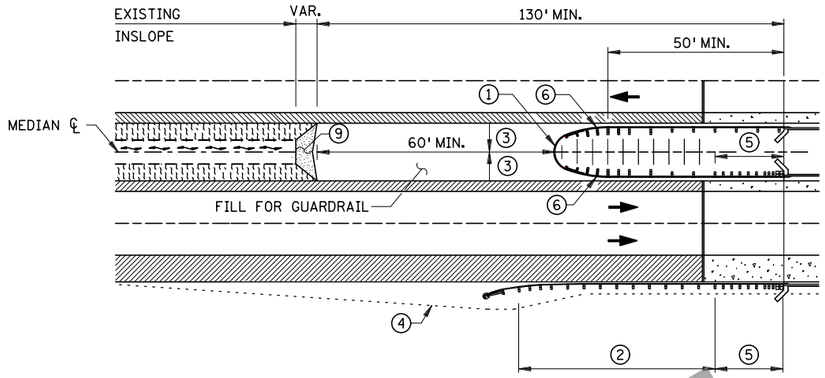
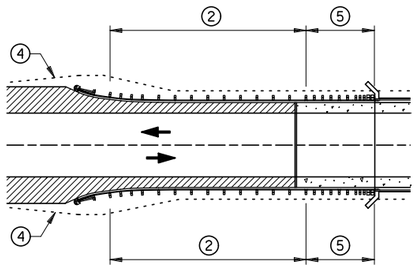


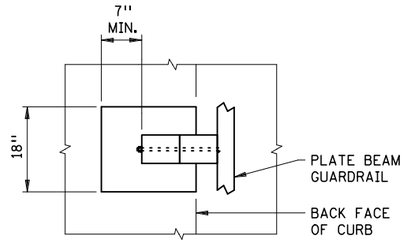
TWO - WAY BRIDGE
WITH FULL SHOULDERS



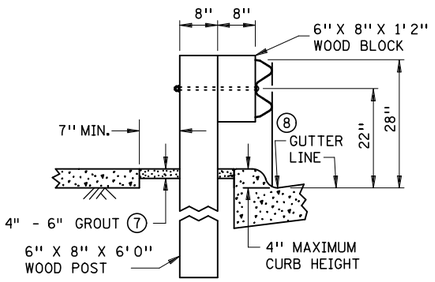
ONE - WAY BRIDGE
WITH FULL RIGHT SHOULDER
(FOR 14' 2-1/2" THRIE BEAM BULLNOSE)



TWO - WAY BRIDGE
WITHOUT FULL SHOULDERS

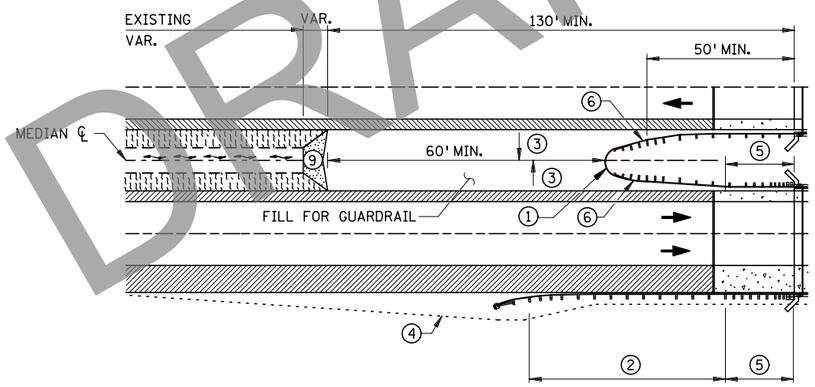


PLAN VIEW



ELEVATION

TYPICAL W-BEAM GUARDRAIL SECTION
AT POST SET IN CONCRETE



ONE - WAY BRIDGE
WITH FULL RIGHT SHOULDER
(FOR MEDIANS WIDER THAN 14' 2-1/2" THRIE BEAM BULLNOSE)

NOTES:

ALL GUARDRAIL POSTS SHALL BE 6 FT. 3 IN. CENTER TO CENTER (DESIGN B), EXCEPT WHERE NOTED.

THE LATEST APPROVED VERSION OF STANDARD PLATES SHOWN OR AS INDICATED IN THE PLANS SHALL APPLY.

1. THRIE BEAM BULLNOSE, SEE STANDARD PLAN 5-297.611 FOR DETAILS.
2. FOR THE REQUIRED LENGTH SEE ROAD DESIGN MANUAL CHAPTER 10.
3. 0.04 FT./FT. CROSS SLOPE TYPICAL, 0.10 FT./FT. CROSS SLOPE MAXIMUM.
4. 1:10 OR FLATTER SLOPE P.I.. APPROACH GRADING VARIES WITH TERMINAL TYPE.
5. PLATE BEAM GUARDRAIL ATTACHMENTS TO FIXED OBJECTS REQUIRE AN APPROVED TRANSITION SECTION.
6. FOR MEDIANS WIDER THAN THE 14 FT. 2-1/2 IN., BEFORE TAPERING THE APPROACH SIDE, TAPER THE OPPOSING SIDE AS SHOWN ON THE BULLNOSE DESIGN DETAIL. APPROACH TAPER SHOULD NOT EXCEED 1:25 IF THE BARRIER IS WITHIN THE SHY LINE OR 1:15 IF IT IS OUTSIDE.
7. GROUT MIX (BY VOLUME: 1 PART CEMENT [TYPE 1A], 14 PARTS SAND, 5 PARTS WATER).
8. PLACE FRONT FACE OF W-BEAM DIRECTLY ABOVE FRONT FACE OF CURB.
9. 1:10 SLOPE OR FLATTER.

REVISED:

APPROVED: 5-27-2014

STATE DESIGN ENGINEER

GUARDRAIL INSTALLATIONS AT MEDIANS
AND END TREATMENTS

STANDARD PLAN 5-297.601 | 2 OF 3

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 51 OF 283 SHEETS

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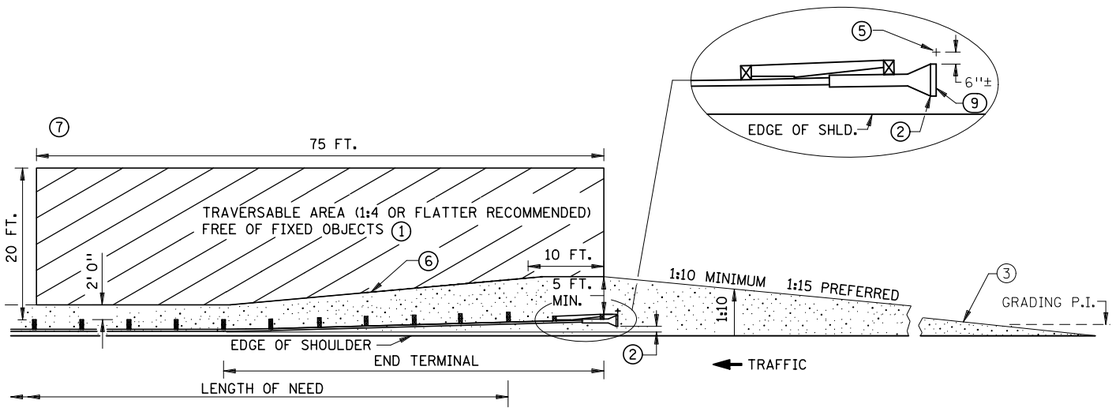
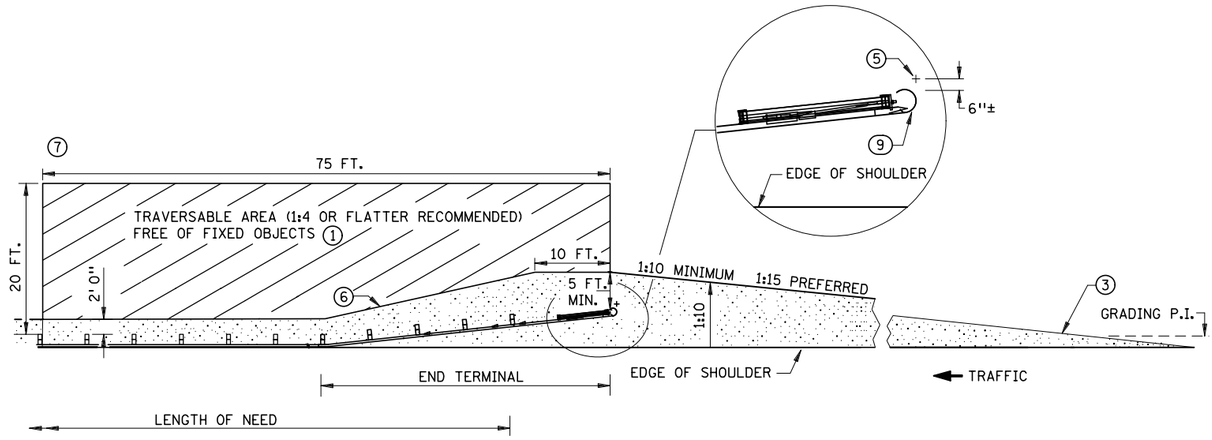


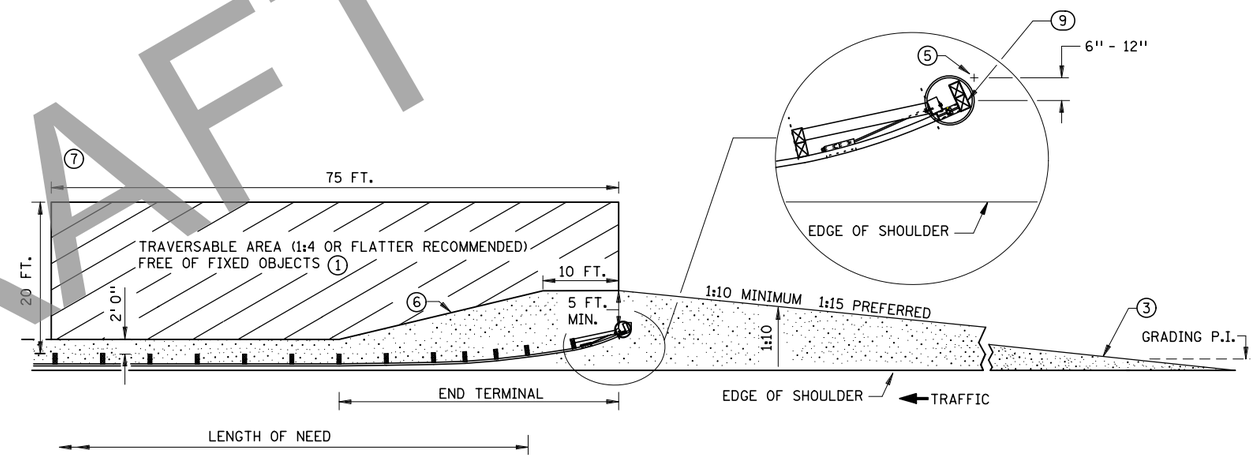
PLAN VIEW

(PROPRIETARY TANGENT TERMINAL SHOWN AS EXAMPLE)



PLAN VIEW ⑧

(PROPRIETARY FLARED TERMINAL SHOWN AS EXAMPLE)



PLAN VIEW ④ ⑧

(ELT)

NOTES:

ALL CROSS SLOPES ARE IN FOOT/FOOT UNLESS OTHERWISE NOTED.

ALL GUARDRAIL POSTS SHALL BE 6 FT. 3 IN. CENTER TO CENTER (DESIGN B), EXCEPT WHERE NOTED.

CHANGES (TO SUBJECTS COVERED BY THIS SHEET) INDICATED IN THE PLANS OR ON PLATES WITH MORE RECENT APPROVAL DATES SHALL APPLY.

GRADING AND DRAINAGE HARDWARE ARE NOT INCIDENTAL TO GUARDRAIL INSTALLATION.

① SLOPES BETWEEN 1:3 AND 1:4 PERMITTED WHEN 1:4 OR FLATTER IS NOT POSSIBLE. FOR SLOPES STEEPER THAN 1:3 THE AREA IMMEDIATELY BEHIND AND BEYOND THE END TERMINAL SHOULD, AT LEAST, BE SIMILAR IN CROSS SECTION TO THE UNSHIELDED ROADSIDE AREA UPSTREAM OF THE END TERMINAL.

② THE LAST 50 FT. OF TANGENT TERMINALS CAN BE FLARED AT 1:50 TAPER.

③ WHEN GRADING PLATFORMS ARE BUILT, THEY MUST BE SMOOTHLY TRANSITIONED TO EXISTING SIDE SLOPE SO THE ENTIRE ROADSIDE APPROACH TO THE BARRIER REMAINS TRAVERSABLE, AS WELL AS THE AREA IMMEDIATELY BEHIND IT.

④ SEE STANDARD PLATE 8329.

⑤ SNOWPLOW MARKER (X4-5) WITH A 2 LB./FT. DELINEATOR POST 8 FT. LONG (SPEC. 3401) DRIVEN INTO THE GROUND. EXTEND 3 FT. ABOVE TERMINAL. THE MARKER IS INCIDENTAL FOR WHICH NO DIRECT PAYMENT WILL BE MADE. MARK BOTH THE BEGINNING AND END OF PLATE BEAM GUARDRAIL INSTALLATION.

⑥ 1:10 OR FLATTER SLOPE P.I.

⑦ GRADUALLY BLEND SLOPE FROM TRAVERSABLE AREA TO STEEP EXISTING SLOPE (WHEN SLOPE IS STEEPER THAN 1:6).

⑧ IF THE TERRAIN BEYOND THE TERMINAL END AND IMMEDIATELY BEHIND THE BARRIER IS NOT SAFELY TRAVERSABLE, A TANGENT (ENERGY- ABSORBING) TERMINAL SHALL BE USED.

⑨ MARK THE APPROACH END OF PLATE BEAM GUARDRAIL INSTALLATIONS WITH A STRIPED OBJECT MARKER SIZED TO FIT THE END TERMINAL, HAVING ALTERNATING BLACK AND REFLECTIVE YELLOW (WIDE ANGLE PRISMATIC RETROREFLECTIVE SHEETING). STRIPES SHALL SLOPE DOWNWARD AT A 45 DEGREE ANGLE TOWARD THE SIDE ON WHICH TRAFFIC PASSES. FOR FLAT END TREATMENTS THE OBJECT MARKER SHALL FIT INSIDE THE RECESSED AREA. FOR ROUNDED END TREATMENTS THE OBJECT MARKER SHALL WRAP AROUND THE CIRCULAR END AND BE MOUNTED SO THE TOP OF THE OBJECT MARKER LINES UP WITH THE TOP OF THE END TREATMENT.

MINNESOTA DEPARTMENT OF TRANSPORTATION	REVISED:	GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS (FOR NEW CONSTRUCTION AND RETROFITS WITHOUT SITE RESTRICTIONS)
STATE DESIGN ENGINEER Christopher Ry	APPROVED: 5-27-2014	STANDARD PLAN 5-297.601 — 3 OF 3
STANDARD PLAN SHEETS		SP 8309-52 (T.H. 60)
		SHEET NO. 52 OF 283 SHEETS

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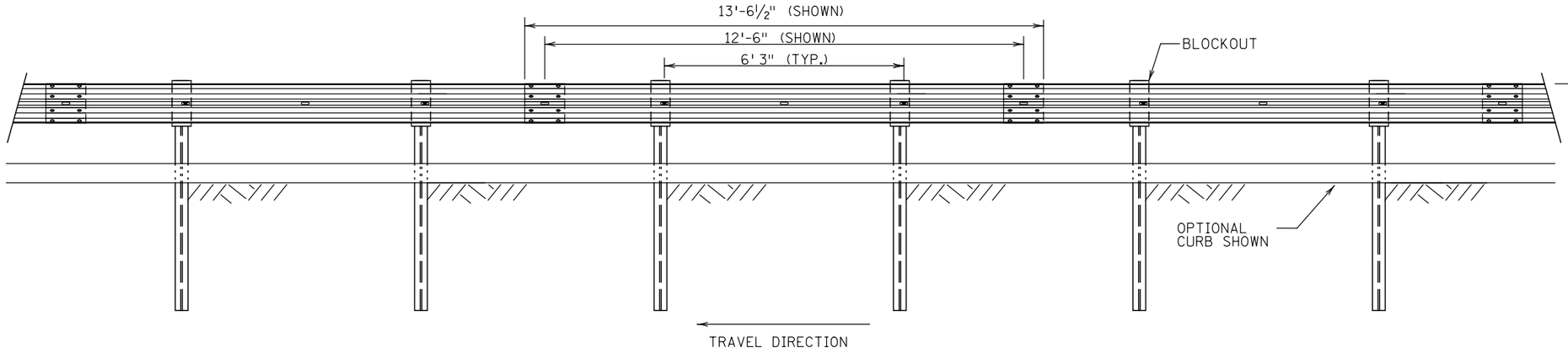
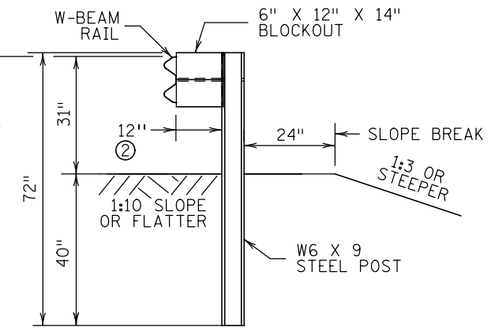
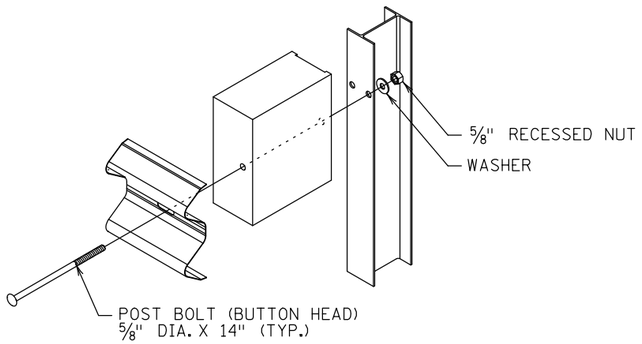


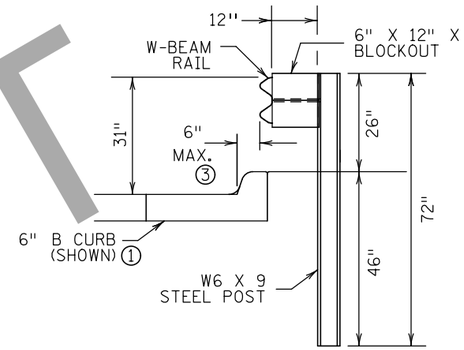
FRONT VIEW



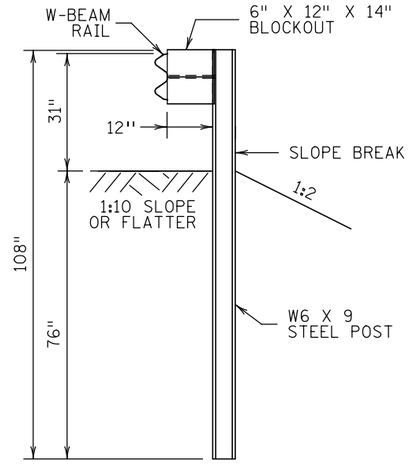
SIDE VIEW



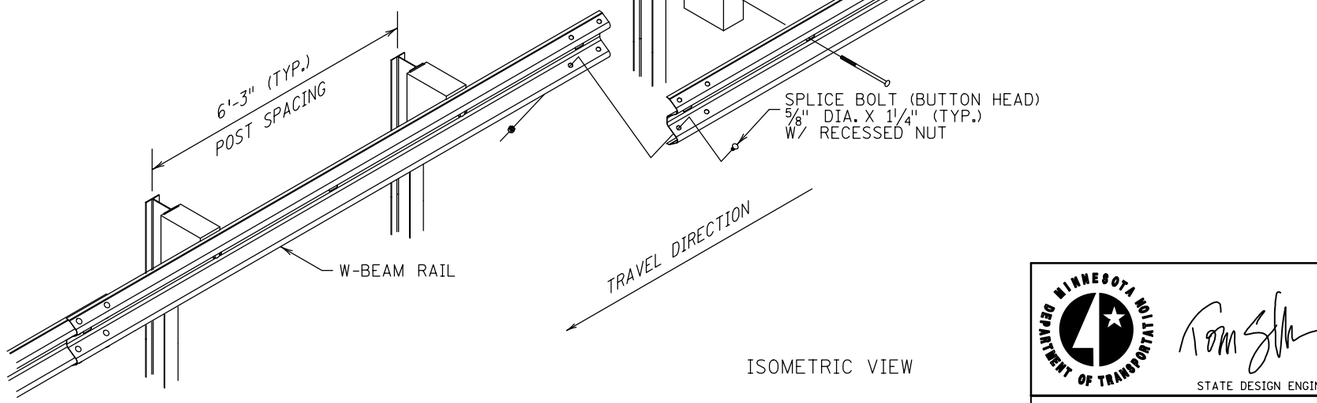
STANDARD POST/BLOCKOUT/RAIL
HARDWARE ARRANGEMENT



TYPE 31 GUARDRAIL
WITH CURB



TYPE 31 GUARDRAIL WITH
1:2 BACK SLOPE AT POST



ISOMETRIC VIEW

NOTES:

GUARDRAIL IS PLACED ON SLOPES 1:10 OR FLATTER WITH SLOPE EXTENDING A MINIMUM 24" BEHIND POST TO SLOPE BREAK POINT.

WOOD BLOCKOUT SHOWN. PROPRIETARY BLOCKOUTS THAT MEET THE REQUIREMENTS OF MASH MAY BE SUBSTITUTED AT NO ADDITIONAL COST. BLOCKOUTS SHALL NOT ROTATE AFTER INSTALLATION.

ALL RAIL AND HARDWARE COMPONENTS PER AASHTO SPEC. M 180

① B CURB OR D CURB ACCEPTABLE.

② MAXIMUM OF 24" MAY BE USED WHERE UNDERGROUND POST OBSTRUCTIONS ARE ENCOUNTERED.

③ 0" TO 6" MAXIMUM.

REVISED:

APPROVED: 7-19-2016

STATE DESIGN ENGINEER

TRAFFIC BARRIER TYPE 31 ASSEMBLY DETAILS

STANDARD PLAN 5-297.690 | 1 OF 2

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 53 OF 283 SHEETS

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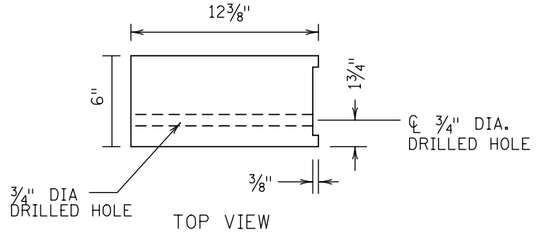
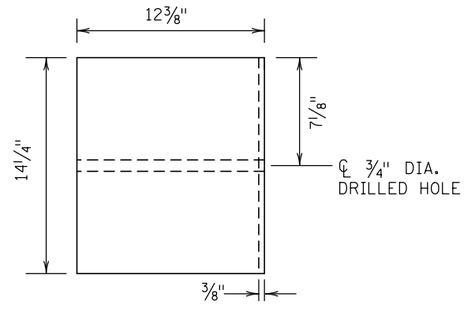
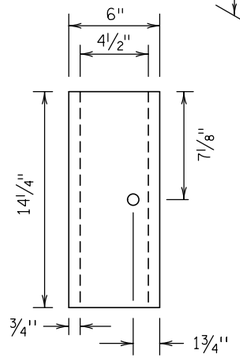


TOP VIEW

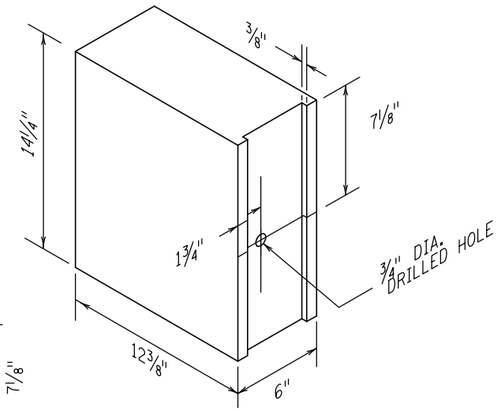


SIDE VIEW

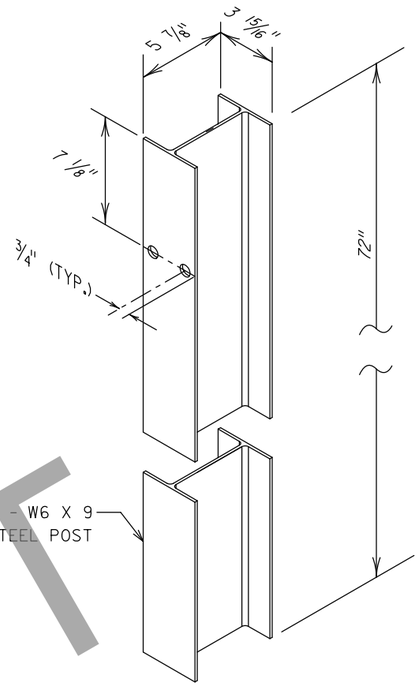


FRONT VIEW

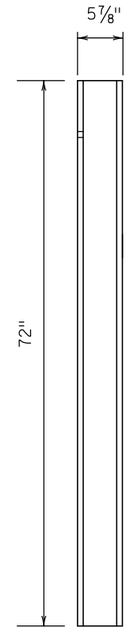
BLOCKOUT
WITH ROUTED GROOVE



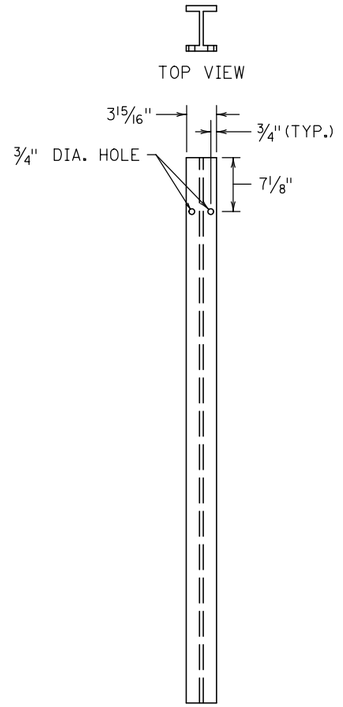
ISOMETRIC BACK VIEW



ISOMETRIC FRONT VIEW

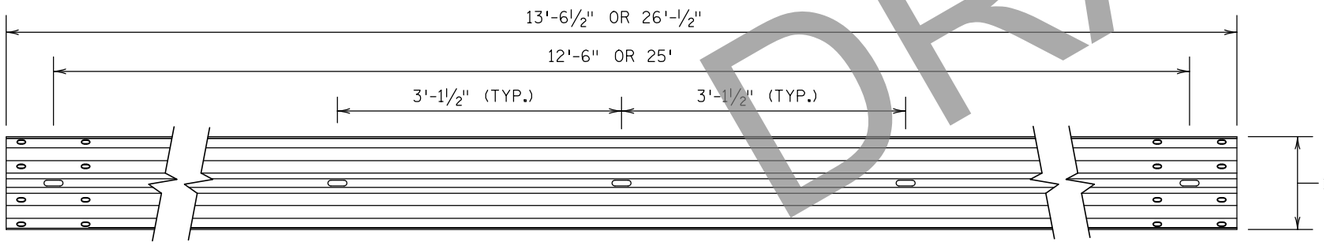


SIDE VIEW

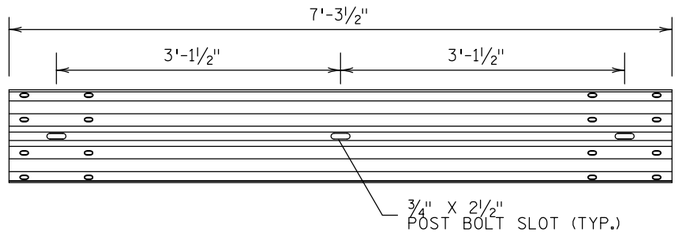


FRONT VIEW

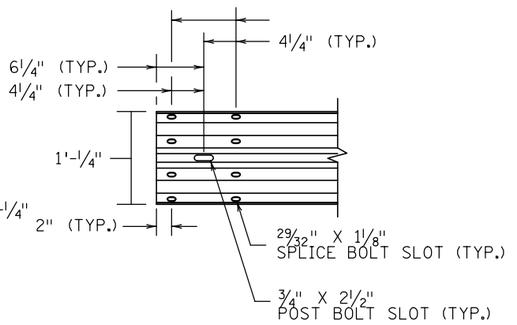
LINE POST①



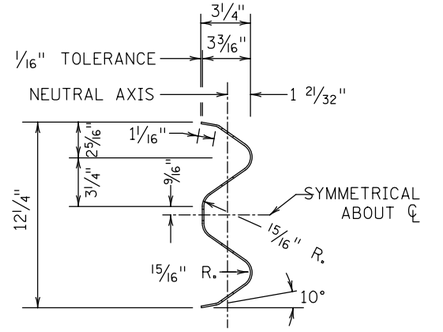
12'-6" OR 25' W-BEAM RAIL



6'-3" W-BEAM RAIL



W-BEAM RAIL
SPLICE BOLT/POST BOLT DETAIL



W-BEAM CROSS SECTION
AASHTO DESIGNATION M 180-11

NOTES:

ALL POSTS SHALL BE STAMPED INDICATING THE POST SIZE AND LENGTH. STAMP SHALL BE VISIBLE AFTER BEING PLACED.

① 72" - W6 X 9 STEEL POST SHOWN.

REVISED:

APPROVED: 7-19-2016

STATE DESIGN ENGINEER

TRAFFIC BARRIER TYPE 31
LINE POST, SPACER BLOCK, AND W-BEAM RAIL DETAILS

STANDARD PLAN 5-297.690 | 2 OF 2

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 54 OF 283 SHEETS

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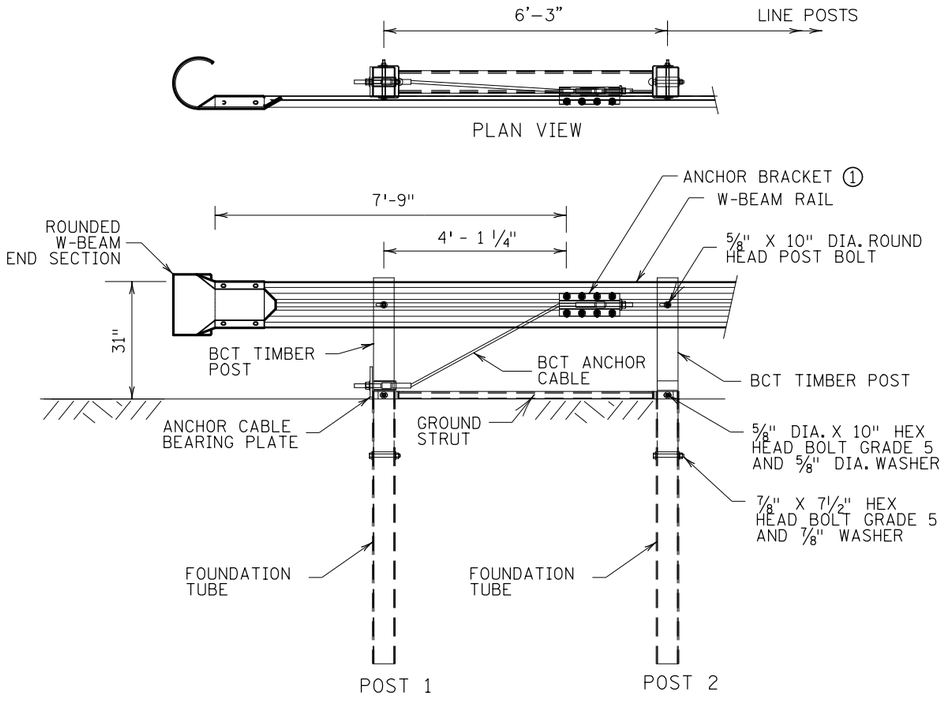
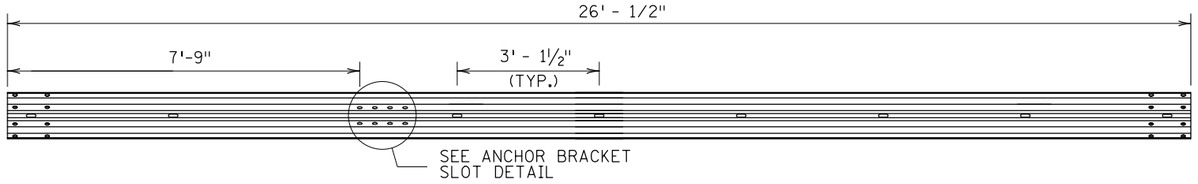
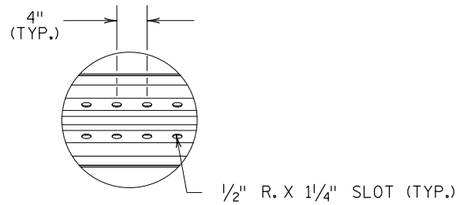
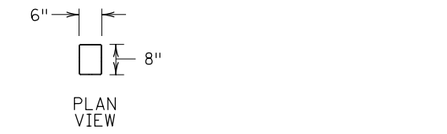


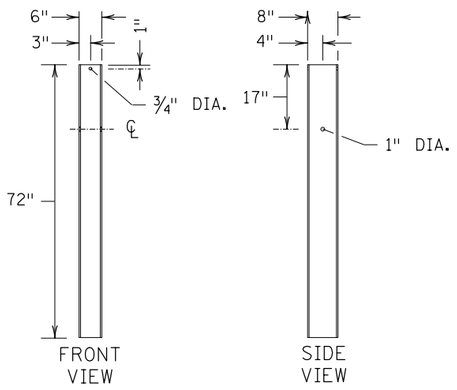


END RAIL BEAM

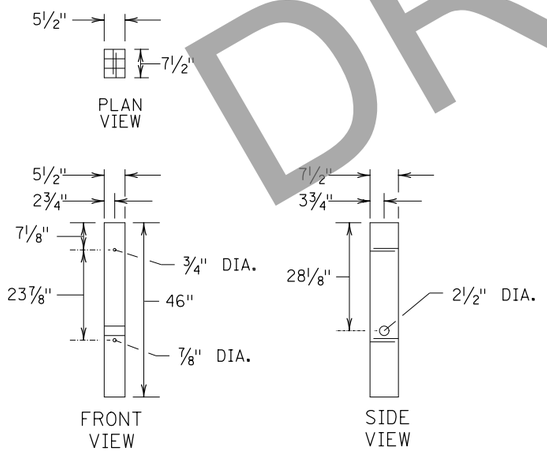


ANCHOR BRACKET SLOT DETAIL

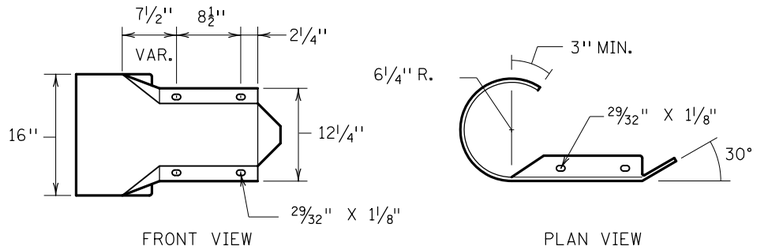




FOUNDATION TUBE (2)



BCT TIMBER POST (MGS LENGTH)



ROUNDED W-BEAM END SECTION

NOTES:

ALL RAIL AND HARDWARE COMPONENTS PER AASHTO SPEC. M 180.

(1) BRACKET BOLTED TO BEAM WITH (8) 5/8" DIA. X 1 1/2" HEX HEAD BOLT GRADE 5 AND 5/8" DIA. WASHER.

(2) FOUNDATION TUBE SHALL BE MANUFACTURED USING ASTM A500B STEEL AND SHALL CONFORM TO ASTM A500 GRADE B MATERIAL.

MINNESOTA DEPARTMENT OF TRANSPORTATION	REVISED:	TRAFFIC BARRIER TYPE 31 END ANCHORAGE ASSEMBLY DETAILS
STATE DESIGN ENGINEER	APPROVED: 7-19-2016	STANDARD PLAN 5-297.692 — 1 OF 2
STANDARD PLAN SHEETS		SP 8309-52 (T.H. 60)
		SHEET NO. 55 OF 283 SHEETS

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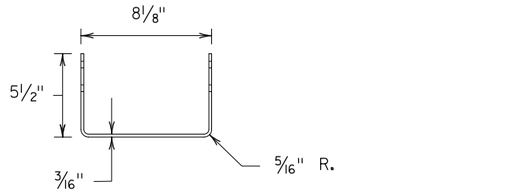
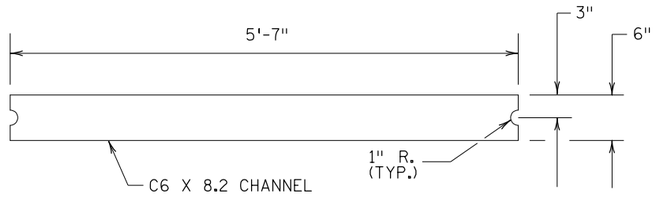
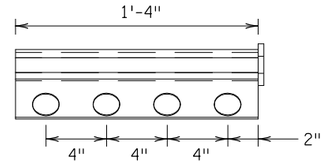


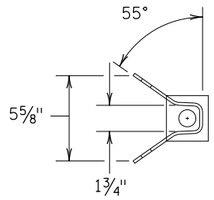
YOKE DETAILS



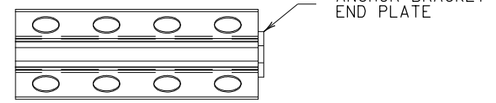
PLAN VIEW
STRUT DETAIL



TOP VIEW

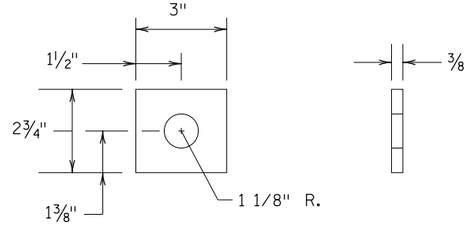


SIDE VIEW



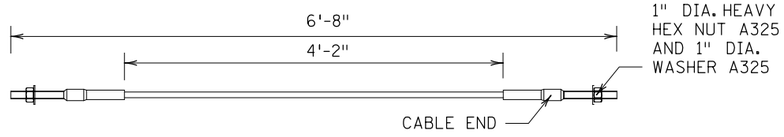
FRONT VIEW

ANCHOR BRACKET

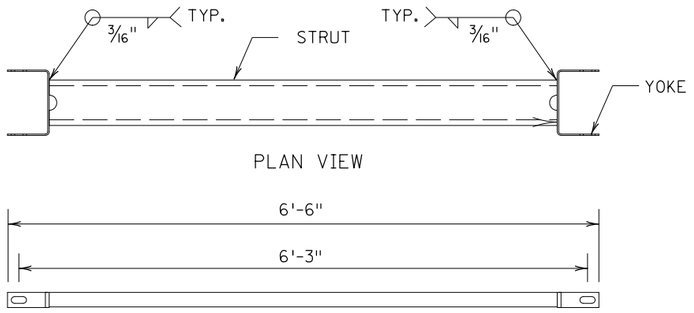


SIDE VIEW FRONT VIEW

ANCHOR BRACKET END PLATE



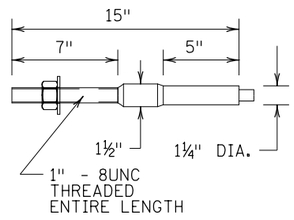
BCT ANCHOR CABLE



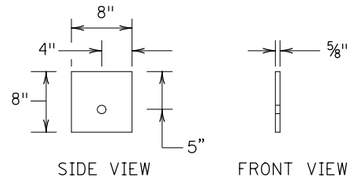
PLAN VIEW

FRONT VIEW

STRUT AND YOKE ASSEMBLY



BCT ANCHOR CABLE END DETAIL



SIDE VIEW FRONT VIEW

BCT ANCHOR CABLE BEARING PLATE

MINNESOTA DEPARTMENT OF TRANSPORTATION STATE DESIGN ENGINEER REVISED: APPROVED: 7-19-2016	TRAFFIC BARRIER TYPE 31 END ANCHORAGE COMPONENT DETAILS	
	STANDARD PLAN 5-297.692	2 OF 2
STANDARD PLAN SHEETS	SP 8309-52 (T.H. 60)	
	SHEET NO. 56 OF 283 SHEETS	

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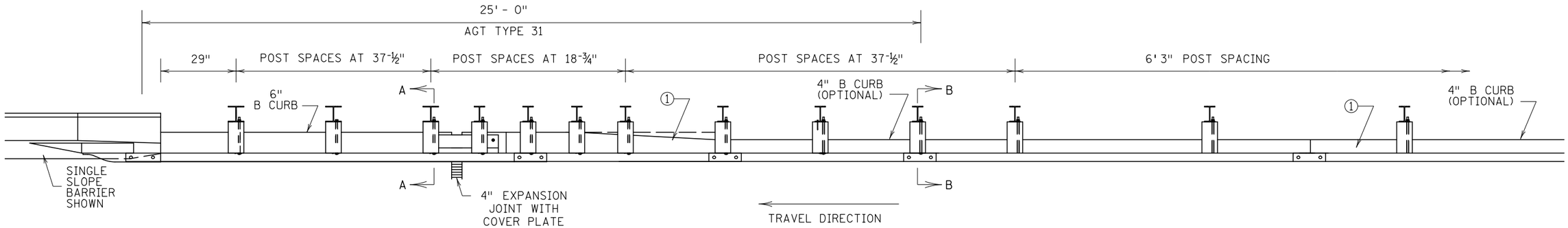
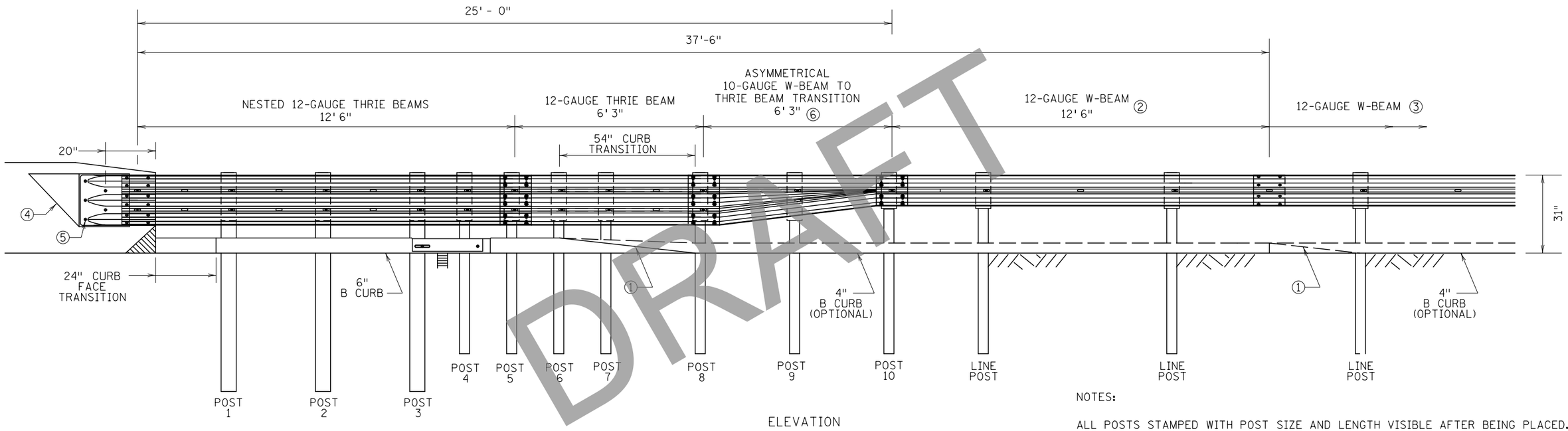
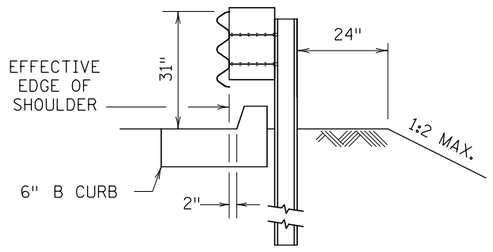


PLAN VIEW

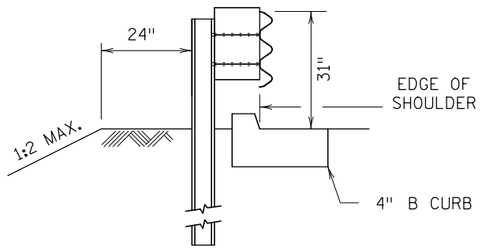


ELEVATION

APPROACH GUARDRAIL TRANSITION



SECTION A-A
(THRIE BEAM/AGT) ⑦



SECTION B-B
(THRIE BEAM/AGT) ⑦

TRANSITION POST/BLOCK SIZING		
POST #	STEEL POST SIZE	BLOCKOUT SIZE
1-3	84" - W6 x 15	6 x 12 x 19"
4-9	72" - W6 x 9	6 x 12 x 19"
10	72" - W6 x 9	6 x 12 x 14"

NOTES:

ALL POSTS STAMPED WITH POST SIZE AND LENGTH VISIBLE AFTER BEING PLACED.

W-BEAM RAIL SPLICE BOLTS AND NUTS AS SPECIFIED BY AASHTO SPEC. M 180.

① CURB TRANSITION, NO CHANGE IN CURB DESIGN CAN OCCUR BETWEEN POST 8 AND 37'-6" UPSTREAM FROM THE BARRIER ANCHORAGE PLATE.

② WHERE CURB EXTENDS UPSTREAM OF POST NO. 8, THIS 12'-6" SECTION OF 12-GUAGE W-BEAM RAIL SHALL BE NESTED. THIS ADDED COMPONENT IS INCIDENTAL.

③ A MINIMUM OF 12'-6" OF W-BEAM RAIL IS REQUIRED BEFORE END TREATMENT.

④ SINGLE SLOPE CONNECTION WEDGE PLATE (STANDARD PLATE 8352), INCIDENTAL.

⑤ THRIE BEAM ANCHORAGE PLATE (STANDARD PLATE 8350), INCIDENTAL.

⑥ SEE STANDARD PLAN 5-297.695.

⑦ SEE CURB DETAILS ON SHEET 4 OF 5.

MINNESOTA DEPARTMENT OF TRANSPORTATION

STATE DESIGN ENGINEER

REVISED:

APPROVED: 7-19-2016

APPROACH GUARDRAIL TRANSITION (AGT) TYPE 31 ASSEMBLY DETAILS

STANDARD PLAN 5-297.694 | 1 OF 5

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 57 OF 283 SHEETS

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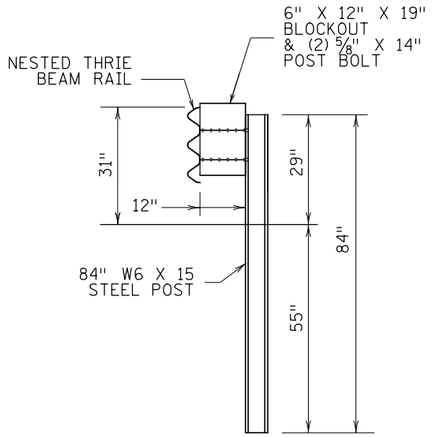
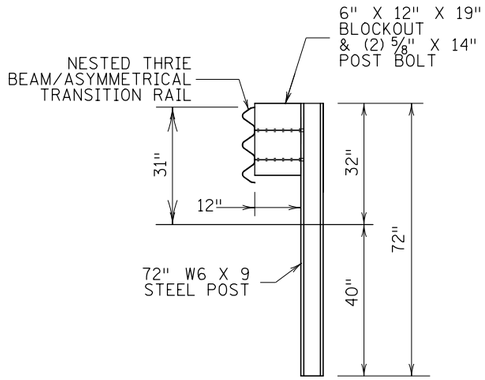
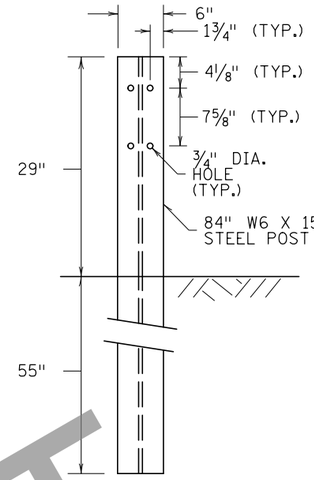


POSTS 1-3



POSTS 4-8



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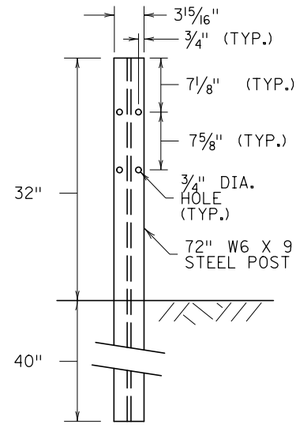

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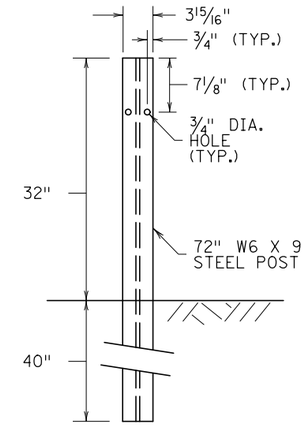
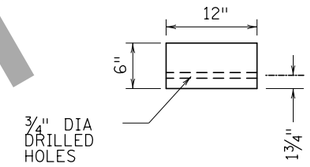
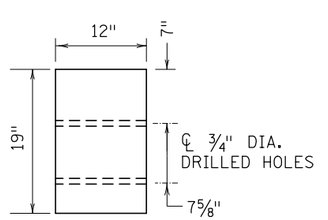


POSTS 9-10

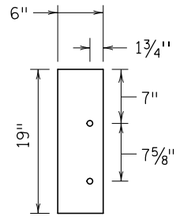
TRANSITION POSTS
FRONT VIEW



TOP VIEW

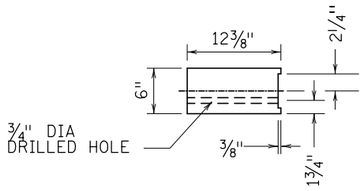


SIDE VIEW

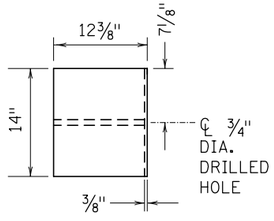


FRONT VIEW

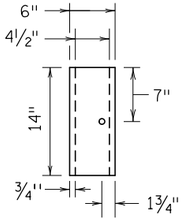
BLOCKOUT POSTS 1-9



TOP VIEW

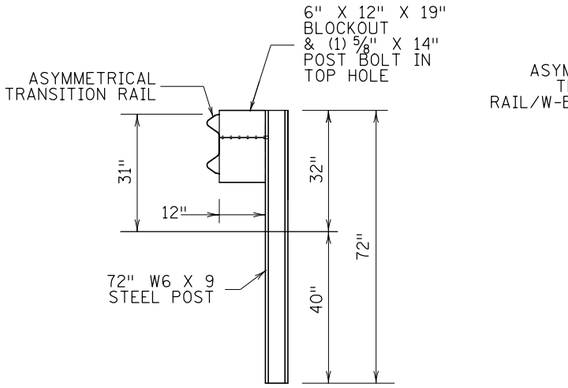


SIDE VIEW

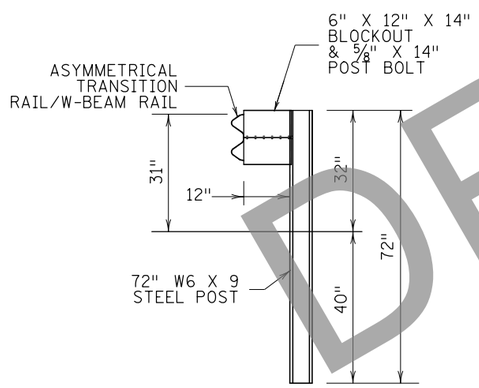


FRONT VIEW

BLOCKOUT POST 10



POST 9



POST 10

TRANSITION POSTS
WITH BLOCKOUT AND RAIL
SIDE VIEW

NOTES:

ALL GUARDRAIL HARDWARE PER AASHTO SPEC. M 180.

ALL POSTS STAMPED WITH POST SIZE VISIBLE AFTER BEING PLACED.

WOOD BLOCKOUTS SHOWN. PROPRIETARY BLOCKOUTS THAT MEET THE REQUIREMENTS OF MASH MAY BE SUBSTITUTED AT NO ADDITIONAL COST. BLOCKOUTS SHALL NOT ROTATE AFTER INSTALLATION.

REVISED:

APPROVED: 7-19-2016

STATE DESIGN ENGINEER

APPROACH GUARDRAIL TRANSITION (AGT) TYPE 31 COMPONENT DETAILS

STANDARD PLAN 5-297.694 | 2 OF 5

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 58 OF 283 SHEETS

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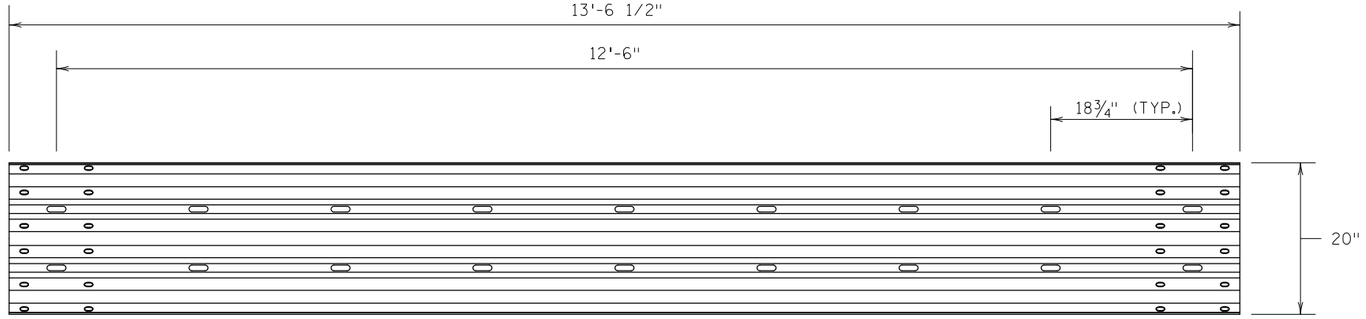
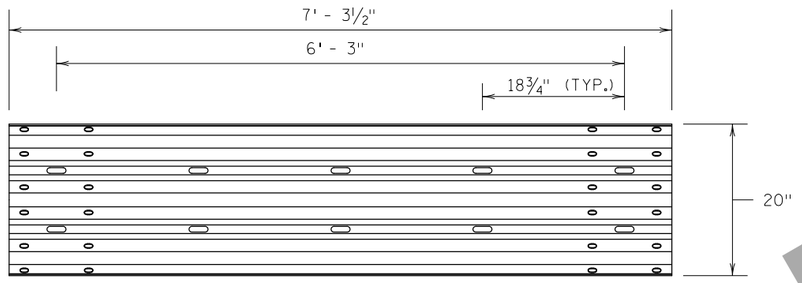
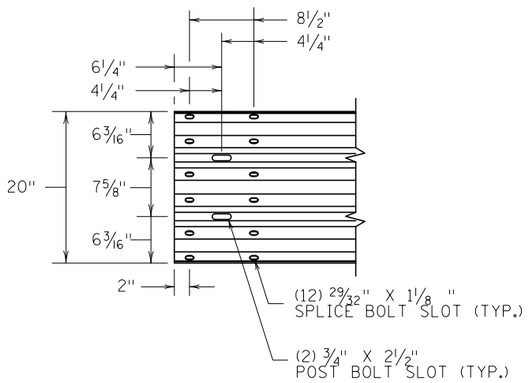


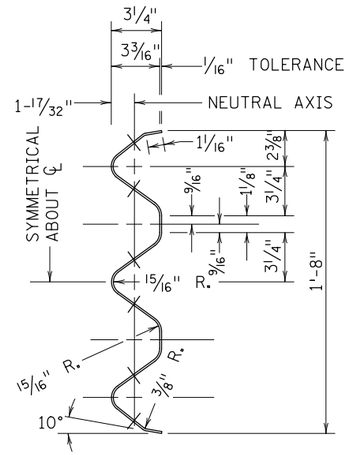
12'-6" THRIE BEAM RAIL



6'-3" THRIE BEAM RAIL



THRIE BEAM RAIL
SPLICE BOLT/POST BOLT DETAIL



THRU SECTION

NOTES:
PLATE BEAM RAIL PER AASHTO SPEC. M 180.

REVISED:	APPROVED: 7-19-2016 STATE DESIGN ENGINEER	APPROACH GUARDRAIL TRANSITION (AGT) TYPE 31 THRIE-BEAM RAIL DETAILS
STANDARD PLAN SHEETS		STANDARD PLAN 5-297.694 | 3 OF 5
		SP 8309-52 (T.H. 60)
		SHEET NO. 59 OF 283 SHEETS

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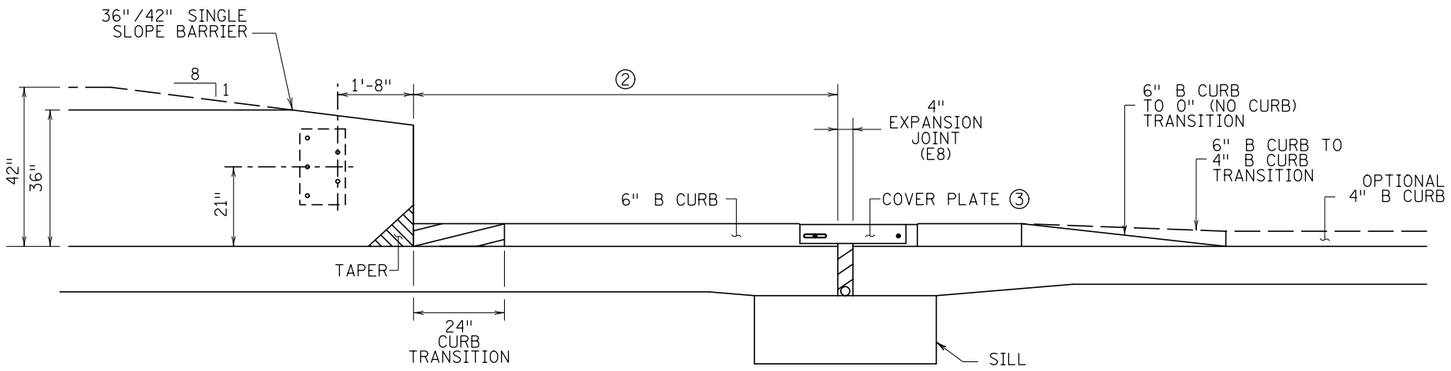
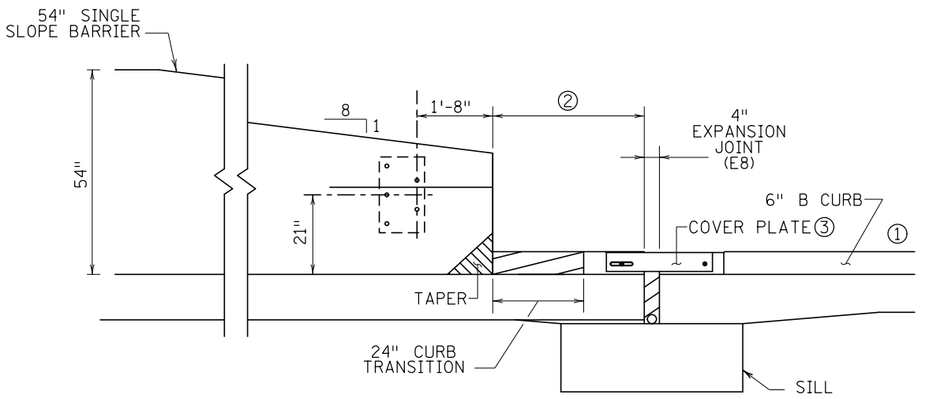
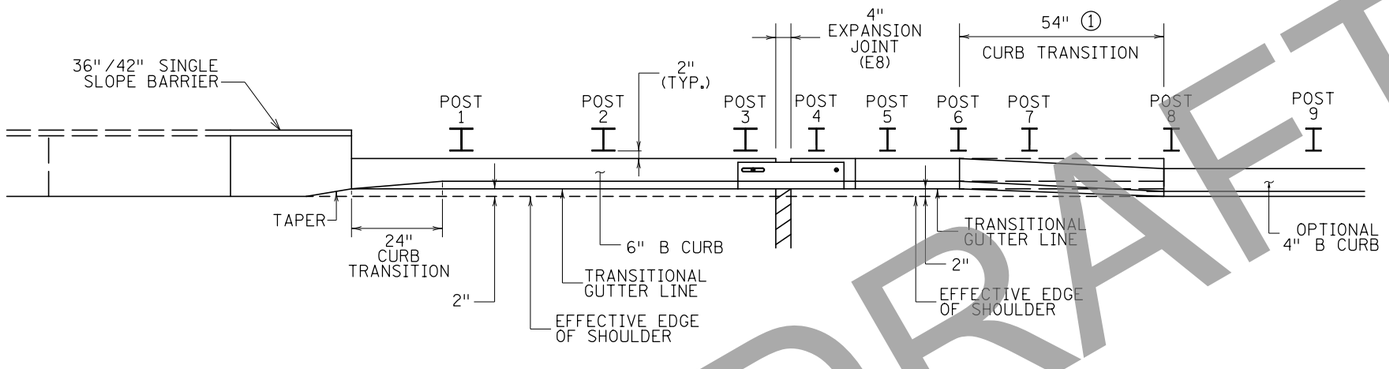


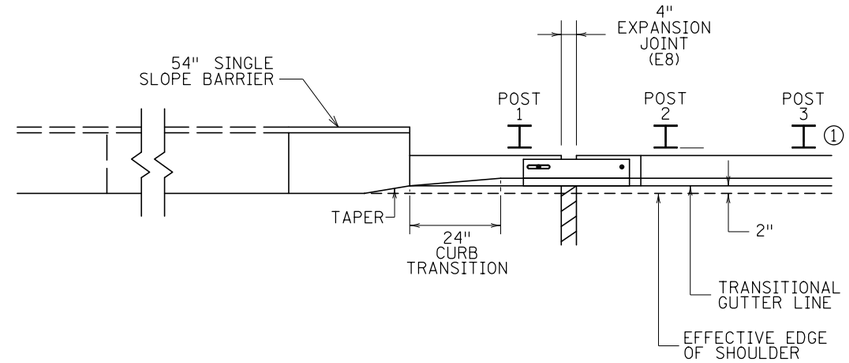
36"/42" SINGLE SLOPE BARRIER
FRONT VIEW



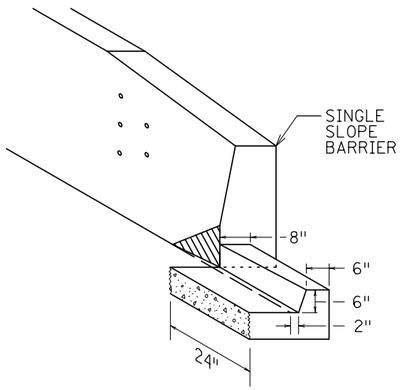
54" SINGLE SLOPE BARRIER
FRONT VIEW



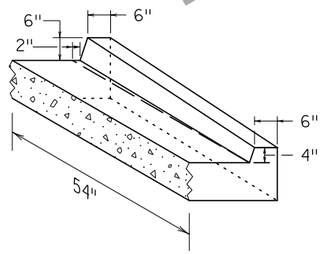
36"/42" SINGLE SLOPE BARRIER
PLAN VIEW



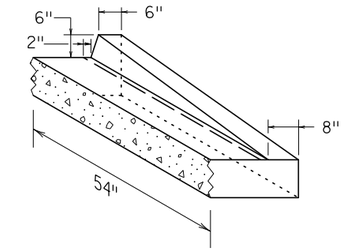
54" SINGLE SLOPE BARRIER
PLAN VIEW



24" CURB TRANSITION FROM
VERTICAL FACE TO 6" B CURB
(SINGLE SLOPE BARRIER)



54" CURB TRANSITION FROM ①
6" B CURB TO 4" B CURB



54" CURB TRANSITION FROM ①
6" B CURB TO 0"-NO CURB

NOTES:

36", 42", AND 54" SINGLE SLOPE BARRIERS AVAILABLE.

① FOR ALL SINGLE SLOPE BARRIER HEIGHTS, 54" CURB TRANSITION LOCATION IS BETWEEN POSTS 6 AND POST 8.

② SEE BRIDGE APPROACH PANEL LAYOUT SHEETS FOR DIMENSION.

③ SEE STANDARD PLAN 5-297.229

MINNESOTA DEPARTMENT OF TRANSPORTATION STATE DESIGN ENGINEER REVISED: APPROVED: 7-19-2016	APPROACH GUARDRAIL TRANSITION TYPE (AGT) 31 CURB DETAILS AT SINGLE SLOPE BARRIER	
	STANDARD PLAN 5-297.694	4 OF 5
STANDARD PLAN SHEETS	SP 8309-52 (T.H. 60)	
	SHEET NO. 60 OF 283 SHEETS	

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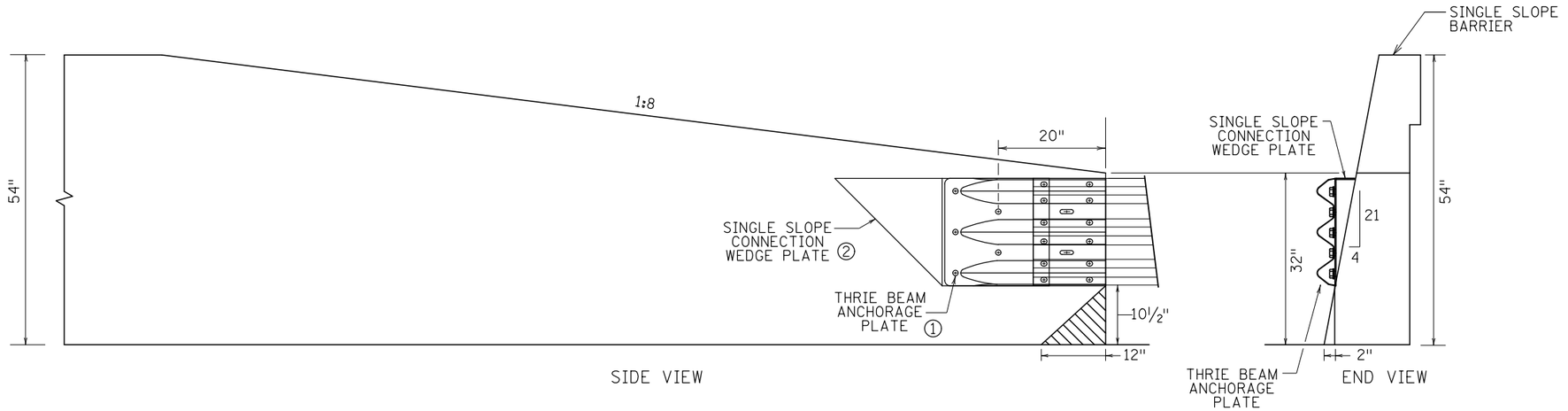
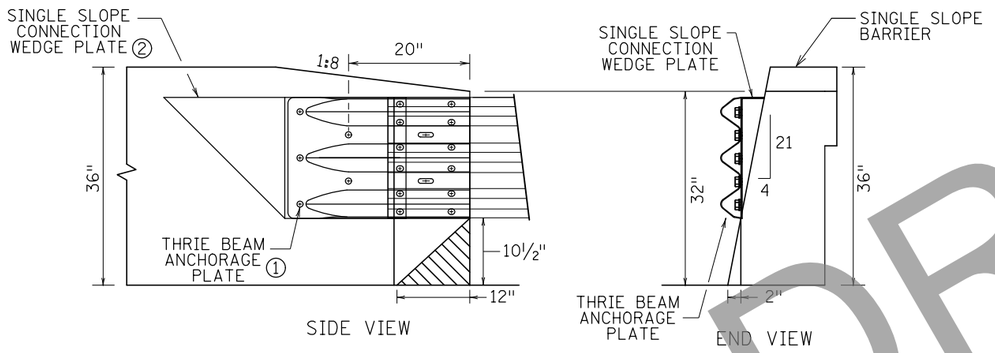
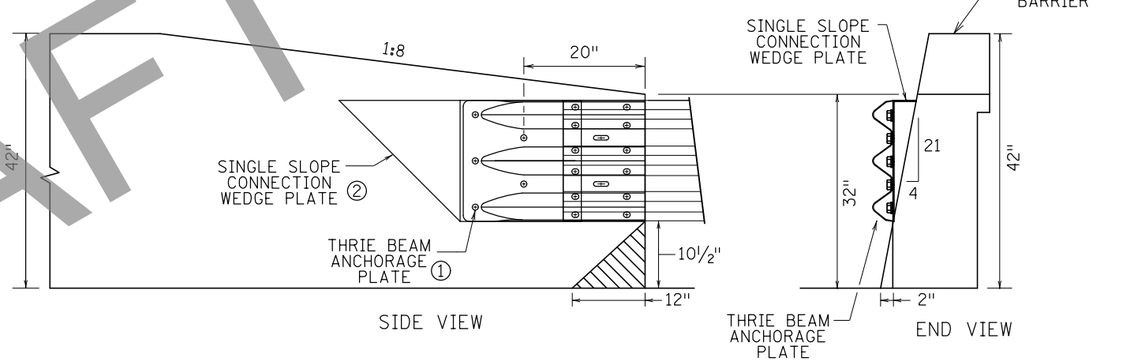


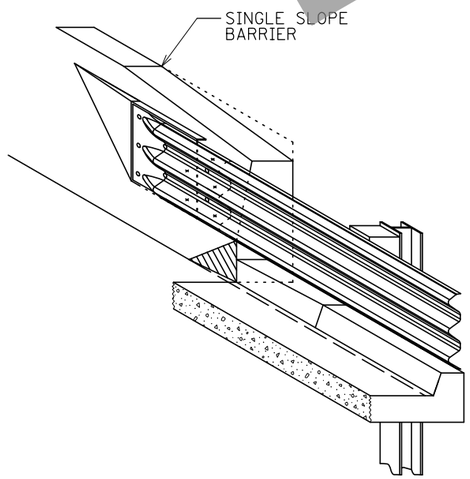
54" BARRIER



36" BARRIER



42" BARRIER



ISOMETRIC VIEW WITH CURB

NOTES:
REFER TO BRIDGE APPROACH PANEL PLAN FOR ADDITIONAL INFORMATION.

① SEE STANDARD PLATE 8350.

② SEE STANDARD PLATE 8352.

MINNESOTA DEPARTMENT OF TRANSPORTATION	REVISED:	APPROACH GUARDRAIL TRANSITION TYPE (AGT) 31 CONNECTION TO SINGLE SLOPE BARRIER
STATE DESIGN ENGINEER	APPROVED: 7-19-2016	STANDARD PLAN 5-297.694 | 5 OF 5
STANDARD PLAN SHEETS		SP 8309-52 (T.H. 60)
		SHEET NO. 61 OF 283 SHEETS

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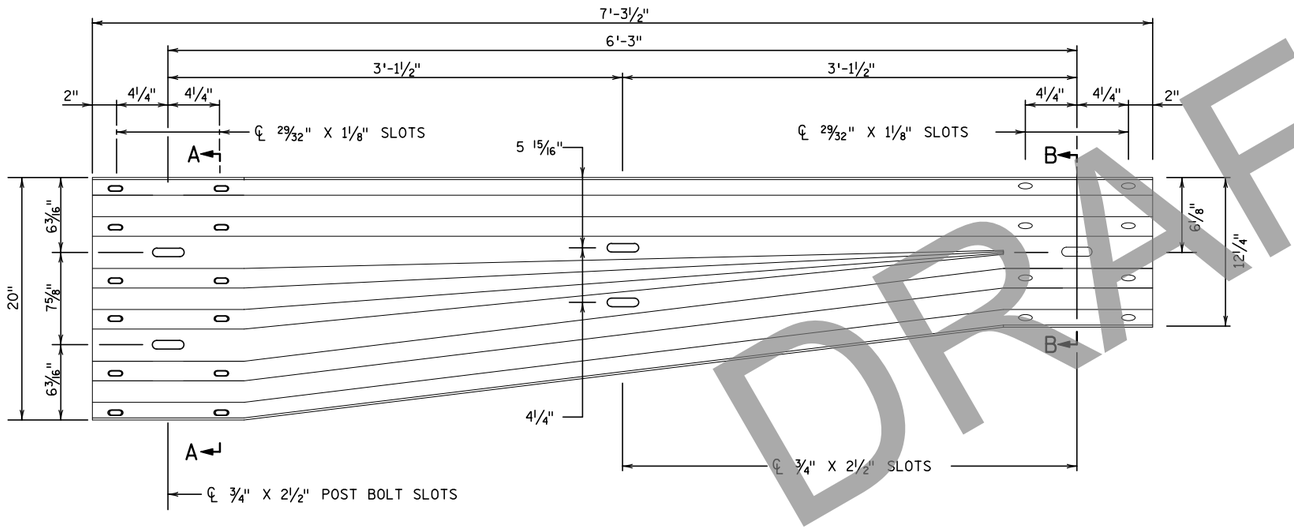
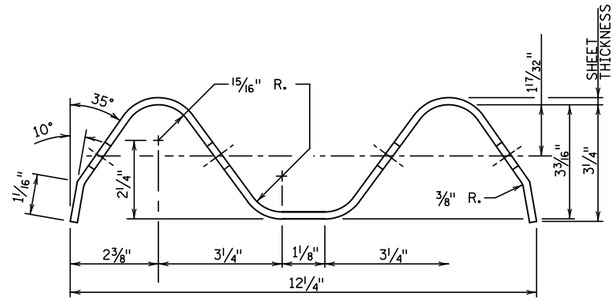


ASYMMETRICAL W-BEAM TO THRIE BEAM TRANSITION



SECTION B-B
STANDARD W-BEAM RAIL THRU SECTION

NOTES:

STEEL PLATE BEAM GUARDRAIL SHALL CONFORM TO AASHTO M180.

ASYMMETRICAL TRANSITION DETAIL IS MIRRORED FOR OPPOSITE SIDE INSTALLATION.

REVISED:

APPROVED: 7-19-2016

STATE DESIGN ENGINEER

STEEL PLATE BEAM GUARDRAIL DETAILS
ASYMMETRICAL W-BEAM/THRIE BEAM TRANSITION

STANDARD PLAN 5-297.695 | 1 OF 1

STANDARD PLAN SHEETS

SP 8309-52 (T.H. 60)

SHEET NO. 62 OF 283 SHEETS

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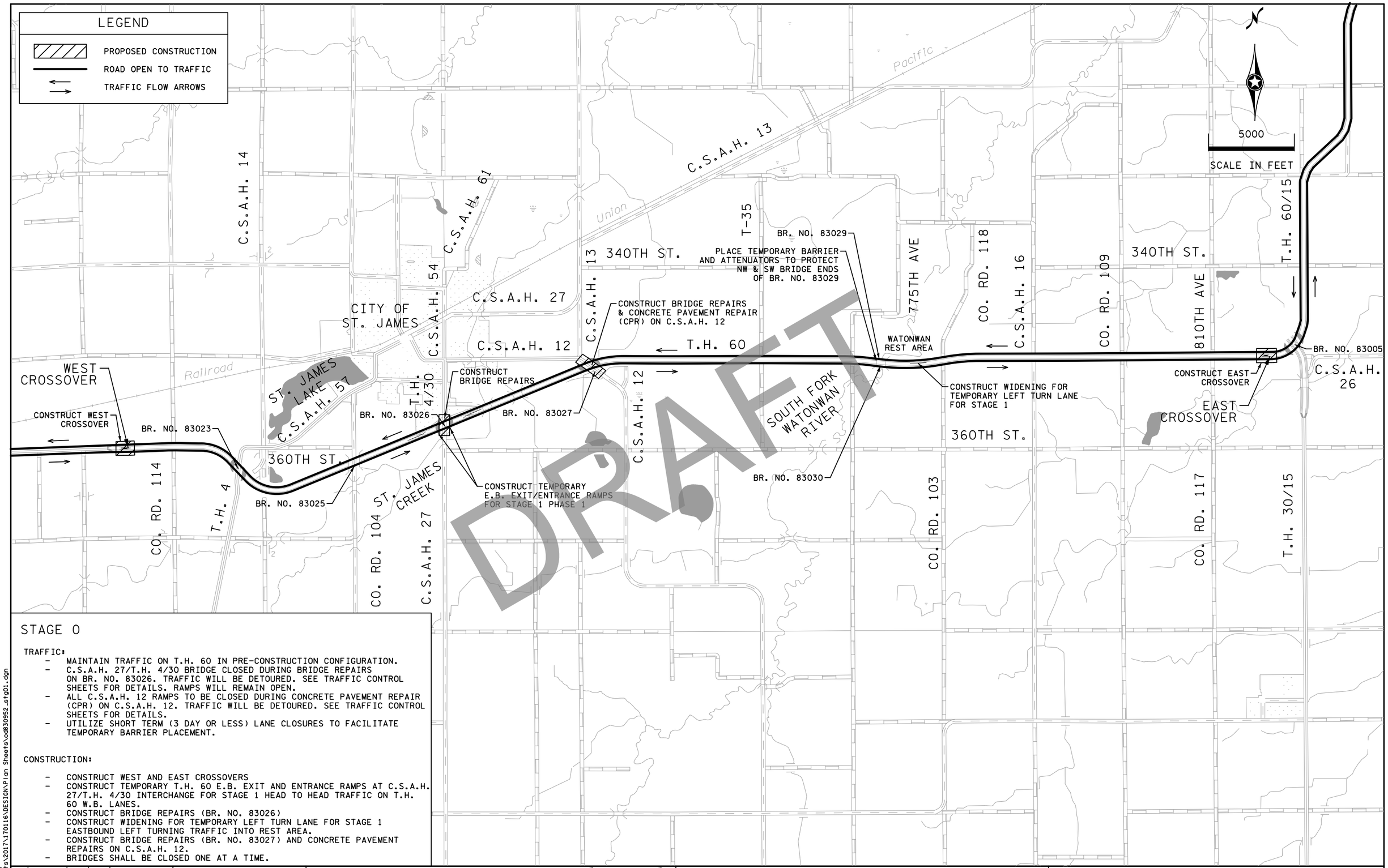

STAGE 0

TRAFFIC:

- MAINTAIN TRAFFIC ON T.H. 60 IN PRE-CONSTRUCTION CONFIGURATION.
- C.S.A.H. 27/T.H. 4/30 BRIDGE CLOSED DURING BRIDGE REPAIRS ON BR. NO. 83026. TRAFFIC WILL BE DETOURED. SEE TRAFFIC CONTROL SHEETS FOR DETAILS. RAMPS WILL REMAIN OPEN.
- ALL C.S.A.H. 12 RAMPS TO BE CLOSED DURING CONCRETE PAVEMENT REPAIR (CPR) ON C.S.A.H. 12. TRAFFIC WILL BE DETOURED. SEE TRAFFIC CONTROL SHEETS FOR DETAILS.
- UTILIZE SHORT TERM (3 DAY OR LESS) LANE CLOSURES TO FACILITATE TEMPORARY BARRIER PLACEMENT.

CONSTRUCTION:

- CONSTRUCT WEST AND EAST CROSSOVERS
- CONSTRUCT TEMPORARY T.H. 60 E.B. EXIT AND ENTRANCE RAMPS AT C.S.A.H. 27/T.H. 4/30 INTERCHANGE FOR STAGE 1 HEAD TO HEAD TRAFFIC ON T.H. 60 W.B. LANES.
- CONSTRUCT BRIDGE REPAIRS (BR. NO. 83026)
- CONSTRUCT WIDENING FOR TEMPORARY LEFT TURN LANE FOR STAGE 1 EASTBOUND LEFT TURNING TRAFFIC INTO REST AREA.
- CONSTRUCT BRIDGE REPAIRS (BR. NO. 83027) AND CONCRETE PAVEMENT REPAIRS ON C.S.A.H. 12.
- BRIDGES SHALL BE CLOSED ONE AT A TIME.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

STAGING PLAN
STAGE 0

SP 8309-52 (T.H. 60)
SHEET NO. 63 OF 283 SHEETS

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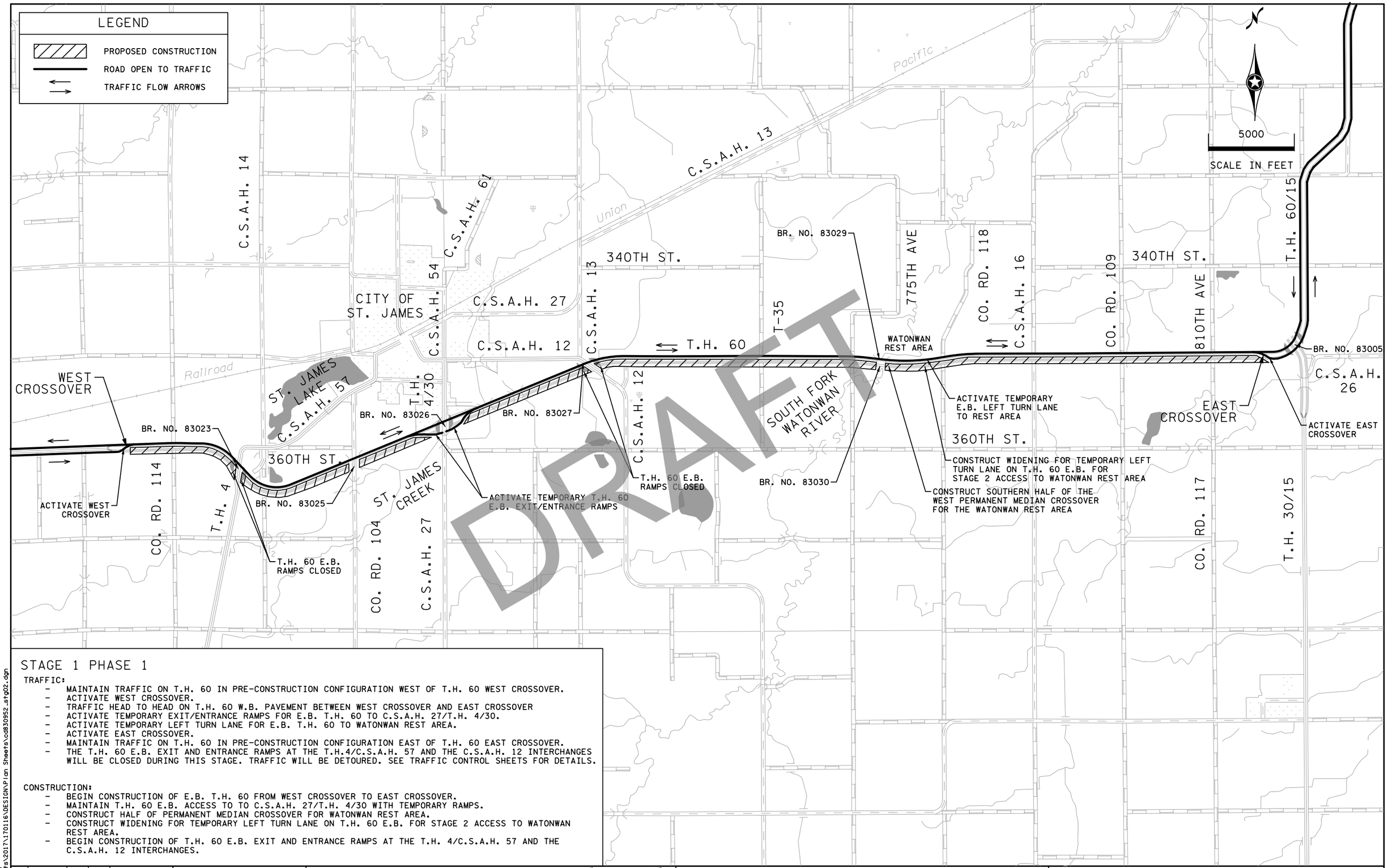

STAGE 1 PHASE 1

TRAFFIC:

- MAINTAIN TRAFFIC ON T.H. 60 IN PRE-CONSTRUCTION CONFIGURATION WEST OF T.H. 60 WEST CROSSOVER.
- ACTIVATE WEST CROSSOVER.
- TRAFFIC HEAD TO HEAD ON T.H. 60 W.B. PAVEMENT BETWEEN WEST CROSSOVER AND EAST CROSSOVER
- ACTIVATE TEMPORARY EXIT/ENTRANCE RAMPS FOR E.B. T.H. 60 TO C.S.A.H. 27/T.H. 4/30.
- ACTIVATE TEMPORARY LEFT TURN LANE FOR E.B. T.H. 60 TO WATONWAN REST AREA.
- ACTIVATE EAST CROSSOVER.
- MAINTAIN TRAFFIC ON T.H. 60 IN PRE-CONSTRUCTION CONFIGURATION EAST OF T.H. 60 EAST CROSSOVER.
- THE T.H. 60 E.B. EXIT AND ENTRANCE RAMPS AT THE T.H.4/C.S.A.H. 57 AND THE C.S.A.H. 12 INTERCHANGES WILL BE CLOSED DURING THIS STAGE. TRAFFIC WILL BE DETOURED. SEE TRAFFIC CONTROL SHEETS FOR DETAILS.

CONSTRUCTION:

- BEGIN CONSTRUCTION OF E.B. T.H. 60 FROM WEST CROSSOVER TO EAST CROSSOVER.
- MAINTAIN T.H. 60 E.B. ACCESS TO TO C.S.A.H. 27/T.H. 4/30 WITH TEMPORARY RAMPS.
- CONSTRUCT HALF OF PERMANENT MEDIAN CROSSOVER FOR WATONWAN REST AREA.
- CONSTRUCT WIDENING FOR TEMPORARY LEFT TURN LANE ON T.H. 60 E.B. FOR STAGE 2 ACCESS TO WATONWAN REST AREA.
- BEGIN CONSTRUCTION OF T.H. 60 E.B. EXIT AND ENTRANCE RAMPS AT THE T.H. 4/C.S.A.H. 57 AND THE C.S.A.H. 12 INTERCHANGES.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

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STAGING PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 64 OF 283 SHEETS

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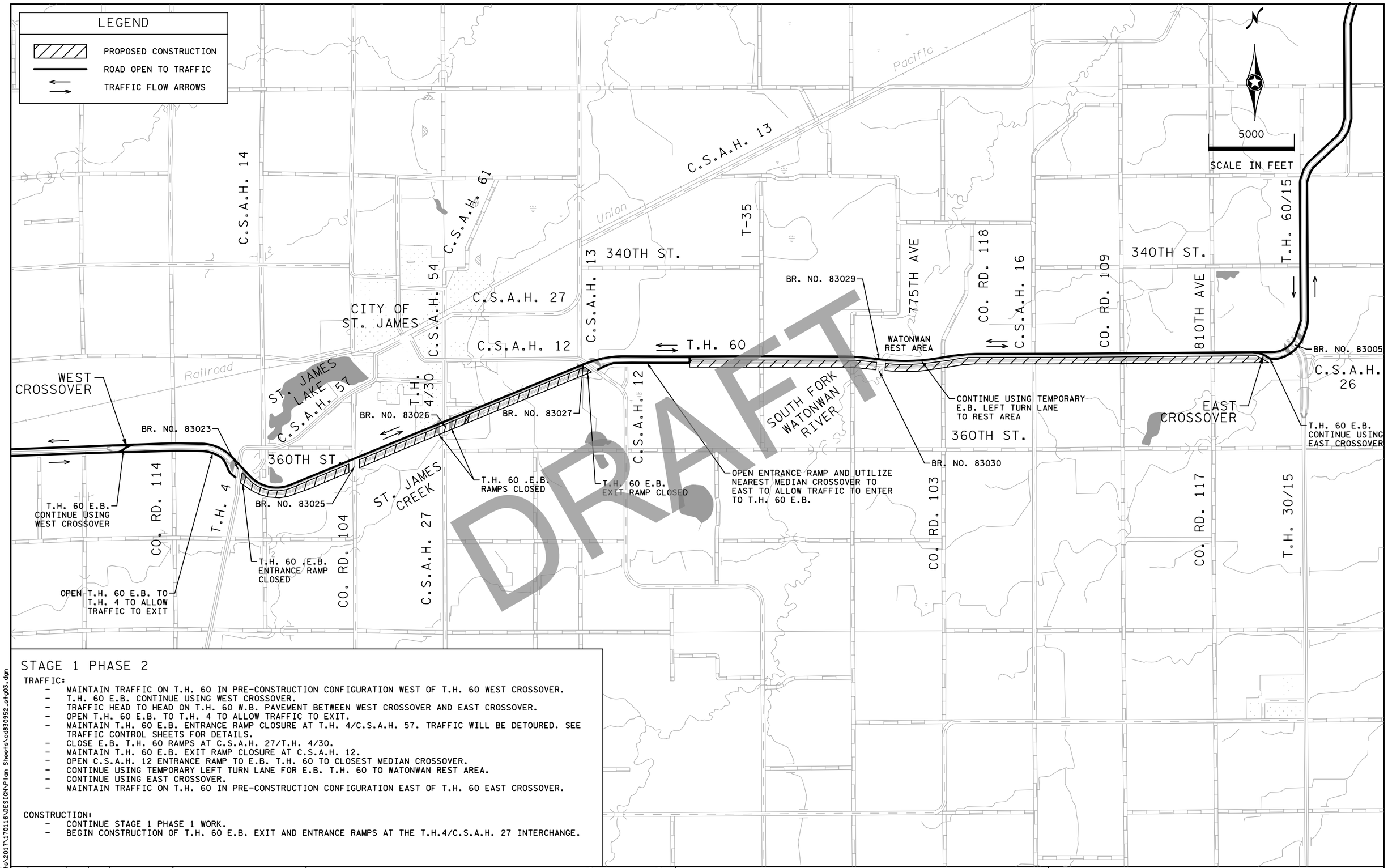

STAGE 1 PHASE 2

TRAFFIC:

- MAINTAIN TRAFFIC ON T.H. 60 IN PRE-CONSTRUCTION CONFIGURATION WEST OF T.H. 60 WEST CROSSOVER.
- T.H. 60 E.B. CONTINUE USING WEST CROSSOVER.
- TRAFFIC HEAD TO HEAD ON T.H. 60 W.B. PAVEMENT BETWEEN WEST CROSSOVER AND EAST CROSSOVER.
- OPEN T.H. 60 E.B. TO T.H. 4 TO ALLOW TRAFFIC TO EXIT.
- MAINTAIN T.H. 60 E.B. ENTRANCE RAMP CLOSURE AT T.H. 4/C.S.A.H. 57. TRAFFIC WILL BE DETOURED. SEE TRAFFIC CONTROL SHEETS FOR DETAILS.
- CLOSE E.B. T.H. 60 RAMPS AT C.S.A.H. 27/T.H. 4/30.
- MAINTAIN T.H. 60 E.B. EXIT RAMP CLOSURE AT C.S.A.H. 12.
- OPEN C.S.A.H. 12 ENTRANCE RAMP TO E.B. T.H. 60 TO CLOSEST MEDIAN CROSSOVER.
- CONTINUE USING TEMPORARY LEFT TURN LANE FOR E.B. T.H. 60 TO WATONWAN REST AREA.
- CONTINUE USING EAST CROSSOVER.
- MAINTAIN TRAFFIC ON T.H. 60 IN PRE-CONSTRUCTION CONFIGURATION EAST OF T.H. 60 EAST CROSSOVER.

CONSTRUCTION:

- CONTINUE STAGE 1 PHASE 1 WORK.
- BEGIN CONSTRUCTION OF T.H. 60 E.B. EXIT AND ENTRANCE RAMPS AT THE T.H.4/C.S.A.H. 27 INTERCHANGE.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

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DATE _____ LICENSE #

STAGING PLAN
STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 65 OF 283 SHEETS

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LEGEND

PROPOSED CONSTRUCTION

ROAD OPEN TO TRAFFIC

TRAFFIC FLOW ARROWS

N

5000

SCALE IN FEET

C.S.A.H. 14

C.S.A.H. 61

C.S.A.H. 13

Pacific

Union

T-35

C.S.A.H. 54

C.S.A.H. 27

CITY OF ST. JAMES

C.S.A.H. 12

C.S.A.H. 13

340TH ST.

BR. NO. 83029

CONSTRUCT TEMPORARY BARRIER AND ATTENUATORS ON E.B. T.H. 60 TO PROTECT NW AND SW BRIDGE ENDS OF BR. NO. 83030

775TH AVE

CO. RD. 118

C.S.A.H. 16

CO. RD. 109

340TH ST.

810TH AVE

T.H. 60/15

T.H. 60

WATONWAN REST AREA

BR. NO. 83005

C.S.A.H. 26

WEST CROSSOVER

Railroad

ST. JAMES LAKE

C.S.A.H. 57

T.H. 4/30

BR. NO. 83026

BR. NO. 83027

C.S.A.H. 12

SOUTH FORK WATONWAN RIVER

PREPARE TEMPORARY LEFT TURN LANE TRAFFIC CONTROL FOR HEAD TO HEAD TRAFFIC ON E.B. T.H. 60 IN STAGE 2 PHASE 1

PREPARE EAST CROSSOVER FOR ACTIVATION IN OPPOSITE DIRECTION

EAST CROSSOVER

BR. NO. 83023

360TH ST.

360TH ST.

CONSTRUCT TEMPORARY T.H. 60 W.B. EXIT/ENTRANCE RAMPS FOR STAGE 2 PHASE 1

BR. NO. 83030

CO. RD. 114

T.H. 4

BR. NO. 83025

ST. JAMES CREEK

CO. RD. 104

C.S.A.H. 27

CO. RD. 103

CO. RD. 117

T.H. 30/15

PREPARE WEST CROSSOVER FOR ACTIVATION IN OPPOSITE DIRECTION

STAGE 2 PHASE 0

TRAFFIC:

- TRAFFIC ON T.H. 60 IN PRE-CONSTRUCTION CONFIGURATION.
- UTILIZE SINGLE LANE CLOSURES FOR PREPARATION WORK FOR STAGE 2 PHASE 1.
- UTILIZE SHORT TERM (3 DAY OR LESS) LANE CLOSURES TO FACILITATE TEMPORARY BARRIER PLACEMENT.

CONSTRUCTION:

- CONSTRUCT TEMPORARY T.H. 60 W.B. EXIT AND ENTRANCE RAMPS AT C.S.A.H. 27/T.H. 4/30 INTERCHANGE FOR STAGE 2 HEAD TO HEAD TRAFFIC ON T.H. 60 E.B. LANES.
- PREPARE CROSSOVERS FOR ACTIVATION WITH HEAD TO HEAD TRAFFIC ON E.B. T.H. 60 IN STAGE 2 PHASE 1.
- PREPARE TEMPORARY LEFT TURN LANE TO WATONWAN REST AREA FOR ACTIVATION IN STAGE 2 PHASE 1.
- CONSTRUCT TEMPORARY BARRIER AND ATTENUATORS ON E.B. T.H. 60 TO PROTECT BRIDGE ENDS AT SOUTH FORK WATONWAN RIVER.

NO	DATE	DWN	CKD	REVISIONS

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STAGING PLAN

STAGE 2 PHASE 0

SP 8309-52 (T.H. 60)

SHEET NO. 66 OF 283 SHEETS

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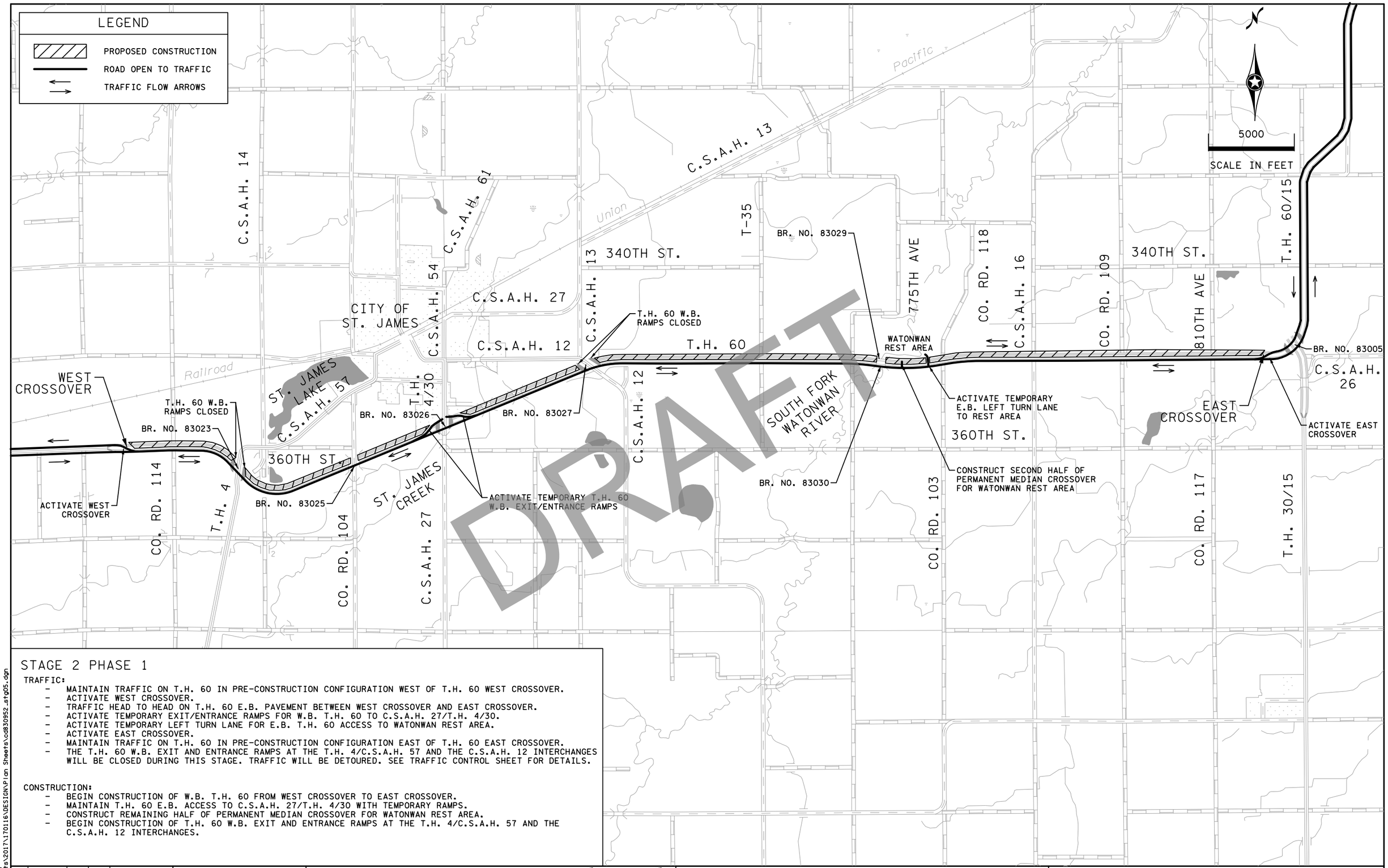

STAGE 2 PHASE 1

TRAFFIC:

- MAINTAIN TRAFFIC ON T.H. 60 IN PRE-CONSTRUCTION CONFIGURATION WEST OF T.H. 60 WEST CROSSOVER.
- ACTIVATE WEST CROSSOVER.
- TRAFFIC HEAD TO HEAD ON T.H. 60 E.B. PAVEMENT BETWEEN WEST CROSSOVER AND EAST CROSSOVER.
- ACTIVATE TEMPORARY EXIT/ENTRANCE RAMPS FOR W.B. T.H. 60 TO C.S.A.H. 27/T.H. 4/30.
- ACTIVATE TEMPORARY LEFT TURN LANE FOR E.B. T.H. 60 ACCESS TO WATONWAN REST AREA.
- ACTIVATE EAST CROSSOVER.
- MAINTAIN TRAFFIC ON T.H. 60 IN PRE-CONSTRUCTION CONFIGURATION EAST OF T.H. 60 EAST CROSSOVER.
- THE T.H. 60 W.B. EXIT AND ENTRANCE RAMPS AT THE T.H. 4/C.S.A.H. 57 AND THE C.S.A.H. 12 INTERCHANGES WILL BE CLOSED DURING THIS STAGE. TRAFFIC WILL BE DETOURED. SEE TRAFFIC CONTROL SHEET FOR DETAILS.

CONSTRUCTION:

- BEGIN CONSTRUCTION OF W.B. T.H. 60 FROM WEST CROSSOVER TO EAST CROSSOVER.
- MAINTAIN T.H. 60 E.B. ACCESS TO C.S.A.H. 27/T.H. 4/30 WITH TEMPORARY RAMPS.
- CONSTRUCT REMAINING HALF OF PERMANENT MEDIAN CROSSOVER FOR WATONWAN REST AREA.
- BEGIN CONSTRUCTION OF T.H. 60 W.B. EXIT AND ENTRANCE RAMPS AT THE T.H. 4/C.S.A.H. 57 AND THE C.S.A.H. 12 INTERCHANGES.

NO	DATE	DWN	CKD	REVISIONS

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STAGING PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 67 OF 283 SHEETS

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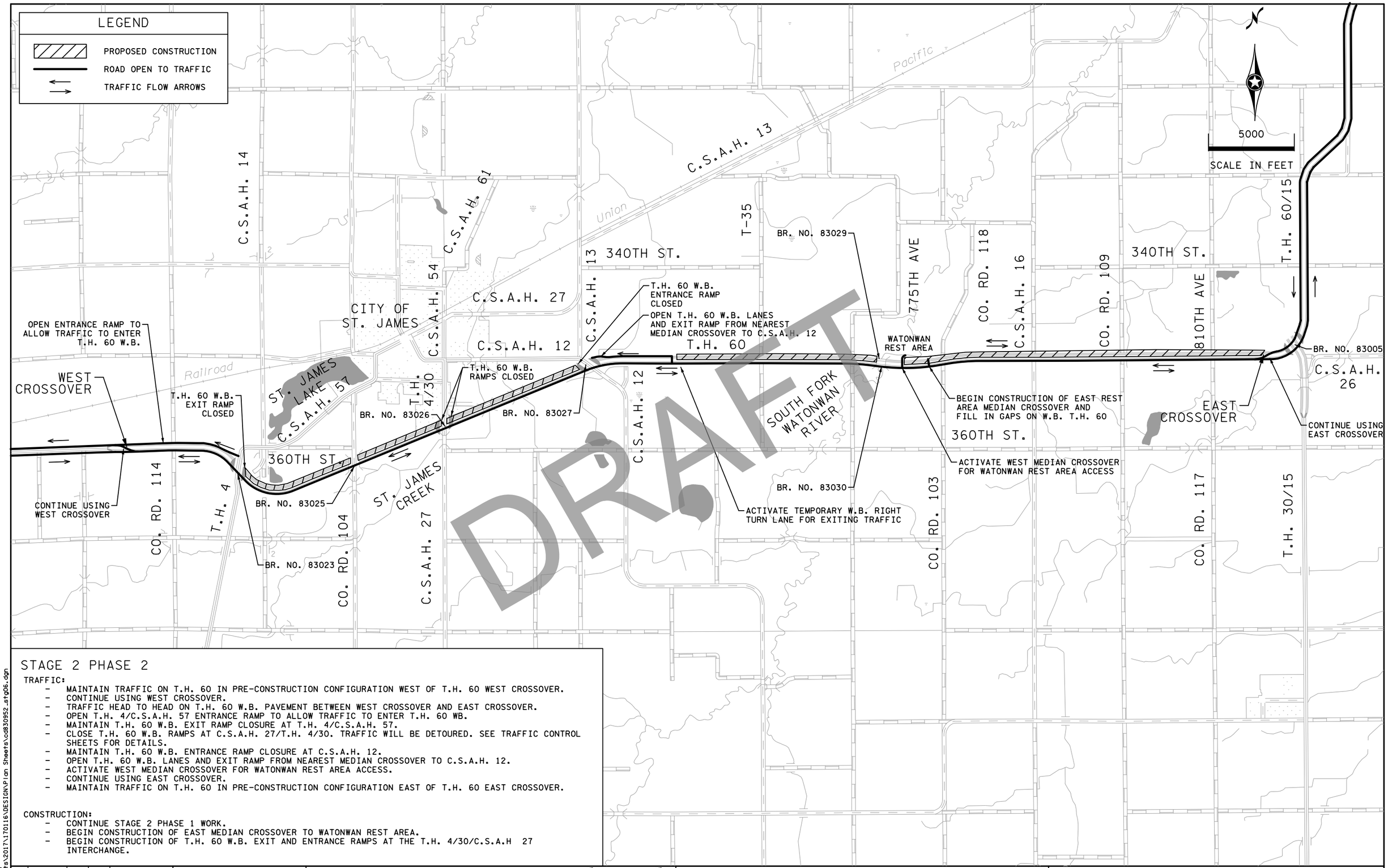

STAGE 2 PHASE 2

TRAFFIC:

- MAINTAIN TRAFFIC ON T.H. 60 IN PRE-CONSTRUCTION CONFIGURATION WEST OF T.H. 60 WEST CROSSOVER.
- CONTINUE USING WEST CROSSOVER.
- TRAFFIC HEAD TO HEAD ON T.H. 60 W.B. PAVEMENT BETWEEN WEST CROSSOVER AND EAST CROSSOVER.
- OPEN T.H. 4/C.S.A.H. 57 ENTRANCE RAMP TO ALLOW TRAFFIC TO ENTER T.H. 60 WB.
- MAINTAIN T.H. 60 W.B. EXIT RAMP CLOSURE AT T.H. 4/C.S.A.H. 57.
- CLOSE T.H. 60 W.B. RAMPS AT C.S.A.H. 27/T.H. 4/30. TRAFFIC WILL BE DETOURED. SEE TRAFFIC CONTROL SHEETS FOR DETAILS.
- MAINTAIN T.H. 60 W.B. ENTRANCE RAMP CLOSURE AT C.S.A.H. 12.
- OPEN T.H. 60 W.B. LANES AND EXIT RAMP FROM NEAREST MEDIAN CROSSOVER TO C.S.A.H. 12.
- ACTIVATE WEST MEDIAN CROSSOVER FOR WATONWAN REST AREA ACCESS.
- CONTINUE USING EAST CROSSOVER.
- MAINTAIN TRAFFIC ON T.H. 60 IN PRE-CONSTRUCTION CONFIGURATION EAST OF T.H. 60 EAST CROSSOVER.

CONSTRUCTION:

- CONTINUE STAGE 2 PHASE 1 WORK.
- BEGIN CONSTRUCTION OF EAST MEDIAN CROSSOVER TO WATONWAN REST AREA.
- BEGIN CONSTRUCTION OF T.H. 60 W.B. EXIT AND ENTRANCE RAMPS AT THE T.H. 4/30/C.S.A.H 27 INTERCHANGE.

NO	DATE	DWN	CKD	REVISIONS

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STAGING PLAN
STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 68 OF 283 SHEETS

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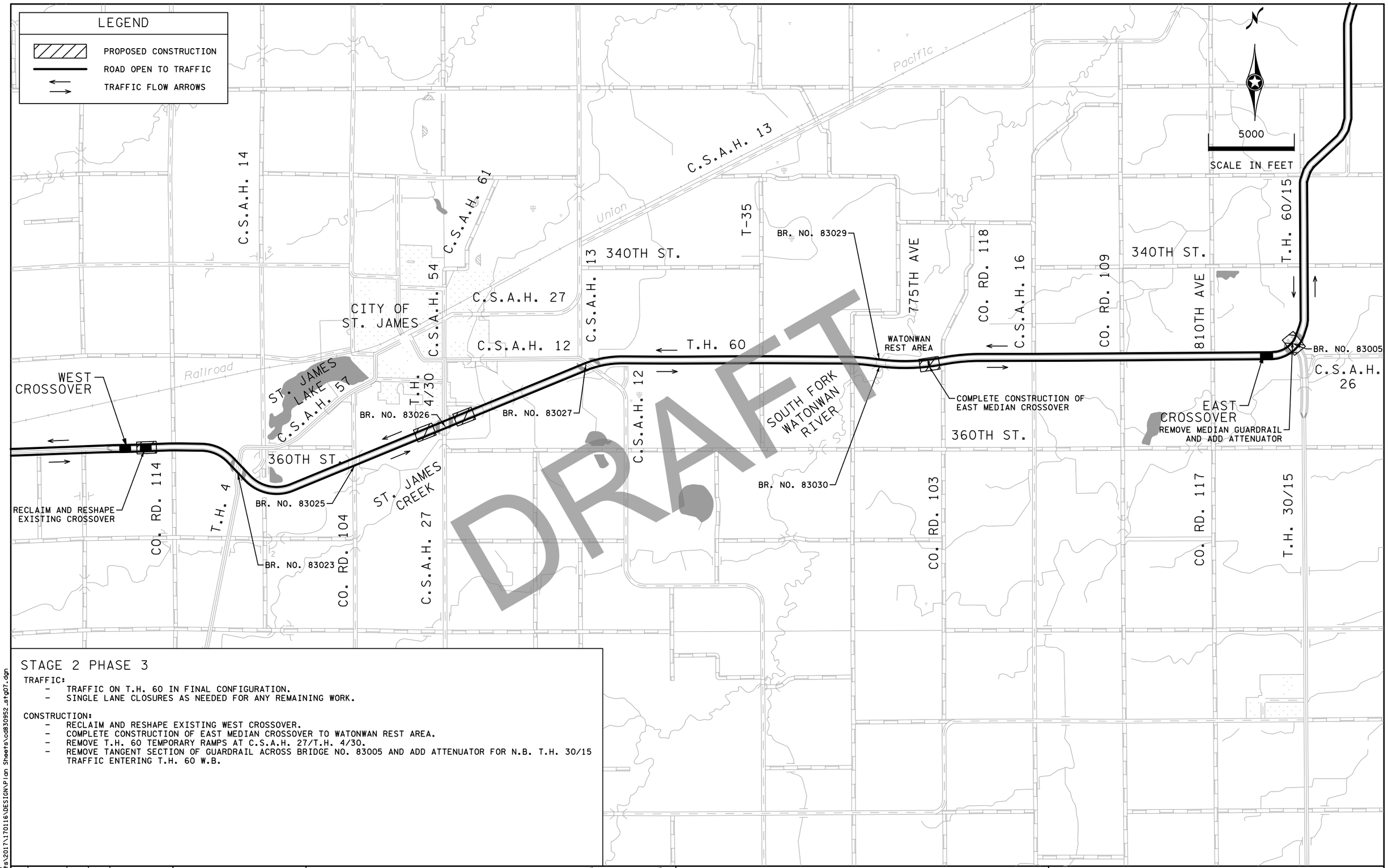

STAGE 2 PHASE 3

TRAFFIC:
- TRAFFIC ON T.H. 60 IN FINAL CONFIGURATION.
- SINGLE LANE CLOSURES AS NEEDED FOR ANY REMAINING WORK.

CONSTRUCTION:
- RECLAIM AND RESHAPE EXISTING WEST CROSSOVER.
- COMPLETE CONSTRUCTION OF EAST MEDIAN CROSSOVER TO WATONWAN REST AREA.
- REMOVE T.H. 60 TEMPORARY RAMPS AT C.S.A.H. 27/T.H. 4/30.
- REMOVE TANGENT SECTION OF GUARDRAIL ACROSS BRIDGE NO. 83005 AND ADD ATTENUATOR FOR N.B. T.H. 30/15 TRAFFIC ENTERING T.H. 60 W.B.

NO	DATE	DWN	CKD	REVISIONS

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STAGING PLAN
STAGE 2 PHASE 3

SP 8309-52 (T.H. 60)
SHEET NO. 69 OF 283 SHEETS

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ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
T.H. 60 E.B. <XTH60EB>										
2000	POT	① 1181+80.731						556,232.2068	142,453.5064	
2001	POT	1191+63.189						557,213.9860	142,490.0324	N 87° 52' 09.68" E
2002	PC	1199+38.834						557,989.0949	142,518.8695	
2003	PI	1203+40.530	1° 20' 20.13" RT	0° 10' 00.00"	34,377.468'	401.696'	803.355'	558,390.5130	142,533.8039	PI
2004	CC	①						559,267.1876	108,165.1687	
2005	PT	1207+42.189						558,792.1704	142,539.3544	N 89° 12' 29.81" E
2006	PC	1214+72.858						559,522.7695	142,549.4505	
2007	PI	1218+77.518	1° 20' 55.69" LT	0° 10' 00.00"	34,377.468'	404.660'	809.282'	559,927.3908	142,555.0420	PI
2008	CC	①						559,047.7524	176,923.6363	
2009	POT	EQ. 1222+82.141 R1 = 1222+80.837 R2						560,331.7684	142,570.1563	N 87° 51' 34.11" E
2010	PC	1238+72.278						561,922.0989	142,629.5974	
2011	PI	1243+22.270	3° 01' 18.28" RT	0° 20' 09.00"	17,060.778'	449.992'	899.775'	562,371.7766	142,646.4048	PI
2012	CC	①						562,559.3277	125,580.7239	
2013	POT	EQ. 1247+72.053 R2 = 1247+78.658 R3						562,821.7151	142,639.4841	S 89° 07' 07.61" E
2014	PC	1260+52.841						564,095.7475	142,619.8877	
2015	PI	1270+17.888	45° 40' 12.32" RT	2° 30' 00.00"	2,291.831'	965.047'	1,826.804'	565,060.6804	142,605.0457	PI
2016	CC	①						564,060.5001	140,328.3276	
2017	POT	EQ. 1278+79.645 R3 = 1279+69.622 R4						565,724.3478	141,904.4308	S 43° 26' 55.29" E
2018	PC	1294+28.045						566,727.3124	140,845.6292	
2019	PI	1310+61.448	68° 52' 59.68" LT	2° 24' 00.00"	2,381.811'	1,633.403'	2,863.507'	567,850.6111	139,659.7945	PI
2020	CC	①						568,456.4843	142,483.6117	
2021	POT	EQ. 1322+91.552 R4 = 1321+83.195 R5						569,361.5053	140,280.4414	N 67° 40' 05.03" E
2022	PC	1506+18.104						586,413.7604	147,285.1871	
2023	PI	1517+61.162	22° 33' 53.67" RT	1° 00' 00.00"	5,729.578'	1,143.058'	2,256.491'	587,471.0870	147,719.5170	PI
2024	CC	①						588,590.8385	141,985.3386	
2025	POT	1528+74.595						588,614.1357	147,714.8692	S 89° 46' 01.30" E
2026	POT	EQ. 1530+45.556 R5 = 1535+63.010 R6						588,785.1010	147,714.1740	S 89° 38' 23.75" E
2027	PC	1556+97.336						590,919.3851	147,700.7611	
2028	PI	1561+96.368	0° 39' 55.33" LT	0° 04' 00.00"	85,943.669'	499.032'	998.052'	591,418.4070	147,697.6250	PI
2029	CC	①						591,459.4870	233,642.7332	
2030	POT	EQ. 1566+95.389 R6 = 1566+94.277 R7						591,917.4317	147,700.2841	N 89° 41' 40.93" E
2031	PC	1609+98.554						596,221.6478	147,723.2191	
2032	PI	1614+61.339	0° 37' 01.35" RT	0° 04' 00.00"	85,943.669'	462.785'	925.560'	596,684.4260	147,725.6850	PI
2033	CC	①						596,679.5925	61,780.7699	
2034	POT	EQ. 1619+24.115 R7 = 1619+25.472 R8						597,147.2039	147,723.1670	S 89° 41' 17.73" E
2035	PC	1663+78.579						601,600.2451	147,698.9381	
2036	PI	1670+13.721	6° 24' 55.02" RT	0° 30' 20.00"	11,333.231'	635.142'	1,268.957'	602,235.3779	147,695.4823	PI
2037	CC	①						601,538.5821	136,365.8747	
2038	POT	EQ. 1676+47.536 R8 = 1676+61.408 R9						602,866.1474	147,621.0823	S 83° 16' 22.71" E
2039	PC	1685+17.713						603,716.5520	147,520.7269	S 83° 16' 28.81" E

ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
T.H. 60 E.B. <XTH60EB>										
2040	PI	1701+70.691	16° 14' 35.35" LT	0° 29' 40.73"	11,583.156'	1,652.978'	3,283.784'	605,358.1556	147,327.1469	PI
2041	CC	①						605,073.0533	159,024.1787	
2042	POT	EQ. 1718+01.498 R9 = 1717+65.293 R10						606,988.3788	147,600.4741	N 80° 28' 55.84" E
2043	PC	1723+59.749						607,574.6514	147,698.7699	
2044	PI	1732+94.138	9° 25' 29.30" RT	0° 30' 19.69"	11,335.156'	934.390'	1,864.564'	608,496.1785	147,853.2753	PI
2045	CC	①						609,448.9690	136,519.6513	
2046	POT	EQ. 1742+24.312 R10 = 1742+11.763 R11						609,430.5670	147,854.7923	N 89° 54' 25.14" E
2047	POT	EQ. 1747+04.480 R11 = 1747+05.930 R12						609,923.2824	147,855.5922	
2048	POT	1773+60.908						612,578.2569	147,859.9024	N 89° 47' 21.52" E
2049	POT	1798+63.742						615,081.0741	147,869.1059	N 89° 31' 59.57" E
2050	POT	1825+00.445						617,717.6895	147,890.5868	
2051	PC	1911+49.896						626,366.8989	147,955.2724	N 89° 34' 17.42" E
2052	PI	1913+94.585	14° 35' 38.23" LT	2° 59' 54.15"	1,910.894'	244.689'	486.729'	626,611.5807	147,957.1023	PI
2053	CC	①						626,352.6081	149,866.1130	
2054	PT	1916+36.625						626,847.9070	148,020.5250	N 74° 58' 39.19" E
2055	PI	1926+41.296	54° 52' 10.14" LT	2° 57' 37.85"	1,935.333'	1,004.671'	1,853.378'	627,818.2424	148,280.9330	PI
2056	CC	①						626,346.2737	149,889.7167	
2057	PT	1934+90.003						628,163.6400	149,224.3648	N 20° 06' 29.05" E
T.H. 60 W.B. <XTH60WB>										
2100	POT	① 1181+79.688						556,228.8560	142,543.4440	
2101	POT	1191+64.726						557,213.2135	142,580.0660	N 87° 52' 09.68" E
2102	POT	1211+75.690						559,222.7870	142,654.8300	
2104	PC	1238+61.612						561,906.8390	142,755.0367	N 87° 51' 42.86" E
2105	PI	1243+25.540	3° 05' 31.57" RT	0° 20' 00.00"	17,188.734'	463.928'	927.631'	562,370.4440	142,772.3450	PI
2106	CC	①						562,548.1185	125,578.2695	
2107	PT	1247+89.243						562,834.3077	142,764.6207	S 89° 02' 45.57" E
2108	POT	1258+48.759						563,893.6768	142,746.9799	
2109	PC	1260+57.802						564,102.6953	142,743.7320	S 89° 06' 35.15" E
2110	PI	1270+22.539	45° 39' 24.79" RT	2° 30' 00.00"	2,291.831'	964.736'	1,826.275'	565,067.3150	142,728.7430	PI
2111	CC	①						564,067.0872	140,452.1775	
2112	PT	1278+84.078						565,730.8198	142,028.4022	S 43° 27' 10.36" E
2113	PC	1294+28.053						566,792.7008	140,907.5683	
2114	PI	1309+99.602	68° 52' 41.64" LT	2° 30' 00.00"	2,291.831'	1,571.549'	2,755.129'	567,873.5457	139,766.7177	PI
2115	CC	①						568,456.4333	142,483.7930	
2116	PT	1321+83.182						569,327.2339	140,363.8410	N 67° 40' 08.01" E
2117	PC	1507+25.292						586,478.7512	147,409.0724	
2118	PI	1518+67.792	22° 33' 15.01" RT	1° 00' 00.00"	5,729.578'	1,142.500'	2,255.417'	587,535.5677	147,843.1749	PI
2119	CC	①						588,655.7528	142,109.1925	
2120	POT	EQ. 1529+80.709 R1 = 1534+55.510 R2						588,678.0589	147,838.7270	S 89° 46' 36.98" E
2121	POT	1535+63.010						588,785.5581	147,838.3085	S 89° 38' 12.95" E

SPECIFIC NOTES ① ALIGNMENT POINT IS BEYOND PROJECT LIMITS AND WILL NOT BE DEPICTED ON ALIGNMENT PLAN VIEW.

