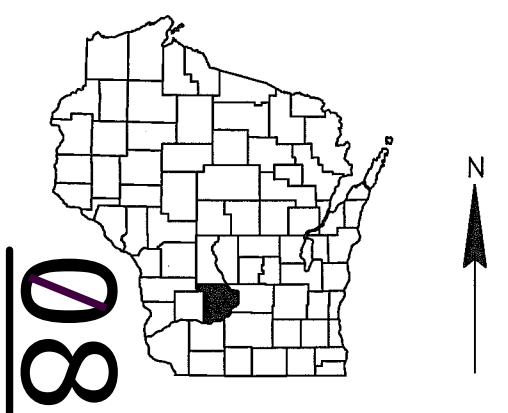


MAD WITH: PROJECT ID: 5799-00-64/65 COUNTY: SAUK

JAN 2018

ORDER OF SHEETS		
Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control Plans)
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 160

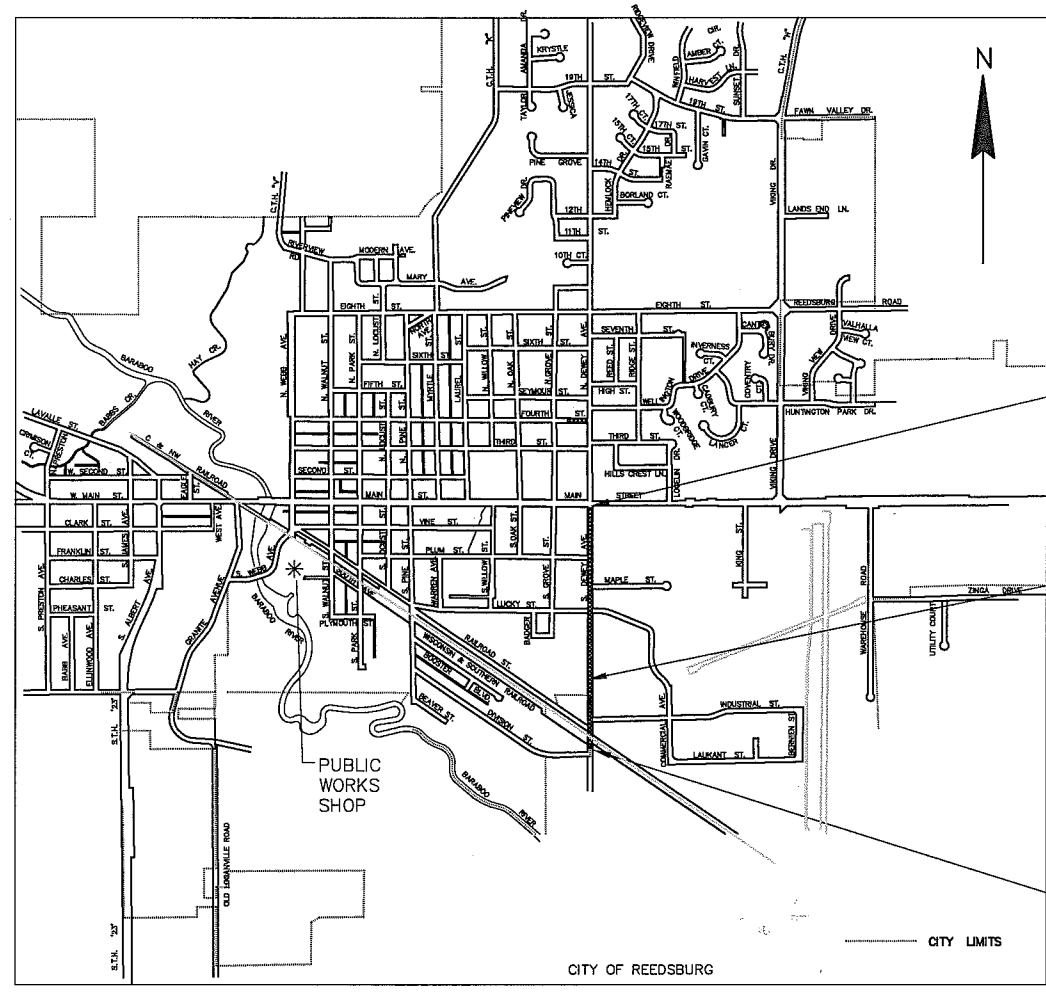


DESIGN DESIGNATION	N. of Commercial Ave.	S. of Commercial Ave.
A.A.D.T. (2018)	= 6000	= 2000
A.A.D.T. (2038)	= 7200	= 2400
D.H.V.	= 14%	= 21.5%
D.D.	= 59/41	= 59/41
T.	= 16.3%	= 25.0%
DESIGN SPEED	= 30MPH	= 40MPH
ESALS	= 1,402,892	= 1,103,045

CONVENTIONAL SYMBOLS	
PLAN	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	
PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
C REEDSBURG, SOUTH DEWEY AVENUE
RAILROAD STREET TO MAIN STREET
LOCAL STREET
SAUK COUNTY

STATE PROJECT NUMBER
5799-00-64/65



T-12-N

END PROJECT 5799-00-64/65
STA 36+11

C-56-3086

BEGIN PROJECT 5799-00-64/65
STA 2+86

R-4-E

LAYOUT
SCALE 0 1/2 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.630 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, SAUK COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5799-00-64	WISC 2018041	1
5799-00-65		

CITY OF REEDSBURG

APPROVED BY THE CITY
DATE: 7/26/17

Don Alden Mayor
Signature Title

ORIGINAL PLANS PREPARED BY

vierbicher
planners | engineers | advisors
REEDSBURG - MADISON - PRAIRIE DU CHIEN
126 West Blackhawk Avenue Prairie du Chien, Wisconsin 53821
Phone: (608) 326-1051 Fax: (608) 326-1052

WISCONSIN
TODD A. HALVENSLEBEN
E-34578
REEDSBURG WI
PROFESSIONAL ENGINEER
Todd A. Halvensleben 7/25/17

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor VERBICHER

Designer VERBICHER

Management Consultant CEDAR CORPORATION

APPROVED FOR THE DEPARTMENT
DATE: 7/27/17
H. M. D. R.
Management Consultant Signature

GENERAL NOTES:

1. CONTACT THE UTILITIES AND DIGGERS HOTLINE TO LOCATE AND FIELD VERIFY UTILITIES PRIOR TO THE START OF WORK. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. ANY LOCAL, MUNICIPAL OR OTHER UTILITY THAT IS NOT A MEMBER OF DIGGERS HOTLINE SHALL BE CONTACTED SEPARATELY.
2. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
3. RIGHT OF WAY LINES SHOWN ON THE CROSS SECTIONS ARE APPROXIMATE.
4. PROTECT INLETS WITH PROPER INLET PROTECTION AT LOCATIONS EXHIBITING RISK OF BEING IMPACTED BY CONSTRUCTION OPERATIONS AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
5. THE EXACT LOCATIONS OF PRIVATE ENTRANCES ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER. ALL DRIVEWAYS ARE TO BE REPLACED IN KIND UNLESS OTHERWISE DIRECTED BY THE ENGINEER, OR AS SHOWN ON THE PLANS.
6. THE EXACT LOCATION AND WIDTH OF TEMPORARY ACCESS FOR DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER. STAGE CONSTRUCTION AND PROVIDE TRAFFIC CONTROL TO MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES.
7. RESHAPE AND SEED ANY PREVIOUSLY GRASSED AREA(S) WHICH ARE DISTURBED BY ANY OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AT THE CONTRACTORS EXPENSE.
8. PLACE SALVAGED TOPSOIL IN ALL GRADED AREAS AS DESIGNATED BY THE ENGINEER IMMEDIATELY AFTER GRADING HAS BEEN COMPLETED. SEED, MULCH AND FERTILIZE OR SOD AND FERTILIZE ALL AREAS 5 DAYS AFTER PLACEMENT OF SALVAGED TOPSOIL.

9. EROSION BALES ARE TO ONLY BE USED FOR REINFORCEMENT OF PROPOSED SILT FENCE LOCATIONS ALONG WETLANDS. ANY OTHER USE OF EROSION BALES IS PROHIBITED.
- 10.TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY OR FLOODPLAIN OF ANY WATERWAY.
- 11.CURB AND GUTTER GRADES AND LAYOUT DATA ARE GIVEN AS NOTED ON THE PLANS.
- 12.SAWCUT ASPHALTIC AND CONCRETE DRIVEWAYS AND/OR PARKING LOTS AT THE MATCHLINE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER
- 13.THE EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER.
- 14.EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
- 15.ALL MANHOLE INLET OFFSETS ARE GIVEN TO THE CENTER OF THE STRUCTURE.
- 16.PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR WILL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO THE ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS. THIS ALSO INCLUDES VERIFICATION OF INVERT ELEVATIONS AT ALL PROPOSED STORM SEWER CONNECTION POINTS TO EXISTING SYSTEMS.
- 17.TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
18. SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" WILL BE COVERED

- AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER THE ITEM "TRAFFIC CONTROL COVERING SIGNS TYPE 1 OR TYPE 2.
- 19.BENCHMARK LOCATIONS SHOWN ON PLAN ARE APPROXIMATE AND SHOULD BE VERIFIED.
20. 5 FOOT WIDE SIDEWALK REQUIRES TRANSVERSE JOINTS SPACED AT 5 FEET, 8 FOOT WIDE SIDEWALK REQUIRES TRANSVERSE JOINTS SPACED AT 8 FEET.
- 21.SIDEWALK AND CURB & GUTTER REPLACEMENT SHOULD BE THE NEAREST JOINT. LIMITS ARE APPROXIMATE AND ARE TO BE VERIFIED IN THE FIELD BY THE ENGINEER. MATCH EXISTING SIDEWALK WIDTH.
22. VERIFY PROPOSED BEAMGUARD AND THIER BEAM POST SPACING PRIOR TO DRAINAGE STRUCTURE OR CONDUIT PLACEMENT.
23. FOR ALL CURB RAMPS, REFER TO THE STANDARD DETAIL DRAWINGS FOR THE RAMP TAPER DIMENSIONS. SIDEWALK WIDTHS ARE DIMENSIONED IN THE PLAN.
24. SIDE ROAD PAVEMENT STRUCTURE SHALL BE THE SAME AS THE MAINLINE.
25. HMA PAVEMENT WHEN INDICATED ON THE PLANS, SHALL CONSIST OF COURSES AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS.

TOTAL DEPTH	LAYERS	TYPE	NOMINAL MAX SIZE GRADATION	ASPHALTIC BINDER GRADE
2-INCH	UPPER	4 MT 58-28 H	12.5 mm	58-28
3-INCH	LOWER	3 MT 58-28 S	19.0 mm	58-28

26. ASPHALT DRIVEWAY 2 ½-INCHES HMA SHALL CONSIST OF THE FOLLOWING:
6" BASE AGGREGATE DENSE 1 ¼-INCH AS THE BASE LAYER
2 ½-INCH ASPHALTIC SURFACE DRIVEWAYS
27. ASPHALT DRIVEWAY 3 ½-INCHES HMA SHALL CONSIST OF THE FOLLOWING:
9" BASE AGGREGATE DENSE 1 ¼-INCH AS THE BASE LAYER
3 ½-INCH ASPHALTIC SURFACE DRIVEWAYS

RUNOFF COEFFICENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS:	0.08 0.22	0.16 0.30	0.22 0.38	0.12 0.26	0.20 0.34	0.27 0.44	0.15 0.30	0.24 0.37	0.33 0.50	0.19 0.34	0.28 0.41	0.38 0.56
MEDIAN STRIP-TURB:	0.19 0.24	0.20 0.26	0.24 0.30	0.19 0.25	0.22 0.28	0.26 0.33	0.20 0.26	0.23 0.30	0.30 0.37	0.20 0.27	0.25 0.32	0.30 0.40
SIDE SLOPE-TRUF:			0.25 0.32			0.27 0.34			0.28 0.36			0.30 0.38
PAVEMENT:												
ASPHALT	0.70 - 0.95											
CONCRETE	0.80 - 0.95											
BRICK	0.70 - 0.80											
DRIVES, WALKS	0.75 - 0.85											
ROOFS	0.75 - 0.95											
GRAVEL ROADS, SHOULDERS	0.40 - 0.60											

TOTAL PROJECT AREA = 5.30 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 5.34 ACRES



Dial  or (800) 242-8511
www.DiggersHotline.com

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ALLIANT ENERGY
TYLER DONOVAN
520 COMMERCE AVENUE
BARABOO, WI 53913
608-356-0610
tylerdonovan@alliantenergy.com

AMERICAN TRANSMISSION COMPANY
ELECTRIC TRANSMISSION
JIM JACOBI
5303 FEN OAK DRIVE
MADISON, WI 53718
608-445-0711
jjacobi@atcllc.com

TELEVISION
CHARTER COMMUNICATIONS
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E10704 STATE HIGHWAY 33
BARABOO, WI 53913
608-448-2119 ext. 61832
harlow.jarvis@charter.com

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ruc@rucls.net

SANITARY SEWER
CITY OF REEDSBURG
STEVE ZIBELL, DIRECTOR OF PUBLIC WORKS
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608-524-6404
szibell@ci.reedsburg.wi.us

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PAVING/INTERSECTION DETAILS
RAILROAD PLAN/PROFILE
EROSION CONTROL PLANS
STORM SEWER PLANS
SANITARY PLANS
WATER MAIN PLANS
SIGNING & PAVEMENT MARKING PLANS
TRAFFIC CONTROL/DETOUR PLANS
ALIGNMENT/CONTROL POINT DATA

ALIGNMENT IDENTIFIERS

"SD"	SOUTH DEWEY AVE
"RR"	RAILROAD STREET
"IN"	INDUSTRIAL STREET
"LC"	LUCKY ST/COMMERCIAL
"MP"	MAPLE ST
"PL"	PLUM ST

ABBREVIATIONS

AEW	APRON ENDWALL
AGG	AGGREGATE
ASPH	ASPHALT
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTIER
C/L	CENTER OR CONSTRUCTION LINE
CMP	CULVERT PIPE CORRUGATED METAL
CONC	CONCRETE
CP	CULVERT PIPE
RCP	CULVERT PIPE REINFORCED CONCRETE
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
EAT	ENERGY ABSORBING TERMINAL
FE	FIELD ENTRANCE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
MATCH	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCPAE	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RRSP	RAILROAD SPIKE
RT	RIGHT
SALV	SALVAGED
SAPBC	SALVAGED ASPHALTIC PAVEMENT BASE COURSE
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWINGS
SE	SUPER ELEVATION
SF	SQUARE FOOT
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT

AGENCIES:

EMERGENCY – FIRE, RESCUE, AMBULANCE,
POLICE
DIAL 911

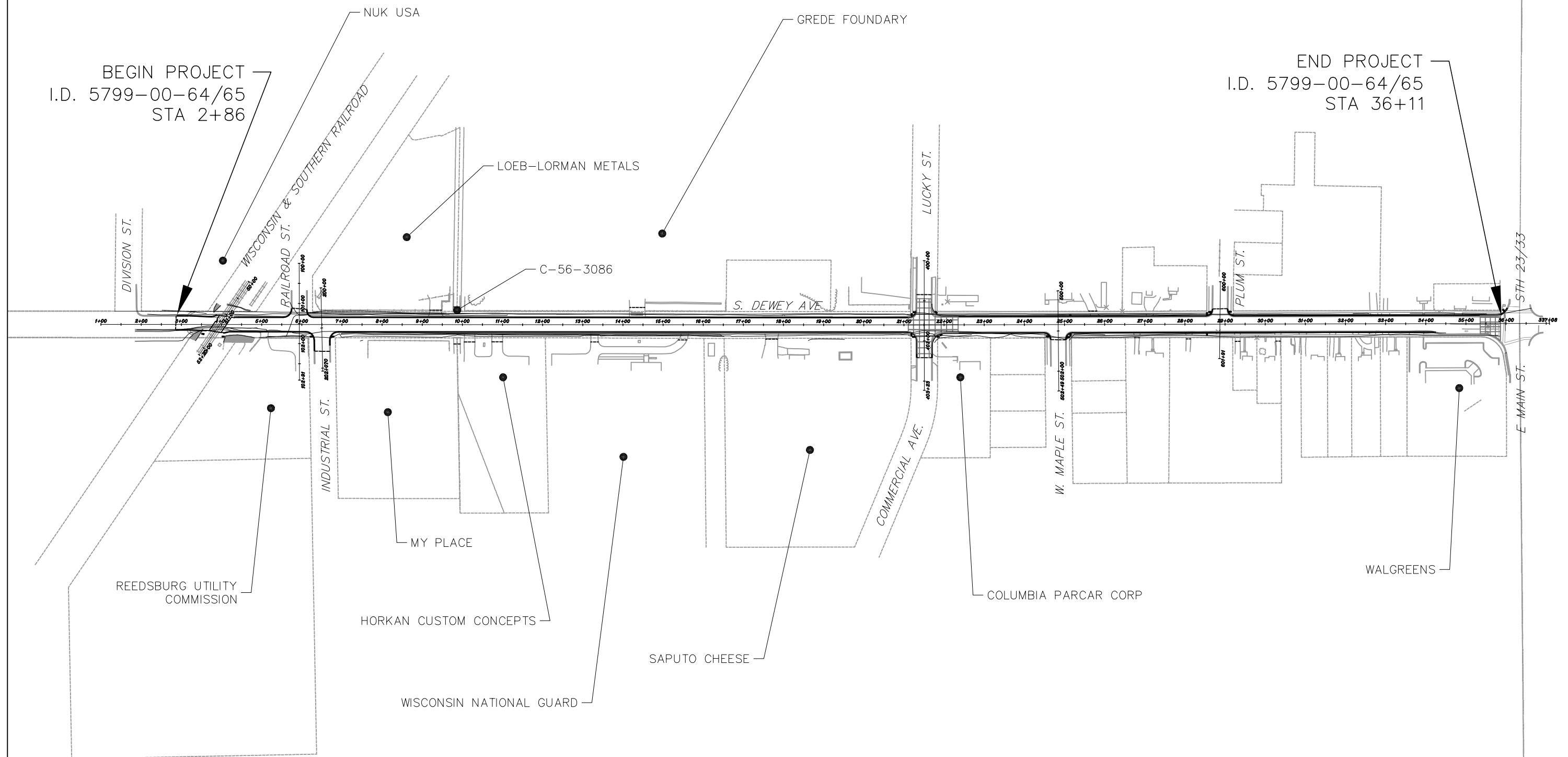
CITY OF REEDSBURG
STEVE ZIBELL, DIRECTOR OF PUBLIC WORKS
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szibell@ci.reedsburg.wi.us

DEPARTMENT OF NATURAL RESOURCES

DNR SOUTH CENTRAL REGION HQ
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andy.barta@wisconsin.gov

CONSULTANT PROJECT MANAGER

VIERBICHER
GARY WOOLEVER
400 VIKING DRIVE
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608-768-4807
gwoo@vierbicher.com



PROJECT NO:5799-00-64/65

HWY:S. DEWEY AVE

COUNTY:SAUK

PLAN: PROJECT OVERVIEW

SHEET

E

FILE NAME : R:\REEDSBURG, CITY OF\150036_SOUTH DEWEY AVENUE RECONSTRUCTION\CADD\150036_TITLE SHEET_GEN NOTES - S.DEWEY.DWG
LAYOUT NAME - ####

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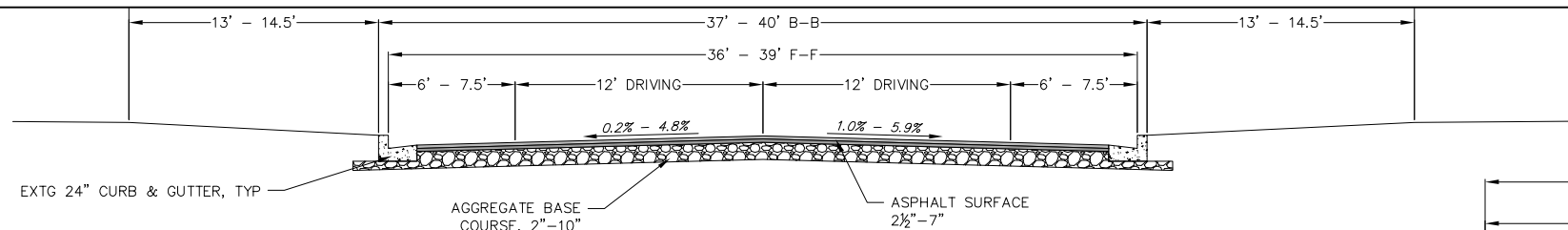
PLOT BY : PAUL JUNION

PLOT NAME :

PLOT SCALE : N/A

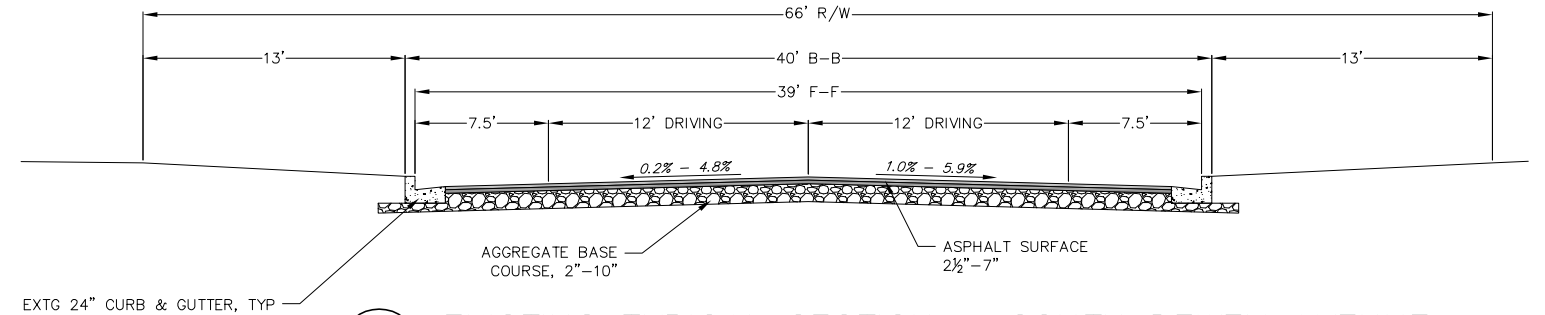
WISDOT/CADDs SHEET 42

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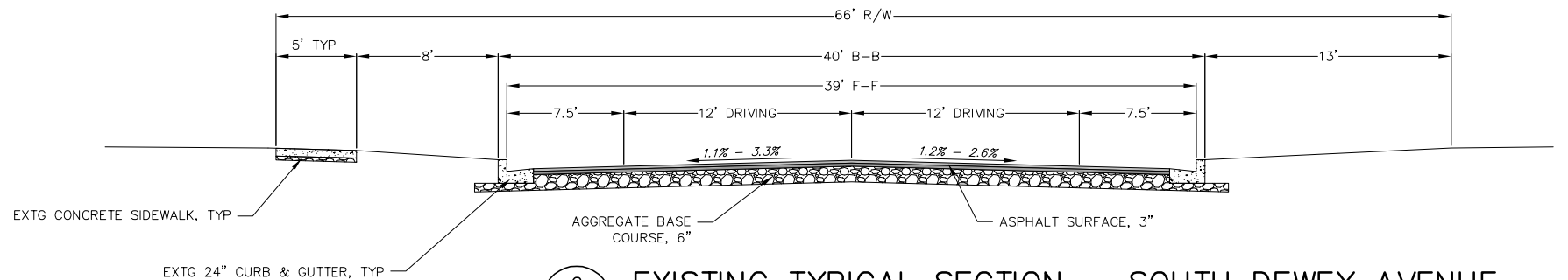


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NOT TO SCALE STA 2+88 - STA 4+50

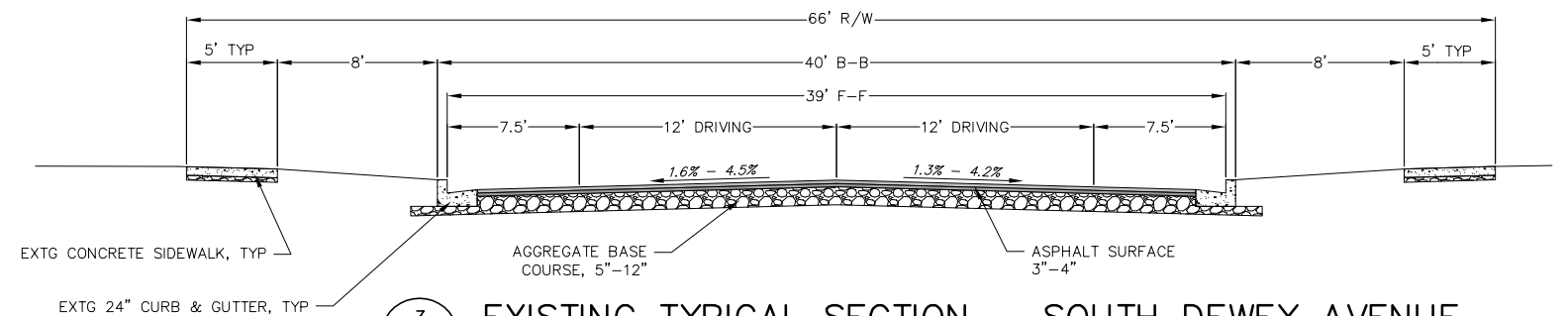
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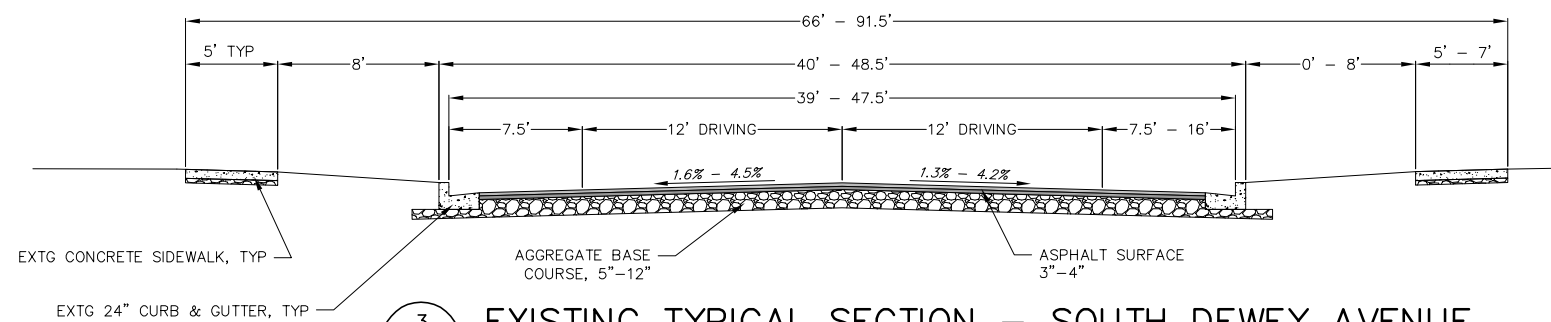
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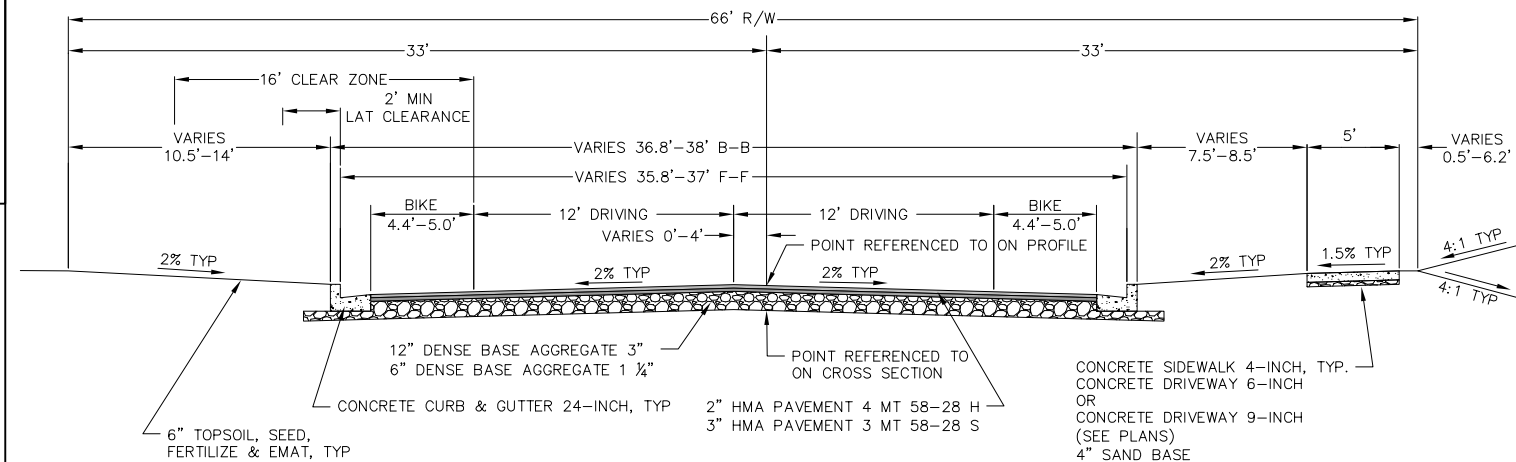
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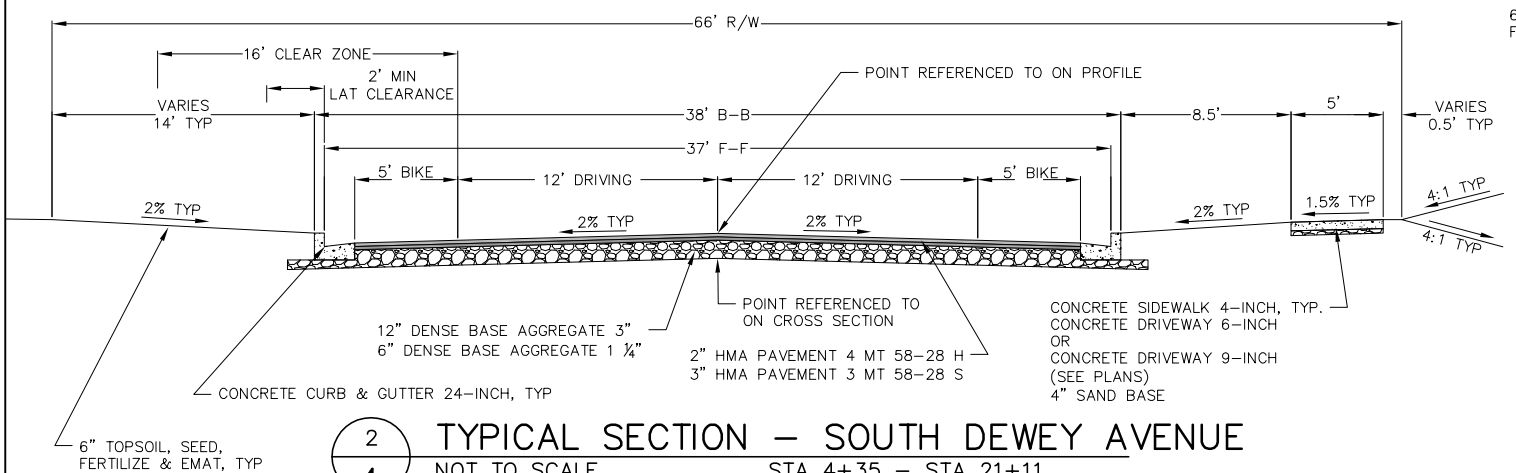
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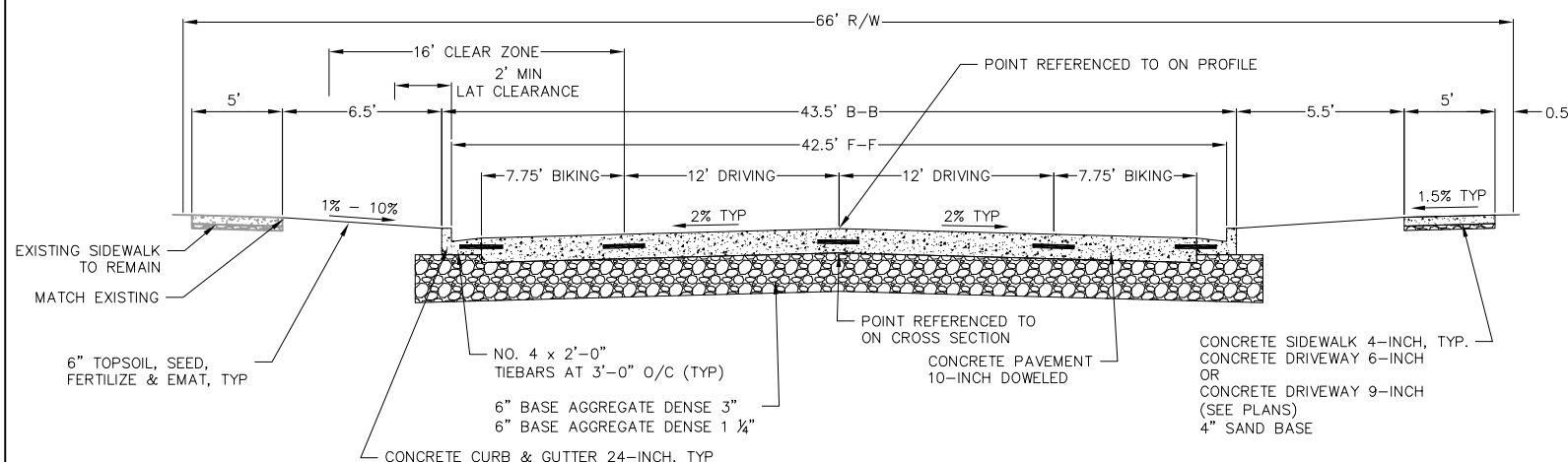
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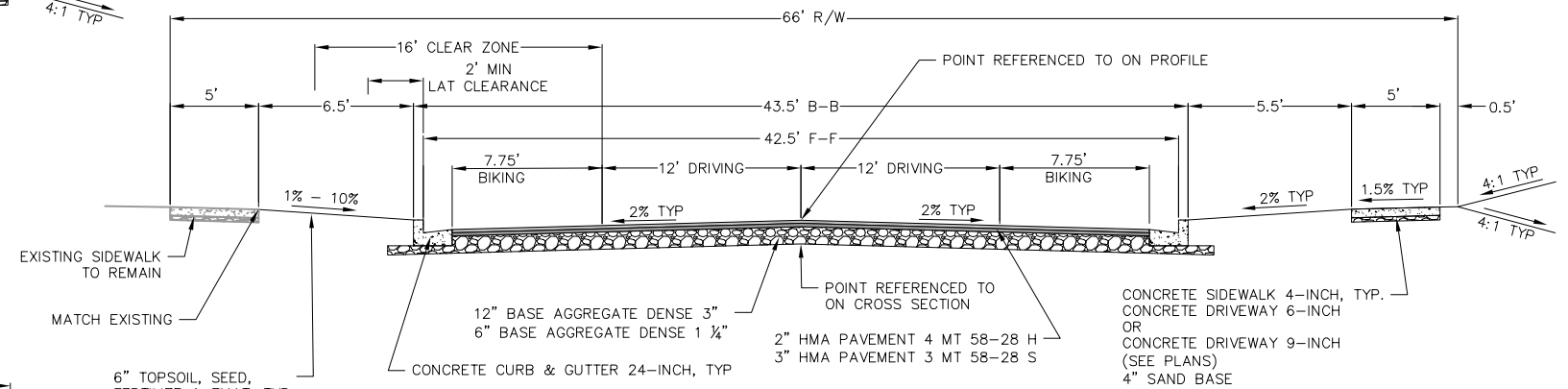
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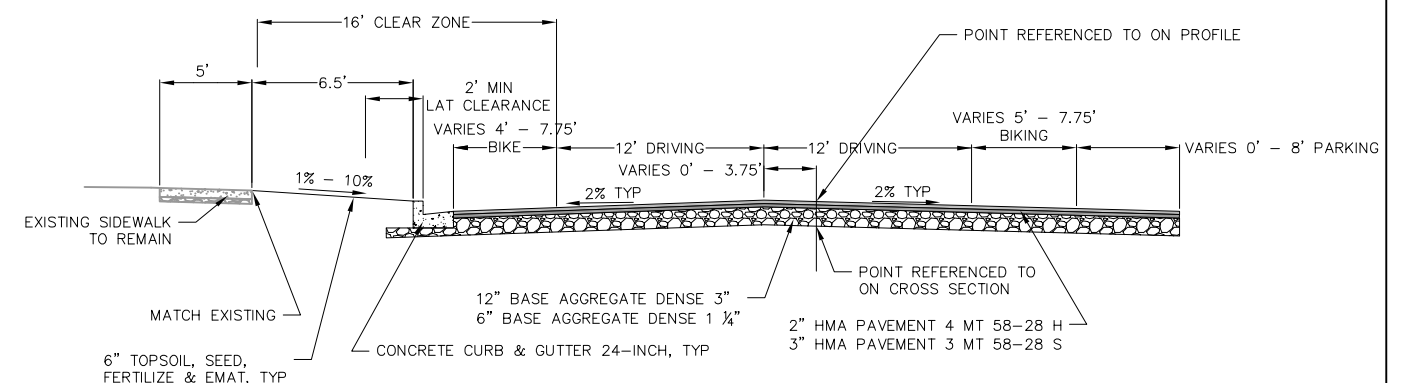
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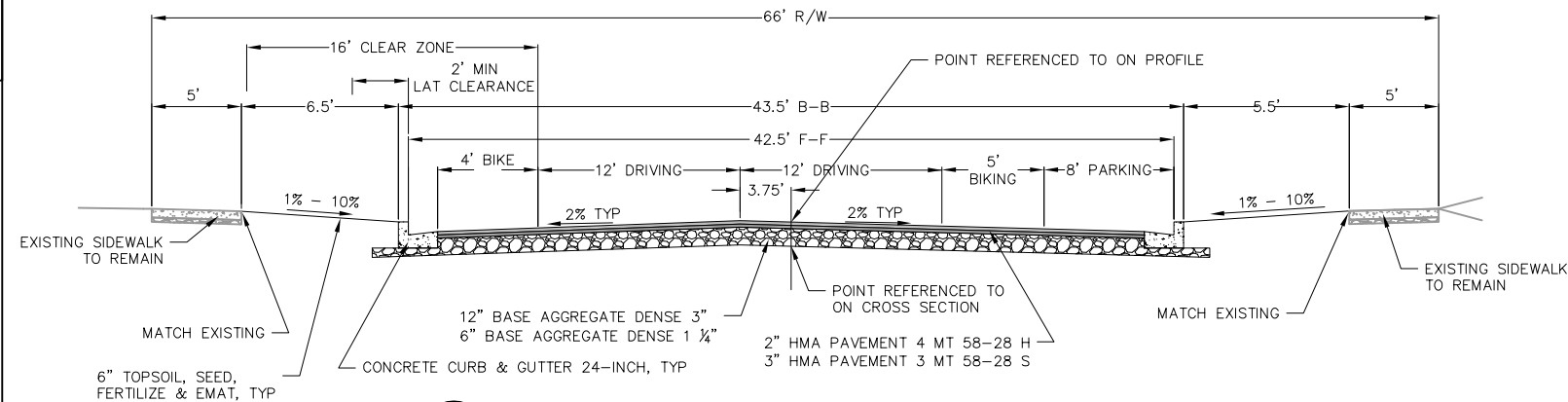
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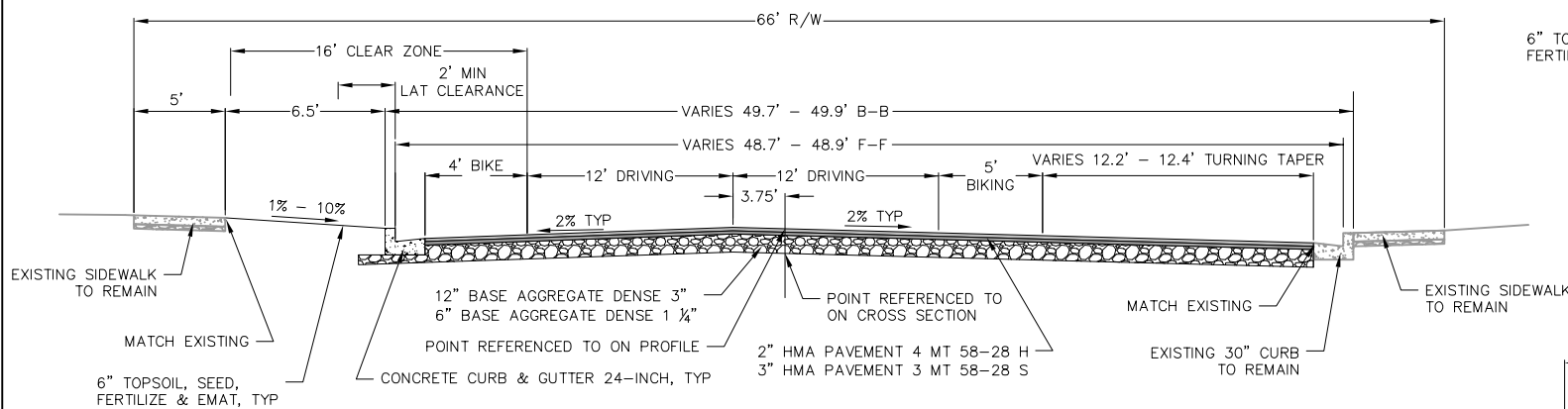
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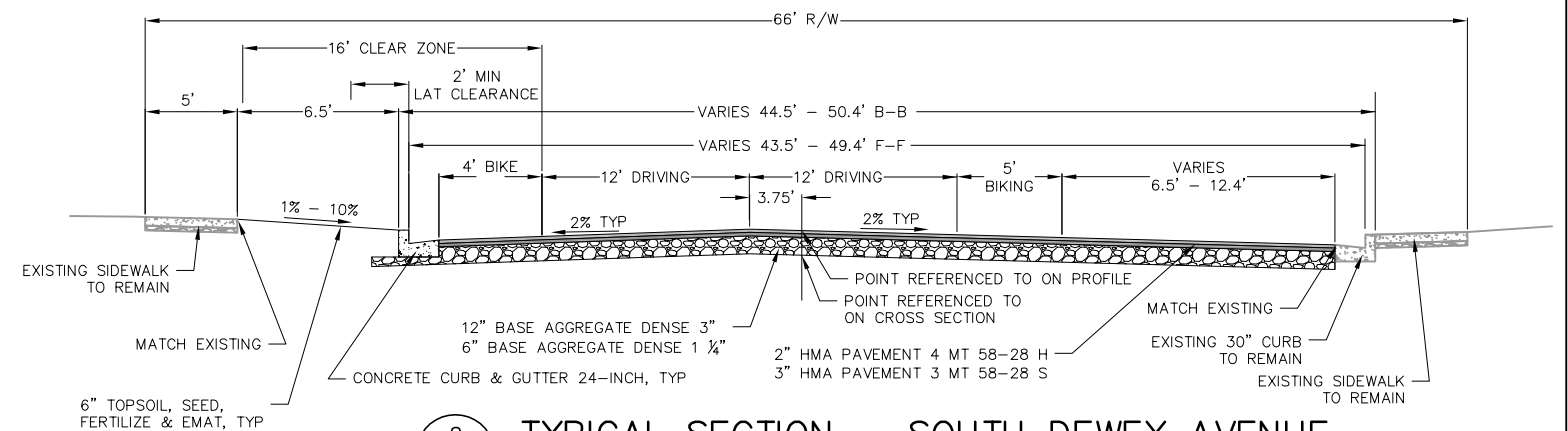
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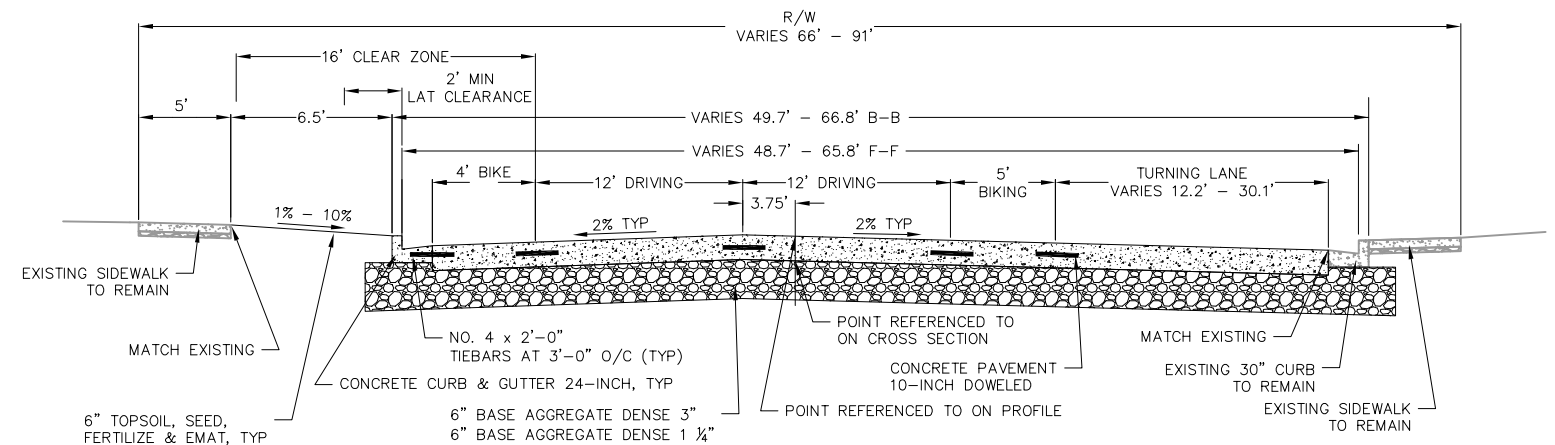
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NOT TO SCALE STA 34+50 — STA 35+35

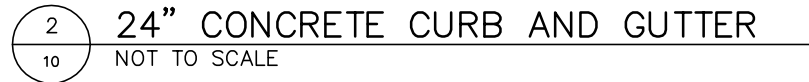


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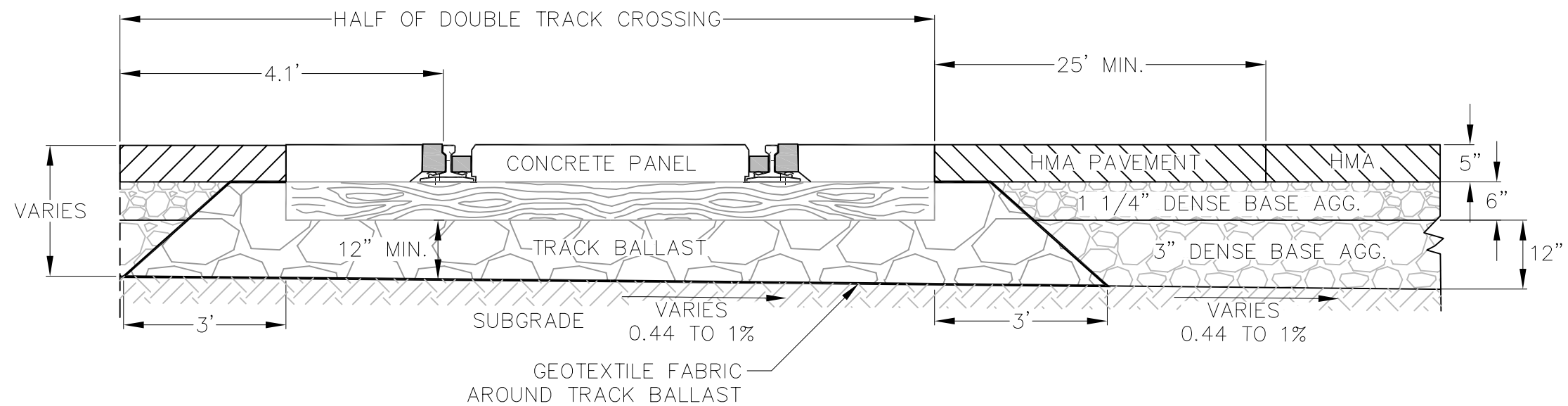


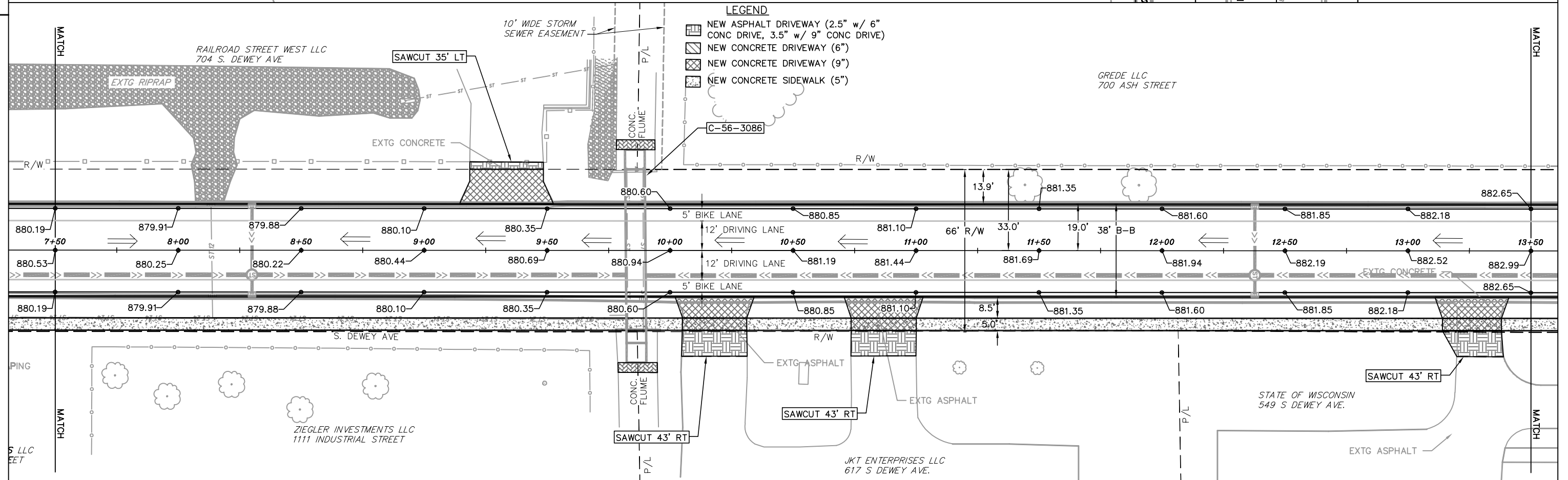
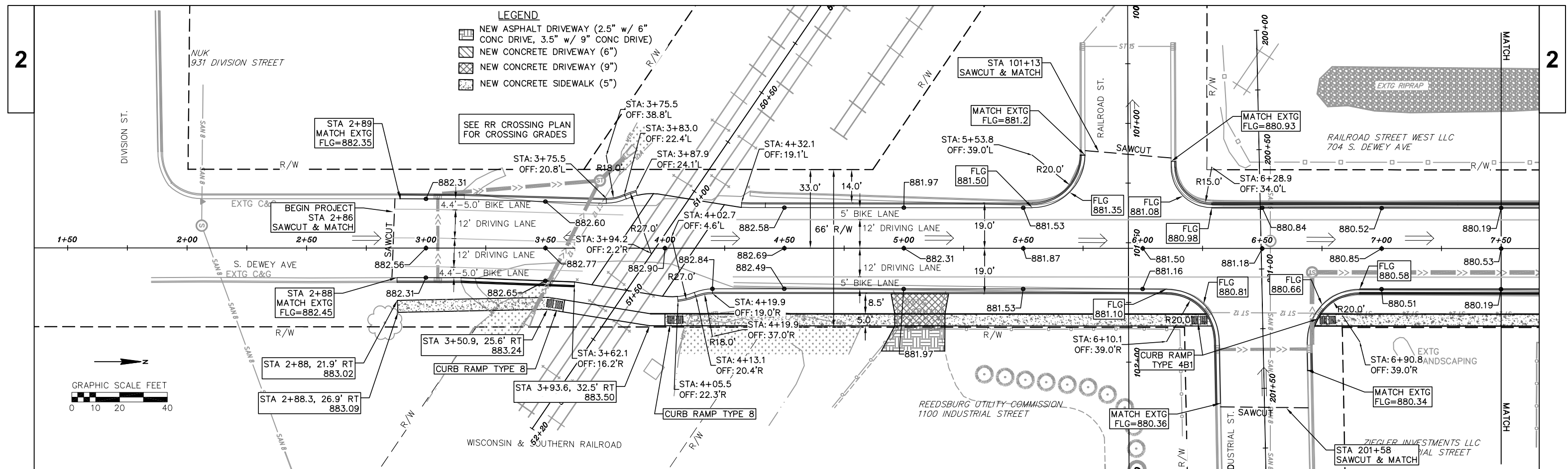
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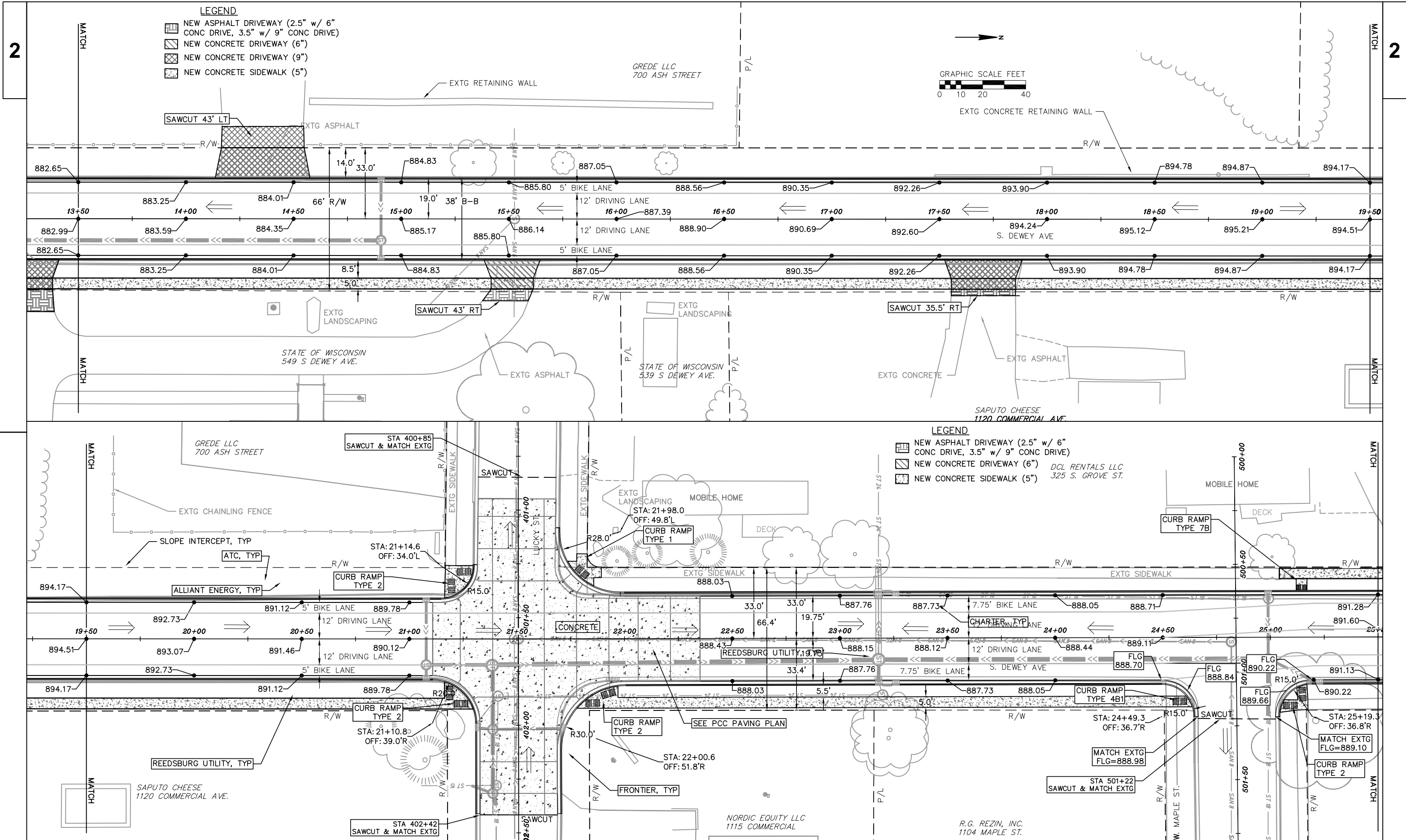
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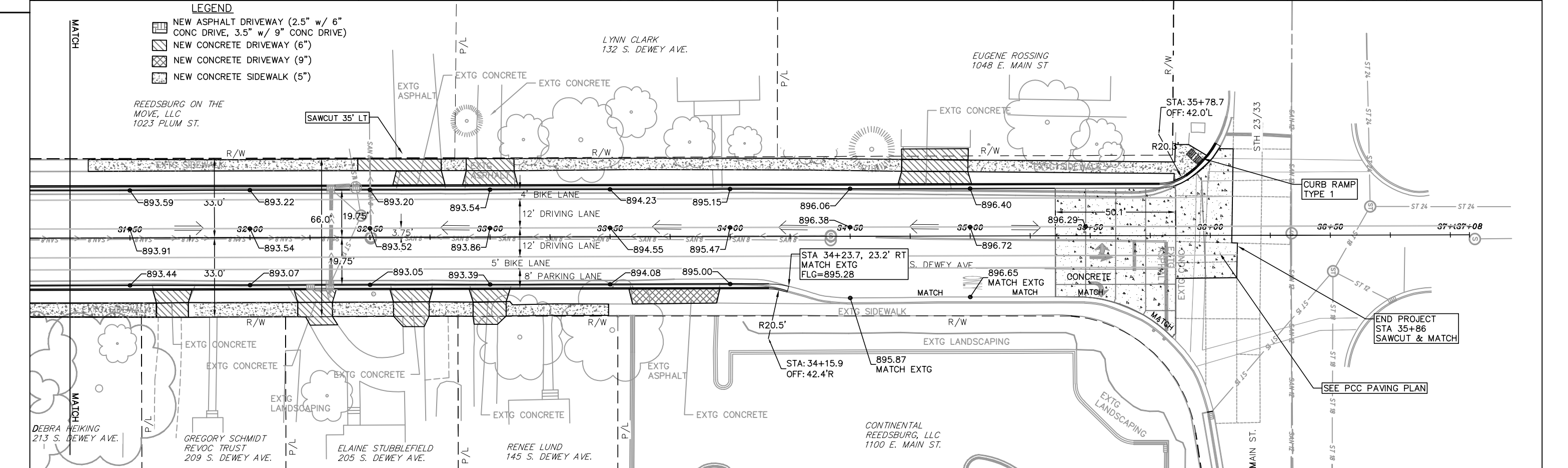
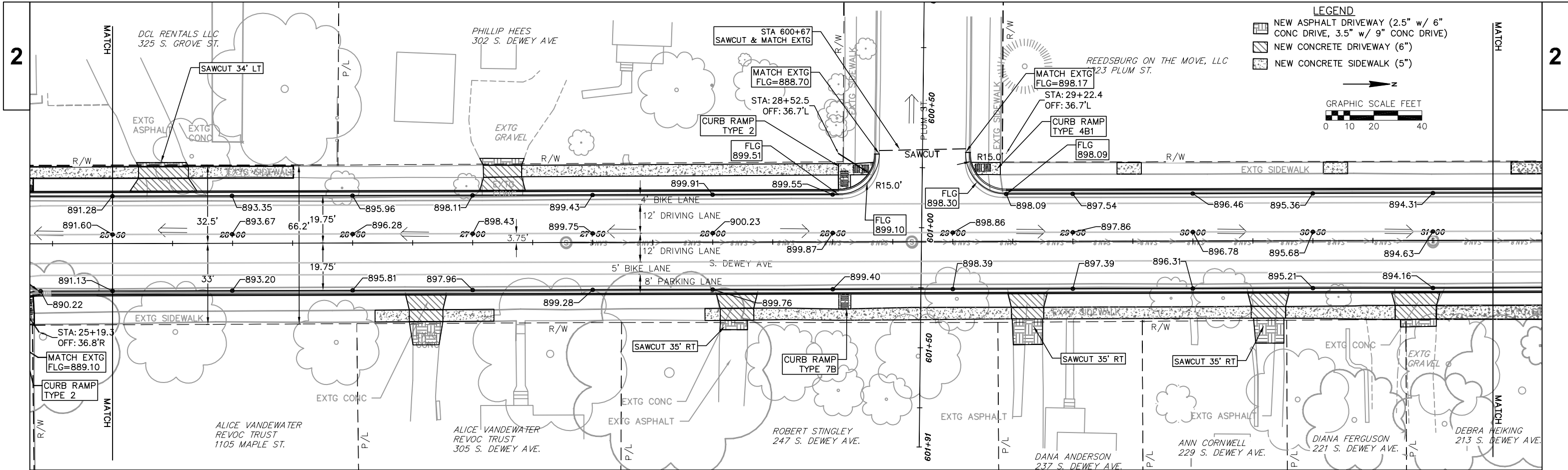


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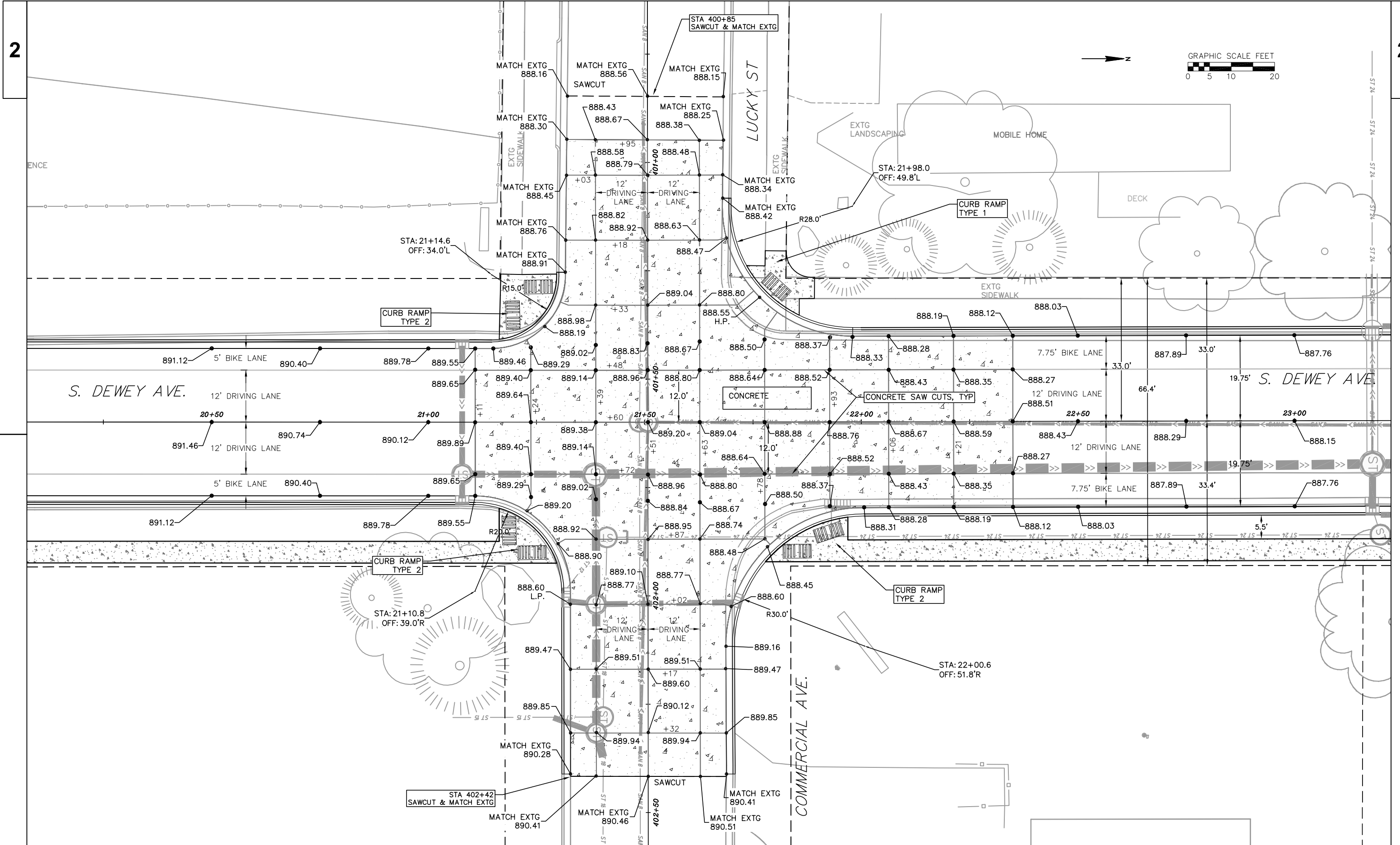


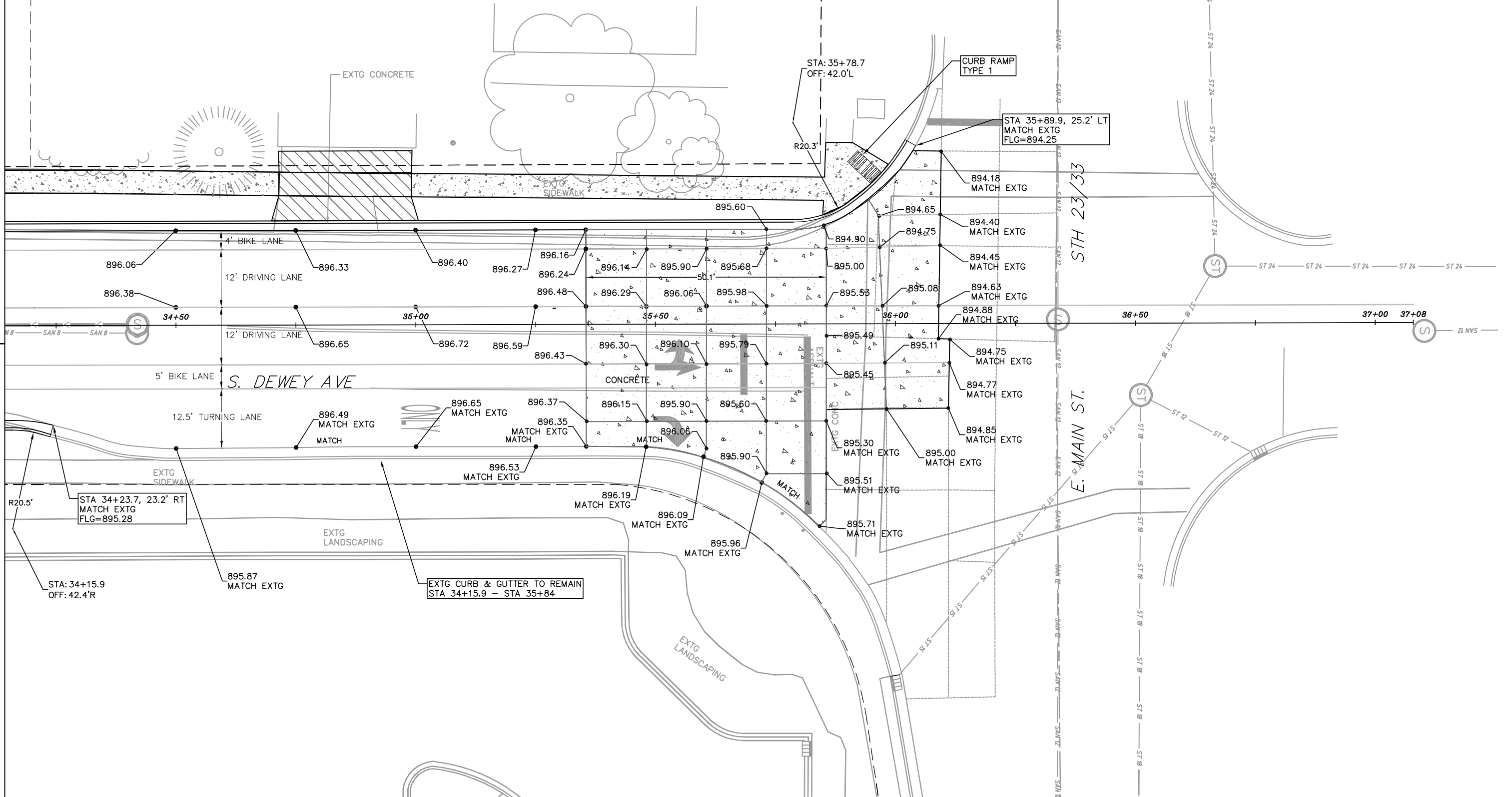


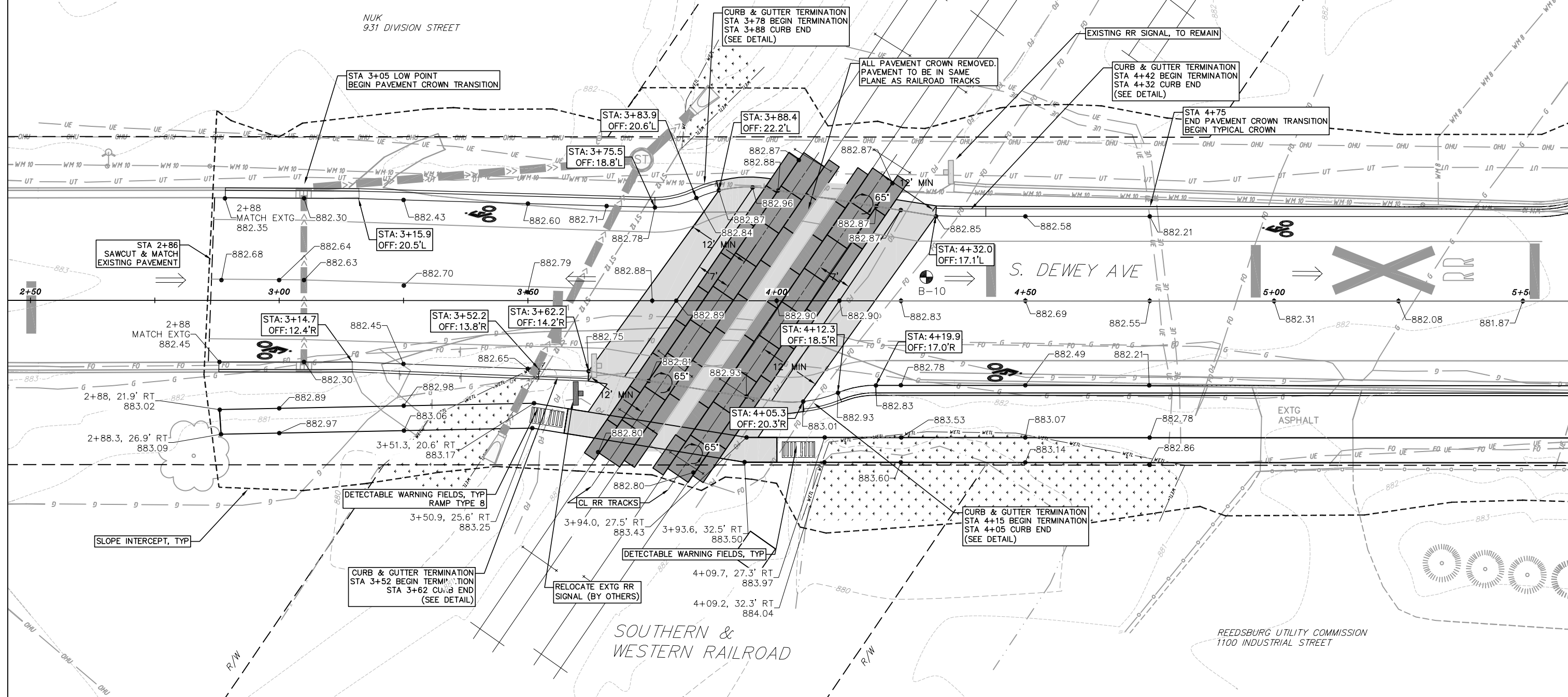
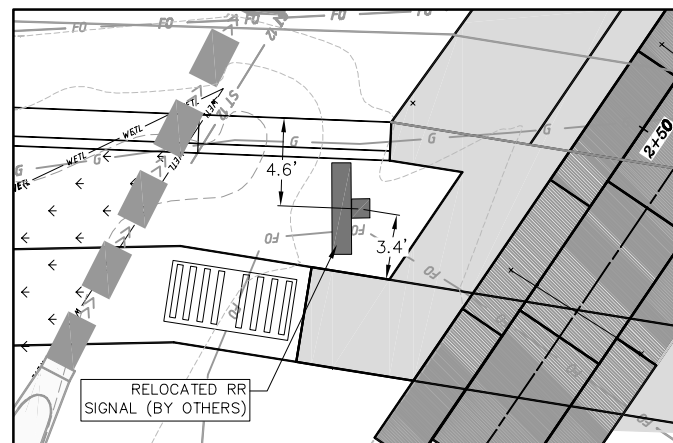


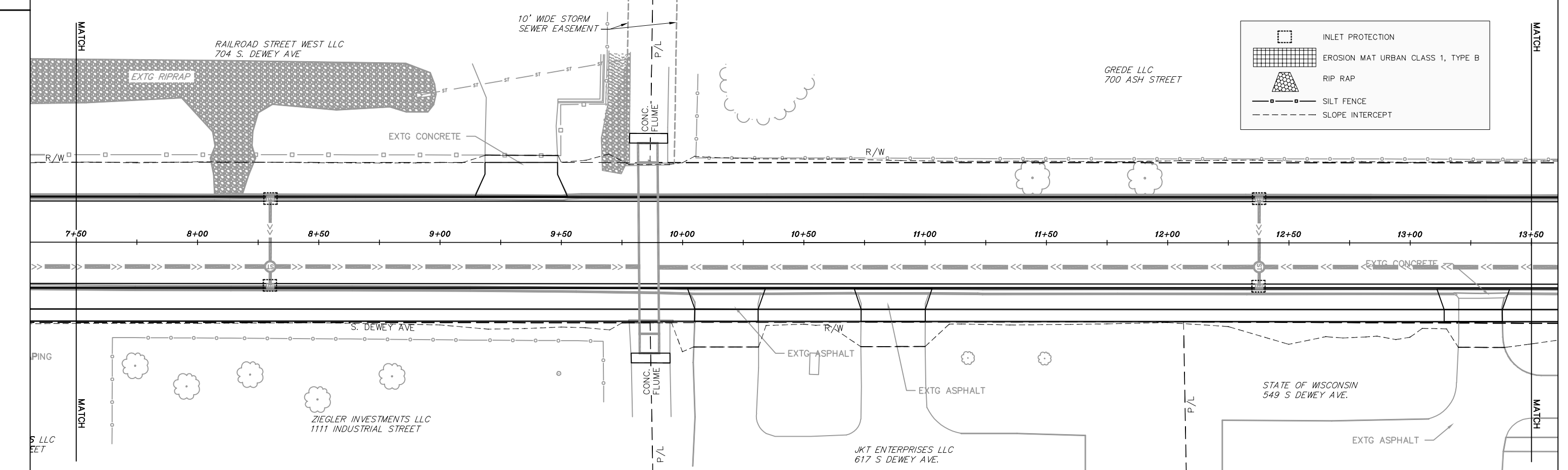
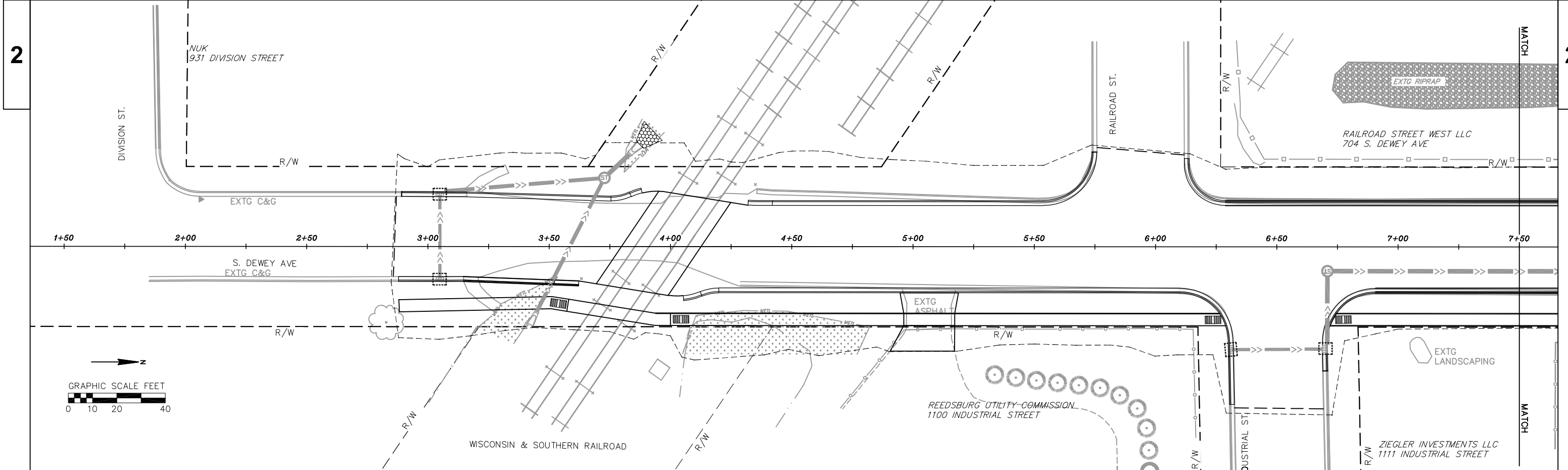


PROJECT NO:5799-00-64	HWY:S. DEWEY AVE.	COUNTY:SAUK	PAVING PLAN: SOUTH DEWEY AVE	SHEET	E
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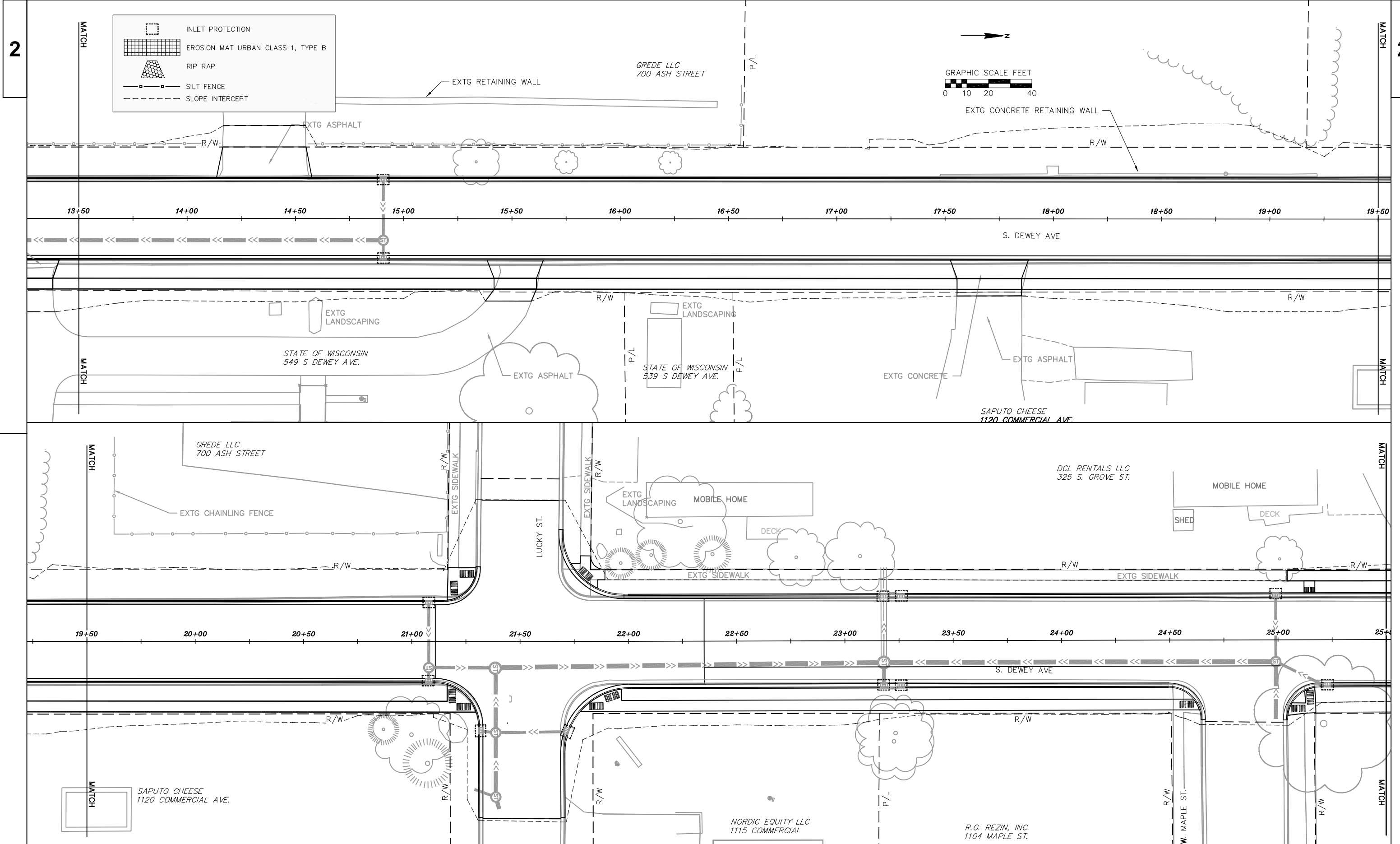






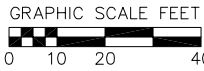
PROJECT NO:5799-00-64	HWY:S. DEWEY AVE.	COUNTY:SAUK	EROSION CONTROL PLAN	SHEET	E
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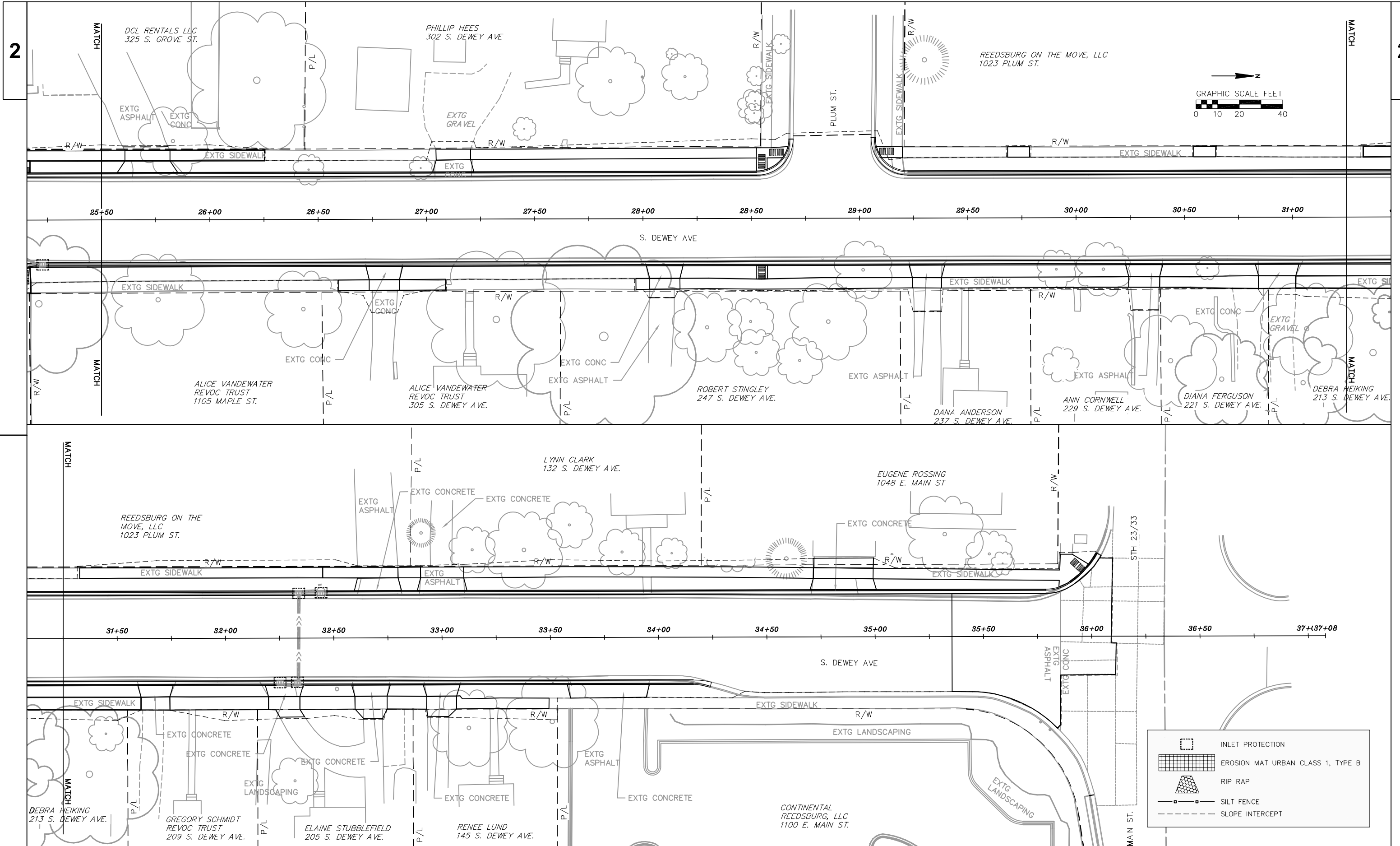
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INLET PROTECTION
EROSION MAT URBAN CLASS 1, TYPE B
RIP RAP
SILT FENCE
SLOPE INTERCEPT

→ N





PROJECT NO:5799-00-64

HWY:S. DEWEY AVE.

COUNTY:SAUK

EROSION CONTROL PLAN

SHEET

E

FILE NAME : R:\REEDSBURG, CITY OF\150036_SOUTH DEWEY AVENUE RECONSTRUCTION\CADD\150036_EROSION CONTROL PLANS-S. DEWEY.DWG
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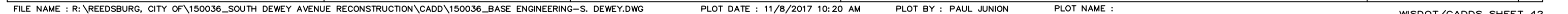
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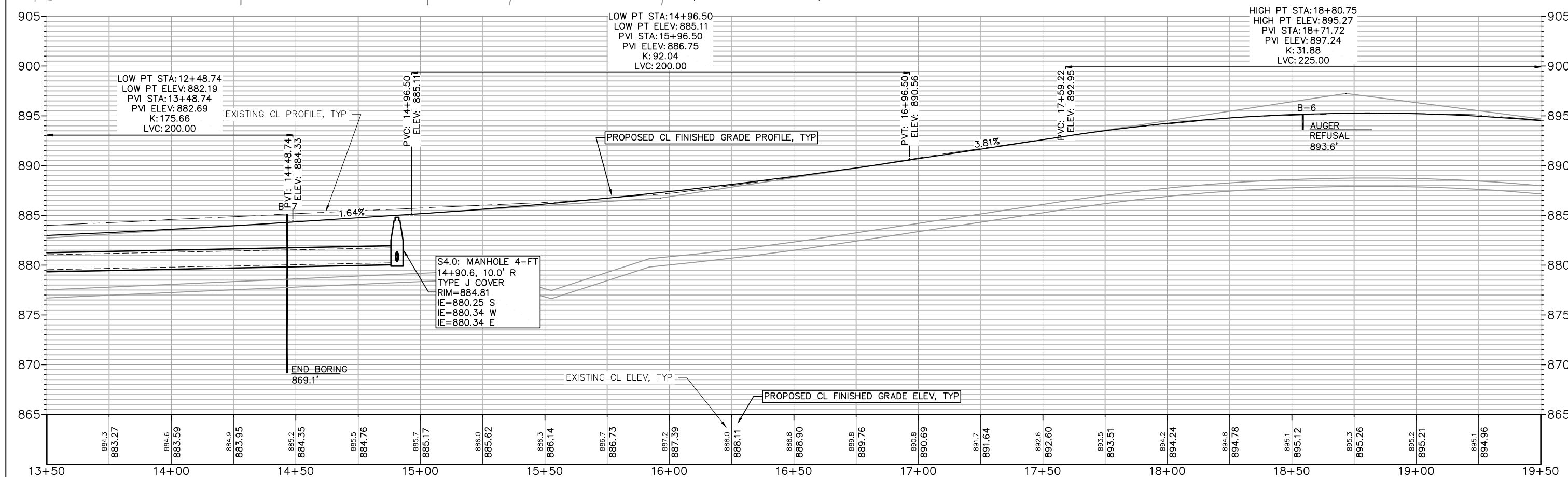
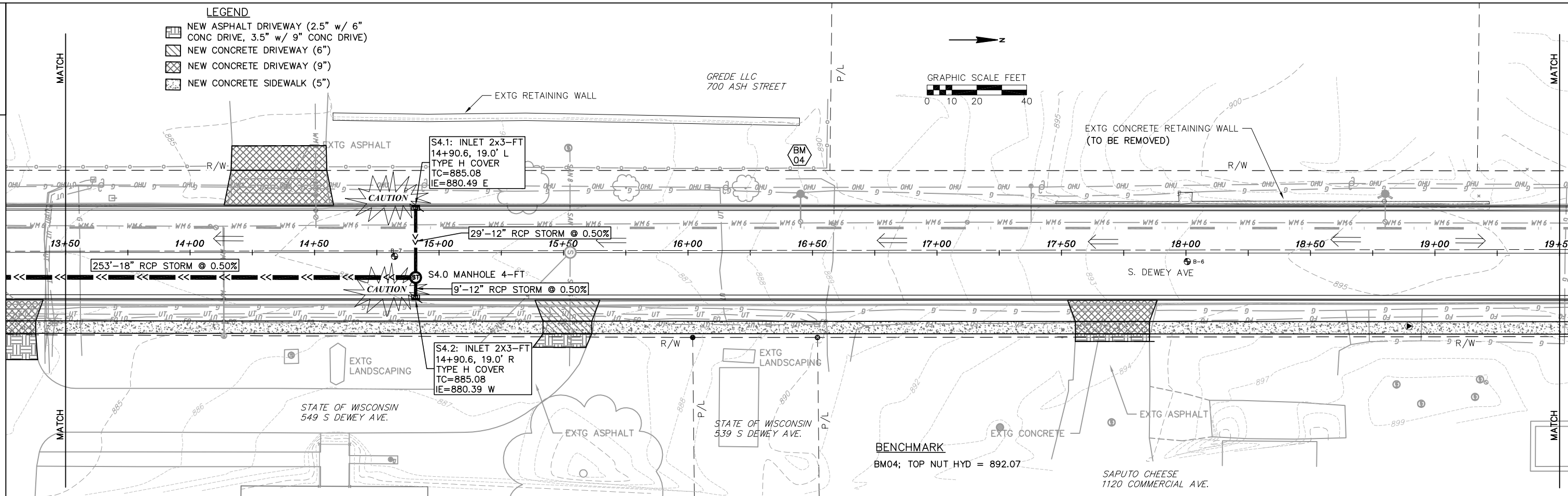
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PLOT NAME :

PLOT SCALE : #####

WISDOT/CADDs SHEET 42





PROJECT NO: 5799-00-64

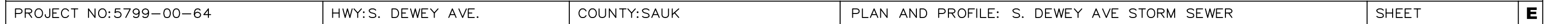
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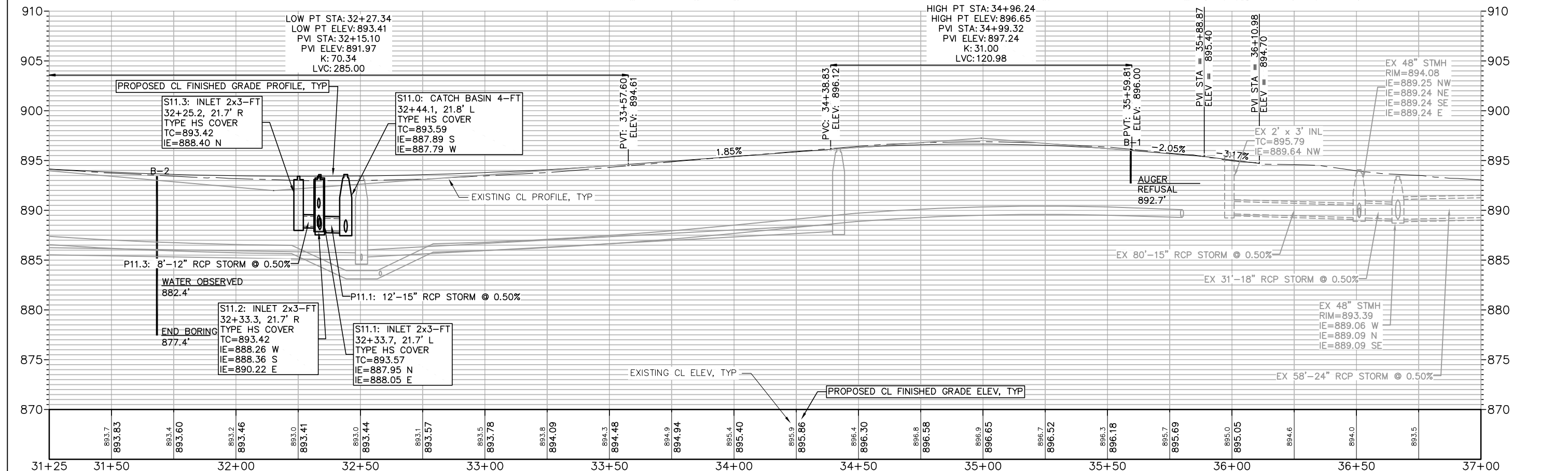
COUNTY: SAUK

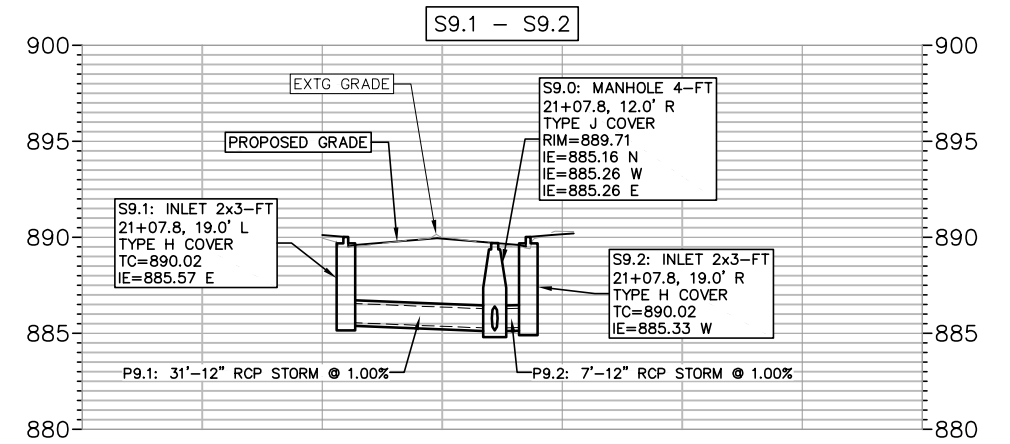
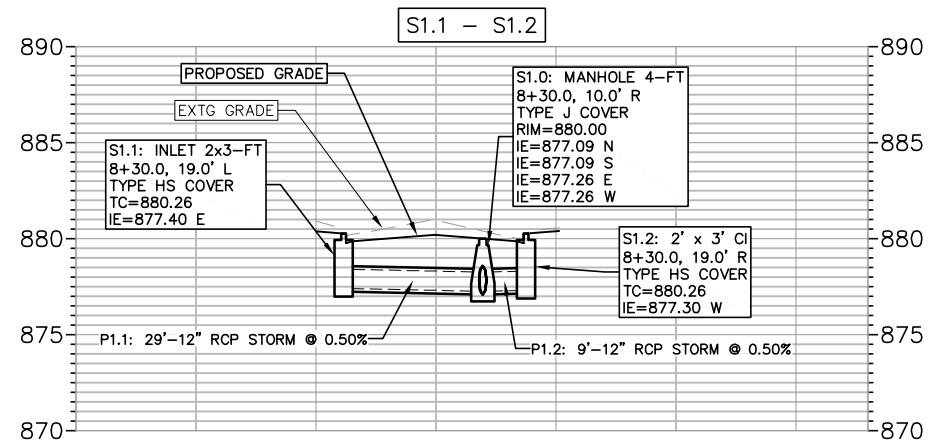
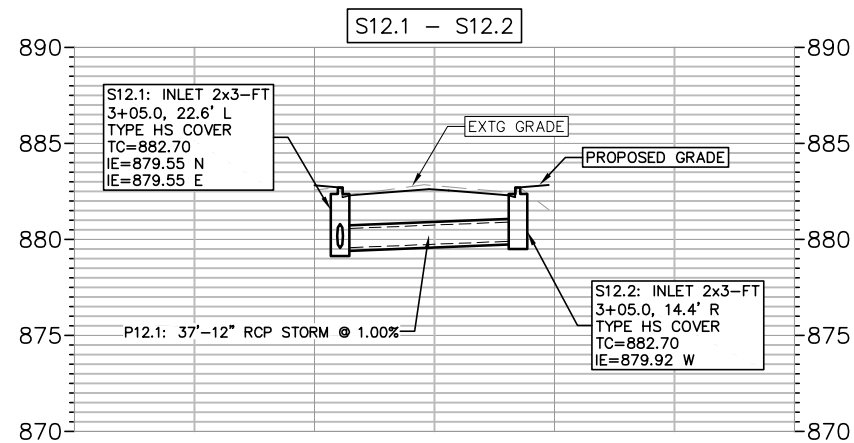
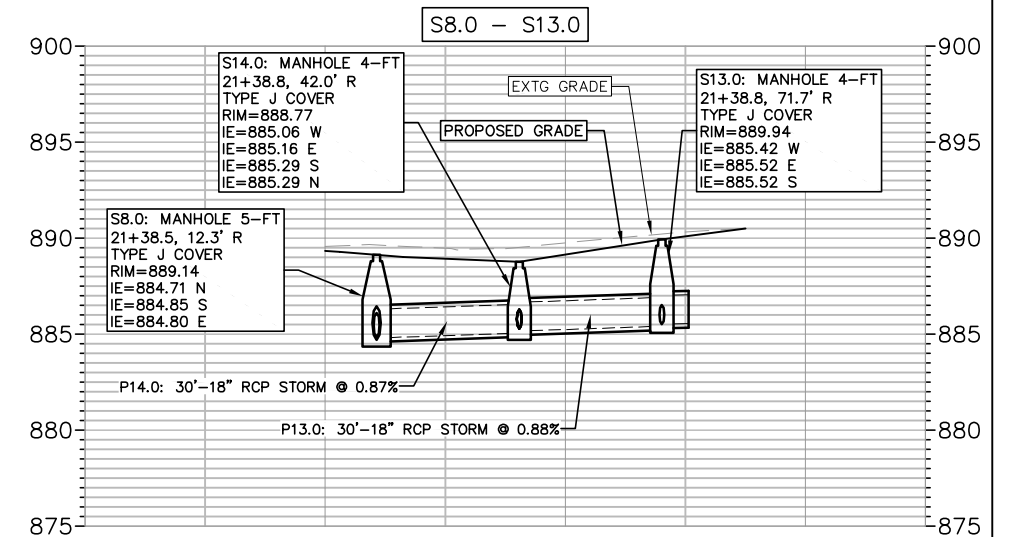
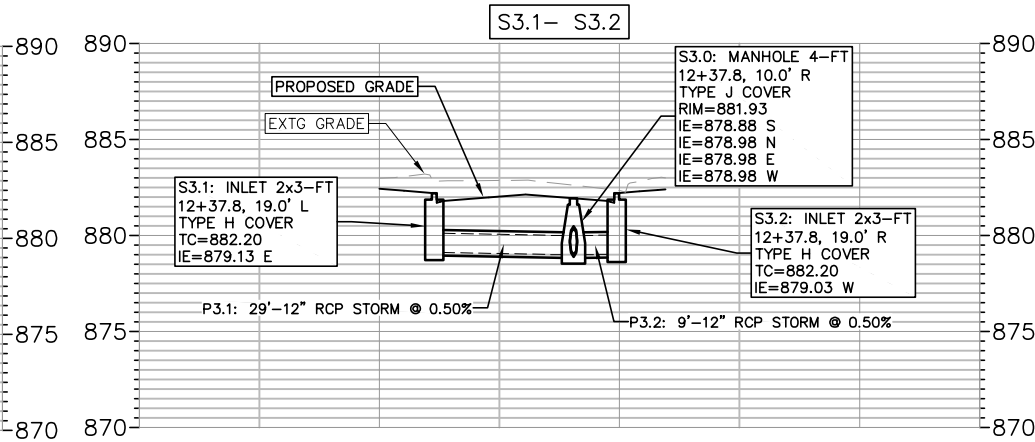
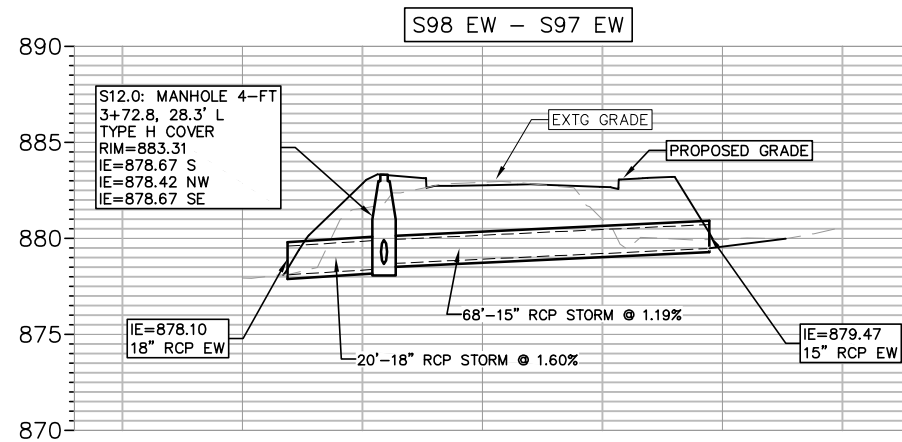
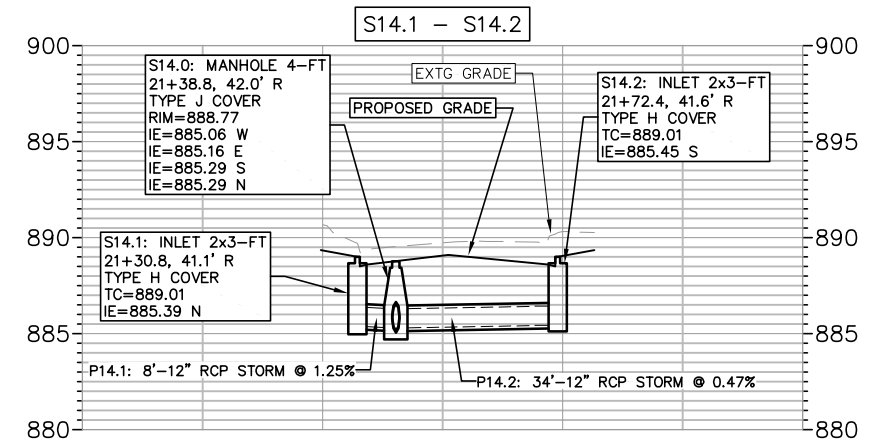
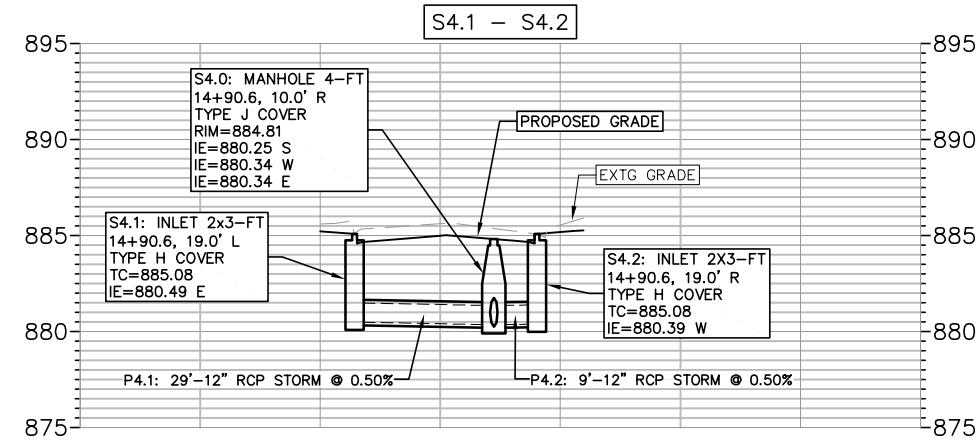
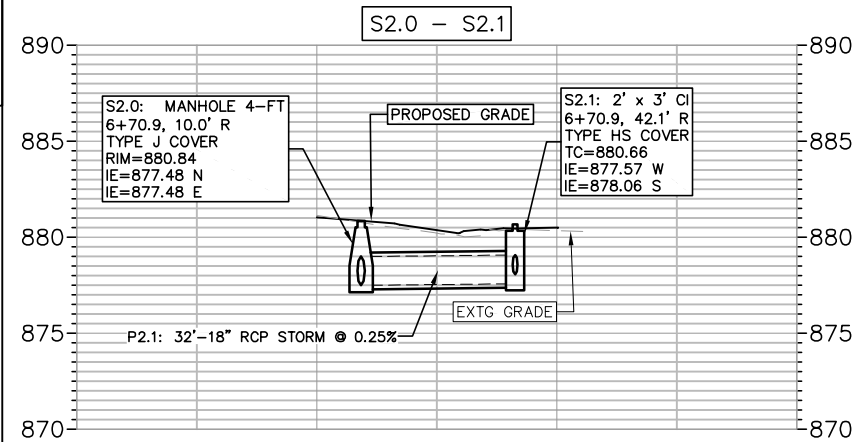
PLAN AND PROFILE: S. DEWEY AVE STORM SEWER

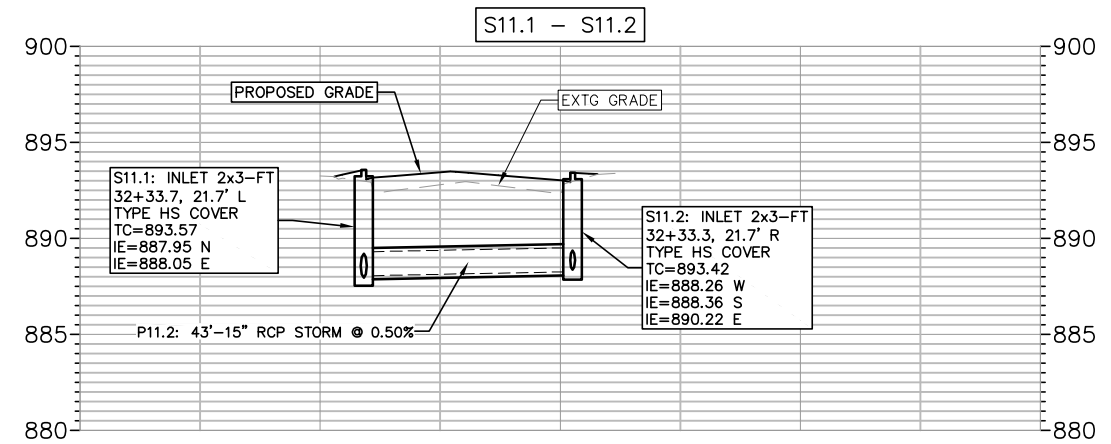
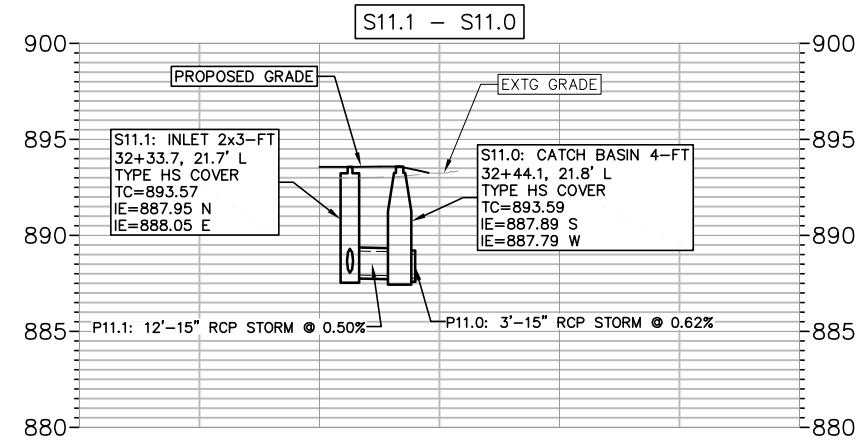
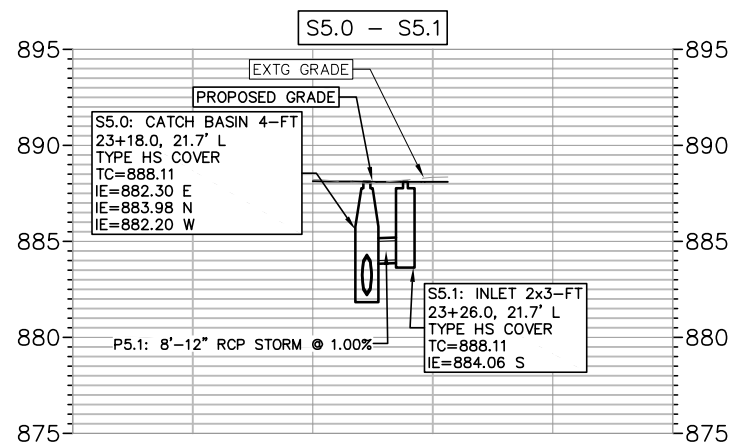
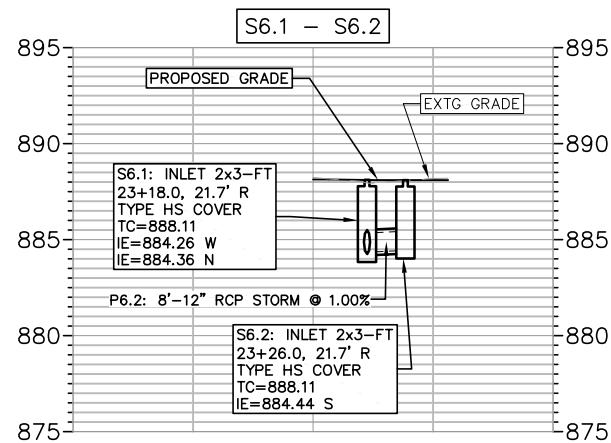
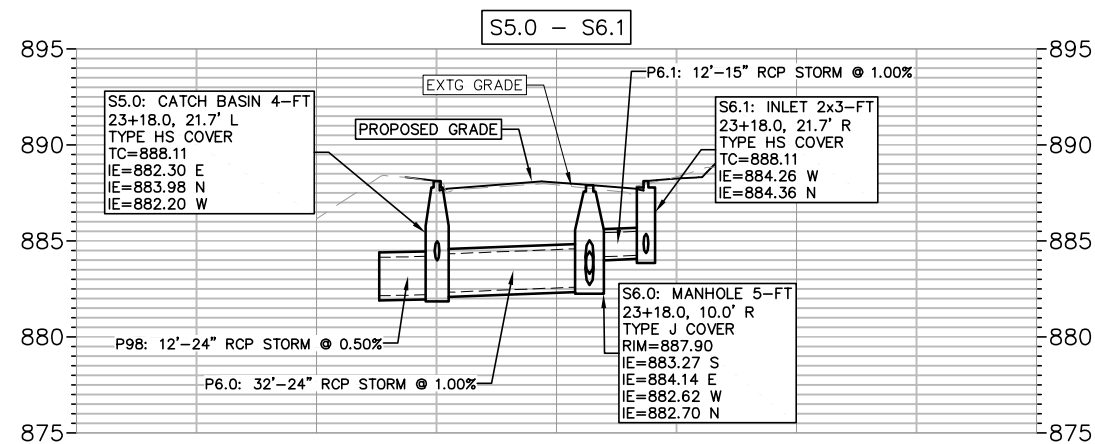
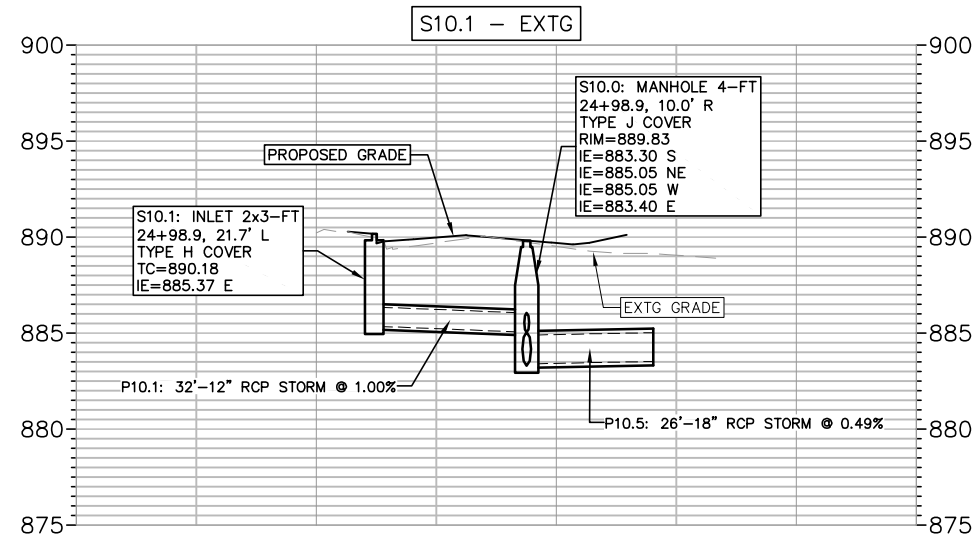
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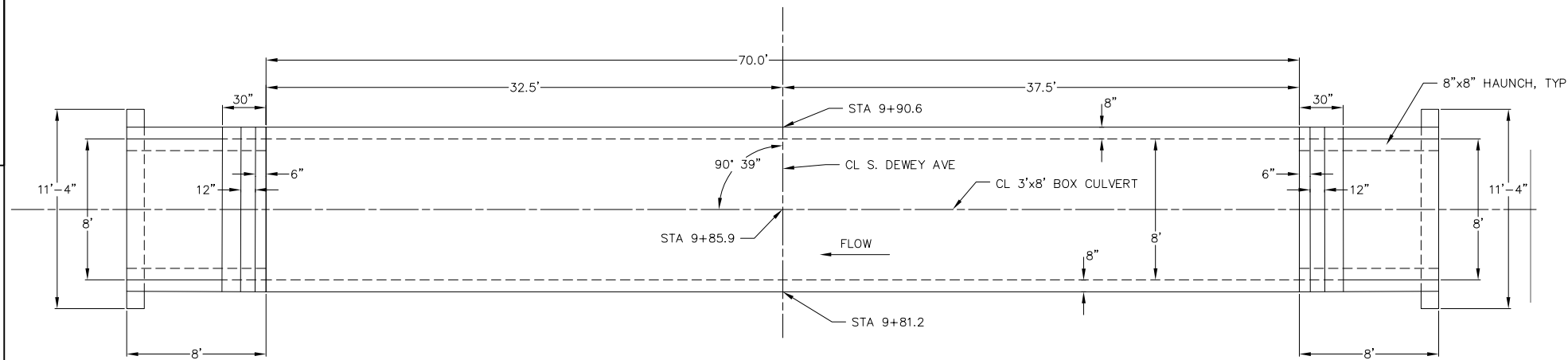
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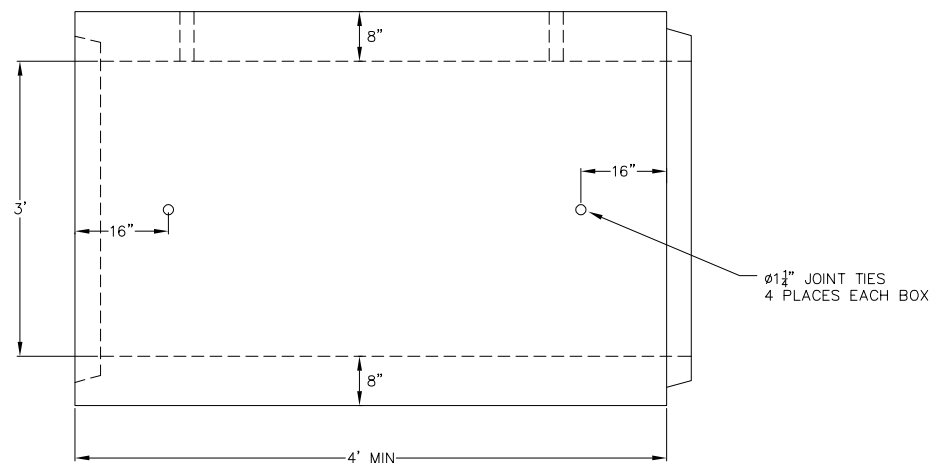




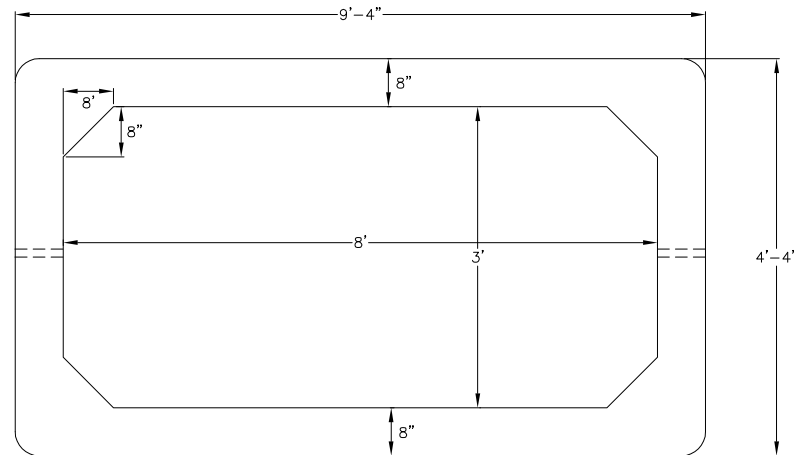




STRUCTURE C-56-3086
PLAN

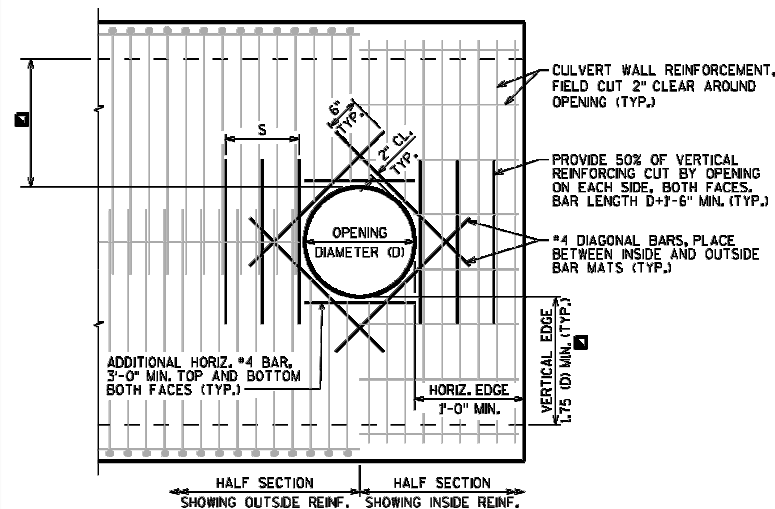


SIDE VIEW



END VIEW

8'x3' BOX SECTION



ELEVATION

WHEN D ≤ 7'-6\" S = 7'-6\"
WHEN D > 7'-6\" S = 7'-6\" MIN, D MAX

NOTES

DETAILS FOR MATERIALS, FABRICATION, CONSTRUCTION AND DESIGN OF PRECAST BOX CULVERTS NOT SHOWN OR STATED ON THIS DRAWING SHALL BE IN ACCORDANCE WITH THE CURRENT ASTM SPECIFICATION, C1577; AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS; WISCONSIN DOTBRIDGE MANUAL; WISCONSIN DOT STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS. EXCEPT THAT THE CONCRETE MIXTURE SHALL CONTAIN NOT LESS THAN 565 LBS. OF CEMENTITIOUS MATERIALS PER CUBIC YARD.

THE DESIGN OF PRECAST BOX CULVERTS WITH ALL FILL HEIGHTS SHALL BE AS STATED IN ASTM C1577.

ALL PRECAST BOX SECTIONS SHALL BE PLACED ON A BEDDING OF "STRUCTURE BACKFILL" OF 6" MINIMUM DEPTH.

CONCRETE COVER ON ALL REINFORCEMENT IN THE PRECAST ELEMENTS SHALL BE 2"UNLESS SHOWN OR NOTED OTHERWISE. STEEL REINFORCEMENT MAY BE EITHER GRADE 60 DEFORMED BARS (FY = 60,000 P.S.I.) OR WELDED DEFORMED - WIRE FABRIC OF EQUIVALENT AREA. (FY = 65,000 P.S.I.)

THE SPACING CENTER TO CENTER OF THE CIRCUMFERENTIAL WIRES SHALL NOT BE LESS THAN 2 INCHES NOR MORE THAN 4 INCHES. THE SPACING CENTER TO CENTER OF THE LONGITUDINAL WIRES SHALL NOT BE MORE THAN 8 INCHES.

NOT MORE THAN FOUR (4) HOLES MAY BE CAST, DRILLED OR OTHERWISE NEATLY MADE IN THE SHELL OF EACH PIECE OF BOX SECTION FOR HANDLING. THE HOLES SHALL BE TAPERED UNLESS DRILLED. HOLES SHALL BE FILLED WITH PORTLAND CEMENT MORTAR EXCEPT TAPERED HOLES MAY BE FILLED WITH CONCRETE PLUGS SECURED WITH PORTLAND CEMENT MORTAR OR OTHER APPROVED ADHESIVE.

THE JOINT ON THE BOTTOM OF THE CULVERT & THE SIDES OF THE CULVERT FROM THE BOTTOM TO A POINT 1 FOOT FROM THE CEILING SHALL BE SEALED WITH A PREFORMED MASTIC. PREFORMED MASTIC MUST CONFORM TO AASHTO MATERIALS SPECIFICATION M198, TYPE B. A 2-FOOT STRIP OF GEOTEXTILE FABRIC SHALL BE PLACED OVER THE JOINTS ON THE TOP AND ON THE SIDES OF THE BOX CULVERT. THE GEOTEXTILE FABRIC SHALL COMPLY WITH REQUIREMENTS OF WISDOT STANDARD SPECIFICATION 645.2.4, SCHEDULE A.

THE ULTIMATE COMPRESSIVE STRENGTH OF THE FIELD POURED CONCRETE SHALL BE 3,500 P.S.I.

ALTERNATE DETAILS OF EQUAL STRENGTH AND HYDRAULIC CAPACITY TO THE DETAILS SHOWN ON THIS SHEET MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

THE ULTIMATE COMPRESSIVE STRENGTH OF THE CONCRETE IN THE PRECAST ELEMENTS SHALL BE 4,000 P.S.I.

THE PRECAST ELEMENTS SHALL BE PROVIDED WITH SUITABLE LIFTING DEVICES FOR HANDLING AND PLACEMENT OF THE ELEMENTS.

VERTICAL CONSTRUCTION JOINTS THRU THE WALLS AND FOOTING WILL BE ALLOWED ONLY WITH THE APPROVAL OF THE ENGINEER. DETAILS MUST BE SHOWN ON THE SHOP DRAWINGS FOR APPROVAL.

THE AREA OF REINFORCING STEEL NOT IDENTIFIED IN SECTIONS SHALL CONFORM TO THE FOLLOWING TEMPERA LURE AND SHRINKAGE REQUIREMENTS:

THICKNESS	T&S REINFORCEMENT
≤ 12"	#4 @ 18"
> 12"-18"	#4 @ 12"

THE ANCHOR BOLTS SHALL BE GALVANIZED AND CONFORM TO THE REQUIREMENTS OF A.S.T.M. A575.

ALL EXPOSED CORNERS SHALL BE BEVELED 3/4"ON THE SIDES OR TOOL EDGED WITH A 1/2"MINIMUM RADIUS EDGER.

PRECAST CUT OFF WALLS MAY BE FIELD SPLICED BY EXTENDING THE REINFORCING STEEL FROM BOTH SEGMENTS TO BE SPLICED 1'-6" INTO THE SPLICE ZONE. LAPPING THE STEEL +/- 1'-6"AND FIELD POURING A SECTION OF CUT OFF WALL 1'-6" LONG.

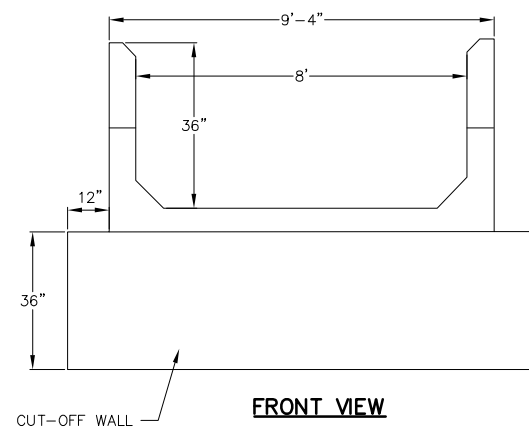
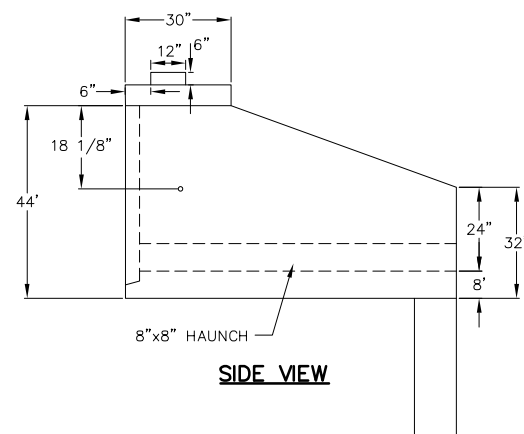
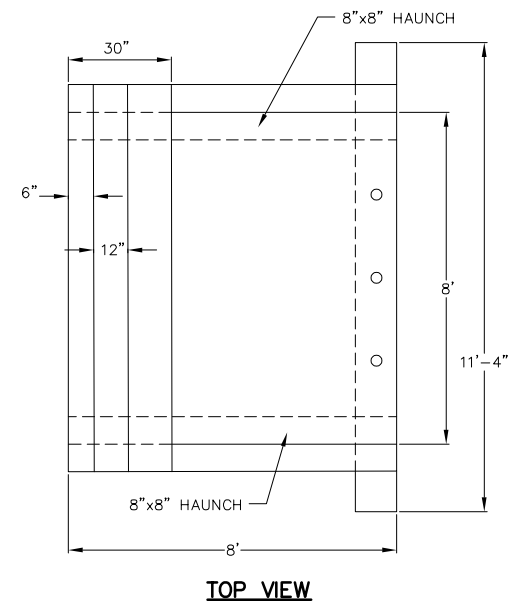
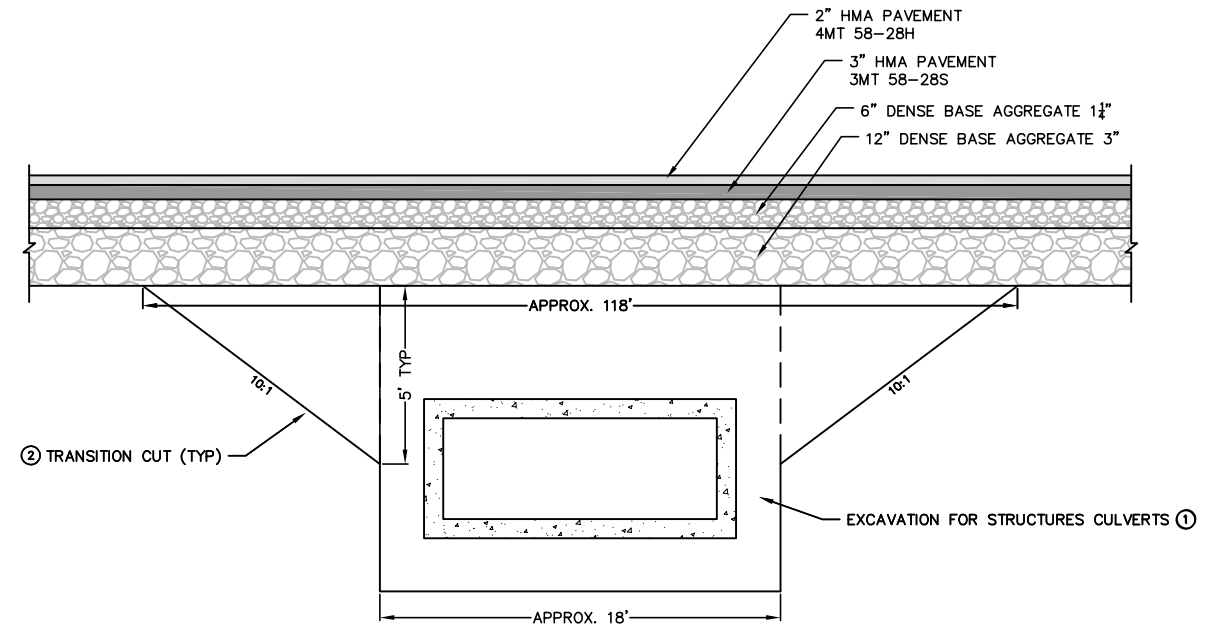
PRECAST ELEMENTS MAY BE POURED IN PLACE AT THE OPTION OF THE CONTRACTOR.

POURED-IN-PLACE APRONS AND CONCRETE CHANNEL TRANSITION SHALL BE POURED AND CURED PRIOR TO BACKFILLING WINGWALLS.

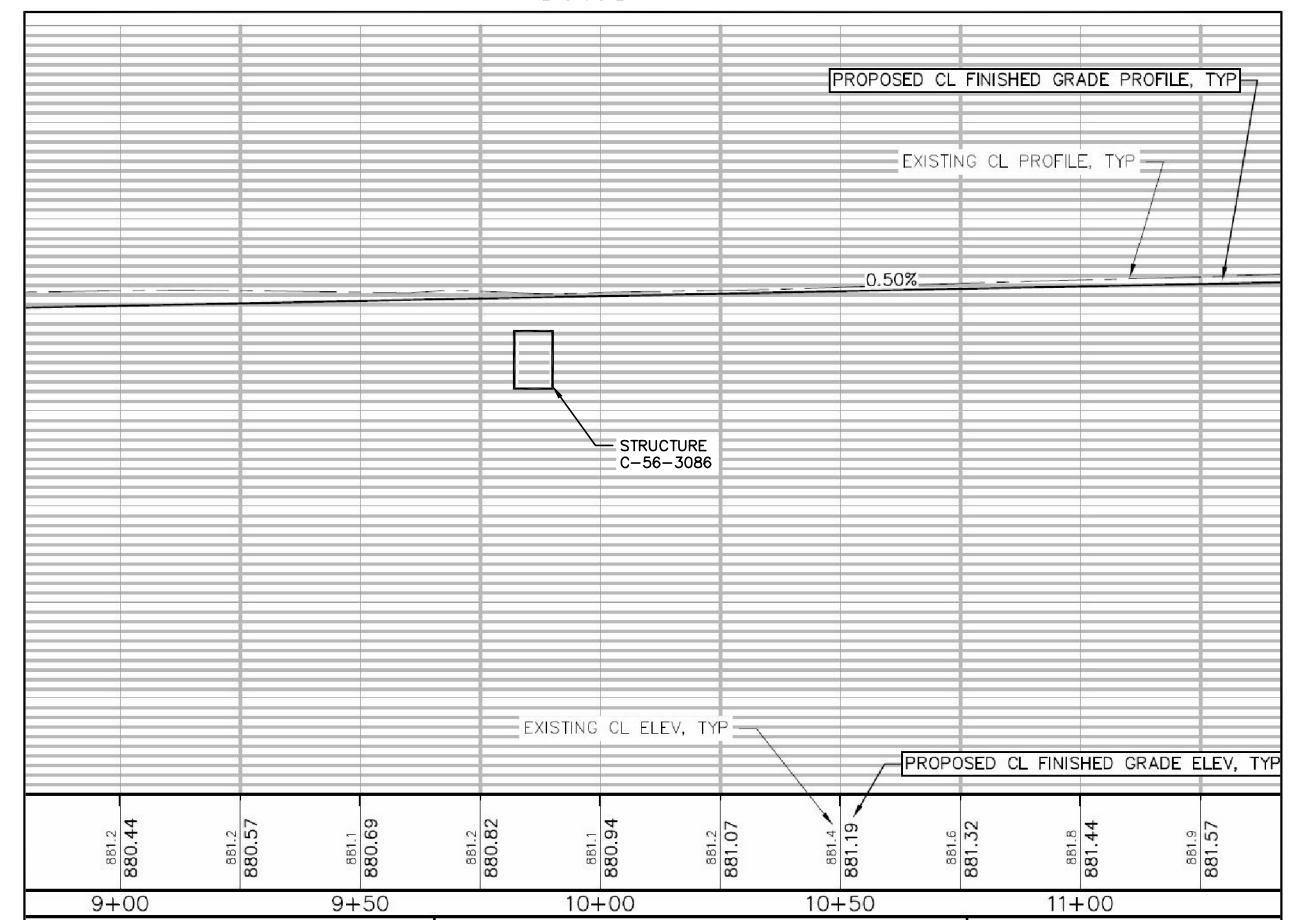
DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS AND SHOP DRAWINGS FOR THE BOX CULVERT AND WINGWALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE BOX CULVERT DESIGNER AND MANUFACTURER SHALL PROVIDE ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "PRECAST CONCRETE BOX CULVERT, 3 FT x 8 FT"

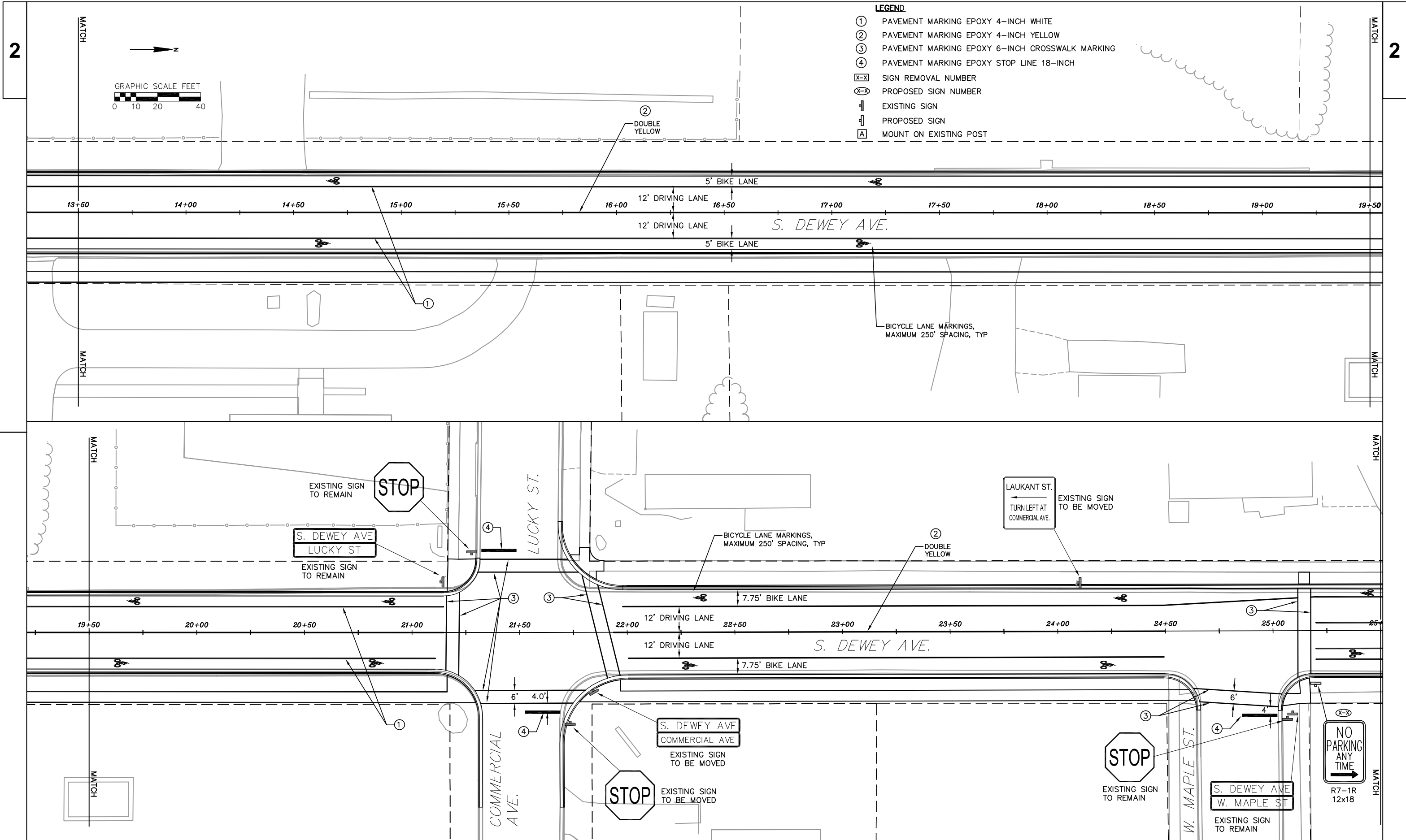
PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE BOX CULVERT LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE BOX CULVERT AND WINGWALLS. THE CONTRACTOR SHALL VERIFY THAT THE BOX CULVERT WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

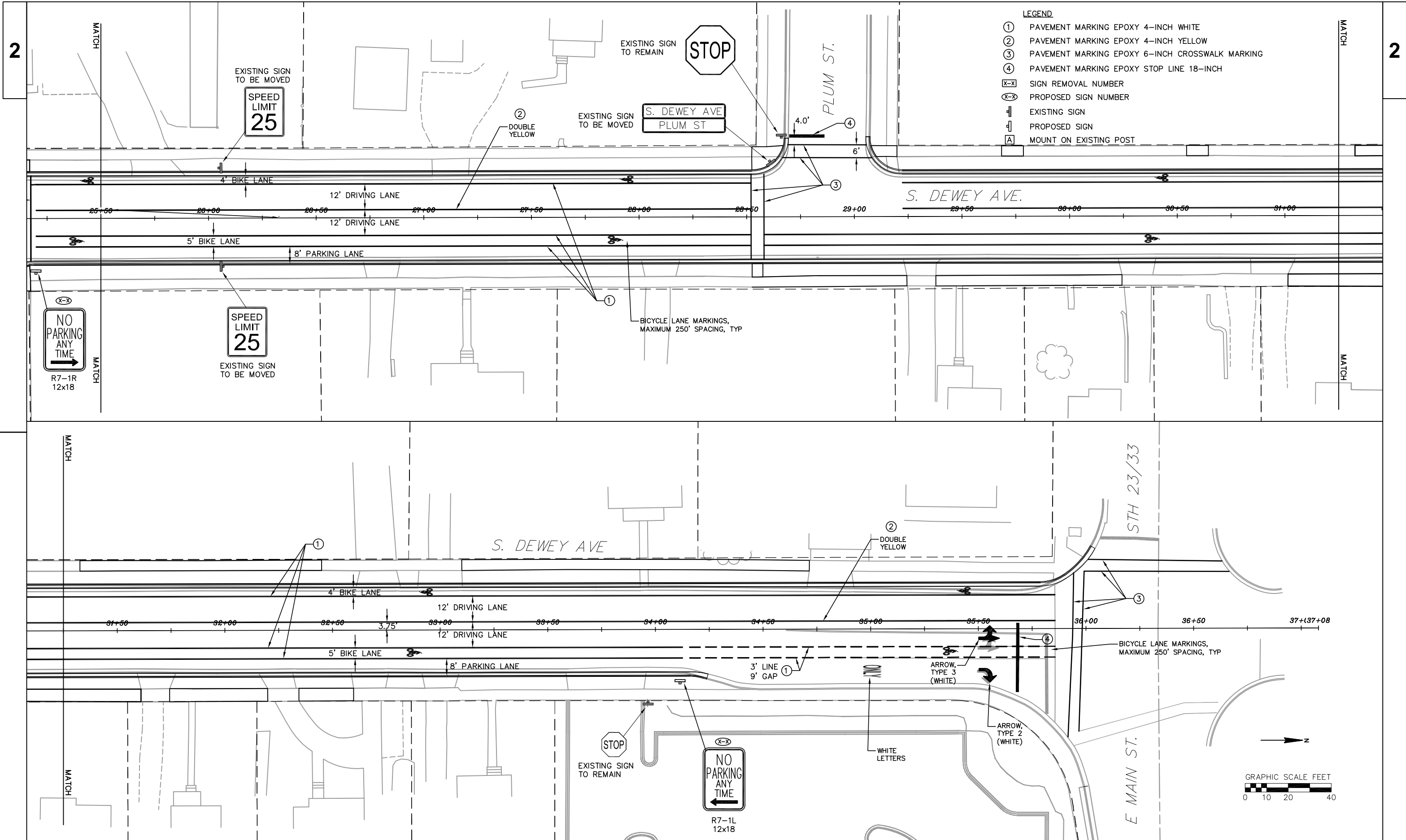
**PRECAST WINGWALL****STRUCTURE C-56-3086 TRANSITION**

STA 9+77 TO STA 9+95
IE=876.1 W
IE=876.3 E

**SOUTH DEWEY AVE****NOTES:**

- ① EXCAVATION IS FOR STRUCTURES CULVERTS. BACKFILL PIPE TRENCH EXCAVATION AND TRANSITION CUT WITH BACKFILL, PAYMENT FOR PIPE TRENCH EXCAVATION BACKFILL IS INCIDENTAL.
- ② TRANSITION CUT WILL BE PAID FOR AS COMMON EXCAVATION. TRANSITION CUT SHALL BE SHOULDER POINT TO SHOULDER POINT. TRANSITION CUT BACKFILL IS CONSIDERED INCIDENTAL TO CULVERT INSTALLATION.





LEGEND

- NEW ASPHALT DRIVEWAY (2.5" w/ 6" CONC DRIVE, 3.5" w/ 9" CONC DRIVE)
- NEW CONCRETE DRIVEWAY (6")
- NEW CONCRETE DRIVEWAY (9")
- NEW CONCRETE SIDEWALK (5")
- PIPE INSULATION

STA 4+83, 21' LT
CONNECT TO EXTG 10" WM
2 - 45° BEND

STA 5+35, 35' LT
CONNECT TO EXTG 8" WM
1 - 10"x10" TEE
1 - 10"x8" REDUCER
1 - 45° BEND
1 - 10" VALVE
26 LF 10" WATER MAIN

STA 6+39.5, 10' LT
10"x8" TEE

STA 6+39.5, 6' LT
8" VALVE

STA 6+36, 10' LT
10" VALVE

ADJUST MANHOLE RIM
RIM=881.42

ABANDON EXTG 6" WM

STA 6+31.5, 58' RT
CONNECT TO EXTG 8" WM
1 - 45° BEND
71 LF 8" WATER MAIN

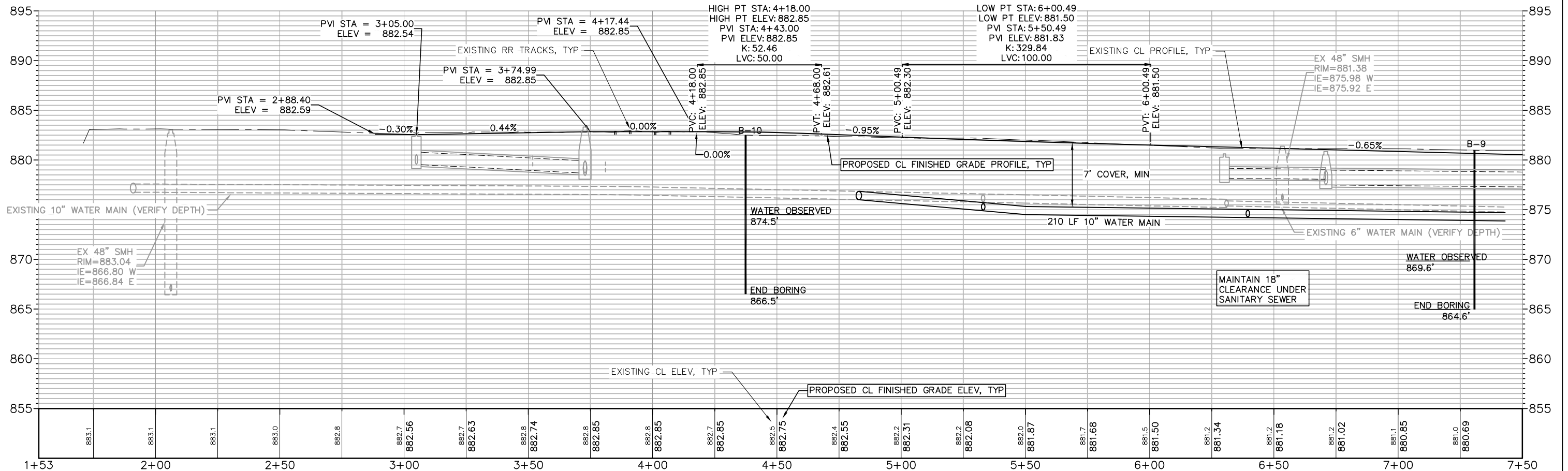
STA 6+40, 47' RT
45° BEND

NOTE:
RAILROAD CROSSING DESIGN BY
WISCONSIN SOUTHERN RAILROAD

GRAPHIC SCALE FEET
0 10 20 40

BENCHMARK

BM01; TOP NUT HYD = 885.35
BM02; TOP NUT HYD = 884.40



PROJECT NO:5799-00-65

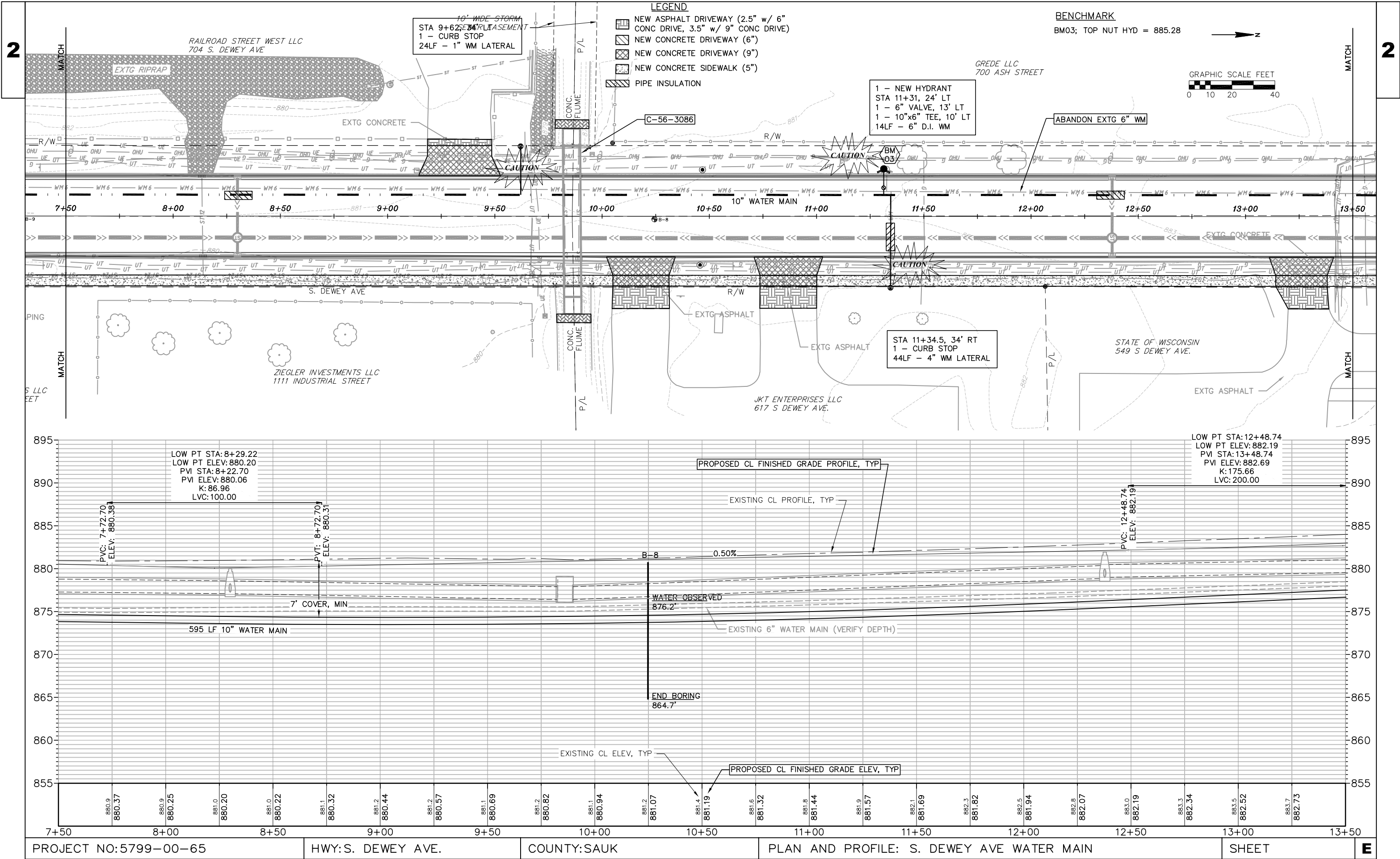
HWY:S. DEWEY AVE.

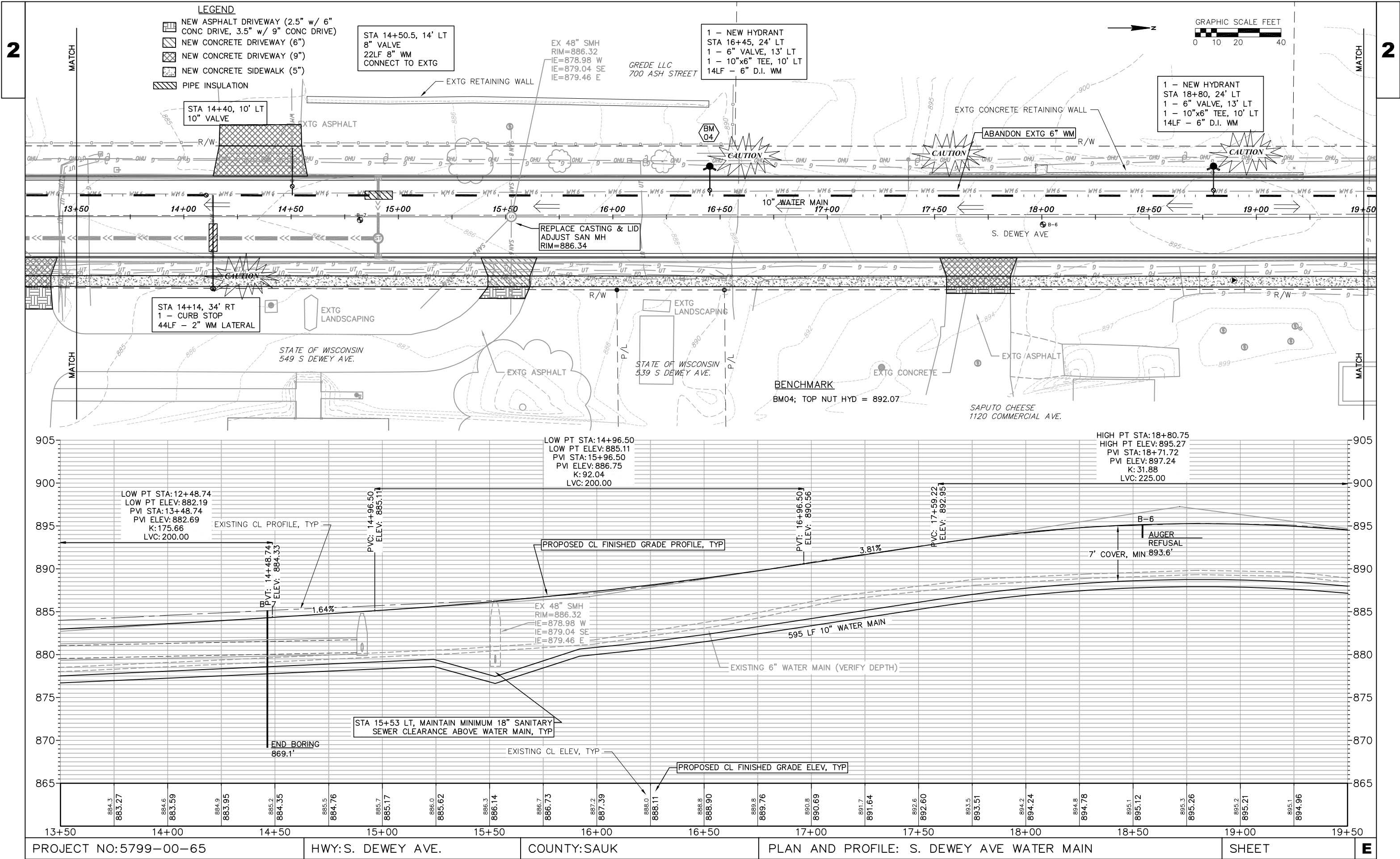
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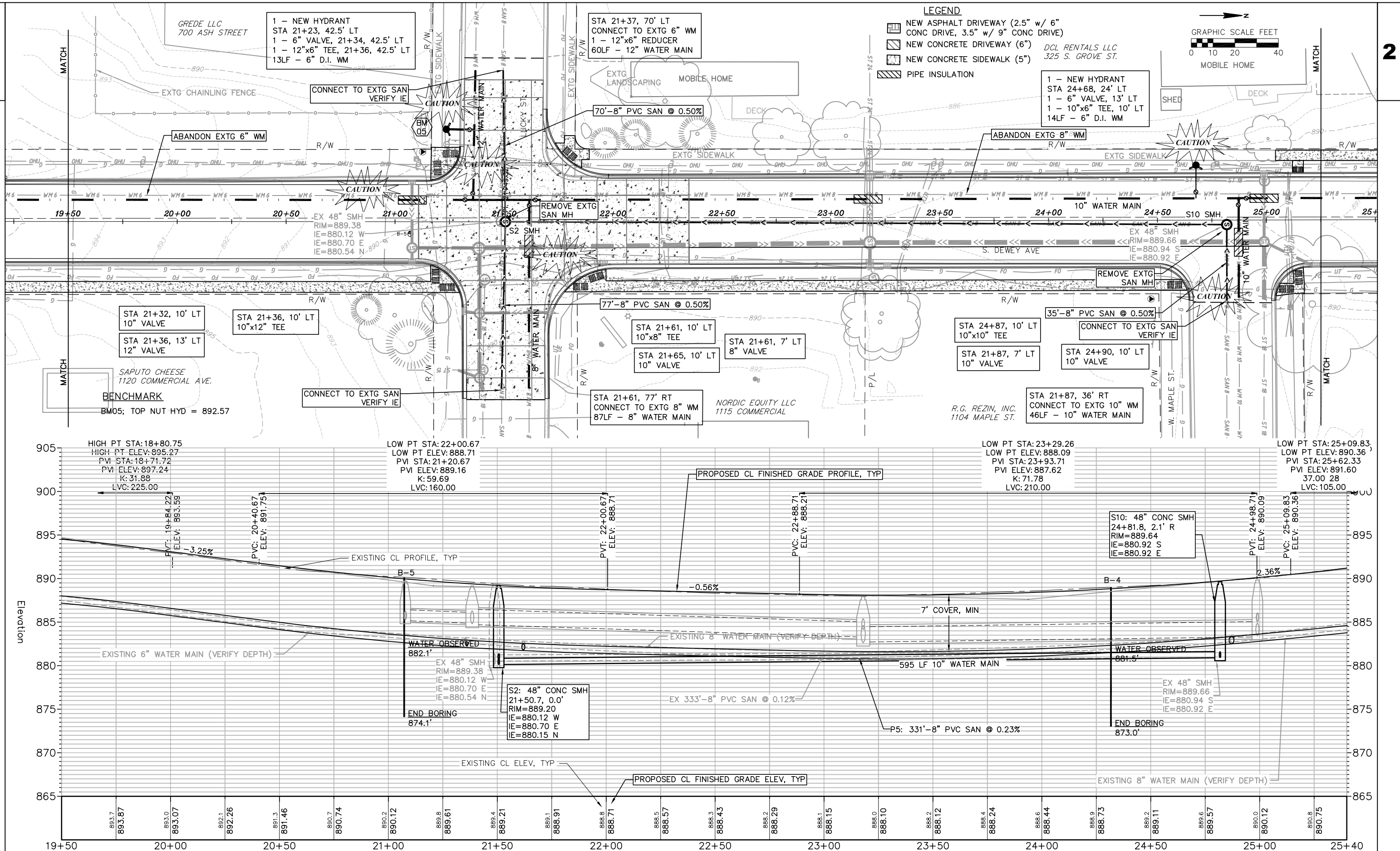
PLAN AND PROFILE: S. DEWEY AVE WATER MAIN

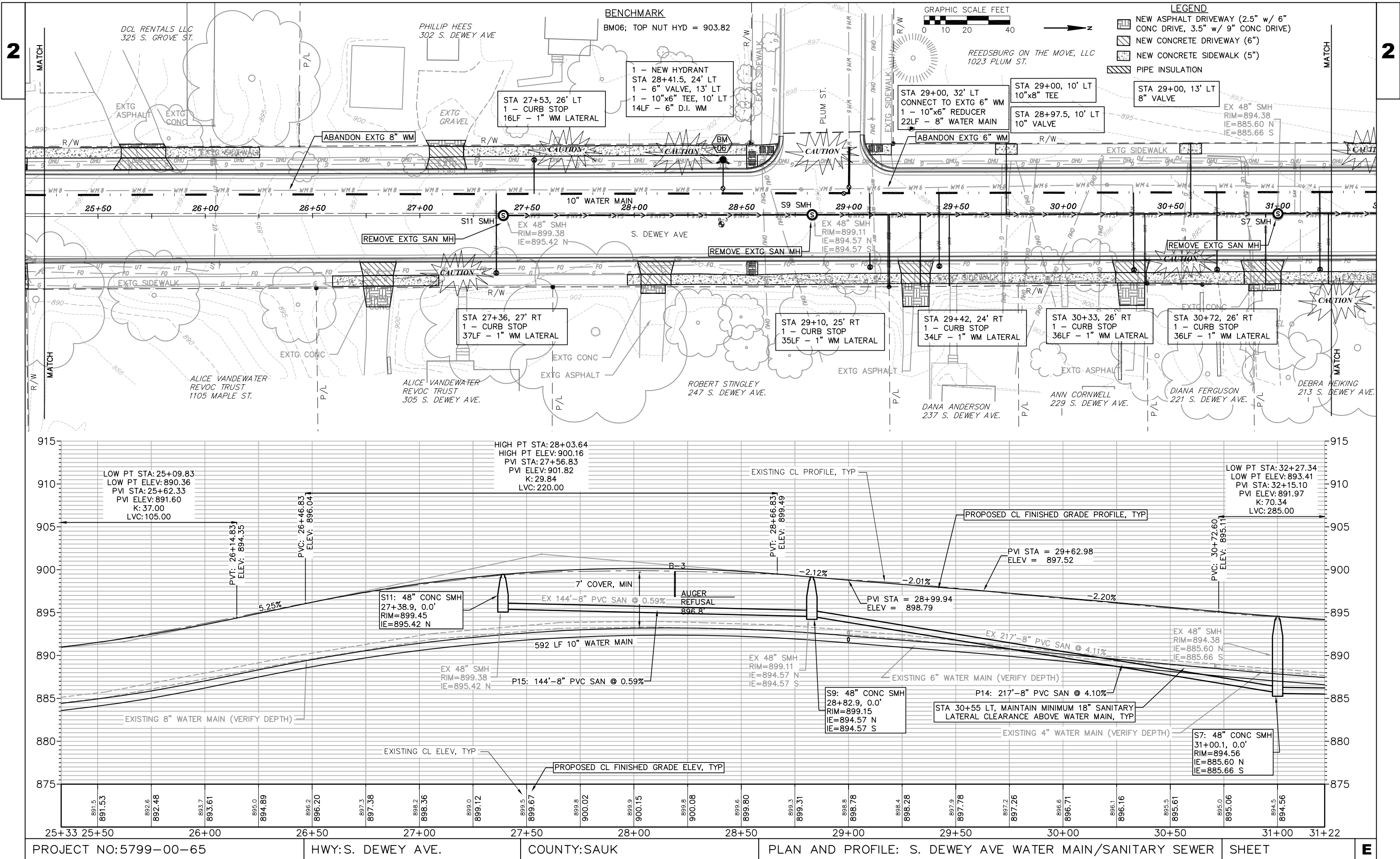
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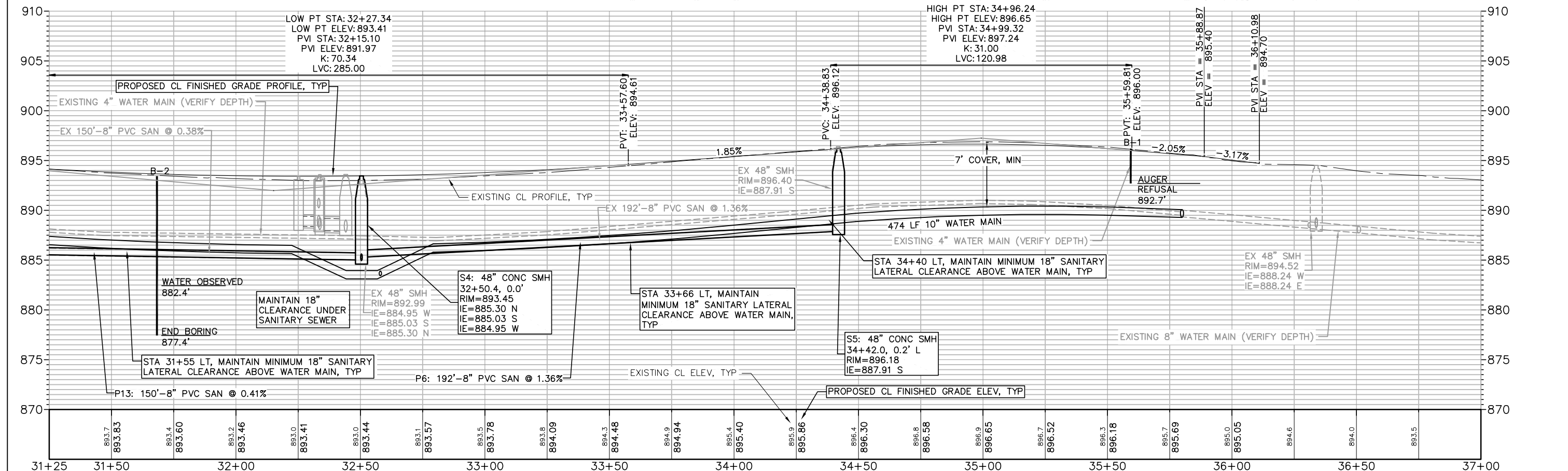
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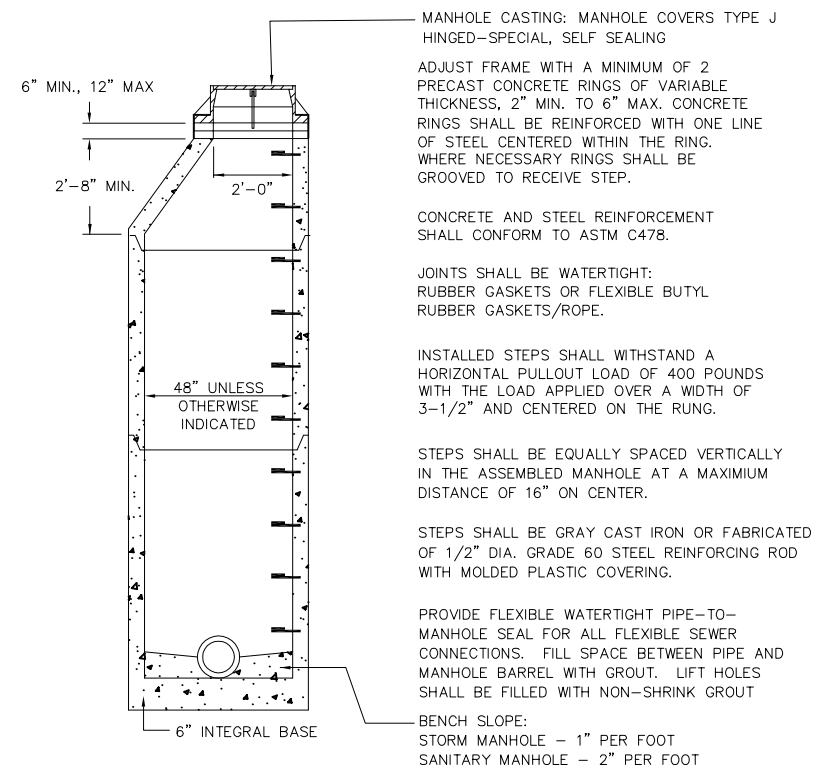




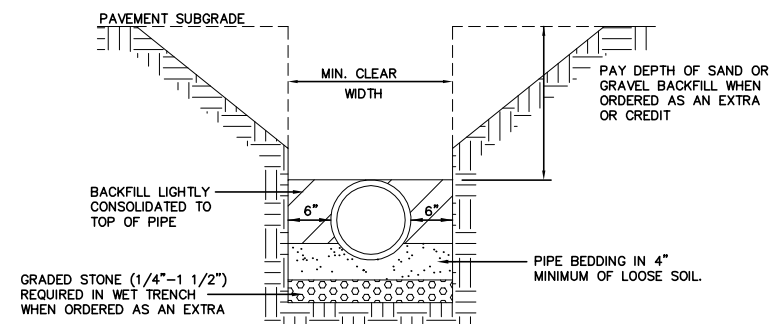
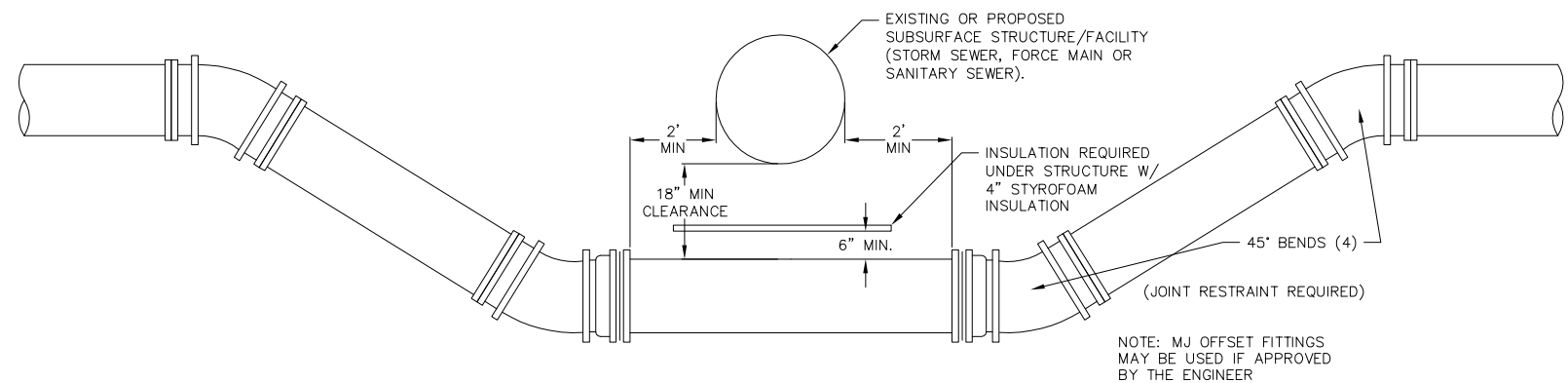
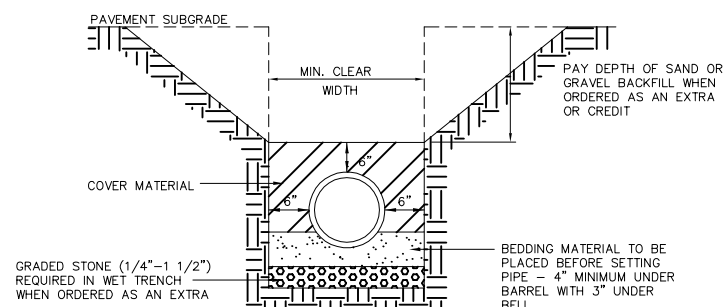
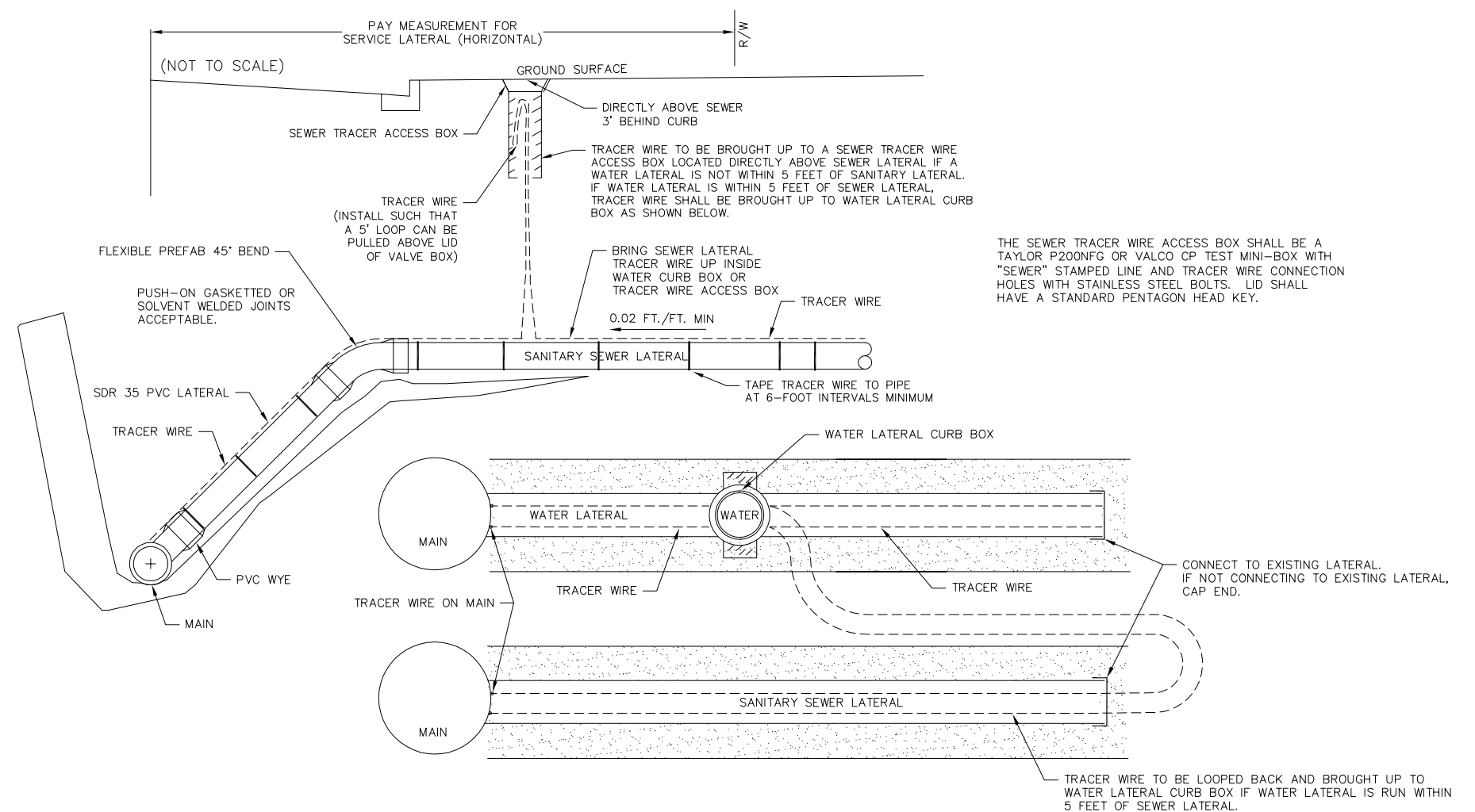


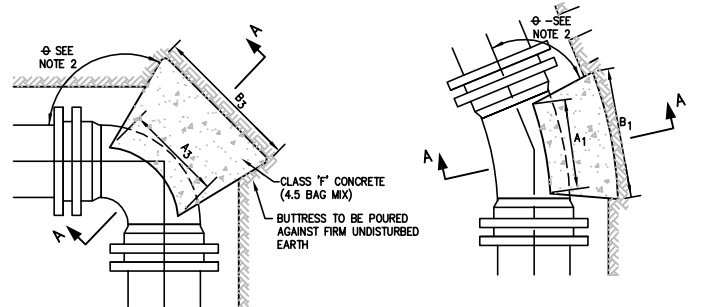






PRECAST CONCRETE MANHOLE

TYPE 3 LAYING CONDITIONS
(NOT TO SCALE)1 LOWERING WATERMAIN UNDER STORM/SANITARY
1 NOT TO SCALE



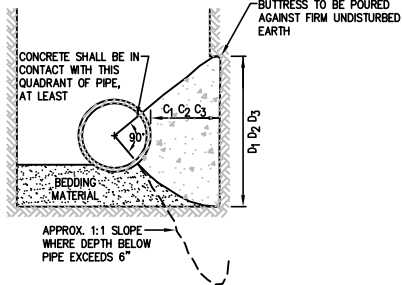
PLAN - 90° BEND

PLAN - 22 1/2° BEND

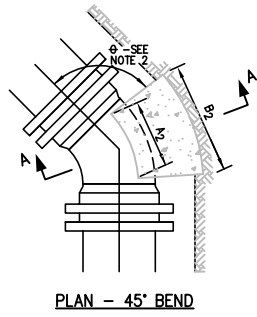
PIPE SIZE	22 1/2° BENDS		45° BENDS		90° BENDS	
	B ₁	D ₁	B ₂	D ₂	B ₃	D ₃
6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"
8"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"
12"	1'-4"	1'-4"	1'-10"	1'-10"	2'-8"	2'-3"
16"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	2'-10"
20"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"
24"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"
30"	3'-6"	3'-0"	5'-4"	3'-10"	8'-0"	4'-8"

NOTES

1. DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 PSI AND ON EARTH RESISTANCE OF 2 TONS PER SQUARE FOOT.
2. DIMENSION C1 C2 C3 SHOULD BE LARGE ENOUGH TO MAKE ANGLE ϕ EQUAL TO OR LARGER THAN 45°.
3. DIMENSION A1 A2 A3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH M.J. BOLTS.
4. SHAPE OF BACK OF BUTTRESS MAY VARY AS LONG AS POUR IS AGAINST FIRM UNDISTURBED EARTH.
5. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.



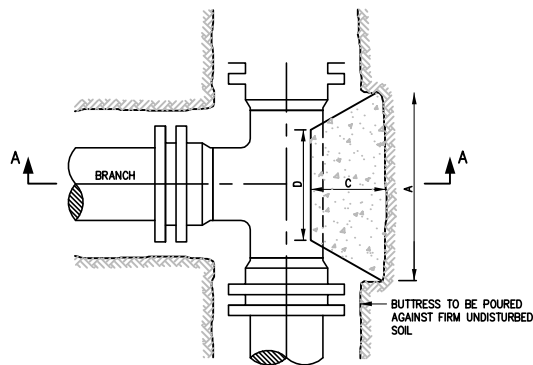
SECTION A-A



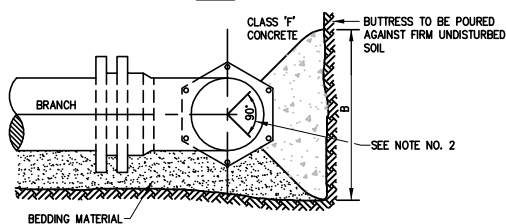
PLAN - 45° BEND

BUTTRESS FOR BENDS

NOT TO SCALE



PLAN



SECTION A-A

BUTTRESS FOR TEES

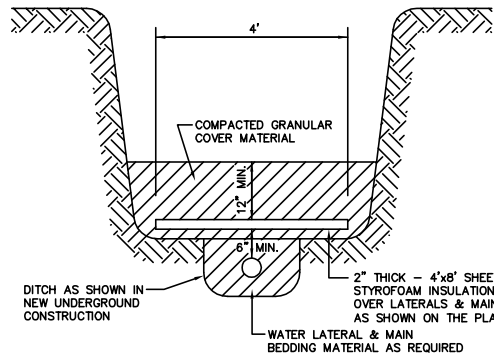
NOT TO SCALE

NOTES

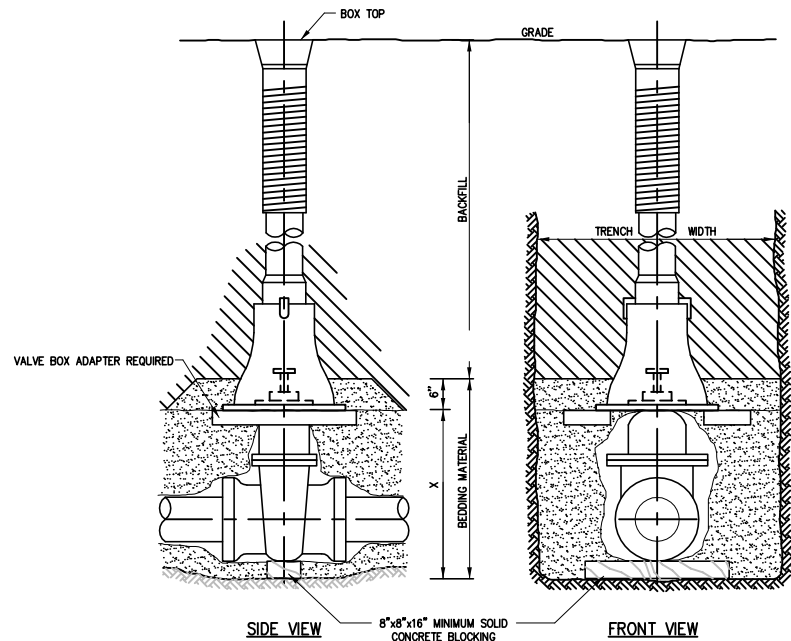
1. DIMENSION 'C' SHOULD BE LARGE ENOUGH TO MAKE ANGLE ϕ EQUAL TO OR LARGER THAN 45°.
2. CONCRETE SHOULD BEAR ON THIS QUADRANT OF PIPE AS A MINIMUM.
3. DIMENSION 'D' SHOULD BE AS LARGE AS POSSIBLE BUT CONCRETE SHOULD NOT INTERFERE WITH MECHANICAL JOINTS.
4. BUTTRESS DIMENSIONS ARE BASED ON A SOIL RESISTANCE OF TWO TONS PER SQ. FT. AND A WATER PRESSURE OF 150 PSI.
5. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.