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ALIGNMENT TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 70 OF 283 SHEETS

ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
T.H. 60 W.B. <XTH60WB>										
2122	PC	1556+95.713						590,918.2181	147,824.7941	S 89° 38' 12.95" E
2123	PI	1561+95.720	0° 40' 00.01" LT	0° 04' 00.00"	85,943.669'	500.007'	1,000.003'	591,418.2154	147,821.6257	PI
2124	CC	①						591,462.8185	233,766.7379	
2125	POT	EQ. 1566+95.716 R2 = 1566+94.060 R3						591,918.2156	147,824.2752	N 89° 41' 47.05" E
2126	PC	1609+99.298						596,223.3930	147,847.0876	N 89° 41' 46.97" E
2127	PI	1614+60.338	0° 36' 52.97" RT	0° 04' 00.00"	85,943.669'	461.040'	922.072'	596,684.4268	147,849.5307	PI
2128	CC	①						596,678.8188	61,904.6250	
2129	POT	EQ. 1619+21.369 R3 = 1619+23.056 R4						597,145.4603	147,847.0274	S 89° 41' 20.06" E
2130	PC	1663+78.575						601,600.9138	147,822.8356	
2131	PI	1670+20.670	6° 24' 51.25" RT	0° 30' 00.00"	11,459.156'	642.094'	1,282.847'	602,242.9987	147,819.3493	PI
2132	CC	①						601,538.6950	136,363.8486	
2133	PT	1676+61.422						602,880.6747	147,744.1537	S 83° 16' 28.81" E
2134	PC	1685+17.713						603,731.0736	147,643.8736	
2135	PI	1701+52.996	16° 14' 35.35" LT	0° 30' 00.00"	11,459.156'	1,635.282'	3,248.631'	605,355.1035	147,452.3660	PI
2136	CC	①						605,073.0533	159,024.1787	
2137	POT	EQ. 1717+66.344 R4 = 1717+65.293 R5						606,967.8749	147,722.7671	N 80° 28' 55.84" E
2138	PC	1723+59.749						607,554.1475	147,821.0629	
2139	PI	1733+04.360	9° 25' 29.30" RT	0° 30' 00.00"	11,459.156'	944.611'	1,884.961'	608,485.7556	147,977.2586	PI
2140	CC	①						609,448.9690	136,519.6513	
2141	POT	EQ. 1742+44.710 R5 = 1742+11.763 R6						609,430.3657	147,978.7921	N 89° 54' 25.14" E
2142	POT	EQ. 1747+04.680 R6 = 1747+05.930 R7						609,923.2820	147,979.5923	
2143	POT	1773+60.580						612,577.9280	147,983.9020	N 89° 47' 21.25" E
2144	POT	EQ. 1798+63.010 R7 = 1798+63.542 R8						615,080.3410	147,993.1040	N 89° 31' 59.57" E
2145	POT	1825+00.010						617,716.7220	148,014.5830	N 89° 34' 22.59" E
2146	POT	1912+59.785						626,476.2530	148,079.8738	N 89° 32' 25.51" E
2147	PI	1922+60.361	62° 42' 41.34" LT	3° 29' 21.36"	1,642.058'	1,000.576'	1,797.268'	627,476.7969	148,087.8996	PI
2148	CC	①						626,463.0819	149,721.8787	N 26° 49' 44.18" E
2149	PCC	1930+57.053						627,928.3852	148,980.7716	
2150	PI	1934+12.632	11° 54' 33.93" LT	1° 40' 50.55"	3,409.026'	355.579'	708.596'	628,088.8680	149,298.0753	PI
2151	CC	①						624,886.3138	150,519.3613	N 14° 55' 10.24" E
2152	PT	1937+65.649						628,180.4161	149,641.6672	
700TH AVE. <X700THAVE>										
2400	POT	100+00.000						562,437.8819	142,341.1211	N 0° 26' 48.92" W
2401	POT	107+23.993						562,428.7932	143,065.0575	
T.H. 4 N.B. <XTH4NB>										
2200	POT	① 1075+95.732						564,584.6110	132,078.0660	
2201	PC	EQ. 1150+57.780 R1 = 78+47.764 R2	①					566,033.7846	139,398.0421	N 11° 11' 54.02" E
2202	PI	① 81+69.960	16° 00' 17.72" LT	2° 30' 00.00"	2,291.831'	322.196'	640.197'	566,096.3570	139,714.1040	PI
2203	CC	①						563,785.5881	139,843.1292	N 4° 48' 23.70" W

ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
T.H. 4 N.B. <XTH4NB>										
2204	PT	① 84+87.961						566,069.3594	140,035.1671	
2205	PC	① 87+49.613						566,047.4349	140,295.8996	N 4° 48' 23.70" W
2206	PI	90+71.706	15° 59' 59.51" RT	2° 30' 00.00"	2,291.831'	322.093'	639.995'	566,020.4460	140,616.8600	PI
2207	CC							568,331.2063	140,487.9375	
2208	PT	93+89.608						566,082.9705	140,932.8262	N 11° 11' 35.81" E
2209	POT	103+09.910						566,261.6190	141,835.6226	
C.S.A.H. 57 <XCR57>										
2220	POT	103+09.910						566,261.6190	141,835.6226	
2221	PC	① 109+53.604						566,386.5724	142,467.0720	N 11° 11' 35.81" E
2222	PI	① 111+78.604	80° 20' 08.49" RT	21° 29' 41.76"	266.555'	225.000'	373.742'	566,430.2492	142,687.7921	PI
2223	CC							566,648.0568	142,415.3286	
2224	PT	① 113+27.346						566,655.1691	142,681.7885	S 88° 28' 15.69" E
2225	PC	① 125+47.165						567,874.5539	142,649.2407	
2226	PI	① 136+79.997	43° 09' 03.41" LT	2° 00' 00.00"	2,864.789'	1,132.832'	2,157.547'	569,006.9825	142,619.0140	PI
2227	CC	①						567,950.9936	145,513.0097	
2228	PT	① 147+04.713						569,853.8235	143,371.4556	N 48° 22' 40.90" E
2229	POT	① 166+95.978						571,342.3810	144,694.0800	
T.H. 4. N.W. RAMP <XTH4RPA>										
2240	POT	1275+41.920						565,504.0330	142,291.9090	S 58° 59' 33.92" E
2241	POT	1284+00.900						566,240.2666	141,849.4085	
T.H. 4. N.E. RAMP <XTH4RPB>										
2250	POT	1285+05.270						566,261.9977	141,835.3934	
2251	PC	1285+83.689						566,329.0814	141,794.7810	S 58° 48' 33.68" E
2252	PI	1288+10.065	43° 07' 04.94" RT	10° 00' 00.00"	572.958'	226.376'	431.180'	566,522.7346	141,677.5436	PI
2253	CC							566,032.3538	141,304.6449	
2254	PT	1290+14.870						566,583.9590	141,459.6039	S 15° 41' 28.74" E
2255	PC	1291+35.353						566,616.5444	141,343.6105	
2256	PI	1293+89.676	25° 01' 35.72" LT	5° 00' 00.00"	1,145.916'	254.322'	500.532'	566,685.3270	141,098.7660	PI
2257	CC	①						567,719.7548	141,653.5285	
2258	PT	1296+35.885						566,851.2305	140,906.0073	S 40° 43' 04.46" E
T.H. 4. S.W. RAMP <XTH4RPC>										
2260	PC	1275+40.000						565,448.1621	142,100.4201	S 48° 07' 06.40" E
2261	PI	1278+79.243	32° 58' 56.17" RT	5° 00' 00.00"	1,145.916'	339.243'	659.645'	565,700.7374	141,873.9440	PI
2262	CC	①						564,683.1570	141,247.2556	
2263	PT	1281+99.645						565,789.3185	141,546.4702	S 15° 08' 10.22" E
2264	PC	1282+51.379						565,802.8269	141,496.5310	
2265	PI	1284+80.992	43° 40' 36.73" LT	10° 00' 00.00"	572.958'	229.613'	436.769'	565,862.7820	141,274.8840	PI
2266	CC							566,355.9076	141,646.1383	
2267	PT	1286+88.148						566,059.2116	141,155.9831	S 58° 48' 46.95" E
2268	POT	1287+33.525						566,098.0310	141,132.4853	
T.H. 4. S.E. RAMP <XTH4RPD>										
2270	POT	1287+59.230						566,119.4483	141,118.6524	S 57° 31' 42.75" E
2271	POT	1297+03.130						566,915.7780	140,611.8920	

SPECIFIC NOTES ① ALIGNMENT POINT IS BEYOND PROJECT LIMITS AND WILL NOT BE DEPICTED ON ALIGNMENT PLAN VIEW.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

ALIGNMENT TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 71 OF 283 SHEETS

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ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
C.S.A.H. 27 <XCSAH27>										
2410	POT	① 200+00.000						578,215.2449	142,619.5716	N 0° 35' 47.07" E
2411	POT	① 225+00.458						578,241.2724	145,119.8946	
C.S.A.H. 27 N.W. RAMP <XCSAH27RPE>										
2280	PC	1409+00.000						577,374.2074	143,715.2454	N 60° 43' 39.31" E
2281	PI	1411+25.683	9° 00' 31.43" LT	2° 00' 00.00"	2,864.789'	225.683'	450.437'	577,571.0721	143,825.5962	PI
2282	CC	①						575,973.4330	146,214.2146	
2283	PT	1413+50.437						577,748.2292	143,965.4117	N 51° 43' 07.88" E
2284	PC	1416+26.089						577,964.6112	144,136.1844	
2285	PI	1417+38.150	17° 47' 08.00" RT	8° 00' 00.00"	716.197'	112.061'	222.319'	578,052.5769	144,205.6085	PI
2286	CC							578,408.3103	143,573.9837	
2287	PT	1418+48.409						578,157.5443	144,244.8450	N 69° 30' 15.88" E
2288	POT	1419+18.818						578,223.4964	144,269.4977	
C.S.A.H. 27 N.E. RAMP <XCSAH27RPF>										
2290	POT	1419+40.950						578,244.9809	144,274.6015	
2291	PC	1424+46.860						578,744.6949	144,353.5361	N 81° 01' 25.49" E
2292	PI	1426+85.250	9° 30' 49.27" LT	2° 00' 00.00"	2,864.789'	238.390'	475.684'	578,980.1655	144,390.7310	PI
2293	CC	①						578,297.7159	147,183.2403	
2294	PT	1429+22.544						579,206.2498	144,466.3336	N 71° 30' 36.22" E
C.S.A.H. 27 S.W. RAMP <XCSAH27RPG>										
2300	PC	1407+00.000						577,255.2359	143,478.7544	N 71° 28' 38.32" E
2301	PI	1409+36.434	9° 26' 09.47" RT	2° 00' 00.00"	2,864.789'	236.434'	471.798'	577,479.4218	143,553.8647	PI
2302	CC	①						578,165.3225	140,762.3674	
2303	PT	1411+71.798						577,712.8884	143,591.2045	N 80° 54' 47.79" E
2304	POT	1416+80.155						578,214.8652	143,671.4889	
C.S.A.H. 27 S.E. RAMP <XCSAH27RPH>										
2310	POT	1417+02.360						578,236.5432	143,675.3044	
2311	PC	1417+74.668						578,304.2751	143,700.6193	N 69° 30' 24.02" E
2312	PI	1418+86.672	17° 46' 35.88" LT	8° 00' 00.00"	716.197'	112.004'	222.208'	578,409.1906	143,739.8317	PI
2313	CC							578,053.5356	144,371.4906	
2314	PT	1419+96.876						578,497.1249	143,809.2032	N 51° 43' 48.14" E
2315	PC	1422+72.448						578,713.4767	143,979.8834	
2316	PI	1424+97.902	8° 59' 58.65" RT	2° 00' 00.00"	2,864.789'	225.454'	449.981'	578,890.4812	144,119.5225	PI
2317	CC	①						580,487.8339	141,730.7342	
2318	PT	1427+22.429						579,087.1501	144,229.7541	N 60° 43' 46.79" E
C.S.A.H. 12 <XCSAH12>										
2320	PC	300+00.000						585,045.2052	147,847.0095	S 89° 57' 48.58" E
2321	PI	302+56.029	2° 33' 35.50" LT	0° 30' 00.00"	11,459.160'	256.029'	511.973'	585,301.2341	147,846.8464	PI
2322	CC	①						585,052.5061	159,306.1672	
2323	PT	305+11.973						585,557.0147	147,858.1185	N 87° 28' 35.91" E
2324	PC	307+39.997						585,784.8180	147,868.1577	
2325	PI	310+30.507	38° 02' 50.71" RT	6° 48' 00.44"	842.570'	290.510'	559.511'	586,075.0464	147,880.9479	PI
2326	CC							585,821.9135	147,026.4047	
2327	PT	312+99.508						586,311.4844	147,712.1484	S 54° 28' 33.38" E

ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
C.S.A.H. 12 <XCSAH12>										
2328	PC	330+11.496						587,704.8229	146,717.4066	S 52° 51' 52.69" E
2329	PI	① 333+22.442	3° 06' 31.32" LT	0° 30' 00.00"	11,459.160'	310.946'	621.740'	587,952.7129	146,529.6883	PI
2330	CC	①						594,622.7194	155,852.7805	
2331	PT	① 336+33.236						588,210.4181	146,355.6894	S 55° 58' 24.01" E
2332	PC	① 337+30.807						588,291.5142	146,301.4356	S 56° 27' 40.29" E
2333	PI	① 339+97.543	28° 38' 36.49" RT	5° 29' 02.21"	1,044.791'	266.736'	522.315'	588,513.8418	146,154.0635	PI
2334	CC	①						587,714.2653	145,430.5899	
2335	PT	① 342+53.122						588,638.3169	145,918.1524	S 27° 49' 03.80" E
C.S.A.H. 12 N.W. RAMP <XCSAH12RPI>										
2340	PC	1419+29.280						585,634.0550	147,108.1070	N 60° 42' 56.93" E
2341	PI	1420+59.001	5° 11' 07.02" LT	2° 00' 00.00"	2,864.789'	129.721'	259.264'	585,747.1979	147,171.5588	PI
2342	CC	①						584,232.7672	149,606.7883	
2343	PT	1421+88.544						585,854.1432	147,244.9764	N 55° 31' 49.91" E
2344	POT	1428+51.777						586,400.9308	147,620.3443	
C.S.A.H. 12 N.E. RAMP <XCSAH12RPJ>										
2350	POT	1507+77.330						586,421.9430	147,634.6175	
2351	PC	1508+32.307						586,467.2742	147,665.7235	N 55° 32' 32.39" E
2352	PI	1510+11.753	38° 01' 07.97" RT	11° 00' 00.00"	520.871'	179.446'	345.626'	586,615.2355	147,767.2536	PI
2353	CC							586,761.9814	147,236.2424	
2354	PT	1511+77.933						586,794.3352	147,756.1074	S 86° 26' 19.64" E
2355	PC	1513+97.434						587,013.4118	147,742.4731	
2356	PI	1516+17.994	9° 54' 01.80" LT	2° 15' 00.00"	2,546.479'	220.560'	440.022'	587,233.5461	147,728.7731	PI
2357	CC	①						587,171.5860	150,284.0350	
2358	PT	1518+37.456						587,452.7577	147,753.1264	N 83° 39' 38.56" E
C.S.A.H. 12 S.W. RAMP <XCSAH12RPK>										
2360	PC	1500+00.000						585,857.7127	147,012.4590	N 71° 27' 33.13" E
2361	PI	1502+65.800	21° 04' 20.35" RT	4° 00' 33.25"	1,429.094'	265.800'	525.594'	586,109.7170	147,096.9780	PI
2362	CC	①						586,312.1359	145,657.5381	
2363	PT	1505+25.594						586,375.2576	147,085.2379	S 87° 28' 06.52" E
2364	PC	1507+91.015						586,640.4266	147,073.6763	S 87° 29' 09.39" E
2365	PI	1509+65.125	36° 59' 28.55" LT	11° 00' 28.83"	520.492'	174.110'	336.040'	586,814.3690	147,066.0390	PI
2366	CC							586,663.2577	147,593.6671	
2367	PT	1511+27.055						586,957.8968	147,164.5989	N 55° 31' 22.06" E
2368	POT	1511+77.455						586,999.4446	147,193.1295	
C.S.A.H. 12 S.E. RAMP <XCSAH12RPL>										
2370	POT	1512+02.450						587,020.0310	147,207.3140	
2371	PC	1512+93.320						587,094.9520	147,258.7356	N 55° 32' 11.18" E
2372	PI	1517+64.726	20° 58' 32.97" RT	2° 15' 00.00"		471.406'	932.259'	587,483.6200	147,525.4960	PI
2373	CC	①						588,535.9587	145,159.1987	
2374	PT	1522+25.579						587,942.0249	147,635.4455	N 76° 30' 44.14" E

SPECIFIC NOTES ① ALIGNMENT POINT IS BEYOND PROJECT LIMITS AND WILL NOT BE DEPICTED ON ALIGNMENT PLAN VIEW.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

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ALIGNMENT TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 72 OF 283 SHEETS

ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
TWP 35 <XT35>										
2430	POT	400+00.000						596,690.0944	147,348.2935	N 0° 38' 52.00" W
2431	POT	408+75.057						596,680.2013	148,223.2942	
CO. RD. 103 <XCR103>										
2440	POT	500+00.000 (1)						601,991.3533	147,313.7487	N 0° 06' 34.61" W
2441	POT	508+75.753						601,989.6779	148,189.5002	
REST AREA WEST DRIVEWAY <XRESTWEST>										
2600	POT	425+00.000						604,212.6798	147,473.0204	N 11° 25' 28.45" E
2601	PC	427+15.449						604,228.7588	147,687.8691	
2602	PI	429+58.715	101° 36' 53.34" RT	28° 53' 10.42"	198.350'	243.265'	351.776'	604,276.9442	147,926.3142	PI
2603	CC							604,423.1785	147,648.5804	S 66° 57' 38.21" E
2604	PT	430+67.225						604,500.8055	147,831.1091	
REST AREA EAST DRIVEWAY <XRESTEAST>										
2650	POT	450+00.000						605,884.0302	147,765.2605	N 77° 39' 47.07" E
2651	PC	452+73.379						606,152.9677	147,814.3373	
2652	PI	454+23.726	90° 40' 37.67" RT	38° 33' 43.50"	148.581'	150.347'	235.146'	606,299.8430	147,846.4604	PI
2653	CC							606,184.7135	147,669.1877	
2654	PT	455+08.525						606,330.2281	147,699.2158	S 11° 39' 35.26" E
2655	POT	456+97.152						606,351.0431	147,511.7401	
CO. RD. 118 <XCR118>										
2450	POT	600+00.000						607,276.0204	147,194.6976	N 0° 15' 38.08" W
2451	POT	614+32.755						607,269.5738	148,627.4386	
C.S.A.H. 16 <XCSAH16>										
2460	POT	700+00.000						612,579.2908	147,459.9038	N 0° 08' 56.43" W
2461	POT	709+24.000						612,576.8877	148,383.9006	
CO. RD. 109 <XCR109>										
2470	POT	800+00.000						617,720.0293	147,590.5959	N 0° 26' 48.92" W
2471	POT	807+24.000						617,714.3819	148,314.5739	
CO. RD. 117 <XCR117>										
2870	POT	900+00.000						622,997.0749	147,629.9293	N 0° 23' 07.53" W
2871	POT	907+24.000						622,992.2046	148,353.9132	
T.H. 15 S.B. <X15SBLH2>										
2380	POT	(1) 1811+77.328						628,298.7020	145,333.3410	N 0° 33' 16.10" W
2381	PC	(1) 1825+94.367						628,284.9890	146,750.3138	
2382	PI	(1) 1829+71.100	14° 59' 00.00" LT	2° 00' 00.00"	2,864.789'	376.733'	749.167'	628,281.3433	147,127.0289	PI
2383	CC	(1)						625,420.3342	146,722.5906	
2384	PT	1833+43.534						628,180.4263	147,489.9936	N 15° 32' 16.10" W
2385	POT	1838+86.771						628,034.9070	148,013.3780	

ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
T.H. 15 N.B. <XTH15NB>										
2500	POT	(1) 1813+00.792						628,421.4884	145,459.3451	N 0° 33' 16.10" W
2501	PC	(1) 1827+63.575						628,407.3327	146,922.0591	
2502	PI	(1) 1831+11.030	17° 14' 29.27" LT	2° 30' 00.00"	2,291.831'	347.455'	689.659'	628,403.9703	147,269.4980	PI
2503	CC	(1)						626,115.6089	146,899.8805	
2504	PT	1834+53.233						628,297.7784	147,600.3278	N 17° 47' 45.37" W
2505	PC	1840+07.428						628,128.4012	148,128.0044	
2506	PI	1844+63.679	35° 20' 08.84" RT	4° 00' 00.00"	1,432.394'	456.251'	883.395'	627,988.9582	148,562.4244	PI
2507	CC	(1)						629,492.2572	148,565.7840	
2508	PT	1848+90.822						628,126.4582	148,997.4634	N 17° 32' 23.47" E
2509	POT	1850+25.375						628,167.0082	149,125.7604	
T.H. 15 S.E. RAMP <XTH15RP_E_S>										
2510	POT	1919+98.322						627,205.2049	148,109.6934	N 73° 25' 45.87" E
2511	PC	1921+66.623						627,366.5165	148,157.6923	
2512	PI	1926+81.770	83° 55' 02.98" RT	10° 00' 00.00"	572.958'	515.147'	839.175'	627,860.2690	148,304.6104	PI
2513	CC							627,529.9220	147,608.5300	
2514	PCC	1930+05.798						628,058.6782	147,829.2051	S 22° 39' 11.16" E
2515	PI	1931+85.893	7° 11' 21.45" RT	1° 59' 54.95"	2,866.801'	180.095'	359.717'	628,128.0419	147,663.0038	PI
2516	CC	(1)						625,413.0400	146,725.0544	
2517	PT	1933+65.515						628,176.0605	147,489.4285	S 15° 27' 49.70" E
T.H. 15 N.E. RAMP <XTH15RP_N_W>										
2520	PC	1839+23.436						628,113.2170	148,041.5110	N 21° 38' 53.57" W
2521	PI	1841+22.270	23° 31' 23.46" LT	5° 59' 59.21"	954.965'	198.834'	392.067'	628,039.8656	148,226.3210	PI
2522	CC							627,225.6095	147,689.2180	
2523	PT	1843+15.503						627,898.8484	148,366.4970	N 45° 10' 17.03" W
2524	PC	1849+30.368						627,462.7748	148,799.9694	
2525	PI	1851+30.368	90° 00' 00.00" RT	28° 38' 52.40"	200.000'	200.000'	314.159'	627,320.9311	148,940.9670	PI
2526	CC							627,603.7725	148,941.8131	
2527	PCC	1852+44.527						627,461.9287	149,082.8108	N 44° 49' 42.97" E
2528	PI	1854+44.527	90° 00' 00.00" RT	28° 38' 52.40"	200.000'	200.000'	314.159'	627,602.9264	149,224.6546	PI
2529	CC							627,603.7725	148,941.8131	
2530	PCC	1855+58.686						627,744.7702	149,083.6569	S 45° 10' 17.03" E
2531	PI	1856+92.554	67° 35' 25.00" RT	28° 38' 52.40"	200.000'	133.864'	235.935'	627,839.7062	148,989.2872	
2532	CC							627,603.7698	148,941.8158	PI
2533	PCC	1857+94.624						627,788.6539	148,865.5408	
2534	PI	1858+64.876	8° 11' 02.55" RT	6° 00' 00.00"	954.930'	68.317'	136.401'	627,761.8619	148,800.5991	S 22° 25' 07.97" W
2535	CC	(1)						626,905.1596	149,227.9386	PI
2536	PT	1859+32.960						627,727.0829	148,741.7980	
2537	POT	1859+34.902						627,726.0940	148,740.1260	S 30° 36' 10.52" W

SPECIFIC NOTES (1) ALIGNMENT POINT IS BEYOND PROJECT LIMITS AND WILL NOT BE DEPICTED ON ALIGNMENT PLAN VIEW.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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ALIGNMENT TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 73 OF 283 SHEETS

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ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
T.H. 60 WEST CROSS OVER E.B. <PTH60EBW>										
1800	PC	10+00.000						559,199.8726	142,550.9890	N 89° 12' 29.81" E
1801	PI	11+65.052	17° 17' 00.81" LT	5° 16' 33.08"	1,086.000'	165.052'	327.597'	559,364.9090	142,553.2696	PI
1802	CC	①						559,184.8666	143,636.8853	
1803	PT	13+27.597						559,521.8157	142,604.4797	N 71° 55' 29.00" E
1804	PC	13+77.597						559,569.3482	142,619.9931	
1805	PI	15+29.618	15° 56' 13.86" RT	5° 16' 33.08"	1,086.000'	152.020'	302.078'	559,713.8663	142,667.1598	PI
1806	CC	①						559,906.2974	141,587.5875	
1807	PT	16+79.675						559,865.7808	142,672.8314	N 87° 51' 42.86" E
T.H. 60 WEST CROSS OVER W.B. <PTH60WBW>										
1810	PC	20+00.000						559,193.4173	142,647.7293	N 87° 51' 42.86" E
1811	PI	21+63.501	17° 07' 24.76" RT	5° 16' 33.08"	1,086.000'	163.501'	324.564'	559,356.8045	142,653.8292	PI
1812	CC	①						559,233.9340	141,562.4854	
1813	PT	23+24.564						559,514.7450	142,611.5522	S 75° 00' 52.38" E
1814	PC	23+74.564						559,563.0446	142,598.6235	
1815	PI	25+30.633	16° 21' 21.41" LT	5° 16' 33.08"	1,086.000'	156.069'	310.015'	559,713.8058	142,558.2682	PI
1816	CC	①						559,843.8557	143,647.6903	
1817	PT	26+84.580						559,869.8300	142,562.0010	N 88° 37' 46.20" E
T.H. 60 EAST CROSS OVER E.B. <PTH60EBE>										
1820	PC	30+00.000						625,748.1287	148,068.4465	N 89° 34' 22.59" E
1821	PI	31+62.091	16° 58' 40.89" RT	5° 16' 33.08"	1,086.000'	162.091'	321.806'	625,910.2151	148,069.6546	PI
1822	CC	①						625,756.2232	146,982.4766	
1823	PT	33+21.806						626,065.5900	148,023.4801	S 73° 26' 56.51" E
1824	PC	33+71.806						626,113.5183	148,009.2367	
1825	PI	35+77.736	21° 28' 26.81" LT	5° 16' 33.08"	1,086.000'	205.929'	407.026'	626,310.9154	147,950.5739	PI
1826	CC	①						626,422.8852	149,050.2401	
1827	PT	37+78.832						626,516.0850	147,968.2467	N 85° 04' 36.67" E
T.H. 60 EAST CROSS OVER W.B. <PTH60WBE>										
1830	PC	40+00.000						625,748.9620	147,956.6511	N 89° 34' 17.42" E
1831	PI	41+73.567	18° 09' 38.58" LT	5° 16' 33.08"	1,086.000'	173.567'	344.223'	625,922.5243	147,957.9492	PI
1832	CC	①						625,740.8402	149,042.6208	
1833	PT	43+44.223						626,087.0362	148,013.2791	N 71° 24' 38.84" E
1834	PC	43+94.223						626,134.4276	148,029.2181	
1835	PI	45+67.804	18° 09' 43.75" RT	5° 16' 33.08"	1,086.000'	173.581'	344.250'	626,298.9528	148,084.5525	PI
1836	CC	①						626,480.6236	146,999.8764	
1837	PT	47+38.474						626,472.5291	148,085.8462	N 89° 34' 22.59" E
T.H. 60 E.B. TEMP. EXIT RAMP <P60EBEX>										
1840	PC	50+00.000						576,594.3354	143,342.4205	N 67° 40' 08.01" E
1841	PI	51+76.296	18° 26' 28.79" RT	5° 16' 33.08"	1,086.000'	176.296'	349.542'	576,757.4094	143,409.4056	PI
1842	CC	①						577,006.9703	142,337.8667	
1843	PT	53+49.542						576,933.2989	143,421.3650	N 86° 06' 36.80" E
1844	PC	53+99.542						576,983.1838	143,424.7568	
1845	PI	55+39.085	14° 38' 38.28" LT	5° 16' 33.08"	1,086.000'	139.543'	277.566'	577,122.4056	143,434.2231	PI
1846	CC	①						576,909.5125	144,508.2551	
1847	PT	56+77.108						577,254.7118	143,478.5788	N 71° 27' 58.52" E

ALIGNMENT TABULATION

POINT NUMBER	POINT	STATION	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	X	Y	
T.H. 60 W.B. TEMP. ENTRANCE RAMP <P60WBEN>										
1850	POT	60+00.000						576,061.6869	143,039.2365	N 65° 42' 15.84" E
1851	POT	63+50.205						576,380.8756	143,183.3262	
1852	PC	68+00.776						576,797.6537	143,354.5308	N 67° 40' 05.03" E
1853	PI	69+63.621	17° 03' 20.90" LT	5° 16' 33.08"	1,086.000'	162.845'	323.280'	576,948.2845	143,416.4072	PI
1854	CC	①						576,385.0043	144,359.0787	
1855	PT	71+24.057						577,074.1420	143,519.7426	N 50° 36' 44.13" E
1856	PC	71+74.057						577,112.7855	143,551.4709	
1857	PI	72+79.514	11° 05' 33.98" RT	5° 16' 33.08"	1,086.000'	105.457'	210.255'	577,194.2903	143,618.3904	PI
1858	CC	①						577,801.9233	142,712.1347	
1859	PT	73+84.312						577,287.1475	143,668.3784	N 61° 42' 18.12" E
T.H. 60 W.B. TEMP. EXIT RAMP <P60WBEX>										
1860	PC	70+00.000						579,206.2508	144,466.3339	N 71° 43' 42.19" E
1861	PI	71+37.453	14° 25' 36.96" RT	5° 16' 33.08"	1,086.000'	137.453'	273.452'	579,336.7736	144,509.4285	PI
1862	CC	①						579,546.7358	143,435.0890	
1863	PT	72+73.452						579,473.9173	144,518.6450	N 86° 09' 19.15" E
1864	PC	73+23.452						579,523.8048	144,521.9976	
1865	PI	75+00.194	18° 29' 14.12" LT	5° 16' 33.08"	1,086.000'	176.742'	350.413'	579,700.1494	144,533.8485	PI
1866	CC	①						579,450.9863	145,605.5535	
1867	PT	76+73.865						579,863.6357	144,601.0056	N 67° 40' 05.03" E
T.H. 60 E.B. TEMP. ENTRANCE RAMP <P60EBEN>										
1870	PC	80+00.000						579,175.5198	144,277.2646	N 61° 44' 09.88" E
1871	PI	81+05.454	11° 05' 32.74" LT	5° 16' 33.08"	1,086.000'	105.454'	210.249'	579,268.4011	144,327.2006	PI
1872	CC	①						578,661.2622	145,233.7870	
1873	PT	82+10.249						579,349.9400	144,394.0734	N 50° 38' 37.14" E
1874	PC	82+60.249						579,388.6008	144,425.7805	
1875	PI	84+22.800	17° 01' 31.74" RT	5° 16' 33.08"	1,086.000'	162.551'	322.706'	579,514.2878	144,528.8606	PI
1876	CC	①						580,077.2786	143,586.0669	
1877	PT	85+82.955						579,664.6480	144,590.6225	N 67° 40' 08.89" E
1878	POT	90+32.829						580,080.7838	144,761.5542	
1878	POT	93+83.090						580,400.0267	144,905.6628	
1879	POT	93+83.090						580,400.0267	144,905.6628	N 65° 42' 18.84" E

SPECIFIC NOTES ① ALIGNMENT POINT IS BEYOND PROJECT LIMITS AND WILL NOT BE DEPICTED ON ALIGNMENT PLAN VIEW.

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NO	DATE	DWN	CKD	REVISIONS

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ALIGNMENT TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 74 OF 283 SHEETS

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) SEE SHEET XX FOR WEST CROSSOVER DETAILS.

(2) SEE DRAINAGE DETAILS FOR CULVERT INFORMATION.

N

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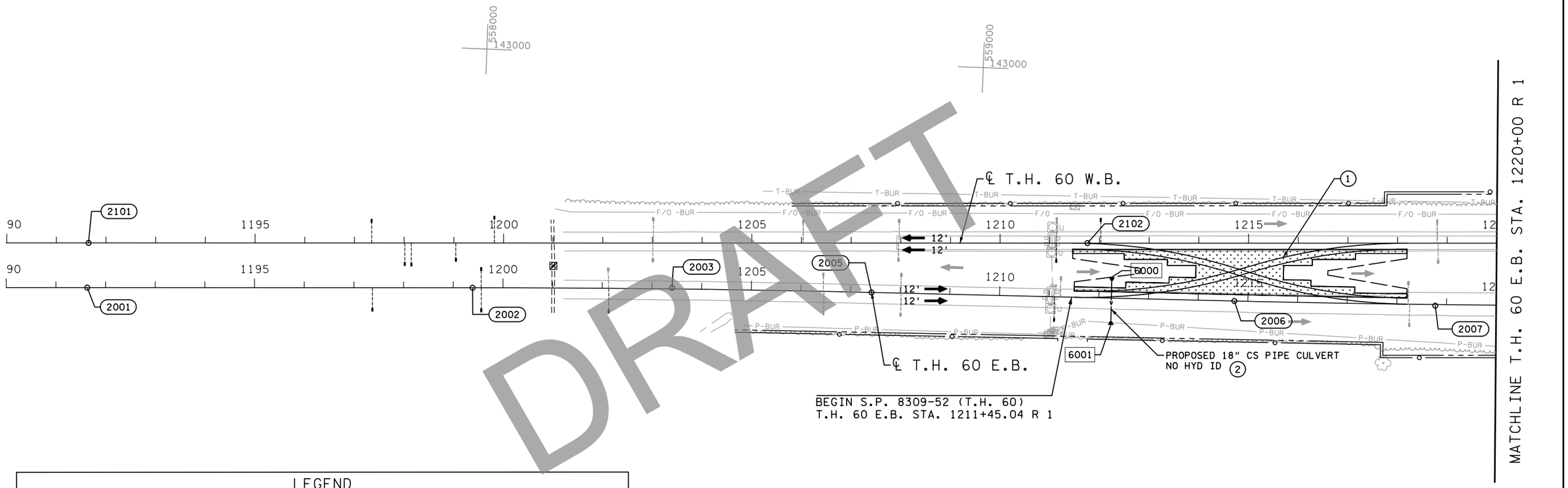
SCALE IN FEET



LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G	GAS LINE

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 75 OF 283 SHEETS

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

1. SEE DETAIL A IN CONSTRUCTION PLAN DETAILS.
2. SEE DETAIL G IN CONSTRUCTION PLAN DETAILS.
3. SEE DETAIL H IN CONSTRUCTION PLAN DETAILS.
4. SEE BITUMINOUS MEDIAN CROSSING DETAILS IN CONSTRUCTION PLAN DETAILS.
5. SEE DRAINAGE DETAILS FOR CULVERT INFORMATION.

LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G	GAS LINE

N

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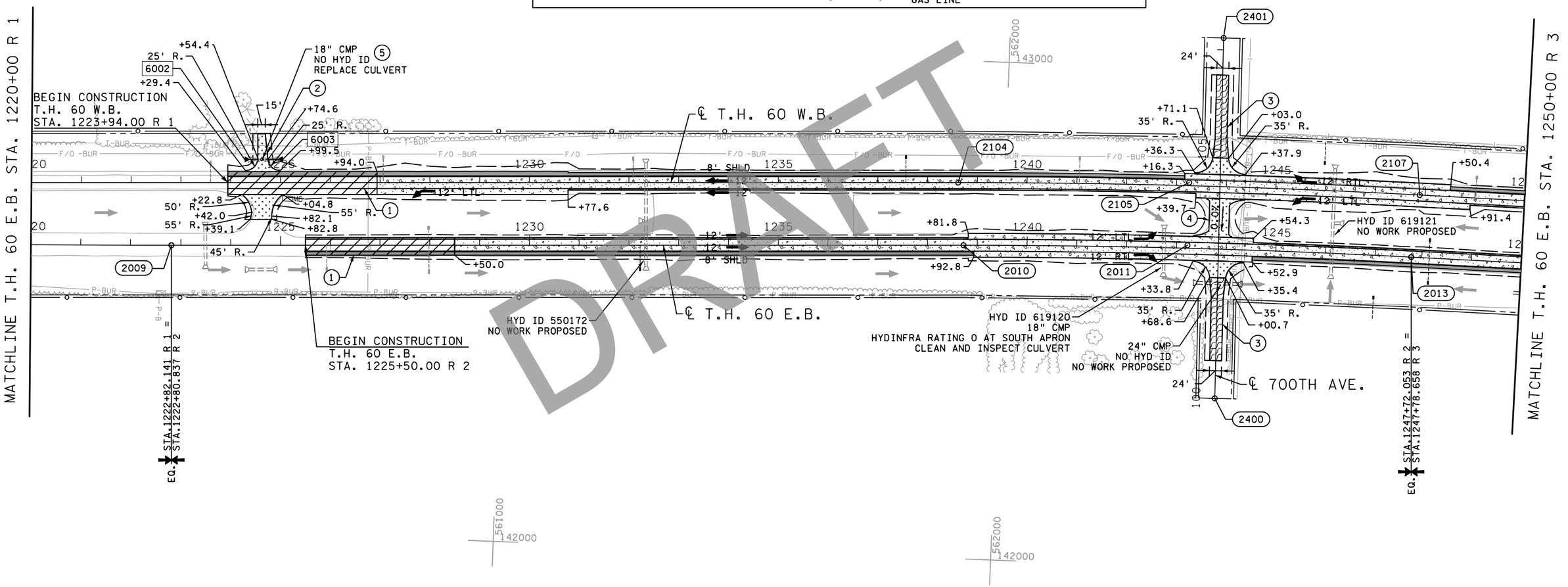
SCALE IN FEET



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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 76 OF 283 SHEETS

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) SEE DETAIL H IN CONSTRUCTION PLAN DETAILS.

(2) SEE BITUMINOUS MEDIAN CROSSING DETAILS IN CONSTRUCTION PLAN DETAILS.

(3) BEGIN 10' SHOULDER

(4) END ' SHOULDER

(5) SEE DRAINGE DETAILS FOR CUVLERT INFORMATION.

LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O-BUR	FIBER OPTIC - BURIED
		G	GAS LINE

N

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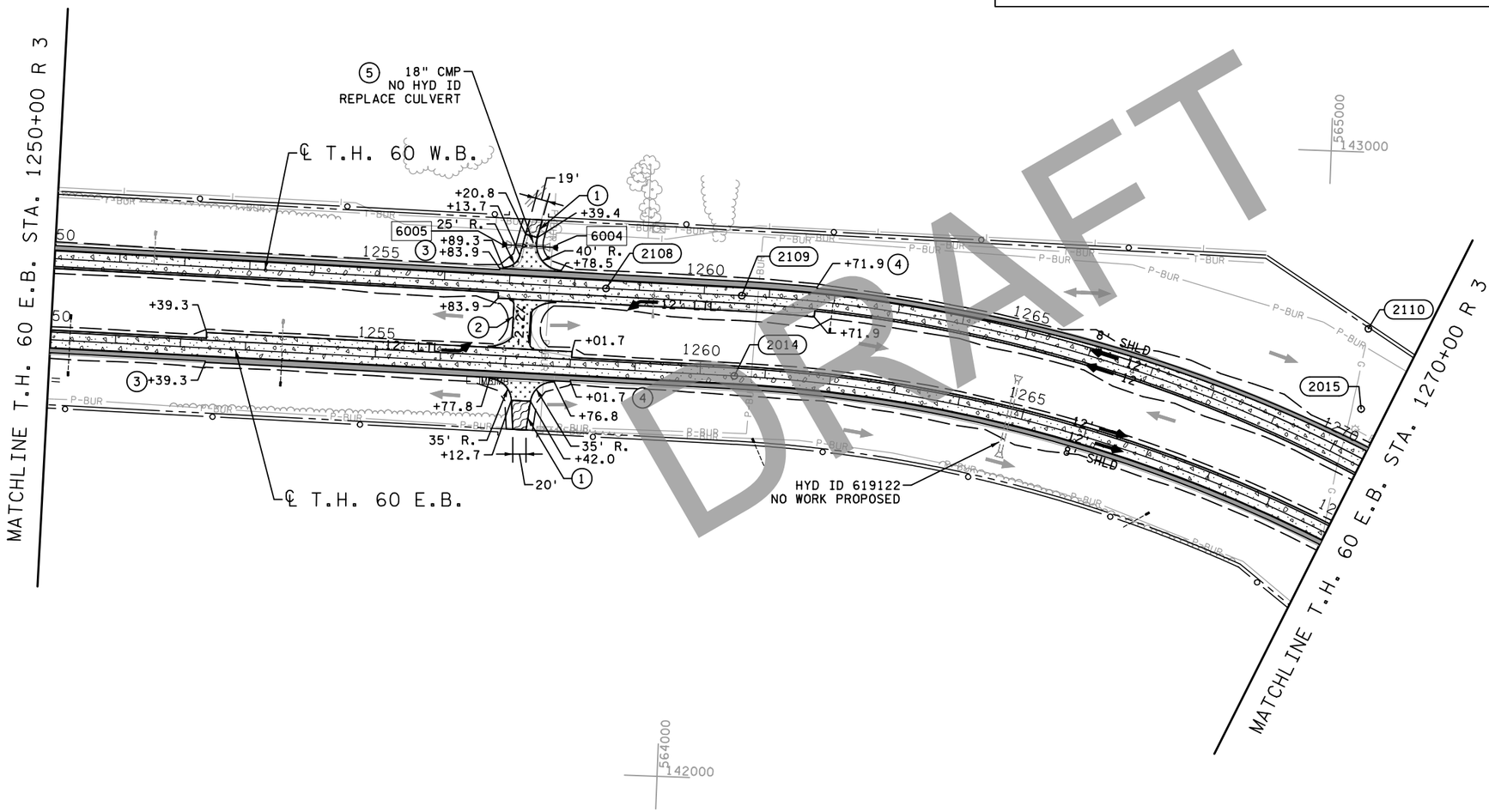
SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 77 OF 283 SHEETS

LEGEND

XXXX — ALIGNMENT POINT	PLATE BEAM GUARDRAIL
X — TRAFFIC BARRIER SITE LABEL	DELINEATED WETLAND OR WET DITCH BOUNDARY
TRAFFIC DIRECTION	DRAINAGE FLOW
CONCRETE OVERLAY	EXISTING/PROPOSED DRAINAGE STRUCTURE
BITUMINOUS SHOULDER	EXISTING/PROPOSED APRON
FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)	INPLACE/PROPOSED CULVERTS/STORM SEWER
FULL DEPTH RECONSTRUCTION	INPLACE DRIAN TILE
BITUMINOUS PAVEMENT	RIPRAP
AGGREGATE SURFACING	XXXX — DRAINAGE STRUCTURE NUMBER
INPLACE RIGHT OF WAY	POWER - BURIED
ACCESS CONTROL	TELEPHONE - BURIED
CONSTRUCTION LIMITS	FIBER OPTIC - BURIED
	GAS LINE

SPECIFIC NOTES:

1. END TREATMENT - TANGENT TERMINAL. GRADING AT END TERMINAL AS SHOWN IN STD. PLAN 5-297.601 SHALL BE INCIDENTAL.
2. ANCHORAGE ASSEMBLY - TYPE 31.
3. SEE STD. PLAN 5-297.611. REMOVE EXISTING BULLNOSE (PAID FOR AS REMOVE GUARDRAIL - PLATE BEAM) AND REPLACE WITH TRAFFIC BARRIER DESIGN BULLNOSE. GRADING AT BULLNOSE AS SHOWN IN STD. PLAN 5-297.601 SHALL BE INCIDENTAL.
4. SEE DETAIL E IN CONSTRUCTION PLAN DETAILS.
5. SEE DETAIL F IN CONSTRUCTION PLAN DETAILS.
6. SEE DETAIL B1 & B2 IN CONSTRUCTION PLAN DETAILS.
7. AREA OF ENVIRONMENTAL SENSITIVITY.
8. SEE CONSTRUCTION PLAN DETAILS SHEETS XX FOR ADA INTERSECTION DETAILS.
9. PROPOSED 18" RCP CULVERT TO BE INSTALLED BEYOND BULLNOSE GRADING. SEE DRAINAGE DETAILS FOR CULVERT INFORMATION.
10. STATION BASED OFF T.H. 4 ALIGNMENT.

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SCALE IN FEET

℄ C.S.A.H. 57

℄ T.H. 4 N.W. RAMP

℄ T.H. 4 N.E. RAMP

℄ T.H. 60 W.B.

℄ T.H. 60 E.B.

℄ T.H. 4 S.W. RAMP

℄ T.H. 4 S.E. RAMP

℄ T.H. 4 N.B.

MATCHLINE T.H. 60 E.B. STA. 1271+00 R 3

MATCHLINE T.H. 60 E.B. STA. 1301+00 R 4

EQ. STA.1278+79.645 R 3 = STA.1279+69.622 R 4

HYD ID 619123 18" RCP CULVERT TO BE REMOVED

HYD ID 619124 NO WORK PROPOSED

HYD ID 550277 NO WORK PROPOSED

HYD ID 845293 NO WORK PROPOSED

ADJUST LIGHT (BY OTHERS)

PUBLIC UTILITIES - POWER

STATION	OFFSET (FT)	DESCRIPTION	ACTION: ADJUST	ACTION: RELOCATE	ACTION: REMOVE	OWNER	REMARKS
T.H. 60 E.B.							
1271+77	48' R	LIGHT POLE	X			MNDOT	RAISE, BY OTHERS

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

DRAFT

NO	DATE	DWN	CKD	REVISIONS

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 78 OF 283 SHEETS

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GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) AREA OF ENVIRONMENTAL SENSITIVITY.

N

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SCALE IN FEET

MATCHLINE T.H. 60 E.B. STA. 1301+00 R 4

MATCHLINE T.H. 60 E.B. STA. 1331+00 R 5

HYD ID 619125
NO WORK PROPOSED

HYD ID 550288
NO WORK PROPOSED

HYD ID 550284
NO WORK PROPOSED

℄ T.H. 60 W.B.

℄ T.H. 60 E.B.

2207

2114

2019

2116

2021

1

+13.0

8' SHLD

12

1305

1310

1315

1320

1325

1330

569000
141000

569000
139500

570000
140000

EQ. STA.1322+91.552 R 4 =
STA.1321+83.195 R 5

DRAFT

LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G	GAS LINE

NO	DATE	DWN	CKD	REVISIONS

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PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 79 OF 283 SHEETS

9:14:21 PM
11/10/2017
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GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) END TREATMENT - TANGENT TERMINAL. GRADING AT END TERMIANL AS SHOWN IN STD. PLAN 5-297.601 SHALL BE INCIDENTAL.

(2) SEE CONSTRUCTION PLANS DETAILS FOR TYPICAL GRAVEL MEDIAN CROSSING DETAILS.

(3) SEE DETAIL B1 & B2 IN CONSTRUCTION PLAN DETAILS.

(4) AREA OF ENVIRONMENTAL SENSITIVITY.

571000 5142000

572000 5142000

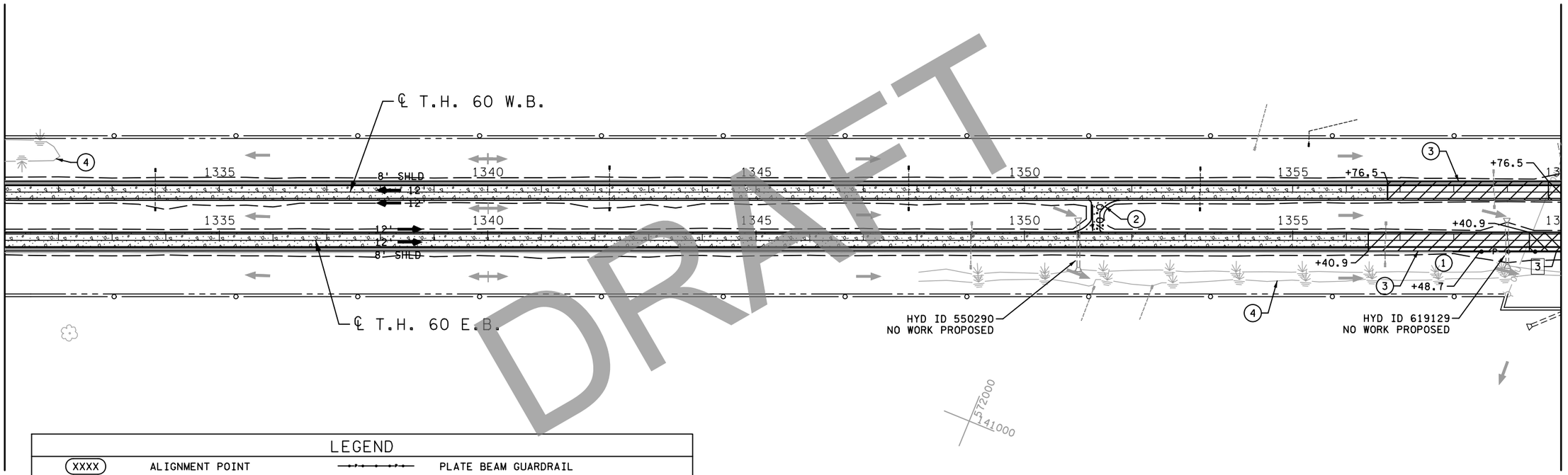
572000 5141000

573000 5141000

N

200

SCALE IN FEET



LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR T-BU	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G G	GAS LINE

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 80 OF 283 SHEETS

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11/10/2017
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GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

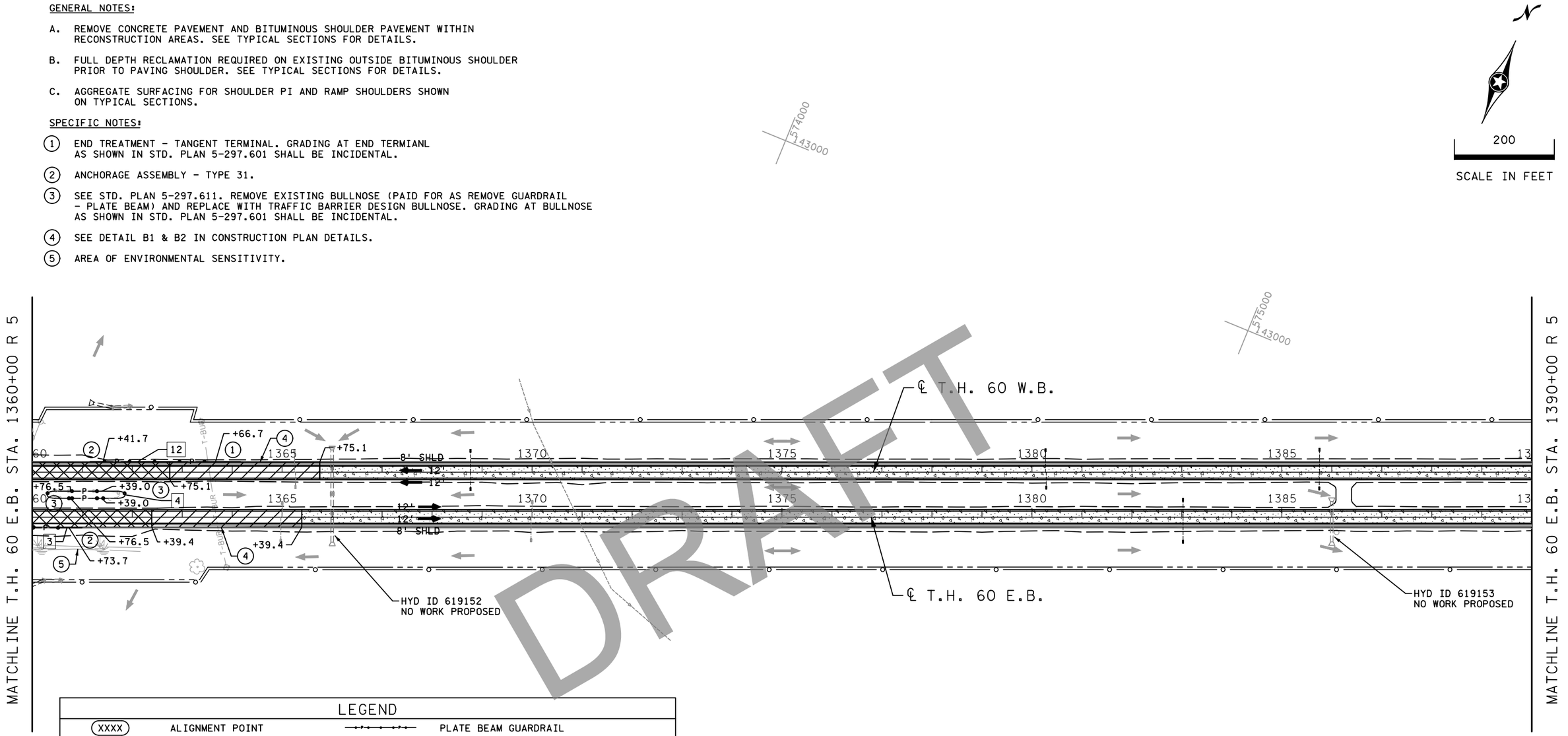
(1) END TREATMENT - TANGENT TERMINAL. GRADING AT END TERMIANL AS SHOWN IN STD. PLAN 5-297.601 SHALL BE INCIDENTAL.

(2) ANCHORAGE ASSEMBLY - TYPE 31.

(3) SEE STD. PLAN 5-297.611. REMOVE EXISTING BULLNOSE (PAID FOR AS REMOVE GUARDRAIL - PLATE BEAM) AND REPLACE WITH TRAFFIC BARRIER DESIGN BULLNOSE. GRADING AT BULLNOSE AS SHOWN IN STD. PLAN 5-297.601 SHALL BE INCIDENTAL.

(4) SEE DETAIL B1 & B2 IN CONSTRUCTION PLAN DETAILS.

(5) AREA OF ENVIRONMENTAL SENSITIVITY.



LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O-BUR	FIBER OPTIC - BURIED
		G G	GAS LINE

NO	DATE	DWN	CKD	REVISIONS

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 81 OF 283 SHEETS

9:14:43 PM
11/10/2017
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GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) END TREATMENT - TANGENT TERMINAL. GRADING AT END TERMIANL AS SHOWN IN STD. PLAN 5-297.601 SHALL BE INCIDENTAL.

(2) ANCHORAGE ASSEMBLY - TYPE 31.

(3) SEE STD. PLAN 5-297.611. REMOVE EXISTING BULLNOSE (PAID FOR AS REMOVE GUARDRAIL - PLATE BEAM) AND REPLACE WITH TRAFFIC BARRIER DESIGN BULLNOSE. GRADING AT BULLNOSE AS SHOWN IN STD. PLAN 5-297.601 SHALL BE INCIDENTAL.

(4) SEE DETAIL E IN CONSTRUCTION PLAN DETAILS.

(5) SEE DETAIL F IN CONSTRUCTION PLAN DETAILS.

(6) SEE DETAIL B1 & B2 IN CONSTRUCTION PLAN DETAILS.

(7) SEE MISCELLANEOUS DETAIL XX FOR DRAINAGE, GUARDRAIL, AND APPROACH PAVEMENT ON T.H. 4/30 AND CO. RD. 27.

(8) AREA OF ENVIRONMENTAL SENSITIVITY.

(9) PROPOSED 18" RCP CULVERT INSTALLED BEYOND BULLNOSE GRADING. SEE DRAINAGE DETAILS FOR CULVERT INFORMATION.

PUBLIC UTILITIES - POWER							
			ACTION				
STATION	OFFSET (FT)	DESCRIPTION	ADJUST	RELOCATE	REMOVE	OWNER	REMARKS
T.H. 60 E.B.							
1407+16	26' R	GATE ARM	X			MNDOT	RAISE, BY OTHERS

577000
144250

N

200

SCALE IN FEET

℄ C.S.A.H. 27 N.W. RAMP

℄ T.H. 60 W.B.

℄ T.H. 60 E.B.

℄ C.S.A.H. 27 S.W. RAMP

℄ C.S.A.H. 27 S.E. RAMP

℄ C.S.A.H. 27

MATCHLINE T.H. 60 E.B. STA. 1390+00 R 5

MATCHLINE T.H. 60 E.B. STA. 1419+00 R 5

MATCHLINE C.S.A.H. 27 S.W. RAMP STA. 1419+00

HYD ID 619155
NO WORK PROPOSED

HYD ID 619154
NO WORK PROPOSED

HYD ID 619156
18" RCP CULVERT
TO BE REMOVED

ADJUST GATE
(BY OTHERS)

INPLACE
BR. NO.
83026

SITE
NO. 13

8' SHLD

12'

1:50

1:15

100.1'

90.1'

99.8'

577000
143000

576000
143000

205

DRAFT

LEGEND

XXXX	ALIGNMENT POINT	P-BUR	PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR-	FIBER OPTIC - BURIED
		G	GAS LINE

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DATE _____ LICENSE #

CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 82 OF 283 SHEETS

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) END TREATMENT - TANGENT TERMINAL. GRADING AT END TERMIANL AS SHOWN IN STD. PLAN 5-297.601 SHALL BE INCIDENTAL.

(2) SEE DETAIL E IN CONSTRUCTION PLAN DETAILS.

(3) SEE DETAIL F IN CONSTRUCTION PLAN DETAILS.

(4) SEE DETAIL B1 & B2 IN CONSTRUCTION PLAN DETAILS.

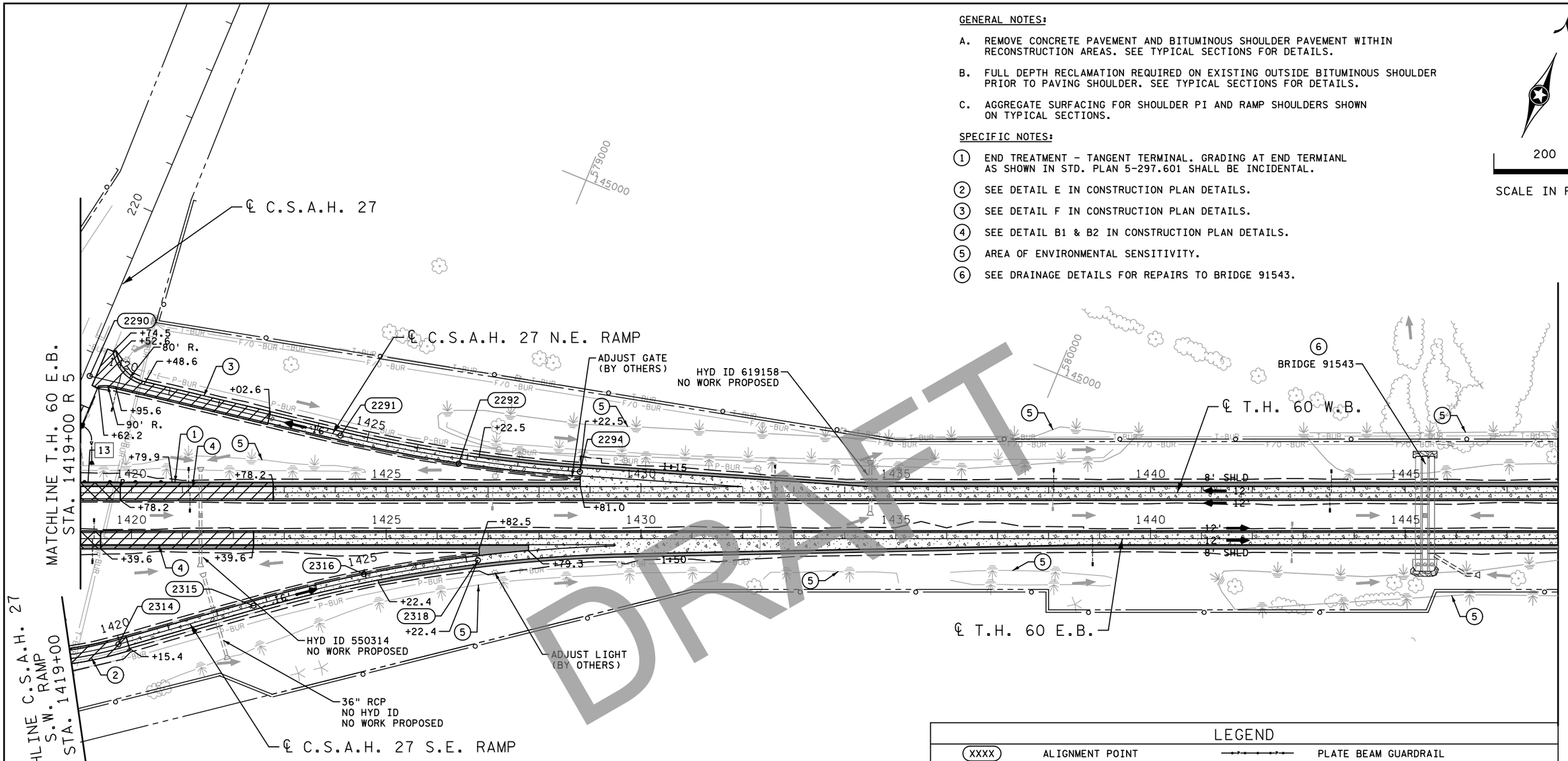
(5) AREA OF ENVIRONMENTAL SENSITIVITY.

(6) SEE DRAINAGE DETAILS FOR REPAIRS TO BRIDGE 91543.

N

200

SCALE IN FEET



LEGEND

XXXX	ALIGNMENT POINT
X	TRAFFIC BARRIER SITE LABEL
	TRAFFIC DIRECTION
	CONCRETE OVERLAY
	BITUMINOUS SHOULDER
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)
	FULL DEPTH RECONSTRUCTION
	BITUMINOUS PAVEMENT
	AGGREGATE SURFACING
	INPLACE RIGHT OF WAY
	ACCESS CONTROL
	CONSTRUCTION LIMITS
	PLATE BEAM GUARDRAIL
	DELINEATED WETLAND OR WET DITCH BOUNDARY
	DRAINAGE FLOW
	EXISTING/PROPOSED DRAINAGE STRUCTURE
	EXISTING/PROPOSED APRON
	INPLACE/PROPOSED CULVERTS/STORM SEWER
	INPLACE DRIAN TILE
	RIPRAP
XXXX	DRAINAGE STRUCTURE NUMBER
P-BUR	POWER - BURIED
T-BUR	TELEPHONE - BURIED
F/O-BUR	FIBER OPTIC - BURIED
G	GAS LINE

PUBLIC UTILITIES - POWER

STATION	OFFSET (FT)	DESCRIPTION	ACTION: ADJUST	ACTION: RELOCATE	ACTION: REMOVE	OWNER	REMARKS
T.H. 60 E.B.							
1427+13	67' R	LIGHT POLE	X			MNDOT	RAISE, BY OTHERS
1428+66	116' L	GATE ARM	X			MNDOT	RAISE, BY OTHERS

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DATE _____ LICENSE #

CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 83 OF 283 SHEETS

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) AREA OF ENVIRONMENTAL SENSITIVITY.

LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G	GAS LINE

200

SCALE IN FEET

582000 146000

MATCHLINE T.H. 60 E.B. STA. 1448+00 R 5

℄ T.H. 60 W.B.

HYD ID 619159
NO WORK PROPOSED

HYD ID 619160
NO WORK PROPOSED

1450 1455 1460 1465 1470 1475

8' SHLD
12'
12'
12'
12'
8' SHLD

℄ T.H. 60 E.B.

MATCHLINE T.H. 60 E.B. STA. 1477+50 R 5

582000 145000

583000 145000

DRAFT

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 84 OF 283 SHEETS

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

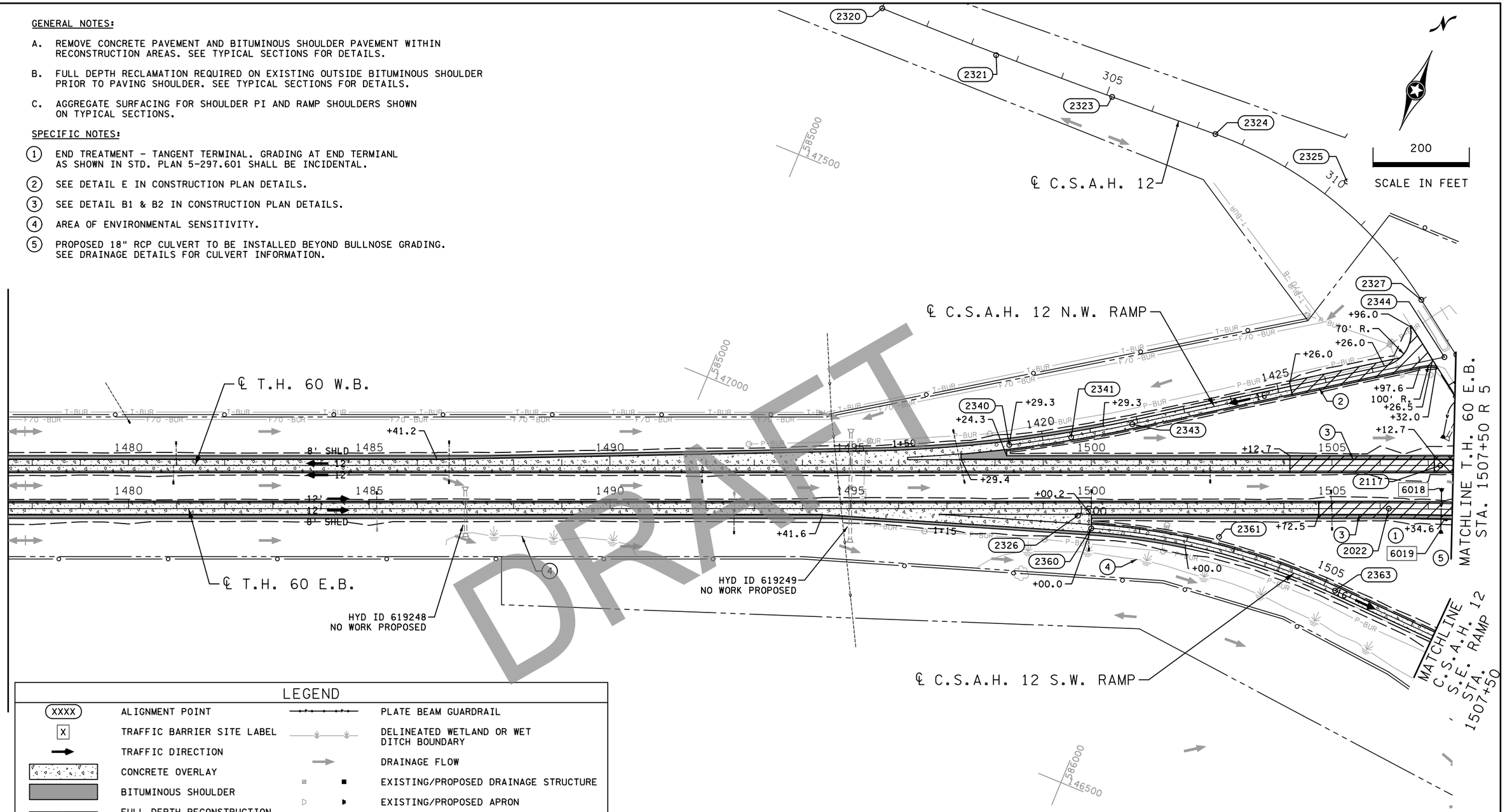
(1) END TREATMENT - TANGENT TERMINAL. GRADING AT END TERMIANL AS SHOWN IN STD. PLAN 5-297.601 SHALL BE INCIDENTAL.

(2) SEE DETAIL E IN CONSTRUCTION PLAN DETAILS.

(3) SEE DETAIL B1 & B2 IN CONSTRUCTION PLAN DETAILS.

(4) AREA OF ENVIRONMENTAL SENSITIVITY.

(5) PROPOSED 18" RCP CULVERT TO BE INSTALLED BEYOND BULLNOSE GRADING. SEE DRAINAGE DETAILS FOR CULVERT INFORMATION.



LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G	GAS LINE

NO	DATE	DWN	CKD	REVISIONS

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 85 OF 283 SHEETS

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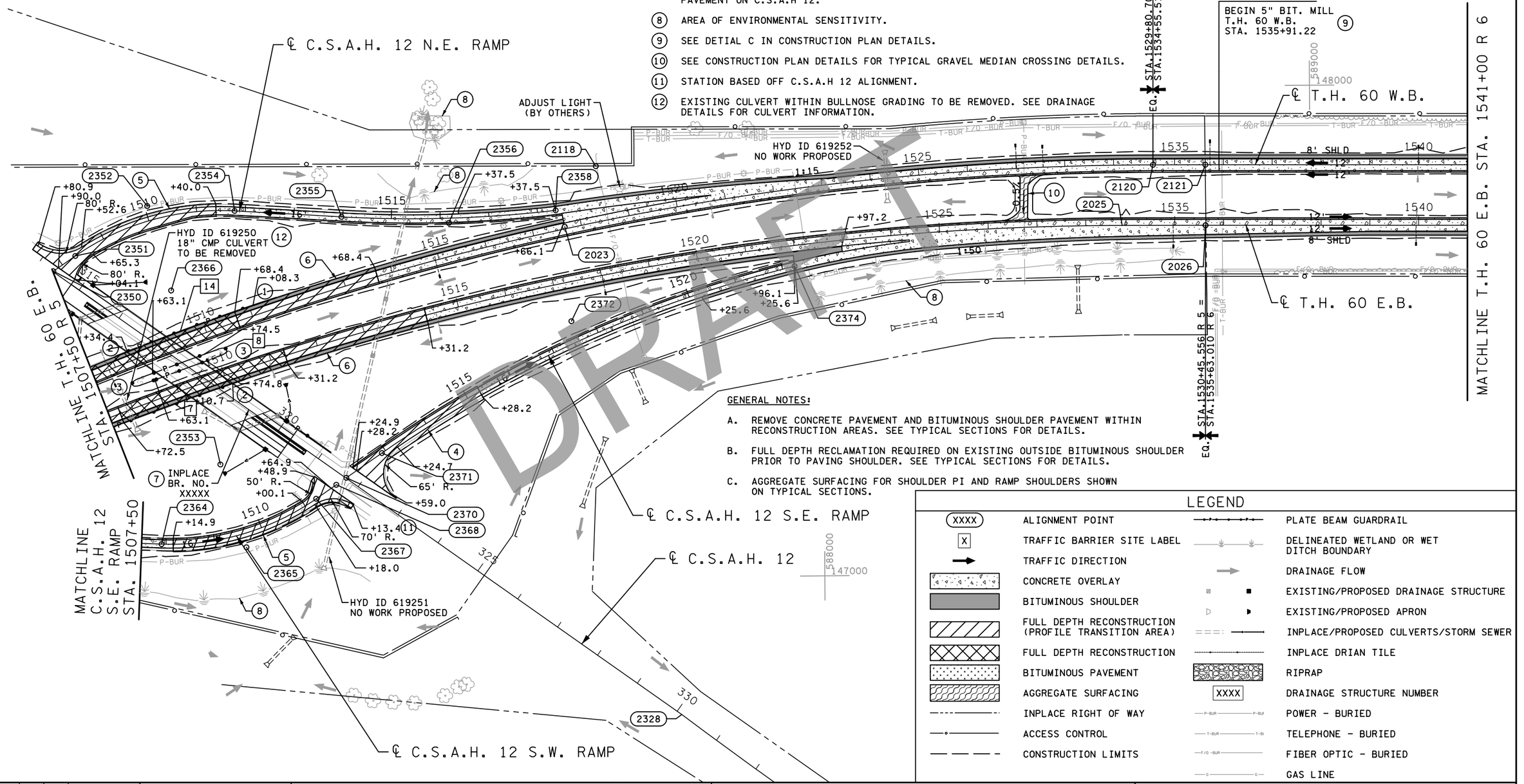
PUBLIC UTILITIES - POWER							
			ACTION				
STATION	OFFSET (FT)	DESCRIPTION	ADJUST	RELOCATE	REMOVE	OWNER	REMARKS
T.H. 60 E.B.							
1518+69	172' L	LIGHT POLE	X			MNDOT	RAISE, BY OTHERS

SPECIFIC NOTES:

1. END TREATMENT - TANGENT TERMINAL. GRADING AT END TERMIANL AS SHOWN IN STD. PLAN 5-297.601 SHALL BE INCIDENTAL.
2. ANCHORAGE ASSEMBLY - TYPE 31.
3. SEE STD. PLAN 5-297.611. REMOVE EXISTING BULLNOSE (PAID FOR AS REMOVE GUARDRAIL - PLATE BEAM) AND REPLACE WITH TRAFFIC BARRIER DESIGN BULLNOSE. GRADING AT BULLNOSE AS SHOWN IN STD. PLAN 5-297.601 SHALL BE INCIDENTAL.
4. SEE DETAIL E IN CONSTRUCTION PLAN DETAILS.
5. SEE DETAIL F IN CONSTRUCTION PLAN DETAILS.
6. SEE DETAIL B1 & B2 IN CONSTRUCTION PLAN DETAILS.
7. SEE CONSTRUCTION PLANS DETAIL XX FOR DRAINAGE, GUARDRAIL, AND APPROACH PAVEMENT ON C.S.A.H 12.
8. AREA OF ENVIRONMENTAL SENSITIVITY.
9. SEE DETIAL C IN CONSTRUCTION PLAN DETAILS.
10. SEE CONSTRUCTION PLAN DETAILS FOR TYPICAL GRAVEL MEDIAN CROSSING DETAILS.
11. STATION BASED OFF C.S.A.H 12 ALIGNMENT.
12. EXISTING CULVERT WITHIN BULLNOSE GRADING TO BE REMOVED. SEE DRAINAGE DETAILS FOR CULVERT INFORMATION.

200

SCALE IN FEET



GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR T-BU	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G G	GAS LINE

NO	DATE	DWN	CKD	REVISIONS

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 86 OF 283 SHEETS

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11/10/2017
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GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) AREA OF ENVIRONMENTAL SENSITIVITY.

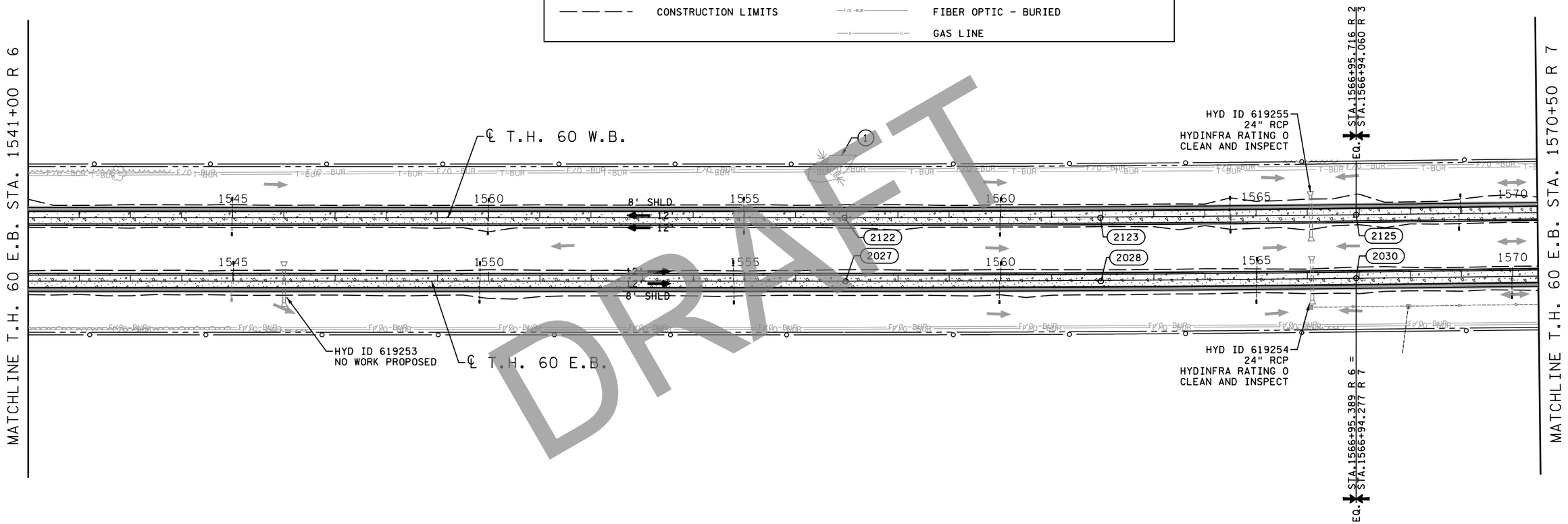
LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G	GAS LINE

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 87 OF 283 SHEETS

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

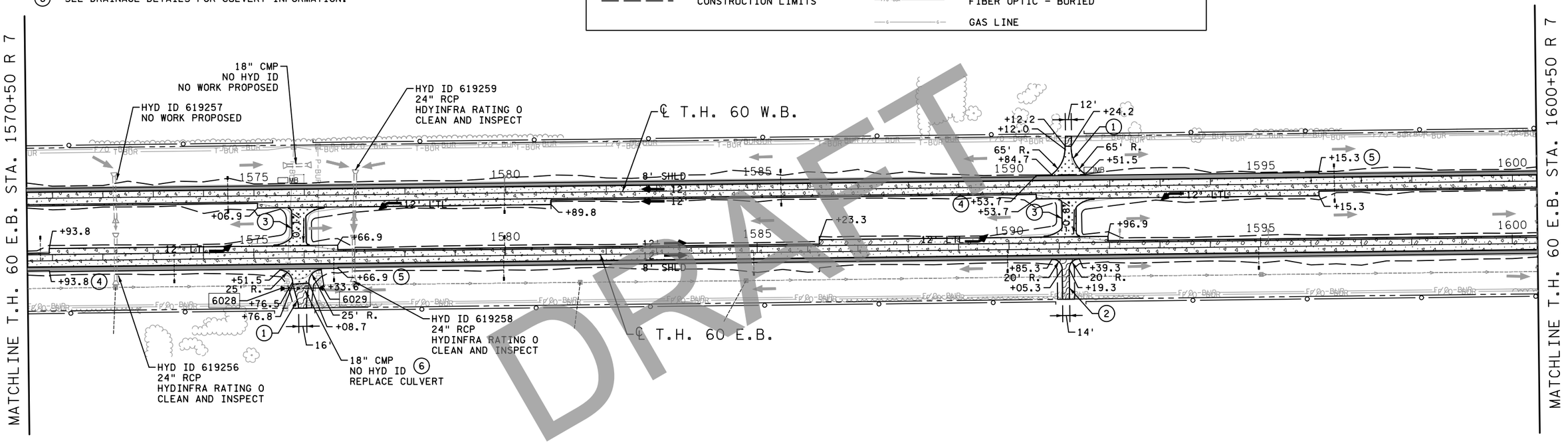
1. SEE DETAIL H IN CONSTRUCTION PLAN DETAILS.
2. SEE DETAIL J IN CONSTRUCTION PLAN DETAILS.
3. SEE BITUMINOUS MEDIAN CROSSING DETAILS IN CONSTRUCTION PLAN DETAILS.
4. BEGIN 10' SHOULDER
5. END 10' SHOULDER
6. SEE DRAINAGE DETAILS FOR CULVERT INFORMATION.

LEGEND

XXXX	ALIGNMENT POINT
X	TRAFFIC BARRIER SITE LABEL
	TRAFFIC DIRECTION
	CONCRETE OVERLAY
	BITUMINOUS SHOULDER
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)
	FULL DEPTH RECONSTRUCTION
	BITUMINOUS PAVEMENT
	AGGREGATE SURFACING
	INPLACE RIGHT OF WAY
	ACCESS CONTROL
	CONSTRUCTION LIMITS
	PLATE BEAM GUARDRAIL
	DELINEATED WETLAND OR WET DITCH BOUNDARY
	DRAINAGE FLOW
	EXISTING/PROPOSED DRAINAGE STRUCTURE
	EXISTING/PROPOSED APRON
	INPLACE/PROPOSED CULVERTS/STORM SEWER
	INPLACE DRIAN TILE
XXXX	RIPRAP
	DRAINAGE STRUCTURE NUMBER
P-BUR	POWER - BURIED
T-BUR	TELEPHONE - BURIED
F/O-BUR	FIBER OPTIC - BURIED
G	GAS LINE

200

SCALE IN FEET



593000 147000 594000 147000 595000 147000

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 88 OF 283 SHEETS

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) SEE DETAIL H IN CONSTRUCTION PLAN DETAILS.

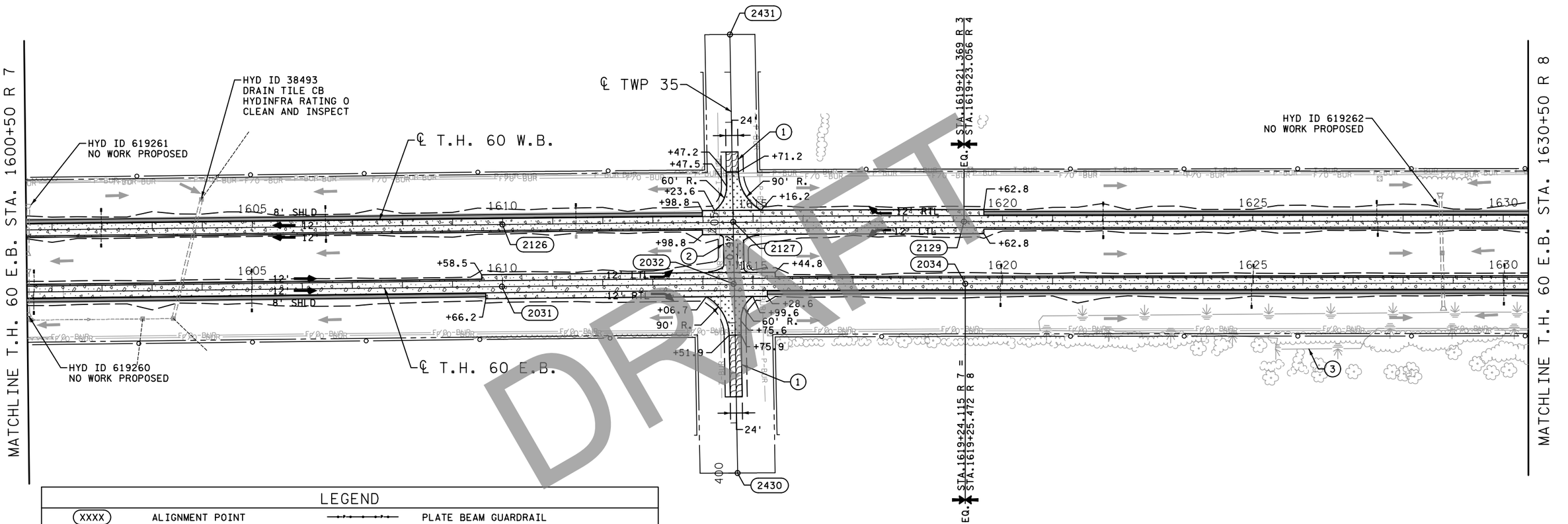
(2) SEE BITUMINOUS MEDIAN CROSSING DETAILS IN CONSTRUCTION PLAN DETAILS.

(3) AREA OF ENVIRONMENTAL SENSITIVITY.

N

200

SCALE IN FEET



LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O-BUR	FIBER OPTIC - BURIED
		G	GAS LINE

NO	DATE	DWN	CKD	REVISIONS

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 89 OF 283 SHEETS

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GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

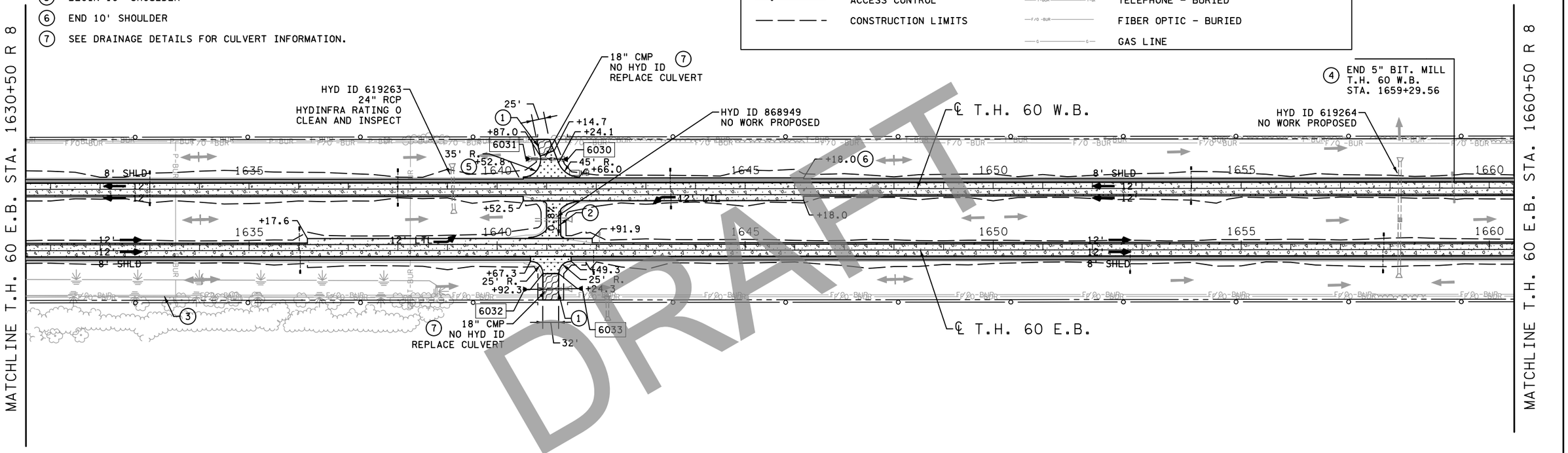
1. SEE DETAIL H IN CONSTRUCTION PLAN DETAILS.
2. SEE BITUMINOUS MEDIAN CROSSING DETAILS IN CONSTRUCTION PLAN DETAILS.
3. AREA OF ENVIRONMENTAL SENSITIVITY.
4. SEE DETAIL C IN CONSTRUCTION PLAN DETAILS.
5. BEGIN 10' SHOULDER
6. END 10' SHOULDER
7. SEE DRAINAGE DETAILS FOR CULVERT INFORMATION.

LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G	GAS LINE

200

SCALE IN FEET



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DATE _____ LICENSE #

CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

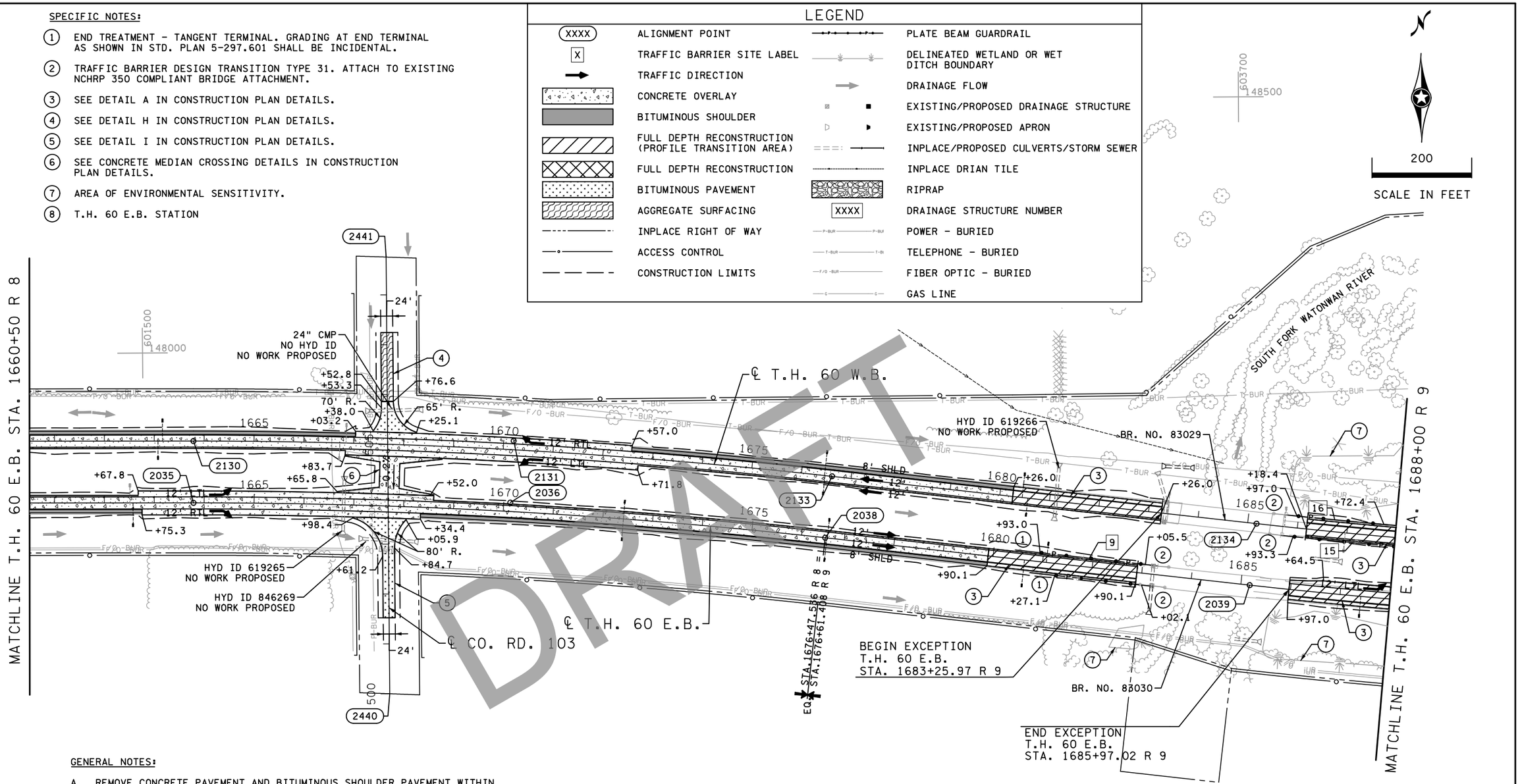
SHEET NO. 90 OF 283 SHEETS

SPECIFIC NOTES:

1. END TREATMENT - TANGENT TERMINAL. GRADING AT END TERMINAL AS SHOWN IN STD. PLAN 5-297.601 SHALL BE INCIDENTAL.
2. TRAFFIC BARRIER DESIGN TRANSITION TYPE 31. ATTACH TO EXISTING NCHRP 350 COMPLIANT BRIDGE ATTACHMENT.
3. SEE DETAIL A IN CONSTRUCTION PLAN DETAILS.
4. SEE DETAIL H IN CONSTRUCTION PLAN DETAILS.
5. SEE DETAIL I IN CONSTRUCTION PLAN DETAILS.
6. SEE CONCRETE MEDIAN CROSSING DETAILS IN CONSTRUCTION PLAN DETAILS.
7. AREA OF ENVIRONMENTAL SENSITIVITY.
8. T.H. 60 E.B. STATION

LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY		POWER - BURIED
	ACCESS CONTROL		TELEPHONE - BURIED
	CONSTRUCTION LIMITS		FIBER OPTIC - BURIED
			GAS LINE



GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

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DATE _____ LICENSE #

CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 91 OF 283 SHEETS

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

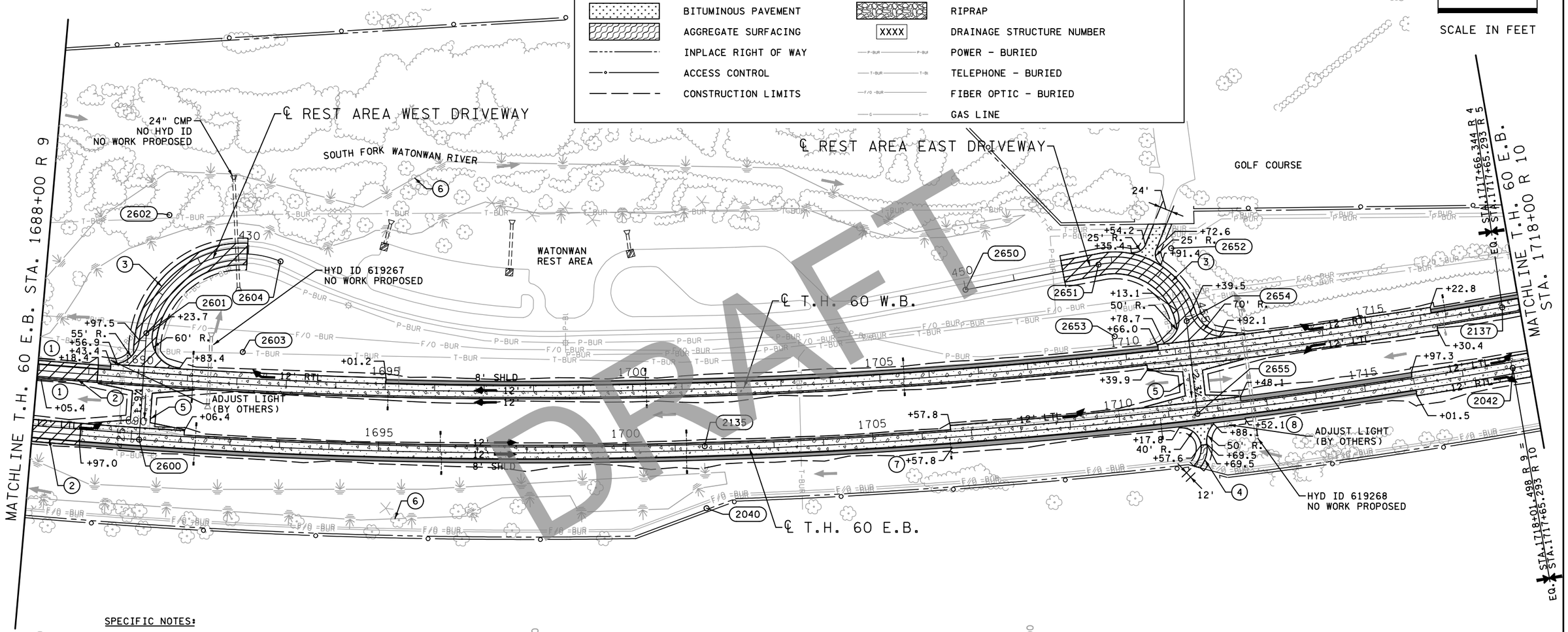
LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G	GAS LINE

N

200

SCALE IN FEET



SPECIFIC NOTES:

(1) END TREATMENT - TANGENT TERMINAL. GRADING AT END TERMIANL AS SHOWN IN STD. PLAN 5-297.601 SHALL BE INCIDENTAL.

(2) SEE DETAIL A IN CONSTRUCTION PLAN DETAILS.

(3) SEE DETAIL K IN CONSTRUCTION PLAN DETAILS.

(4) SEE DETAIL H IN CONSTRUCTION PLAN DETAILS.

(5) SEE CONCRETE MEDIAN CROSSING DETAILS IN CONSTRUCTION PLAN DETAILS.

(6) AREA OF ENVIRONMENTAL SENSITIVITY.

(7) BEGIN 10' SHOULDER

(8) END 10' SHOULDER

604000 147000 605000 147000 606000 147000

PUBLIC UTILITIES - POWER

STATION	OFFSET (FT)	DESCRIPTION	ACTION: ADJUST	ACTION: RELOCATE	ACTION: REMOVE	OWNER	REMARKS
T.H. 60 E.B.							
1689+48	156' L	LIGHT POLE	X			MNDOT	RAISE, BY OTHERS
1712+19	30' R	LIGHT POLE	X			MNDOT	RAISE, BY OTHERS

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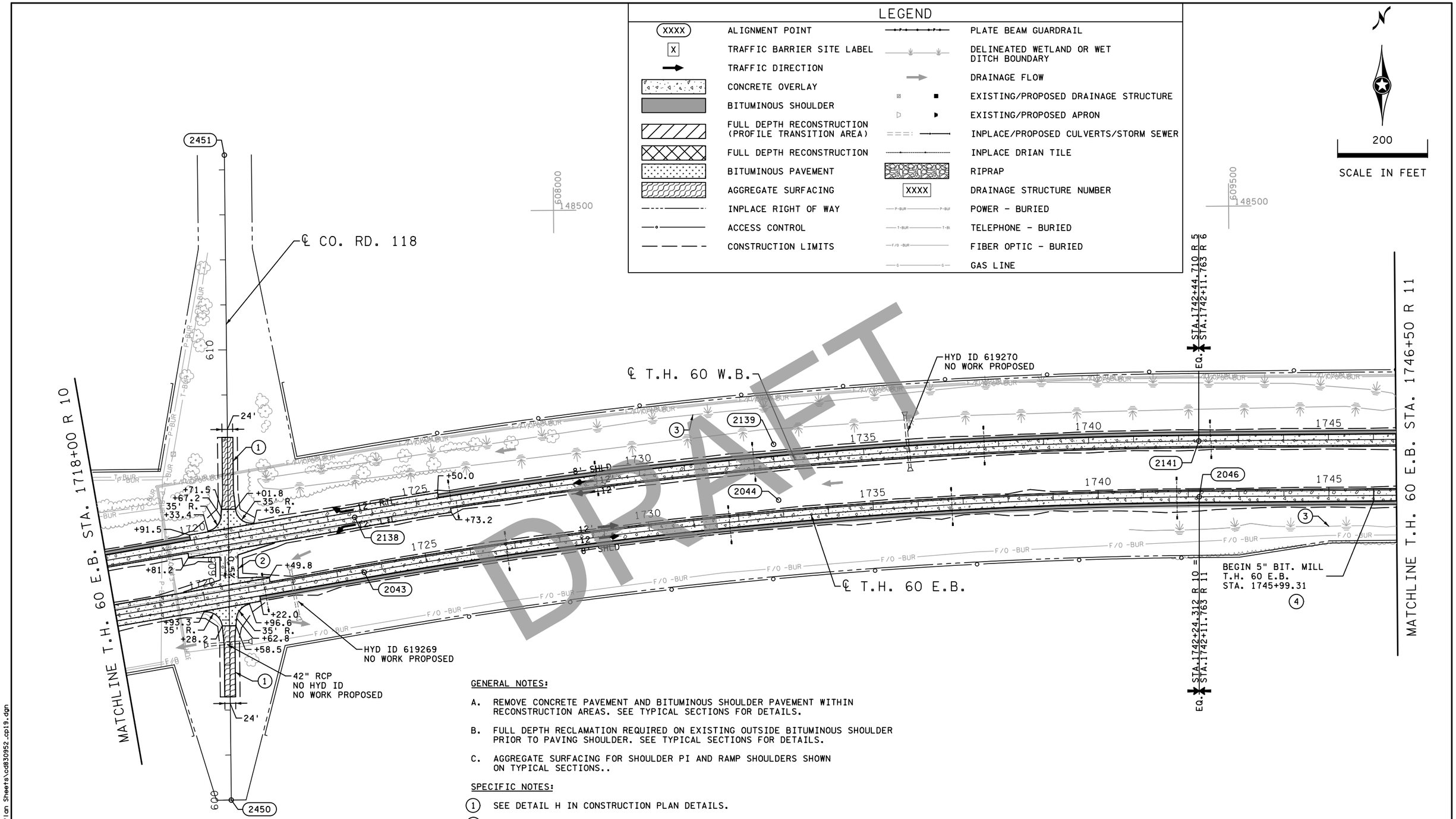
CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 92 OF 283 SHEETS



GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS..

SPECIFIC NOTES:

(1) SEE DETAIL H IN CONSTRUCTION PLAN DETAILS.

(2) SEE CONCRETE MEDIAN CROSSING DETAILS IN CONSTRUCTION PLAN DETAILS.

(3) AREA OF ENVIRONMENTAL SENSITIVITY.

(4) SEE DETAIL C IN CONSTRUCTION PLAN DETAILS.

609000
147000

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 93 OF 283 SHEETS

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) SEE DETAIL H IN CONSTRUCTION PLAN DETAILS.

(2) SEE DETAIL I IN CONSTRUCTION PLAN DETAILS.

(3) SEE BITUMINOUS MEDIAN CROSSING DETAILS IN CONSTRUCTION PLAN DETAILS.

(4) AREA OF ENVIRONMENTAL SENSITIVITY.

(5) SEE DRAINAGE PROFILES FOR CULVERT EXTENSION DETAILS.

6 SEE DRAINAGE DETAILS FOR CULVERT INFORMATION.

N

200

SCALE IN FEET

611500
148500

MATCHLINE T.H. 60 E.B. STA. 1746+50 R 11

EQ. STA.1747+04.680 R 6 = STA.1747+05.930 R 7

EQ. STA.1747+04.480 R 11 = STA.1747+05.930 R 12

℄ T.H. 60 W.B.

HYD ID 619272
NO WORK PROPOSED

8' SHLD

12'

12'

1750 1755 1760 1765 1770 1775

2142

2047

4

HYD ID 754282
HYDINFRA RATING 0
CLEAN AND INSPECT

℄ T.H. 60 E.B.

8' SHLD

12' LTL

12' RTL

5 HYD ID 619273
EXTEND MEDIAN END OF CULVERT 2'

2461

℄ C.S.A.H. 16

6 HYD ID 868133
REPLACE CULVERT

1

+44.4
6037

+76.8
6036

35' R.
+09.5
+96.5

35' R.
+11.6

6039

+66.3
2048

3

2143

+41.8

6038

+71.2

+71.2

+10.0
35' R.
6035

+15.7
+11.8
35' R.

+77.0
6034

+44.8

2

6 18" CMP
NO HYD ID
REPLACE CULVERT

700

2460

MATCHLINE T.H. 60 E.B. STA. 1776+50 R 12

611000
147000

612000
147000

DRAFT

LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G	GAS LINE

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 94 OF 283 SHEETS

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11/10/2017
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LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G	GAS LINE

N

200

SCALE IN FEET

615000
148500

STA.1798+63.010 R 7
STA.1798+63.542 R 8
EQ.

MATCHLINE T.H. 60 E.B. STA. 1776+50 R 12

MATCHLINE T.H. 60 E.B. STA. 1806+50 R 12

② HYD ID 619274
EXTEND MEDIAN END OF CULVERT 2'

℄ T.H. 60 W.B.

HYD ID 619275
NO WORK PROPOSED

6041

6040

+52.9

+59.0

12' RTL

12' LTL

8' SHLD

12'

1780

1785

1790

1795

1800

1805

100'

124'

2144

2049

55'

① F/O -BUR

℄ T.H. 60 E.B.

614000
147000

615000
147000

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) AREA OF ENVIRONMENTAL SENSITIVITY.

(2) SEE DRAINAGE PROFILES FOR CULVERT EXTENSION DETAILS.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 95 OF 283 SHEETS

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11/10/2017
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LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G	GAS LINE

N

200

SCALE IN FEET

617500
148500

MATCHLINE T.H. 60 E.B. STA. 1806+50 R 12

HYD ID 619276
NO WORK PROPOSED

℄ T.H. 60 W.B.

18" CMP
NO HYD ID
NO WORK PROPOSED

HYD ID 619278
NO WORK PROPOSED

HYD ID 619277
NO WORK PROPOSED

18" CMP
NO HYD ID
NO WORK PROPOSED

℄ T.H. 60 E.B.

℄ CO. RD. 109

MATCHLINE T.H. 60 E.B. STA. 1836+50 R 12

617000
147000

618000
147000

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) SEE DETAIL H IN CONSTRUCTION PLAN DETAILS.

(2) SEE BITUMINOUS MEDIAN CROSSING DETAILS IN CONSTRUCTION PLAN DETAILS.

(3) AREA OF ENVIRONMENTAL SENSITIVITY.

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 96 OF 283 SHEETS

LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR T-BI	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G G	GAS LINE

621000
148500

N

200
SCALE IN FEET

MATCHLINE T.H. 60 E.B. STA. 1836+50 R 12

℄ T.H. 60 W.B.

24" RCP
NO HYD ID
REPLACE CULVERT
SEE DRAINAGE DETAILS

HYD ID 619280
NO WORK PROPOSED

HYD ID 619279
NO WORK PROPOSED

8' SHLD
12'
12'
12'
12'
8' SHLD

20'
+50.4
+30.4
20' R.
6045
1850 +10.4
6044
+70.4
20' R.
+08.1
20' R.
6043
6042
+68.1
20' R.
+28.1
20'
+48.1
1

1840
1845
1850
1855
1860
1865

℄ T.H. 60 E.B.

15" CMP
NO HYD ID
REPLACE CULVERT
SEE DRAINAGE DETAILS

MATCHLINE T.H. 60 E.B. STA. 1866+50 R 12

620000
147000

621000
147000

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) SEE DETAIL J IN CONSTRUCTION PLAN DETAILS.

(2) SEE BITUMINOUS MEDIAN CROSSING DETAILS IN CONSTRUCTION PLAN DETAILS.

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)
SHEET NO. 97 OF 283 SHEETS

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) SEE DETAIL H IN CONSTRUCTION PLAN DETAILS.

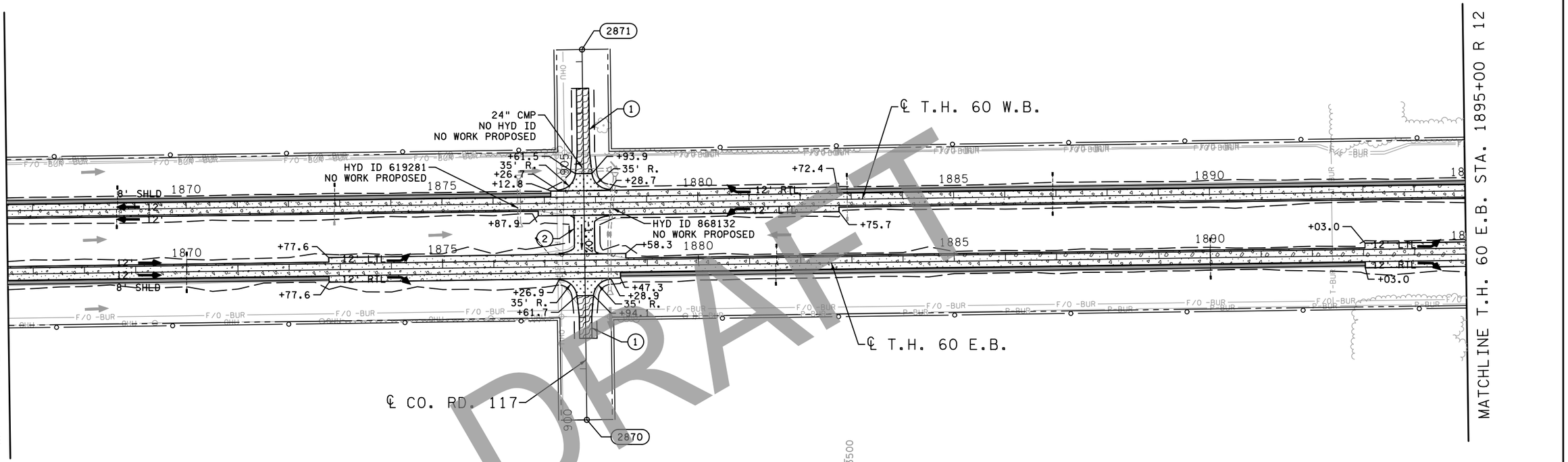
(2) SEE BITUMINOUS MEDIAN CROSSING DETAILS IN CONSTRUCTION PLAN DETAILS.

N

200

SCALE IN FEET

624000
148500



DRAFT

LEGEND

(XXXX)	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
[X]	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
→	TRAFFIC DIRECTION	→	DRAINAGE FLOW
	CONCRETE OVERLAY	■	EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER	▷ ▶	EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	[XXXX]	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G	GAS LINE

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 98 OF 283 SHEETS

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) SEE DETAIL A IN CONSTRUCTION PLAN DETAILS.

(2) SEE DETAIL D IN CONSTRUCTION PLAN DETAILS.

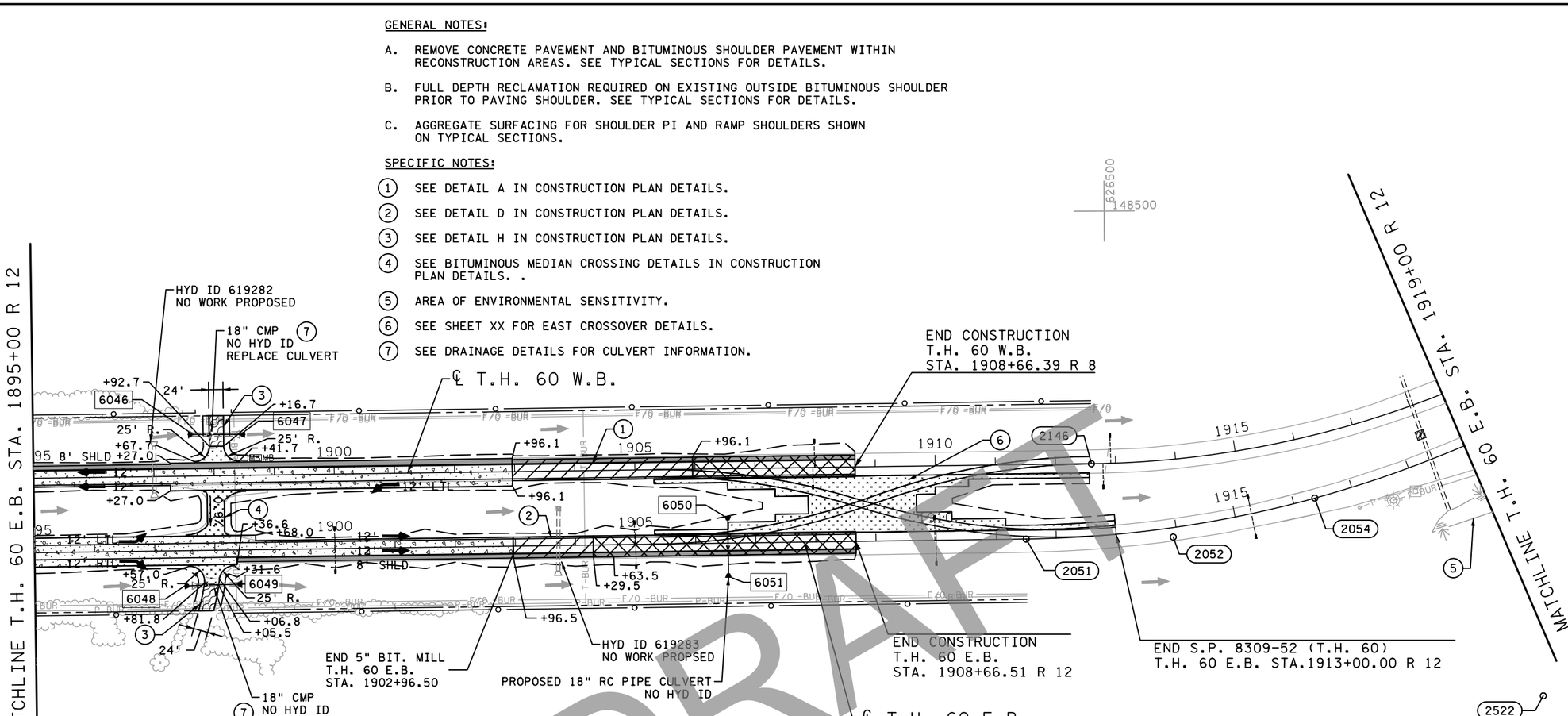
(3) SEE DETAIL H IN CONSTRUCTION PLAN DETAILS.

(4) SEE BITUMINOUS MEDIAN CROSSING DETAILS IN CONSTRUCTION PLAN DETAILS. .

(5) AREA OF ENVIRONMENTAL SENSITIVITY.

(6) SEE SHEET XX FOR EAST CROSSOVER DETAILS.

(7) SEE DRAINAGE DETAILS FOR CULVERT INFORMATION.



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LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O -BUR	FIBER OPTIC - BURIED
		G	GAS LINE

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SP 8309-52 (T.H. 60)

SHEET NO. 99 OF 283 SHEETS

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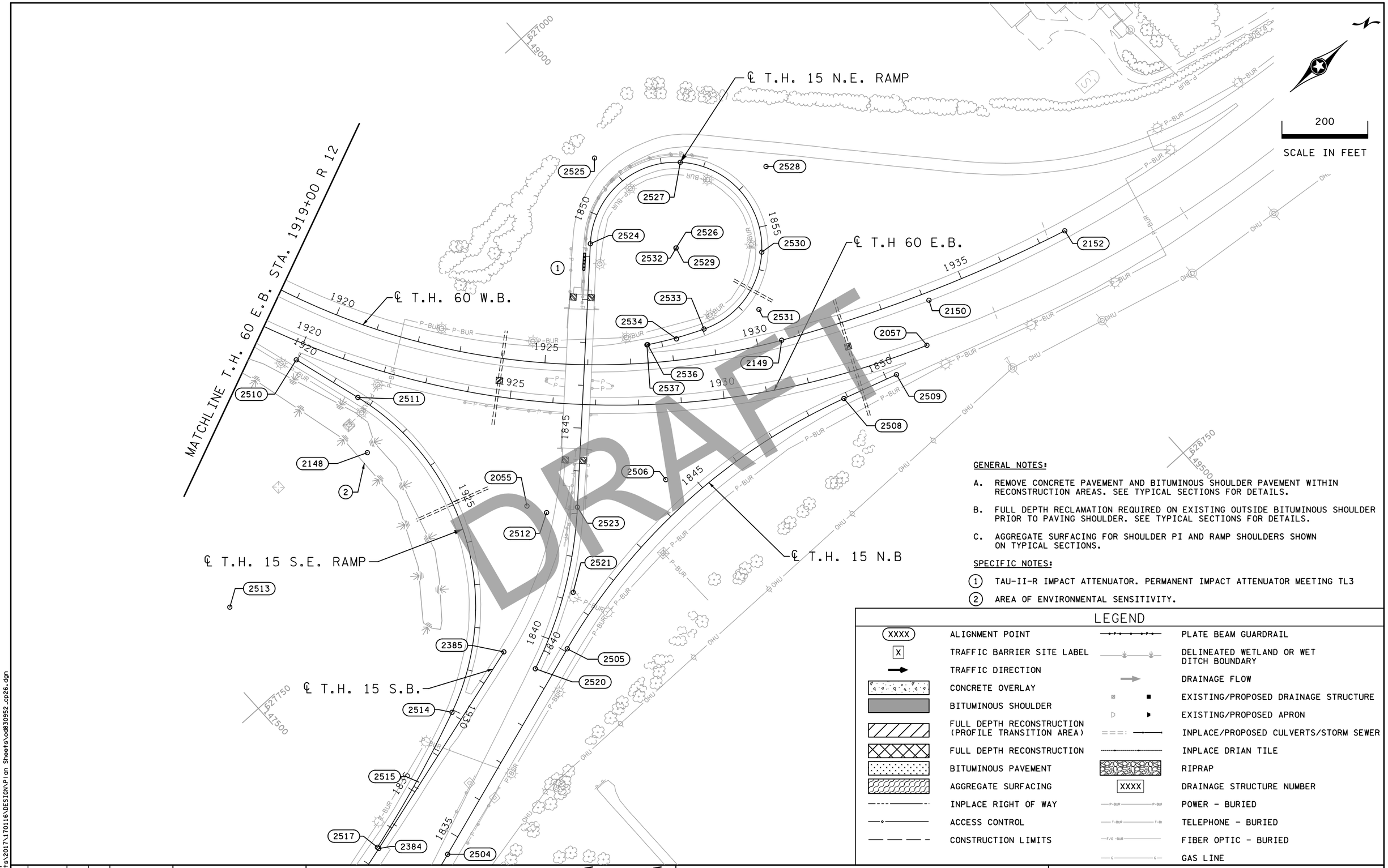

GENERAL NOTES:

A. REMOVE CONCRETE PAVEMENT AND BITUMINOUS SHOULDER PAVEMENT WITHIN RECONSTRUCTION AREAS. SEE TYPICAL SECTIONS FOR DETAILS.

B. FULL DEPTH RECLAMATION REQUIRED ON EXISTING OUTSIDE BITUMINOUS SHOULDER PRIOR TO PAVING SHOULDER. SEE TYPICAL SECTIONS FOR DETAILS.

C. AGGREGATE SURFACING FOR SHOULDER PI AND RAMP SHOULDERS SHOWN ON TYPICAL SECTIONS.

SPECIFIC NOTES:

(1) TAU-II-R IMPACT ATTENUATOR. PERMANENT IMPACT ATTENUATOR MEETING TL3

(2) AREA OF ENVIRONMENTAL SENSITIVITY.

LEGEND

XXXX	ALIGNMENT POINT		PLATE BEAM GUARDRAIL
X	TRAFFIC BARRIER SITE LABEL		DELINEATED WETLAND OR WET DITCH BOUNDARY
	TRAFFIC DIRECTION		DRAINAGE FLOW
	CONCRETE OVERLAY		EXISTING/PROPOSED DRAINAGE STRUCTURE
	BITUMINOUS SHOULDER		EXISTING/PROPOSED APRON
	FULL DEPTH RECONSTRUCTION (PROFILE TRANSITION AREA)		INPLACE/PROPOSED CULVERTS/STORM SEWER
	FULL DEPTH RECONSTRUCTION		INPLACE DRIAN TILE
	BITUMINOUS PAVEMENT		RIPRAP
	AGGREGATE SURFACING	XXXX	DRAINAGE STRUCTURE NUMBER
	INPLACE RIGHT OF WAY	P-BUR P-BUR	POWER - BURIED
	ACCESS CONTROL	T-BUR T-BU	TELEPHONE - BURIED
	CONSTRUCTION LIMITS	F/O-BUR	FIBER OPTIC - BURIED
		G G	GAS LINE

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CONSTRUCTION PLANS

SP 8309-52 (T.H. 60)

SHEET NO. 100 OF 283 SHEETS

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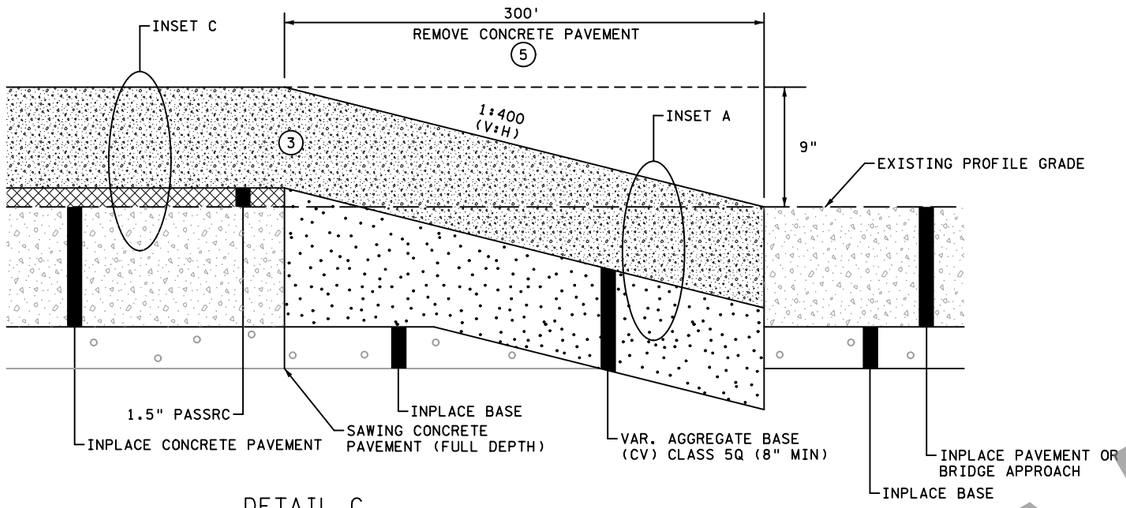
PROFILE GRADE TRANSITION DETAILS

DETAIL A

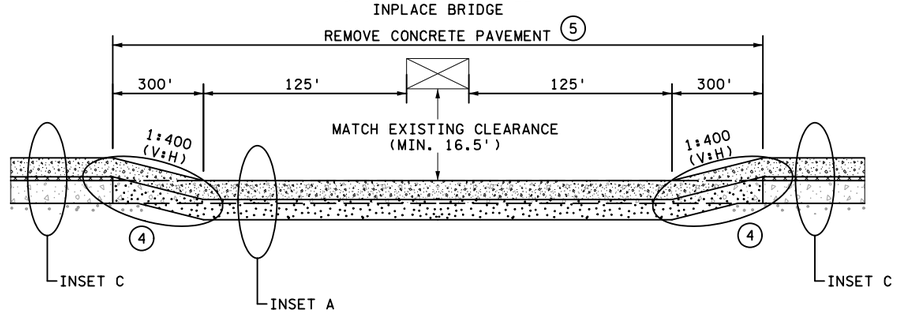
T.H. 60 - 9" PROFILE GRADE TRANSITION
BEGIN/END PROJECT (W.B. LANES) AND BRIDGE APPROACHES



DETAIL B1

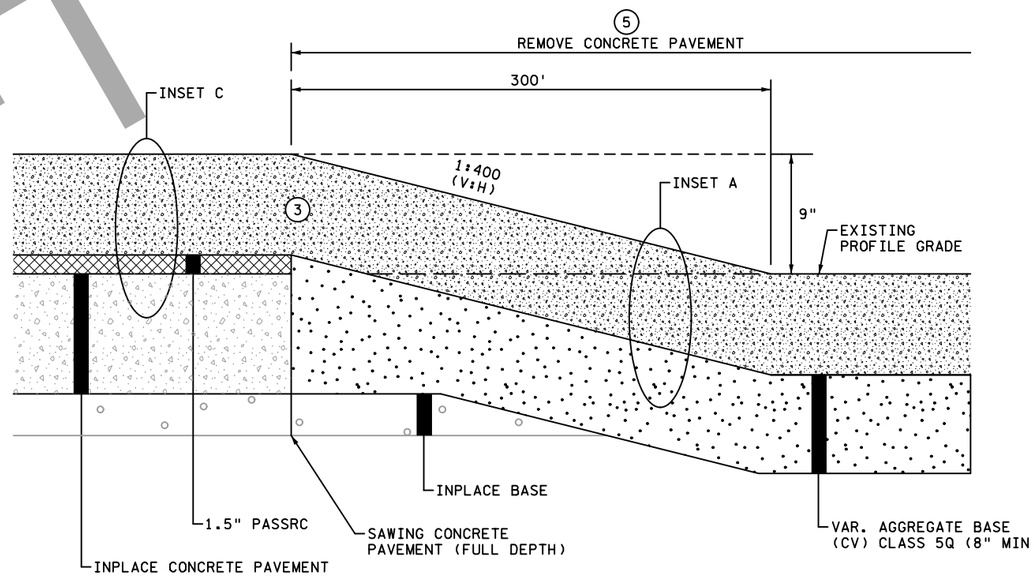
PAVING TRANSITION DETAIL AT BRIDGES

DRAWING NOT TO SCALE
INPLACE BRIDGE



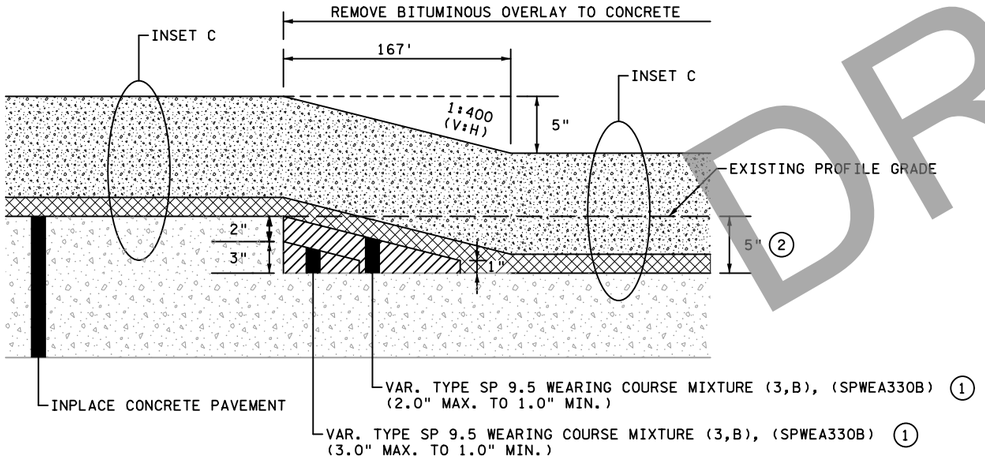
DETAIL B2

T.H. - 60 9" PROFILE GRADE TRANSITION
EXISTING OVERHEAD BRIDGE LOCATIONS

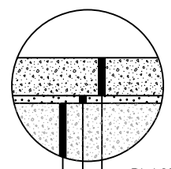


DETAIL C

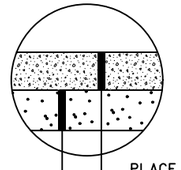
T.H. 60 - 5" PROFILE GRADE TRANSITION



INSET C



INSET A



SPECIFIC NOTES:

1. PAVE BITUMINOUS PAVEMENT AT 1:400 (V:H) TAPER RATE TO MINIMUM THICKNESS OF 1.0".
2. REMOVE INPLACE BIT. TO TOP OF UNDERLYING CONCRETE (APPROX. 5").
3. SEE FIGURE 520.3 AND 510.8 FROM MNDOT PAVEMENT DESIGN MANUAL FOR JOINTING AND SUPPLEMENTAL REINFORCEMENT GUIDANCE (INCIDENTAL).
4. SEE DETAIL B2.
5. SEE EARTHWORK SUMMARY FOR COMMON EXCAVATION.

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CONSTRUCTION PLAN DETAILS
PROFILE GRADE TRANSITION DETAILS

SP 8309-52 (T.H. 60)
SHEET NO. 101 OF 283 SHEETS

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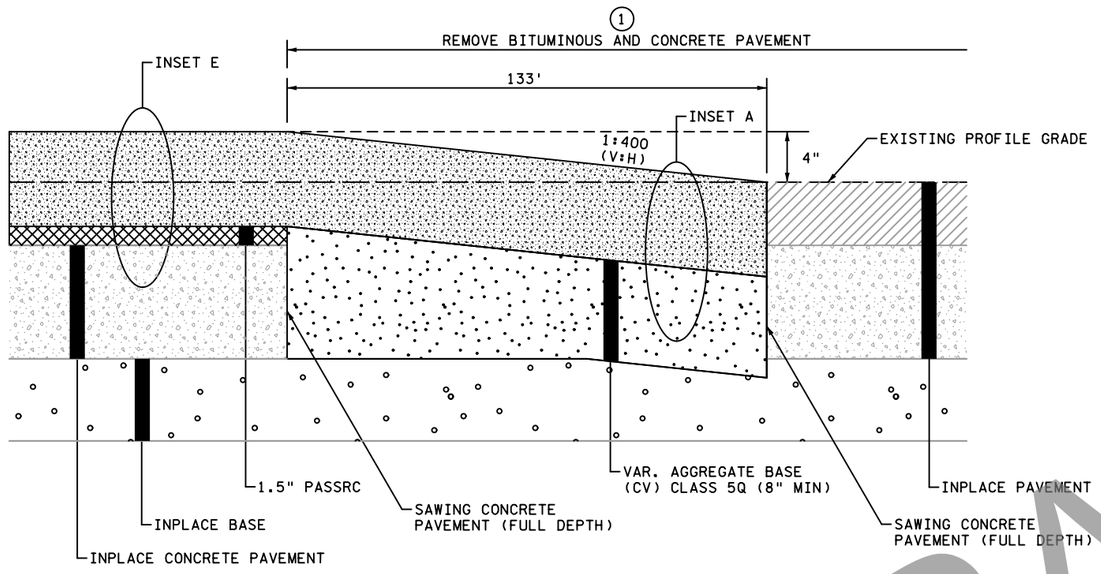
PROFILE GRADE TRANSITION DETAILS

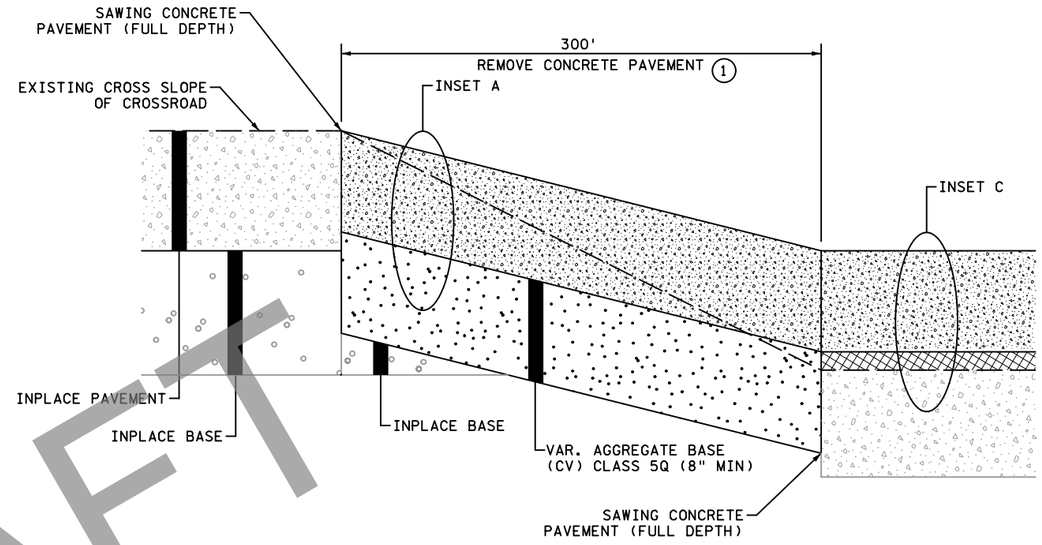
DETAIL D

T.H. 60 E.B. - 4" PROFILE GRADE TRANSITION
END PROJECT (E.B. LANES)



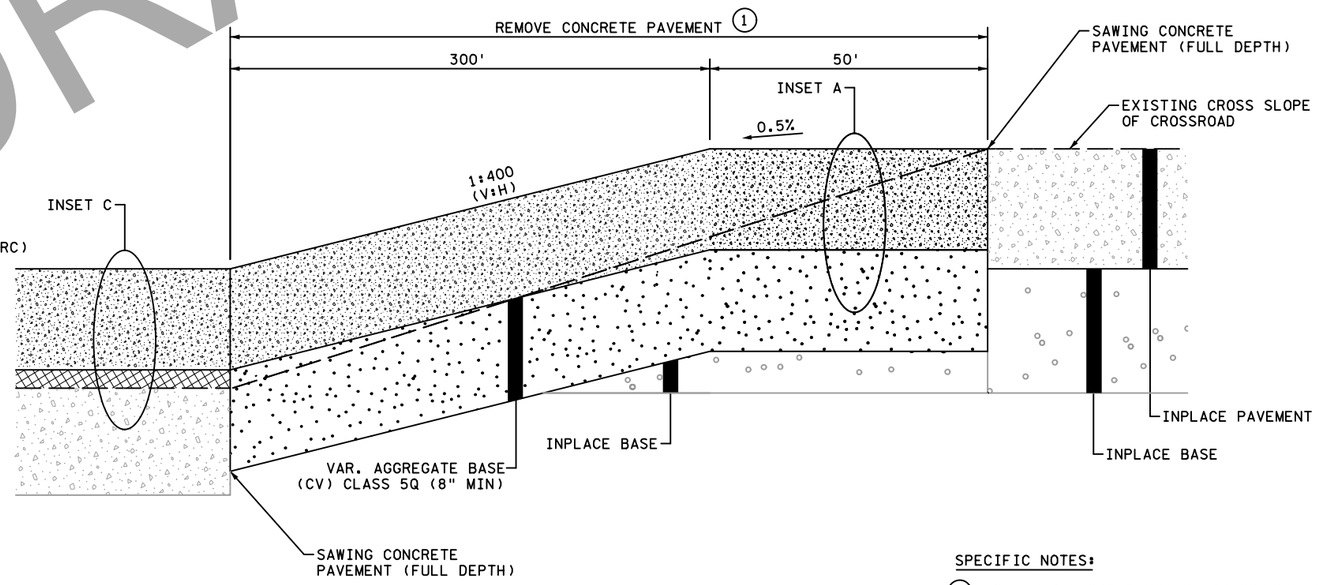
DETAIL E

T.H. 60 9" PROFILE GRADE TRANSITION
FOR ENTRANCE RAMPS

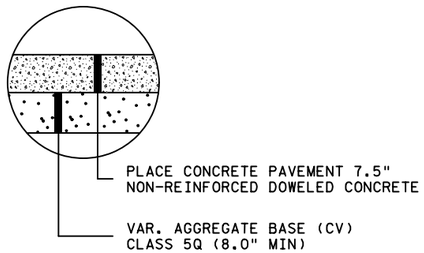


DETAIL F

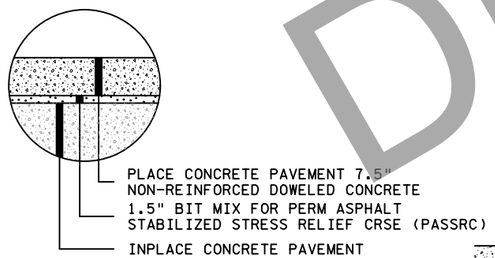
T.H. 60 9" PROFILE GRADE TRANSITION
FOR EXIT RAMPS



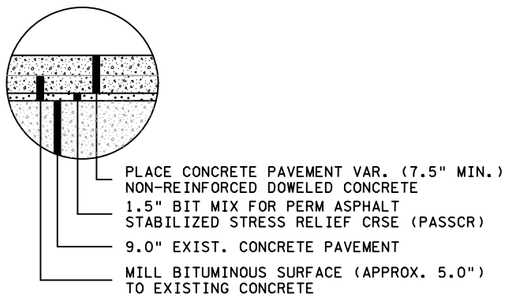
INSET A



INSET C



INSET E



SPECIFIC NOTES:

(1) SEE EARTHWORK SUMMARY FOR COMMON EXCAVATION.