B.D.	A	B	C	D
6"	1'-3"	1'-0"	1'-0"	1'-0"
8"	1'-6"	1'-4"	1'-4"	1'-4"
12"	2'-3"	2'-0"	2'-0"	2'-0"
16"	3'-2"	2'-6"	2'-6"	2'-6"
20"	4'-0"	3'-0"	3'-0"	3'-0"
24"	5'-3"	3'-4"	3'-4"	3'-4"
30"	6'-3"	4'-3"	4'-3"	4'-3"

B.D. = BRANCH DIAMETER

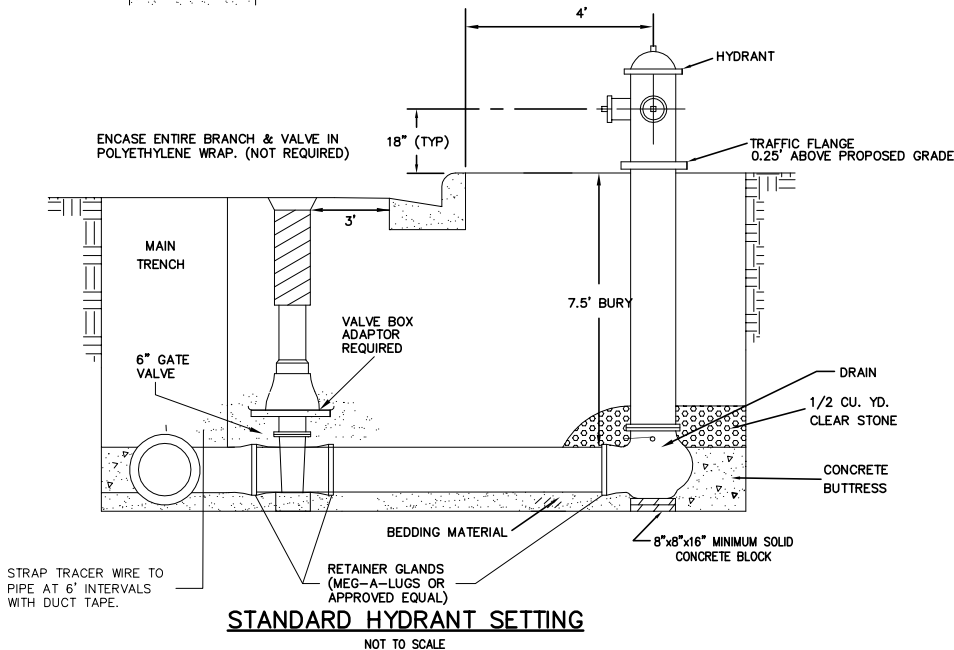
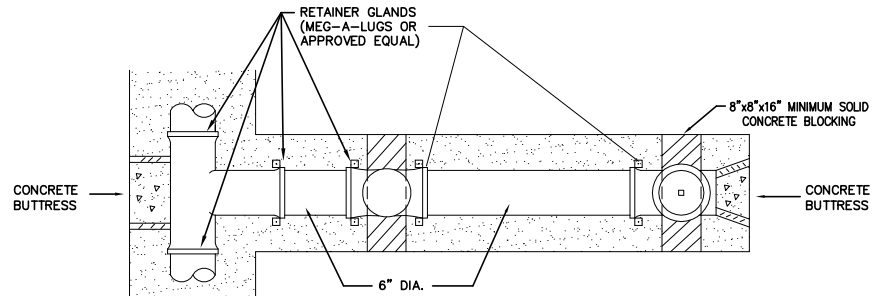


INSULATION DETAIL



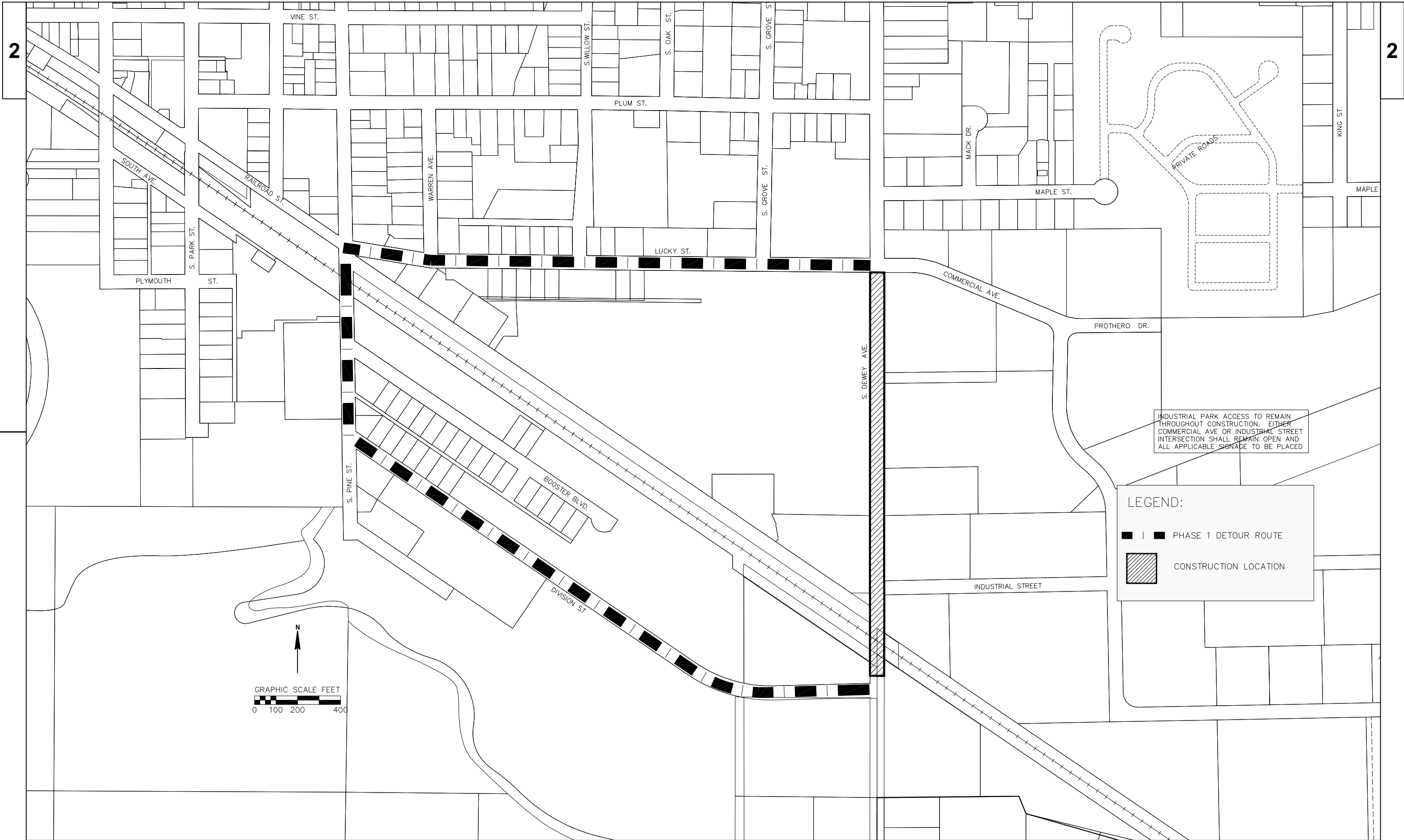
PIPE DIA. INCHES	X=SETTING INCHES
2	6
3	7
4	8
6	12
8	13
12	21
16	30

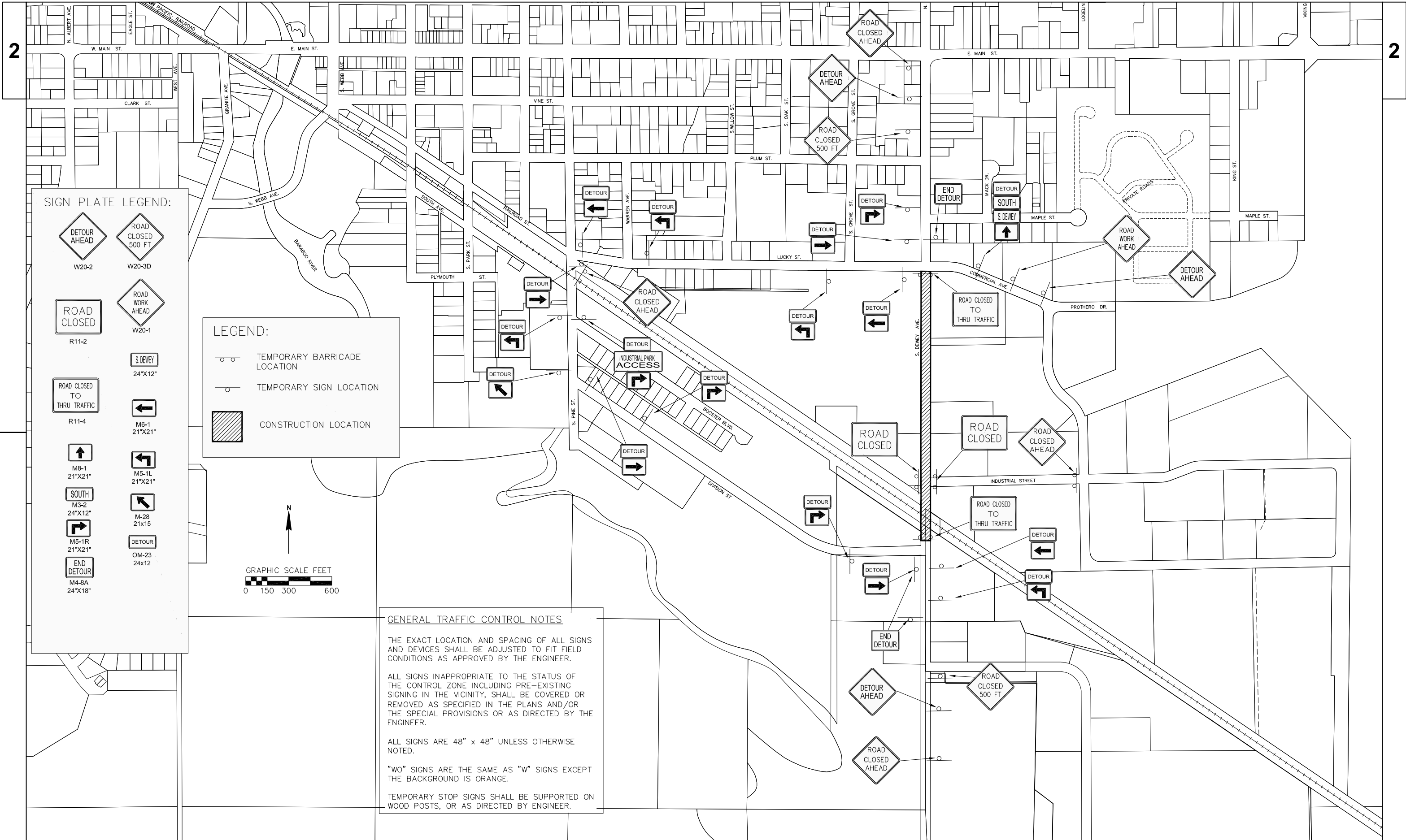
STANDARD GATE VALVE BOX SETTING

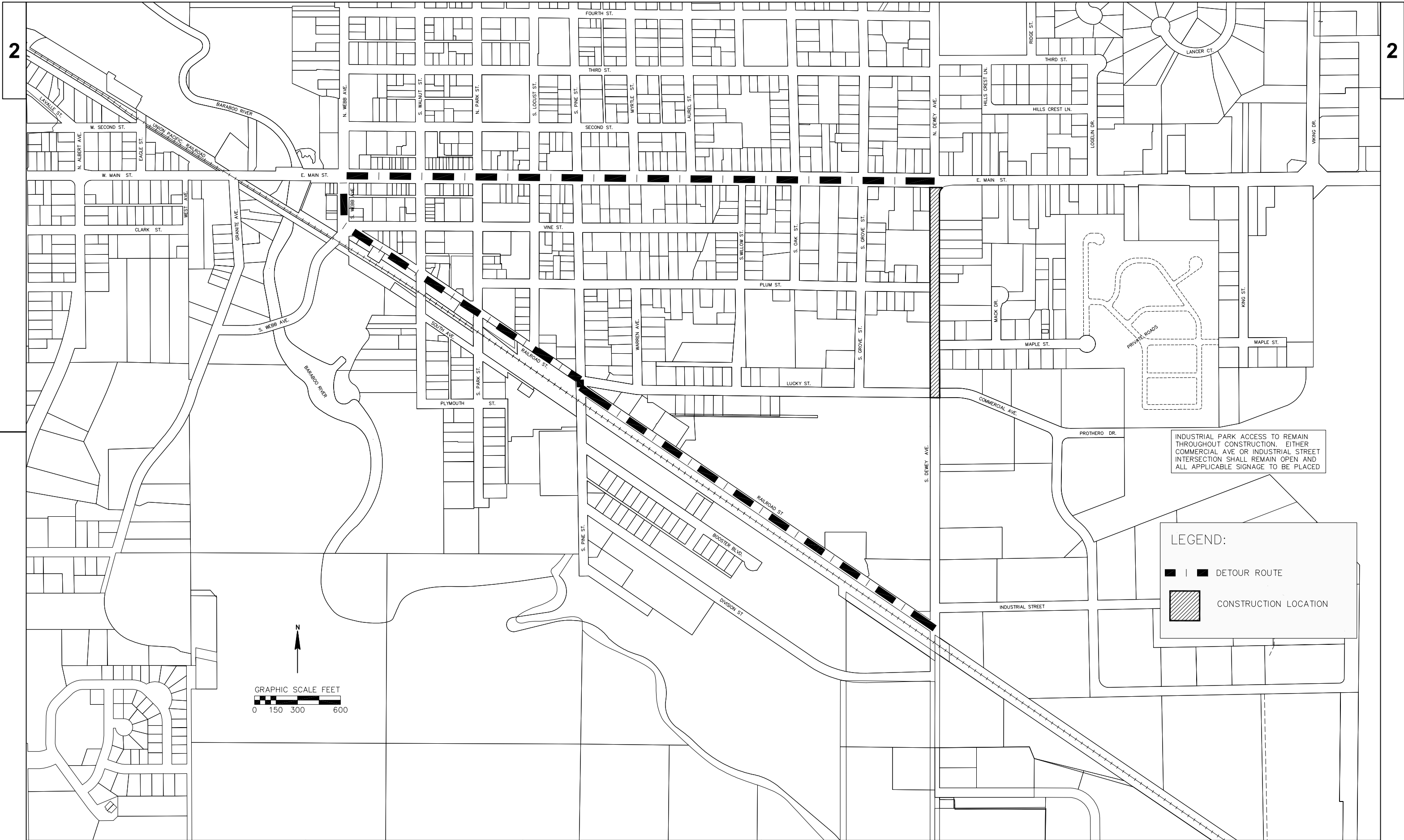


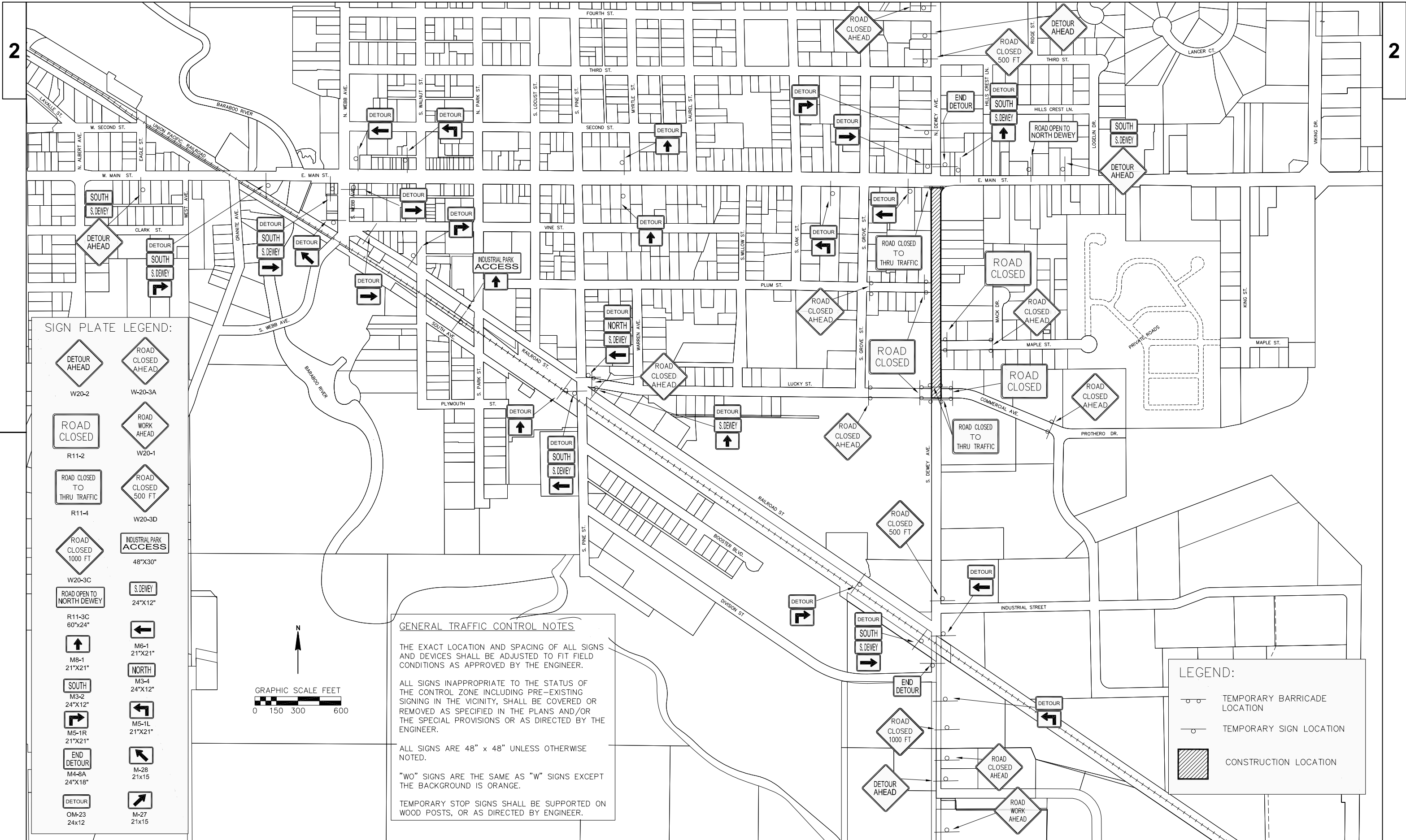
STANDARD HYDRANT SETTING

NOT TO SCALE









SIGN PLATE LEGEND:

- | | |
|-----------------------|----------------------|
|
W20-2 |
W20-3A |
|
R11-2 |
W20-1 |
|
R11-4 |
W20-3D |
|
W20-3C |
48"x30" |
|
R11-3C
60"x24" |
24"x12" |
|
M8-1
21"x21" |
M3-4
24"x12" |
|
M3-2
24"x12" |
M5-1L
21"x21" |
|
M5-1R
21"x21" |
M4-8A
24"x18" |
|
M4-8A
24"x18" |
OM-23
24x12 |
|
OM-23
24x12 |
M-27
21x15 |

GENERAL TRAFFIC CONTROL NOTES

THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

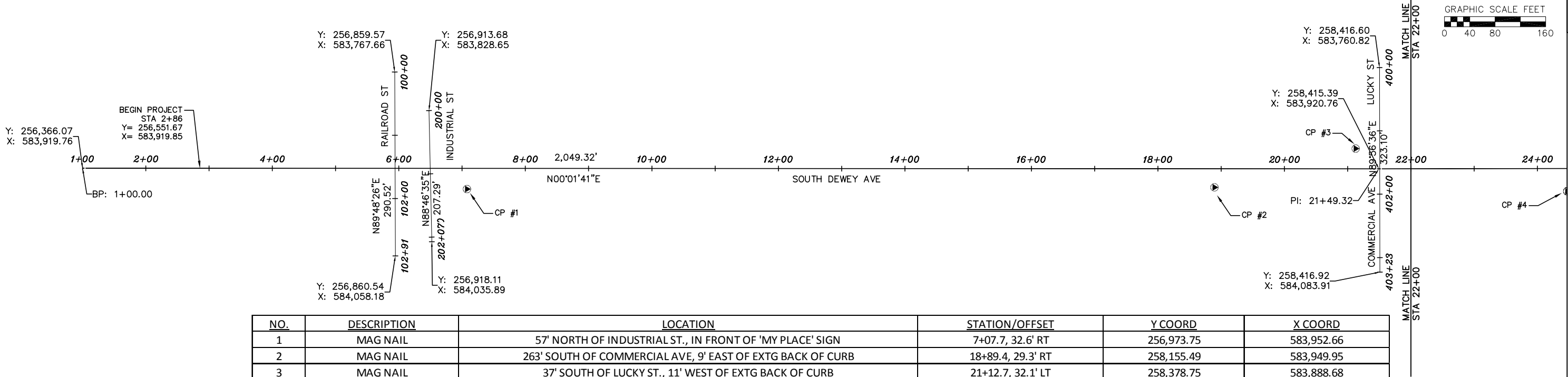
ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

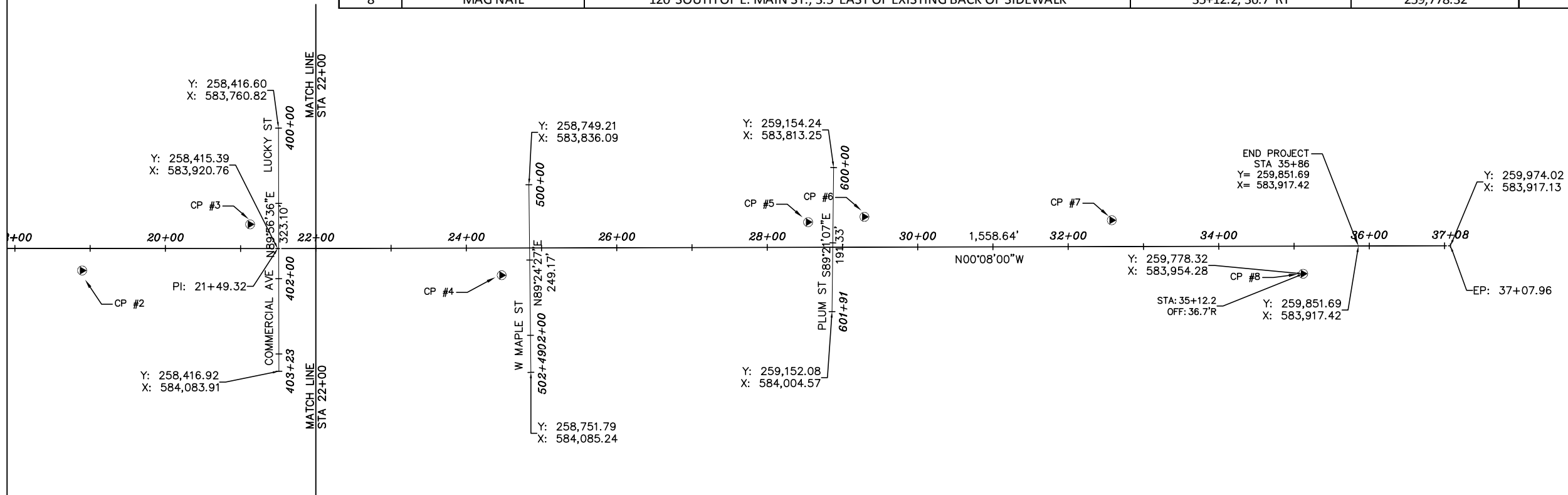
TEMPORARY STOP SIGNS SHALL BE SUPPORTED ON WOOD POSTS, OR AS DIRECTED BY ENGINEER.

LEGEND:

- TEMPORARY BARRICADE LOCATION
- TEMPORARY SIGN LOCATION
- CONSTRUCTION LOCATION



NO.	DESCRIPTION	LOCATION	STATION/OFFSET	Y COORD	X COORD
1	MAG NAIL	57' NORTH OF INDUSTRIAL ST., IN FRONT OF 'MY PLACE' SIGN	7+07.7, 32.6' RT	256,973.75	583,952.66
2	MAG NAIL	263' SOUTH OF COMMERCIAL AVE, 9' EAST OF EXTG BACK OF CURB	18+89.4, 29.3' RT	258,155.49	583,949.95
3	MAG NAIL	37' SOUTH OF LUCKY ST., 11' WEST OF EXTG BACK OF CURB	21+12.7, 32.1' LT	258,378.75	583,888.68
4	MAG NAIL	37' SOUTH OF W. MAPLE ST., 15.5' EAST OF EXTG BACK OF CURB	24+46.9, 36.1' RT	258,713.10	583,956.20
5	MAG NAIL	32.5' SOUTH OF PLUM ST., 1' WEST OF EXISTING BACK OF SIDEWALK	28+54.4, 33.3' LT	259,120.38	583,885.77
6	MAG NAIL	41' NORTH OF PLUM ST., 7.5' WEST OF EXISTING BACK OF SIDEWALK	29+29.2, 40.3' LT	259,195.14	583,878.68
7	MAG NAIL	370' NORTH OF PLUM ST., 2.5' WEST OF EXISTING BACK OF SIDEWALK	32+57.9, 35.0' LT	259,523.91	583,883.18
8	MAG NAIL	120' SOUTH OF E. MAIN ST., 3.5' EAST OF EXISTING BACK OF SIDEWALK	35+12.2, 36.7' RT	259,778.32	583,954.28



Estimate Of Quantities

5799-00-64 5799-00-65

Line	Item	Item Description	Unit	Total	Qty	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000	
0004	204.0100	Removing Pavement	SY	452.000	452.000	
0006	204.0110	Removing Asphaltic Surface	SY	14,192.000	14,192.000	
0008	204.0150	Removing Curb & Gutter	LF	5,902.000	5,902.000	
0010	204.0155	Removing Concrete Sidewalk	SY	760.000	760.000	
0012	204.0210	Removing Manholes	EACH	7.000	7.000	
0014	204.0220	Removing Inlets	EACH	12.000	12.000	
0016	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	162.000	162.000	
0018	204.0245	Removing Storm Sewer (size) 02. 15-Inch	LF	40.000	40.000	
0020	204.0245	Removing Storm Sewer (size) 03. 18-Inch	LF	293.000	293.000	
0022	204.0245	Removing Storm Sewer (size) 04. 24-Inch	LF	546.000	546.000	
0024	204.0245	Removing Storm Sewer (size) 05. 36-Inch	LF	134.000	134.000	
0026	204.9090.S	Removing (item description) 01. Retaining Wall Sta 17+47 - 19+22 LT	LF	175.000	175.000	
0028	205.0100	Excavation Common	CY	11,179.000	11,179.000	
0030	205.0200	Excavation Rock	CY	100.000	100.000	
0032	206.2000	Excavation for Structures Culverts (structure) 01. C-56-3086	LS	1.000	1.000	
0034	213.0100	Finishing Roadway (project) 01. 5799-00-64	EACH	1.000	1.000	
0036	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	5,432.000	5,432.000	
0038	305.0130	Base Aggregate Dense 3-Inch	TON	10,464.000	10,464.000	
0040	415.0100	Concrete Pavement 10-Inch	SY	1,430.000	1,430.000	
0042	415.5110.S	Concrete Pavement Joint Layout	LS	1.000	1.000	
0044	416.0160	Concrete Driveway 6-Inch	SY	342.000	342.000	
0046	416.0190	Concrete Driveway 9-Inch	SY	342.000	342.000	
0048	416.1010	Concrete Surface Drains	CY	5.000	5.000	
0050	455.0605	Tack Coat	GAL	925.000	925.000	
0052	460.2000	Incentive Density HMA Pavement	DOL	2,500.000	2,500.000	
0054	460.6223	HMA Pavement 3 MT 58-28 S	TON	2,378.000	2,378.000	
0056	460.6424	HMA Pavement 4 MT 58-28 H	TON	1,585.000	1,585.000	
0058	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	47.000	47.000	
0060	504.1000.S	Precast Concrete Wingwalls (structure) 01. C-56-3086	LS	1.000	1.000	
0062	504.2000.S	Precast Concrete Box Culvert (ft X ft) 01. 3 FT x 8 FT	LF	70.000	70.000	
0064	520.8000	Concrete Collars for Pipe	EACH	8.000	8.000	
0066	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	1.000	1.000	
0068	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	1.000	1.000	
0070	601.0205	Concrete Gutter 24-Inch	LF	6,363.000	6,363.000	
0072	602.0405	Concrete Sidewalk 4-Inch	SF	15,802.000	15,802.000	
0074	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	152.000	152.000	

Estimate Of Quantities

		5799-00-64		5799-00-65	
Line	Item	Item Description	Unit	Total	Qty
0076	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	370.000	370.000
0078	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	238.000	238.000
0080	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	962.000	962.000
0082	608.0421	Storm Sewer Pipe Reinforced Concrete Class IV 21-Inch	LF	361.000	361.000
0084	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	44.000	44.000
0086	611.0530	Manhole Covers Type J	EACH	10.000	10.000
0088	611.0624	Inlet Covers Type H	EACH	11.000	11.000
0090	611.0639	Inlet Covers Type H-S	EACH	14.000	14.000
0092	611.2004	Manholes 4-FT Diameter	EACH	11.000	11.000
0094	611.2005	Manholes 5-FT Diameter	EACH	2.000	2.000
0096	611.3230	Inlets 2x3-FT	EACH	22.000	22.000
0098	612.0902.S	Insulation Board Polystyrene (inch) 01. 2-Inch	SY	40.000	40.000
0100	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5799-00-65	EACH	1.000	1.000
0102	619.1000	Mobilization	EACH	1.000	0.680 0.320
0104	624.0100	Water	MGAL	159.000	159.000
0106	625.0100	Topsoil	SY	7,150.000	7,150.000
0108	625.0500	Salvaged Topsoil	SY	350.000	350.000
0110	628.1504	Silt Fence	LF	300.000	300.000
0112	628.1520	Silt Fence Maintenance	LF	300.000	300.000
0114	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0116	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0118	628.2006	Erosion Mat Urban Class I Type A	SY	7,500.000	7,500.000
0120	628.7015	Inlet Protection Type C	EACH	25.000	25.000
0122	629.0210	Fertilizer Type B	CWT	5.000	5.000
0124	630.0140	Seeding Mixture No. 40	LB	140.000	140.000
0126	634.0414	Posts Wood 4x4-Inch X 14-FT	EACH	2.000	2.000
0128	637.2210	Signs Type II Reflective H	SF	3.000	3.000
0130	638.2102	Moving Signs Type II	EACH	7.000	7.000
0132	638.2602	Removing Signs Type II	EACH	1.000	1.000
0134	643.0300	Traffic Control Drums	DAY	3,000.000	3,000.000
0136	643.0420	Traffic Control Barricades Type III	DAY	1,500.000	1,500.000
0138	643.0705	Traffic Control Warning Lights Type A	DAY	2,200.000	2,200.000
0140	643.0715	Traffic Control Warning Lights Type C	DAY	1,500.000	1,500.000
0142	643.0900	Traffic Control Signs	DAY	9,000.000	9,000.000
0144	643.0920	Traffic Control Covering Signs Type II	EACH	20.000	20.000

Estimate Of Quantities

5799-00-64 5799-00-65

Line	Item	Item Description	Unit	Total	Qty	Qty
0146	643.5000	Traffic Control	EACH	1.000	1.000	
0148	646.1020	Marking Line Epoxy 4-Inch	LF	13,300.000	13,300.000	
0150	646.5020	Marking Arrow Epoxy	EACH	2.000	2.000	
0152	646.5120	Marking Word Epoxy	EACH	1.000	1.000	
0154	646.5220	Marking Symbol Epoxy	EACH	33.000	33.000	
0156	646.5320	Marking Railroad Crossings Epoxy	EACH	2.000	2.000	
0158	646.6120	Marking Stop Line Epoxy 18-Inch	LF	133.000	133.000	
0160	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	1,030.000	1,030.000	
0162	650.4000	Construction Staking Storm Sewer	EACH	35.000	35.000	
0164	650.4500	Construction Staking Subgrade	LF	3,255.000	3,255.000	
0166	650.5000	Construction Staking Base	LF	3,255.000	3,255.000	
0168	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	6,230.000	6,230.000	
0170	650.7000	Construction Staking Concrete Pavement	LF	300.000	300.000	
0172	650.9910	Construction Staking Supplemental Control (project) 01. 5799-00-64	LS	1.000	1.000	
0174	650.9920	Construction Staking Slope Stakes	LF	3,255.000	3,255.000	
0176	690.0150	Sawing Asphalt	LF	511.000	511.000	
0178	690.0250	Sawing Concrete	LF	62.000	62.000	
0180	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	400.000	400.000	
0182	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	300.000	300.000	
0184	SPV.0060	Special 01. Connect to Existing Sanitary Sewer	EACH	4.000		4.000
0186	SPV.0060	Special 02. Sanitary Wye, 8-Inch X 4-Inch, PVC	EACH	15.000		15.000
0188	SPV.0060	Special 03. Sanitary Wye, 8-Inch X 6-Inch, PVC	EACH	1.000		1.000
0190	SPV.0060	Special 04. Reconnect Lateral W/ Flexible Connector	EACH	16.000		16.000
0192	SPV.0060	Special 05. Tracer Wire Access Box	EACH	16.000		16.000
0194	SPV.0060	Special 06. Replace and Adjust Manhole Casting	EACH	2.000		2.000
0196	SPV.0060	Special 07. Sanitary Manhole, 48-Inch Precast Concrete with Casting	EACH	7.000		7.000
0198	SPV.0060	Special 08. Connect to Existing Water Main	EACH	10.000		10.000
0200	SPV.0060	Special 09. 1-Inch Curb Valve W/ Box	EACH	13.000		13.000
0202	SPV.0060	Special 10. 1-Inch Corporation Stop	EACH	13.000		13.000
0204	SPV.0060	Special 11. Union to Reconnect Existing Lateral, 1-Inch or Smaller	EACH	13.000		13.000
0206	SPV.0060	Special 12. 2-Inch Curb Valve W/ Box	EACH	1.000		1.000
0208	SPV.0060	Special 13. 2-Inch Corporation Stop	EACH	1.000		1.000
0210	SPV.0060	Special 14. Union to Reconnect Existing Lateral, 2-Inch	EACH	1.000		1.000
0212	SPV.0060	Special 15. Gate Valve with Box, 4-inch	EACH	1.000		1.000
0214	SPV.0060	Special 16. Gate Valve with Box, 6-inch	EACH	8.000		8.000
0216	SPV.0060	Special 17. Gate Valve with Box, 8-inch	EACH	4.000		4.000
0218	SPV.0060	Special 18. Gate Valve with Box, 10-inch	EACH	11.000		11.000

Estimate Of Quantities

5799-00-64 5799-00-65

Line	Item	Item Description	Unit	Total	Qty	Qty
0220	SPV.0060	Special 19. Gate Valve with Box, 12-inch	EACH	1.000		1.000
0222	SPV.0060	Special 20. Hydrant	EACH	7.000		7.000
0224	SPV.0090	Special 01. Sanitary Sewer Lateral, 4-inch, PVC, SDR 35, W/ 10 AWG Tracer Wire	LF	514.000		514.000
0226	SPV.0090	Special 02. Sanitary Sewer Lateral, 6-inch, PVC, SDR 35, W/ 10 AWG Tracer Wire	LF	32.000		32.000
0228	SPV.0090	Special 03. Sanitary Sewer 8-inch PVC SDR 35	LF	1,249.000		1,249.000
0230	SPV.0090	Special 04. Water Service, 1-inch Copper	LF	392.000		392.000
0232	SPV.0090	Special 05. Water Service, 2-inch Copper	LF	44.000		44.000
0234	SPV.0090	Special 06. Water Main, 4-inch, DI, Class 52	LF	44.000		44.000
0236	SPV.0090	Special 07. Water Main, 6-inch, DI, Class 52	LF	123.000		123.000
0238	SPV.0090	Special 08. Water Main, 8-inch, DI, Class 52	LF	215.000		215.000
0240	SPV.0090	Special 09. Water Main, 10-inch, DI, Class 52	LF	3,300.000		3,300.000
0242	SPV.0090	Special 10. Water Main, 12-inch, DI, Class 52	LF	60.000		60.000
0244	SPV.0105	Special 01. Abandon Existing Sanitary Mains and Manholes	LS	1.000		1.000
0246	SPV.0105	Special 02. Remove Existing Water Mains, Valves, Hydrants	LS	1.000		1.000
0248	SPV.0105	Special 03. Construction Staking Sanitary Sewer	LS	1.000		1.000
0250	SPV.0105	Special 04. Construction Staking Watermain	LS	1.000		1.000

3

REMOVING SMALL PIPE CULVERTS

203.0100 REMOVING SMALL PIPE CULVERTS		
STATION	LOCATION	EACH
3+62	S. DEWEY AVENUE	1
PROJECT TOTAL		1

REMOVING PAVEMENT

204.0100 REMOVING PAVEMENT		
STATION TO STATION	LOCATION	SY
9+33	LT	63
9+85	LT & RT	47
17+67	RT	43
27+04	RT	9
27+36	LT	9
28+33	RT	9
31+17	RT	18
31+91	RT	16
32+48	RT	11
32+91	RT	15
32+95	LT	16
33+23	RT	15
34+00	RT	34
35+10	LT	21
35+85 - 36+11	LT & RT	126
PROJECT TOTAL		452

REMOVING ASPHALTIC SURFACE

204.0110	
REMOVING ASPHALTIC	
SURFACE	
STATION TO STATION	SY
2+85 - 3+75	314
4+20 - 35+85	13878
PROJECT TOTAL	14192

REMOVING CURB AND GUTTER

204.0150 REMOVING CURB & GUTTER		
STATION TO STATION	LOCATION	LF
2+85 - 21+80	LT & RT	3493
21+80 - 36+30	LT & RT	2409
PROJECT TOTAL		5902

REMOVING CONCRETE SIDEWALK

204.0155 REMOVING CONCRETE SIDEWALK		
STATION TO STATION	LOCATION	SY
21+00 - 29+00	LT & RT	262
29+00 - 36+20	LT & RT	498
PROJECT TOTAL		760

REMOVING MANHOLES

204.0210 REMOVING MANHOLES		
STATION	LOCATION	EACH
8+14	27' RT	1
21+40	26' RT	1
21+41	68' RT	1
23+18	19' LT	1
23+20	26' RT	1
25+00	18' LT	1
32+46	9' LT	1
PROJECT TOTAL		7

REMOVING INLETS

204.0220 REMOVING INLETS		
STATION	LOCATION	EACH
6+26	27' RT	1
6+75	27' RT	1
8+14	20' RT	1
8+14	20' LT	1
9+89	20' RT	1
9+89	20' LT	1
21+31	40' RT	1
21+93	20' RT	1
21+96	20' RT	1
23+18	20' RT	1
32+33	20' RT	1
32+34	20' LT	1
PROJECT TOTAL		12

REMOVING RETAINING WALL

204.9090.S REMOVING RETAINING WALL		
STATION TO STATION	LOCATION	LF
17+47 - 19+22	LT	175
PROJECT TOTAL		175

EARTHWORK SUMMARY

		205.0100 COMMON EXCAVATION C.Y.	205.0200 ROCK EXCAVATION C.Y.
STATION TO STATION	LOCATION		
2+85 - 3+75	LT& RT	277	-
4+20 - 21+11	LT& RT	6064	-
21+11 - 22+35	LT& RT	684	-
22+35 - 35+35	LT& RT	3795	-
35+35 - 36+11	LT& RT	359	-
UNDISTRIBUTED		-	100
PROJECT TOTAL		11179	100

REMOVING STORM SEWER

		204.0245.01 REMOVING STORM SEWER 12-INCH	204.0245.02 REMOVING STORM SEWER 15-INCH	204.0245.03 REMOVING STORM SEWER 18-INCH	204.0245.04 REMOVING STORM SEWER 24-INCH	204.0245.05 REMOVING STORM SEWER 36-INCH
STATION TO STATION	LOCATION	LF	LF	LF	LF	LF
6+27 - 6+75	RT	48	-	-	-	-
6+75 - 9+83	RT	-	-	-	308	-
8+14	LT & RT	48	-	-	-	-
9+83	LT & RT	-	-	-	-	67
9+89	LT & RT	-	-	-	-	67
21+21 - 21+40	RT	-	19	-	-	-
21+32 - 21+40	RT	17	-	-	-	-
21+40	RT	-	-	59	-	-
21+40 - 23+19	RT	-	-	-	179	-
21+93	RT	-	7	-	-	-
23+18	RT	-	-	-	7	-
23+18	LT & RT	-	-	-	40	-
23+18	LT	-	-	-	12	-
23+18 - 24+99	LT	-	-	181	-	-
24+99	LT & RT	-	-	53	-	-
32+33 - 32+46	LT	17	-	-	-	-
32+33 - 32+46	RT	32	-	-	-	-
32+43 - 32+46	LT	-	14	-	-	-
PROJECT TOTAL		162	40	293	546	134

PROJECT NO:5799—00—64

HWY:S. DEWEY AVE.

COUNTY:SAUK

MISCELLANEOUS QUANTITIES

SHEET

E

3

BASE COURSE ITEMS

	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	305.0130 BASE AGGREGATE DENSE 3-INCH	624.0100 WATER MGAL
STATION TO STATION	TON	TON	
2+85 - 3+75	139	277	4
4+20 - 20+11	2451	4903	74
20+11 - 22+35	400	400	8
22+35 - 35+35	2263	4526	68
35+35 - 36+11	179	359	5
PROJECT TOTAL	5432	10464	159

CONCRETE PAVEMENT 10-INCH

		415.0100 CONCRETE PAVEMENT 10-INCH SY
STATION TO STATION	LOCATION	
21+11 - 22+35	LT & RT	1026
35+35 - 36+11	LT & RT	404
PROJECT TOTAL		1430

CONCRETE DRIVEWAY

		416.0160 CONCRETE DRIVEWAY, 6-INCH SY	416.0190 CONCRETE DRIVEWAY, 9-INCH SY
STATION TO STATION	LOCATION		
5+07	RT	-	33
9+33	LT	-	51
10+13	RT	-	41
10+87	RT	-	42
13+26	RT	-	40
14+33	LT	-	64
15+52	RT	32	-
17+67	RT	-	47
25+71	LT	26	-
26+80	RT	18	-
27+11	LT	19	-
28+08	RT	18	-
29+30	RT	19	-
30+30	RT	18	-
30+92	RT	22	-
31+66	RT	18	-
32+23	RT	19	-
32+66	RT	19	-
32+70	LT	28	-
32+93	RT	19	-
33+00	LT	25	-
33+75	RT	-	24
34+85	LT	32	-
PROJECT TOTAL		332	342

CONCRETE SURFACE DRAINS

		416.1010 CONCRETE SURFACE DRAINS CY
STATION TO STATION	LOCATION	
9+85	LT & RT	5
PROJECT TOTAL		5

ASPHALTIC PAVEMENT ITEMS

		455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6424 HMA PAVEMENT 4 MT 58-28 S TON
STATION TO STATION	LOCATION			
2+85 - 3+75	LT& RT	24	62	41
4+20 - 21+11	LT& RT	467	1200	800
22+35 - 35+35	LT& RT	434	1116	744
PROJECT TOTAL		925	2378	1585

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

		465.0120 SURFACE DRIVEWAYS TON
STATION TO STATION	LOCATION	
5+07	RT	6
10+18	RT	6
10+87	RT	6
13+26	RT	5
14+38	LT	4
15+52	RT	3
17+67	RT	3
25+71	LT	2
27+11	LT	2
28+08	RT	2
29+30	RT	2
30+30	RT	2
30+92	RT	2
32+70	LT	2
PROJECT TOTAL		47

CONCRETE SIDEWALK

		602.0405 CONCRETE SIDEWALK 4-INCH SF
STATION TO STATION	LOCATION	
2+80 - 21+75	LT & RT	8963
21+75 - 29+00	LT & RT	2358
29+00 - 36+20	LT & RT	4481
PROJECT TOTAL		15802

CONCRETE CURB & GUTTER

		SPV.0090.01 CONCRETE CURB & GUTTER 24-INCH LF
STATION TO STATION	LOCATION	
2+85 - 21+80	LT & RT	3647
21+80 - 36+30	LT & RT	2716
PROJECT TOTAL		6363

PRECAST CONCRETE BOX CULVERT (3FT x 8FT)

		504.1000.S CONCRETE WINGWALLS C-56-3086 LS	504.2000.S CONCRETE BOX CULVERT (3FT x 8FT) LF
STATION TO STATION	LOCATION		
9+86 (C-56-3086)	LT & RT	1	70
PROJECT TOTAL		1	70

CURB RAMP DETECTABLE WARNING FIELD YELLOW

		602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
STATION	LOCATION	
3+53	RT	8
4+05	RT	8
6+25	RT	8
6+75	RT	8
21+23	RT	16
21+23	LT	16
21+80	LT	8
21+86	RT	16
24+59	RT	8
25+12	RT	16
25+14	LT	8
28+55	RT	8
28+60	LT	16
29+11	LT	8
PROJECT TOTAL		152

3

3

3

3

TOPSOIL

	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY
STATION TO STATION	--	350
2+85 - 3+75	5300	--
4+20 - 21+75	1850	--
21+75 - 35+85		
PROJECT TOTAL	7150	350

TRAFFIC CONTROL

		643.0300 TRAFFIC CONTROL DRUMS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C	643.0900 TRAFFIC CONTROL SIGNS	643.3000 TRAFFIC CONTROL DETOUR SIGNS
STATION TO STATION	DAYS	DAYS	DAYS	DAYS	DAYS	DAYS	DAYS
PHASE 1	60	1500	720	1080	750	900	2700
PHASE 2	50	1250	700	1100	625	900	3750
UNDISTRIBUTED		250	80	20	125	360	390
PROJECT TOTAL	110	3000	1500	2200	1500	2160	6840

3

EROSION CONTROL

	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY E.C. EACH	628.7015 INLET PROTECTION TYPE C EACH
STATION TO STATION	-	-	-	-	15
2+85 - 21+75	-	-	-	-	6
21+75 - 29+15	-	-	-	-	4
29+15 - 35+35	300	300	3	2	
UNDISTRIBUTED					
PROJECT TOTAL	300	300	3	2	25

PAVEMENT MARKING LINES

	646.0106 PAVEMENT MARKING EPOXY 4-INCH LF	646.0116 PAVEMENT MARKING EPOXY 6-INCH LF	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18- EACH
STATION TO STATION	1200	-	18
2+85 - 6+15	5900	430	50
6+15 - 21+50	6200	600	65
21+50 - 36+00			
PROJECT TOTAL	13300	1030	133

FINISHING ITEMS

	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB
STATION TO STATION	5650	3.8	104
2+85 - 21+75	1150	0.8	22
21+75 - 29+15	700	0.4	14
29+15 - 35+35			
PROJECT TOTAL	7500	5.0	140

PAVEMENT MARKING

	647.0110 PAVEMENT MARKING RAILROAD EACH	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2 EACH	647.0176 PAVEMENT MARKING ARROWS EPOXY TYPE 3 EACH	647.0306 PAVEMENT MARKING SYMBOLS BIKE EACH	647.0356 PAVEMENT MARKING WORDS EPOXY EACH
STATION TO STATION	2	-	-	5	-
1+75 - 6+15	-	-	-	14	-
6+15 - 21+50	-	1	1	14	1
21+50 - 36+00					
PROJECT TOTAL	2	1	1	33	1

SIGNING

SIGN NO	STATION	LOCATION	SIGN CODE	SIGN MESSAGE	SIZE	634.0414 POSTS WOOD 4X4-INCH X 14-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	REMARKS
1-1	6+75	RT	--	S DEWEY / INDUSTRIAL	--	--	--	1	--	EXISTING STREET NAME SIGNS & POST
1-2	10+60	RT	--	DRIVE CAREFUL IN SCHOOL ZONE	--	--	--	--	1	
1-3	21+70	RT	R1-1	STOP	--	--	--	1	--	
1-4	21+80	RT	--	S DEWEY / COMMERCIAL	--	--	--	1	--	EXISTING STREET NAME SIGNS & POST
1-5	24+10	LT	--	LAUKANT ST, TURN LEFT	--	--	--	1	--	
1-6	25+75	RT	R7-1R	NO PARKING ANY TIME	12 X 18	1	1.5	--	--	
1-7	26+05	RT	--	SPEED LIMIT 25	--	--	--	1	--	
1-8	26+05	LT	--	SPEED LIMIT 25	--	--	--	1	--	
1-9	28+60	LT	--	S DEWEY / PLUM	--	--	--	1	--	EXISTING STREET NAME SIGNS & POST
1-10	34+05	RT	R7-1R	NO PARKING ANY TIME	12 X 18	1	1.5	--	--	
PROJECT TOTAL						2	3.0	7	1	

PROJECT NO:5799—00—64

HWY:S. DEWEY AVE.

COUNTY:SAUK

MISCELLANEOUS QUANTITIES

SHEET

E

3

CONSTRUCTION STAKING

STATION TO STATION	LOCATION	650.4000	650.4500	650.5000	650.5500	650.7000	650.9920
		CONSTRUCTION STAKING STORM SEWER EA	CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING CURB AND GUTTER LF	CONSTRUCTION STAKING CONC. PAVEMENT LF	CONSTRUCTION STAKING SLOPE STAKES LF
2+85 - 3+75		3	90	90	140	-	90
4+20 - 35+85		32	3165	3165	6090	300	3165
PROJECT TOTAL		35	3255	3255	6230	300	3255

3

SAWING ASPHALT

STATION TO STATION	LOCATION	690.0150
		SAWING ASPHALT L.F.
2+82	--	33
5+90	LT	40
6+45	RT	37
10+18	RT	27
10+87	RT	27
13+26	RT	19
14+38	LT	38
15+52	RT	22
17+67	RT	30
21+50	LT	40
21+50	RT	38
24+85	RT	38
25+71	LT	21
PROJECT TOTAL		511

SAWING CONCRETE

STATION TO STATION	LOCATION	690.0250
		CONCRETE LF
9+30	LT	30
9+80	LT & RT	32
PROJECT TOTAL		62

CONCRETE COLLARS

STATION	LOCATION	520.8000
		CONCRETE COLLARS FOR PIPE EA
8+30	RT	1
9+82	RT	1
9+90	RT	1
12+38	RT	1
21+28	RT	1
21+39	RT	1
23+18	LT	1
32+44	LT	1
PROJECT TOTAL		8

APRON END WALLS

STATION	LOCATION	522.1015	522.1018
		APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH EA	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EA
3+42	RT	1	0
3+87	LT	0	1
PROJECT TOTAL		1	1

3

CONNECT TO EXISTING SANITARY SEWER

SPV.0060.01 CONNECT TO EXISTING SANITARY SEWER		
CATEGORY	LOCATION	EA
0010	21+50 RT	1
0010	21+51 LT	1
0010	24+82 RT	1
0010	32+50 LT	1
TOTAL		4

SANITARY SEWER PIPE SUMMARY

SPV.0090.03 SANITARY SEWER 8-INCH PVC, SDR 35			
CATEGORY	FROM STR.	TO STR.	LF
0010	EXTG	SMH 2	70
0010	SMH 2	EXTG	77
0010	SMH 2	SMH 10	331
0010	SMH 10	EXTG	35
0010	SMH 9	SMH 11	144
0010	SMH 7	SMH 9	217
0010	SMH 4	SMH 7	150
0010	EXTG	SMH 4	33
0010	SMH 4	SMH 5	192
TOTAL			1249

3

SANITARY LATERALS

SPV.0090.01 SANITARY LATERAL, 4-INCH PVC, SDR 35, W/ 10 AWG TRACER WIRE				SPV.0090.02 SANITARY LATERAL, 6-INCH PVC, SDR 35, W/ 10 AWG TRACER WIRE		SPV.0060.02 SANITARY WYE, 8-INCH X 4-INCH, PVC		SPV.0060.03 SANITARY WYE, 8-INCH X 6-INCH, PVC		SPV.0060.04 RECONNECT LATERAL W/ FLEXIBLE CONNECTOR		SPV.0060.05 TRACER WIRE ACCESS BOX	
CATEGORY	STATION	LOCATION	LF		LF	EA		EA		EA		EA	
0010	29+18	RT	34			1				1		1	
0010	29+19	RT	34			1				1		1	
0010	29+33	RT	34			1				1		1	
0010	29+47	RT	34			1				1		1	
0010	29+73	LT	34			1				1		1	
0010	30+38	RT	34			1				1		1	
0010	30+59	LT	35			1				1		1	
0010	30+94	RT	34			1				1		1	
0010	31+24	RT	34			1				1		1	
0010	31+56	LT	35			1				1		1	
0010	31+82	RT	34			1				1		1	
0010	32+43	RT	34			1				1		1	
0010	32+97	RT	34			1				1		1	
0010	33+66	LT	35			1				1		1	
0010	34+38	LT	35			1				1		1	
0010					32			1		1		1	
TOTAL			514		32	15		1		16		16	

ABANDON EXISTING SANITARY MAINS & MANHOLES

SPV.0105.01 ABANDON EXISTING SANITARY MAINS AND MANHOLES		
CATEGORY	LOCATION	LS
0010	PROJECT	1
TOTAL		1

SANITARY MANHOLES

SPV.0060.06 REPLACE AND ADJUST MANHOLE CASTING EACH					SPV.0060.07 SANITARY SEWER MANHOLE, 48-INCH, PRECAST CONCRETE, WITH CASTING EACH	
CATEGORY	STATION	LOCATION	STRUCTURE I.D.			
0010	6+53	LT	EXTG		1	
0010	15+53	LT	EXTG		1	
0010	21+51	RT	SMH 2			1
0010	24+82	RT	SMH 10			1
0010	27+39	RT	SMH 11			1
0010	28+83	RT	SMH 9			1
0010	31+00	RT	SMH 7			1
0010	32+50	RT	SMH 4			1
0010	34+42	LT	SMH 5			1
TOTAL					2	7

CONSTRUCTION STAKING

		SPV.0105.03 CONSTRUCTION STAKING SANITARY SEWER		SPV.0105.04 CONSTRUCTION STAKING WATERMAIN	
CATEGORY	LOCATION	LS		LS	
0010	PROJECT LIMITS	1		--	
0020	PROJECT LIMITS	--		1	
PROJECT TOTAL		1		1	

3

3

WATERMAIN INSULATION

612.0902.S INSULATION BOARD POLYSTYRENE, 2-INCH SY		
CATEGORY	LOCATION	SY
0020	8+00 - 21+50	20
0020	21+50 - 36+00	20
TOTAL		40

CONNECT TO EXISTING WATER MAIN

SPV.0060.08 CONNECT TO EXISTING WATER MAIN EA		
CATEGORY	LOCATION	EA
0020	3+00 - 14+50	4
0020	21+00 - 29+00	4
0020	32+50 - 36+00	2
TOTAL		10

WATER LATERALS

			SPV.0060.09 1-INCH CURB VALVE W/ BOX	SPV.0060.10 1-INCH CORPORATION STOP	SPV.0060.11 UNION TO RECONNECT EXISTING LATERAL, 1-INCH OR SMALLER	SPV.0060.12 2-INCH CURB VALVE W/ BOX	SPV.0060.13 2-INCH CORPORATION STOP	SPV.0060.14 UNION TO RECONNECT EXISTING LATERAL, 2-INCH	SPV.0060.15 GATE VALVE WITH BOX, 4-INCH	SPV.0090.04 WATER SERVICE, 1-INCH COPPER	SPV.0090.05 WATER SERVICE, 2-INCH COPPER	SPV.0090.06 WATER MAIN, 4-INCH, DI, CLASS 52
CATEGORY	STATION	LOCATION	EA	EA	EA	EA	EA	EA	EA	LF	LF	LF
0020	9+62	LT	1	1	1	--	--	--	--	24	--	--
0020	11+35	RT	--	--	--	1	1	1	--	--	44	--
0020	14+14	RT	--	--	--	--	--	--	1	--	--	44
0020	27+36	RT	1	1	1	--	--	--	--	37	--	--
0020	27+53	LT	1	1	1	--	--	--	--	16	--	--
0020	29+10	RT	1	1	1	--	--	--	--	35	--	--
0020	29+42	RT	1	1	1	--	--	--	--	34	--	--
0020	30+33	RT	1	1	1	--	--	--	--	36	--	--
0020	30+72	RT	1	1	1	--	--	--	--	36	--	--
0020	31+20	RT	1	1	1	--	--	--	--	36	--	--
0020	31+81	RT	1	1	1	--	--	--	--	36	--	--
0020	32+49	RT	1	1	1	--	--	--	--	35	--	--
0020	33+47	RT	1	1	1	--	--	--	--	36	--	--
0020	33+77	LT	1	1	1	--	--	--	--	15	--	--
0020	35+64	LT	1	1	1	--	--	--	--	16	--	--
TOTAL			13	13	13	1	1	1	1	392	44	44

WATER VALVE SUMMARY

			SPV.0060.16 GATE VALVE W/ BOX, 6-INCH	SPV.0060.17 GATE VALVE W/ BOX, 8-INCH	SPV.0060.18 GATE VALVE W/ BOX, 10-INCH	SPV.0060.19 GATE VALVE W/ BOX, 12-INCH
CATEGORY	STATION	LOCATION	EA	EA	EA	EA
0020	3+28	LT	--	--	1	--
0020	5+30	LT	--	--	1	--
0020	6+36	LT	--	--	1	--
0020	6+40	LT	--	1	--	--
0020	11+31	LT	1	--	--	--
0020	14+40	LT	--	--	1	--
0020	14+50	LT	--	1	--	--
0020	16+45	LT	1	--	--	--
0020	18+80	LT	1	--	--	--
0020	21+32	LT	--	--	1	--
0020	21+34	LT	1	--	--	--
0020	21+36	LT	--	--	--	1
0020	21+61	LT	--	1	--	--
0020	21+65	LT	--	--	1	--
0020	24+68	LT	1	--	--	--
0020	24+87	LT	--	--	1	--
0020	24+90	LT	--	--	1	--
0020	28+42	LT	1	--	--	--
0020	28+98	LT	--	--	1	--
0020	29+00	LT	--	1	--	--
0020	32+54	LT	--	--	1	--
0020	32+59	LT	1	--	--	--
0020	35+11	LT	1	--	--	--
0020	35+77	LT	--	--	1	--
TOTAL			8	4	11	1

WATER MAIN SUMMARY

			SPV.0060.20 HYDRANT	SPV.0090.07 WATERMAIN, 6-INCH DI CLASS 52, INCLUDING FITTINGS	SPV.0090.08 WATERMAIN, 8-INCH DI CLASS 52, INCLUDING FITTINGS	SPV.0090.09 WATERMAIN, 10-INCH DI CLASS 52, INCLUDING FITTINGS	SPV.0090.10 WATERMAIN, 12-INCH DI CLASS 52, INCLUDING FITTINGS
CATEGORY	STATION	LOCATION	EA	LF	LF	LF	LF
0020	3+13 - 7+50	--	--	--	80	426	--
0020	7+50 - 13+50	--	--	--	--	600	--
0020	11+31	LT	1	14	--	--	--
0020	13+50 - 19+50	--	--	--	25	600	--
0020	18+45	LT	1	14	--	--	--
0020	18+80	LT	1	14	--	--	--
0020	19+50 - 25+50	--	--	--	87	645	--
0020	21+34	LT	1	13	--	--	--
0020	21+36	LT	--	--	--	--	60
0020	24+68	LT	1	14	--	--	--
0020	25+50 - 31+25	--	--	--	23	575	--
0020	28+42	LT	1	14	--	--	--
0020	31+25 - 35+79	--	--	26	--	454	--
0020	35+11	LT	1	14	--	--	--
TOTAL			7	123	215	3300	60

REMOVE EXISTING WATERMAINS, VALVES, HYDRANTS

SPV.0105.02 REMOVE EXISTING WATERMAINS, VALVES, HYDRANTS		
STATION	LOCATION	LS
0020	PROJECT	1
TOTAL		1

SECTION LINE		SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	
QUARTER LINE				NON-MONUMENTED R/W POINT	
NEW REFERENCE LINE				FOUND IRON PIN (3/4" ROD UNLESS NOTED)	IP
NEW R/W LINE					
EXISTING R/W LINE					
PROPERTY LINE					
PROPERTY LINE					
LOT, TIE & OTHER MINOR LINES					
RAILROAD RAIL					
PERMANENT LIMITED EASEMENT AREA					
TEMPORARY LIMITED EASEMENT AREA					
BUILDING					
		PARCEL NUMBER			
		PARALLEL OFFSETS			

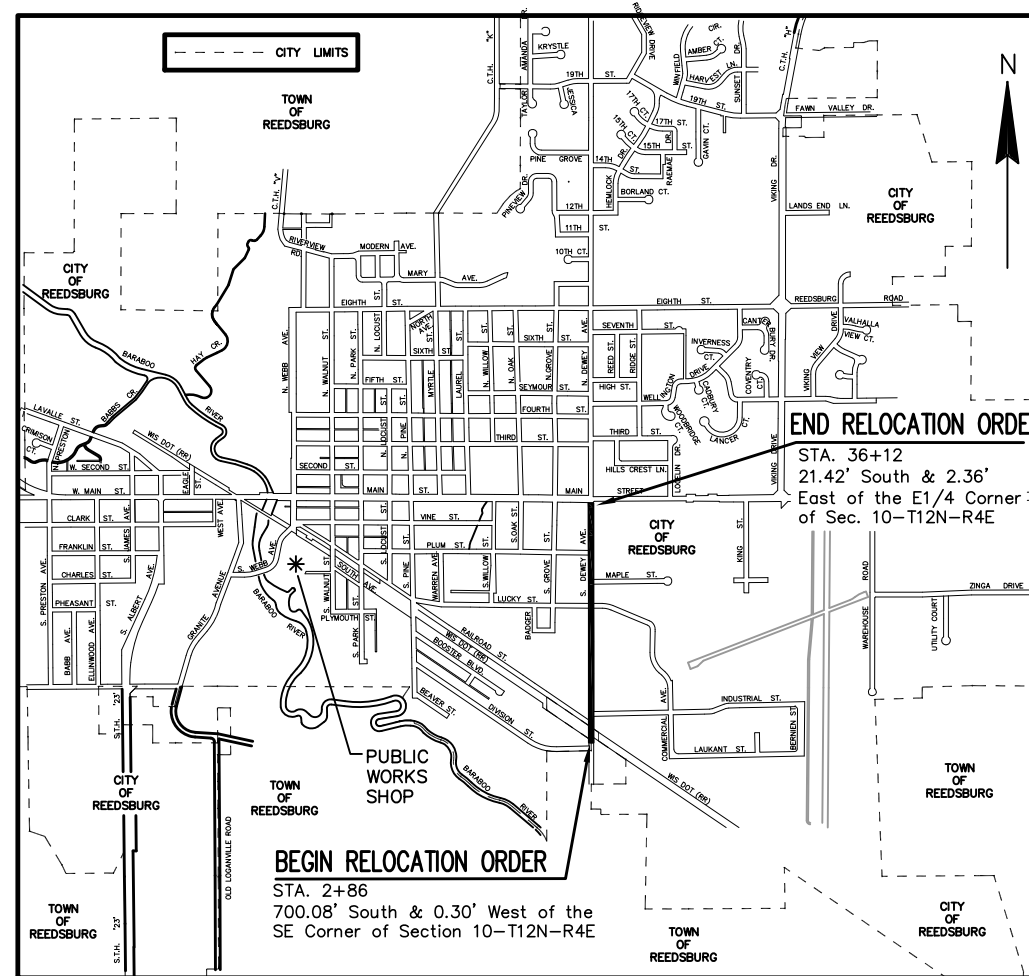
ACRES	AC	POINT OF CURVATURE	PC
BACK	BK	POINT OF COMPOUND CURVE	PCC
BLOCK	BLK	POINT OF INTERSECTION	PI
CENTERLINE	C/L	PROPERTY LINE	PL
CERTIFIED SURVEY MAP	CSM	RECORDED AS	(100')
CHISLED X	CHX	REFERENCE LINE	R/L
CONCRETE	CONC	RIGHT	RT
COUNTY	CO	RIGHT OF WAY	R/W
DISTANCE	DIST	SECTION	SEC
CORNER	COR	SQUARE FEET	SF
DOCUMENT NUMBER	DOC	STATE TRUNK HIGHWAY	STH
EASEMENT	EASE	STATION	STA
EXISTING	EX	TELEPHONE PEDESTAL	TP
GAS VALVE	G	TEMPORARY LIMITED	TLE
GRID NORTH	GN	EASEMENT	
LEFT	LT	VOLUME	Vol.
MONUMENT	MON		
NUMBER	NO		
OUTLOT	OL		
PAGE	Pg.		
POINT OF TANGENCY	PT		
PK NAIL	PKN		

LONG CHORD	CHORD L.
LONG CHORD BEARING	CHORD BRG.
RADIUS	RADIUS
CENTRAL ANGLE	DELTA
LENGTH OF CURVE	ARC L.
POINT OF BEGINNING	POB

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), SAUK COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF
THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR
OTHER SURVEYS OF PUBLIC RECORD.

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
5799-00-63	4.01	5
<p>PLAT OF RIGHT OF WAY REQUIRED FOR</p> <p>C REEDSBURG, SOUTH DEWEY AVENUE</p> <p>RAILROAD STREET to MAIN STREET</p> <p>LOCAL STREET</p> <p>SAUK COUNTY</p>		
CONSTRUCTION ID 5799-00-64		



(TOWN 12 NORTH, RANGE 4 EAST)

SCALE 0 1/2 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.625 MILES

vierbicher
planners | engineers | advisors

REEDSBURG - MADISON - PRAIRIE DU CHIEN
400 Viking Drive Reedsburg, Wisconsin 53959
Phone: (608) 524-6468 Fax: (608) 524-8218

I, SCOTT F. DISCHLER, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 5799-00-63 - 4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SCOTT F. DISCHLER
AGENT FOR VIERBICHER, INC.
P.L.S. NUMBER 2605

THIS PLAT AND RELOCATION ORDER ARE APPROVED
FOR THE CITY OF REEDSURG.

DATE _____

June 14, 2017
Nov. 06, 2017

ACCEPTED FOR
CITY OF REEDSBURG

APPROVED FOR THE CITY

DATE: _____ (Signature) _____

vierbicher

planners | engineers | advisors

REEDSBURG • MADISON • PRAIRIE DU CHIEN

400 Viking Drive Reedsburg, Wisconsin 53959

Phone: (608) 524-6468 Fax: (608) 524-8218

I, SCOTT F. DISCHLER, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 1401-02-21 - 4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SCOTT F. DISCHLER

DATE

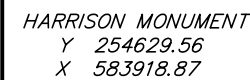
AGENT FOR VIERBICHER, INC.

P.L.S. NUMBER 2805

THIS PLAT AND RELOCATION ORDER ARE APPROVED
FOR THE CITY OF REEDSBURG.

DATE

FILE NAME : S DEWEY RIGHT OF WAY PLAT.DWG PLOT DATE : 11/6/2017 10:18 AM PLOT BY : SCOTT F. DISCHLER PLOT NAME : WISDOT/CADDSS SHEET 75



POINT	STATION	OFFSET
P600	9+76.67	32.91'
P601	9+77.00	50.91'
P602	9+97.00	50.89'
P603	9+96.67	32.89'

REVISION DATE
June 8, 2017

DATE	April 2017
------	------------



HWY: South Dewey Avenue
COUNTY: SAUK

STATE R/W PROJECT NUMBER:	5799-00-63
CONSTRUCTION PROJECT NUMBER:	5799-00-64/65

	PLAT SHEET	4.03
5	PS&E SHEET	

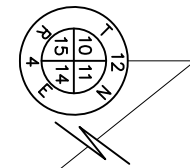
FILE NAME : S DEWEY RIGHT OF WAY PLAT.DWG

PLOT DATE : 6/15/2017 2:20 PM

PLOT BY : TODD HALVENSLEBEN PLOT NAME :

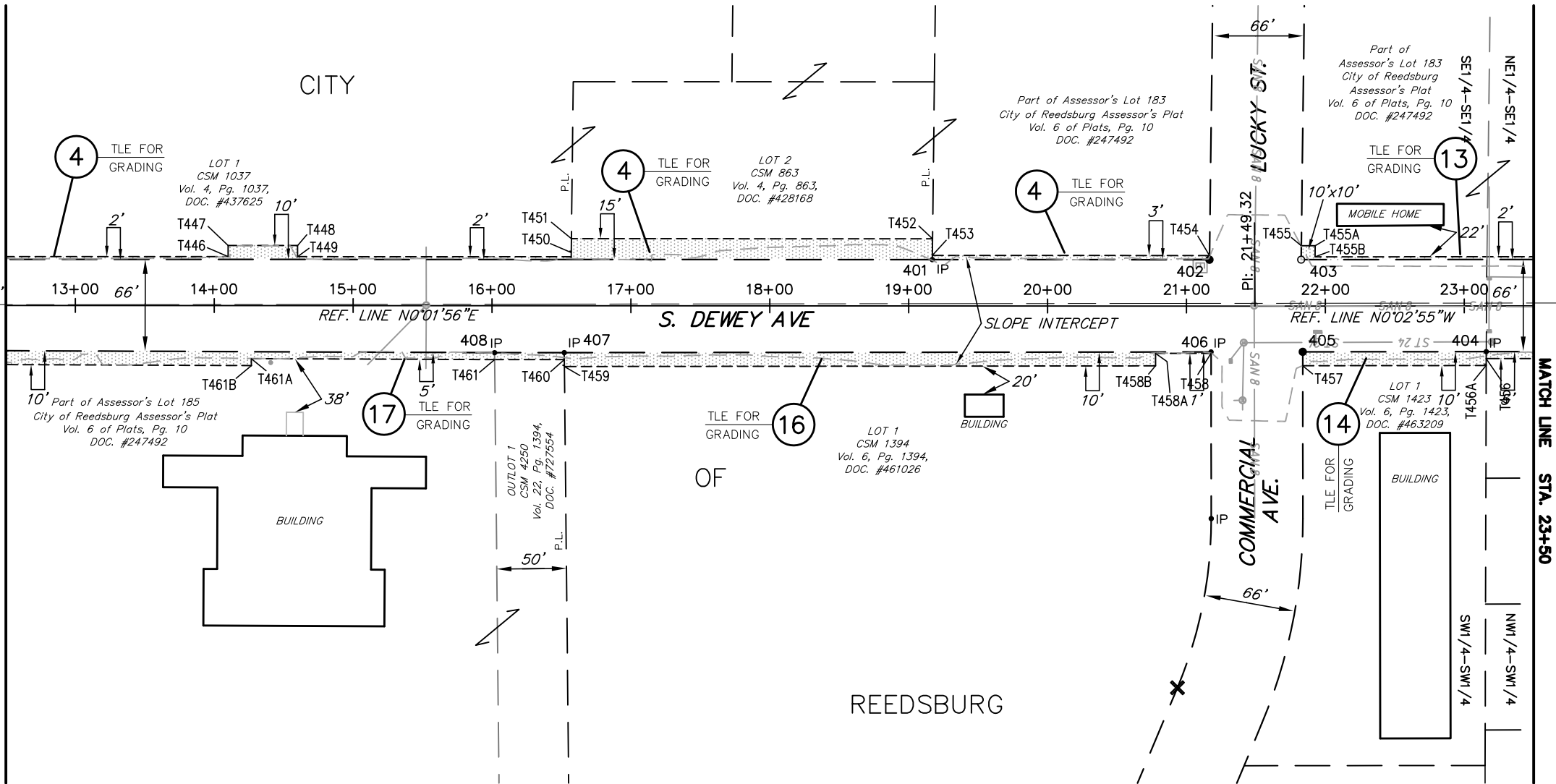
WISDOT/CADDS SHEET 75

SURVEY NAIL
Y 257252.15
X 583920.25
STA: 9+86.08
OFF: 0.09'L

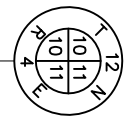


(Section Line)

MATCH LINE STA. 12+50



NO MONUMENT
Y 259899.49
X 583917.39
STA: 36+33.42
OFF: 2.35'L



STATION OFFSET TABLE		
POINT	STATION	OFFSET
401	19+16.99	33.34'
402	21+16.52	33.40'
403	21+82.57	33.43'
404	23+15.80	32.93'
405	21+83.66	32.96'
406	21+17.71	33.02'
407	16+52.05	33.79'
408	16+01.89	33.84'
409	12+06.58	32.46'

COURSE TABLE		
COURSE	BEARING	DISTANCE
304-401	N0°01'00"E	930.40'
401-402	N0°01'00"E	199.53'
402-403	N0°02'01"W	66.01'
403-501	N0°02'51"W	461.31'
404-405	S0°03'46"E	132.14'
405-406	S0°03'46"E	66.00'
406-407	S0°03'46"E	465.66'
407-408	S0°01'18"E	50.15'
408-409	S0°13'52"W	395.31'

TLE STATION OFFSET TABLE		
POINT	STATION	OFFSET
T446	14+09.99	35.21'
T447	14+09.99	43.21'
T448	14+59.99	43.22'
T449	14+59.99	35.22'
T450	16+57.00	35.27'
T451	16+57.14	48.27'
T452	19+17.16	48.34'
T453	19+17.02	36.34'
T454	21+16.56	36.40'
T455	21+82.71	43.43'
T455A	21+92.71	43.43'

TLE STATION OFFSET TABLE		
POINT	STATION	OFFSET
T455B	21+92.60	35.43'
T456	23+15.78	37.93'
T456A	23+15.76	42.93'
T457	21+83.66	42.96'
T458	21+17.71	34.02'
T458A	20+77.72	43.09'
T459	16+52.15	43.79'
T460	16+52.10	38.79'
T461	16+01.95	38.84'
T461A	14+26.73	38.23'
T461B	14+26.83	43.23'

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REEDSBURG - MADISON - PRAIRIE DU CHIEN
400 Viking Drive Reedsburg, Wisconsin 53959
Phone: (608) 524-6468 Fax: (608) 524-8218

I, SCOTT F. DISCHLER, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 1401-02-21 - 4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SCOTT F. DISCHLER
AGENT FOR VIERBICHER, INC.
P.L.S. NUMBER 2805

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF REEDSBURG.

DATE

REVISION DATE
June 8, 2017

DATE
April 2017

SCALE, FEET
0 50 100

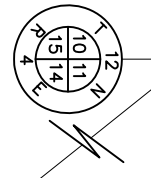
HWY: South Dewey Avenue
COUNTY: SAUK

STATE R/W PROJECT NUMBER: 5799-00-63
CONSTRUCTION PROJECT NUMBER: 5799-00-64/65

PLAT SHEET 4.04
PS&E SHEET

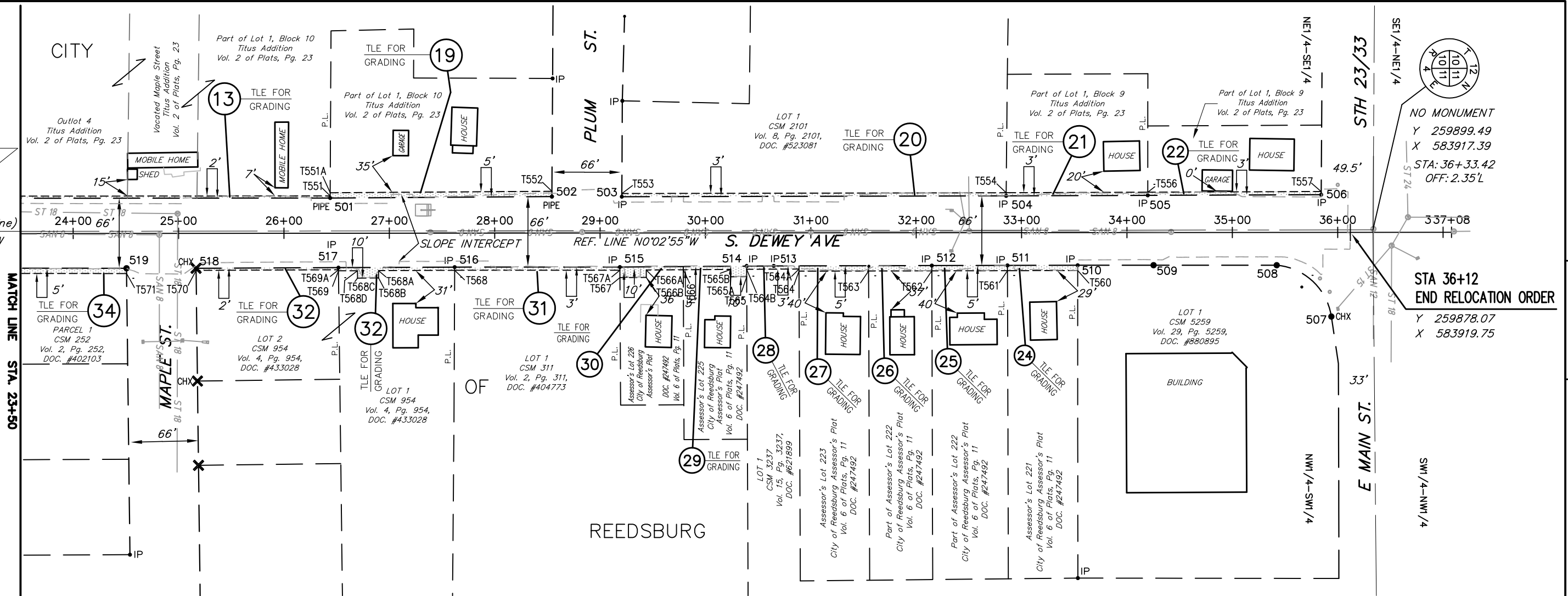
E

SURVEY NAIL
Y 257252.15
X 583920.25
STA: 9+86.08
OFF: 0.09'L



(Section Line)
N0°03'43"W
2647.35'

4



NO MONUMENT
Y 259899.49
X 583917.39
STA: 36+33.42
OFF: 2.35'L

STA 36+12
END RELOCATION ORDER
Y 259878.07
X 583919.75

4

STATION OFFSET TABLE		
POINT	STATION	OFFSET
501	26+43.89	33.42'
502	28+54.34	34.62'
503	29+20.66	34.43'
504	32+85.36	34.88'
505	34+19.73	35.28'
506	35+84.34	35.78'
507	35+93.90	79.89'
508	35+42.06	31.10'
509	34+25.21	30.98'
510	33+53.23	30.98'
511	32+86.57	31.07'
512	32+14.79	31.17'
513	30+64.76	31.38'
514	30+39.06	31.55'
515	29+18.76	32.35'
516	27+62.00	32.25'
517	26+51.70	32.65'
518	25+16.59	33.15'
519	24+50.58	33.08'
520	23+15.80	32.93'

COURSE TABLE		
COURSE	BEARING	DISTANCE
403-501	N0°02'51"W	461.31'
501-502	N0°22'35"W	210.45'
502-503	N0°06'54"E	66.32'
503-504	N0°07'08"W	364.70'
504-505	N0°13'15"W	134.37'
505-506	N0°13'15"W	164.61'
506-507	N85°13'47"E	116.06'
507-508	SEE CURVE DATA TABLE	
508-509	S0°00'40"W	116.85'
509-510	S0°02'57"E	71.98'
510-511	S0°07'37"E	66.66'
511-512	S0°07'37"E	71.78'
512-513	S0°07'37"E	150.03'
513-514	S0°25'46"E	25.70'
514-515	S0°25'46"E	120.30'
515-516	S0°00'46"E	156.76'
516-517	S0°15'30"E	110.30'
517-518	S0°15'30"E	135.12'
518-519	S0°00'56"W	66.00'
519-520	S0°00'56"W	134.78'

CURVE DATA TABLE					
CURVE	RADIUS	DELTA	ARC L.	CHORD BRG.	CHORD L.
507-508	57.50'	76°28'48"	76.75'	S43°12'48"W	71.18'

TLE STATION OFFSET TABLE		
POINT	STATION	OFFSET
T551	26+43.90	35.42'
T551A	26+43.92	38.42'
T552	28+54.37	39.62'
T553	29+20.67	37.43'
T554	32+85.39	37.88'
T555	34+19.74	38.28'
T556	34+19.74	38.28'
T557	35+84.36	38.78'
T560	33+53.23	35.98'

TLE STATION OFFSET TABLE		
POINT	STATION	OFFSET
T561	32+86.58	36.07'
T562	32+14.80	36.17'
T563	31+54.76	36.25'
T564	30+88.72	36.35'
T564A	30+88.72	34.35'
T564B	30+39.07	34.55'
T565	30+39.10	41.55'
T565A	30+24.10	41.55'
T565B	30+24.07	34.65'
T566	29+78.92	34.95'
T566A	29+43.78	35.18'

TLE STATION OFFSET TABLE		
POINT	STATION	OFFSET
T566B	29+43.81	42.18'
T567	29+18.81	42.35'
T567A	29+18.78	35.35'
T568	27+61.99	35.25'
T568A	26+89.74	35.52'
T568B	26+89.82	42.52'
T568C	26+69.81	42.59'
T568D	26+69.74	35.59'
T569	26+51.74	35.65'
T569A	26+51.72	34.65'
T570	25+16.61	35.15'
T571	24+50.64	38.08'

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I, SCOTT F. DISCHLER, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 1401-02-21 - 4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SCOTT F. DISCHLER
AGENT FOR VIERBICHER, INC.
P.L.S. NUMBER 2605

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF REEDSBURG.

REVISION DATE
Nov. 6, 2017

DATE
April 2017

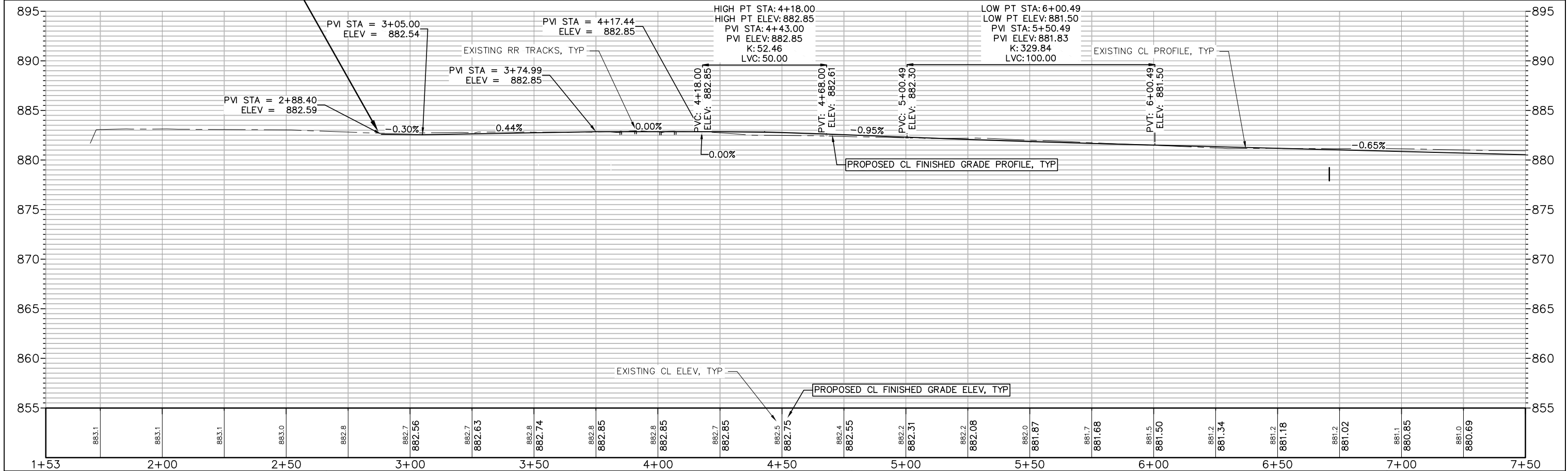
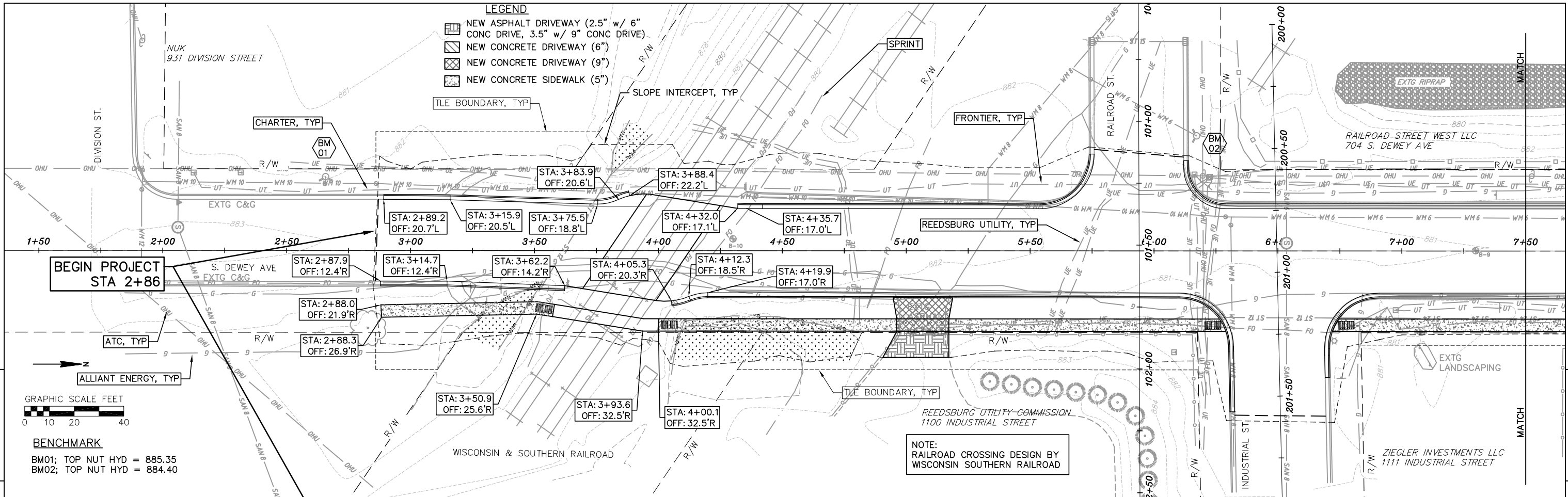
SCALE, FEET
0 50 100

HWY: South Dewey Avenue
COUNTY: SAUK

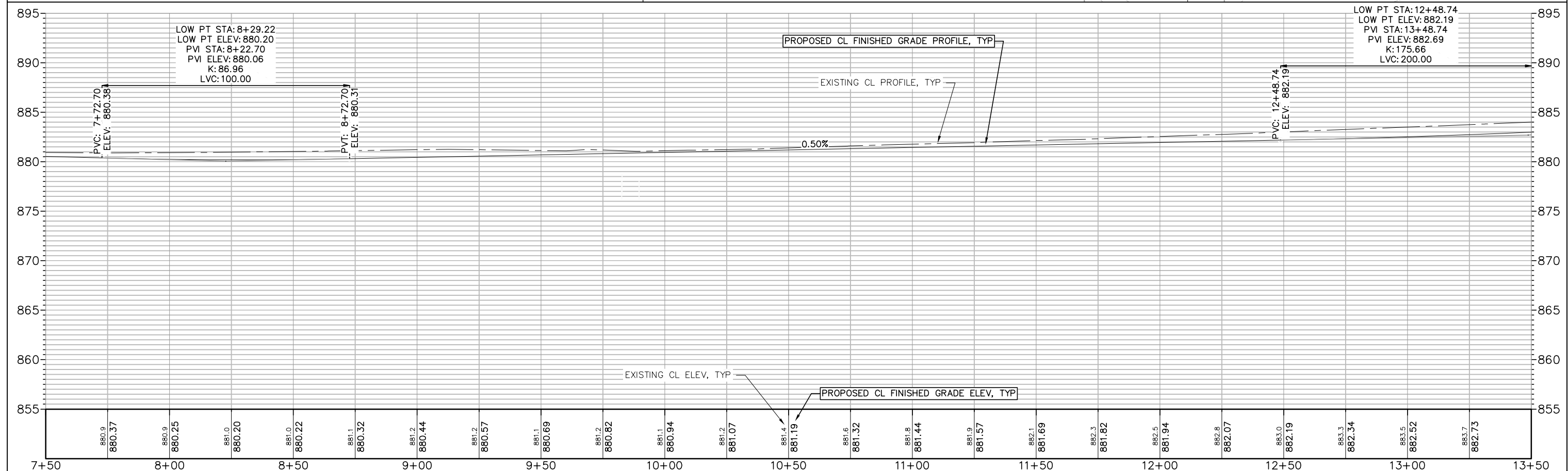
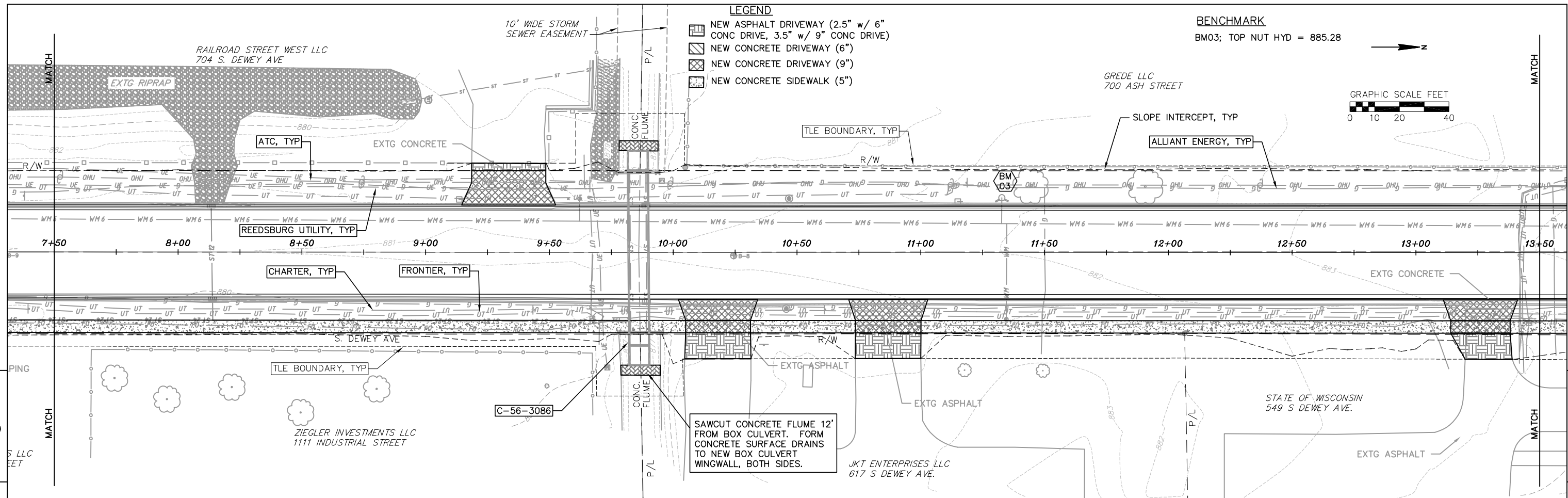
STATE R/W PROJECT NUMBER: 5799-00-63
CONSTRUCTION PROJECT NUMBER: 5799-00-64/65

PLAT SHEET 4.05
PS&E SHEET

E

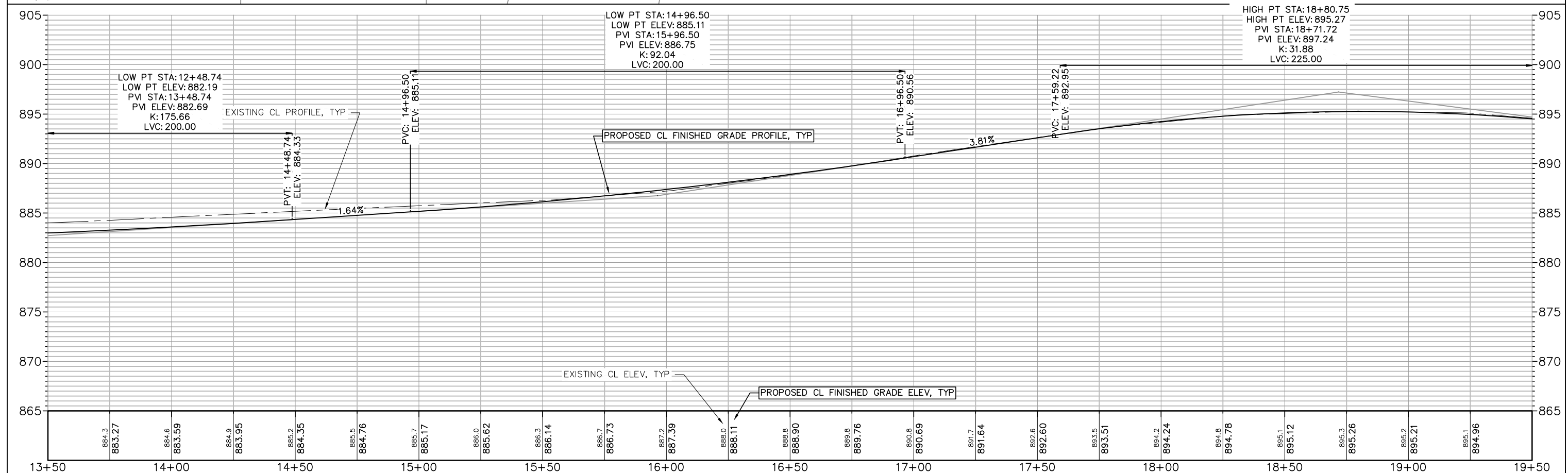
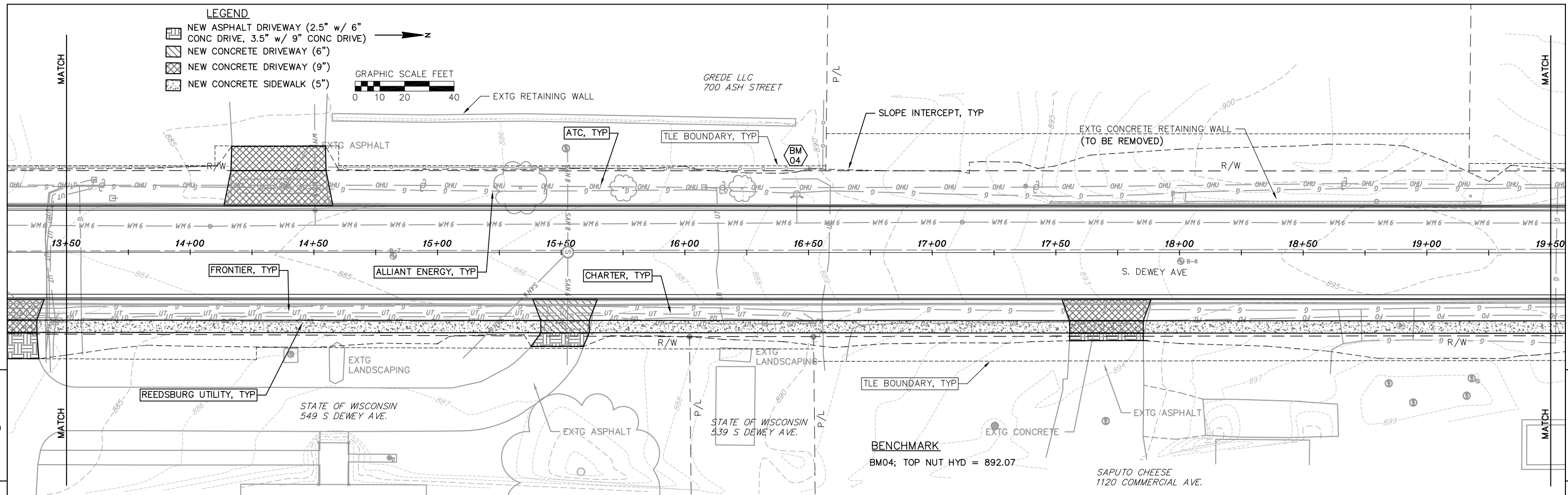


PROJECT NO: 5799-00-64 HWY: S. DEWEY AVE. COUNTY: SAUK PLAN AND PROFILE: S. DEWEY AVE SHEET 5



PROJECT NO: 5799-00-64 HWY: S. DEWEY AVE. COUNTY: SAUK PLAN AND PROFILE: S. DEWEY AVE SHEET 5

FILE NAME : R:\REEDSBURG, CITY OF\150036_SOUTH DEWEY AVENUE RECONSTRUCTION\CADD\150036_BASE ENGINEERING-S. DEWEY.DWG PLOT DATE : 11/8/2017 10:26 AM PLOT BY : PAUL JUNION PLOT NAME : PLOT SCALE : AS SHOWN WISDOT/CADD SHEET 44



PROJECT NO: 5799-00-64	HWY: S. DEWEY AVE.	COUNTY: SAUK	PLAN AND PROFILE: S. DEWEY AVE	SHEET	5
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FILE NAME : R:\REEDSBURG, CITY OF\150036_SOUTH DEWEY AVENUE RECONSTRUCTION\CADD\150036_BASE ENGINEERING-S. DEWEY.DWG
LAYOUT NAME - ###

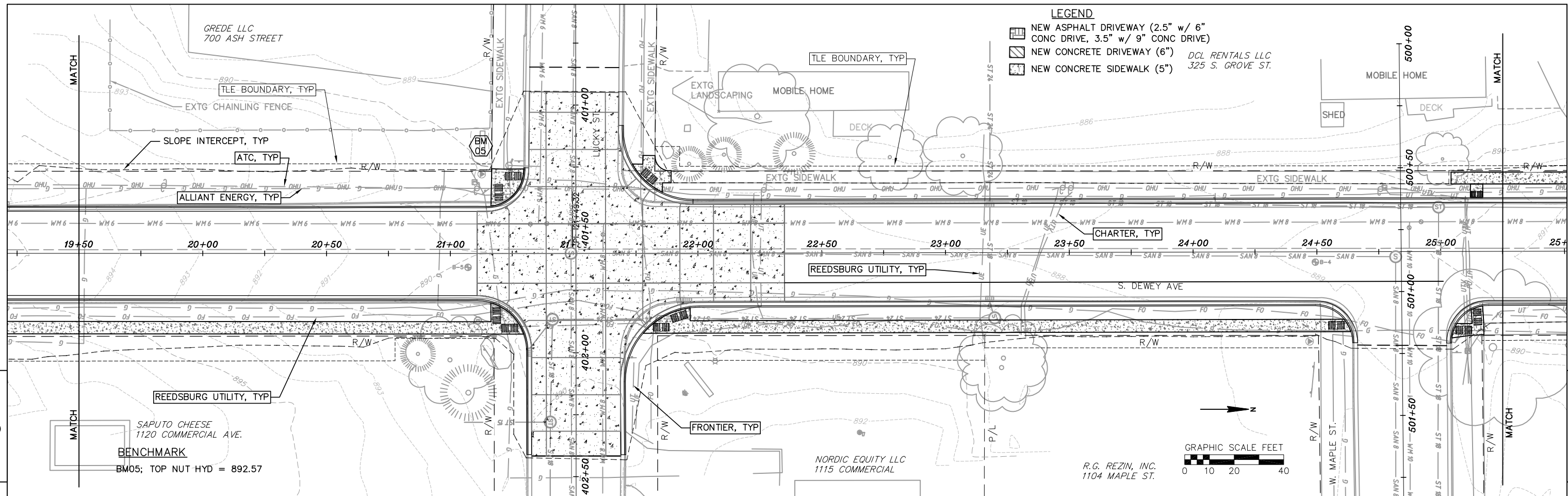
PLOT DATE : 6/15/2017 3:23 PM

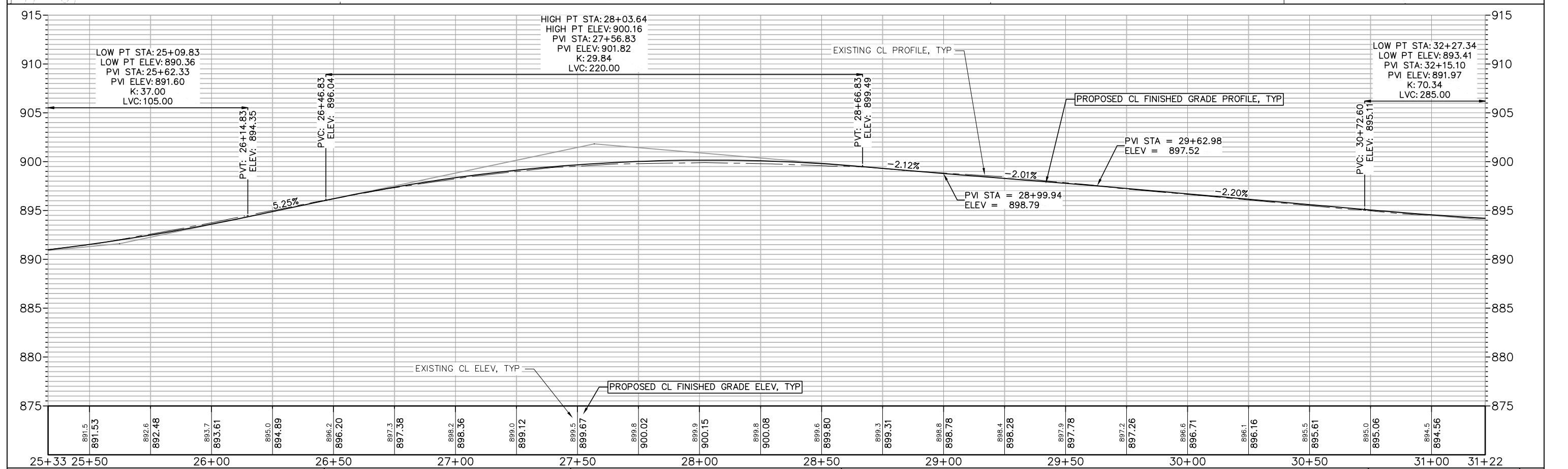
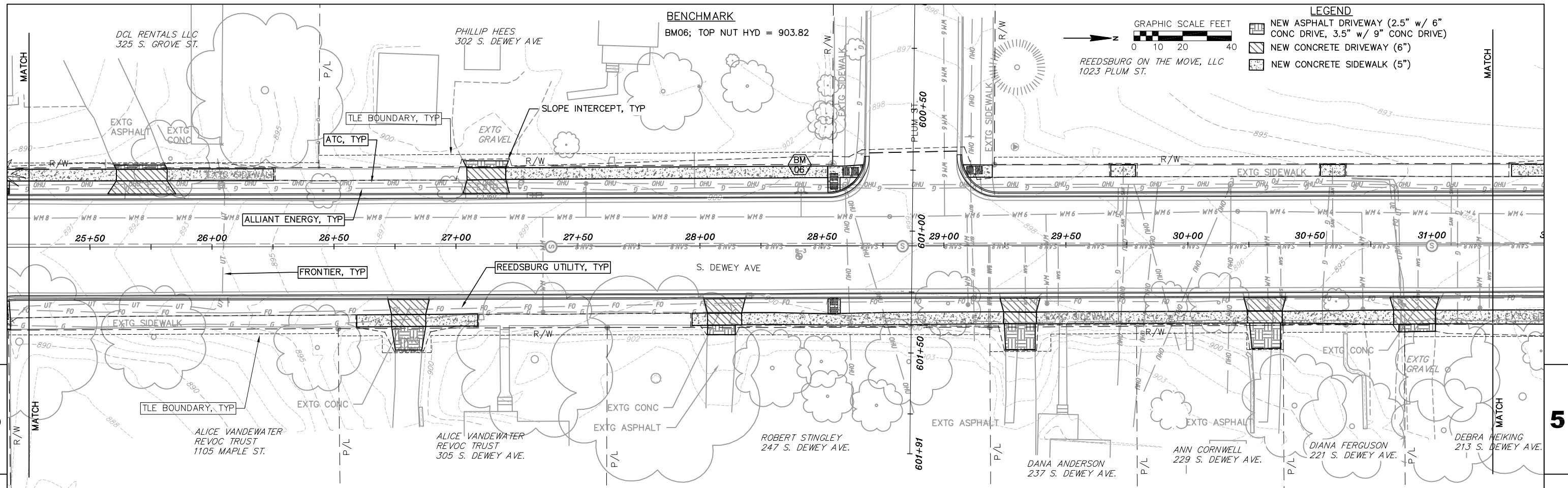
PLOT BY : TODD HALVENSLEBEN

PLOT NAME :

PLOT SCALE : AS SHOWN

WISDOT/CADD SHEET 44

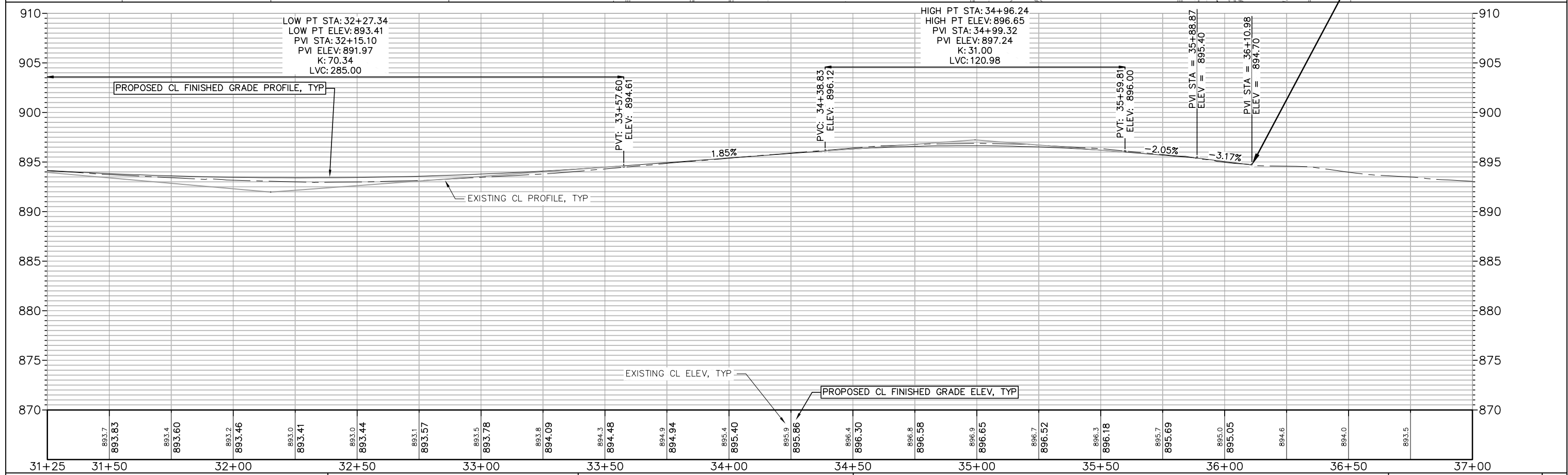
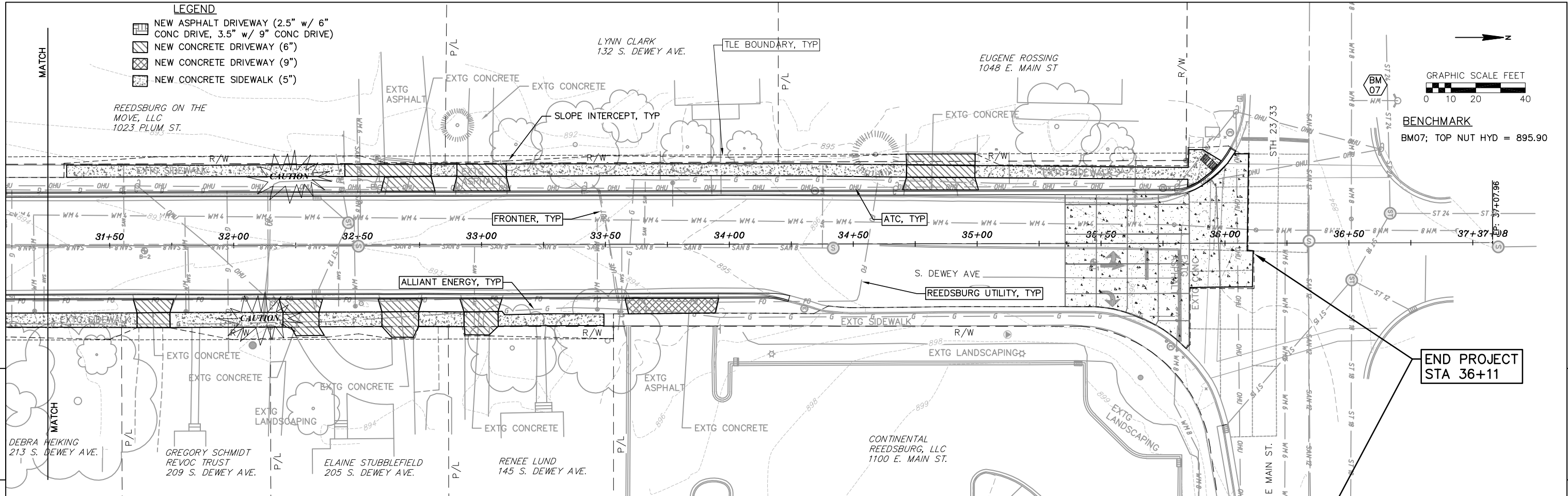




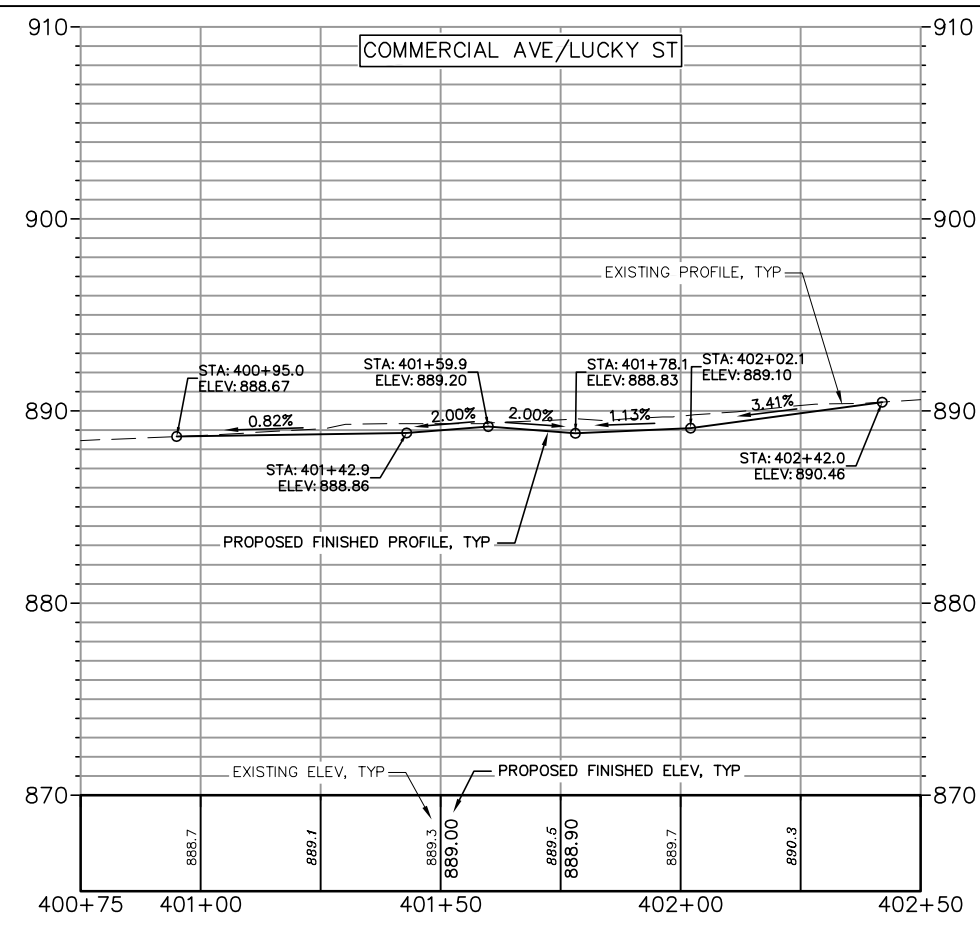
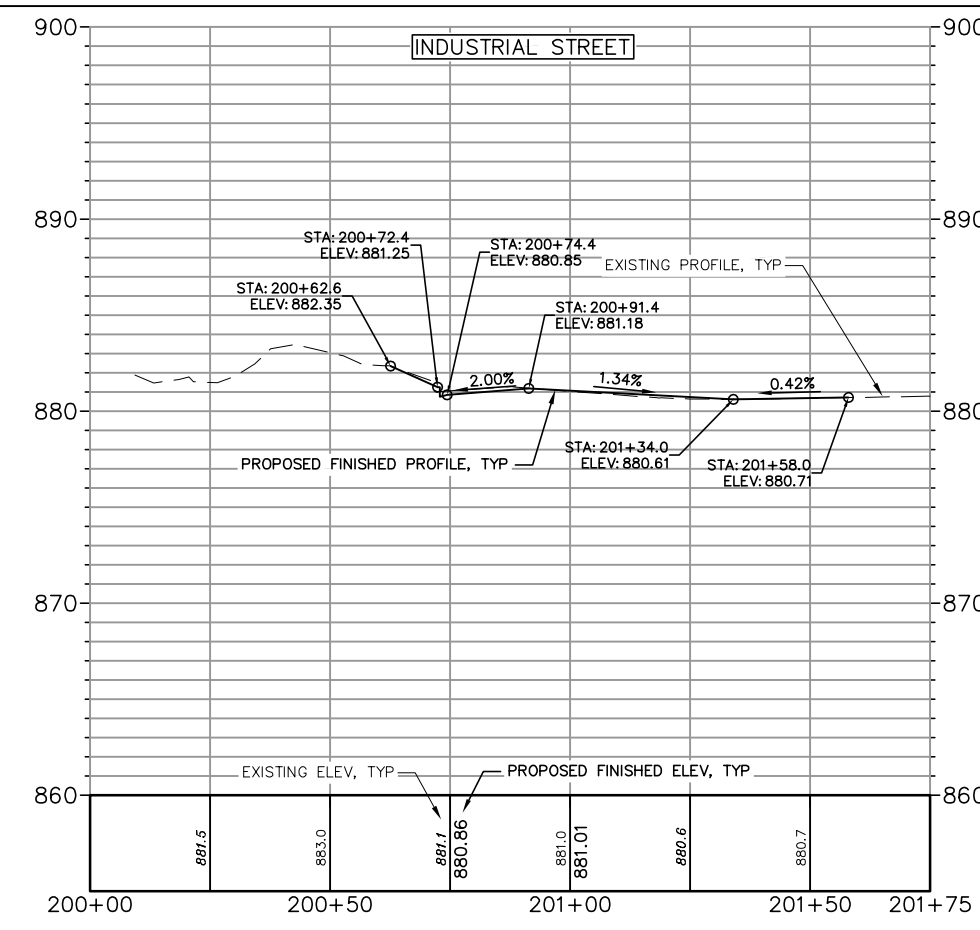
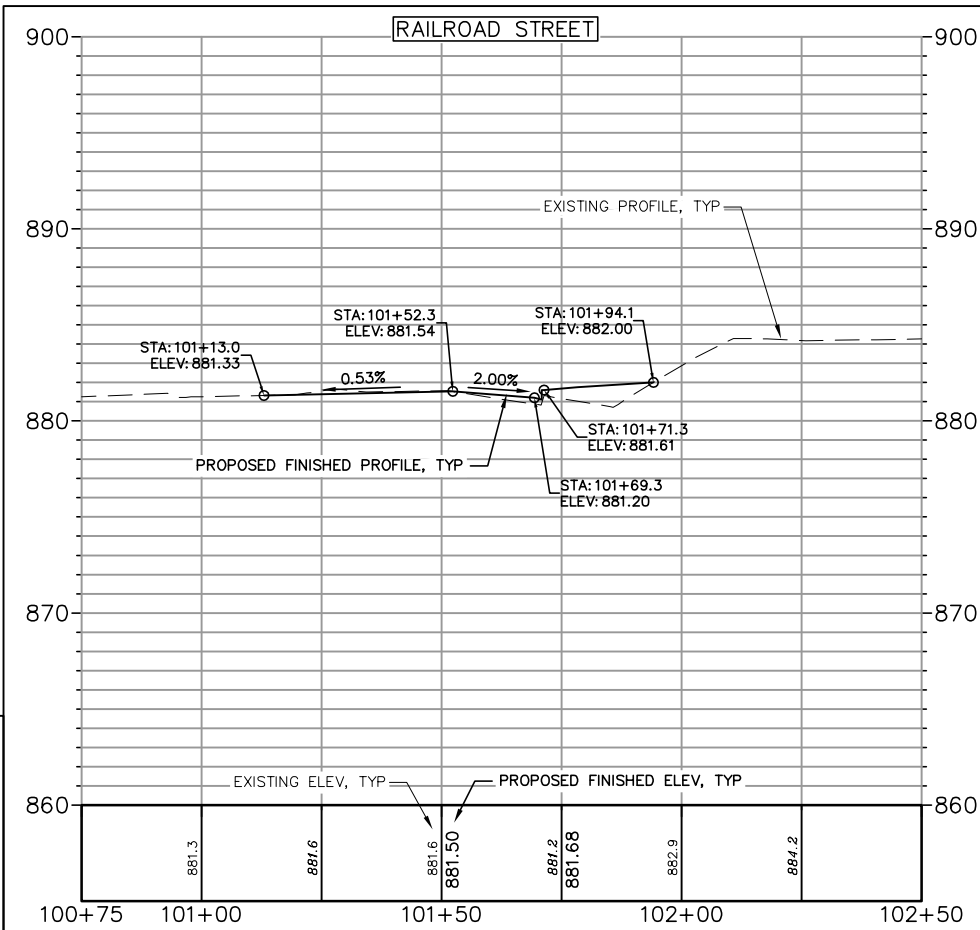
- LEGEND
- NEW ASPHALT DRIVEWAY (2.5" w/ 6" CONC DRIVE, 3.5" w/ 9" CONC DRIVE)
 - NEW CONCRETE DRIVEWAY (6")
 - NEW CONCRETE DRIVEWAY (9")
 - NEW CONCRETE SIDEWALK (5")



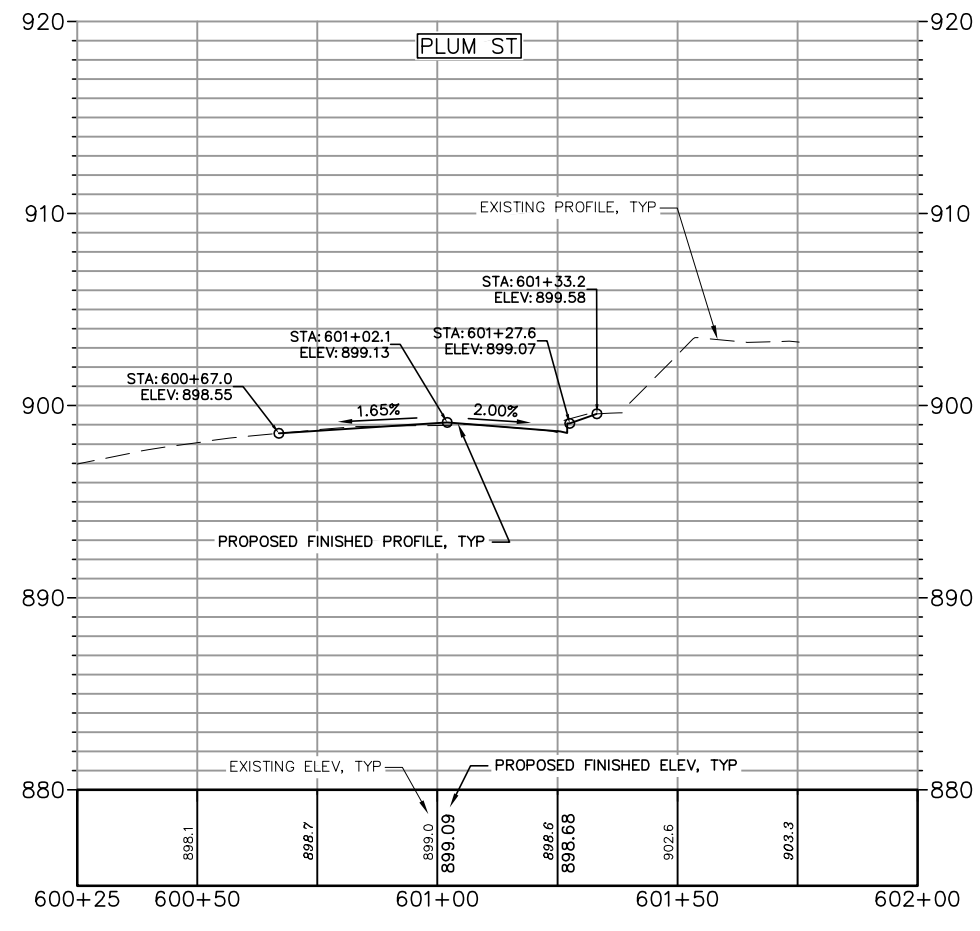
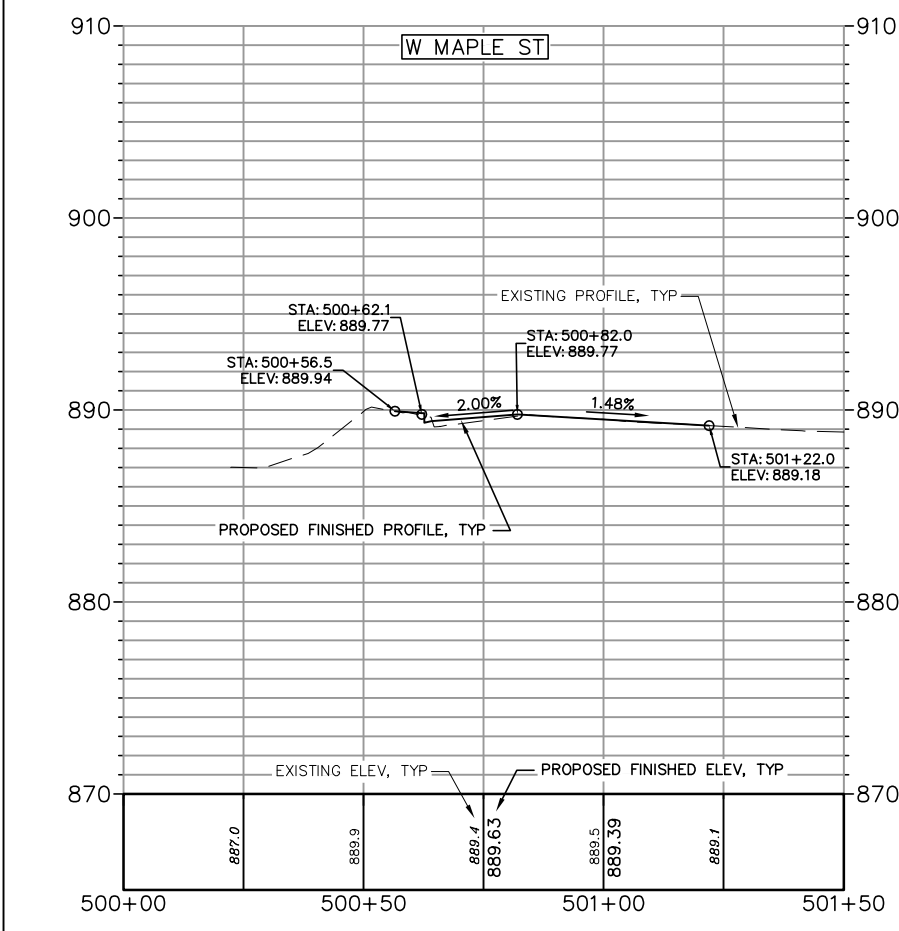
BENCHMARK
BM07; TOP NUT HYD = 895.90



5

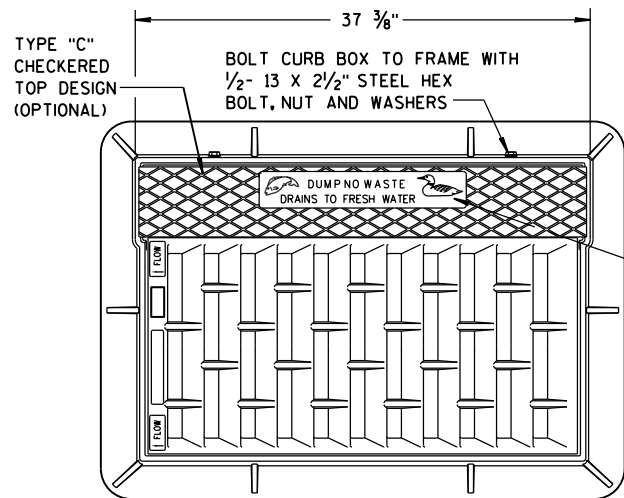


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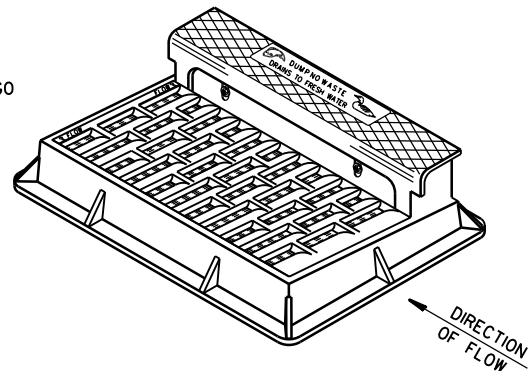
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-19	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-18A	CURB RAMPS TYPES 1 AND 1-A
08D05-18B	CURB RAMPS TYPES 2 AND 3
08D05-18C	CURB RAMPS TYPES 4A AND 4A1
08D05-18D	CURB RAMPS TYPE 4B AND 4B1
08D05-18E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D18-01	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-01	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
12A03-10	NAME PLATE (STRUCTURES)
13B01-10	PAVEMENT DETAILS FOR RAILROAD APPROACH
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C18-05A	CONCRETE PAVEMENT JOINTING
13C18-05B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-05C	CONCRETE PAVEMENT JOINT TYPES
13C18-05D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS
15C07-13B	PAVEMENT MARKING WORDS
15C07-13C	PAVEMENT MARKING ARROWS
15C07-13E	PAVEMENT MARKING FOR BIKE LANES
15C08-17A	LONGITUDINAL MARKING (MAINLINE)
15C08-17B	PAVEMENT MARKING (TURN LANES)
15C12-05	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C29-05A	BICYCLE LANE MARKING
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

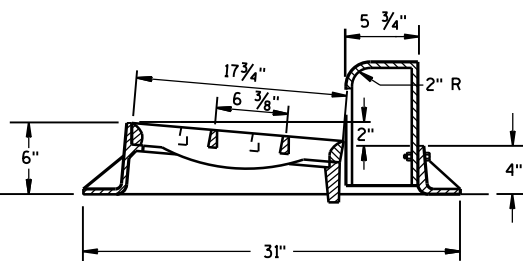
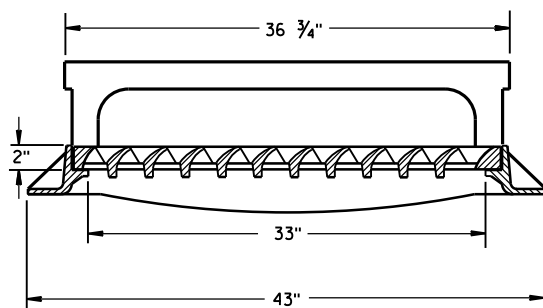
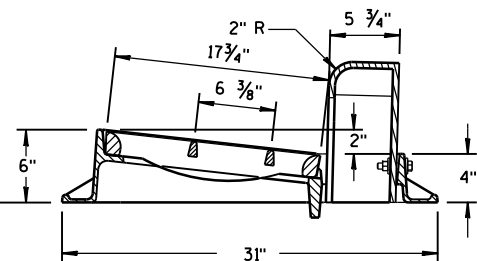
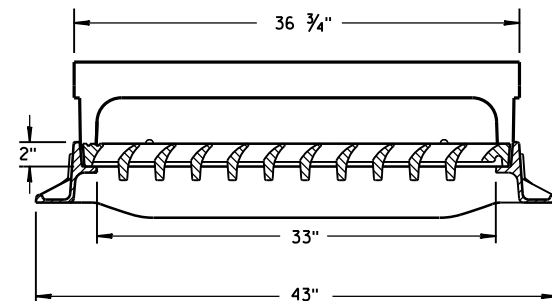
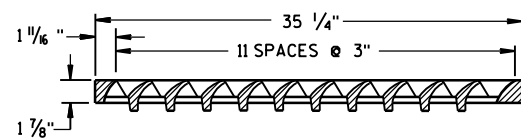


SEE LOGO
DETAIL

NOTE:
GRATE IS REVERSIBLE.

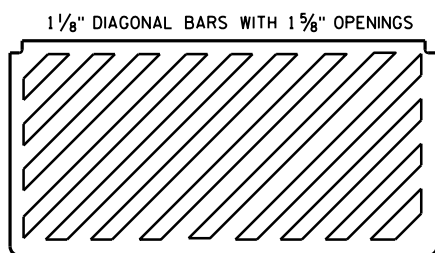


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



TYPE "H"

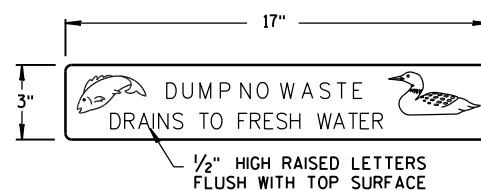
NOTE: EITHER CASTING IS ACCEPTABLE



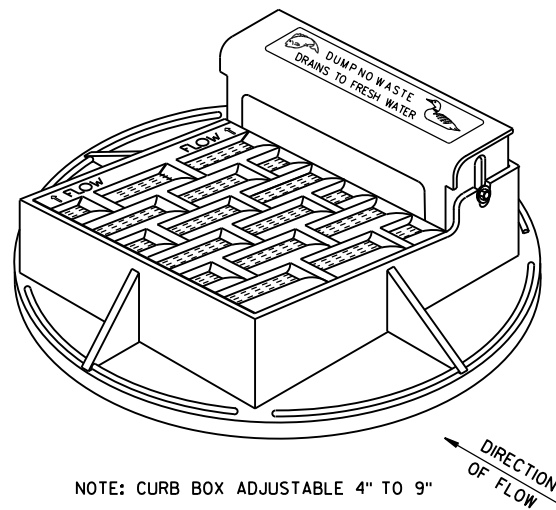
**SPECIAL GRATE FOR
TYPE "H" COVER**

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

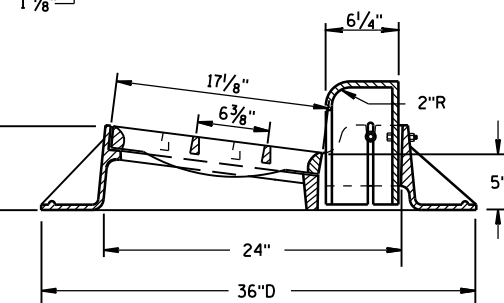
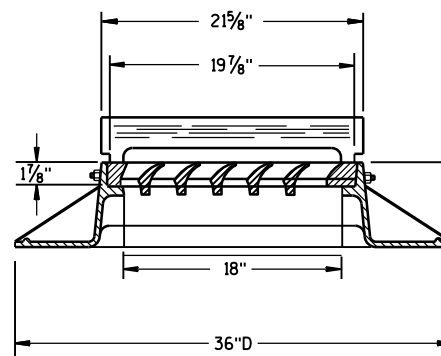
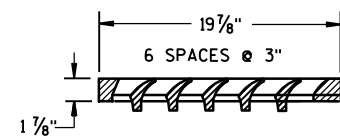
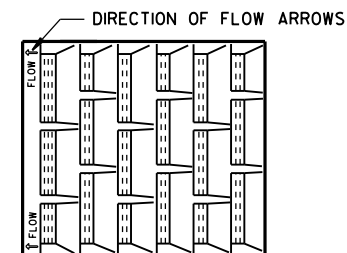


LOGO DETAIL

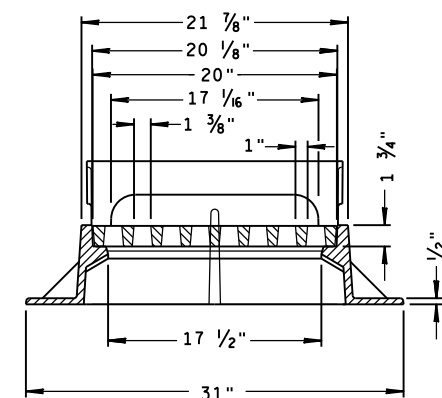
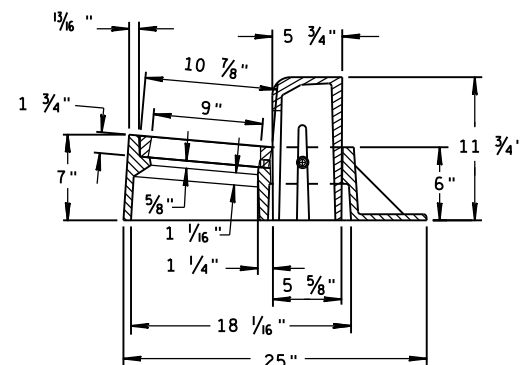


NOTE: CURB BOX ADJUSTABLE 4" TO 9"

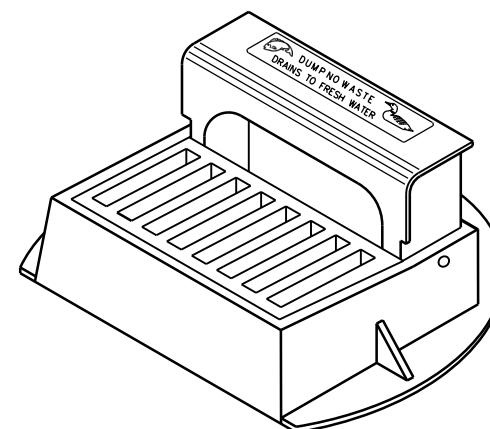
NOTE:
GRATE IS REVERSIBLE.



TYPE "A"



TYPE "Z"

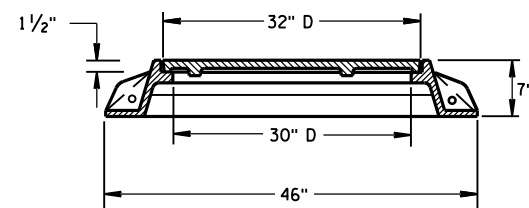
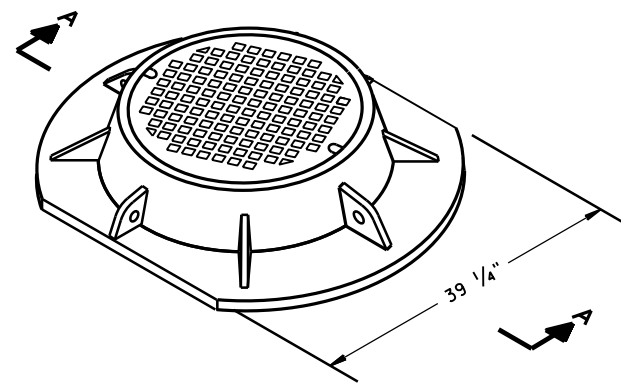


**INLET COVERS
TYPE A, H, A-S, H-S & Z**

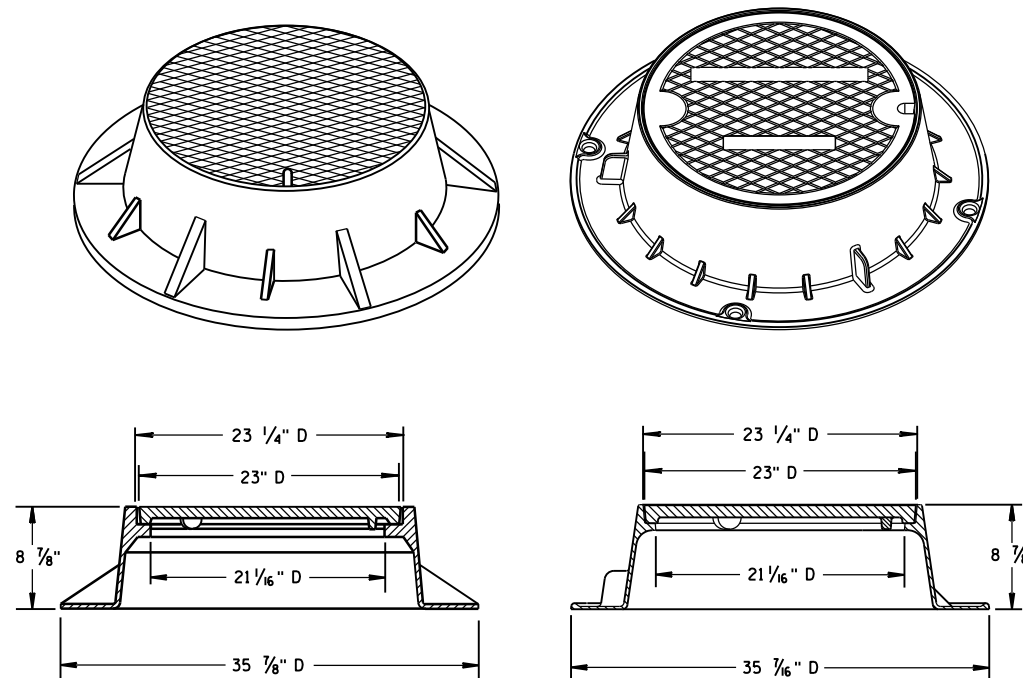
**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

APPROVED
11-27-13
DATE
FHWA

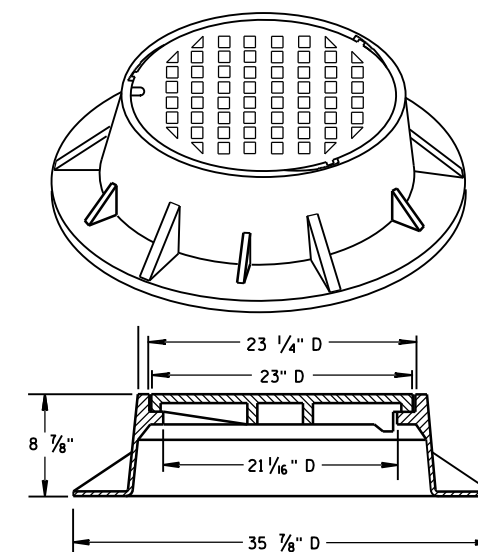
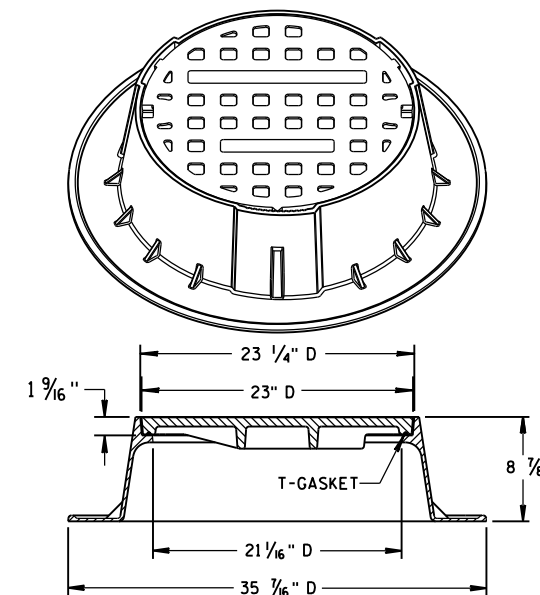
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



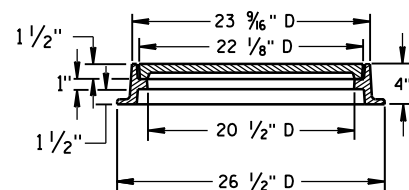
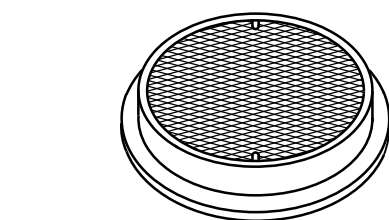
SECTION A-A
TYPE "K"



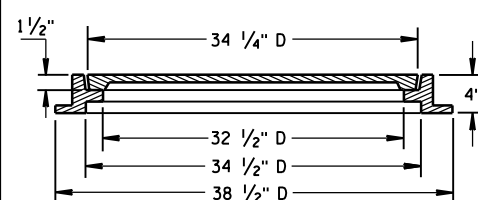
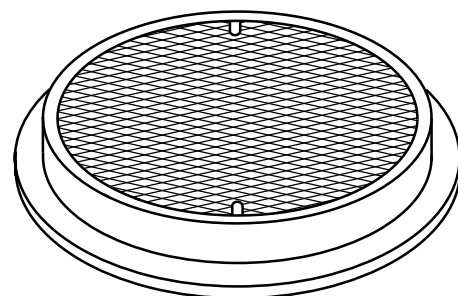
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE



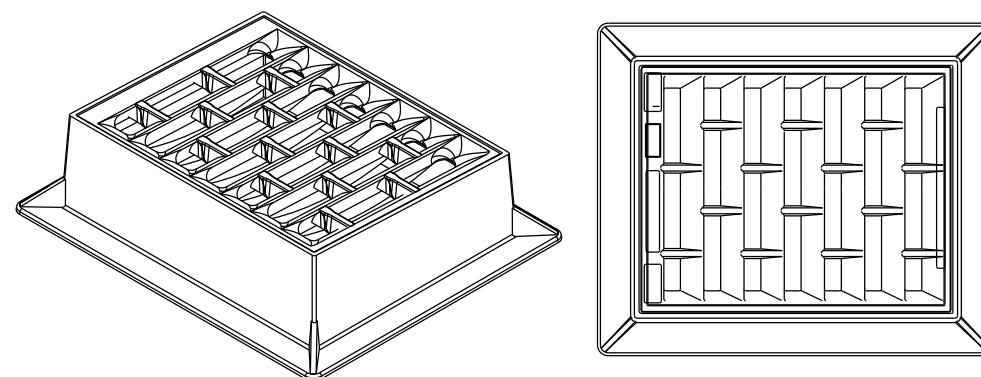
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



TYPE "L"



TYPE "M"



INLET COVER TYPE "BW"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

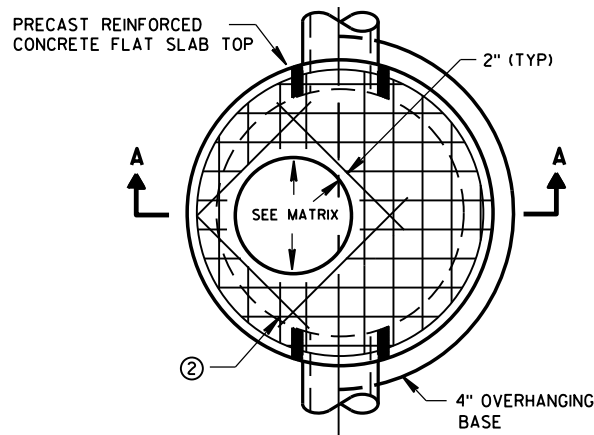
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K,
J, J-S, L & M

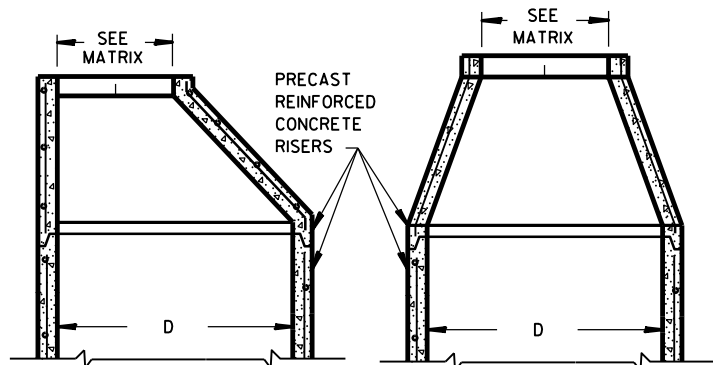
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

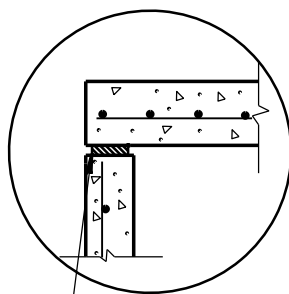


PLAN VIEW CIRCULAR OPENING

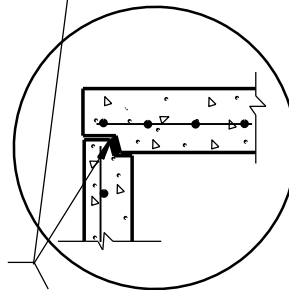


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

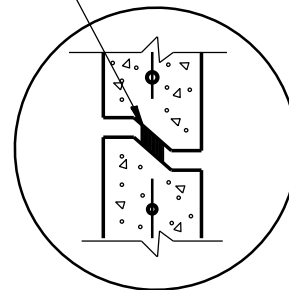
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT

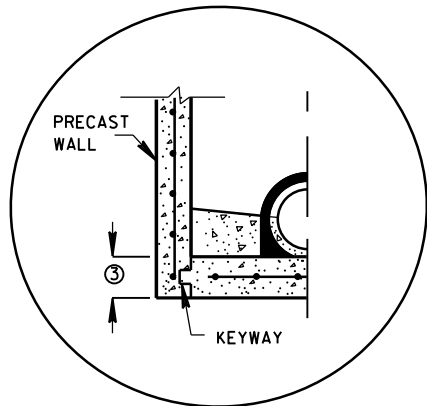


TOP WITH TONGUE AND GROOVE JOINT

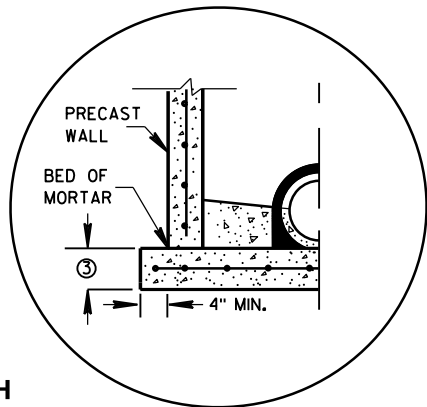


DETAIL "B"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

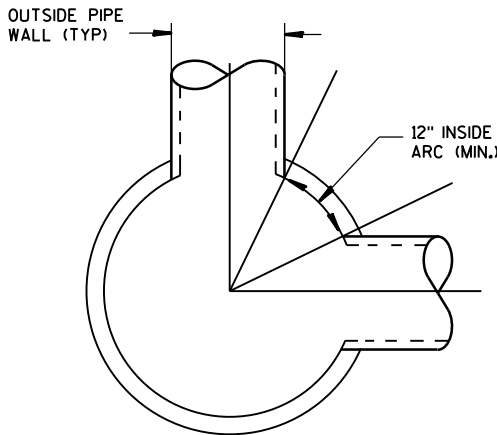


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

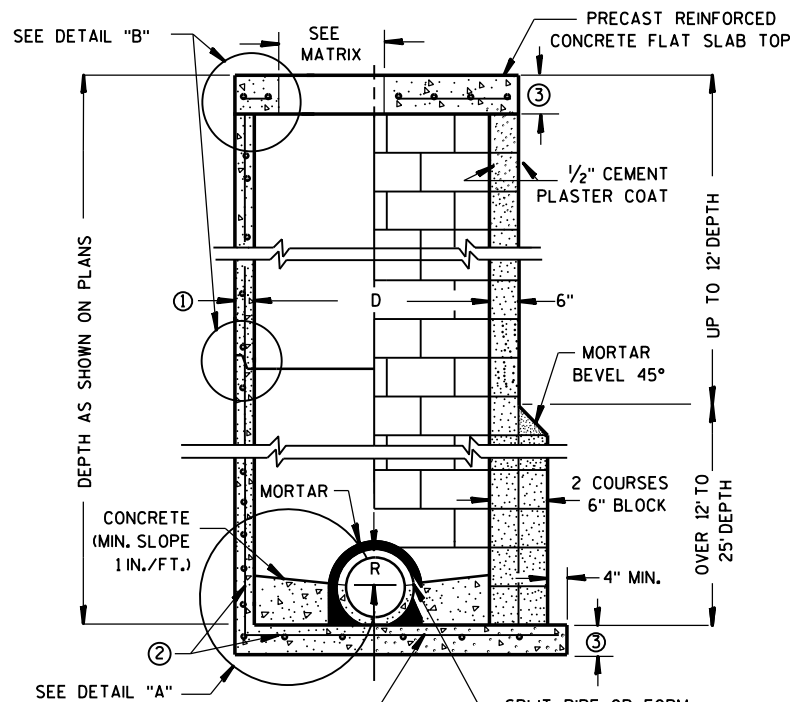


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

PRECAST REINFORCED CONCRETE BLOCK WITH CONCRETE WITH MONOLITHIC BASE CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS. UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

- ① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.
- ② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

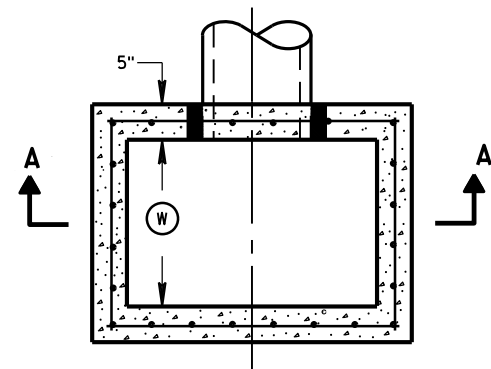
PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

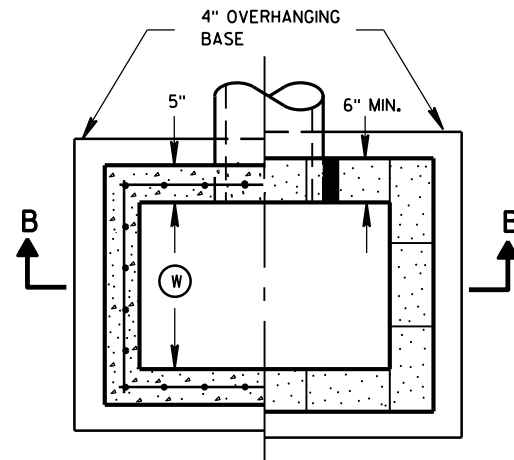
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

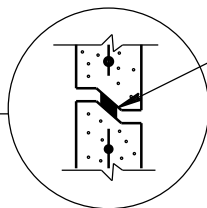
APPROVED
DATE: Sept., 2016
FOR: /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA



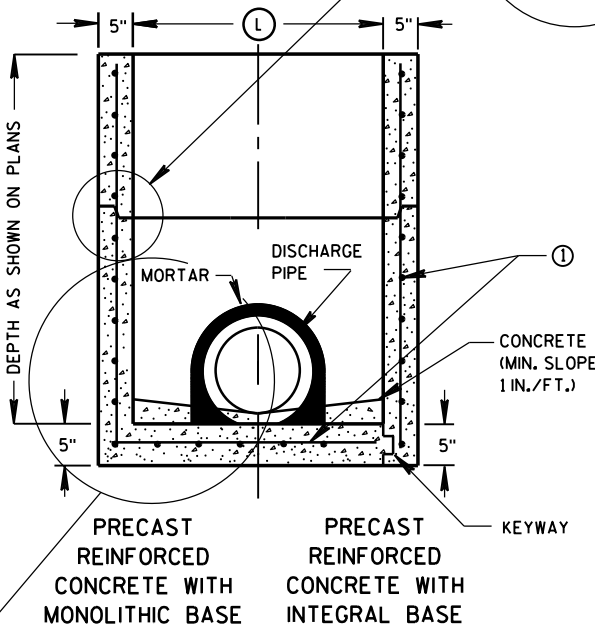
PLAN VIEW



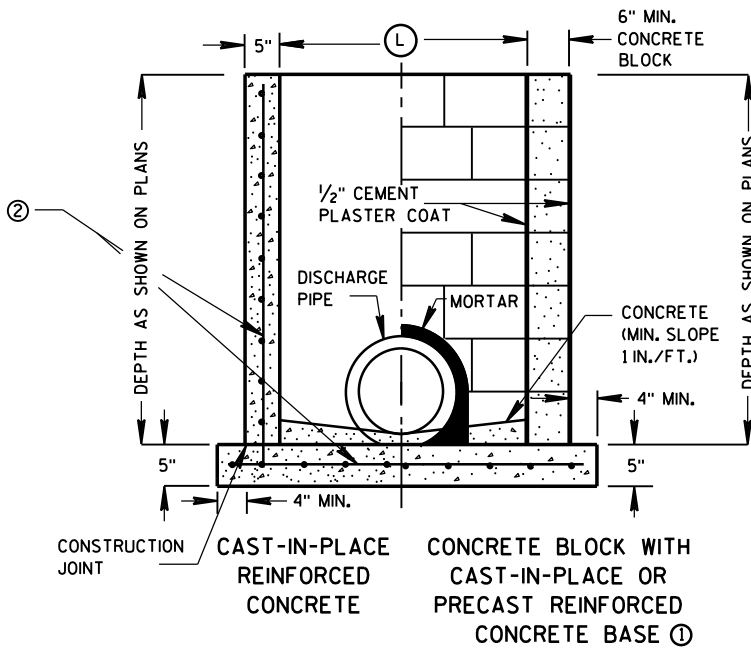
PLAN VIEW



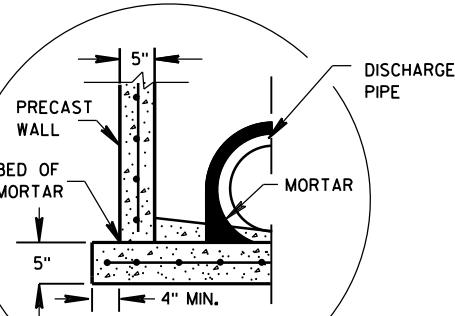
RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

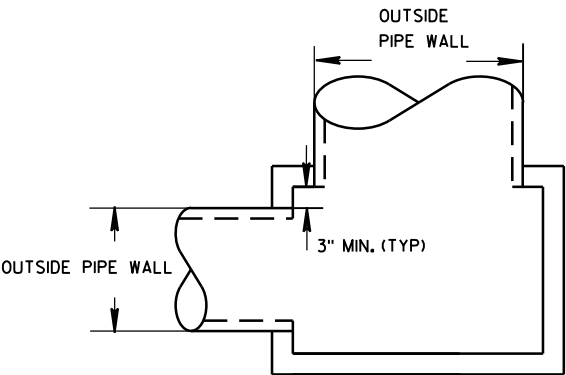
- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE	WIDTH ① (FT)	INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
		LENGTH ② (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24

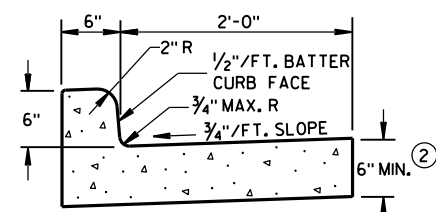


DETAIL "A"

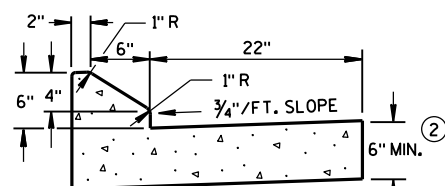
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

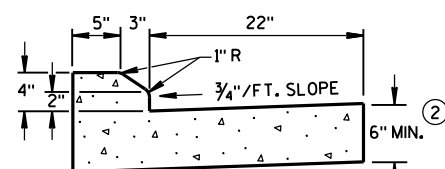
APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



TYPES A & D ①

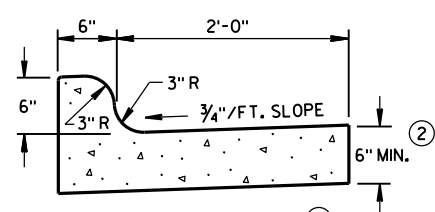


6" SLOPED CURB TYPES G & J ①



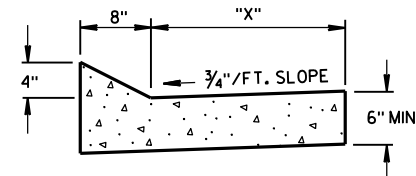
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"



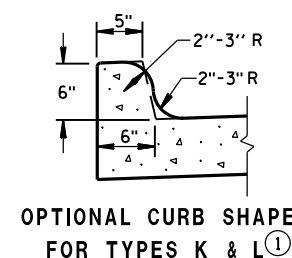
TYPES K & L ①

CONCRETE CURB & GUTTER 30"

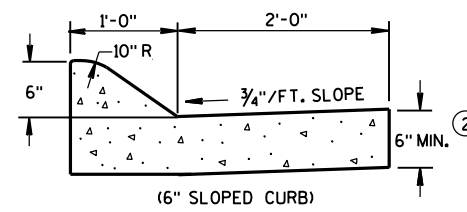


TYPES TBT & TBT ①
CONCRETE CURB & GUTTER

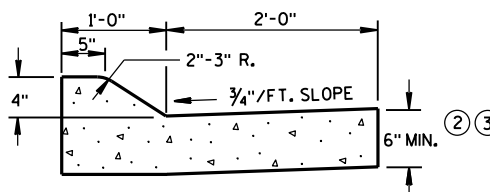
TBT & TBT	"X"
30"	22"
36"	28"



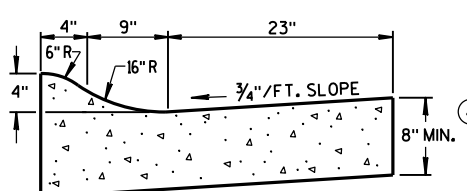
OPTIONAL CURB SHAPE
FOR TYPES K & L ①



(6" SLOPED CURB)



(4" SLOPED CURB)
TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ⑤
CONCRETE CURB & GUTTER 36"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

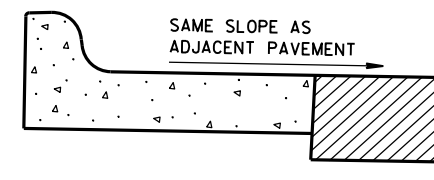
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

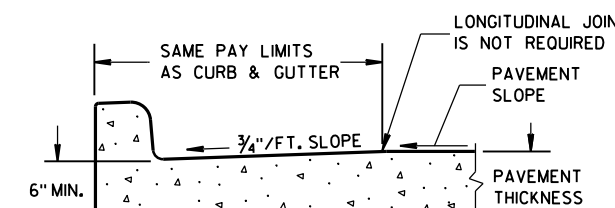
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

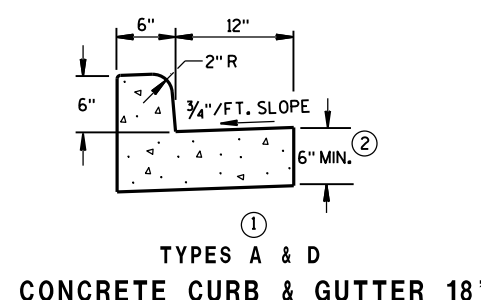
- TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBT.
- THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



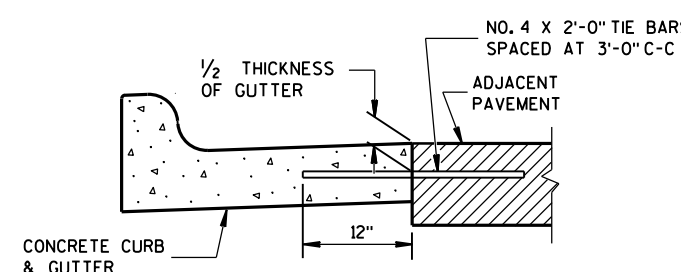
REVERSE SLOPE GUTTER
(TYPICAL FOR ALL CURB & GUTTER TYPES)



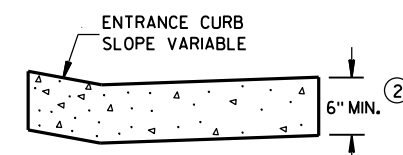
PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



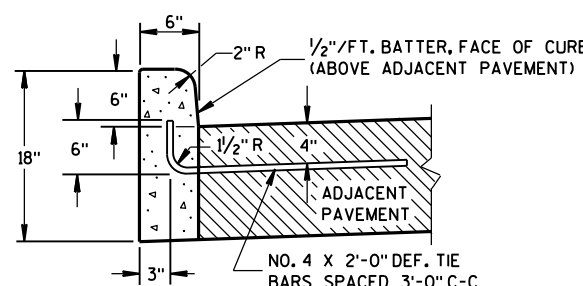
TYPES A & D
CONCRETE CURB & GUTTER 18"



TYPICAL TIE BAR LOCATION ①

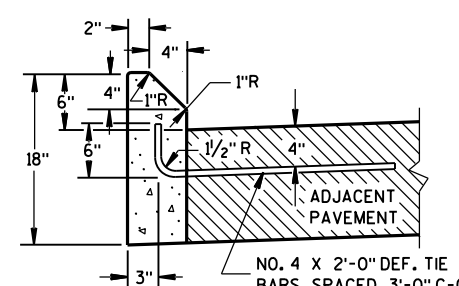


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

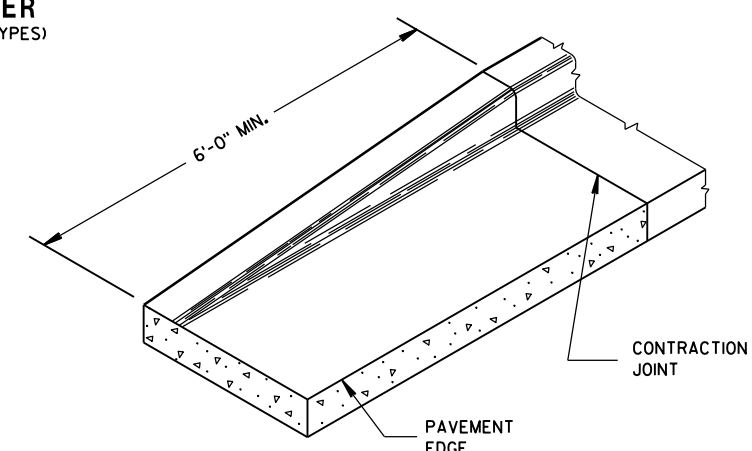


TYPES A & D ①

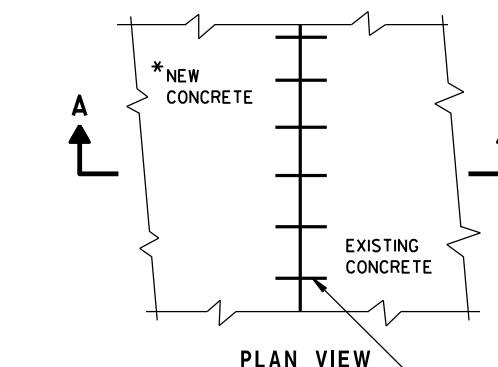
CONCRETE CURB



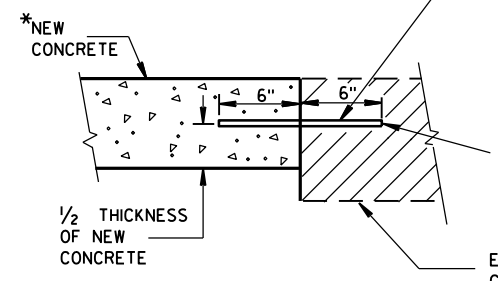
TYPES G & J ①



END SECTION CURB & GUTTER



PLAN VIEW



TIE BARS DRILLED
INTO EXISTING PAVEMENT

*NEW CURB & GUTTER,
SURFACE DRAINS,
CONCRETE PAVEMENT
OR OTHER NEW CONCRETE.

NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

MAXIMUM DRILL HOLE
SIZE IS 1/8" GREATER
THAN TIE BAR DIAMETER

EXISTING CONCRETE

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2016
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

6



PLAN VIEW
FLUME AT CURB END



6

WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

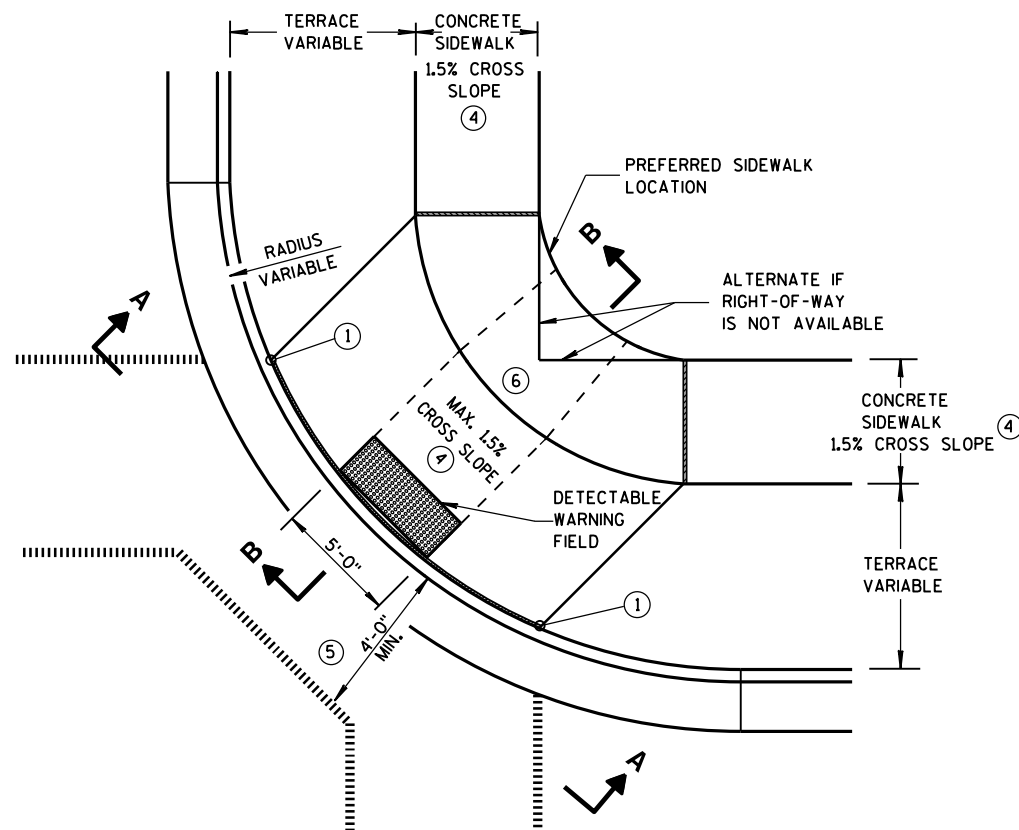
- ### ③ CONCRETE SURFACE DRAIN



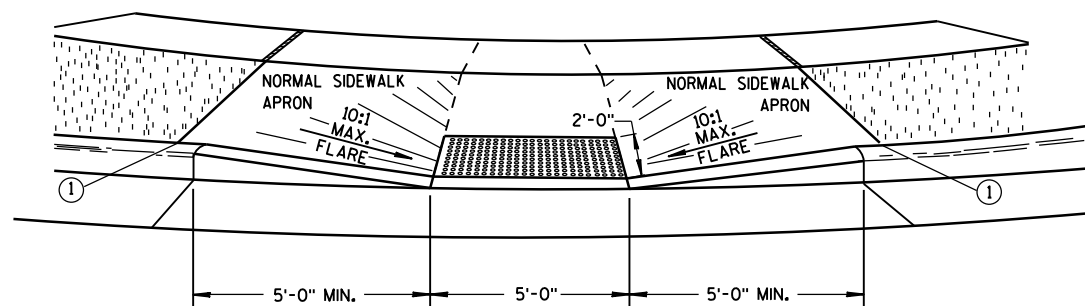
SECTION C-C



APPROVED
9-4-08 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER

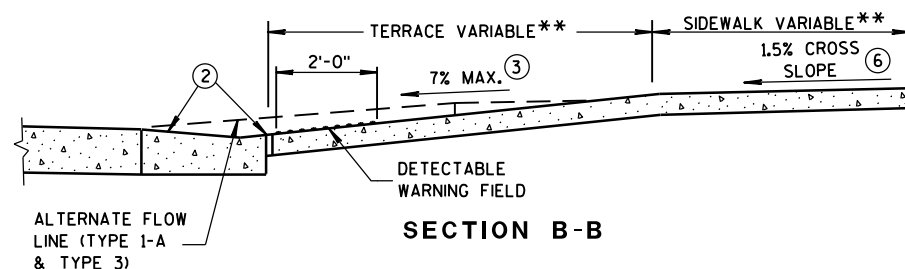


**PLAN VIEW
TYPE 1 RAMP**
(CENTER OF CORNER RADIUS)

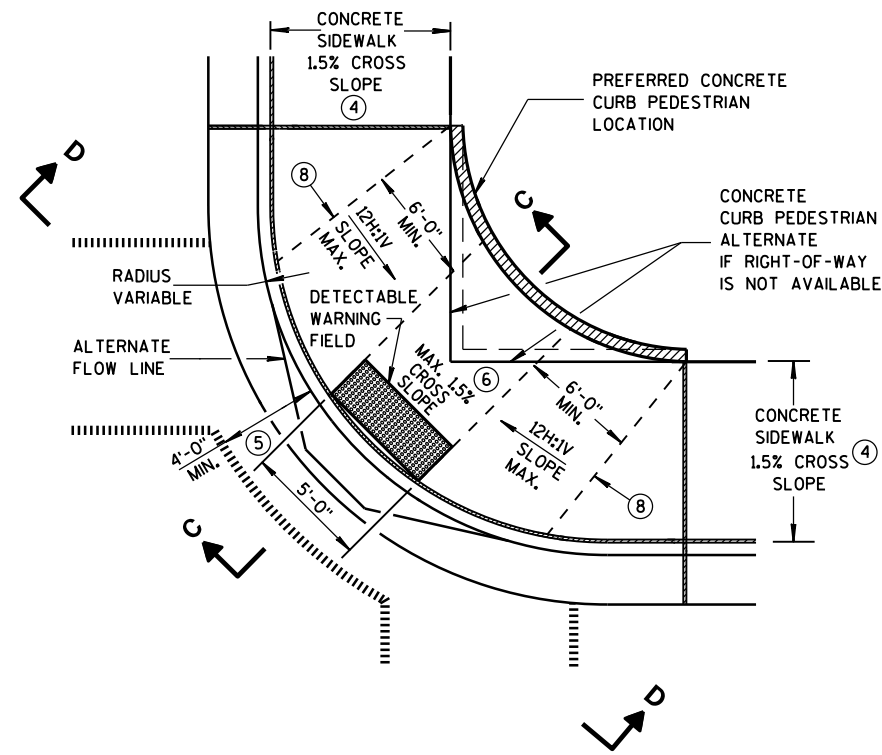


VIEW A-A

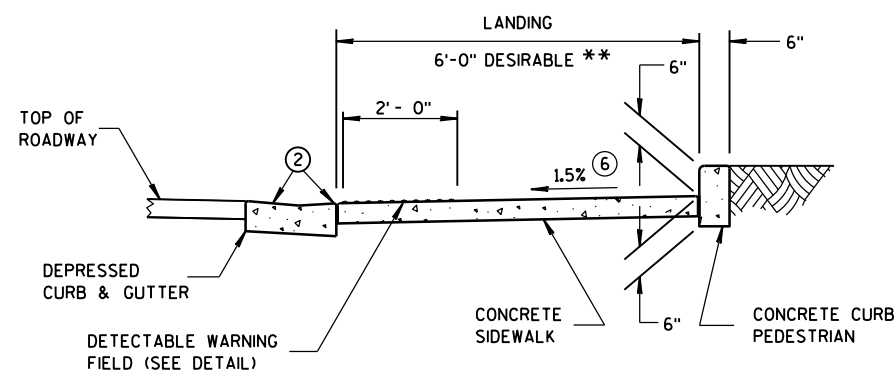
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



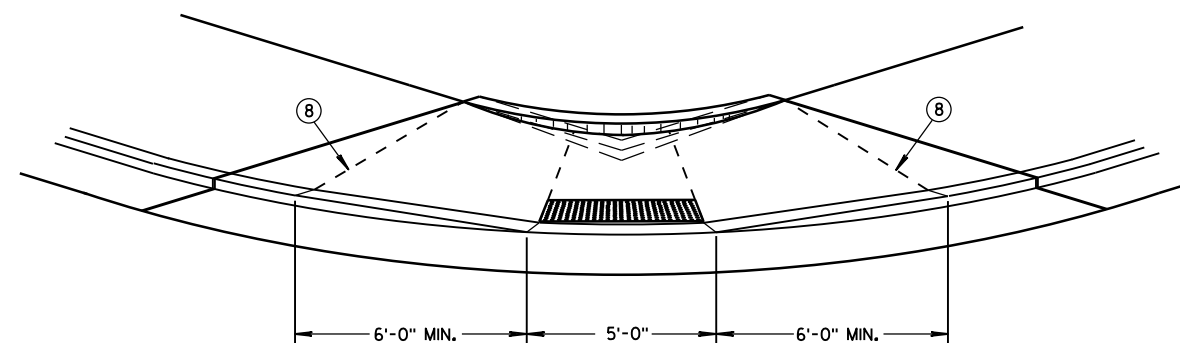
SECTION B-B



**PLAN VIEW
TYPE 1-A RAMP**
(NO TERRACE)



SECTION C-C



VIEW D-D

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

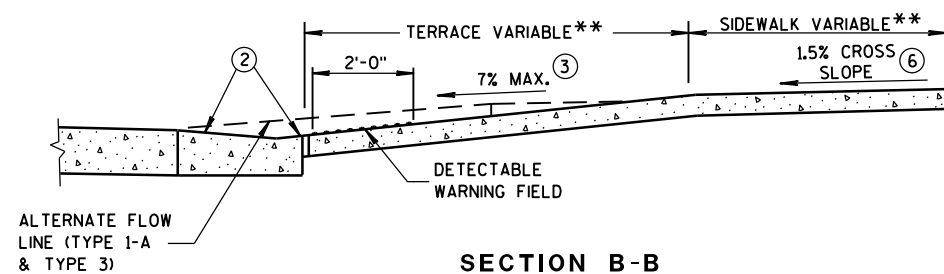
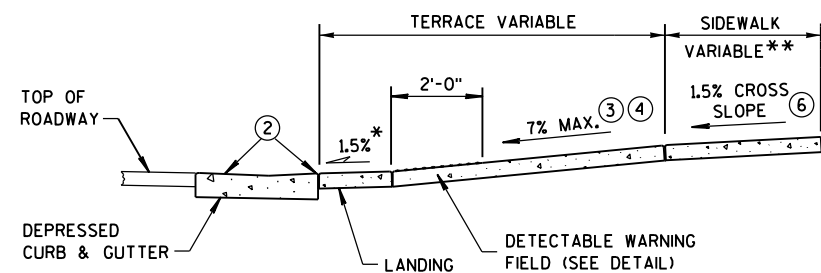
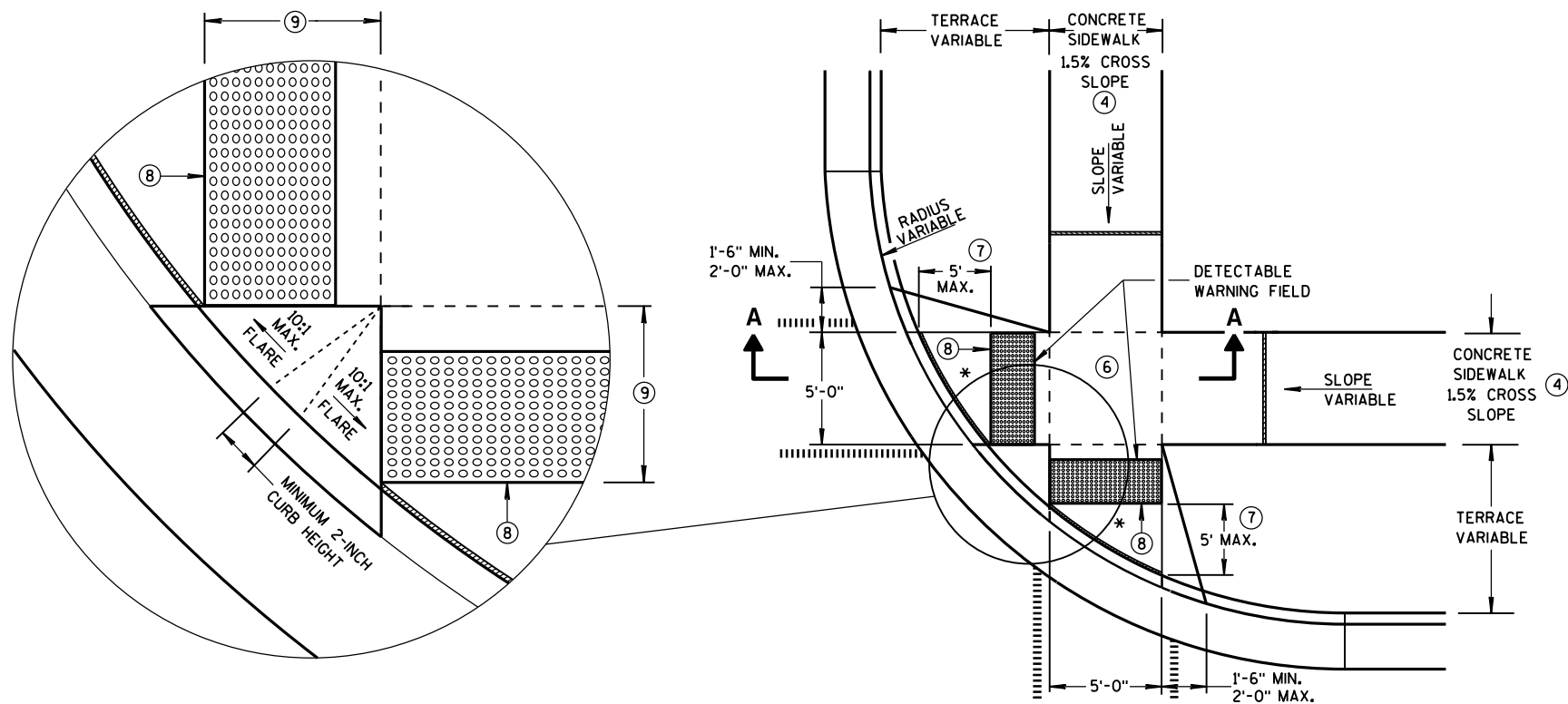
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