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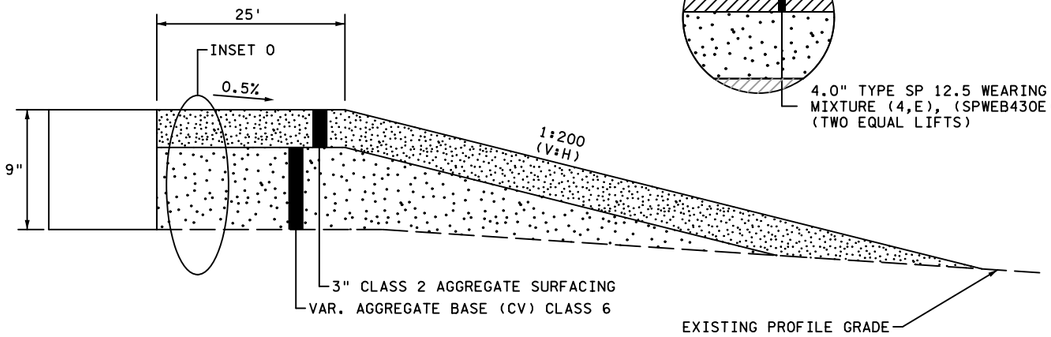
CONSTRUCTION PLAN DETAILS
PROFILE GRADE TRANSITION DETAILS

SP 8309-52 (T.H. 60)
SHEET NO. 102 OF 283 SHEETS

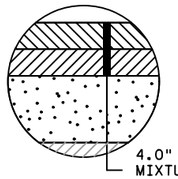
INTERSECTION AND ENTRANCE TRANSITION DETAILS

DETAIL J

GRAVEL FIELD ENTRANCES



INSET L



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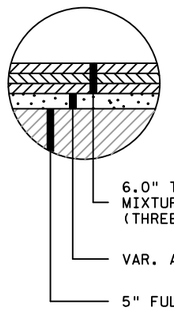
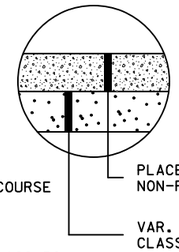
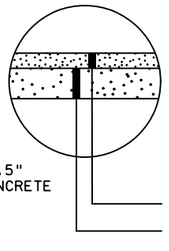


INSET A

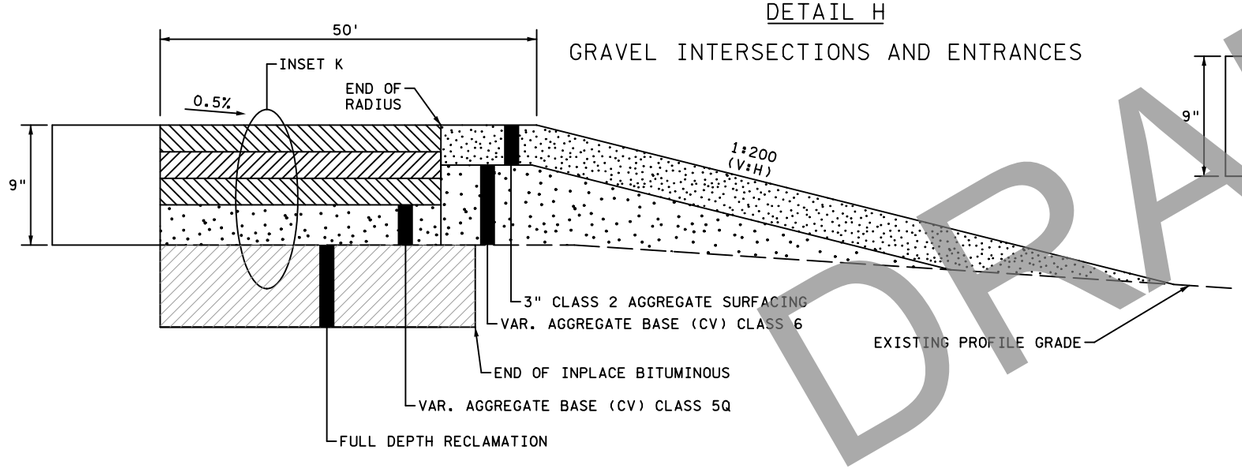


INSET O



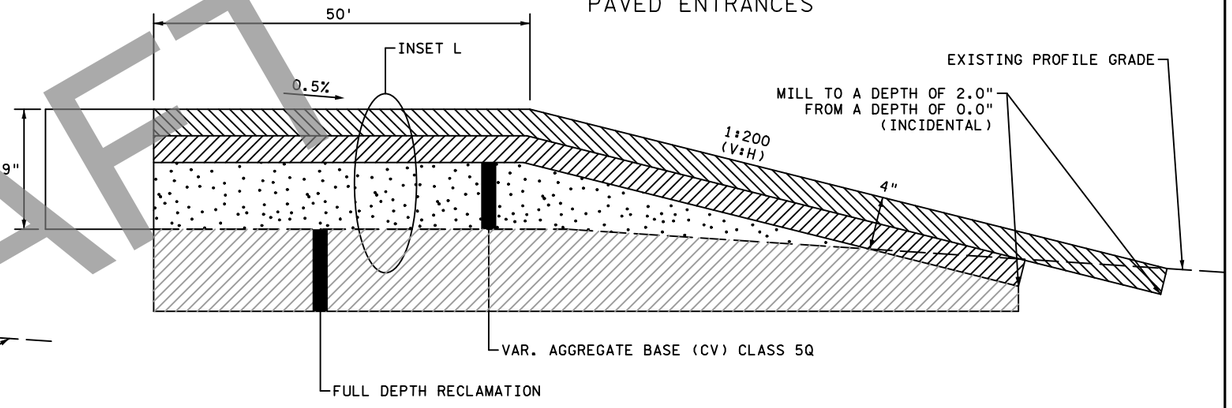
DETAIL H

GRAVEL INTERSECTIONS AND ENTRANCES



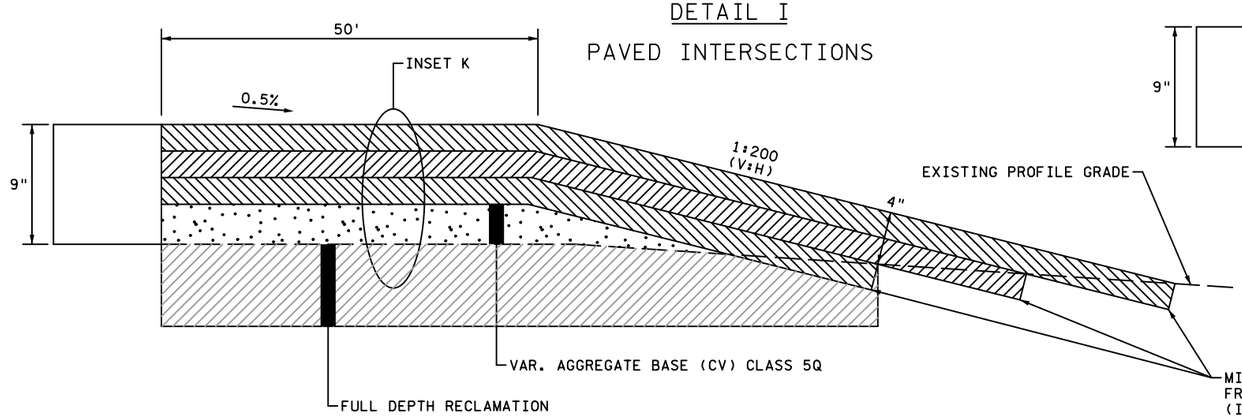
DETAIL G

PAVED ENTRANCES



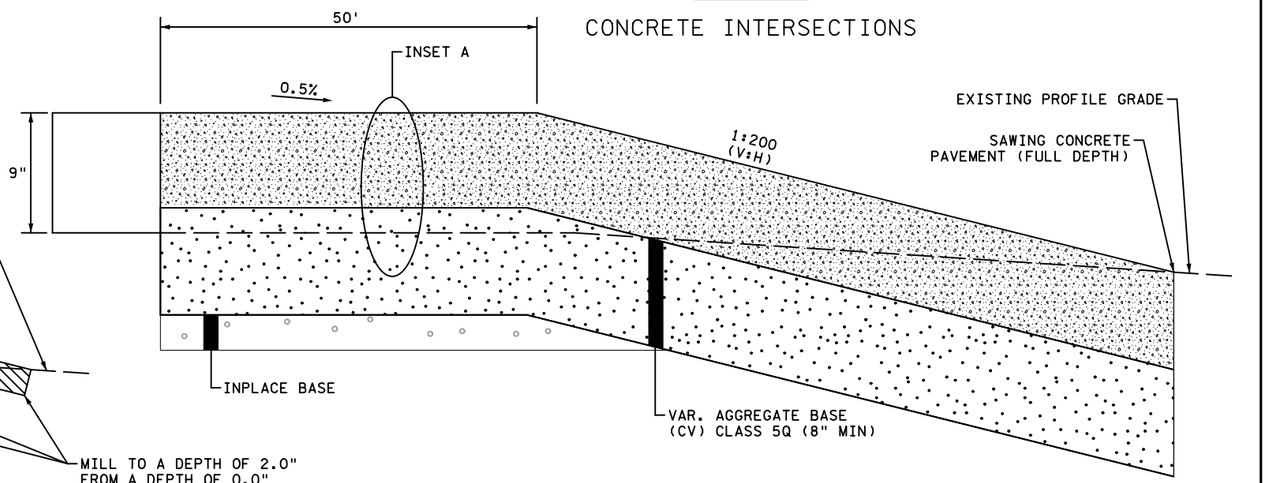
DETAIL I

PAVED INTERSECTIONS



DETAIL K

CONCRETE INTERSECTIONS



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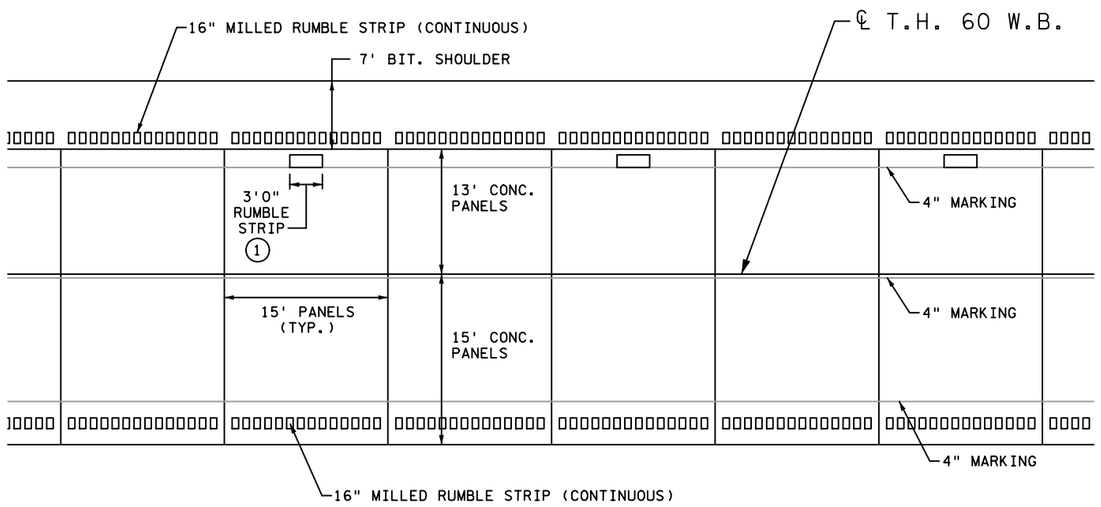
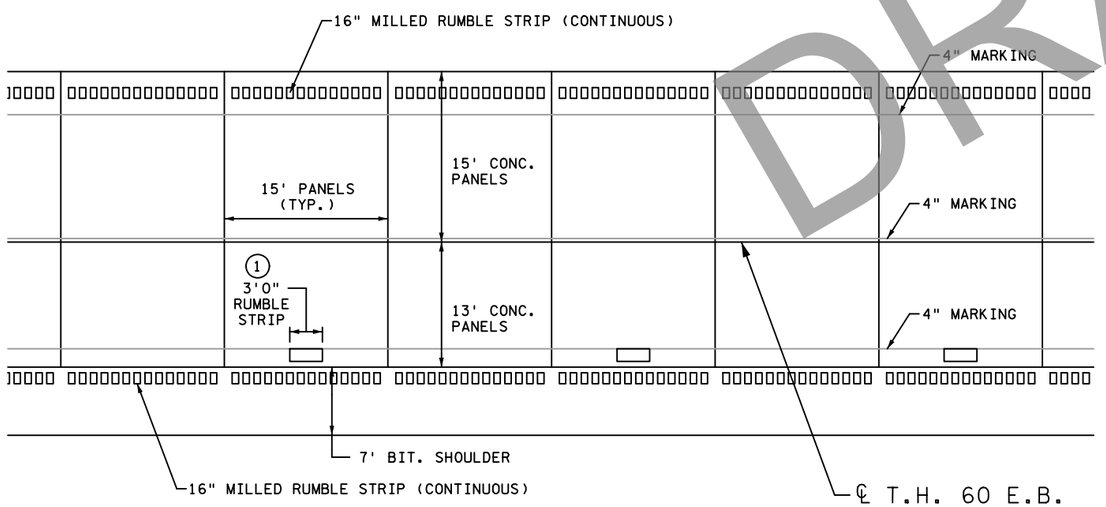
CONSTRUCTION PLAN DETAILS
INTERSECTION AND ENTRANCE TRANSITION DETAILS

SP 8309-52 (T.H. 60)
SHEET NO. 103 OF 283 SHEETS

T.H. 60 W.B. CONCRETE OVERLAY/RECONSTRUCTION - PLAN VIEW



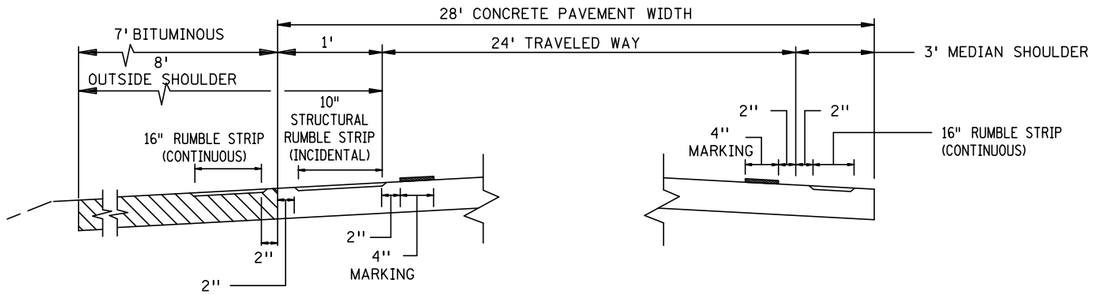
T.H. 60 E.B. CONCRETE OVERLAY/RECONSTRUCTION - PLAN VIEW



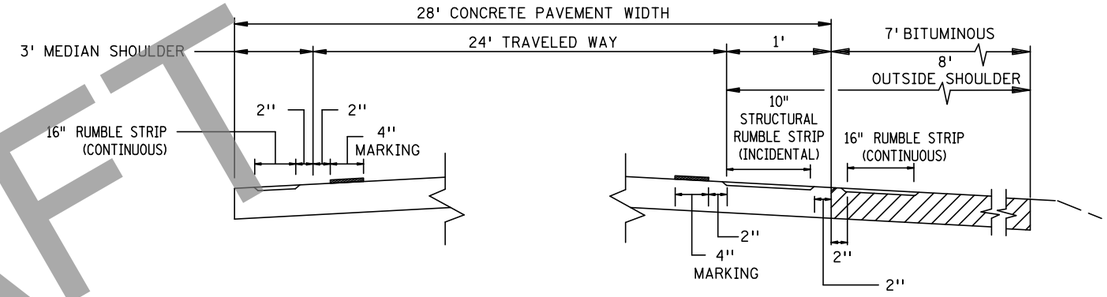
SPECIFIC NOTES

(1) PLACE STRUCTURAL RUMBLE STRIPS CENTERED ON ALTERNATING PANELS - 30' MAXIMUM SPACING. PAYMENT FOR STRUCTURAL RUMBLE STRIPS SHALL BE INCLUDED AS PART OF THE PLACE CONCRETE PAVEMENT 7.5" PAY ITEM.

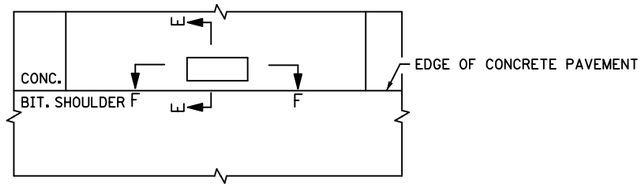
T.H. 60 W.B CONCRETE OVERLAY/RECONSTRUCT TYPICAL

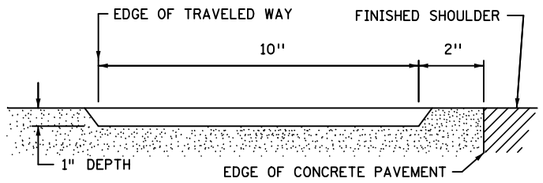


T.H. 60 E.B. CONCRETE OVERLAY/RECONSTRUCT TYPICAL

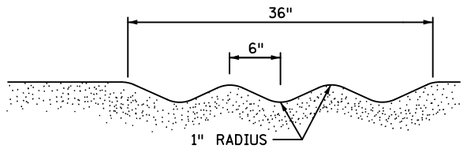


STRUCTURAL RUMBLE STRIP (INCIDENTAL)





SECTION E-E



SECTION F-F

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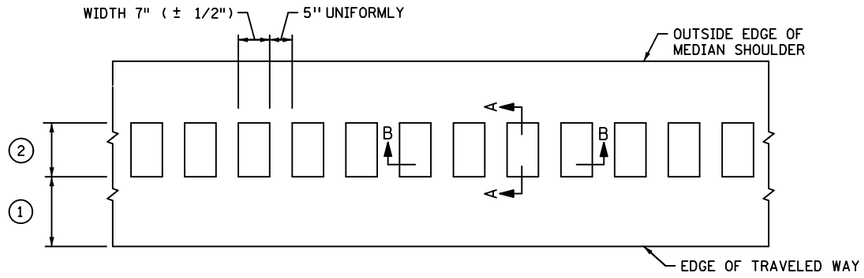
CONSTRUCTION PLAN DETAILS
MILLED RUMBLE STRIPS

SP 8309-52 (T.H. 60)
SHEET NO. 104 OF 283 SHEETS

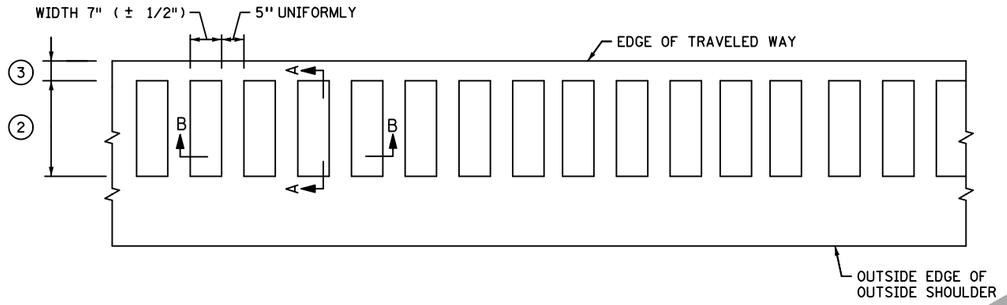
MILLED RUMBLE STRIPS INSIDE SHOULDER

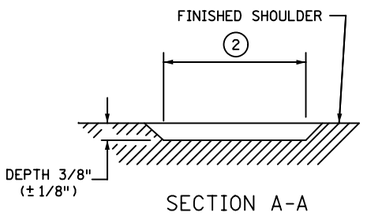
CONTINUOUS PATTERN



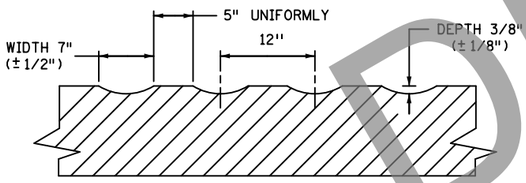
MILLED RUMBLE STRIPS OUTSIDE SHOULDER

CONTINUOUS PATTERN





SECTION A-A

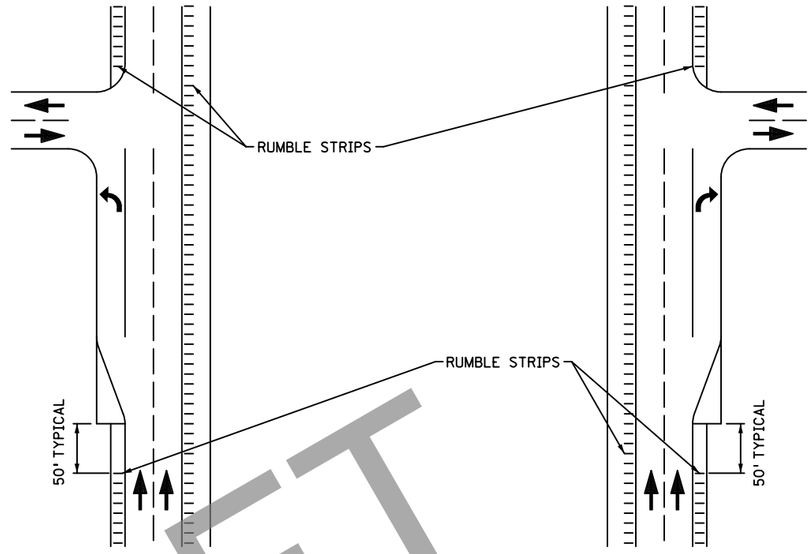


SECTION B-B

SPECIFIC NOTES

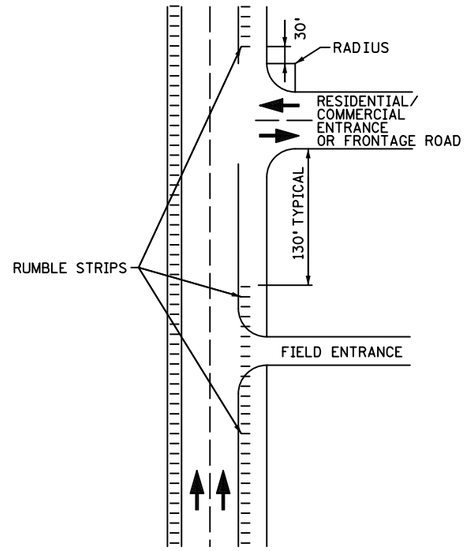
1. 2" FOR CONCRETE OVERLAY/RECONSTRUCT SECTION.
2. 16" FOR CONCRETE OVERLAY/RECONSTRUCT SECTION.
3. 14" FOR CONCRETE OVERLAY/RECONSTRUCT SECTION.

SHOULDER RUMBLE STRIP - APPROPRIATE BREAKS

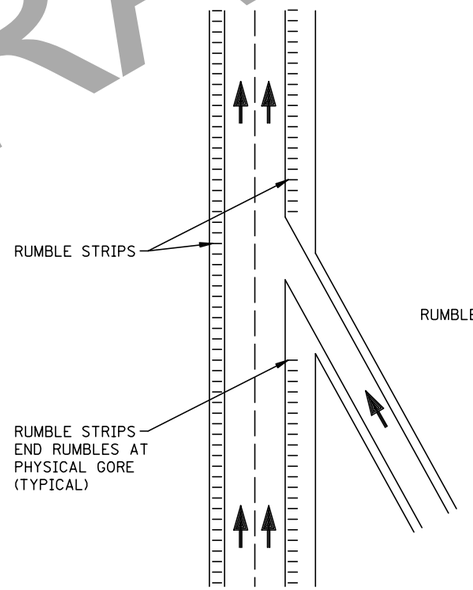


LEFT TURN LANE

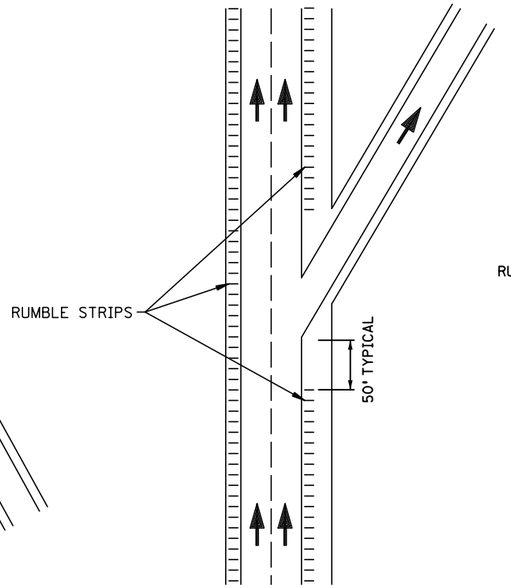
RIGHT TURN LANE



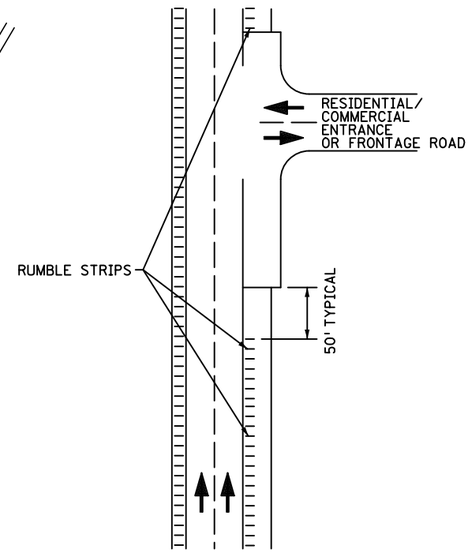
ENTRANCE ROADS



ENTRANCE RAMP



EXIT RAMP



ENTRANCE ROADS WITH WIDENED SHOULDER

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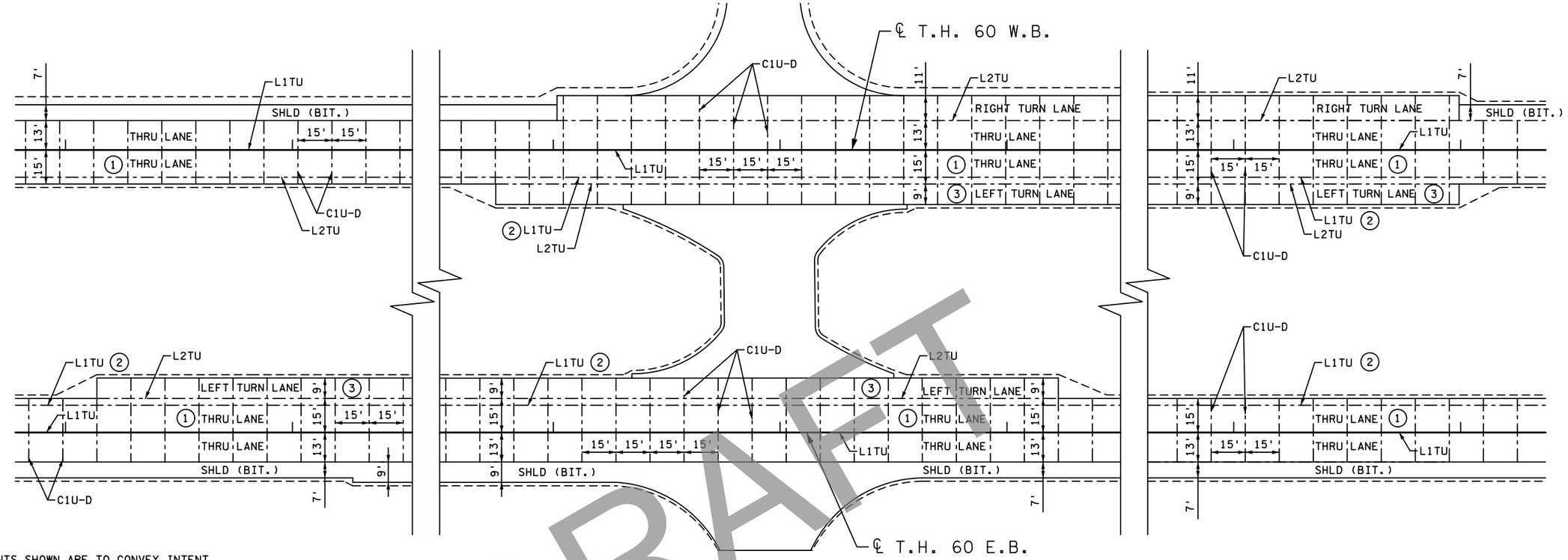
CONSTRUCTION PLAN DETAILS
MILLED RUMBLE STRIPS

SP 8309-52 (T.H. 60)
SHEET NO. 105 OF 283 SHEETS

T.H. 60 MAINLINE AND TURN LANES CONCRETE LAYOUT DETAIL



GENERAL NOTES

A. PAVEMENT JOINTS SHOWN ARE TO CONVEY INTENT. FINAL PAVEMENT JOINT LOCATIONS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

B. CONSTRUCTION HEADER JOINTS AND PERMANENT HEADER JOINTS SHALL BE INCIDENTAL AND NO DIRECT PAYMENT WILL BE MADE. SEE CONSTRUCTION PLANS FOR PERMANENT HEADER LOCATIONS.

C. CONTRACTOR TO PROVIDE SUPPLEMENTAL PAVEMENT REINFORCEMENT OVER PANELS WITH EXISTING LONGITUDINAL CRACKS. LOCATIONS TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE ENGINEER.

SPECIFIC NOTES

(1) PAVE INSIDE THRU LANE AND SHOULDER AS ONE 15' PANEL.

(2) L1TU JOINT AT 12.0' LEFT OFFSET.

(3) PAVE LEFT TURN LANE AS ONE 9' PANEL.

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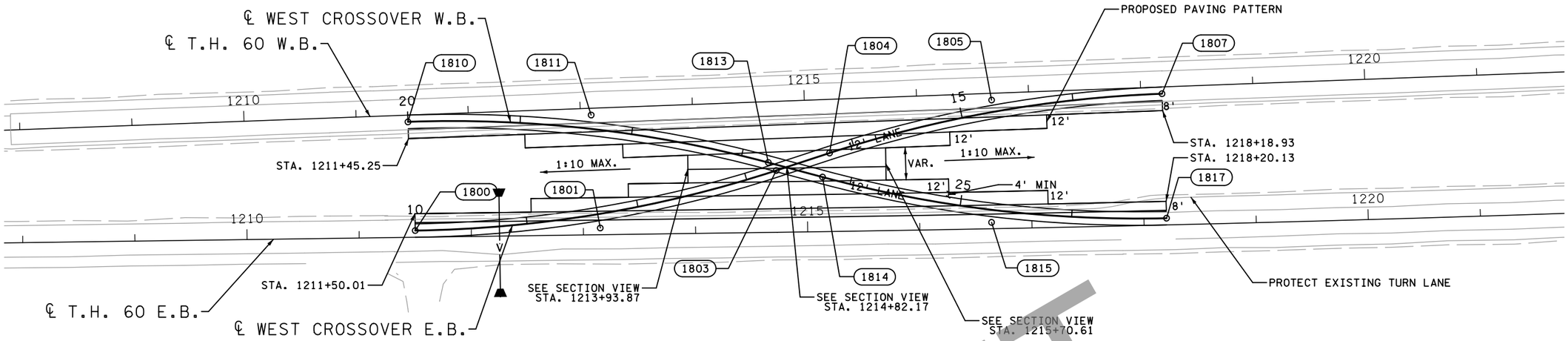
CONSTRUCTION PLAN DETAILS
CONCRETE LAYOUT DETAILS

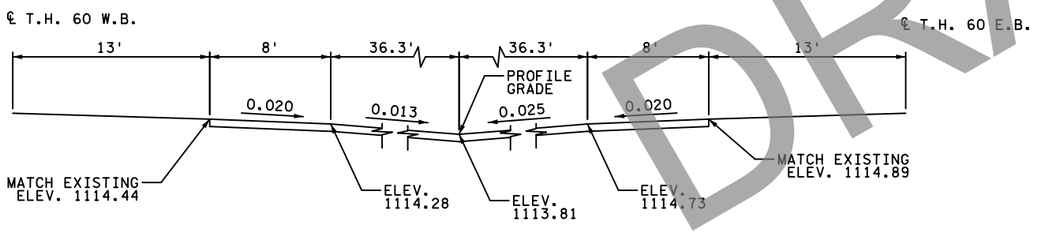
SP 8309-52 (T.H. 60)
SHEET NO. 106 OF 283 SHEETS

WEST CROSSOVER DETAILS

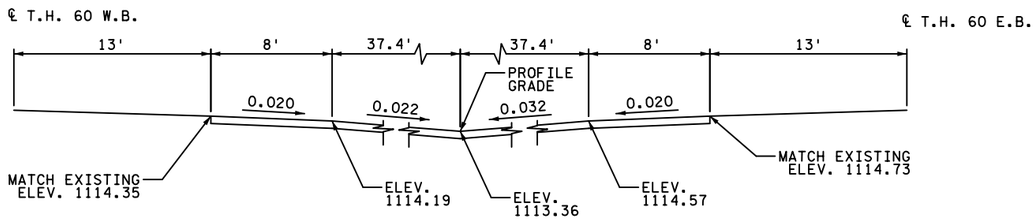


WEST CROSSOVER SELECTED SECTIONS

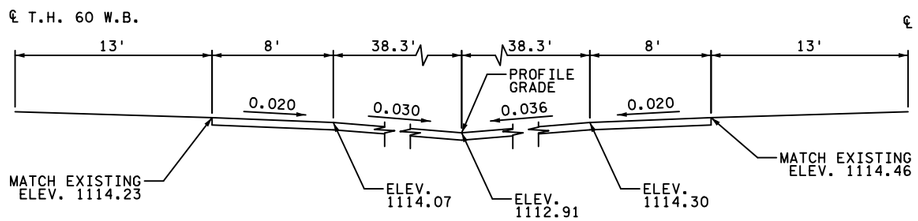
NOT TO SCALE



T.H. 60 E.B. STA. 1213+93.87



T.H. 60 E.B. STA. 1214+82.17



T.H. 60 E.B. STA. 1215+70.61

GENERAL NOTES

A. ALL CROSS SLOPES ARE IN FT. PER FT.

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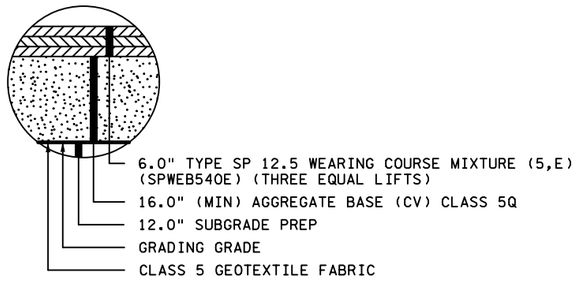
CONSTRUCTION PLAN DETAILS
WEST CROSSOVER - SHEET 1 OF 2

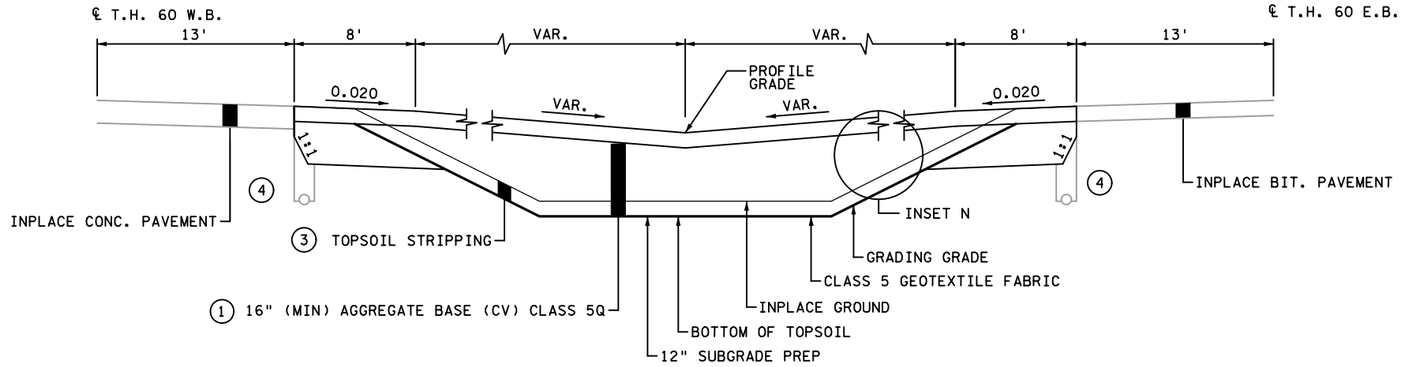
SP 8309-52 (T.H. 60)
SHEET NO. 107 OF 283 SHEETS

INSET N



WEST CROSSOVER

T.H. 60 E.B. STA. 1213+93.87 TO STA. 1215+70.61



GENERAL NOTES:

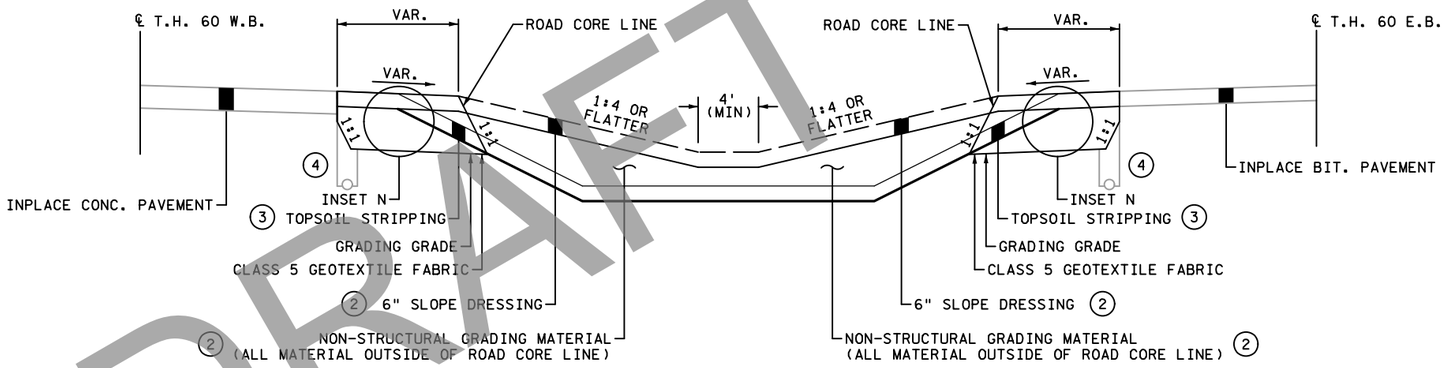
A. ALL CROSS SLOPES ARE IN FT. PER FT.

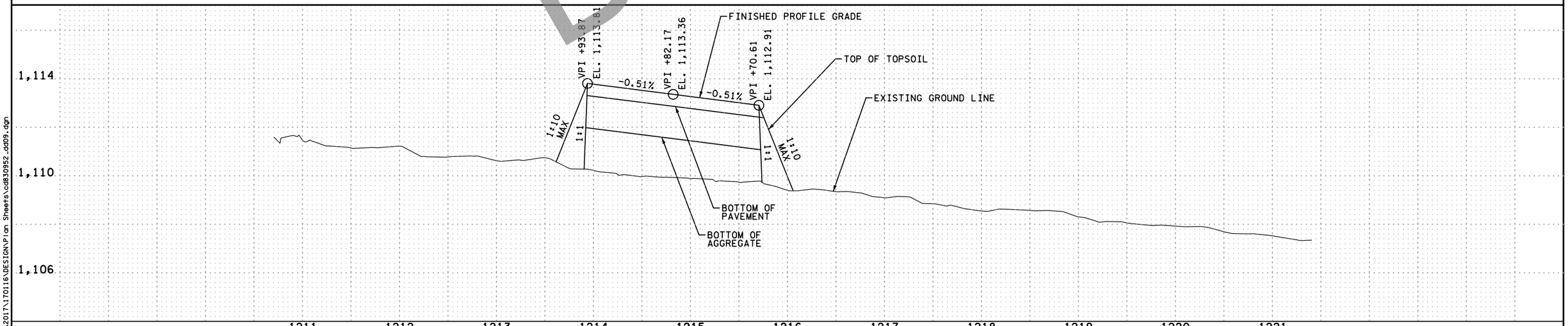
SPECIFIC NOTES:

1. SUBCUT INCLUDED IN EXCAVATION - COMMON QUANTITY.
2. INCLUDED IN COMMON EMBANKMENT (CV) QUANTITY.
3. INCLUDED IN EXCAVATION - COMMON QUANTITY.
4. INPLACE SUBSURFACE DRAIN. PROTECT IN PLACE (INCIDENTAL).

WEST CROSSOVER

T.H. 60 E.B. STA. 1211+50.01 TO STA. 1213+93.87
T.H. 60 E.B. STA. 1215+70.61 TO STA. 1218+20.13





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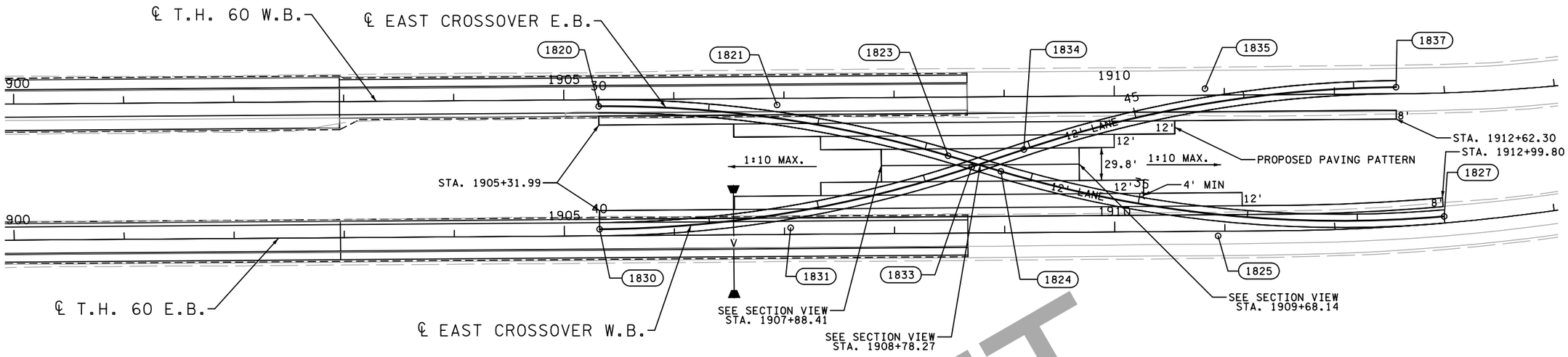
CONSTRUCTION PLAN DETAILS
WEST CROSSOVER DETAIL - SHEET 2 OF 2

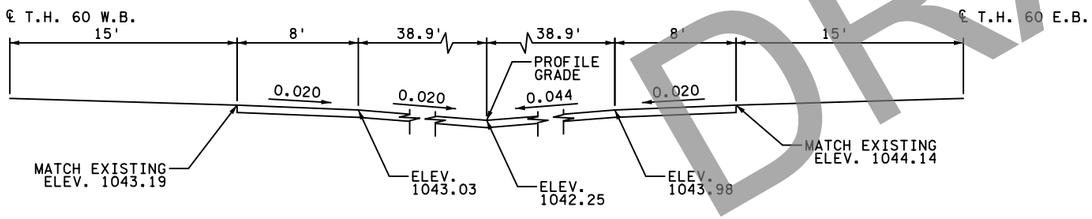
SP 8309-52 (T.H. 60)
SHEET NO. 108 OF 283 SHEETS

EAST CROSSOVER DETAILS

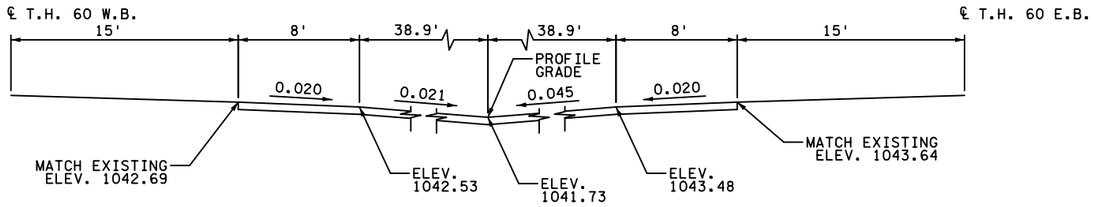


EAST CROSSOVER SELECTED SECTIONS

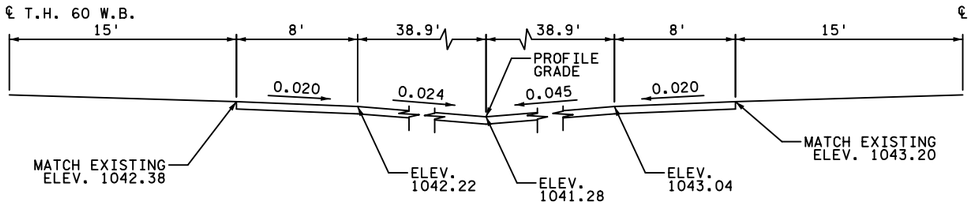
NOT TO SCALE



T.H. 60 E.B. STA. 1907+88.41



T.H. 60 E.B. STA. 1908+78.27



T.H. 60 E.B. STA. 1909+68.14

GENERAL NOTES

A. ALL CROSS SLOPES ARE IN FT. PER FT.

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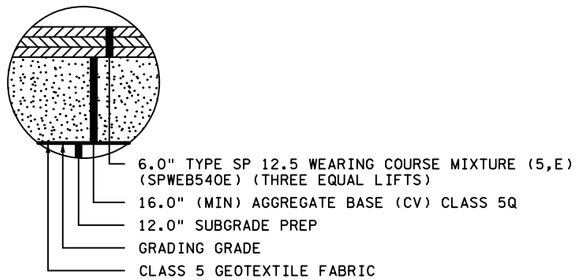
CONSTRUCTION PLAN DETAILS
EAST CROSSOVER DETAIL - SHEET 1 OF 2

SP 8309-52 (T.H. 60)
SHEET NO. 109 OF 283 SHEETS

INSET N



GENERAL NOTES:

A. ALL CROSS SLOPES ARE IN FT. PER FT.

SPECIFIC NOTES:

(1) SUBCUT INCLUDED IN EXCAVATION - COMMON QUANTITY.

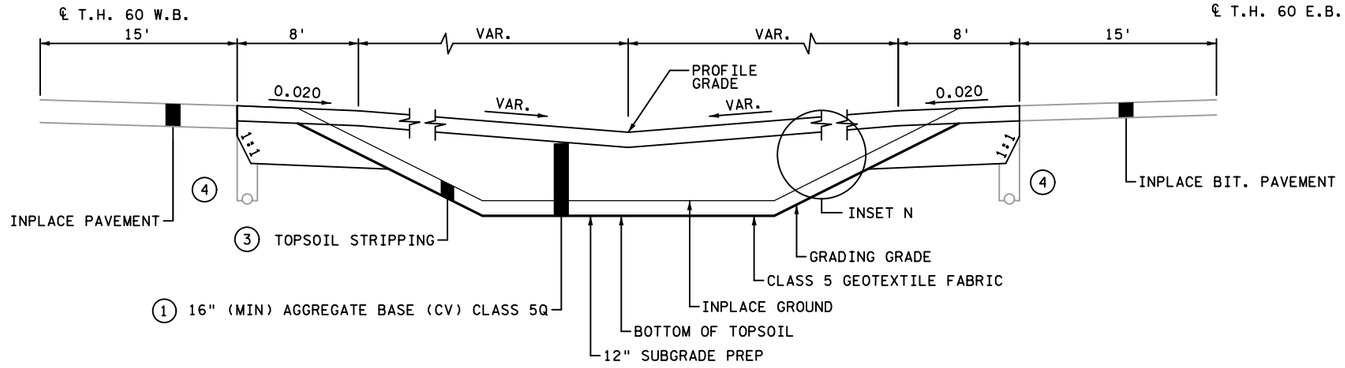
(2) INCLUDED IN COMMON EMBANKMENT (CV) QUANTITY.

(3) INCLUDED IN EXCAVATION - COMMON QUANTITY.

(4) INPLACE SUBSURFACE DRAIN. PROTECT IN PLACE (INCIDENTAL).

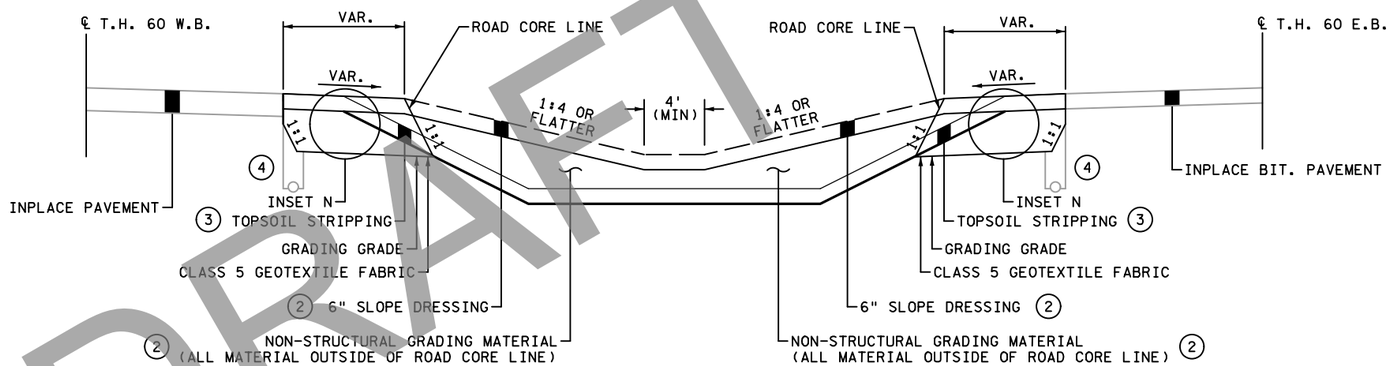
EAST CROSSOVER

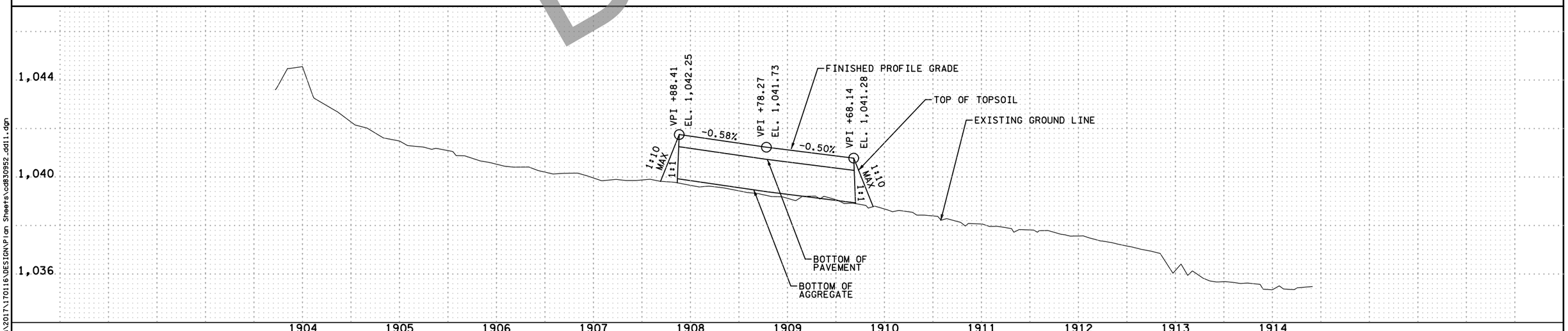
T.H. 60 E.B. STA. 1907+88.41 TO STA. 1909+68.14



EAST CROSSOVER

T.H. 60 E.B. STA. 1905+31.99 TO STA. 1907+88.41
T.H. 60 E.B. STA. 1909+68.14 TO STA. 1912+99.80





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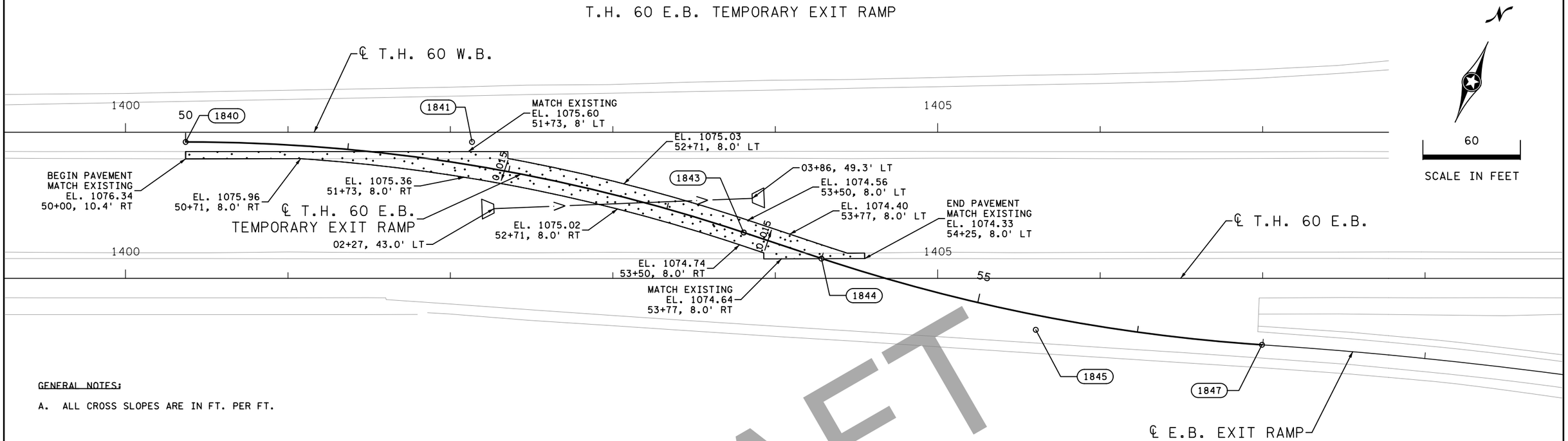
CONSTRUCTION PLAN DETAILS
EAST CROSSOVER DETAIL - SHEET 2 OF 2

SP 8309-52 (T.H. 60)
SHEET NO. 110 OF 283 SHEETS

T.H. 60 E.B. TEMPORARY EXIT RAMP



GENERAL NOTES:

A. ALL CROSS SLOPES ARE IN FT. PER FT.

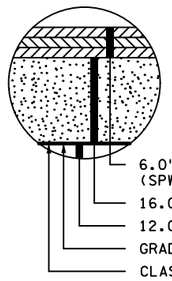
SPECIFIC NOTES:

(1) SUBCUT INCLUDED IN EXCAVATION - COMMON QUANTITY.

(2) INCLUDED IN COMMON EMBANKMENT (CV) QUANTITY.

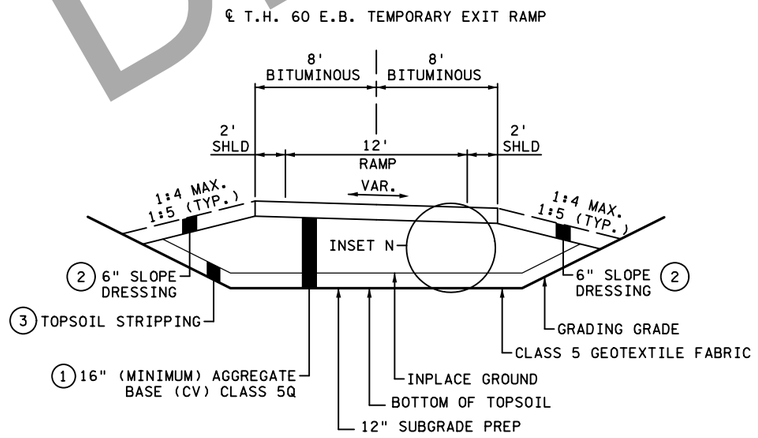
(3) INCLUDED IN EXCAVATION - COMMON QUANTITY.

INSET N



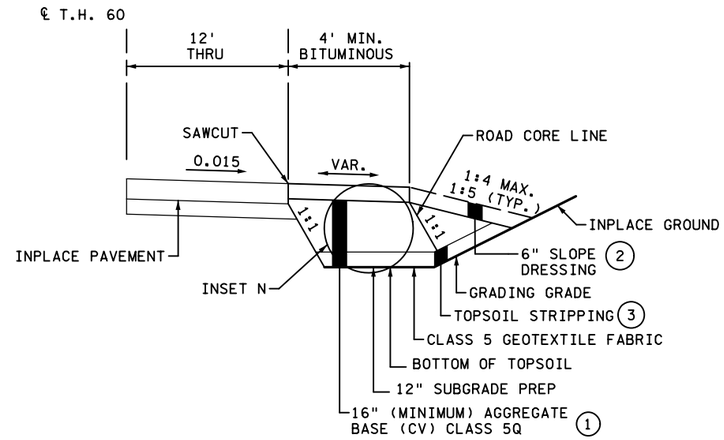
T.H. 60 E.B. TEMPORARY EXIT RAMP

STA. 51+73 TO STA. 53+77



T.H. 60 E.B. TEMPORARY EXIT WIDENING

STA. 50+00 TO STA. 51+73
STA. 53+77 TO STA. 54+25



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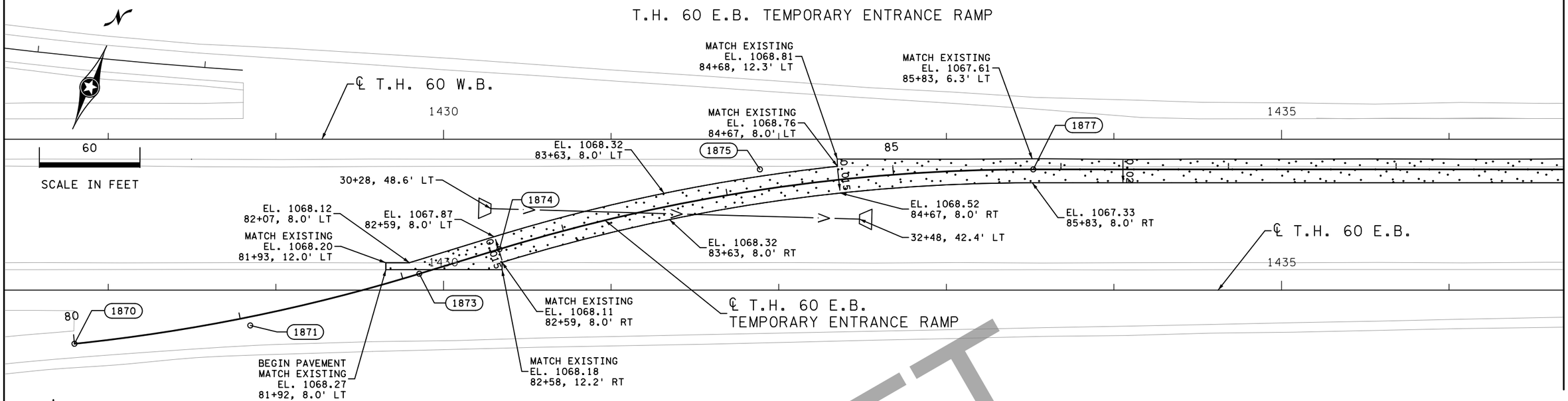
CONSTRUCTION PLAN DETAILS
T.H. 60 E.B. TEMPORARY EXIT RAMP DETAIL

SP 8309-52 (T.H. 60)
SHEET NO. 111 OF 283 SHEETS

T.H. 60 E.B. TEMPORARY ENTRANCE RAMP



MATCHLINE T.H. 60 E.B. TEMPORARY ENTRANCE RAMP STA 89+00

GENERAL NOTES:

A. ALL CROSS SLOPES ARE IN FT. PER FT.

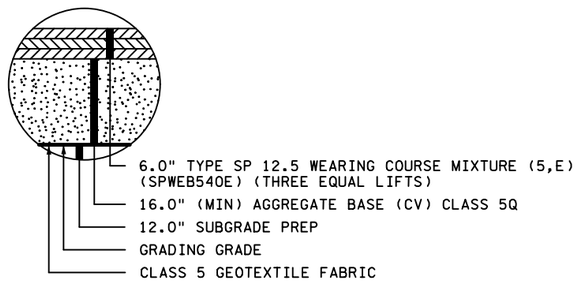
SPECIFIC NOTES:

(1) SUBCUT INCLUDED IN EXCAVATION - COMMON QUANTITY.

(2) INCLUDED IN COMMON EMBANKMENT (CV) QUANTITY.

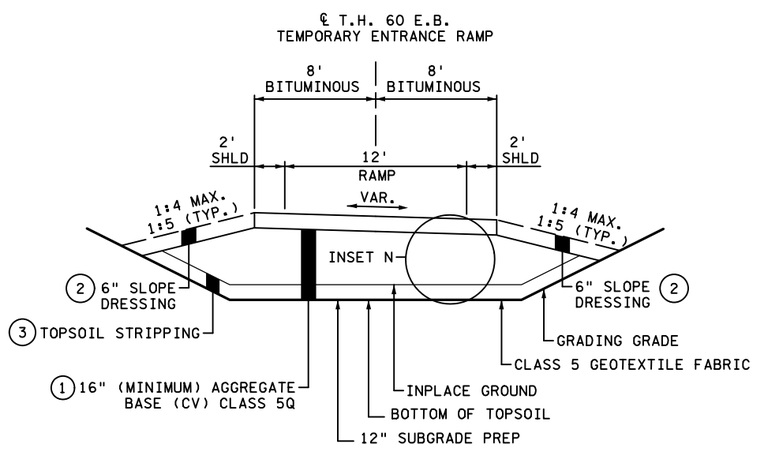
(3) INCLUDED IN EXCAVATION - COMMON QUANTITY.

INSET N



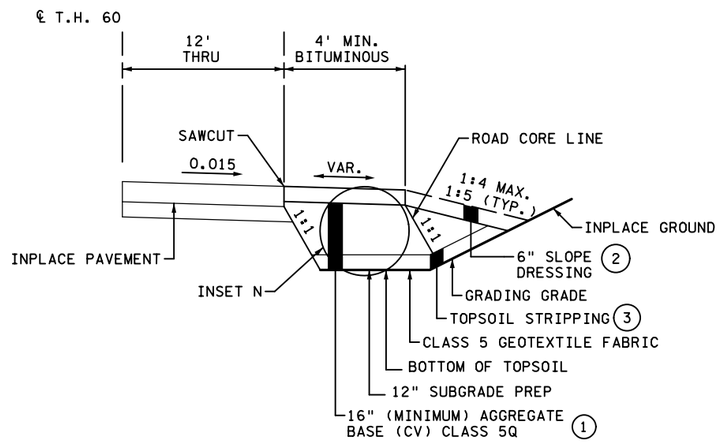
T.H. 60 E.B. TEMPORARY ENTRANCE RAMP

STA. 82+59 TO STA. 84+67



T.H. 60 E.B. TEMPORARY ENTRANCE WIDENING

STA. 81+92 TO STA. 82+59
STA. 84+67 TO STA. 93+83



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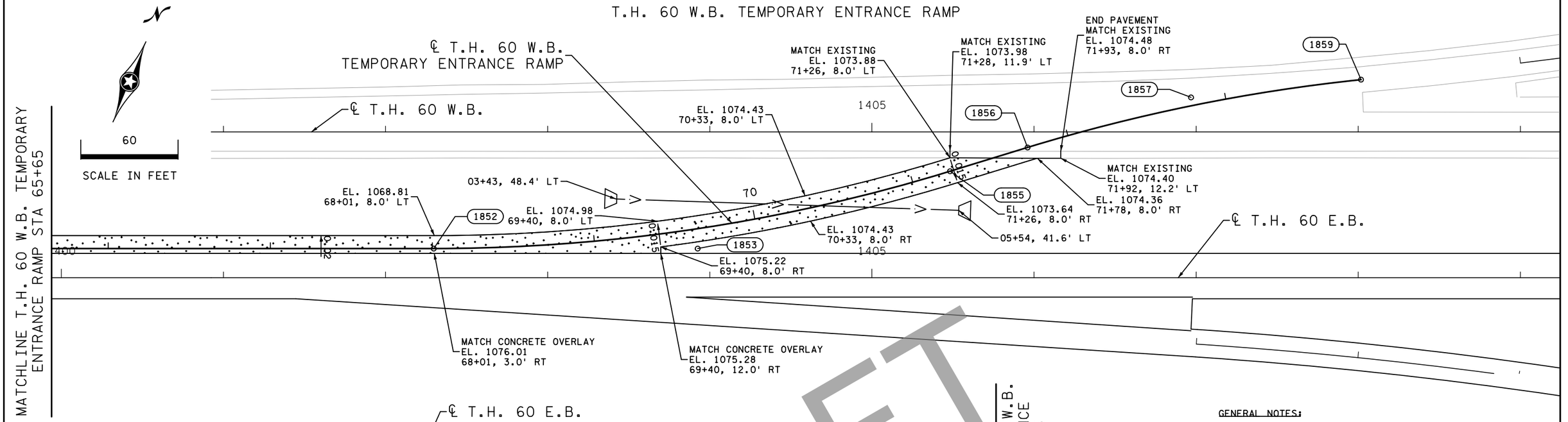
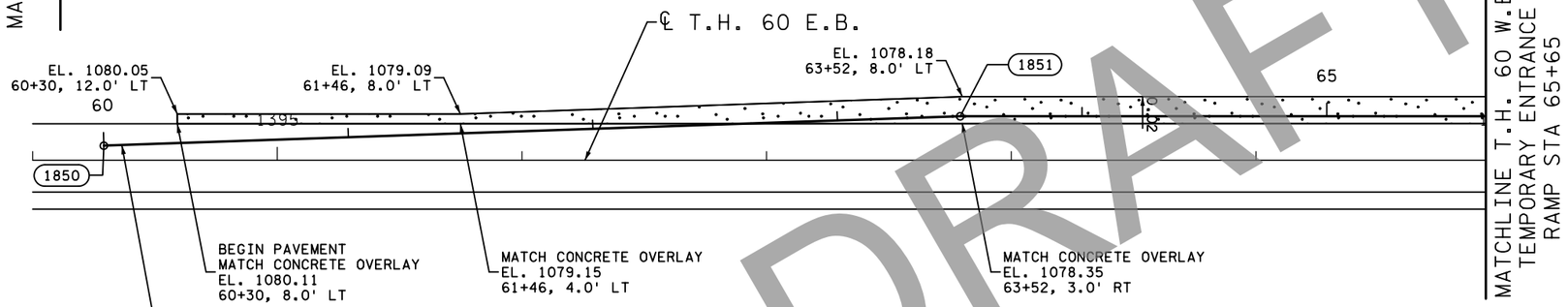
CONSTRUCTION PLAN DETAILS
T.H. 60 E.B. TEMPORARY ENTRANCE RAMP DETAIL

SP 8309-52 (T.H. 60)
SHEET NO. 112 OF 283 SHEETS

T.H. 60 W.B. TEMPORARY ENTRANCE RAMP





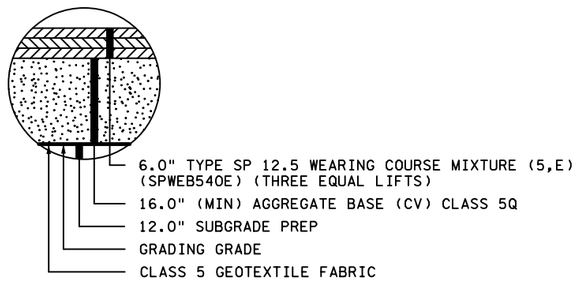
GENERAL NOTES:

A. ALL CROSS SLOPES ARE IN FT. PER FT.

SPECIFIC NOTES:

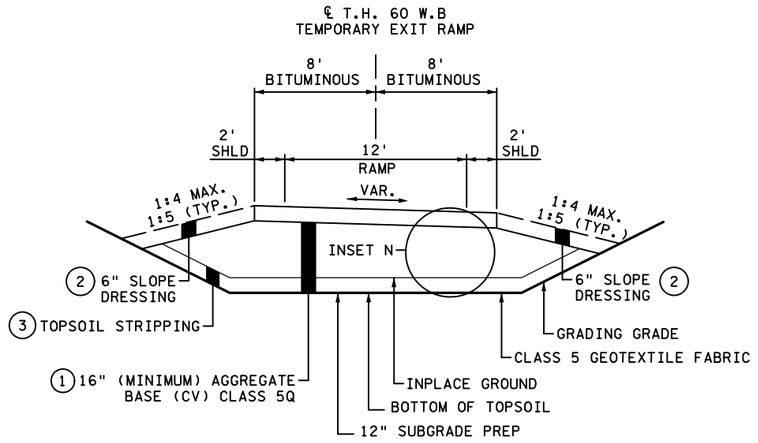
(1) SUBCUT INCLUDED IN EXCAVATION - COMMON QUANTITY.
(2) INCLUDED IN COMMON EMBANKMENT (CV) QUANTITY.
(3) INCLUDED IN EXCAVATION - COMMON QUANTITY.

INSET N



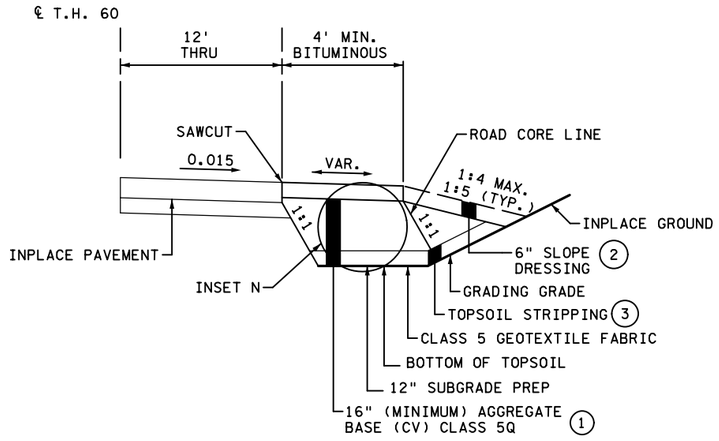
T.H. 60 W.B. TEMPORARY ENTRANCE RAMP

STA. 69+40 TO STA. 71+26



T.H. 60 W.B. TEMPORARY ENTRANCE WIDENING

STA. 60+30 TO STA. 69+40
STA. 71+26 TO STA. 71+93



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CONSTRUCTION PLAN DETAILS
T.H. 60 W.B. TEMPORARY ENTRANCE RAMP DETAIL

SP 8309-52 (T.H. 60)
SHEET NO. 113 OF 283 SHEETS

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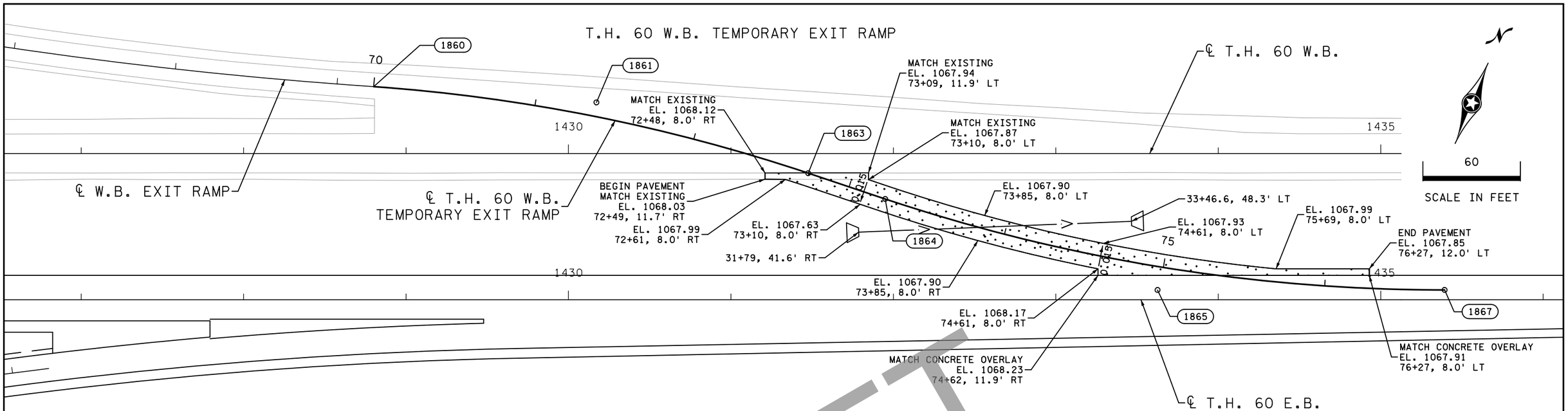


GENERAL NOTES:

A. ALL CROSS SLOPES ARE IN FT. PER FT.

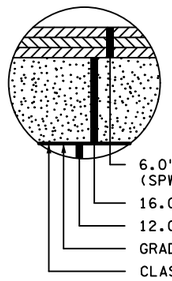
SPECIFIC NOTES:

(1) SUBCUT INCLUDED IN EXCAVATION - COMMON QUANTITY.

(2) INCLUDED IN COMMON EMBANKMENT (CV) QUANTITY.

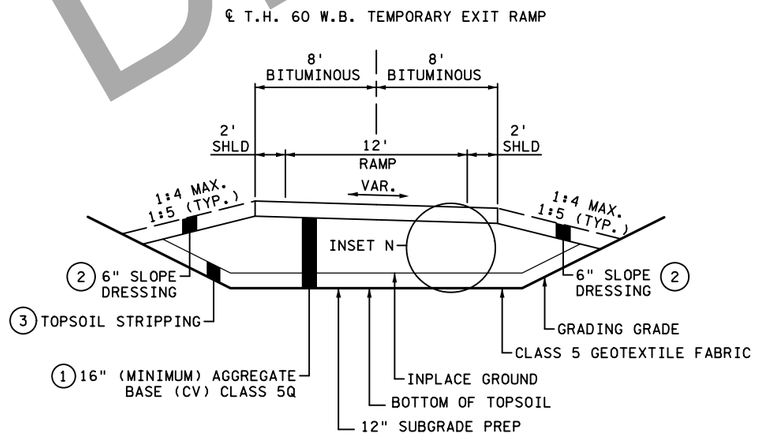
(3) INCLUDED IN EXCAVATION - COMMON QUANTITY.

INSET N



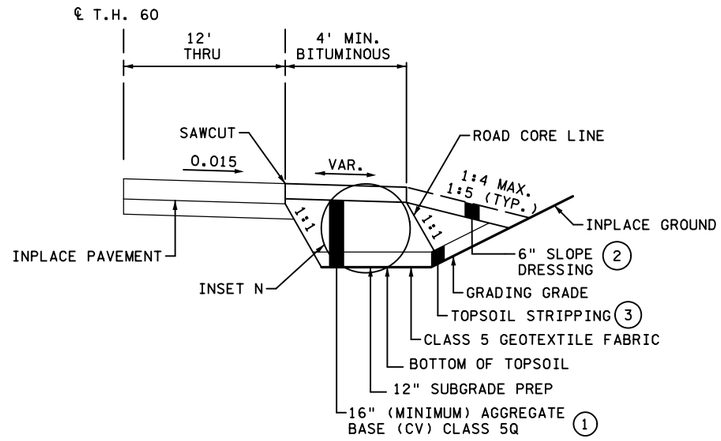
T.H. 60 W.B. TEMPORARY EXIT RAMP

STA. 73+10 TO STA. 74+61



T.H. 60 W.B. TEMPORARY EXIT WIDENING

STA. 72+48 TO STA. 73+10
STA. 74+61 TO STA. 76+27



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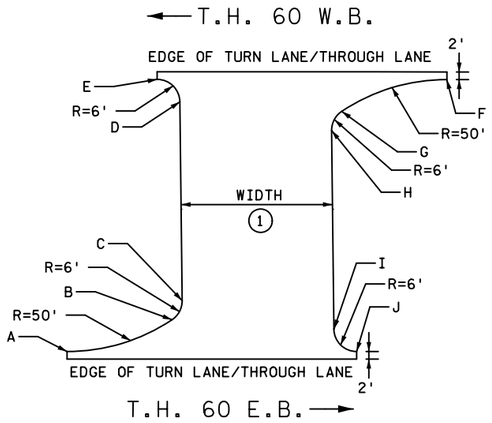
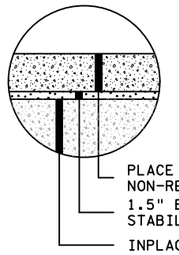
CONSTRUCTION PLAN DETAILS
T.H. 60 W.B. TEMPORARY EXIT RAMP DETAIL

SP 8309-52 (T.H. 60)
SHEET NO. 114 OF 283 SHEETS

TYPICAL BITUMINOUS MEDIAN CROSSOVERS



INSET C



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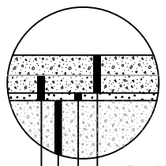

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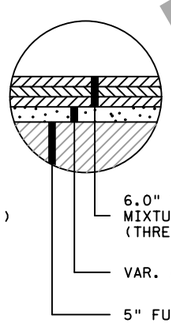


GENERAL NOTES:

A. ALL STATIONS AND OFFSETS ARE BASED OFF THE T.H. 60 E.B. ALIGNMENT.

SPECIFIC NOTES:

(1) WIDTH OF COUNTY ROAD MEDIAN CROSSINGS ARE 40' WIDTH OF ALL OTHER CROSSINGS ARE 28'.

BITUMINOUS MEDIAN CROSSING DETAILS

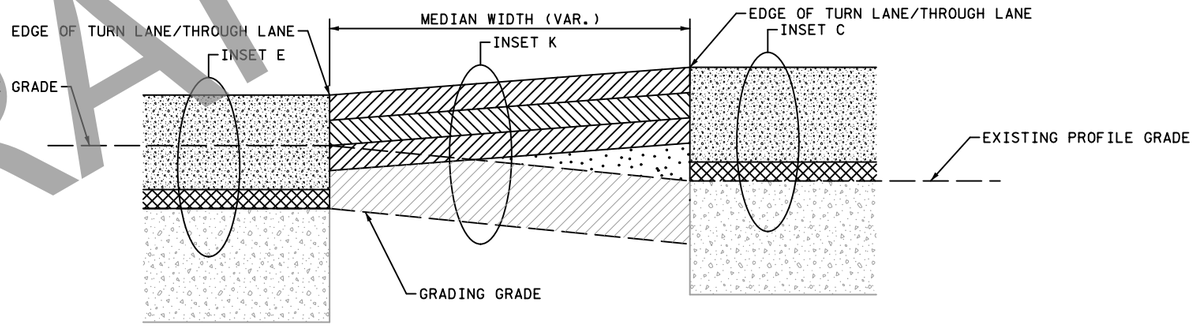
CONTROL POINTS																		
POINTS	700TH AVE MEDIAN CROSSING			MEDIAN CROSSING			MEDIAN CROSSING			MEDIAN CROSSING			T-35 MEDIAN CROSSING			MEDIAN CROSSING		
	STA	OFFSET		STA	OFFSET		STA	OFFSET		STA	OFFSET		STA	OFFSET		STA	OFFSET	
A	1243+34.27	26.0	LT	1256+72.66	26.0	LT	1575+40.16	26.0	LT	1590+70.22	26.0	LT	1614+11.93	26.0	LT	1640+63.85	26.0	LT
B	1243+61.58	34.2	LT	1257+06.70	39.4	LT	1575+74.25	39.4	LT	1591+04.31	39.4	LT	1614+39.64	34.4	LT	1640+97.94	39.4	LT
C	1243+64.28	39.2	LT	1257+08.62	43.8	LT	1575+76.16	43.8	LT	1591+06.21	43.8	LT	1614+42.31	39.5	LT	1640+99.84	43.5	LT
D	1243+64.07	93.6	LT	1257+08.68	92.1	LT	1575+76.16	92.0	LT	1591+06.22	91.9	LT	1614+41.73	91.9	LT	1640+99.85	91.9	LT
E	1243+58.10	99.6	LT	1257+02.69	98.2	LT	1575+70.16	98.0	LT	1591+00.22	97.9	LT	1614+35.73	97.9	LT	1640+93.85	97.9	LT
F	1244+34.07	99.5	LT	1257+72.69	98.1	LT	1576+40.16	98.0	LT	1591+70.22	97.9	LT	1615+12.18	97.9	LT	1641+63.85	97.9	LT
G	1244+06.58	91.3	LT	1257+38.58	84.7	LT	1576+06.07	84.5	LT	1591+36.12	84.5	LT	1614+84.44	89.4	LT	1641+29.76	84.5	LT
H	1244+03.90	86.2	LT	1257+36.66	80.3	LT	1576+04.16	80.1	LT	1591+34.22	80.1	LT	1614+81.77	84.4	LT	1641+27.85	80.1	LT
I	1244+04.24	32.0	LT	1257+36.60	32.0	LT	1576+04.16	32.0	LT	1591+34.21	32.0	LT	1614+82.38	31.9	LT	1641+27.85	32.0	LT
J	1244+10.23	26.0	LT	1257+42.60	26.0	LT	1576+10.16	26.0	LT	1591+40.21	26.0	LT	1614+88.38	26.0	LT	1641+33.85	26.0	LT

CONTROL POINTS															
POINTS	C.S.A.H. 16 MEDIAN CROSSING			CO. RD. 109 MEDIAN CROSSING			MEDIAN CROSSING			CO. RD. 117 MEDIAN CROSSING			MEDIAN CROSSING		
	STA	OFFSET		STA	OFFSET		STA	OFFSET		STA	OFFSET		STA	OFFSET	
A	1773+10.83	26.0	LT	1824+50.47	26.0	LT	1850+88.55	17.0	LT	1877+28.02	26.0	LT	1897+52.50	26.0	LT
B	1773+38.14	34.1	LT	1824+77.73	34.1	LT	1851+22.64	30.4	LT	1877+55.26	34.1	LT	1897+86.59	39.4	LT
C	1773+40.86	39.2	LT	1824+80.46	39.1	LT	1851+24.55	34.8	LT	1877+57.99	39.1	LT	1897+88.50	43.8	LT
D	1773+40.81	92.0	LT	1824+80.48	92.0	LT	1851+24.55	100.9	LT	1877+58.03	91.9	LT	1897+88.50	91.8	LT
E	1773+34.81	98.0	LT	1824+74.48	98.0	LT	1851+18.55	106.9	LT	1877+52.03	97.9	LT	1897+82.50	97.8	LT
F	1774+10.95	98.0	LT	1825+50.43	98.0	LT	1851+88.55	106.9	LT	1878+28.00	97.9	LT	1898+52.50	97.8	LT
G	1773+83.73	89.9	LT	1825+23.14	89.9	LT	1851+54.46	93.5	LT	1878+00.75	89.8	LT	1898+18.41	84.4	LT
H	1773+80.99	84.9	LT	1825+20.42	84.9	LT	1851+52.55	89.1	LT	1877+98.02	84.8	LT	1898+16.50	80.0	LT
I	1773+80.94	32.0	LT	1825+20.43	32.0	LT	1851+52.55	23.0	LT	1877+97.98	32.0	LT	1898+16.50	32.0	LT
J	1773+86.94	26.0	LT	1825+26.43	26.0	LT	1851+58.55	17.0	LT	1878+03.98	26.0	LT	1898+22.50	26.0	LT

BITUMINOUS MEDIAN CROSSING - DETAIL 1

T.H. 60 W.B. STA. 1535+91.2 R 2 TO STA. 1659+29.6 R 4

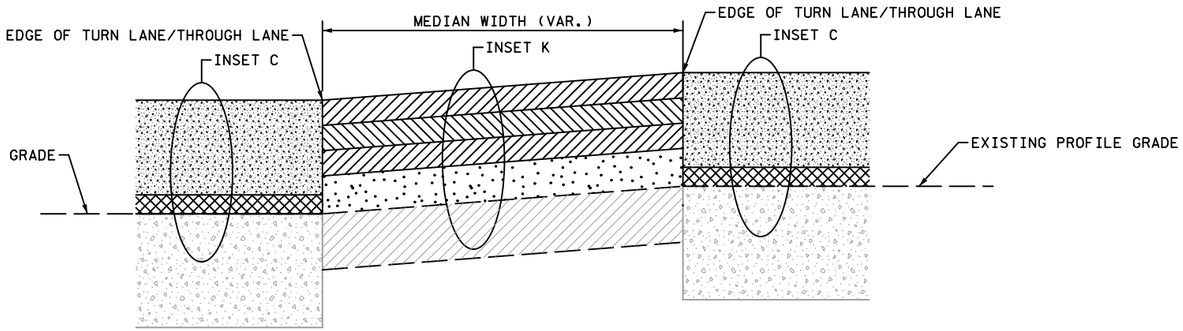
T.H. 60 E.B. STA. 1745+99.3 R 11 TO STA. 1908+66.5 R 12



BITUMINOUS MEDIAN CROSSING - DETAIL 2

T.H. 60 W.B. STA. 1223+94.0 R 1 TO STA. 1535+91.2 R 2
T.H. 60 W.B. STA. 1659+29.6 R 4 TO STA. 1902+96.1 R 8

T.H. 60 E.B. STA. 1225+50.0 R 2 TO STA. 1745+99.3 R 11



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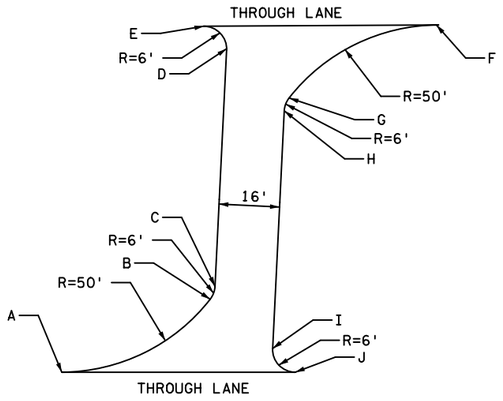
CONSTRUCTION PLAN DETAILS
BITUMINOUS MEDIAN CROSSING DETAILS

SP 8309-52 (T.H. 60)
SHEET NO. 115 OF 283 SHEETS

GRAVEL AND CONCRETE MEDIAN CROSSING DETAILS

TYPICAL GRAVEL MEDIAN CROSSOVERS



CONCRETE MEDIAN CROSSINGS

CONTROL POINTS												
POINTS	CO. RD. 103 MEDIAN CROSSING			WEST REST AREA CROSSING			EAST REST AREA CROSSING			CO. RD. 118 MEDIAN CROSSING		
	STA	OFFSET		STA	OFFSET		STA	OFFSET		STA	OFFSET	
A	1666+65.81	26.0	LT	1689+12.01	26.0	LT	1710+53.76	26.0	LT	1719+57.52	26.0	LT
B	1667+49.69	37.2	LT	1689+96.13	38.8	LT	1711+37.86	38.8	LT	1720+41.53	38.0	LT
C	1667+49.78	88.1	LT	1689+96.03	97.6	LT	1711+37.78	87.8	LT	1720+49.66	88.2	LT
D	1666+80.39	97.9	LT	1689+25.37	107.0	LT	1710+67.16	98.0	LT	1719+81.24	98.0	LT
E	1668+72.80	97.9	LT	1691+21.15	107.0	LT	1712+62.77	98.0	LT	1721+74.14	98.0	LT
F	1667+89.47	85.7	LT	1690+36.37	95.2	LT	1711+78.08	86.1	LT	1720+89.81	86.0	LT
G	1667+89.56	36.2	LT	1690+36.24	35.8	LT	1711+77.99	35.8	LT	1720+81.68	35.7	LT
H	1668+59.43	26.0	LT	1691+06.36	26.0	LT	1712+48.13	26.0	LT	1721+49.78	26.0	LT

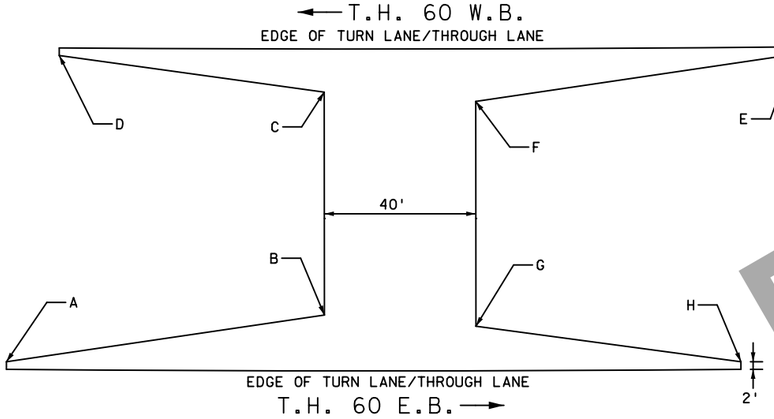
GRAVEL MEDIAN CROSSINGS

CONTROL POINTS						
POINTS	MEDIAN CROSSING			MEDIAN CROSSING		
	STA	OFFSET		STA	OFFSET	
A	1350+82.76	15.0	LT	1526+26.03	15.0	LT
B	1351+23.66	36.3	LT	1526+65.08	34.2	LT
C	1351+24.75	39.7	LT	1526+66.33	37.6	LT
D	1351+24.76	69.1	LT	1526+69.24	100.0	LT
E	1351+18.76	75.1	LT	1526+63.28	106.2	LT
F	1351+82.76	75.1	LT	1527+24.14	107.0	LT
G	1351+41.85	53.9	LT	1526+85.51	87.4	LT
H	1351+40.76	50.4	LT	1526+84.29	84.0	LT
I	1351+40.75	21.0	LT	1526+81.52	21.3	LT
J	1351+46.75	15.0	LT	1526+87.49	15.0	LT

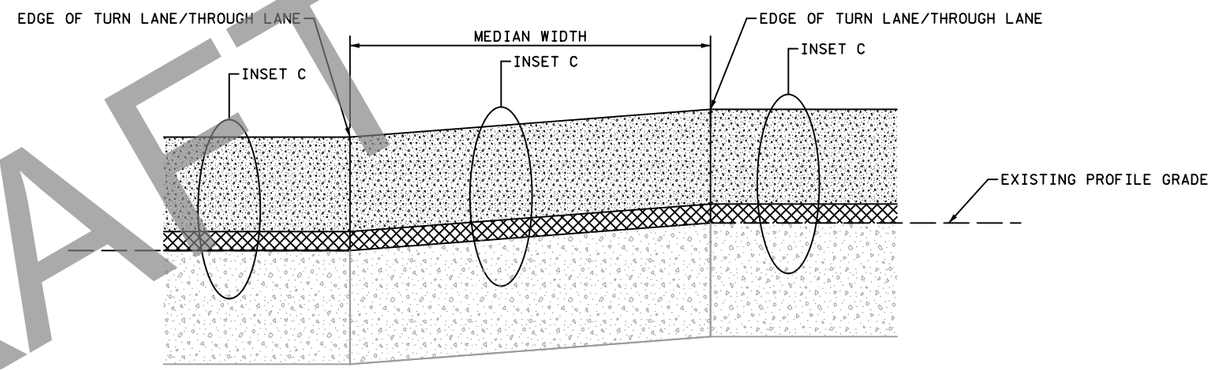
GENERAL NOTES:

A. ALL STATIONS AND OFFSETS ARE BASED OFF THE T.H. 60 E.B. ALIGNMENT.

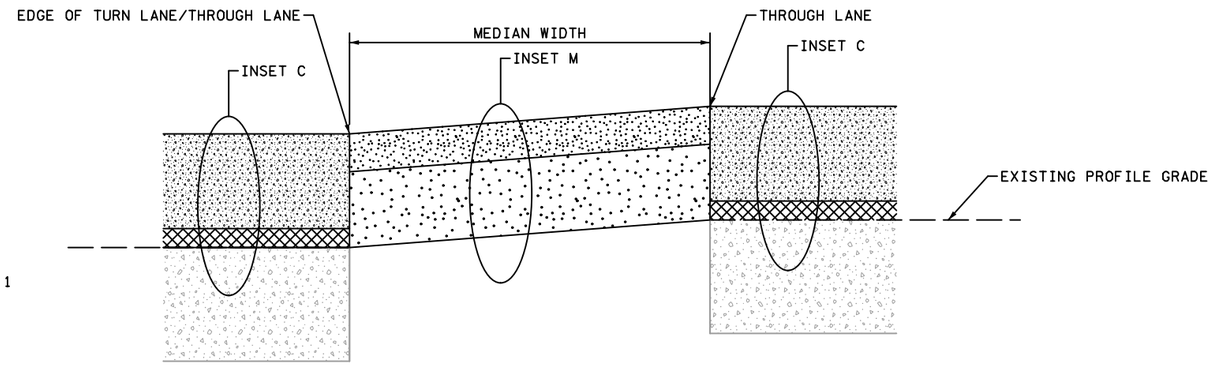
TYPICAL CONCRETE MEDIAN CROSSINGS



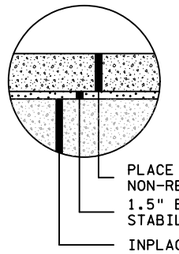
CONCRETE MEDIAN CROSSING



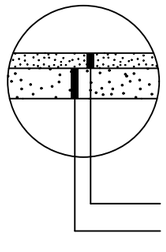
GRAVEL MEDIAN CROSSING



INSET C



INSET M



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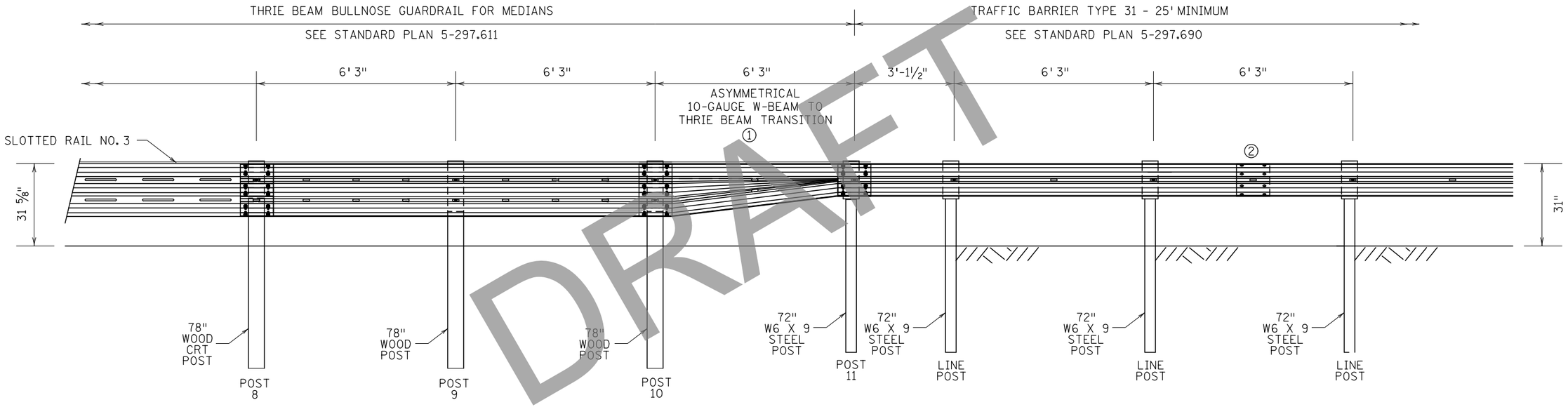
CONSTRUCTION PLAN DETAILS
AGGREGATE AND CONCRETE MEDIAN CROSSING DETAILS

SP 8309-52 (T.H. 60)
SHEET NO. 116 OF 283 SHEETS



ELEVATION

THRIE BEAM BULLNOSE TRANSITION TO TRAFFIC BARRIER TYPE 31

NOTES:

THE USE OF CURB IS NOT ALLOWED WITH THIS TRANSITION.

A MINIMUM OF 25' OF TRAFFIC BARRIER TYPE 31 IS NEEDED BETWEEN THE BULLNOSE TRANSITION AND AN UPSTREAM STIFFNESS TRANSITION.

W-BEAM RAIL AND HARDWARE PER AASHTO SPEC. M 180.

USE STRUCTURAL STEEL POSTS PER ASTM A 36, GALVANIZED PER SPECS. 3392 AND 3394.

① SEE STANDARD PLAN 5-297.695.

② GUARDRAIL HEIGHT SHALL TRANSITION TO 31" AT THIS LOCATION. 12'-6" RAIL LENGTH SHOWN, 25' RAIL LENGTH ALLOWED.

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CONSTRUCTION PLAN DETAILS

THRIE BEAM BULLNOSE TO TRAFFIC BARRIER TYPE 31

SP 8309-52 (T.H. 60)

SHEET NO. 117 OF 283 SHEETS

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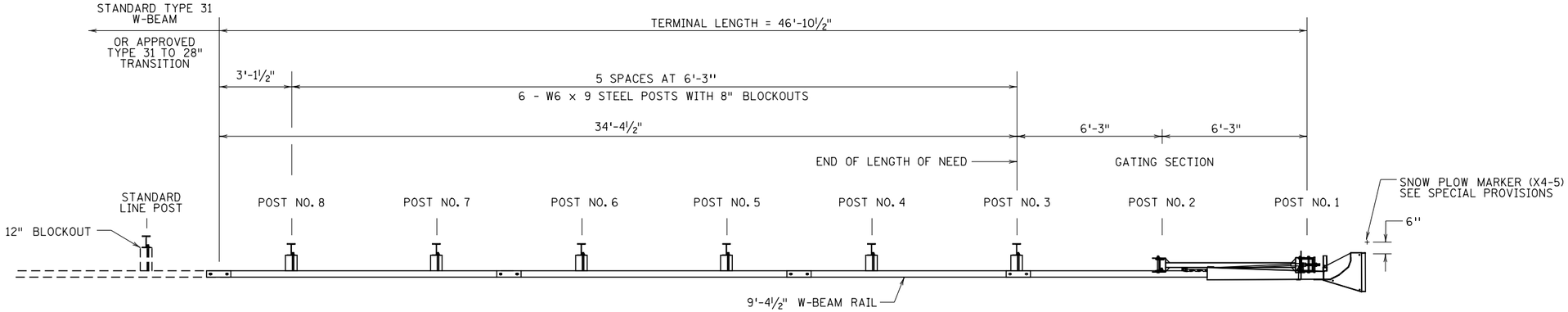
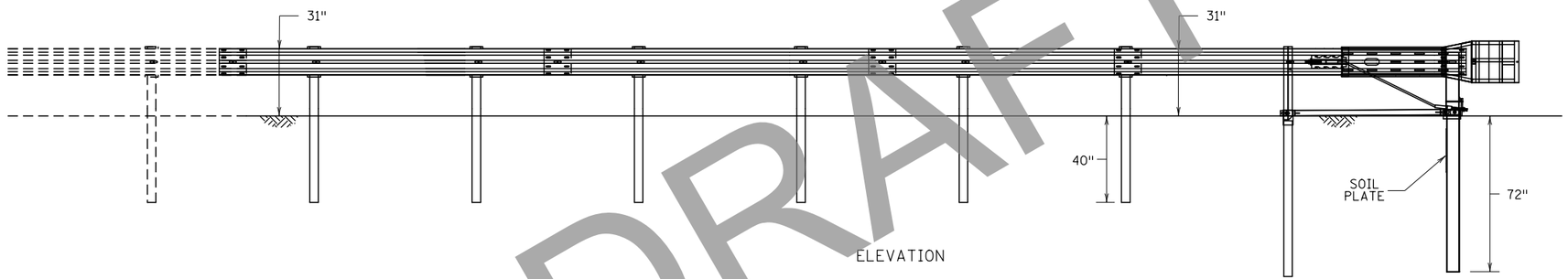
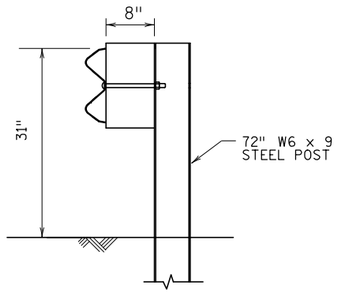


PLAN



ELEVATION



STANDARD POST
(POSTS 3 THRU 8)

NOTES:

THIS IS A PROPRIETARY ITEM AS PER SPEC. 1703.

THESE DETAILS ARE FOR DESIGN GUIDANCE INFORMATION ONLY. CHECK WITH MANUFACTURER FOR CURRENT DETAILS AND INSTALLATION INSTRUCTIONS.

ALL TERMINAL RAIL MUST BE STRAIGHT, CURVED TERMINAL RAIL IS NOT ALLOWED.

ALL BOLTS, NUTS, CABLE ASSEMBLIES, CABLE ANCHORS AND BEARING PLATES SHALL BE GALVANIZED PER MnDOT SPEC. 3392.

SEE SPECIAL PROVISIONS FOR POST DELINEATORS AND OBJECT MARKERS.

CHECK WITH MANUFACTURER FOR SPECIFIC OFFSET REQUIREMENTS.

POSTS 1 AND 2 ARE PROPRIETARY HINGED POSTS.

THE RAIL IS DESIGNED TO EXIT THE IMPACT HEAD ON THE BACK SIDE OF THE TERMINAL.

NO	DATE	DWN	CKD	REVISIONS
0	10/31/17			

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CONSTRUCTION PLAN DETAILS
ENERGY ABSORBING TANGENT TERMINAL - MSKT

SP 8309-52 (T.H. 60)
SHEET NO. 118 OF 283 SHEETS

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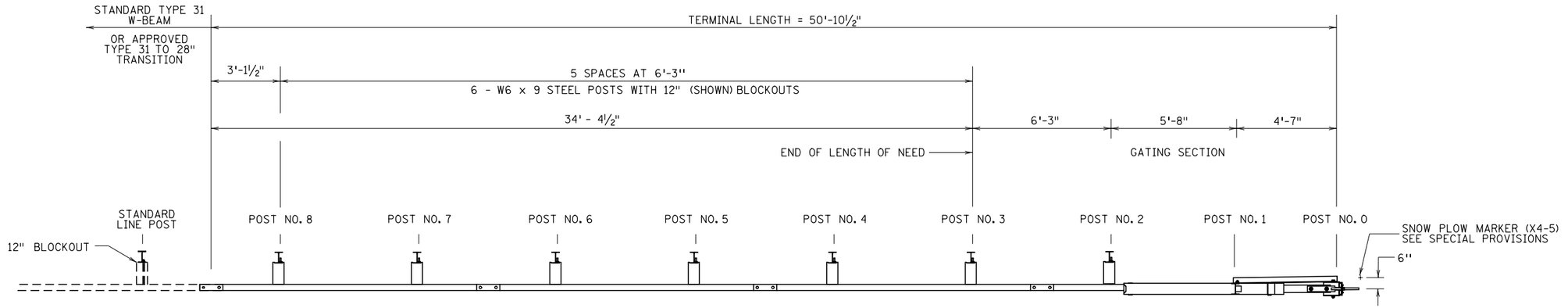
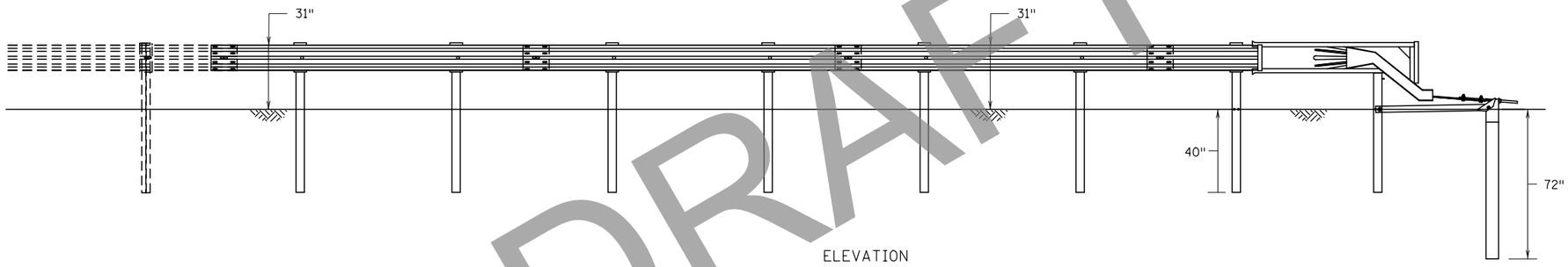
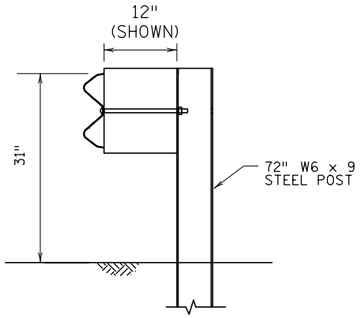


TRAFFIC

PLAN



ELEVATION



STANDARD POST
(POSTS 3 THRU 8)

NOTES:

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ALL BOLTS, NUTS, CABLE ASSEMBLIES, CABLE ANCHORS AND BEARING PLATES SHALL BE GALVANIZED PER MnDOT SPEC. 3392.

SEE SPECIAL PROVISIONS FOR POST DELINEATORS AND OBJECT MARKERS.

CHECK WITH MANUFACTURER FOR SPECIFIC OFFSET REQUIREMENTS.

POSTS 1 AND 2 ARE PROPRIETARY STEEL YIELDING TERMINAL POSTS.

POST 0 IS A PROPRIETARY ANCHOR POST.

POSTS 2 - 8, 8" BLOCKOUTS ACCEPTABLE.

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CONSTRUCTION PLAN DETAILS
ENERGY ABSORBING TANGENT TERMINAL - SOFT STOP

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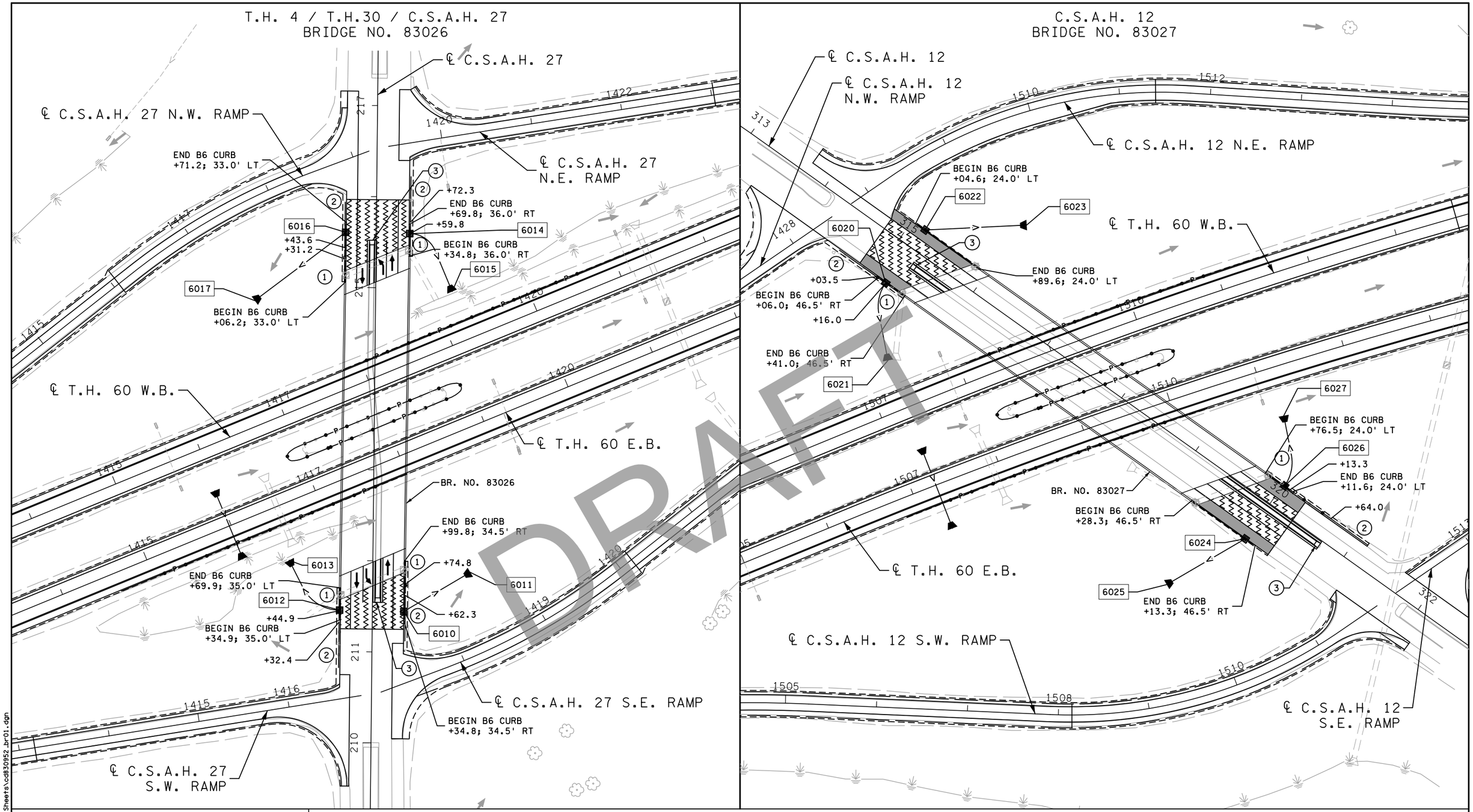

LEGEND

- CONCRETE PAVEMENT REHABILITATION (CPR)
- BITUMINOUS SHOULDER
- TRAFFIC BARRIER DESIGN TYPE 31

GENERAL NOTES:

A. SEE BRIDGE PLANS FOR WORK TO BE PREFORMED ON ABUTMENTS AND BRIDGES.

B. SEE CONSTRUCTION PLANS FOR DRAINAGE LEGEND.

C. SEE DRAINAGE TABULATIONS AND PROFILES FOR STORM SEWER INFORMATION.

SPECIFIC NOTES:

(1) TRAFFIC BARRIER DESIGN TRANSITION TYPE 31.

(2) END TREATMENT - TANGENT TERMINAL. GRADING AT THE TERMINAL AS SHOWN PER STANDARD PLAN 5-297.601 SHALL BE INCIDENTAL.

(3) CONSTRUCT CONCRETE MEDIAN NOSE PER MNDOT STANDARD PLATE 7109.

100
SCALE IN FEET

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CONSTRUCTION PLAN DETAILS
BRIDGE CPR

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SHEET NO. 120 OF 283 SHEETS

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℄ T.H. 4 S.W. RAMP

INPLACE BIT. TRAIL

10'

STA. 1286+82.6
OFFSET 14.3' LT
ELEV. 1116.55

STA. 1286+93.7
OFFSET 20.3' LT
ELEV. 1116.60

STA. 1286+85.1
OFFSET 20.4' RT
ELEV. 1116.15

STA. 1286+94.7
OFFSET 23.5' RT
ELEV. 1116.20

℄ T.H. 4

℄ T.H. 4 S.E. RAMP

℄ T.H. 4 N.W. RAMP

STA. 1283+25.4
OFFSET 28.4' LT
ELEV. 1115.86

STA. 1283+33.9
OFFSET 39.6' LT
ELEV. 1115.91

STA. 1283+51.3
OFFSET 9.2' RT
ELEV. 1116.85

STA. 1283+40.5
OFFSET 9.2' RT
ELEV. 1116.80

℄ C.S.A.H. 57

℄ T.H. 4 N.E. RAMP

1286+50
1287
1283
1284
97
96
104
103+50
103

P-BUR

N

20

SCALE IN FEET

LEGEND

LANDING AREA
MAX 2.0% SLOPE IN
ALL DIRECTIONS

TRUNCATED DOMES (SEE
STANDARD PLATE 7038)

DIRECTION OF TRAFFIC

NO	DATE	DWN	CKD	REVISIONS

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CONSTRUCTION PLAN DETAILS
ADA INTERSECTION DETAILS

SP 8309-52 (T.H. 60)
SHEET NO. 121 OF 283 SHEETS

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EXISTING DRAINAGE TABULATION — S

STATION FROM	STATION TO	LOCATION	CLEAN PIPE CULVERT	CLEAN INLET STRUCTURE	REMOVE PIPE APRON	REMOVE PIPE CULVERTS	REMOVE PIPE SEWERS	REMOVE CATCH BASIN
			LIN FT	EACH	EACH	LIN FT	LIN FT	EACH
T.H. 60 E.B.								
1242+74.92		MAINLINE	89					
1416+54.06		MAINLINE				69		
1507+89.50		MAINLINE				77		
1566+08.99		MAINLINE	79					
1572+25.76		MAINLINE	88					
1575+67.43	1576+13.90	RT				47		
1576+98.09		MAINLINE	77					
1640+83.32	1641+43.11	RT				61		
1753+50.13		MAINLINE	71					
1773+26.12	1773+92.29	RT				66		
1851+21.43	1851+57.12	RT				36		
1897+68.91	1898+36.69	RT				68		
T.H. 60 W.B.								
1224+43.25	1224+89.40	LT				46		
1257+03.99	1257+51.99	LT				52		
1283+98.50		MAINLINE				69		
1566+07.89		MAINLINE	82					
1575+66.27	1576+06.95	LT				41		
1577+01.86		MAINLINE	86					
1603+90.66		LT		1				
1639+11.28		MAINLINE	85					
1640+70.29	1641+28.53	LT				58		
1773+22.90	1773+96.07	LT				73		
1775+00.62		RT			1			
1785+00.24		RT			1			
1824+61.22	1825+39.02	LT				78		
1851+24.21	1851+57.26	LT				33		
1897+65.60	1898+35.97	LT				70		
C.S.A.H. 27								
211+62.20		LT					41	1
211+90.60		RT					75	1
215+13.95		LT					74	1
215+41.13		RT					63	1
C.S.A.H. 12								
315+36.38		RT					67	1
315+85.35		LT					86	1
319+32.91		RT					76	1
319+81.03		LT					85	1
TOTAL			**657**	**1**	**2**	**944**	**567**	**8**

CULVERT TABULATION — T

STRUCTURE NO. FLOWS FROM	STRUCTURE NO. FLOWS TO	STRUCTURE LOCATION ALIGN.	STATION	OFFSET	ELEV.	18" CS PIPE CULVERT	18" RC PIPE CULVERT DES 3006	24" RC PIPE CULVERT DES 3006	18" GS PIPE APRON	18" CS SAFETY APRON	18" RC SAFETY APRON	24" RC SAFETY APRON	CONNECT TO INPLACE CULVERT	GUIDE POSTS TYPE B	REMARKS
						LIN FT	LIN FT	LIN FT	EACH	EACH	EACH	EACH	L S	EACH	
6000	6001	TH60 EB	1212+25.20	42.3' LT	1110.82		84				1			1	
6001		TH60 EB	1212+25.20	54.2' RT	1110.05						1			1	
6002	6003	TH60 WB	1224+27.97	46.5' LT	1105.73	64				1				1	
6003		TH60 WB	1225+05.11	46.9' LT	1104.89					1				1	
6004	6005	TH60 WB	1257+71.60	58.5' LT	1101.12	73				1				1	
6005		TH60 WB	1256+85.70	58.9' LT	1100.84					1				1	
6006	6007	TH60 WB	1283+91.43	37.6' RT	1093.00		72				1			1	
6007		TH60 WB	1283+91.43	45.6' LT	1092.78						1			1	
6008	6009	TH60 EB	1415+97.91	41.9' LT	1068.57		69				1			1	
6009		TH60 EB	1415+97.91	39.1' RT	1068.22						1			1	
6018	6019	TH60 EB	1507+26.99	43.5' LT	1071.26		83				1			1	
6019		TH60 EB	1507+26.99	50.9' RT	1070.55						1			1	
6028	6029	TH60 EB	1575+52.55	60.7' RT	1060.82	72				1				1	
6029		TH60 EB	1576+37.52	60.4' RT	1060.36					1				1	
6030	6031	TH60 WB	1641+42.64	59.8' LT	1064.55	72				1				1	
6031		TH60 WB	1640+58.08	60.6' LT	1063.64					1				1	
6032	6033	TH60 EB	1640+52.20	78.8' RT	1062.42	116			1					1	
6033		TH60 EB	1641+72.59	77.1' RT	1060.96				1					1	
6034	6035	TH60 EB	1774+14.63	72.5' RT	1060.60	106			1					1	
6035		TH60 EB	1773+04.12	71.1' RT	1060.20				1					1	
6036	6037	TH60 WB	1774+11.43	70.5' LT	1060.16	102			1					1	
6037		TH60 WB	1773+04.78	69.9' LT	1059.76				1					1	
6038	6039	TH60 WB	1775+00.22	42.9' RT	1063.32	2							1		
6039		TH60 WB	1775+00.26	32.2' RT	1063.26					1				1	
6040	6041	TH60 WB	1785+00.24	34.6' RT	1065.70	2							1		
6041		TH60 WB	1785+00.28	26.8' RT	1065.63					1				1	
6042	6043	TH60 EB	1851+88.05	64.8' RT	1053.90	97			1					1	
6043		TH60 EB	1850+85.91	64.6' RT	1053.67				1					1	
6044	6045	TH60 WB	1851+80.42	52.9' LT	1055.42			68				1		1	
6045		TH60 WB	1850+96.16	55.0' LT	1054.90							1		1	
6046	6047	TH60 WB	1897+57.30	69.2' LT	1046.79	90			1					1	
6047		TH60 WB	1898+52.38	68.0' LT	1046.29				1					1	
6048	6049	TH60 EB	1897+48.84	58.7' RT	1049.17	83				1				1	
6049		TH60 EB	1898+44.52	56.9' RT	1047.60					1				1	
6050	6051	TH60 EB	1906+53.79	45.1' LT	1041.08		87				1			1	
6051		TH60 EB	1906+53.79	57.5' RT	1038.78						1			1	
PROJECT TOTALS:						879	311	68	10	12	8	2	2	32	

SUBSURFACE DRAINAGE — U

STATION FROM	STATION TO	LOCATION	RECONSTRUCT DRAINAGE OUTLET
			EACH
T.H. 60 E.B.			
1211+50.0	1682+91.0	LT	2
1211+50.0	1682+91.0	RT	1
1685+97.0	1912+99.8	LT	3
1685+97.0	1912+99.8	RT	3
T.H. 60 W.B.			
1211+46.1	1683+26.0	LT	5
1211+46.1	1683+26.0	RT	5
1686+18.4	1912+56.1	RT	3
TOTAL			**22**

STRUCTURAL PLATE CULVERT REPAIRS — V

STATION FROM	STATION TO	LOCATION	METALLIZING ZINC PRIMER	REPAIR CULVERT	RANDOM RIPRAP CLASS III	GRANULAR FILTER	GEOTEXTILE FILTER TYPE 4
			SQ FT	LIN FT	CU YD	CU YD	SQ YD
T.H. 60 E.B.							
1445+25.75	1445+25.75	MAINLINE	2486	226			
1445+38.96	1445+38.96	MAINLINE	2486	226			
1445+52.29	1445+52.29	MAINLINE	2486	226			
1445+25.75	1445+52.29	LT			56.7	14.2	56.7
1445+25.75	1445+52.29	RT			62.5	15.6	62.5
TOTAL			**7458**	**678**	**119.3**	**29.8**	**119.3**

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DRAINAGE TABULATIONS

SP 8309-52 (T.H. 60)
SHEET NO. 122 OF 283 SHEETS

STORM SEWER TABULATION

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES					TOP OF CASTING ELEV	OUTLET ELEV.	INLET ELEV.	12" CP PIPE SEWER
FLOWS FROM	FLOWS TO	ALIGN.	STATION	OFFSET	TYPE	PAY HEIGHT	CASTING ASSEMBLY TYPE	STEPS REQ'D	12" GS PIPE APRON				
						LIN FT			EACH				LIN FT
6010	6011	CSAH 27	211+44.77	34.6' RT	N	3.9	B-14	NO		XXX.XX	XXX.XX	1078.55	78
6011		CSAH 27	211+84.67	100.8' RT					1		1078.55		
6012	6013	CSAH 27	211+45.47	35.9' LT	N	3.9	B-14	NO		XXX.XX	XXX.XX	1070.55	76
6013		CSAH 27	211+93.09	88.5' LT					1		1070.55		
6014	6015	CSAH 27	215+59.72	36.8' RT	N	3.9	B-14	NO		XXX.XX	XXX.XX	1069.35	77
6015		CSAH 27	215+03.33	81.1' RT					1		1069.35		
6016	6017	CSAH 27	215+60.43	33.7' LT	N	3.9	B-14	NO		XXX.XX	XXX.XX	1074.7	118
6017		CSAH 27	214+88.83	126.8' LT					1		1074.7		
6020	6021	CSAH 12	315+15.88	47.8' RT	N	3.9	B-14	NO		XXX.XX	XXX.XX	1073.48	81
6021		CSAH 12	315+61.90	110.5' RT					1		1073.48		
6022	6023	CSAH 12	315+17.30	24.7' LT	N	3.9	B-14	NO		XXX.XX	XXX.XX	1078.55	105
6023		CSAH 12	315+99.12	89.4' LT					1		1078.55		
6024	6025	CSAH 12	320+00.35	47.1' RT	N	3.9	B-14	NO		XXX.XX	XXX.XX	1076.25	93
6025		CSAH 12	319+62.39	131.5' RT					1		1076.25		
6026	6027	CSAH 12	320+01.77	25.4' LT	N	3.9	B-14	NO		XXX.XX	XXX.XX	1071.33	73
6027		CSAH 12	319+61.49	82.5' LT					1		1071.33		
PROJECT TOTALS:						31.2	8		8				701

CASTING ASSEMBLY KEY AND SUMMARY

ASSEMBLY	NUMBER REQUIRED	CASTING NUMBER	STANDARD PLATE
B-14	8	FRAME CASTING NO. 806	4125
		GRATE CASTING NO. 811	4151
		CURB BOX CASTING NO. 825	4134

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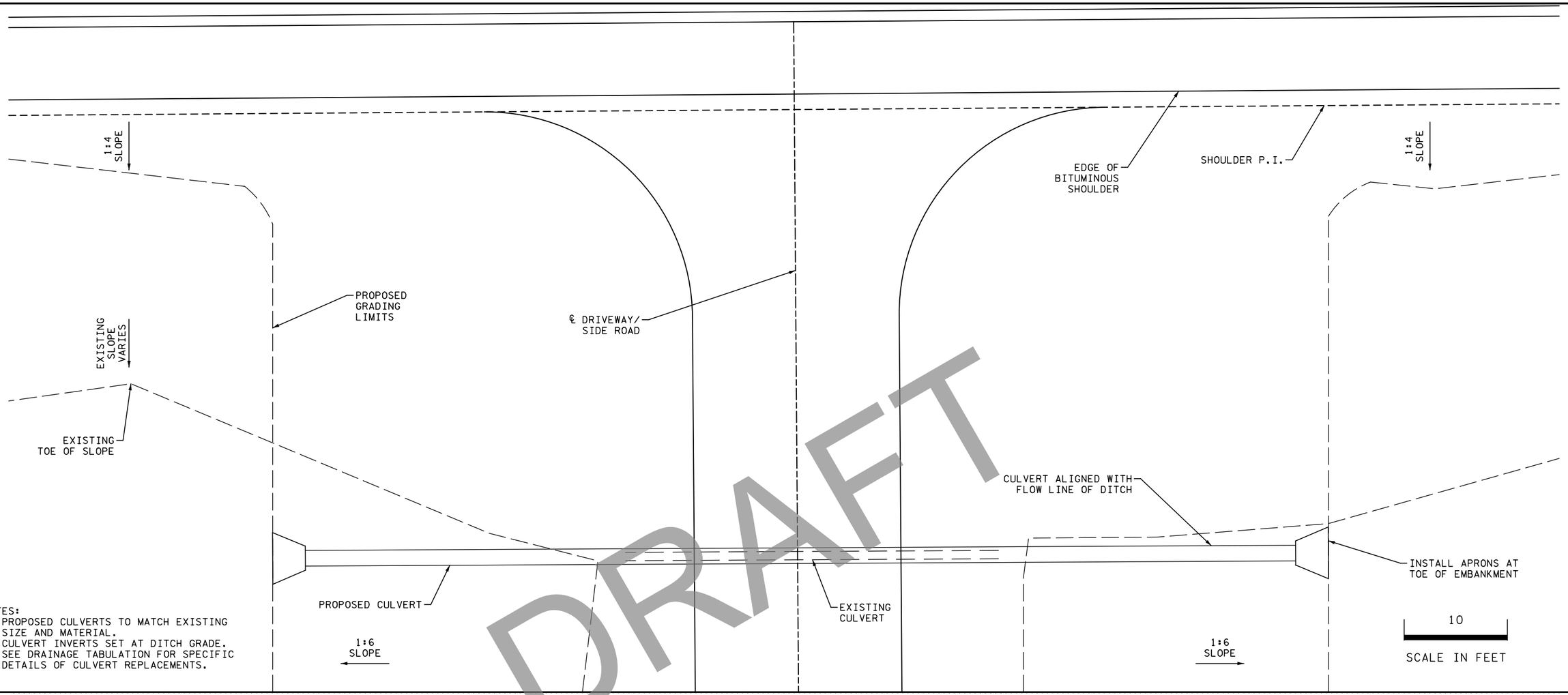
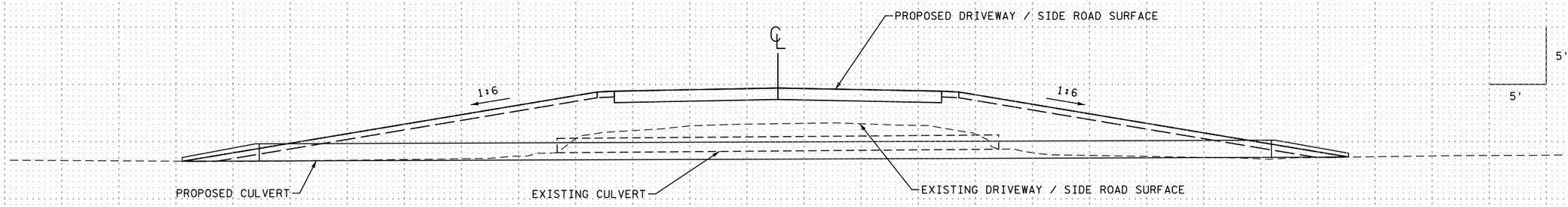
DRAINAGE TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 123 OF 283 SHEETS



NOTES:
1. PROPOSED CULVERTS TO MATCH EXISTING SIZE AND MATERIAL.
2. CULVERT INVERTS SET AT DITCH GRADE.
3. SEE DRAINAGE TABULATION FOR SPECIFIC DETAILS OF CULVERT REPLACEMENTS.



DRIVEWAY / SIDE ROAD CULVERT TYPICAL SECTION

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DRAINAGE DETAILS
DRIVEWAY / SIDE ROAD CULVERT REPLACEMENT

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SHEET NO. 124 OF 283 SHEETS

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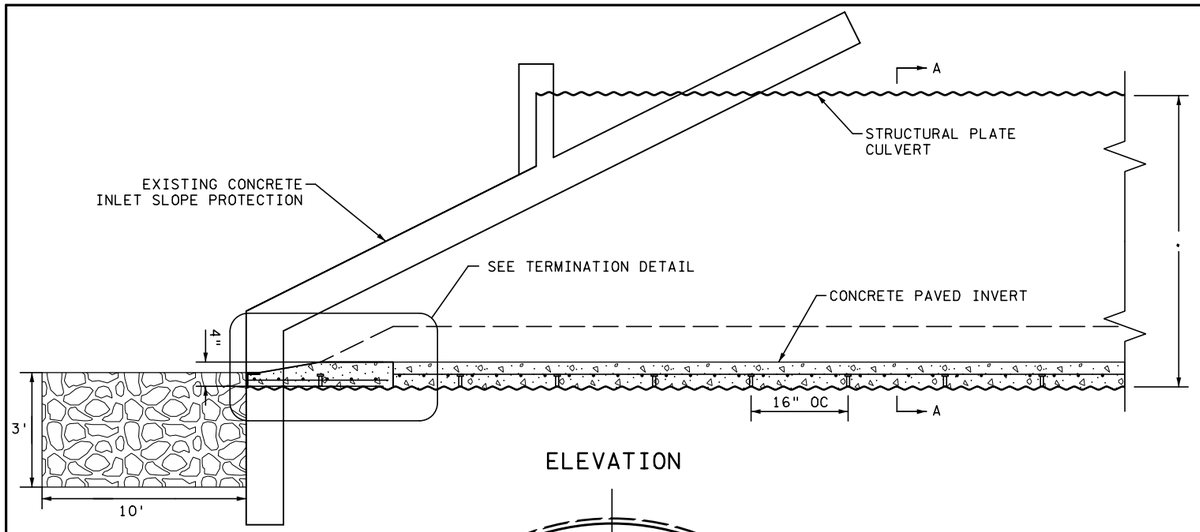
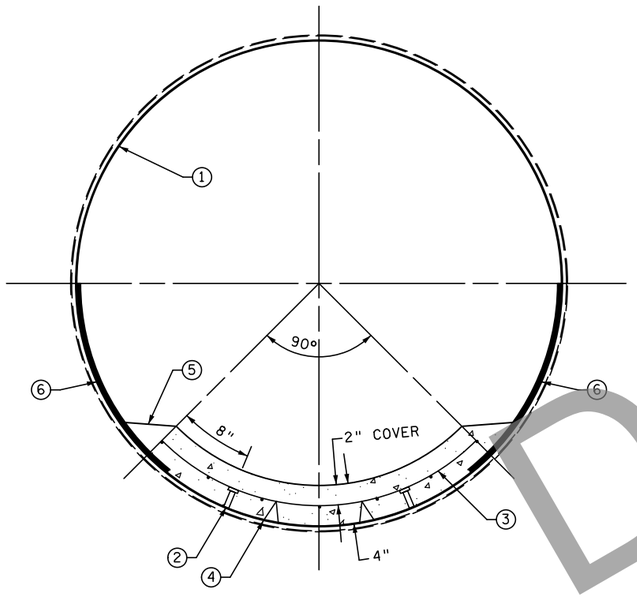


ELEVATION



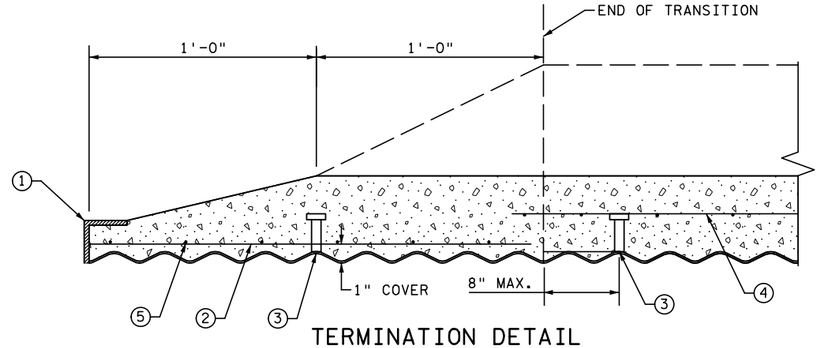
SECTION A-A
PARTIAL INVERT DETERIORATION

NOTES:

1. STRUCTURAL PLATE CULVERT WITH PARTIALLY DETERIORATED INVERT.
2. 3/8" DIAMETER X 2" HEADED STUDS WELD TO CREST OF CULVERT CORRUGATIONS.
3. WELDED WIRE FABRIC REINFORCEMENT ROLLED TO RADIUS OF EXISTING CULVERT PIPE. PROVIDE 6 X 6-W5 X W5 WWF OR EQUIVALENT AREA (BASED ON 0.2% REINFORCEMENT AREA TO GROSS CONCRETE AREA).
4. SUPPORT TO MAINTAIN 2" CLEAR COVER ON REINFORCEMENT.
5. REFER TO SPEC 2501 FOR CONCRETE MIX DESIGN REQUIREMENTS. SLOPE CONCRETE TO DRAIN, 1/2" SLOPE, MINIMUM.
6. APPLY METALLIZING ZINC PRIMER TO CULVERT INSIDE FACE FROM 3 O'CLOCK TO 5 O'CLOCK AND 7 O'CLOCK TO 9 O'CLOCK PRIOR TO PLACEMENT OF CONCRETE.