**CURB RAMPS
TYPES 1 AND 1-A**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



** WIDTH SHOWN ELSEWHERE
IN THE PLANS

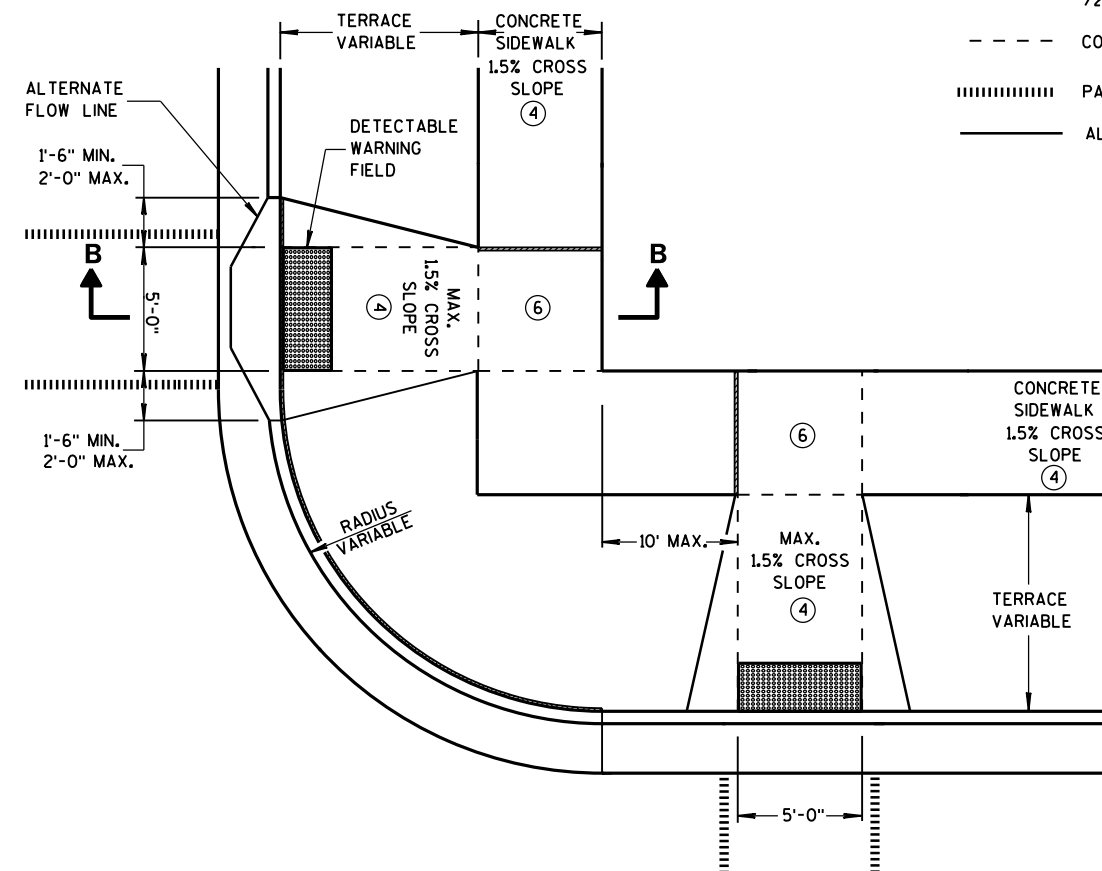
GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. USE EQUAL-SIZE PANELS TO DEVELOP OVERLAPPING, STAGGERED ROWS. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

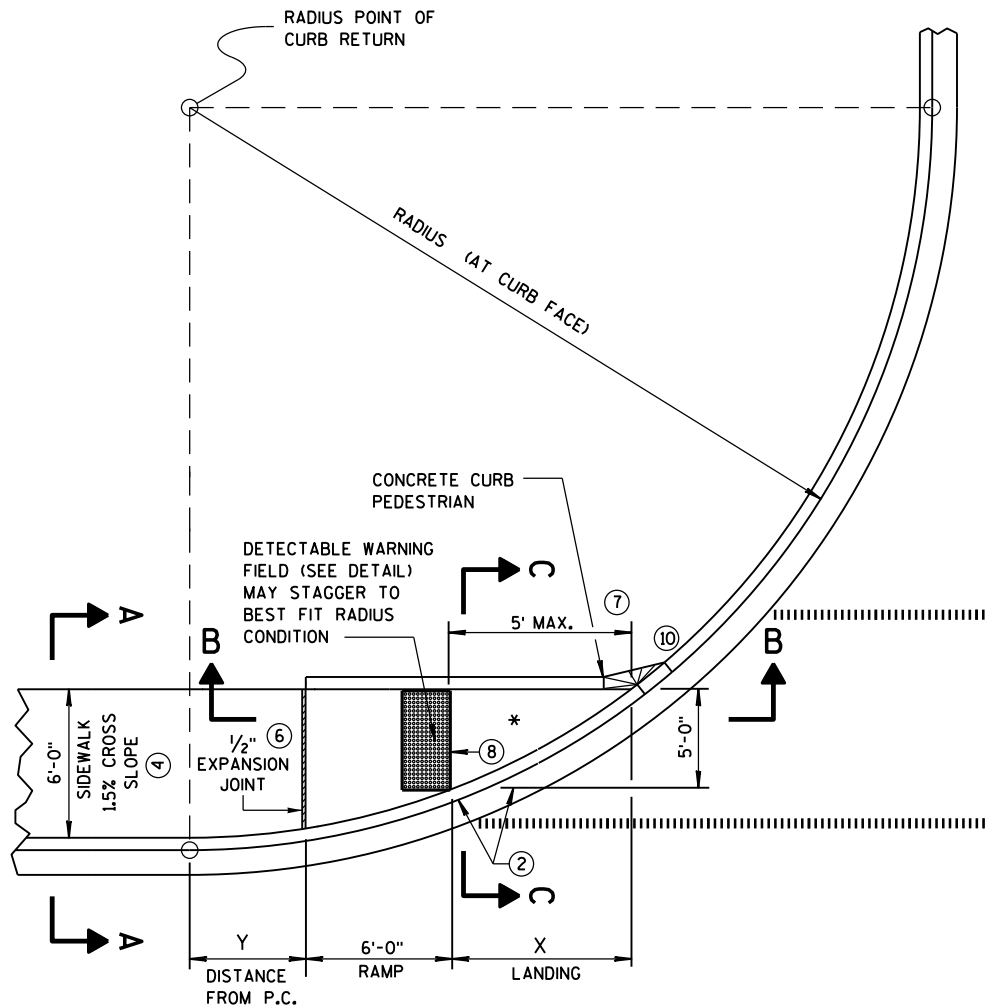
LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

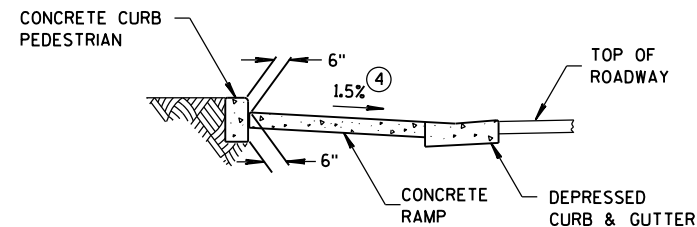


CURB RAMPS
TYPES 2 AND 3

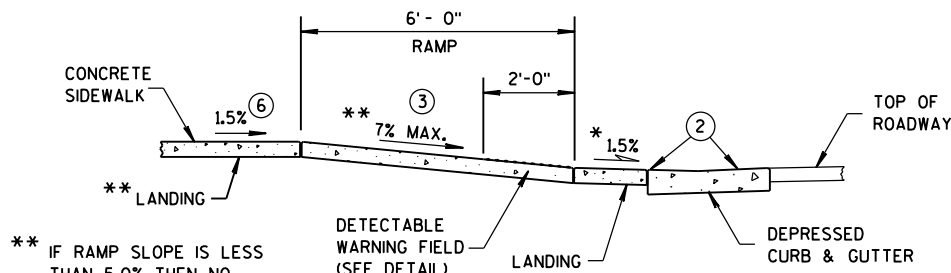
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 4A
PLAN VIEW



SECTION C-C FOR TYPE 4A

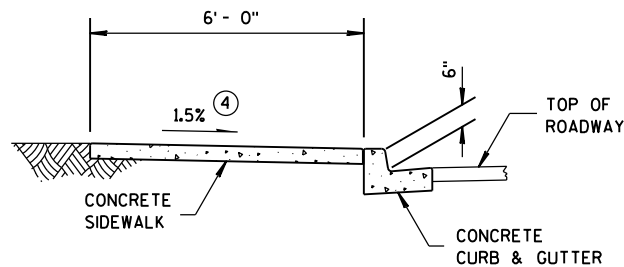


SECTION B-B FOR TYPE 4A

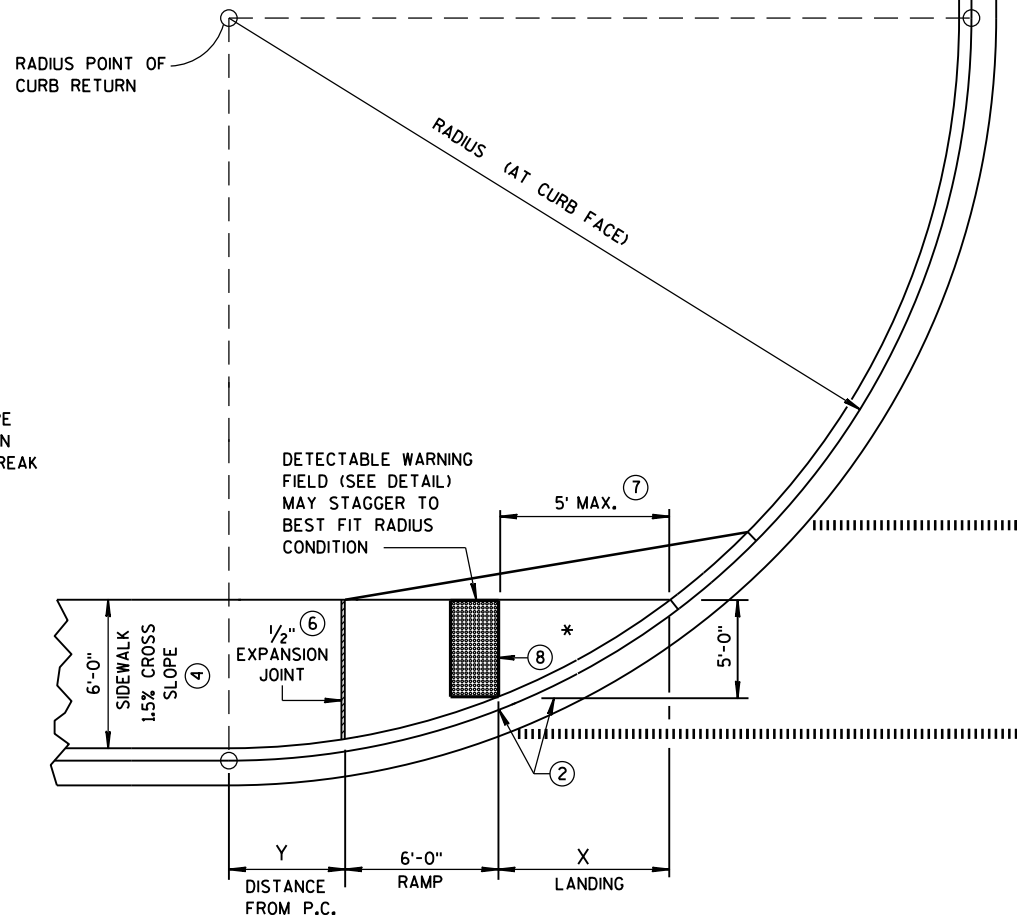
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

RADIUS (AT CURB FACE)	X	Y
20 FEET	7'-11"	0'-2"
30 FEET	10'-2 3/4"	1'-7 1/2"
40 FEET	12'-1 1/4"	2'-10"
50 FEET	13'-8 3/4"	3'-10 3/4"
60 FEET	15'-2"	4'-10 1/4"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A



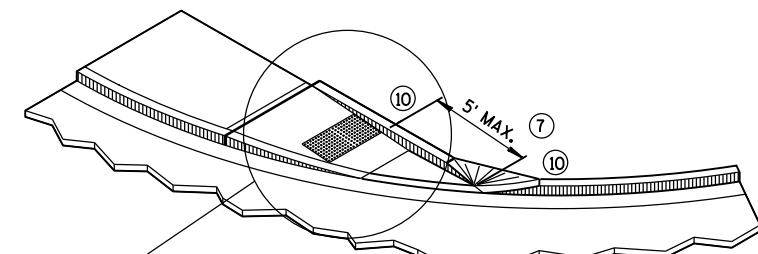
CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

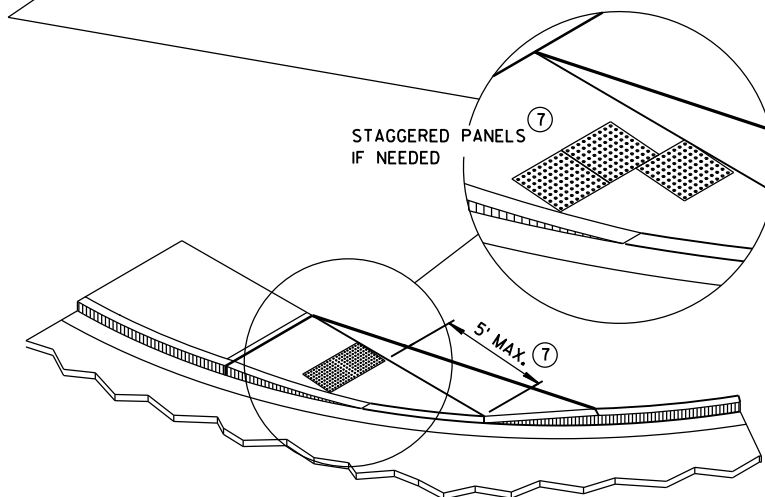
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.
- ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. USE EQUAL-SIZE PANELS TO DEVELOP OVERLAPPING, STAGGERED ROWS. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



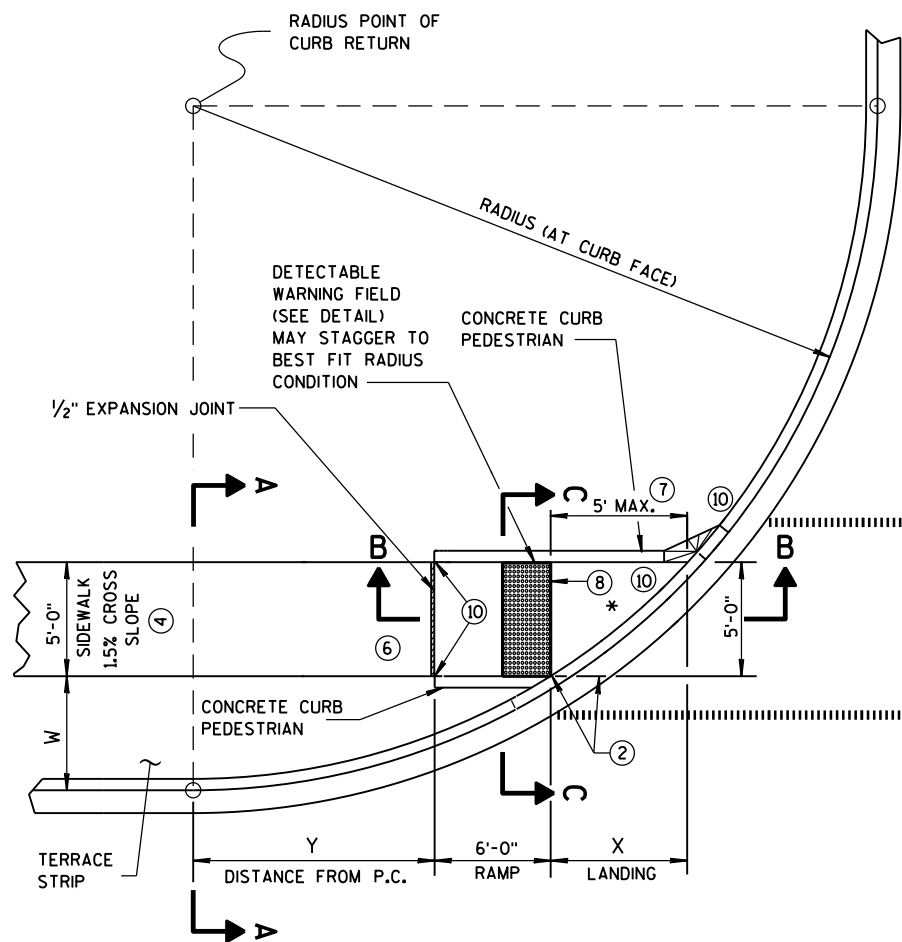
ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

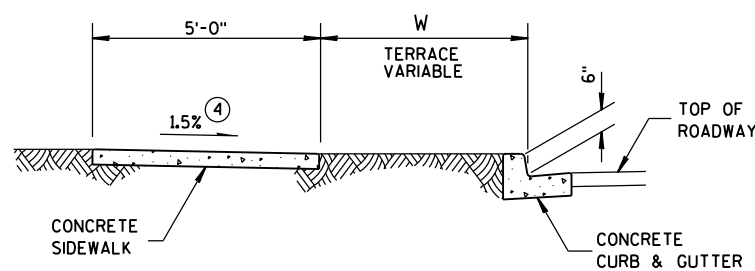
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

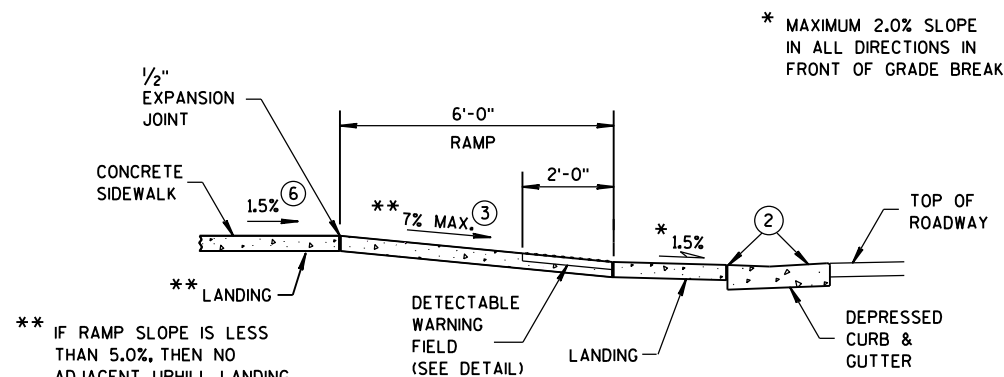
STATE OF WISCONSIN
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CURB RAMP TYPE 4B
PLAN VIEW

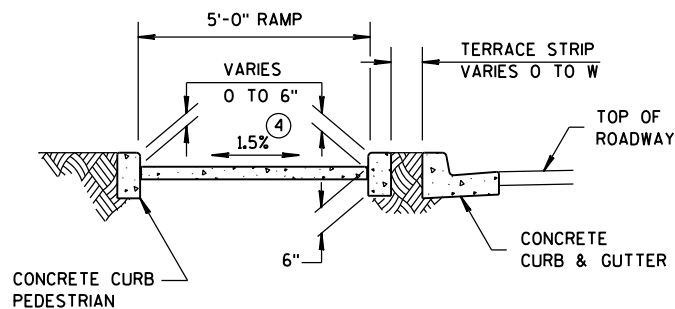


SECTION A-A FOR TYPE 4B

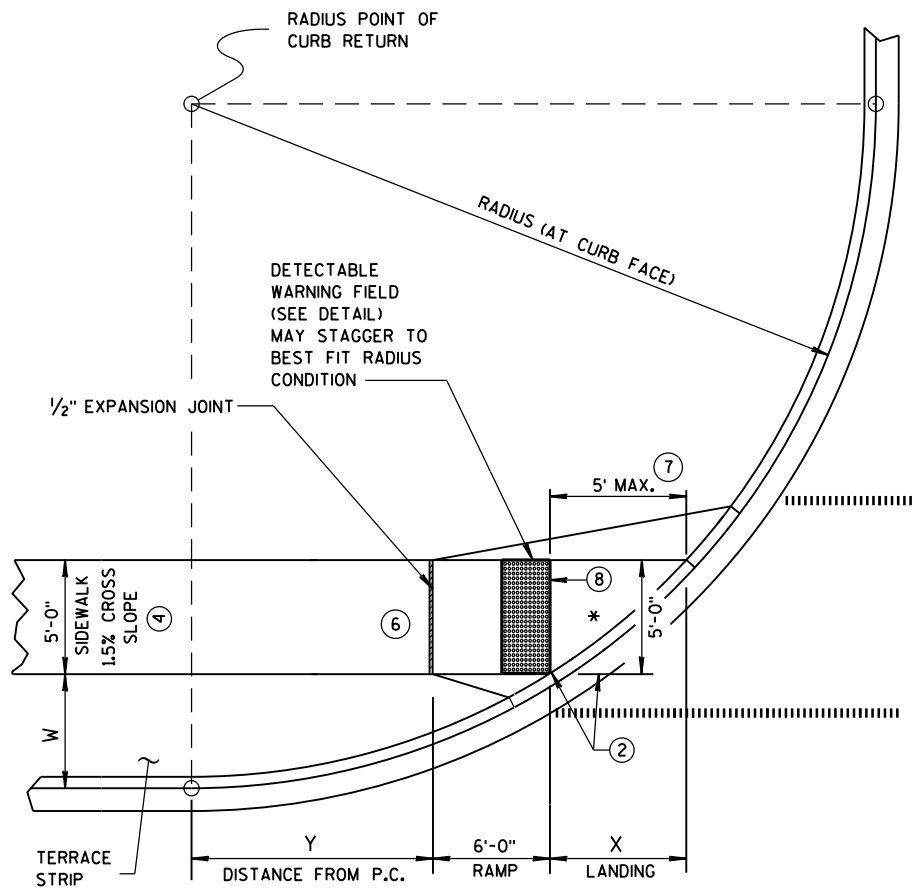


SECTION B-B FOR TYPE 4B

- LEGEND**
- 1/2" EXPANSION JOINT-SIDEWALK
 - CONTRACTION JOINT FIELD LOCATED
 - PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B



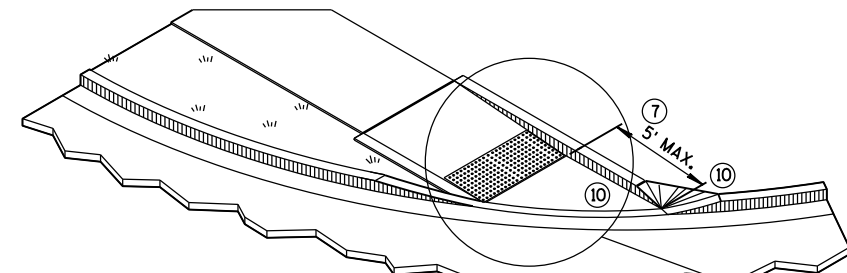
CURB RAMP TYPE 4B1
PLAN VIEW

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-9 3/4"	3'-6 1/2"	4'-11 1/2"	5'-1 3/4"	4'-3 3/4"	6'-5 1/2"	3'-8 3/4"	7'-6 3/4"	3'-3"	8'-6 1/4"
30 FEET	7'-9 1/4"	5'-10 1/2"	6'-9 1/2"	7'-11 1/4"	6'-0 1/4"	9'-8"	5'-5"	11'-1 3/4"	4'-10 3/4"	12'-5 3/4"
40 FEET	9'-4"	7'-10"	8'-2 3/4"	10'-3"	7'-4 3/4"	12'-3 3/4"	6'-8 1/2"	14'-1 1/4"	6'-1 3/4"	15'-8 1/2"
50 FEET	10'-8"	9'-6 1/2"	9'-5 1/2"	12'-3 1/4"	8'-6 1/2"	14'-7 1/2"	7'-9 3/4"	16'-8 1/4"	7'-2 1/2"	18'-6 1/4"
60 FEET	11'-10 1/4"	11'-0 3/4"	10'-6 1/2"	14'-1 1/4"	9'-6 1/2"	16'-8 1/2"	8'-9 1/4"	18'-11 3/4"	8'-1 1/2"	21'-0 1/2"

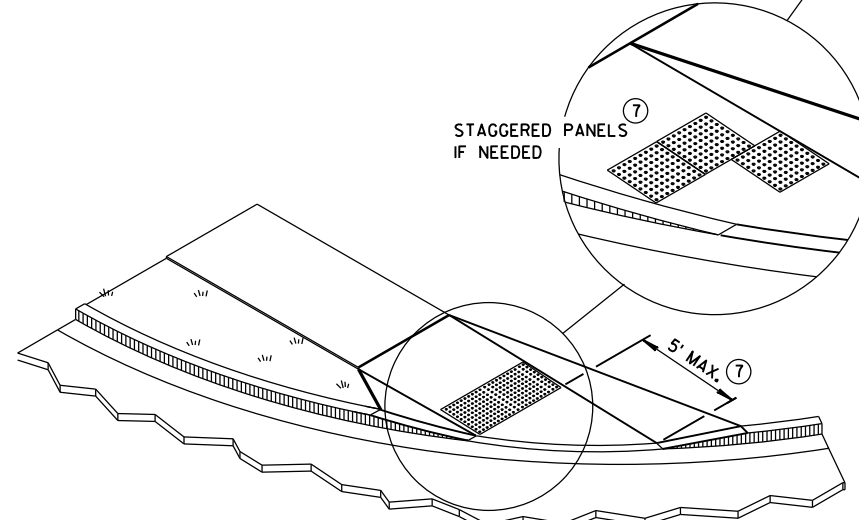
GENERAL NOTES

INTERMEDIATE RADII CAN BE INTERPOLATED

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS. DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.
 - ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
 - ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
 - WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. USE EQUAL-SIZE PANELS TO DEVELOP OVERLAPPING, STAGGERED ROWS. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.
 - PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
 - INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



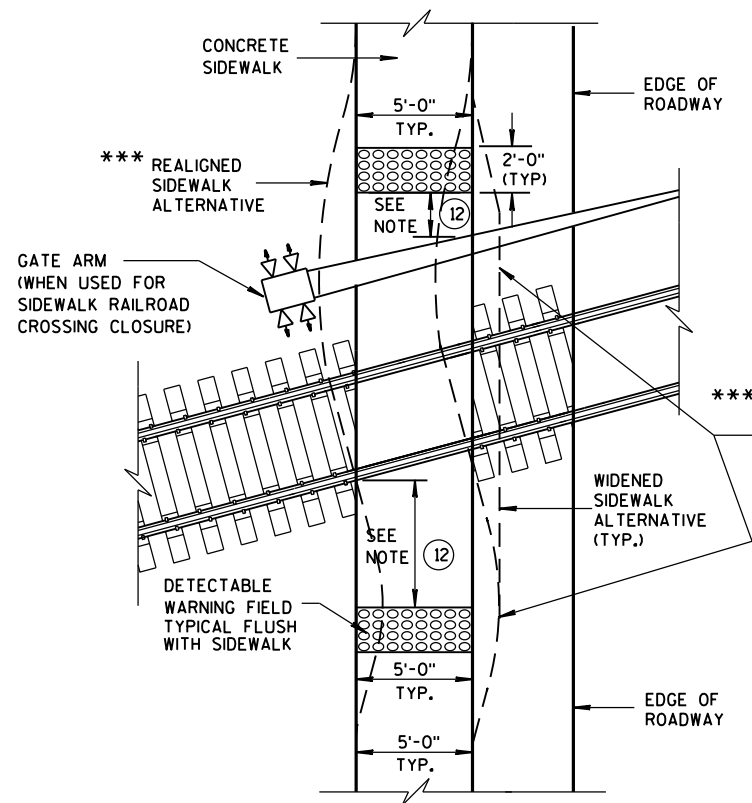
ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

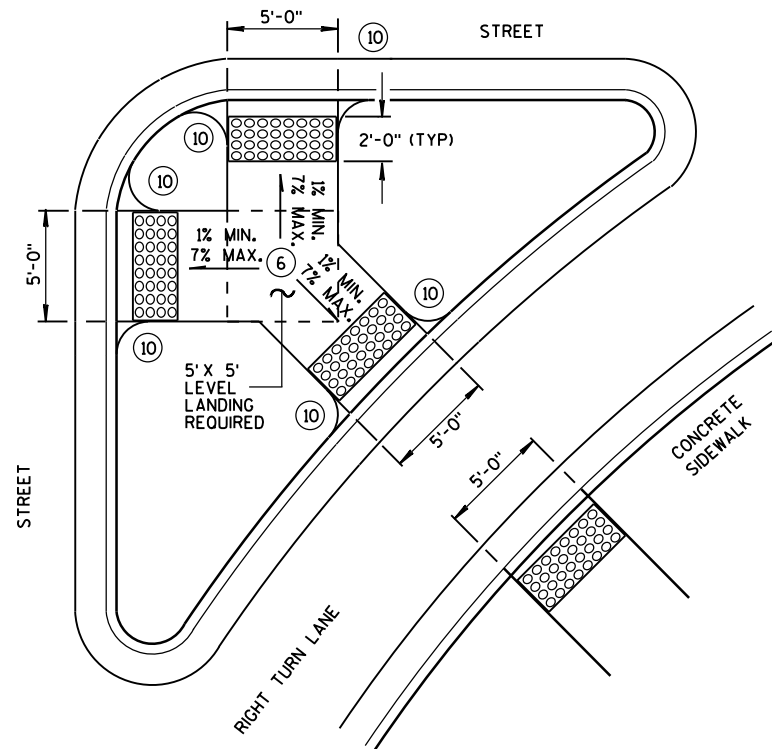
CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

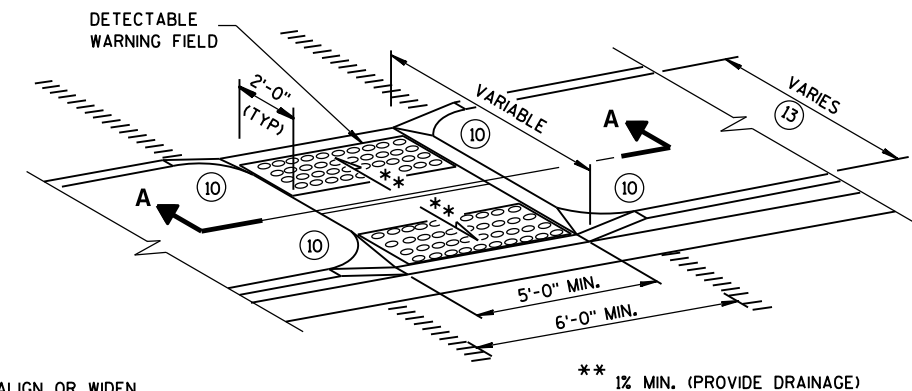


TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING

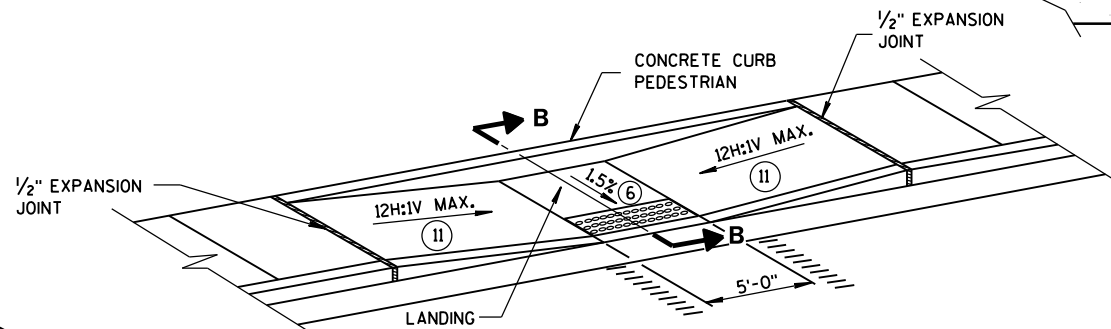
REFER TO GENERAL NOTES ② AND ③
FOR ALL ISLAND CURB RAMPS



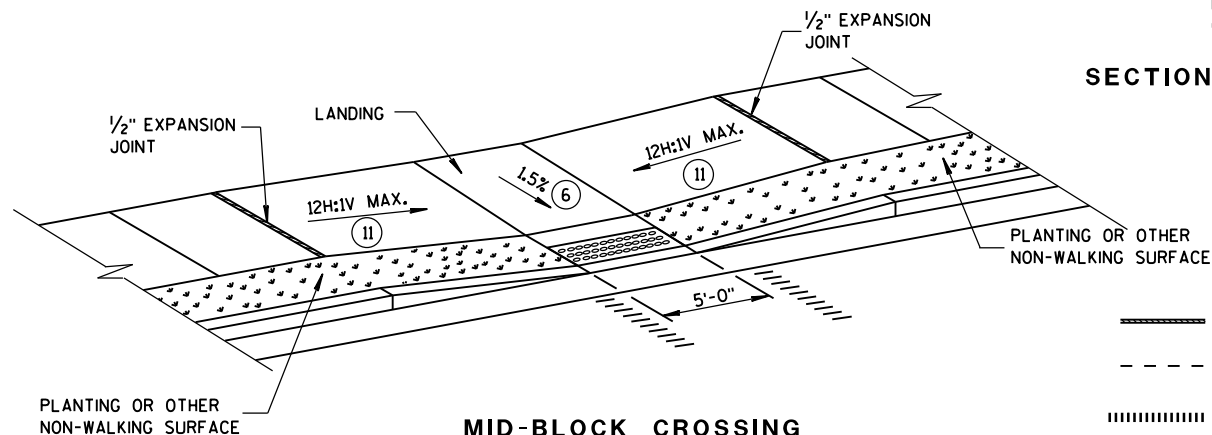
TYPE 6
DETECTABLE WARNING AT ISLANDS



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



MID-BLOCK CROSSING
TYPE 7A

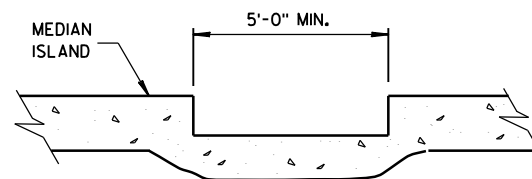


MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS
MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

GENERAL NOTES

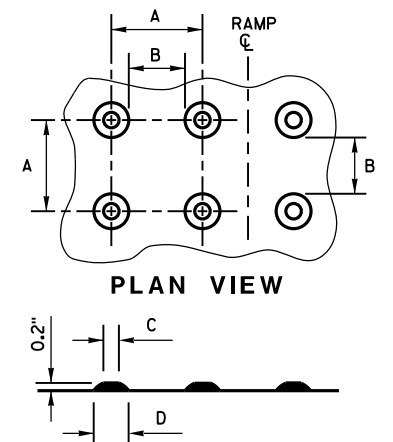
- SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑩ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



SECTION A-A

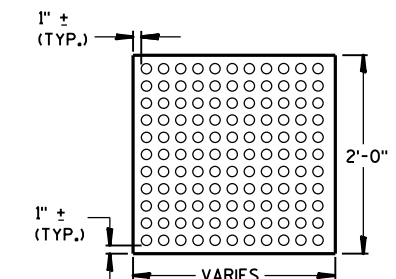
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



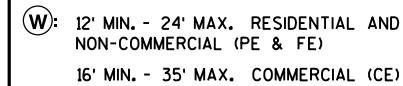
PLAN VIEW
DETECTABLE WARNING
FIELD (TYPICAL)

- LEGEND**
- 1/2" EXPANSION JOINT-SIDEWALK
 - CONTRACTION JOINT FIELD LOCATED
 - PAVEMENT MARKING CROSSWALK (WHITE)

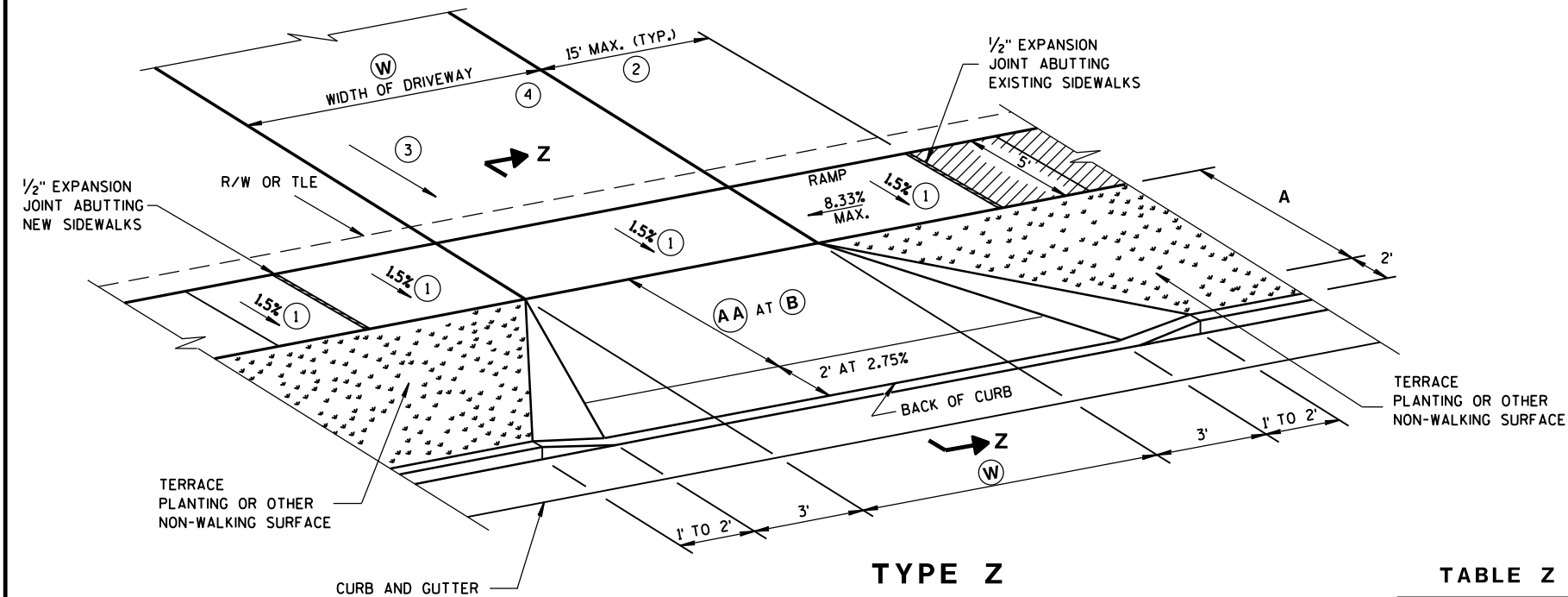
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



APPROVED
December, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR



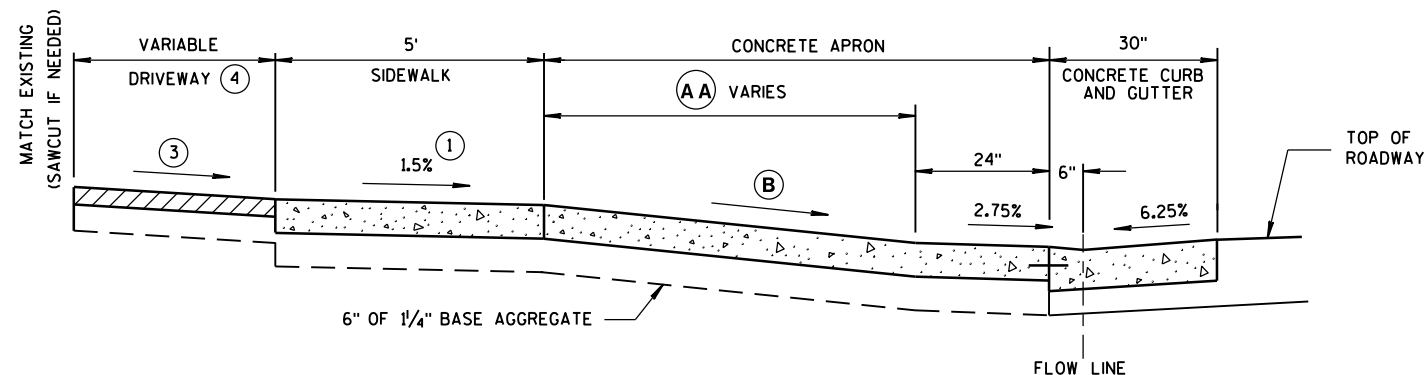
TYPE Z
SIDEWALK WITH WIDER TERRACE
TERRACE VARIES 7 TO 12 FEET

TABLE Z

(A) FEET	(B) %
4.5'	11.5%
5.5'	9-11.5%
6.5'	8-11.5%
7.5'	7-11.5%
8.5'	6-11.5%
9.5'	5-11.5%

GENERAL NOTES

- CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.
- DRIVEWAY SLOPES: DESIRABLE MAXIMUM**
 10.5% UP AWAY FROM SIDEWALK (SAG)
 8.5% DOWN AWAY FROM SIDEWALK (CREST)
 ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG
- DRIVEWAY TYPES**
 - 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
 - 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
 - 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)
- PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.
- (W) IS SHOWN ON PLAN AND PROFILE SHEETS.
- OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS FOR B VALUES NOT SHOWN IN TABLE Z.
 SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY, 6-INCH.
 SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

PROVIDE (A) AND (B) AS SHOWN ON CROSS SECTIONS.

CONCRETE APRON MEASURED AND PAID FOR AS CONCRETE DRIVEWAY, 6-INCH

SECTION Z-Z

DRIVEWAY DETAIL WITH CONCRETE CURB & GUTTER (URBAN AND SUBURBAN)

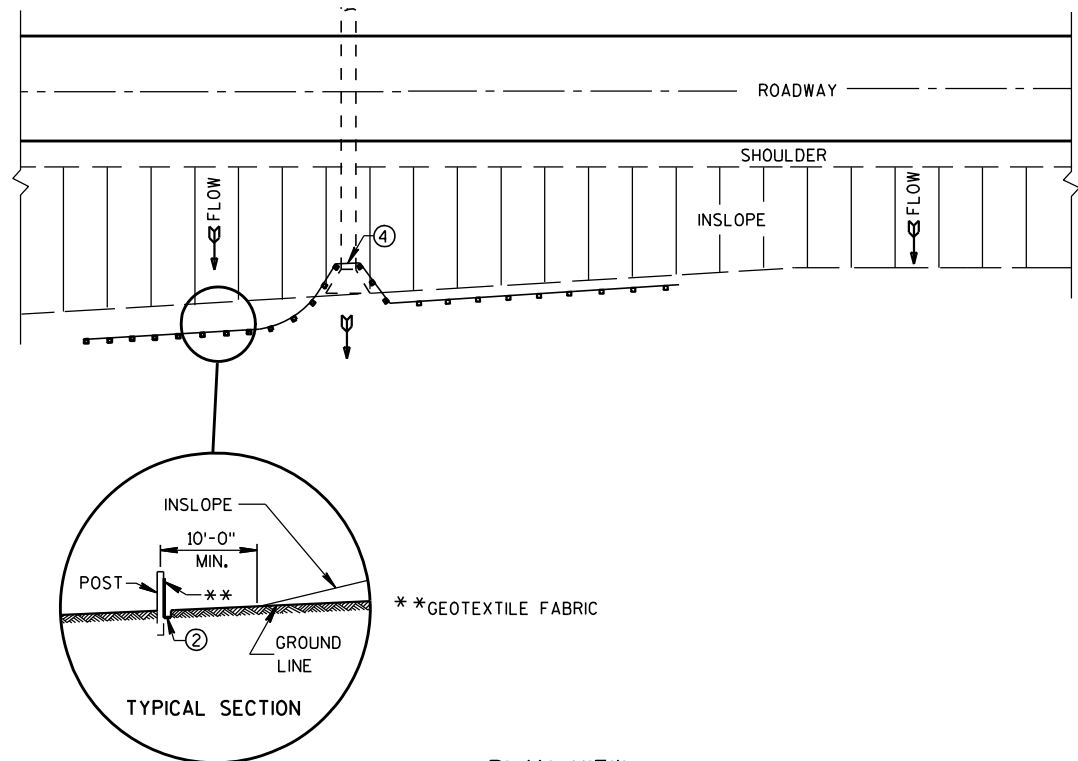
(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
 16' MIN. - 35' MAX. COMMERCIAL (CE)

NOT TO SCALE

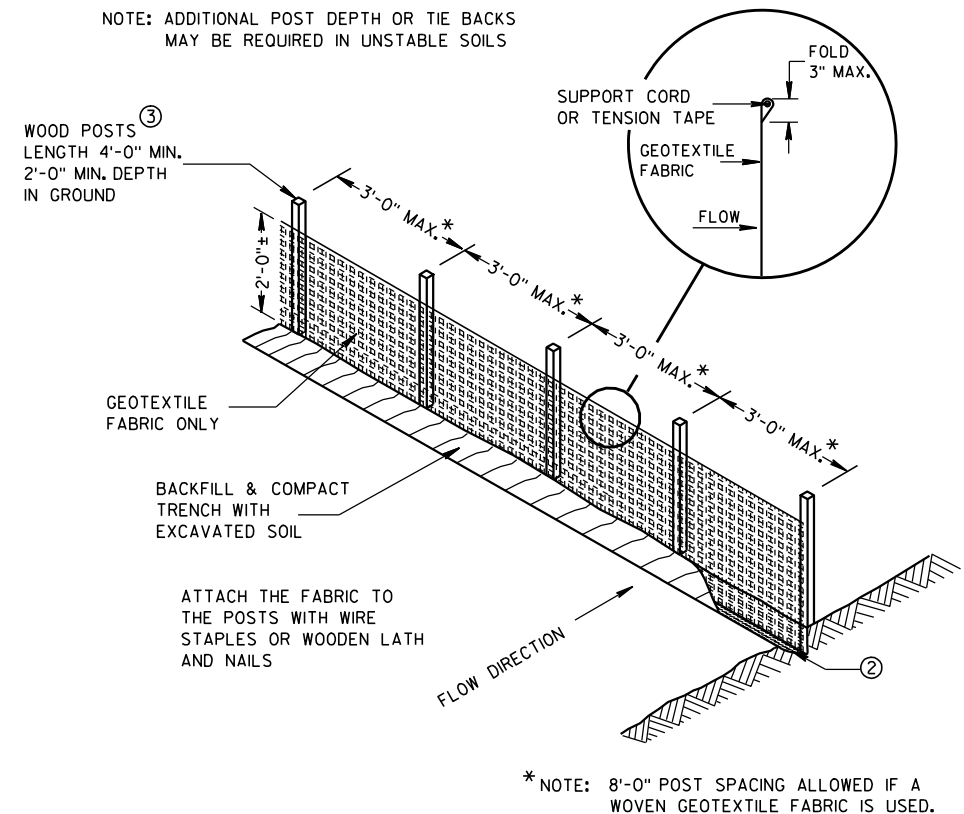
DRIVEWAY AND SIDEWALK RAMPSTYPE Z

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

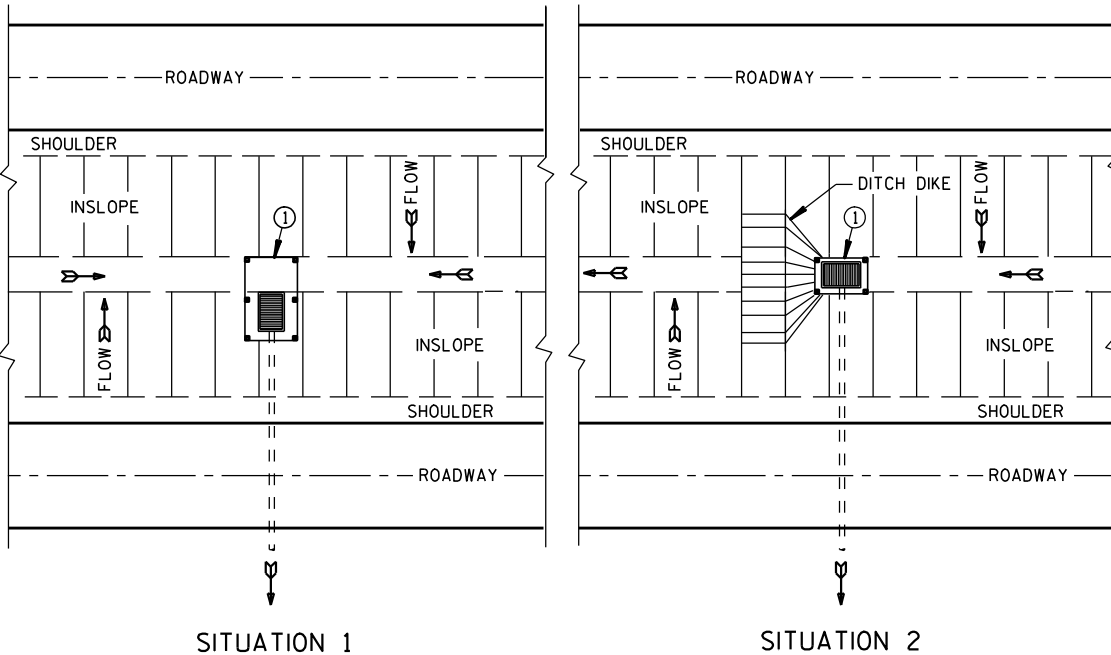
APPROVED
 December, 2016 /S/ Rodney Taylor
 DATE ROADWAY STANDARDS DEVELOPMENT
 FHWA UNIT SUPERVISOR



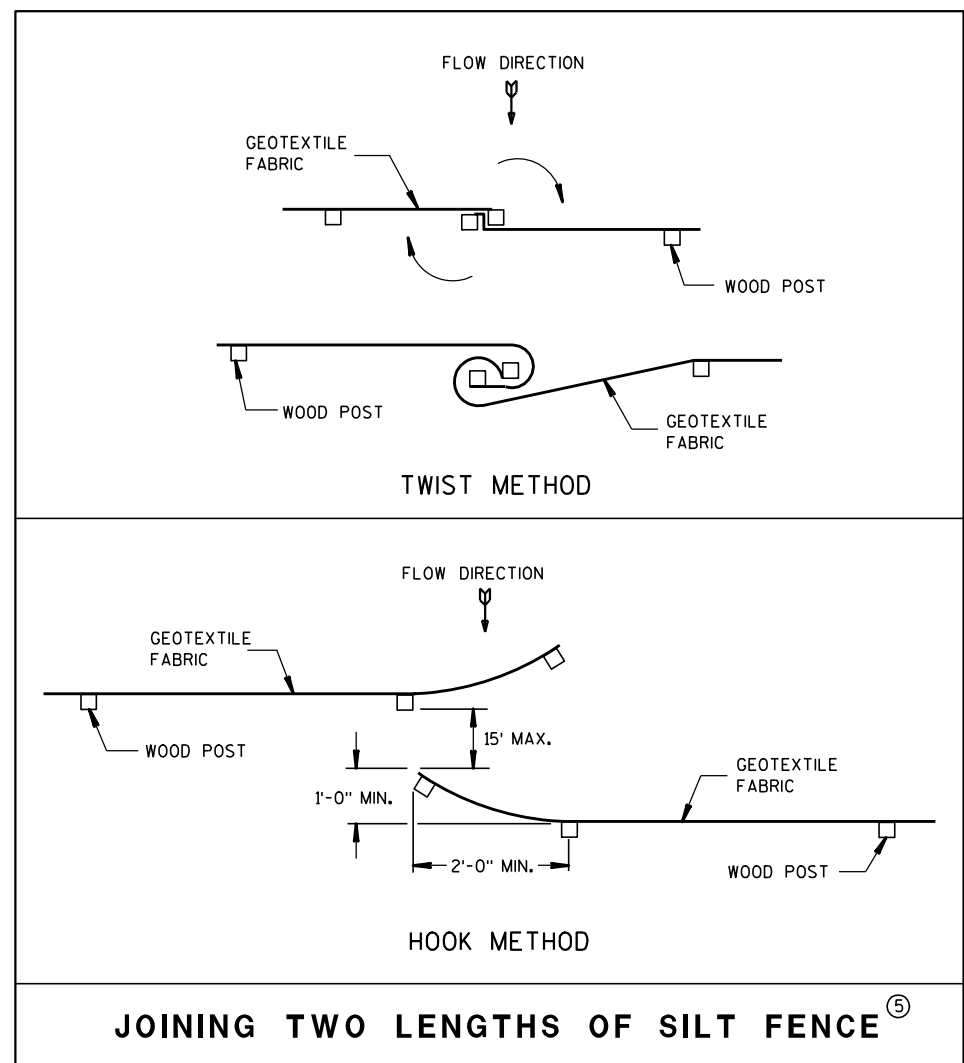
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

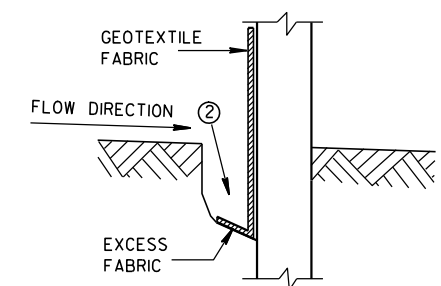


JOINING TWO LENGTHS OF SILT FENCE ⑤

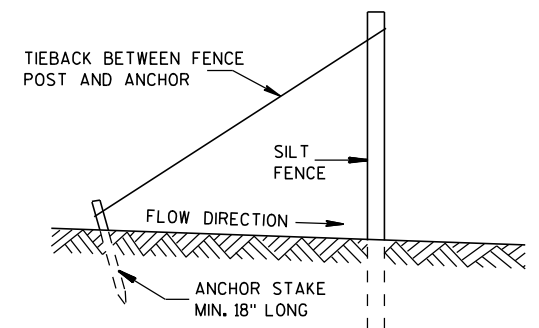
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

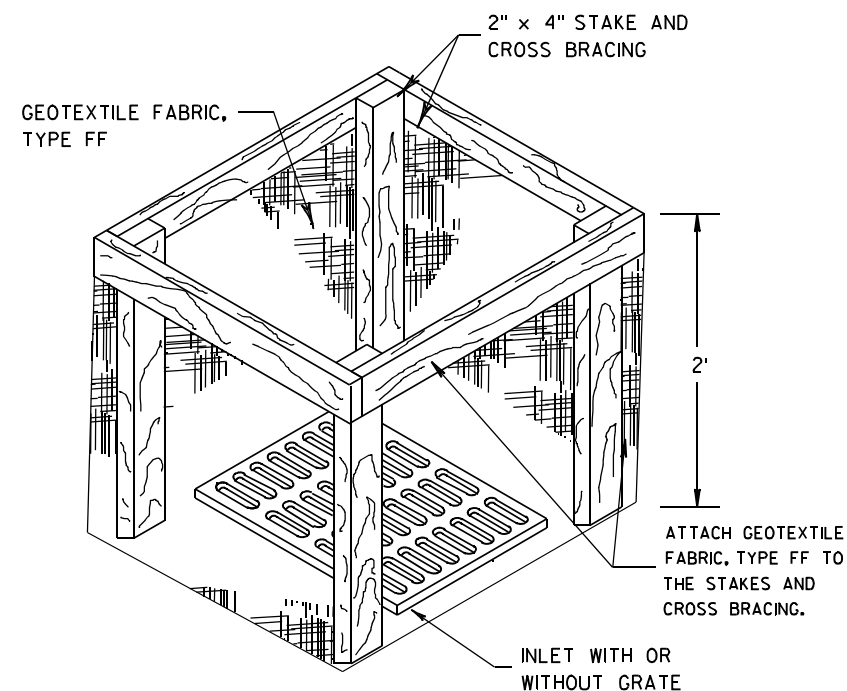
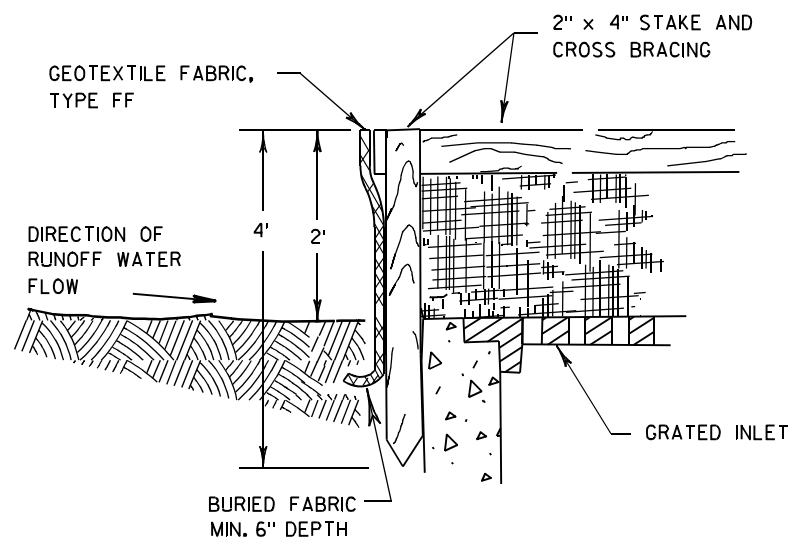


TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Canestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



INLET PROTECTION, TYPE A

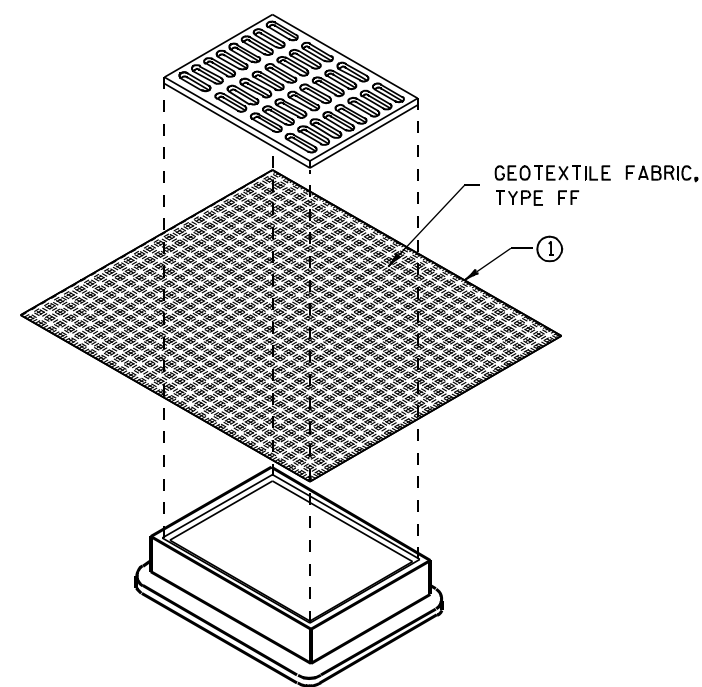
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

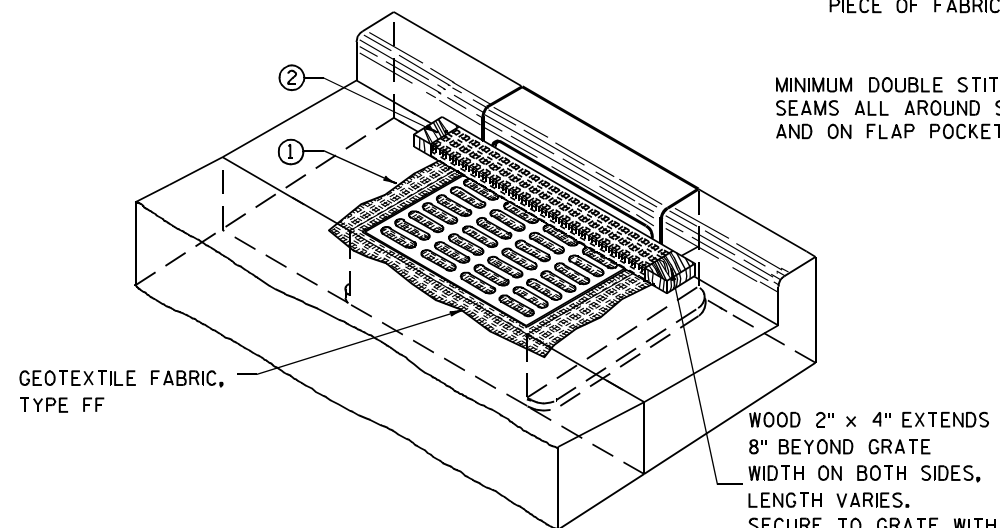
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

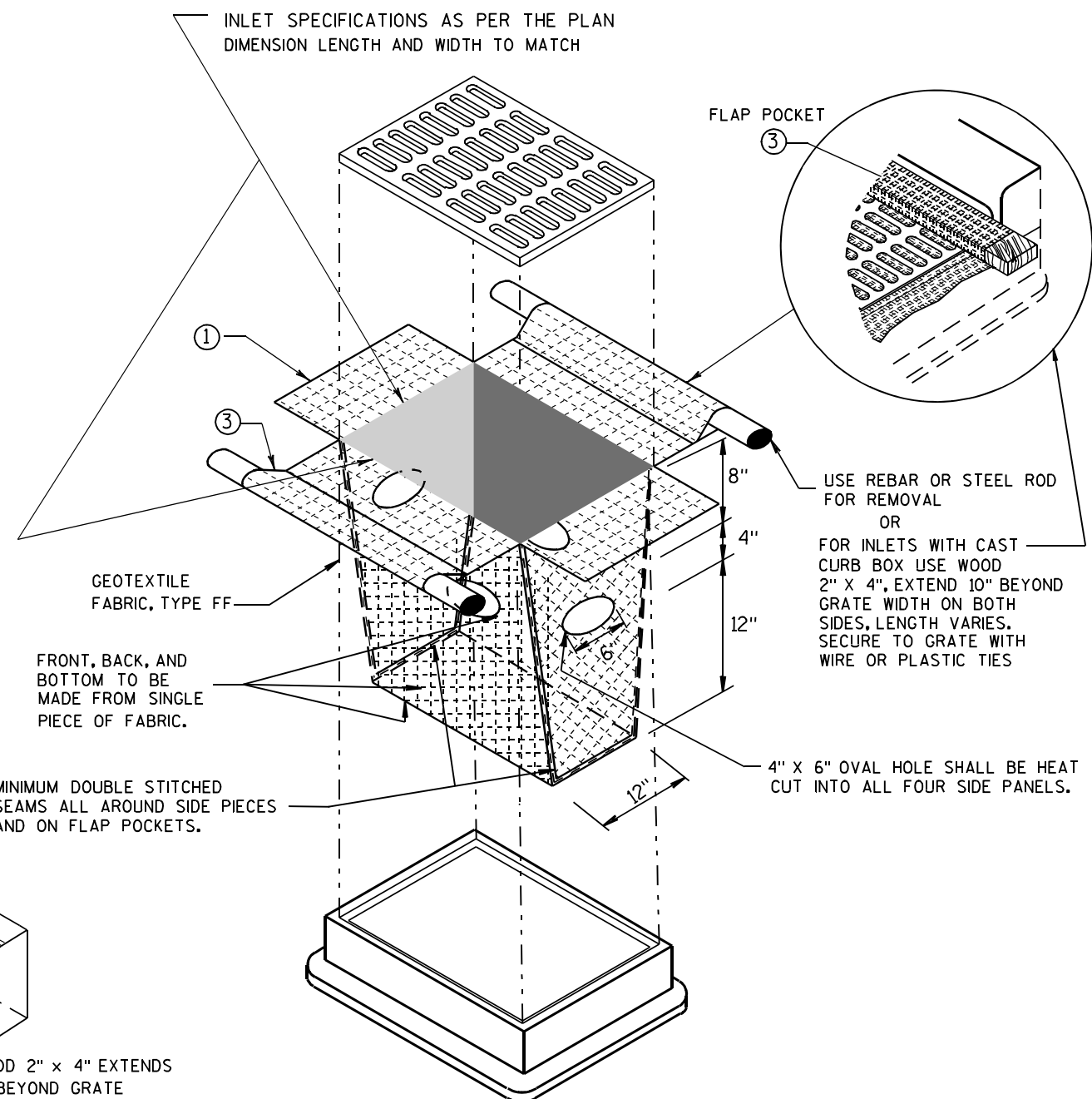
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



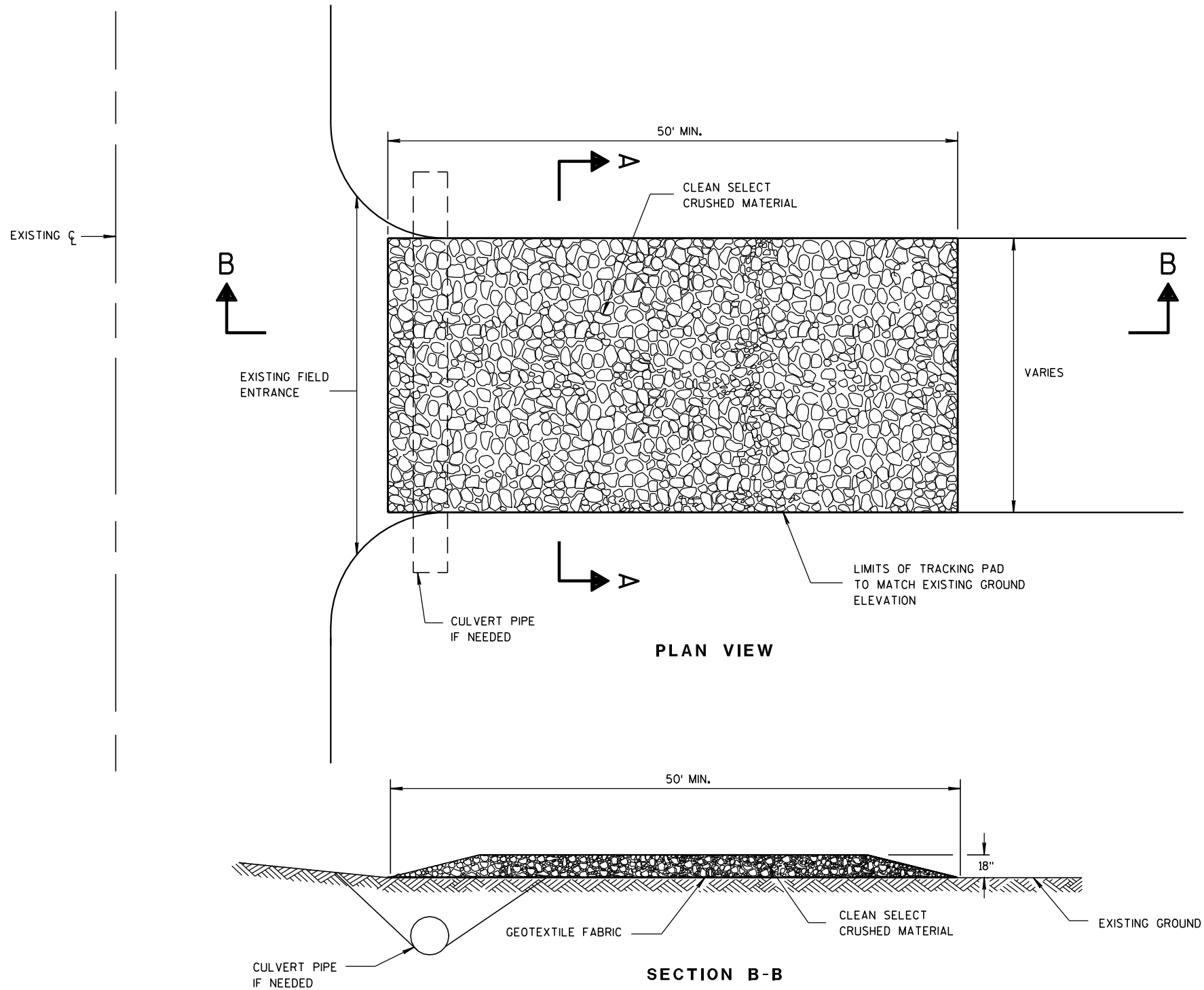
INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Cannestra
DATE
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



TRACKING PAD

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

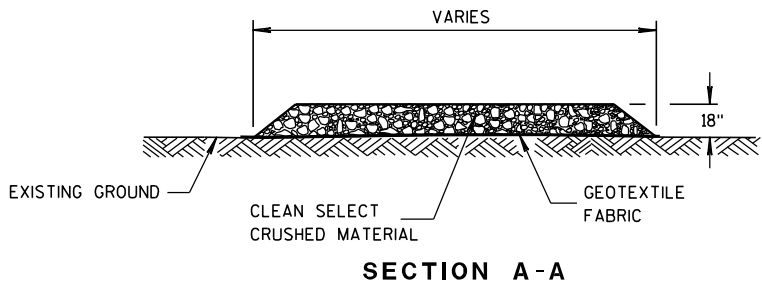
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



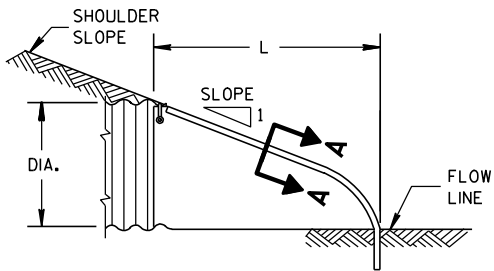
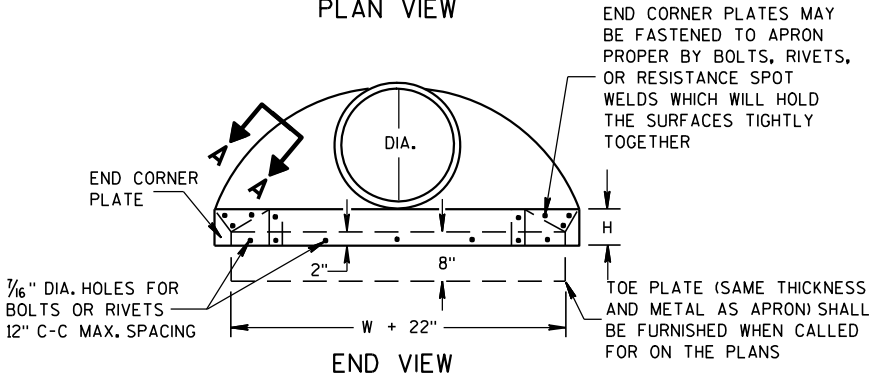
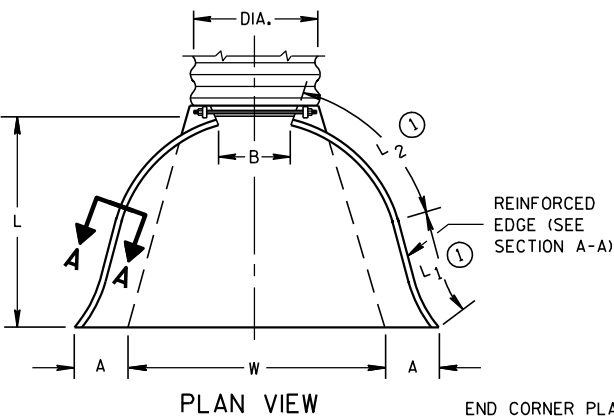
TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

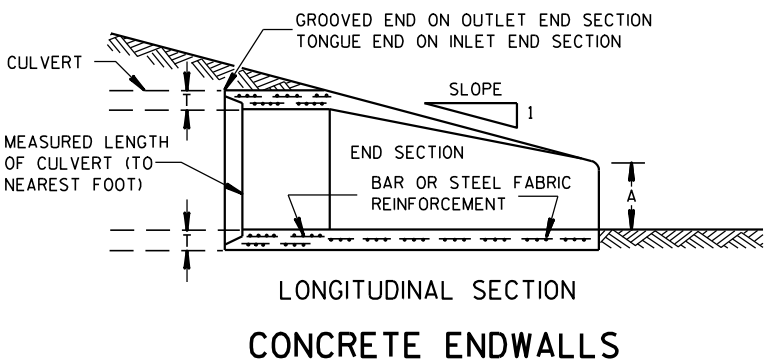
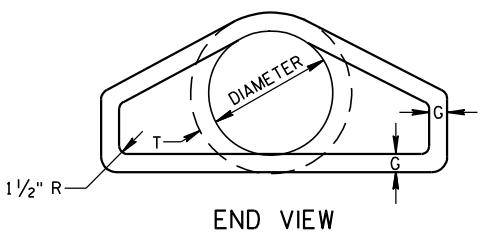
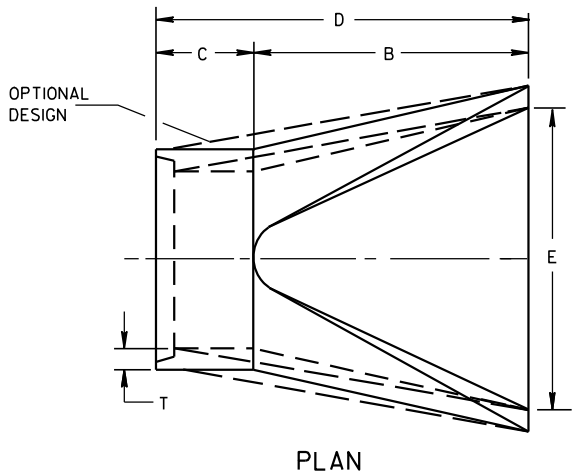
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



SIDE ELEVATION
METAL ENDWALLS

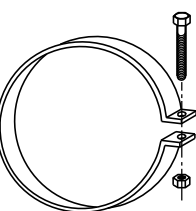
REINFORCED CONCRETE APRON ENDWALLS											
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE			
	T	A	B	C	D	E	G				
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1			
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1			
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1			
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1			
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1			
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1			
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1			
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1			
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1			
48	5	24	72	26	98	84	5	3 to 1			
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 1/2 to 1			
60	6	30-35	60	39	99	96	5	2 to 1			
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1			
72	7	24-36	78	21	99	108	6	2 to 1			
78	7 1/2	24-36	78	21	99	114	6 1/2	2 to 1			
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1			
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1			

* MINIMUM
** MAXIMUM

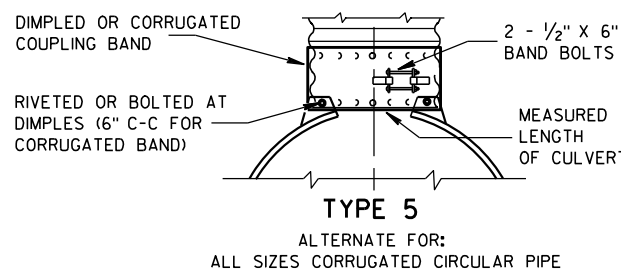
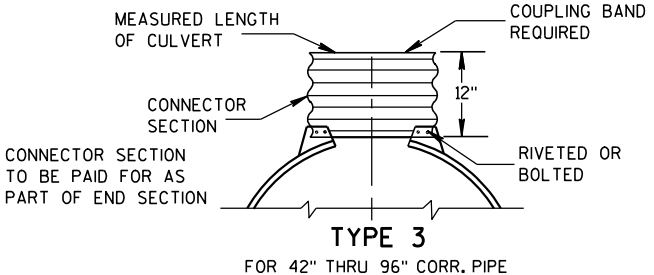
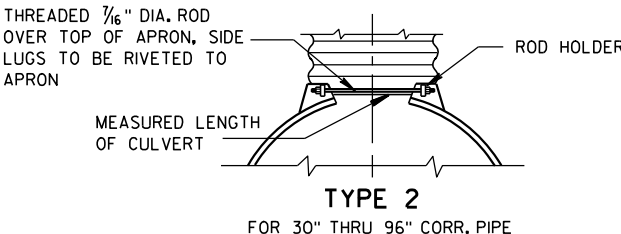
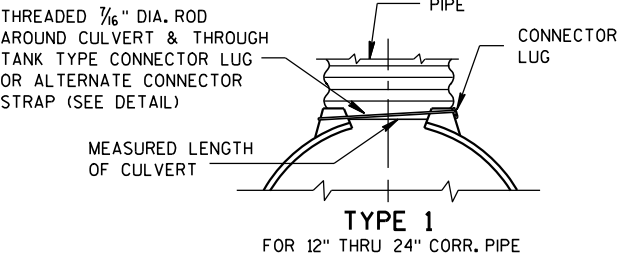


LONGITUDINAL SECTION
CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



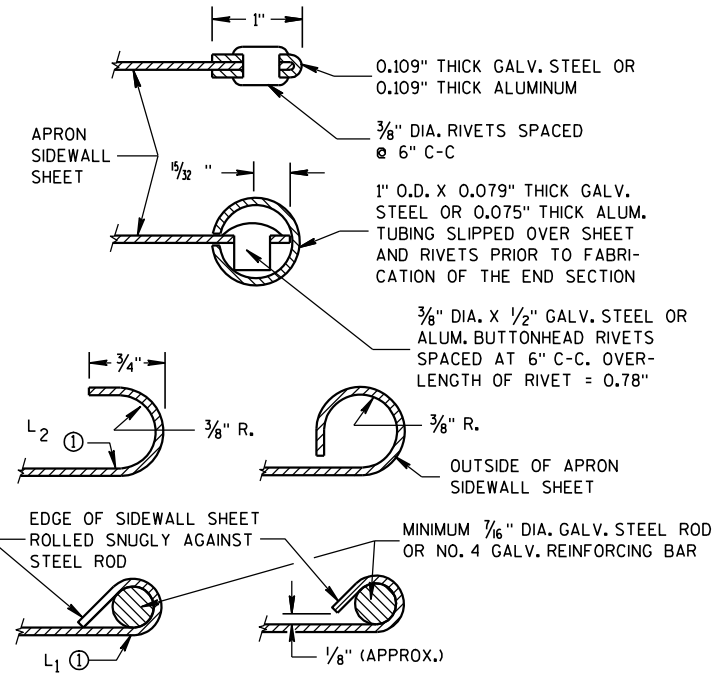
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

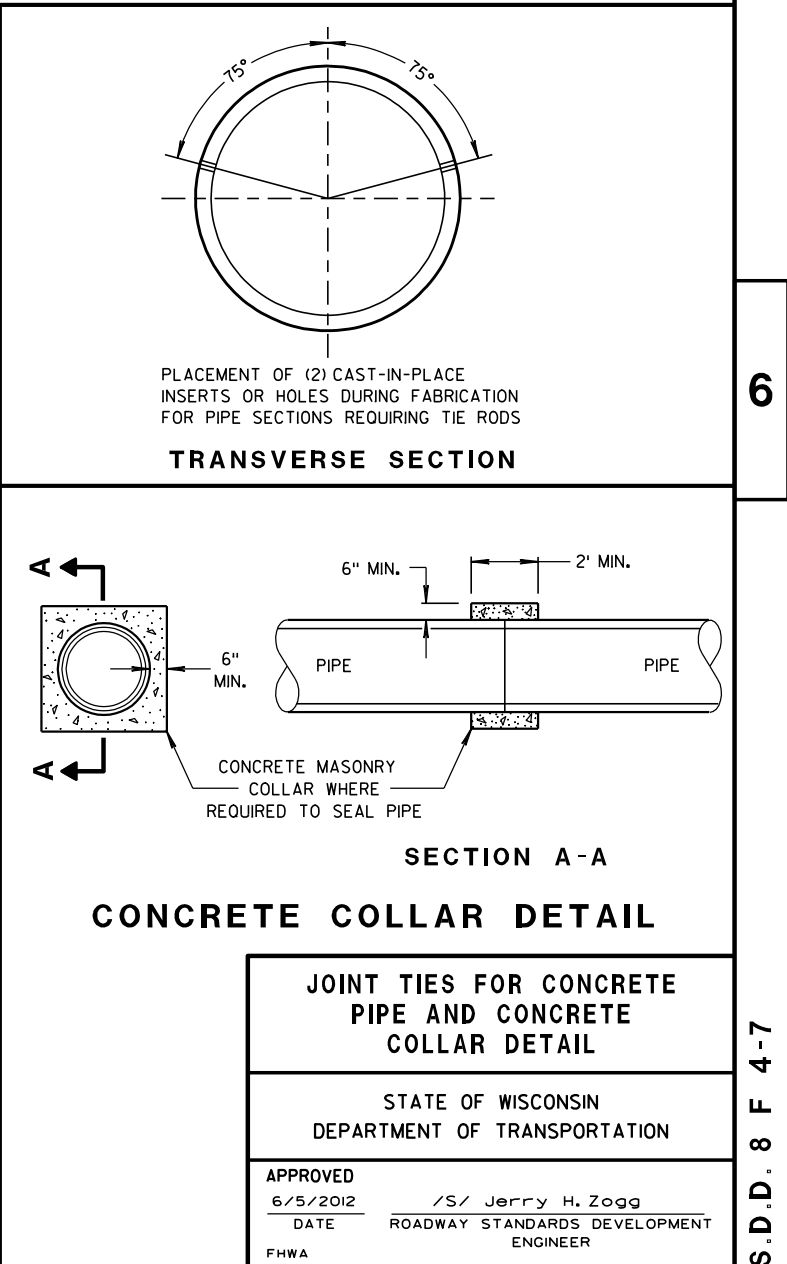
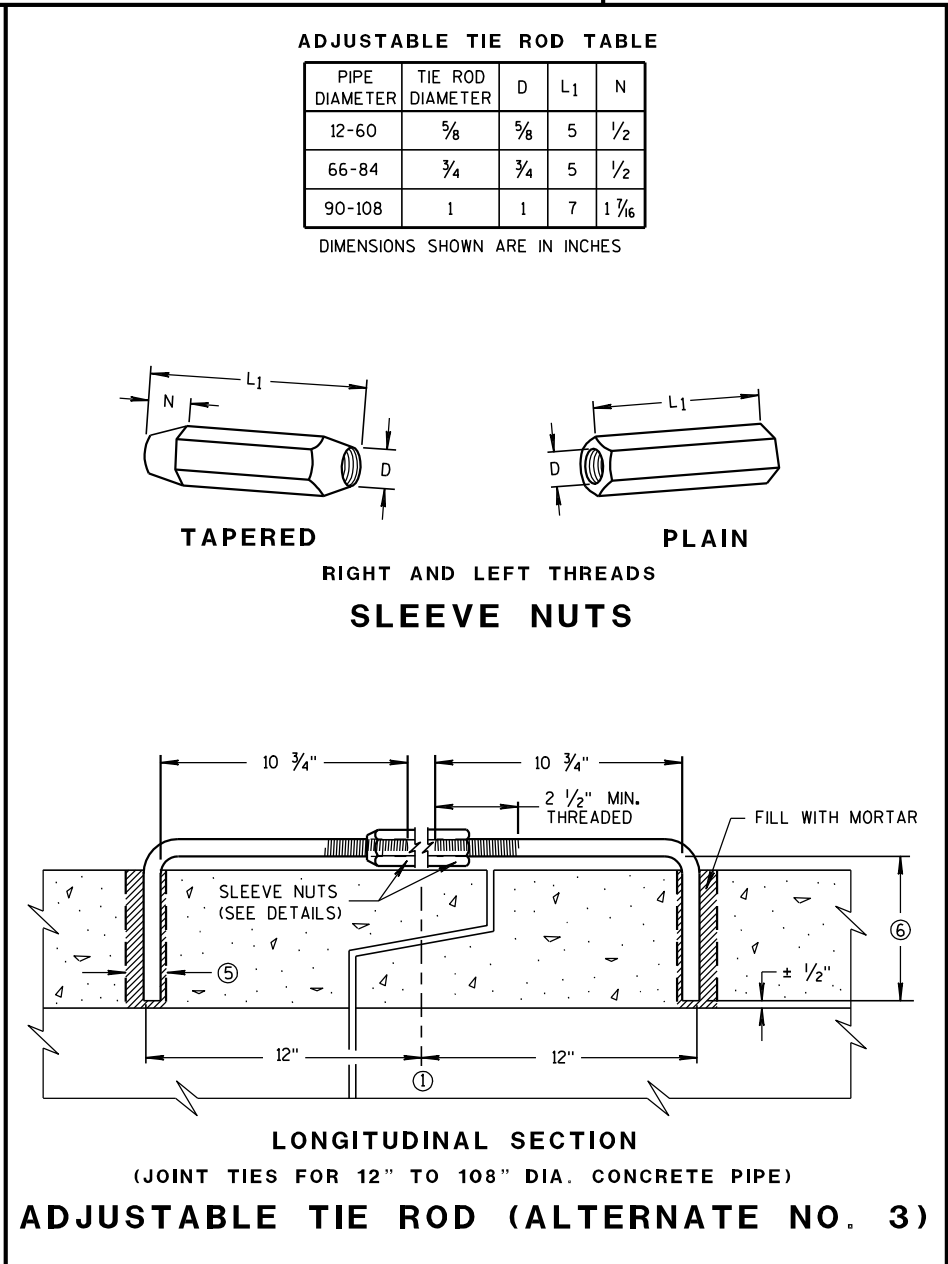
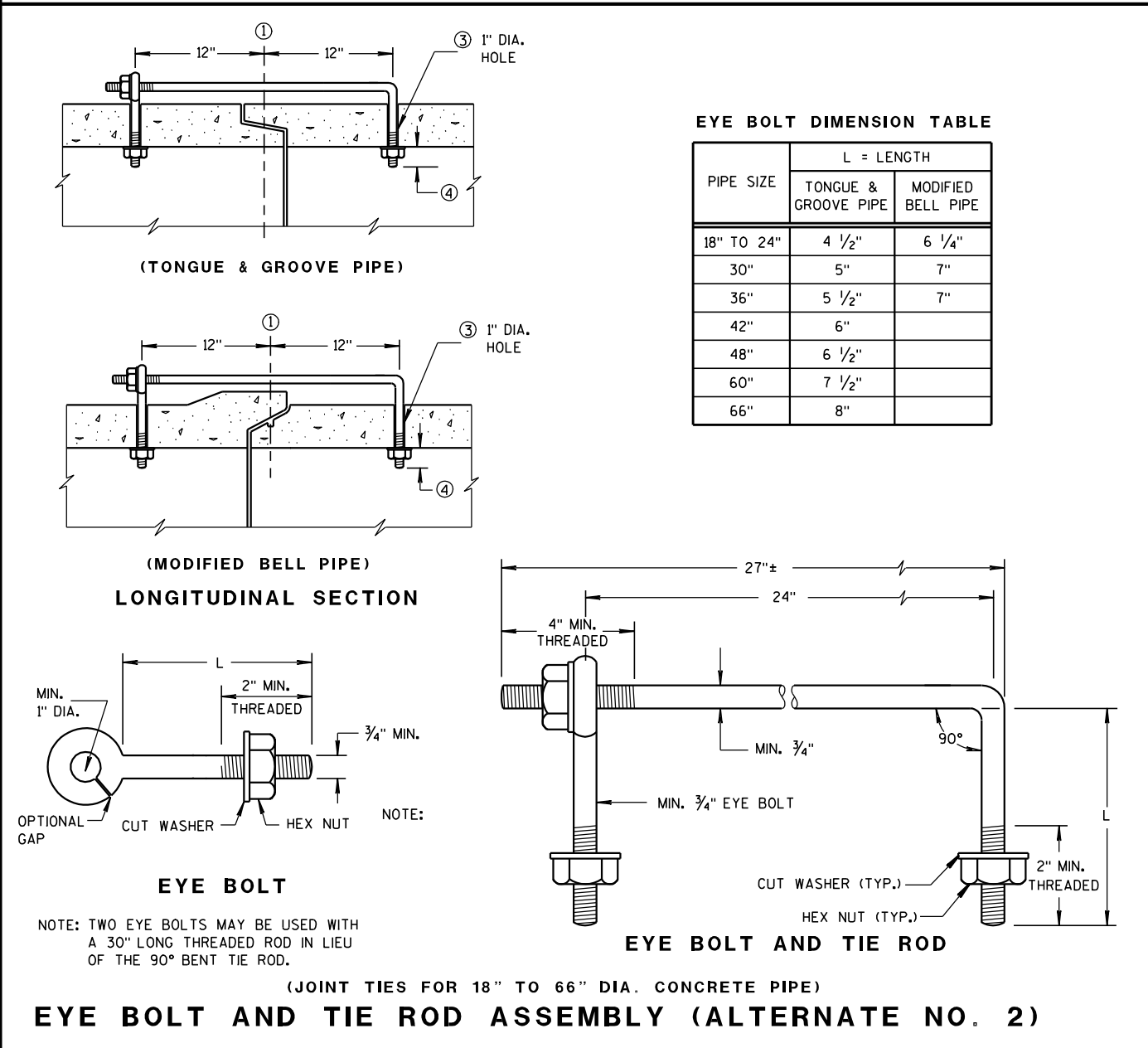
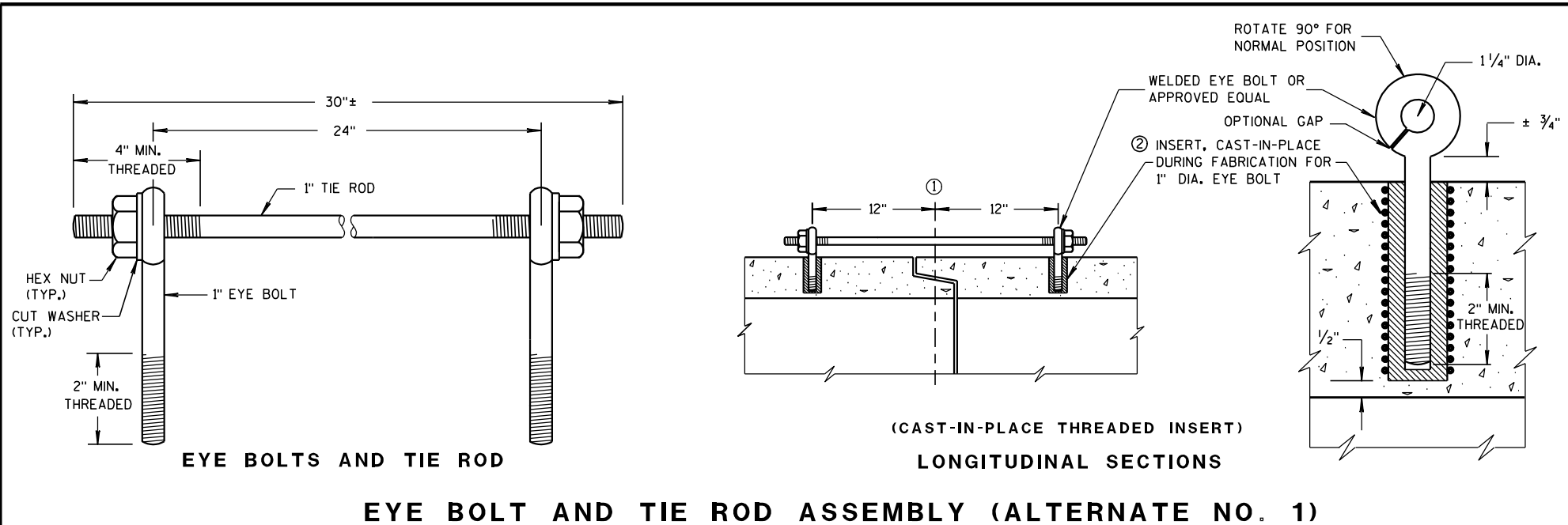
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

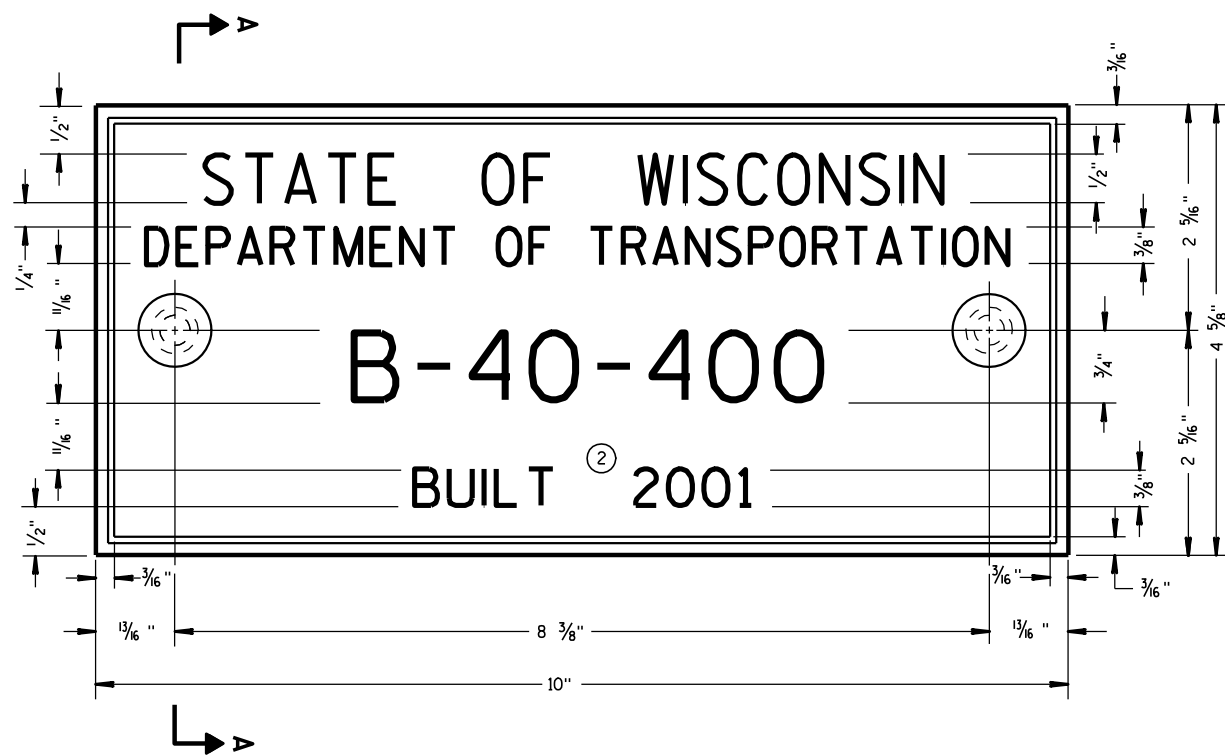
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR
CULVERT PIPE

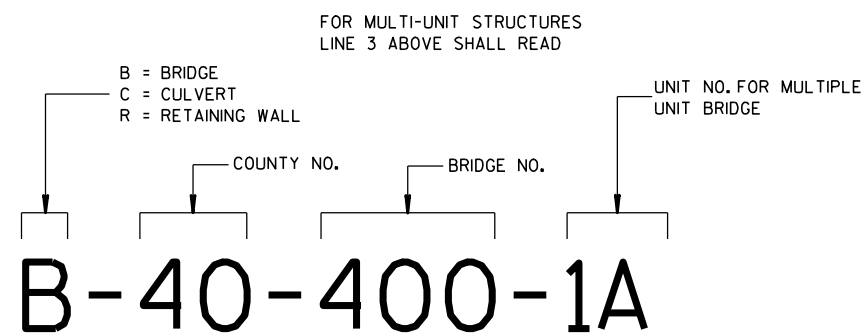
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94
DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA





TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)



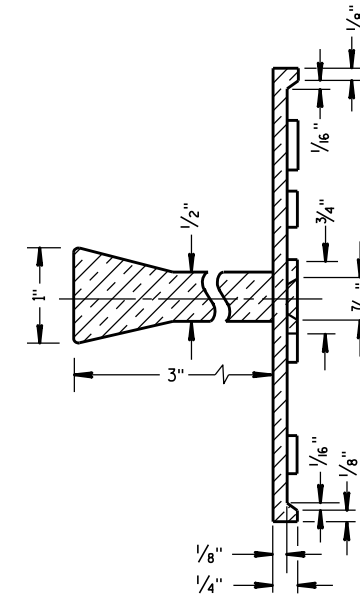
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

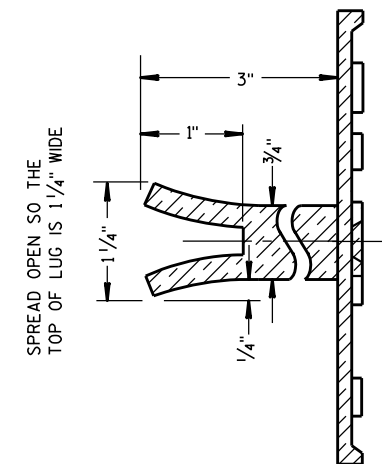
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.

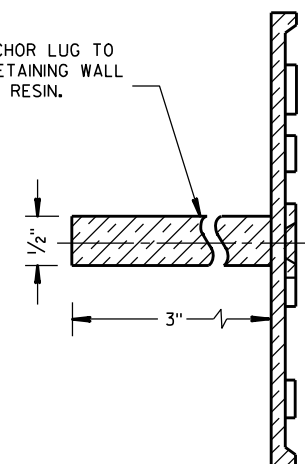


SECTION A-A



ALTERNATE LUG

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

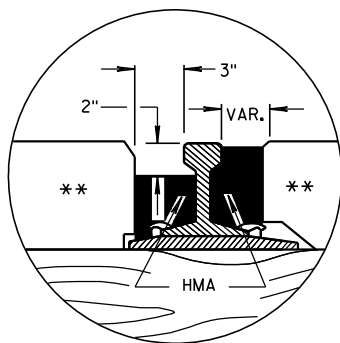
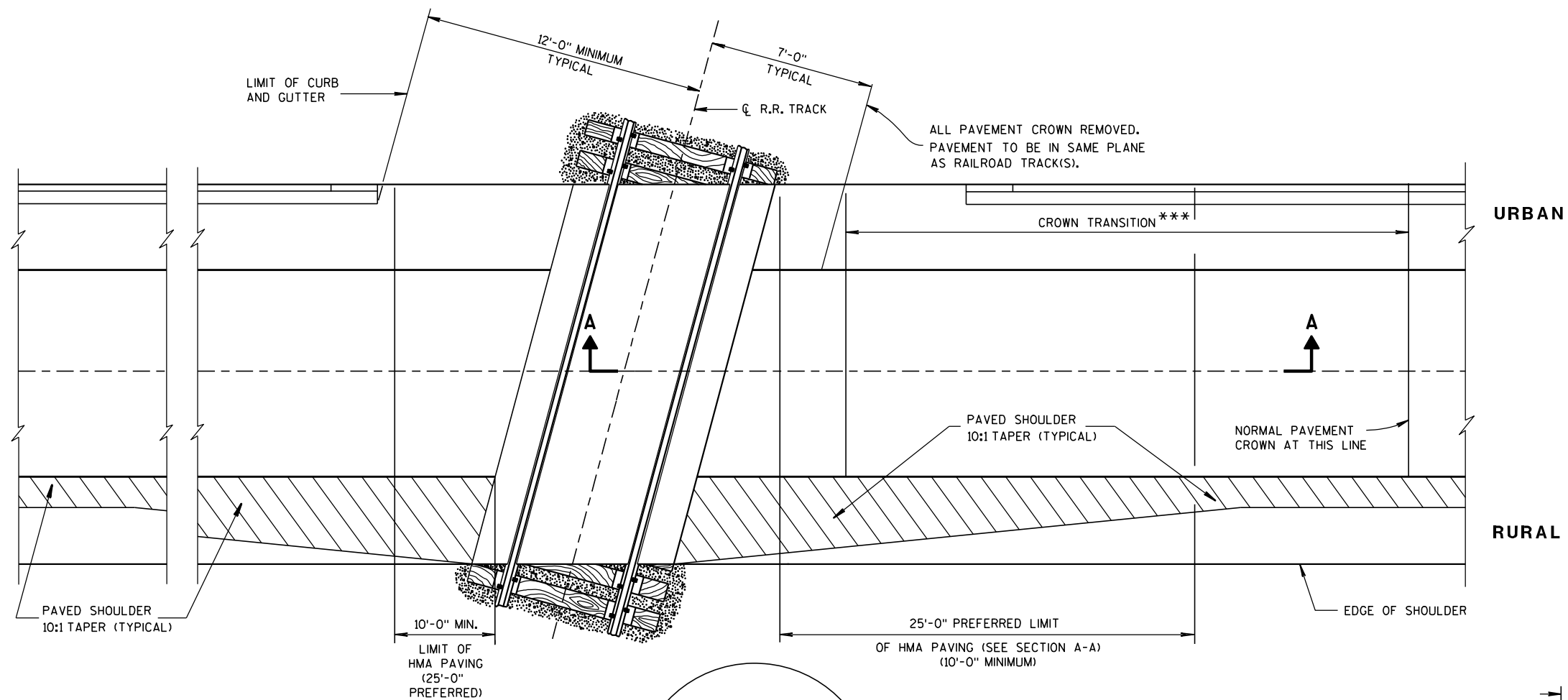
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

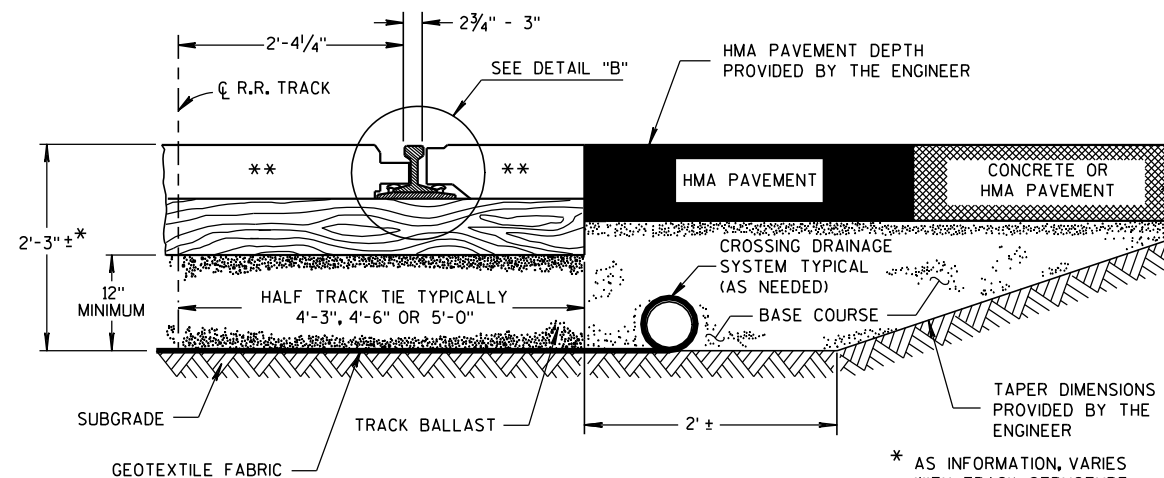
3/26/10
DATE

FHWA

/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER

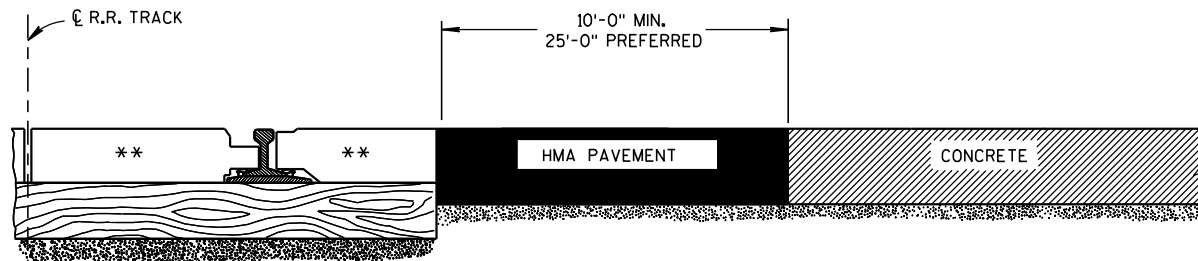


DETAIL B
HMA FLANGEWAY
AND FIELD FILLERS



TYPICAL HALF SECTION

* AS INFORMATION, VARIES WITH TRACK STRUCTURE AND SOIL CONDITIONS



SECTION A-A
CONCRETE PAVEMENT APPROACH



SECTION A-A
HMA PAVEMENT APPROACH

EXAMPLES OF PAVEMENT APPROACHES

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TIMBER, CONCRETE OR RUBBER CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, GEOTEXTILE FABRIC AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS OTHERWISE PROVIDED.

HMA PAVEMENT APPROACHES AND HMA PAVEMENT CROSSING SURFACES TO BE PLACED BY CONTRACTOR UNLESS OTHERWISE PROVIDED.

HMA FLANGEWAY AND FIELD FILLERS TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR WHEN NOT PROVIDED BY OTHERS. SEE DETAIL B. HMA FILLERS NOT REQUIRED WHEN RUBBER FILLERS ARE PROVIDED.

HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

** CROSSING SURFACE MAY BE TIMBER, RUBBER, CONCRETE, HMA PAVEMENT OR A COMBINATION OF SUCH MATERIALS.

*** CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.

PAVEMENT DETAILS FOR RAILROAD APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

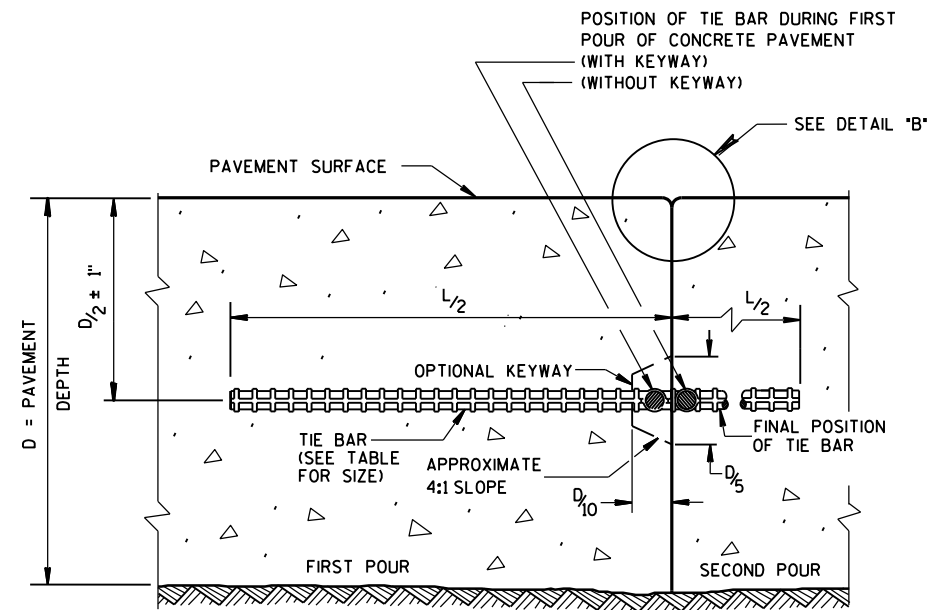
8-28-09

DATE

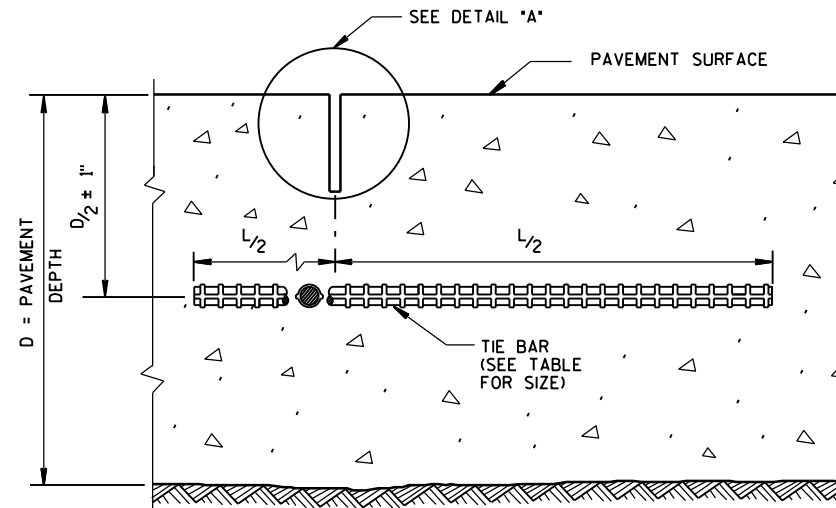
FHWA

/S/ Ronald E. Adams

CHIEF, RAILROADS & HARBORS SECTION



CONSTRUCTION JOINT



SAWED JOINT

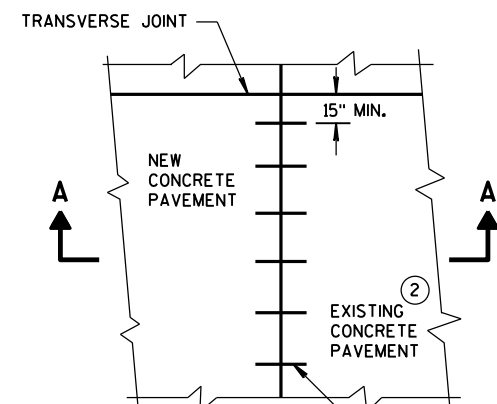
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

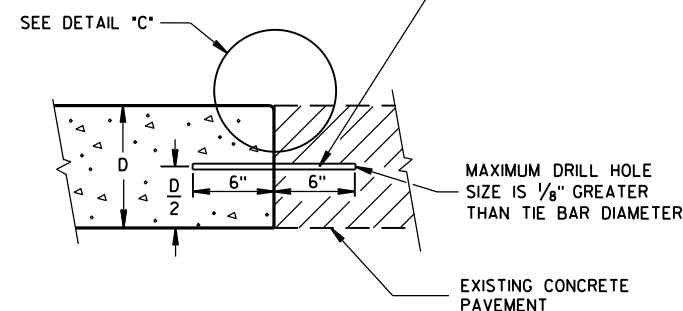
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

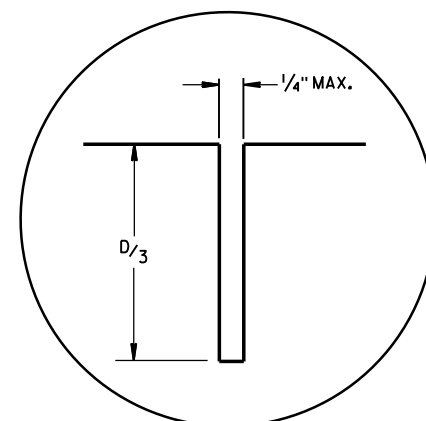


PLAN VIEW

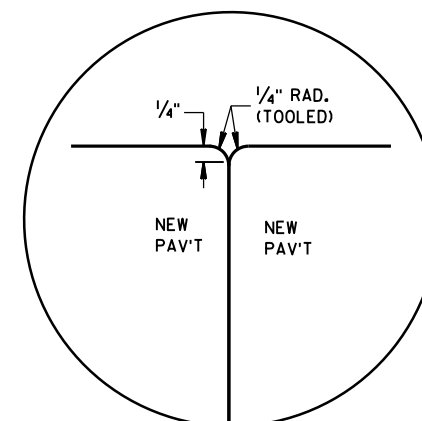
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



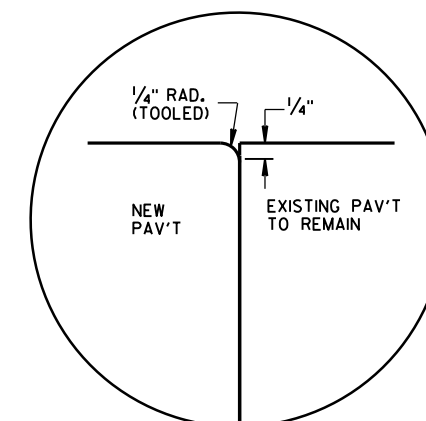
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



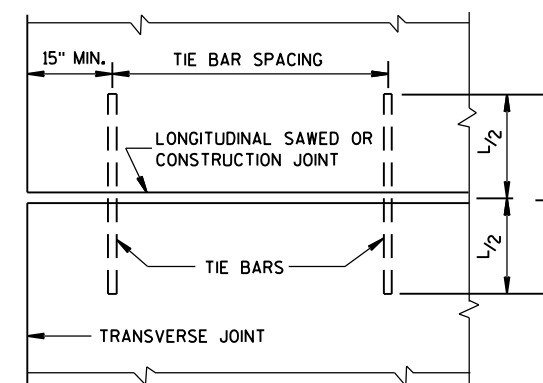
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



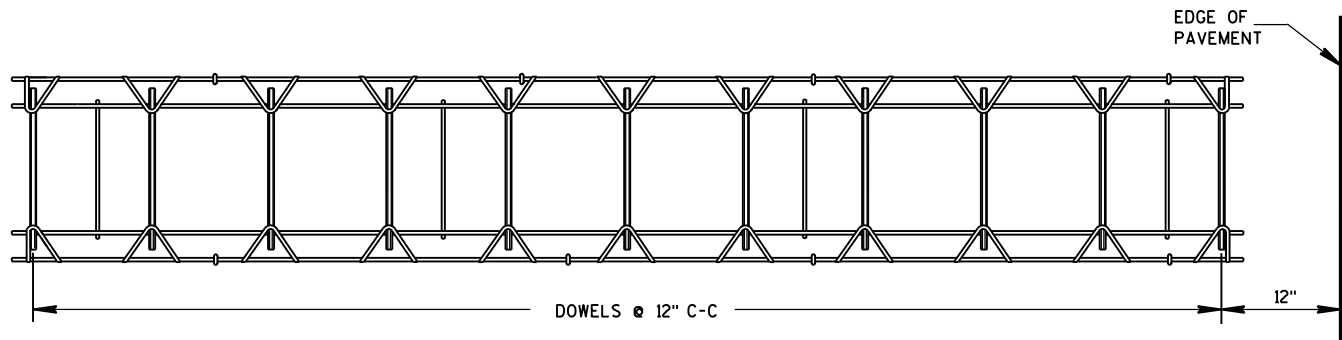
PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

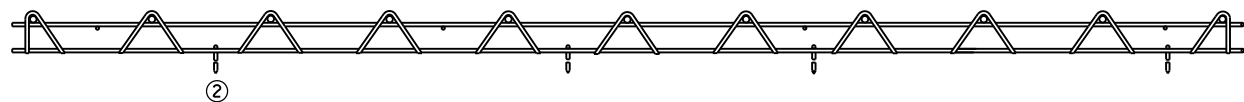
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
FHWA

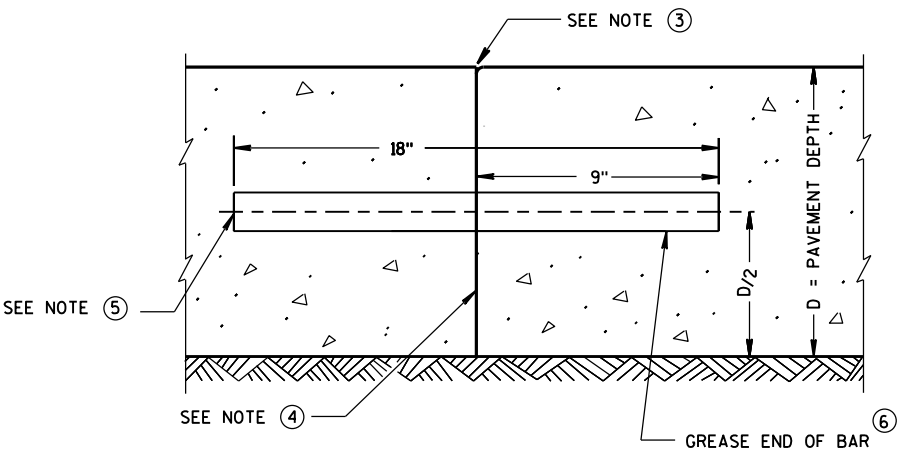
/S/ Peter Kemp, P.E.
PAVEMENT SUPERVISOR



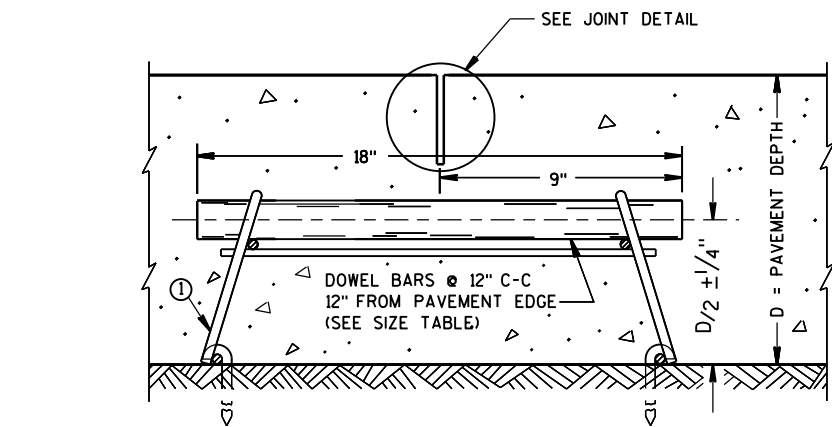
PLAN VIEW



SIDE VIEW
CONTRACTION JOINT DOWEL ASSEMBLY



TRANSVERSE CONSTRUCTION JOINT



DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

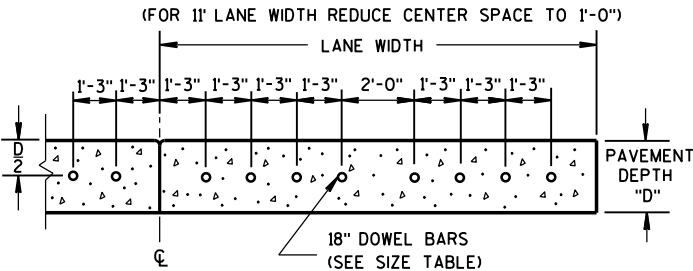
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

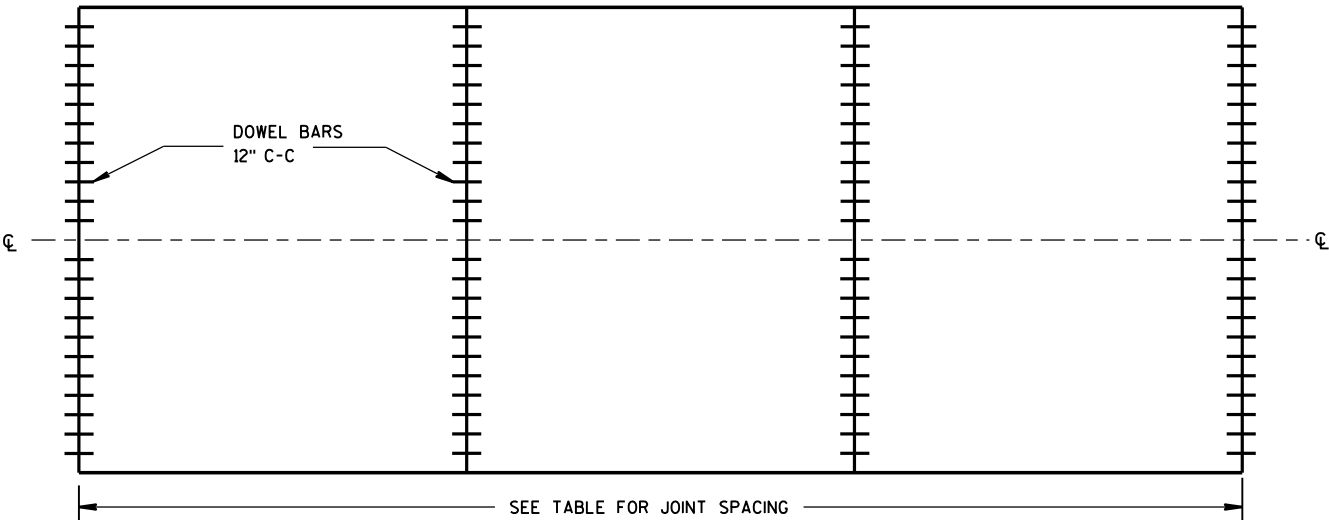
CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

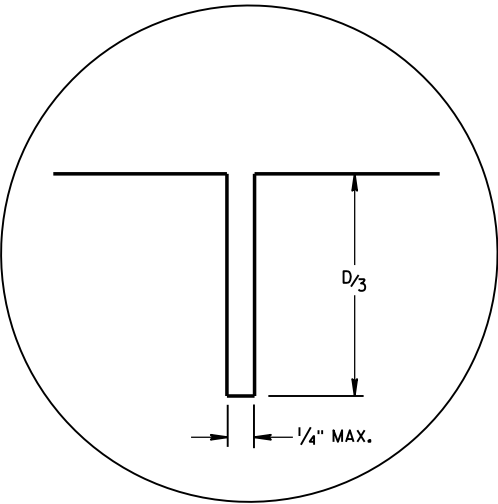
- OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DRILLED DOWEL BAR CONSTRUCTION JOINT



CONTRACTION JOINT LOCATIONS

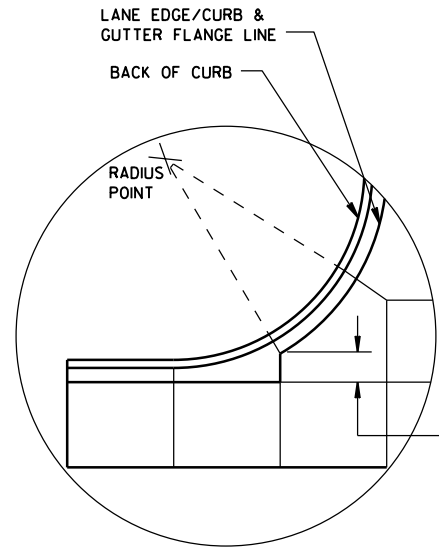


JOINT DETAIL

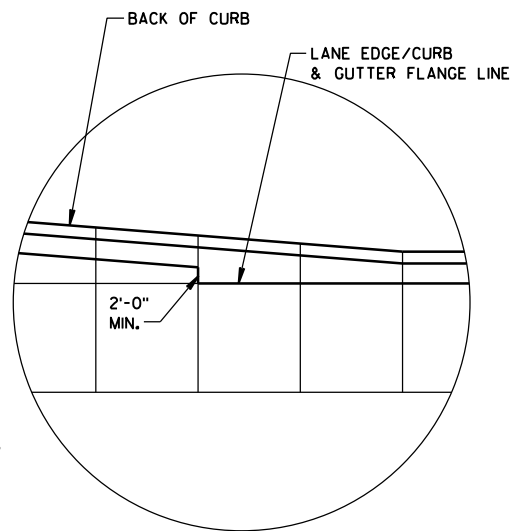
URBAN DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

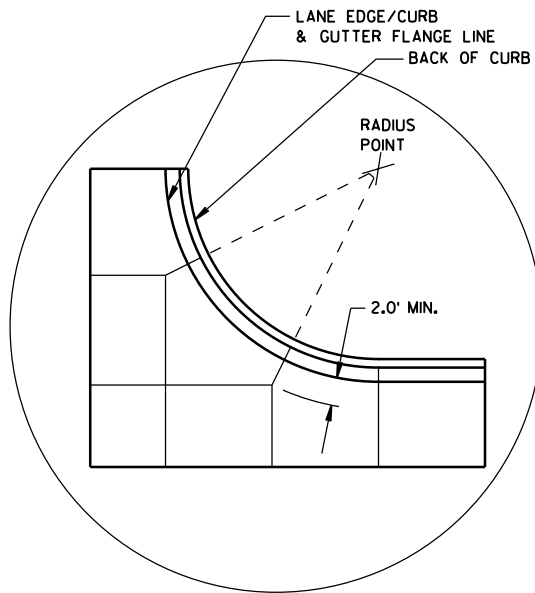
APPROVED
5/3/2013 /S/ Deb Bischoff
DATE PAVEMENT POLICY & DESIGN ENGINEER
FHWA



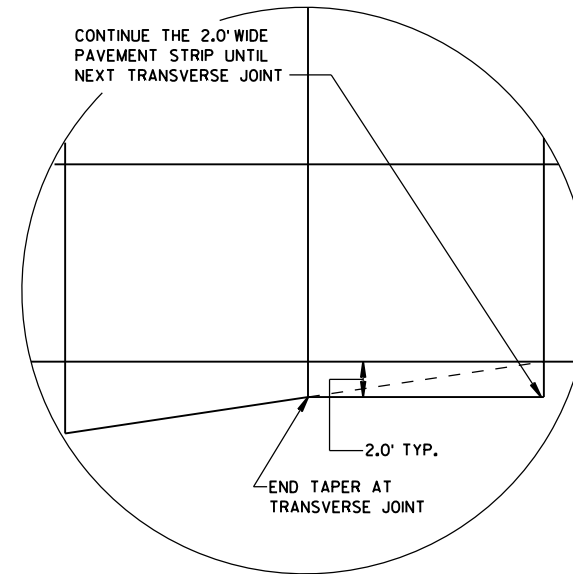
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

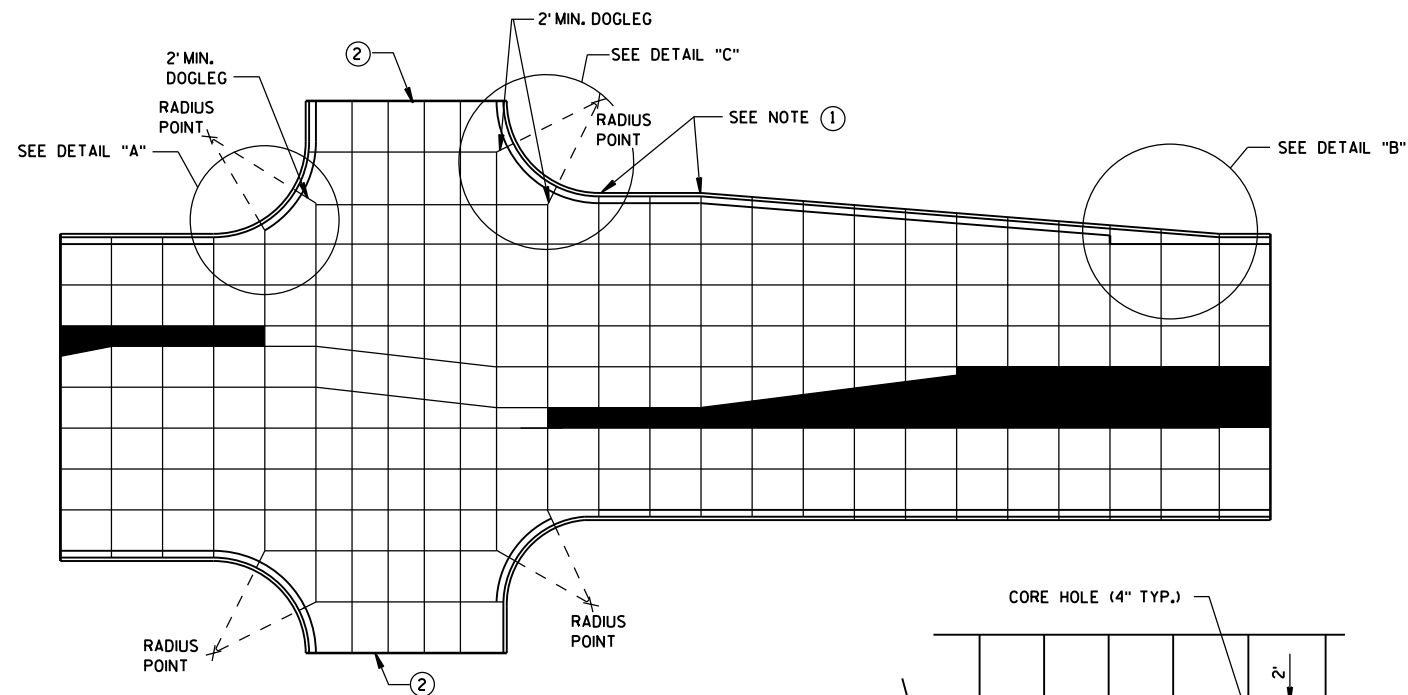
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

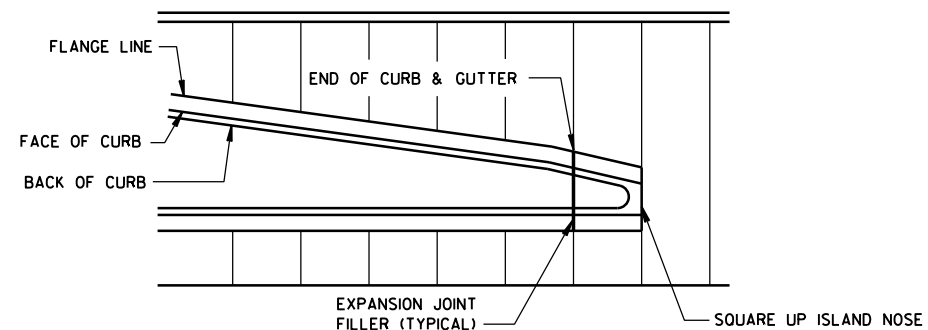
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

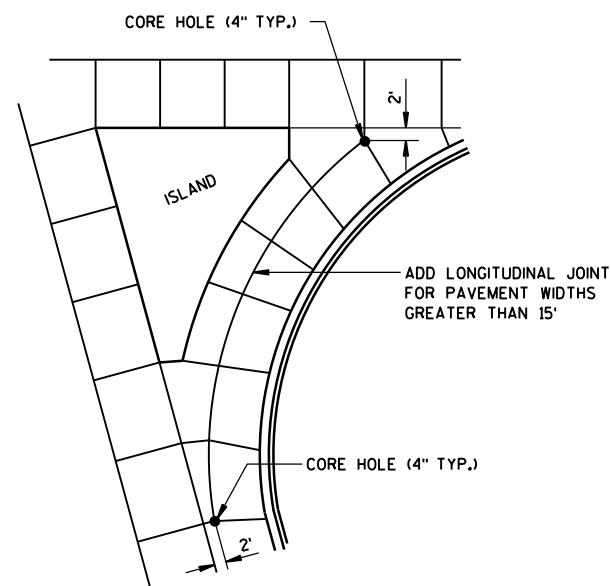
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



STANDARD INTERSECTION



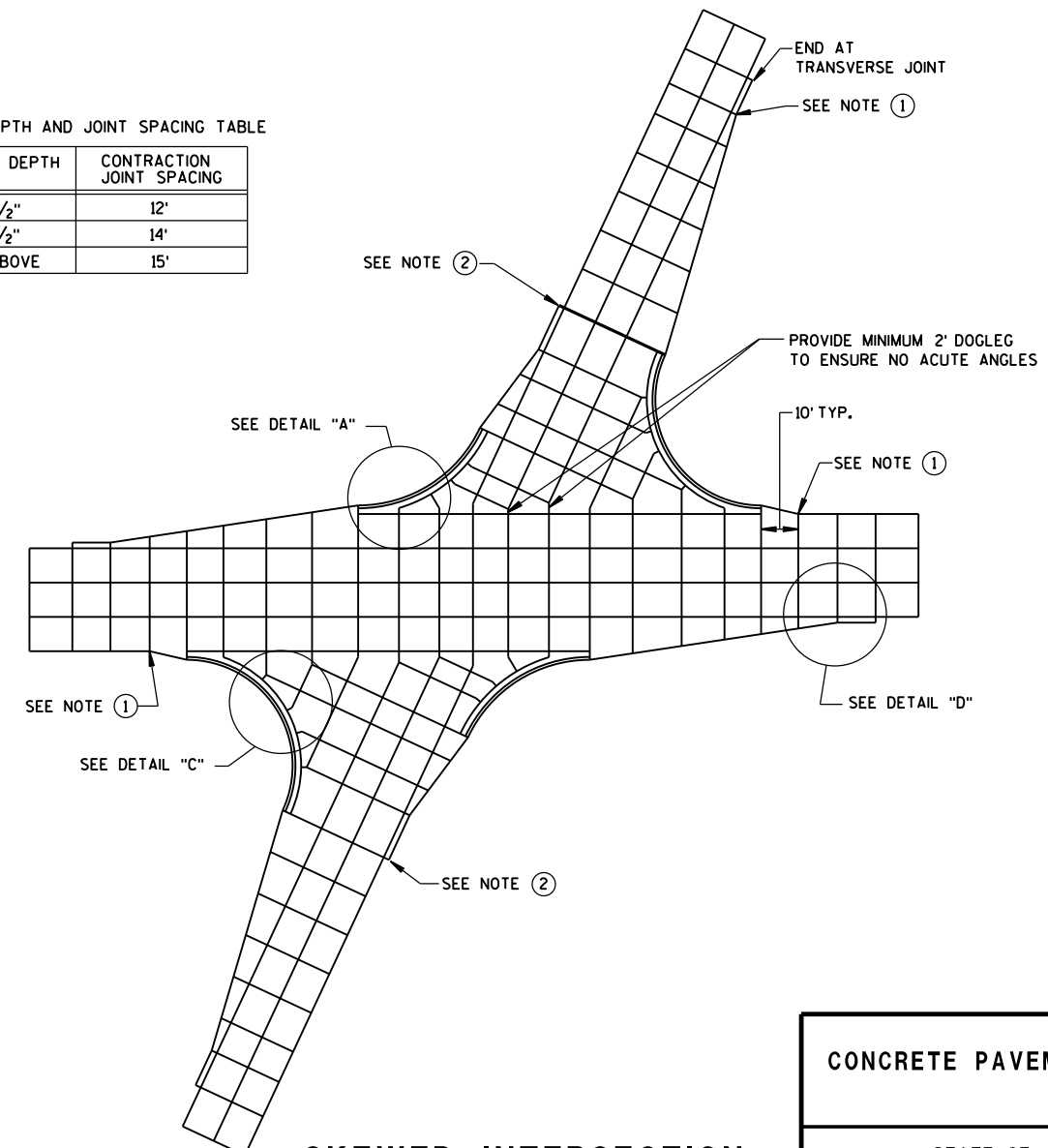
APPROACH TO MEDIAN



LARGE RIGHT TURN

PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



SKewed INTERSECTION

CONCRETE PAVEMENT JOINTING

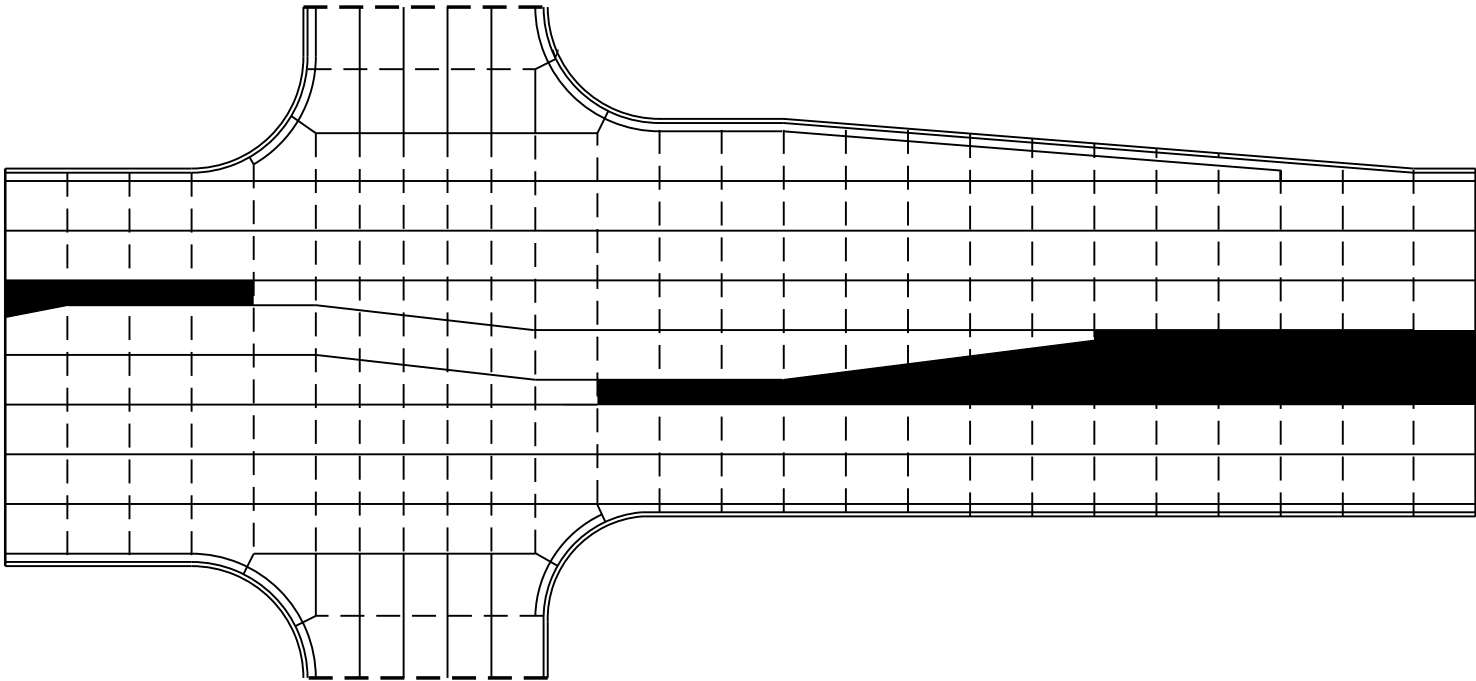
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

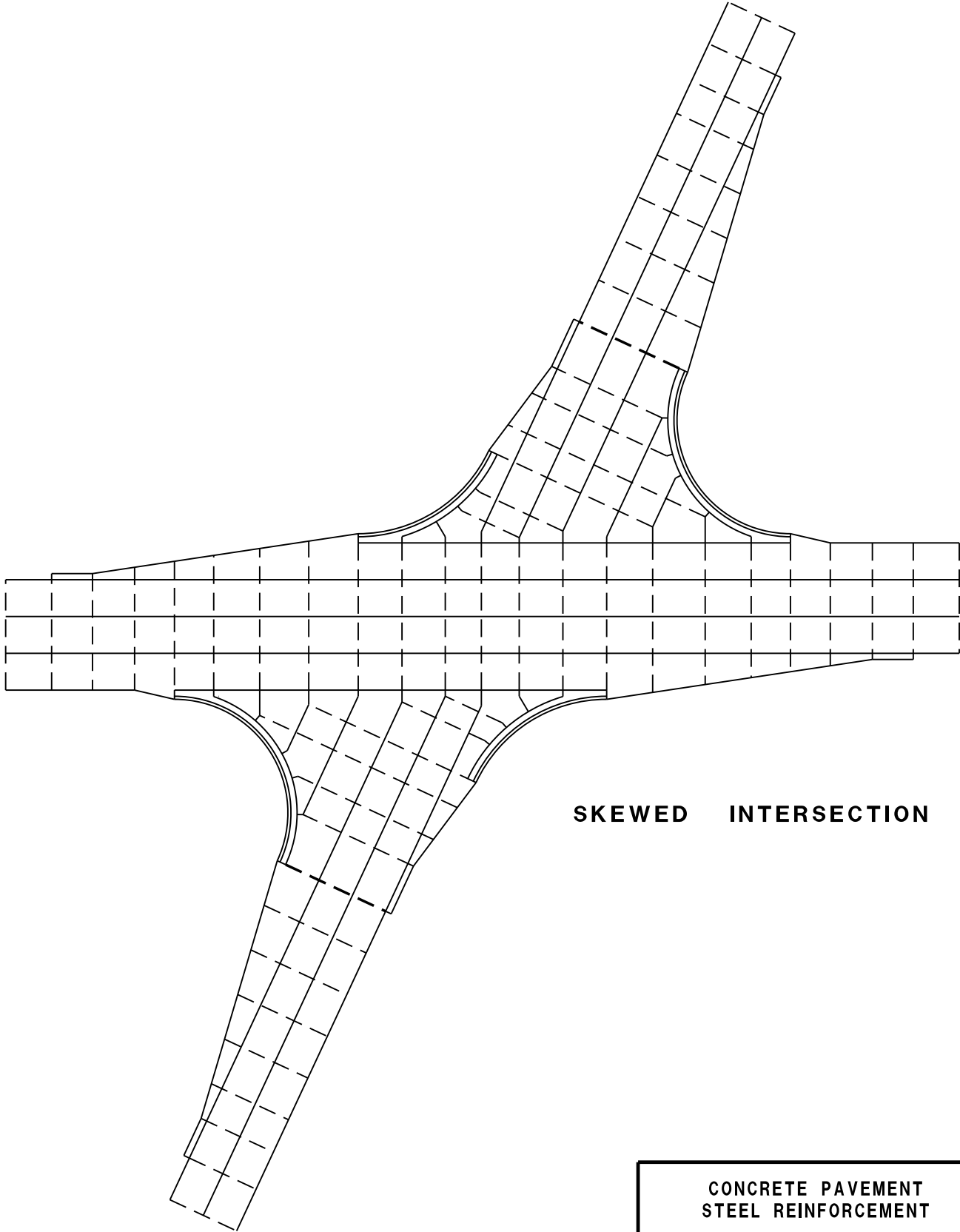
- POTENTIAL DOWELED EXPANSION JOINT
- DOWELED JOINT
- TIED JOINT

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



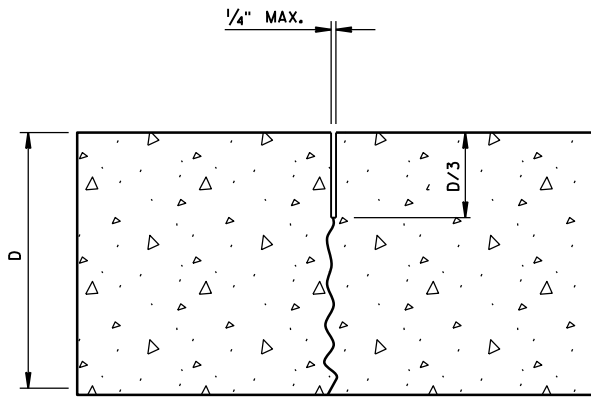
STANDARD INTERSECTION



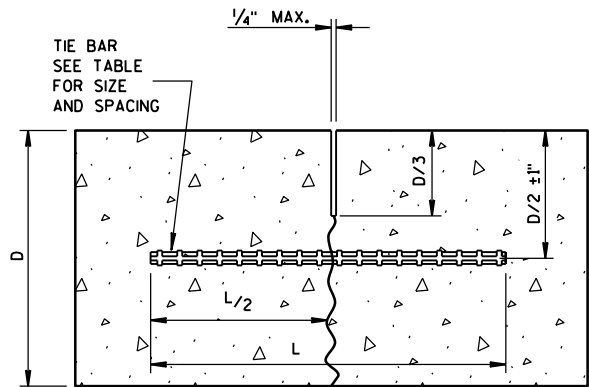
SKewed INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

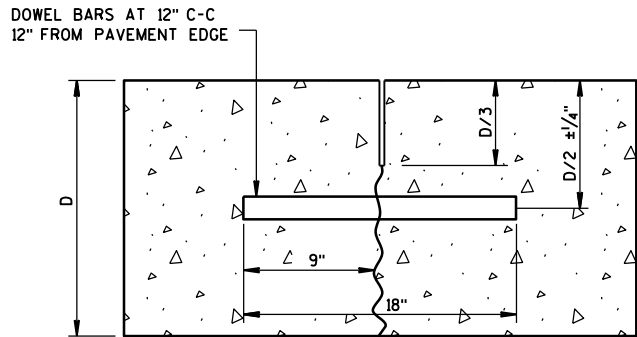
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



UNDOWELED-TRANSVERSE



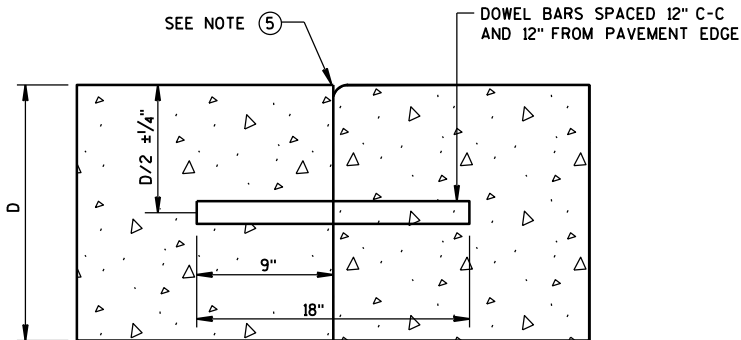
TIED LONGITUDINAL



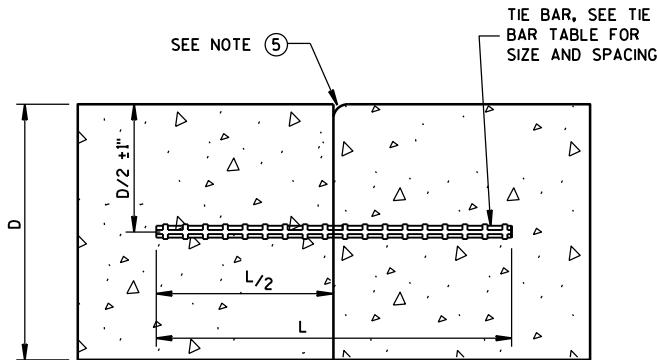
DOWELED-TRANSVERSE

CONTRACTION JOINTS

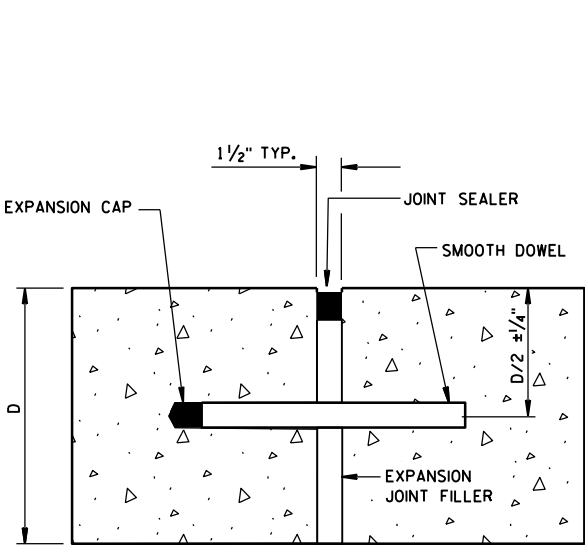
SEE NOTE ②



DOWELED TRANSVERSE ③



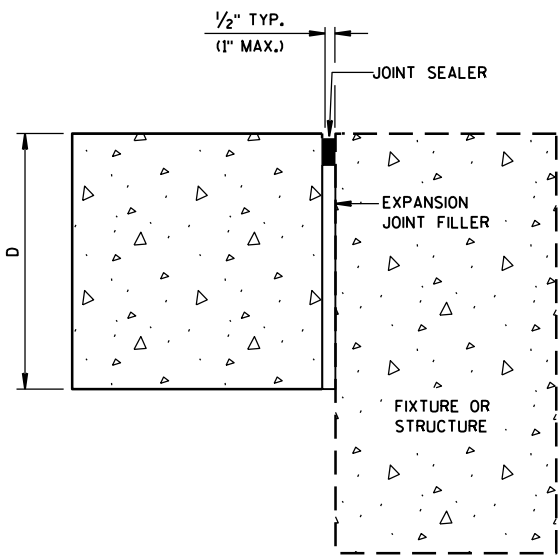
TIED LONGITUDINAL



DOWELED-TRANSVERSE

SEE NOTE ①

EXPANSION JOINTS



UNTIED-LONGITUDINAL

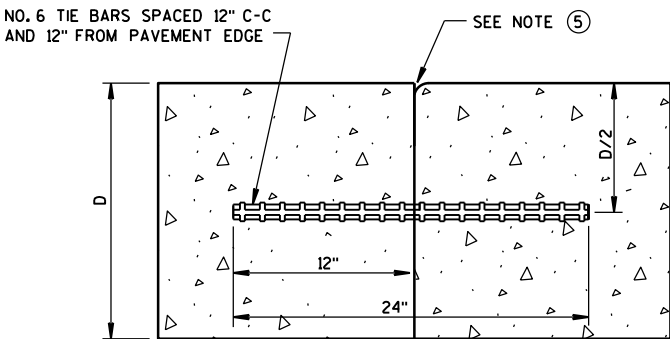
TIE BAR TABLE			
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
	NO. 5	36"	36"
≥ 10 1/2"	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

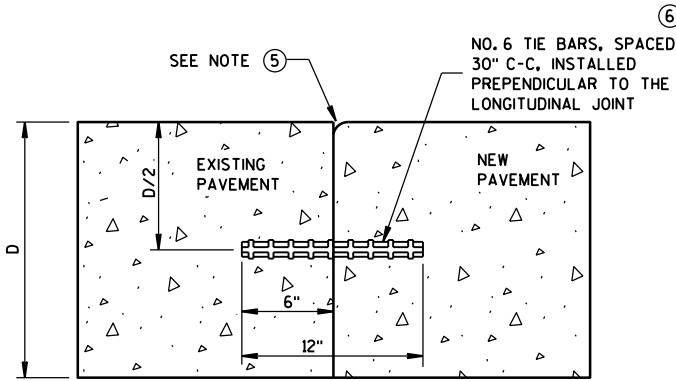
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

- ① USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
- ② SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
- ③ LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
- ④ CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
- ⑤ IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.
- ⑥ ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



TIED TRANSVERSE ③
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



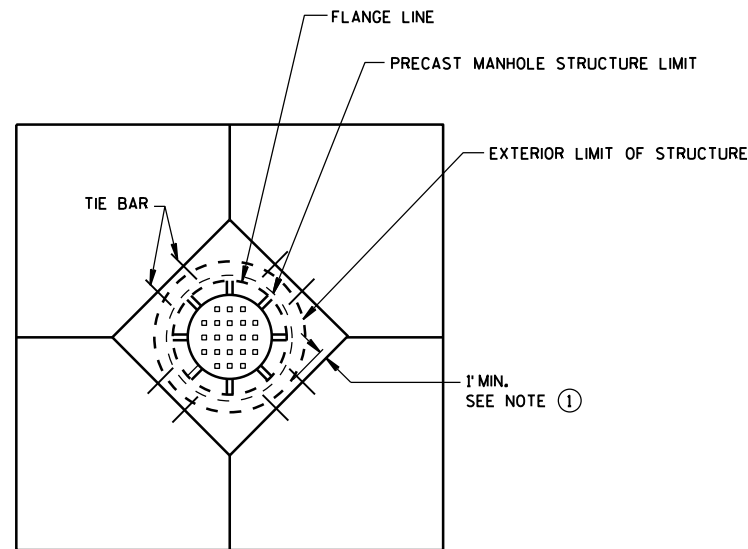
TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS

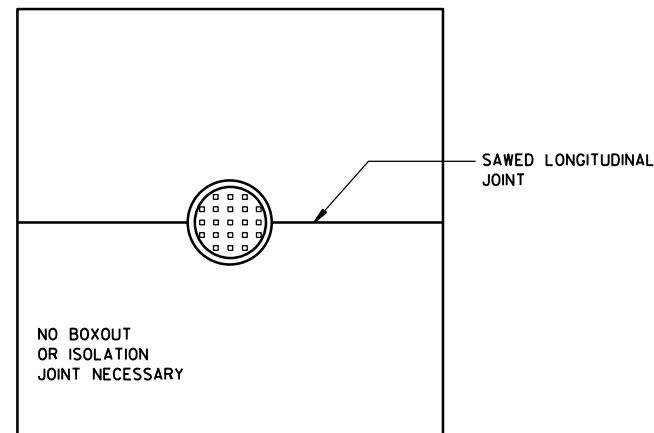
SEE NOTE ④

CONCRETE PAVEMENT
JOINT TYPES

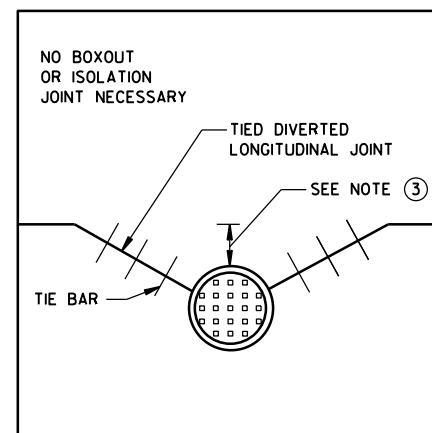
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



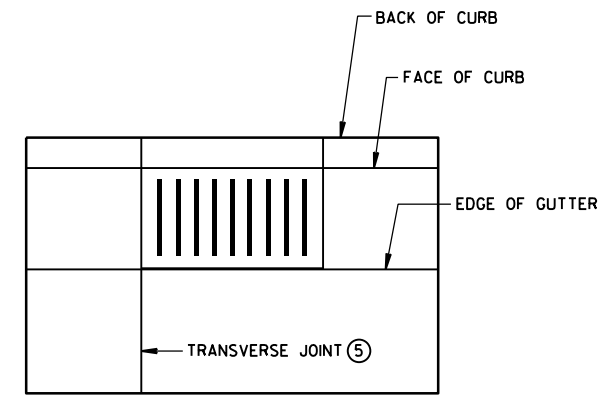
**DIAGONAL MANHOLE BOXOUT
FOR CONSTRUCTION JOINTS**



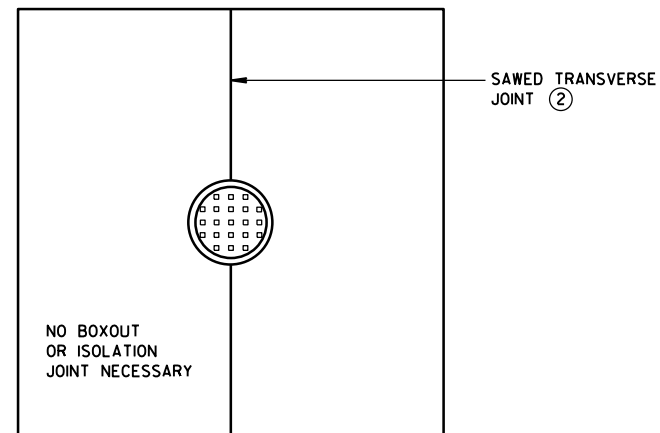
**MANHOLE WITH
LONGITUDINAL JOINT**



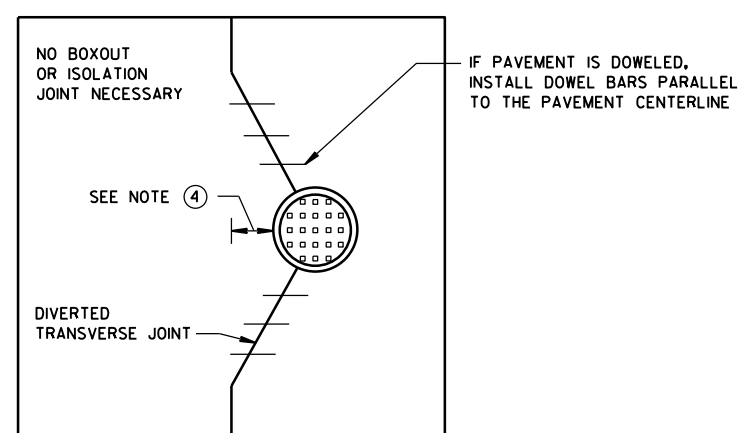
**MANHOLE WITH DIVERTED
LONGITUDINAL CONTRACTION JOINT**



**INLET WITH
TRANSVERSE JOINT**



**MANHOLE WITH
TRANSVERSE JOINT**



**MANHOLE WITH DIVERTED
TRANSVERSE CONTRACTION JOINT**

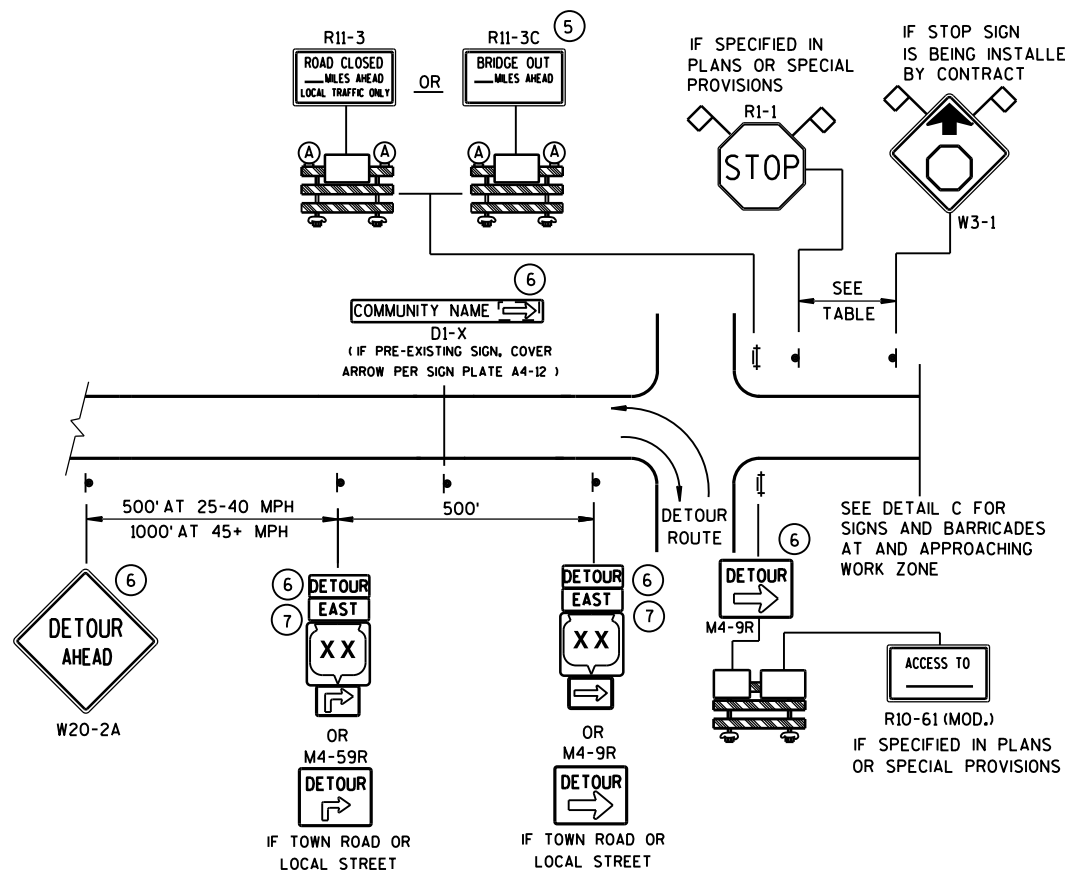
GENERAL NOTES

- ① USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- ② ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- ③ IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.
- ④ IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.
- ⑤ ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

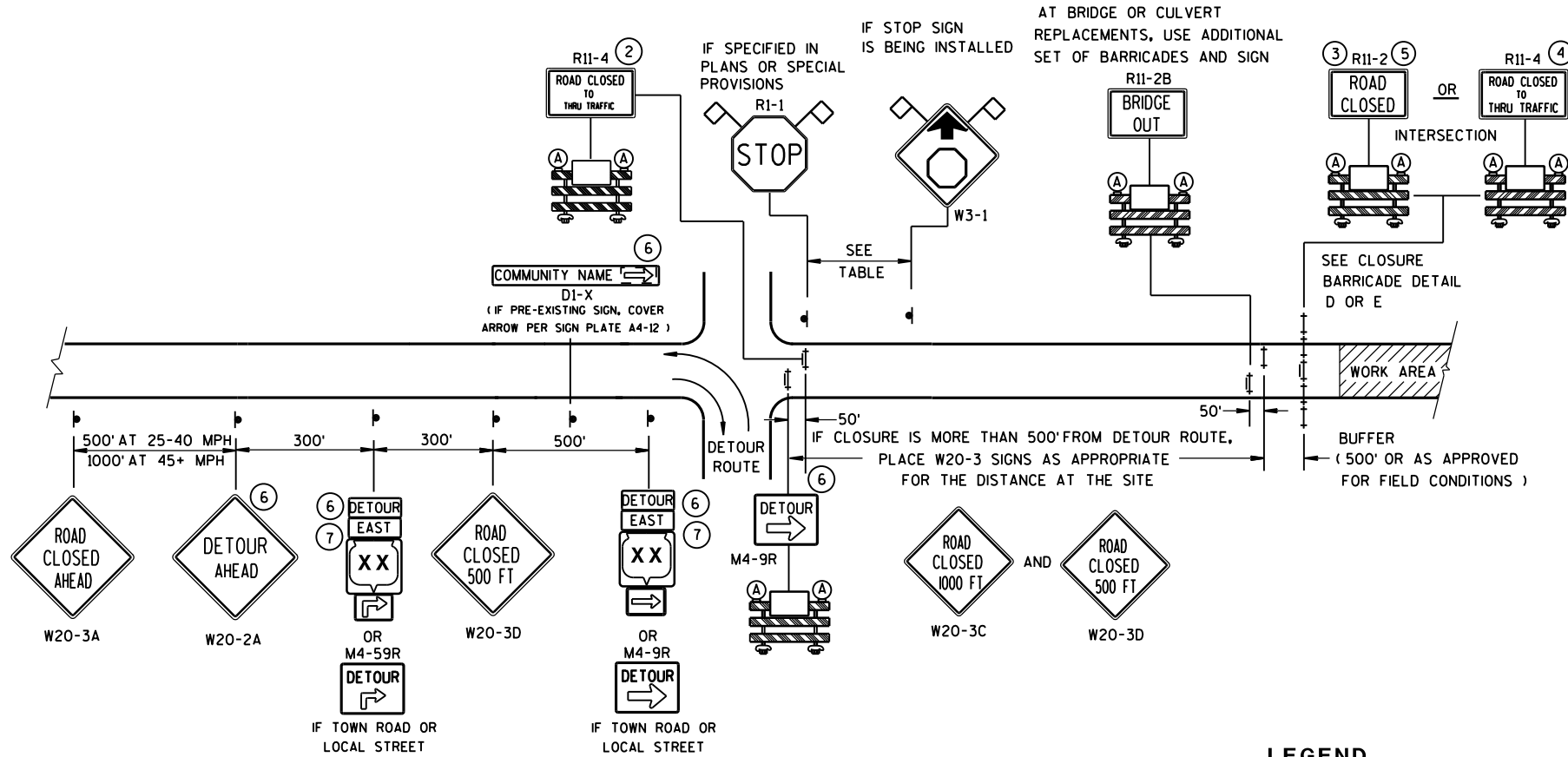
**CONCRETE PAVEMENT
JOINTING AT UTILITY FIXTURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

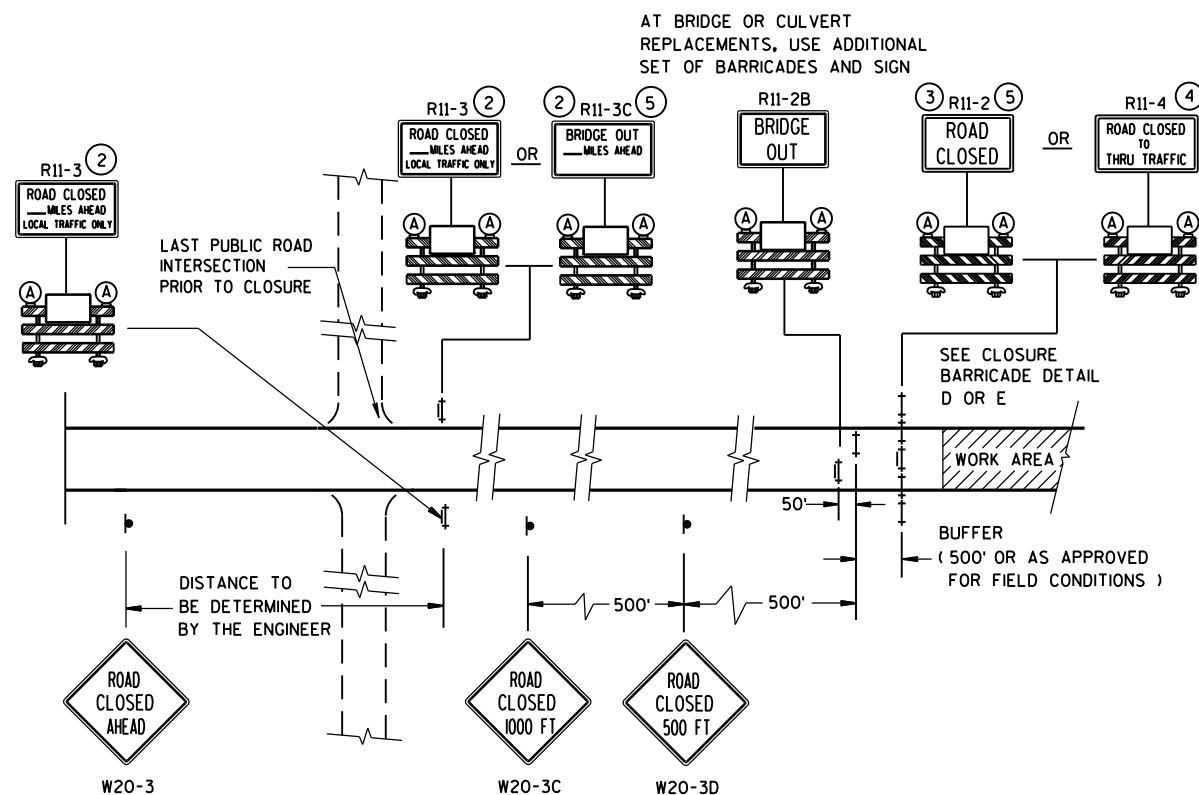
APPROVED
December, 2016 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR
FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

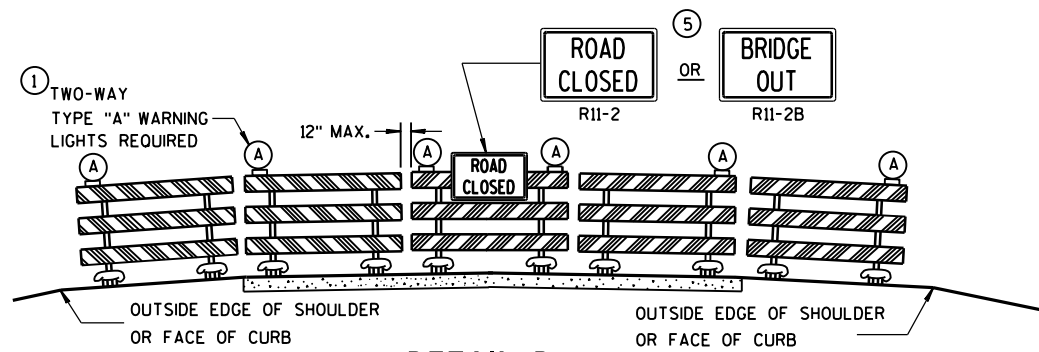


DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

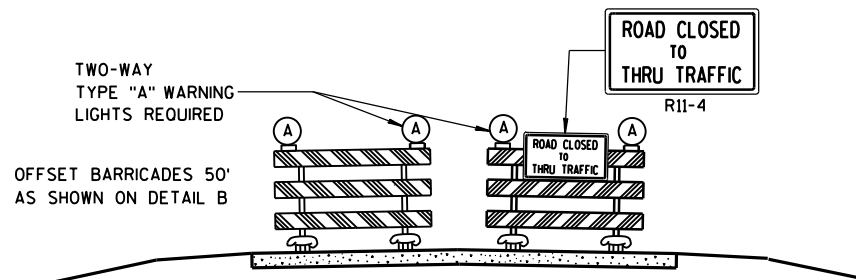
SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
Sept. 2015 DATE	/S/ Peter Amokobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

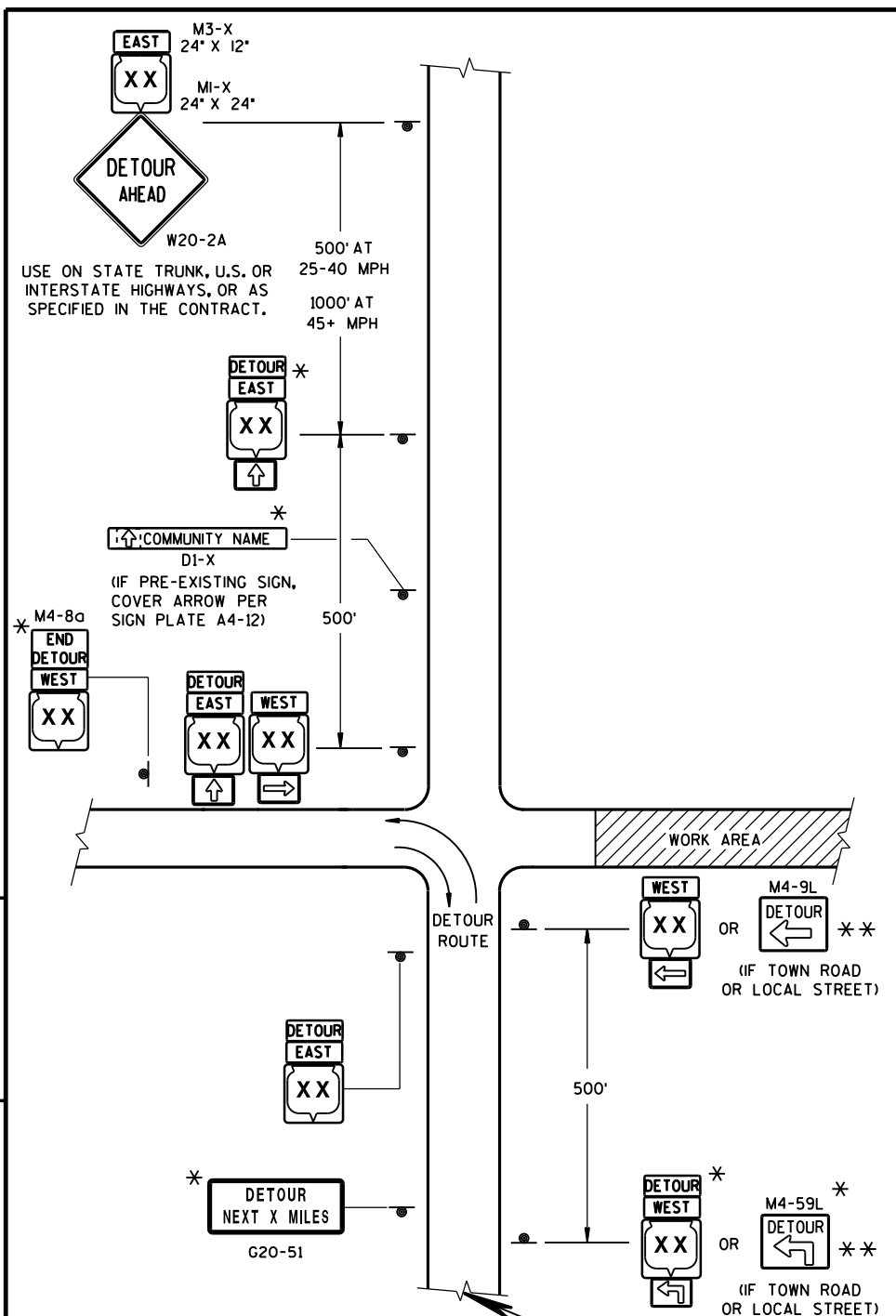
"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
Sept. 2015 DATE	/S/ Peter Amokobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

MATCH POINT

DETAIL F
DETOUR SIGNING

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS, MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

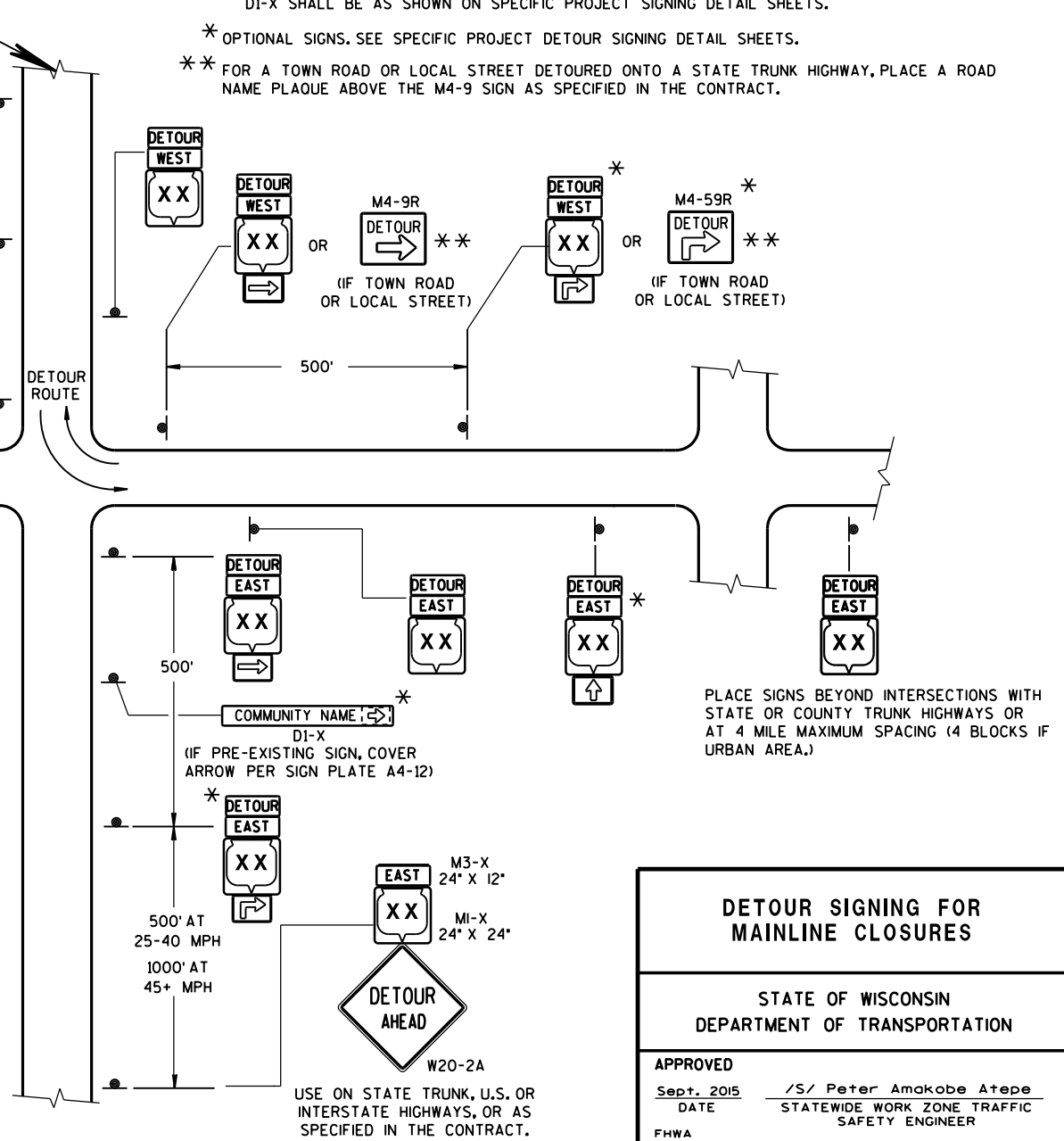
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

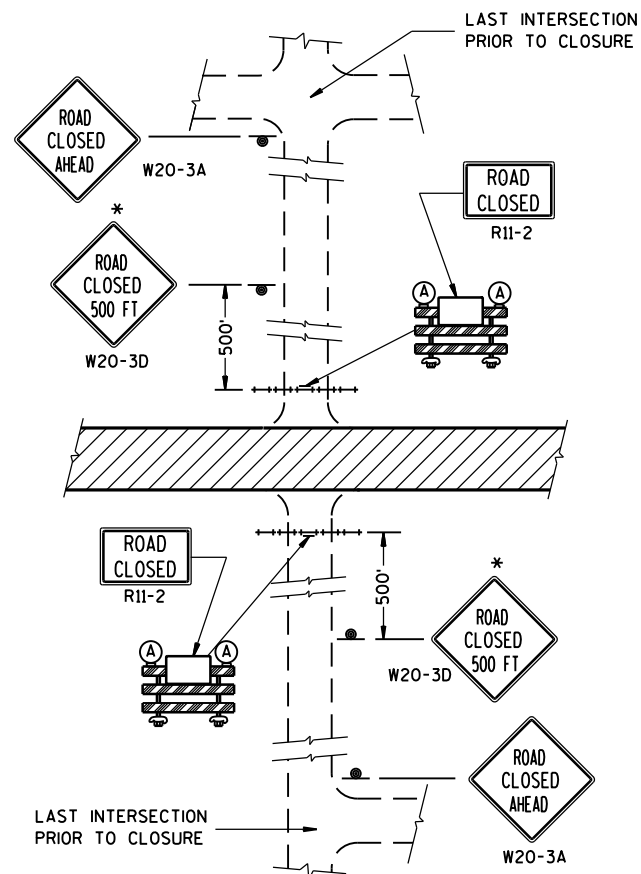
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

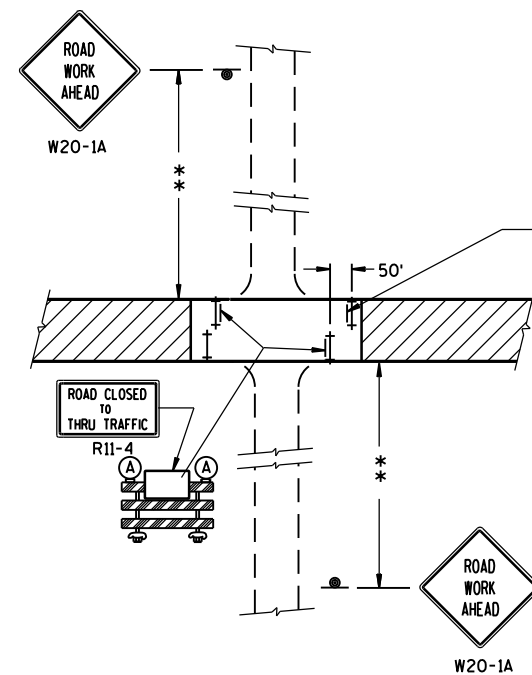
** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



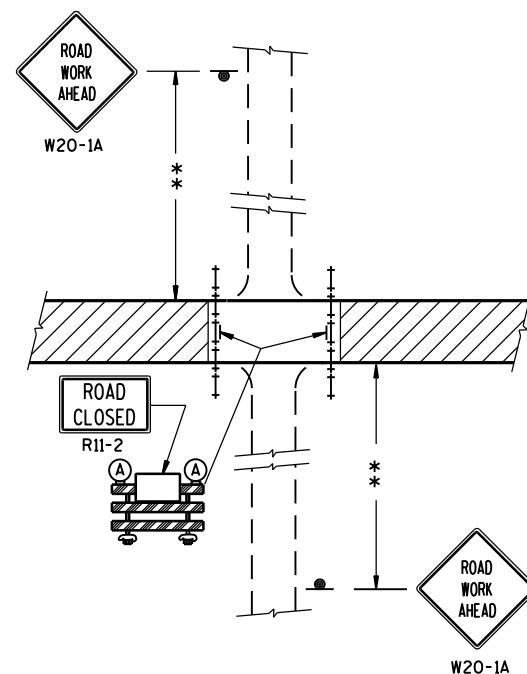
DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE FWHA	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER



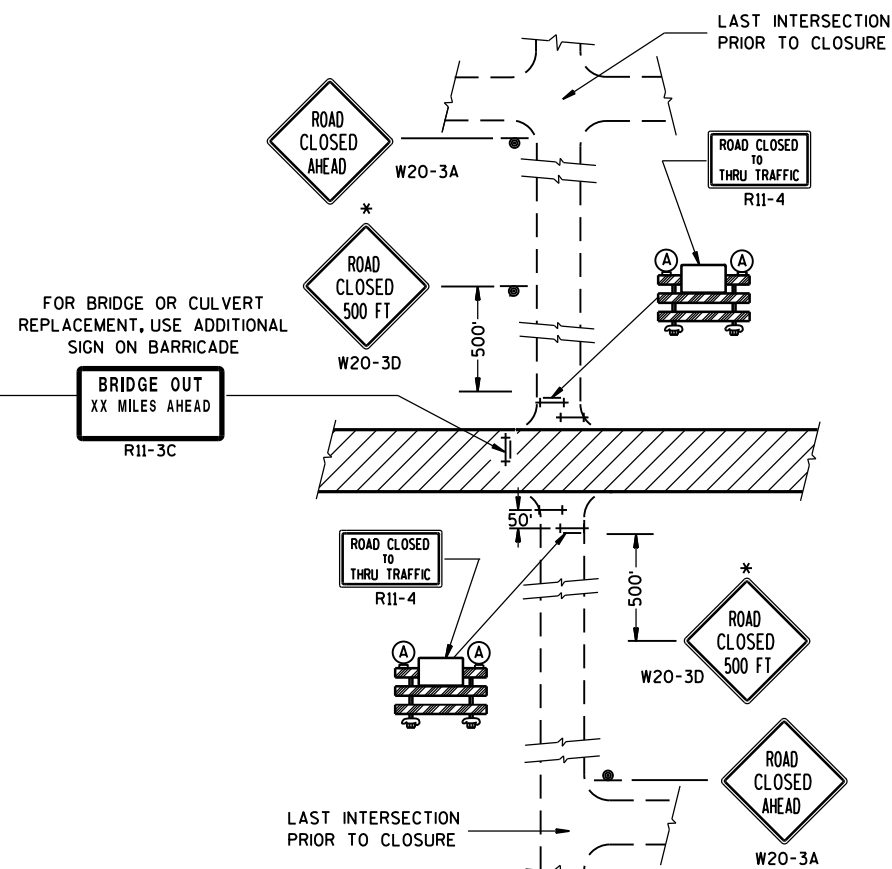
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

R11-2 SHALL BE 48" X 30".