* ALL WORK SHOWN ON THIS SHEET EXCEPT METALLIZING ZINC PRIMER IS PAID FOR AS REPAIR CULVERT.

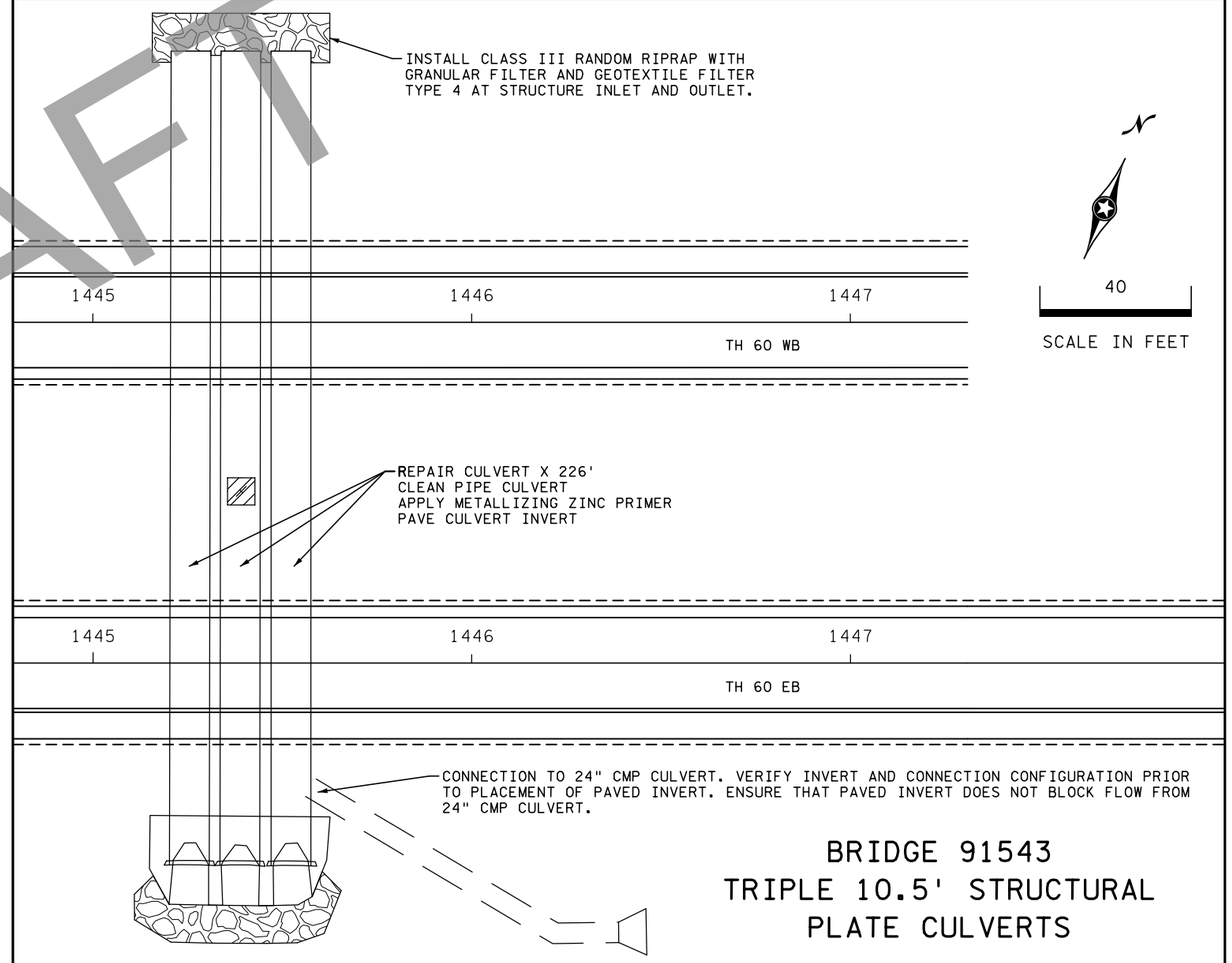
PAVED INVERT REPAIR
STRUCTURAL PLATE CULVERT
PARTIAL DETERIORATION



TERMINATION DETAIL

NOTES:

1. 7 - L2 X 2 X 1/4" X 0'-11" SPACED @ ABT. 1'-0" O.C. GALVANIZE PER MNDOT 3394.
2. #3 X 1'-10" LONG, ASTM A706 WELDED TO ANGLE AT 2 1/2" FROM EACH END, HOT DIP GALVANIZE AFTER FABRICATION.
3. 3/8" DIAMETER X 2" HEADED STUDS WELD TO CREST OF CULVERT CORRUGATION.
4. WELDED WIRE FABRIC REINFORCEMENT ROLLED TO RADIUS OF EXISTING CULVERT PIPE.
5. TRANSVERSE REINFORCEMENT, #3 @ 12" SPACING.



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SCALE IN FEET

BRIDGE 91543
TRIPLE 10.5' STRUCTURAL PLATE CULVERTS

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DRAINAGE DETAILS
CULVERT INVERT PAVING

SP 8309-52 (T.H. 60)
SHEET NO. 125 OF 283 SHEETS

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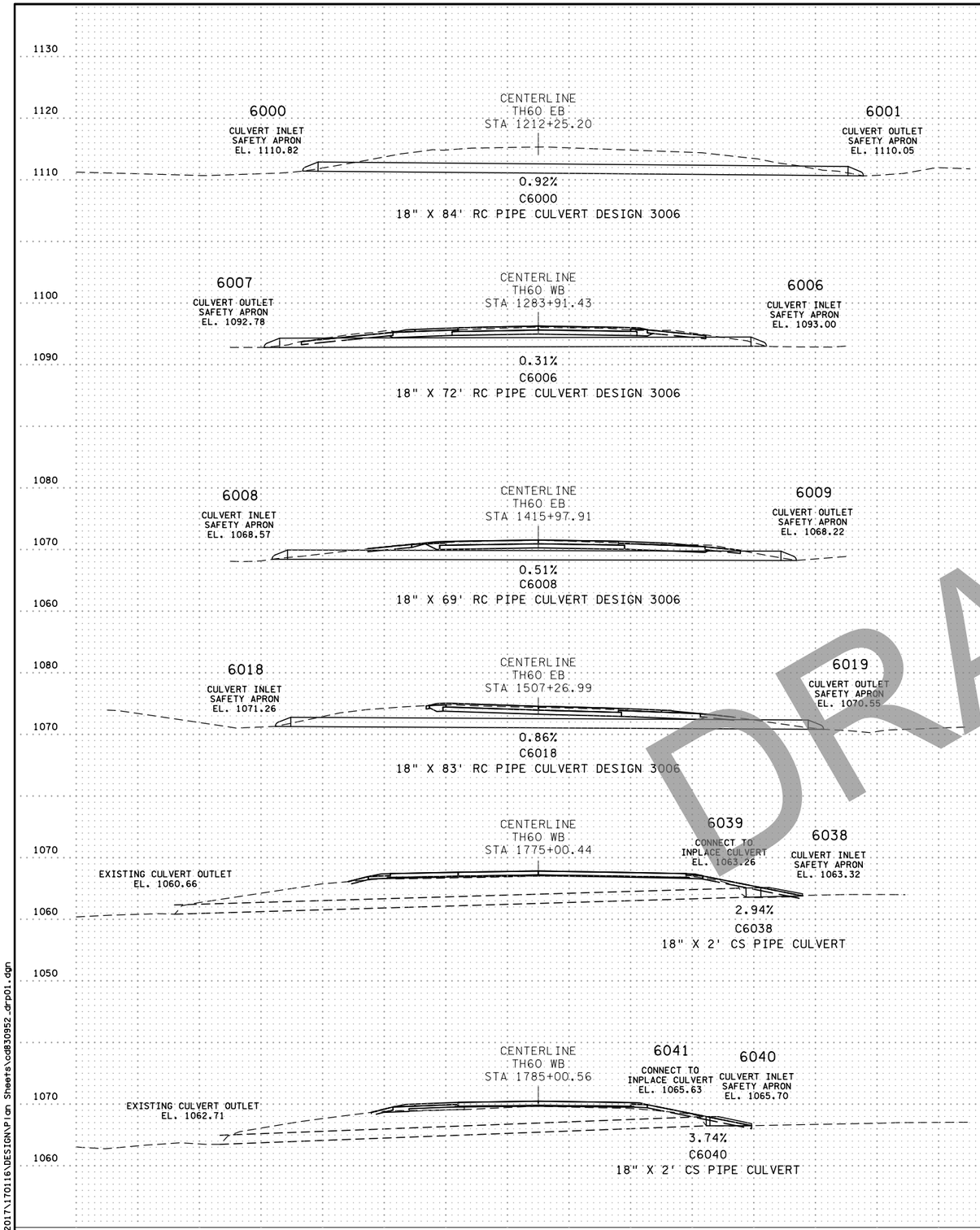

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DRAINAGE PROFILES

SP 8309-52 (T.H. 60)

SHEET NO. 126 OF 283 SHEETS

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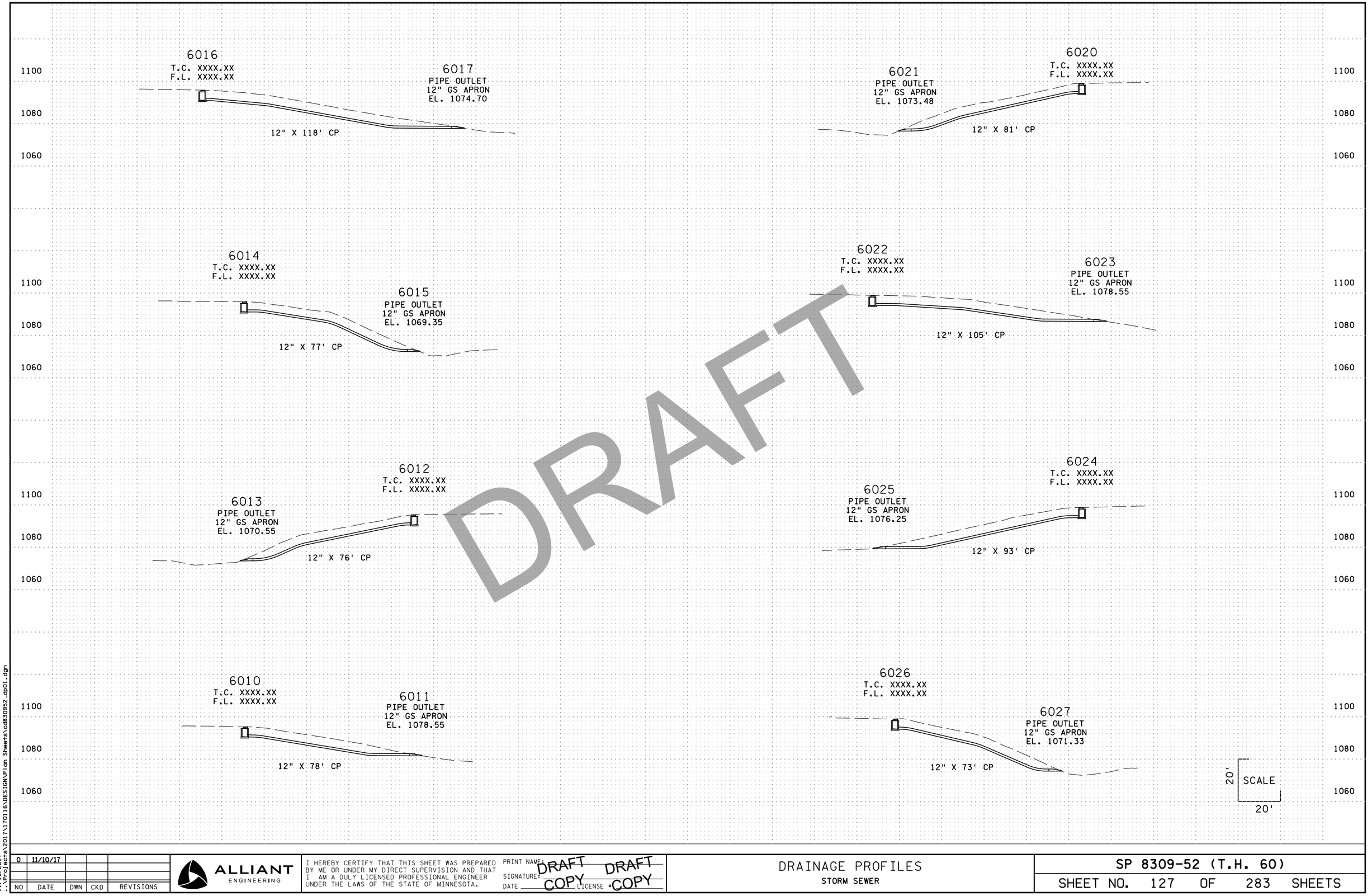

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DRAINAGE PROFILES
STORM SEWER

SP 8309-52 (T.H. 60)
SHEET NO. 127 OF 283 SHEETS

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

PROJECT NAME/LOCATION

S.P. 8309-52 is located on T.H. 60 from T.H. 4 to T.H. 15 in the county of Watonwan.
Latitude: 43.9785 Longitude: -94.5495 (from Digital Raster Graphic Topo 7.5-minute) Zip Code(s): 56081.
This project will disturb XX acres and does discharge to special or impaired waters.

ENVIRONMENTAL REVIEW

There ~~are/are no s~~tormwater mitigation measures required as a result of an environmental, archeological or agency review. All mitigation measures have been addressed in this plan set or the special provisions.

This project is not located in a well head protection area.

PROJECT DESCRIPTION/NARRATIVE

Grading and concrete surfacing

LONG TERM MAINTENANCE AND OPERATION

MnDOT District 7 maintenance staff are responsible for the long term maintenance and operation of the permanent stormwater system.

PROJECT CONTACTS

The project engineer and contractor are responsible for implementation of the SWPPP and installation, inspection, and maintenance of the erosion prevention and sediment control BMPs before, during and after construction until the Notice of Termination (NOT) has been submitted with the Minnesota Pollution Control Agency (MPCA). MnDOT District 7 staff and members of MnDOT's Office of Environmental Stewardship are also available for technical assistance.

MnDOT District 7
Construction Engineer
Robert Williams
507-831-8026
180 Co. Rd. 26, Windom, MN 56101
Bob.Williams@state.mn.us

MnDOT District 7
Maintenance Supervisor (owner)
Mark Larson
507-375-8127
1513 7th Ave. S., St. James, MN 56081
Markn.Larson@state.mn.us

Contractor is:

Co-Permitee

ORGANIZATION	CONTACT NAME	PHONE	PERMIT NO.
MnDOT District 7 Design	Matthew Young	507-304-6183	N/A
MnDOT District 7 Hydraulics (SWPPP Designer)	Scott Morgan	507-304-6154	N/A
Construction Site Manager	Robert Williams	507-841-8026	N/A
MnDOT Office of Environmental Sterwardship	Ken Grave	651-366-3613	N/A
MN Department of Natural Resources	Peter Leete	651-366-3634	XXXXX
Minnesota Pollution Control Agency	NAME	XXX-XXX-XXXX	XXXXX
Army Corp of Engineers	Ben Orne	651-290-5280	XXXXX
Watonwan County Soil and Water Conservation District	Chad Hildebrand	507-375-1225	XXXXX
Watonwan County Ag Inspector	David Haler	507-375-2519	XXXXX
MN Board of Water and Soil Resources	Kane Radel	507-537-7069	XXXXX

MPCA 24 HOUR EMERGENCY NOTIFICATION: 651-649-5451 TOLL FREE: 800-422-0798

EROSION CONTROL SUPERVISOR

In accordance with spec. 2573.3 A1 the contractor shall provide an Erosion Control Supervisor with a valid certification to direct the contractor and subcontractors operations and insure compliance with federal, state and local ordinances and regulations.

The Erosion Control Supervisor will work with the project engineer to oversee the implementation of the SWPPP and the installation, inspection, and maintenance and repair of the erosion prevention and sediment control BMPs before, during and after construction until the NOT has been filed with the MPCA.

The Erosion Control Supervisor is responsible for complying with all the inspection and maintenance requirements stated in the NPDES permit. Inspections of the entire construction site will occur a minimum of once every seven days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours. The Erosion Control Supervisor will oversee inspection of all erosion prevention and sediment control BMPs to ensure integrity and effectiveness of each BMP. All inspections and maintenance conducted during construction must be recorded in writing (within 24 hrs.) and these records must become part of the SWPPP. Inspection reports must be submitted to the project engineer in a format that meets or exceeds the project engineer's expectations. Records of each inspection and maintenance activity shall include:

A. Date and time of inspections;
B. Name of persons conducting inspections;
C. Findings of inspections, including specific locations where corrective actions are needed;
D. Corrective actions taken, including dates, times, and party completing maintenance activities;
E. Date and amount of all rainfall events greater than 0.5 inch in 24 hours;
F. Photograph and description of discharge (i.e. color, odor, floating, settled or suspended solids, foam, oil sheen,etc.); and
G. Documents and changes made to the SWPPP.

LOCATION OF SWPPP REQUIREMENTS

The required SWPPP elements are located in several places within the plan set as well as in the special provisions and MnDOT spec book (2018 edition). Soils maps are on file at the MnDOT Mankato office. The notes and table below are a quick reference for the contractor and project engineer to use in the field. There may be additional required SWPPP elements included on the project that are not listed on this sheet.

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

DESCRIPTION	LOCATION
SITE MAP	SHEETS NO. 1
DIRECTION OF FLOW	SHEETS NO. XX-XX
FINAL STABILIZATION	SHEETS NO. XX-XX
SOILS AND CONSTRUCTION NOTES	SHEETS NO. XX-XX
DRAINAGE STRUCTURES	SHEETS NO. XX-XX
DRAINAGE TABULATION	SHEETS NO. XX-XX
EROSION AND SEDIMENT CONTROL DETAILS	SHEETS NO. XX-XX
EROSION CONTROL TABULATION	SHEETS NO. XX-XX
TURF ESTABLISHMENT TABULATION	SHEETS NO. XX-XX

SWPPP TRAINING

This SWPPP was prepared by personnel certified, or under the supervision of someone certified, in the design of construction SWPPPs. Copies of the certifications are on file with MnDOT and are available upon request. The contractor is responsible for providing an erosion control supervisor with valid certification that is responsible for overseeing the implementation of the SWPPP. The contractor must provide proof of certification at the preconstruction meeting and will not be allowed to commence work until proof of certification has been provided to the project engineer.

PROJECT WATERBODIES

The following waterbodies are located within one mile of the project limits and receive runoff from the project site. If any of the waterbodies are special or impaired waters, the BMPs described in Appendix A of the NPDES permit will apply to all areas of the site. Approved TMDL implementation plans are also listed.

NAME	TYPE	SPECIAL?	INFESTED?	IMPAIRED?	APPROVED TMDL?
St. James Lake	Lake	No	No	No	N/A
Unnamed Tributary to St. James Creek (PWI Watercourse 83010a)	Creek	No	No	No	N/A
St. James Creek (PWI Watercourse 83009a)	Creek	No	No	Yes (E.coli)	None
Unnamed Tributary to St. James Creek	Creek	No	No	No	N/A
Unnamed Tributary to St. James Creek (PWI Watercourse Unnamed)	Creek	No	No	No	N/A
South Fork Watonwan River	River	Yes	No	Yes (Fishes Bio, Invert Bio, Turbidity)	Yes (FC)
Unnamed Tributary to St. James Creek	Ditch	No	No	No	N/A
Unnamed PWI Wetland	Wetland	No	No	No	N/A
Spring Branch Creek	Creek	No	No	Yes(AQL, AQR)	None

LAND FEATURE CHANGES

Total disturbed area: XX.X acres
Total existing impervious surface area: XX.X acres
Total proposed impervious surface area: XX.X acres
Total proposed net change in impervious surface area: XX.X acres
Required WQV: $(1")(\frac{1'}{12})$(XX.X acres)$(\frac{43,560\ SF}{acre})$ = XXX.X CF Additional calculations are available at the MnDOT D7 Hydraulics Office

ADDITIONAL SWPPP REQUIREMENTS

-Timing for Installation is described in General SWPPP notes and are specified relative to contractor schedule.
-BMP Design Factors are incorporated in the design of BMP Standard Detail Sheets.
-Soil Management:
Soil types typically found on this project are loams, clay loam, silt loam, and sandy loam.
Preservation Projects: all work is done within road core so there will be no disturbance or compaction outside of road core.
Grading Projects: subsoiling and seeding practices will be done to mitigate for compatction and disturbance beyond road core.
-All MPCA Construction Activity Requirements are incorporated into this SWPPP and associated plan documents.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) (CONTINUED)

GENERAL SWPPP NOTES FOR CONSTRUCTION ACTIVITY

1. Construction shall be governed by the NPDES Construction Stormwater Permit, MnDOT Spec Book (2014 Edition), project plans, and special provisions. Reference special provision 1717 for additional MPCA NPDES requirements. The contractor will develop a chain of command with all operators on the site to ensure that the SWPPP will be implemented and stay in effect until the construction project is complete, the entire site has undergone final stabilization, and the NOT has been submitted.

2. The contractor will prepare a written, weekly schedule of proposed erosion control activities for the Project Engineer's approval as per MnDOT Spec 1717.2C.

3. The contractor will prepare and submit a site plan for the Engineer's approval as per MnDOT Spec 1717.2D for concrete management, work in environmentally sensitive areas, areas identified in the plans as "site plan requirement area", any work that will require dewatering, the staging of inlet protection devices over the life of the contract, and as requested by the engineer. All site plans must be submitted to the engineer in writing. The contractor shall allow a minimum of 7 days for MnDOT to review and approve site plan submittals. The contractor will not be allowed to commence work for which a site plan is required until approval has been granted by the engineer. The contractor will not be given any extra time in the contract due to the untimely submittal of a site plan.

4. The contractor will comply with the requirements regarding pollution prevention management during construction, which will include, but not be limited to:
   - A. Concrete washout areas for use by all subcontractors and MnDOT personnel must be identified by signage. These areas must be at least 200' from site plan requirement areas or environmentally sensitive areas, and utilize a leak-proof containment facility or impermeable liner that prevents runoff onto adjacent soils. An engineered collection system can also be used if it is approved by the project engineer. Liquid and solid waste must be disposed of properly and in compliance with all MPCA regulations.
   - B. Solid waste including, but not limited to, collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris, and other wastes, must be disposed of properly and in compliance with MPCA disposal requirements.
   - C. Hazardous waste, such as, oil, gasoline, paint, and other hazardous substances, must be properly stored, including secondary containment, to prevent spills, leaks, or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA regulations.
   - D. External washing of trucks and other construction vehicles must be limited to a defined area of the site and runoff must be contained and properly disposed of. Engine degreasing is not allowed on site.
   - E. Chemical spill kits must be available on site at all times.
   - F. Portable restroom facilities must be anchored to prevent tipping.

5. Chemicals must be kept in a secure storage area when not in use. Chemical storage containers must have secondary containment when being used or stored on the project site. Chemical spills of any kind (oil, fuel, fertilizer, etc.) must be cleaned up and removed from the site immediately.

6. The contractor is responsible for creating and following a written disposal plan for all waste materials, and submitting the plan to the engineer. The plan will include how the material will be disposed of and the location of the disposal site.

7. Burning of any material is not allowed within project boundary.

8. The erosion prevention and sediment control BMPs shall be placed as necessary to minimize erosion from disturbed surfaces and to capture sediment onsite. All erosion control measures shall be in place prior to starting any removal work and/or ground disturbing activities and shall be maintained until temporarily or permanently stabilized.

9. Sediment control devices must be established on all down gradient perimeters before any up gradient land disturbing activities begin.

10. Storm sewer inlets will be protected at all times with the appropriate inlet protection for each specific phase of construction. Inlet protection devices may need to be placed multiple times in the same location over the life of the contract. Inlet protection devices will be paid for once per inlet regardless of the number of times the BMPis placed. All storm sewer inlet protection devices will be kept in good functional condition at all times. If the project engineer deems an inlet protection device to be nonfunctional, in poor condition, ineffective, or not appropriate for the current construction activities it will be replaced with a suitable alternative at no cost to MnDOT.

11. The contractor will place construction exits, as necessary, to prevent tracking of sediment onto paved surfaces and in compliance with part IV of the NPDES permit. Construction exits will be sufficiently sized and maintained to prevent track out. Type 5 mulch (slash mulch) or an approved engineered product will be allowed for construction exits in lieu of crushed rock.

12. All stormwater, including dewatering, must be discharged in a manner that does not cause nuisance conditions or erosion in receiving channels, downslope properties or inundation in wetlands causing an adverse impact to the wetland as determined by the engineer.

13. Backfill placed in streams shall consist of rock or granular material free of fines, silts, and mud. Machinery shall be cleaned of all such material and free of grease, oil, etc. before entering the stream.

14. Slopes steeper than 1:3 (V:H) and greater than 75' in length shall be temporarily or permanently stabilized in increments not to exceed 75' in length prior to constructing or disturbing a new increment. If temporary or permanent stabilization is not feasible at a particular site, a sediment basin or other approved sediment control measure will be allowed as approved by the engineer.

15. Land disturbance and removal of riparian (streamside) vegetation shall be minimized.

16. All exposed soil areas must be temporarily or permanently stabilized no more than 14 days (7 days if within 1 mile of and draining to a special or impaired water) after construction activity on that portion of the site has temporarily or permanently ceased. In many instances, this will require stabilization to occur more than once during rough grading. Rapid stabilization methods 1, 2, 3 or 4 will be used to provide temporary cover, as appropriate, in these areas.

17. All temporary or permanent drainage ditches or swales that drain water from the construction site or divert water around the construction site must be stabilized to top of bank within 200 lineal feet from the property edge or point of discharge to any surface water. Stabilization must occur within 24 hours of connection to surface water, existing gutter, storm sewer inlet, drainage ditch, or other stormwater conveyance system according to MnDOT Spec 1717.2A2. Rapid stabilization Method 4 will be used to stabilize these areas. The remainder of the ditch must be stabilized within 14 days (7 days if within 1 mile of and draining to a special or impaired water) of connecting to the surface water. Permanent erosion control blanket or rapid stabilization Method 4 will be used to stabilize these areas. Disc anchored mulch and hydraulic soil stabilizers are not allowed to be used for permanent ditch stabilization.

18. Outlets shall be permanently or temporarily stabilized with energy dissipation within 24 hours of being constructed.

19. All exposed soil areas will be stabilized prior to the onset of winter. Any work still being performed will be snow mulched, seeded, or blanketed within the time frames indicated in the NPDES permit.

20. The contractor shall comply with the following inspection and maintenance requirements:
   - A. Perimeter control devices must be repaired, replaced, or supplemented when it becomes non-functional or sediment reaches 1/2 the height of the device. Repairs must be made within 24 hours of discovery.
   - B. Inlet protection devices should be repaired when they become non-functional or sediment reaches 1/3 the height and/or depth of the device.
   - C. Temporary and permanent sediment basins must be drained and have the sediment removed once the sediment has reached 1/2 the storage volume within 72 hours of discovery.
   - D. Tracked sediment must be removed within 24 hours of discovery of tracking onto paved surfaces.
   - E. All other non-functional BMPs must be repaired, replaced, or supplemented within 24 hours of discovery.
   - F. Contractor is responsible for maintaining all BMPs until all soil disturbing work has been completed, site has gone under final stabilization, and the NOT has been submitted.

21. If sediment deposits in a surface water (including drainage ditches and conveyance systems), the material must be removed within 7 days.

22. Pavement surfaces shall be swept within 24 hours of discovery of sediment or tracking onto pavement that drains to curbs, inlets, ditches, or ponds. Pavement shall be lightly wetted prior to sweeping.

23. Temporary dewatering activities may be required for roadway construction and utility work. Therefore it is possible that a permit for the temporary appropriation of waters of the state, non-irrigation from MnDNR will be required for this project. The contractor will be responsible for obtaining this permit. All temporary dewatering shall be discharged to an approved location for treatment prior to discharge to the receiving water. The contractor is required to submit site plans to MnDOT engineer for approval prior to commencing work according to MnDOT Spec 1717.2E.

24. Final stabilization requires that:
   - A. All soil disturbing activities at the site have been completed.
   - B. All soils have been stabilized by a uniform perennial cover with a density of 70% or other equivalent means to prevent soil failure under erosive conditions.
   - C. All accumulated sediment has been removed from permanent water quality basins.
   - D. The permanent stormwater management system has been constructed and is operating as designed.
   - E. All temporary synthetic and structural erosion prevention and sediment control BMPs have been removed.

25. The size and elevation of storm sewer pipes, inlets and overflow devices have been specifically designed to conform to MnDOT design standards, MPCA and watershed district permit requirements. The design computations are on file with MnDOT District 7 Hydraulics. Changing flow directions, quantities, or patterns is not permitted. Any changes to the size, elevation or direction of flow of the drainage system must be approved by the hydraulics engineer.

26. The NOT form can be found on the MPCA Stormwater Program for Construction Activity webpage. Submit the completed NOT form to the MnDOT District 7 Construction Office for final submittal to MPCA.

Note: information on this sheet is available in the permit and is not intended to be all inclusive. Modifications from the permit will be underlined for quick identification.

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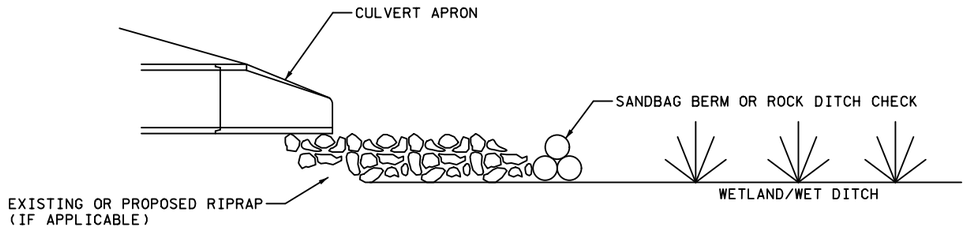
STORM WATER POLLUTION PREVENTION PLAN
SHEET 2 OF 2

SP 8309-52 (T.H. 60)
SHEET NO. 129 OF 283 SHEETS

GENERAL NOTES:

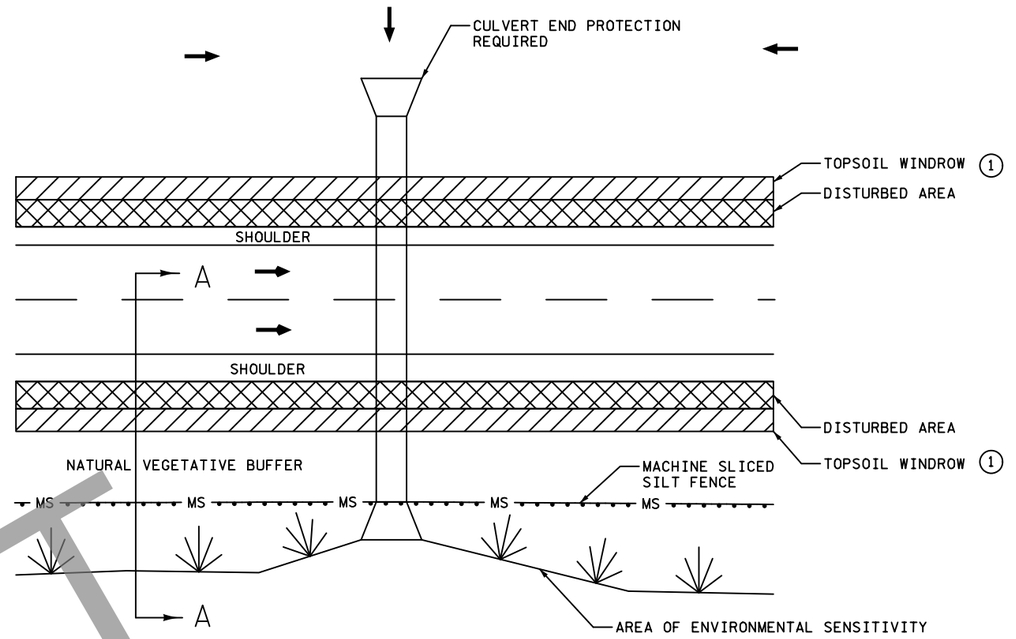
1. SILT FENCES, FILTER LOGS, AND TOPSOIL WINDROWS SHALL FOLLOW, AS CLOSELY AS POSSIBLE, TO A SINGLE CONTOUR LINE.

2. PLACE A CRUSHED ROCK WEEPER OR A SECURED FILTER LOG WHERE RUNOFF CONCENTRATES BEHIND TOPSPOIL WINDROWS TO ALLOW WATER TO DISCHARGE.



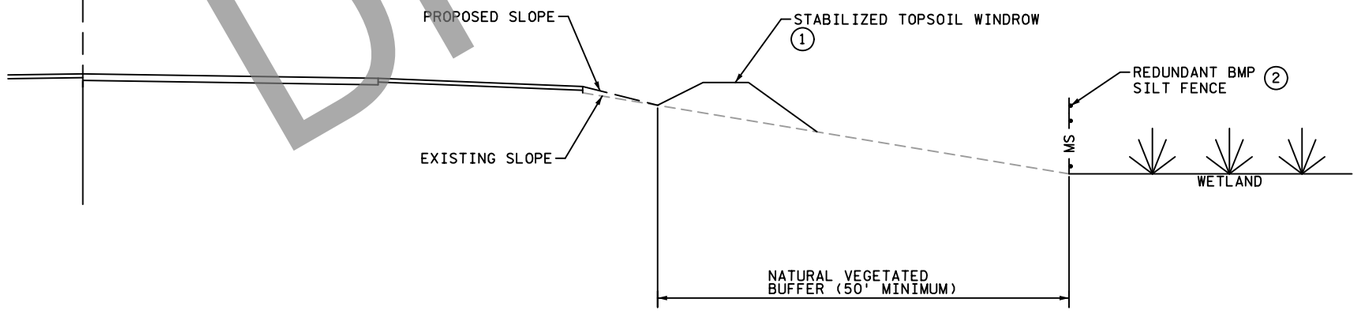
TYPICAL CULVERT REPLACEMENT OR REPAIR BMP

NOT TO SCALE



TYPICAL WETLAND PERIMETER BMP (PLAN)

NOT TO SCALE



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TYPICAL WETLAND PERIMETER BMP (CROSS SECTION)

NOT TO SCALE

SPECIAL NOTES:

(1) STABILIZE TOPSOIL WINDROW WITH STRAW MULCH ONLY IF WORK WILL BE COMPLETED WITHIN 14 DAYS, OTHERWISE ADD TEMPORARY SEED MIXTURE 21-113, USE HYDRAULIC, OR EROSION CONTROL BLANKET CATEGORY 3.

(2) INSTALL REDUNDANT BMP IF A 50' BUFFER IS NOT FEASIBLE AT WETLANDS OR STREAMS.

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EROSION CONTROL

SP 8309-52 (T.H. 60)

SHEET NO. 130 OF 283 SHEETS

GENERAL NOTES

1. SEED MIX 35-241 SHALL BE USED FOR ALL EXPOSED SOIL ALONG THE INSLOPES, DITCH BOTTOMS, AND BACKSLOPES OF MAINLINES AND INTERCHANGES.

   APPLICATION RATES:
   - SEED MIX 35-241 AT 36.5 LBS/AC
   - FERTILIZER TYPE 4, 18-1-8 OR 17-10-7 AT 120 LBS/AC
   - TYPE 1 MULCH (DISK ANCHORED) AT 2 TON/AC
   - INSTALL EROSION CONTROL BLANKETS CATEGORY 3 (WOOD FIBER) IN DISTURBED DITCH BOTTOMS IN LIEU OF MULCH.

2. SEED MIX 33-261 SHALL BE USED FOR RESTORING DISTURBED WETLAND AND WET DITCH AREAS WHERE SOILS ARE IN A NATURALLY SATURATED STATE.

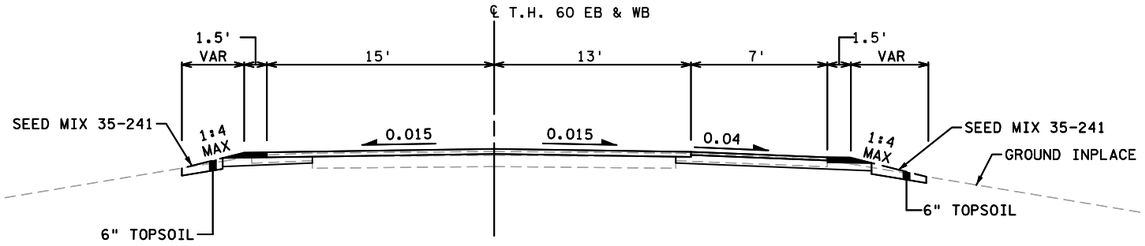
   APPLICATION RATES:
   - SEED MIX 33-261 AT 35 LBS/AC
   - FERTILIZER TYPE 4, 18-1-8 OR 17-10-7 AT 120 LBS/AC
   - TYPE 3 MULCH (DISK ANCHORED) AT 2 TON/AC
   - INSTALL EROSION CONTROL BLANKETS CATEGORY 3 (WOOD FIBER) IN DISTURBED DITCH BOTTOMS IN LIEU OF MULCH.

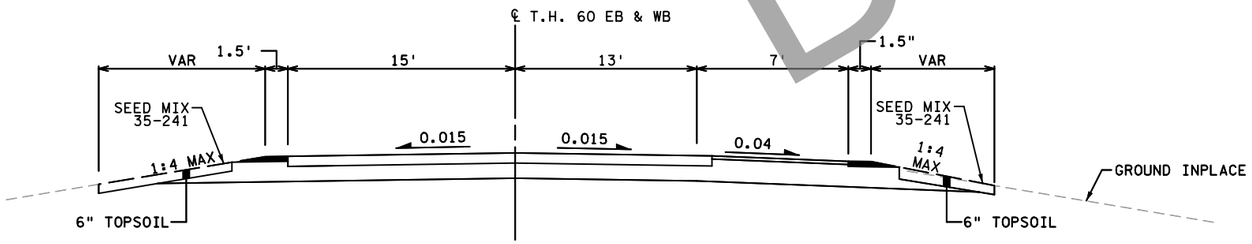
3. IF SLOPES ARE STEEPER THAN 1:3 USE EROSION CONTROL BLANKETS CATEGORY 3 INSTEAD OF MULCH. IF SLOPES ARE STEEPER THAN 1:2 USE EROSION CONTROL BLANKETS CATEGORY 4.

4. IN AREAS WHERE SEEDED TURF WILL BE MOWN, FOLLOW MNDOT STANDARD SPECIFICATION 3885, EXCEPT EMPLOYING ONLY NATURAL NETTING EROSION CONTROL BLANKET. AREAS THAT WILL BE MOWN CONSIST OF AN 8 FOOT WIDE STRIP ADJACENT TO THE ROADWAY SURFACE OR SHOULDER AND THE ENTIRE MEDIAN AREA.

PERMANENT TURF ESTABLISHMENT DETAIL

T.H. 60 EB & WB (MIRRORED)
CONCRETE OVERLAY AND RECONSTRUCTION





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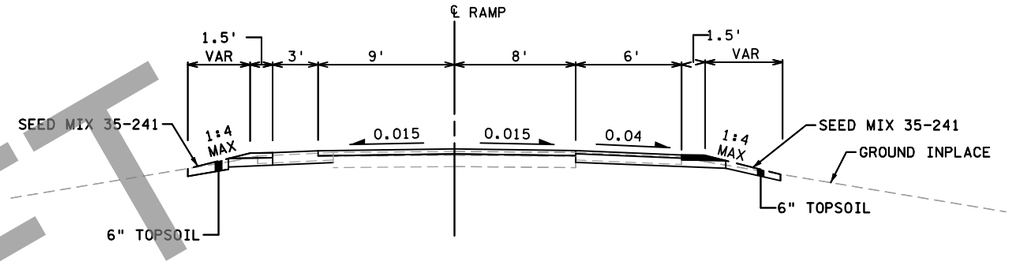
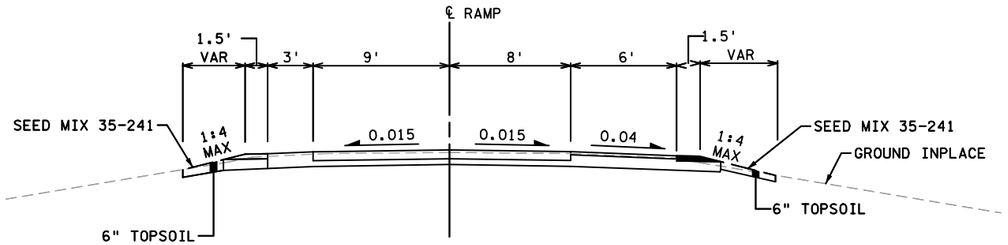
CONCRETE OVERLAY AND RECONSTRUCTION





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TURF ESTABLISHMENT DETAILS

SP 8309-52 (T.H. 60)

SHEET NO. 131 OF 283 SHEETS

NOTES & GUIDELINES

GENERAL INFORMATION:

1. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN THE DEVICES IN THIS TRAFFIC CONTROL PLAN UNLESS OTHERWISE NOTED.
2. FIELD CONDITIONS MAY REQUIRE MODIFICATIONS OF THIS LAYOUT AS DEEMED NECESSARY BY THE ENGINEER.
3. ALL DISTANCES ARE APPROXIMATE.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ANY WORK AREAS NEAR TRAFFIC IN ACCORDANCE WITH THE MN MUTCD.
5. IF THE CONTRACTOR DECIDES TO PERFORM THE CONSTRUCTION WORK IN A SEQUENCE OTHER THAN SHOWN IN THIS TRAFFIC CONTROL PLAN THE CONTRACTOR SHALL PROVIDE COMPLETE REVISED TRAFFIC CONTROL PLANS SIGNED BY AN INDIVIDUAL LICENSED BY THE STATE OF MINNESOTA AS A PROFESSIONAL ENGINEER TO BE APPROVED BY THE ENGINEER.
6. MAINTAIN ACCESS AT ALL TIMES TO ALL PUBLIC AND PRIVATE PROPERTIES CONSISTENT WITH PRE-CONSTRUCTION EXISTING ACCESSES (INCIDENTAL). ACCESS MAINTENANCE SHALL BE APPROVED BY THE ENGINEER.

SIGNING:

1. ALL TRAFFIC CONTROL DEVICES, INCLUDING OVERHEAD SIGNS ON ROADS OPEN TO TRAFFIC THAT ARE NOT CONSISTENT WITH TRAFFIC OPERATION SHALL BE COVERED, REMOVED OR REVISED AS DIRECTED BY THE ENGINEER.
2. WHEN SIGNS ARE PLACED, THEY SHALL BE MOUNTED ON POSTS DRIVEN INTO THE GROUND AT THE PROPER HEIGHT AND LATERAL OFFSET AS SHOWN IN THE TYPICAL TEMP SIGN FRAMING & INSTALLATION DETAILS IN THE PLAN. IF THIS IS NOT POSSIBLE THEY WILL BE MOUNTED ON PORTABLE SUPPORTS AS APPROVED BY THE ENGINEER. WHEN THE SIGNS ARE REMOVED THE SIGN POSTS SHALL ALSO BE REMOVED AS SOON AS POSSIBLE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EXTRA SIGNING, TEMPORARY PAVEMENT MARKINGS, AND TRAFFIC CONTROL DEVICES NEEDED TO FACILITATE TRAFFIC SWITCHES FOR TRANSITIONING TRAFFIC FROM ONE STAGE TO ANOTHER, AND MAINTAINING ACCESS TO PUBLIC AND PRIVATE PROPERTIES (INCIDENTAL).
4. ALL ORANGE WARNING AND ORANGE GUIDE SIGNS SHALL BE FABRICATED WITH SIGN SHEETING MATERIAL AS LISTED ON THE MNDOT APPROVED PRODUCT LIST FOR "SHEETING FOR RIGID TEMPORARY WORK ZONE SIGNS".
5. BARRICADES SHALL BE FABRICATED WITH SIGN SHEETING MATERIAL AS LISTED ON THE MNDOT APPROVED PRODUCT LIST FOR BARRICADE SHEETING. NOTE THAT ASTM TYPE VII SHEETING IS NOT ALLOWED ON BARRICADES.
6. LONGITUDINAL DROPOFFS SHALL BE SIGNED AS SHOWN IN THE "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS" FIELD MANUAL UNLESS OTHERWISE SPECIFIED IN THESE PLANS.
7. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE FINAL SIGNS TO ASSURE THAT THE FINAL SIGNS ARE PLACED AS NEEDED, OR PROVIDE TEMPORARY SIGNING AT THEIR EXPENSE UNTIL THE FINAL SIGNING IS PLACED.

PAVEMENT MARKING:

1. OBLITERATE ANY CONFLICTING PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER.
2. PAINT, POLYMER LANE TAPE AND/OR TRPM'S ARE ACCEPTABLE TEMPORARY STRIPING ALTERNATIVES ACCORDING TO ACTUAL CONDITIONS ENCOUNTERED AS DIRECTED BY THE ENGINEER. GENERALLY, ONLY PAINT WILL BE USED BEFORE MAY 1ST OR WHEN THE OTHER MANUFACTURERS' SPECIFICATIONS CAN NOT BE MET.
3. TRPMS (TEMPORARY RAISED PAVEMENT MARKERS) SHOULD BE USED TO SUPPLEMENT THE LONG TERM (MORE THAN 3 DAYS) EDGELINES ON ALL TRANSITION AREAS WHEN THE CONDITIONS ARE WITHIN THE MANUFACTURERS' SPECIFICATIONS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PLACEMENT OF TEMPORARY AND FINAL STRIPING. MNDOT TRAFFIC PERSONNEL WILL ASSIST IN THE FIELD CONSULTATION AND INSPECTION ONLY.

BARRIER & DELINEATION:

1. TOP MOUNTED BARRIER DELINEATORS WILL HAVE A MINIMUM OF 24 SQ. IN. OF REFLECTIVE SURFACE AREA AND BE PLACED AT 25' SPACES ON TOP OF THE BARRIER WHEN THE BARRIER IS WITHIN 10' OF TRAFFIC UNLESS OTHERWISE NOTED OR AS DIRECTED BY THE ENGINEER (INCIDENTAL).

CONSTRUCTION INFORMATION SIGNING:

1. THE CONTRACTOR SHALL USE CONSTRUCTION INFORMATION SIGNING AS SHOWN IN THE PLAN AND WHICH ARE TO BE USED AS FOLLOWS:

   G20-X1 CLOSURE NOTICE SIGNS PAIRED WITH G20-X3 WORK ENDS SIGNS TO DISPLAY THE CORRECT START DATE AND AN ESTIMATED FINISH DATE AS APPROVED BY THE PROJECT ENGINEER.

   G20-X2 WORK ZONE ADVANCE NOTICE SIGNS WITH THE CORRECT STARTING DATE DISPLAYED BEFORE WORK BEGINS. ONCE WORK BEGINS, THE START DATE LEGEND SHALL BE COVERED BY THE SUGGESTED PLAQUE CONTAINED IN THIS PLAN. IF NO ALTERNATE MESSAGE IS SUGGESTED OR IF DIRECTED BY THE PROJECT ENGINEER, THE CORRECT ESTIMATED FINISH DATE, MONTH, OR SEASON SHALL BE DISPLAYED.

   CONSTRUCTION INFORMATION SIGNING NOT VISIBLE TO THE MOTORING PUBLIC ONCE WORK BEGINS WILL BE MOVED BY THE CONTRACTOR TO A SITE IN ADVANCE OF THE WORK ZONE OR CLOSURE AS DIRECTED BY THE PLAN OR PROJECT ENGINEER.

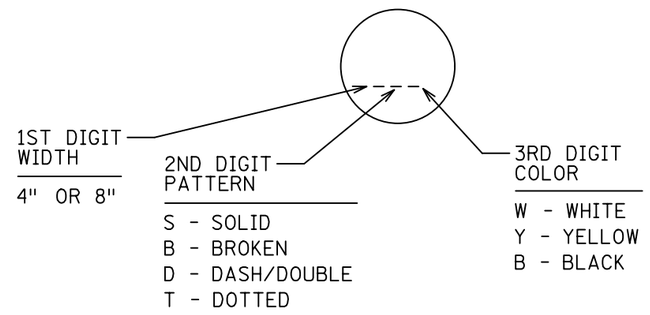
TRAFFIC CONTROL DEVICES & SYMBOLS LEGEND

SYMBOL	DESCRIPTION
	PROPOSED CONSTRUCTION
	COMPLETED PROPOSED PAVEMENT
	TEMPORARY PAVEMENT CONSTRUCTION
	INPLACE TEMPORARY PAVEMENT
⊢	TRAFFIC CONTROL SIGN
⌴	TYPE III BARRICADE =
○	DRUM-LIKE CHANNELIZER (TYPE B) =
●	TUBE DELINEATOR =
Ⓕ	TYPE A OR B FLASHING WARNING LIGHT
	FLASHING ARROW BOARD TYPE C = (4' X 8' UNLESS OTHERWISE NOTED).
	TEMPORARY RAISED PAVEMENT MARKERS AT 10' SPACES
	CONCRETE BARRIER (PPCB) WITH DELINEATORS AT 25' SPACES
	IMPACT ATTENUATOR (SYMBOL DOES NOT DEPICT THE ACTUAL LENGTH OF ATTENUATOR REQUIRED)
	IMPACT ATTENUATOR BARRELS (SYMBOL DOES NOT DEPICT THE ACTUAL NUMBER OF BARRELS REQUIRED)

STRIPING KEY

△ --- TRIANGLE - PAINT

⬠ --- PENTAGON - REMOVABLE PREFORMED PAVEMENT MARKING TAPE



EXAMPLE: △ 4SW = 4" SOLID LINE WHITE - PAINT

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TRAFFIC CONTROL PLAN
TITLE SHEET, LEGEND, & INDEX

SP 8309-52 (T.H. 60)
SHEET NO. 132 OF 283 SHEETS

TRAFFIC CONTROL PAY ITEM TABULATION

Z

ITEM	UNITS	STAGE 0	STAGE 1 PHASE 1	STAGE 1 PHASE 2	STAGE 2 PHASE 0	STAGE 2 PHASE 1	STAGE 2 PHASE 2	STAGE 2 PHASE 3	TOTAL
PORTABLE PRECAST CONCRETE BARRIER DESIGN 8337	LIN FT	700							**700**
RELOCATE PORTABLE PRECAST CONCRETE BARRIER DESIGN 8337	LIN FT				700				**700**
IMPACT ATTENUATOR NO 1	ASSEMBLY	4							**4**
RELOCATE IMPACT ATTENUAOR NO 1	ASSEMBLY				4				**4**
TRAFFIC CONTROL SUPERVISOR	UNIT DAY	5	10	5	5	10	5	5	**45**
TRAFFIC CONTROL	LUMP SUM								
PORTABLE CHANGEABLE MESSAGE SIGN (1)	UNIT DAY			14	14	28	14		**70**
REMOVABLE PREFORMED PAVEMENT MARKING TAPE	LIN FT		18740	16550		22060	15420		**72770 (2)**
REMOVABLE PREFORMED PLASTIC MASK (BLACK)	LIN FT		4110			3860			**7970**
4" SOLID LINE PAINT	LIN FT		68380			62260			**130640 (3)**
4" DOTTED LINE PAINT	LIN FT		90			90			**180 (4)**

(1) PORTABLE CHANGEABLE MESSAGE SIGN TO BE PLACED AS DIRECTED IN THE FIELD.
(2) 48521 WHITE, 24233 YELLOW
(3) 129616 WHITE, 1018 YELLOW
(4) WHITE

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TRAFFIC CONTROL PLAN
PAY ITEM TABULATION SHEET

TRAFFIC CONTROL TABULATION SHEET (1 OF 2)

"R" SERIES

SIGN	SIGN NO.	COLOR	SIZE IN INCHES
STOP	R1-1	WHITE on RED	36 x 36
ALL WAY	R1-3P	WHITE on RED	30 x 12
SPEED LIMIT 55	R2-1 (55)	BLACK on WHITE	36 x 48
SPEED LIMIT 65	R2-1 (65)	BLACK on WHITE	36 x 48
$300 FINE	R2-6bP	BLACK on WHITE	36 x 24
END WORK ZONE SPEED LIMIT	R2-12	BLACK on WHITE	36 x 54
	R3-1	BLACK AND RED on WHITE	36 x 36
	R3-2	BLACK AND RED on WHITE	36 x 36
NO TURNS	R3-3	BLACK on WHITE	36 x 36
ALL TRAFFIC MUST TURN RIGHT	R3-7a	BLACK on WHITE	36 x 36
DO NOT PASS	R4-1	BLACK on WHITE	36 x 48
	R4-7	BLACK on WHITE	36 x 48
	R4-7c	BLACK ON WHITE	18 x 30
DO NOT ENTER	R5-1	RED on WHITE	36 x 36
ROAD CLOSED / RAMP CLOSED	R11-2	BLACK on WHITE	48 x 30
ROAD CLOSED 1 MILE AHEAD LOCAL TRAFFIC ONLY	R11-3a	BLACK ON WHITE	60 x 30

"W" SERIES

SIGN	SIGN NO.	COLOR	SIZE IN INCHES
	W1-4 (L OR R)	BLACK on ORANGE	48 x 48
	W1-6 (L OR R)	BLACK on ORANGE	72 x 36
	W3-1	BLACK and RED on YELLOW	48 x 48
RAMP 55	W3-5 (55)	BLACK and WHITE on ORANGE	48 x 48
	W4-3L	BLACK on YELLOW	48 x 48
	W4-1R	BLACK on YELLOW	48 x 48
	W4-2 (L OR R)	BLACK on ORANGE	48 x 48
	W6-3	BLACK on ORANGE	48 x 48
	W12-1	BLACK on ORANGE	30 x 30
45 M.P.H.	W13-1P	BLACK on ORANGE	30 x 30
EXIT 45 M.P.H.	W13-2 (45)	BLACK on YELLOW	36 x 48
NO PASSING ZONE	W14-3	BLACK on ORANGE	64 x 64 x 48

"W" SERIES (CONT.)

SIGN	SIGN NO.	COLOR	SIZE IN INCHES
NEXT 13 MILES	W7-3aP	BLACK on ORANGE	42 x 24
ROAD WORK AHEAD	W20-1	BLACK on ORANGE	48 x 48
DETOUR AHEAD	W20-2	BLACK on ORANGE	48 x 48
ROAD CLOSED AHEAD	W20-3	BLACK on ORANGE	48 x 48
600 FEET 750 FEET	W20-100P	BLACK on ORANGE	42 x 24
MERGE MERGE	W21-X3 (L OR R)	BLACK on ORANGE	48 x 48
LEFT LANE CLOSED / RIGHT LANE CLOSED	W21-X5 (L OR R)	BLACK on ORANGE	48 x 48
RAMP CLOSED AHEAD	W20-X16	BLACK on ORANGE	48 x 48
TURN LANE CLOSED	W20-X18	BLACK on ORANGE	48 x 48

GENERAL NOTES:

A. ALL SIGNS AND DEVICES SHOWN IN THE TRAFFIC CONTROL TABULATION ARE INCLUDED IN THE TRAFFIC CONTROL LUMP SUM QUANTITY.

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TRAFFIC CONTROL PLAN
TRAFFIC CONTROL TABULATION SHEET

SP 8309-52 (T.H. 60)
SHEET NO. 134 OF 283 SHEETS

TRAFFIC CONTROL TABULATION SHEET (2 OF 2)

"M" SERIES			
SIGN	SIGN NO.	COLOR	SIZE IN INCHES
MINNESOTA 4 / MINNESOTA 30 / MINNESOTA 60	M1-5a	WHITE and GOLD on BLUE	36 x 36
WATONWAN 12 COUNTY	M1-X4	BLACK on WHITE	36 x 36
NORTH	M3-1	BLACK on WHITE	36 x 18
NORTH	M3-1a	WHITE on BLUE	36 x 18
SOUTH	M3-3a	WHITE on BLUE	36 x 18
EAST	M3-2	BLACK on WHITE	36 x 18
EAST	M3-2a	WHITE on BLUE	36 x 18
WEST	M3-4	BLACK on WHITE	36 x 18
WEST	M3-4a	WHITE on BLUE	36 x 18
DETOUR	M4-8	BLACK on ORANGE	36 x 18
END DETOUR	M4-8a	BLACK on ORANGE	24 x 18
DETOUR	M4-10L	BLACK on ORANGE	48 x 18
	M5-1	BLACK on WHITE	30 x 24
	M5-1a	WHITE on BLUE	30 x 24
	M5-2	BLACK on WHITE	30 x 24
	M5-2a	WHITE on BLUE	30 x 24

"M" SERIES			
	M6-1 (L OR R)	BLACK on WHITE	30 x 24
	M6-1a (L OR R)	WHITE on BLUE	30 x 24
	M6-2R	BLACK on WHITE	30 x 24
	M6-2aR	WHITE on BLUE	30 x 24
	M6-3	BLACK on WHITE	30 x 24
	M6-3a	WHITE on BLUE	30 x 24

"G" SERIES			
SIGN	SIGN NO.	COLOR	SIZE IN INCHES
ROAD WORK NEXT 13 MILES	G20-1	BLACK on ORANGE	84 x 36
WORK ZONE	G20-5aP	BLACK ON ORANGE	36 x 24
RAMP CLOSED BEGINNING MONTH DY	G20-X1	BLACK on ORANGE	72 x 60
EXIT	G20-X7	BLACK on ORANGE	48 x 48

DEVICES			
ITEM		COLOR	SIZE IN INCHES
	DLC	WHITE on ORANGE	
	TYPE A SURFACE MOUNTED DELINEATOR	WHITE on ORANGE	
	TYPE III	WHITE on ORANGE	
	FLASHING ARROW BOARD		
F	WARNING LIGHT TYPE A FLASH	RED	
F	WARNING LIGHT TYPE B FLASH	AMBER	

GENERAL NOTES:

A. ALL SIGNS AND DEVICES SHOWN IN THE TRAFFIC CONTROL TABULATION ARE INCLUDED IN THE TRAFFIC CONTROL LUMP SUM QUANTITY.

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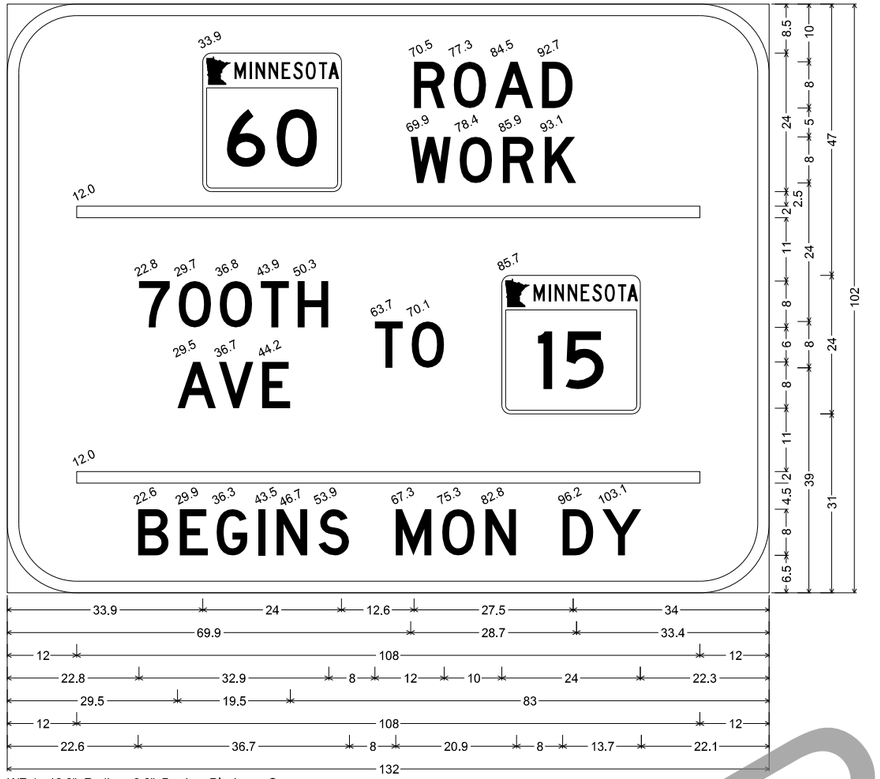
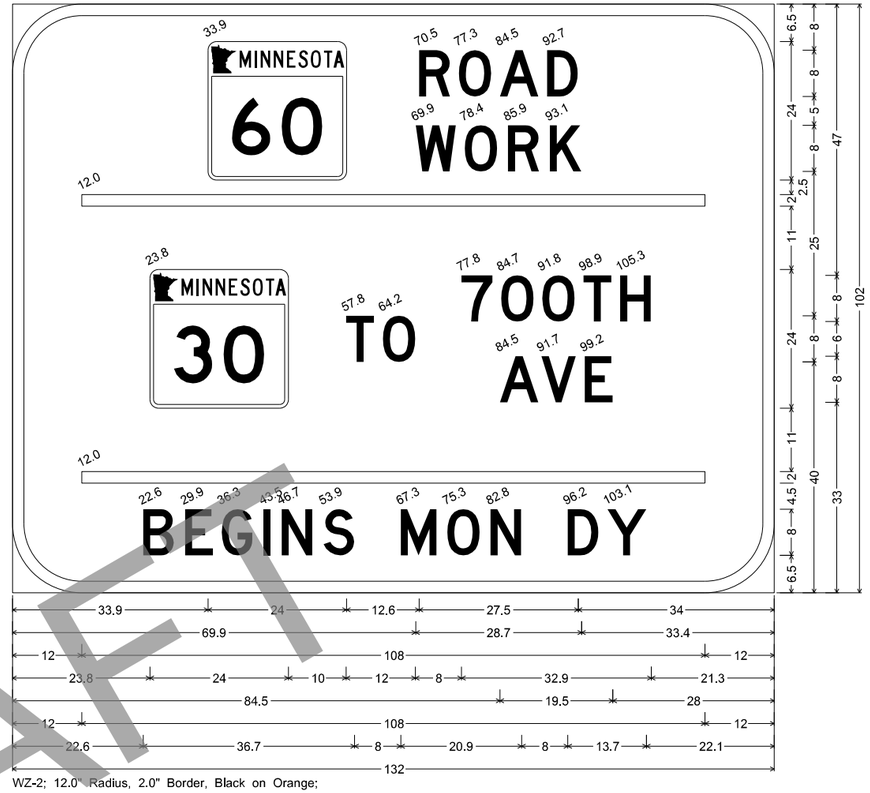
TRAFFIC CONTROL PLAN
TRAFFIC CONTROL TABULATION SHEET

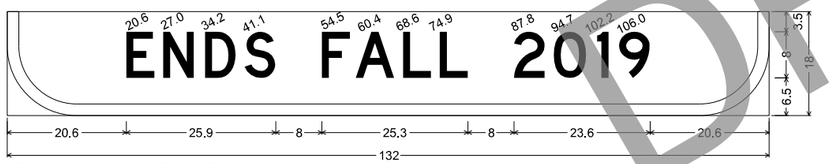
SP 8309-52 (T.H. 60)
SHEET NO. 135 OF 283 SHEETS



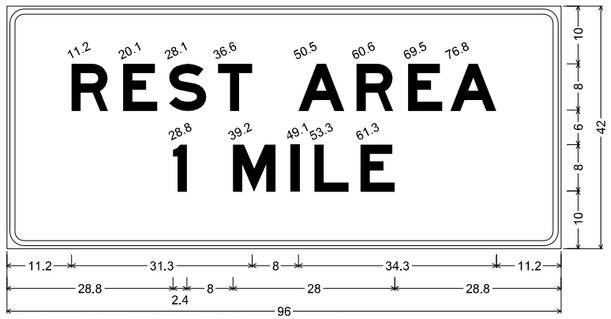
WZ-1; 12.0" Radius, 2.0" Border, Black on Orange;
[ROAD] D; [WORK] D; [700TH] D; [AVE] D; [TO] D; [BEGINS MON DY] D;



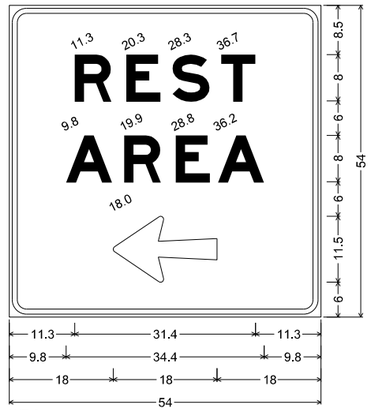
WZ-2; 12.0" Radius, 2.0" Border, Black on Orange;
[ROAD] D; [WORK] D; [TO] D; [700TH] D; [AVE] D; [BEGINS MON DY] D;



WZ-3; 12.0" Radius, 2.0" Border, Black on Orange;
[ENDS FALL 2019] D;



WZ-8; 3.0" Radius, 0.9" Border, 0.5" Indent, Black on Orange;
[REST AREA] E Mod; [1 MILE] E Mod;



WZ-9;
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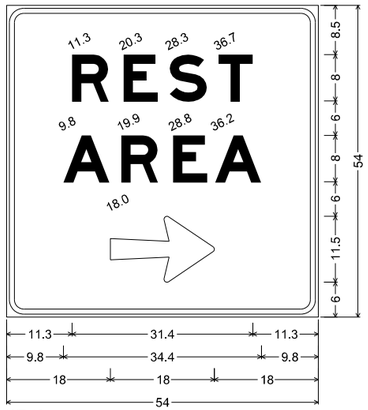
[REST] E Mod; [AREA] E Mod;
Arrow 14 - 18.0" 180°;



WZ-10;
3.0" Radius, 0.9" Border, 0.5" Indent, Black on Orange;
[REST] E Mod; [AREA] E Mod;
Arrow 14 - 18.0" 0°;

GENERAL NOTES:

A. ALL DIMENSIONS ARE IN INCHES.

B. ALL SIGNS ON THIS SHEET ARE INCLUDED IN THE TRAFFIC CONTROL LUMP SUM QUANTITY.

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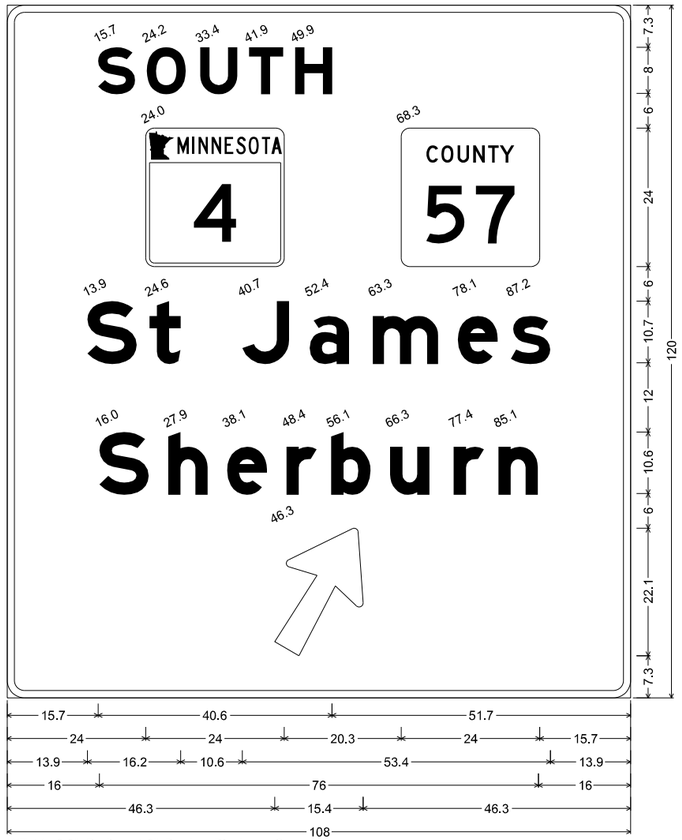
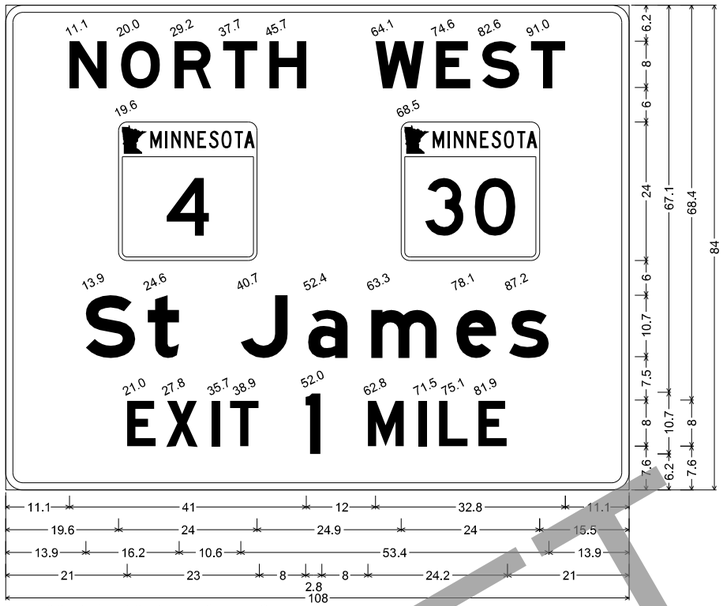
TRAFFIC CONTROL PLAN
SPECIAL SIGN DESIGN

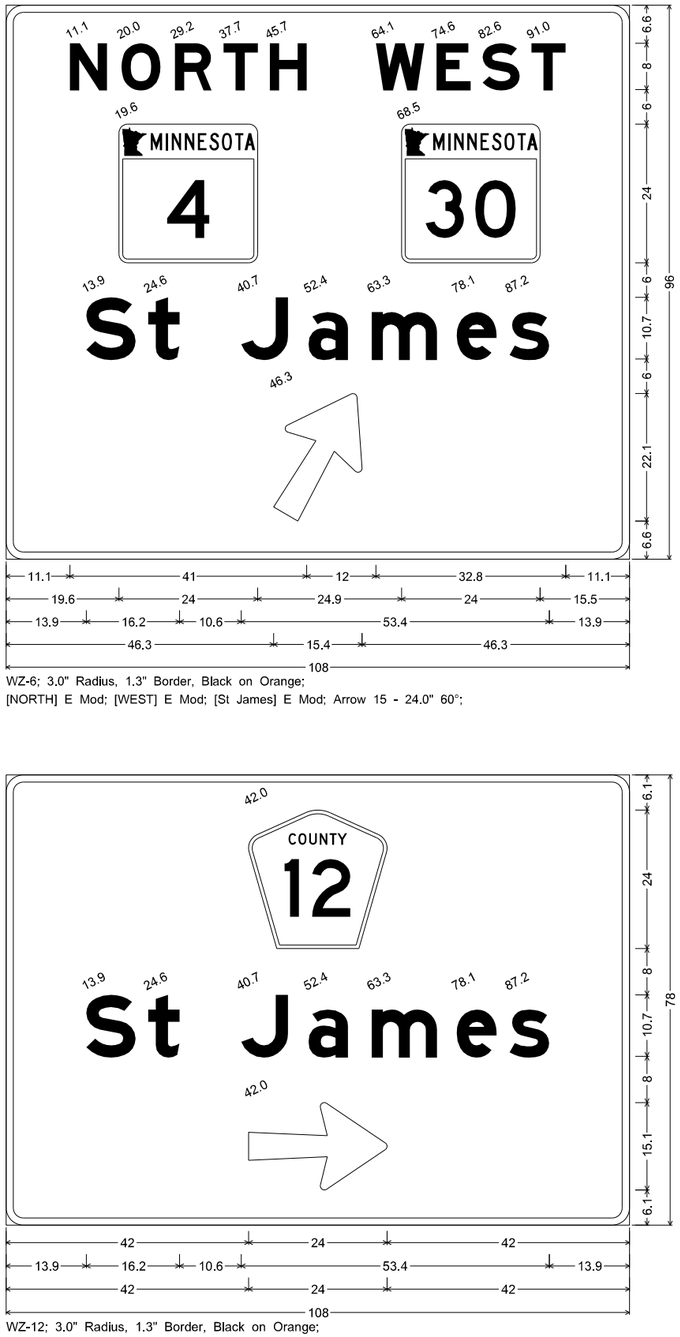
SP 8309-52 (T.H. 60)
SHEET NO. 136 OF 283 SHEETS



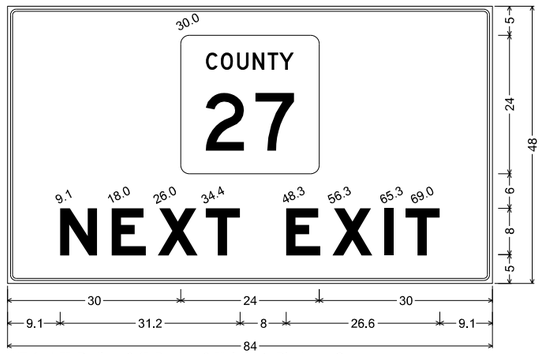
WZ-11; 3.0" Radius, 1.3" Border, Black on Orange;
[SOUTH] E Mod; [St James] E Mod; [Sherburn] E Mod; Arrow 15 - 24.0" 60°;



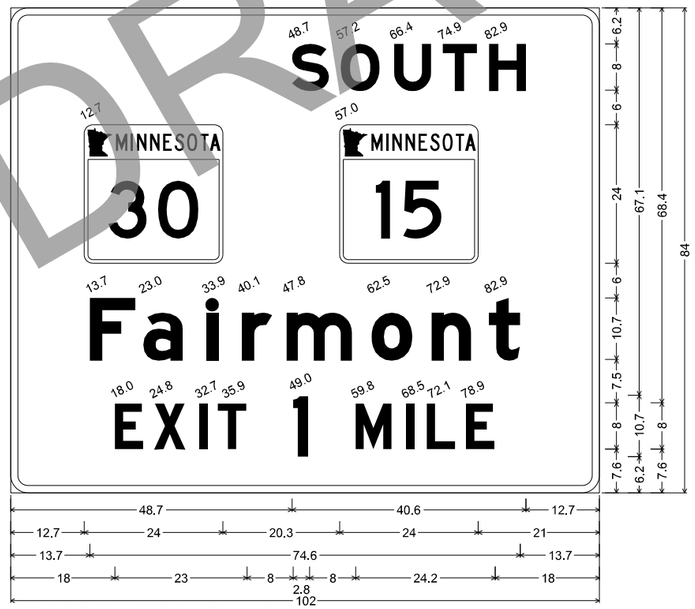
WZ-5; 3.0" Radius, 1.3" Border, Black on Orange;
[NORTH] E Mod; [WEST] E Mod; [St James] E Mod; [EXIT] D Mod; [1] D Mod; [MILE] D Mod;



WZ-6; 3.0" Radius, 1.3" Border, Black on Orange;
[NORTH] E Mod; [WEST] E Mod; [St James] E Mod; Arrow 15 - 24.0" 60°;



WZ-4; 1.5" Radius, 0.4" Border, 0.5" Indent, Black on Orange;
[NEXT EXIT] E Mod;



WZ-7; 3.0" Radius, 1.3" Border, Black on Orange;
[SOUTH] E Mod; [Fairmont] E Mod; [EXIT] D Mod; [1] D Mod; [MILE] D Mod;

WZ-12; 3.0" Radius, 1.3" Border, Black on Orange;
[St James] E Mod; Arrow 15 - 24.0" 0°;

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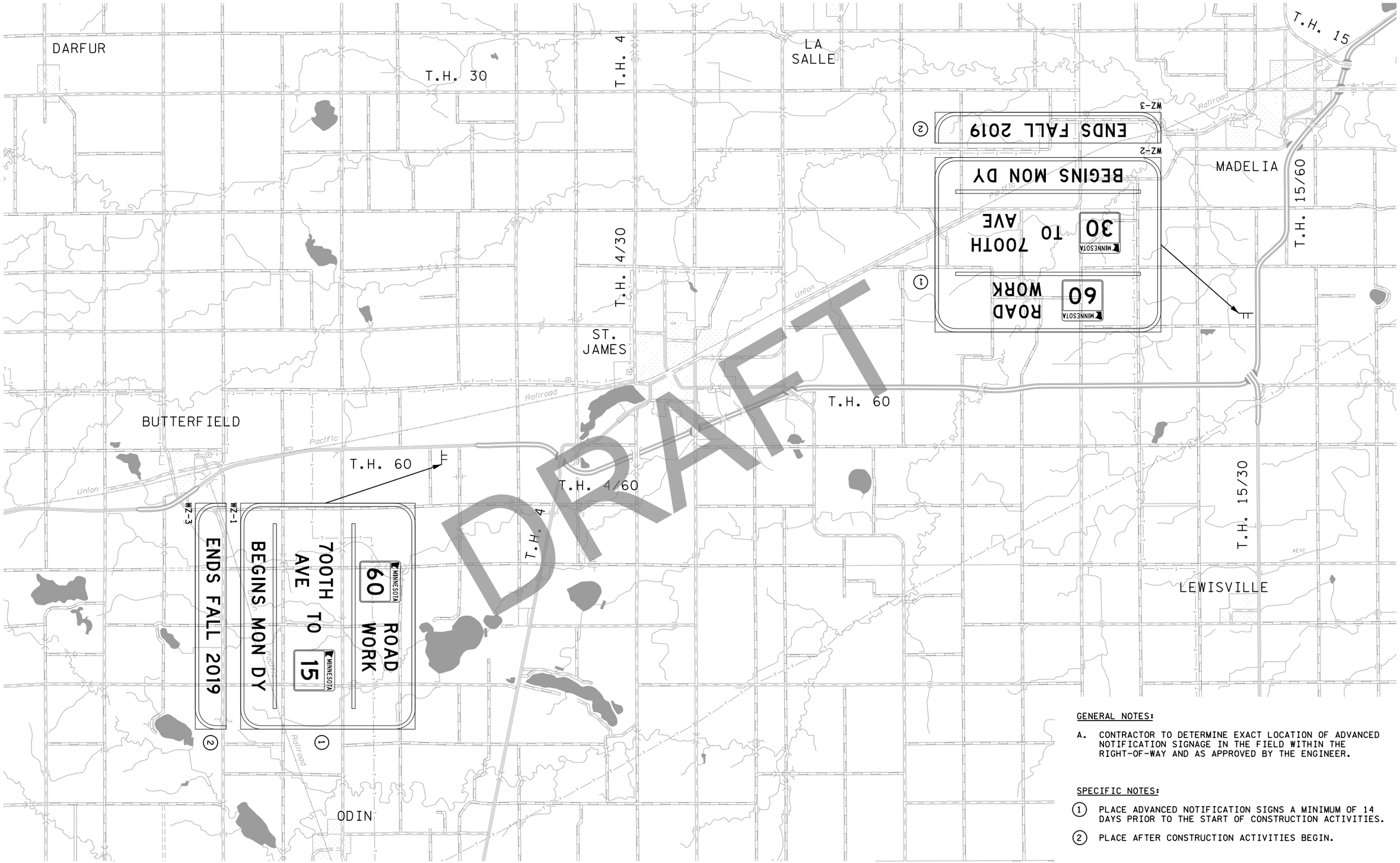
TRAFFIC CONTROL PLAN
SPECIAL SIGN DESIGN

SP 8309-52 (T.H. 60)
SHEET NO. 137 OF 283 SHEETS



GENERAL NOTES:

A. CONTRACTOR TO DETERMINE EXACT LOCATION OF ADVANCED NOTIFICATION SIGNAGE IN THE FIELD WITHIN THE RIGHT-OF-WAY AND AS APPROVED BY THE ENGINEER.

SPECIFIC NOTES:

(1) PLACE ADVANCED NOTIFICATION SIGNS A MINIMUM OF 14 DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

(2) PLACE AFTER CONSTRUCTION ACTIVITIES BEGIN.

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TRAFFIC CONTROL PLAN
ADVANCED NOTIFICATION SIGNING

SP 8309-52 (T.H. 60)
SHEET NO. 138 OF 283 SHEETS

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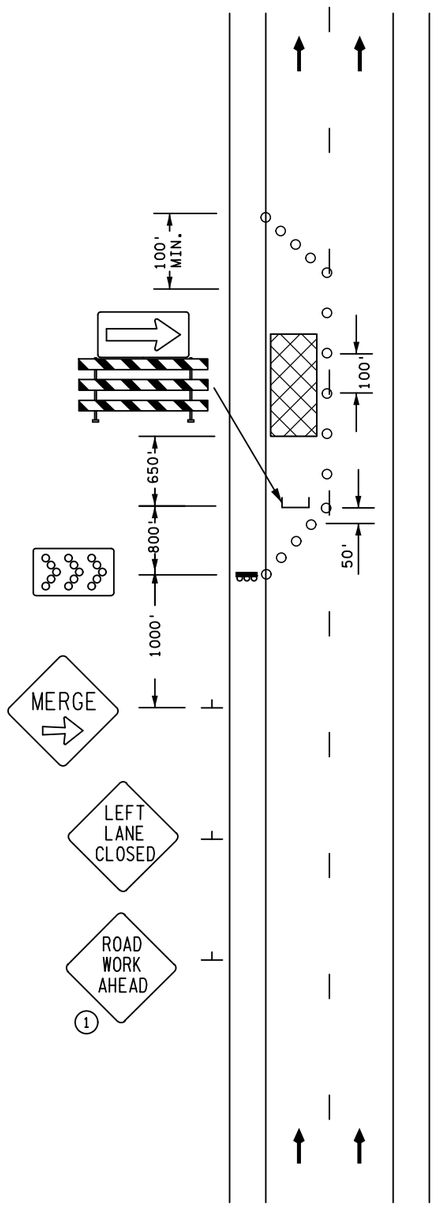
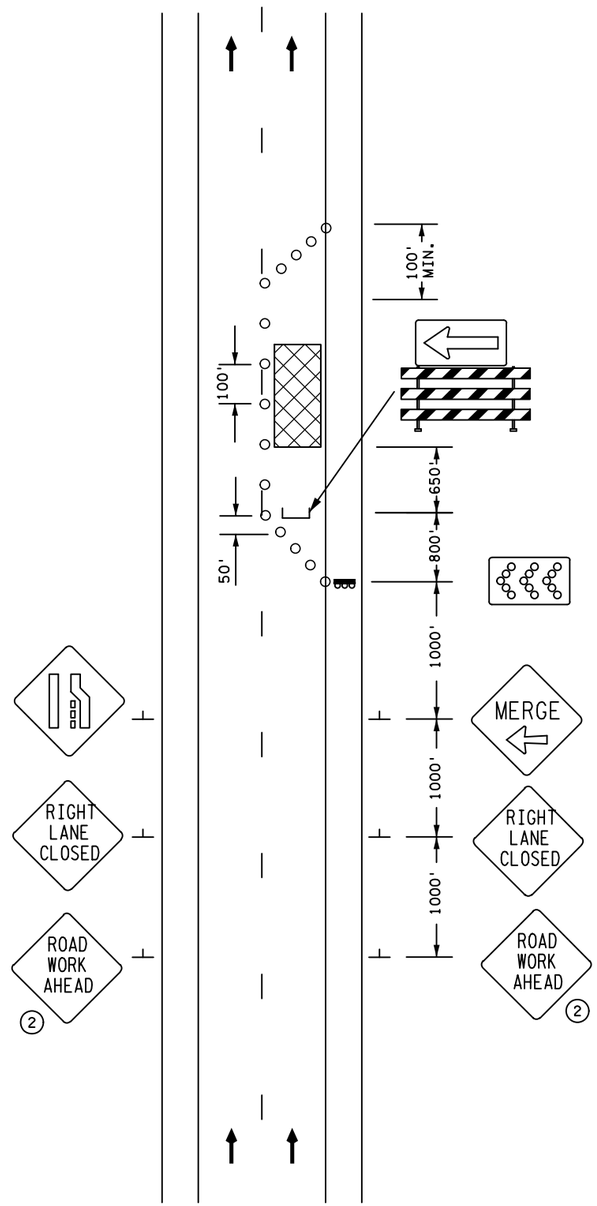


SPECIFIC NOTES:

(1) SIGN SHALL BE OMITTED IF LAYOUT IS USED WITHIN AN ACTIVE WORK ZONE WHERE ROAD WORK AHEAD SIGNAGE IS ALREADY PROVIDED.

LEFT LANE CLOSURE
MULTI-LANE DIVIDED ROAD



SPECIFIC NOTES:

(2) SIGN SHALL BE OMITTED IF LAYOUT IS USED WITHIN AN ACTIVE WORK ZONE WHERE ROAD WORK AHEAD SIGNAGE IS ALREADY PROVIDED.

RIGHT LANE CLOSURE
MULTI-LANE DIVIDED ROAD

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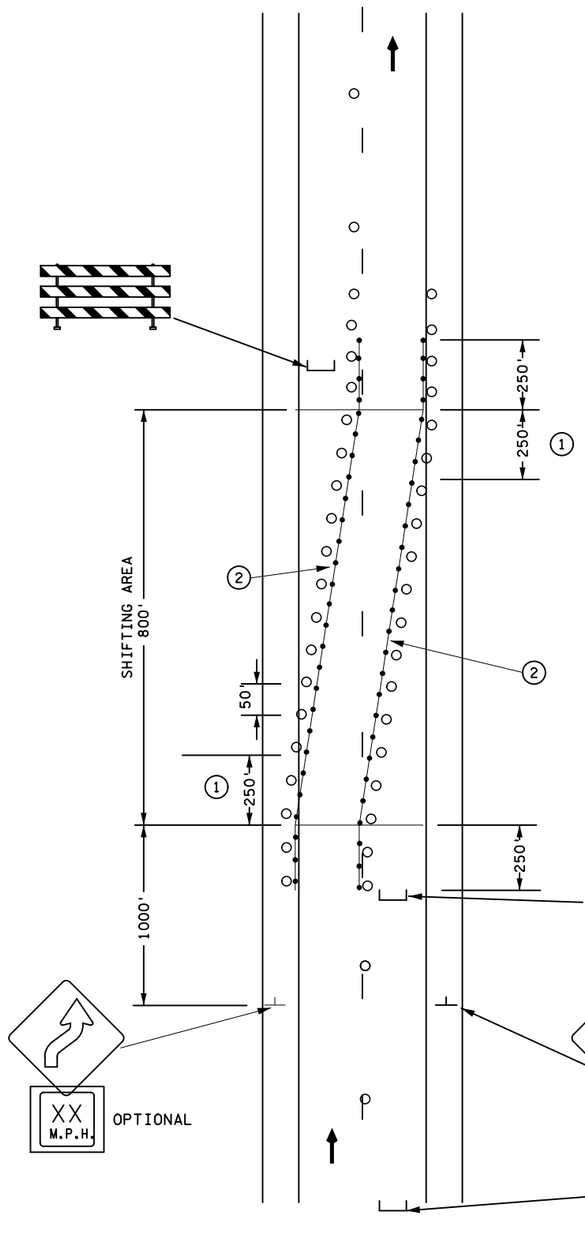
TRAFFIC CONTROL PLAN
TYPICAL LAYOUTS

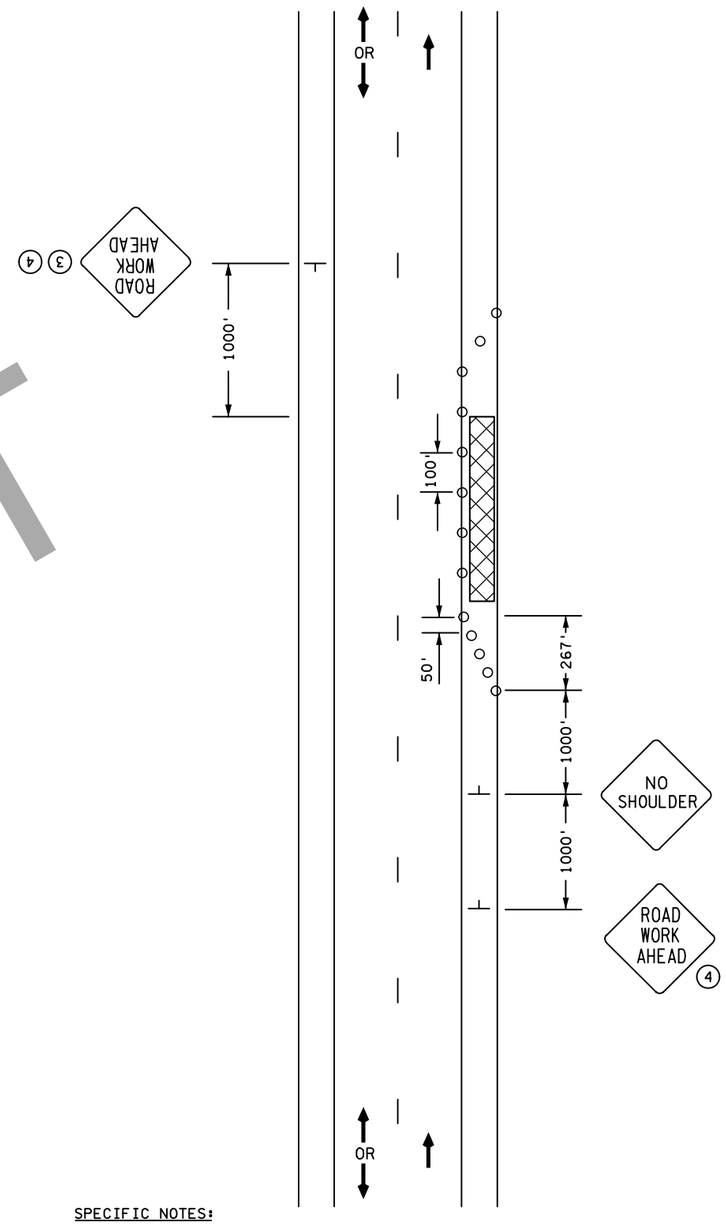
SP 8309-52 (T.H. 60)
SHEET NO. 139 OF 283 SHEETS



SINGLE LANE SHIFT
MULTILANE DIVIDED ROAD

SPECIFIC NOTES:

1. COVER OR REMOVE INPLACE EDGELINE.
2. SOLID LINE PAVEMENT MARKING WITH TEMPORARY RAISED PAVEMENT MARKERS AT 10' SPACING OR WET REFLECTIVE TAPE.



SPECIFIC NOTES:

3. SIGN REQUIRED FOR TWO-WAY UNDIVIDED ROADWAYS ONLY.
4. SIGN SHALL BE OMITTED IF LAYOUT IS USED WITHIN AN ACTIVE WORK ZONE WHERE ROAD WORK AHEAD SIGNAGE IS ALREADY PROVIDED.

SHOULDER CLOSURE

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NO	DATE	DWN	CKD	REVISIONS

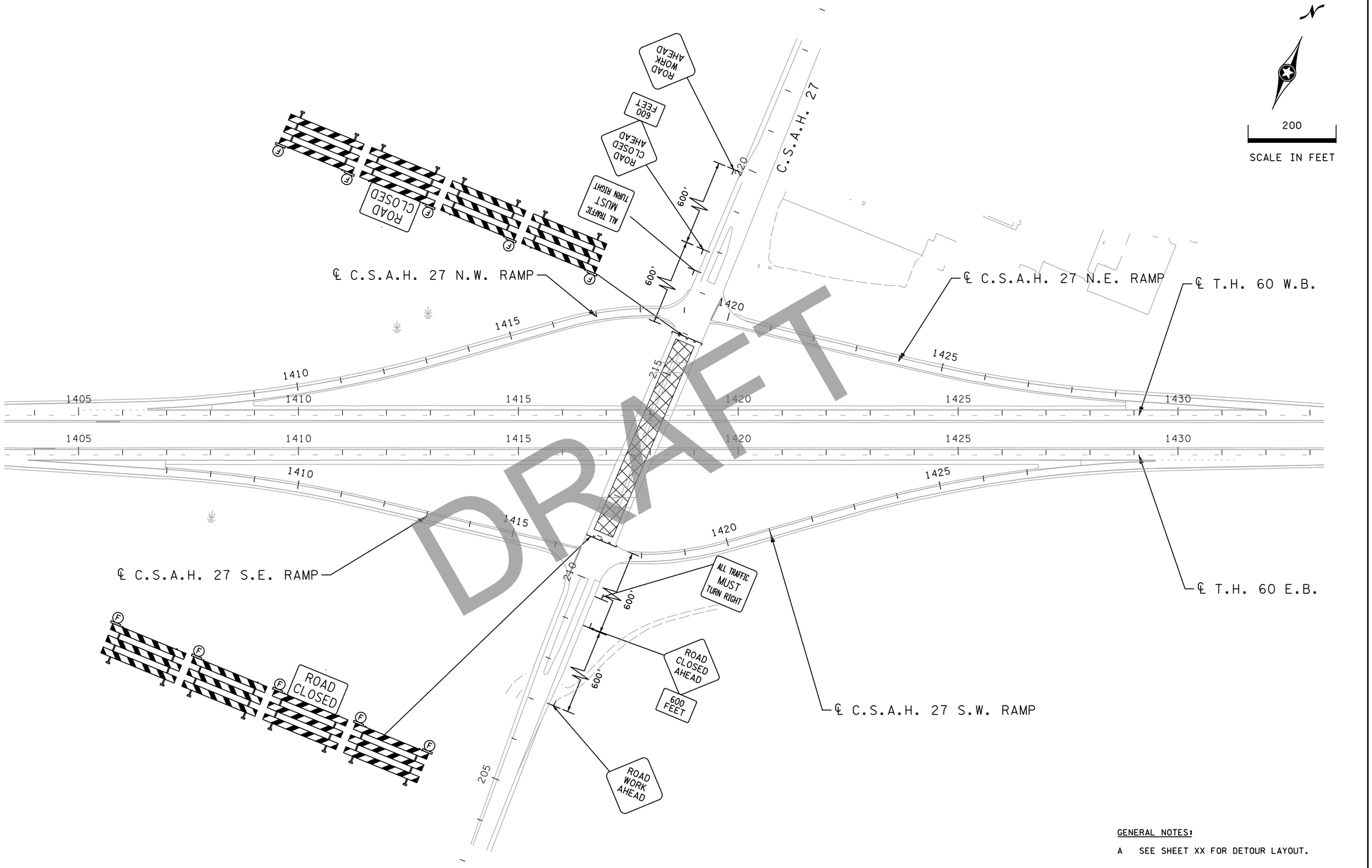
ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
TYPICAL LAYOUTS

SP 8309-52 (T.H. 60)
SHEET NO. 140 OF 283 SHEETS



GENERAL NOTES:

A SEE SHEET XX FOR DETOUR LAYOUT.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN - STAGE 0

C.S.A.H. 27 BRIDGE CLOSURE

SP 8309-52 (T.H. 60)

SHEET NO. 141 OF 283 SHEETS

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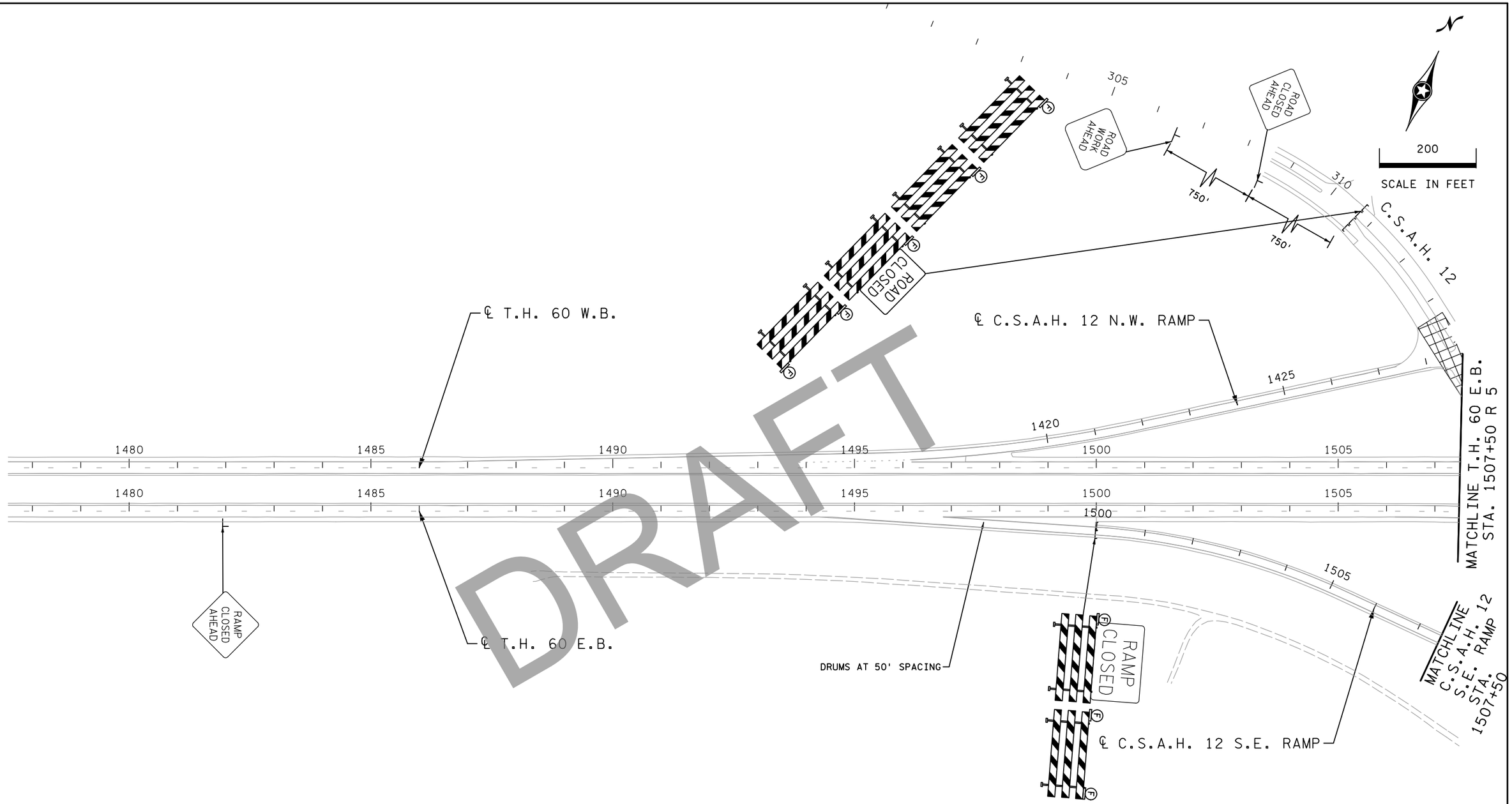

GENERAL NOTES:

A. SEE SHEET XX FOR DETOUR LAYOUT.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN - STAGE 0
C.S.A.H. 12 INTERCHANGE CLOSURE

SP 8309-52 (T.H. 60)
SHEET NO. 142 OF 283 SHEETS

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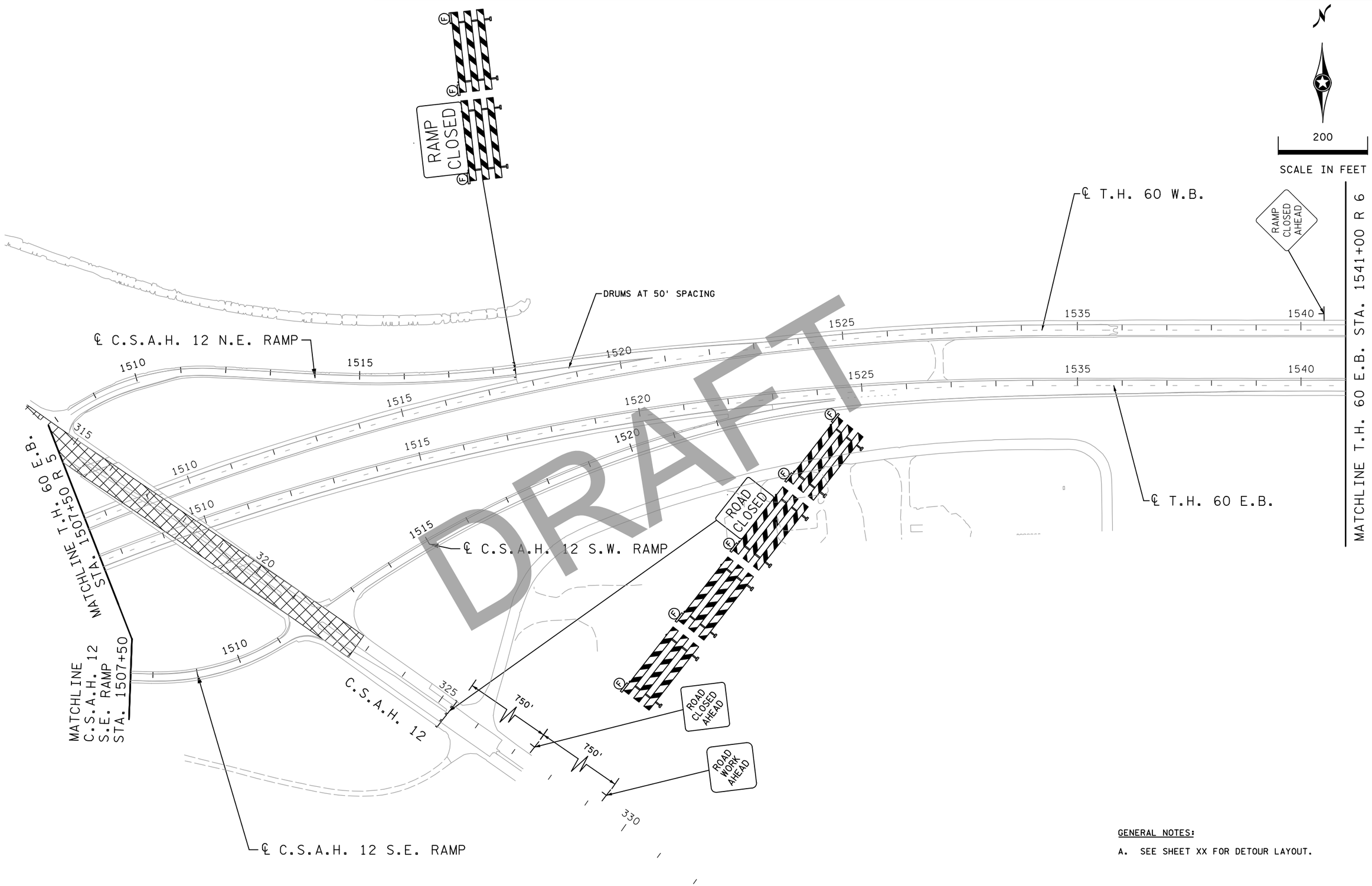

GENERAL NOTES:

A. SEE SHEET XX FOR DETOUR LAYOUT.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN - STAGE 0
C.S.A.H. 12 INTERCHANGE CLOSURE

SP 8309-52 (T.H. 60)
SHEET NO. 143 OF 283 SHEETS

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100

SCALE IN FEET

℄ T.H. 60 W.B.

IMPACT ATTENUATOR NO. 1 (TL3)

BEGIN PPCB
1683+17; 20.0' LT ① ②

7' WIDE SHOULDER
ADJACENT TO PPCB

END PPCB
1686+42; 20.0' LT ① ②

IMPACT ATTENUATOR NO. 1 (TL3)

1680

1685

1690

IMPACT ATTENUATOR NO. 1 (TL3)

END PPCB
1686+04; 16.0' RT ① ②

℄ T.H. 60 E.B.

IMPACT ATTENUATOR NO. 1 (TL3)

① ②

BEGIN PPCB
1682+29; 16.0' RT

3' WIDE SHOULDER
ADJACENT TO PPCB

SPECIFIC NOTES

① STATION/OFFSET CALLOUTS ARE BASED ON THE T.H. 60 W.B. CENTERLINE ALIGNMENT.

② OFFSET IS MEASURED TO THE CENTER OF PPCB.

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN - STAGE 0
PORTABLE PRECAST CONCRETE BARRIER (PPCB) PLACEMENT

SP 8309-52 (T.H. 60)

SHEET NO. 144 OF 283 SHEETS

N

100

SCALE IN FEET

℄ T.H. 60 W.B.

℄ T.H. 60 E.B.

1680

1685

1690

IMPACT ATTENUATOR NO. 1 (TL3)

BEGIN PPCB
1682+93; 16.0' LT
(1) (2)

3' WIDE SHOULDER
ADJACENT TO PPCB

END PPCB
1686+68; 16.0' LT
(1) (2)

IMPACT ATTENUATOR NO. 1 (TL3)

IMPACT ATTENUATOR NO. 1 (TL3)

7' WIDE SHOULDER
ADJACENT TO PPCB

(1) (2)
BEGIN PPCB
1682+55; 20.0' RT

IMPACT ATTENUATOR NO. 1 (TL3)

END PPCB
1685+80; 20.0' RT
(1) (2)

SPECIFIC NOTES

(1) STATION/OFFSET CALLOUTS ARE BASED ON THE T.H. 60 E.B. CENTERLINE ALIGNMENT.

(2) OFFSET IS MEASURED TO THE CENTER OF PPCB.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN - STAGE 2 PHASE 0

PORTABLE PRECAST CONCRETE BARRIER (PPCB) PLACEMENT

SP 8309-52 (T.H. 60)

SHEET NO. 145 OF 283 SHEETS

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GENERAL NOTES:

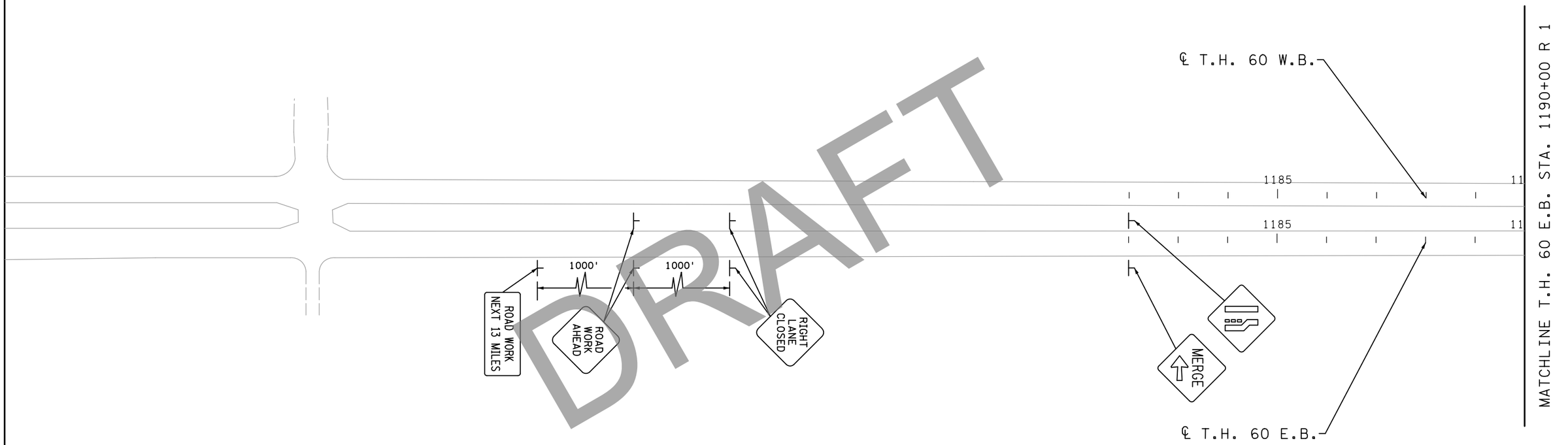
A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 146 OF 283 SHEETS

GENERAL NOTES:

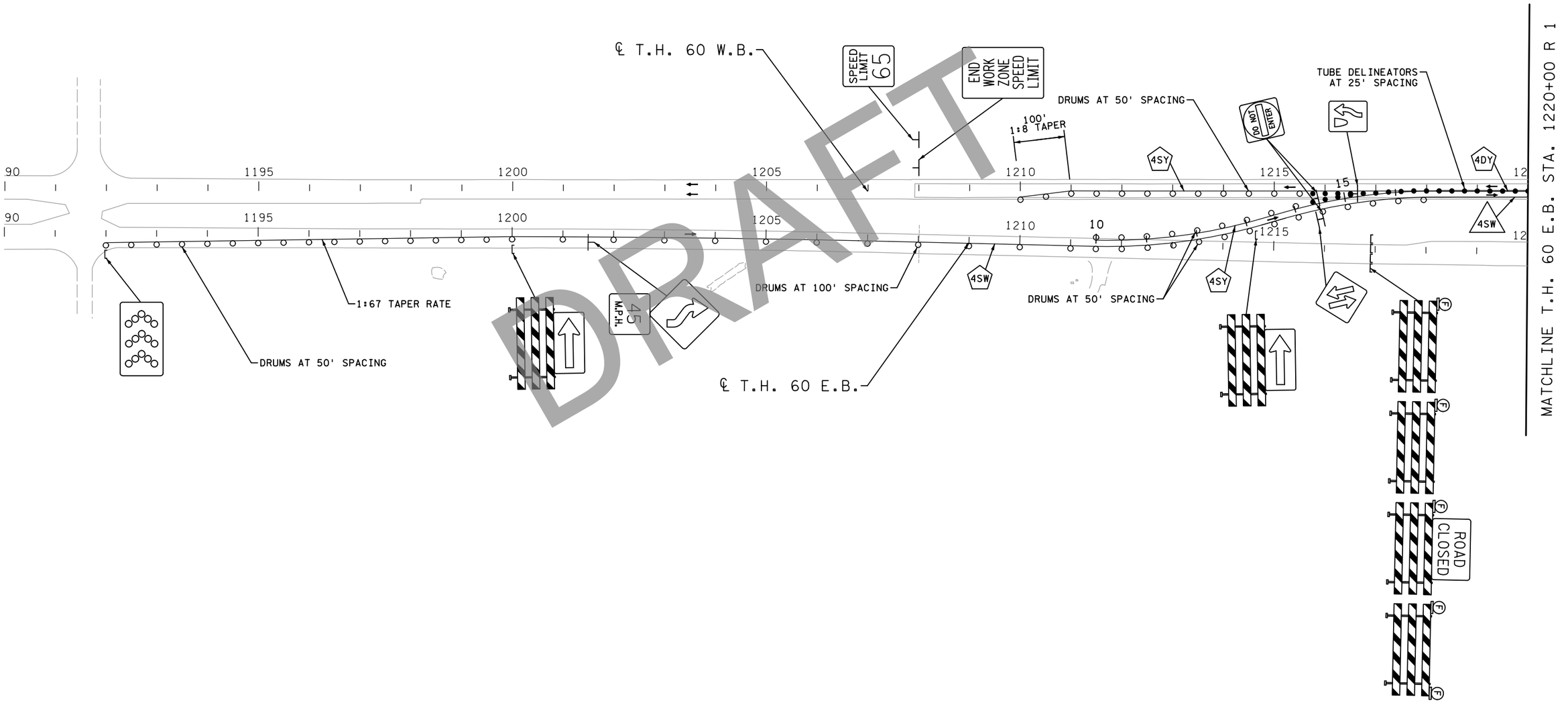
A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 147 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

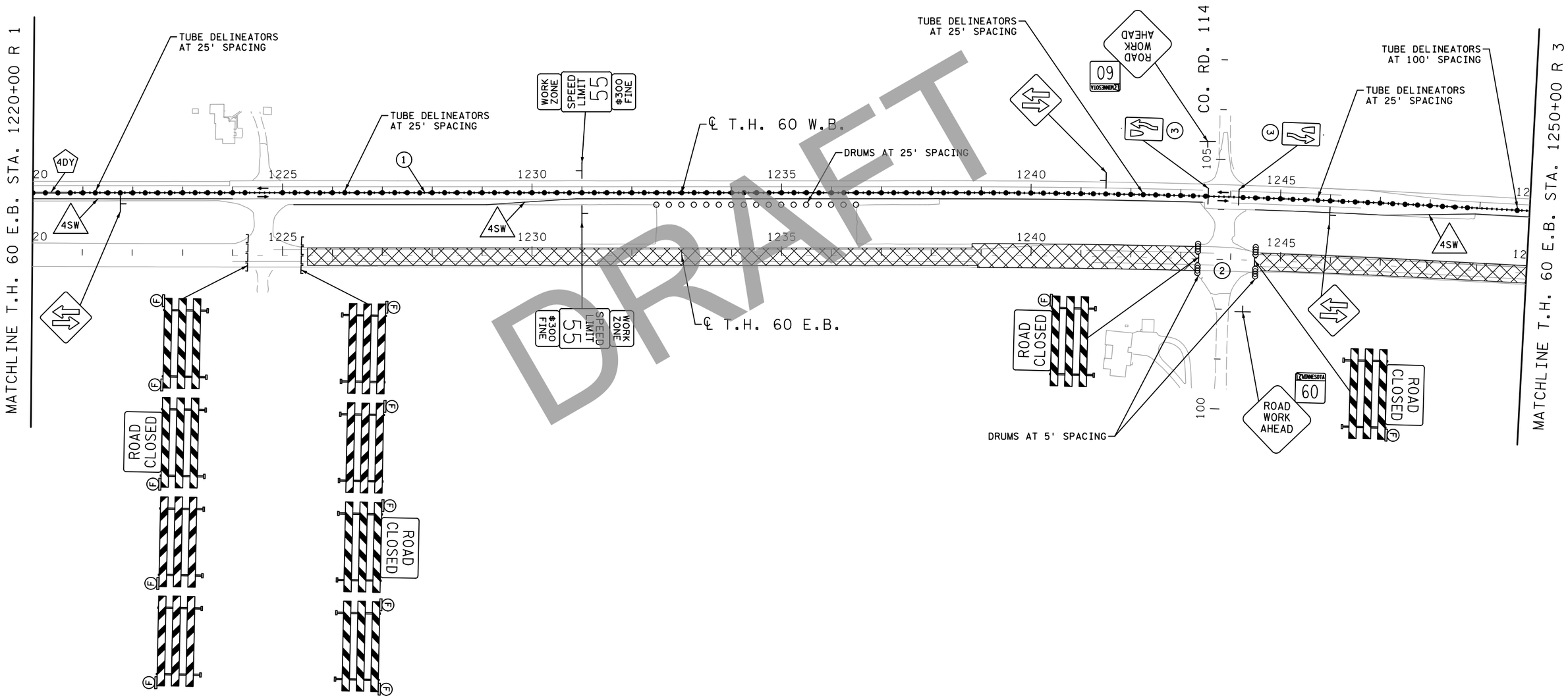
(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT DRAFT
SIGNATURE:
DATE _____ LICENSE # COPY COPY

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 148 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

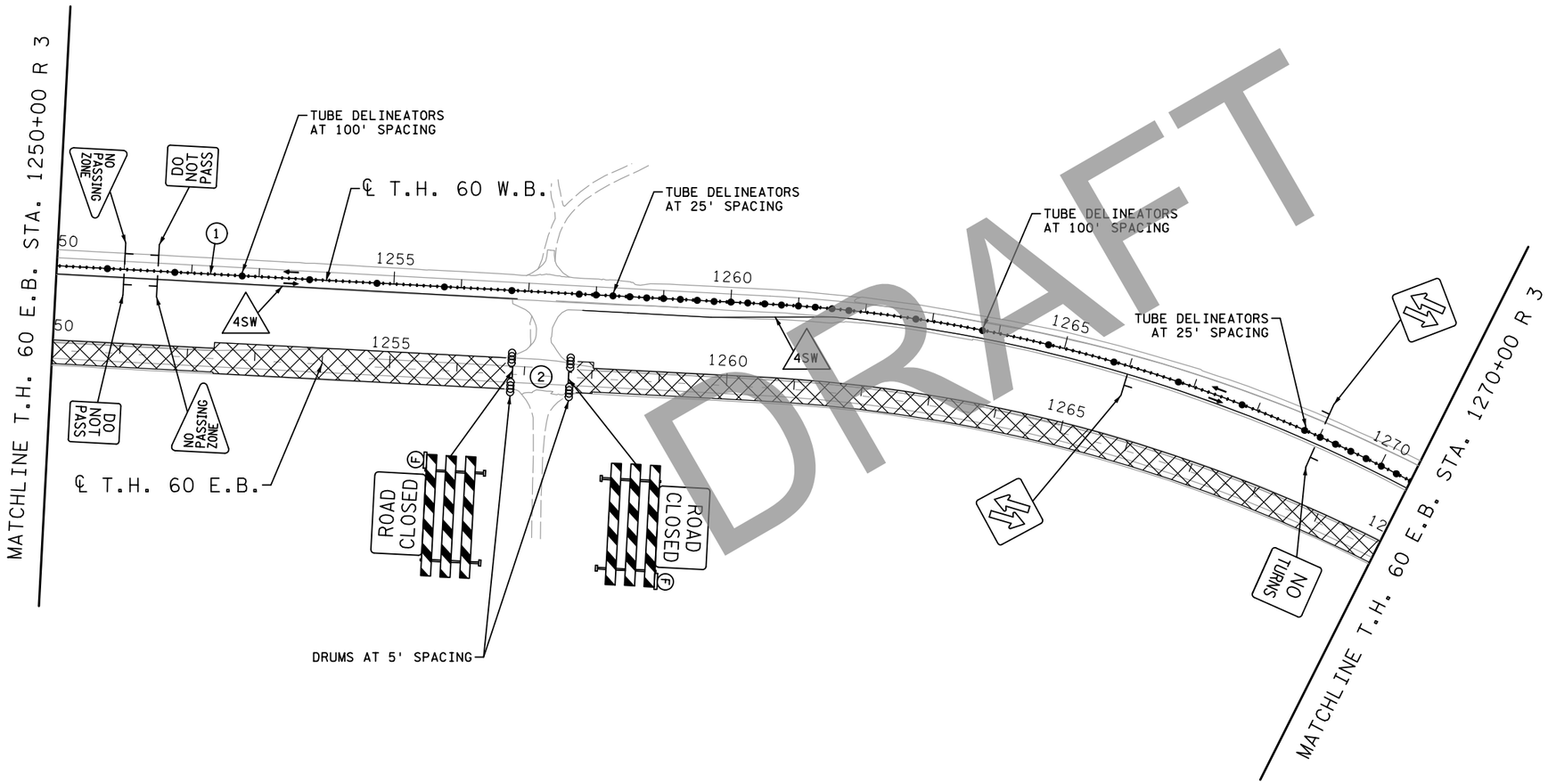
(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 149 OF 283 SHEETS

GENERAL NOTES:

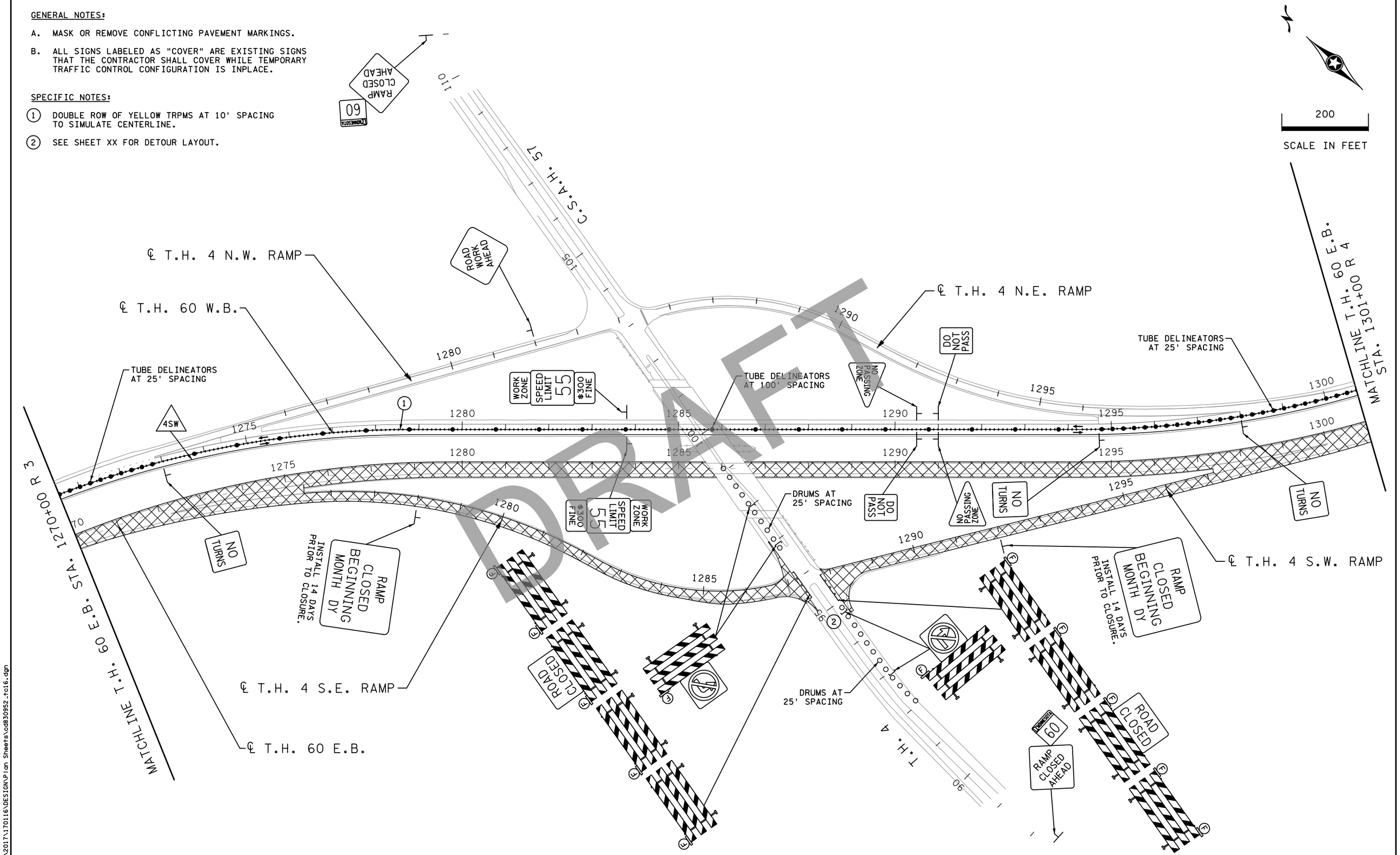
A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) SEE SHEET XX FOR DETOUR LAYOUT.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 150 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

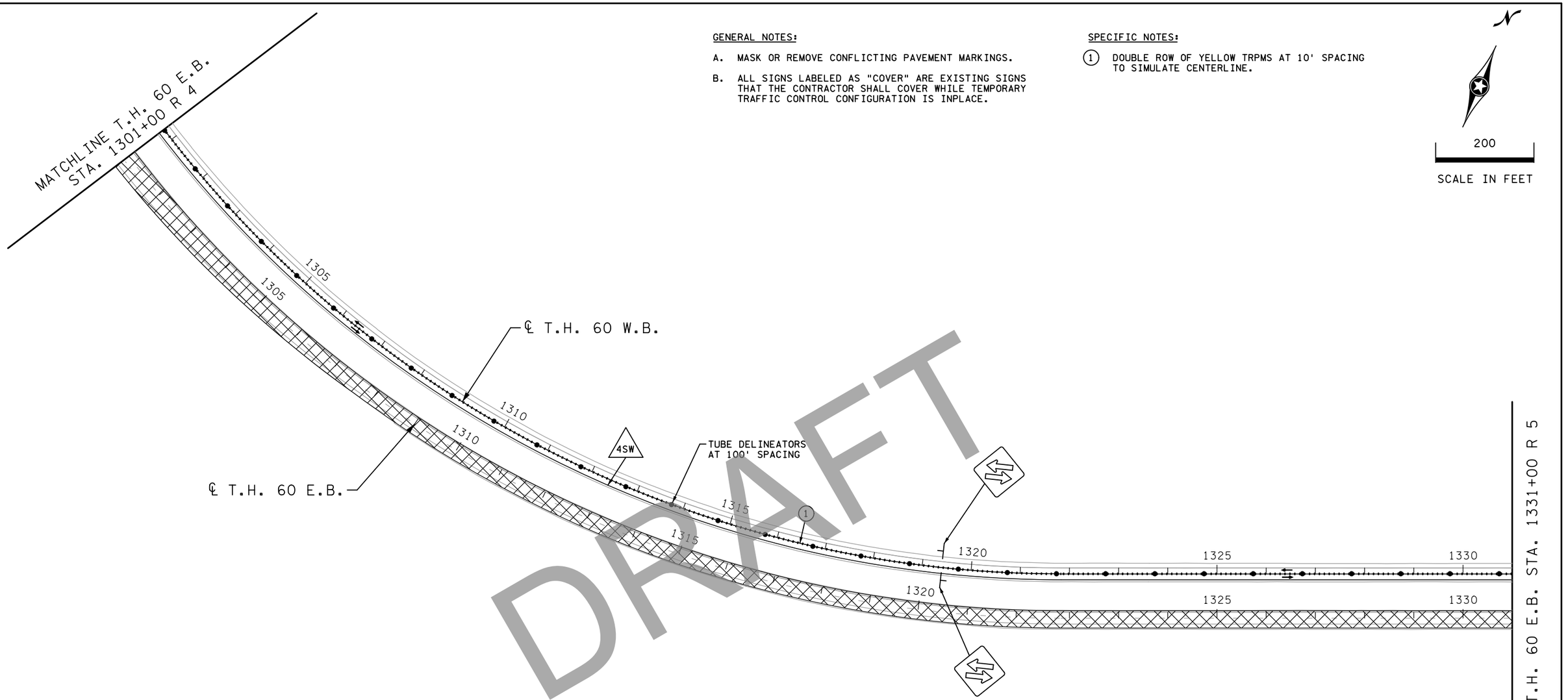
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 151 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

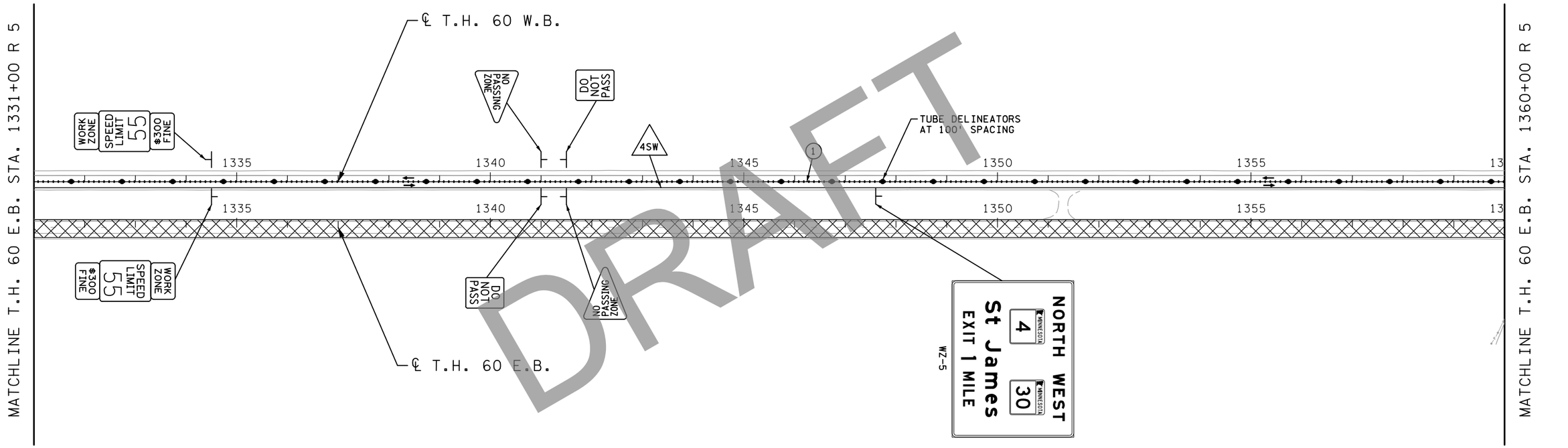
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 152 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

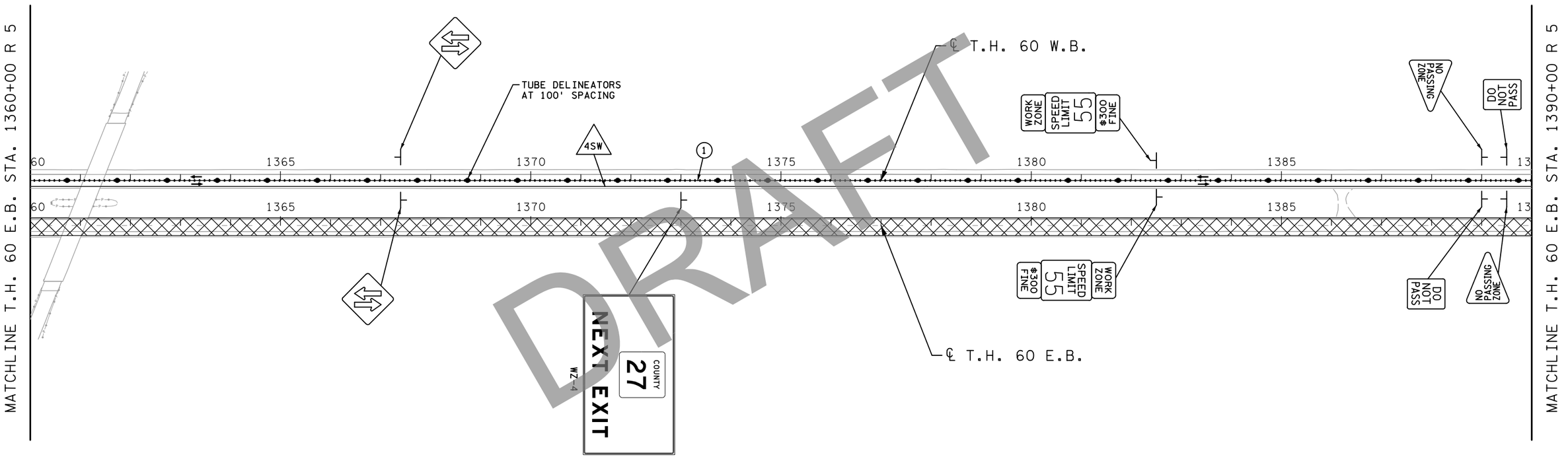
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY
SIGNATURE: DRAFT COPY
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 153 OF 283 SHEETS

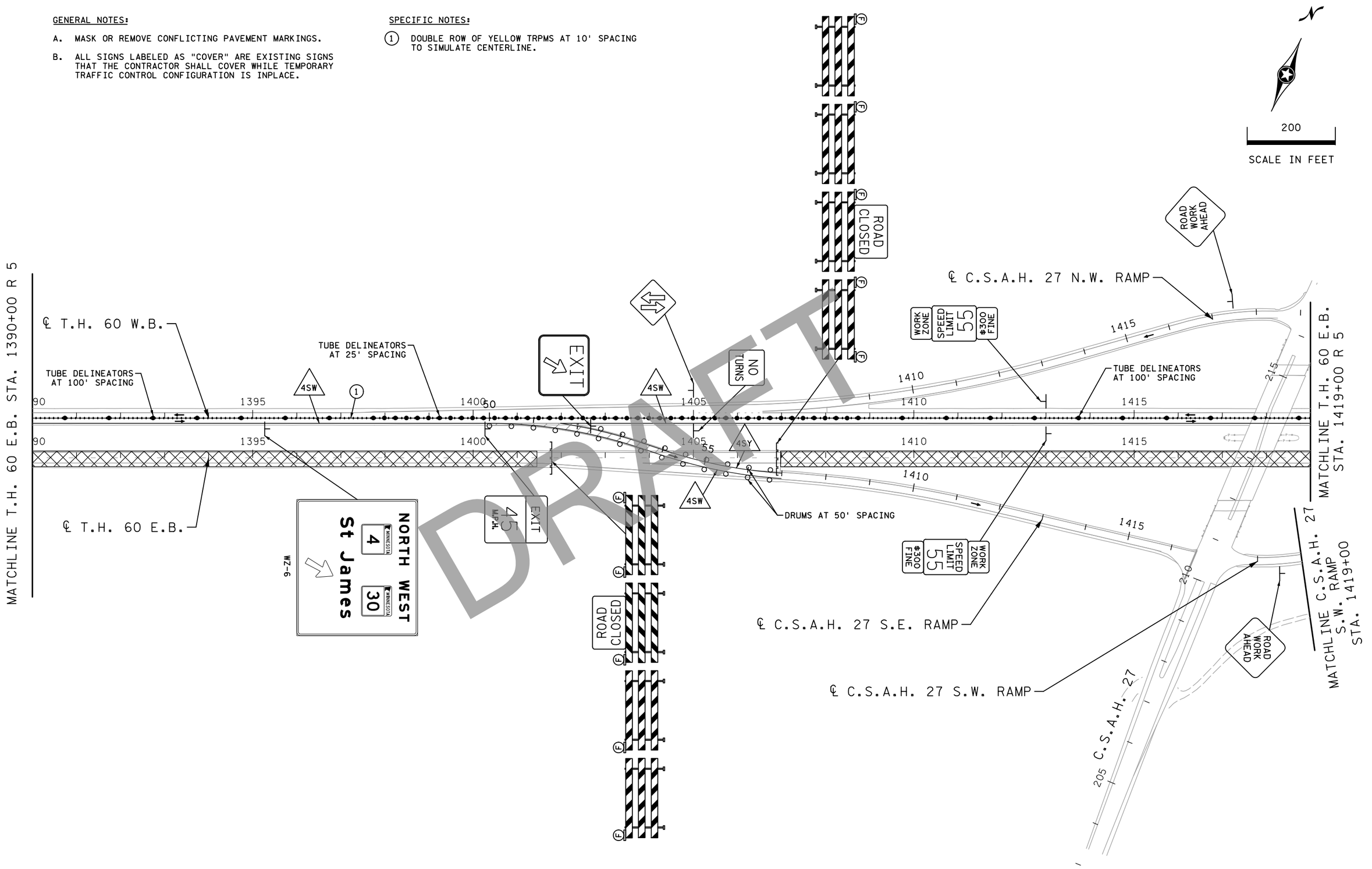
GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 154 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

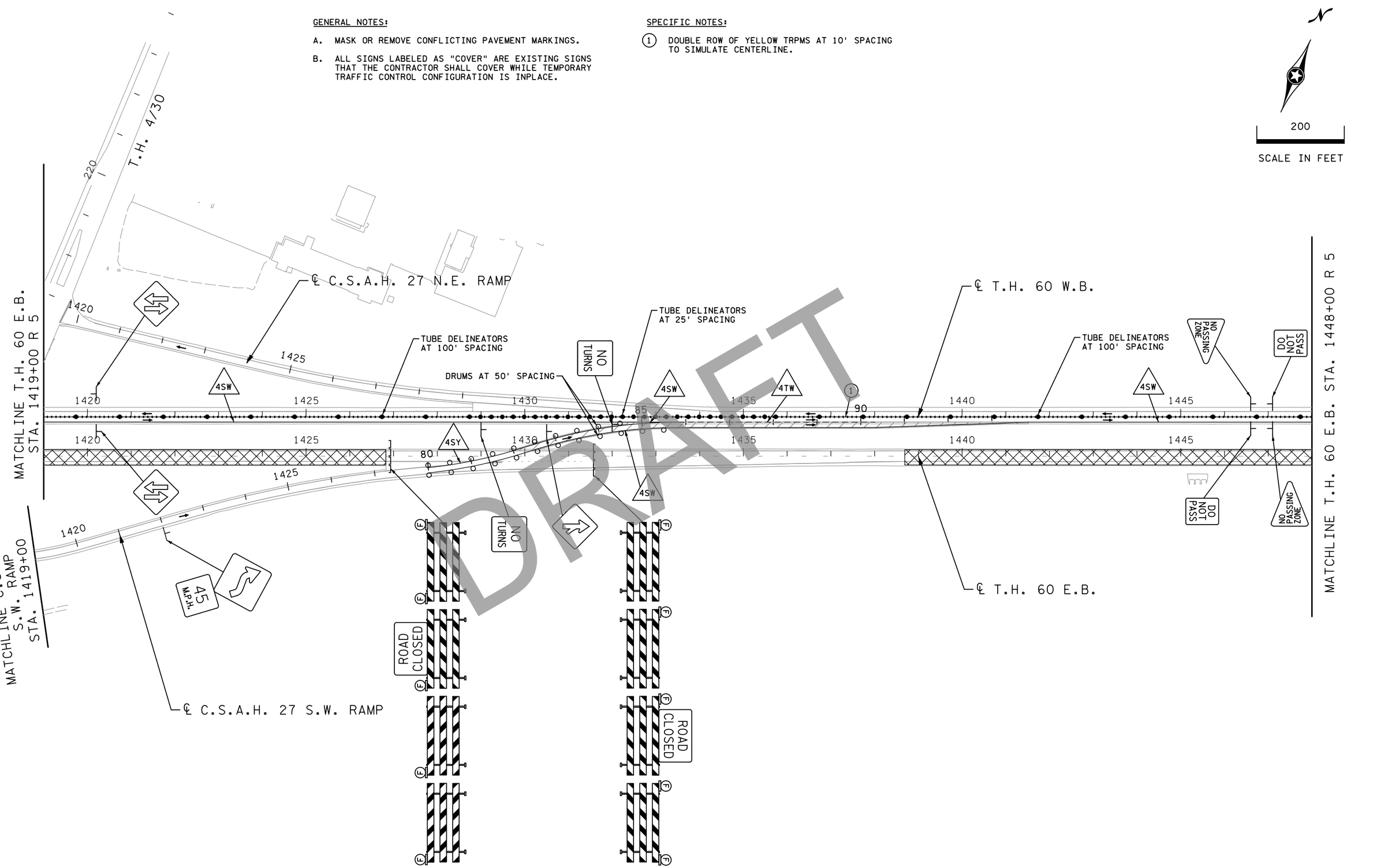
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 155 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

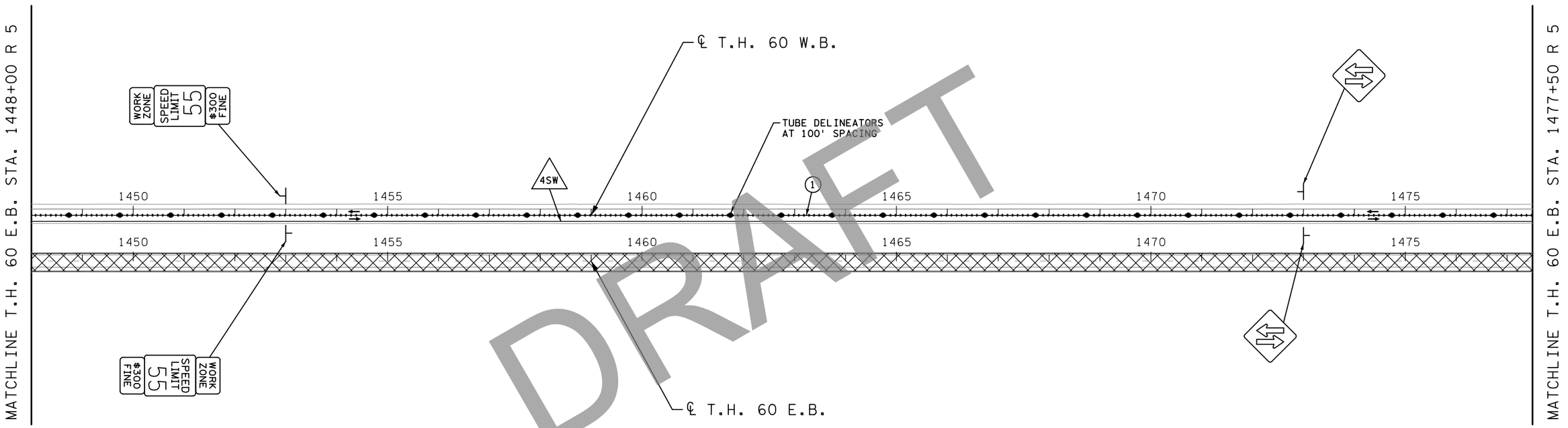
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT DRAFT
SIGNATURE: COPY COPY
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 156 OF 283 SHEETS

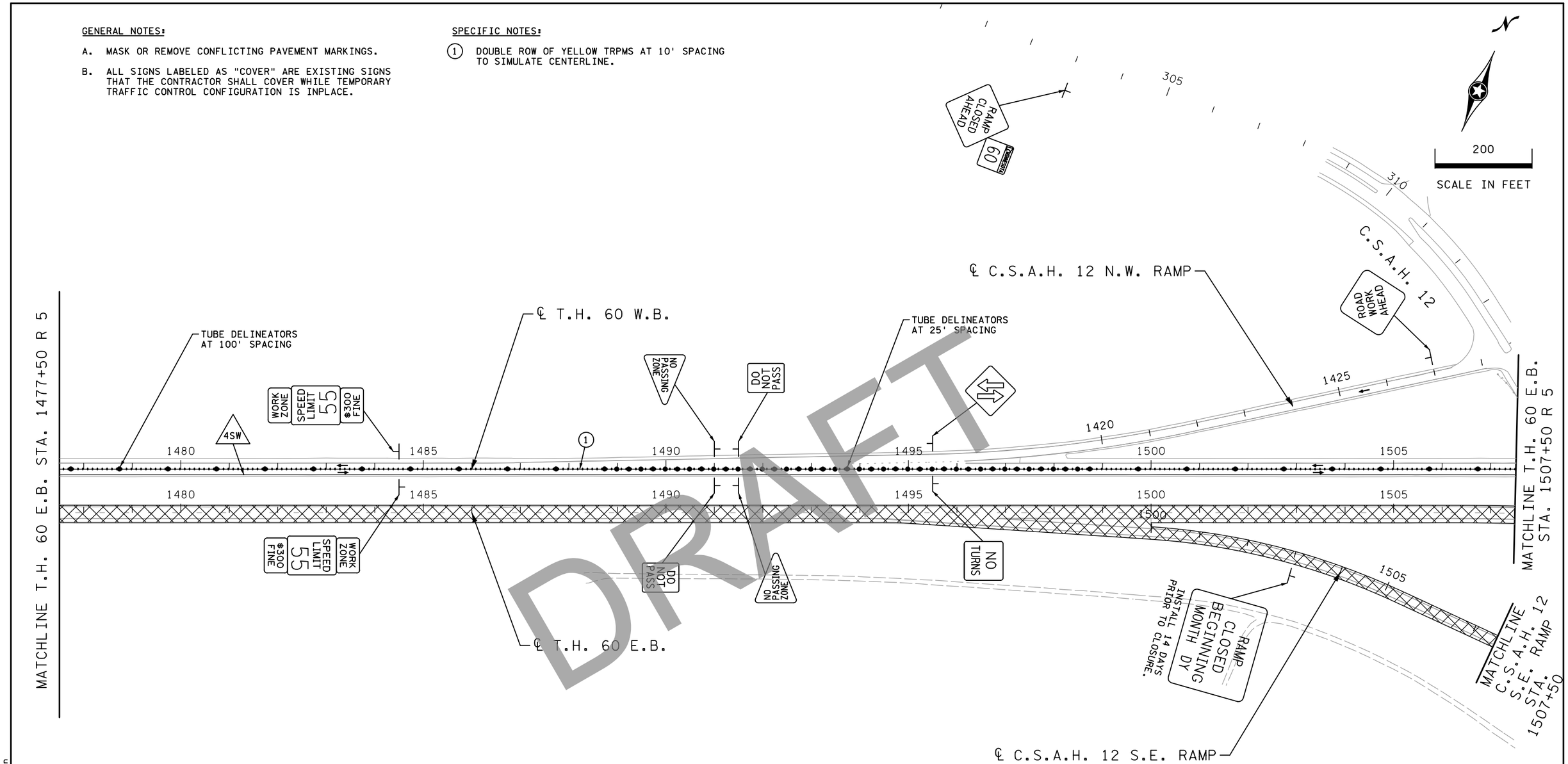
GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.



NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT DRAFT
SIGNATURE:
DATE ____ LICENSE # COPY COPY

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 157 OF 283 SHEETS

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GENERAL NOTES:

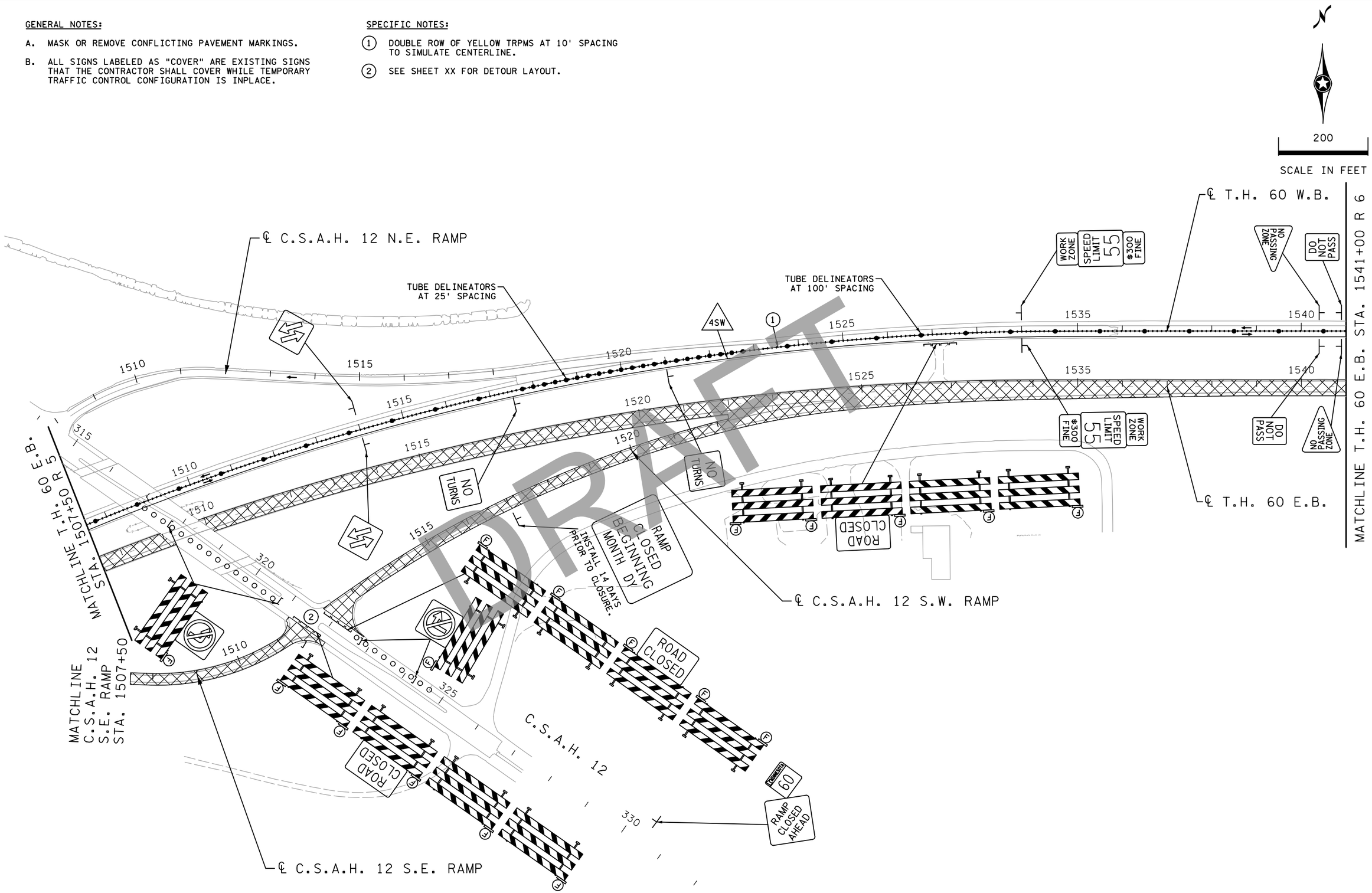
A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) SEE SHEET XX FOR DETOUR LAYOUT.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 158 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

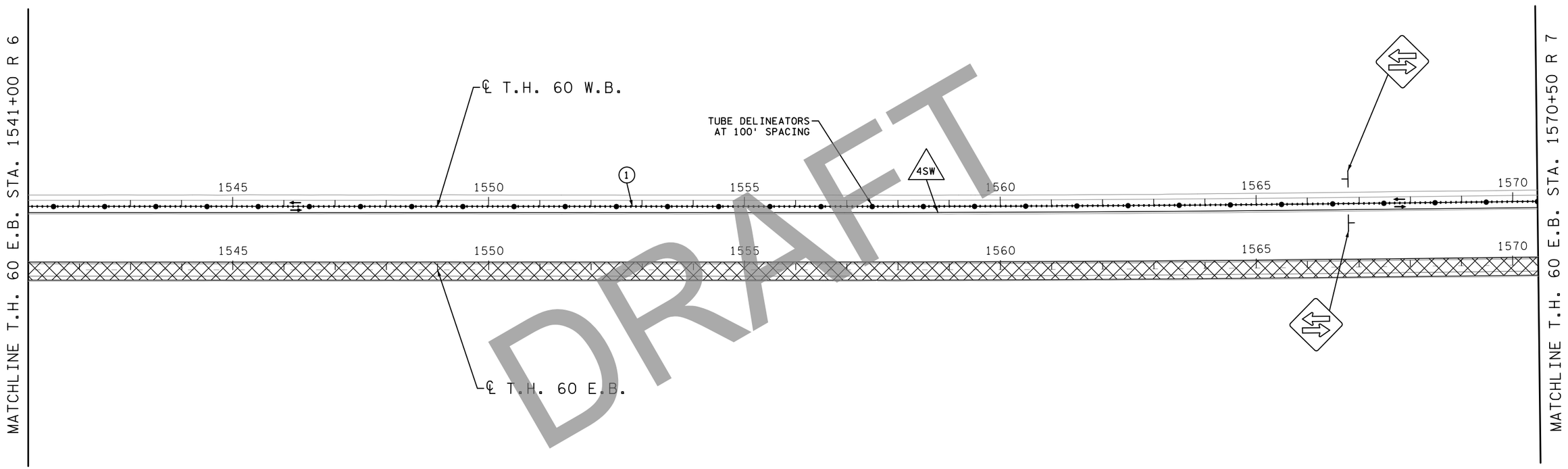
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 159 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

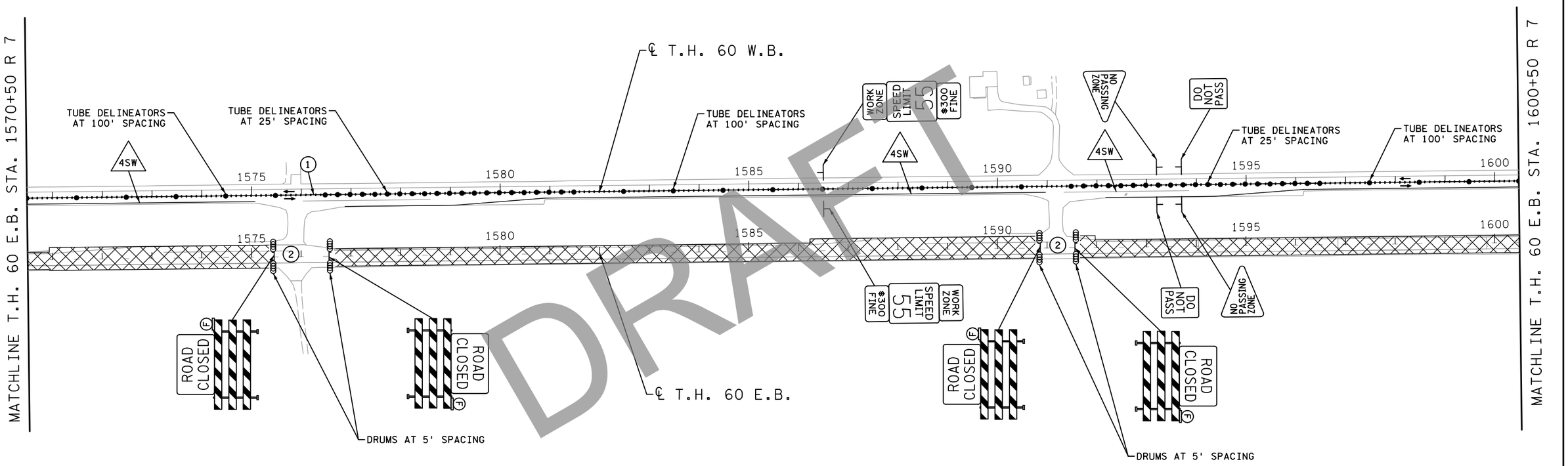
(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 160 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

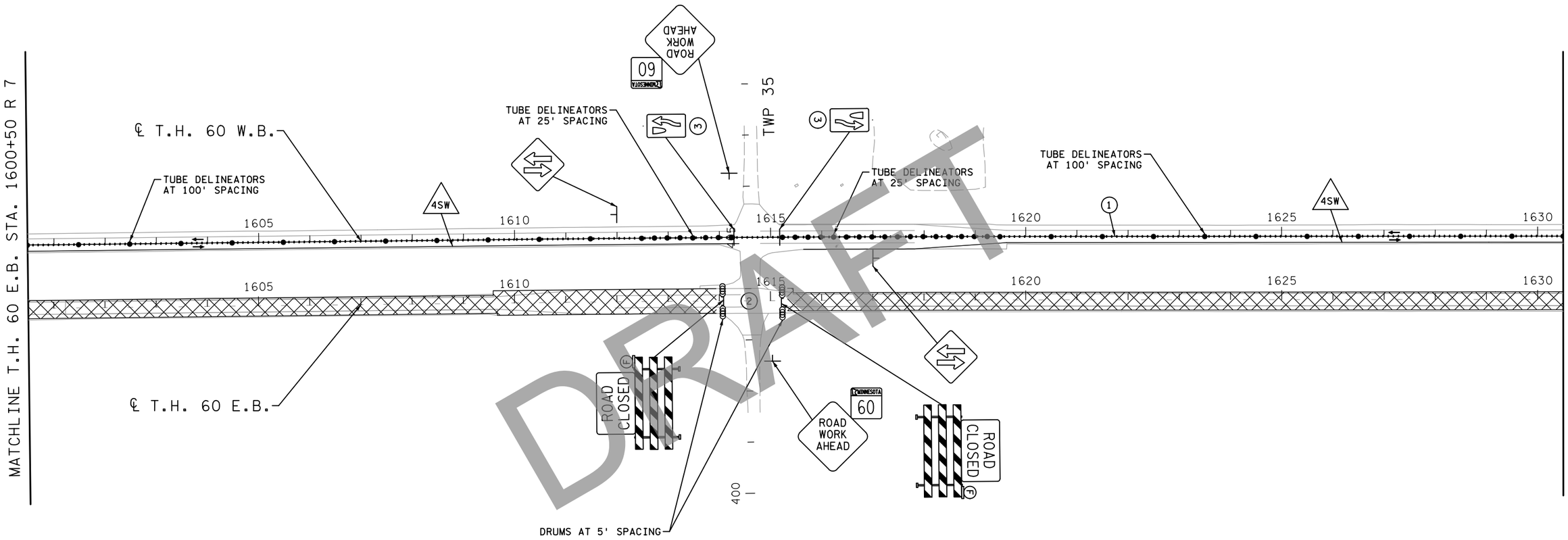
(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 161 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

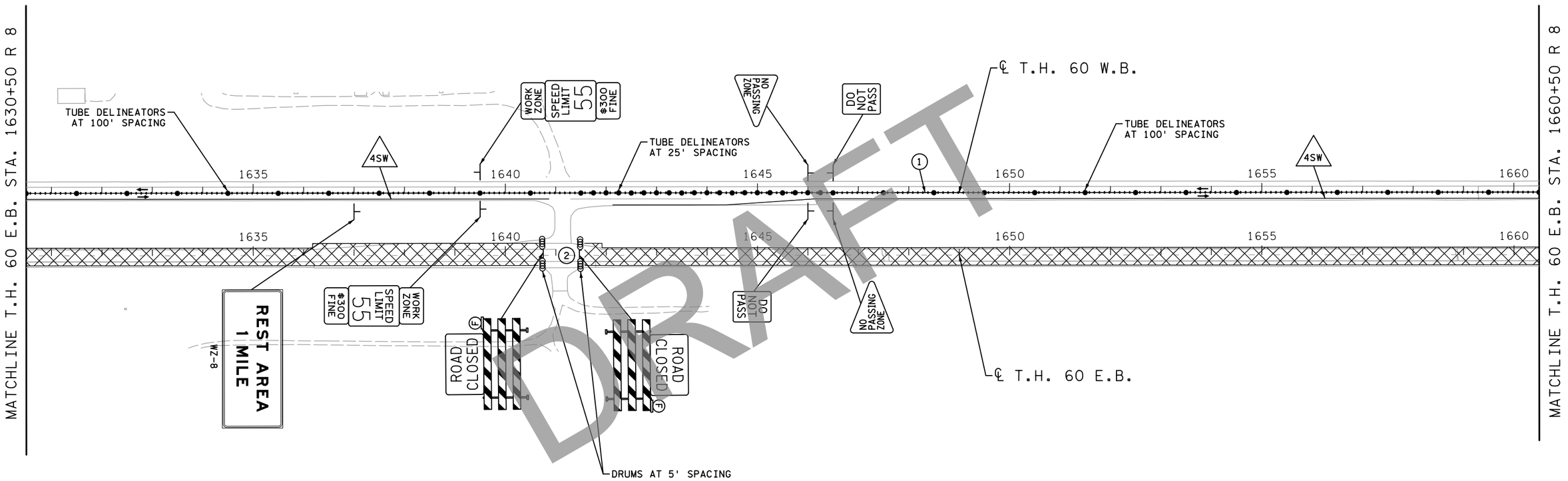
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

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PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 162 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

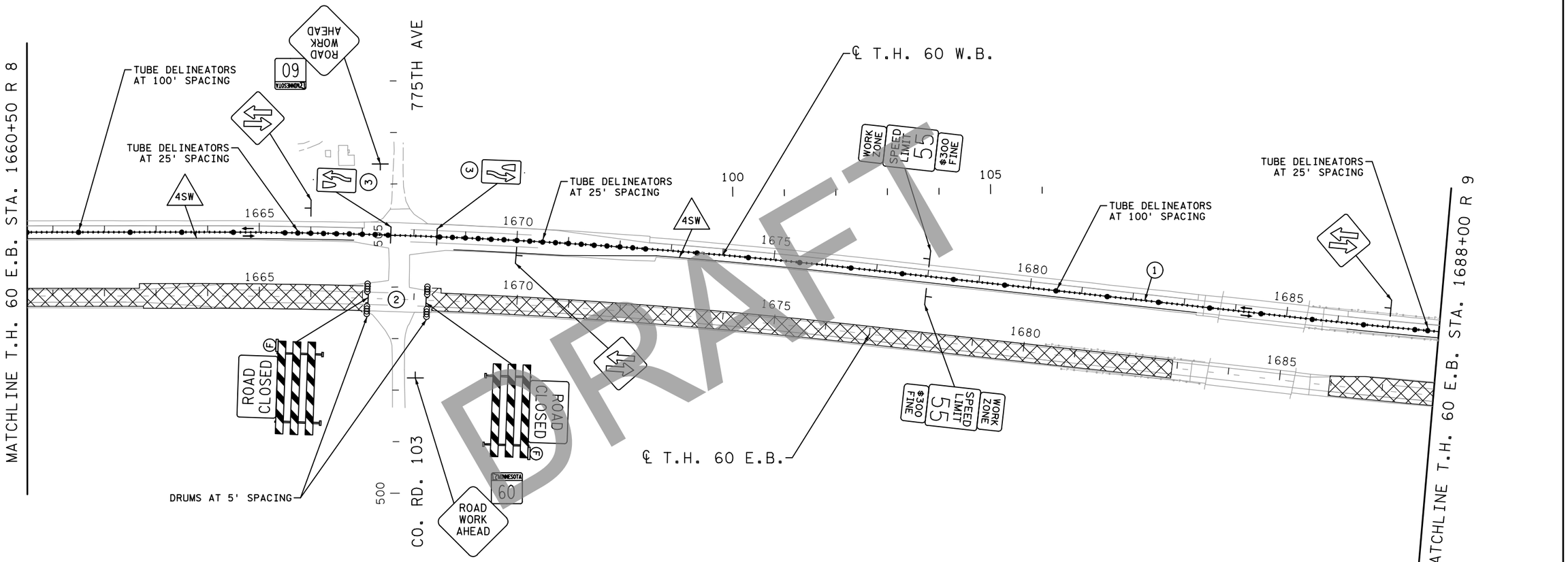
(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.

N

200

SCALE IN FEET



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PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 163 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

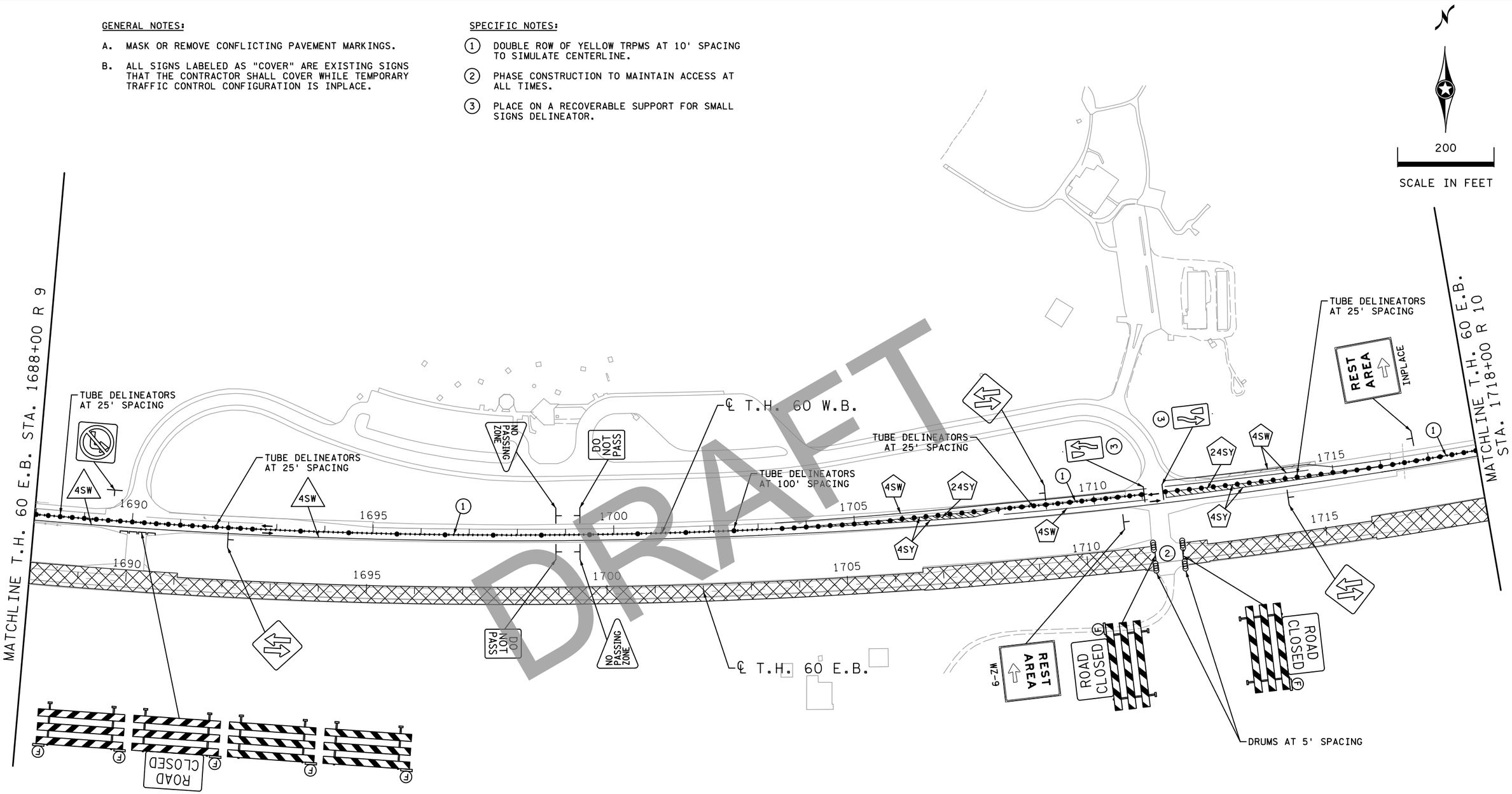
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.



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PRINT NAME: DRAFT COPY
SIGNATURE:
DATE _____ LICENSE # DRAFT COPY

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 164 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

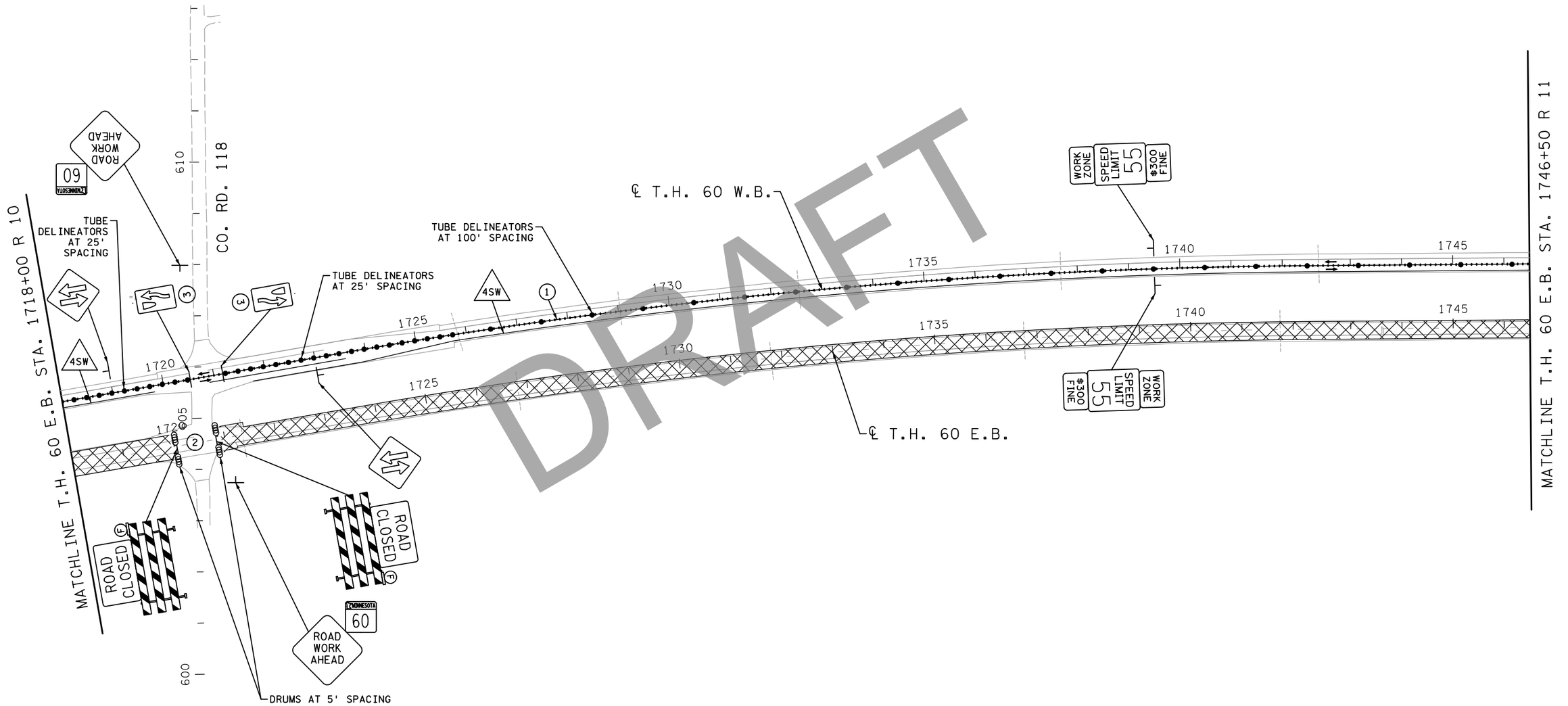
(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.

200

SCALE IN FEET



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PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 165 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

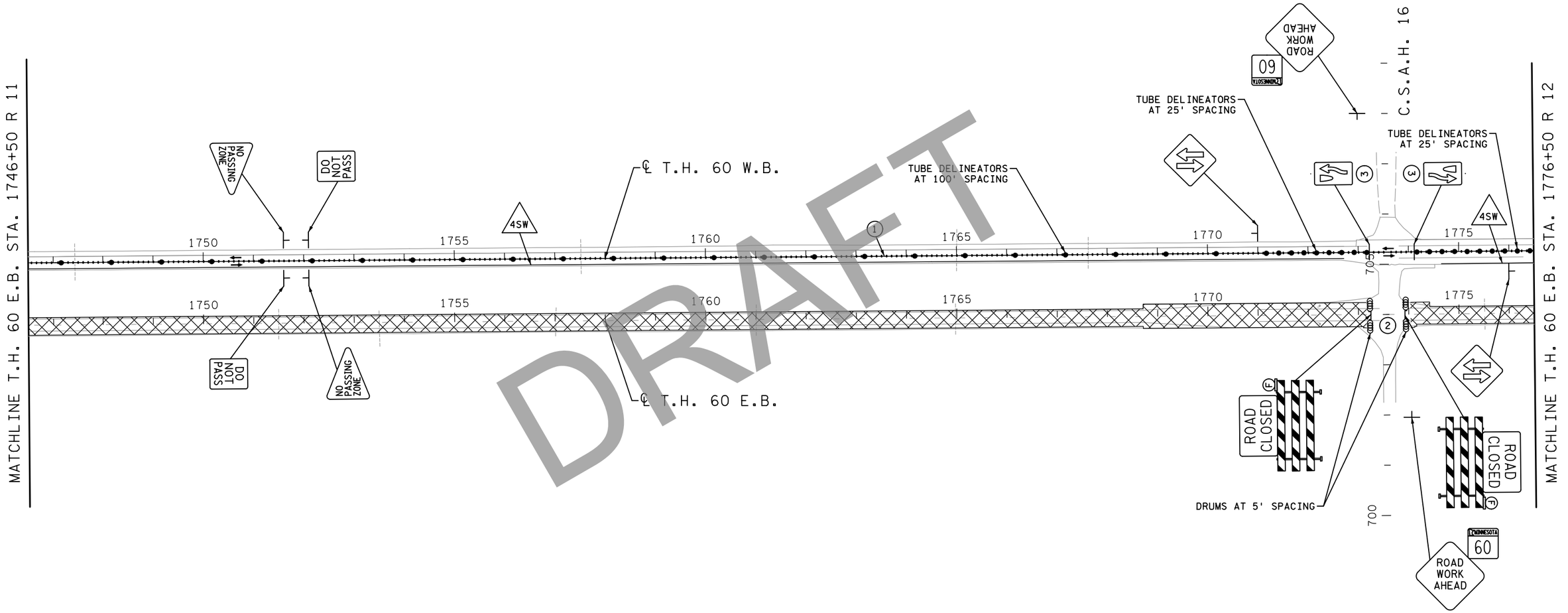
(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT DRAFT
SIGNATURE:
DATE _____ LICENSE # COPY COPY

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 166 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

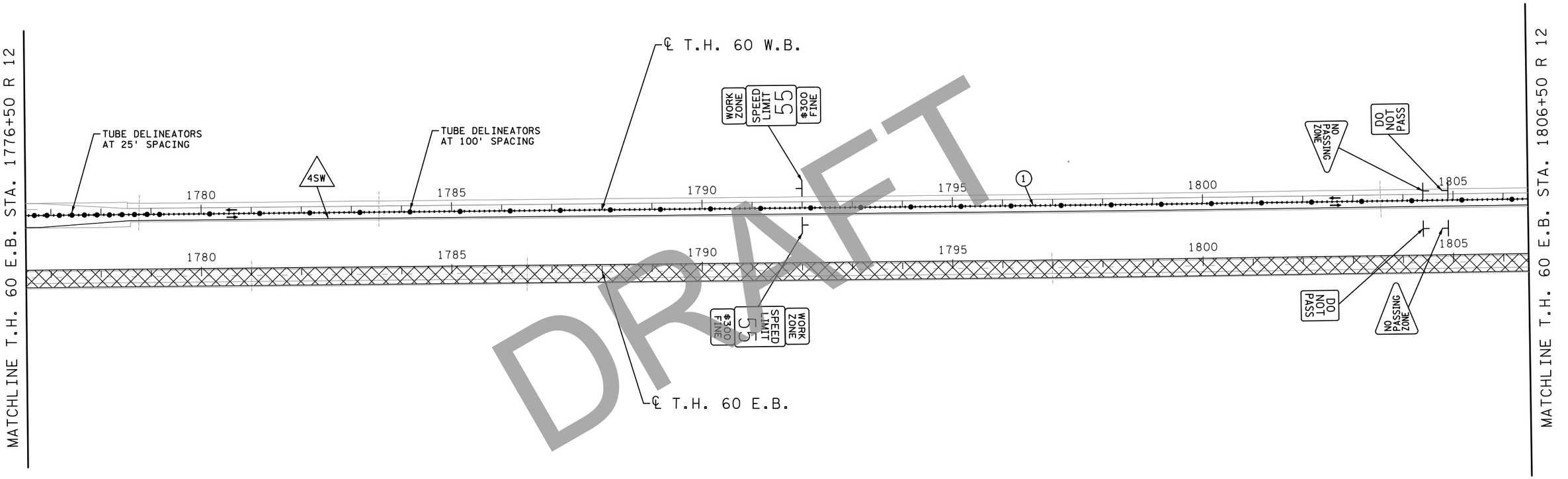
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 167 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

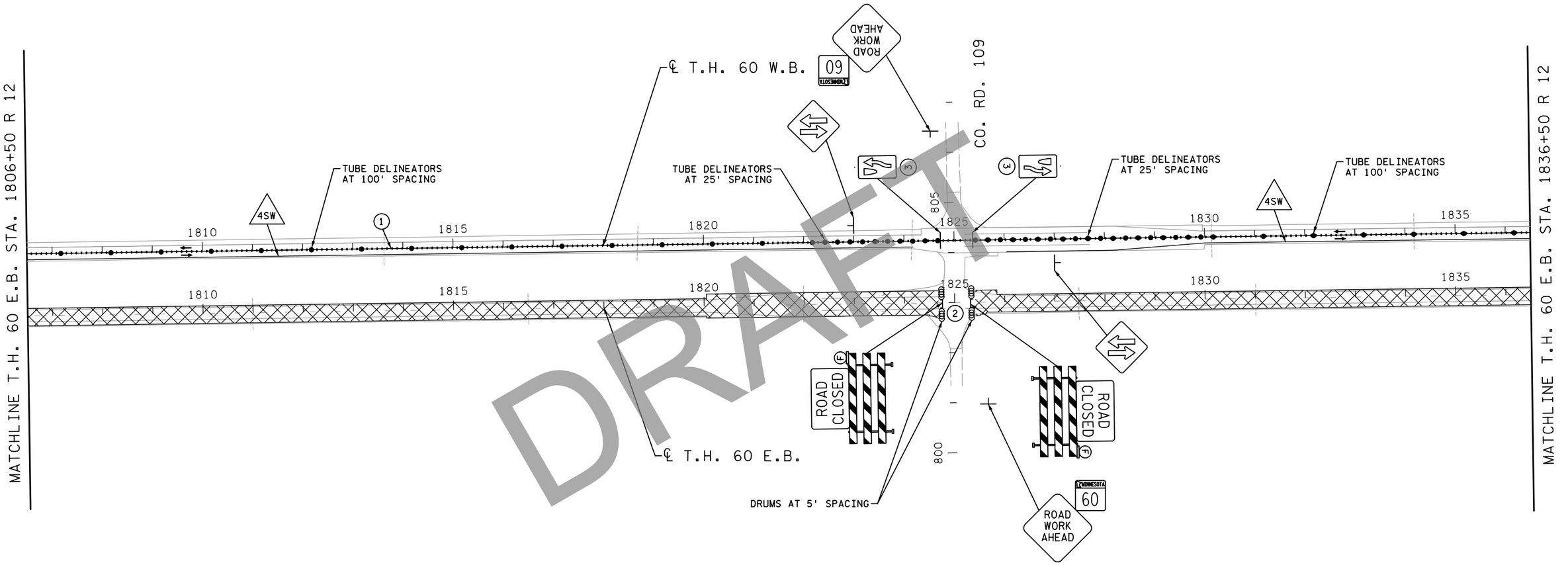
(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 168 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

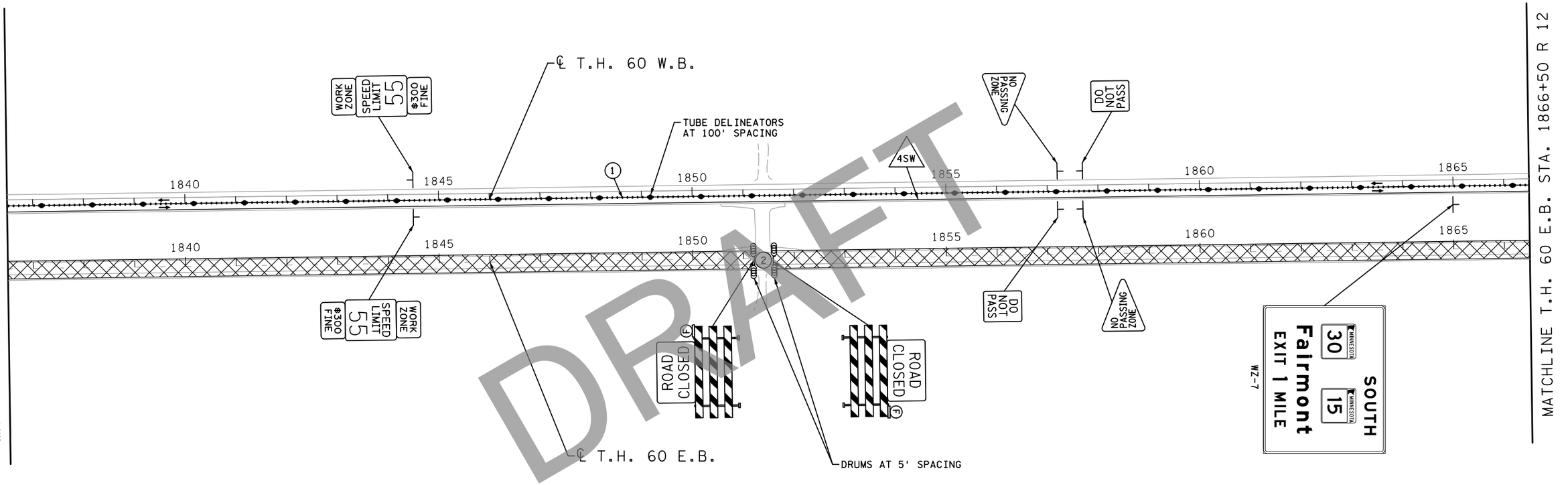
(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 169 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

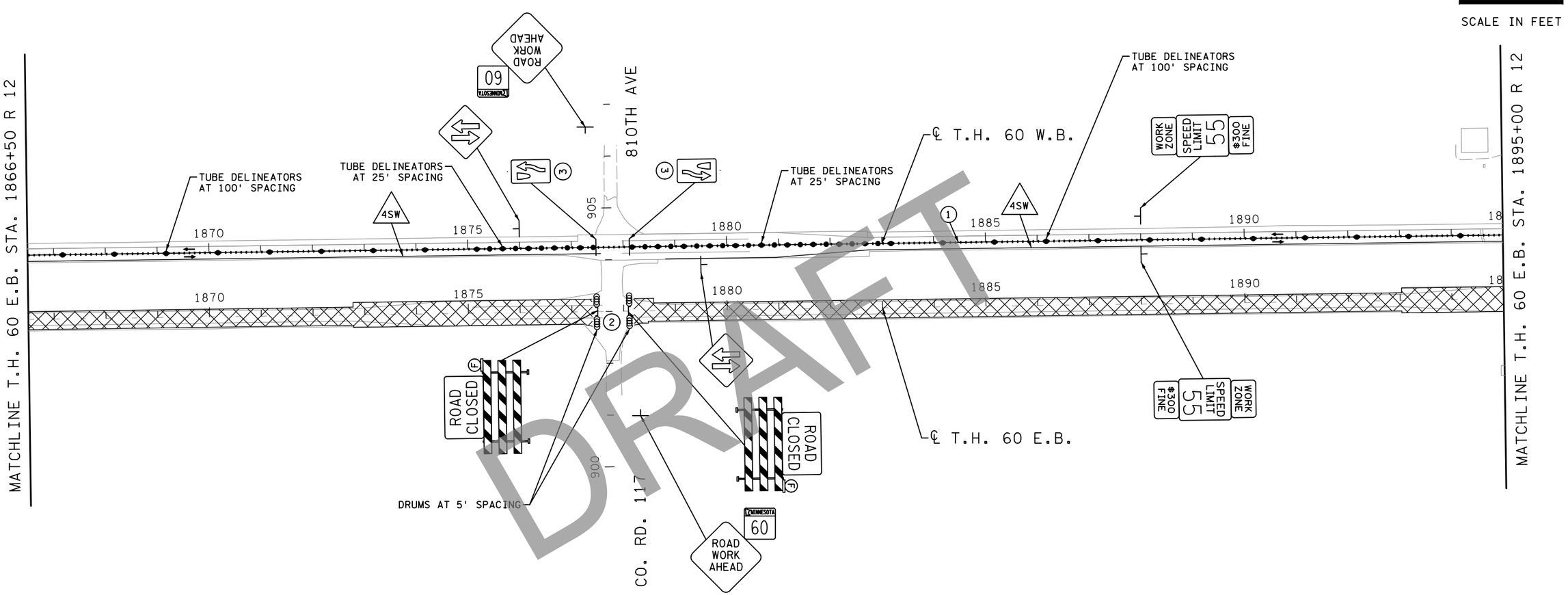
(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

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PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 170 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

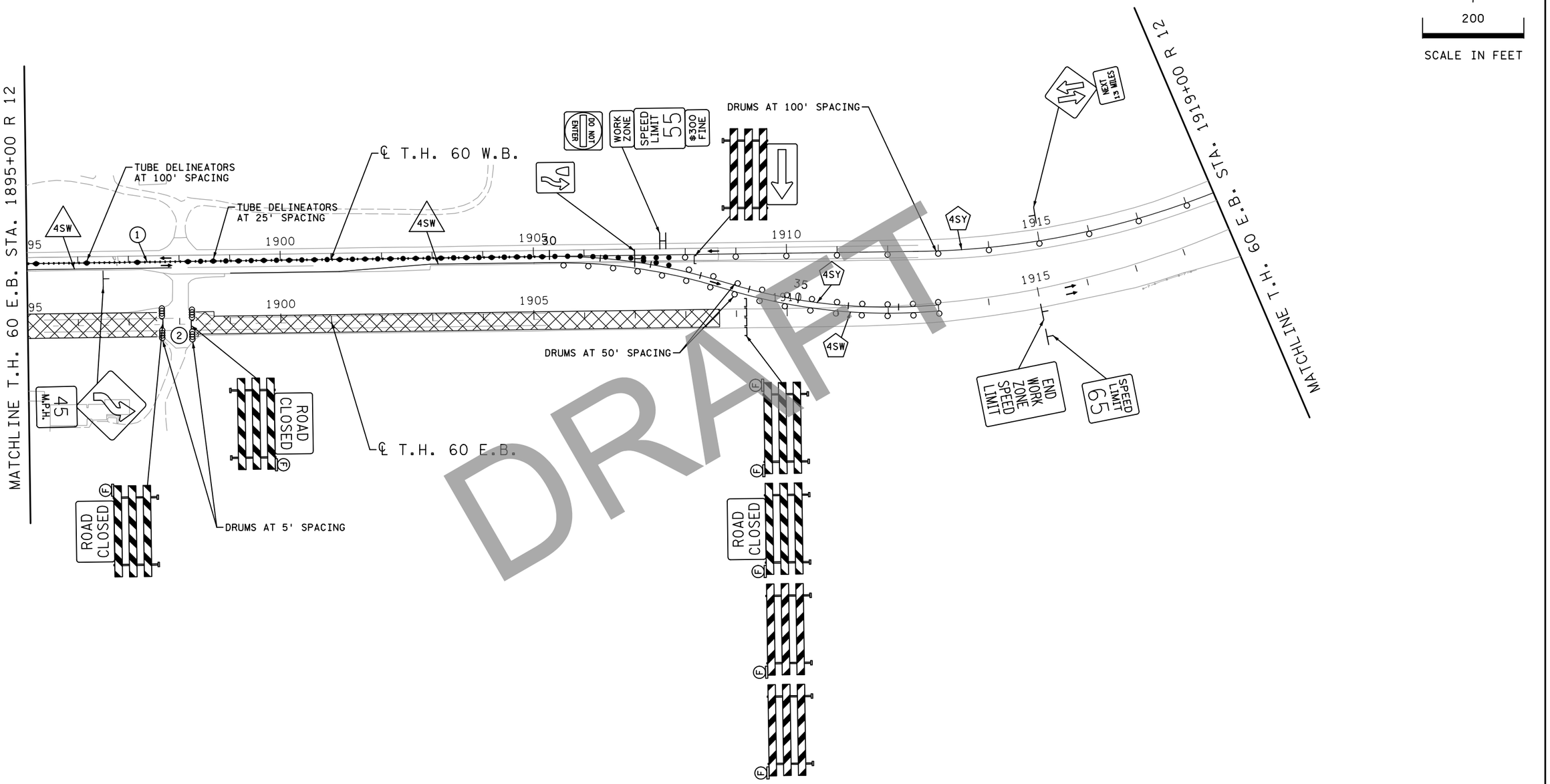
(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

N

200

SCALE IN FEET



NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 171 OF 283 SHEETS

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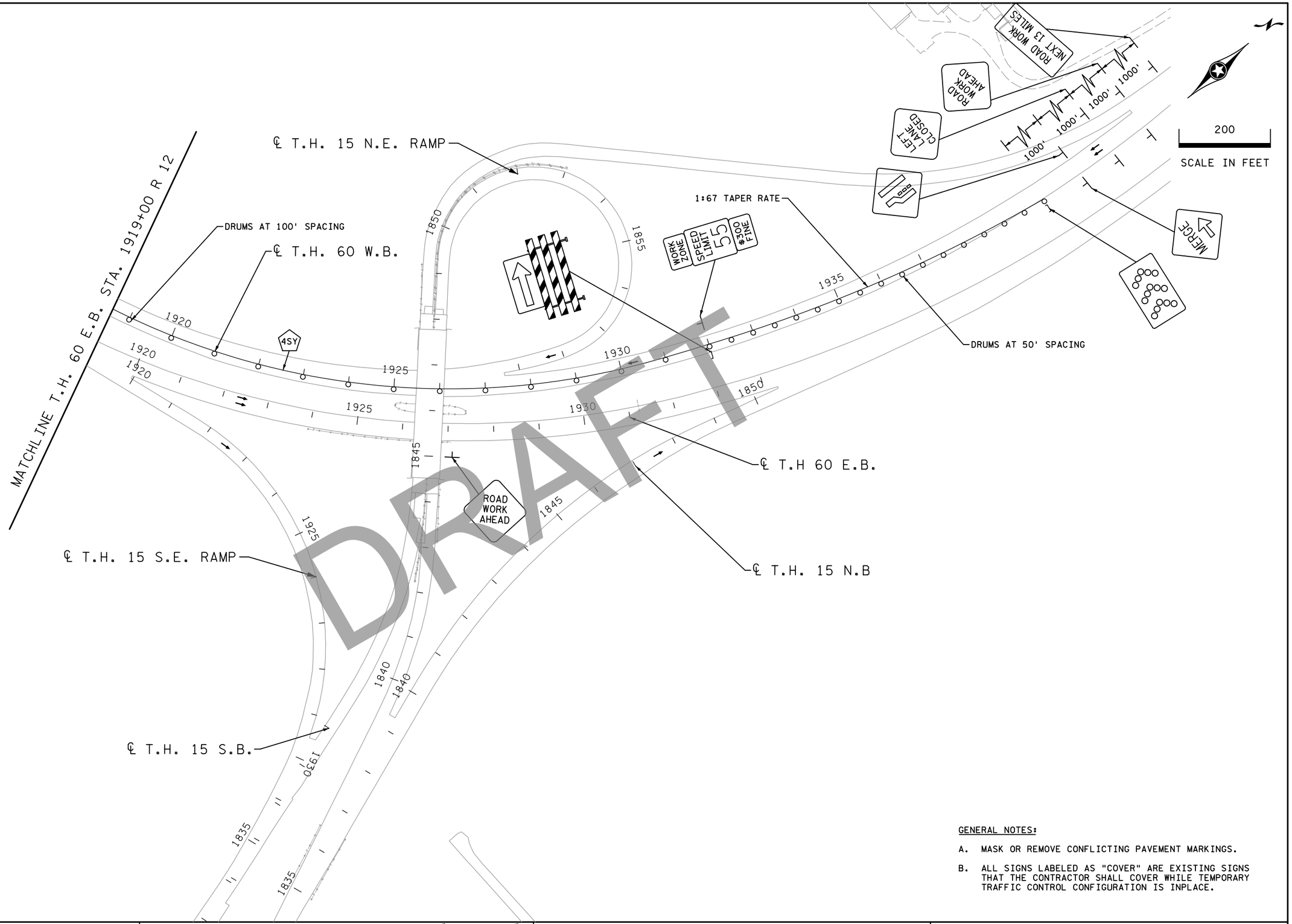

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 172 OF 283 SHEETS

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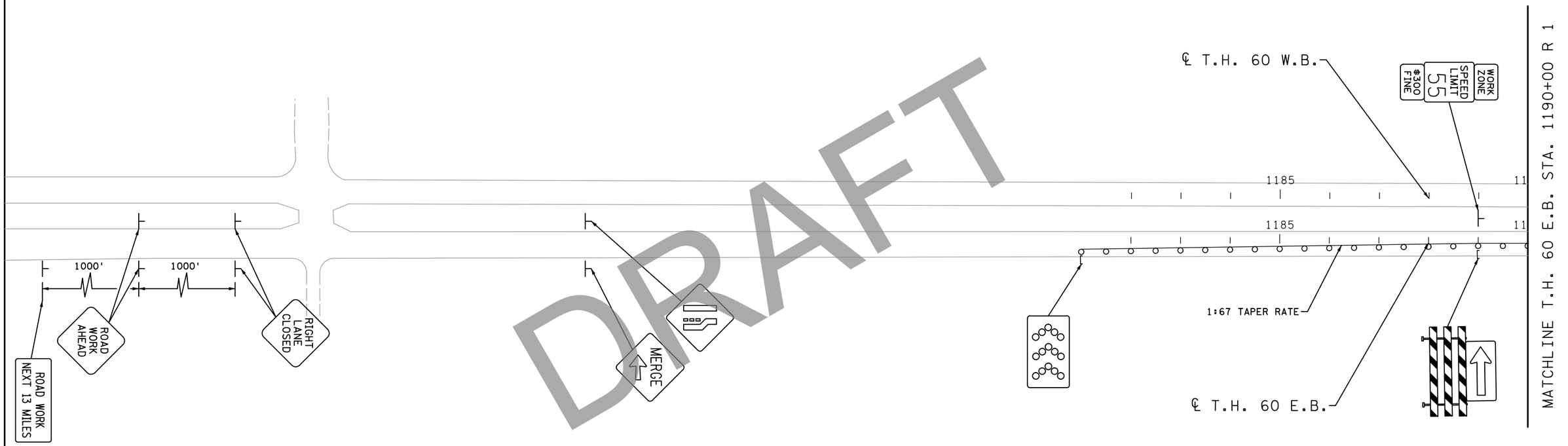
GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 173 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

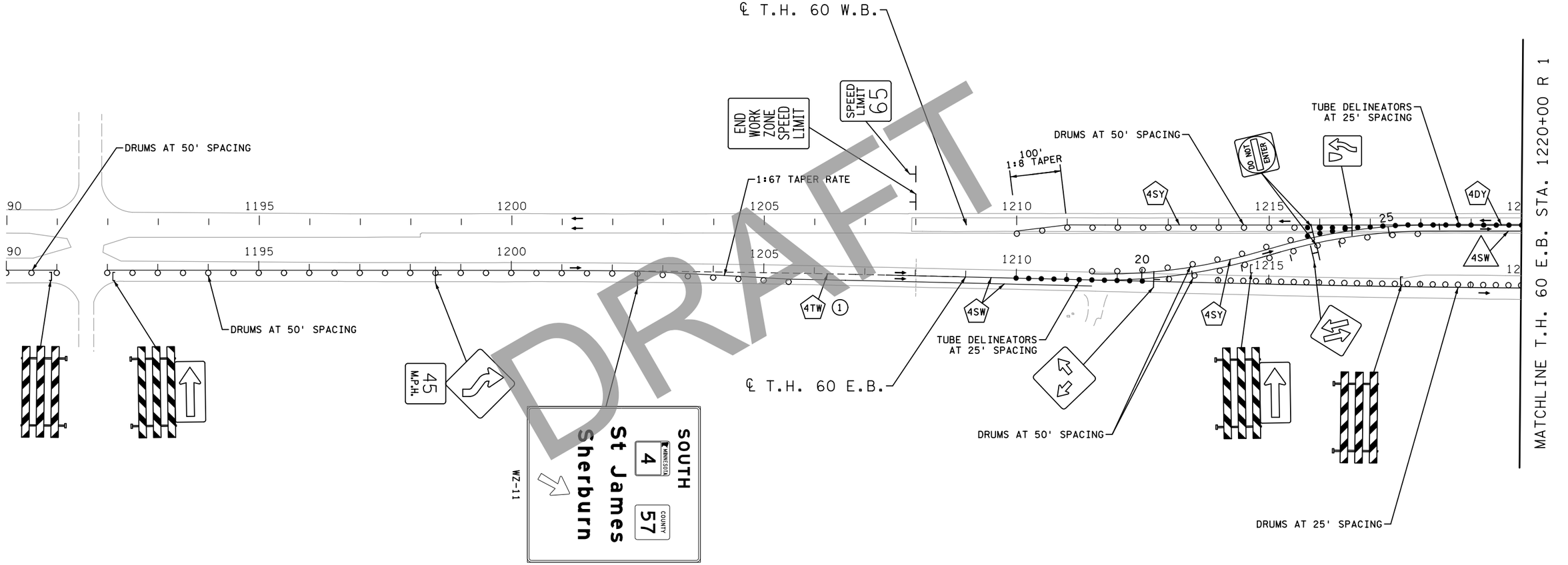
SPECIFIC NOTES:

(1) USE DOTTED 3'/12' PATTERN.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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PRINT NAME: DRAFT COPY
SIGNATURE: DRAFT COPY
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 174 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

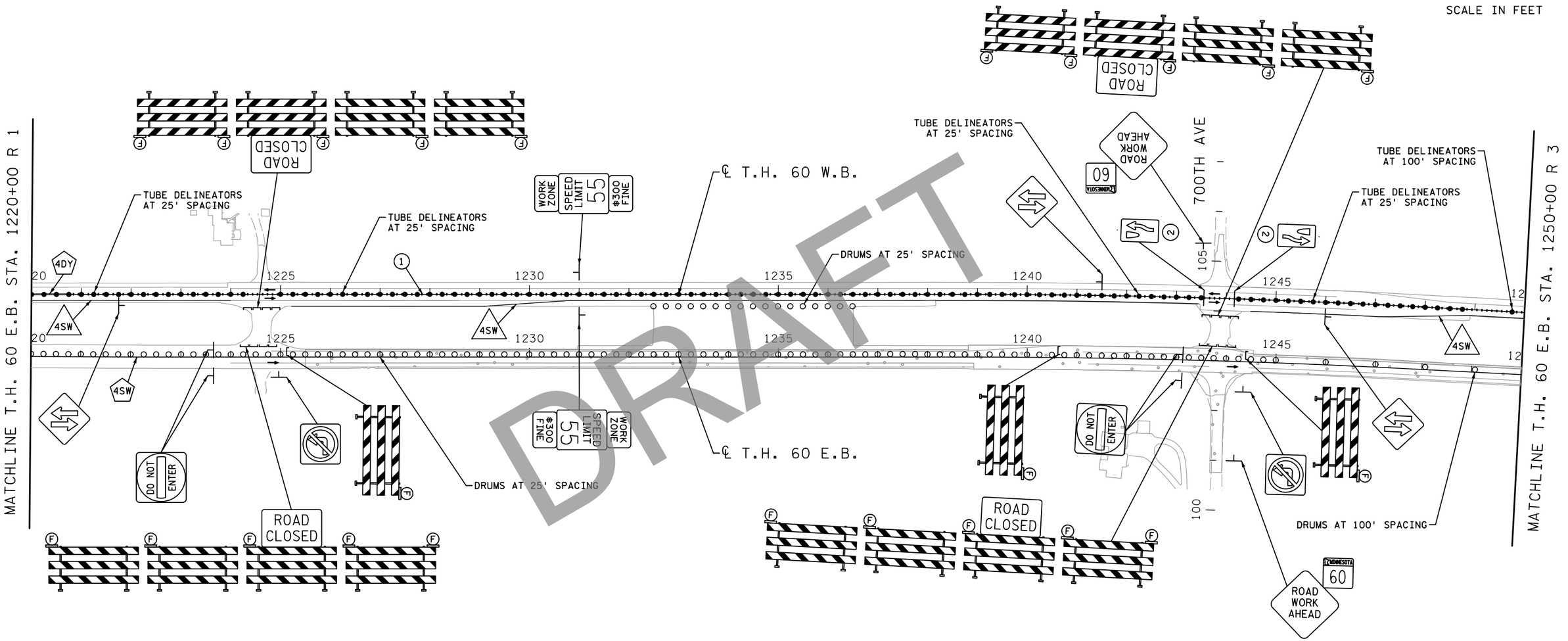
(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.

N

200

SCALE IN FEET



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ALLIANT ENGINEERING

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SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 175 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

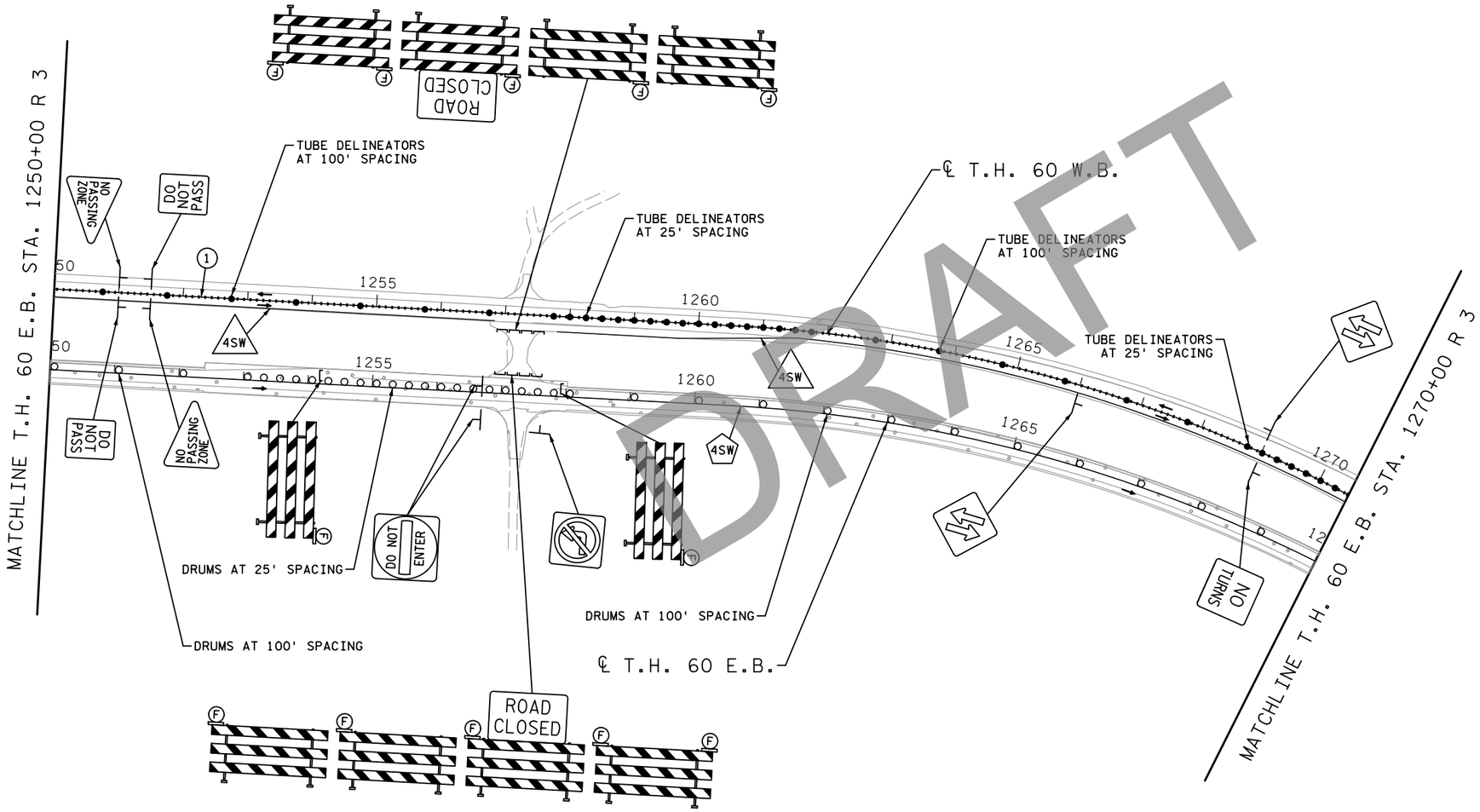
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 176 OF 283 SHEETS

GENERAL NOTES:

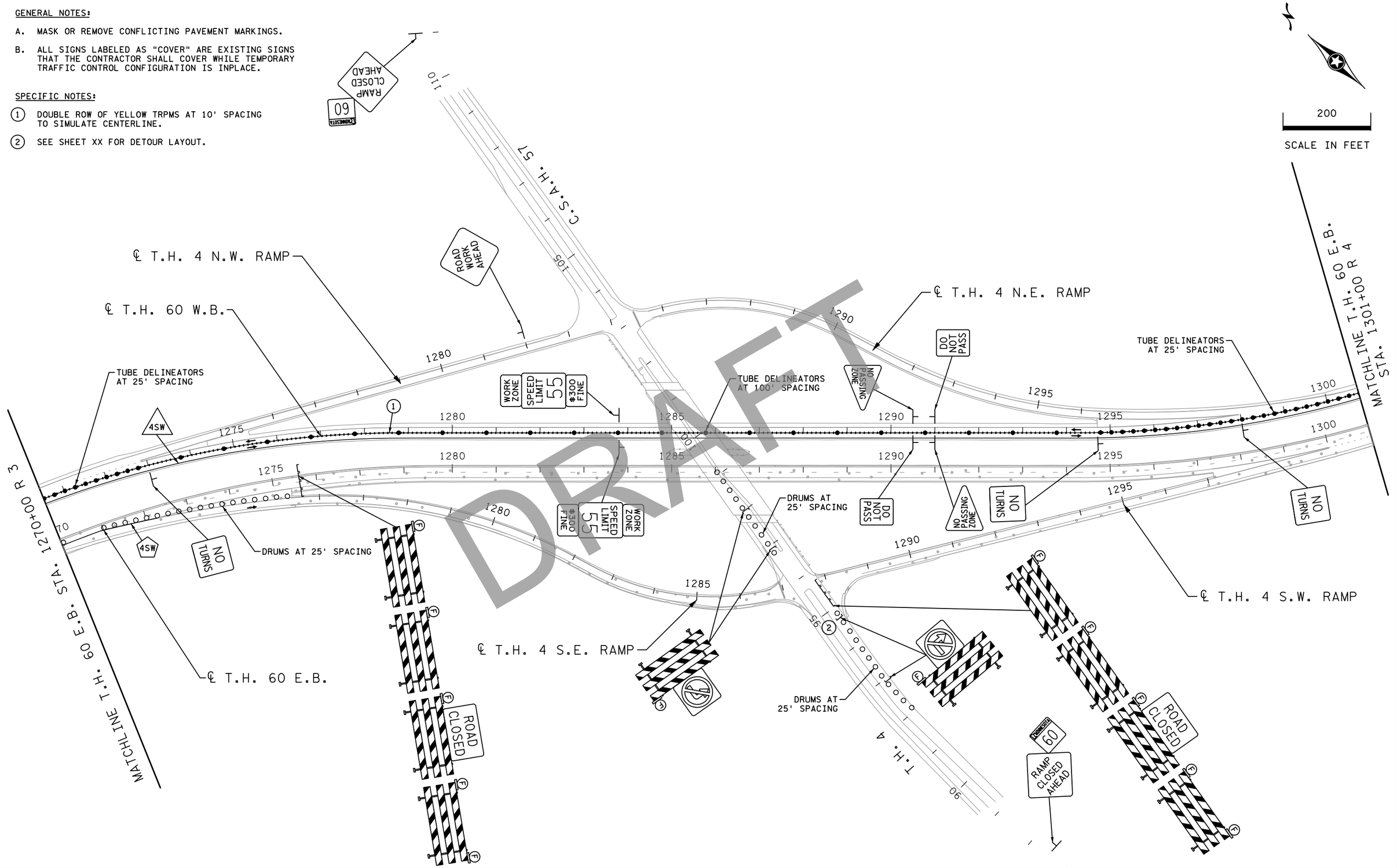
A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) SEE SHEET XX FOR DETOUR LAYOUT.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 177 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET

MATCHLINE T.H. 60 E.B.
STA. 1301+00 R 4

℄ T.H. 60 W.B.

℄ T.H. 60 E.B.

1305

1310

1315

1320

1325

1330

4SW

TUBE DELINEATORS AT 100' SPACING

(1)

MATCHLINE T.H. 60 E.B. STA. 1331+00 R 5

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 178 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

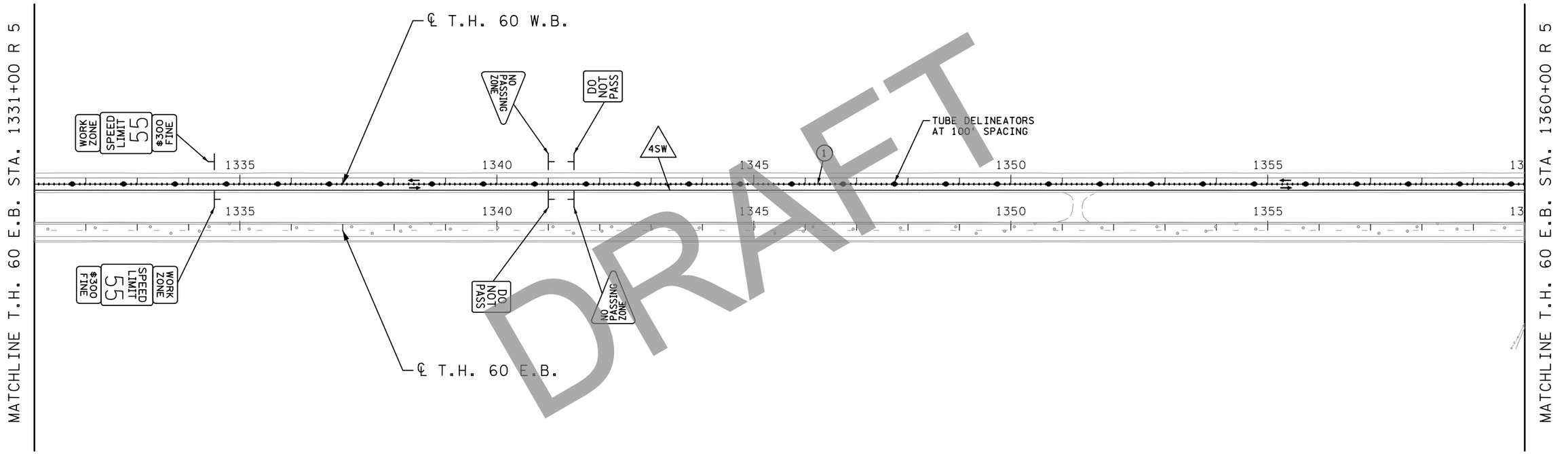
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 179 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

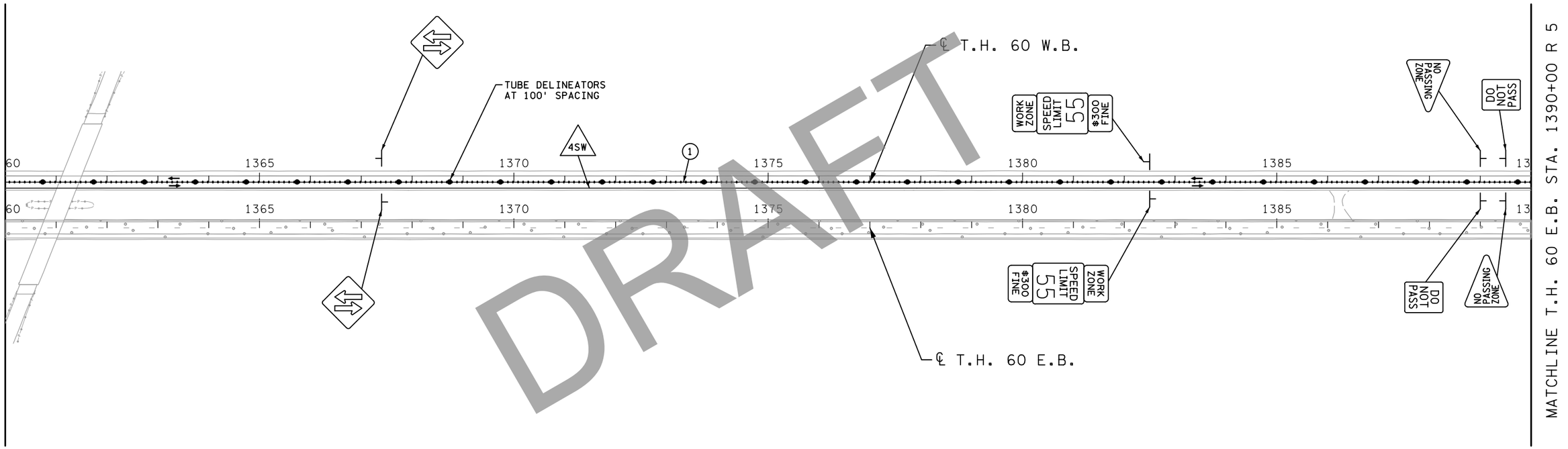
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 180 OF 283 SHEETS

GENERAL NOTES:

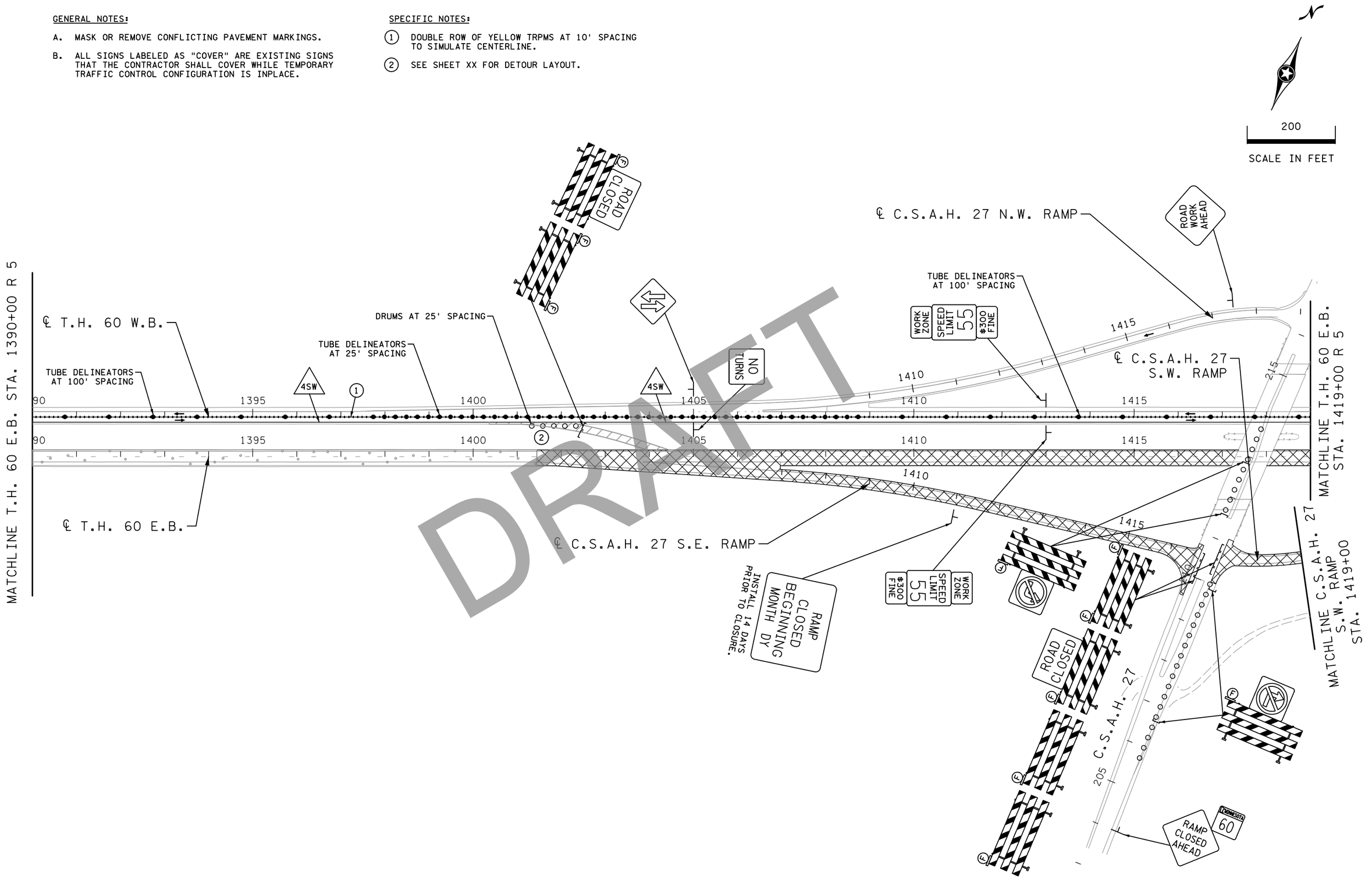
A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) SEE SHEET XX FOR DETOUR LAYOUT.



NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 181 OF 283 SHEETS

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GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

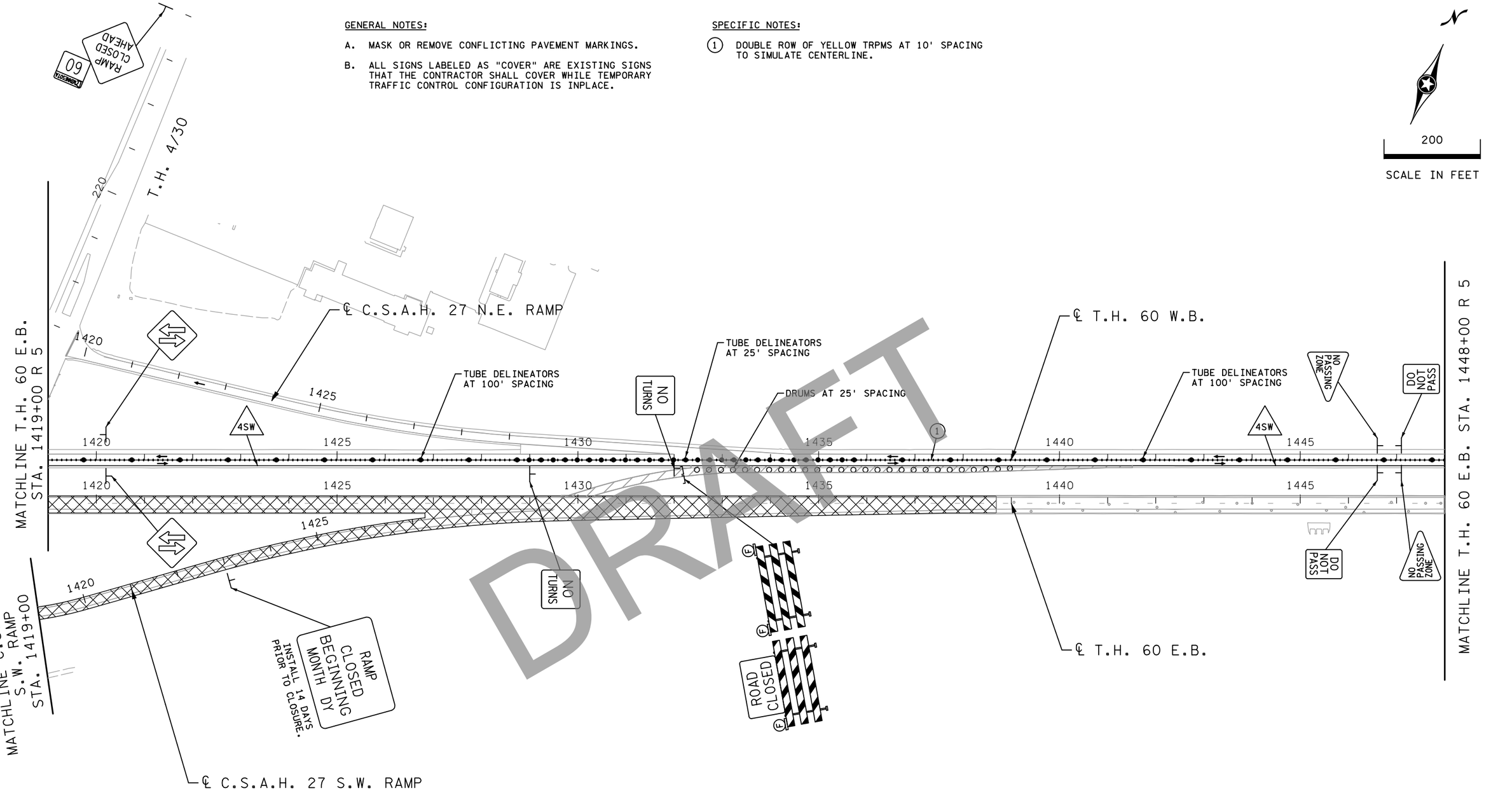
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 182 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

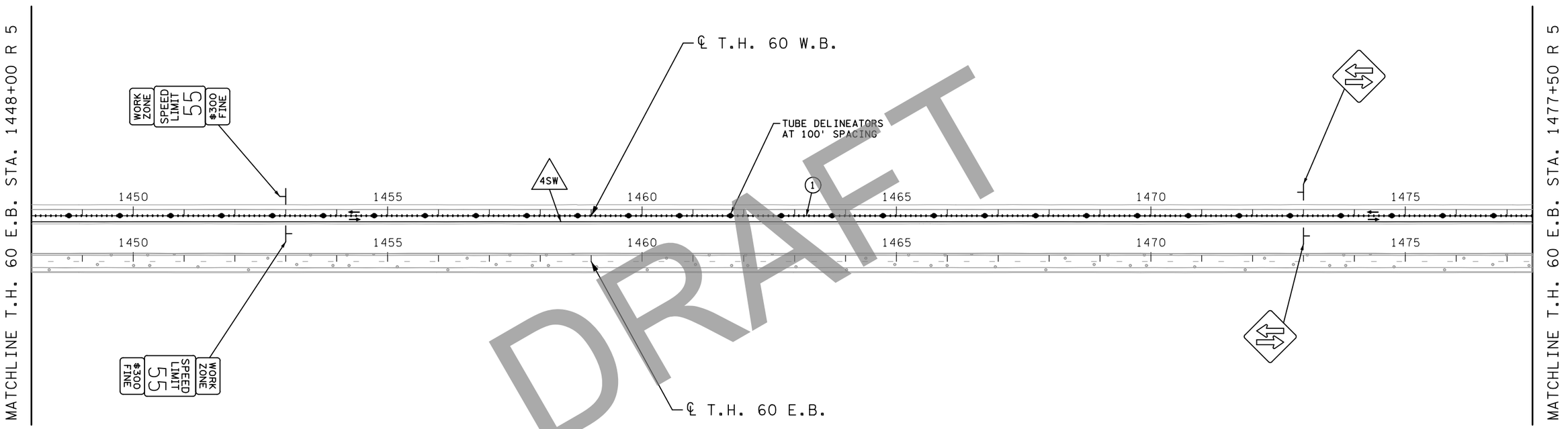
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 183 OF 283 SHEETS

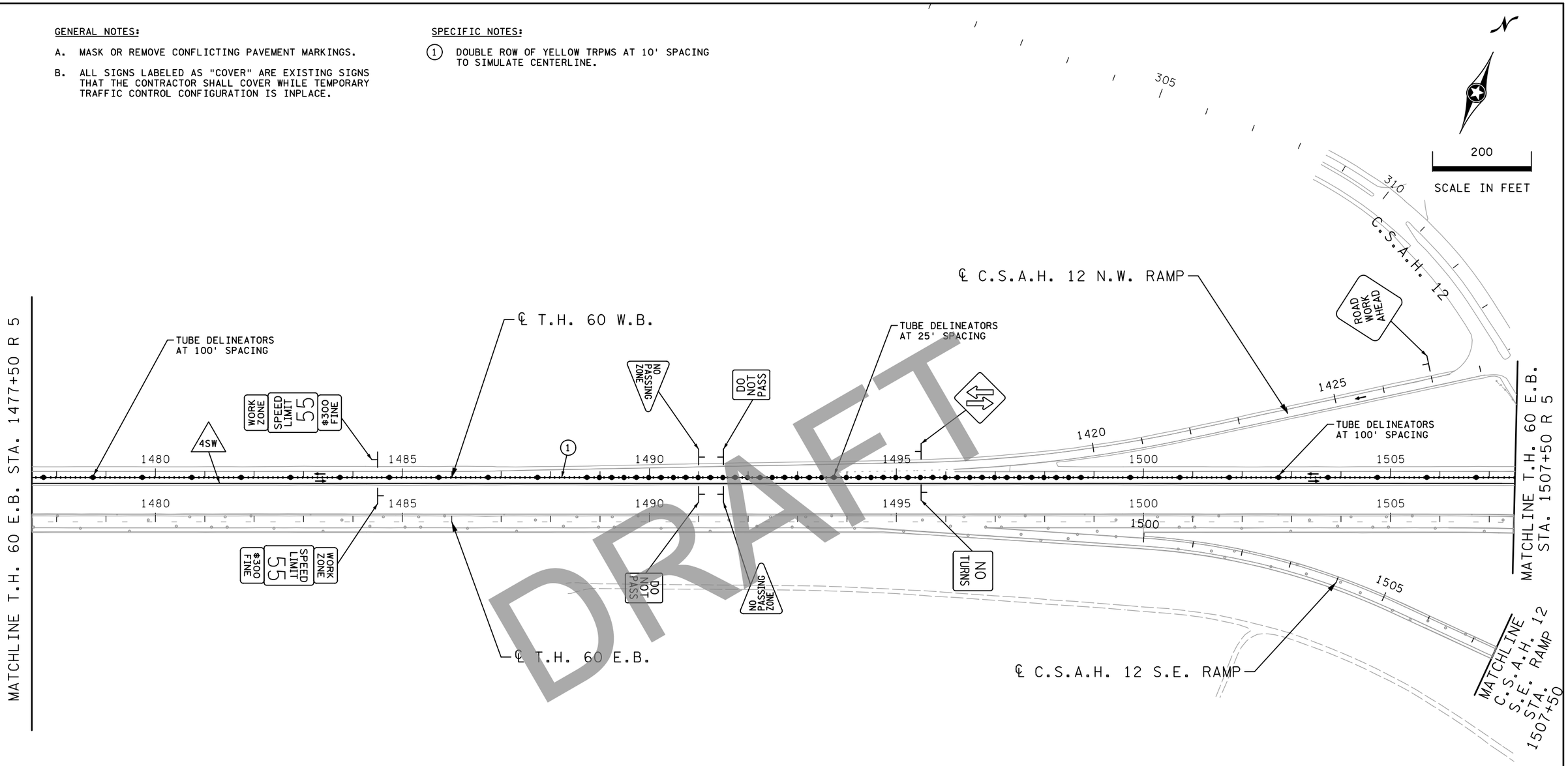
GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 184 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET

℄ C.S.A.H. 12 N.E. RAMP

℄ T.H. 60 W.B.

TUBE DELINEATORS AT 25' SPACING

TUBE DELINEATORS AT 100' SPACING

TUBE DELINEATORS AT 100' SPACING

ROAD CLOSED

WORK ZONE SPEED LIMIT 55 $300 FINE

NO PASSING ZONE

DO NOT PASS

4SW

1

1510 1515 1520 1525 1535 1540

315

320

325

330

MATCHLINE T.H. 60 E.B. STA. 1541+00 R 6

MATCHLINE T.H. 60 E.B. STA. 1507+50 R 6

NO TURNS

ROAD WORK AHEAD

DRUMS AT 25' SPACING

DRUMS AT 100' SPACING

℄ T.H. 60 E.B.

℄ C.S.A.H. 12 S.W. RAMP

MATCHLINE C.S.A.H. 12 S.E. RAMP STA. 1507+50

C.S.A.H. 12

℄ C.S.A.H. 12 S.E. RAMP

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 185 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

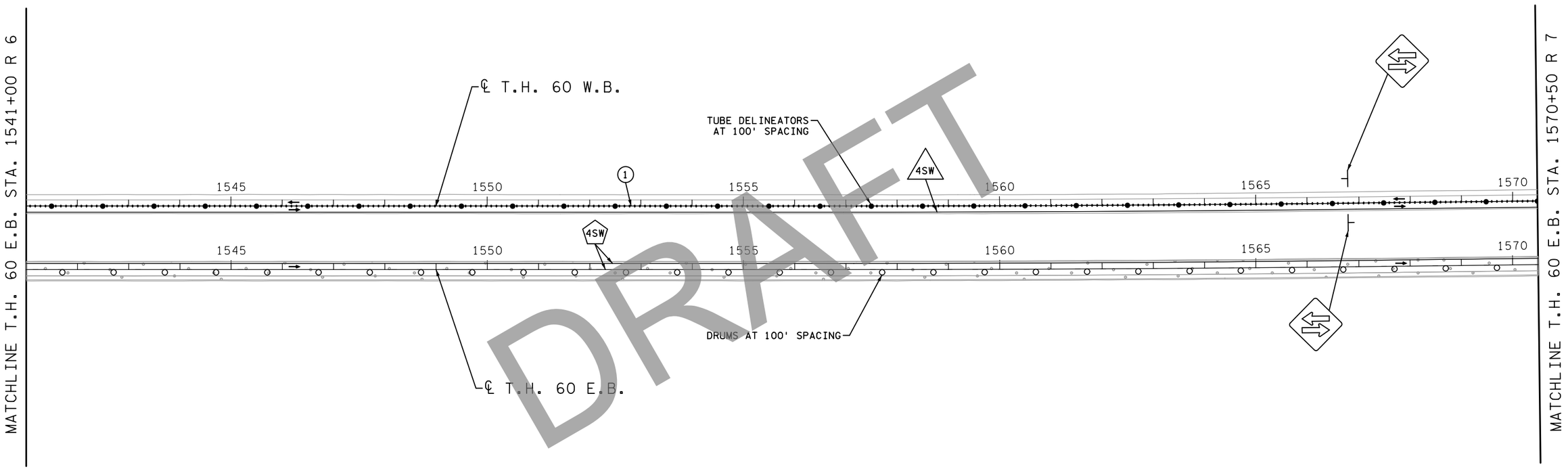
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME:
SIGNATURE: DRAFT COPY DRAFT COPY
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 186 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

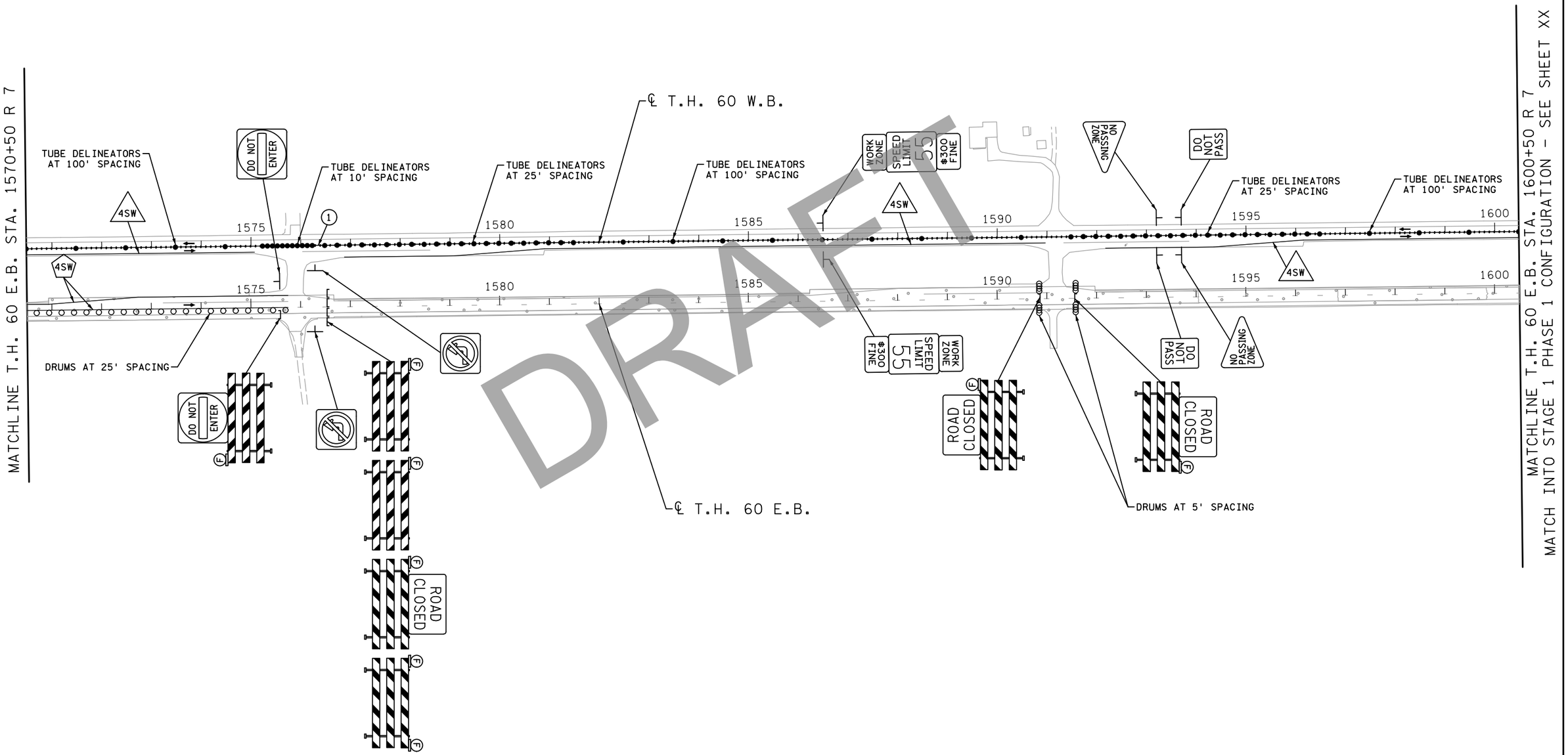
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 187 OF 283 SHEETS

GENERAL NOTES:

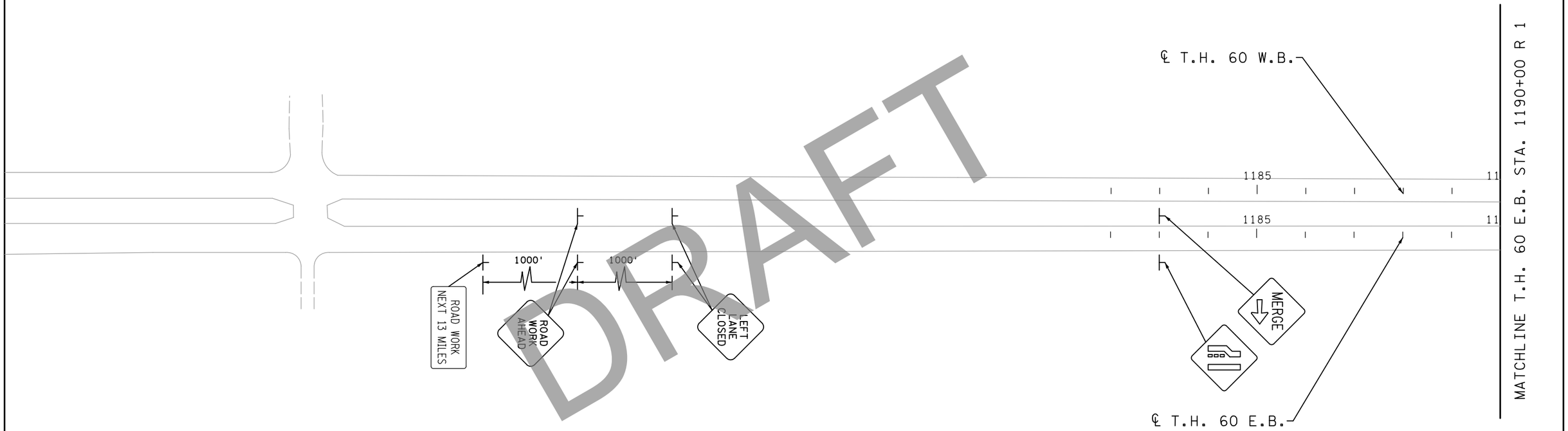
A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

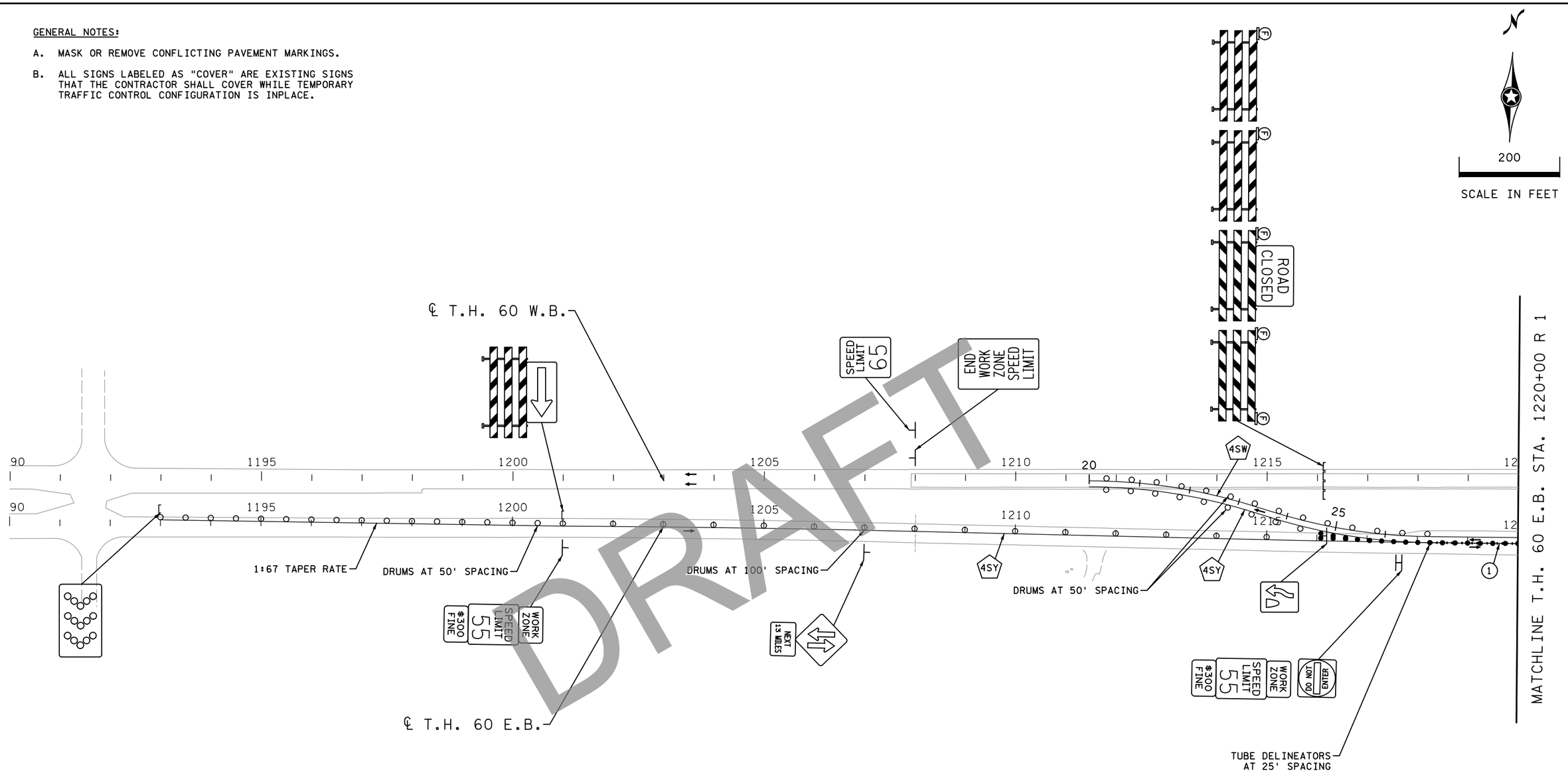
SP 8309-52 (T.H. 60)

SHEET NO. 188 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 189 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

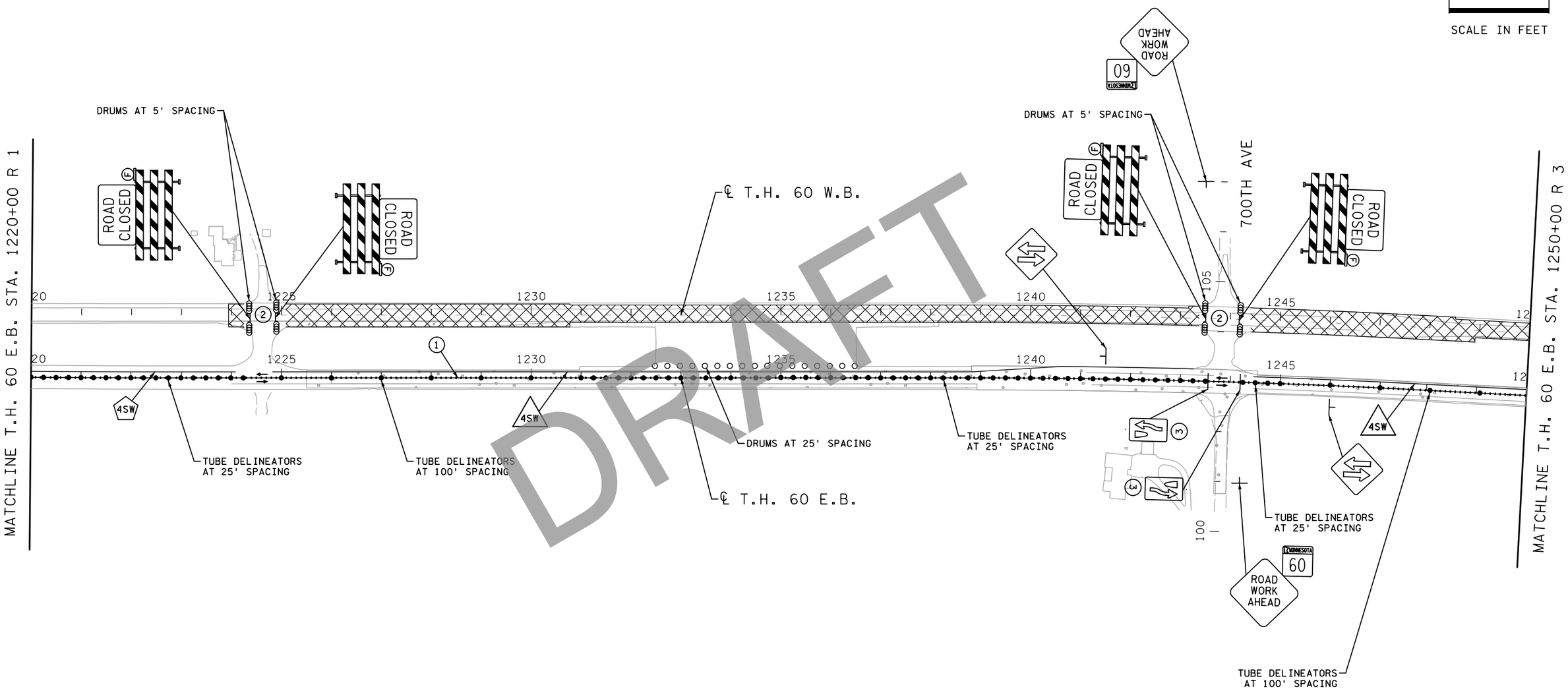
(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.

N

200

SCALE IN FEET



NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 190 OF 283 SHEETS

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GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

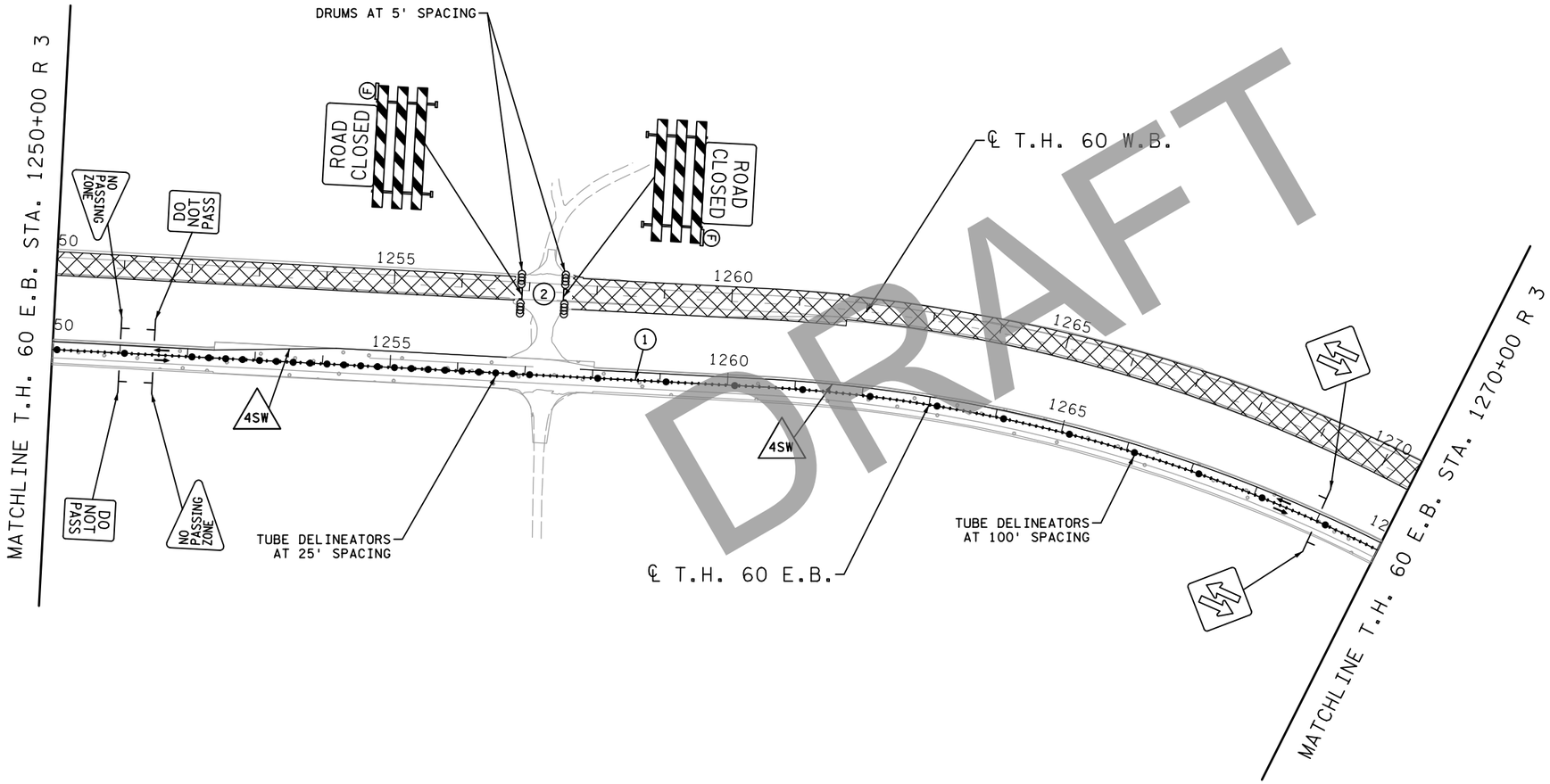
(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 191 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) SEE SHEET XX FOR DETOUR LAYOUT.

200

SCALE IN FEET

RAMP CLOSED AHEAD

ROAD CLOSED

ROAD CLOSED

RAMP CLOSED BEGINNING MONTH DY

INSTALL 14 DAYS PRIOR TO CLOSURE.

DRUMS AT 25' SPACING

C.S.A.H. 57

℄ T.H. 4 N.E. RAMP

℄ T.H. 4 N.W. RAMP

℄ T.H. 60 W.B.

RAMP CLOSED BEGINNING MONTH DY

INSTALL 14 DAYS PRIOR TO CLOSURE.

DRUMS AT 25' SPACING

WORK ZONE SPEED LIMIT 55 $300 FINE

NO PASSING ZONE

DO NOT PASS

NO TURNS

NO TURNS

NO TURNS

MATCHLINE T.H. 60 E.B. STA. 1301+00 R 4

MATCHLINE T.H. 60 E.B. STA. 1270+00 R 3

TUBE DELINEATORS AT 25' SPACING

TUBE DELINEATORS AT 100' SPACING

TUBE DELINEATORS AT 25' SPACING

4SW

WORK ZONE SPEED LIMIT 55 $300 FINE

DO NOT PASS

NO PASSING ZONE

ROAD WORK AHEAD

℄ T.H. 4 S.E. RAMP

℄ T.H. 4 S.W. RAMP

℄ T.H. 60 E.B.

T.H. 4

RAMP CLOSED AHEAD

1270 1275 1280 1285 1290 1295 1300

DRAFT

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 192 OF 283 SHEETS

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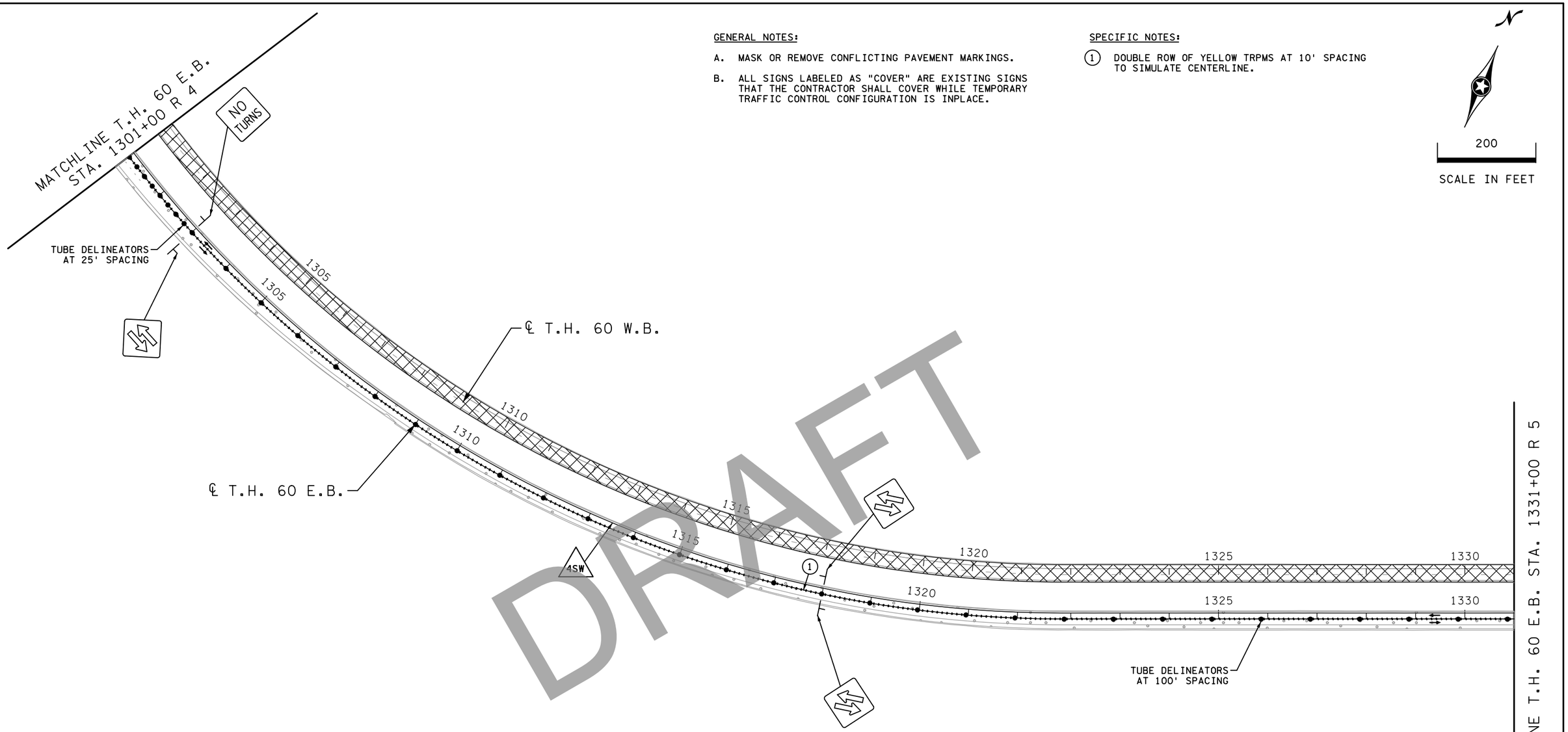
GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 193 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

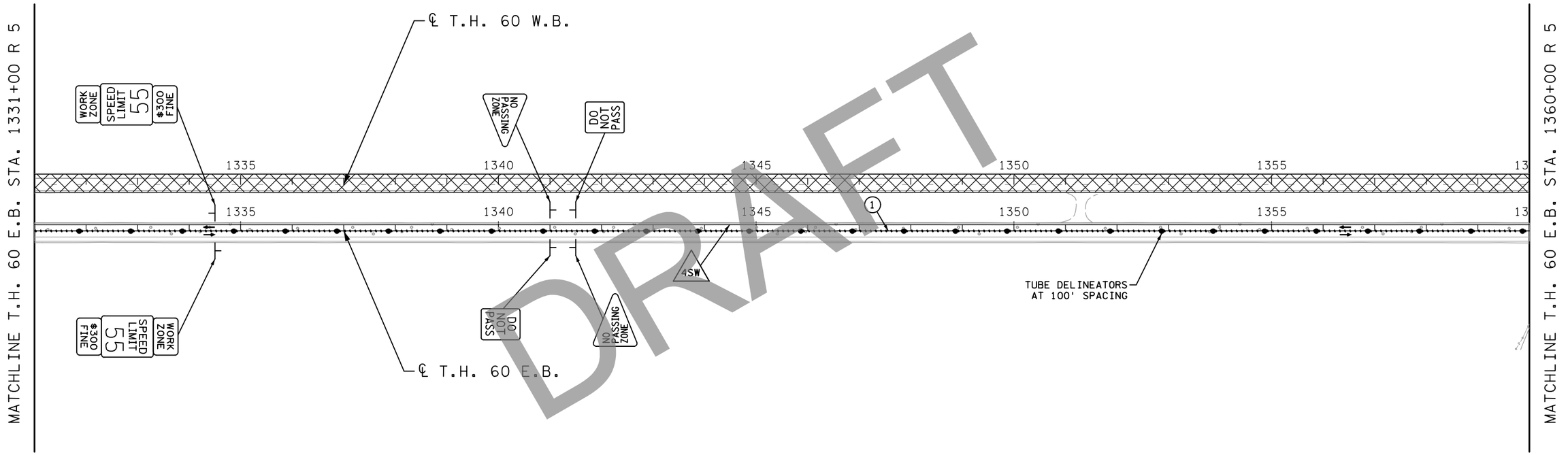
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 194 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

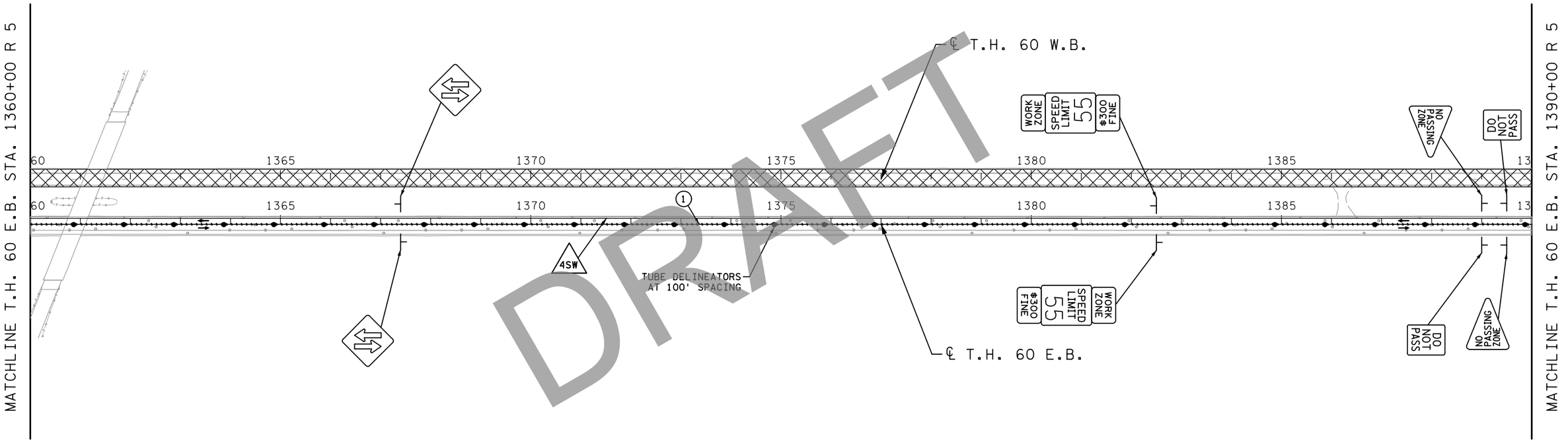
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 195 OF 283 SHEETS

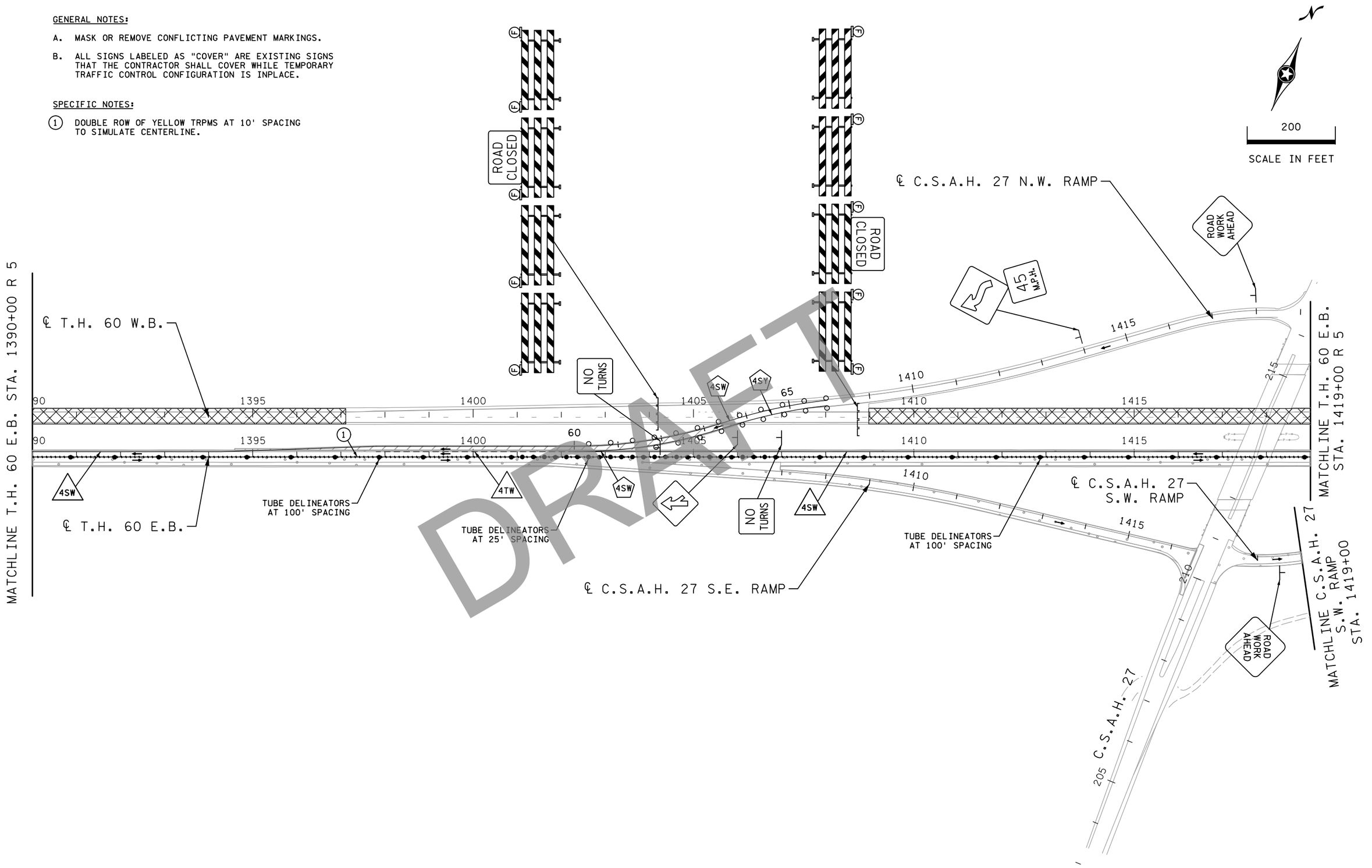
GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.



NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 196 OF 283 SHEETS

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GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

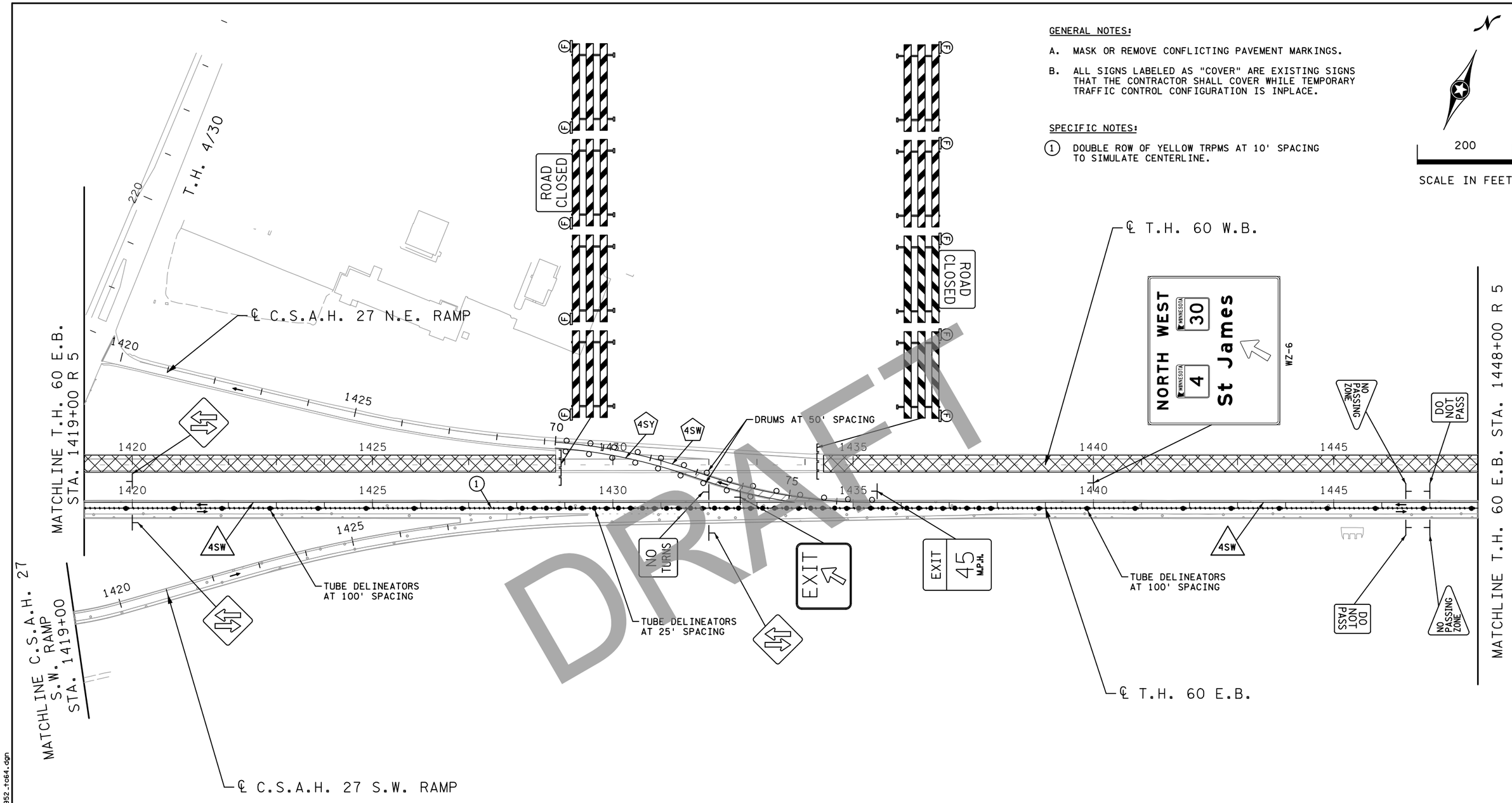
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 197 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

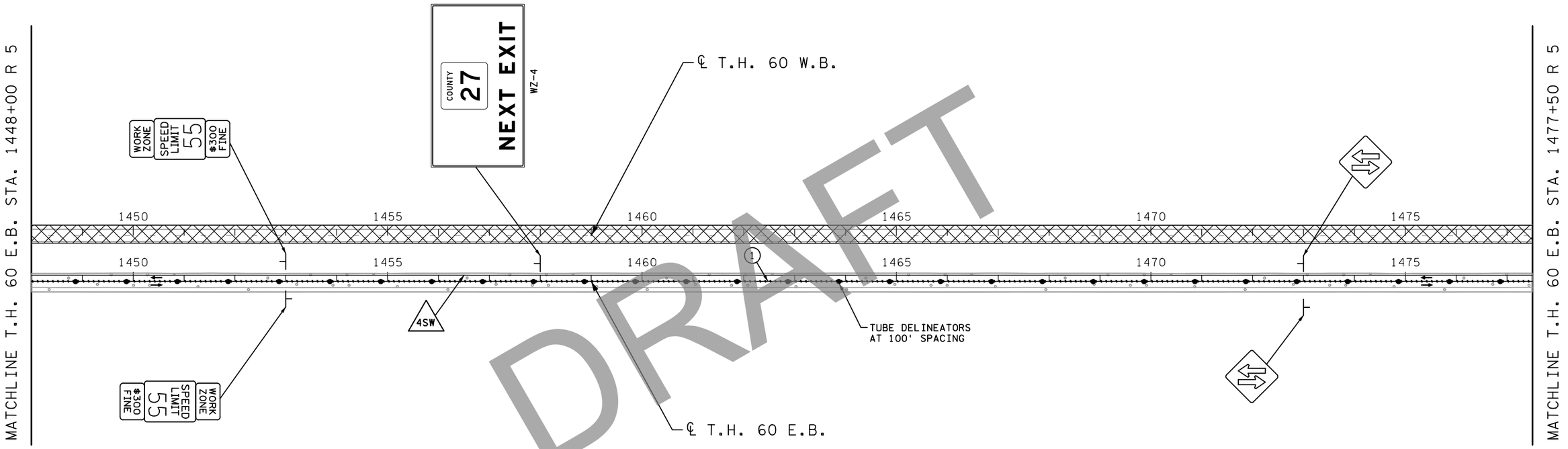
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 198 OF 283 SHEETS

GENERAL NOTES:

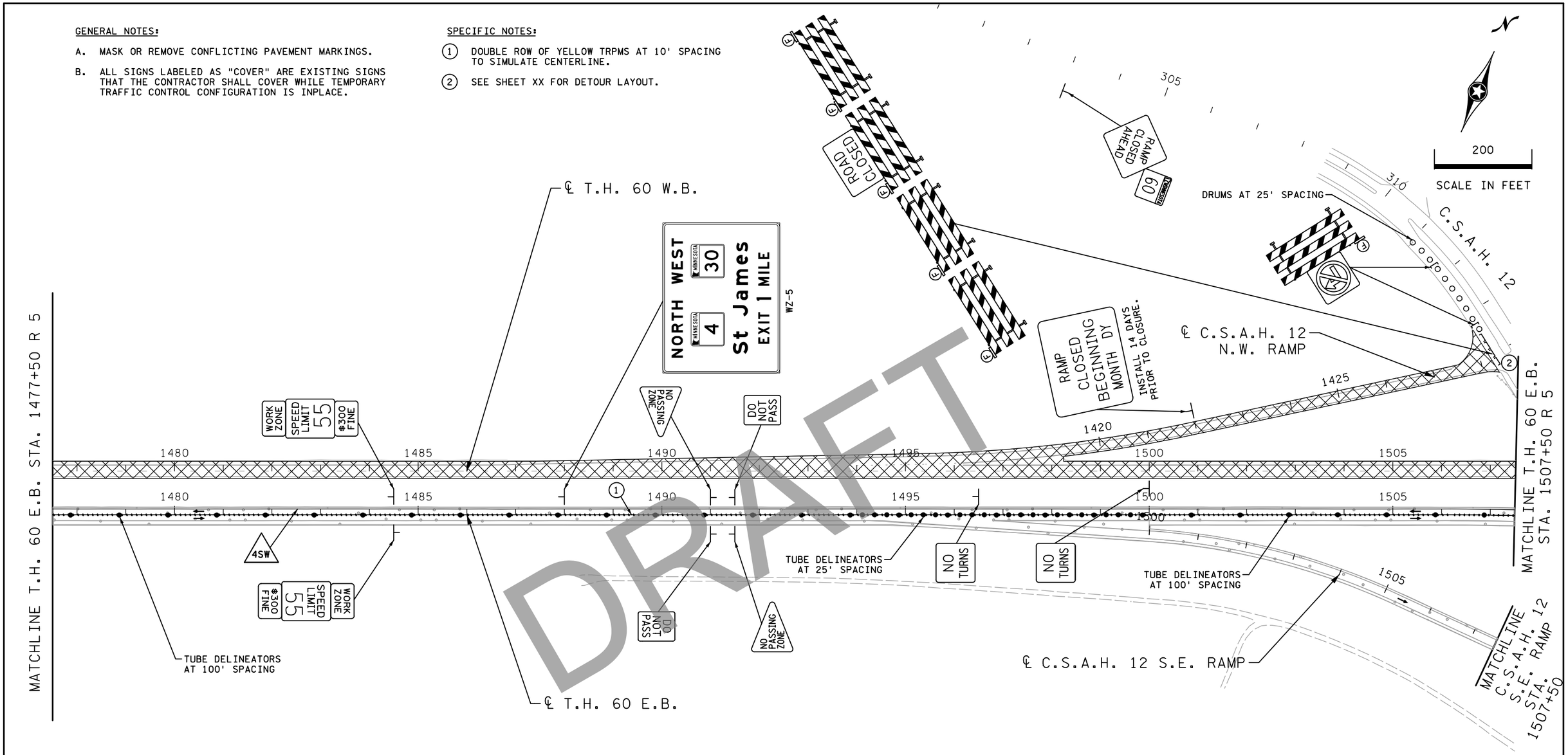
A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) SEE SHEET XX FOR DETOUR LAYOUT.



NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT
SIGNATURE:
DATE _____ LICENSE # COPY

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 199 OF 283 SHEETS

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GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) SEE SHEET XX FOR DETOUR LAYOUT.

N

200

SCALE IN FEET

ROAD CLOSED

RAMP CLOSED BEGINNING MONTH DY

INSTALL 14 DAYS PRIOR TO CLOSURE.

℄ C.S.A.H. 12 N.E. RAMP

℄ T.H. 60 W.B.

NO TURNS

NO TURNS

WORK ZONE SPEED LIMIT 55 $300 FINE

NO PASSING ZONE

DO NOT PASS

TUBE DELINEATORS AT 25' SPACING

TUBE DELINEATORS AT 100' SPACING

DRUMS AT 25' SPACING

TUBE DELINEATORS AT 100' SPACING

4SW

℄ T.H. 60 E.B.

℄ C.S.A.H. 12 S.W. RAMP

ROAD WORK AHEAD

MATCHLINE T.H. 60 E.B. STA. 1507+50

MATCHLINE C.S.A.H. 12 S.E. RAMP STA. 1507+50

C.S.A.H. 12

TURNBACK 60 RAMP CLOSED AHEAD

℄ C.S.A.H. 12 S.E. RAMP

MATCHLINE T.H. 60 E.B. STA. 1541+00 R 6

1510 1515 1520 1525 1535 1540 315 320 325 330

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY

SIGNATURE: DRAFT COPY

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 200 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

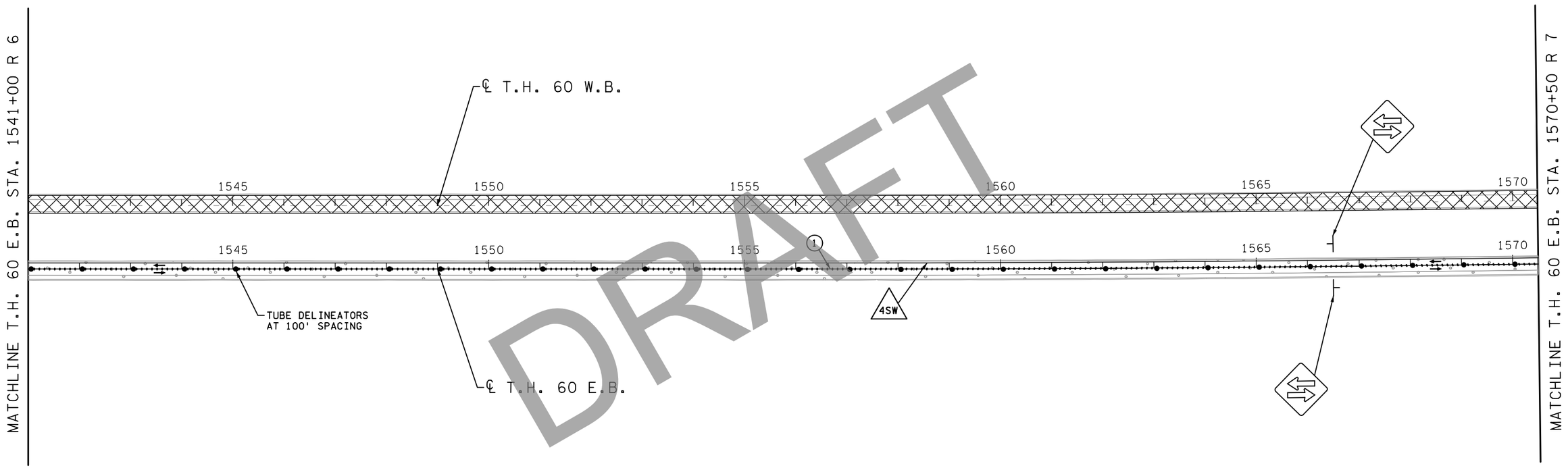
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 201 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

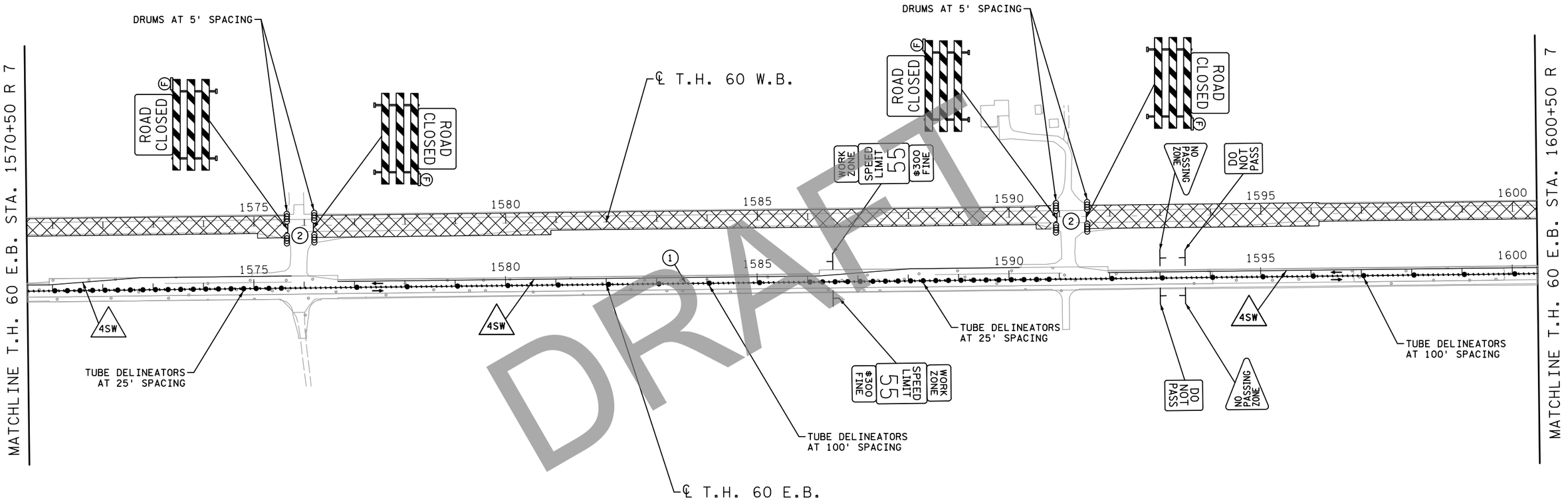
(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 202 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

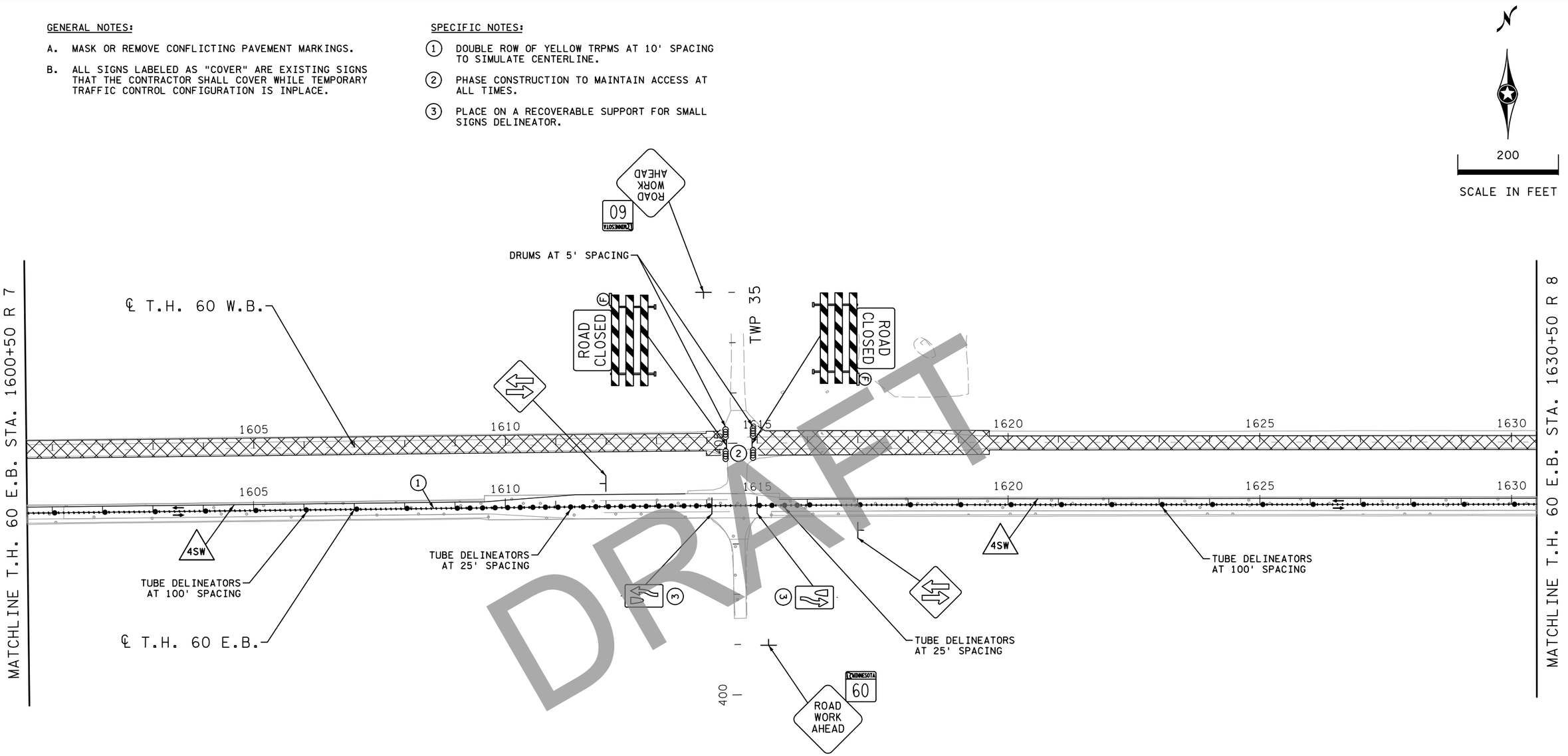
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 203 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

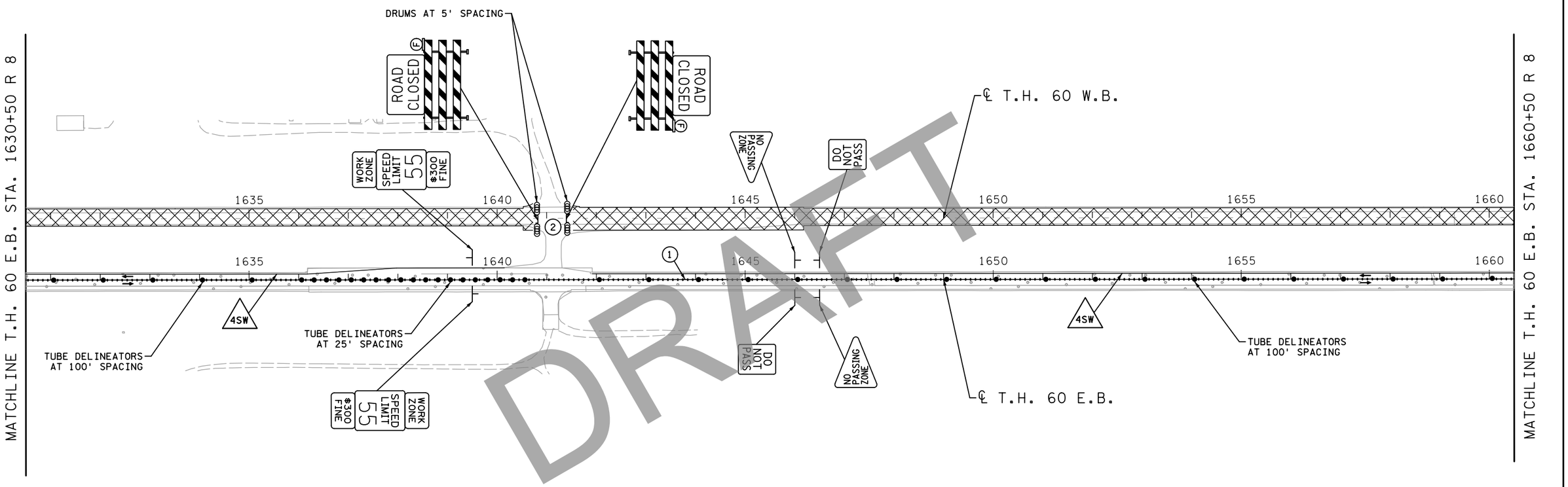
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 204 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

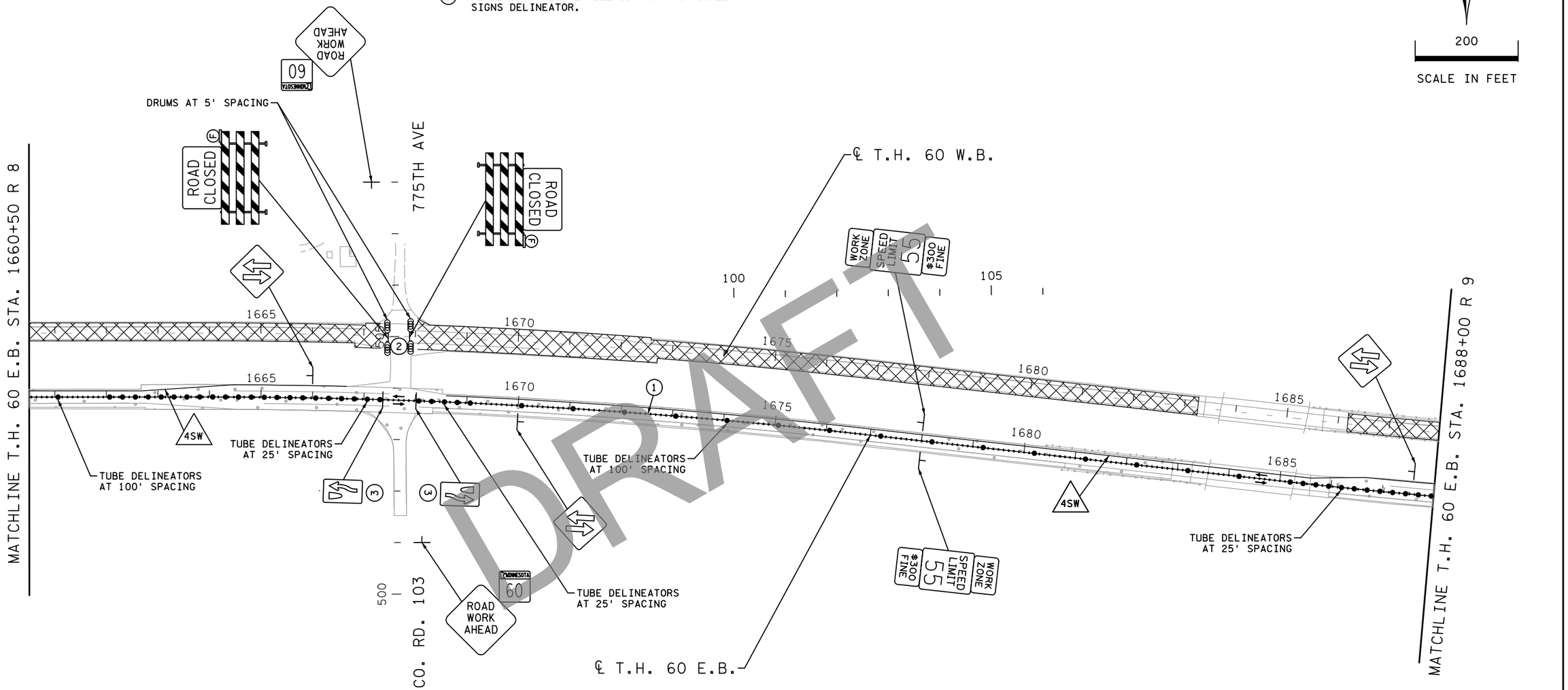
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 205 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

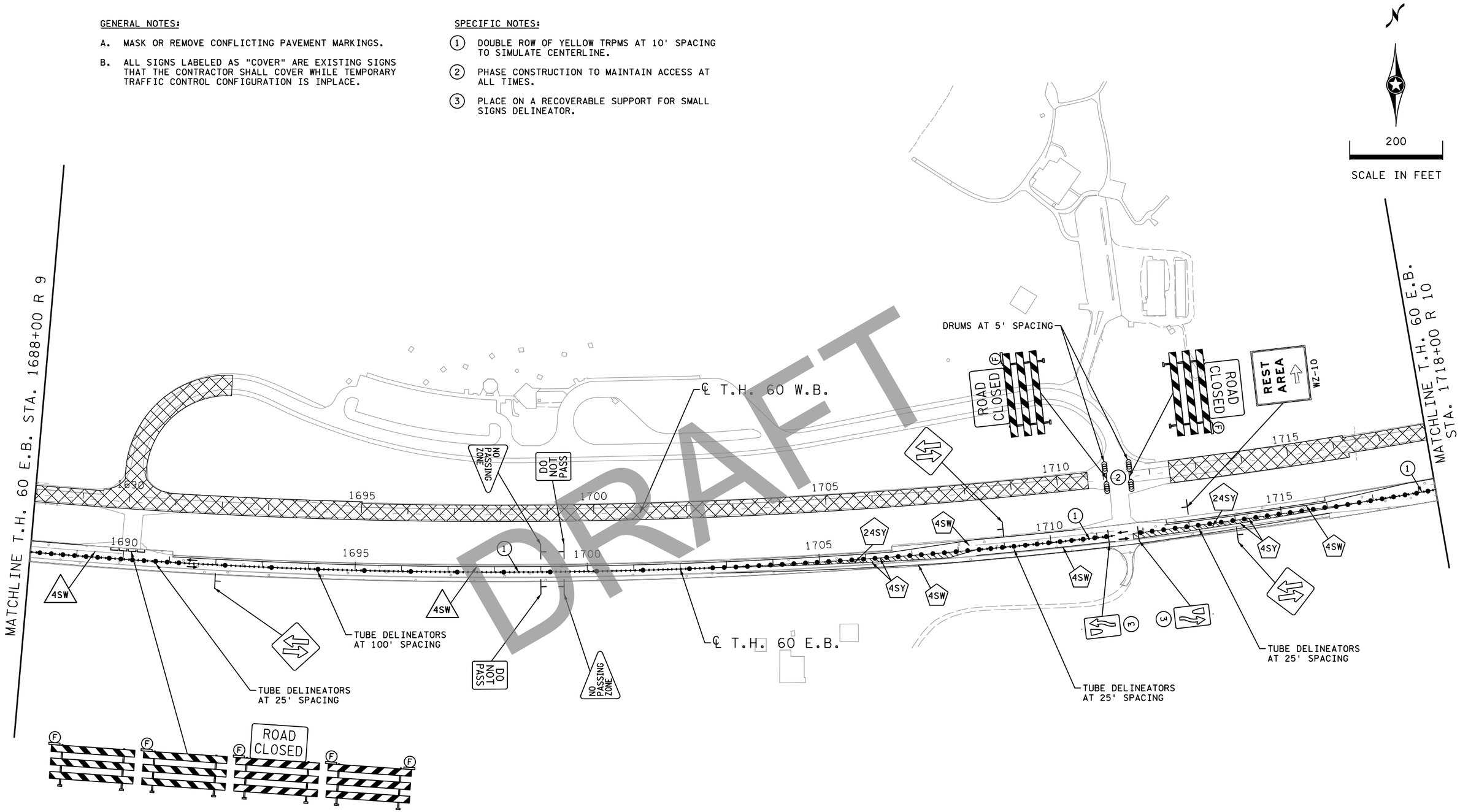
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 206 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

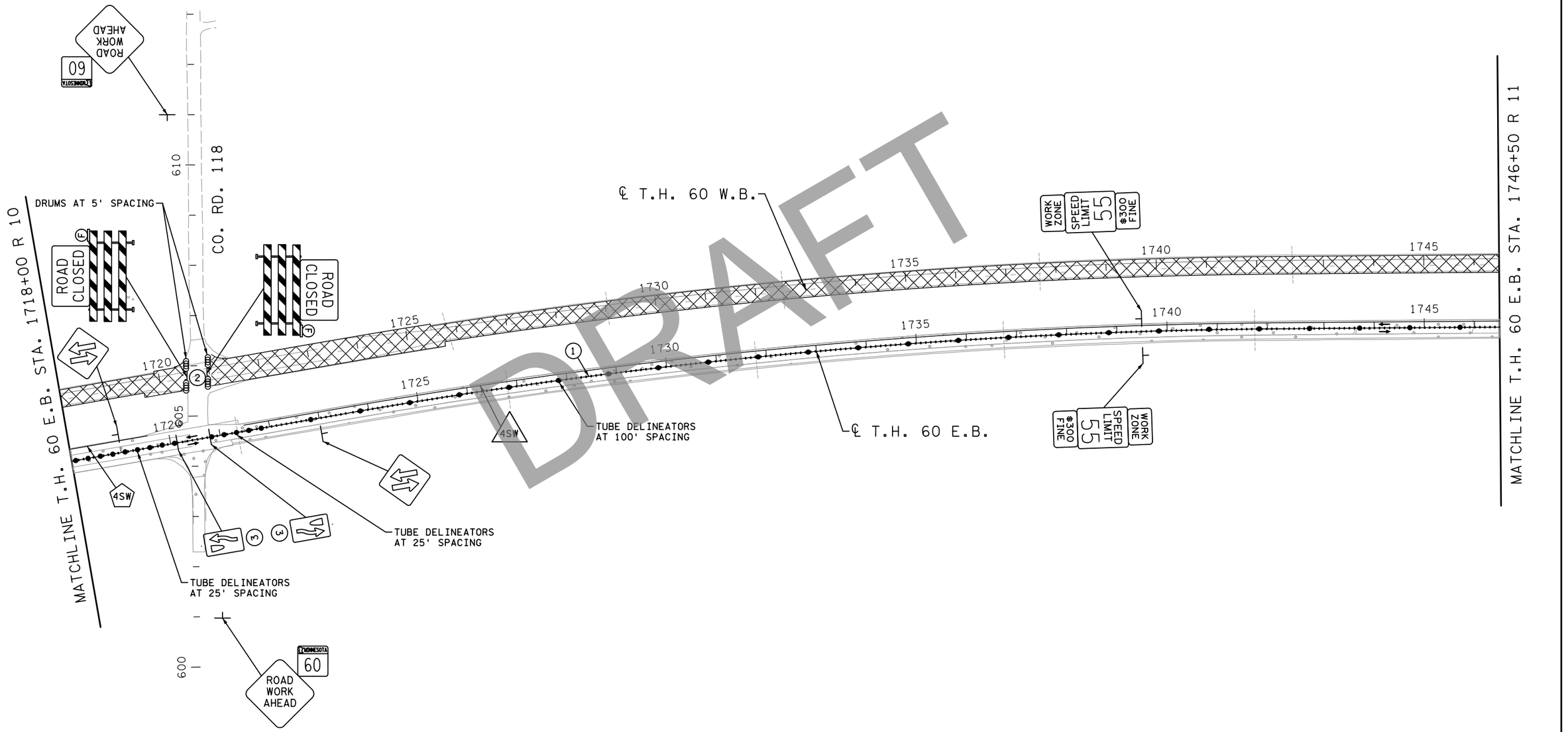
(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 207 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

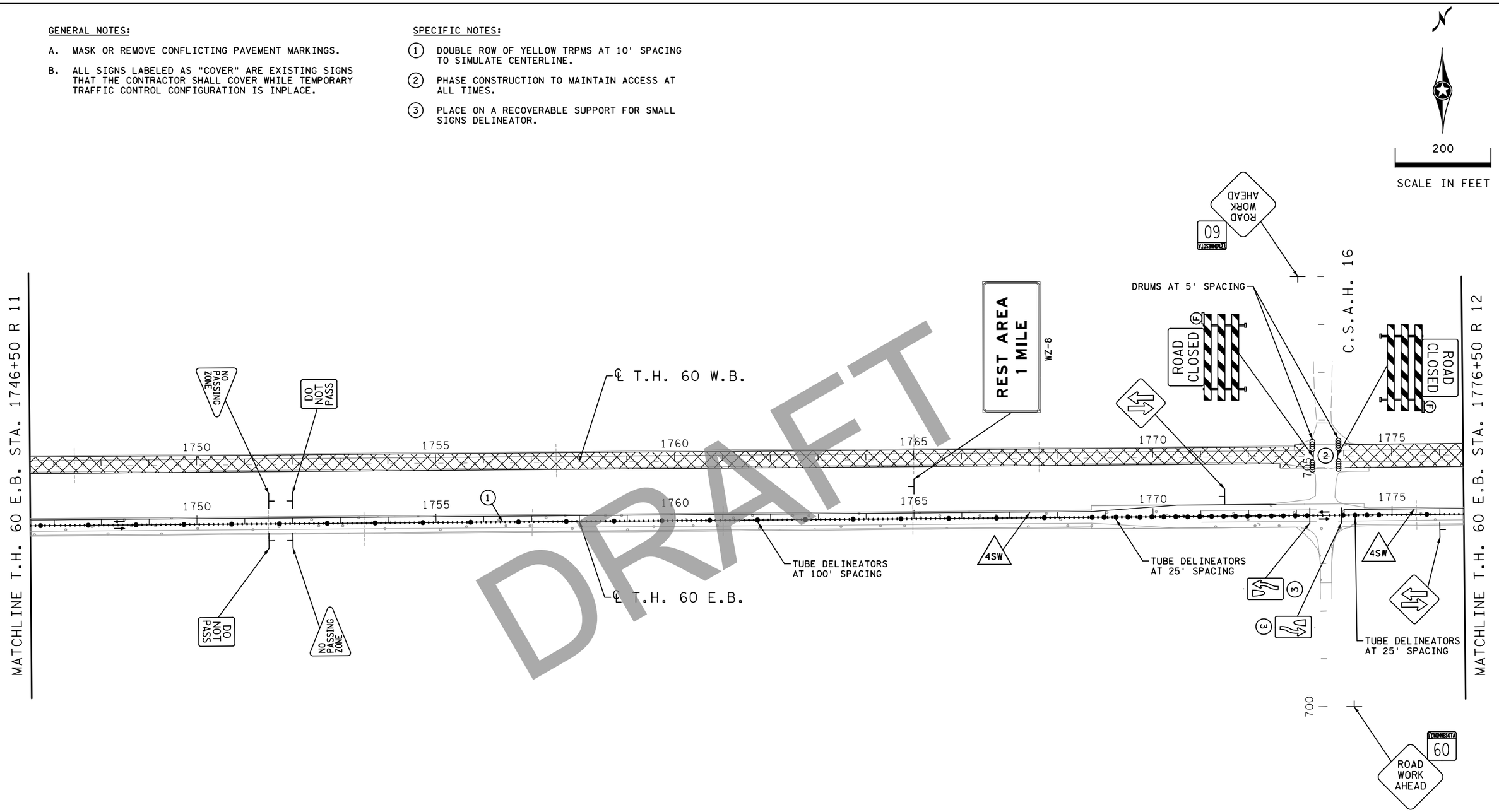
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.



NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT DRAFT
SIGNATURE:
DATE _____ LICENSE # COPY COPY

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 208 OF 283 SHEETS

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GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

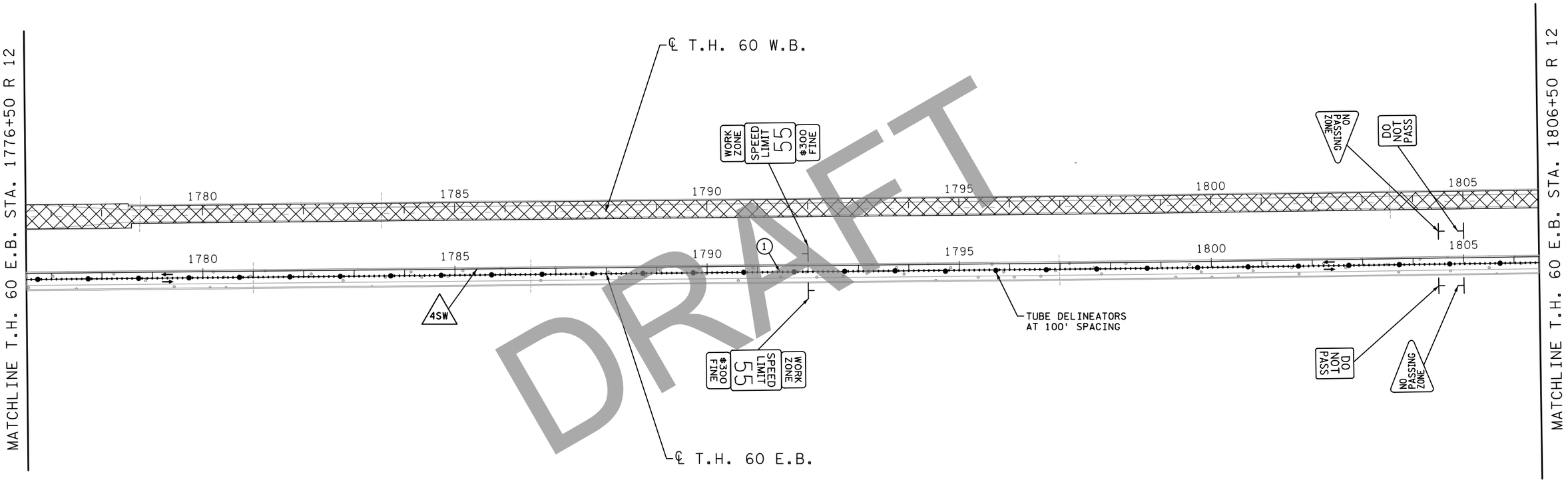
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 209 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

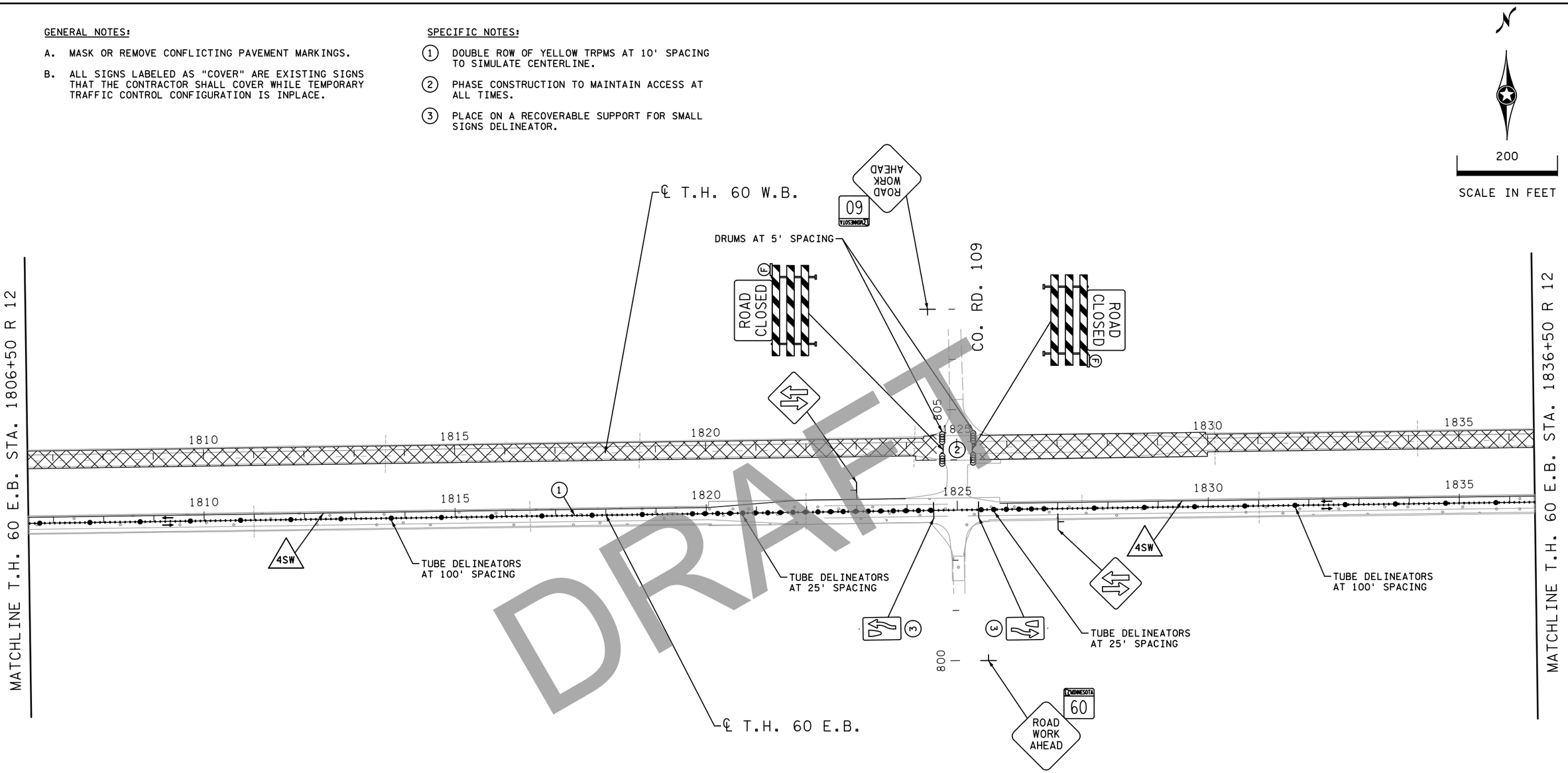
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 210 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

N

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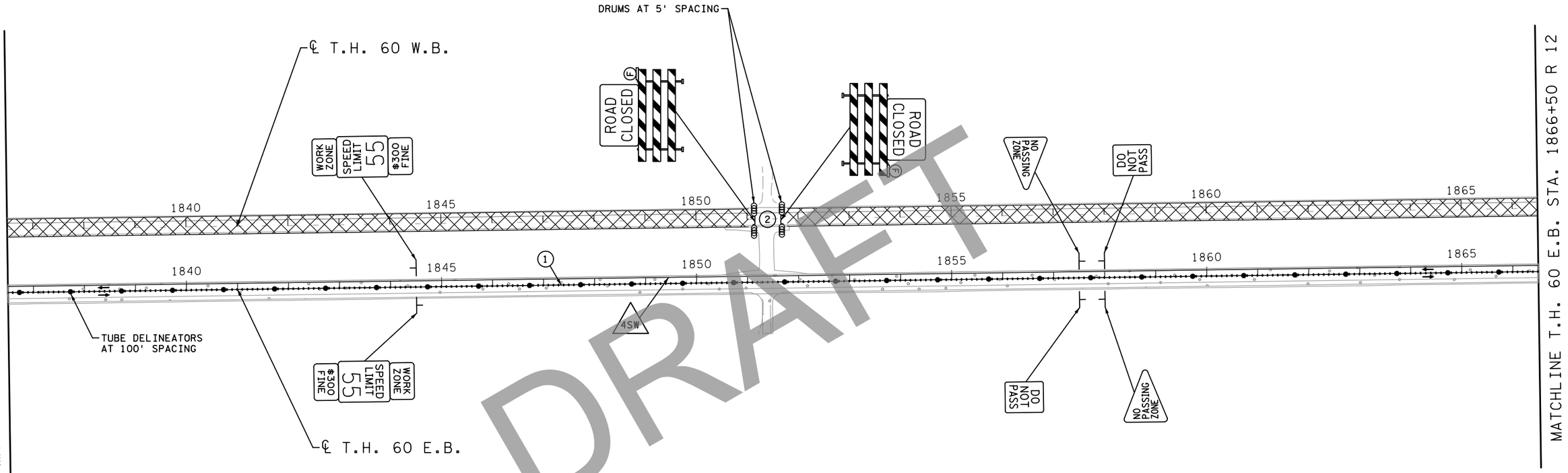
SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 211 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

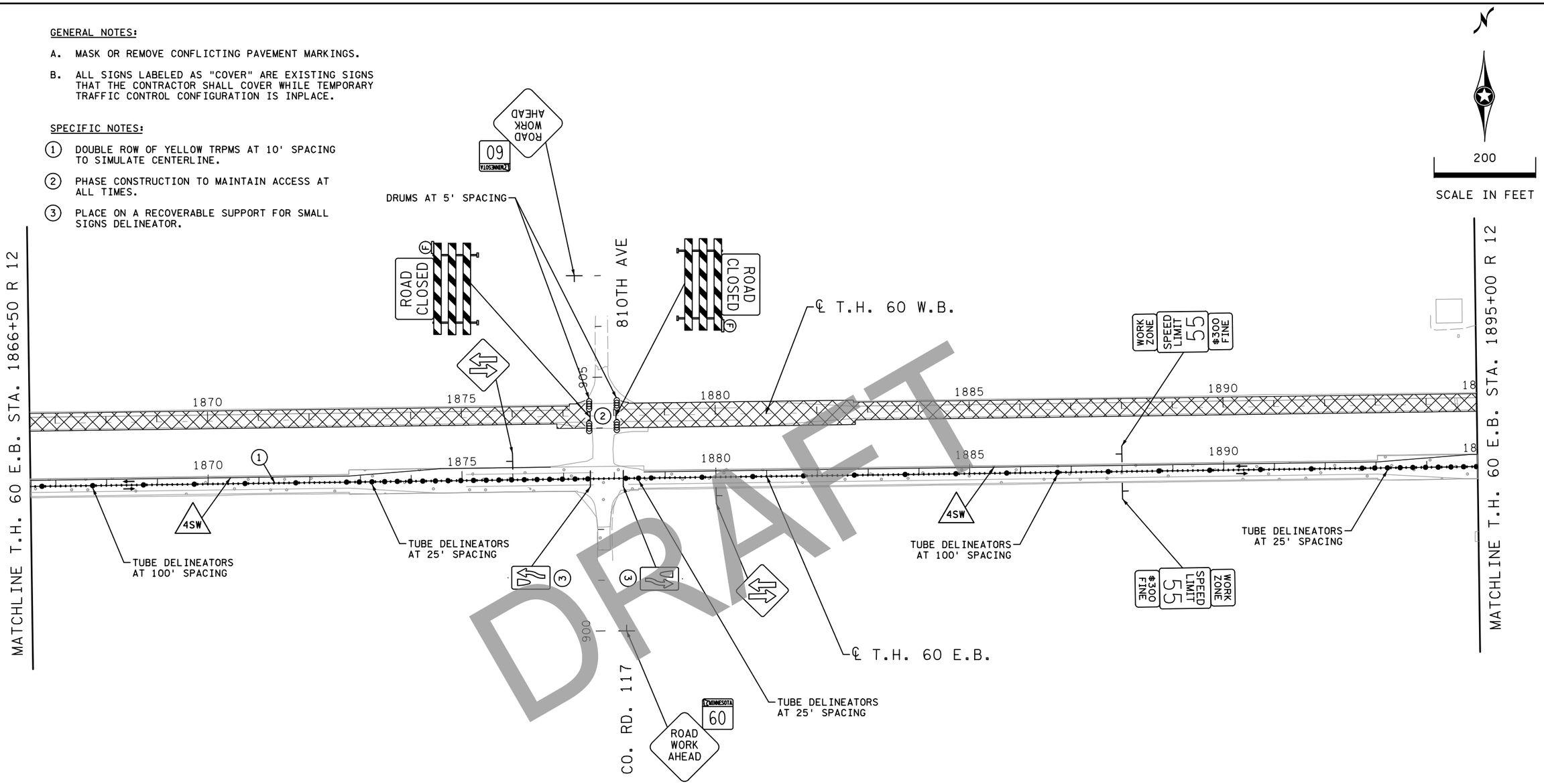
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.

(3) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT
SIGNATURE:
DATE _____ LICENSE # COPY

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)
SHEET NO. 212 OF 283 SHEETS

GENERAL NOTES:

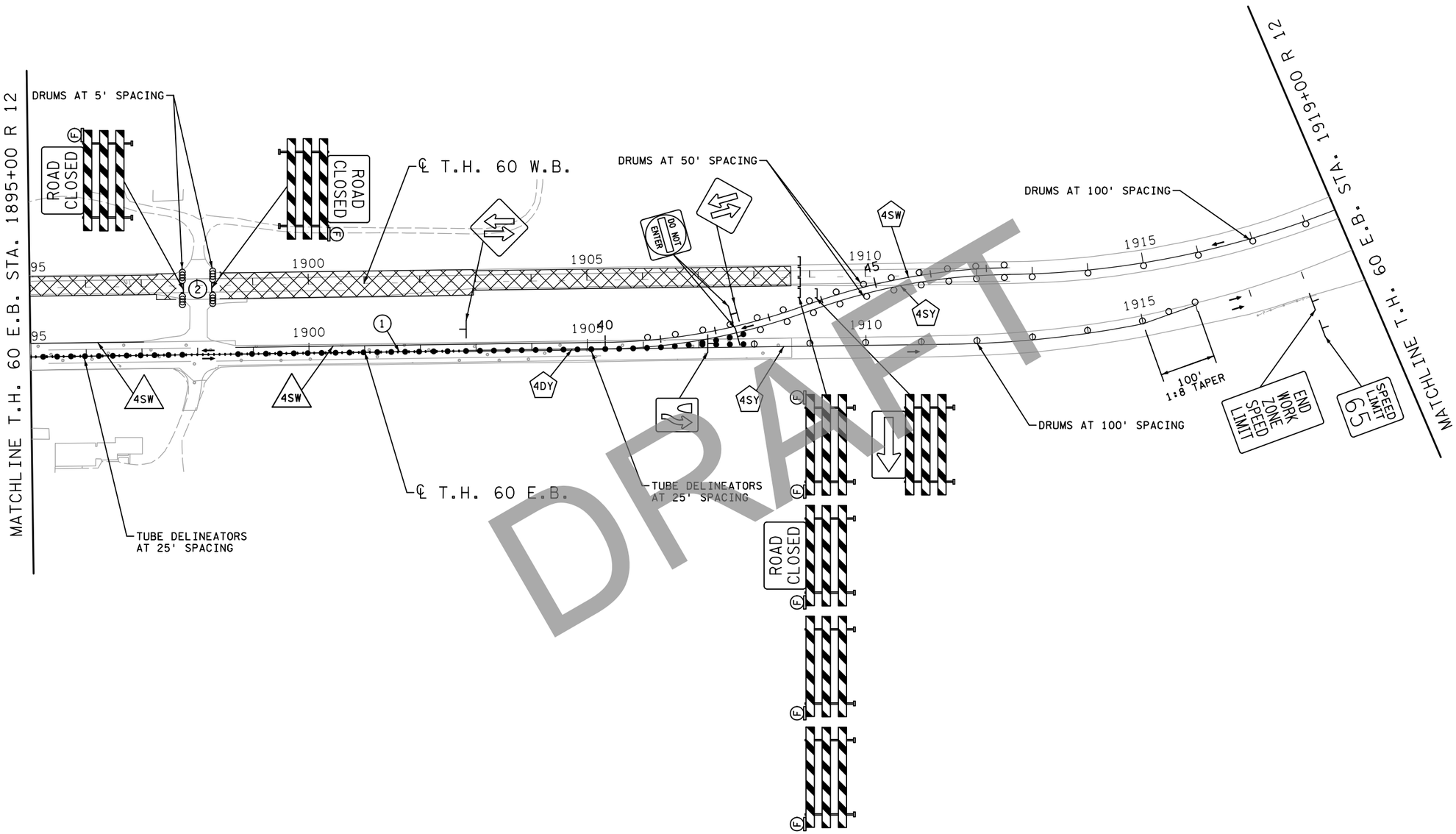
A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PHASE CONSTRUCTION TO MAINTAIN ACCESS AT ALL TIMES.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

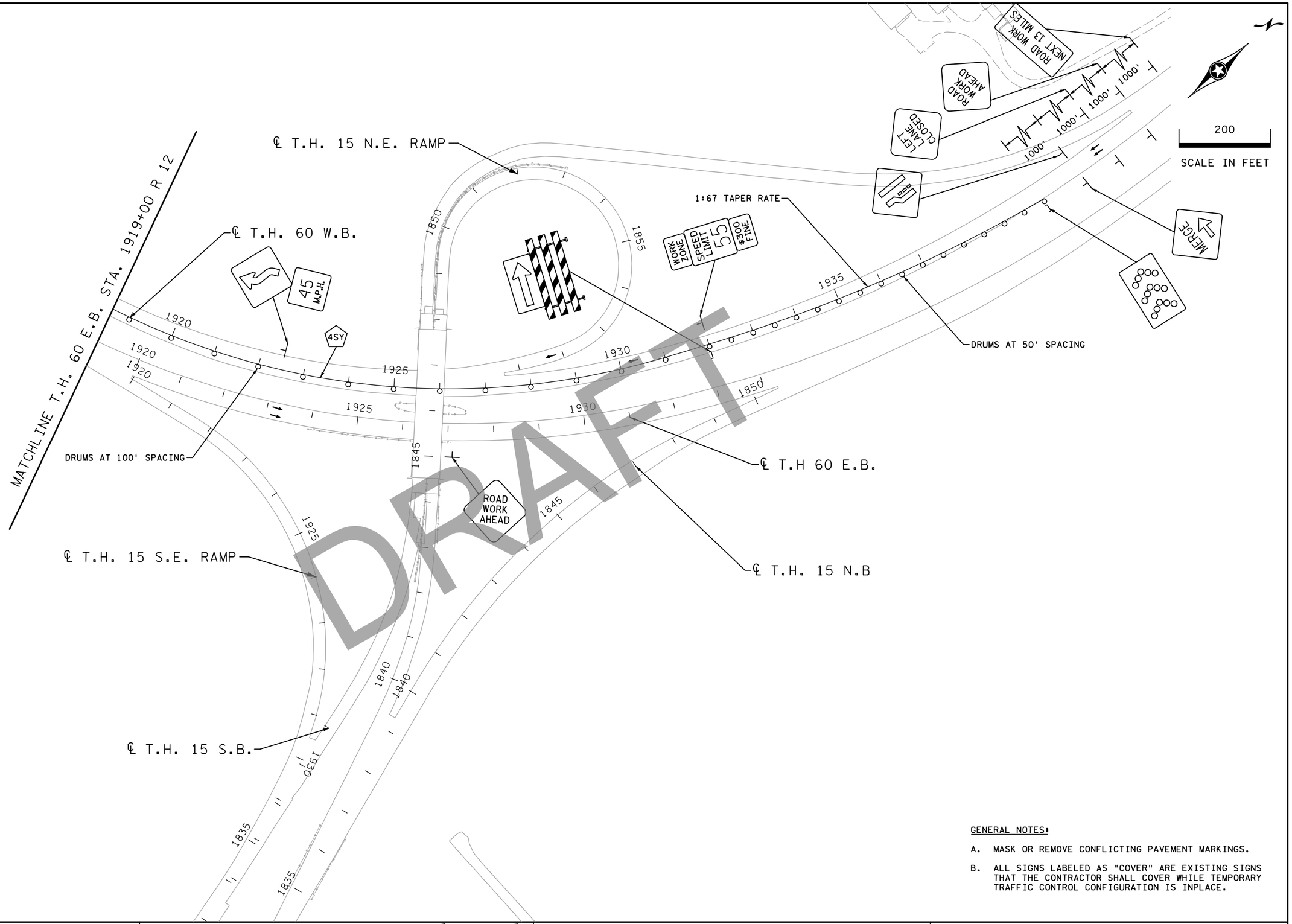
PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 213 OF 283 SHEETS



GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1

SP 8309-52 (T.H. 60)

SHEET NO. 214 OF 283 SHEETS

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GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

N

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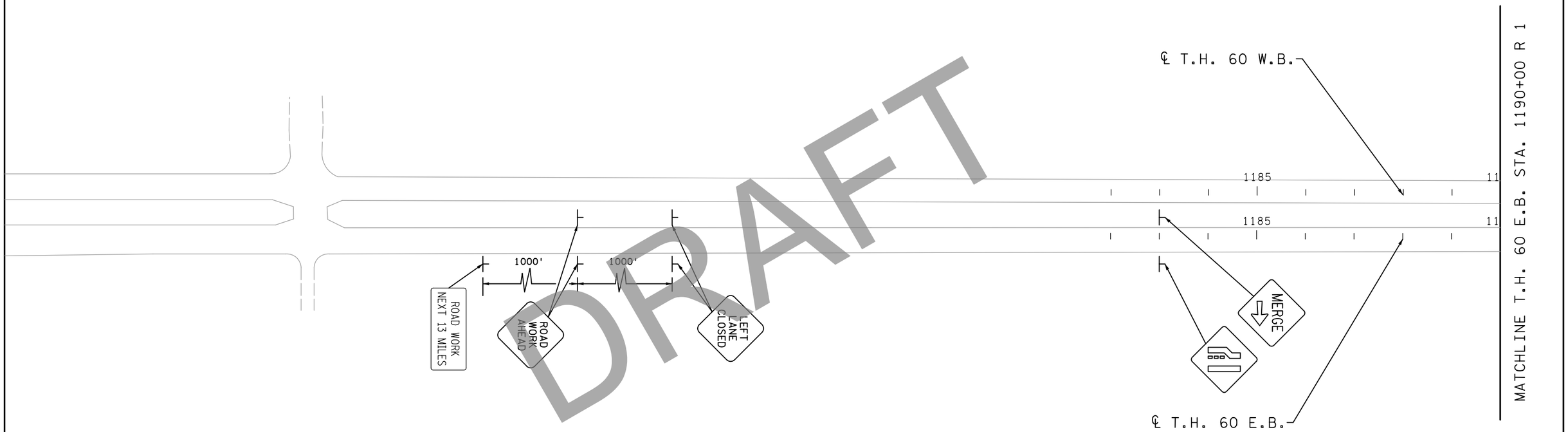
SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 215 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

N

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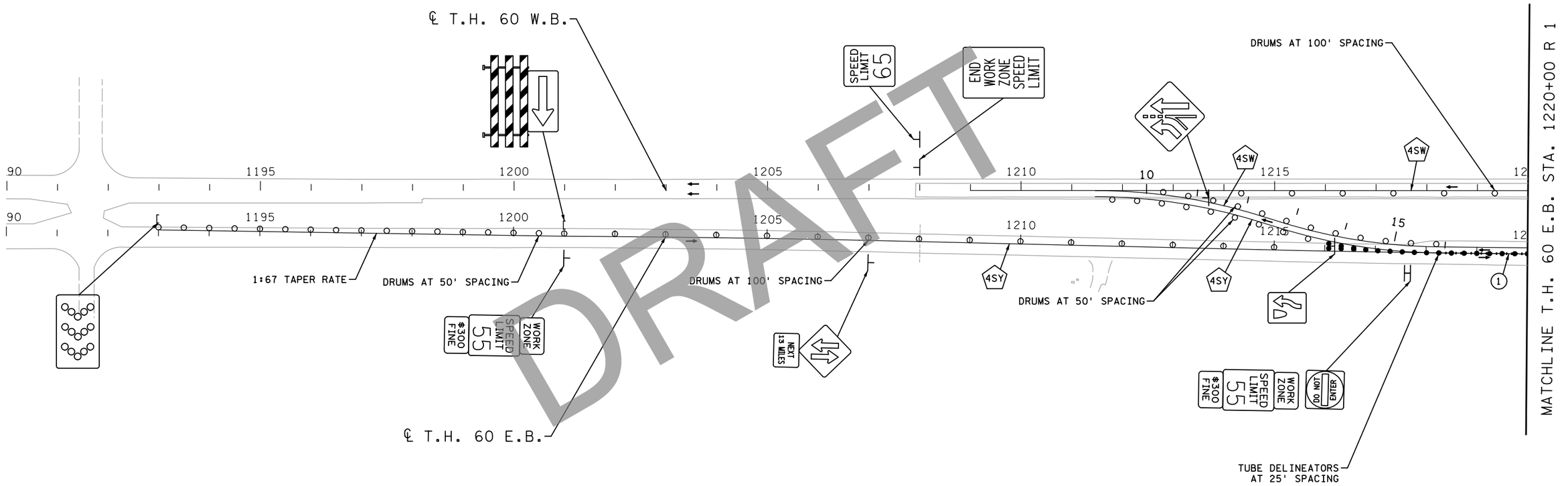
SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 216 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.

N

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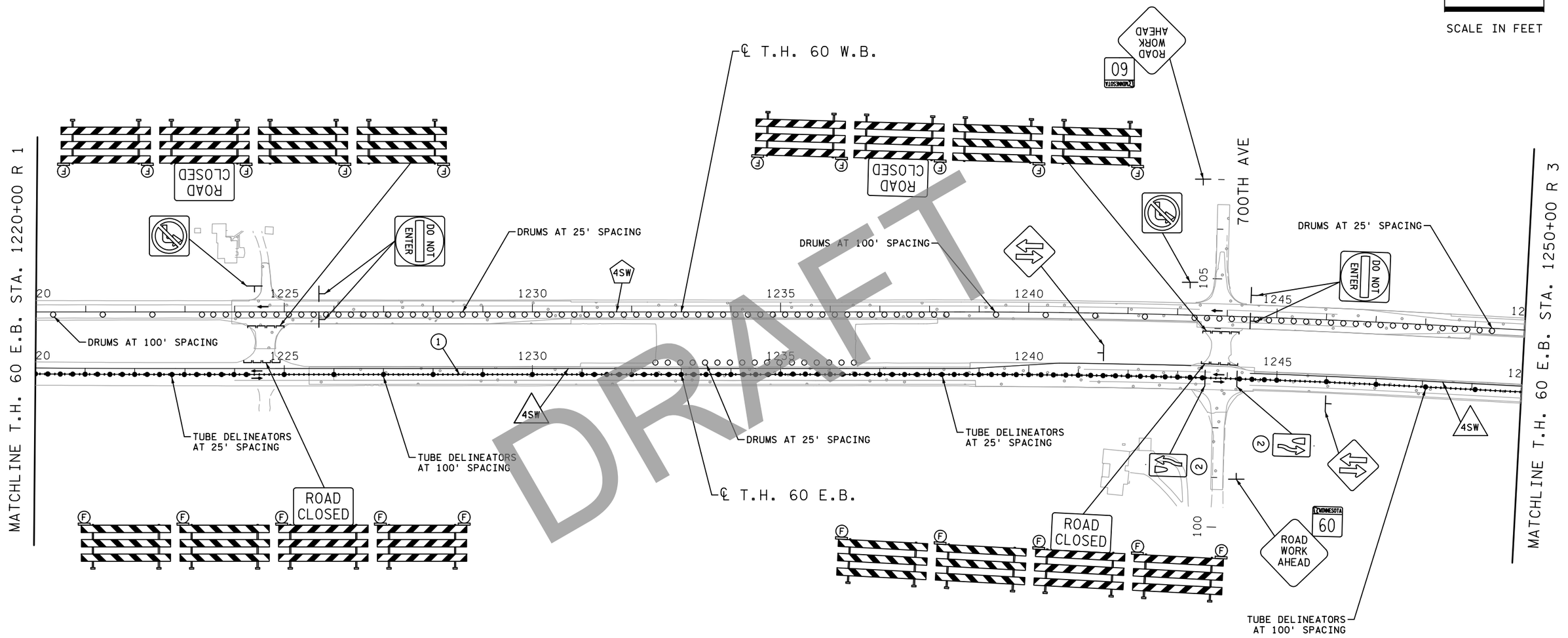
SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 217 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

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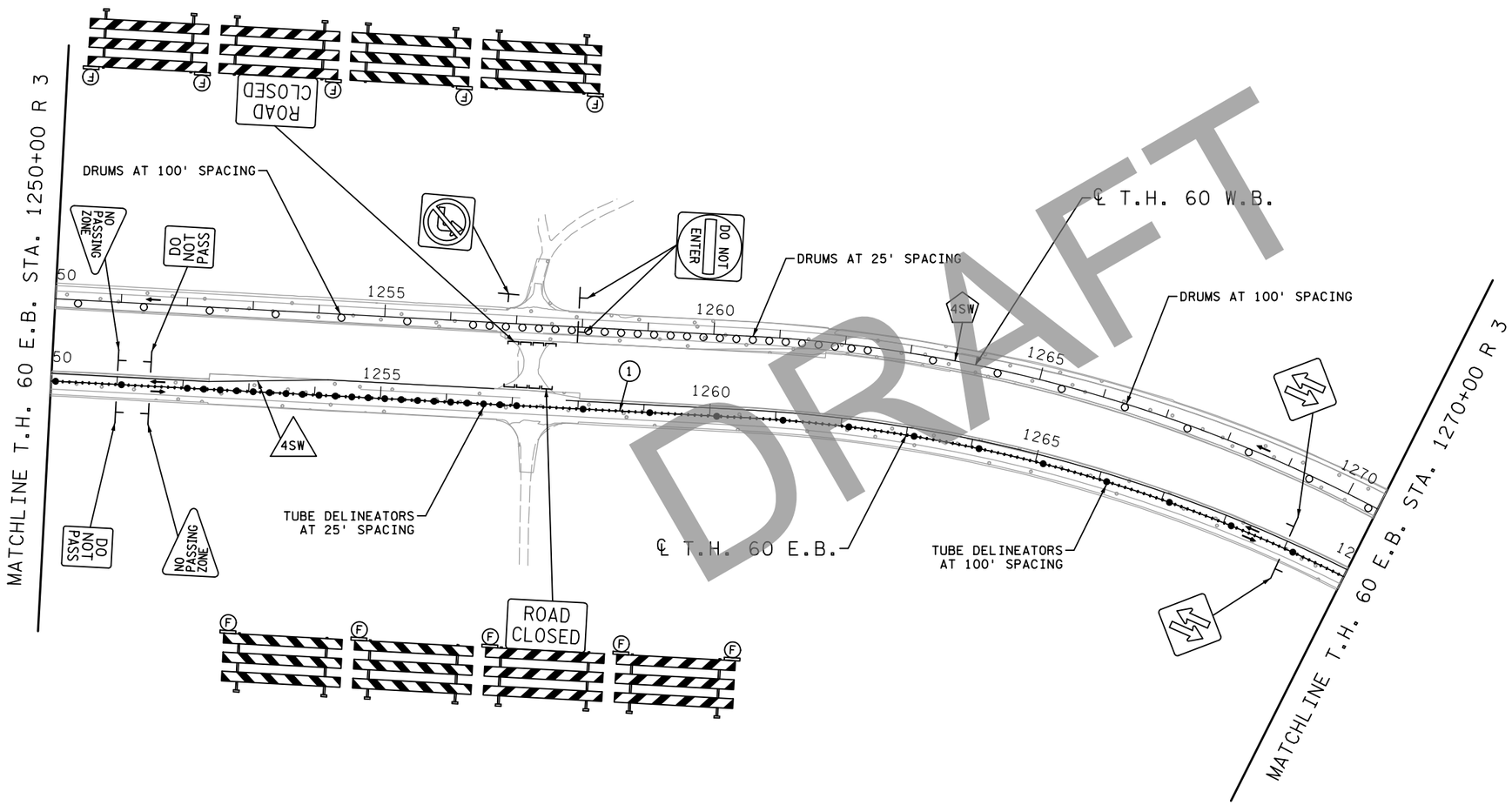
SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 218 OF 283 SHEETS

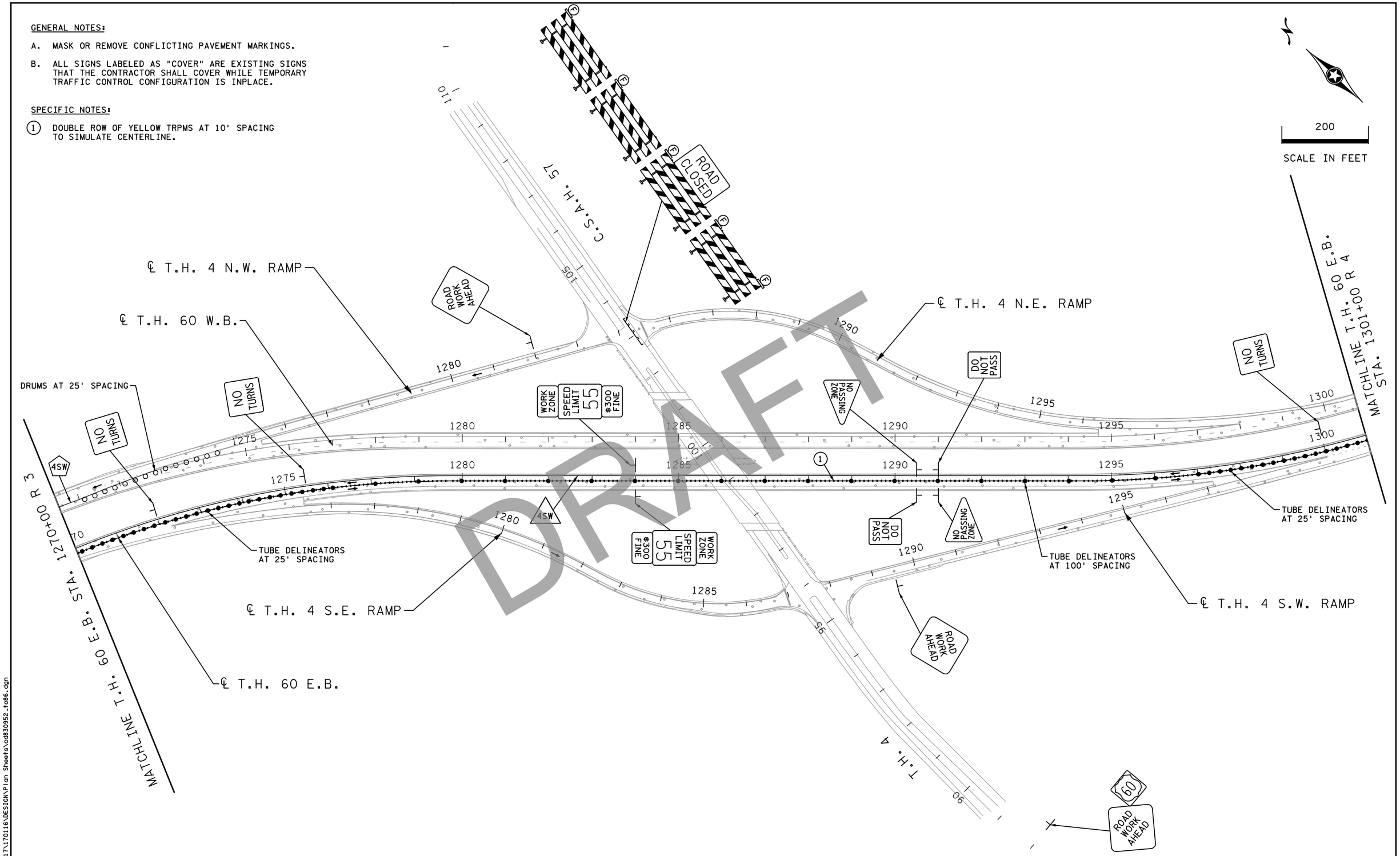
GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 219 OF 283 SHEETS

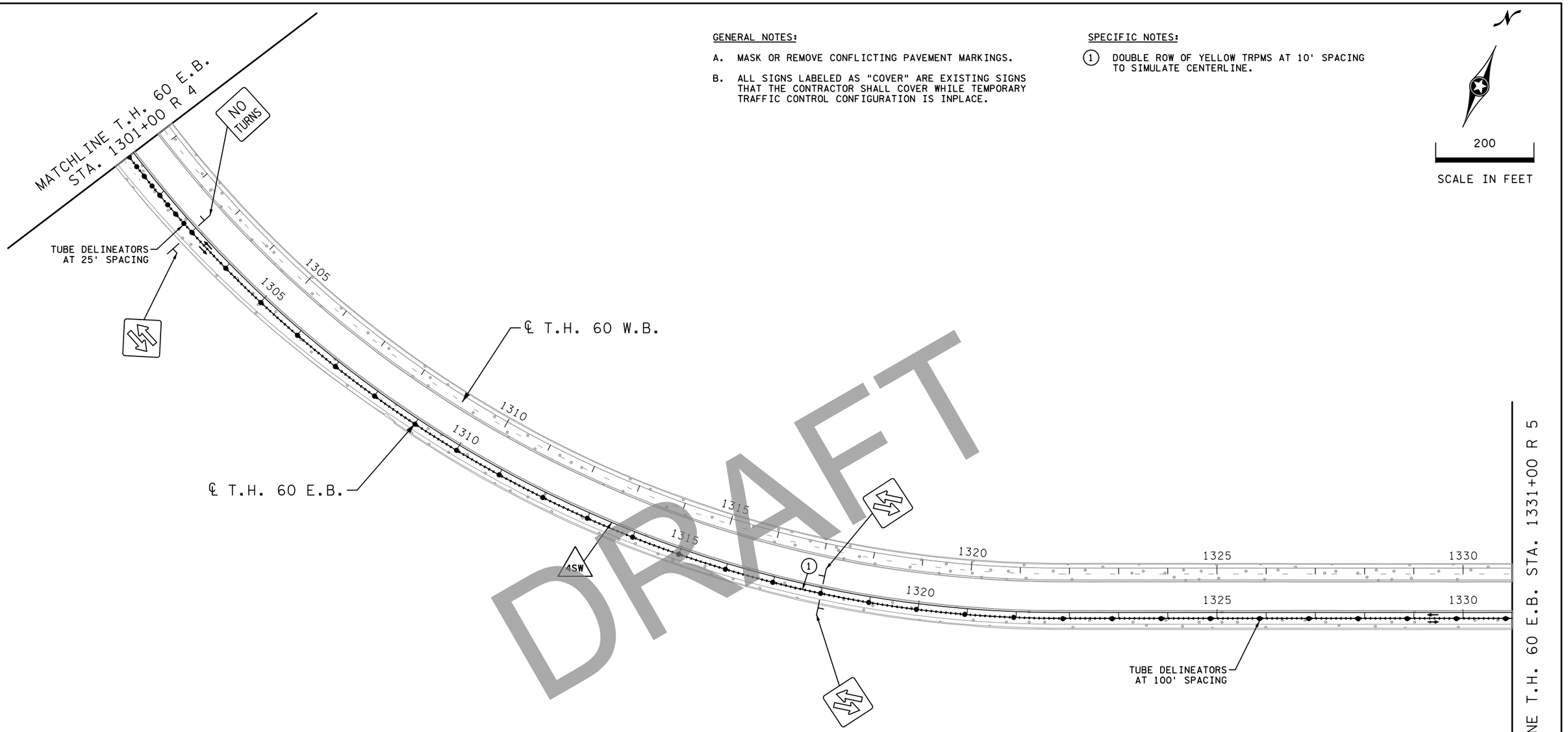
GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.



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SCALE IN FEET

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME:
SIGNATURE: DRAFT COPY DRAFT COPY
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 220 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

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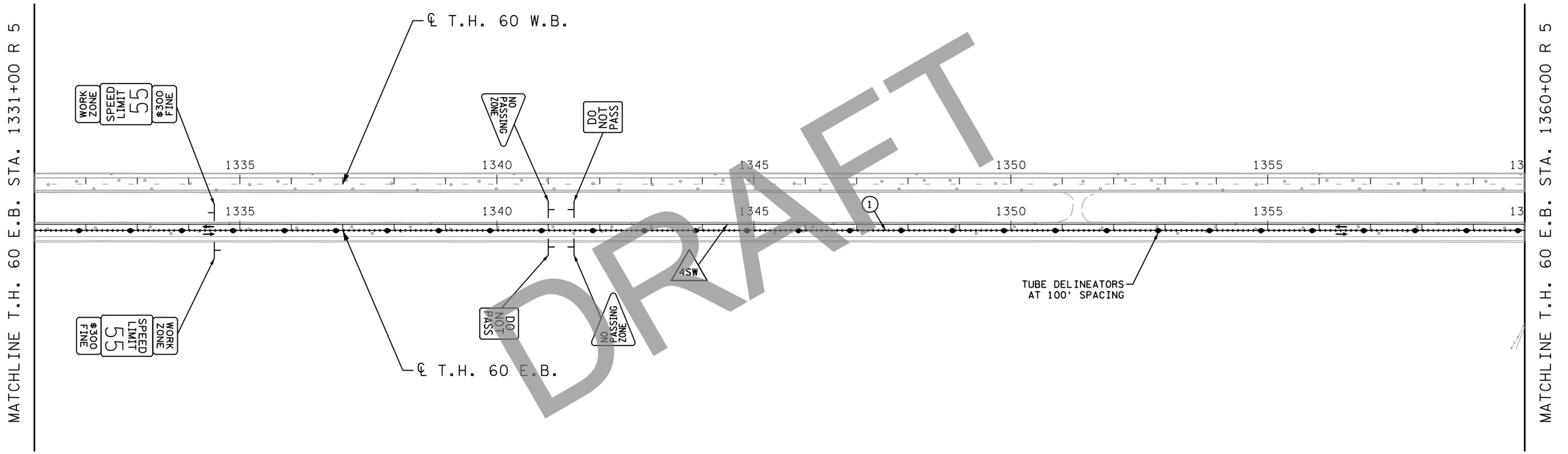
SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 221 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

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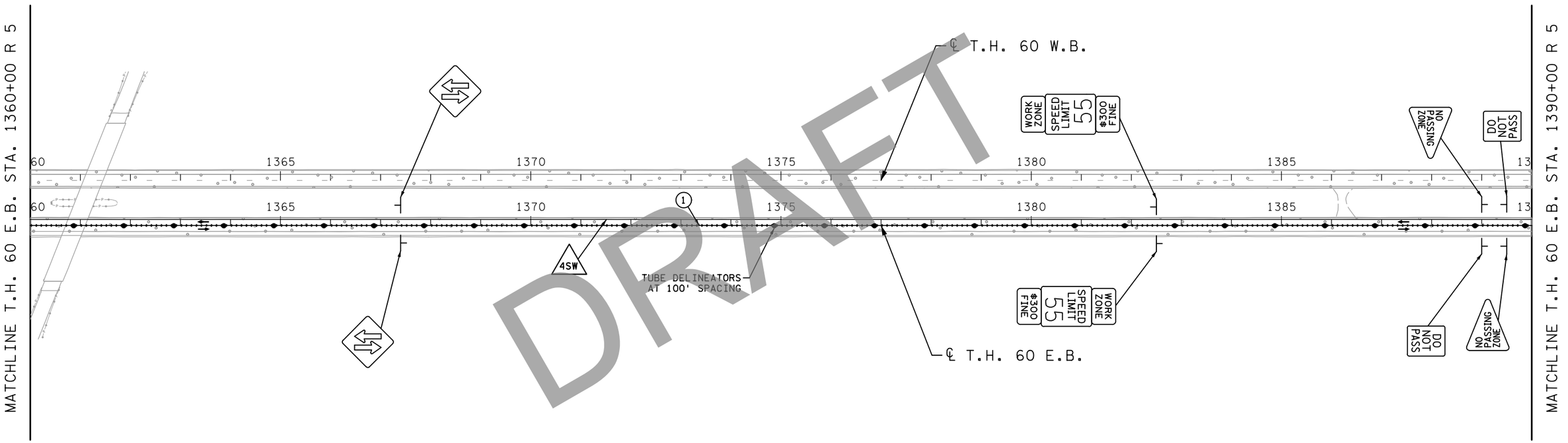
SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 222 OF 283 SHEETS

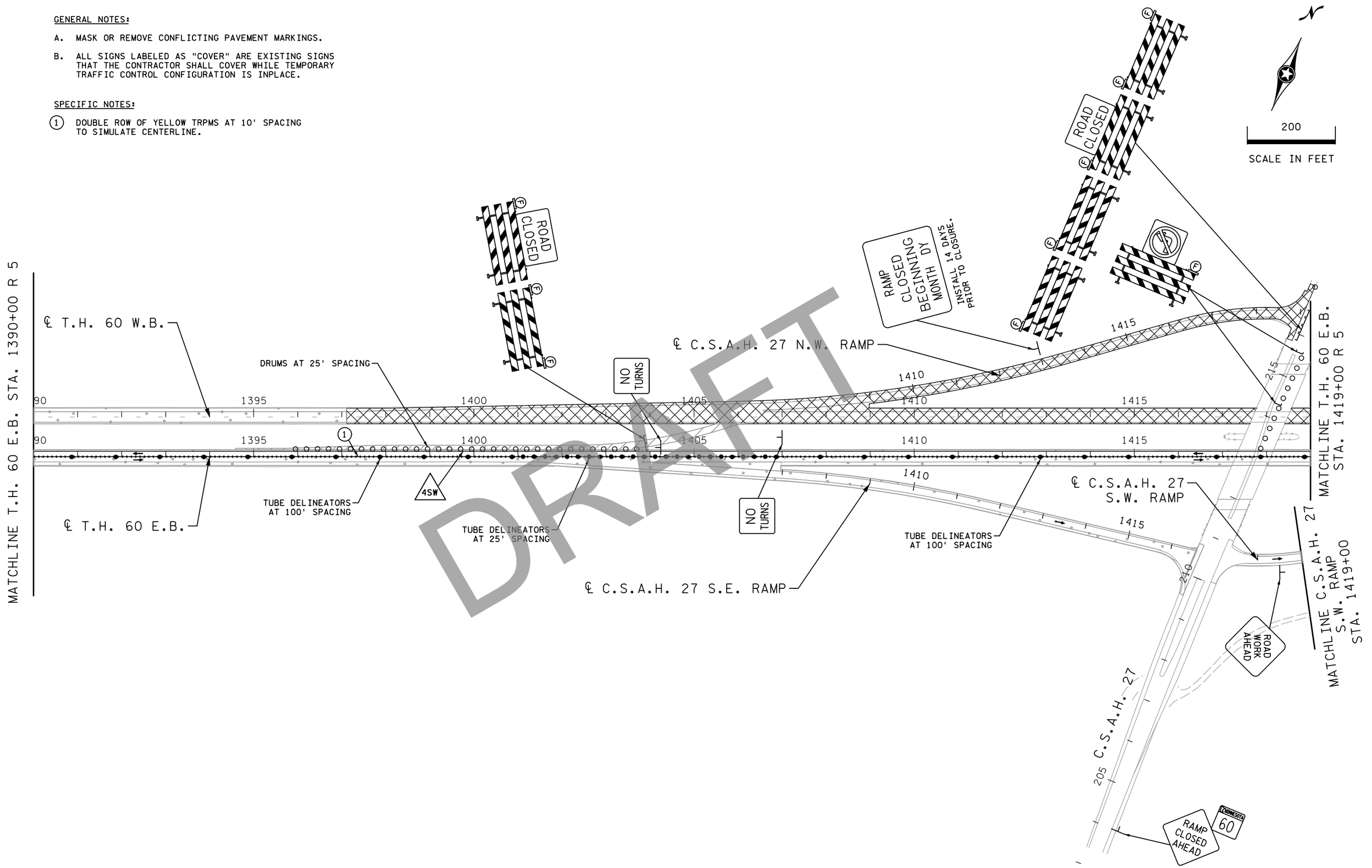
GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 223 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

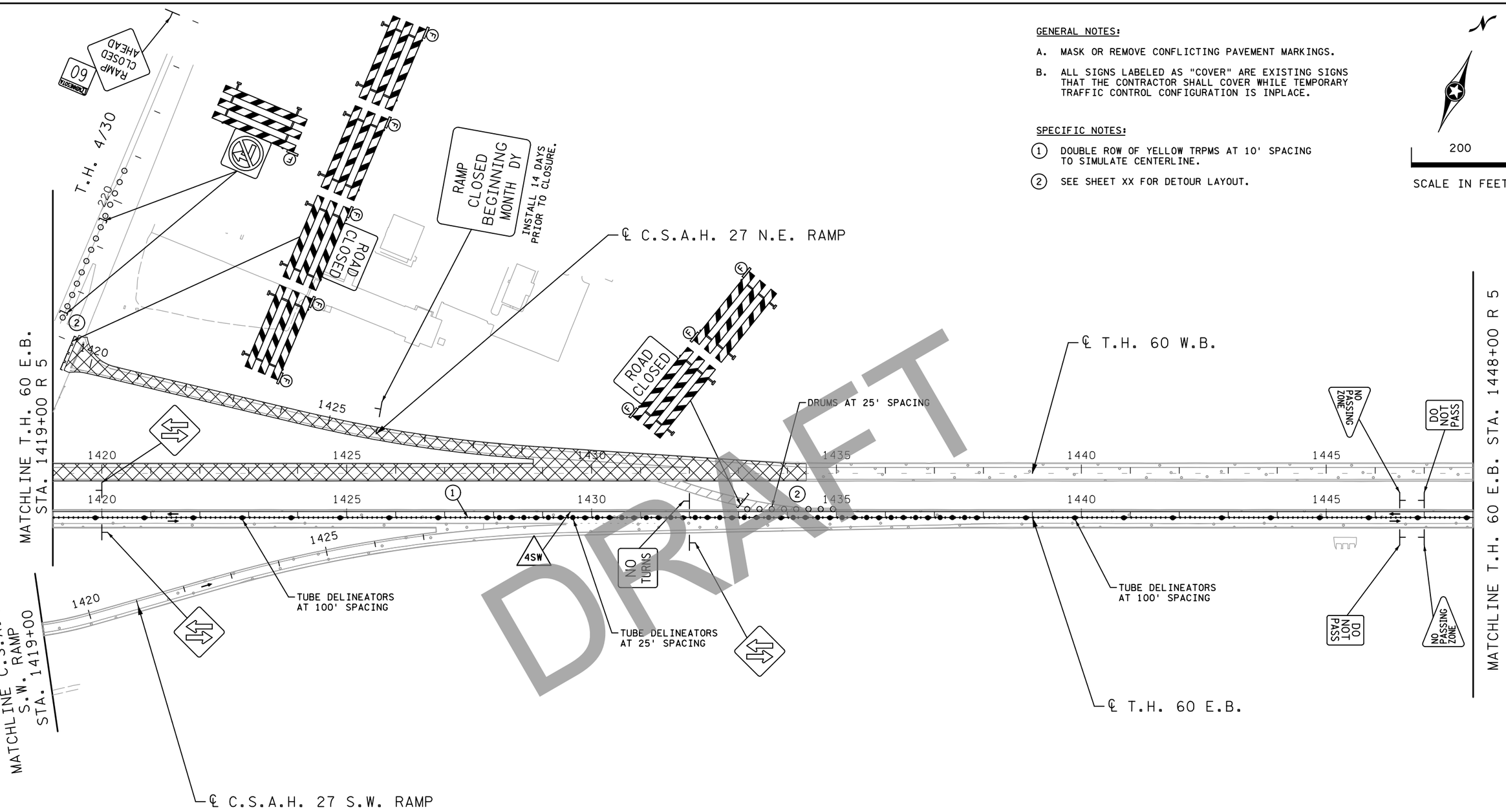
(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) SEE SHEET XX FOR DETOUR LAYOUT.

N

200

SCALE IN FEET



NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 224 OF 283 SHEETS

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GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

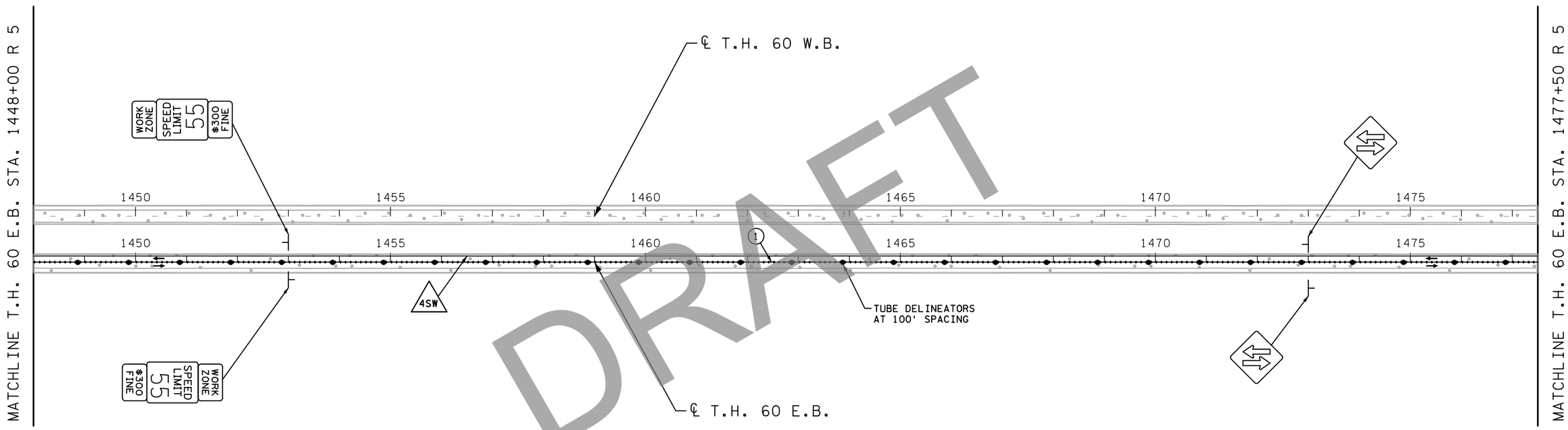
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 225 OF 283 SHEETS

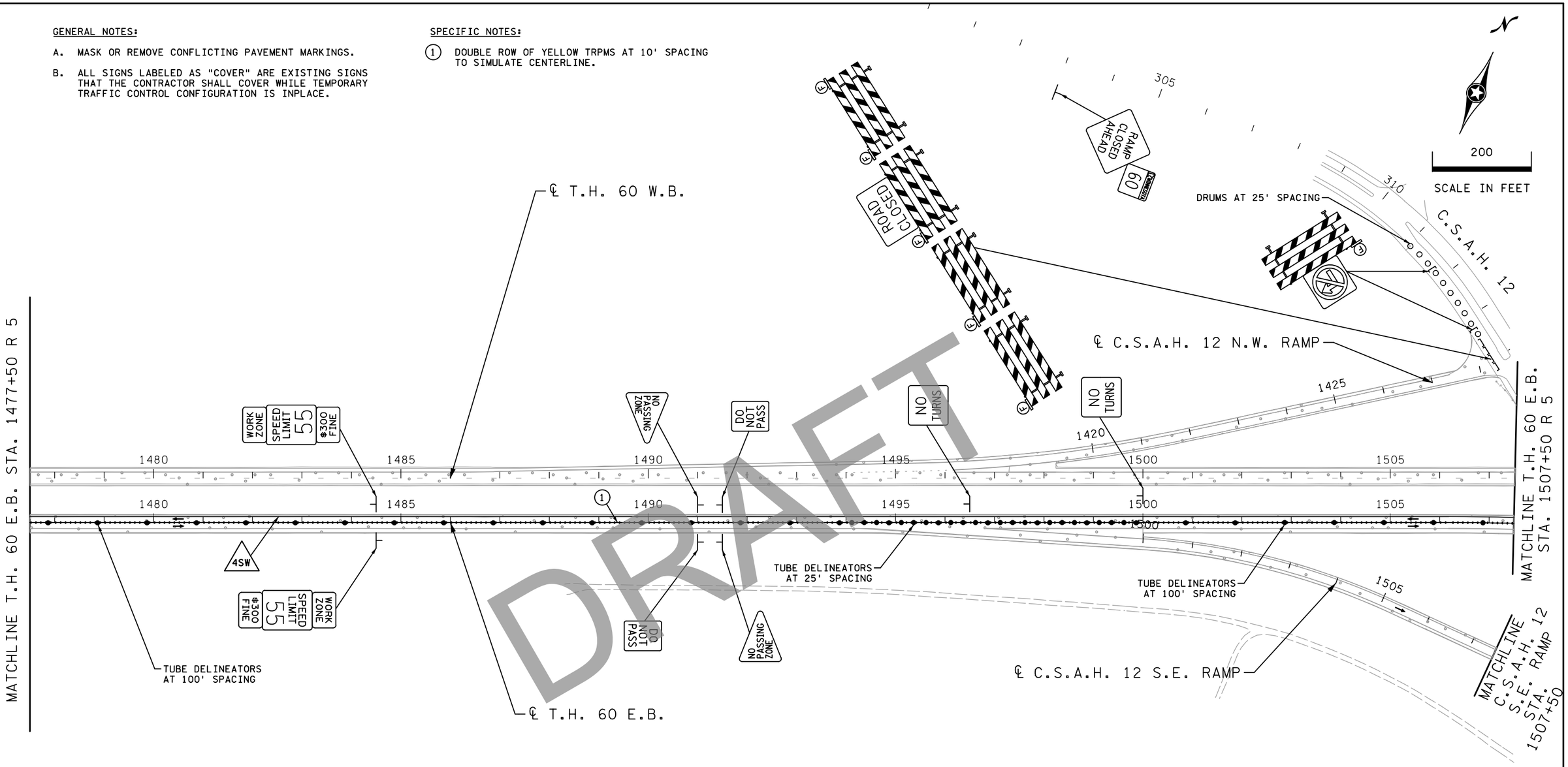
GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT
SIGNATURE:
DATE _____ LICENSE # COPY

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 226 OF 283 SHEETS

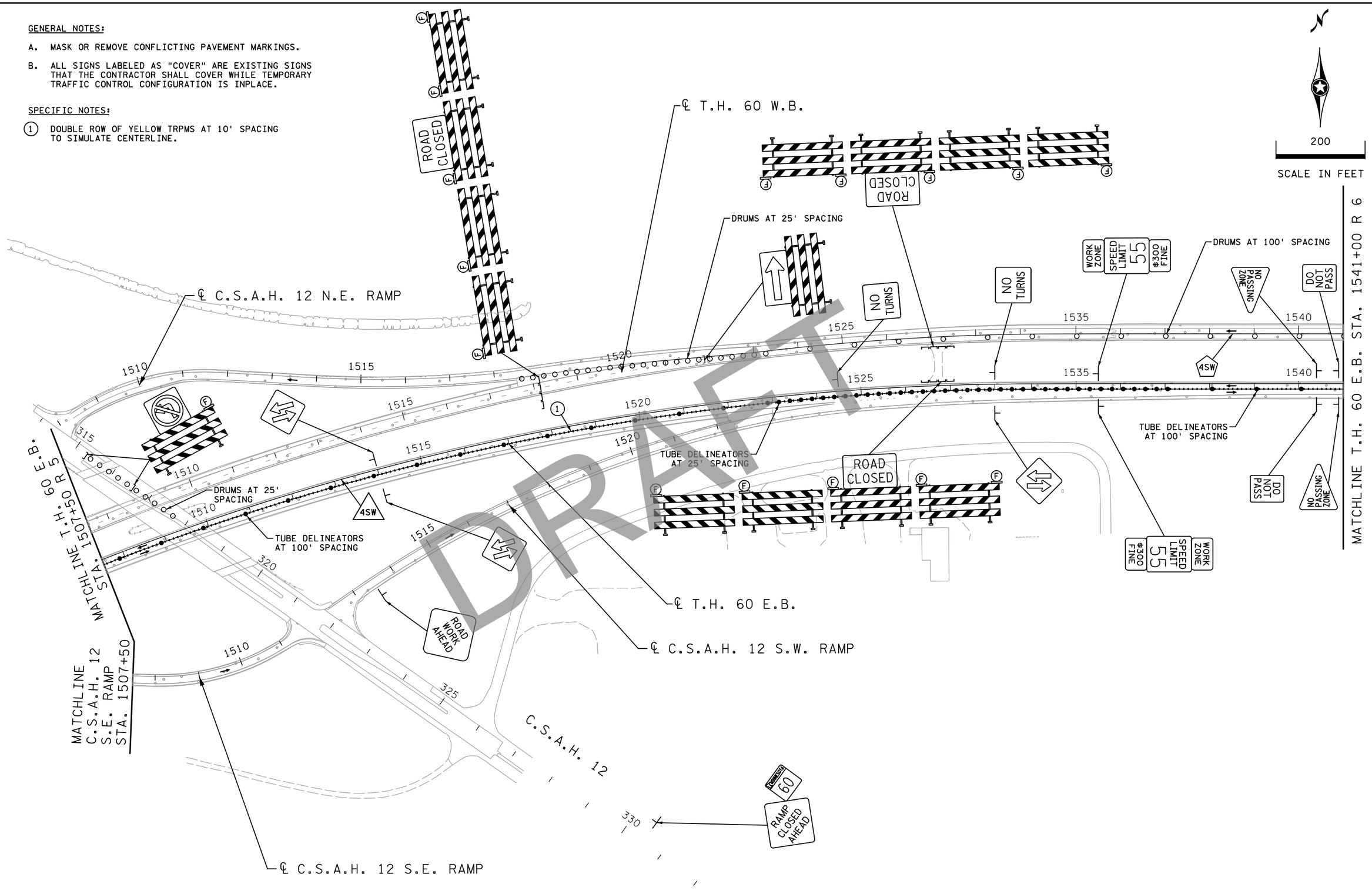
GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.



NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 227 OF 283 SHEETS

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GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

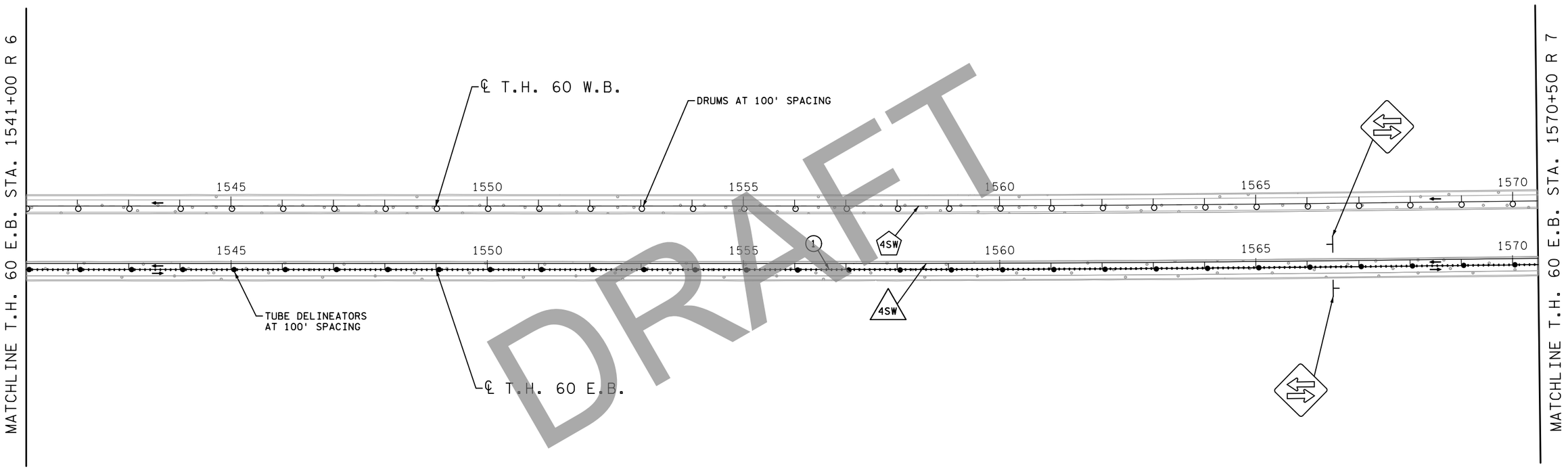
SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

200

SCALE IN FEET



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 228 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

N

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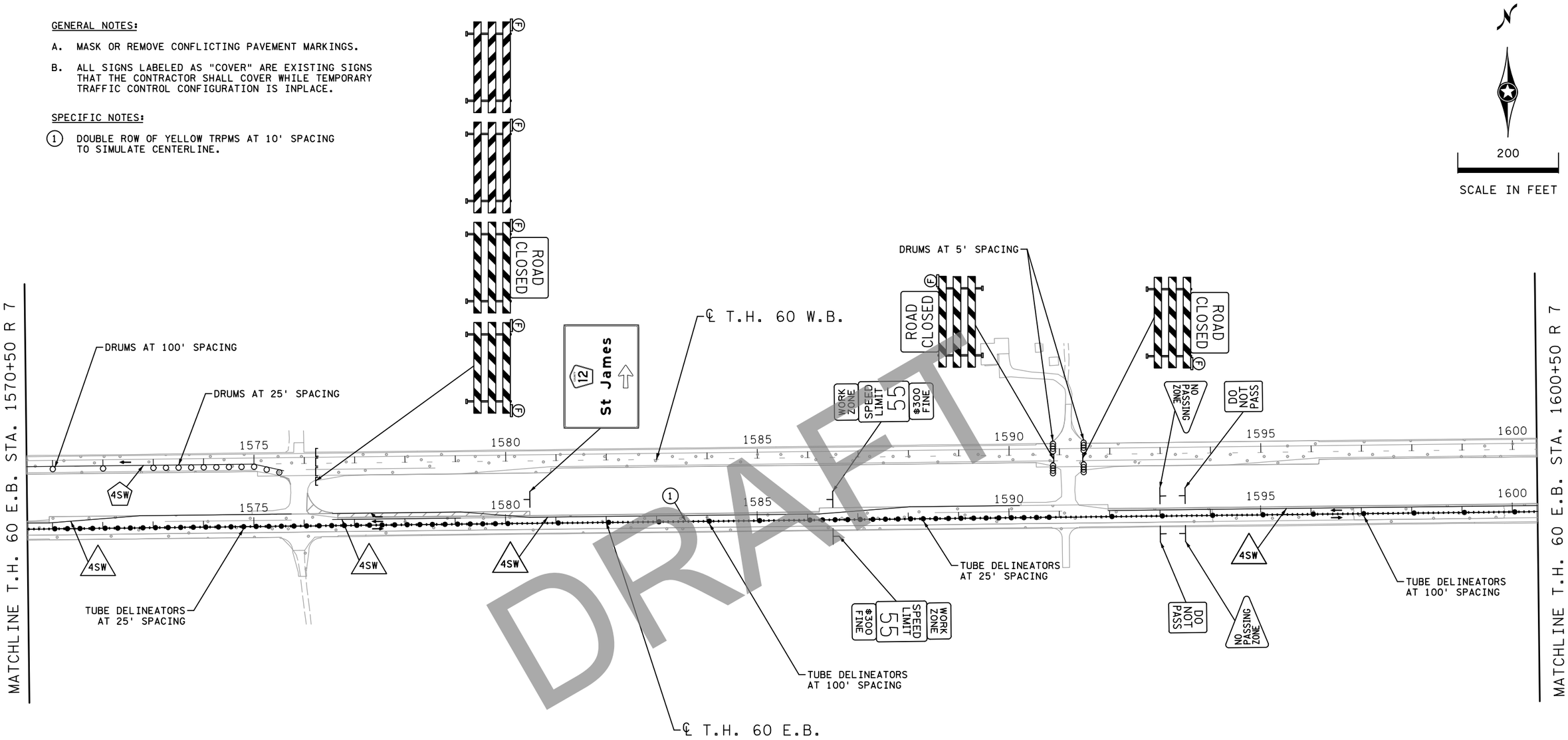
SCALE IN FEET



NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 229 OF 283 SHEETS

9:34:14 PM
11/10/2017
...\Projects\2017\170116\DESIGN\Plan Sheets\cd830952-tc96.dgn

GENERAL NOTES:

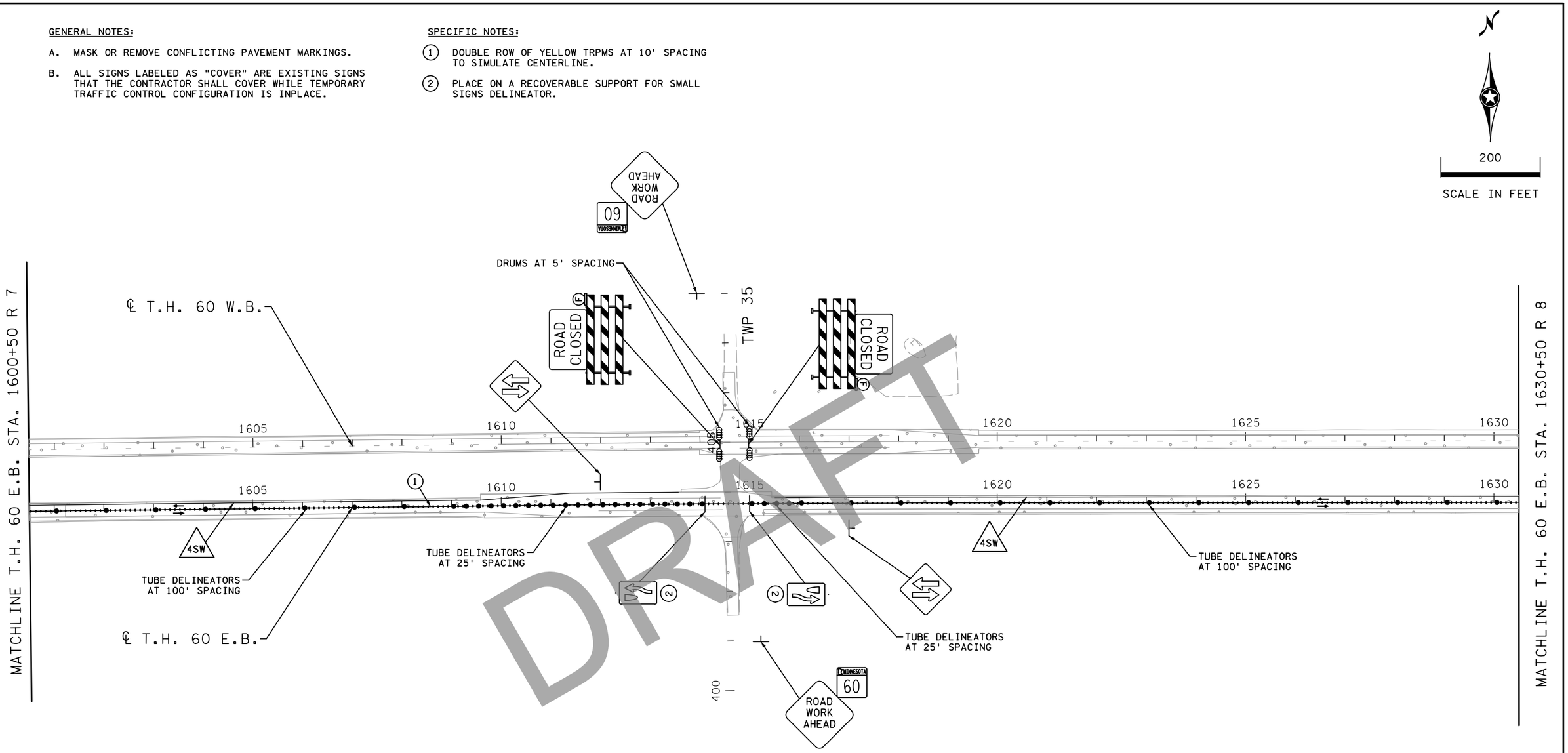
A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.



NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 230 OF 283 SHEETS

9:34:21 PM
11/10/2017
...\Projects\2017\170116\DESIGN\Plan Sheets\cd830952_tc97.dgn

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

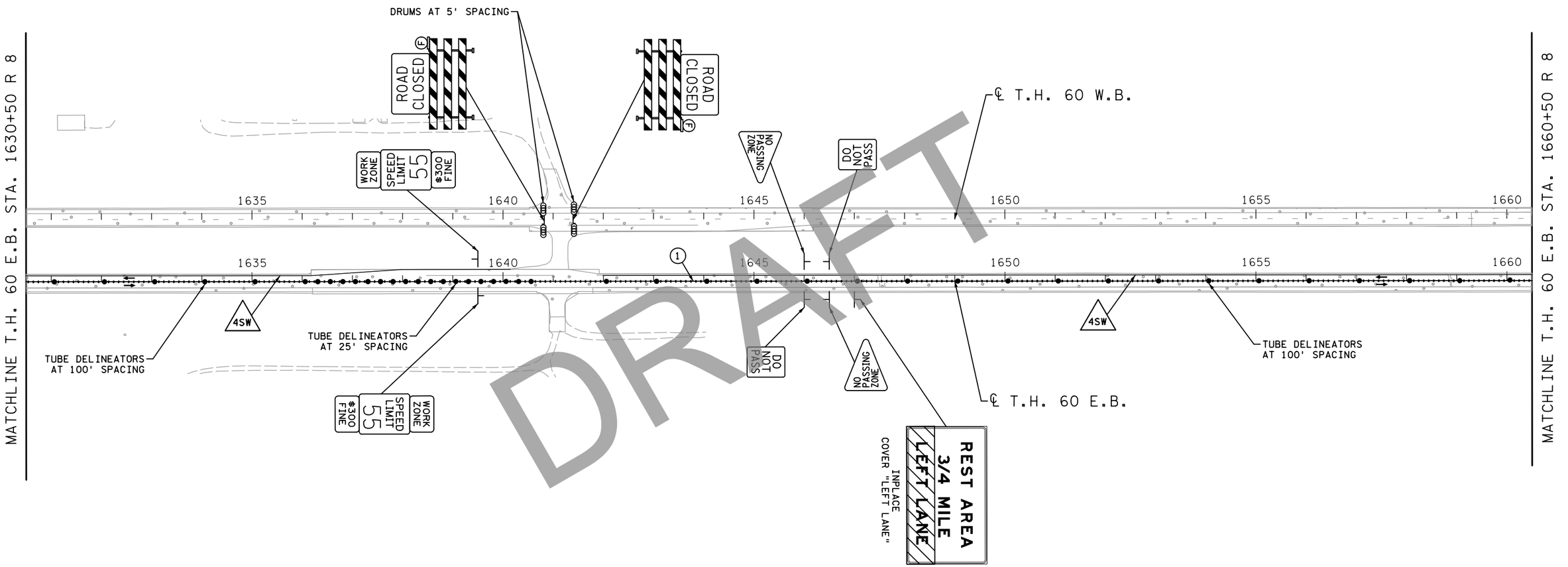
B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

200

SCALE IN FEET



NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 231 OF 283 SHEETS

9:34:28 PM
11/10/2017
...\Projects\2017\170116\DESIGN\Plan Sheets\cd830952_tc98.dgn

GENERAL NOTES:

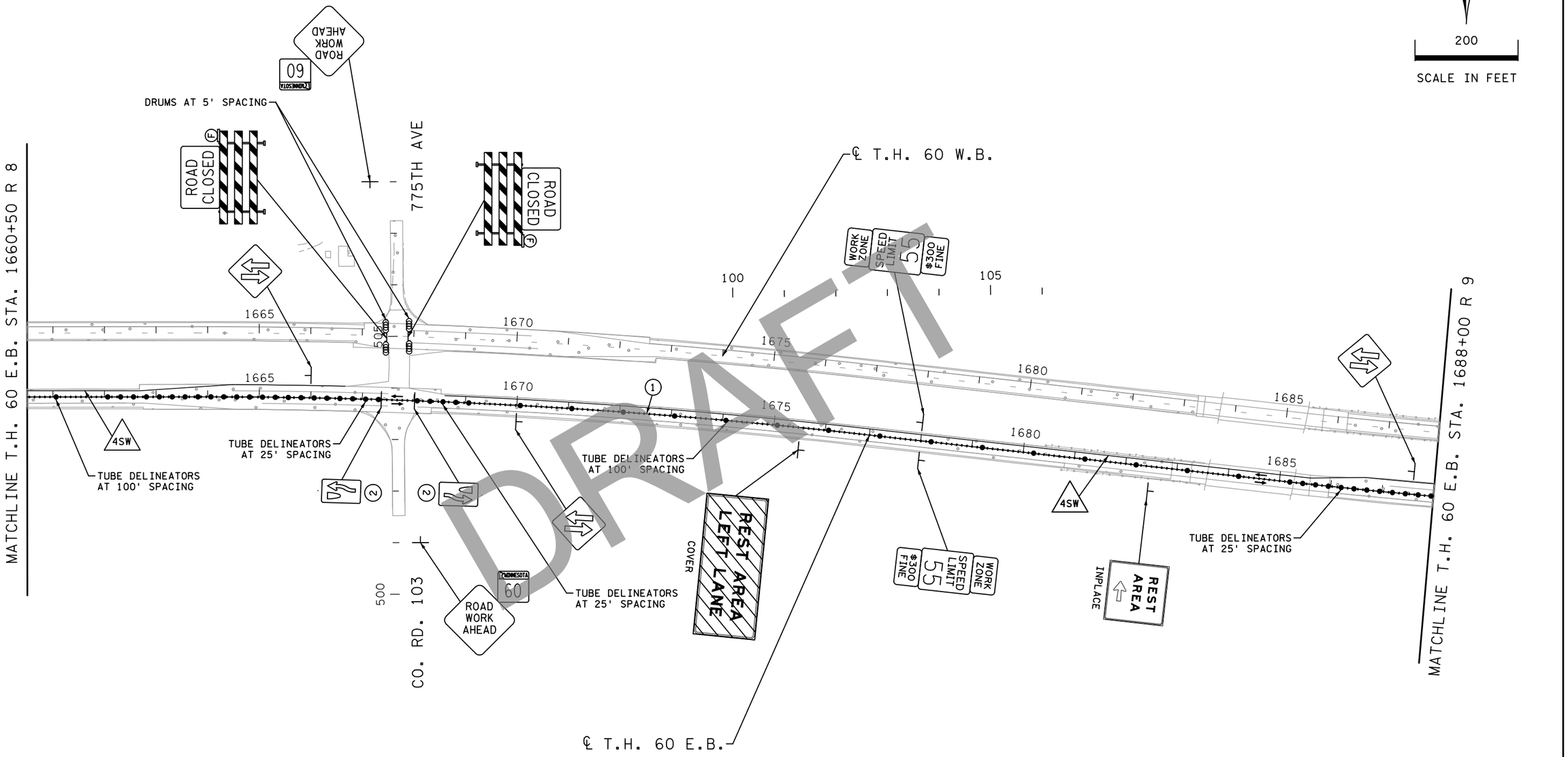
A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)
SHEET NO. 232 OF 283 SHEETS

GENERAL NOTES:

A. MASK OR REMOVE CONFLICTING PAVEMENT MARKINGS.

B. ALL SIGNS LABELED AS "COVER" ARE EXISTING SIGNS THAT THE CONTRACTOR SHALL COVER WHILE TEMPORARY TRAFFIC CONTROL CONFIGURATION IS INPLACE.

SPECIFIC NOTES:

(1) DOUBLE ROW OF YELLOW TRPMS AT 10' SPACING TO SIMULATE CENTERLINE.

(2) PLACE ON A RECOVERABLE SUPPORT FOR SMALL SIGNS DELINEATOR.

(3) OPEN LEFT TURN LANE AFTER COMPLETION OF CONSTRUCTION OF EAST REST AREA ENTRANCE.

(4) REMOVE SIGN AFTER COMPLETION OF CONSTRUCTION OF EAST REST AREA ENTRANCE.

N

200

SCALE IN FEET

XX

MATCHLINE T.H. 60 E.B. STA. 1688+00 R 9

MATCHLINE T.H. 60 E.B. STA. 1718+00 R 10
MATCH INTO STAGE 2 PHASE 1
CONFIGURATION - SEE SHEET

ROAD CLOSED (F)

DRUMS AT 5' SPACING

ROAD CLOSED (F)

REST AREA WZ-10

NO PASSING ZONE

DO NOT PASS

℄ T.H. 60 W.B.

TUBE DELINEATORS AT 25' SPACING

ROAD CLOSED (4) (F)

TURN LANE CLOSED (4)

1000'

1690 1695 1700 1705 1710 1715

4SW 24SY

TUBE DELINEATORS AT 100' SPACING

TUBE DELINEATORS AT 25' SPACING

TUBE DELINEATORS AT 25' SPACING

TURN LANE CLOSED (4)

DO NOT PASS

NO PASSING ZONE

TUBE DELINEATORS AT 25' SPACING

(4) (F)

℄ T.H. 60 E.B.