R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- ⊙ SIGN ON PERMANENT SUPPORT
- ⊥ TYPE III BARRICADE
- ⊥ TYPE III BARRICADE WITH ATTACHED SIGN
- Ⓐ TYPE "A" WARNING LIGHT (FLASHING)
- ▨ WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015

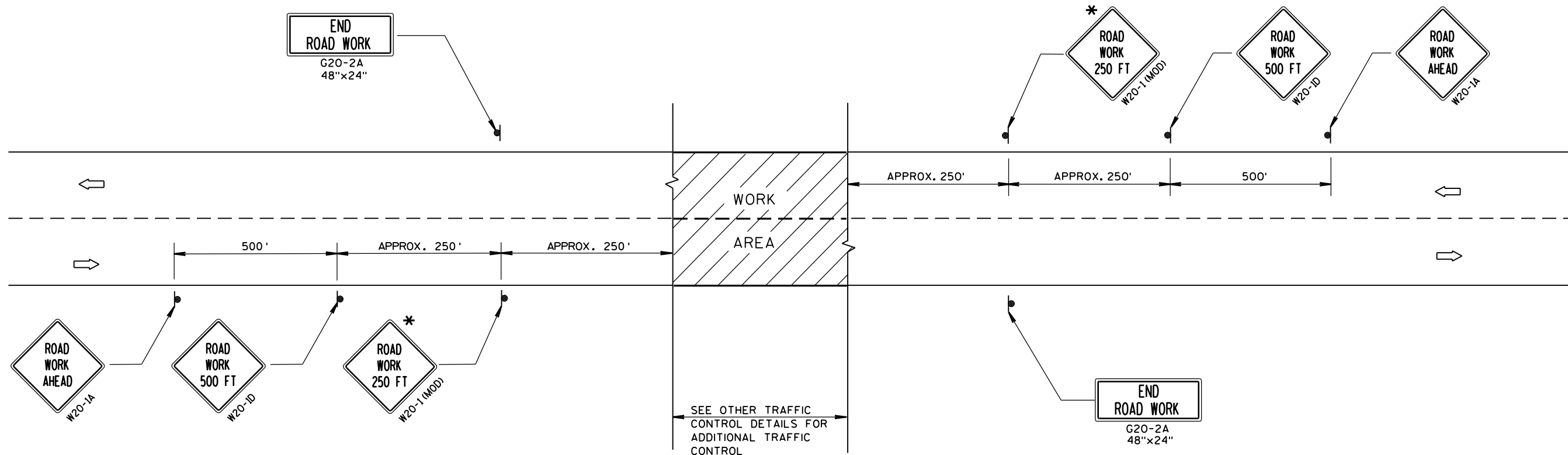
DATE

FHWA

/S/ Peter Amakobe Atepe

STATEWIDE WORK ZONE TRAFFIC

SAFETY ENGINEER



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

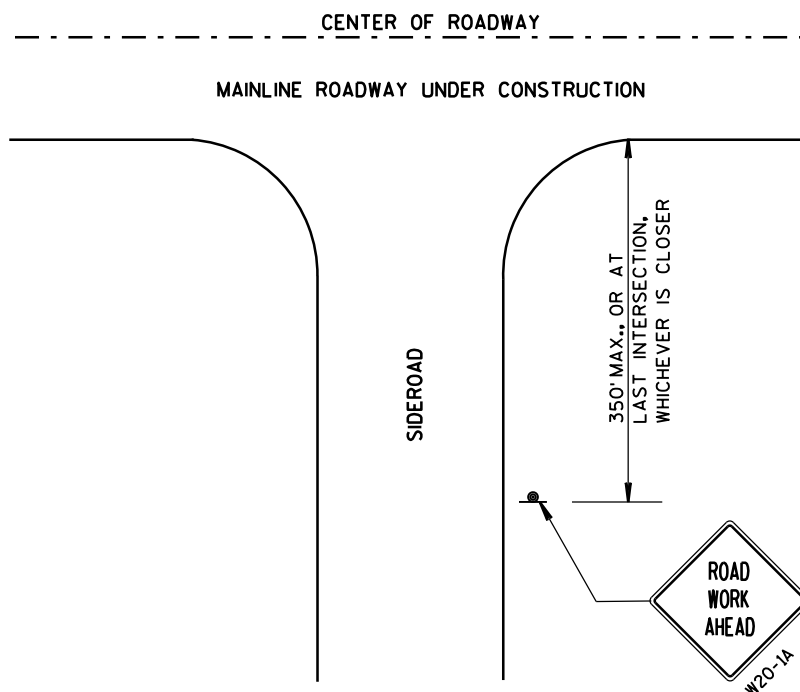
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

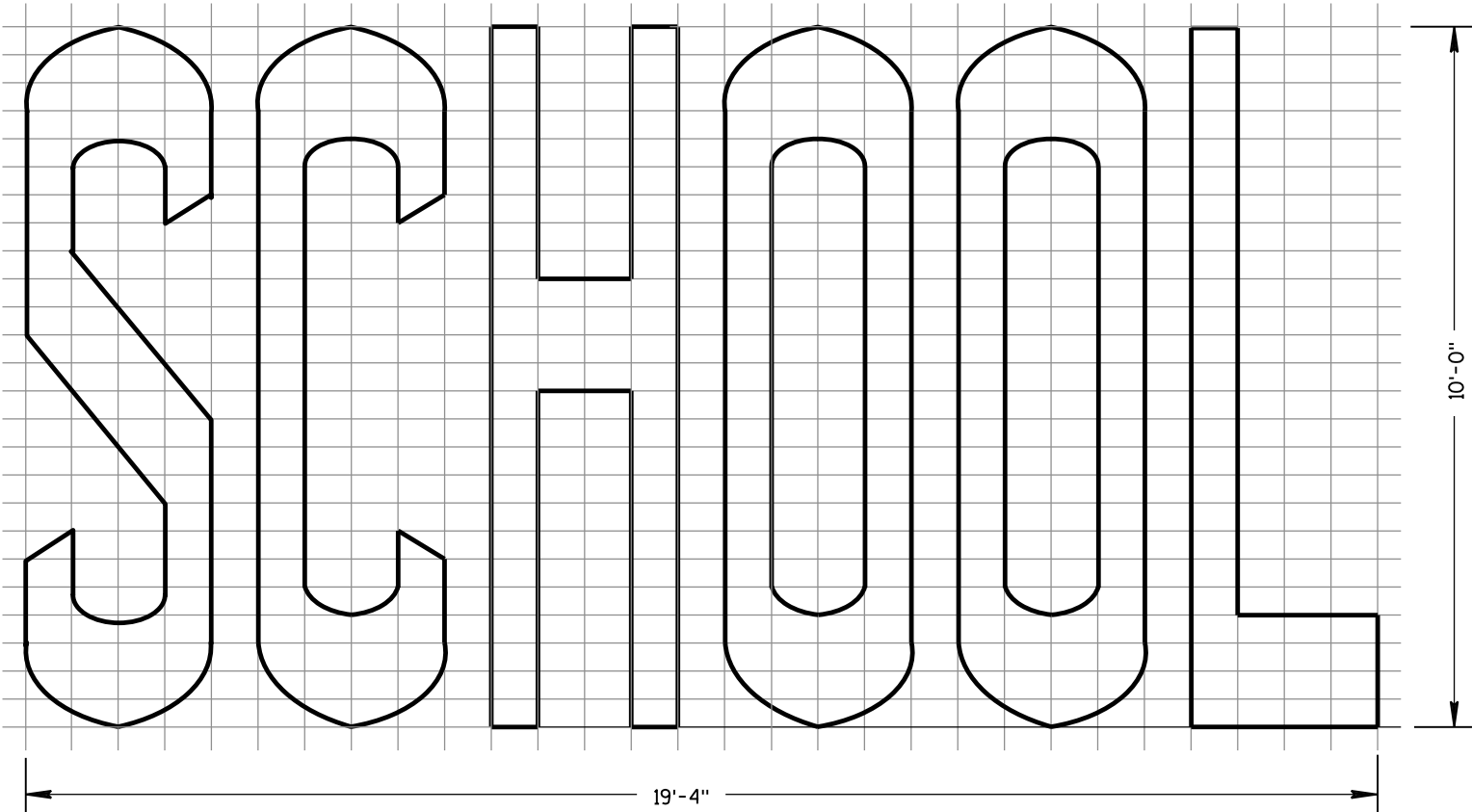
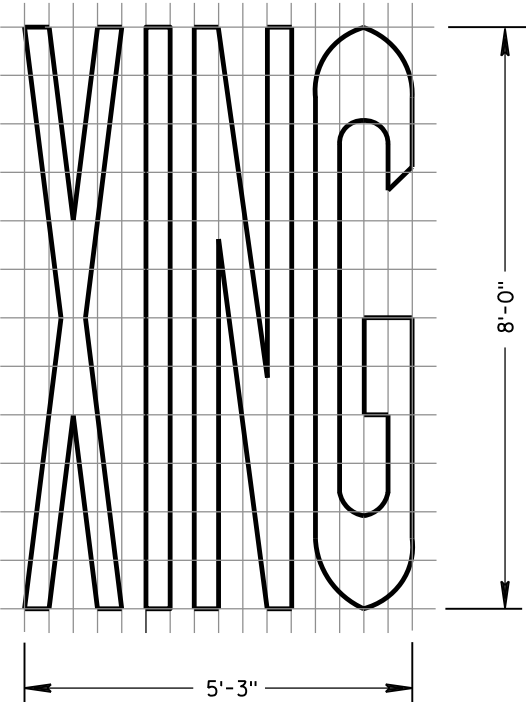
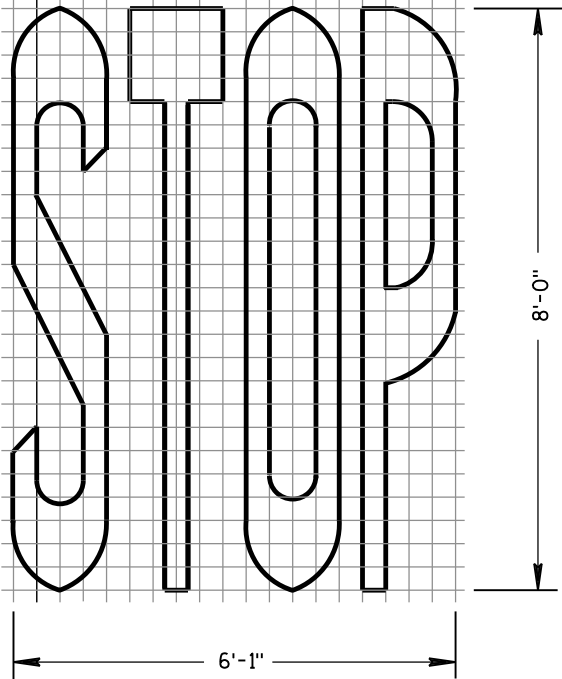
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 40 M.P.H.
OR LESS TWO-WAY UNDIVIDED
ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

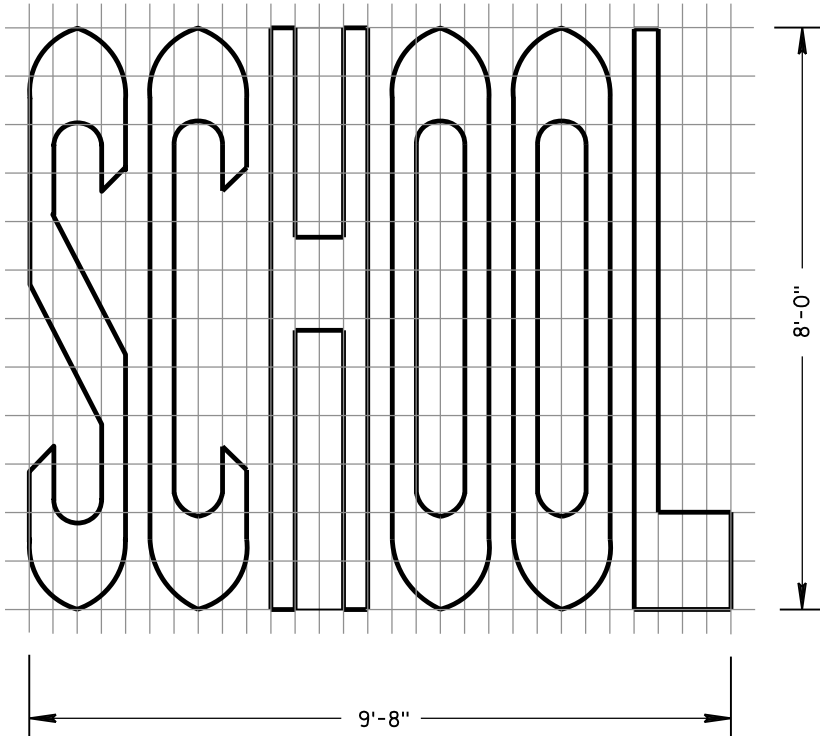
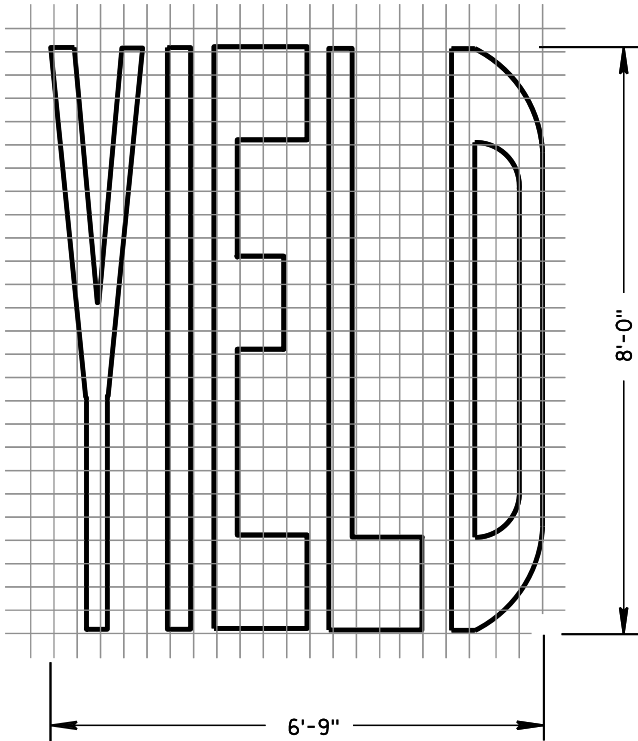
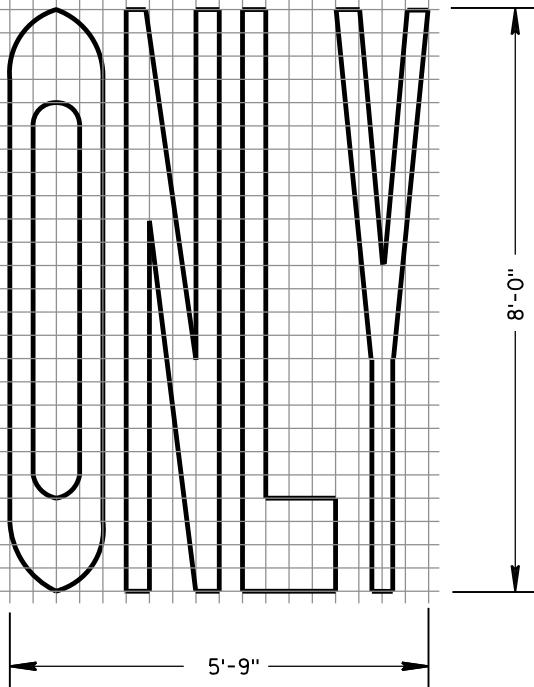
APPROVED
Sept. 2015 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER

GENERAL NOTES

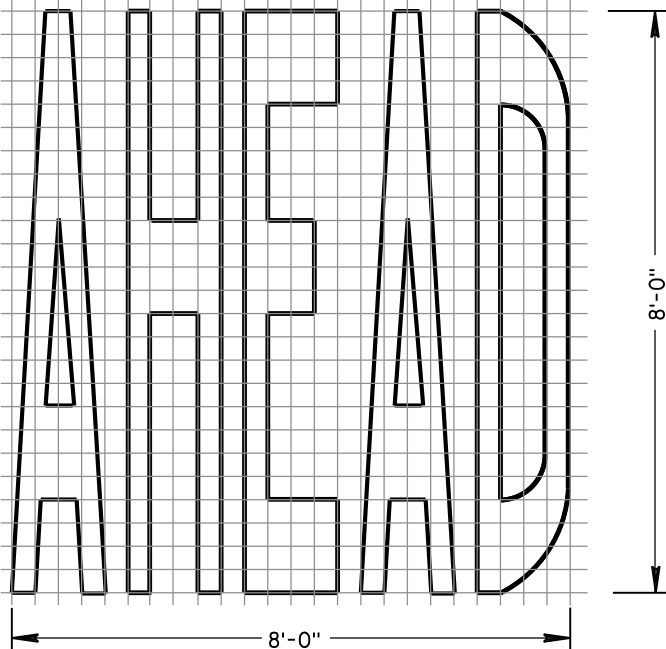
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



TWO-LANE



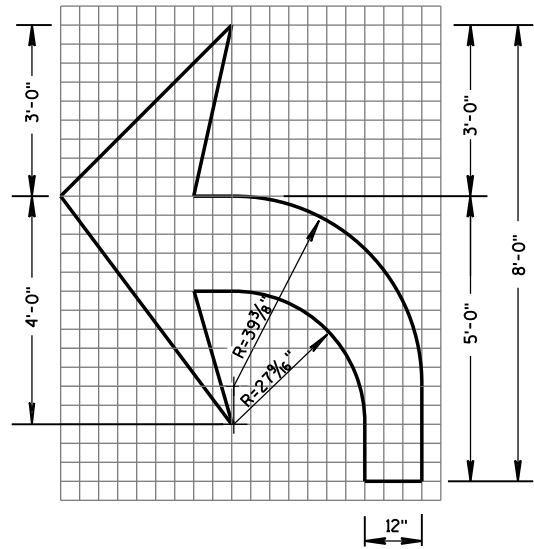
SINGLE-LANE



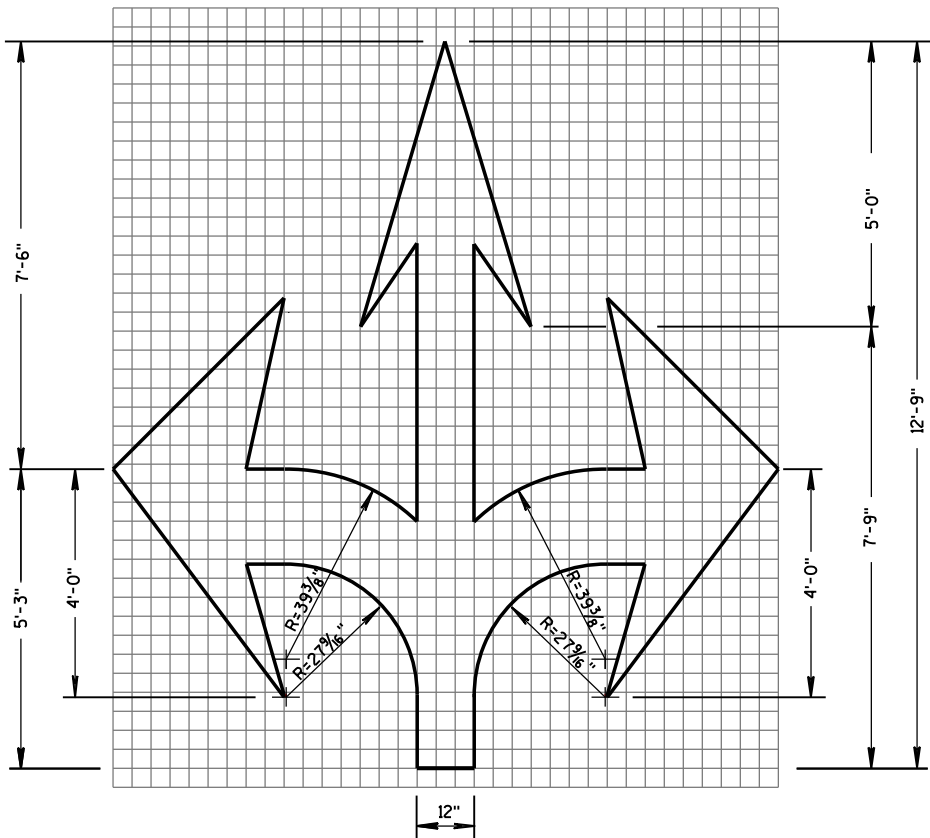
PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

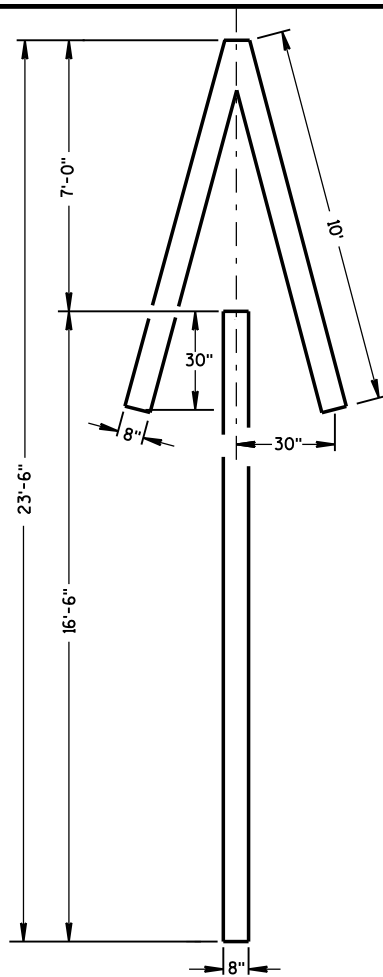
APPROVED
4-18-16 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



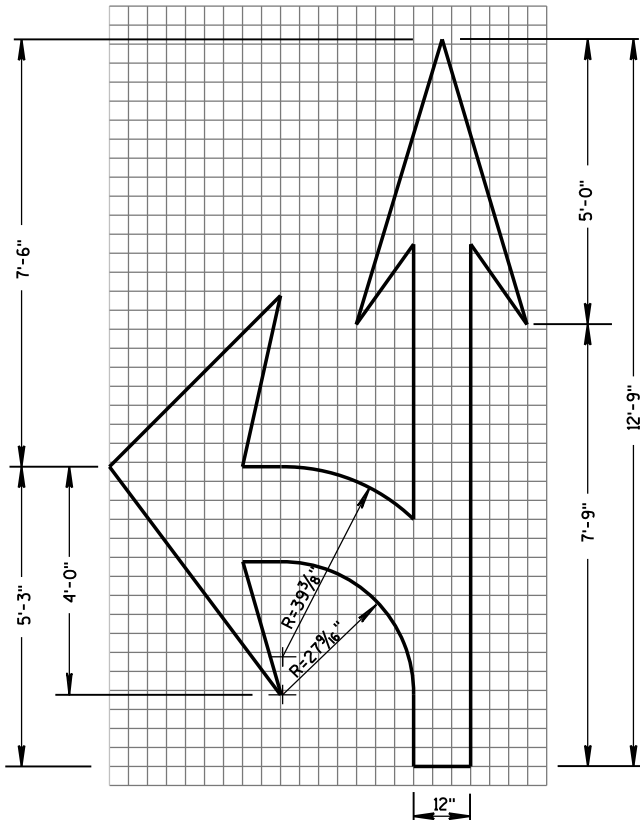
TYPE 2



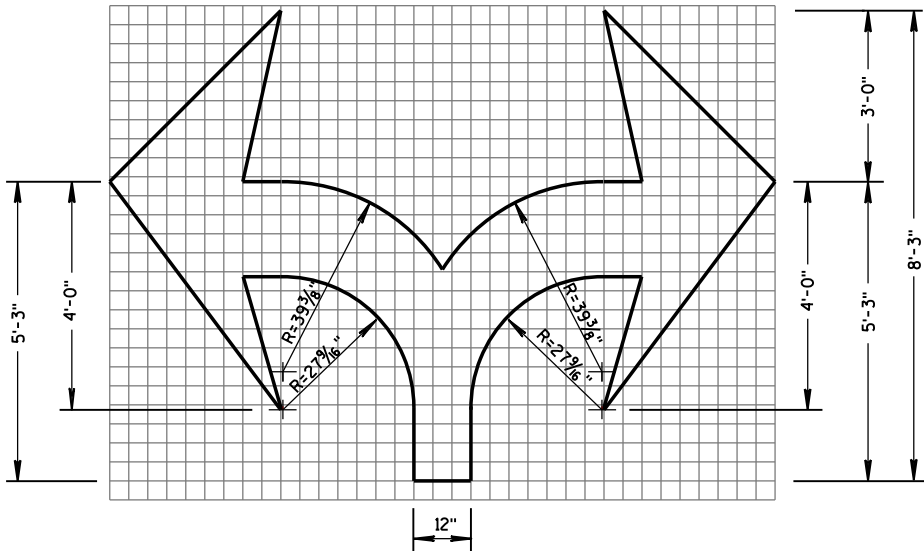
TYPE 6



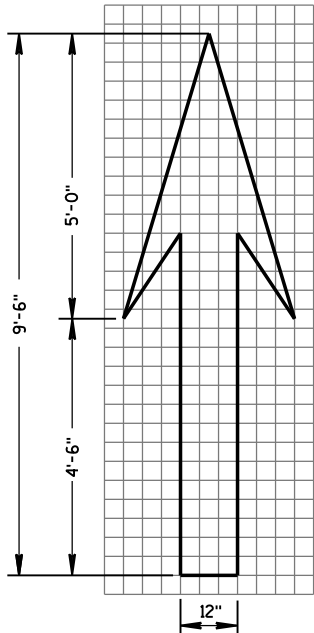
TYPE 4



TYPE 3



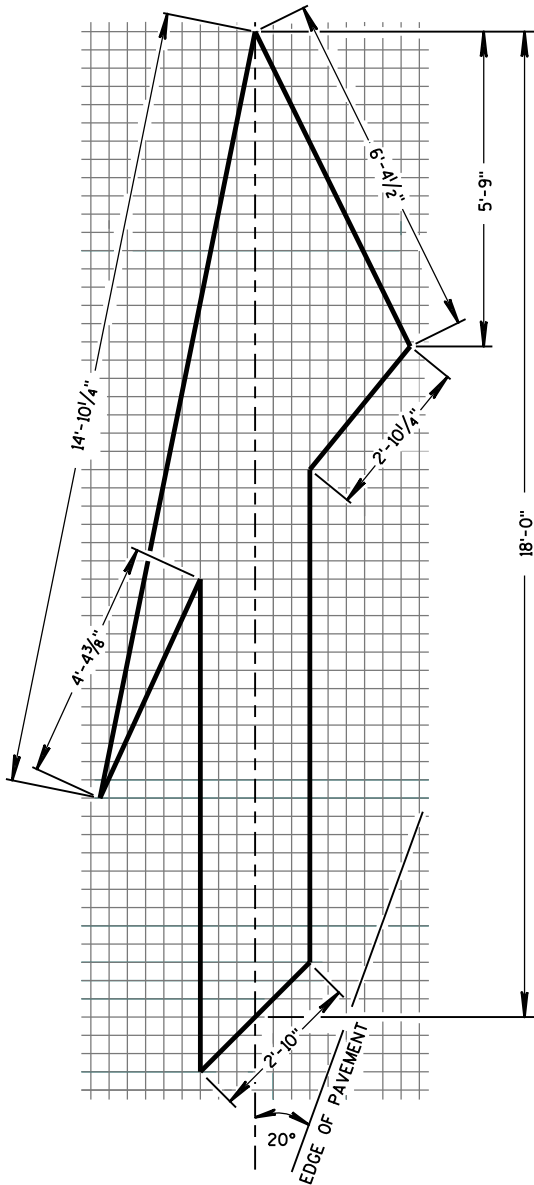
TYPE 7



TYPE 1

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

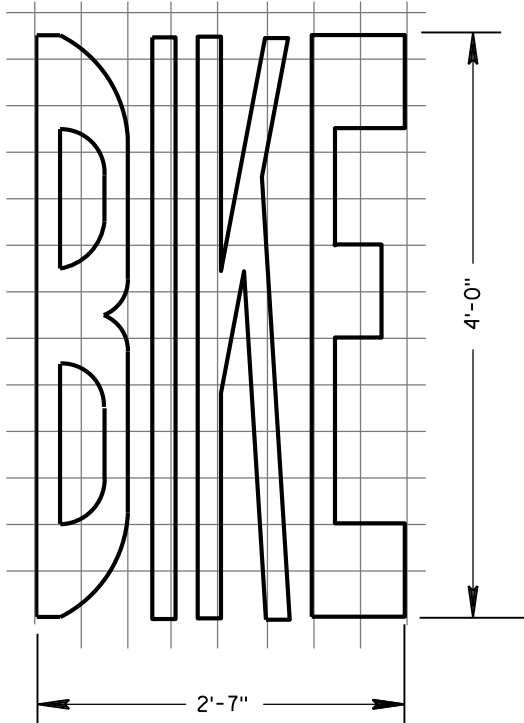


TYPE 5 LANE DROP ARROW

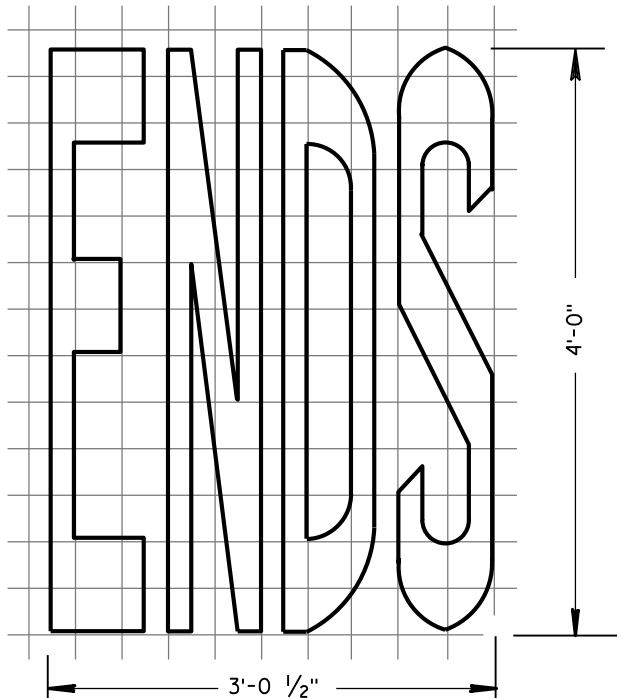
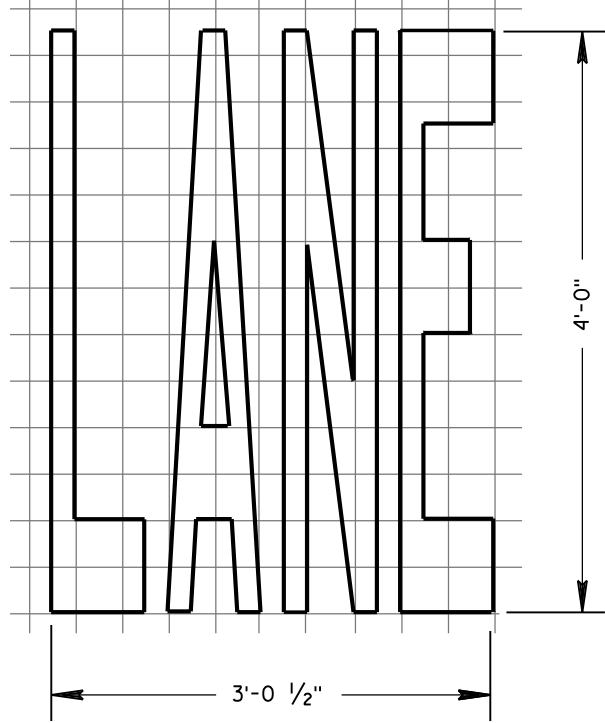
PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

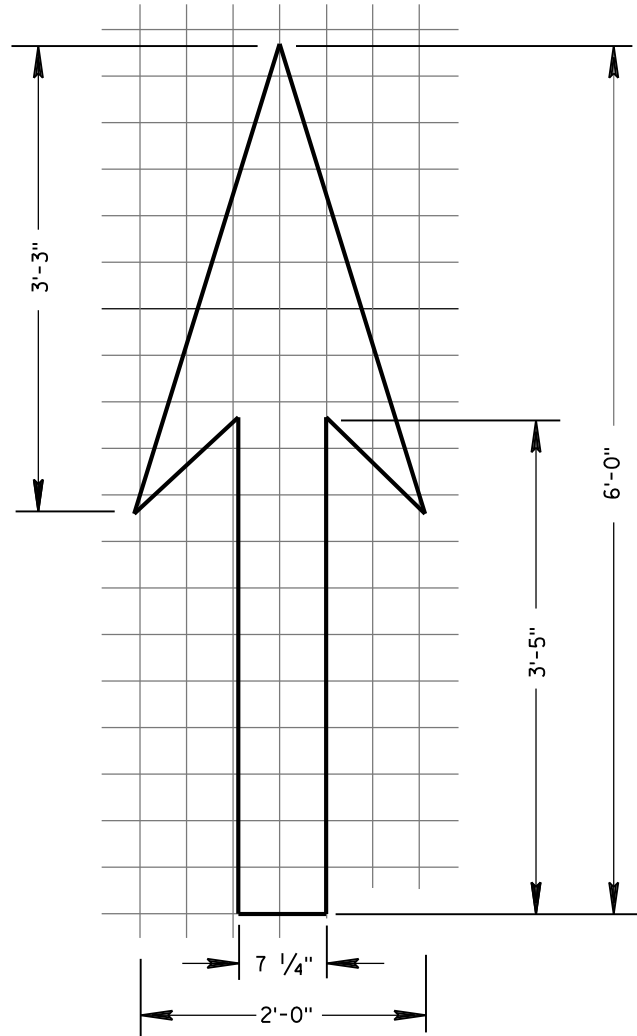
APPROVED
4-18-16 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



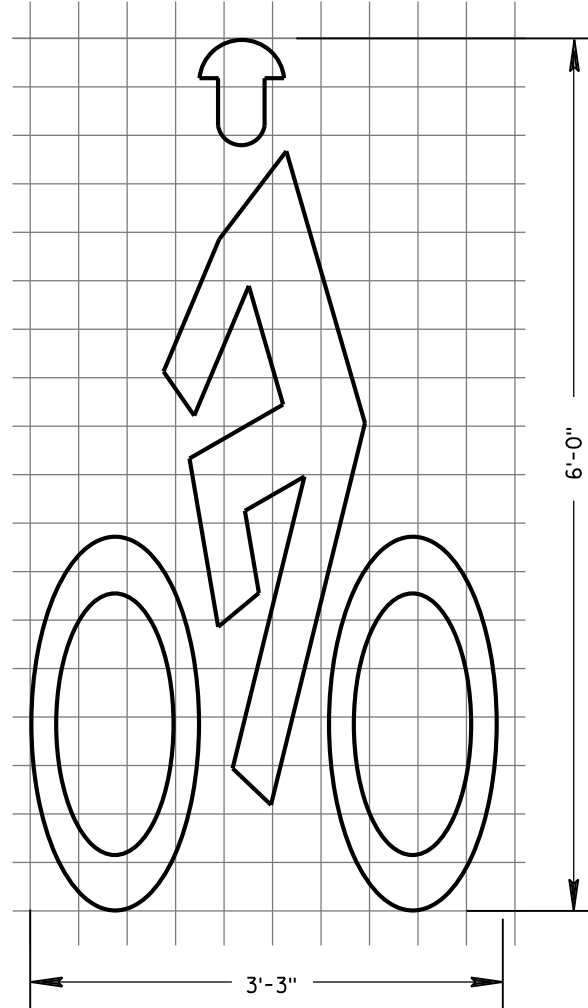
BIKE LANE WORDS



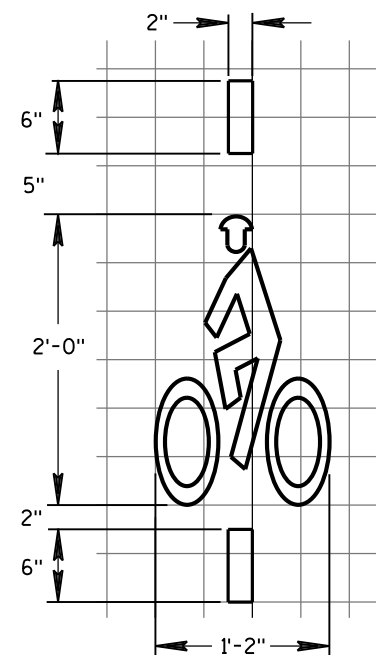
BIKE LANE WORDS



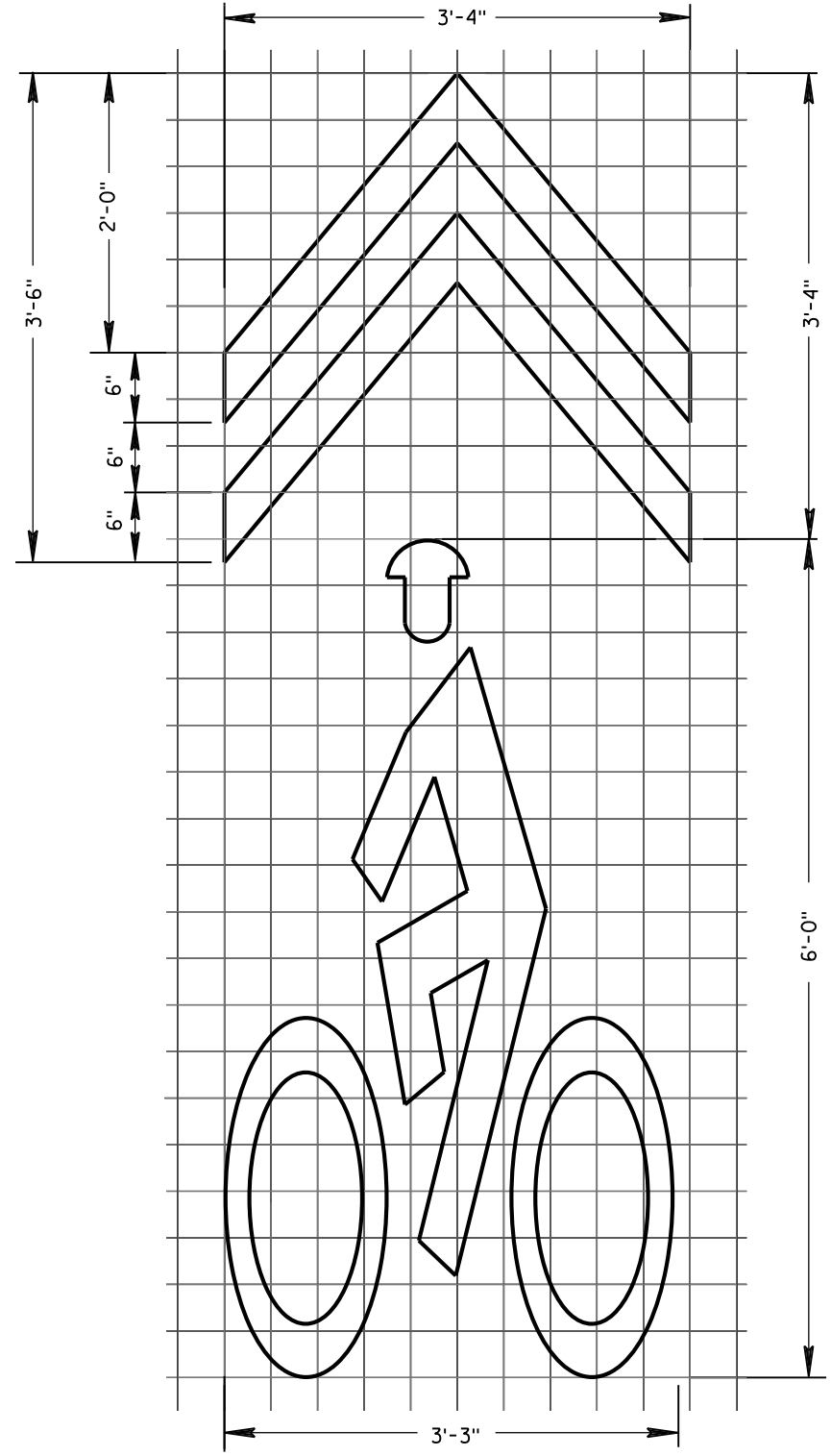
BIKE LANE ARROW



BIKE LANE SYMBOL



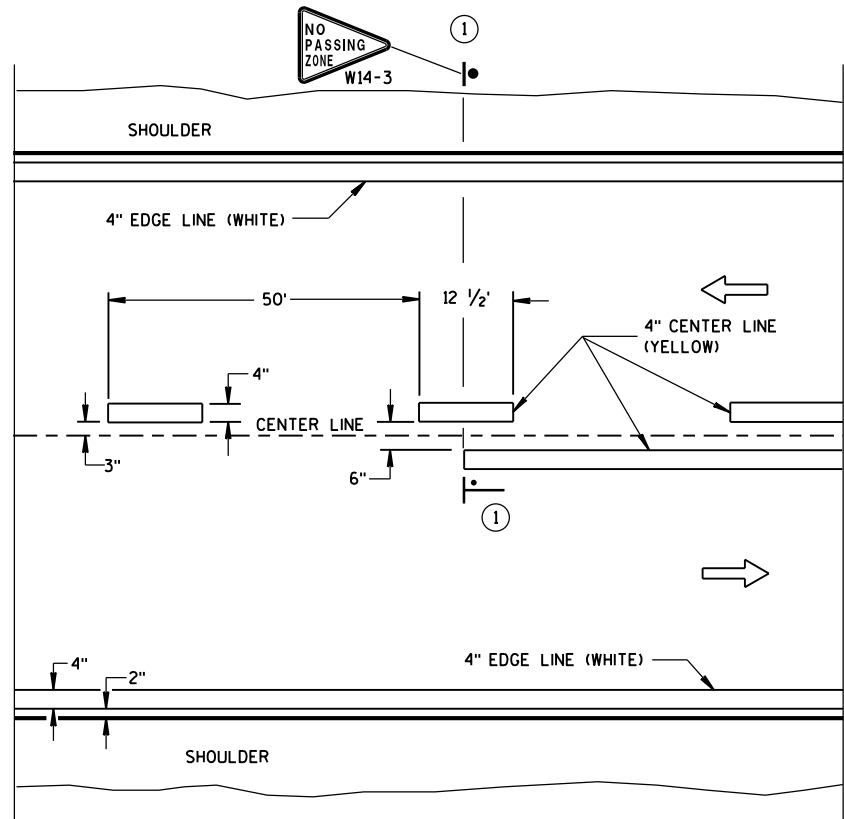
BICYCLE DETECTOR PAVEMENT MARKING



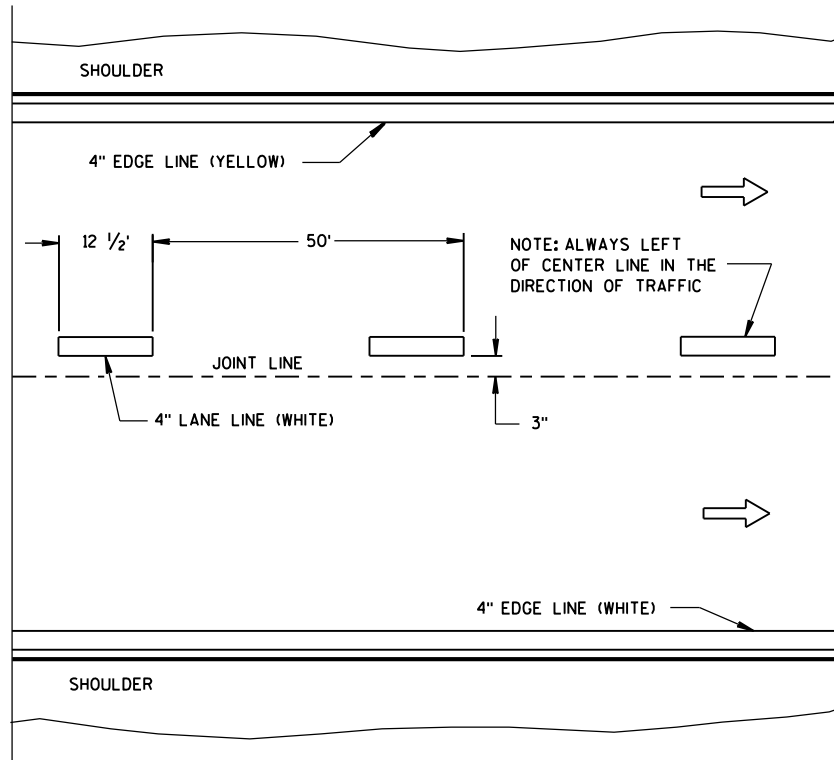
BIKE SYMBOL FOR SHARED LANE

GENERAL NOTES
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING FOR BIKE LANES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-18-2016 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	

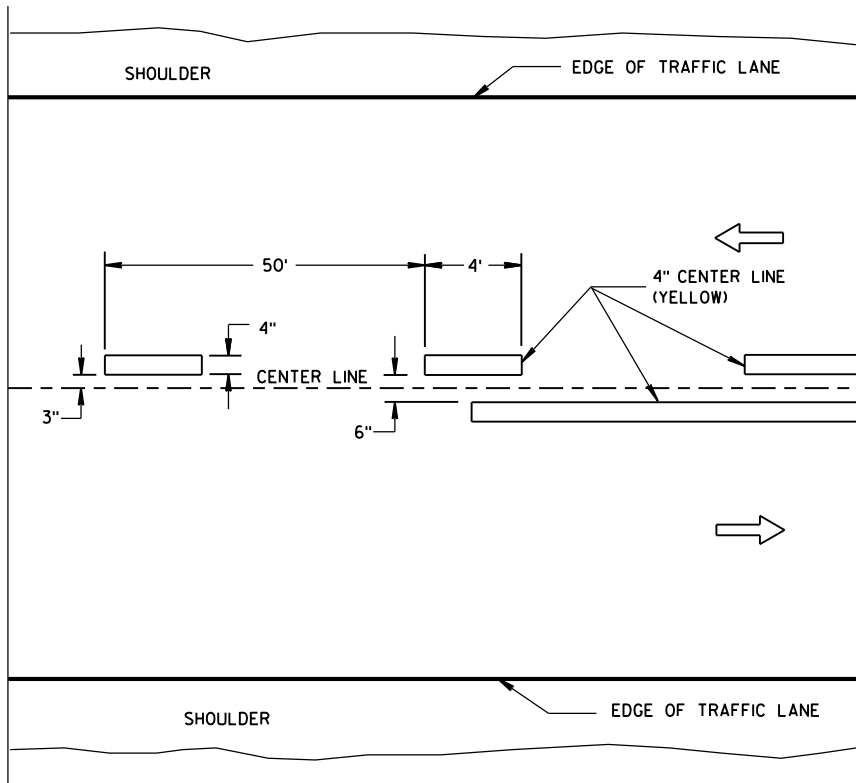


TWO WAY TRAFFIC

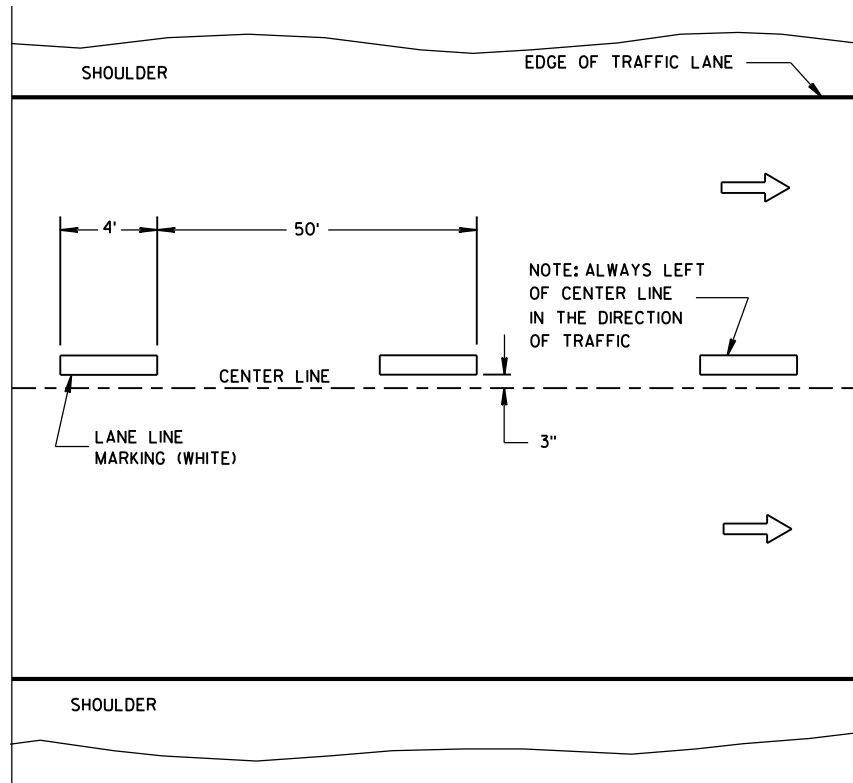


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

① NO PASSING ZONE W14-3 SIGN SHALL BE LOCATED WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

LEGEND

—●—"T" MARKING

● POST MOUNTED SIGN

LONGITUDINAL MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



TWO WAY LEFT TURN LANE

- STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

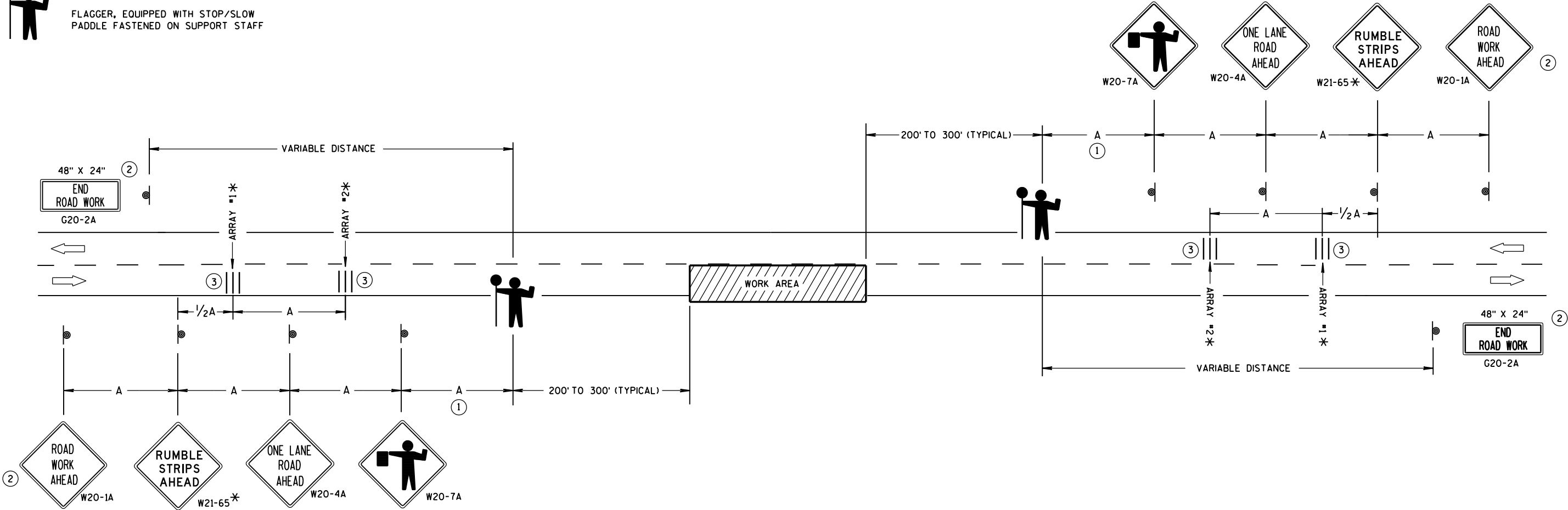
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING A
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING A.



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

"W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

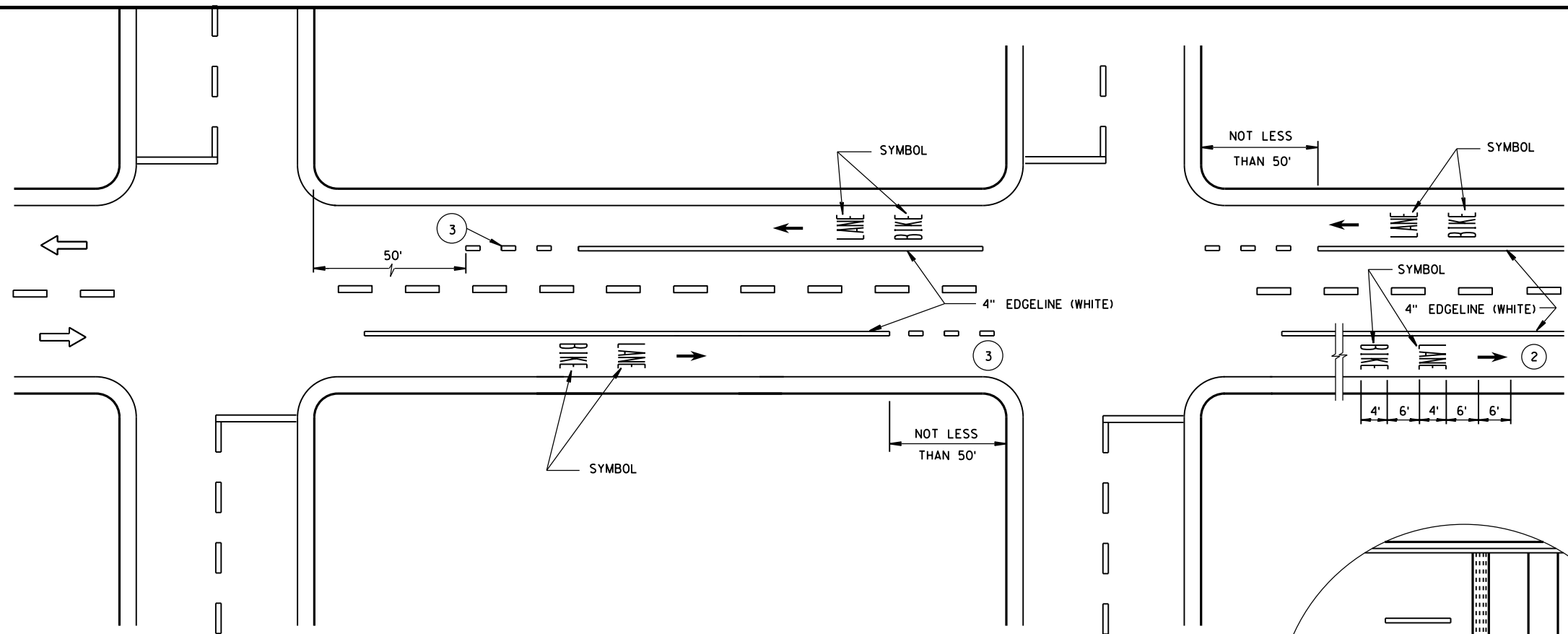
INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS. PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

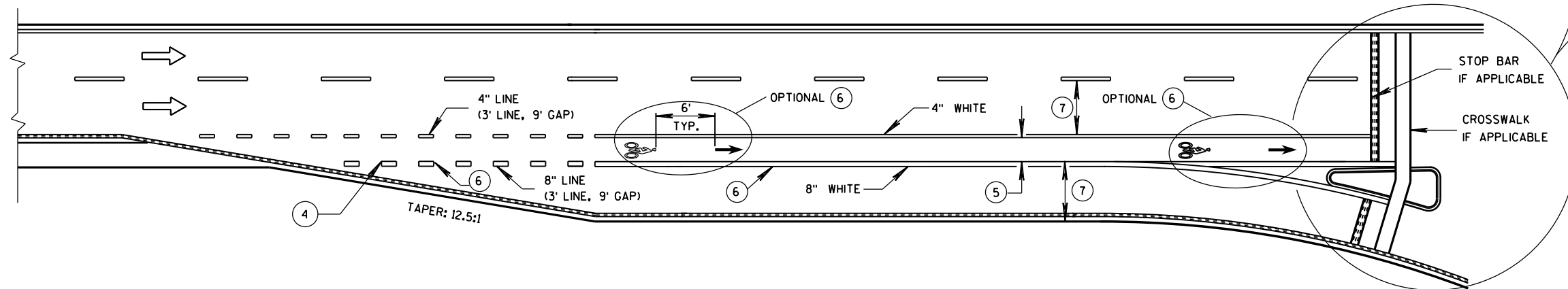
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, REMOVE TEMPORARY RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- * UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.
- FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
 - SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
 - EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED December, 2016 DATE	/S/ Andrew Heldtke WORK ZONE ENGINEER
FHWA	



DESIGNATED BICYCLE LANE NO PARKING

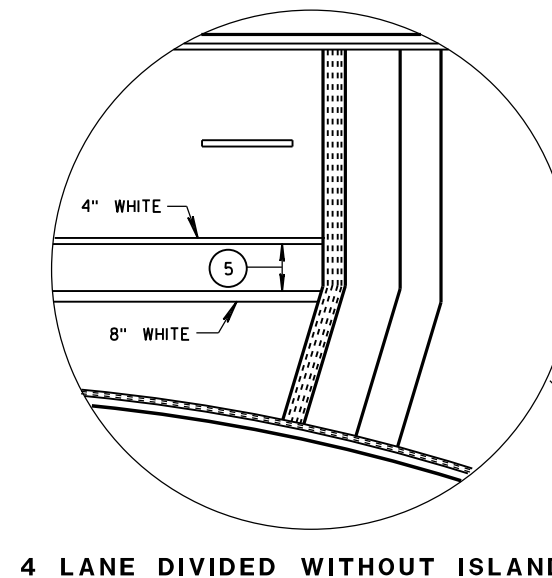


BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS (4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

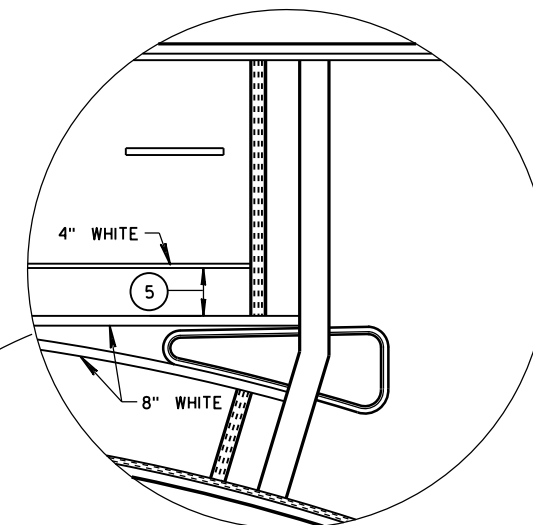
GENERAL NOTES

- ① DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- ② MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
- ③ DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
- ④ IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
- ⑤ BIKE ACCOMODATION FOR CONCRETE PAVEMENT IS 5 FEET WIDE. BIKE ACCOMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4 FEET. USE 5 FEET AT ≥ 45 MPH.
- ⑥ OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FEET WIDE TURN LANE).
- ⑦ REFER TO CONTRACT PLANS FOR LANE WIDTH.

➡ DIRECTION OF TRAVEL



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

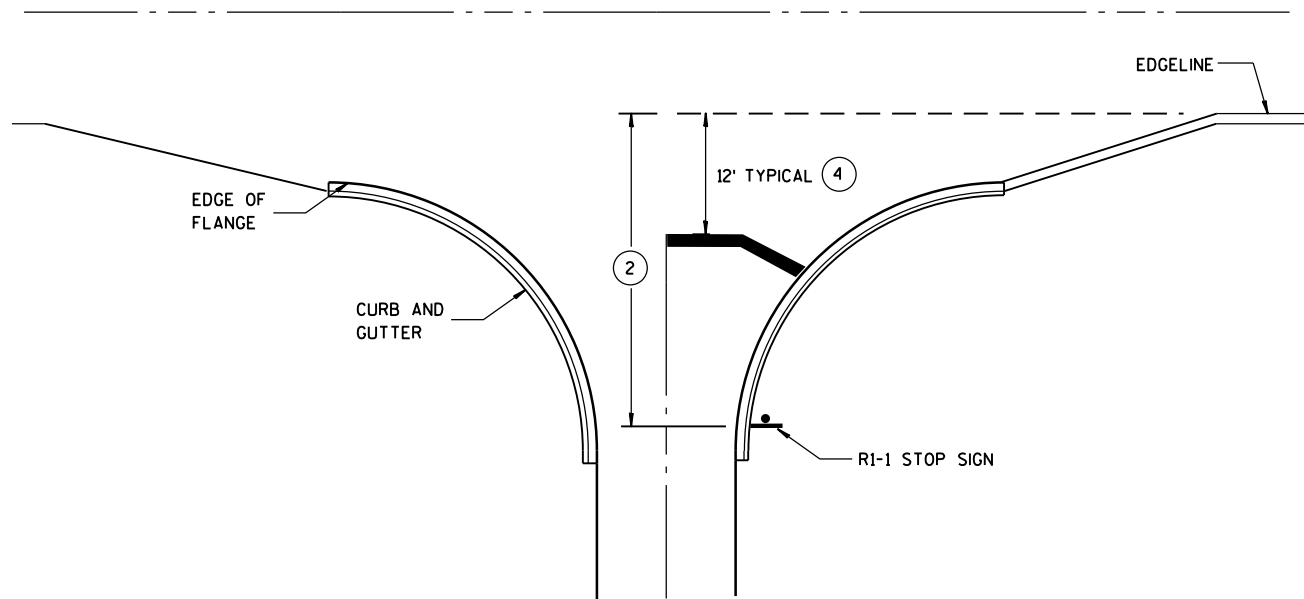
APPROVED

12-2016

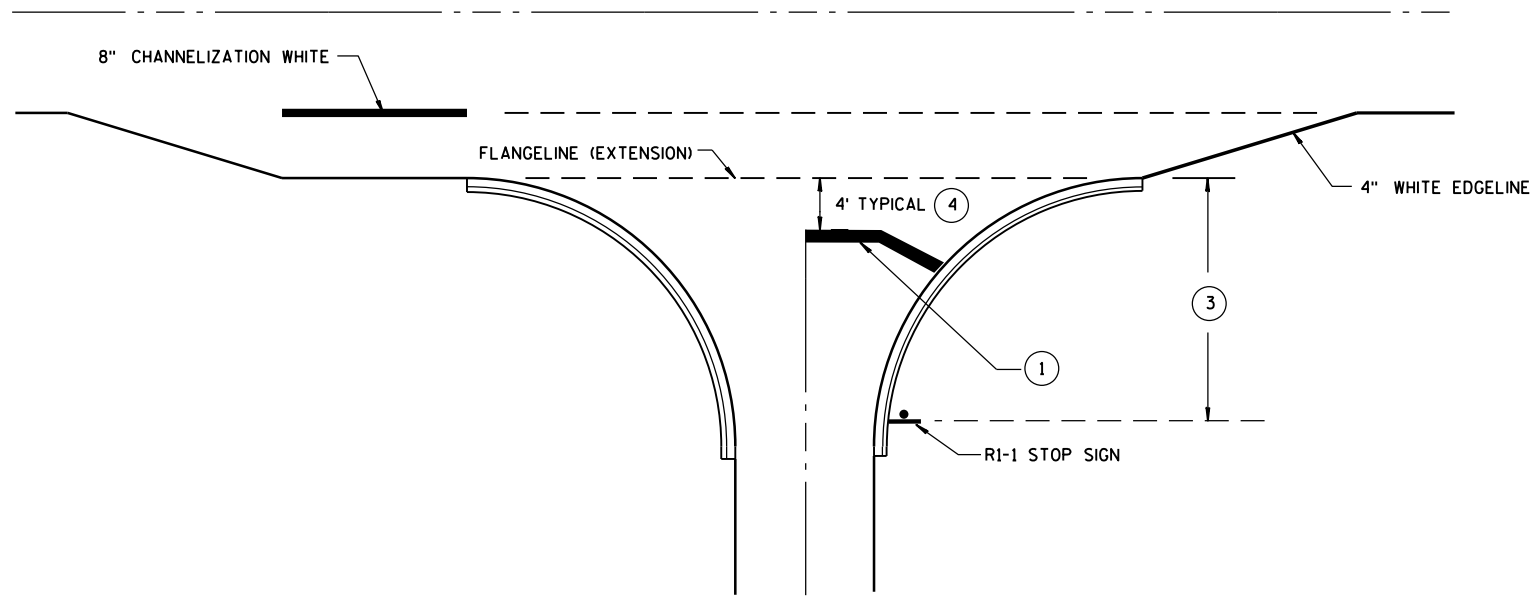
DATE

FHWA

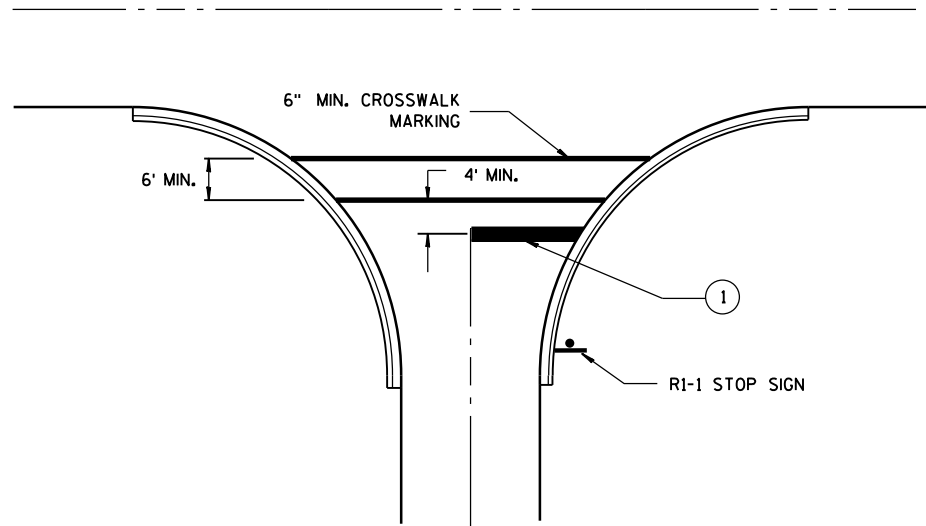
/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER



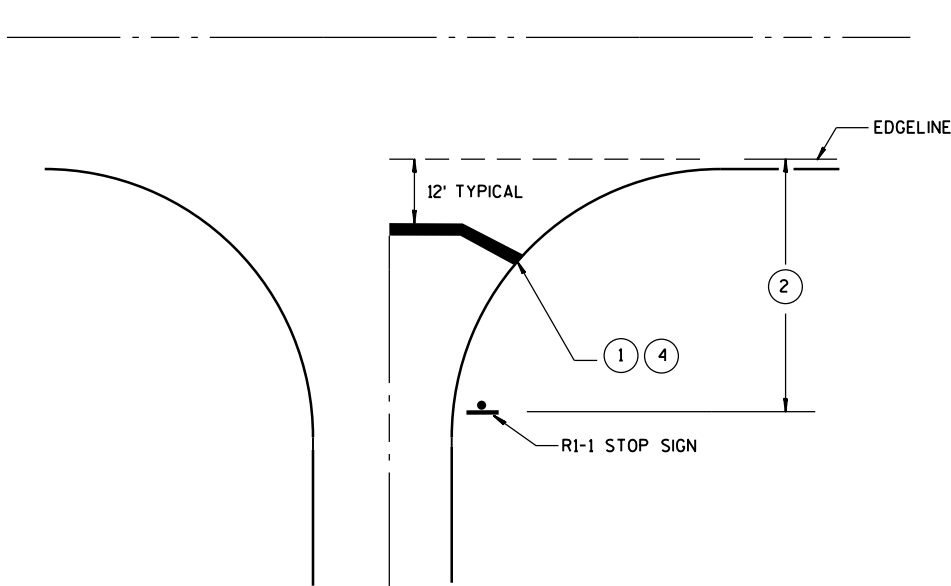
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

- 1 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE THAN NO STOP LINE IS REQUIRED.
- 3 IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- 4 MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-18-2016 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA

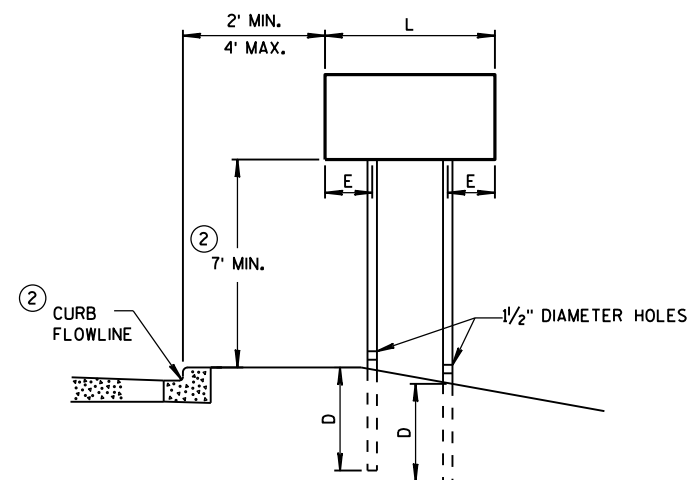
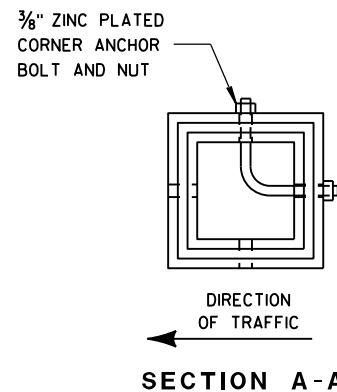


DETAIL OF TUBULAR STEEL SIGN POST

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).
SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

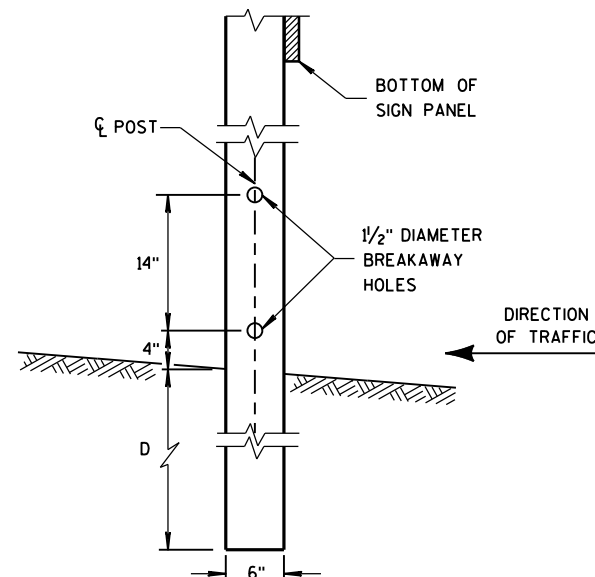


URBAN AREA

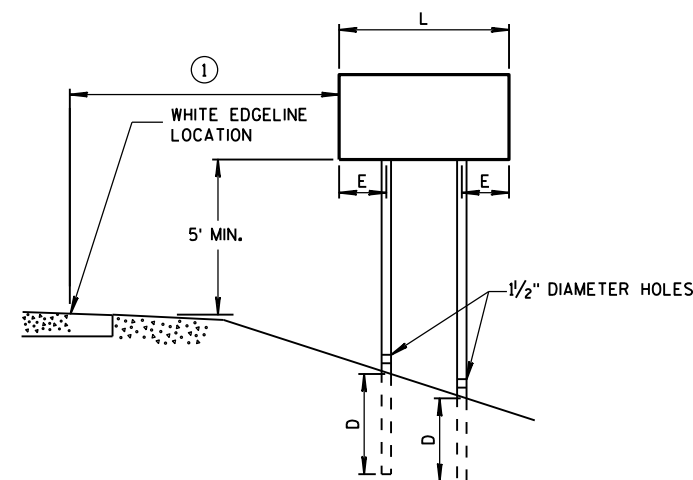
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4"x6" WOOD POST MODIFICATION



RURAL AREA

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

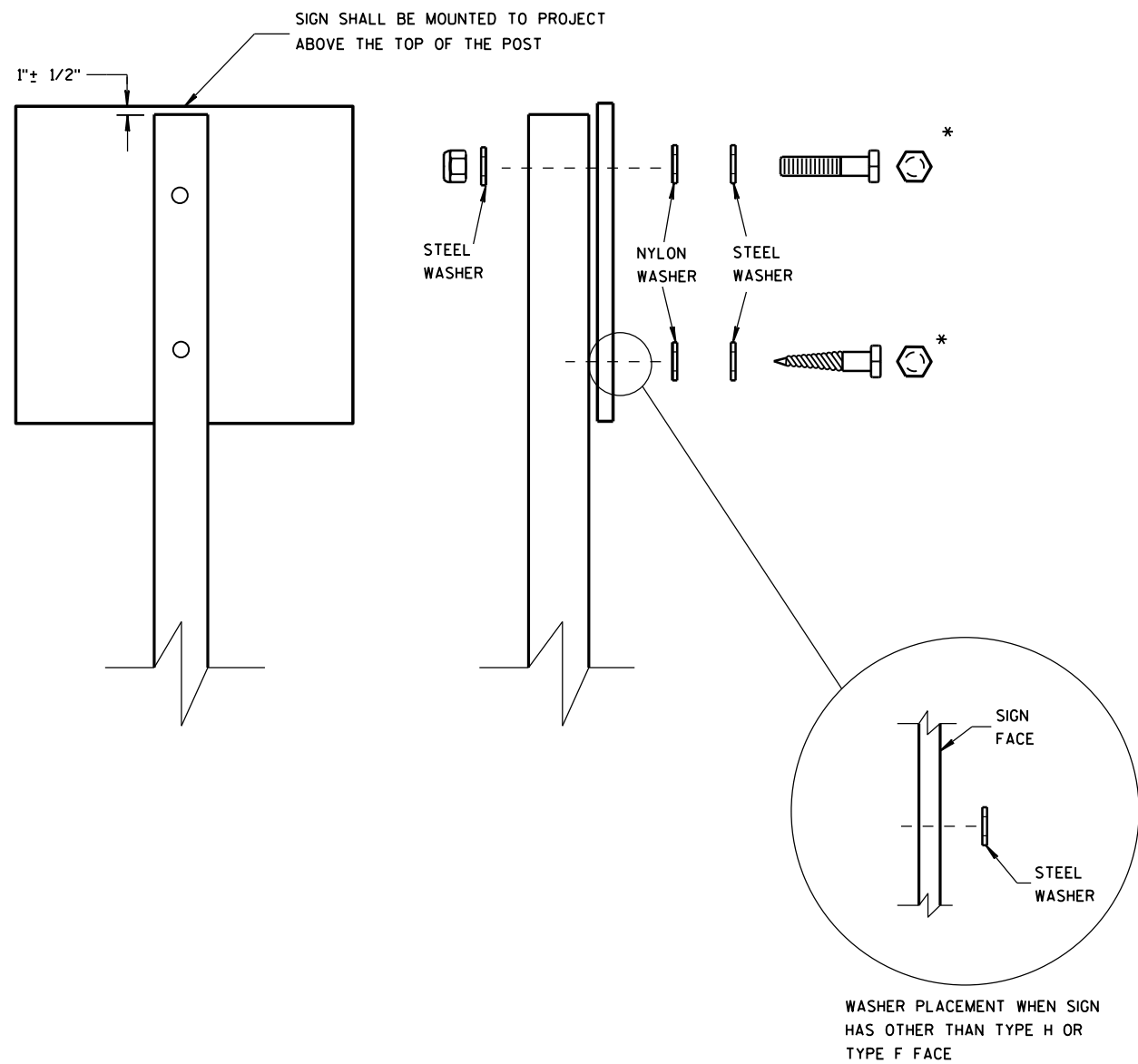
SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3"
 - MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

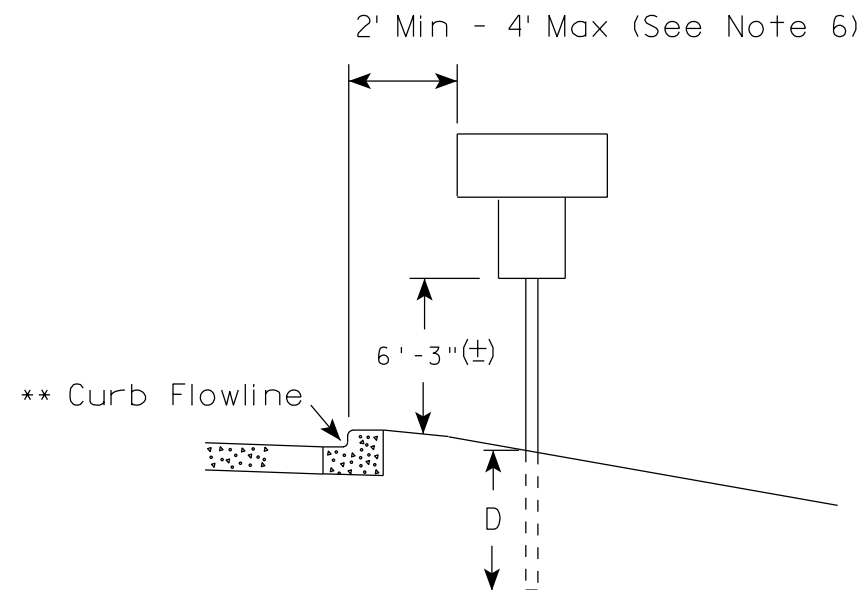
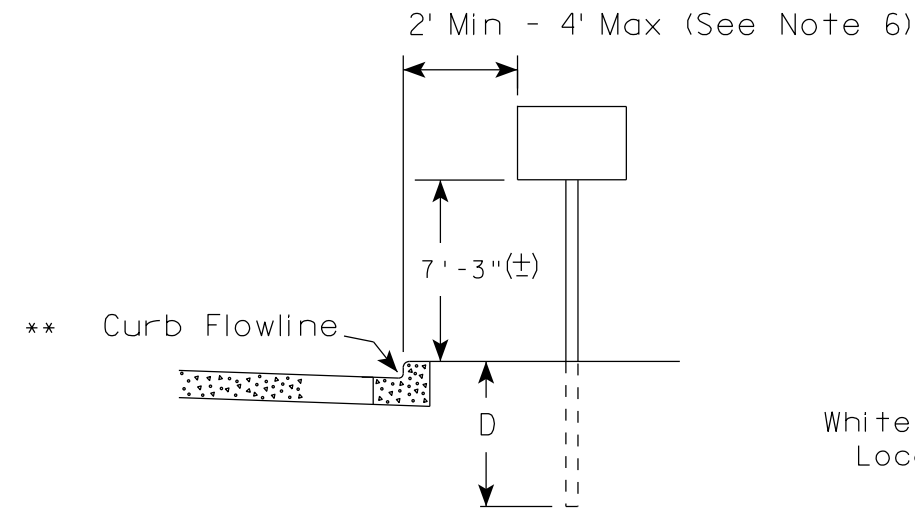
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS
 - RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 - 1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

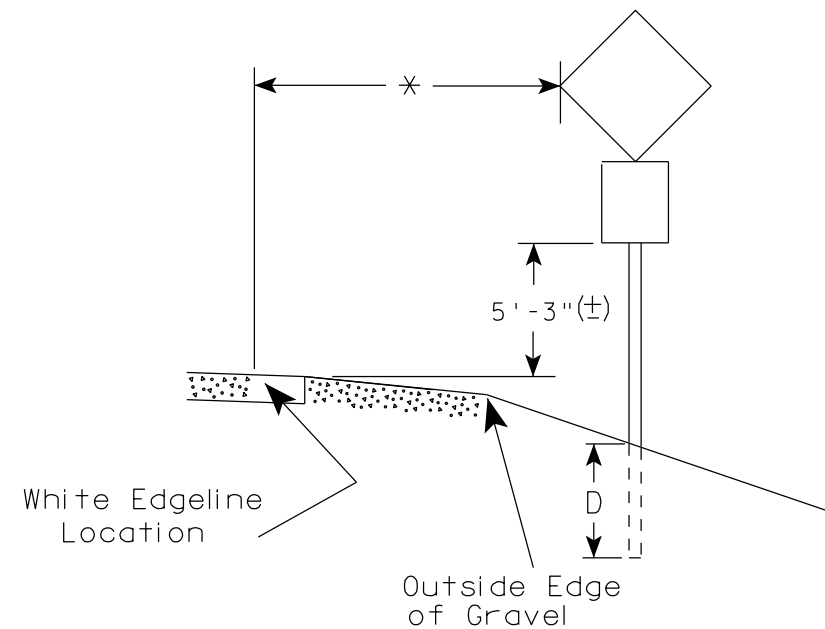
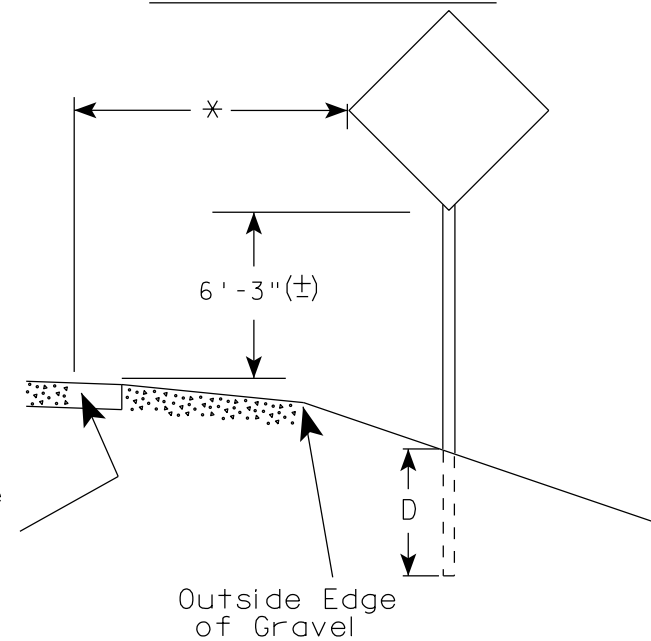
ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

URBAN AREA



White Edgeline Location

RURAL AREA (See Note 2)



POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

×× The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

GENERAL NOTES

- Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- If signs are mounted on barrier wall, see A4-10 sign plate.
- For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
- Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
- Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- The (±) tolerance for mounting height is 3 inches.
- Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 7/23/15

PLATE NO. A4-3.20

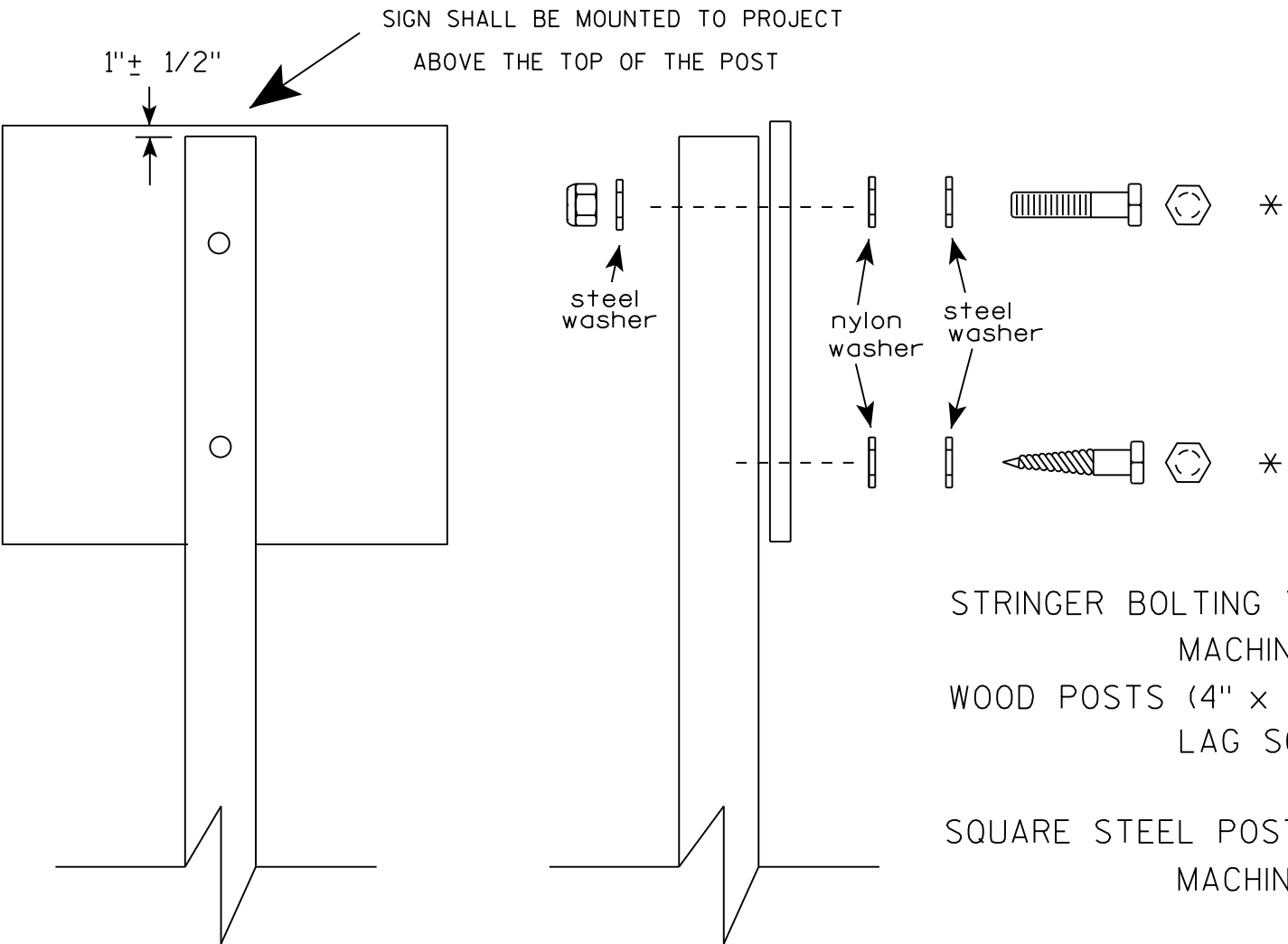
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 - $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
- O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