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...\Projects\2017\170116\DESIGN\Plan Sheets\cd830952_tc100.dgn

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

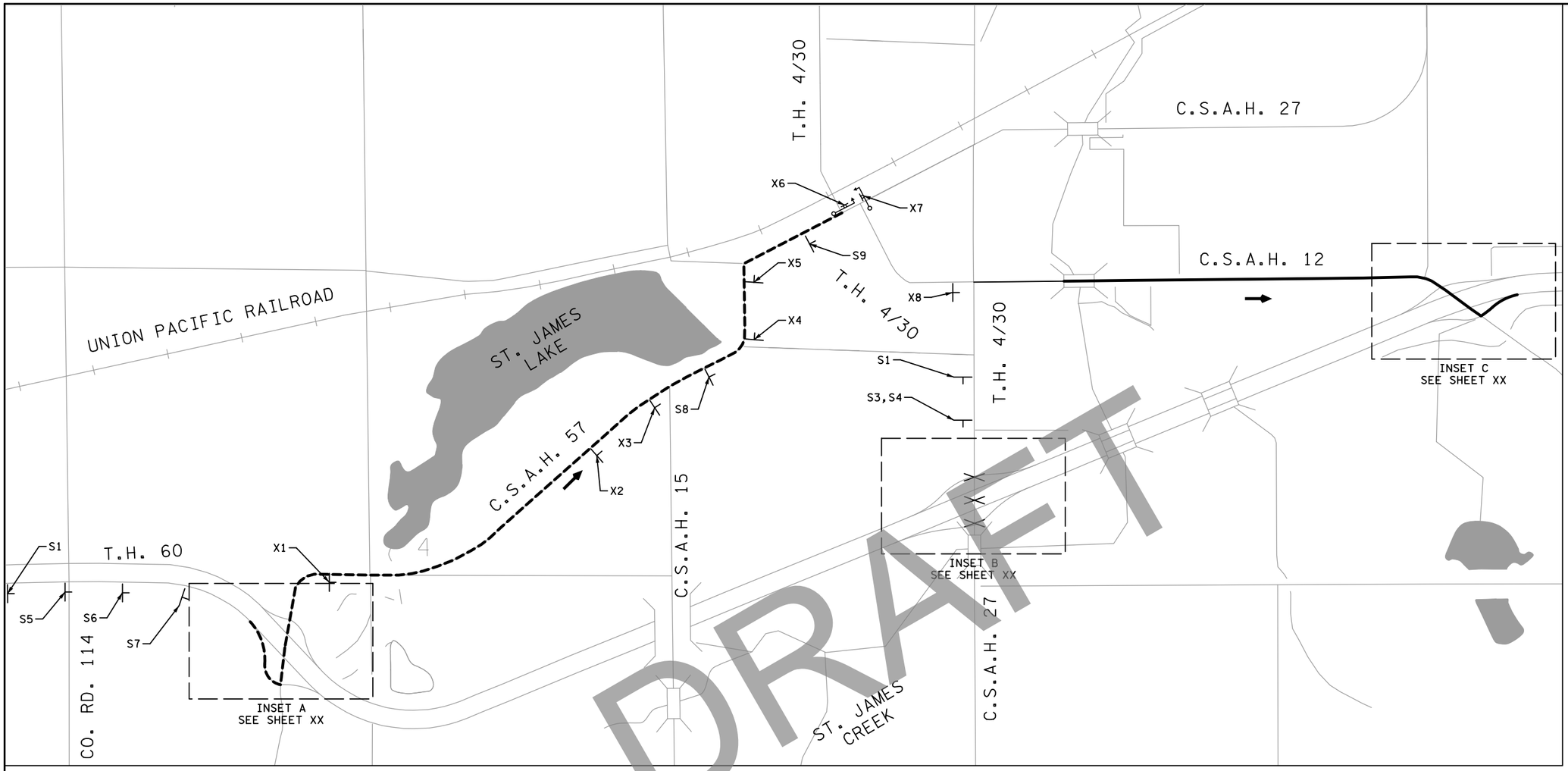
DATE _____ LICENSE #

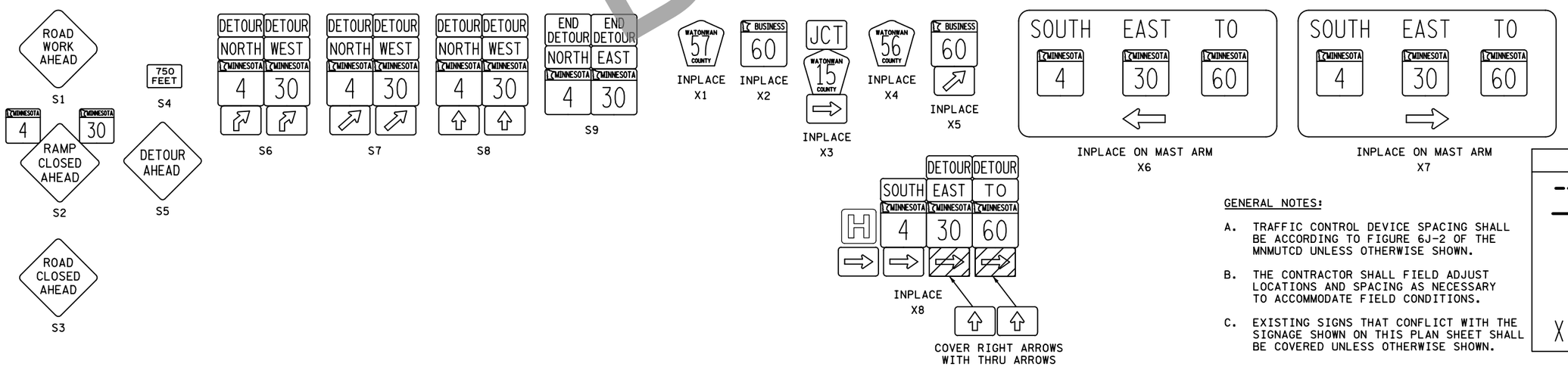
TRAFFIC CONTROL PLAN

STAGE 2 PHASE 2

SP 8309-52 (T.H. 60)

SHEET NO. 233 OF 283 SHEETS





GENERAL NOTES:

A. TRAFFIC CONTROL DEVICE SPACING SHALL BE ACCORDING TO FIGURE 6J-2 OF THE MNMUTCD UNLESS OTHERWISE SHOWN.

B. THE CONTRACTOR SHALL FIELD ADJUST LOCATIONS AND SPACING AS NECESSARY TO ACCOMMODATE FIELD CONDITIONS.

C. EXISTING SIGNS THAT CONFLICT WITH THE SIGNAGE SHOWN ON THIS PLAN SHEET SHALL BE COVERED UNLESS OTHERWISE SHOWN.

LEGEND

- T.H. 4/30 DETOUR ROUTE
- T.H. 60 DETOUR ROUTE
- DETOUR TRAFFIC FLOW
- TYPE 3 BARRICADE(S)
- TEMPORARY TRAFFIC CONTROL SIGN(S)
- X X X CLOSURE LOCATION

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY
SIGNATURE: DRAFT COPY
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 0 DETOUR LAYOUT 1

SP 8309-52 (T.H. 60)
SHEET NO. 234 OF 283 SHEETS

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11/10/2017
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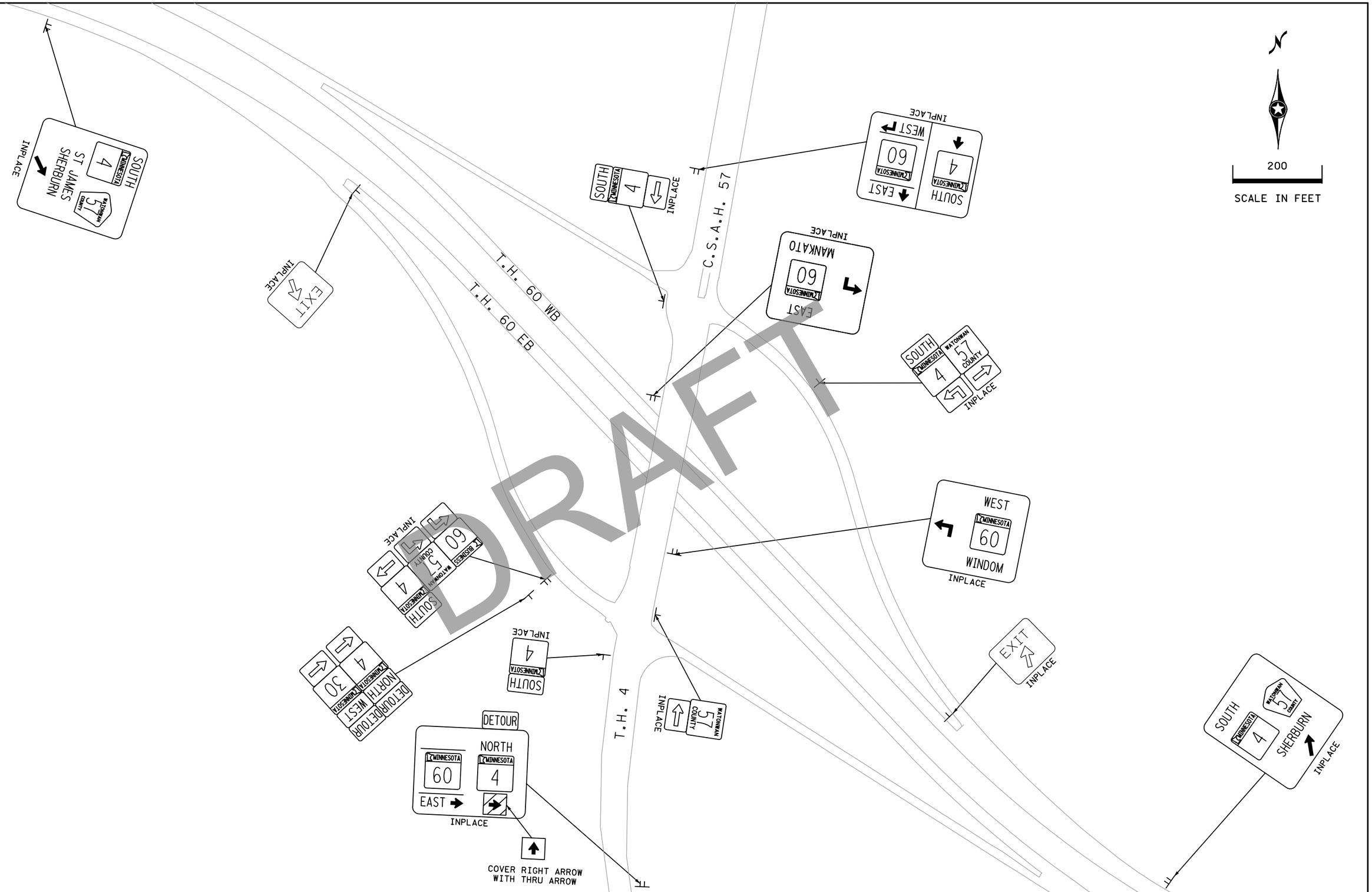

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NO	DATE	DWN	CKD	REVISIONS

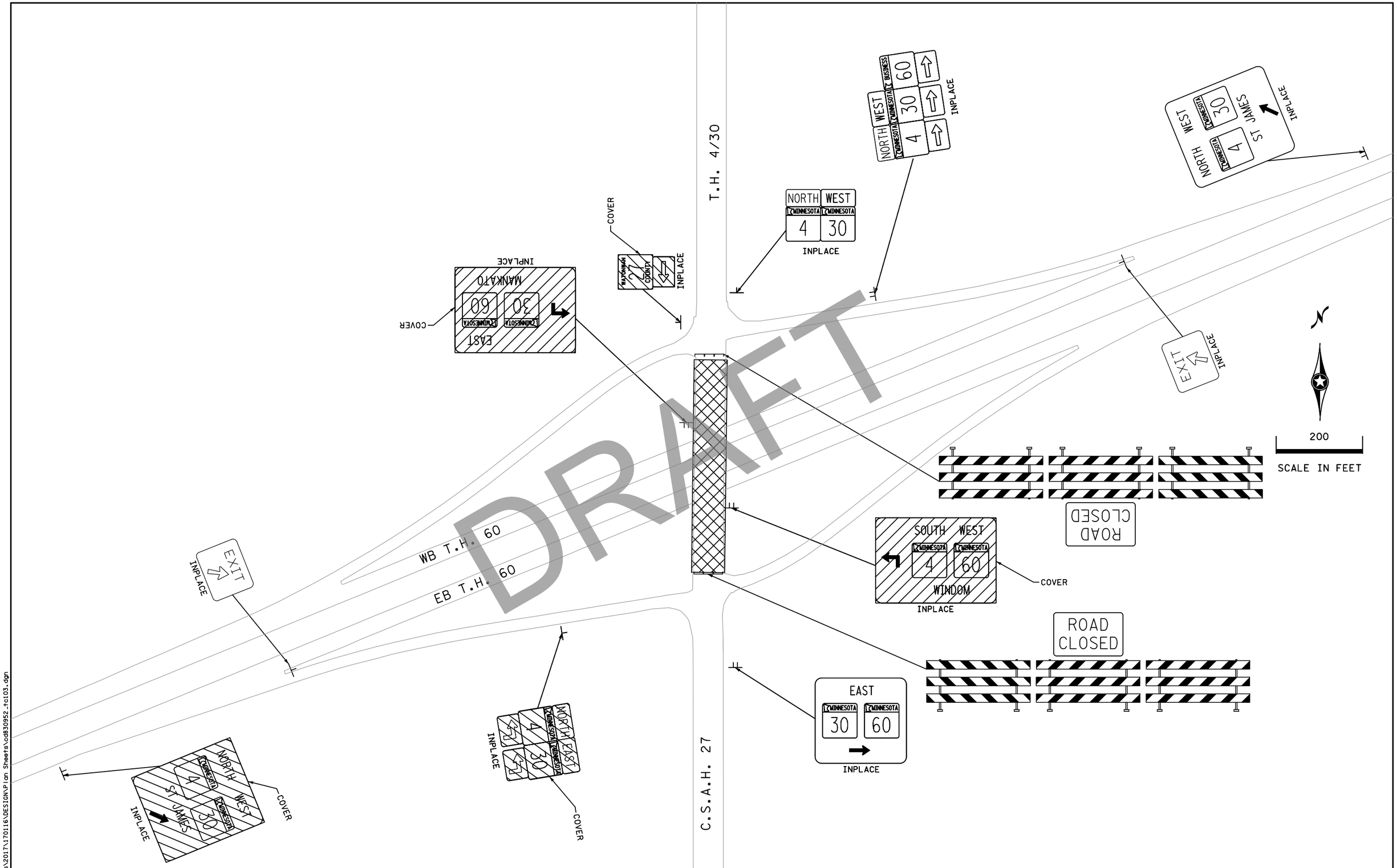
ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 0 INSET A

SP 8309-52 (T.H. 60)
SHEET NO. 235 OF 283 SHEETS



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NO	DATE	DWN	CKD	REVISIONS

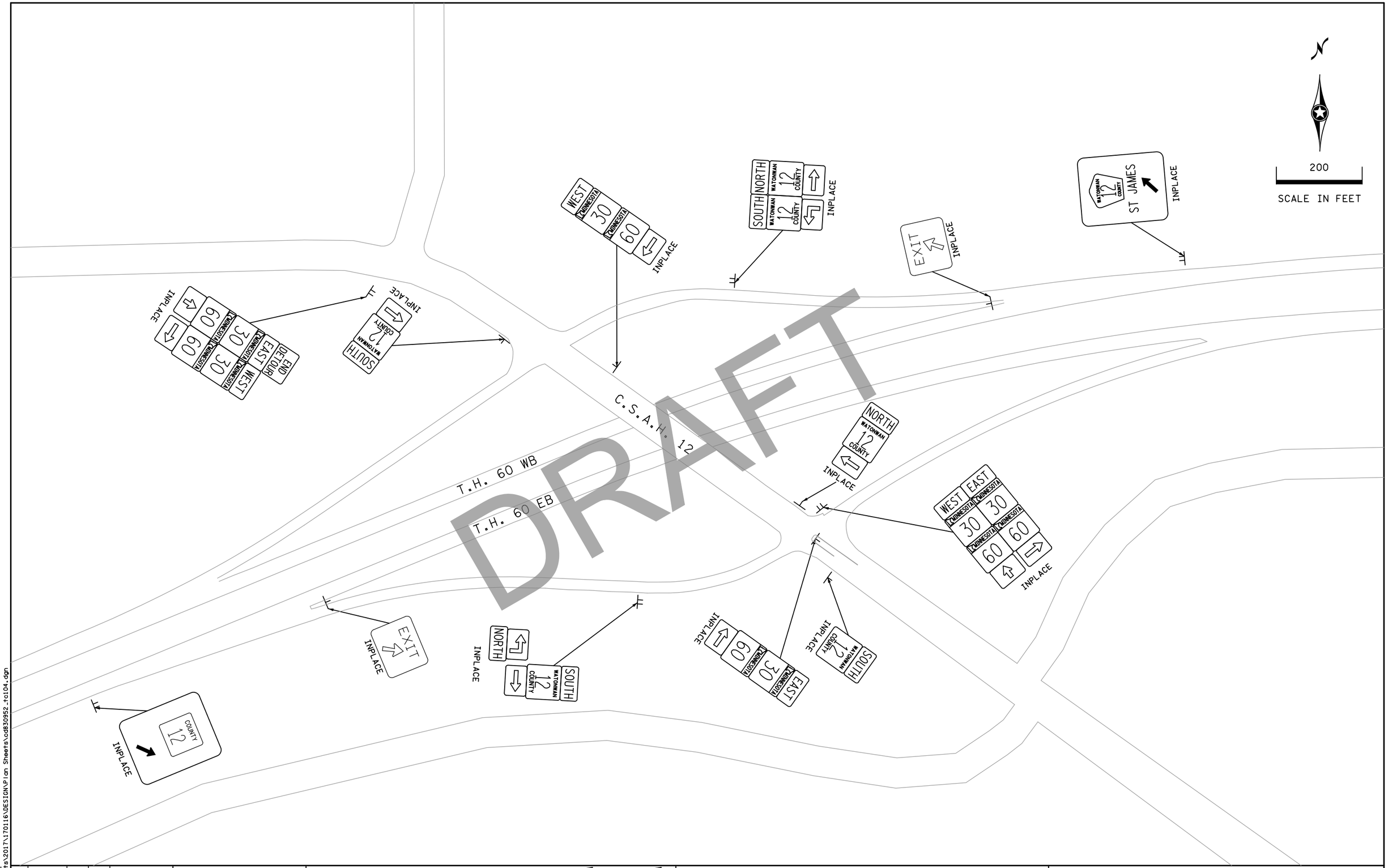
ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY
SIGNATURE: DRAFT COPY
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 0 INSET B

SP 8309-52 (T.H. 60)
SHEET NO. 236 OF 283 SHEETS



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NO	DATE	DWN	CKD	REVISIONS

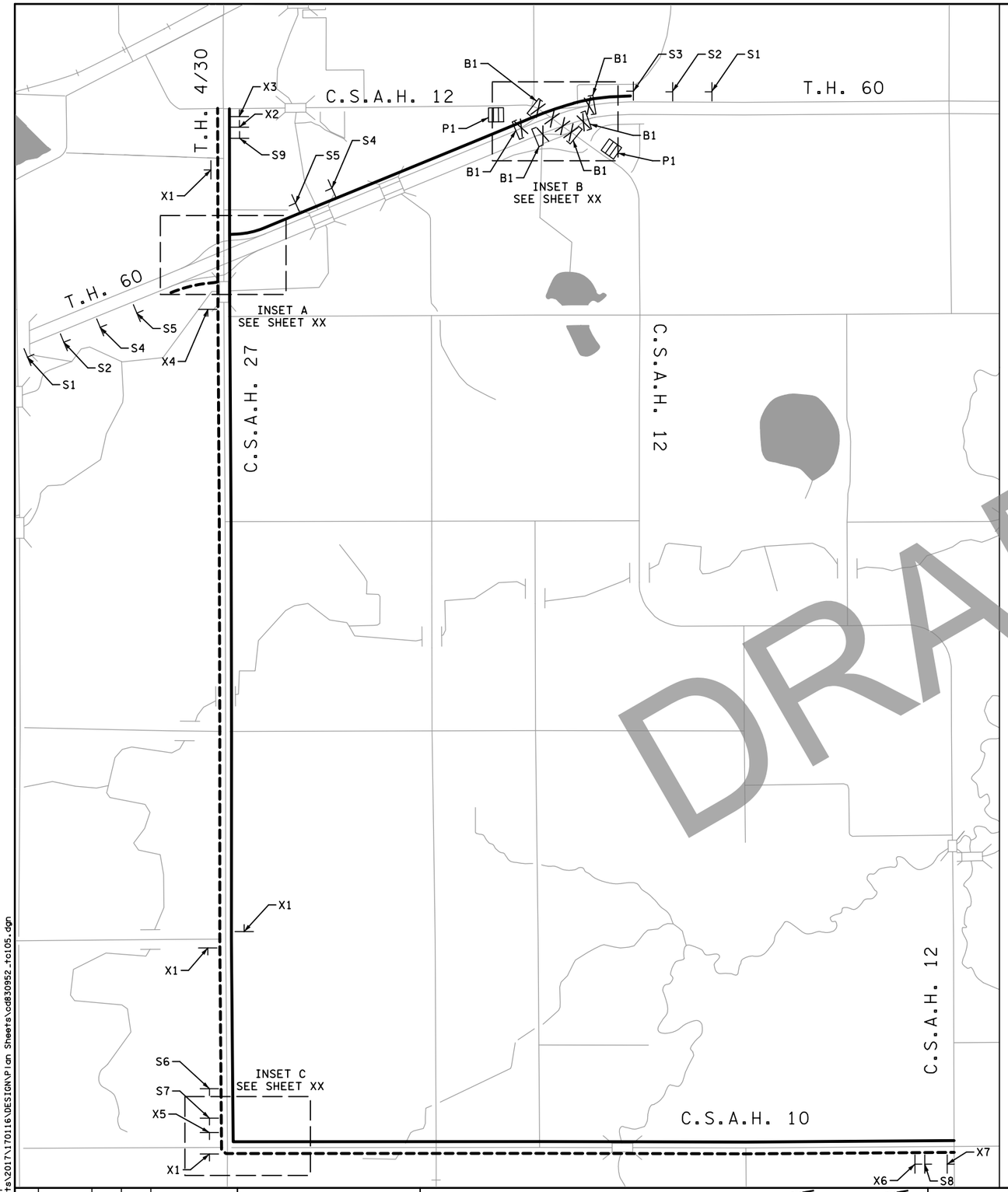
ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 0 INSET C

SP 8309-52 (T.H. 60)
SHEET NO. 237 OF 283 SHEETS



RAMP CLOSED AHEAD
S1

DETOUR AHEAD
WATONWAN 12 COUNTY
S2

N

3000
SCALE IN FEET

DETOUR NORTH WANTONWAN 12 COUNTY
DETOUR SOUTH WANTONWAN 12 COUNTY
S3

DETOUR NORTH WANTONWAN 12 COUNTY
DETOUR SOUTH WANTONWAN 12 COUNTY
S4

DETOUR NORTH WANTONWAN 12 COUNTY
DETOUR SOUTH WANTONWAN 12 COUNTY
S5

DETOUR SOUTH WANTONWAN 12 COUNTY
S6

DETOUR SOUTH WANTONWAN 12 COUNTY
S7

END DETOUR SOUTH WANTONWAN 12 COUNTY
S8

END DETOUR NORTH WANTONWAN 12 COUNTY
S9

WATONWAN 27 COUNTY
INPLACE X1

NORTH BUSINESS 4 | WEST BUSINESS 30
INPLACE X2

BUSINESS 60
INPLACE X3

SOUTH WATONWAN 27 COUNTY
INPLACE X4

WATONWAN 10 COUNTY
INPLACE X5

WATONWAN 12 COUNTY
INPLACE X6

WATONWAN 12 COUNTY
INPLACE X7

MN 12 CLOSED AT MN 60 ↔ STARTING MON DY

P1
PLACE PCMS A MINIMUM OF
7 DAYS PRIOR TO CLOSURE
OF INTERSECTION

ROAD CLOSED

B1

GENERAL NOTES:

A. TRAFFIC CONTROL DEVICE SPACING SHALL BE ACCORDING TO FIGURE 6J-2 OF THE MNMUTCD UNLESS OTHERWISE SHOWN.

B. THE CONTRACTOR SHALL FIELD ADJUST LOCATIONS AND SPACING AS NECESSARY TO ACCOMMODATE FIELD CONDITIONS.

C. EXISTING SIGNS THAT CONFLICT WITH THE SIGNAGE SHOWN ON THIS PLAN SHEET SHALL BE COVERED UNLESS OTHERWISE SHOWN.

LEGEND

- EB T.H. 60 DETOUR ROUTE
- WB T.H. 60 DETOUR ROUTE
- DETOUR TRAFFIC FLOW
- TYPE 3 BARRICADE(S)
- TEMPORARY TRAFFIC CONTROL SIGN(S)
- PCMS
- CLOSURE LOCATION

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 0 DETOUR LAYOUT 2

SP 8309-52 (T.H. 60)
SHEET NO. 238 OF 283 SHEETS

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11/10/2017
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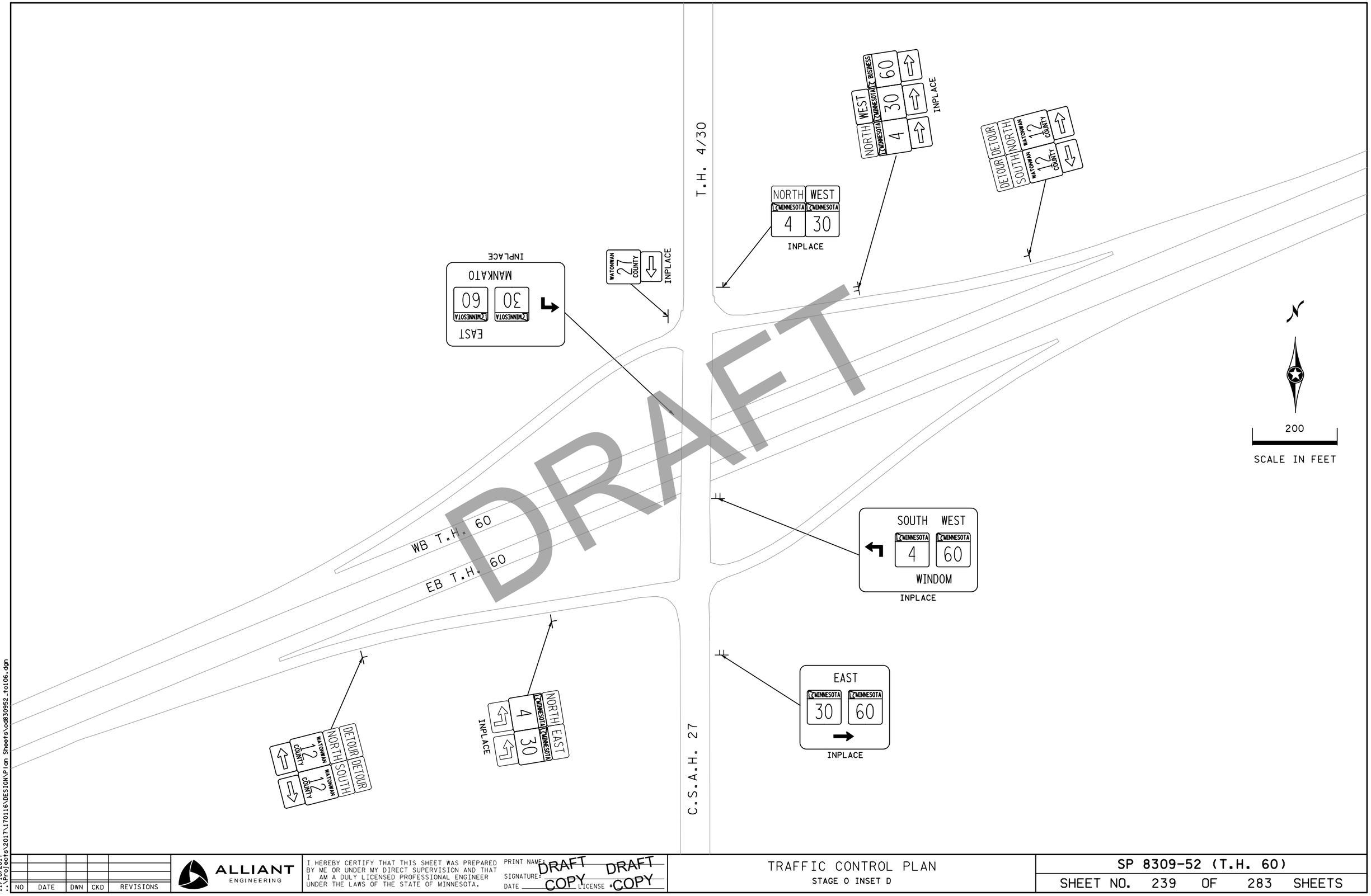

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 0 INSET D

SP 8309-52 (T.H. 60)
SHEET NO. 239 OF 283 SHEETS

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11/10/2017
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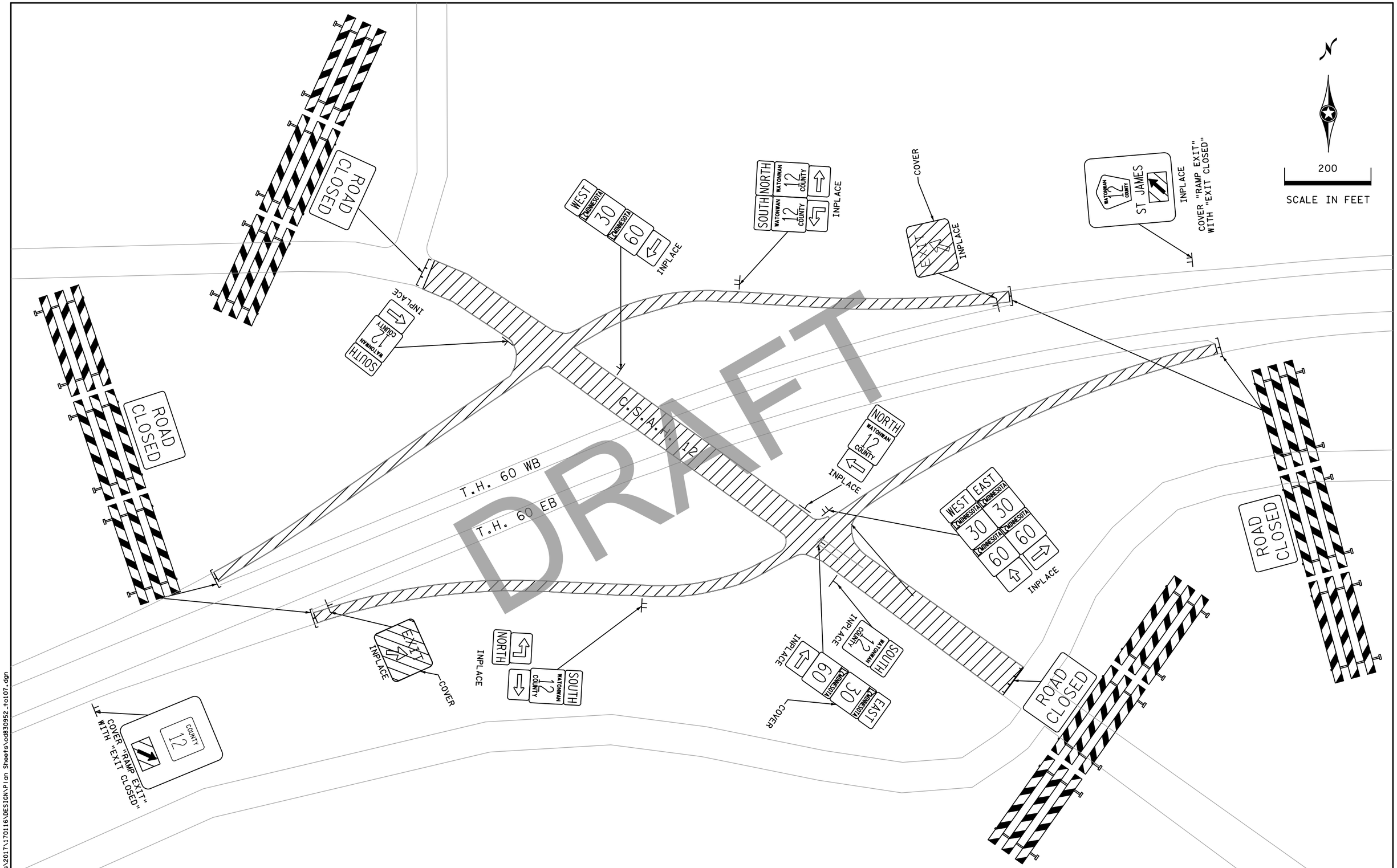

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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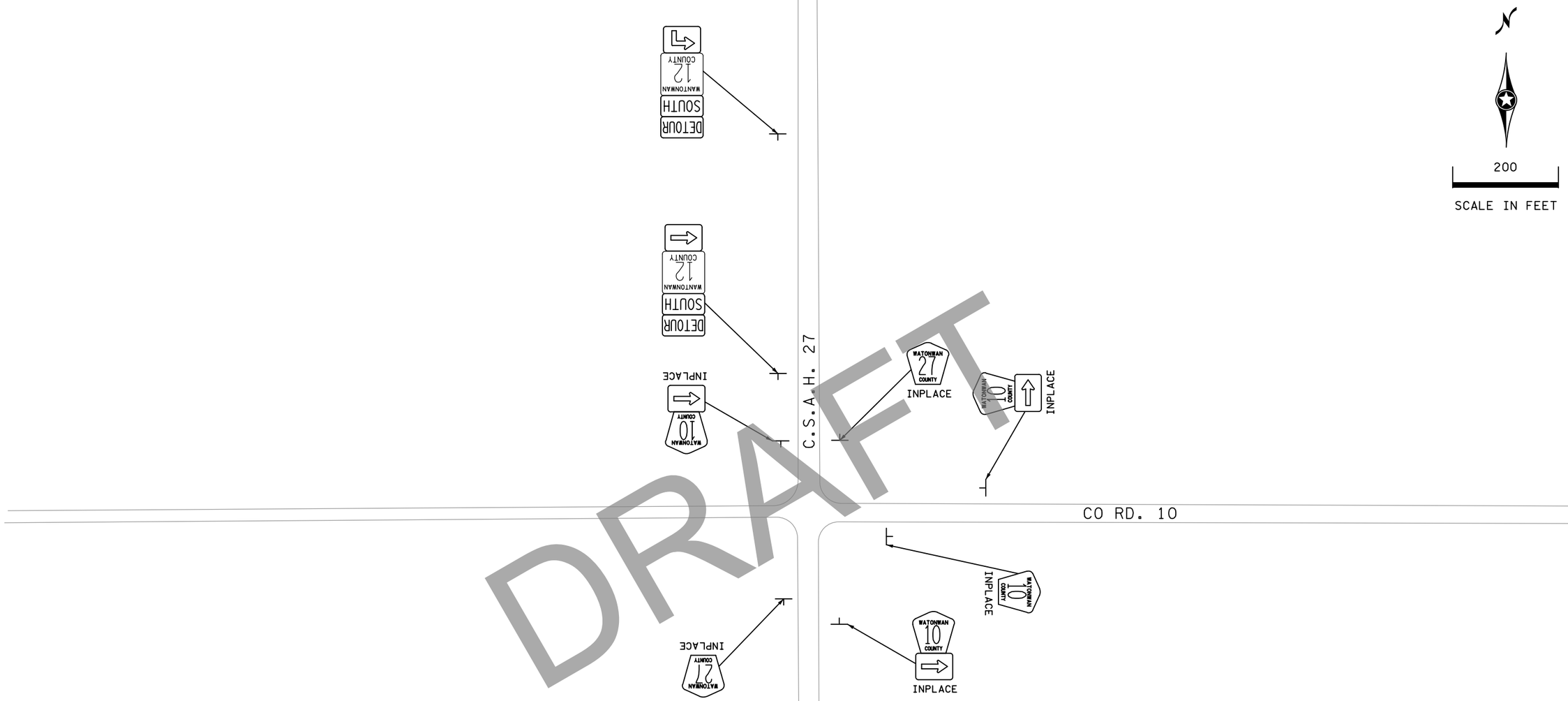
PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 0 INSET E

SP 8309-52 (T.H. 60)
SHEET NO. 240 OF 283 SHEETS



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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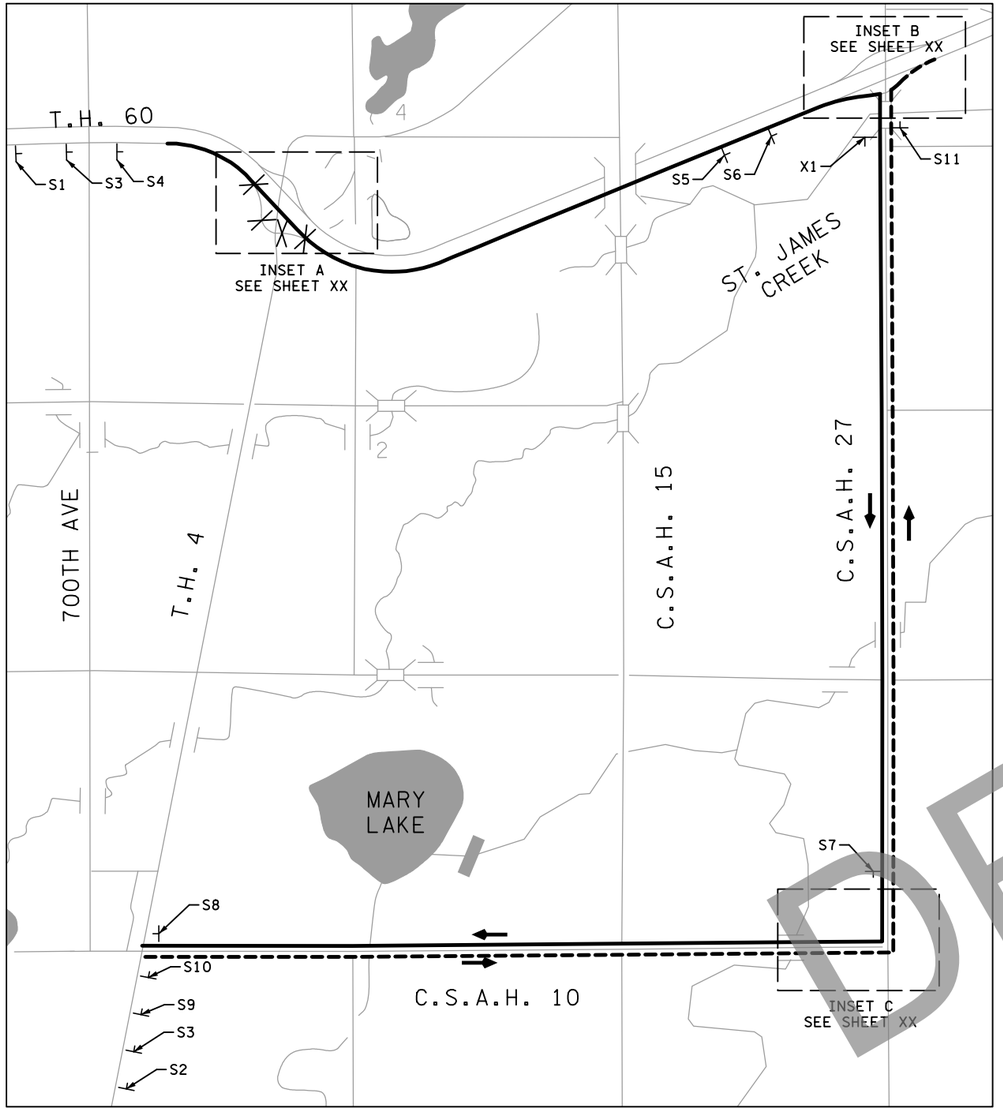
PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 0 INSET F

SP 8309-52 (T.H. 60)
SHEET NO. 241 OF 283 SHEETS



3000

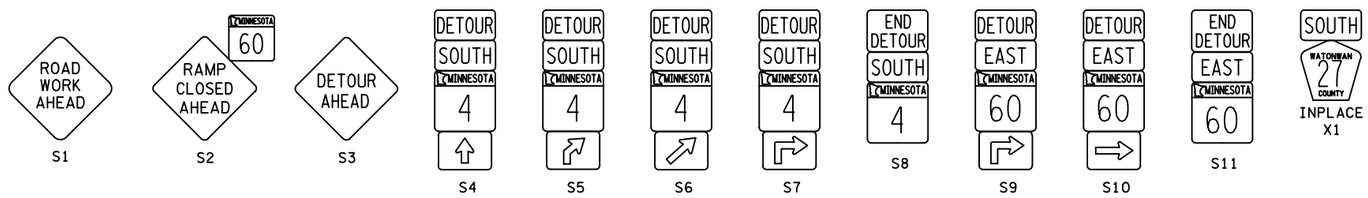
SCALE IN FEET

GENERAL NOTES:

A. TRAFFIC CONTROL DEVICE SPACING SHALL BE ACCORDING TO FIGURE 6J-2 OF THE MNMUTCD UNLESS OTHERWISE SHOWN.

B. THE CONTRACTOR SHALL FIELD ADJUST LOCATIONS AND SPACING AS NECESSARY TO ACCOMMODATE FIELD CONDITIONS.

C. EXISTING SIGNS THAT CONFLICT WITH THE SIGNAGE SHOWN ON THIS PLAN SHEET SHALL BE COVERED UNLESS OTHERWISE SHOWN.



LEGEND

- EB T.H. 60 DETOUR ROUTE
- SB T.H. 4 DETOUR ROUTE
- DETOUR TRAFFIC FLOW
- TEMPORARY TRAFFIC CONTROL SIGN(S)
- X X X CLOSURE LOCATION

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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PRINT NAME: DRAFT COPY DRAFT COPY

SIGNATURE:

DATE _____ LICENSE #

TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1 DETOUR LAYOUT 1

SP 8309-52 (T.H. 60)

SHEET NO. 242 OF 283 SHEETS

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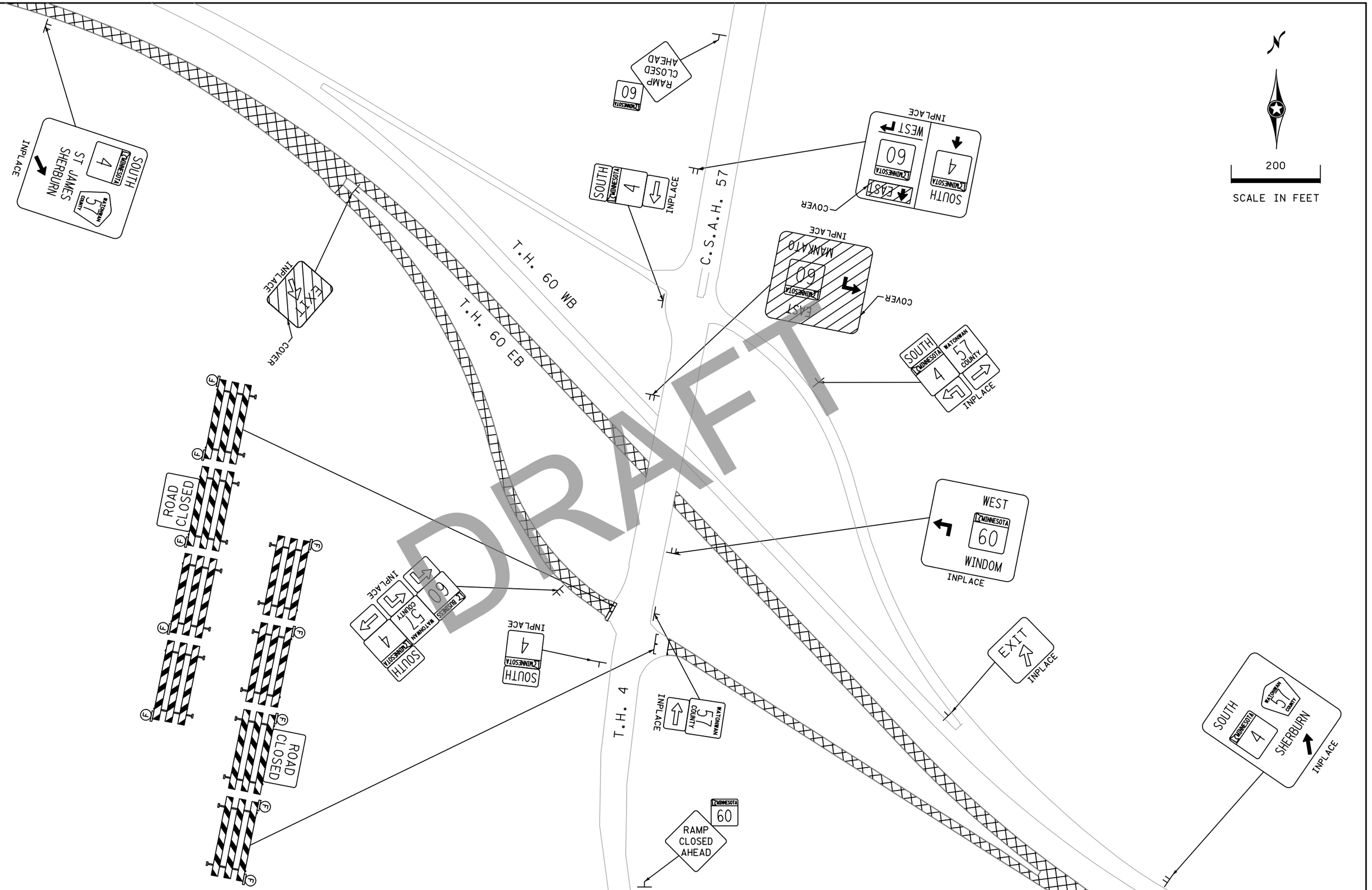
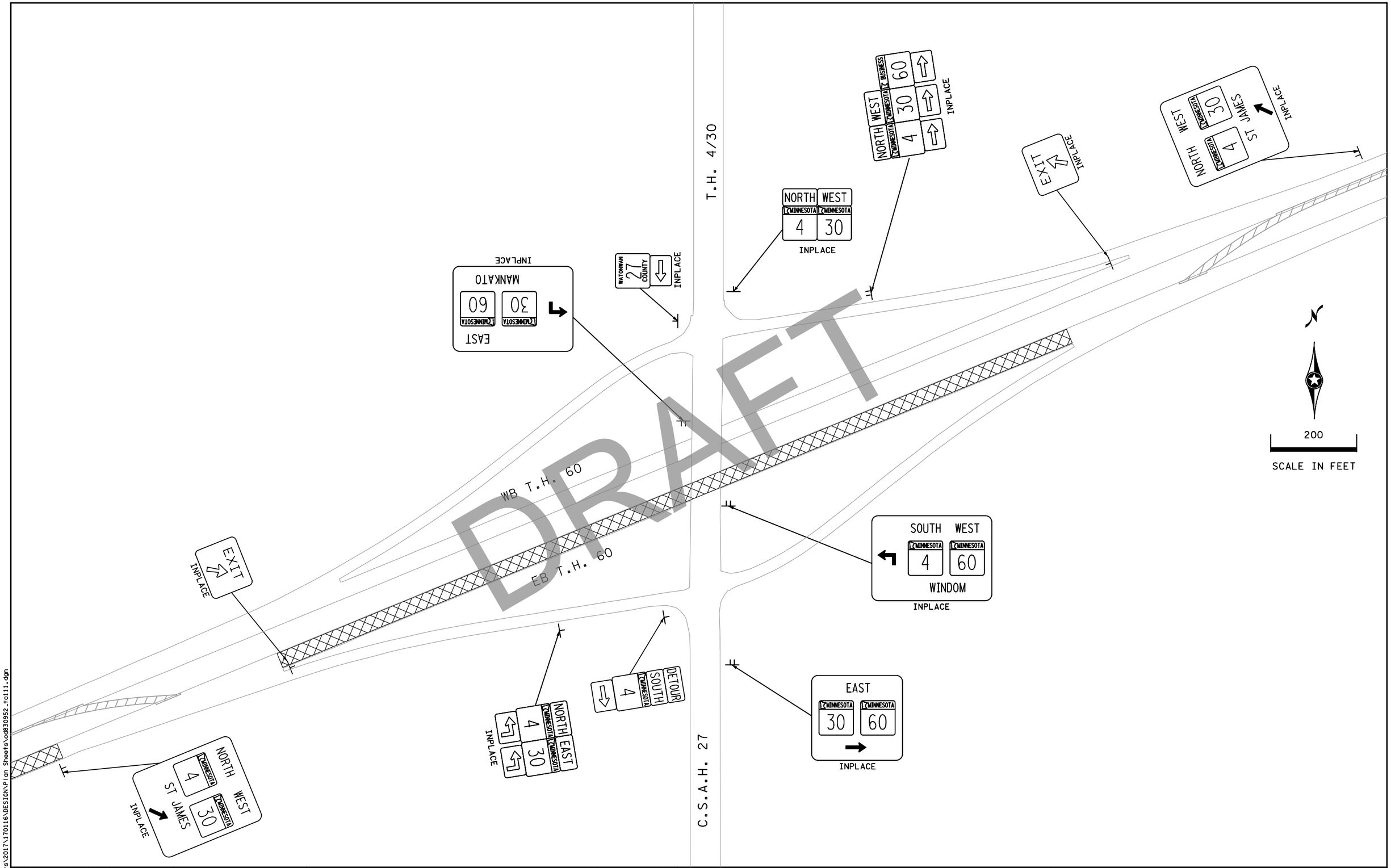

N
200
SCALE IN FEET
T.H. 60 WB
T.H. 60 EB
C.S.A.H. 57
T.H. 4
SOUTH
MINNESOTA
4
ST JAMES
SHERBURN
WATONWAN
57
COUNTY
INPLACE
EXIT
COVER
RAMP
CLOSED
AHEAD
60
WEST
WINDOM
MANKATO
EAST
ROAD
CLOSED
BUSINESS
DRAFT



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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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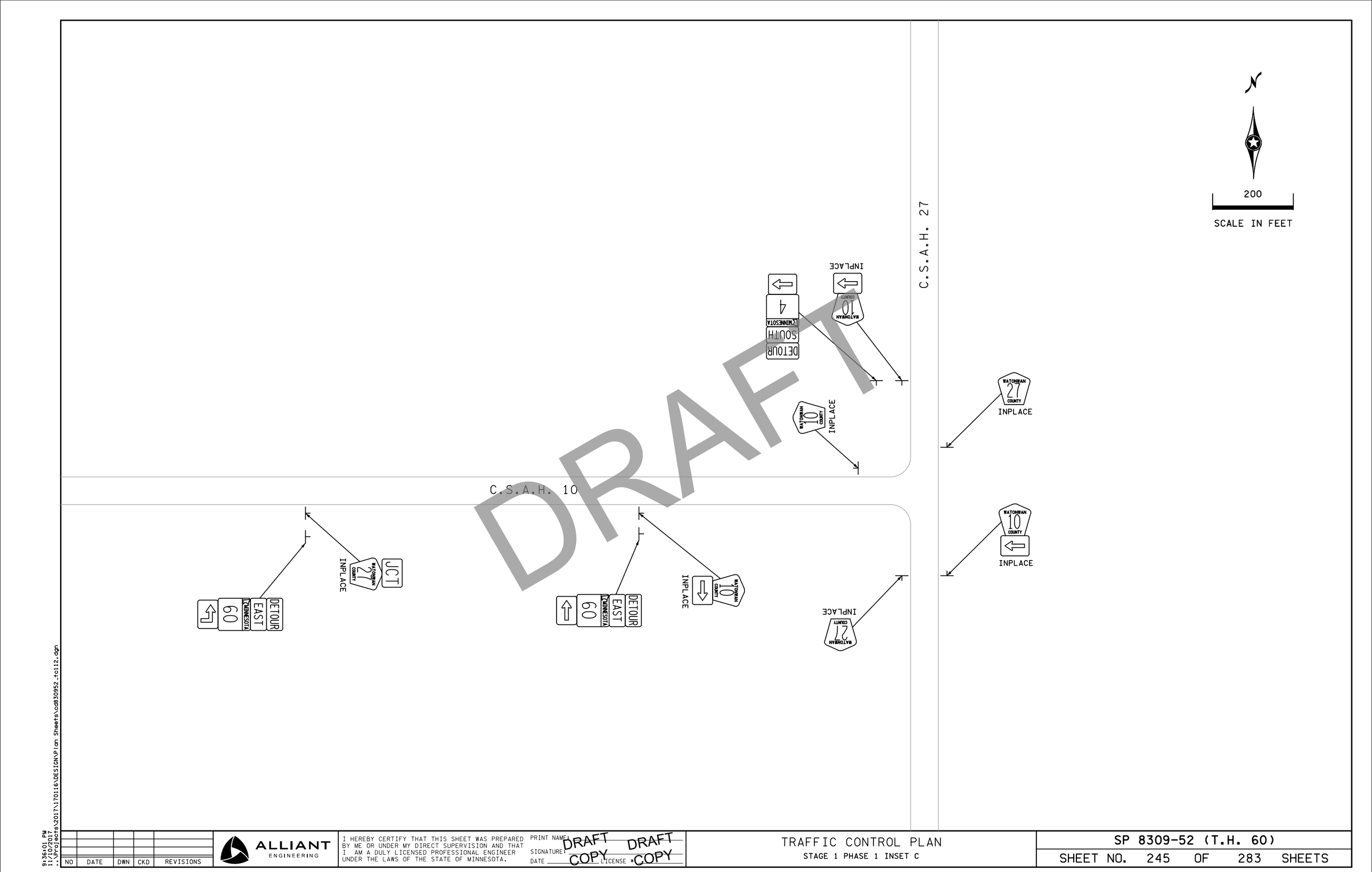
PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1 INSET B

SP 8309-52 (T.H. 60)
SHEET NO. 244 OF 283 SHEETS



NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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PRINT NAME: DRAFT COPY DRAFT COPY
SIGNATURE:
DATE _____ LICENSE #

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1 INSET C

SP 8309-52 (T.H. 60)
SHEET NO. 245 OF 283 SHEETS

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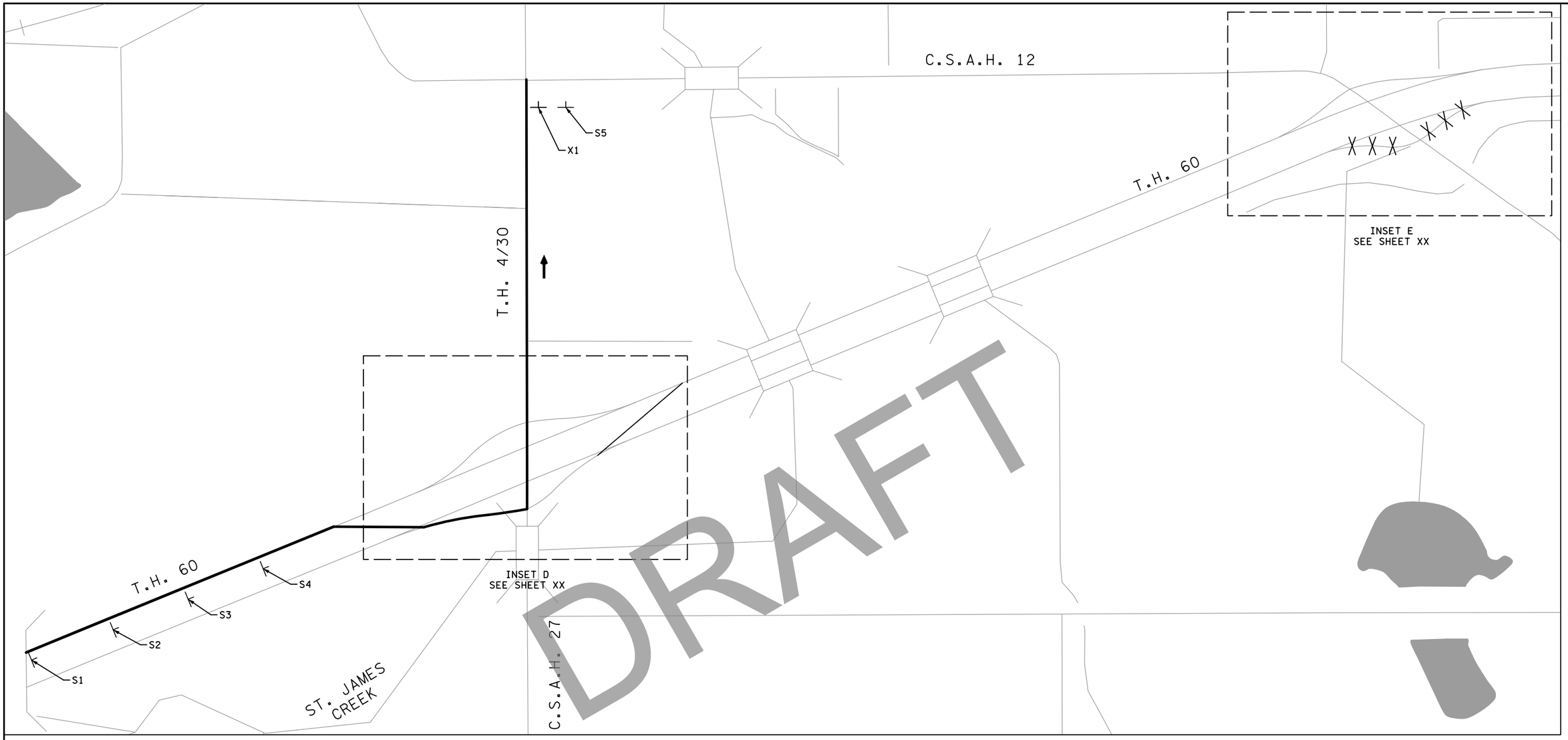
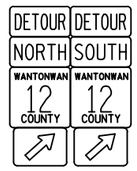


S1

S2

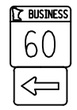
S3

S4



S5

X1



GENERAL NOTES:

A. TRAFFIC CONTROL DEVICE SPACING SHALL BE ACCORDING TO FIGURE 6J-2 OF THE MNMUTCD UNLESS OTHERWISE SHOWN.

B. THE CONTRACTOR SHALL FIELD ADJUST LOCATIONS AND SPACING AS NECESSARY TO ACCOMMODATE FIELD CONDITIONS.

C. EXISTING SIGNS THAT CONFLICT WITH THE SIGNAGE SHOWN ON THIS PLAN SHEET SHALL BE COVERED UNLESS OTHERWISE SHOWN.

LEGEND

- C.S.A.H. 12 DETOUR ROUTE
- DETOUR TRAFFIC FLOW
- TEMPORARY TRAFFIC CONTROL SIGN(S)
- X X X CLOSURE LOCATION

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: DRAFT
SIGNATURE: COPY
DATE _____ LICENSE # DRAFT COPY

TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1 LAYOUT 2

SP 8309-52 (T.H. 60)
SHEET NO. 246 OF 283 SHEETS

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11/10/2017
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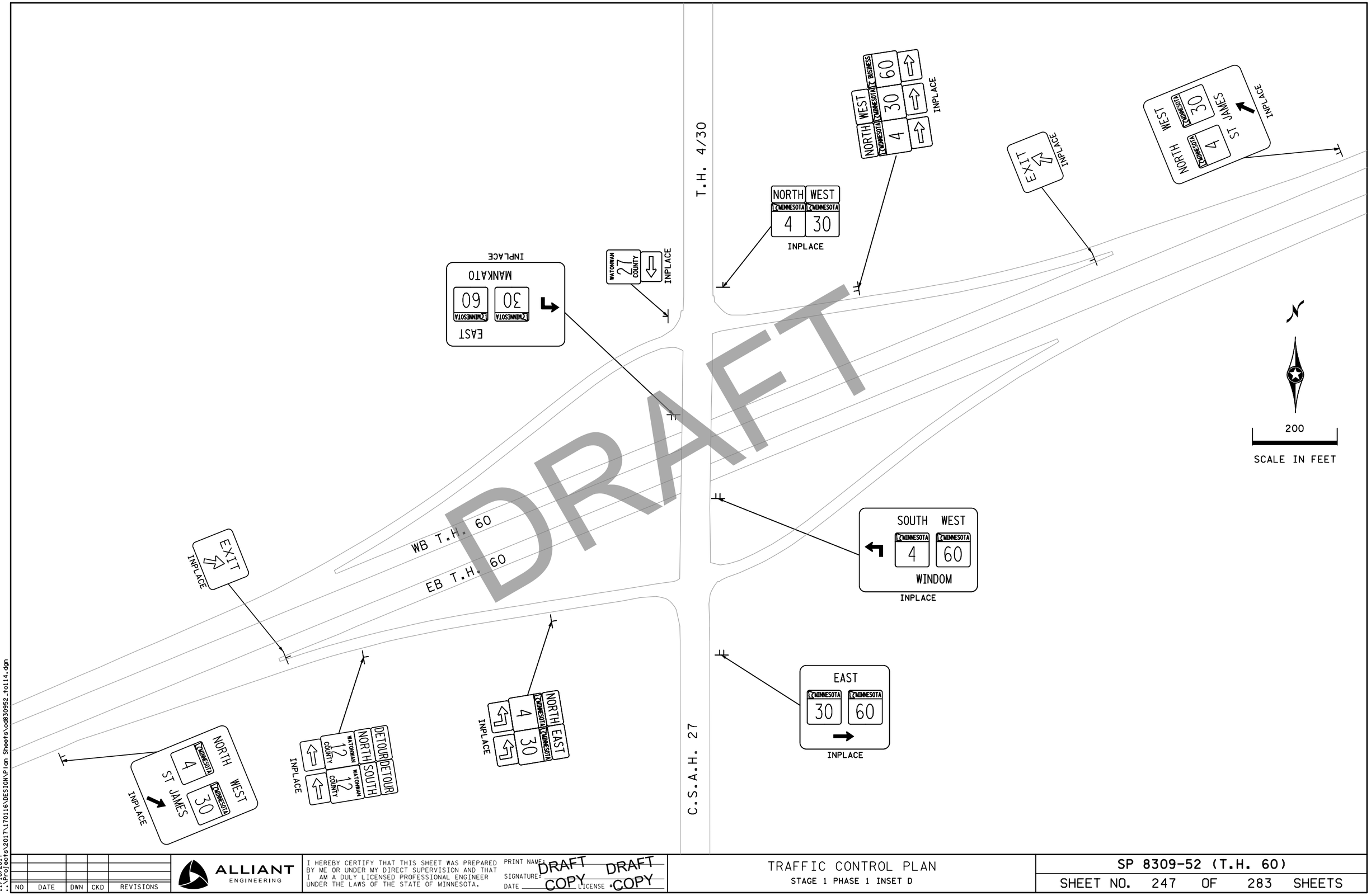

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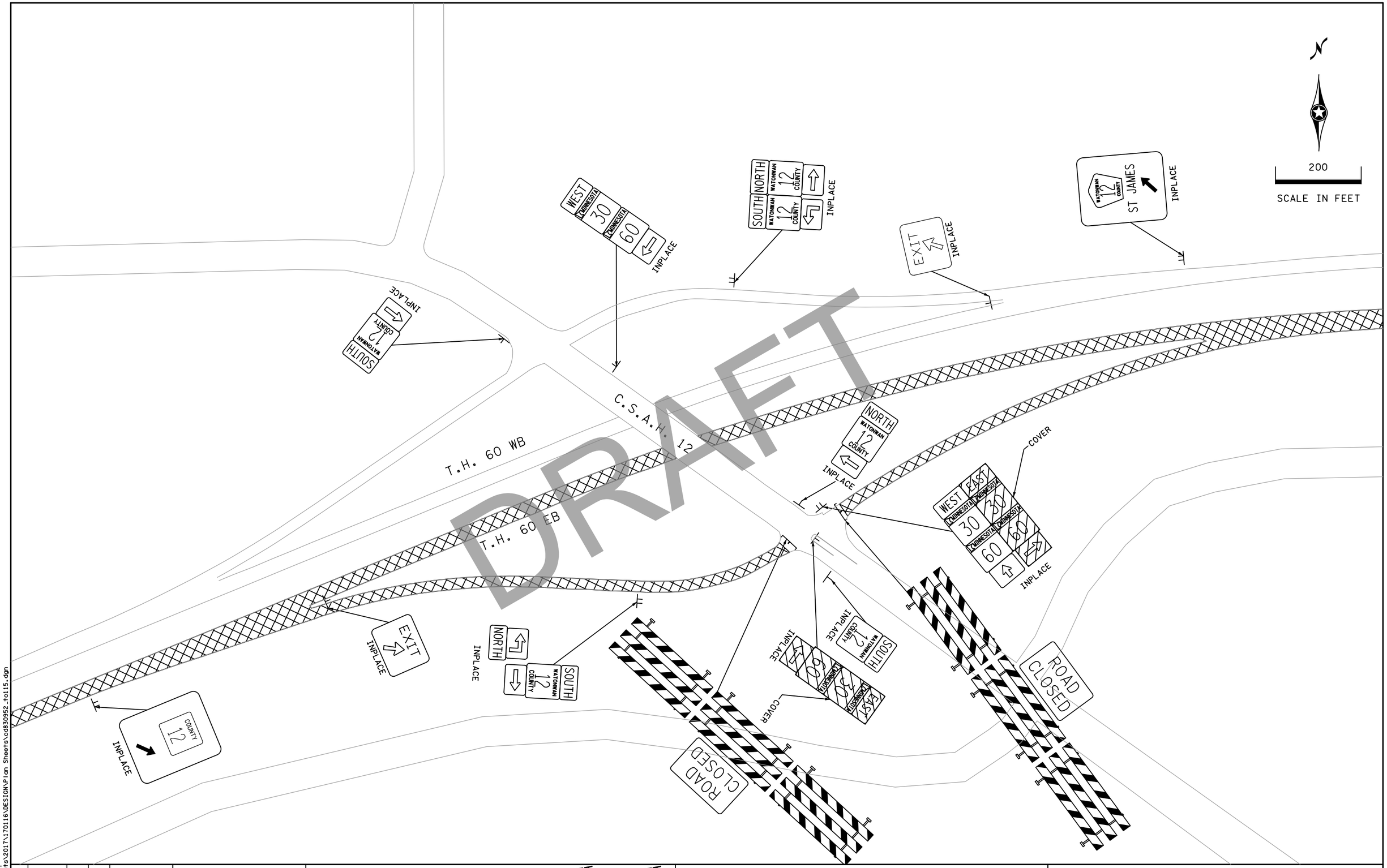
TRAFFIC CONTROL PLAN
STAGE 1 PHASE 1 INSET D

SP 8309-52 (T.H. 60)
SHEET NO. 247 OF 283 SHEETS



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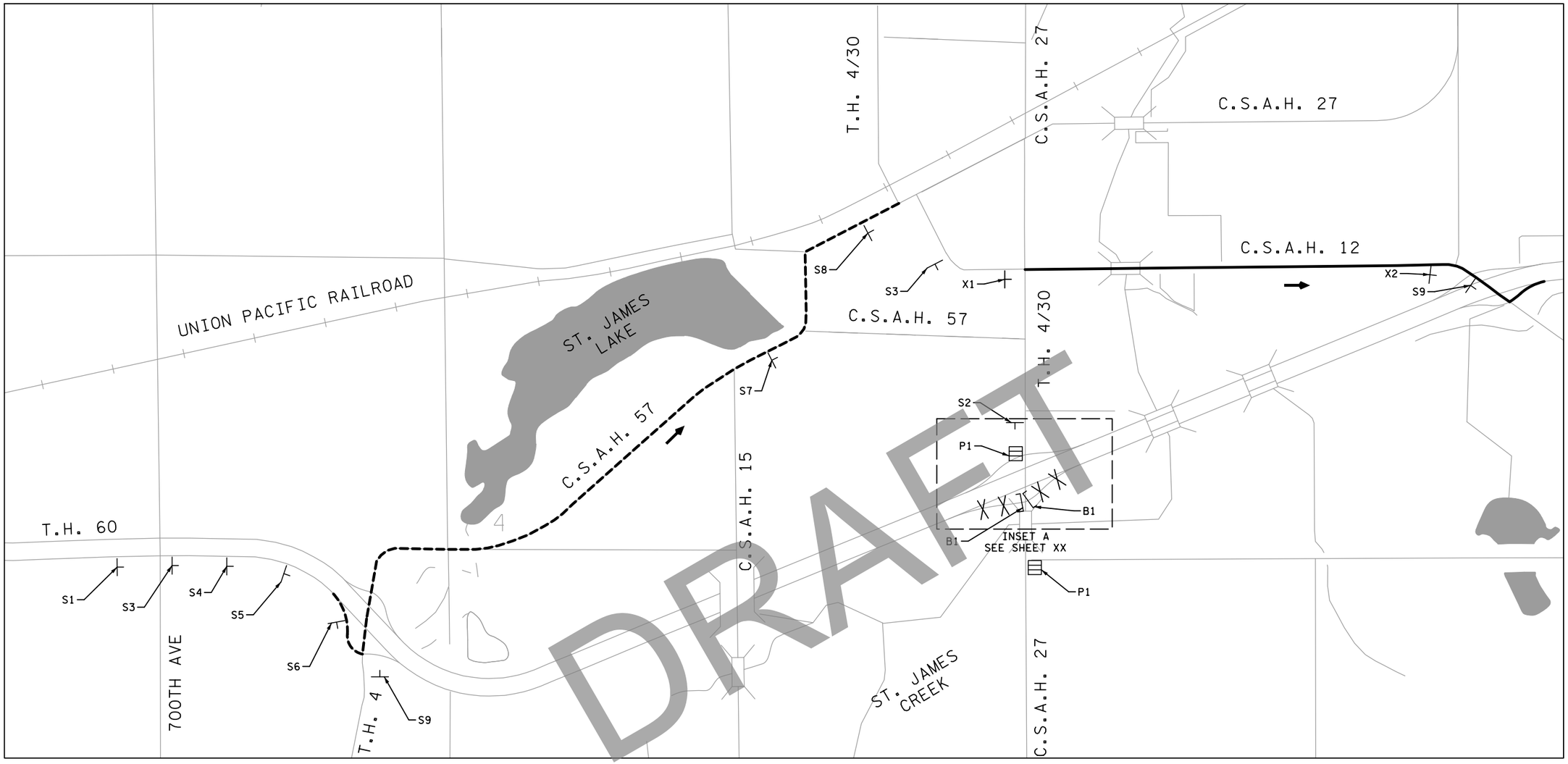
TRAFFIC CONTROL PLAN

STAGE 1 PHASE 1 INSET E

SP 8309-52 (T.H. 60)

SHEET NO. 248 OF 283 SHEETS



S4

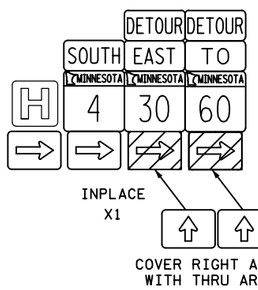
S5

S6

S7

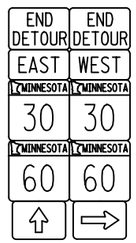
S8

S9



INPLACE X1

COVER RIGHT ARROWS WITH THRU ARROWS



INPLACE X2

S1

S2

S3

B1

EB MN 60 WILL BE CLOSED ↔ STARTING MON DY

P1
PLACE PCMS A MINIMUM OF 7 DAYS PRIOR TO CLOSURE OF INTERSECTION

GENERAL NOTES:

A. TRAFFIC CONTROL DEVICE SPACING SHALL BE ACCORDING TO FIGURE 6J-2 OF THE MNMUTCD UNLESS OTHERWISE SHOWN.

B. THE CONTRACTOR SHALL FIELD ADJUST LOCATIONS AND SPACING AS NECESSARY TO ACCOMMODATE FIELD CONDITIONS.

C. EXISTING SIGNS THAT CONFLICT WITH THE SIGNAGE SHOWN ON THIS PLAN SHEET SHALL BE COVERED UNLESS OTHERWISE SHOWN.

LEGEND

- T.H. 4/30 DETOUR ROUTE
- T.H. 60 DETOUR ROUTE
- DETOUR TRAFFIC FLOW
- TYPE 3 BARRICADE(S)
- TEMPORARY TRAFFIC CONTROL SIGN(S)
- PCMS
- CLOSURE LOCATION

NO	DATE	DWN	CKD	REVISIONS

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TRAFFIC CONTROL PLAN
STAGE 1 PHASE 2 DETOUR LAYOUT

SP 8309-52 (T.H. 60)
SHEET NO. 249 OF 283 SHEETS

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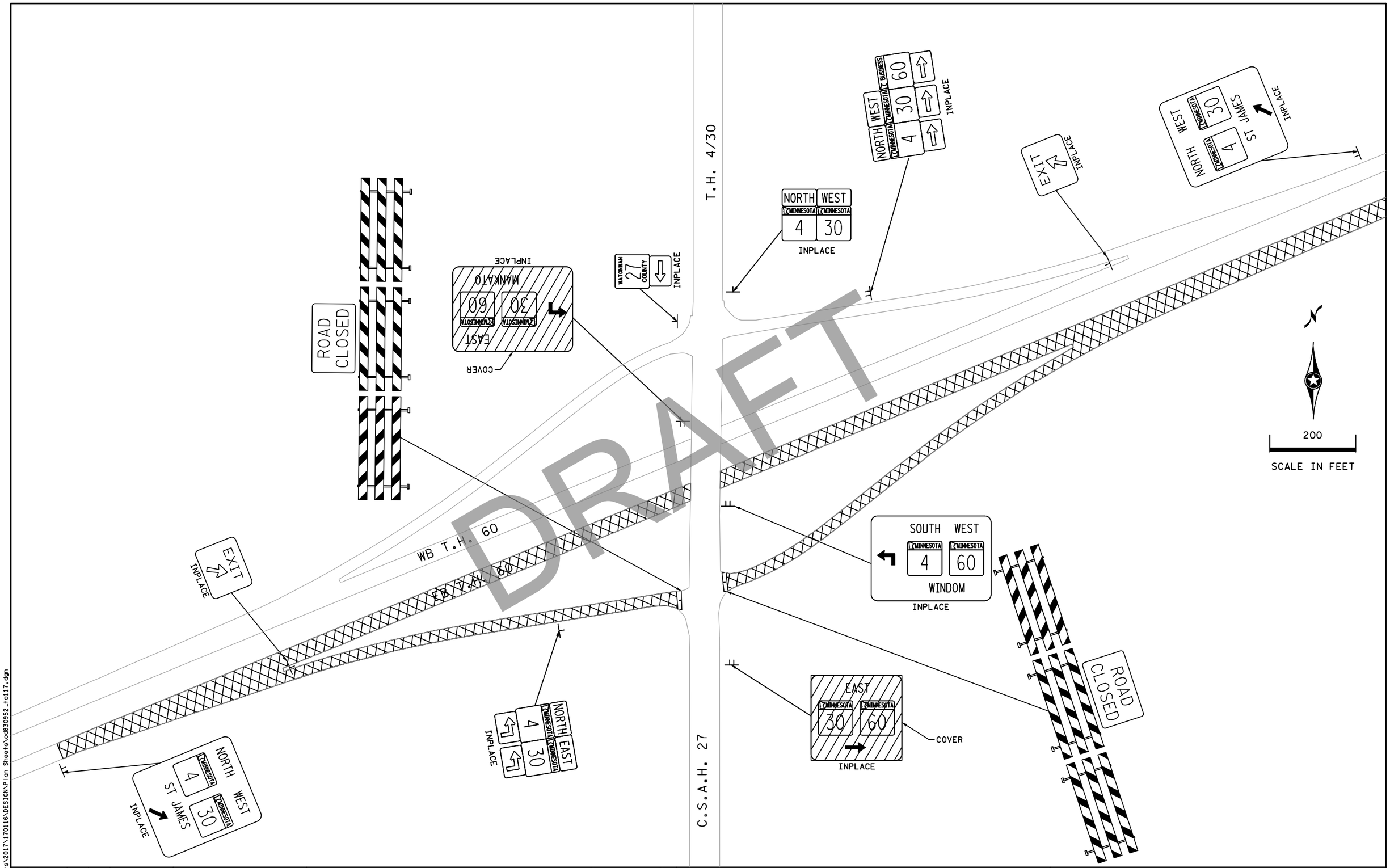

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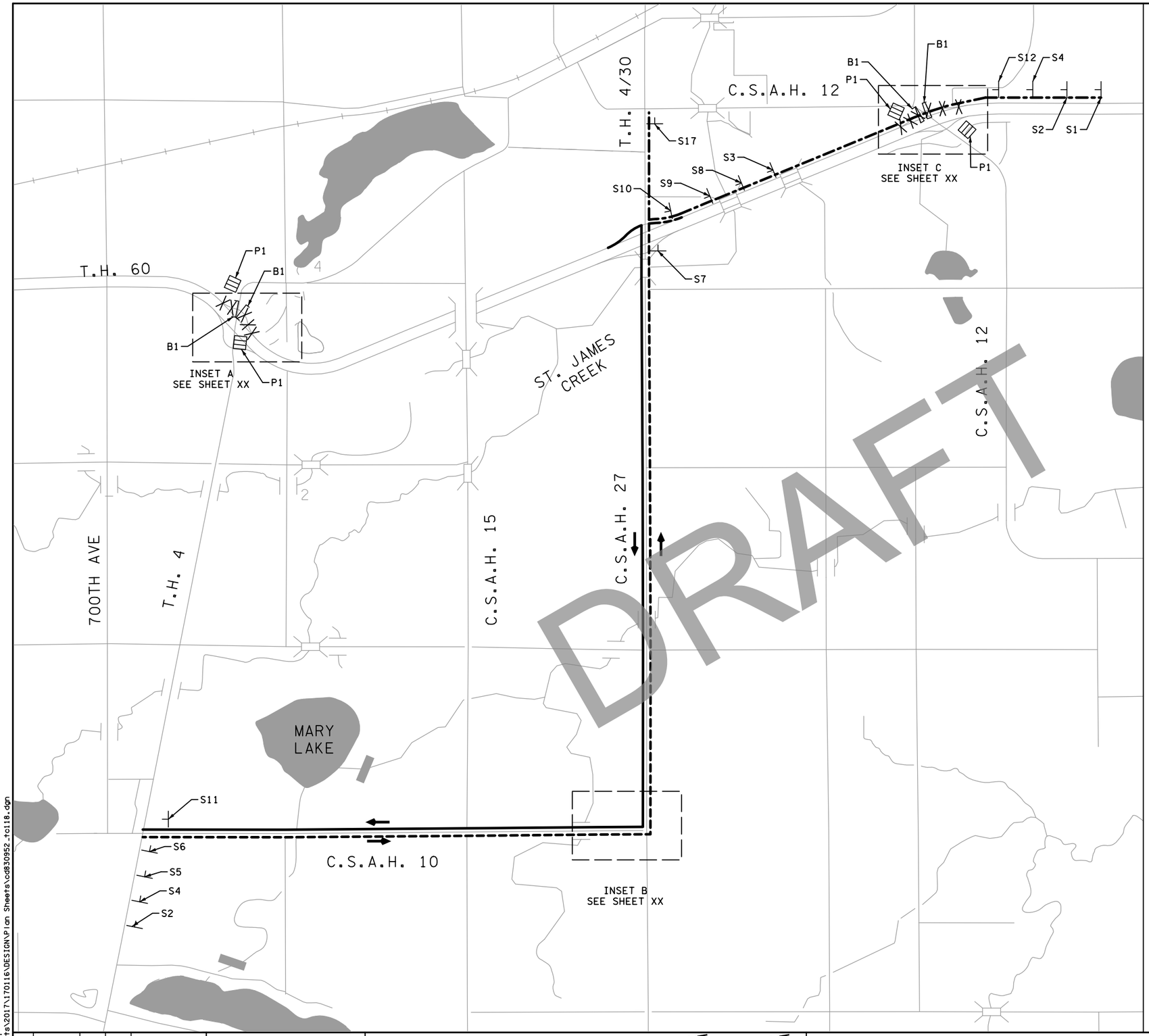
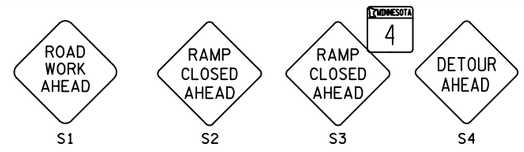
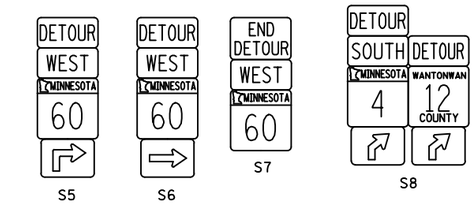
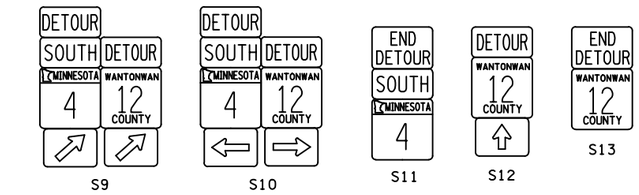
TRAFFIC CONTROL PLAN
STAGE 1 PHASE 2 INSET A

SP 8309-52 (T.H. 60)
SHEET NO. 250 OF 283 SHEETS









WB MN 60 WILL BE CLOSED ↔ STARTING MON DY

P1
PLACE PCMS A MINIMUM OF 7 DAYS PRIOR TO CLOSURE OF INTERSECTION

GENERAL NOTES:

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C. EXISTING SIGNS THAT CONFLICT WITH THE SIGNAGE SHOWN ON THIS PLAN SHEET SHALL BE COVERED UNLESS OTHERWISE SHOWN.

LEGEND

- T.H. 60 DETOUR ROUTE
- T.H. 4 DETOUR ROUTE
- C.S.A.H. 12 DETOUR ROUTE
- DETOUR TRAFFIC FLOW
- TYPE 3 BARRICADE(S)
- TEMPORARY TRAFFIC CONTROL SIGN(S)
- PCMS
- CLOSURE LOCATION

NO	DATE	DWN	CKD	REVISIONS

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TRAFFIC CONTROL PLAN
STAGE 2 PHASE 1 DETOUR LAYOUT

SP 8309-52 (T.H. 60)
SHEET NO. 251 OF 283 SHEETS

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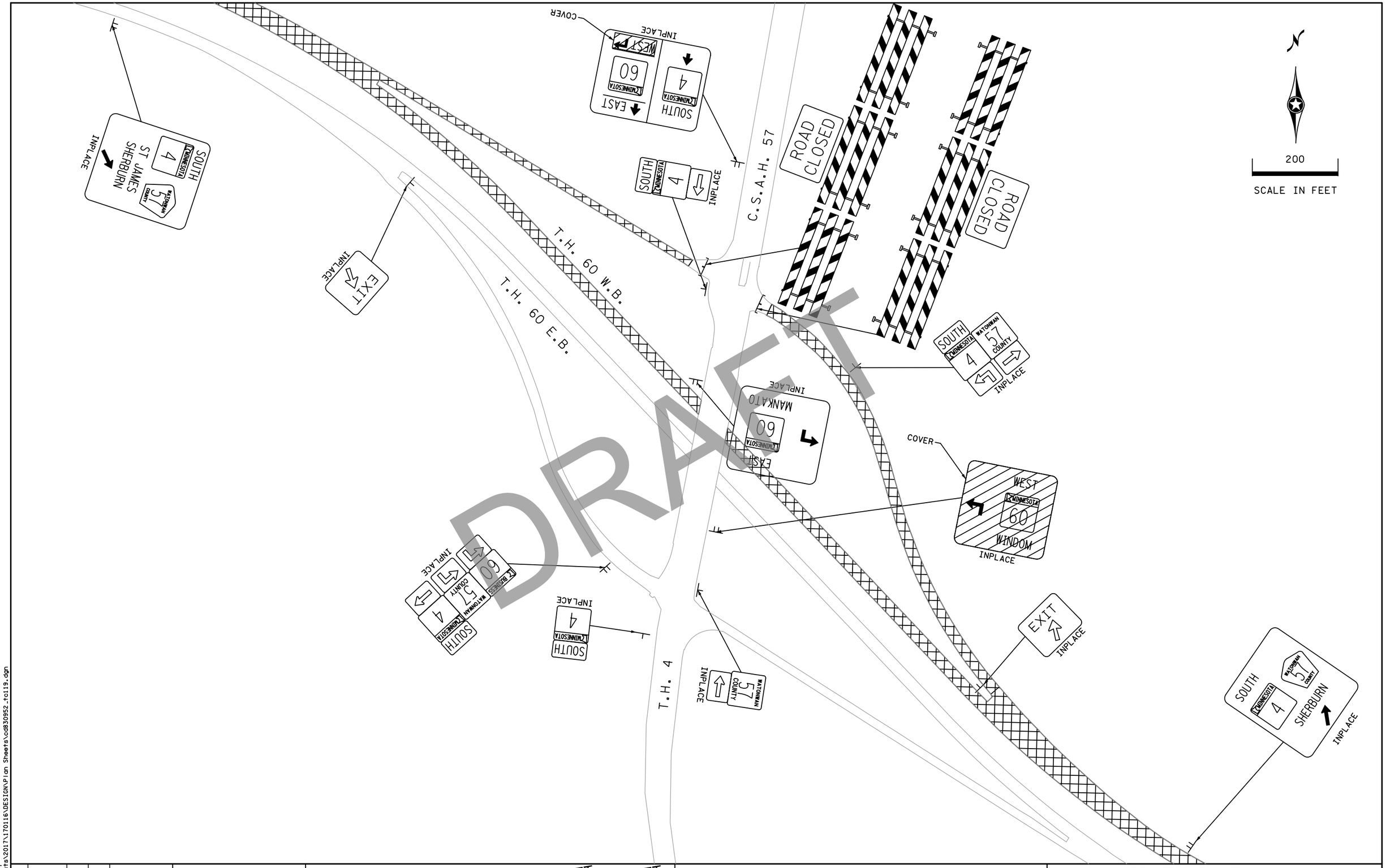

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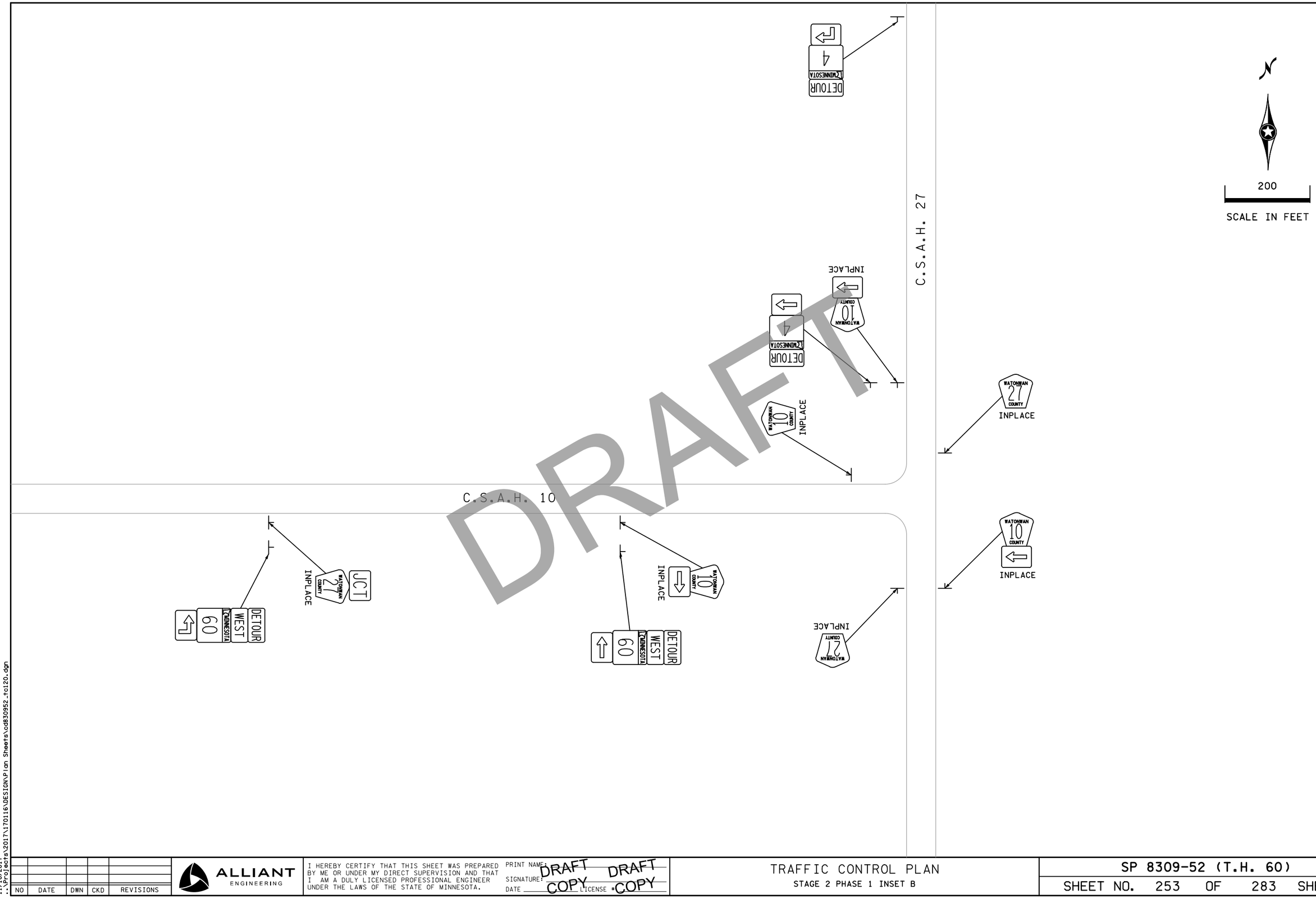
TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1 INSET A

SP 8309-52 (T.H. 60)

SHEET NO. 252 OF 283 SHEETS



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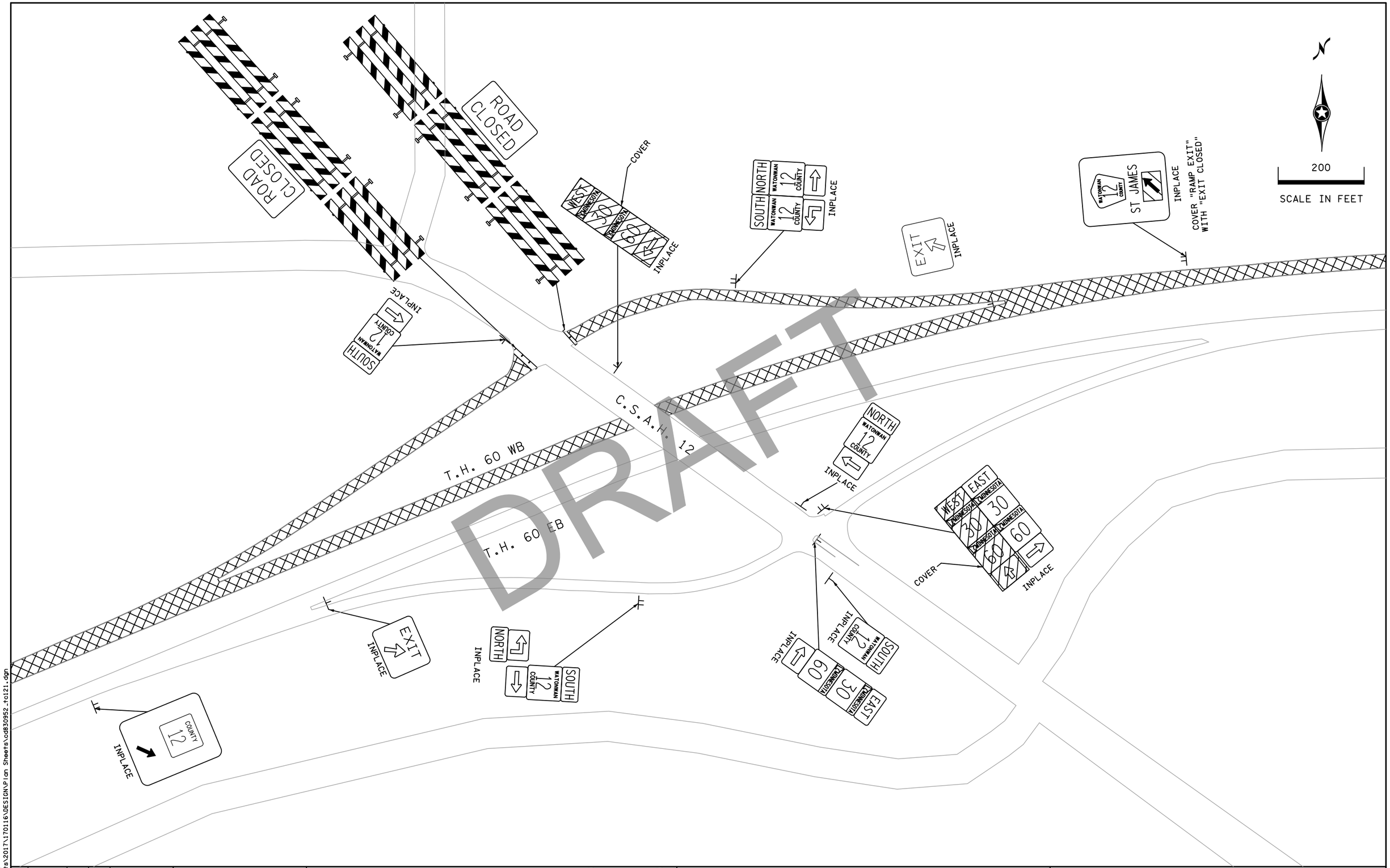
TRAFFIC CONTROL PLAN
STAGE 2 PHASE 1 INSET B

SP 8309-52 (T.H. 60)
SHEET NO. 253 OF 283 SHEETS



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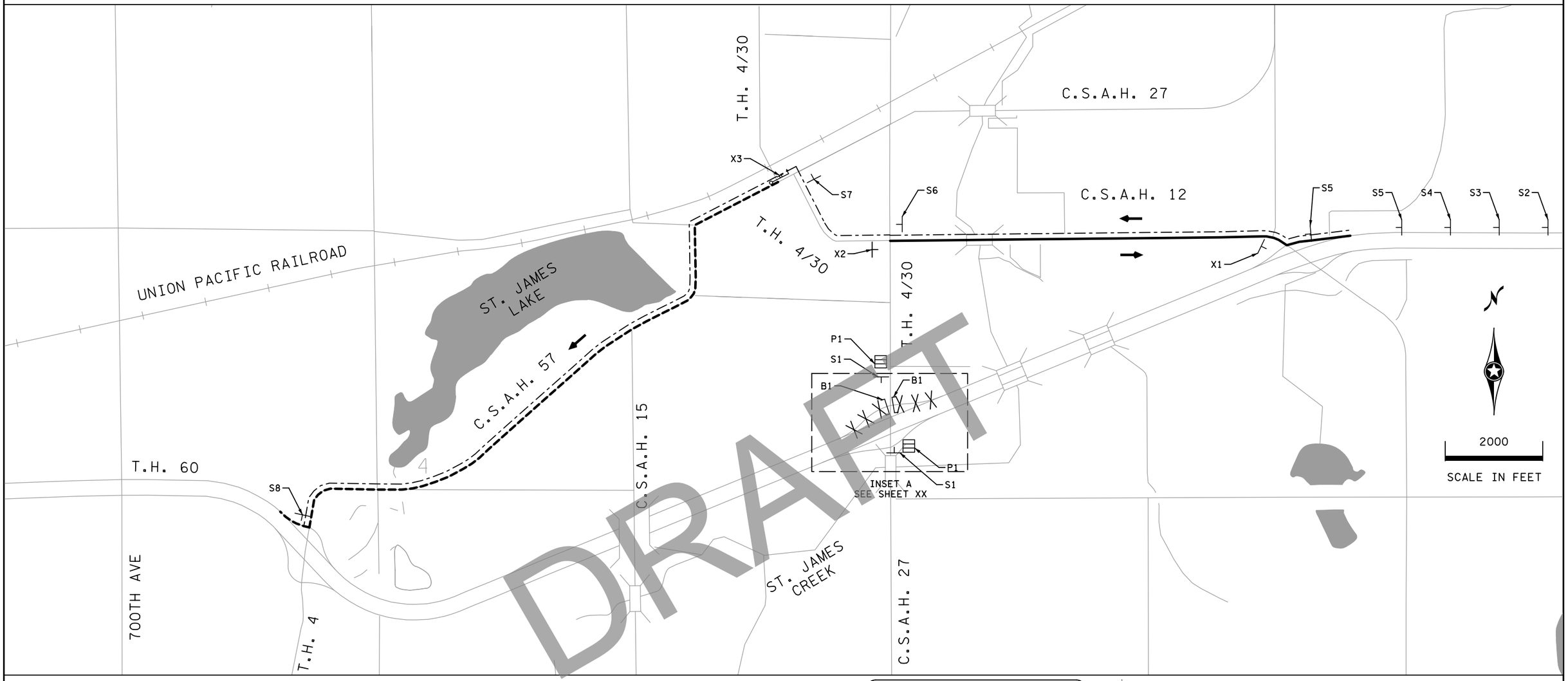
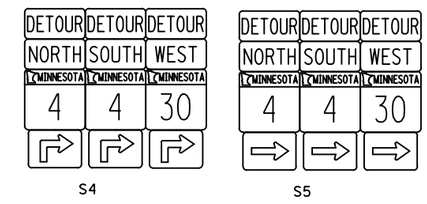
TRAFFIC CONTROL PLAN

STAGE 2 PHASE 1 INSET C

SP 8309-52 (T.H. 60)

SHEET NO. 254 OF 283 SHEETS





GENERAL NOTES:

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B. THE CONTRACTOR SHALL FIELD ADJUST LOCATIONS AND SPACING AS NECESSARY TO ACCOMMODATE FIELD CONDITIONS.

C. EXISTING SIGNS THAT CONFLICT WITH THE SIGNAGE SHOWN ON THIS PLAN SHEET SHALL BE COVERED UNLESS OTHERWISE SHOWN.

LEGEND

- T.H. 4/60 DETOUR ROUTE
- T.H. 4/30 DETOUR ROUTE
- T.H. 4 DETOUR ROUTE
- DETOUR TRAFFIC FLOW
- TYPE 3 BARRICADE(S)
- TEMPORARY TRAFFIC CONTROL SIGN(S)
- PCMS
- CLOSURE LOCATION

NO	DATE	DWN	CKD	REVISIONS

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TRAFFIC CONTROL PLAN
STAGE 2 PHASE 2 DETOUR LAYOUT

SP 8309-52 (T.H. 60)
SHEET NO. 255 OF 283 SHEETS

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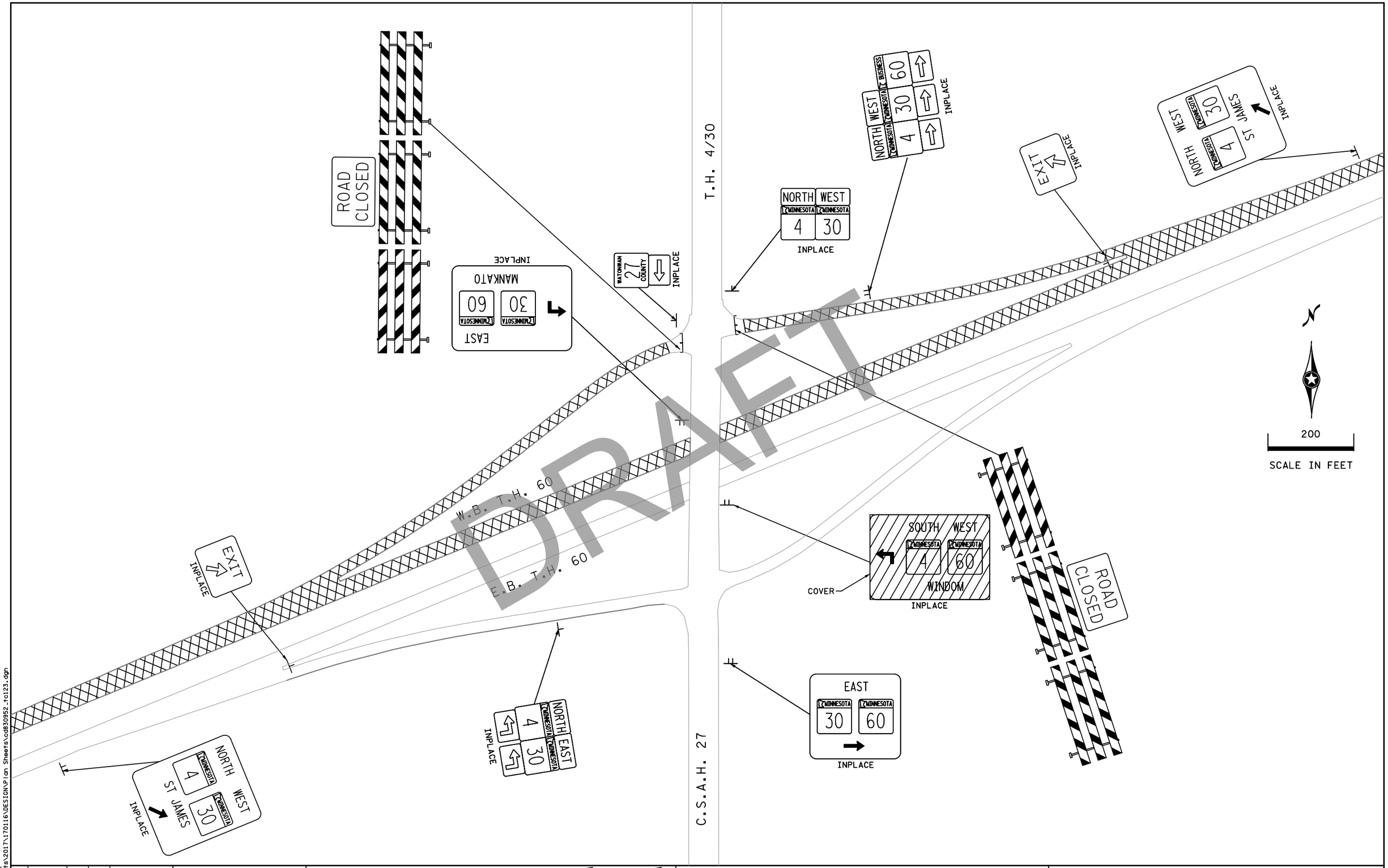

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TRAFFIC CONTROL PLAN
STAGE 2 PHASE 2 INSET A

SP 8309-52 (T.H. 60)
SHEET NO. 256 OF 283 SHEETS

PERMANENT PAVEMENT MARKING PLAN

NOTES & GUIDELINES

GENERAL INFORMATION:

THE ENGINEER'S INVOLVEMENT IN THE APPLICATION OF THE MATERIAL SHALL BE LIMITED TO FIELD CONSULTATION AND INSPECTION. THE CONTRACTOR WILL PLACE NECESSARY "SPOTTING" AT APPROPRIATE POINTS TO PROVIDE HORIZONTAL CONTROL FOR STRIPING AND TO DETERMINE NECESSARY STARTING AND CUTOFF POINTS. LONGITUDINAL JOINTS, PAVEMENT EDGES AND EXISTING MARKINGS MAY SERVE AS HORIZONTAL CONTROL WHEN SO DIRECTED.

EDGE LINES AND LANE LINES ARE TO BE BROKEN ONLY AT INTERSECTIONS WITH PUBLIC ROADS AND AT PRIVATE ENTRANCES IF THEY ARE CONTROLLED BY A AGENCY PLACED YIELD SIGN, STOP SIGN OR TRAFFIC SIGNAL. THE BREAK POINT IS TO BE AT THE START OF THE RADIUS FOR THE INTERSECTION OR AT MARKED STOP LINES OR CROSSWALKS.

A TOLERANCE OF 1/4 INCH UNDER OR 1/4 INCH OVER THE SPECIFIED WIDTH WILL BE ALLOWED FOR STRIPING PROVIDED THE VARIATION IS GRADUAL AND DOES NOT DETRACT FROM THE GENERAL APPEARANCE. BROKEN LINE SEGMENTS MAY VARY UP TO 3 INCHES FROM THE SPECIFIED LENGTHS PROVIDED THE OVER AND UNDER VARIATIONS ARE REASONABLY COMPENSATORY. ALIGNMENT DEVIATIONS FROM THE CONTROL GUIDE SHALL NOT EXCEED 1 INCH. MATERIAL SHALL NOT BE APPLIED OVER LONGITUDINAL JOINTS. ESTABLISHMENT OF APPLICATION TOLERANCES SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COMPLY AS CLOSELY AS PRACTICABLE WITH THE PLANNED DIMENSIONS.

JUST PRIOR TO THE PLACEMENT OF PAVEMENT MARKINGS THE ROAD SURFACE SHALL BE CLEANED AND FREE OF CONTAMINATION AS RECOMMENDED BY THE MATERIAL MANUFACTURER AND ACCEPTABLE TO THE ENGINEER. PORTLAND CEMENT CONCRETE SURFACES SHALL BE SANDBLAST CLEANED TO REMOVE ANY SURFACE TREATMENTS AND/OR LAITANCE.

APPLY ALL PAVEMENT MARKINGS AS RECOMMENDED BY THE MATERIAL MANUFACTURER.

PERMANENT PAVEMENT MARKINGS SHALL NOT BE PLACED OVER TEMPORARY TAPE MARKINGS.

THE FILLING OF TANKS, POURING OF MATERIALS OR CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENT SURFACES UNLESS ADEQUATE PROVISIONS ARE MADE TO PREVENT SPILLAGE OF MATERIAL.

REFER TO SPECIAL PROVISIONS OR SPEC BOOK FOR GROUND IN/RECESSED PAVEMENT MARKING APPLICATION REQUIREMENTS.

CONTRAST MARKINGS:

STANDARD LINEAR PAVEMENT MARKINGS, CROSSWALK MARKINGS AND PAVEMENT MESSAGES WITH 1.5 INCH NON REFLECTIVE BLACK BORDERS.

EPOXY:

THE ROAD SURFACE SHALL BE CLEANED AT THE DIRECTION OF THE ENGINEER JUST PRIOR TO APPLICATION. PAVEMENT CLEANING SHALL CONSIST OF AT LEAST BRUSHING WITH A ROTARY BROOM (NON-METALLIC) OR AS RECOMMENDED BY THE MATERIAL MANUFACTURER AND ACCEPTABLE TO THE ENGINEER. NEW PORTLAND CEMENT CONCRETE SURFACES SHALL BE SANDBLAST CLEANED TO REMOVE ANY SURFACE TREATMENTS AND/OR LAITANCE.

THE EPOXY MARKING APPLICATION SHALL IMMEDIATELY FOLLOW THE PAVEMENT CLEANING. GLASS BEADS SHALL BE APPLIED IMMEDIATELY AFTER APPLICATION OF THE EPOXY RESIN LINE.

APPLY EPOXY MARKINGS WITH A MINIMUM THICKNESS OF 20 MILS, GLASS BEADS SHALL BE APPLIED AT A RATE OF AT LEAST 25 LB/GAL. THE "NO-TRACKING" CONDITION SHALL BE DETERMINED ON AN APPLICATION OF SPECIFIED THICKNESS TO THE PAVEMENT AND COVERED WITH GLASS BEADS AT THE RATE OF AT LEAST 25 LB/GAL.

PAVEMENT MARKINGS SHALL ONLY BE APPLIED IN SEASONABLE WEATHER WHEN AIR AND PAVEMENT SURFACE TEMPERATURES ARE 40°F OR HIGHER AND SHALL NOT BE APPLIED WHEN THE WIND OR OTHER CONDITIONS CAUSE A FILM OF DUST TO BE DEPOSITED ON THE PAVEMENT SURFACE AFTER CLEANING AND BEFORE THE MARKING MATERIAL CAN BE APPLIED.

	PAVEMENT MARKING TABULATION		X
	ITEM	UNIT	S.P. 8309-52 TOTAL
(2)	4" SOLID LINE MULTI-COMPONENT GROUND IN (WR)	LIN FT	319883
(3)	8" SOLID LINE MULTI-COMPONENT GROUND IN (WR)	LIN FT	8325
(3)	4" DOTTED LINE MULTI-COMPONENT GROUND IN (WR)	LIN FT	144
(4)	4" DOUBLE SOLID LINE MULTI-COMPONENT GROUND IN (WR)	LIN FT	1611
(7)	24" SOLID LINE PREFORM TAPE GROUND IN	LIN FT	511
(6)	4" BROKEN LINE PREFORM TAPE GROUND IN (WR)	LIN FT	27520
(3)	4" DOTTED LINE PREFORM TAPE GROUND IN (WR)	LIN FT	2325
(3)	4" BROKEN LINE PREFORM TAPE GROUND IN (WR) CONTRAST	LIN FT	27480
(3)	4" DOTTED LINE PREFORM TAPE GROUND IN (WR) CONTRAST	LIN FT	216
(1)	PAVEMENT MESSAGE MULTI-COMPONENT GROUND IN	SQ FT	164.89

SPECIFIC NOTES:

(1) QUANTITY INCLUDES THE FOLLOWING:

PAVEMENT MESSAGE AREAS

MESSAGE	QTY.	SQ. FT	TOTAL SQ. FT.
RIGHT TURN ARROW	8	14.99	119.92
LEFT TURN ARROW	3	14.99	44.97
TOTAL			164.89

(2) PAY ITEM INCLUDES 169206' WHITE MARKINGS AND 150677' YELLOW MARKINGS.
(3) PAY ITEM FOR WHITE PAVEMENT MARKINGS.
(4) PAY ITEM FOR YELLOW PAVEMENT MARKINGS.
(5) 3' STRIPE, 12' GAP.
(6) PAY ITEM INCLUDES 27480' WHITE MARKINGS AND 40' YELLOW MARKINGS.
(7) PAY ITEM INCLUDES 195' WHITE MARKINGS AND 316' YELLOW MARKINGS.

PREFORMED MARKINGS:

MANUFACTURER CERTIFICATIONS ARE REQUIRED FOR INSTALLERS, AND WRITTEN CERTIFICATION SHALL BE PRESENTED AT ANYTIME UPON REQUEST OF ENGINEER OR OTHER STATE PERSONAL.

DO NOT USE LINE MATERIAL TO PIECE TOGETHER INDIVIDUAL LETTERS, SYMBOLS, OR CROSSWALKS BLOCKS. UTILIZE PRECUT KITS PROVIDED BY THE MANUFACTURER. TWO STRIPS OF 18" LINE MATERIAL MAY BE USED TO FORM CROSSWALK BLOCKS OF 36" WIDTH.

DO NOT USE NARROWER LINE MATERIAL TO PIECE TOGETHER WIDER LINES.

IF THERE IS A CRACK OR JOINT IN ROAD SURFACE. (FOR TAPE LAY OVER CRACK OR JOINT THEN CUT TAPE 1" ON EACH SIDE OF CRACK OR JOINT). (FOR THERMO MAKE A DEEP SCORE IN THE MATERIAL ONCE IT HAS SET UP BUT NOT ENTIRELY COOLED DOWN).

PREFORM TAPE INLAY APPLICATION:

MAT TEMPERATURE SHALL BE CHECKED USING A THERMOMETER TO MAKE SURE THE INLAY IS BEING DONE IN THE PROPER TEMPERATURE RANGE. THE TEMPERATURE SHOULD MEASURE BETWEEN 150° F (ASPHALT FIRM ENOUGH TO WALK ON) AND 120° F. APPLICATION BELOW 120° F MAY NOT GET A PROPER INLAY. INLAYS ARE NOT RECOMMENDED AFTER SEPTEMBER 15th AS THE ASPHALT COOLS TOO FAST AT THIS TIME OF THE YEAR.

NO PRIMERS ARE USED FOR INLAY APPLICATION. DO NOT PLACE LANE LINES ON AN ASPHALT SEAM. ROLLING OF ALL THE MARKINGS SHOULD BE LENGTHWISE IN THE DIRECTION THEY WERE LAID. FOR CROSSWALKS AND STOP BARS, INITIAL TAMPING WITH THE TAMPING CART IS RECOMMENDED USING ONLY 100 LBS. OF WEIGHT.

USE COMPACTION ROLLER TO EMBED (INLAY) MARKINGS INTO PAVEMENT SURFACE. USE MINIMUM SPEED AND WATER ON ROLLER. DO NOT USE VIBRATOR. IF MARKING BUCKLES OR DISTORTS SEVERELY IN FRONT OF ROLLER, MAT TEMPERATURE OR ROLLER SPEED MAY BE TOO HIGH.

BITUMINOUS PAVEMENT SURFACES WHERE PAVEMENT MARKINGS CANNOT BE INLAID IN THE HOT MAT SHALL HAVE A RECESS GROUND IN FOR THE PLACEMENT OF DURABLE REFLECTORIZED PAVEMENT MARKINGS. SEE CONTRUCTION SPECIFICATIONS.

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PRINT NAME: MICHAEL P MCCURDY
SIGNATURE: DRAFT COPY DRAFT COPY
DATE _____ LICENSE # 41902

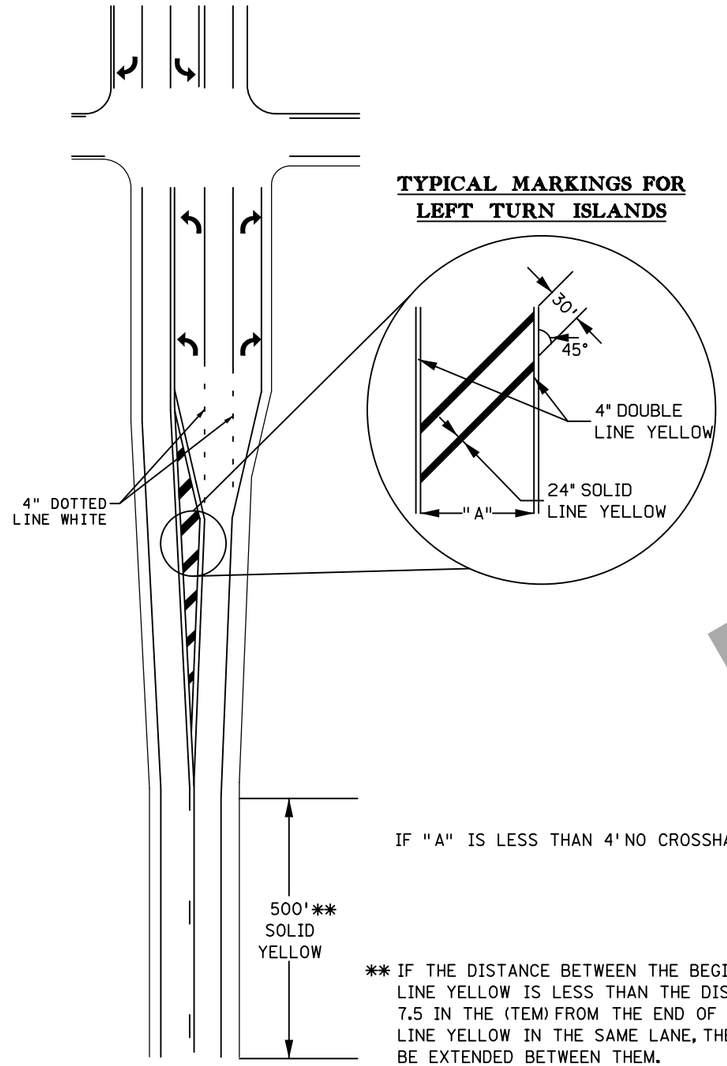
PAVEMENT MARKING TITLE SHEET

SP 8309-52 (T.H. 60)

SHEET NO. 257 OF 283 SHEETS

LEFT TURN LANE ISLAND

NOTE:
END PAVEMENT MARKINGS AT BEGINNING OF RADIUS



TYPICAL MARKINGS FOR LEFT TURN ISLANDS

IF "A" IS LESS THAN 4' NO CROSSHATCHING IS REQUIRED.

** IF THE DISTANCE BETWEEN THE BEGINNING OF THE SOLID LINE YELLOW IS LESS THAN THE DISTANCES IN TABLE 7.5 IN THE (TEM) FROM THE END OF A PRECEDING SOLID LINE YELLOW IN THE SAME LANE, THE SOLID LINE SHALL BE EXTENDED BETWEEN THEM.

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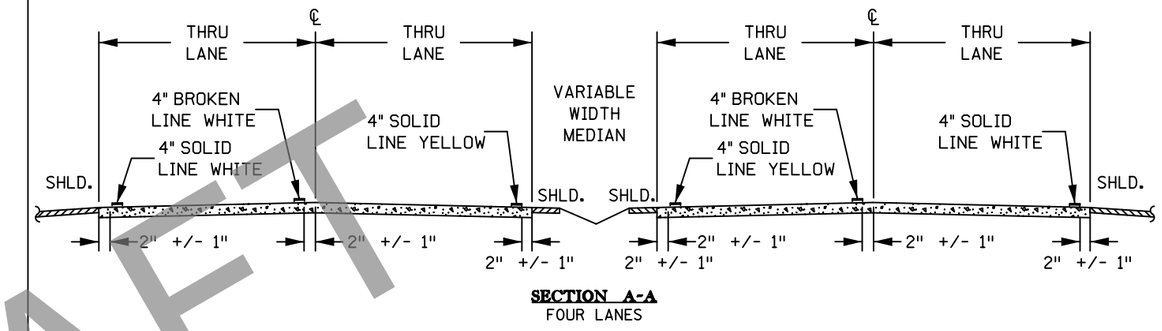
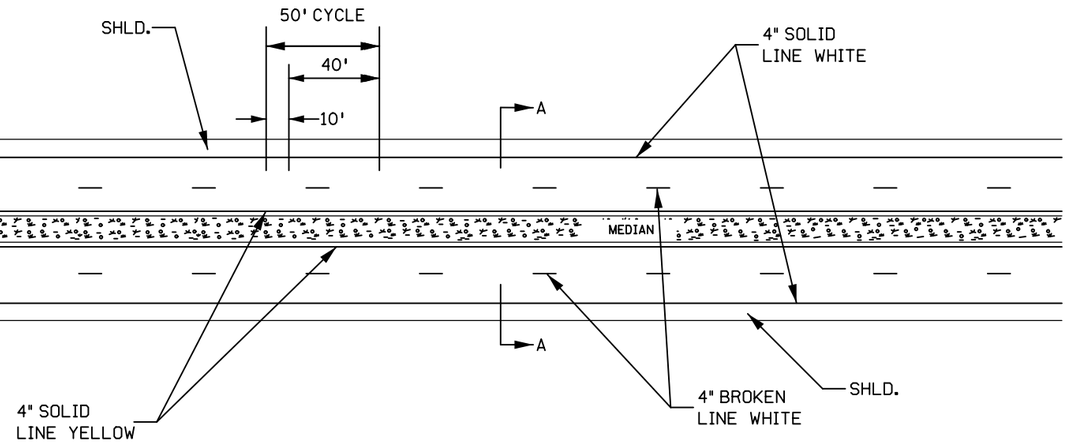
FOUR-LANE DIVIDED LANE



SECTION A-A
FOUR LANES



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PRINT NAME: MICHAEL P MCCURDY
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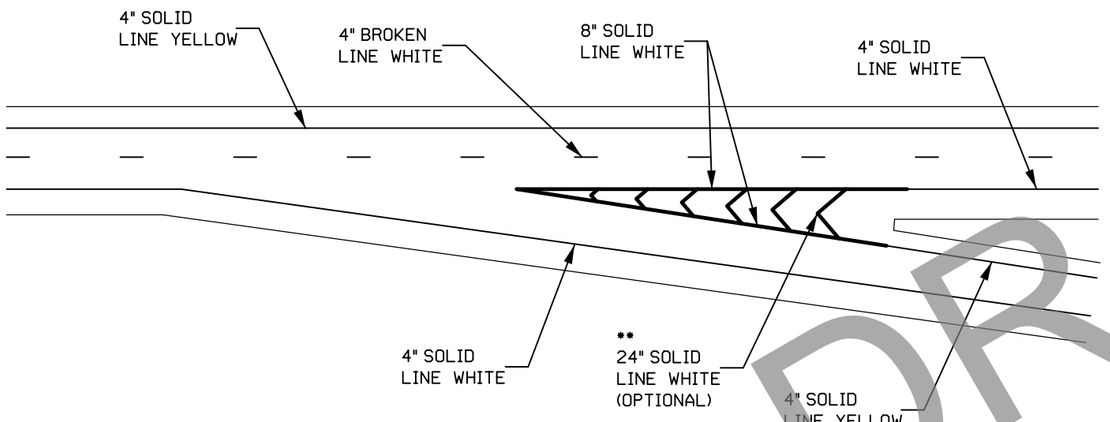
DATE _____ LICENSE # 41902

PAVEMENT MARKING DETAILS

SP 8309-52 (T.H. 60)
SHEET NO. 258 OF 283 SHEETS

DOTTED AND CHANNELIZING LINE APPLICATIONS FOR EXIT RAMP WITH TAPERED DECELERATION LANE



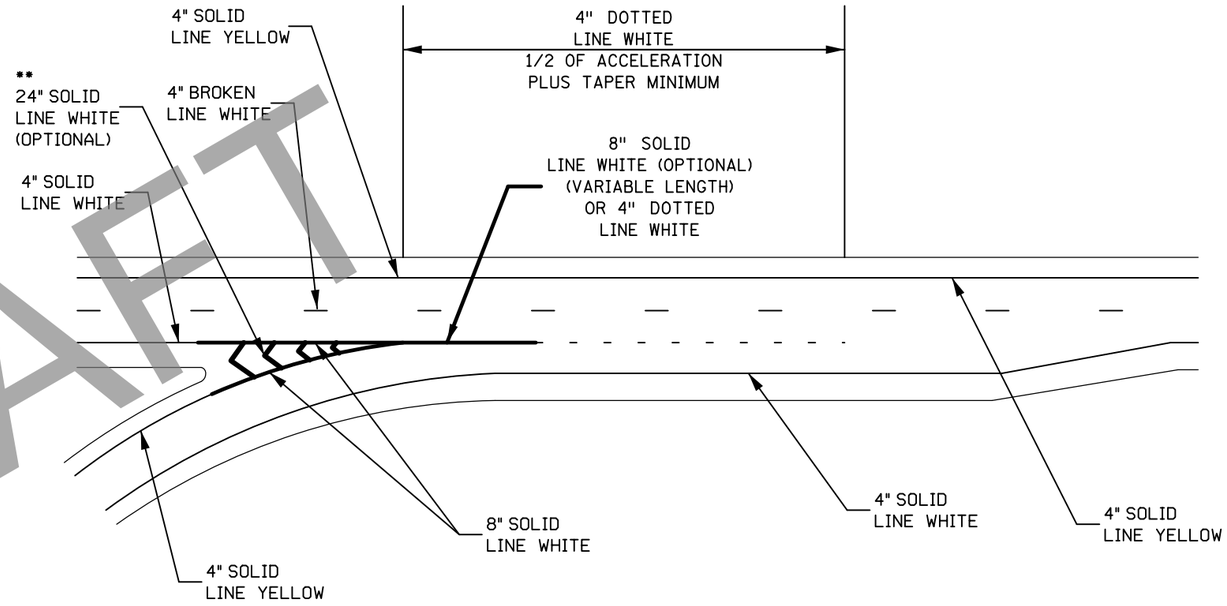
DESIGNER'S NOTES:

4" DOTTED WHITE LANE LINE IS OPTIONAL IN THE DECELERATION LANE TAPER.

** SEE "CROSSHATCHING" TYPICAL FOR DESIGN AND PLACEMENT OF CROSSHATCHING.

PUBLISHED BY OTST: 20 NOV 2015	MODIFIED:

DOTTED AND CHANNELIZING LINE APPLICATIONS FOR ENTRANCE RAMP WITH PARALLEL ACCELERATION LANE



DESIGNER'S NOTES:

** SEE "CROSSHATCHING" TYPICAL FOR DESIGN AND PLACEMENT OF CROSSHATCHING.

PUBLISHED BY OTST: 20 NOV 2015	MODIFIED:

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: MICHAEL P MCGURK
SIGNATURE:
DATE _____ LICENSE # 43902

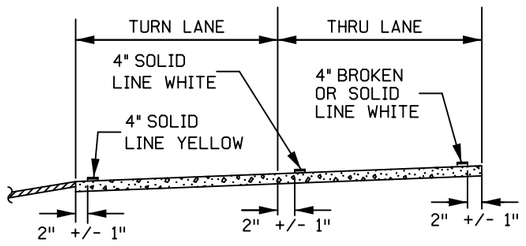
PAVEMENT MARKING DETAILS

SP 8309-52 (T.H. 60)

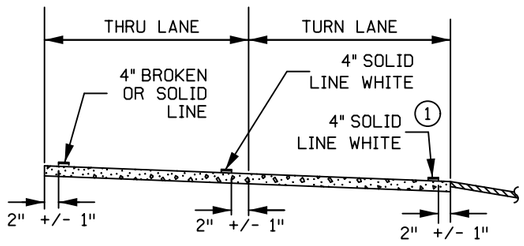
SHEET NO. 259 OF 283 SHEETS

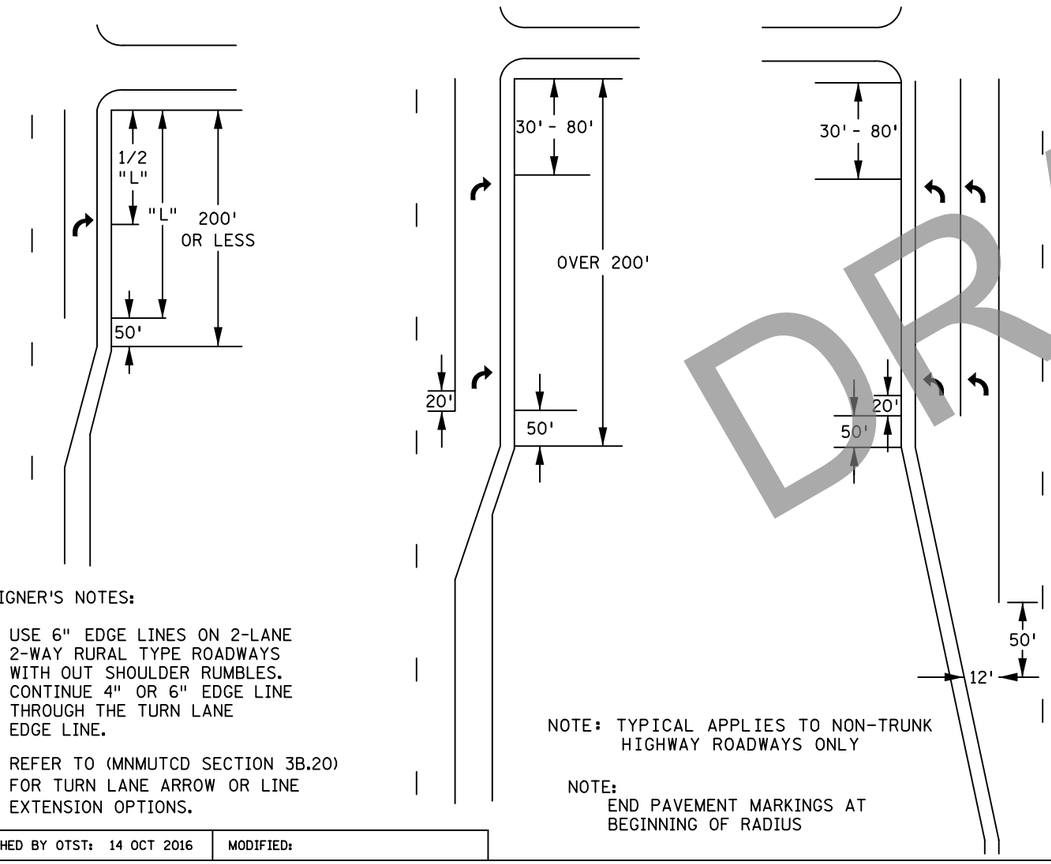
TURN LANE WITH ARROW MESSAGE

LEFT TURN LANE



RIGHT TURN LANE





NOTE: TYPICAL APPLIES TO NON-TRUNK HIGHWAY ROADWAYS ONLY

NOTE:
END PAVEMENT MARKINGS AT BEGINNING OF RADIUS

DESIGNER'S NOTES:

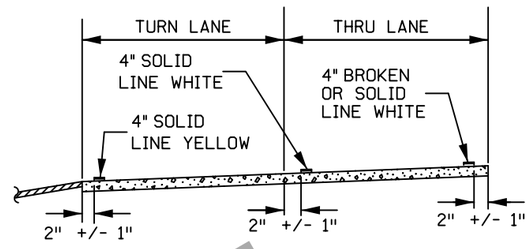
(1) USE 6" EDGE LINES ON 2-LANE 2-WAY RURAL TYPE ROADWAYS WITH OUT SHOULDER RUMBLES. CONTINUE 4" OR 6" EDGE LINE THROUGH THE TURN LANE EDGE LINE.

REFER TO (MNMUTCD SECTION 3B.20) FOR TURN LANE ARROW OR LINE EXTENSION OPTIONS.

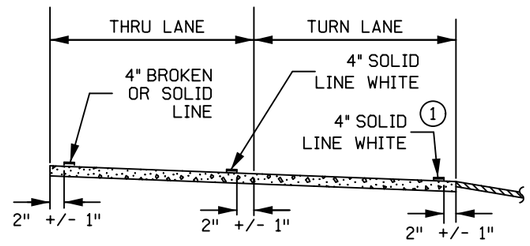
PUBLISHED BY OTST: 14 OCT 2016 | MODIFIED:

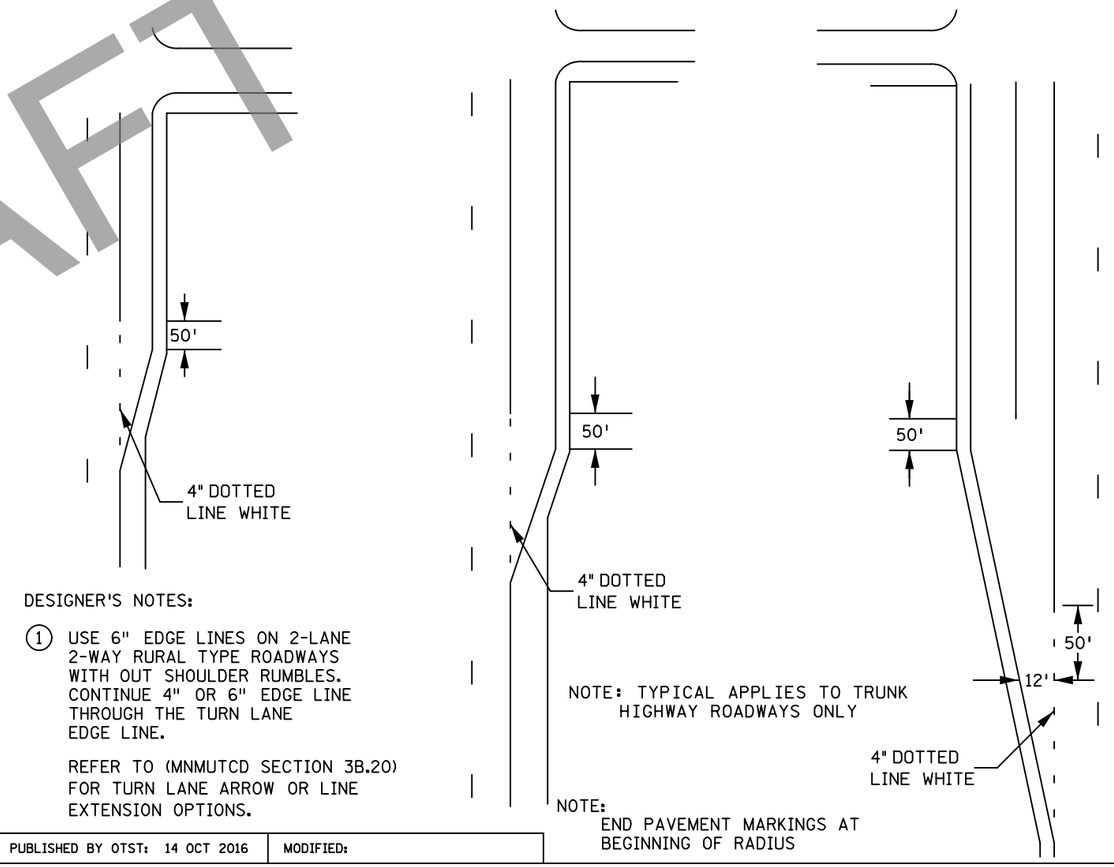
TURN LANE WITH DOTTED LINE EXTENSION

LEFT TURN LANE



RIGHT TURN LANE





DESIGNER'S NOTES:

(1) USE 6" EDGE LINES ON 2-LANE 2-WAY RURAL TYPE ROADWAYS WITH OUT SHOULDER RUMBLES. CONTINUE 4" OR 6" EDGE LINE THROUGH THE TURN LANE EDGE LINE.

REFER TO (MNMUTCD SECTION 3B.20) FOR TURN LANE ARROW OR LINE EXTENSION OPTIONS.

NOTE: TYPICAL APPLIES TO TRUNK HIGHWAY ROADWAYS ONLY

NOTE:
END PAVEMENT MARKINGS AT BEGINNING OF RADIUS

PUBLISHED BY OTST: 14 OCT 2016 | MODIFIED:

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: MICHAEL P MCCURDY
SIGNATURE: DRAFT COPY DRAFT COPY
DATE _____ LICENSE # 41902

PAVEMENT MARKING DETAILS

SP 8309-52 (T.H. 60)
SHEET NO. 260 OF 283 SHEETS

ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER 2104 (EACH)	INSTALL MARKER XXXX (EACH)
TH 60	954	1188+94	EB	LEFT	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	955	1190+68	EB	LEFT	2-U	2	54	18	ONE WAY	R6-1R	1	6.75									
	956						48	48	YIELD	R1-2		6.93									
	957						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	958	1192+10	EB	RIGHT	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	959						54	18	ONE WAY	R6-1R		6.75									
	960						36	36	STOP	R1-1		9.00									
	961						36	30	DIVIDED HIGHWAY	R6-3		7.50									
	962						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
TH 60	963	1192+40	WB	LEFT	2-U	2	54	18	ONE WAY	R6-1R	1	6.75									
	964						48	48	YIELD	R1-2		6.93									
	965						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	966	1192+29	WB	RIGHT	2-U	1	54	18	ONE WAY	R6-1L	1	6.75									
TH 60	967	1194+29	EB	RIGHT	A TYPE				EXITS TO ST JAMES	A SIGN						NA					
TH 60	968	1195+41	WB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L	1	9.00									
TH 60	969	1205+36	EB	RIGHT	2-U		12	36	MILE 64	D10-2						1	1				
TH 60	970	1205+36	WB	RIGHT	2-U		12	36	MILE 64	D10-2						1	1				
TH 60	971	1213+34	EB	RIGHT	A TYPE				ST JAMES SHERBURN EXIT 1 MILE	A SIGN						NA					
TH 60	972	1219+83	EB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L	1	9.00									
TH 60	973	1223+98	EB	MED	2-U	1	48	48	YIELD	R1-2	1	6.93									
	974						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	975	1224+12	EB	RIGHT	2-U	1	54	18	ONE WAY	R6-1L	1	6.75									
TH 60	976	1225+28	WB	MED	2-U	1	48	48	YIELD	R1-2		6.93									
	977						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y	1						1				
TH 60	978	1228+34	WB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L	1	9.00									
TH 60	979	1233+73	WB	RIGHT	2-U	2	102	48	BUTTERFIELD MT LAKE WINDOM	D2-3	1	34.00									
TH 60	980	1238+78	WB	RIGHT	2-U	1	36	48	SPEED LIMIT 65	R2-1	1	12.00									
TH 60	982	1238+66	EB	MED	2-U	1	42	30	WRONG WAY	R5-1a	1	8.75									
	981						36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	983	1238+70	EB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R	1	9.00									
TH 60	984	1241+95	EB	LEFT	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	985	1243+25	EB	MED	2-U	2	54	18	ONE WAY	R6-1R	1	6.75									
	986						54	18	ONE WAY	R6-1L		6.75									
	987						48	48	YIELD	R1-2		6.93									
TH 60	988	1243+42	WB	RIGHT	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	989						54	18	ONE WAY	R6-1R		6.75									
	990						36	36	STOP	R1-1		9.00									
	991						36	30	DIVIDED HIGHWAY	R6-3		7.5									
TH 60	992	1244+36	EB	RIGHT	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	993						54	18	ONE WAY	R6-1R		6.75									
	994						36	36	STOP	R1-1		9.00									
	995						36	30	DIVIDED HIGHWAY	R6-3		7.5									
TH 60	996	1245+04	WB	MED	2-U	2	54	18	ONE WAY	R6-1R	1	6.75									
	997						54	18	ONE WAY	R6-1L		6.75									
	998						48	48	YIELD	R1-2		6.93									
TH 60	999	1246+05	WB	LEFT	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	1000	1246+40	EB	RIGHT	2-U	2	108	66	MN 60 NEXT RIGHT	D SIGN		49.5	1	49.50							
TH 60	1001	1247+64	WB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R	1	9.00									
TH 60	1003	1247+93	WB	MED	2-U	1	42	30	WRONG WAY	R5-1a	1	8.75									
	1002						36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	1004	1253+31	EB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1253+31	EB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	1005	1254+51	EB	RIGHT	4-U	4	144	84	MOTORIST SERVICES	E10-1s	1	84.00									
TH 60	1006	1254+94	WB	RIGHT	2-U	1	36	18	WEST	M3-4a	1	4.5									
	1007						36	36	MN 60	M1-5a		9.00									
TH 60	1008	1256+43	EB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	1009						48	48	YIELD	R1-2		6.93									
	1010						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	1011	1257+96	WB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	1012						48	48	YIELD	R1-2		6.93									
	1013						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	129	1258+80	EB	RIGHT	2-U		36	12	MILE 65	D10-2						1	1				

SEE SHEET NO. XX FOR TOTALS.

SPECIFIC NOTES:

(1) SEE DELINEATORS AND MARKERS TAB ON SHEET NO. XX.

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NO	DATE	DWN	CKD	REVISIONS

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PRINT NAME: MICHAEL P. MCGURD
SIGNATURE:
DATE _____ LICENSE # 19902

SIGNING TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 261 OF 283 SHEETS

ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER XXXX (EACH)	INSTALL MARKER XXXX (EACH)
TH 60	130	1258+80	WB	RIGHT	2-U		36	12	MILE 65	D10-2						1	1				
TH 60	131	1259+00	WB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60	132	1259+00	WB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	133	1262+30	EB	RIGHT	2-U	2	72	18	HICKORY INN RESTAURANT	D9-X6								1	1		
	134						72	12	NEXT RIGHT	D9-X6											
	135						72	18	M PLAY PLACE	D9-X6											
TH 60	136	1268+62	EB	RIGHT	A TYPE		150	162	MN 4 CO 57 ST JAMES SHERBURN	A SIGN	NA										
TH 60	137	1275+00	EB	RIGHT	1-U		18	18	9 BUTTON MARKER	X4-2						1	1				
TH 60	138	1275+10	WB	RIGHT	2-U	1	48	48	MERGE RIGHT SYMBOL	W4-1R											
TH 60	139	1276+18	EB	RIGHT	2-U	2	72	60	EXIT	E5-1		30.00									
	140						8	24	GUIDE MARKER WHITE	X4-6W	1						1				
	141						8	24	GUIDE MARKER YELLOW	X4-6Y							1				
TH 60	142	1277+20	EB	RIGHT	1-U		8	24	GUIDE MARKER WHITE	X4-6W					1		1				
TH 60	143	1278+30	EB	RIGHT	1-U		8	24	GUIDE MARKER WHITE	X4-6W					1		1				
TH 60	144	1284+20	EB	MED	COLUMN		18	36	CLEARANCE MARKER	X4-4L						1					
TH 60	283	1284+74	EB	RIGHT	COLUMN		18	36	CLEARANCE MARKER	X4-4R						1					
TH 60	284	1285+18	WB	RIGHT	COLUMN		18	36	CLEARANCE MARKER	X4-4R						1					
TH 60	285	1285+30	WB	MED	COLUMN		18	36	CLEARANCE MARKER	X4-4L						1					
TH 60	286	1287+48	EB	RIGHT	2-U	1	60	36	ADOPT A HIGHWAY	I-X1								1	1		
TH 60	287	1287+65	WB	RIGHT	2-U	1	60	18	ST JAMES SERTOMA CLUB	I-X1a	1	7.50									
	288						60	36	ADOPT A HIGHWAY	I-X1		15.00									
TH 60	289	1291+00	WB	RIGHT	1-U		8	24	GUIDE MARKER WHITE	X4-6W					1		1				
TH 60	290	1291+00	WB	RIGHT	1-U		8	24	GUIDE MARKER WHITE	X4-6W					1		1				
TH 60	291	1292+30	WB	RIGHT	2-U	2	72	60	EXIT	E5-1		30.00									
	292						8	24	GUIDE MARKER WHITE	X4-6W	1						1				
	293						8	24	GUIDE MARKER YELLOW	X4-6Y							1				
TH 60	294	1294+16	WB	LEFT	1-U		12	24	SARGENT STRIPE	X4-4C					1		1				
TH 60	295	1295+40	EB	RIGHT	2-U	1	48	48	MERGE RIGHT SYMBOL	W4-1R											
TH 60	296	1308+60	WB	RIGHT	2-U	2	72	18	HICKORY INN RESTAURANT	D9-X6								1	1		
	297						72	12	NEXT RIGHT	D9-X6											
TH 60	298	1303+38	WB	RIGHT	A TYPE				MN 4 CO 57 SHERBURN	A SIGN	NA										
TH 60	299	1311+74	WB	RIGHT	2-U		12	36	MILE 66	D10-2						1	1				
	300						10	10	HWY 60	D10-X2							1				
TH 60	301	1311+74	EB	RIGHT	2-U	2	36	48	SPEED LIMIT 65	R2-1		12.00									
	302						12	36	MILE 66	D10-2	1						1				
	303						10	10	HWY 60	D10-X2							1				
TH 60	304	1313+02	EB	RIGHT	2-U	2	36	36	MN 60	M1-5a	1	9.00									
	305						36	36	MN 4	M1-5a		9.00									
	306						36	18	NORTH	M3-1a		4.50									
	307						36	18	EAST	M3-2a		4.50									
TH 60	308	1351+57	EB	MED	2-U	1	36	36	NO U TURN	R3-4	1	9.00									
	309						36	36	NO U TURN	R3-4		9.00									
TH 60	310	1360+65	EB	RIGHT	COLUMN		18	36	CLEARANCE MARKER	X4-4R						1					
TH 60	311	1360+69	EB	LEFT	A TYPE		156	126	NORTH MN 4 WEST MN 30	A SIGN	NA										
TH 60	312	1361+76	EB	MED	COLUMN		18	36	CLEARANCE MARKER	X4-4L						1					
TH 60	313	1361+92	WB	RIGHT	COLUMN		18	36	CLEARANCE MARKER	X4-4R						1					
TH 60	314	1361+94	WB	LEFT	A TYPE				NORTH MN 4 WEST CO 57	A SIGN	NA										
TH 60	315	1361+99	WB	MED	COLUMN		18	36	CLEARANCE MARKER	X4-4L						1					
TH 60	316	1362+89	EB	RIGHT	2-U		12	36	MILE 67	D10-2						1	1				
	317						10	10	HWY 60	D10-X2							1				
TH 60	318	1362+89	WB	RIGHT	2-U		12	36	MILE 67	D10-2						1	1				
	319						10	10	HWY 60	D10-X2							1				
TH 60	320	1381+65	EB	RIGHT	4-U	4	144	84	MOTORIST SERVICES	E10-1	1	84.00									
TH 60	321	1384+49	EB	RIGHT	FLASHER		72	60	ROAD CLOSED WHEN FLASHING	W3-X6	NA										
TH 60	322	1387+59	EB	RIGHT	2-U	2	72	12	NEXT RIGHT	D9-X6								1	1		
	323						72	18	SUPER 8 MOTEL	D9-X6R											
TH 60	324	1390+34	EB	RIGHT	3-U	3	108	66	XC 27 NEXT EXIT	D SIGN			1	49.50							
TH 60	325	1391+69	WB	RIGHT	2-U	2	36	36	MN 4	M1-5a	1	9.00									
	326						36	36	MN 60	M1-5a		9.00									
	327						36	18	SOUTH	M3-3a		4.50									
	328						36	18	WEST	M3-4a		4.50									
TH 60	329	1398+79	EB	RIGHT	A TYPE		156	138	NORTH MN 4 WEST MN 30	A SIGN	NA										
TH 60	330	1405+24	EB	RIGHT	1-U		18	18	9 BUTTON MARKER	X4-2						1	1				
TH 60	331	1406+59	EB	RIGHT	2-U	2	72	60	EXIT	E5-1		30.00									
	332						8	24	GUIDE MARKER WHITE	X4-6W	1						1				
	333						8	24	GUIDE MARKER YELLOW	X4-6Y							1				
TH 60	334	1407+54	EB	RIGHT	1-U		8	24	GUIDE MARKER WHITE	X4-6W					1		1				

SEE SHEET NO. XX FOR TOTALS.

SPECIFIC NOTES:

(1) SEE DELINEATORS AND MARKERS TAB ON SHEET NO. XX.

NO	DATE	DWN	CKD	REVISIONS

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PRINT NAME: MICHAEL P MCGUIRE
SIGNATURE:
DATE _____ LICENSE # 41902

SIGNING TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 262 OF 283 SHEETS

ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER XXXX (EACH)	INSTALL MARKER XXXX (EACH)
TH 60	335	1407+94	WB	RIGHT	2-U	1	48	48	MERGE RIGHT SYMBOL	W4-1R	1	16.00									
TH 60	336	1408+44	EB	RIGHT	1-U		8	24	GUIDE MARKER WHITE	X4-6W					1		1				
TH 60	337	1411+68	EB	RIGHT	2-U	1	60	18	EYE CARE CENTER ST JAMES	I-X1a								1	1		
	338						60	36	ADOPT A HIGHWAY	I-X1											
TH 60	339	1411+68	WB	RIGHT	2-U	1	60	18	WATONWAN COUNTY HUMANE SOCIETY	I-X1a								1	1		
	340						60	36	ADOPT A HIGHWAY	I-X1											
TH 60	341	1417+27	EB	RIGHT	2-U		12	36	MILE 68	D10-2						1	1				
	342						10	10	HWY 60	D10-X2							1				
TH 60	343	1417+27	WB	RIGHT	2-U		12	36	MILE 68	D10-2						1	1				
	344						10	10	HWY 60	D10-X2							1				
TH 60	345	1417+07	EB	RIGHT	COLUMN		18	36	CLEARANCE MARKER	X4-4R						1					
TH 60	346	1417+47	EB	LEFT	COLUMN		18	36	CLEARANCE MARKER	X4-4L						1					
TH 60	347	1418+12	WB	MED	COLUMN		18	36	CLEARANCE MARKER	X4-4L						1					
TH 60	348	1418+27	WB	RIGHT	COLUMN		18	36	CLEARANCE MARKER	X4-4R						1					
TH 60	349	1425+52	WB	RIGHT	1-U		8	24	GUIDE MARKER WHITE	X4-6W					1						
TH 60	350	1425+92	EB	LEFT	2-U	1	48	48	MERGE RIGHT SYMBOL	W4-1R	1	16.00									
TH 60	351	1426+52	WB	RIGHT	1-U		8	24	GUIDE MARKER WHITE	X4-6W					1		1				
TH 60	352	1427+52	WB	RIGHT	2-U	2	8	24	GUIDE MARKER WHITE	X4-6W							1				
	353						8	24	GUIDE MARKER YELLOW	X4-6Y	1						1				
	354						72	60	EXIT	E5-1		30.00									
TH 60	355	1428+72	WB	RIGHT	1-U		18	18	9 BUTTON MARKER	X4-2							1				
TH 60	356	1435+77	WB	RIGHT	A TYPE		156	138	NORTH MN 4 WEST MN 30	A SIGN	NA										
TH 60	357	1444+02	WB	RIGHT	2-U	2	108	60	CO 27 NEXT RIGHT	D SIGN			1	45.00							
TH 60	358	1445+08	EB	RIGHT	1-U		18	12	BRIDGE NUMBER	X4-12						1					
TH 60		1445+08	EB	RIGHT	1-U		6	18	BRIDGE NUMBER	X4-12a							1				
TH 60	359	1446+09	EB	RIGHT	3-U	3	126	84	CO 12 EXIT 1 MILE	D SIGN			1	73.50							
TH 60	360	1447+87	WB	RIGHT	2-U	2	72	12	NEXT RIGHT	D9-X6								1	1		
	361						72	18	MCDONALDS	D9-X6R											
TH 60	362	1451+27	WB	RIGHT	FLASHER		60	48	ROAD CLOSED WHEN FLASHING	W3-X6	NA										
TH 60	363	1456+28	EB	RIGHT	2-U	2	36	36	MN 60	M1-5a		9.00									
	364						36	36	MN 30	M1-5a	1	9.00									
	365						36	18	EAST	M3-2a		4.50									
TH 60	366	1460+77	WB	RIGHT	2-U	2	120	48	HOSPITAL NEXT RIGHT	E10-3-a	1	40.00									
TH 60	367	1470+54	EB	RIGHT	2-U		12	36	BLANK MILE	D10-2						1	1				
	368						10	10	HWY 60	D10-X2							1				
TH 60	369	1470+54	WB	RIGHT	2-U		12	36	BLANK MILE	D10-2						1	1				
	370						10	10	HWY 60	D10-X2							1				
TH 60	371	1474+54	WB	RIGHT	2-U	2	36	36	MN 30	M1-5a		9.00									
	372						36	36	MN 60	M1-5a	1	9.00									
	373						36	18	WEST	M3-4a		4.50									
TH 60	374	1480+34	WB	RIGHT	A TYPE		156	126	NORTH MN 4 WEST MN 30	A SIGN	NA										
TH 60	375	1493+90	EB	RIGHT			84	102	CO 12 WITH ARROW	D SIGN			1	59.50							
TH 60	376	1499+54	WB	RIGHT	2-U	1	48	48	MERGE RIGHT SYMBOL	W4-1R	1	16.00									
TH 60	377	1500+40	EB	RIGHT	1-U		18	18	9 BUTTON MARKER	X4-2						1	1				
TH 60	378	1501+61	EB	RIGHT	2-U	2	72	60	EXIT	E5-1		30.00									
	379						8	24	GUIDE MARKER WHITE	X4-6W							1				
	380						8	24	GUIDE MARKER YELLOW	X4-6Y							1				
TH 60	381	1502+66	EB	RIGHT	1-U		8	24	GUIDE MARKER WHITE	X4-6W					1		1				
TH 60	382	1503+60	EB	RIGHT	1-U		8	24	GUIDE MARKER YELLOW	X4-6Y					1		1				
TH 60	383	1509+04	EB	MED	COLUMN		18	36	CLEARANCE MARKER	X4-4L						1					
TH 60	384	1509+53	EB	RIGHT	COLUMN		18	36	CLEARANCE MARKER	X4-4R						1					
TH 60	385	1509+94	WB	RIGHT	COLUMN		18	36	CLEARANCE MARKER	X4-4R						1					
TH 60	386	1510+29	WB	LEFT	COLUMN		18	36	CLEARANCE MARKER	X4-4L						1					
TH 60	388	1513+03	EB	RIGHT	2-U	1	60	18	ST JAMES SALUTORS	I-X1a	1	7.50									
	387						60	36	ADOPT A HIGHWAY	I-X1		15.00									
TH 60	389	1513+04	WB	RIGHT	2-U	1	60	18	EYE CARE CENTER ST JAMES	I-X1a								1	1		
	390						60	36	ADOPT A HIGHWAY	I-X1											
TH 60	391	1514+59	WB	RIGHT	1-U		8	24	GUIDE MARKER WHITE	X4-6W					1		1				
TH 60	392	1515+34	WB	RIGHT	1-U		8	24	GUIDE MARKER WHITE	X4-6W					1		1				
TH 60	393	1516+84	WB	RIGHT	2-U	2	8	24	GUIDE MARKER WHITE	X4-6W							1				
	394						8	24	GUIDE MARKER YELLOW	X4-6Y							1				
	395						72	60	EXIT	E5-1											
TH 60	396	1517+69	WB	RIGHT	1-U		18	18	9 BUTTON MARKER	X4-2						1	1				
TH 60	397	1521+32	EB	LEFT	2-U	1	48	48	MERGE RIGHT SYMBOL	W4-1R	1	16.00									
TH 60		1522+91	EB	LEFT	1-U		10	27	MILE 70	D10-2						1					
							10	10	HWY 60	D10-X2											
TH 60	398	1522+91	EB	RIGHT	2-U		12	36	MILE 70	D10-2							1				
	399						10	10	HWY 60	D10-X2							1				

SEE SHEET NO. XX FOR TOTALS.

SPECIFIC NOTES:

(1) SEE DELINEATORS AND MARKERS TAB ON SHEET NO. XX.

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: MICHAEL P MCGUIRE
SIGNATURE: DRAFT COPY DRAFT COPY
DATE _____ LICENSE # 41902

SIGNING TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 263 OF 283 SHEETS

ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER XXXX (EACH)	INSTALL MARKER XXXX (EACH)
TH 60	400	1522+91	WB	RIGHT	2-U		12	36	MILE 70	D10-2						1	1				
	401						10	10	HWY 60	D10-X2							1				
TH 60	402	1524+06	WB	RIGHT	A SIGN		144	84	CO 12 ST JAMES	A SIGN	NA										
TH 60	403	1526+81	EB	MED	2-U	1	36	36	NO U TURN	R3-4	1	9.00									
	404						36	36	NO U TURN	R3-4		9.00									
TH 60	407	1538+50	EB	RIGHT	2-U	2	36	18	EAST	M3-2a	1	4.50									
	405						36	36	MN 30	M1-5a		9.00									
	406						36	36	MN 60	M1-5a		9.00									
TH 60	408	1540+44	WB	RIGHT	4-U	4	144	84	MOTORIST SERVICES	E10-1	1	84.00									
TH 60	409	1548+84	EB	RIGHT	2-U	1	36	48	SPEED LIMIT 65	R2-1	1	12.00									
TH 60	410	1559+01	EB	RIGHT	2-U	2	90	36	MANDELIA 14 MANKATO 37	D2-2	1	22.50									
TH 60	411	1564+91	WB	RIGHT	A SIGN		144	84	CO 12 ST JAMES EXIT 1 MILE	A SIGN	NA										
TH 60	412	1568+39	EB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1568+39	EB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	413	1570+61	WB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	415						48	48	YIELD	R1-2		6.93									
	414						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	416	1571+09	EB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	418						48	48	YIELD	R1-2		6.93									
	417						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	419	1573+61	WB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1573+61	WB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	420	1580+92	EB	RIGHT	2-U		12	36	MILE 71	D10-2						1	1				
	421						10	10	HWY 60	D10-X2							1				
TH 60	422	1580+92	WB	RIGHT	2-U		12	36	MILE 71	D10-2						1	1				
	423						10	10	HWY 60	D10-X2							1				
TH 60	424	1588+02	EB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1588+02	EB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	425	1591+07	WB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	427						48	48	YIELD	R1-2		6.93									
	426						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	428	1591+44	EB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	430						48	48	YIELD	R1-2		6.93									
	429						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	431	1594+22	WB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1594+22	WB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	432	1611+69	EB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1										
TH 60		1611+69	EB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R		9.00									
TH 60	433	1611+84	EB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1611+84	EB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	434	1613+45	EB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	438	1615+02	WB	RIGHT	2-U	2	36	12	ONE WAY	R6-1L	1	3.00									
	435						36	12	ONE WAY	R6-1R		3.00									
	437						36	36	STOP	R1-1		9.00									
	439						24	18	DIVIDED HIGHWAY	R6-3		3.00									
	436						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
TH 60	440	1614+58	WB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	442						48	48	YIELD	R1-2		6.93									
	441						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	443	1614+99	EB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	445						48	48	YIELD	R1-2		6.93									
	444						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	449	1614+57	EB	RIGHT	2-U	2	36	12	ONE WAY	R6-1L	1	3.00									
	446						36	12	ONE WAY	R6-1R		3.00									
	448						36	36	STOP	R1-1		9.00									
	450						24	18	DIVIDED HIGHWAY	R6-3		3.00									
	447						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
TH 60	451	1616+07	WB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	452	1617+87	WB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1										
TH 60		1617+87	WB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R		9.00									
TH 60	453	1617+89	WB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1617+89	WB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									

SEE SHEET NO. XX FOR TOTALS.

SPECIFIC NOTES:

(1) SEE DELINEATORS AND MARKERS TAB ON SHEET NO. XX.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: MICHAEL P MCCURDY
SIGNATURE:
DATE _____ LICENSE # 43902

SIGNING TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 264 OF 283 SHEETS

ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER XXXX (EACH)	INSTALL MARKER XXXX (EACH)
TH 60	454	1623+47	WB	RIGHT	A TYPE		168	126	EXIST TO ST JAMES	A SIGN						NA					
TH 60	455	1633+75	EB	RIGHT	2-U		12	36	MILE 72	D10-2						1	1				
	456						10	10	HWY 60	D10-X2							1				
TH 60	457	1633+75	WB	RIGHT	2-U		12	36	MILE 72	D10-2						1	1				
	458						10	10	HWY 60	D10-X2							1				
TH 60	459	1638+11	EB	LEFT	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1638+11	EB	LEFT	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	460	1638+13	EB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1										
TH 60		1638+13	EB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R		9.00									
TH 60	461	1640+09	EB	LEFT	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	462	1640+85	WB	RIGHT	2-U		36	12	ONE WAY	R6-1L	1										
TH 60	463	1641+00	WB	MED	2-U	2	54	18	ONE WAY	R6-1L		6.75									
	465						48	48	YIELD	R1-2	1	6.93									
	464						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	467	1641+43	EB	RIGHT	2-U	2	36	12	ONE WAY	R6-1L											
	468						36	12	ONE WAY	R6-1R											
	466						30	30	STOP	R1-1	1										
	469						36	30	DIVIDED HIGHWAY	R6-3a											
	470						22	9	CYLINDER DELINEATOR WHITE	X4-13W											
	471						22	9	CYLINDER DELINEATOR WHITE	X4-13W											
TH 60	472	1641+44	EB	MED	2-U	2	54	18	ONE WAY	R6-1L		6.75									
	474						48	48	YIELD	R1-2	1	6.93									
	473						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	475	1642+40	WB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	476	1644+55	WB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1644+55	WB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	477	1647+18	EB	RIGHT	3-U	3	138	54	REST AREA 3/4 MILE LEFT LANE	D5-1	1	51.75									
TH 60	479	1651+67	EB	RIGHT	2-U	1	30	24	JCT	M2-1	1	5.00									
	478						36	36	WATONWAN COUNTY 103	M1-X4		9.00									
TH 60	480	1655+60	WB	RIGHT	2-U	1	60	36	ADOPT A HIGHWAY	I-X1	1	15.00									
	481						60	18	ST JAMES SALUTORS	I-X1a		7.50									
TH 60	482	1655+70	EB	RIGHT	2-U	1	60	36	ADOPT A HIGHWAY	I-X1	1	15.00									
	483						60	18	ROTARY CLUB OF ST JAMES	I-X1a		7.50									
TH 60	484	1661+28	EB	RIGHT	2-U	1	36	36	WATONWAN COUNTY 103	M1-X4	1	9.00									
	485						30	24	RIGHT ARROW	M6-1		5.00									
TH 60	486	1661+30	WB	RIGHT	2-U	1	36	48	SPEED LIMIT 65	R2-1	1	12.00									
TH 60	487	1664+13	EB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1664+13	EB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	488	1664+48	EB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1										
TH 60		1664+48	EB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R		9.00									
TH 60	491	1665+25	WB	RIGHT	2-U	2	36	18	WEST	M3-4a		4.50									
	489						36	36	MINNESOTA 30	M1-5a	1	9.00									
	490						36	36	MINNESOTA 60	M1-5a		9.00									
TH 60	492	1666+65	EB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	496	1667+30	WB	RIGHT	2-U	2	54	18	ONE WAY	R6-1L		6.75									
	493						54	18	ONE WAY	R6-1R		6.75									
	495						36	36	STOP	R1-1	1	9.00									
	497						36	30	DIVIDED HIGHWAY	R6-3a		7.50									
	494						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
TH 60	498	1667+32	WB	MED	2-U	2	54	18	ONE WAY	R6-1L		6.75									
	500						48	48	YIELD	R1-2	1	6.93									
	499						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	504	1668+14	EB	RIGHT	2-U	2	54	18	ONE WAY	R6-1L		6.75									
	501						54	18	ONE WAY	R6-1R		6.75									
	503						36	36	STOP	R1-1	1	9.00									
	505						36	30	DIVIDED HIGHWAY	R6-3a		7.50									
	502						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
TH 60	506	1668+16	EB	MED	2-U	2	54	18	ONE WAY	R6-1L		6.75									
	508						48	48	YIELD	R1-2	1	6.93									
	507						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	509	1668+70	WB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									

SEE SHEET NO. XX FOR TOTALS.

SPECIFIC NOTES:

(1) SEE DELINEATORS AND MARKERS TAB ON SHEET NO. XX.

ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER XXXX (EACH)	INSTALL MARKER XXXX (EACH)
TH 60	512	1669+70	EB	RIGHT	2-U	2	36	18	EAST	M3-2a	1	4.50									
	510						36	36	MINNESOTA 30	M1-5a		9.00									
	511						36	36	MINNESOTA 60	M1-5a		9.00									
TH 60	513	1670+60	WB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1										
TH 60		1670+60	WB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R		9.00									
TH 60	514	1670+80	WB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1670+80	WB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	515	1673+45	WB	RIGHT	2-U	1	36	36	WATONWAN COUNTY 103	M1-X4	1	9.00									
	516						30	24	LEFT ARROW	M6-1L		5.00									
TH 60	517	1675+44	EB	RIGHT	2-U	2	114	42	RSET AREA LEFT LANE	D5-1	1	33.25									
TH 60	518	1679+45	WB	RIGHT	2-U	1	30	24	JCT	M2-1	1	5.00									
	519						36	36	WATONWAN COUNTY 103	M1-X4		9.00									
TH 60	520	1680+25	EB	LEFT	1-U		6	12	PLOW MARKER	X4-5	NA										
TH 60	521	1680+75	EB	RIGHT	1-U		6	12	PLOW MARKER	X4-5						1					
TH 60	522	1682+92	EB	RIGHT	2-U	2	78	78	REST AREA LEFT	D5-5L	1	42.25									
TH 60	523	1683+38	EB	RIGHT	1-U		6	18	BRIDGE MARKER 83030	X4-12										1	1
TH 60	524	1685+05	WB	RIGHT	1-U		6	18	BRIDGE MARKER 83029	X4-12										1	1
TH 60	525	1686+70	WB	RIGHT	2-U	1	6	12	PLOW MARKER	X4-5	1										
	526						12	36	MILE 73	D10-2		3.00									
	527						10	10	HWY 60	D10-X2		0.69									
TH 60	528	1686+70	EB	RIGHT	2-U		12	36	MILE 73	D10-2	1	3.00									
	529						10	10	HWY 60	D10-X2		0.69									
TH 60	530	1687+31	EB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1687+31	EB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	531	1688+35	WB	RIGHT	1-U		6	12	PLOW MARKER	X4-5	NA										
TH 60	532	1688+76	WB	LEFT	1-U		6	12	PLOW MARKER	X4-5	NA										
TH 60	537	1689+85	WB	RIGHT	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	533						54	18	ONE WAY	R6-1R		6.75									
	535						36	36	STOP	R1-1		9.00									
	536						36	30	DIVIDED HIGHWAY	R6-3a		7.50									
	534						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
TH 60	543	1689+86	WB	MED			36	18	EAST	M3-2a	1	4.50									
	539						36	36	MINNESOTA 30	M1-5a		9.00									
	541						36	36	MINNESOTA 60	M1-5a		9.00									
	538						30	24	ADVANCED LEFT TURN	M5-1La		5.00									
	544						36	18	WEST	M3-4a		4.50									
	540						36	36	MINNESOTA 30	M1-5a		9.00									
	542						36	36	MINNESOTA 60	M1-5a		9.00									
	545						30	24	RIGHT ARROW	M6-1Ra		5.00									
TH 60	546	1689+87	WB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	548						48	48	YIELD	R1-2		6.93									
	547						22	9	CYLINDER DELINEATOR YELLOW	X4 13Y							1				
TH 60	549	1690+19	EB	RIGHT	2-U	1	54	18	ONE WAY	R6-1L	1	6.75									
TH 60	550	1690+53	EB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	552						48	48	YIELD	R1-2		6.93									
	551						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	553	1691+35	WB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	554	1693+55	WB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1										
TH 60		1693+55	WB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R		9.00									
TH 60	555	1708+04	EB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1708+04	EB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	557	1709+88	EB	RIGHT	2-U	1	30	24	JCT	M2-1	1	5.00									
	556						36	36	WATONWAN COUNTY 118	M1-X4		9.00									
TH 60	558	1710+70	EB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	562	1711+20	WB	RIGHT	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	559						54	18	ONE WAY	R6-1R		6.75									
	561						36	36	STOP	R1-1		9.00									
	563						36	30	DIVIDED HIGHWAY	R6-3a		7.50									
	560						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
TH 60	568	1711+21	WB	MED			36	18	EAST	M3-2a	1	4.50									
	564						36	36	MINNESOTA 30	M1-5a		9.00									
	565						36	36	MINNESOTA 60	M1-5a		9.00									
	570						30	24	ADVANCED LEFT TURN	M5-1La		5.00									
	569						36	18	WEST	M3-4a		4.50									
	566						36	36	MINNESOTA 30	M1-5a		9.00									
	567						36	36	MINNESOTA 60	M1-5a		9.00									
	571						30	24	RIGHT ARROW	M6-1Ra		5.00									

SEE SHEET NO. XX FOR TOTALS.

SPECIFIC NOTES:

(1) SEE DELINEATORS AND MARKERS TAB ON SHEET NO. XX.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: MICHAEL P MCCURDY
SIGNATURE: DRAFT COPY DRAFT COPY
DATE _____ LICENSE # 41902

SIGNING TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 266 OF 283 SHEETS

ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER XXXX (EACH)	INSTALL MARKER XXXX (EACH)
TH 60	572	1711+22	WB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	574						48	48	YIELD	R1-2		6.93									
	573						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	575	1712+03	EB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	577						48	48	YIELD	R1-2		6.93									
	576						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	578	1712+13	EB	RIGHT	2-U	1	54	18	ONE WAY	R6-1L	1	6.75									
TH 60	579	1712+70	WB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	580	1713+90	EB	RIGHT	3-U	3	120	60	EAGLE'S NEST COUNTY PARK	PAY SIGN								1	1		
TH 60	581	1714+90	WB	RIGHT	2-U		30	30	RIGHT LANE MUST TURN RIGHT	R3-7R								1	1		
TH 60	582	1715+20	WB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1715+20	WB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	583	1717+56	EB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1717+56	EB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	584	1717+58	EB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1										
TH 60		1717+58	EB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R		9.00									
TH 60	585	1717+90	WB	RIGHT	2-U	2	78	78	REST AREA RIGHT ARROW	D5-5R	1	42.25									
TH 60	586	1719+75	EB	RIGHT	2-U	1	36	36	WATONWAN COUNTY 118	M1-X4	1	9.00									
	587						30	24	LEFT ARROW	M6-1L		5.00									
TH 60	588	1719+98	EB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	592	1720+75	WB	RIGHT	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	589						54	18	ONE WAY	R6-1R		6.75									
	591						36	36	STOP	R1-1		9.00									
	593						36	30	DIVIDED HIGHWAY	R6-3a		7.50									
	590						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
TH 60	594	1720+80	WB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	596						48	48	YIELD	R1-2		6.93									
	595						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	600	1721+10	EB	RIGHT	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	597						54	18	ONE WAY	R6-1R		6.75									
	599						36	36	STOP	R1-1		9.00									
	601						36	30	DIVIDED HIGHWAY	R6-3a		7.50									
	598						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
TH 60	602	1721+30	EB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	604						48	48	YIELD	R1-2		6.93									
	603						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	605	1722+20	WB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	608	1722+33	EB	RIGHT	2-U	2	36	18	EAST	M3-2a	1	4.50									
	606						36	36	MINNESOTA 30	M1-5a		9.00									
	607						36	36	MINNESOTA 60	M1-5a		9.00									
TH 60	609	1724+20	WB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1										
TH 60		1724+20	WB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R		9.00									
TH 60	610	1724+50	WB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1724+50	WB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	611	1727+20	WB	RIGHT	2-U	1	36	36	WATONWAN COUNTY 118	M1-X4	1	9.00									
	612						30	24	RIGHT ARROW	M6-1R		5.00									
TH 60	613	1727+57	EB	RIGHT	2-U	1	36	48	SPEED LIMIT 65	R2-1	1	12.00									
TH 60	614	1730+95	EB	RIGHT	3-U	3	120	60	EAGLE'S NEST COUNTY PARK	PAY SIGN								1	1		
TH 60	616	1735+00	WB	RIGHT	2-U	1	30	24	JCT	M2-1	1	5.00									
	615						36	36	WATONWAN COUNTY 118	M1-X4		9.00									
TH 60	617	1739+12	EB	RIGHT	2-U		12	36	MILE 74	D10-2	1	3.00									
	618						10	10	HWY 60	D10-X2		0.69									
TH 60	619	1739+12	WB	RIGHT	2-U		12	36	MILE 74	D10-2	1	3.00									
	620						10	10	HWY 60	D10-X2		0.69									
TH 60	621	1740+42	WB	RIGHT	2-U	2	138	42	REST AREA SECOND RIGHT	D5-1	1	40.25									
TH 60	623	1757+75	EB	RIGHT	2-U	1	30	24	JCT	M2-1	1	5.00									
	622						36	36	WATONWAN COUNTY 16	M1-X4		9.00									
TH 60	624	1760+37	WB	RIGHT	2-U	1	60	36	ADOPT A HIGHWAY	I-X1	1	15.00									
	625						60	18	ROTARY CLUB OF ST JAMES	I-X1a		7.50									
TH 60	626	1762+10	EB	RIGHT	2-U	1	60	18	ST JAMES EAGLES AERIE, AUX & RIDERS	I-X1a								1	1		
	627						60	36	ADOPT A HIGHWAY	I-X1											

SEE SHEET NO. XX FOR TOTALS.

SPECIFIC NOTES:

(1) SEE DELINEATORS AND MARKERS TAB ON SHEET NO. XX.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: MICHAEL P MCCURDY

SIGNATURE: DRAFT COPY DRAFT COPY

DATE _____ LICENSE # 43902

SIGNING TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 267 OF 283 SHEETS

ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER XXXX (EACH)	INSTALL MARKER XXXX (EACH)
TH 60	628	1764+12	WB	RIGHT	2-U	2	114	48	REST AREA 1 MILE	D5-1	1	38.00									
TH 60	629	1767+86	EB	RIGHT	2-U	1	36	36	WATONWAN COUNTY 16	M1-X4	1	9.00									
	630						30	24	DOUBLE ARROW	M6-4		5.00									
TH 60	631	1770+30	EB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1										
TH 60		1770+30	EB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R		9.00									
TH 60	632	1770+32	EB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1770+32	EB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	635	1772+02	WB	RIGHT	2-U	2	36	18	WEST	M3-4a	1	4.50									
	633						36	36	MINNESOTA 30	M1-5a		9.00									
	634						36	36	MINNESOTA 60	M1-5a		9.00									
TH 60	636	1772+75	EB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	640	1773+47	WB	RIGHT	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	637						54	18	ONE WAY	R6-1R		6.75									
	639						36	36	STOP	R1-1		9.00									
	641						36	30	DIVIDED HIGHWAY	R6-3a		7.50									
	638						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
TH 60	642	1773+52	WB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	644						48	48	YIELD	R1-2		6.93									
	643						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	645	1774+09	EB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	647						48	48	YIELD	R1-2		6.93									
	646						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	651	1774+16	EB	RIGHT	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	648						54	18	ONE WAY	R6-1R		6.75									
	650						36	36	STOP	R1-1		9.00									
	652						36	30	DIVIDED HIGHWAY	R6-3a		7.50									
	649						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
TH 60	653	1774+92	WB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	656	1775+29	EB	RIGHT	2-U	2	36	18	EAST	M3-2a	1	4.50									
	654						36	36	MINNESOTA 30	M1-5a		9.00									
	655						36	36	MINNESOTA 60	M1-5a		9.00									
TH 60	657	1777+37	WB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1										
TH 60		1777+37	WB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R		9.00									
TH 60	658	1777+38	WB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1777+38	WB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	659	1779+77	WB	RIGHT	2-U	1	36	36	WATONWAN COUNTY 16	M1-X4	1	9.00									
	660						30	24	DOUBLE ARROW	M6-4		5.00									
TH 60	661	1789+32	WB	RIGHT	2-U	1	30	24	JCT	M2-1	1	5.00									
	662						36	36	WATONWAN COUNTY 16	M1-X4		9.00									
TH 60	663	1791+67	EB	RIGHT	2-U		12	36	MILE 75	D10-2	1	3.00									
	664						10	10	HWY 60	D10-X2		0.69									
TH 60	665	1791+67	WB	RIGHT	2-U		12	36	MILE 75	D10-2	1	3.00									
	666						10	10	HWY 60	D10-X2		0.69									
TH 60	668	1808+57	EB	RIGHT	2-U	1	30	24	JCT	M2-1	1	5.00									
	667						36	36	WATONWAN COUNTY 109	M1-X4		9.00									
TH 60	669	1818+50	EB	RIGHT	2-U	1	36	36	WATONWAN COUNTY 109	M1-X4	1	9.00									
	670						30	24	DOUBLE ARROW	M6-4		5.00									
TH 60	671	1821+58	EB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1821+58	EB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	672	1821+59	EB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1										
TH 60		1821+59	EB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R		9.00									
TH 60	675	1823+07	WB	RIGHT	2-U	2	36	18	WEST	M3-4a	1	4.50									
	673						36	36	MINNESOTA 30	M1-5a		9.00									
	674						36	36	MINNESOTA 60	M1-5a		9.00									
TH 60	576	1823+87	EB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	680	1824+62	WB	RIGHT	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	677						54	18	ONE WAY	R6-1R		6.75									
	679						36	36	STOP	R1-1		9.00									
	681						36	30	DIVIDED HIGHWAY	R6-3a		7.50									
	678						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				

SEE SHEET NO. XX FOR TOTALS.

SPECIFIC NOTES:

(1) SEE DELINEATORS AND MARKERS TAB ON SHEET NO. XX.

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: MICHAEL P MCCURDY
SIGNATURE: DRAFT COPY DRAFT COPY
DATE _____ LICENSE # 41902

SIGNING TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 268 OF 283 SHEETS

ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER XXXX (EACH)	INSTALL MARKER XXXX (EACH)
TH 60	682	1824+63	WB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	684						48	48	YIELD	R1-2		6.93									
	683						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	685	1825+13	EB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	687						48	48	YIELD	R1-2		6.93									
	686						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	691	1825+24	EB	RIGHT	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	688						54	18	ONE WAY	R6-1R		6.75									
	690						36	36	STOP	R1-1		9.00									
	692						36	30	DIVIDED HIGHWAY	R6-3a		7.50									
	689						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
TH 60	693	1826+07	WB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	696	1826+54	EB	RIGHT	2-U	2	36	18	EAST	M3-2a	1	4.50									
	694						36	36	MINNESOTA 30	M1-5a		9.00									
	695						36	36	MINNESOTA 60	M1-5a		9.00									
TH 60	697	1827+92	WB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1										
TH 60		1827+92	WB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R		9.00									
TH 60	698	1828+22	WB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1828+22	WB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	699	1831+67	WB	RIGHT	2-U	1	36	36	WATONWAN COUNTY 109	M1-X4	1	9.00									
	700						30	24	DOUBLE ARROW	M6-4		5.00									
TH 60	702	1841+12	WB	RIGHT	2-U	1	30	24	JCT	M2-1	1	5.00									
	701						36	36	WATONWAN COUNTY 109	M1-X4		9.00									
TH 60	703	1844+50	EB	RIGHT	2-U		12	36	MILE 76	D10-2	1	3.00									
	704						10	10	HWY 60	D10-X2		0.69									
TH 60	705	1844+50	WB	RIGHT	2-U		12	36	MILE 76	D10-2	1	3.00									
	706						10	10	HWY 60	D10-X2		0.69									
TH 60	707	1859+90	EB	RIGHT	2-U	2	60	66	JCT 15 1 MILE	D SIGN			1	27.50							
TH 60	709	1865+71	EB	RIGHT	2-U	1	30	24	JCT	M2-1	1	5.00									
	708						36	36	WATONWAN COUNTY 117	M1-X4		9.00									
TH 60	710	1868+81	EB	RIGHT	2-U	1	60	36	ADOPT A HIGHWAY	I-X1	1	15.00									
	711						60	18	GROUND EFFECTS LANDSCAPING	I-X1a		7.50									
TH 60	712	1868+85	WB	RIGHT	2-U	1	60	18	ST JAMES EAGLES AERIE, AUX, & RIDERS	I-X1a								1	1		
	713						60	36	ADOPT A HIGHWAY	I-X1											
TH 60	714	1871+78	EB	RIGHT	2-U	1	36	36	WATONWAN COUNTY 16	M1-X4	1	9.00									
	715						30	24	RIGHT ARROW	M6-1R		5.00									
TH 60	716	1874+34	EB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1874+34	EB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	717	1874+36	EB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1										
TH 60		1874+36	EB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R		9.00									
TH 60	720	1875+65	WB	RIGHT	2-U	2	36	18	WEST	M3-4a	1	4.50									
	718						36	36	MINNESOTA 30	M1-5a		9.00									
	719						36	36	MINNESOTA 60	M1-5a		9.00									
TH 60	721	1876+66	EB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									
TH 60	725	1877+50	WB	RIGHT	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	722						54	18	ONE WAY	R6-1R		6.75									
	724						36	36	STOP	R1-1		9.00									
	726						36	30	DIVIDED HIGHWAY	R6-3a		7.50									
	723						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
TH 60	727	1877+55	WB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	729						48	48	YIELD	R1-2		6.93									
	728						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	730	1878+00	EB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	732						48	48	YIELD	R1-2		6.93									
	731						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	736	1878+11	EB	RIGHT	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	733						54	18	ONE WAY	R6-1R		6.75									
	735						36	36	STOP	R1-1		9.00									
	737						36	30	DIVIDED HIGHWAY	R6-3a		7.50									
	734						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
TH 60	738	1878+90	WB	MED	2-U	1	36	36	DO NOT ENTER	R5-1	1	9.00									

SEE SHEET NO. XX FOR TOTALS.

SPECIFIC NOTES:

(1) SEE DELINEATORS AND MARKERS TAB ON SHEET NO. XX.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: MICHAEL P MCCURDY
SIGNATURE:
DATE _____ LICENSE # 41902

SIGNING TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 269 OF 283 SHEETS

ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER XXXX (EACH)	INSTALL MARKER XXXX (EACH)
TH 60	741	1879+43	EB	RIGHT	2-U	2	36	18	EAST	M3-2a	1	4.50									
	739						36	36	MINNESOTA 30	M1-5a		9.00									
	740						36	36	MINNESOTA 60	M1-5a		9.00									
TH 60	742	1881+05	WB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1										
TH 60		1881+05	WB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R		9.00									
TH 60	743	1881+06	WB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1881+06	WB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	744	1885+05	WB	RIGHT	2-U	1	36	36	WATONWAN COUNTY 117	M1-X4	1	9.00									
	745						30	24	LEFT ARROW	M6-1L		5.00									
TH 60	746	1889+03	EB	RIGHT	A TYPE		144	126	MN 30 MN 15 FAIRMONT	A SIGN	NA										
TH 60	748	1892+40	WB	RIGHT	2-U	1	30	24	JCT	M2-1	1	5.00									
	747						36	36	WATONWAN COUNTY 117	M1-X4		9.00									
TH 60	749	1894+58	EB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1894+58	EB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	750	1894+60	EB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1										
TH 60		1894+60	EB	RIGHT	2-U	1	36	36	RIGHT LANE MUST TURN RIGHT	R3-7R		9.00									
TH 60	751	1893+27	WB	RIGHT	2-U		12	36	MILE 77	D10-2	1	3.00									
	752						10	10	HWY 60	D10-X2		0.69									
TH 60	753	1893+27	EB	RIGHT	2-U		12	36	MILE 77	D10-2	1	3.00									
	754						10	10	HWY 60	D10-X2		0.69									
TH 60	755	1893+72	WB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	757						48	48	YIELD	R1-2		6.93									
	756						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	758	1894+27	EB	MED	2-U	2	54	18	ONE WAY	R6-1L	1	6.75									
	760						48	48	YIELD	R1-2		6.93									
	759						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1				
TH 60	761	1897+32	WB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1										
TH 60		1897+32	WB	MED	2-U	1	36	36	LEFT LANE MUST TURN LEFT	R3-7L		9.00									
TH 60	762	1898+27	WB	RIGHT	2-U	1	36	48	SPEED LIMIT 65	R2-1	1	12.00									
TH 60	765	1906+52	WB	RIGHT	2-U	2	36	18	WEST	M3-4a	1	4.50									
	763						36	36	MINNESOTA 30	M1-5a		9.00									
	764						36	36	MINNESOTA 60	M1-5a		9.00									
TH 60	766	1912+97	EB	RIGHT	1-U		6	12	PLOW MARKER	X4-5	NA										
TH 60	767	1913+43	EB	RIGHT	2-U	1	36	48	EXIT 40 MPH	W13-2	1	12.00									
TH 60	769	1914+13	EB	RIGHT	A TYPE		132	108	MN 30 MN 15 FAIRMONT	A SIGN	NA										
	768						168	108	MN 60 MN 15 MADELIA	A SIGN	NA										
TH 60	770	1914+13	EB	RIGHT	2-U		18	36	TYPE 3 OBJECT MARKER	X4-4R						1					
TH 60	771	1914+27	EB	RIGHT	1-U		6	12	PLOW MARKER	X4-5	NA										
TH 60	772	1916+06	EB	RIGHT	1-U		12	24	TYPE 3 OBJECT MARKER	X4-4C								1	1		
TH 60	775	1916+87	EB	RIGHT	2-U	2	72	60	EXIT SLANT ARROW	E5-1	1	30.00									
	773						8	24	GUIDE DELINEATOR	X4-6W							1				
	774						8	24	GUIDE DELINEATOR	X4-6Y							1				
TH 60	776	1917+94	EB	RIGHT	1-U		8	24	GUIDE DELINEATOR	X4-6W					1		1				
TH 60	777	1918+93	EB	RIGHT	1-U		8	24	GUIDE DELINEATOR	X4-6W					1		1				
TH 60	778	1919+87	EB	RIGHT	1-U		8	24	GUIDE DELINEATOR	X4-6W					1		1				
TH 60	779	1920+17	EB	RIGHT	1-U		6	12	PLOW MARKER	X4-5						1	1				
TH 60	780	1922+45	EB	RIGHT	COLUMN		18	36	TYPE 3 OBJECT MARKER	X4-4R						1					
TH 60	781	1922+46	EB	LEFT	COLUMN		18	36	TYPE 3 OBJECT MARKER	X4-4L						1					
TH 60	782	1922+57	WB	LEFT	COLUMN		18	36	TYPE 3 OBJECT MARKER	X4-4L						1					
TH 60	783	1922+62	WB	RIGHT	COLUMN		18	36	TYPE 3 OBJECT MARKER	X4-4R						1					
TH 4	870	1149+57	NB	RIGHT	2-U	1	36	36	DIVIDED HIGHWAY BEGINS	W6-1	1	9.00									
TH 4	871	1149+81	SB	RIGHT	2-U	1	60	36	ADOPT A HIGHWAY	I-X1	1	15.00									
	872						60	18	FIRST LUTHERAN CHURCH	I-X1a		7.50									
TH 4	873	78+95	NB	RIGHT	1-U		10	27	MILE 34	D10-2	1	1.88									
	874						10	27	MILE 34	D10-2		1.88									
TH 4	875	80+47	NB	RIGHT	2-U	1	21	15	JCT	M2-1a	1	2.19									
	876						24	24	MINNESOTA 60	M1-5a		4.00									
TH 4	877	81+45	SB	RIGHT	2-U	1	24	30	SPEED LIMIT 55	R2-1	1	5.00									
	878						64	64	NO PASSING ZONE	W14-3		19.78									
TH 4	879	83+44	NB	RIGHT	2-U	2	120	48	TO ST JAMES CO 57 MN 4	D SIGN			1	40.00							
TH 4	880	83+87	SB	RIGHT	2-U	2	102	42	ORMSBY 7 TRIMONT 13 SHERBURN 21	D2-3	1	29.75									
TH 4	881	86+28	NB	RIGHT	2-U	2	114	42	WINDOM MANKATO	D1-2	1	33.25									
TH 4	882	88+63	NB	MED	2-U	1	24	30	KEEP RIGHT	R4-7	1	5.00									
	883						18	18	TYPE 1 OBJECT MARKER	X4-2							1				(4)
	884						18	18	TYPE 1 OBJECT MARKER	X4-2							1				

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ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER XXXX (EACH)	INSTALL MARKER XXXX (EACH)	
TH 4	885	88+65	SB	RIGHT	2-U	1	30	30	DO NOT ENTER	R5-1	1	6.25										
	886						36	36	TWO WAY TRAFFIC	W6-3		9.00										
TH 4	887	89+34	NB	RIGHT	3-U	3	102	84	WEST MN 60 EAST NORTH MN 4	D SIGN			1	59.50								
TH 4	888	90+83	NB	RIGHT	2-U	2	72	18	HICKORY INN RESTAURANT	D9-X6	1	9.00										
TH 4	889	92+07	SB	RIGHT	2-U	1	36	36	DIVIDED HIGHWAY ENDS	W6-2	1	9.00										
TH 4	890	92+60	NB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1											
TH 4		92+60	NB	RIGHT	2-U	1	30	30	RIGHT LANE MUST TURN RIGHT	R3-7R		6.25										
TH 4	891	94+21	SB	RIGHT	2-U	1	24	12	WEST	M3-4a	1	2.00										
	892						24	24	MINNESOTA 60	M1-5a		4.00										
TH 4	893	94+21	SB	RIGHT	2-U	1	24	12	SOUTH	M3-3a	1	2.00										
	894						24	24	MINNESOTA 4	M1-5a		4.00										
TH 4	895	95+12	SB	RIGHT	FLASHER		60	48	ROAD CLOSED WHEN FLASHING	W3-X6						NA						
TH 4	896	95+65	SB	MED	2-U		18	18	TYPE 1 OBJECT MARKER	X4-2						1	1					(4)
	897						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1					
TH 4	898	96+73	NB	MED	2-U		18	18	TYPE 1 OBJECT MARKER	X4-2						1	1					(4)
	899						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1					
TH 4	900	97+34	NB	RIGHT	1-U		8	24	BRIDGE MARKER	X4-7						1						
	901						18	12	83023	X4-12												
TH 4		97+34	NB	RIGHT	1-U		6	18	BRIDGE MARKER 83023	X4-12a							1					
TH 4	902	97+34	NB	RIGHT	2-U	2	84	66	WEST MN 60 WINDOM	D SIGN			1	38.50								
TH 4	903	97+60	SB	RIGHT	2-U	1	30	30	DO NOT ENTER	R5-1	1	6.25										
TH 4	904	98+97	NB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1											
TH 4		98+97	NB	MED	2-U	1	30	30	LEFT LANE MUST TURN LEFT	R3-7L		6.25										(5)
TH 4	905	100+53	SB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1											
TH 4		100+53	SB	MED	2-U	1	30	30	LEFT LANE MUST TURN LEFT	R3-7L		6.25										(5)
TH 4	906	100+87	NB	RIGHT	2-U	1	30	30	DO NOT ENTER	R5-1	1	6.25										
TH 4	907	101+46	SB	RIGHT	1-U		6	18	BRIDGE MARKER	X4-7							1					
TH 4	908	101+46	SB	RIGHT	2-U	1	24	12	WEST	M3-4a	1	2.00										
	909						24	24	MINNESOTA 60	M1-5a		4.00										
	910						21	15	UP ARROW	M6-3a		2.19										
TH 4	911	101+46	SB	RIGHT	2-U	2	84	66	EAST MN 60 MANKATO	D SIGN		38.5	1	38.50								
TH 4	912	102+12	SB	MED	1-U		18	18	TYPE 1 OBJECT MARKER	X4-2						1	1					(4)
CSAH 57	913	104+38	SB	RIGHT	2-U		36	12	ONE WAY	R6-1L	1	3.00										
	914						36	12	ONE WAY	R6-1R		3.00										
CSAH 57	915	104+42	NB	MED	2-U		18	18	TYPE 1 OBJECT MARKER	X4-2						1	1					(4)
	916						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1					
CSAH 57	917	105+56	NB	RIGHT	2-U	1	30	30	RIGHT TURN	W1-1R	1	6.25										
	918						18	18	20 MPH	W13-1P		2.25										
CSAH 57	919	105+59	NB	MED	2-U	1	30	30	RIGHT TURN	W1-1R	1	6.25										(4)
	920						18	18	20 MPH	W13-1P		2.25										
CSAH 57	921	105+76	SB	RIGHT	3-U	3	102	84	SOUTH MN 4 EAST MN 60 WEST	D SIGN		59.5	1	59.50								
CSAH 57	922	106+63	SB	RIGHT	2-U		30	30	RIGHT TURN LANE	R3-X1	1											
CSAH 57		106+63	SB	RIGHT	2-U	1	30	30	RIGHT LANE MUST TURN RIGHT	R3-7R		6.25										
CSAH 57	923	107+80.85	NB	RIGHT	2-U	1	36	36	DIVIDED HIGHWAY ENDS	W6-2	1	9.00										
	924						24	24	DIVIDED HIGHWAY ENDS			4.00										

SEE SHEET NO. XX FOR TOTALS.

SPECIFIC NOTES:

(1) SEE DELINEATORS AND MARKERS TAB ON SHEET NO. XX.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: MICHAEL P MCCURDY
SIGNATURE:
DATE _____ LICENSE # 41902

SIGNING TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 271 OF 283 SHEETS

ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER XXXX (EACH)	INSTALL MARKER XXXX (EACH)	
CSAH 57	925	108+62	SB	RIGHT	2-U	2	114	42	MANKATO WINDOM	D1-2	1	33.25										
CSAH 57	926	109+64	NB	MED	2-U		18	24	CHEVRON	W1-8	1	3.00										(4)
CSAH 57	927	109+82	SB	RIGHT	2-U		18	24	CHEVRON	W1-8	1	3.00										
CSAH 57	928	110+08	NB	MED	2-U		18	24	CHEVRON	W1-8	1	3.00										(4)
CSAH 57	929	110+32	SB	RIGHT	2-U		18	24	CHEVRON	W1-8	1	3.00										
CSAH 57	930	110+51	NB	MED	2-U		18	24	CHEVRON	W1-8	1	3.00										(4)
CSAH 57	931	110+81	SB	RIGHT	2-U		18	24	CHEVRON	W1-8	1	3.00										
CSAH 57	932	110+91	NB	MED	2-U		18	24	CHEVRON	W1-8	1	3.00										(4)
CSAH 57	933	111+29	SB	RIGHT	2-U		18	24	CHEVRON	W1-8	1	3.00										
CSAH 57	934	111+31	NB	MED	2-U		18	24	CHEVRON	W1-8	1	3.00										(4)
CSAH 57	935	111+67	NB	MED	2-U		18	24	CHEVRON	W1-8	1	3.00										(4)
CSAH 57	936	111+77	SB	RIGHT	2-U		18	24	CHEVRON	W1-8	1	3.00										
CSAH 57	937	112+11	NB	MED	2-U		18	24	CHEVRON	W1-8	1	3.00										(4)
CSAH 57	938	112+29	SB	RIGHT	2-U		18	24	CHEVRON	W1-8	1	3.00										
CSAH 57	939	112+29	NB	RIGHT	2-U	1	36	36	TWO WAY TRAFFIC	W6-3	1	9.00										
CSAH 57	940	112+56	SB	RIGHT	1-U		8	24	GUIDE DELINEATOR	X4-6					1		1					
CSAH 57	941	112+58	SB	MED	2-U	1	24	30	KEEP RIGHT	R4-7		5.00										
	942						18	18	TYPE 1 OBJECT MARKER	X4-2	1	2.25					1					(4)
	943						18	18	TYPE 1 OBJECT MARKER	X4-2		2.25					1					
CSAH 27	944	211+52	NB	MED	2-U	1	24	30	KEEP RIGHT	R4-7	1	5.00										(4)
	945						18	18	TYPE 1 OBJECT MARKER	X4-2							1					
CSAH 27	946	212+46	NB	RIGHT	1-U		8	24	BRIDGE MARKER	X4-7						1						
	947						18	12	83023	X4-12												
CSAH 27		212+46	NB	RIGHT	1-U		6	18	BRIDGE MARKER 83026	X4-12a							1					
CSAH 27	948	212+46	NB	RIGHT	3-U	3	144	66	SOUTH MN 4 WEST MN 60	D SIGN			1	66.00								
CSAH 27	949	214+20	NB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1											
CSAH 27		214+20	NB	MED	2-U	1	30	30	LEFT LANE MUST TURN LEFT	R3-7L		6.25										(5)
CSAH 27	950	214+54	SB	RIGHT	1-U		8	24	BRIDGE MARKER	X4-7						1						
CSAH 27	951	214+54	SB	RIGHT	3-U	3	144	66	MN 30 EAST MN 60 MANKATO	D SIGN			1	66.00								
CSAH 27	952	215+48	SB	MED	2-U		18	18	TPYE 1 OBJECT MARKER	X4-2						1	1					(4)
	953						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1					
CSAH 12	786	332+87	NB	RIGHT	2-U	1	21	15	JCT	M2-1a		2.19										
	784						24	24	MINNESOTA 30	M1-5a	1	4.00										
	785						24	24	MINNESOTA 60	M1-5a		4.00										
CSAH 12	787	340+47	NB	RIGHT	2-U	2	84	48	WINDOM MANKATO	D1-2	1	28.00										
CSAH 12	788	342+62	NB	RIGHT	2-U	1	48	18	ONE WAY	R6-1L	1	6.00										
	789						48	18	ONE WAY	R6-1R		6.00										
CSAH 12	792	343+27	SB	MED	2-U	1	24	12	EAST	M3-2a		2.00										
	790						24	24	MINNESOTA 30	M1-5a		4.00										
	791						24	24	MINNESOTA 60	M1-5a	1	4.00										
	795						21	15	LEFT ARROW	M6-1a		2.19										
	794						18	18	TYPE 1 OBJECT MARKER	X4-2							1					
	793						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y							1					
CSAH 12	801	343+72	NB	RIGHT	2-U	2	24	12	WEST	M3-4a		2.00										
	796						24	24	MINNESOTA 30	M1-5a		4.00										
	798						24	24	MINNESOTA 60	M1-5a		4.00										
	803						21	15	UP ARROW	M6-3a	1	2.19										
	800						24	12	EAST	M3-2a		2.00										
	797						24	24	MINNESOTA 30	M1-5a		4.00										
	799						24	24	MINNESOTA 60	M1-5a		4.00										
	802						21	15	RIGHT ARROW	M6-1a		2.19										
CSAH 12	804	344+12	SB	RIGHT	2-U	1	48	18	ONE WAY	R6-1L	1	6.00										
	805						48	18	ONE WAY	R6-1R		6.00										
CSAH 12	806	344+47	NB	MED	2-U		18	18	TYPE 1 OBJECT MARKER	X4-2						1						
	807						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y												
CSAH 12	808	344+77	SB	RIGHT	2-U	1	30	30	DO NOT ENTER	R5-1	1	6.25										
CSAH 12	809	345+02	NB	RIGHT	2-U	2	84	24	WINDOM	D1-1	1	14.00										
CSAH 12	810	345+27	NB	RIGHT	1-U		8	24	BRIDGE MARKER	X4-7						1						
	811						18	12	83027	X4-12												
CSAH 12	811	345+27	NB	RIGHT	1-U		6	18	BRIDGE MARKER 83027	X4-12a							1					
CSAH 12	812	345+62	SB	RIGHT	2-U	2	96	24	MANKATO	D1-1	1	16.00										
CSAH 12	813	346+87	SB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1											
CSAH 12	813	346+87	SB	MED	2-U	1	30	30	LEFT LANE MUST TURN LEFT	R3-7L		6.25										(5)

SEE SHEET NO. XX FOR TOTALS.

SPECIFIC NOTES:

(1) SEE DELINEATORS AND MARKERS TAB ON SHEET NO. XX.

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: MICHAEL P MCGUIRE
SIGNATURE: DRAFT COPY DRAFT COPY
DATE _____ LICENSE # 45902

SIGNING TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 272 OF 283 SHEETS

ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER XXXX (EACH)	INSTALL MARKER XXXX (EACH)	
CSAH 12	814	348+87	SB	MED	2-U		30	30	LEFT TURN LANE	R3-X2	1											
CSAH 12		348+87	SB	MED	2-U	1	30	30	LEFT LANE MUST TURN LEFT	R3-7L		6.25										(5)
CSAH 12	817	349+02	NB	RIGHT	2-U	1	24	12	WEST	M3-4a	1	2.00										
	815						24	24	MINNESOTA 30	M1-5a		4.00										
	816						24	24	MINNESOTA 60	M1-5a		4.00										
	818						21	15	LEFT ARROW	M6-1a		2.19										
CSAH 12	819	349+72	SB	RIGHT	1-U		8	24	BRIDGE MARKER	X4-7						1						
CSAH 12	820	349+72	NB	RIGHT	2-U	1	30	30	DO NOT ENTER	R5-1	1	6.25										
CSAH 12	821	349+82	SB	MED	2-U		18	18	TPYE 1 OBJECT MARKER	X4-2						1						
	822						22	9	CYLINDER DELINEATOR YELLOW	X4-13Y												
CSAH 12	823	350+17	NB	RIGHT	2-U	1	48	18	ONE WAY	R6-1L	1	6.00										
	824						48	18	ONE WAY	R6-1R		6.00										
CSAH 12	825	350+97	NB	MED	1-U		22	9	CYLINDER DELINEATOR YELLOW	X4-13Y					1		1					
CSAH 12	826	351+77	SB	RIGHT	2-U	1	48	18	ONE WAY	R6-1L	1	6.00										
	827						48	18	ONE WAY	R6-1R		6.00										
CSAH 12	832	354+87	SB	RIGHT	2-U	2	24	12	EAST	M3-2a	1	2.00										
	828						24	24	MINNESOTA 30	M1-5a		4.00										
	830						24	24	MINNESOTA 60	M1-5a		4.00										
	835						21	15	UP ARROW	M6-3a		2.19										
	833						24	12	WEST	M3-4a		2.00										
	829						24	24	MINNESOTA 30	M1-5a		4.00										
	831						24	24	MINNESOTA 60	M1-5a		4.00										
	834						21	15	RIGHT ARROW	M6-1a		2.19										
CSAH 12	836	356+62	SB	RIGHT	2-U	2	96	48	MANKATO WINDOM	D1-2	1	32.00										
CSAH 12	839	363+17	NB	LEFT	2-U	1	21	15	JCT	M2-1a	1	2.19										
	837						24	24	MINNESOTA 30	M1-5a		4.00										
	838						24	24	MINNESOTA 60	M1-5a		4.00										
TH 15 SE RAMP	272	1917+66	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1					
TH 15 SE RAMP	273	1918+45	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1					
TH 15 SE RAMP	274	1919+20	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1					
TH 15 SE RAMP	275	1919+98	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1					
TH 15 SE RAMP	276	1920+73	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1					
TH 15 SE RAMP	277	1921+45	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y							1					
TH 15 SE RAMP	278	1921+46	EB	RIGHT	2-U	2	66	66	CO RD 26 1/4 MILE ON LEFT	D SIGN			1	30.25								
TH 15 SE RAMP	279	1922+35	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1					
TH 15 SE RAMP	280	1923+12	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1					
TH 15 SE RAMP	281	1923+88	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y							1					
TH 15 SE RAMP	282	1924+64	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1					
TH 4 NW RAMP	121	1286+80	WB	LEFT	2-U	1	24	12	SOUTH	M3-3a	1	2.00										
	120						24	24	MINNESOTA 4	M1-5a		4.00										
	122						21	15	LEFT ARROW	M6-1a		2.19										
TH 4 NW RAMP	123	1286+80	WB	LEFT	2-U	2	66	12	CAMPING	D9-X4L	1	5.50										
TH 4 NW RAMP	124	1286+80	WB	LEFT	2-U	1	48	18	ONE WAY	R6-1L	1	6.00										
TH 4 NE RAMP	145	1283+80	WB	LEFT	2-U	1	30	30	DO NOT ENTER	R5-1	1	6.25										
TH 4 NE RAMP	146	1284+60	WB	RIGHT	2-U	2	72	18	HICKORY INN RESTAURANT	D9-X6R								1	1			
TH 4 NE RAMP	147	1285+45	WB	LEFT	2-U	1	36	24	WRONG WAY	R5-1a	1	6.00										
TH 4 NE RAMP	149	1286+00	WB	RIGHT	2-U	1	24	12	SOUTH	M3-3a	1	2.00										
	148						24	24	MINNESOTA 4	M1-5a		4.00										
	152						21	15	ADVANCE TURN LEFT	M5-1aL		2.19										
	151						24	24	WATONWAN COUNTY 57	M1-X4		4.00										
	150						21	15	RIGHT ARROW	M6-1a		2.19										
TH 4 NE RAMP	154	1287+55	WB	RIGHT	2-U	1	36	12	ONE WAY	R6-1R	1	3.00										
	153						36	36	STOP	R1-1		9.00										
	155						24	18	DIVIDED HIGHWAY	R6-3		3.00										
	156						22	9	CYLINDER DELINEATOR WHITE	X4-13W		1.375										
TH 4 NE RAMP	165	1288+55	WB	RIGHT	2-U	2	96	24	SHERBURN	D1-1	1	16.00										
TH 4 NE RAMP	166	1289+70	WB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1					
TH 4 NE RAMP	167	1290+50	WB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1					
TH 4 NE RAMP	168	1291+20	WB	RIGHT	2-U	1	36	36	STOP AHEAD SYMBOL	W3-1	1	9.00										
TH 4 NE RAMP	169	1291+35	WB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1					

SEE SHEET NO. XX FOR TOTALS.

SPECIFIC NOTES:

(1) SEE DELINEATORS AND MARKERS TAB ON SHEET NO. XX.

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NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: MICHAEL P MCCURDY
SIGNATURE:
DATE _____ LICENSE # 41902

SIGNING TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 273 OF 283 SHEETS

ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER XXXX (EACH)	INSTALL MARKER XXXX (EACH)
TH 4 NE RAMP	170	1292+20	WB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1				
TH 4 SE RAMP	100	1277+09	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1				
TH 4 SE RAMP	101	1277+90	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1				
TH 4 SE RAMP	102	1278+69	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1				
TH 4 SE RAMP	103	1278+82	EB	RIGHT	2-U	1	36	36	STOP AHEAD SYMBOL	W3-1	1	9.00									
TH 4 SE RAMP	104	1279+55	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1				
TH 4 SE RAMP	105	1280+32	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1				
TH 4 SE RAMP	106	1281+52	EB	RIGHT	2-U	2	90	42	ST JAMES SHERBURN	D1-2	1	26.25									
TH 4 SE RAMP	108	1283+70	EB	RIGHT	2-U	1	24	24	WATONWAN COUNTY 57	M1-X4		4.00									
	110						21	15	ADVANCE TURN LEFT	M5-1L		2.19									
	109						24	12	SOUTH	M3-3a		2.00									
	107						24	24	MINNESOTA 4	M1-5a		4.00									
	111						21	15	RIGHT ARROW	M6-1aR		2.19									
TH 4 SE RAMP	112	1284+30	EB	LEFT	2-U	1	36	24	WRONG WAY	R5-1a	1	6.00									
TH 4 SE RAMP	113	1284+80	EB	RIGHT	2-U	2	72	18	LEFT 2 MILES HICKORY INN RESTAURANT	D9-X6L									1		
	114						72	18	LEFT 2 MILES M PLAY PLACE	D9-X6L								1	1		
TH 4 SE RAMP	115	1285+20	EB	RIGHT	2-U		36	36	BIKE AND PED CROSSING SYMBOL	W11-15	NA										
	116						24	18	ARROW	W16-7MP											
TH 4 SE RAMP	117	1286+80	EB	LEFT	2-U	1	30	30	DO NOT ENTER	R5-1											
	118						30	30	STOP	R1-1	1	6.25									
	119						24	18	DIVIDED HIGHWAY	R6-3		3.00									
TH 4 SE RAMP		1285+67	EB	LEFT	2-U	1	30	30	DO NOT ENTER	R5-1		6.25									
TH 4 SE RAMP	127	1286+81	EB	RIGHT	2-U	1	36	12	ONE WAY	R6-1R		3.00									
	126						36	36	STOP	R1-1	1	9.00									
	128						24	18	DIVIDED HIGHWAY	R6-3		3.00									
	125						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
TH 4 SW RAMP	157	1287+80	EB	LEFT	2-U	1	24	24	WATONWAN COUNTY 57	M1-X4	1	4.00									
	158						21	15	LEFT ARROW	M6-1		2.19									
TH 4 SW RAMP	159	1287+80	EB	LEFT	2-U	1	48	18	ONE WAY	R6-1L	1	6.00									
TH 4 SW RAMP	161	1287+81	EB	RIGHT	2-U	1	48	12	GAS	E10-5L	1	4.00									
	160						48	12	DIESEL	E10-10L		4.00									
	162						48	12	FOOD	E10-6L		4.00									
	163						48	12	LODGING	E10-7L		4.00									
	164						48	12	CAMPING	E10-9LR		4.00									
CSAH 27 NW RAMP	190	1417+77	WB	RIGHT	FLASHER		60	48	ROAD CLOSED WHEN FLASHING	W3-X6	NA										
CSAH 27 NW RAMP	191	1418+21	WB	LEFT	2-U	1	48	18	ONE WAY	R6-1L	1	6.00									
CSAH 27 NW RAMP	192	1418+22	WB	LEFT	2-U	1	24	24	WATONWAN COUNTY 27	M1-X4	1	4.00									
	193						21	15	LEFT ARROW	M6-1		2.19									
CSAH 27 NW RAMP	195	1418+27	WB	RIGHT	2-U	2	48	18	GAS	E10-5R	1	6.00									
	194						48	18	DIESEL	E10-10R		6.00									
	196						48	18	FOOD	E10-6R		6.00									
	197						48	18	LODGING	E10-7R		6.00									
	198						48	18	HOSPITAL	E10-8R		6.00									
CSAH 27 NE RAMP	207	1419+47	WB	RIGHT	2-U	1	36	12	ONE WAY	R6-1R	1	3.00									
	206						36	36	STOP	R1-1		9.00									
	208						24	18	DIVIDED HIGHWAY	R6-3		3.00									
	209						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
CSAH 27 NE RAMP	210	1419+67	WB	LEFT	2-U	1	30	30	DO NOT ENTER	R5-1	1	6.25									
CSAH 27 NE RAMP	211	1420+47	WB	LEFT	2-U	1	36	24	WRONG WAY	R5-1a	1	6.00									
CSAH 27 NE RAMP	212	1421+27	WB	RIGHT	2-U	2	72	18	MCDONALDS 1	D9-X6R								1	1		
CSAH 27 NE RAMP	214	1423+27	WB	RIGHT	2-U	1	24	12	NORTH	M3-1a	1	2.00									
	213						24	24	MINNESOTA 4	M1-5a		4.00									
	215						21	15	RIGHT ARROW	M6-1a		2.19									
	218						24	12	WEST	M3-4a		2.00									
	217						24	24	MINNESOTA 30	M1-5a		4.00									
	216						21	15	RIGHT ARROW	M6-1a		2.19									
CSAH 27 NE RAMP	219	1424+77	WB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1				
CSAH 27 NE RAMP	220	1425+37	WB	RIGHT	2-U	2	96	24	ST JAMES	D1-1	1	16.00									

SEE SHEET NO. XX FOR TOTALS.

SPECIFIC NOTES:

(1) SEE DELINEATORS AND MARKERS TAB ON SHEET NO. XX.

NO	DATE	DWN	CKD	REVISIONS

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PRINT NAME: MICHAEL P MCGUIRE
SIGNATURE: DRAFT COPY DRAFT COPY
DATE _____ LICENSE # 45902

SIGNING TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 274 OF 283 SHEETS

ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER XXXX (EACH)	INSTALL MARKER XXXX (EACH)
CSAH 27 NE RAMP	221	1425+57	WB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1				
CSAH 27 NE RAMP	222	1426+47	WB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1				
CSAH 27 NE RAMP	223	1427+72	WB	RIGHT	2-U	1	36	36	STOP AHEAD SYMBOL	W3-1	1	9.00									
CSAH 27 SE RAMP	171	1406+72	EB	RIGHT	2-U	1	36	36	STOP AHEAD SYMBOL	W3-1	1	9.00									
CSAH 27 SE RAMP	172	1407+47	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1				
CSAH 27 SE RAMP	173	1408+03	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1				
CSAH 27 SE RAMP	174	1408+81	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1				
CSAH 27 SE RAMP	175	1409+16	EB	RIGHT	2-U	2	96	24	ST JAMES	D1-1	1	16.00									
CSAH 27 SE RAMP	176	1409+84	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y					1		1				
CSAH 27 SE RAMP	179	1411+58	EB	RIGHT	2-U	1	24	12	NORTH	M3-1a	1	2.00									
	178						24	24	MINNESOTA 4	M1-5a		4.00									
	181						21	15	ADVANCE LEFT	M5-1aL		2.19									
	180						24	12	WEST	M3-4a		2.00									
	177						24	24	MINNESOTA 30	M1-5a		4.00									
	182						21	15	ADVANCE LEFT	M5-1aL		2.19									
CSAH 27 SE RAMP	183	1412+87	EB	LEFT	2-U	1	36	24	WRONG WAY	R5-1a	1	6.00									
CSAH 27 SE RAMP	184	1413+29	EB	RIGHT	2-U	2	72	18	SUPER 8 MOTEL	D9-X6								1	1		
CSAH 27 SE RAMP	185	1414+08	EB	LEFT	2-U	1	30	30	DO NOT ENTER	R5-1	1	6.25									
CSAH 27 SE RAMP	187	1417+27	EB	RIGHT	2-U	1	36	12	ONE WAY	R6-1R	1	3.00									
	186						36	36	STOP	R1-1		9.00									
	188						24	18	DIVIDED HIGHWAY	R6-3		3.00									
	189						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
CSAH 27 SW RAMP	199	1418+41	EB	LEFT	2-U	1	48	18	ONE WAY	R6-1L	1	6.00									
CSAH 27 SW RAMP	201	1418+42	EB	LEFT	2-U	2	48	18	GAS	E10-5L	1	6.00									
	200						48	18	DIESEL	E10-10L		6.00									
	202						48	18	FOOD	E10-6L		6.00									
	203						48	18	LODGING	E10-7L		6.00									
	204						48	18	HOSPITAL	E10-8L		6.00									
CSAH 27 SW RAMP	205	1418+92	EB	RIGHT	2-U	1	60	48	ROAD CLOSED WHEN FLASHING	W3-X6								1	1		
CSAH 12 NW RAMP	230	1505+84	WB	LEFT	2-U	1	24	12	SOUTH	M3-3	1	2.00									
	229						24	24	WATONWAN COUNTY 12	M1-X4		4.00									
	231						21	15	LEFT ARROW	M6-1		2.19									
CSAH 12 NW RAMP	232	1505+84	WB	LEFT	2-U	1	48	18	ONE WAY	R6-1L	1	6.00									
CSAH 12 NE RAMP	235	1507+14	WB	RIGHT	2-U	1	36	12	ONE WAY	R6-1R	1	3.00									
	234						36	36	STOP	R1-1		9.00									
	236						24	18	DIVIDED HIGHWAY	R6-3		3.00									
	233						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1				
CSAH 12 NE RAMP	237	1507+15	WB	LEFT	2-U	1	30	30	DO NOT ENTER	R5-1	1	6.25									
	238						30	30	STOP	R1-1											
	239						24	18	DIVIDED HIGHWAY	R6-3		3.00									
CSAH 12 NE RAMP		1509+24	WB	LEFT	2-U	1	30	30	DO NOT ENTER	R5-1		6.25									
CSAH 12 NE RAMP	240	1508+54	WB	LEFT	2-U	1	36	24	WRONG WAY	R5-1a	1	6.00									
CSAH 12 NE RAMP	247	1509+14	WB	RIGHT	2-U	2	48	18	GAS	E10-5R	1	6.00									
	250						48	18	DIESEL	E10-10R		6.00									
	248						48	18	FOOD	E10-6R		6.00									
	249						48	18	LODGING	E10-7R		6.00									
CSAH 12 NE RAMP	257	1511+14	WB	RIGHT	2-U	1	24	12	SOUTH	M3-3	1	2.00									
	254						24	24	WATONWAN COUNTY 12	M1-X4		4.00									
	253						21	15	ADVANCE LEFT	M5-1L		2.19									
	256						24	12	NORTH	M3-1		2.00									
	255						24	24	WATONWAN COUNTY 12	M1-X4		4.00									
	258						21	15	RIGHT ARROW	M6-1		2.19									
CSAH 12 NE RAMP	263	1513+29	WB	RIGHT	2-U	2	96	24	ST JAMES	D1-1	1	16.00									
CSAH 12 NE RAMP	264	1513+34	WB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y						1	1				
CSAH 12 NE RAMP	269	1514+44	WB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y						1	1				
CSAH 12 NE RAMP	270	1515+49	WB	RIGHT	2-U	1	36	36	STOP AHEAD SYMBOL	W3-1	1	9.00									
CSAH 12 NE RAMP	271	1515+79	WB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y						1	1				
CSAH 12 SE RAMP	224	1502+48	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y						1	1				
CSAH 12 SE RAMP	225	1503+24	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y						1	1				
CSAH 12 SE RAMP	226	1504+01	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y						1	1				

SEE SHEET NO. XX FOR TOTALS.

SPECIFIC NOTES:

(1) SEE DELINEATORS AND MARKERS TAB ON SHEET NO. XX.

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

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SIGNATURE
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SIGNING TABULATIONS

SP 8309-52 (T.H. 60)

SHEET NO. 275 OF 283 SHEETS

ROUTE	SITE ID	STATION	TRAVEL DIRECTION	POSITION	SUPPORT TYPE	KNEE BRACES	SIZE WIDTH	SIZE HEIGHT	LEGEND	MUTCD CODE	REMOVE SIGN TYPE C 2104 (EACH)	SIGN TYPE C 2564 (SQ FT)	REMOVE SIGN TYPE D 2104 (EACH)	SIGN TYPE D 2564 (SQ FT)	REMOVE DELINEATOR 2104 (EACH)	REMOVE MARKER 2104 (EACH)	DELINEATOR/ MARKER SIGN (1) 2564 (EACH)	SALVAGE SIGN TYPE C 2104 (EACH)	INSTALL SIGN TYPE C 2564 (EACH)	SALVAGE MARKER XXX (EACH)	INSTALL MARKER XXX (EACH)	
CSAH 12 SE RAMP	227	1504+03	EB	RIGHT	2-U	1	36	36	STOP AHEAD SYMBOL	W3-1	1	9.00										
CSAH 12 SE RAMP	228	1504+74	EB	LEFT	1-U		8	24	GUIDE MARKER	X4-6Y						1	1					
CSAH 12 SE RAMP	243	1508+84	EB	RIGHT	2-U	1	24	12	NORTH	M3-1	1	2.00										
	241						24	24	WATONWAN COUNTY 12	M1-X4		4.00										
	245						21	15	ADVANCE LEFT	M5-1L		2.19										
	244						24	12	SOUTH	M3-3		2.00										
	242						24	24	WATONWAN COUNTY 12	M1-X4		4.00										
	246						21	15	RIGHT ARROW	M6-1		2.19										
CSAH 12 SE RAMP	251	1509+84	EB	LEFT	2-U	1	36	24	WRONG WAY	R5-1a	1	6.00										
CSAH 12 SE RAMP	252	1511+13	EB	LEFT	2-U	1	30	30	DO NOT ENTER	R5-1	1	6.25										
CSAH 12 SE RAMP	261	1512+54	EB	RIGHT	2-U	1	36	12	ONE WAY	R6-1R	1	3.00										
	260						36	36	STOP	R1-1		9.00										
	262						24	18	DIVIDED HIGHWAY	R6-3		3.00										
	259						22	9	CYLINDER DELINEATOR WHITE	X4-13W							1					
CSAH 12 SW RAMP	265	1513+54	EB	LEFT	2-U	1	24	12	NORTH	M3-1	1	2.00										
	267						24	24	WATONWAN COUNTY 12	M1-X4		4.00										
	266						21	15	LEFT ARROW	M6-1		2.19										
CSAH 12 SW RAMP	268	1513+54	EB	LEFT	2-U	1	48	18	ONE WAY	R6-1L	1	6.00										
REST AREA	840	1690+95	WB	LEFT	2-U		36	36	TWO WAY TRAFFIC	W6-3	1	9.00										
REST AREA	841	1692+35	WB	RIGHT	2-U		36	36	STOP AHEAD SYMBOL	W3-1	1	9.00										
REST AREA	842	1694+35	WB	LEFT	2-U	2	138	48	AUTOS TRUCKS/TRAILERS	D-SIGN				46.00								
	843						24	24	HANDICAP SYMBOL	D9-6		4.00	1									
	844						24	24	HANDICAP SYMBOL	D9-6		4.00										
REST AREA	845	1694+75	WB	RIGHT	1-U		36	36	YIELD	R1-2	1	3.90										
REST AREA	846	1695+00	WB	LEFT	1-U		18	18	NO PARKING SYMBOL	R8-3	1	2.25										(2)
REST AREA	847	1696+80	WB	LEFT	1-U		18	18	NO PARKING SYMBOL	R8-3	1	2.25										
REST AREA	848	1697+80	WB	LEFT	1-U		18	18	NO PARKING SYMBOL	R8-3	1	2.25										
REST AREA	849	1698+20	WB	RIGHT	1-U		12	18	HANDICAP PARKING	R7-8M	1	1.50										
REST AREA	850	1698+50	WB	RIGHT	1-U		12	18	HANDICAP PARKING	R7-8M	1	1.50										(3)
REST AREA	851	1698+70	WB	RIGHT	1-U		36	36	YIELD	R1-2	1	3.90										
REST AREA	852	1699+30	WB	RIGHT	2-U		48	42	AUTOS	D-SIGN			1	14.00								
REST AREA	853	1699+45	WB	LEFT	1-U		18	18	NO PARKING SYMBOL	R8-3	1	2.25										(2)
REST AREA	854	1699+75	WB	RIGHT	1-U		36	36	YIELD	R1-2	1	3.90										
REST AREA	855	1700+25	WB	LEFT	2-U		138	48	TRUCKS TRAILERS	D-SIGN			1	46.00								
REST AREA	856	1702+20	WB	LEFT	1-U		18	18	NO PARKING SYMBOL	R8-3	1	2.25										
REST AREA	857	1703+60	WB	LEFT	1-U		18	18	NO PARKING SYMBOL	R8-3	1	2.25										
REST AREA	858	1704+20	WB	RIGHT	1-U		36	36	YIELD	R1-2	1	3.90										
REST AREA	859	1705+20	WB	LEFT	1-U		18	18	NO PARKING SYMBOL	R8-3		2.25										(2)
REST AREA	860	1705+35	WB	RIGHT	2-U	2	138	48	AUTO TRUCKS/TRAILERS	D-SIGN				46.00								
	861						24	24	HANDICAP SYMBOL	D9-6		4.00	1									
	862						24	24	HANDICAP SYMBOL	D9-6		4.00										
REST AREA	863	1709+25	WB	LEFT	2-U		36	36	STOP AHEAD SYMBOL	W3-1	1	9.00										
REST AREA	864	1709+85	WB	RIGHT	2-U		36	36	TWO WAY TRAFFIC	W6-3	1	9.00										
REST AREA	865	1710+95	WB	RIGHT	1-U		22	9	CYLINDER DELINEATOR WHITE	X4-13W	1						1					
REST AREA	866	1710+95	WB	RIGHT			30	30	STOP	R1-1		6.25										
REST AREA	867	1711+90	WB	LEFT	1-U		24	30	CHEVRON	W1-8	1	5.00										
REST AREA	868	1712+10	WB	LEFT	1-U		24	30	CHEVRON	W1-8	1	5.00										
REST AREA	869	1712+30	WB	LEFT	1-U		24	30	CHEVRON	W1-8	1	5.00										
TOTAL											336	4932.5	18	854.8	42	64	(1)	19	20	2	2	

X	DELINEATORS & MARKERS	
CODE NO	QTY	LOCATION
X4-2	5	EXIT NOSE
X4-2	5	WITH R4-7
X4-2	5	END OF MEDIAN
X4-2	1	WITH ROUTE MARKERS
X4-4R	10	BRIDGE COLUMN
X4-4R	1	EXIT NOSE
X4-4L	11	BRIDGE COLUMN
X4-4C	1	EXIT NOSE
X4-6W	7	WITH E5-1
X4-6W	14	ALONG TH 60
X4-6Y	7	WITH E5-1
X4-6Y	34	EXIT RAMP
X4-12a	4	BRIDGE
X4-13W	24	UNDER R1-1
X4-13W	2	UNDER X4-2
X4-13Y	30	UNDER R1-2
X4-13Y	3	UNDER X4-2
X4-13Y	1	WITH ROUTE MARKERS
TOTAL	165	

X	REFERENCE POST MARKER		
CODE NO	QTY	SIZE INCH	LEGEND
D10-2	2	12 x 36	64
D10-2	2	12 x 36	65
D10-2	2	12 x 36	66
D10-X2	2	10 x 10	HWY 60
D10-2	2	12 x 36	67
D10-X2	2	10 x 10	HWY 60
D10-2	2	12 x 36	68
D10-X2	2	10 x 10	HWY 60
D10-2	2	12 x 36	BLANK
D10-X2	2	10 x 10	HWY 60
D10-2	2	12 x 36	70
D10-X2	2	10 x 10	HWY 60
D10-2	2	12 x 36	71
D10-X2	2	10 x 10	HWY 60
D10-2	2	12 x 36	72
D10-X2	2	10 x 10	HWY 60
D10-2	2	12 x 36	73
D10-X2	2	10 x 10	HWY 60
D10-2	2	12 x 36	74
D10-X2	2	10 x 10	HWY 60
D10-2	2	12 x 36	75
D10-X2	2	10 x 10	HWY 60
D10-2	2	12 x 36	76
D10-X2	2	10 x 10	HWY 60
D10-2	2	12 x 36	77
D10-X2	2	10 x 10	HWY 60
D10-2	2	10 x 27	34
TOTAL	54		

GENERAL NOTES:

1. POST LENGTHS ARE APPROXIMATE AND INCLUDE EMBEDMENT, BUT DO NOT INCLUDE ADDITIONAL LENGTHS REQUIRED FOR SPLICE.
2. SEE STANDARD SIGNS MANUAL FOR PUNCHING CODE AND DETAILED DRAWINGS OF TYPE C AND TYPE D SIGN PANELS.
3. SEE SHEET NO. XX-XX FOR STRUCTURAL DETAILS.
4. SEE DRAWING SHEET NO. XX FOR DELINEATOR AND MARKER PLACEMENT.

SPECIFIC NOTES:

(1) SEE DELINEATORS AND MARKERS TAB.
(2) REMOVE SIGN PANEL FROM LIGHT POLE. INSTALL NEW SIGN STRUCTURE.
(3) REMOVE INPLACE WOOD STRUCTURE. INSTALL NEW SIGN STRUCTURE. SEE DIV ST SPECIAL PROVISIONS.
(4) MOUNT IN CONCRETE. SEE DETAIL ON SHEET NO. XX.
(5) MOUNT IN CONCRETE. SEE DETAIL ON SHEET NO. XX.

SIGNS TO BE PROVIDED WITH
THE 90% SUBMITTAL

NOTES:

1. SEE MNDOT STANDARD SIGNS AND MARKINGS MANUAL FOR ARROW, FRACTION AND OVERLAY DETAILS.
2. ALL DIMENSIONS ARE IN INCHES.

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NO	DATE	DWN	CKD	REVISIONS

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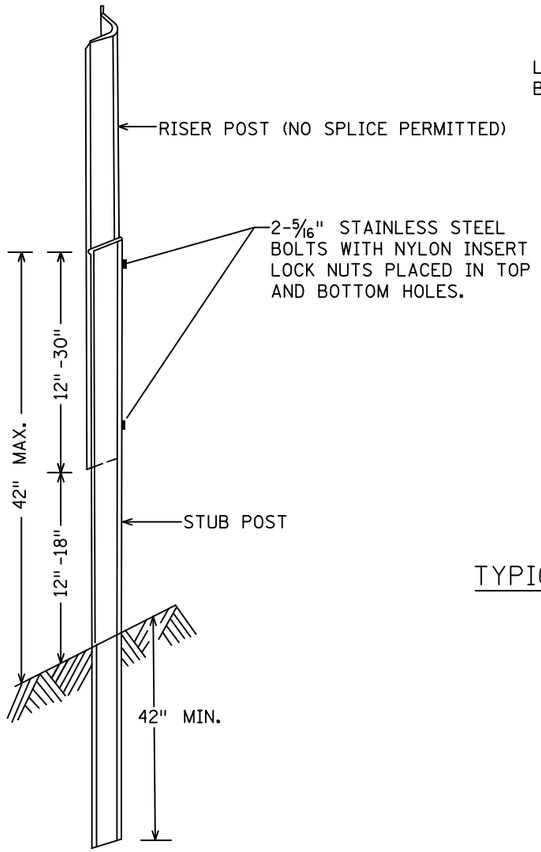
SIGN PANELS

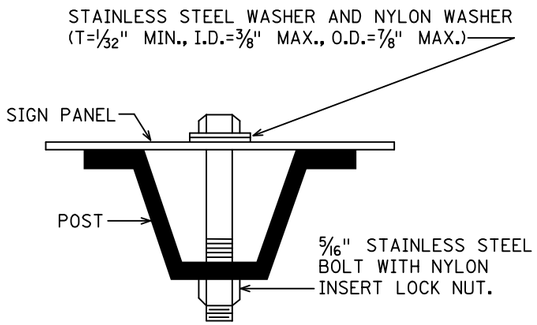
SP 8309-52 (T.H. 60)

SHEET NO. 277 OF 283 SHEETS

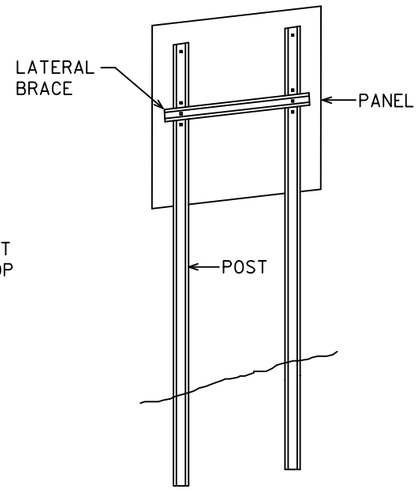
TYPE C & D POST



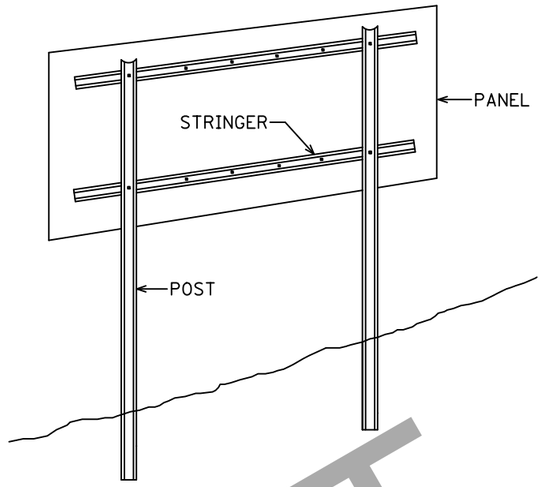
U POST BREAKAWAY SPLICE



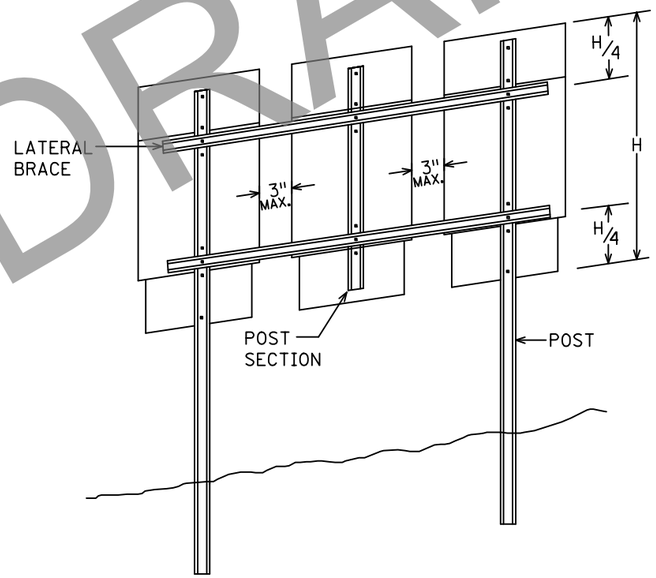
U POST MOUNTING TYPE C SIGNS



TYPICAL TYPE C INSTALLATION



TYPICAL TYPE D INSTALLATION



MODIFIED TYPE C INSTALLATION

NOTES:

1. USE 3 LB/FT STUB POSTS. SHALL CONFORM TO MNDOT 3401.
2. USE 2.5 LB/FT RISER POSTS, STRINGERS, KNEE BRACES AND LATERAL BRACES. ALL SHALL CONFORM TO MNDOT 3401.
3. SEE SIGN DATA SHEETS FOR NUMBER OF POSTS, KNEE BRACES, POST LENGTHS AND SPACINGS, AS DETERMINED FROM TEM CHARTS 6.3 AND 6.4.
4. IF MORE THAN TWO POSTS ARE NEEDED, THE MINIMUM SPACING SHALL BE 45" BETWEEN POSTS.
5. TYPE D SIGN PANELS SHALL BE BOLTED TO STRINGERS AT 24" MAXIMUM INTERVALS IN ACCORDANCE WITH THE TYPE D STRINGER AND PANEL-JOINT DETAIL (SEE MNDOT STANDARD SIGNS AND MARKINGS MANUAL).
6. MOUNTING (PUNCH CODE) FOR TYPE C SIGN PANELS SHALL BE AS INDICATED IN THE MNDOT STANDARD SIGNS AND MARKINGS MANUAL UNLESS OTHERWISE SPECIFIED.
7. ALL RISER (VERTICAL) U POSTS SHALL BE SPLICED. DRIVEN STUB POSTS SHALL BE AT LEAST 7' LONG.
8. USE STAINLESS STEEL 5/16" BOLTS, WASHERS AND NYLON INSERT LOCK NUTS AS SHOWN FOR ALL GROUND MOUNTED AND OVERHEAD MOUNTED SIGNS.
9. STAINLESS STEEL WASHER WITH SAME DIMENSIONS SHALL BE PROVIDED BETWEEN ALL NYLON WASHERS AND BOLT HEADS.
10. BRACING STUBS SHALL BE NO MORE THAN 4" ABOVE GROUND AND EMBEDDED AT LEAST 42".
11. A-FRAME BRACKET SHALL BE STEEL CONFORMING TO MNDOT 3306 AND GALVANIZED IN ACCORDANCE WITH MNDOT 3394.
12. COLLARS SHALL BE USED TO SHIM OVERLAYS AND LEGEND COMPONENTS AWAY FROM PANEL WHERE INTERFERENCE WITH BOLT HEADS IS ENCOUNTERED. MNDOT 3352.2A6.
13. 2 POST TYPE C SIGNS SHALL BE REINFORCED WITH AT LEAST ONE LATERAL BRACE. INSTALLATIONS WHERE THE TOTAL PANEL HEIGHT IS 60" OR MORE SHALL HAVE TWO LATERAL BRACES LOCATED APPROXIMATELY AT THE QUARTER POINTS.
14. WHERE 2 SINGLE POST TYPE C SIGNS ARE INSTALLED SIDE BY SIDE, THEY SHALL BE REINFORCED LATERALLY BY AT LEAST 2 BRACES, BOLTED AT EACH POST AND LOCATED APPROXIMATELY AT THE QUARTER POINTS.
15. WHERE 3 OR MORE TYPE C SIGNS ARE INSTALLED SIDE BY SIDE, THEY SHALL BE REINFORCED LATERALLY BY AT LEAST 2 BRACES, BOLTED AT EACH POST AND POST SECTION AND LOCATED APPROXIMATELY AT THE QUARTER POINTS AS SHOWN IN MODIFIED TYPE C INSTALLATION.

REVISED: 5-5-2017

TYPE C & D SIGN STRUCTURAL DETAILS

Sheet 1 of 2

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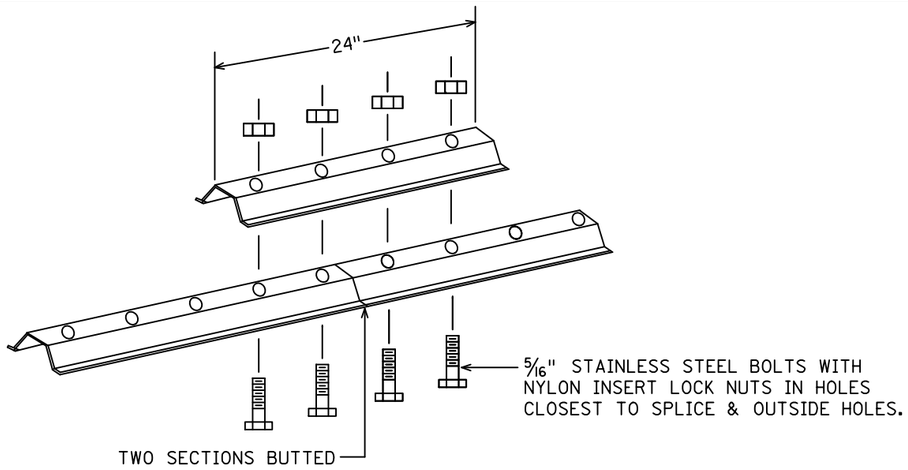
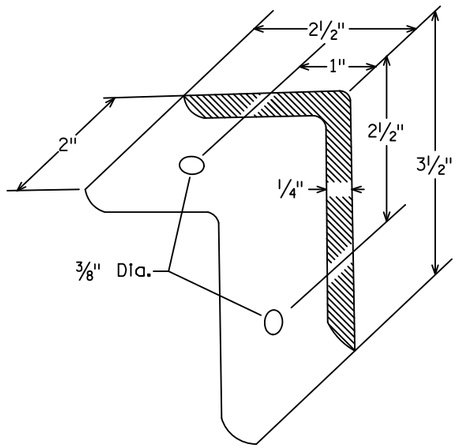
TYPE C & D STRUCTURAL DETAILS

SP 8309-52 (T.H. 60)

SHEET NO. 278 OF 283 SHEETS

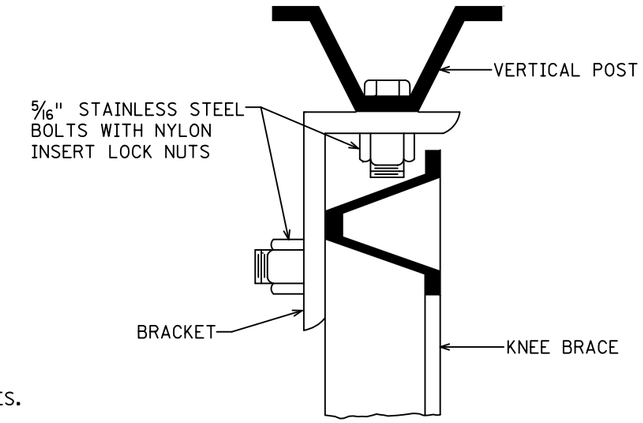


LATERAL BRACE OR STRINGER SPLICE DETAIL (EXPLODED VIEW)

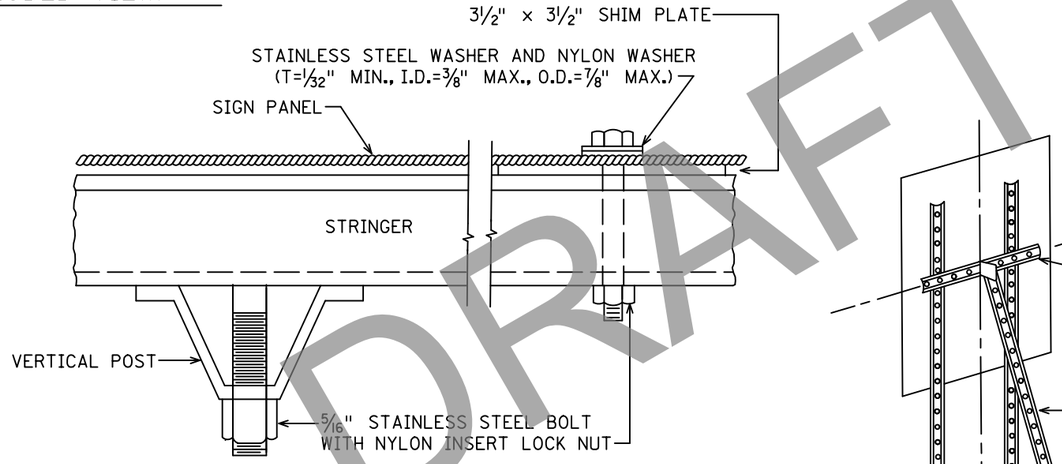


A-FRAME BRACKET

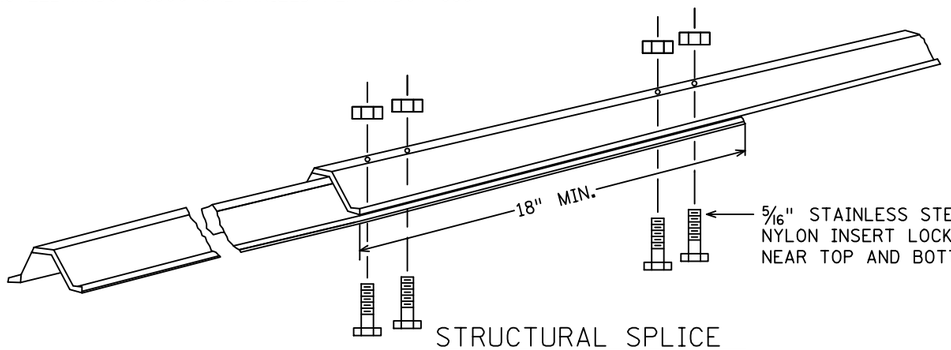
(STEEL MNDOT 3306 GALVANIZED PER MNDOT 3394)



SECTION A-A

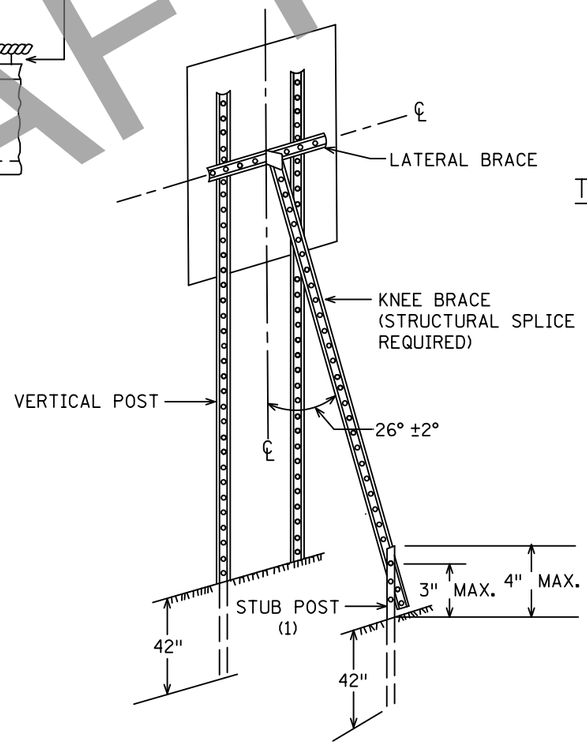


SECTION B-B

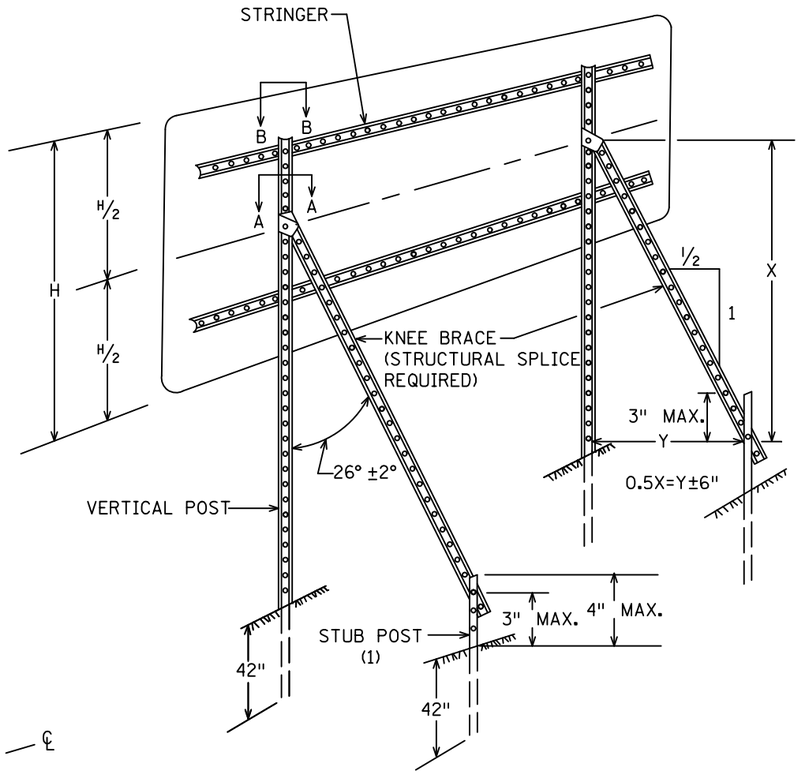


STRUCTURAL SPLICE

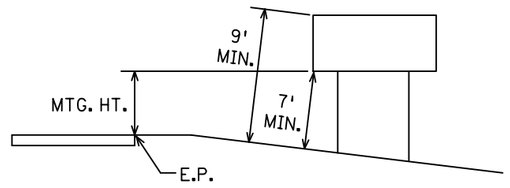
(USE WHEN IT IS NECESSARY TO FABRICATE THE CORRECT LENGTH OF POST FROM TWO PIECES)



TYPICAL "A-FRAME" INSTALLATION TYPE "C" SIGNS



TYPICAL "A-FRAME" INSTALLATION TYPE "D" SIGNS



TYPICAL MOUNTING

(1) OFFSET STUB POST 1' TOWARD ROADWAY RELATIVE TO VERTICAL POST. ATTACH STUB POST AND KNEE BRACE BACK TO BACK.

TYPE C & D SIGN STRUCTURAL DETAILS

Sheet 2 of 2

REVISED: 5-5-2017

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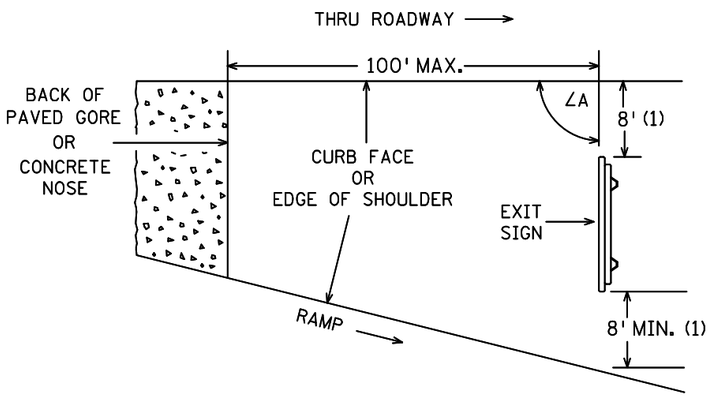
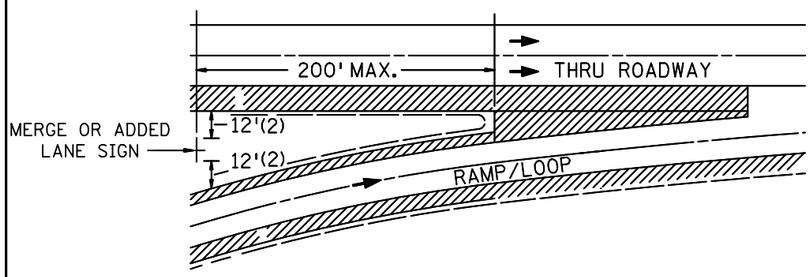
TYPE C & D SIGN STRUCTURAL DETAILS

SP 8309-52 (T.H. 60)

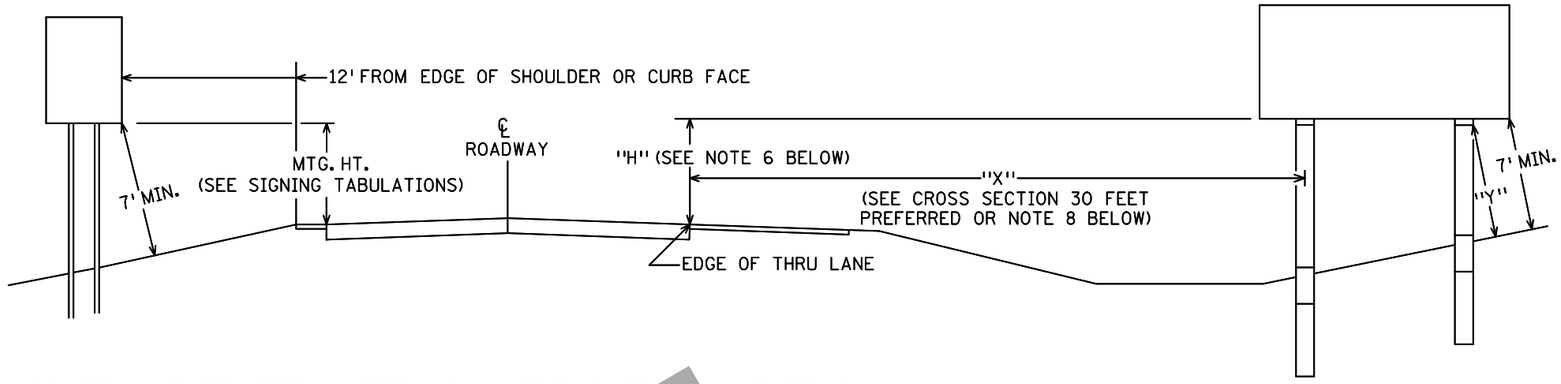
SHEET NO. 279 OF 283 SHEETS

GORE PLACEMENT





ROADSIDE PLACEMENT



ROUTE MARKER, REGULATORY & WARNING SIGNS - TYPE C
GUIDE SIGNS - TYPE D

GUIDE SIGN - TYPE A

SPECIFIC NOTES:

(1) EXIT SIGN
IF THESE OFFSETS CANNOT BE ATTAINED WITHIN 100 FEET OF THE PAVED GORE, A 4 FOOT OFFSET IS ACCEPTABLE. IF THE 4 FOOT OFFSETS CANNOT BE ATTAINED WITHIN 100 FEET OF THE PAVED GORE, CONTACT THE PROJECT ENGINEER.

(2) MERGE OR ADDED LANE SIGN
IF THESE OFFSETS CANNOT BE ATTAINED WITHIN 200 FEET OF THE PAVED GORE, A 4 FOOT OFFSET IS ACCEPTABLE. IF THE 4 FOOT OFFSETS CANNOT BE ATTAINED WITHIN 200 FEET OF THE PAVED GORE, CONTACT THE PROJECT ENGINEER.

NOTES:

1. ALL TYPE C AND D MOUNTING HEIGHTS ARE MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE ELEVATION OF THE NEAR EDGE OF PAVEMENT IN RURAL AREAS OR TO THE TOP OF THE CURB OR IN THE ABSCENCE OF CURB, TO THE NEAR EDGE OF THE TRAVELED WAY.
2. SIGN FACES SHALL BE VERTICAL.
3. OVERHEAD SIGNS SHALL BE POSITIONED AT RIGHT ANGLES TO THE THRU ROADWAY UNLESS OTHERWISE NOTED.
4. TO AVOID SPECULAR GLARE, ∠A SHALL BE APPROXIMATELY 93° FOR SIGNS LOCATED LESS THAN 30' FROM THE EDGE OF THRU LANE AND APPROXIMATELY 92° FOR SIGNS LOCATED 30' OR MORE FROM EDGE OF THRU LANE. THIS APPLIES TO SIGNS TYPE A, C, & D AND INCLUDES SIGNS IN THE GORE.
5. "Y" IS THE PERPENDICULAR DISTANCE FROM THE GROUND LINE TO THE FRICTION FUSE ON THE POST. THIS DISTANCE SHALL BE AT LEAST 7'.
6. WHERE "X" IS LESS THAN 30', "H" SHALL BE 7'. WHERE "X" IS 30' OR GREATER, MINIMUM AND PREFERRED "H" IS 5'.
7. LATERAL CLEARANCES GIVEN APPLY TO RIGHT AND OR LEFT SIDE INSTALLATION.
8. WHEN A TYPE A SIGN IS INSTALLED DIRECTLY BEHIND TRAFFIC BARRIER, THE LEFT EDGE OF THE SIGN PANEL SHALL BE LOCATED A MINIMUM OF 8 FEET BEHIND THE FACE OF THE TRAFFIC BARRIER.

SIGN PLACEMENT

REVISED: 4-28-17

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SIGN PLACEMENT DETAILS

SP 8309-52 (T.H. 60)
SHEET NO. 280 OF 283 SHEETS

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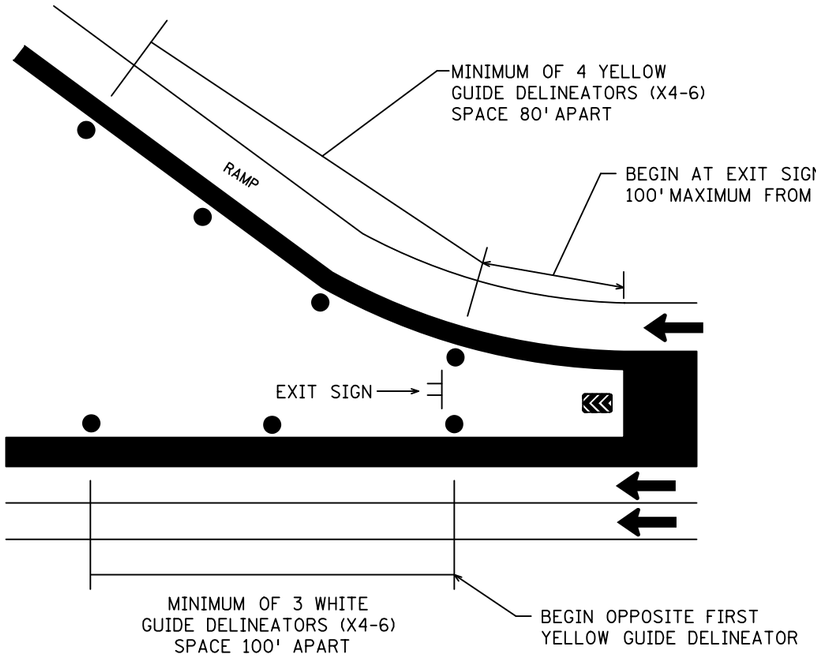
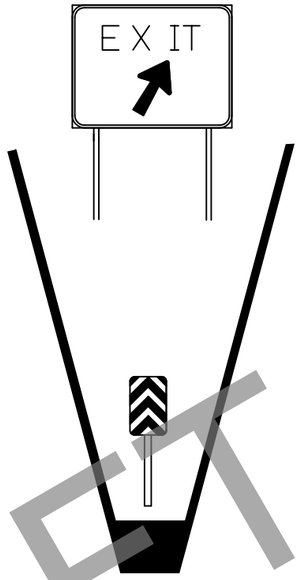
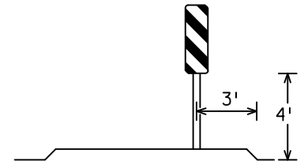


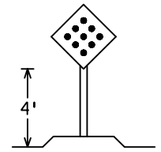
PLAN A
RAMP DELINEATION



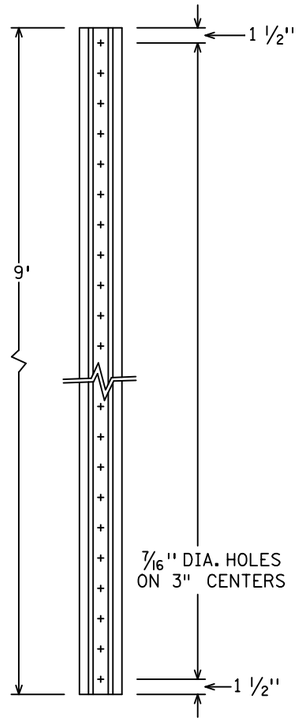
TYPE 3 OBJECT MARKER
12" X 24" (X4-4C)



RAISED ISLAND
TYPE 3 OBJECT MARKER
(X4-4)

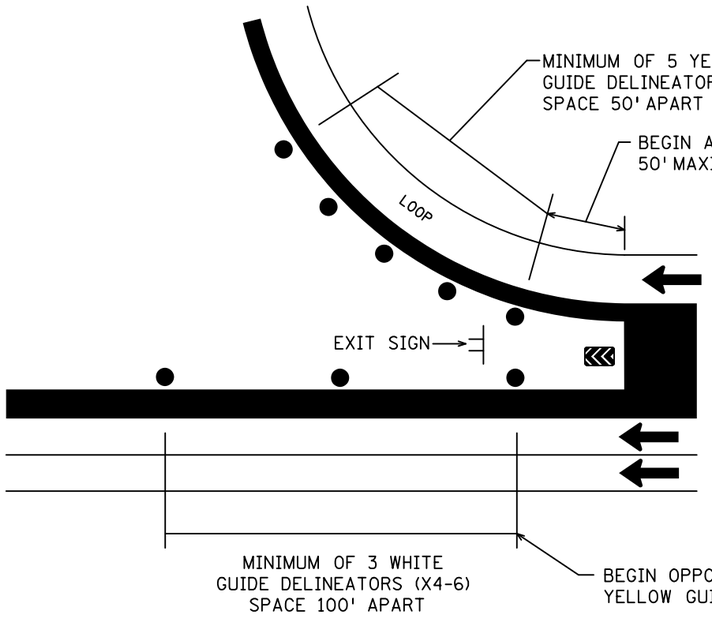


RAISED ISLAND
TYPE 2 OBJECT MARKER
(X4-2)

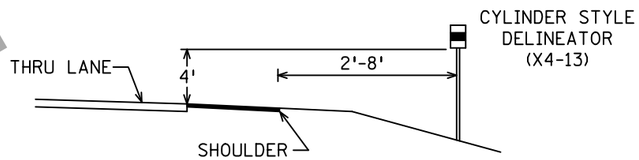


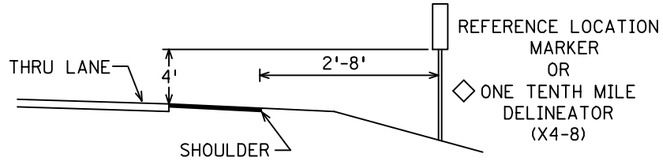
MNDOT 3401
NORMAL WEIGHT= 3 LB./FT.

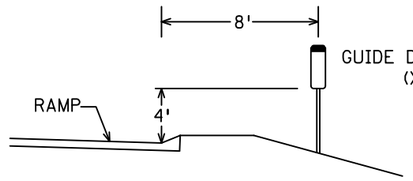
DELINEATOR POST



PLAN B
LOOP DELINEATION







TYPICAL PLACEMENT

DELINEATORS AND MARKERS

REVISED: 10-2-2013

NO	DATE	DWN	CKD	REVISIONS

ALLIANT ENGINEERING

I HEREBY CERTIFY THAT THIS SHEET 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.

PRINT NAME: MICHAEL P MCCURDY
SIGNATURE: DRAFT COPY DRAFT COPY
DATE _____ LICENSE # 41902

DELINEATOR AND MARKER DETAILS

SP 8309-52 (T.H. 60)
SHEET NO. 281 OF 283 SHEETS

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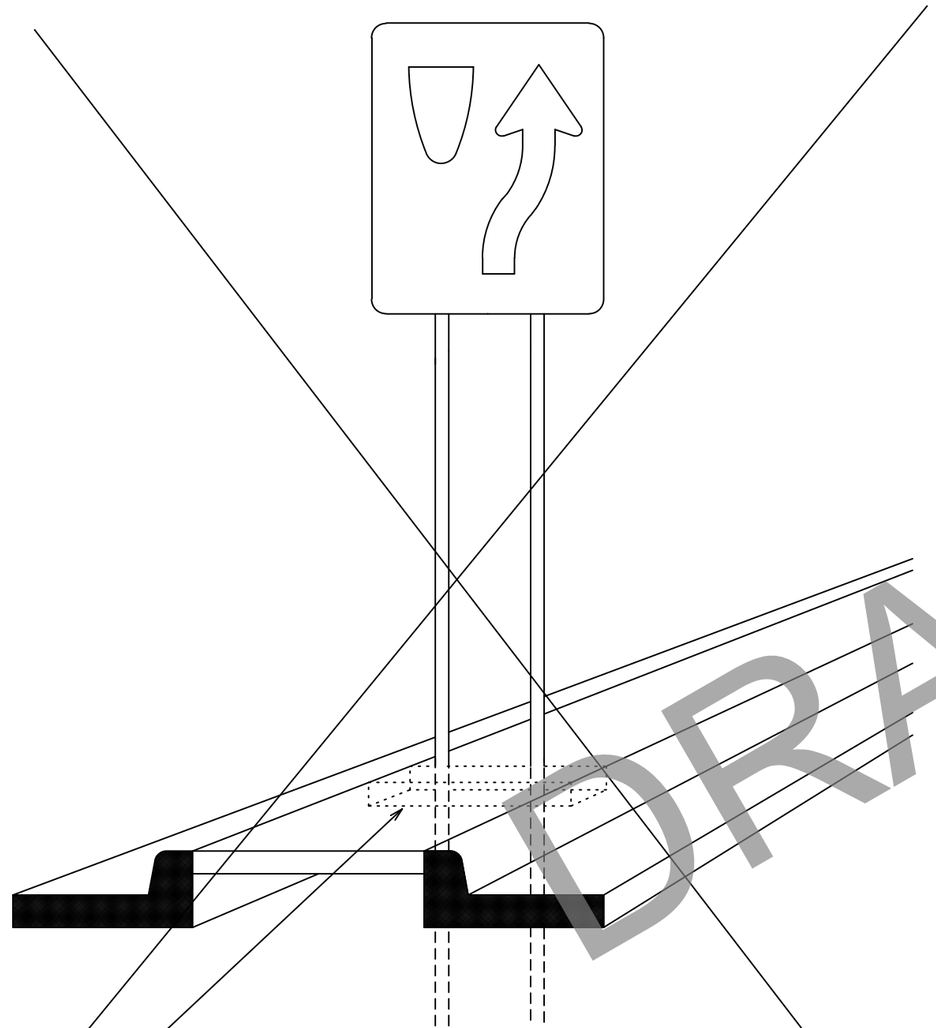
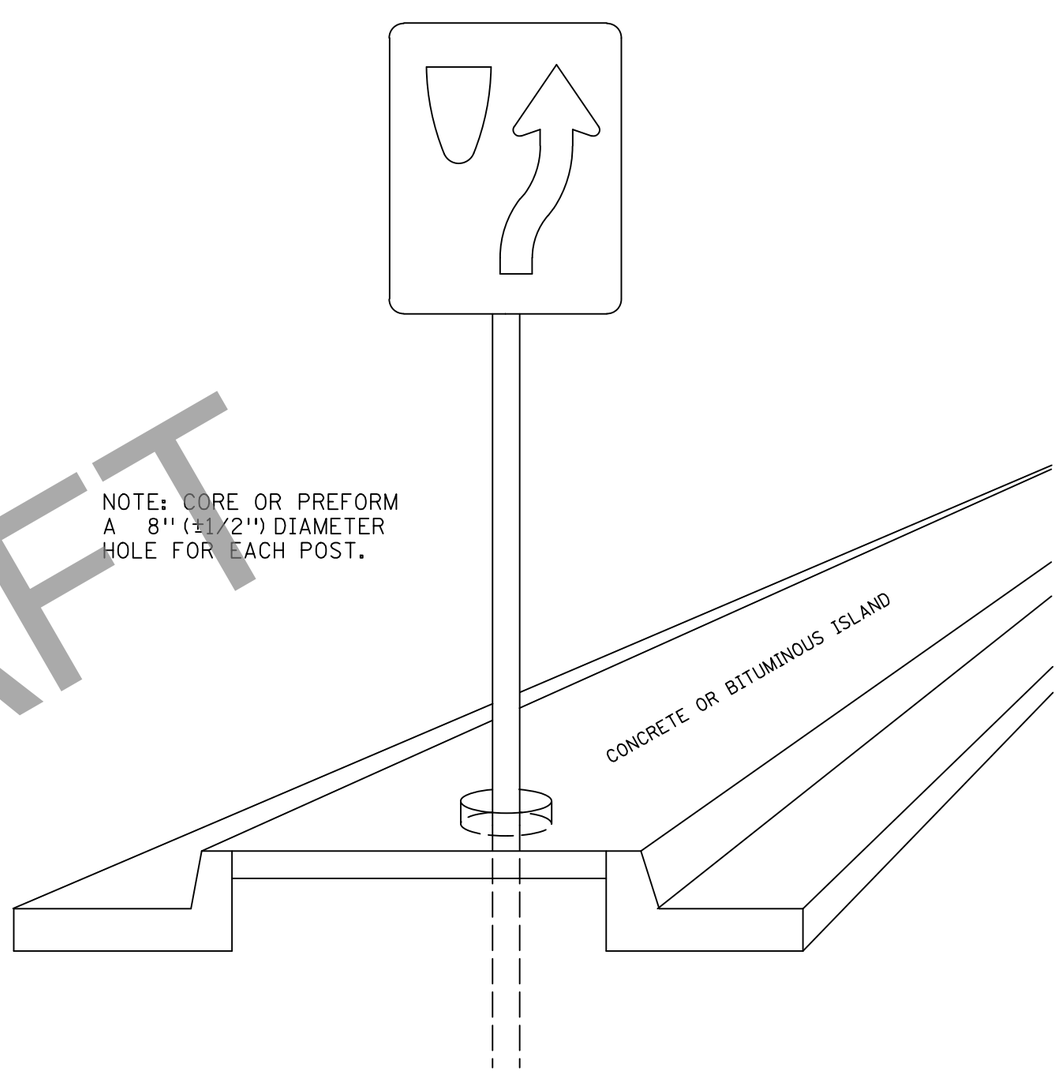


NOTE: CORE OR PREFORM
A 8''(±1/2'') DIAMETER
HOLE FOR EACH POST.



NOTE:
-ALL MATERIALS AND WORK ASSOCIATED WITH FURNISHING AND INSTALLING HIGH DENSITY RIGID FOAM BLOCKS FOR SIGN POST INSERTS ARE CONSIDERED INCIDENTAL.
-FOAM BLOCK DIMENSIONS; THICKNESS = CONCRETE DEPTH, WIDTH = 12 INCHES, LENGTH = SIGN LENGTH PLUS 12 INCHES.
-POSITION AND STAKE THE FOAM BLOCK TO PROPER SIGN ALIGNMENT, FINISH AND JOINT THE CONRETE AS NEEDED TO PROVIDE A SURFACE PROFILE THAT HAS THE FOAM BLOCK FLUSH TO THE FINAL CONCRETE.
-LEAVE THE HIGH DENSITY RIGID FOAM BLOCK INPLACE.
-CONTACT THE DISTRICT SIGNSHOP FOR SIGN LOCATION ASSISTANCE.

FLANGED U-CHANNEL POST MOUNTED THROUGH CONCRETE MEDIAN OR SIDEWALK

REVISED: 5-28-2015

NO	DATE	DWN	CKD	REVISIONS

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PRINT NAME: MICHAEL P MCCURDY
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TYPE C & D SIGN MOUNTING DETAILS

SP 8309-52 (T.H. 60)
SHEET NO. 282 OF 283 SHEETS

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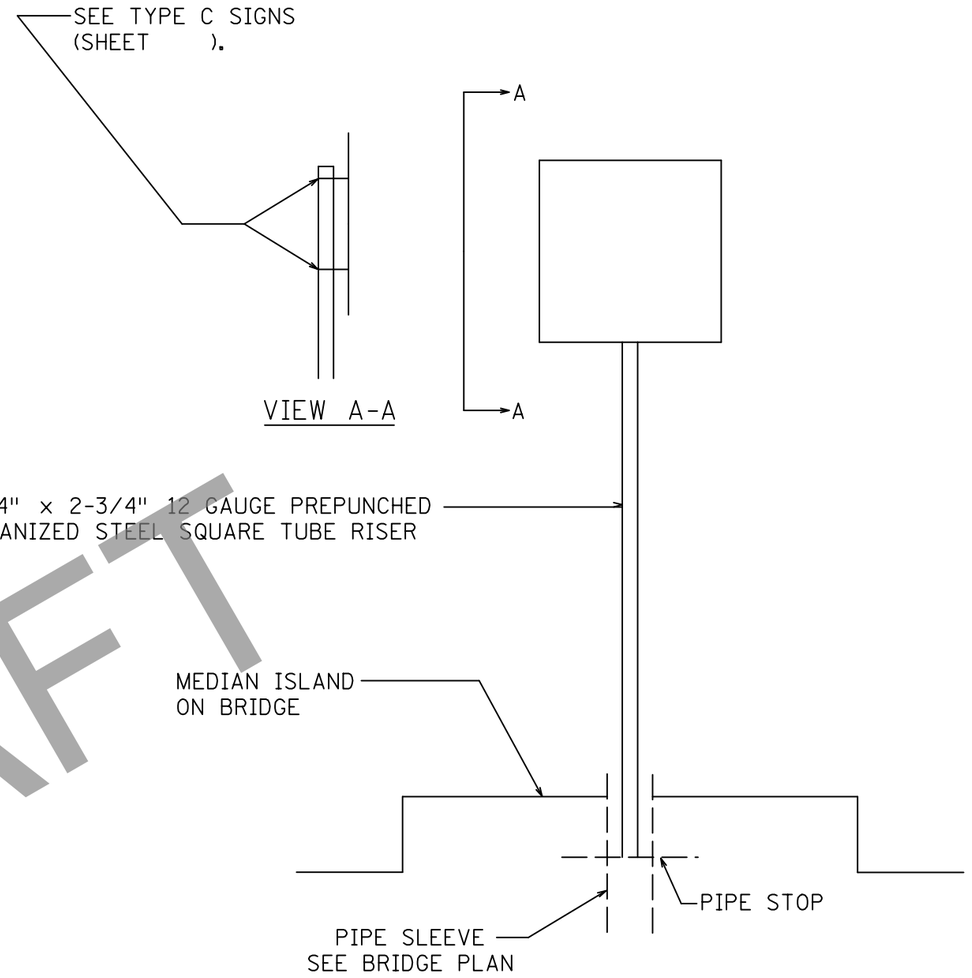

ELEVATION

SEE TYPE C & D SIGN DETAILS
FOR NOTES AND DETAILS NOT SHOWN.

TYPE C SIGNS MOUNTED ON BRIDGE MEDIAN ISLAND

REVISED: 10-2-2013

NO	DATE	DWN	CKD	REVISIONS

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TYPE C & D SIGN MOUNTING DETAILS

SP 8309-52 (T.H. 60)
SHEET NO. 283 OF 283 SHEETS

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