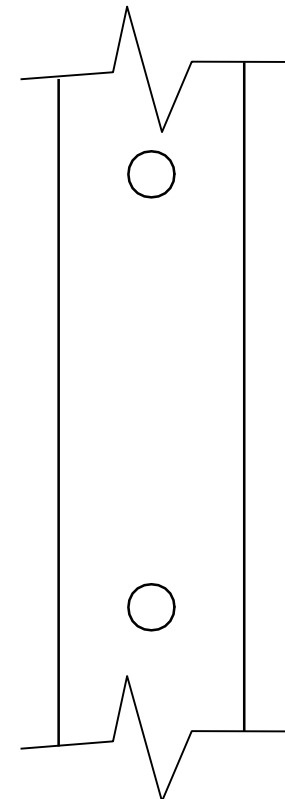
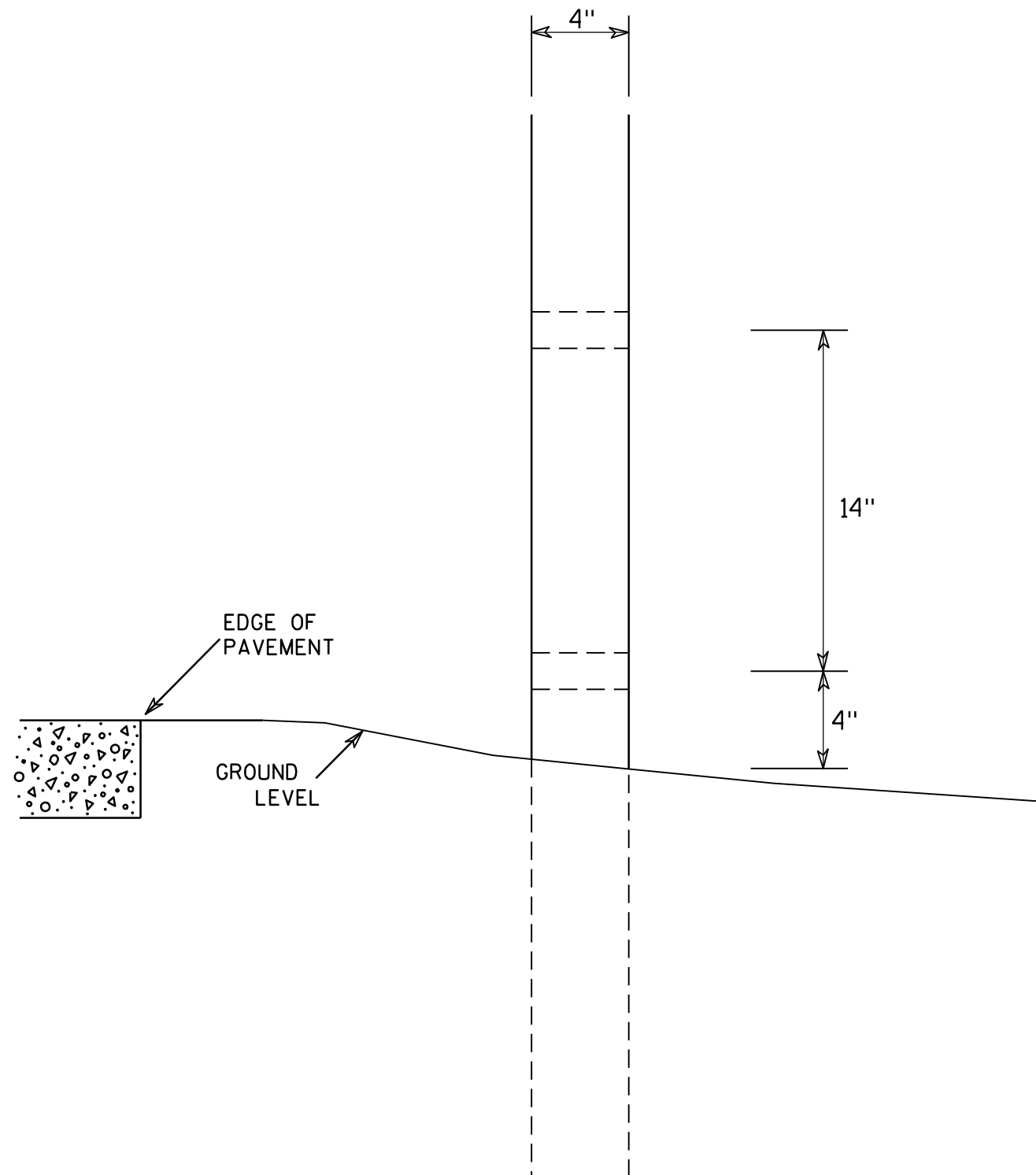
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS
TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

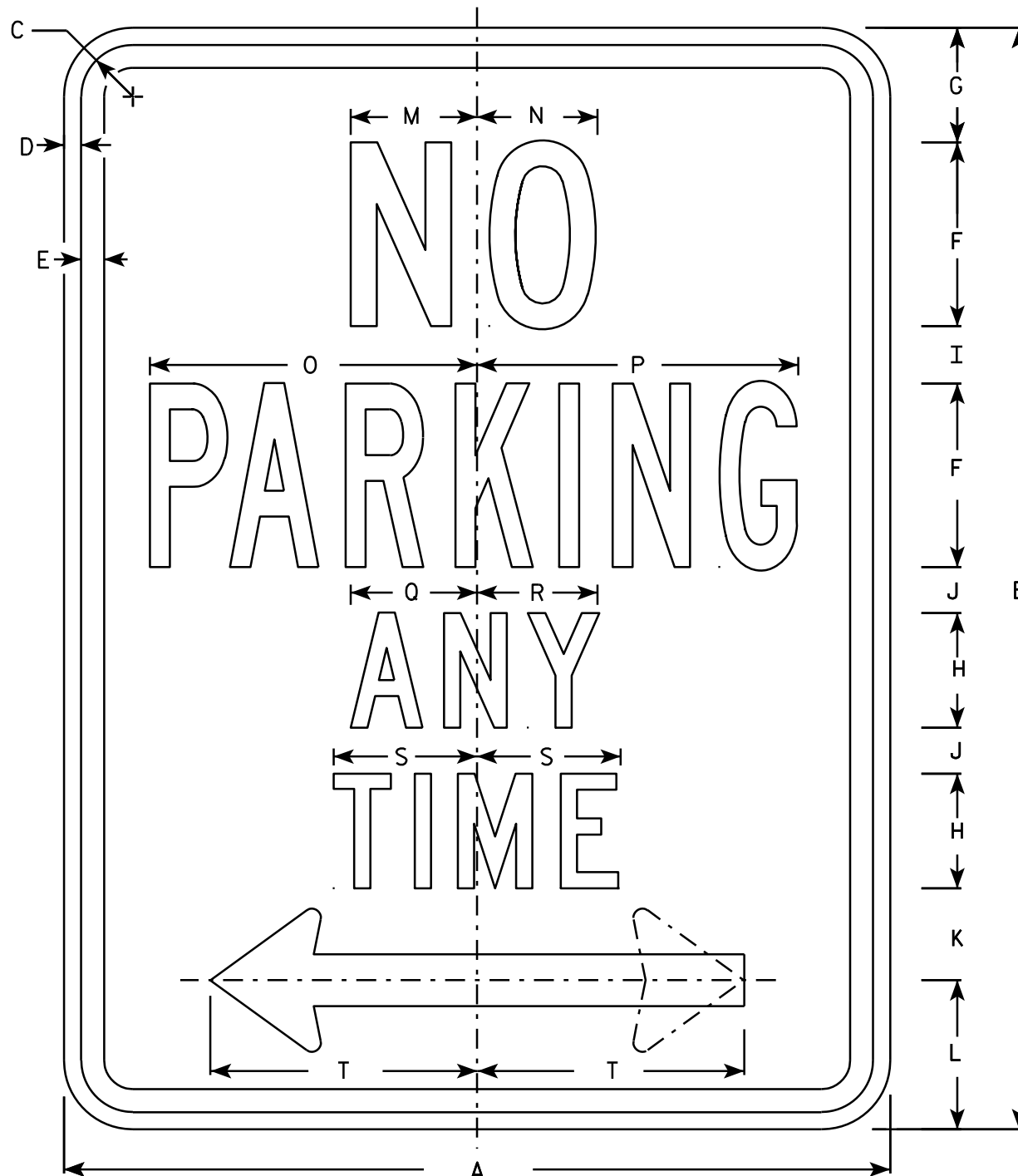
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

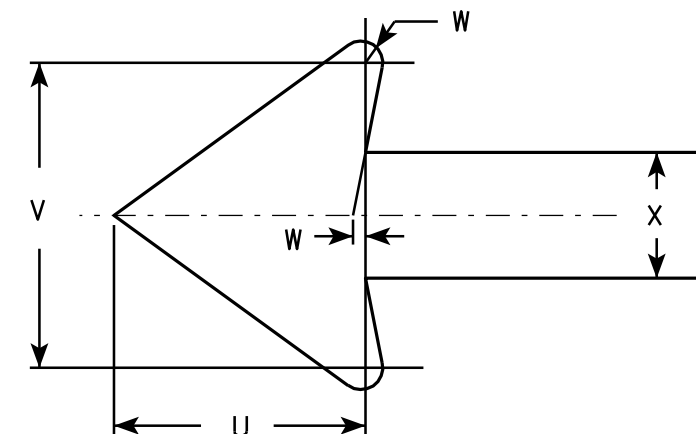
E



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
R7-1L (left arrow)
R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

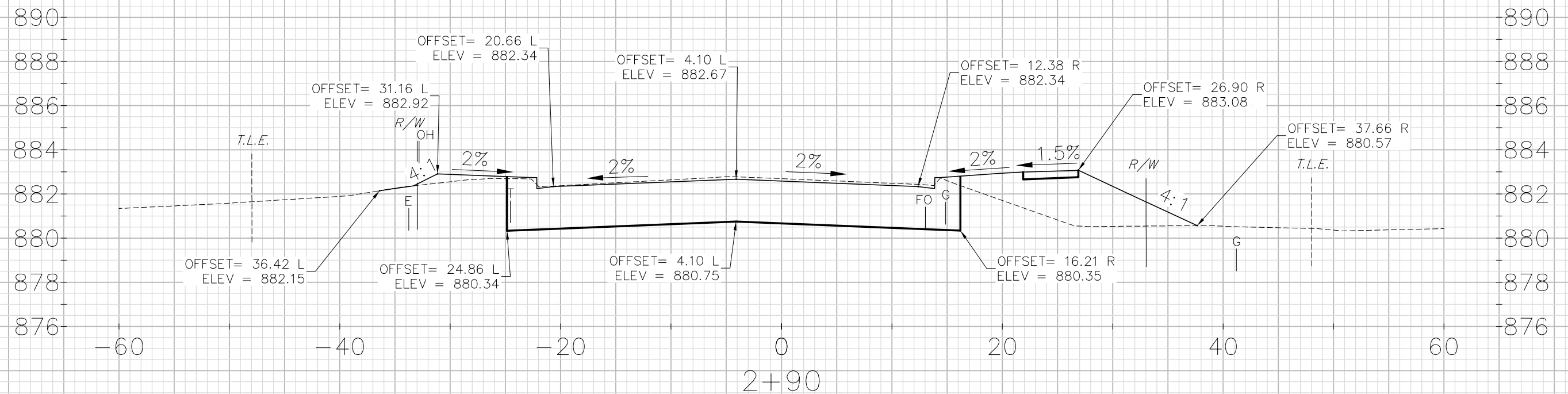
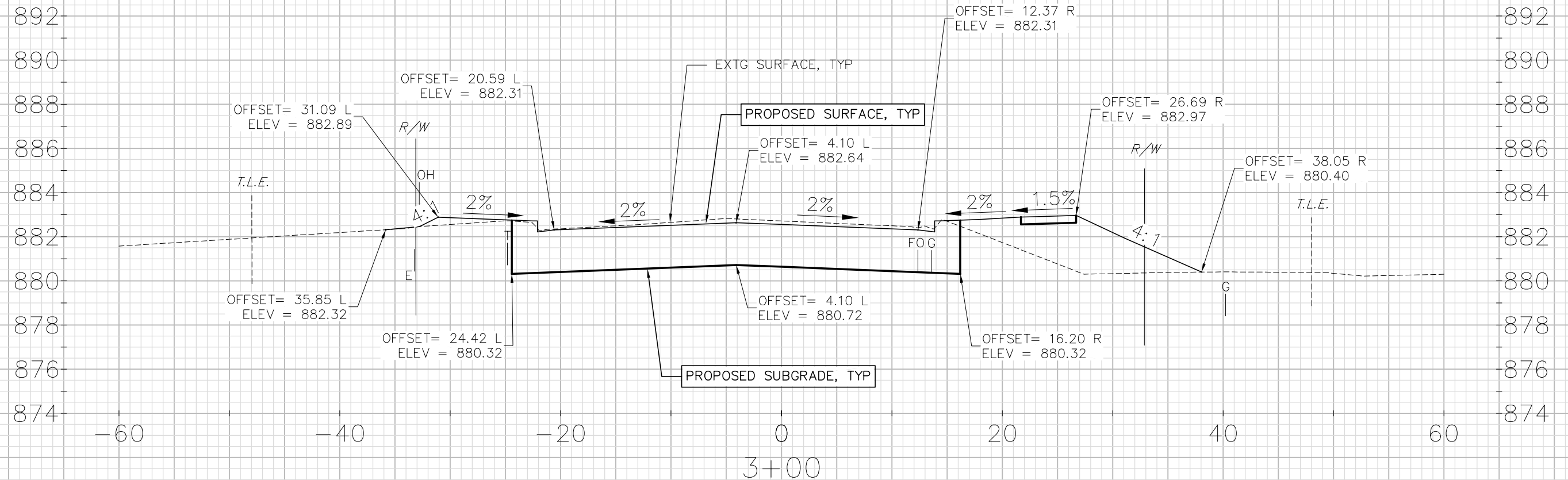
STANDARD SIGN R7-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/31/2011	PLATE NO. R7-1.9

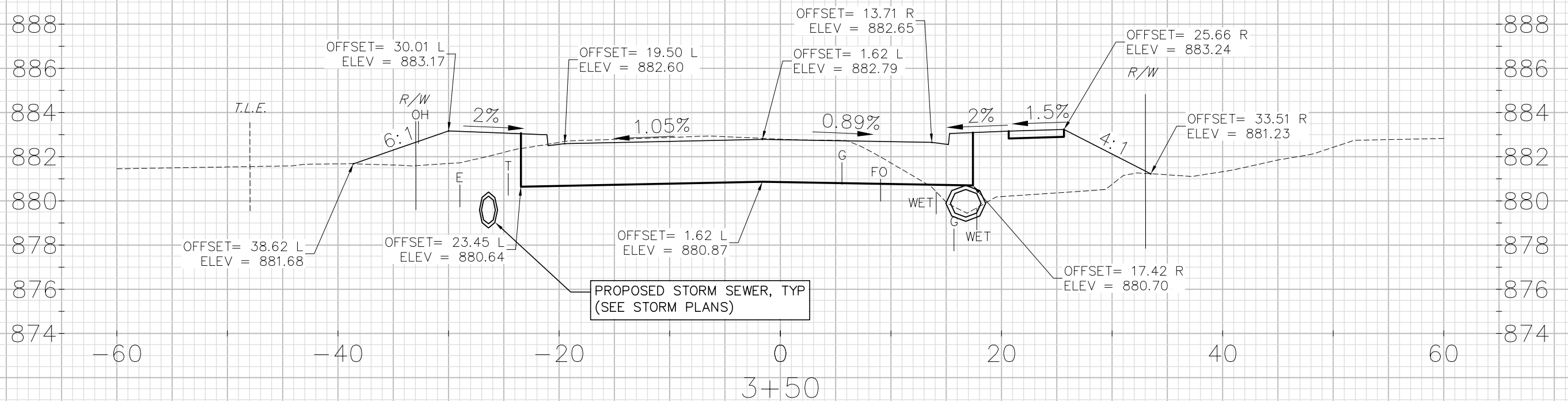
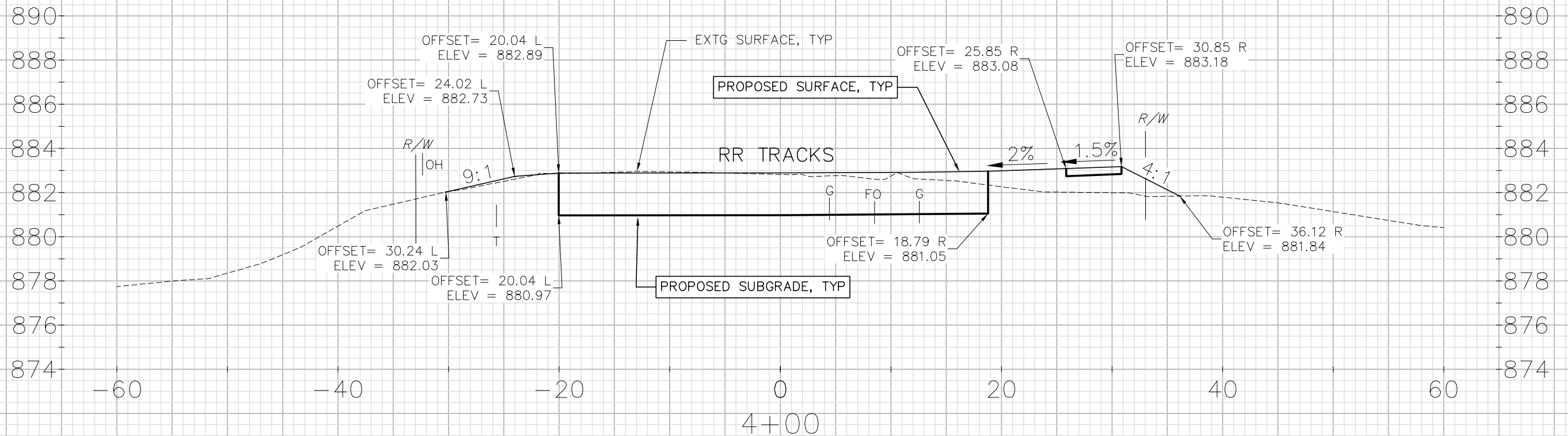
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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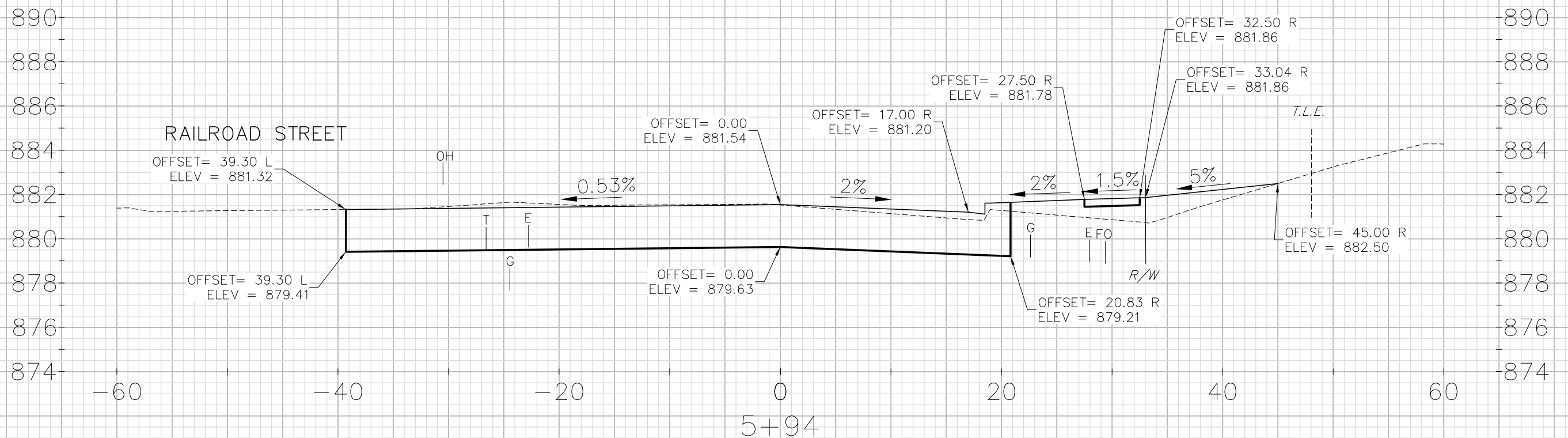
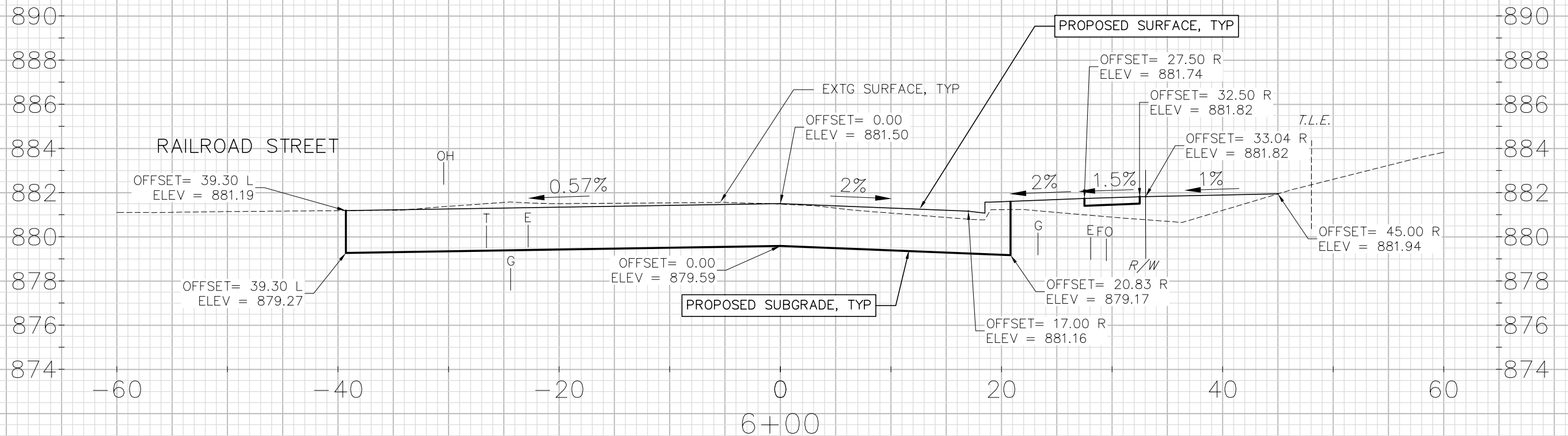
S. DEWEY AVENUE

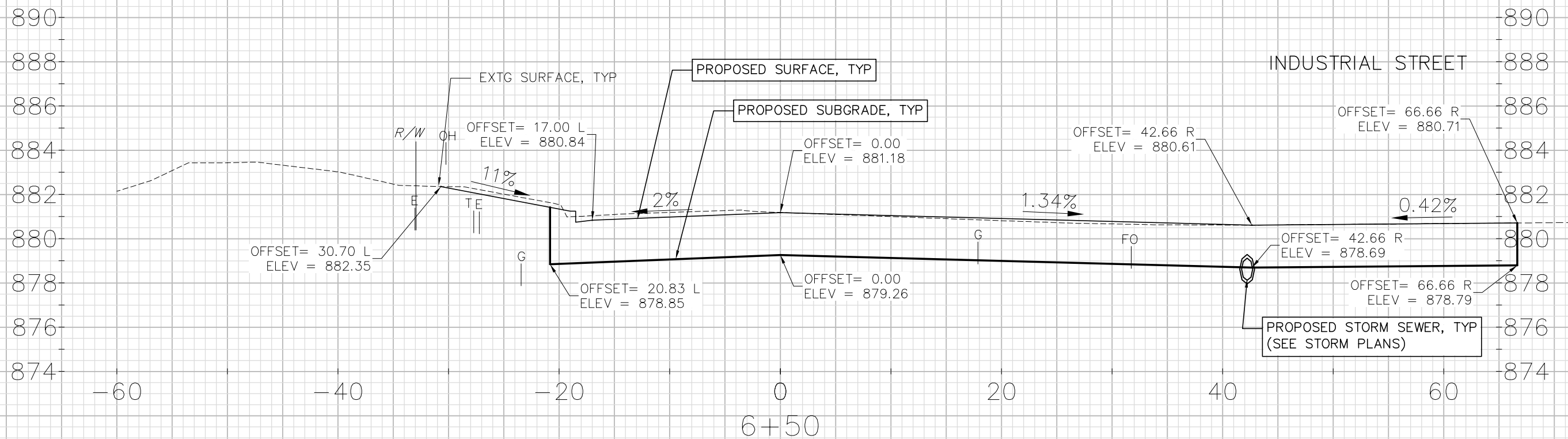
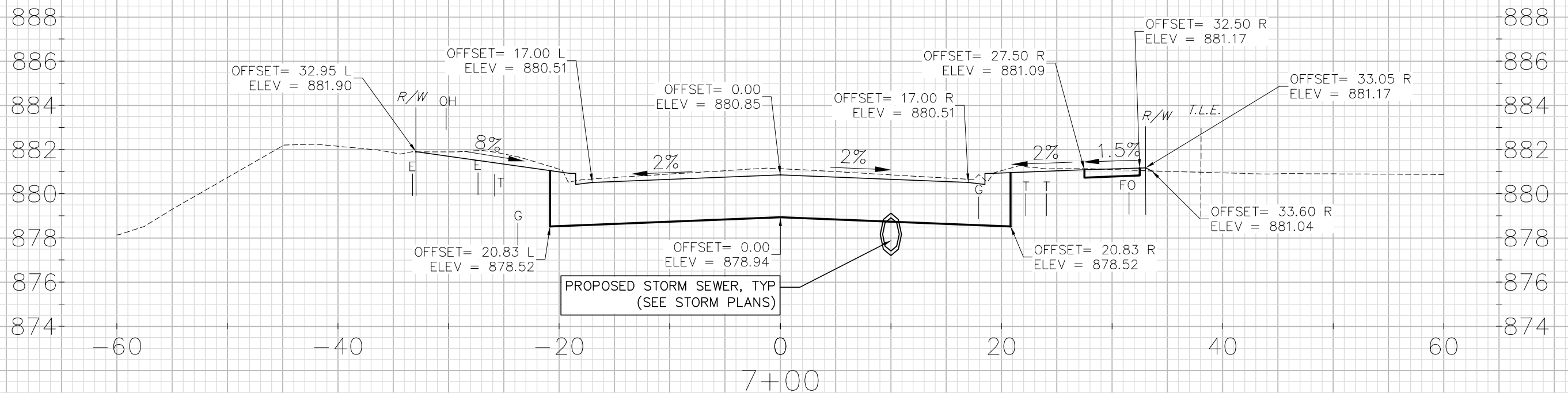
Station	Distance	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Cut Calc Vol. (Cu.yd.)	Cum. Fill Vol. Expanded 1.2 (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
2+90.000		81	0	25	0	0	0	0	0
3+00.000	10	84	31	24	9	31	31	11	20
3+50.000	50	77	149	29	50	180	180	70	109
4+00.000	50	96	160	8	35	340	340	112	228
4+50.000	50	80	163	31	36	503	503	155	348
5+00.000	50	81	149	2	31	652	652	191	461
5+50.000	50	88	156	3	5	809	809	198	611
6+00.000	50	72	148	8	11	957	957	211	746
6+50.000	50	77	139	0	8	1096	1096	220	876
7+00.000	50	90	155	0	0	1251	1251	220	1031
7+50.000	50	94	171	0	0	1422	1422	220	1201
8+00.000	50	97	177	0	0	1599	1599	220	1378
8+50.000	50	103	185	0	0	1784	1784	221	1563
9+00.000	50	102	190	0	0	1974	1974	221	1753
9+50.000	50	93	181	1	1	2154	2154	222	1932
10+00.000	50	84	164	7	7	2318	2318	230	2088
10+50.000	50	84	156	0	7	2474	2474	238	2237
11+00.000	50	92	163	1	1	2638	2638	239	2398
11+50.000	50	99	177	0	1	2814	2814	240	2574
12+00.000	50	107	191	0	0	3006	3006	240	2766
12+50.000	50	116	207	0	0	3213	3213	240	2973
13+00.000	50	122	221	0	0	3434	3434	240	3194
13+50.000	50	124	228	0	0	3662	3662	240	3421
14+00.000	50	118	224	0	0	3886	3886	240	3646
14+50.000	50	112	213	0	0	4099	4099	240	3859
15+00.000	50	104	199	0	0	4298	4298	240	4058
15+50.000	50	88	177	0	0	4476	4476	241	4235
16+00.000	50	74	150	2	2	4625	4625	243	4382
16+50.000	50	81	143	0	2	4769	4769	245	4524
17+00.000	50	86	155	0	0	4924	4924	246	4678
17+50.000	50	102	174	0	0	5097	5097	246	4852
18+00.000	50	111	197	0	0	5294	5294	246	5048
18+50.000	50	128	221	0	0	5515	5515	246	5269
19+00.000	50	110	220	0	0	5735	5735	246	5490
19+50.000	50	84	180	0	0	5916	5916	246	5670

Station	Distance	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Cut Calc Vol. (Cu.yd.)	Cum. Fill Vol. Expanded 1.2 (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
20+00.000	50	77	149	0	0	6065	6065	246	5819
20+50.000	50	72	137	0	0	6202	6202	246	5956
21+00.000	50	78	139	1	1	6341	6341	247	6094
21+50.000	50	81	147	2	3	6488	6488	250	6238
22+00.000	50	99	167	0	2	6655	6655	253	6403
22+50.000	50	91	177	0	0	6832	6832	253	6579
23+00.000	50	89	167	0	0	6999	6999	253	6747
23+50.000	50	99	174	0	0	7174	7174	253	6921
24+00.000	50	103	187	0	0	7360	7360	253	7107
24+50.000	50	98	186	0	0	7546	7546	253	7294
25+00.000	50	77	162	0	0	7709	7709	253	7456
25+50.000	50	89	154	0	0	7862	7862	253	7609
26+00.000	50	97	172	0	0	8035	8035	253	7782
26+50.000	50	95	178	0	0	8213	8213	253	7960
27+00.000	50	87	169	0	0	8382	8382	253	8129
27+50.000	50	83	158	0	0	8539	8539	253	8287
28+00.000	50	80	151	0	0	8690	8690	253	8438
28+50.000	50	84	152	0	0	8842	8842	253	8590
29+00.000	50	88	159	0	0	9001	9001	253	8748
29+50.000	50	91	165	0	0	9166	9166	253	8913
30+00.000	50	87	165	0	0	9331	9331	253	9079
30+50.000	50	85	160	0	0	9491	9491	253	9238
31+00.000	50	85	157	0	0	9648	9648	253	9396
31+50.000	50	77	150	0	0	9798	9798	253	9545
32+00.000	50	70	136	0	0	9934	9934	253	9681
32+50.000	50	67	127	0	0	10061	10061	253	9808
33+00.000	50	70	127	0	0	10188	10188	253	9935
33+50.000	50	76	135	0	0	10322	10322	253	10069
34+00.000	50	84	148	0	0	10471	10471	253	10218
34+50.000	50	102	173	0	0	10643	10643	253	10390
35+00.000	50	101	188	0	0	10831	10831	253	10578
35+50.000	50	95	181	0	0	11012	11012	253	10760
35+85.017	35	114	135	0	0	11148	11148	253	10895
36+00.000	15	0	32	0	0	11179	11179	253	10926
			11179				211		









PROJECT NO:5799-00-64

HWY:S. DEWEY AVE.

COUNTY:SAUK

CROSS SECTIONS:S. DEWEY AVE.

SHEET

E

FILE NAME : R:\REEDSBURG, CITY OF\150036_SOUTH DEWEY AVENUE RECONSTRUCTION\CADD\150036_BASE ENGINEERING-S. DEWEY.DWG
LAYOUT NAME - ####

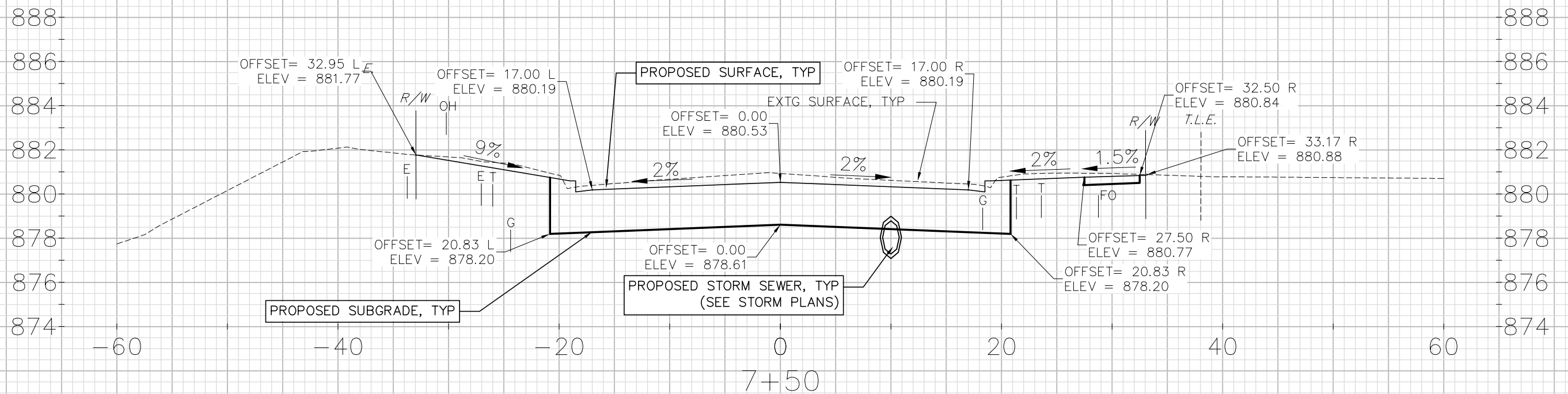
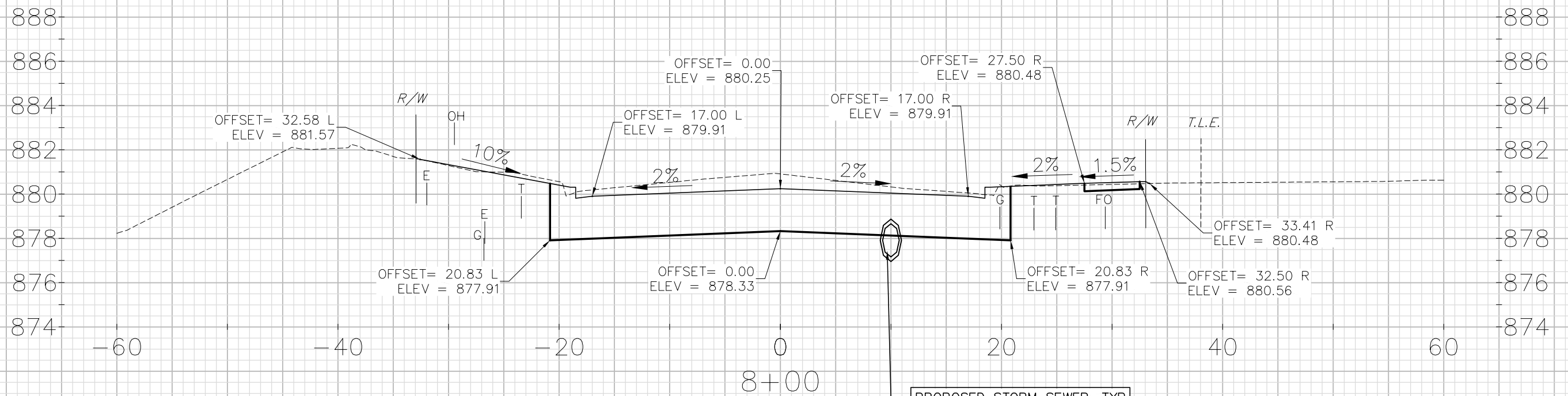
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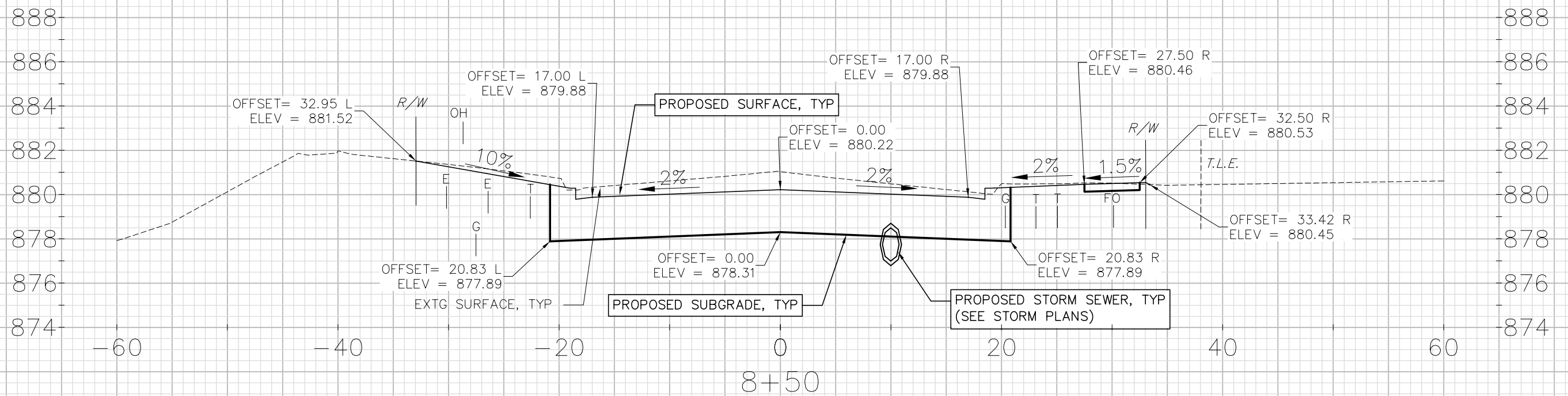
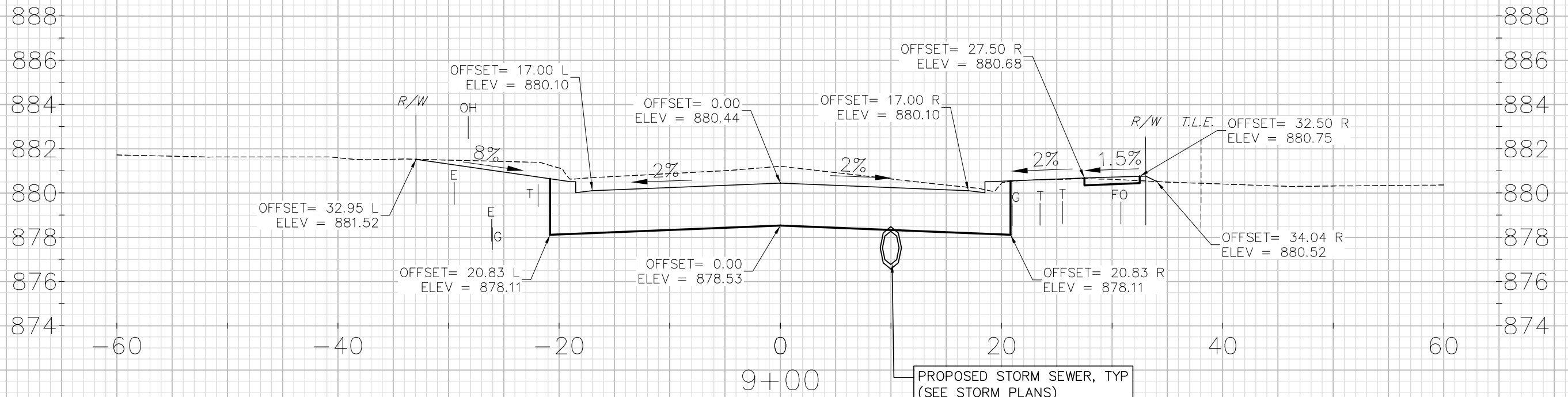
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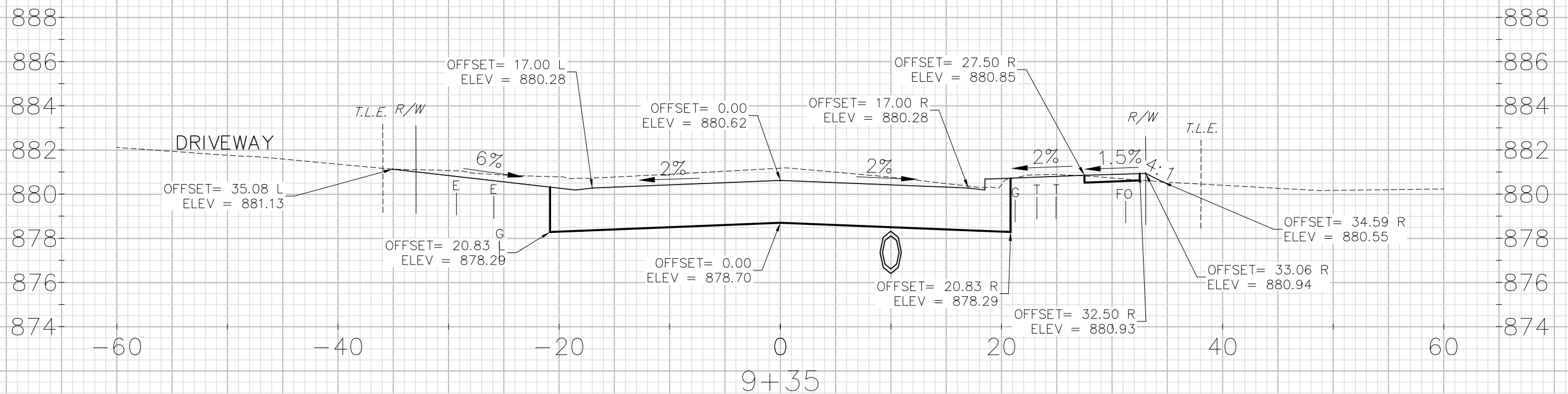
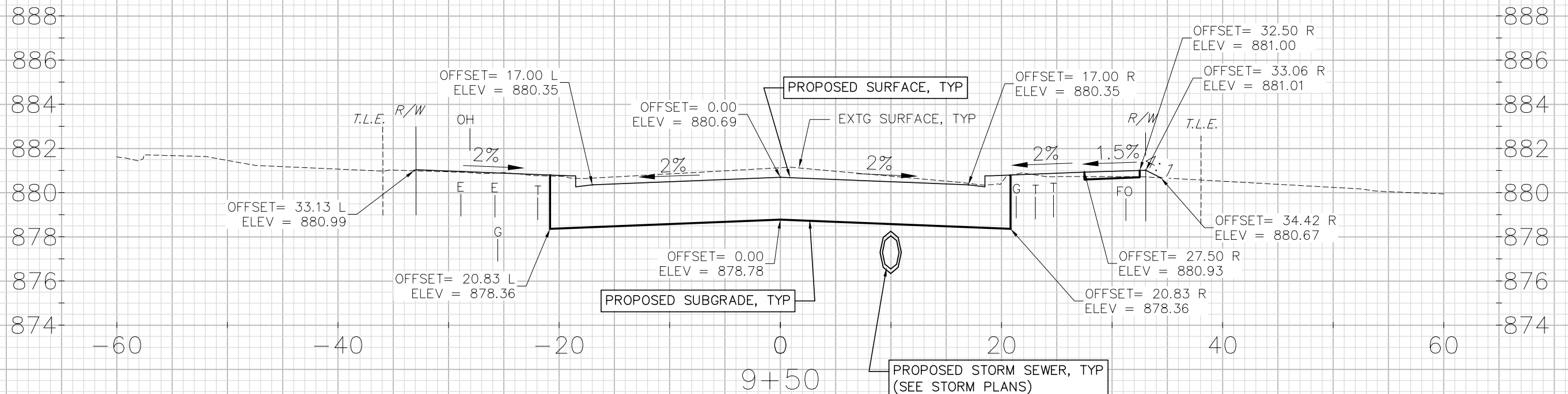
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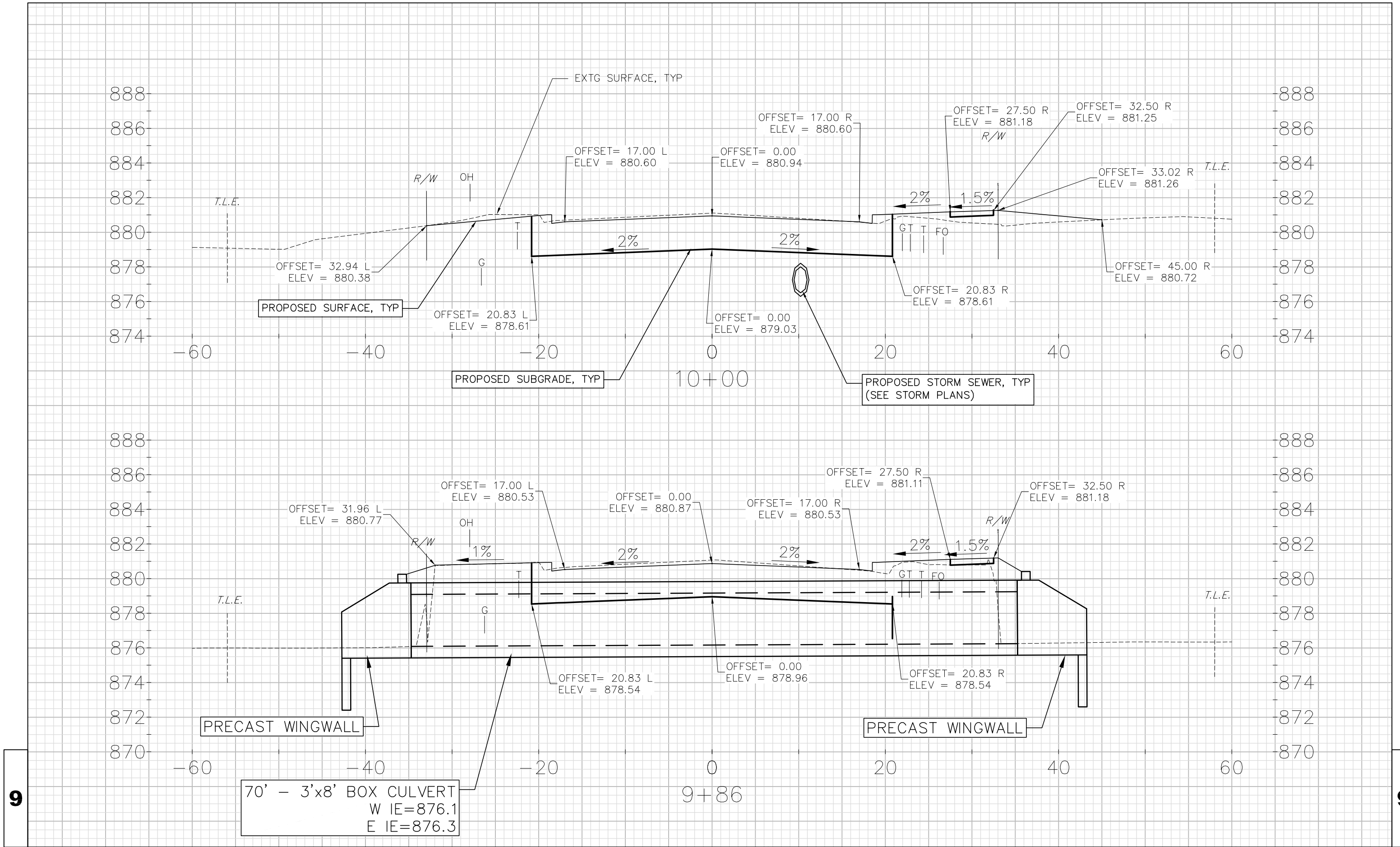
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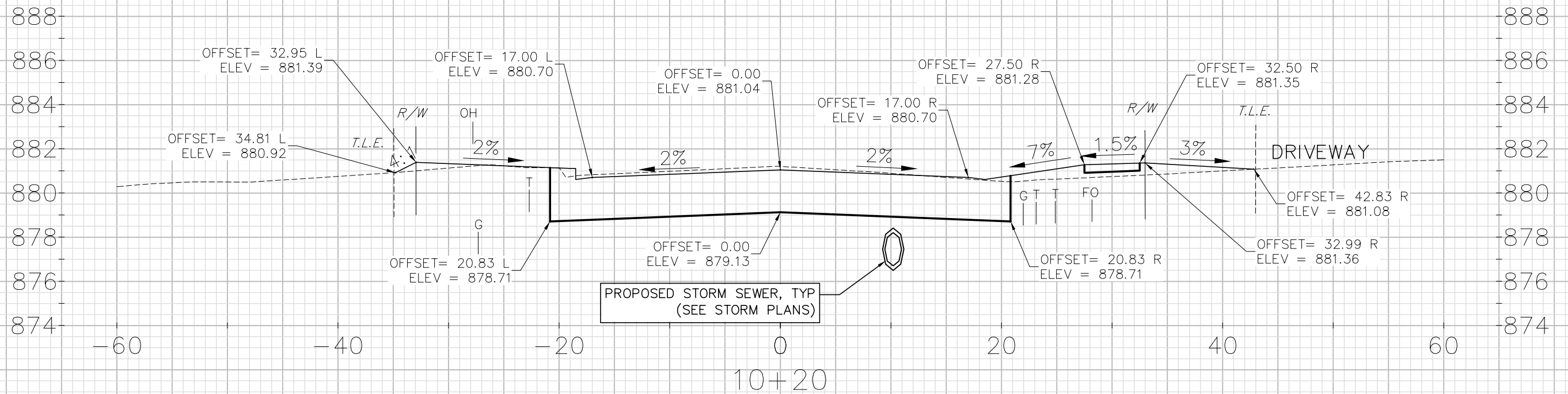
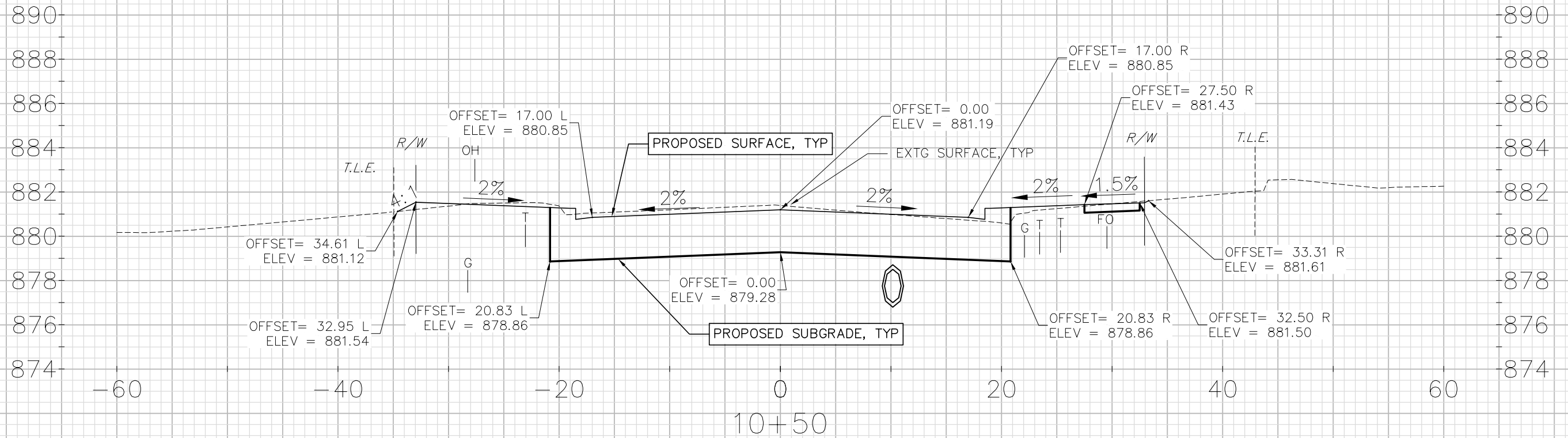
WISDOT/CADDs SHEET 49

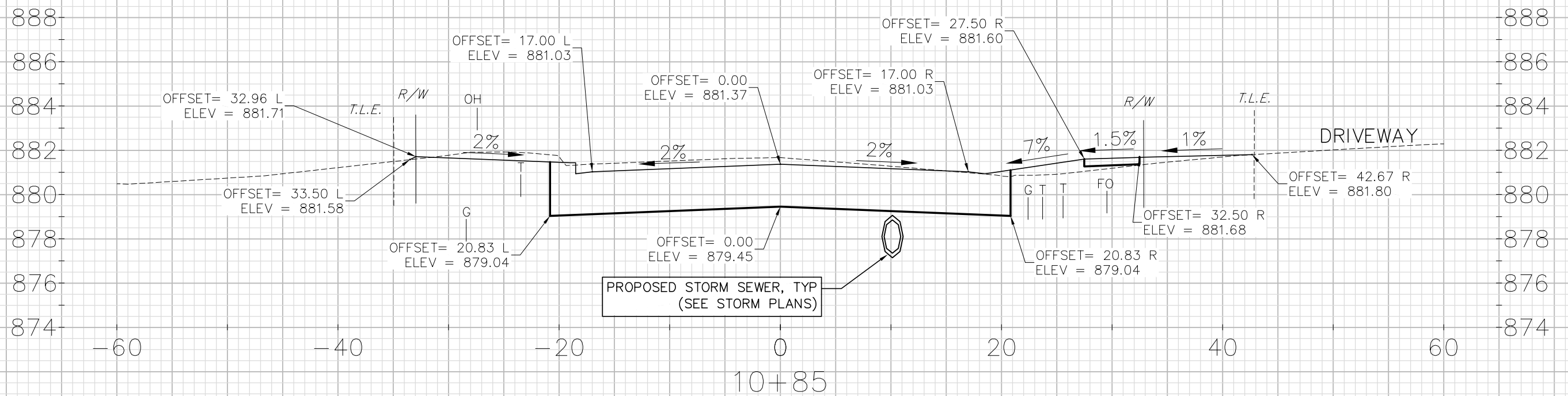
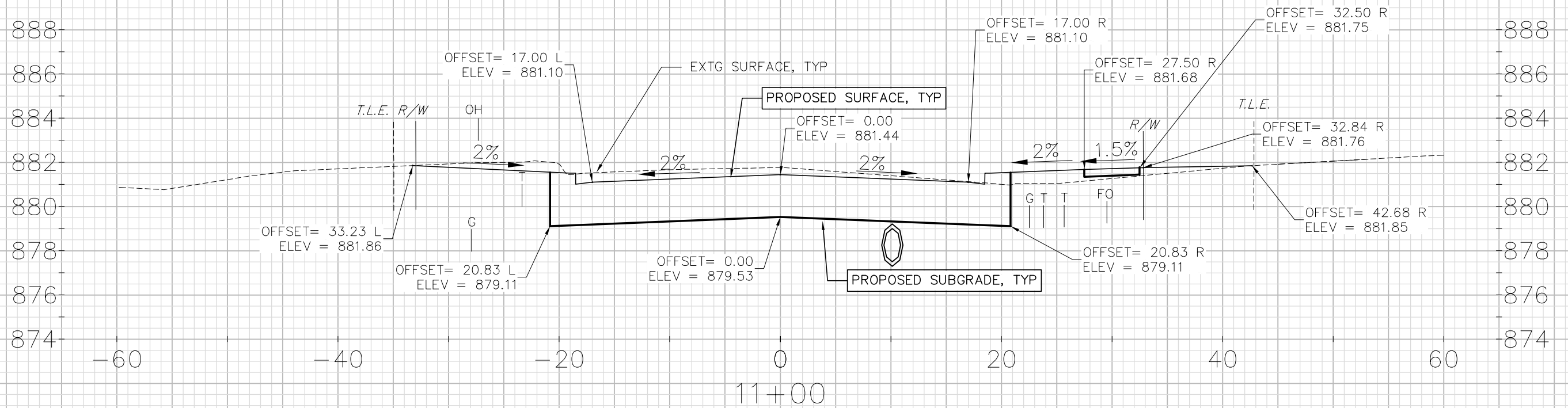


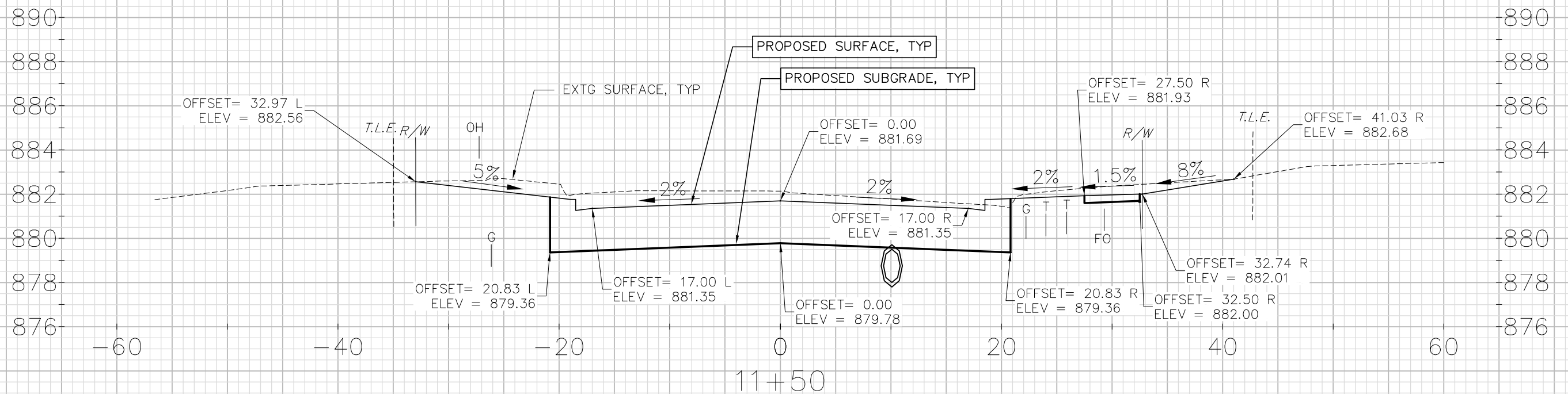
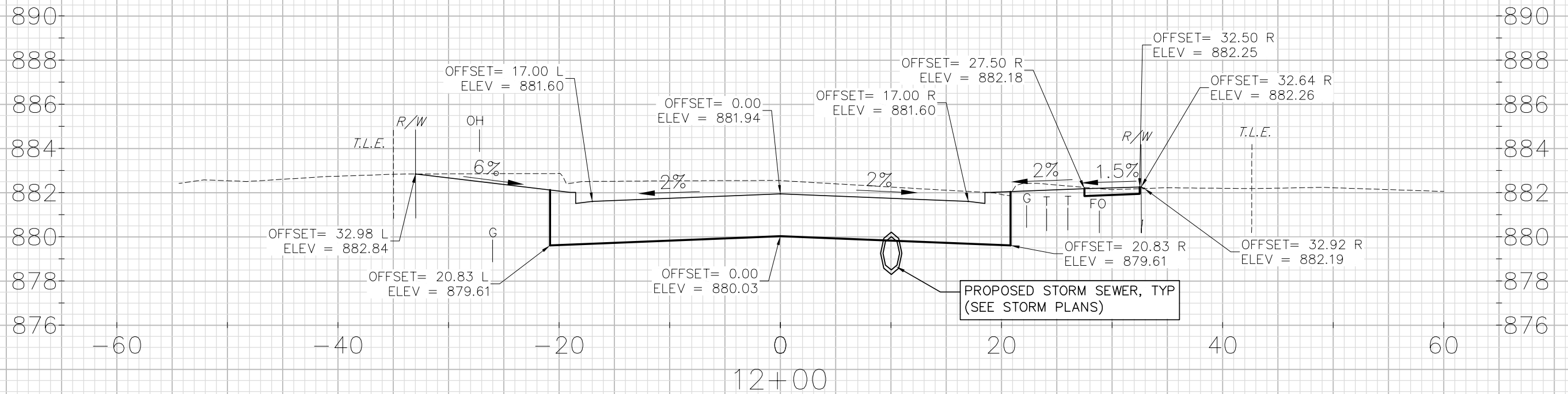


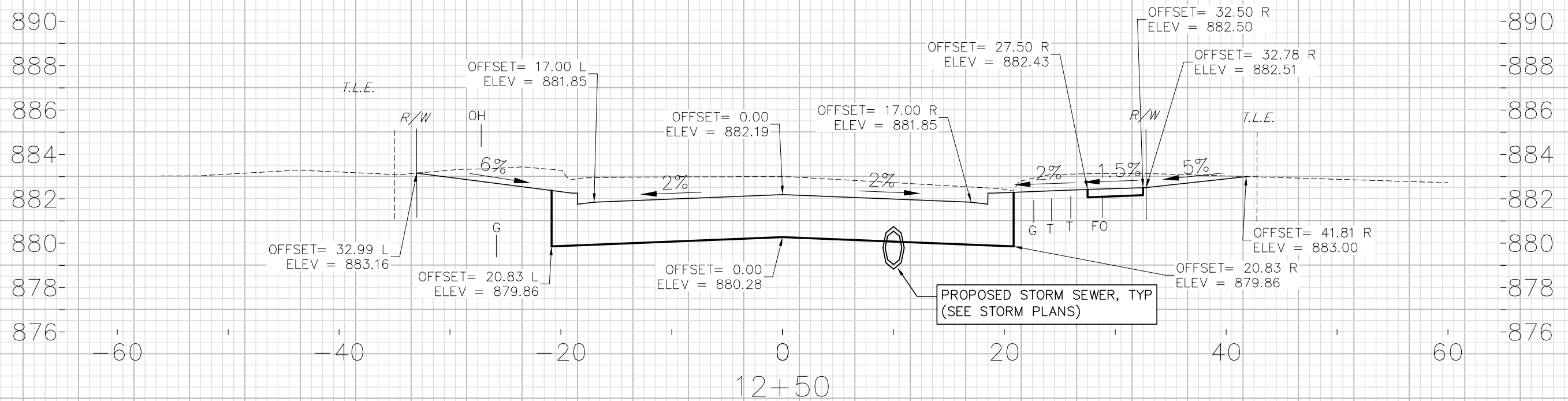
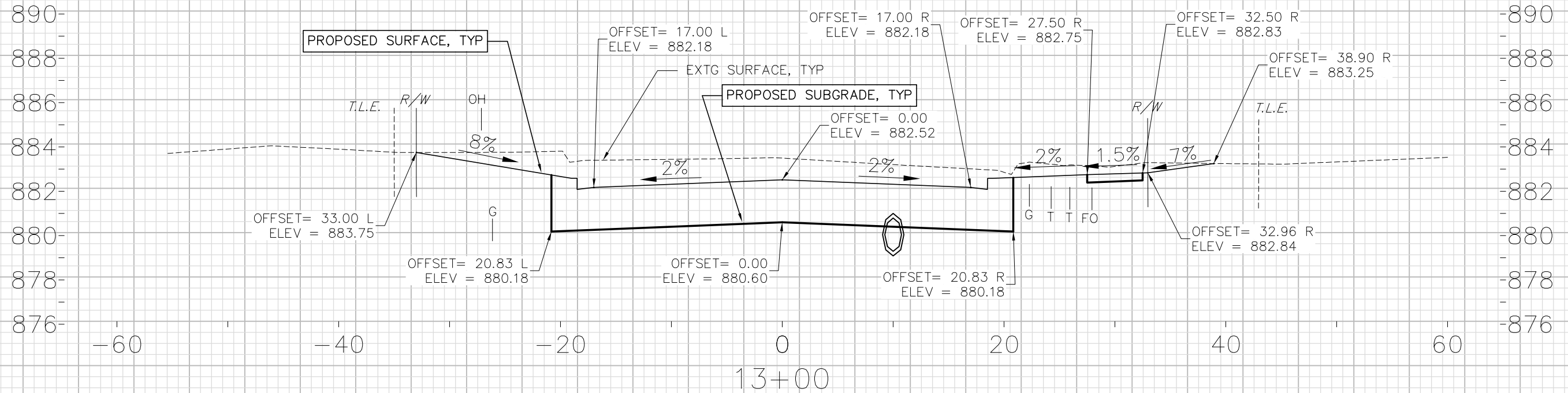


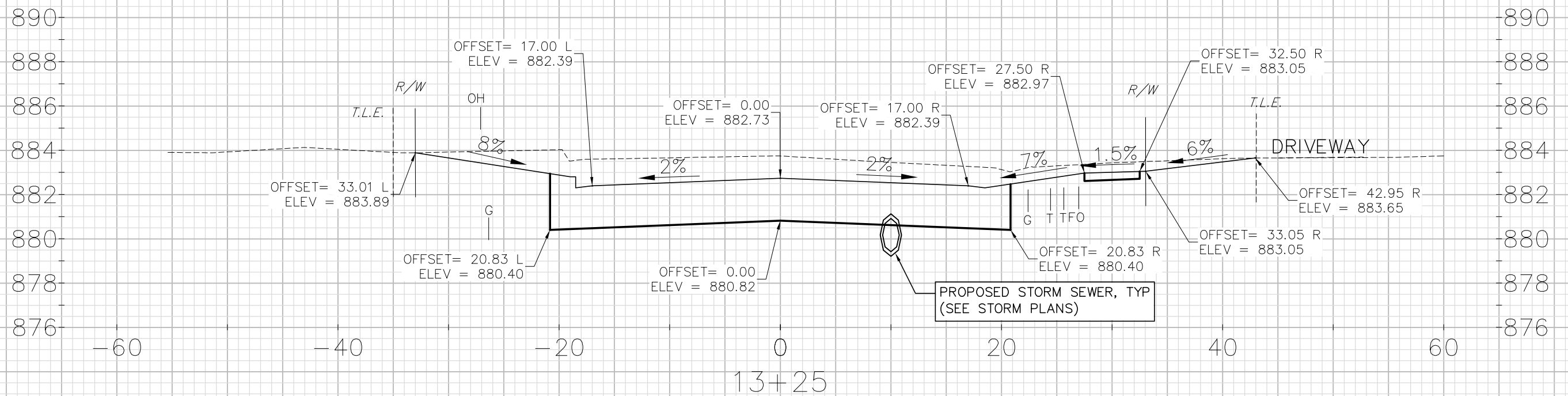
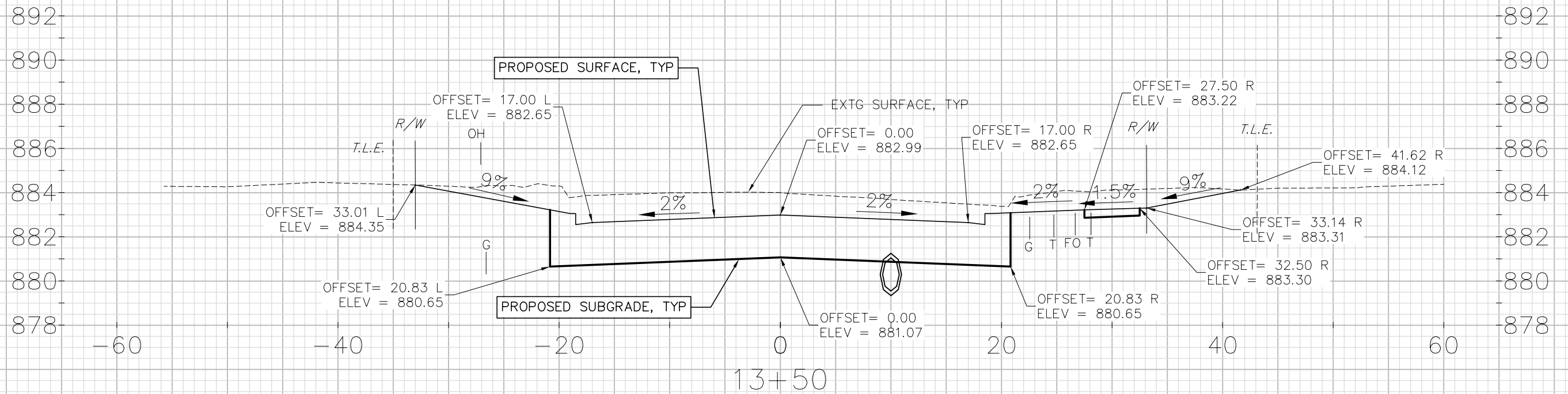


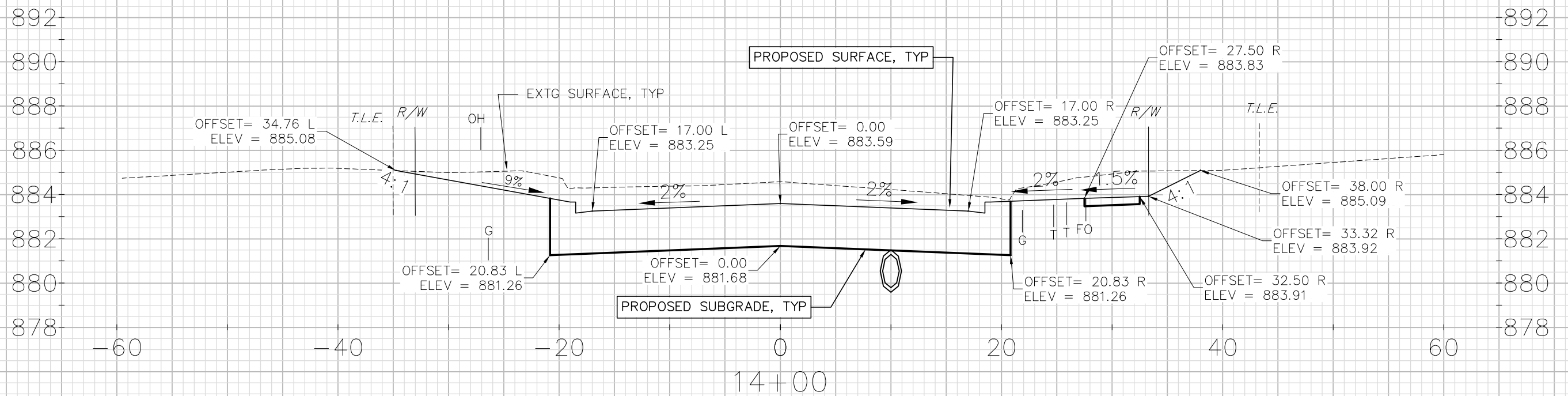
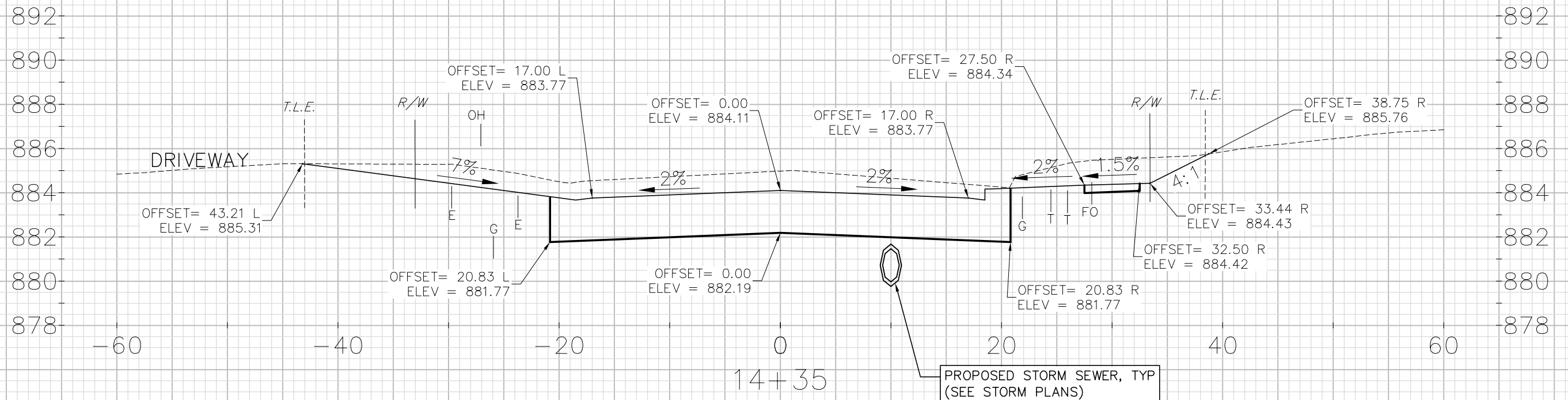


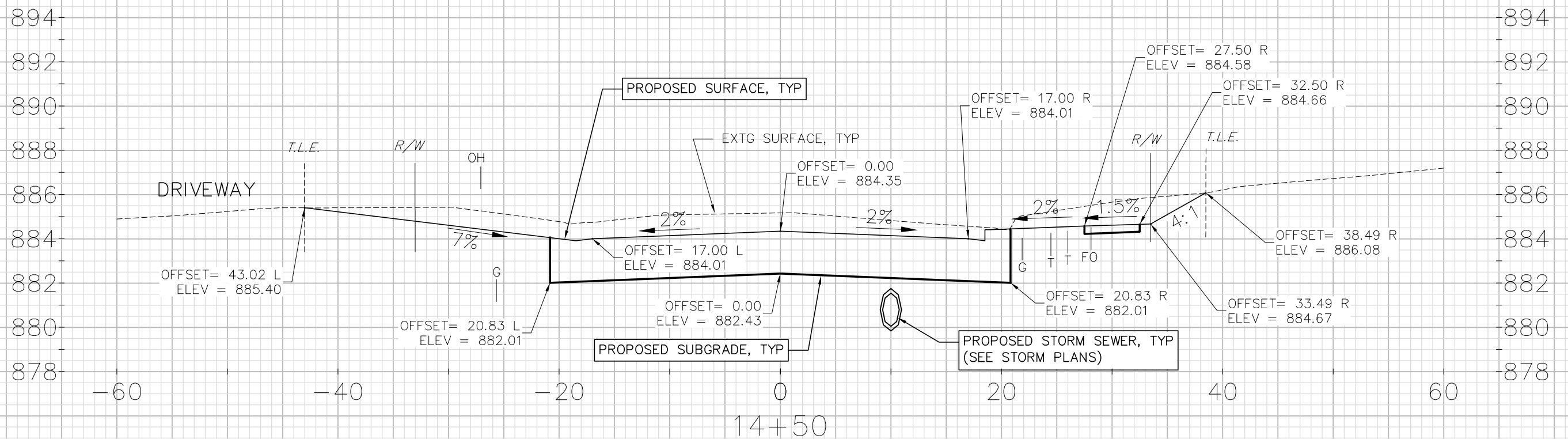
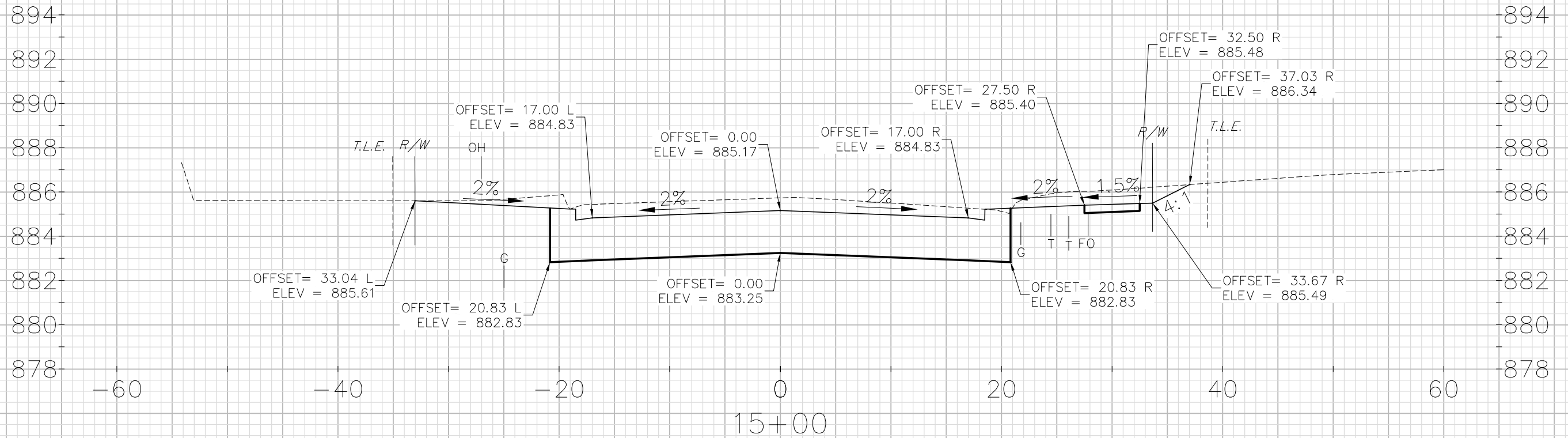


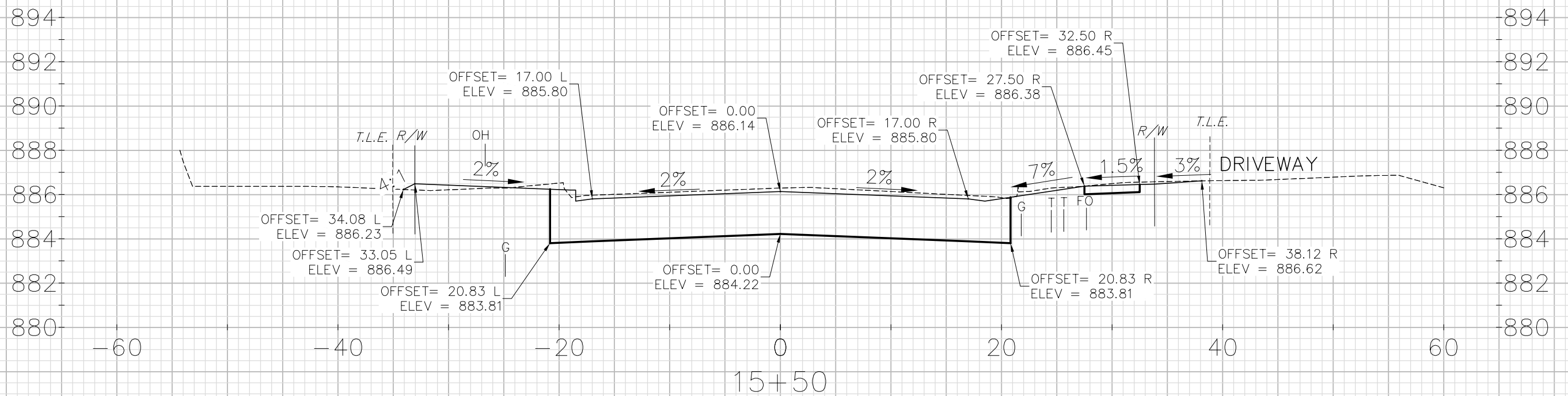
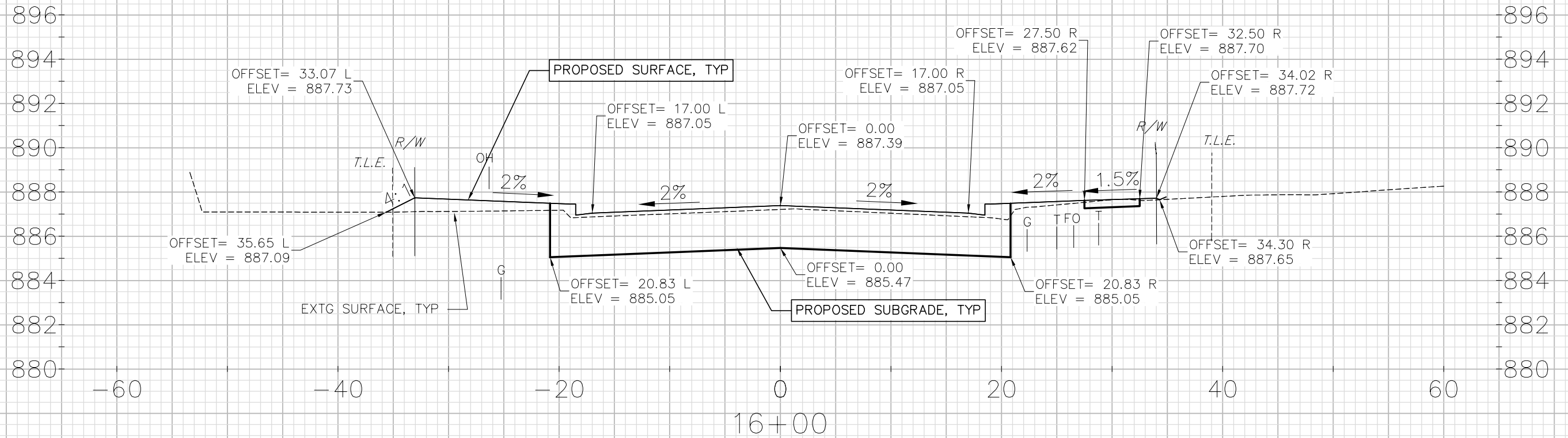


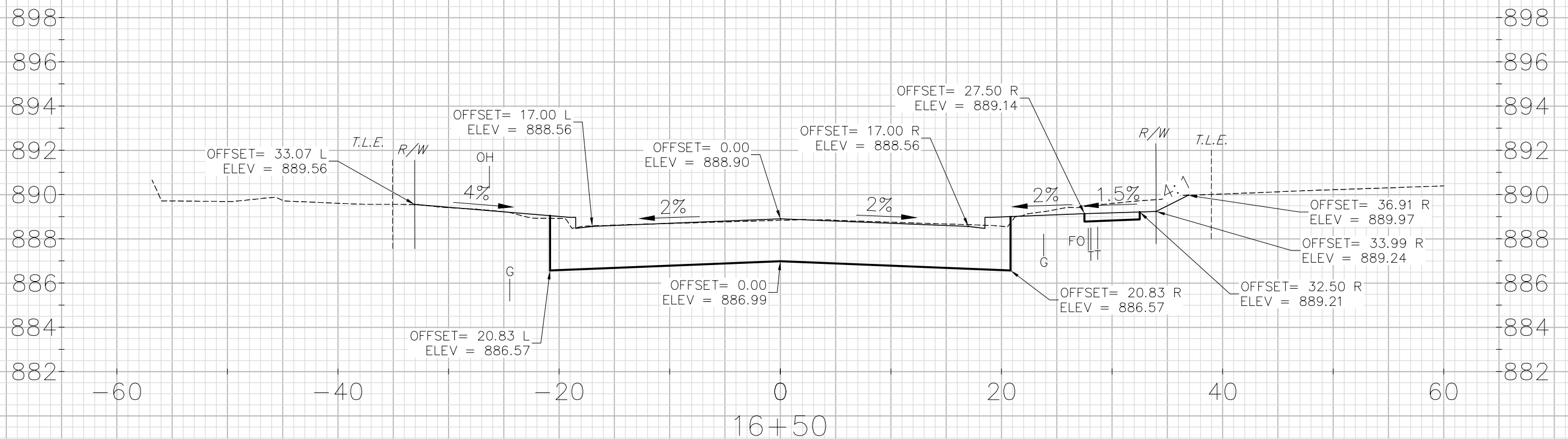
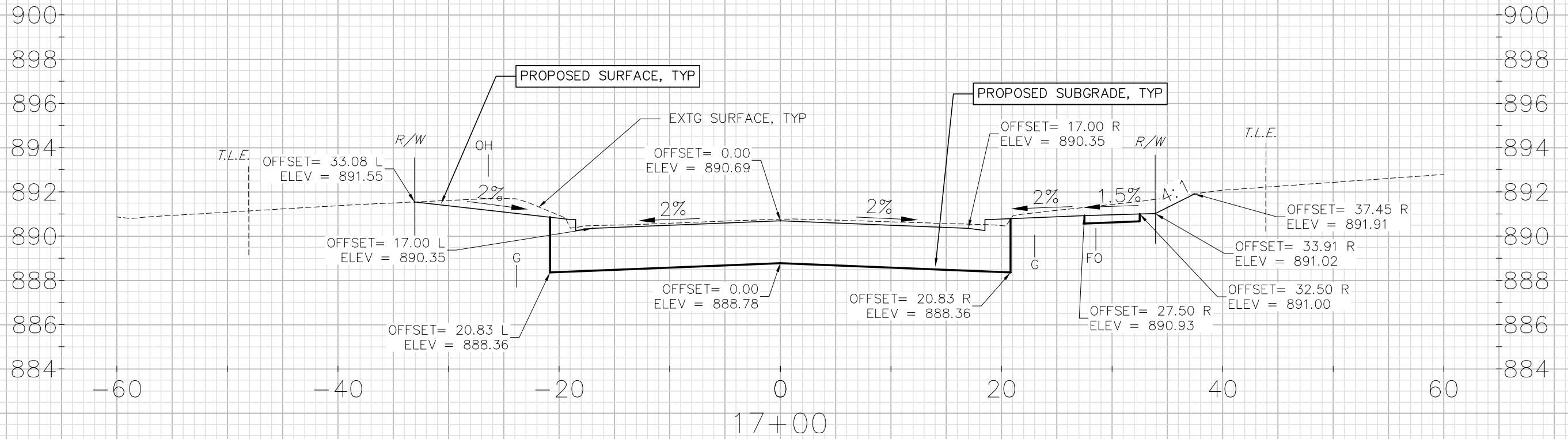


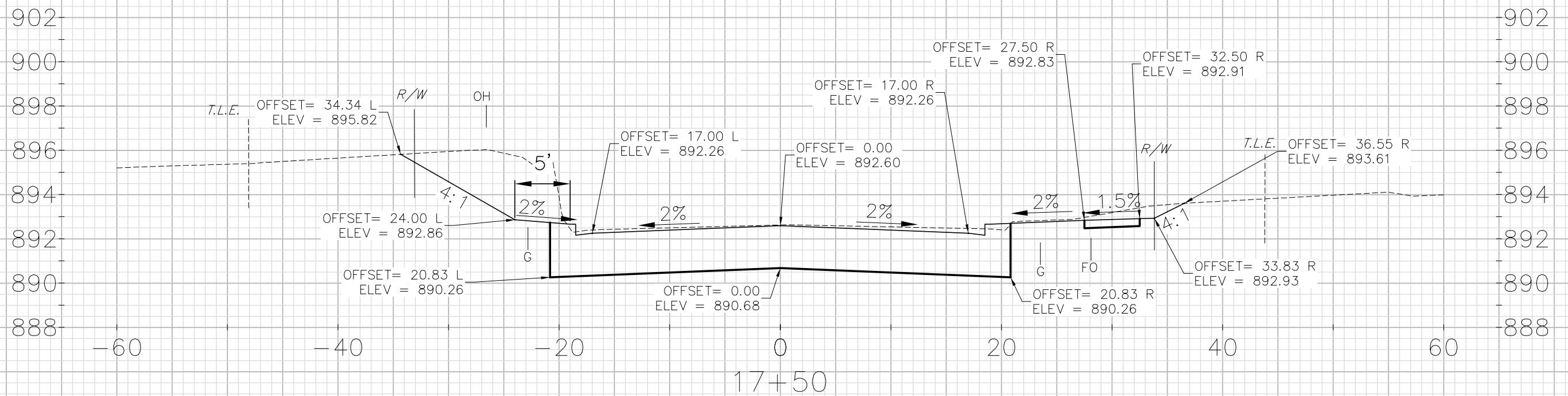
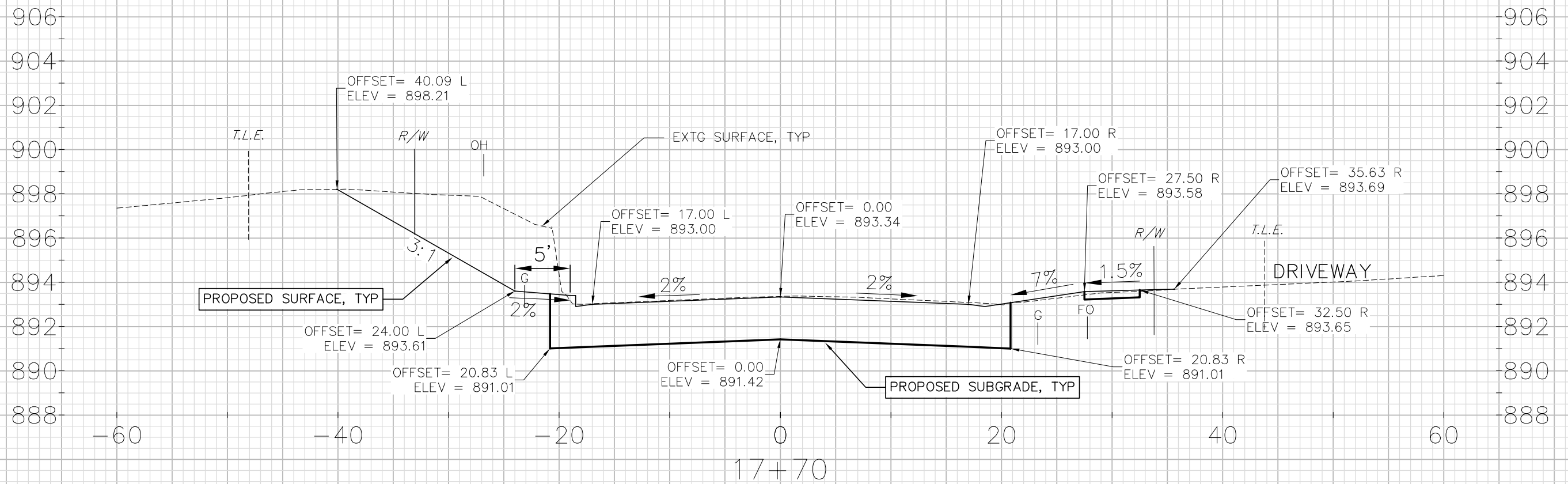


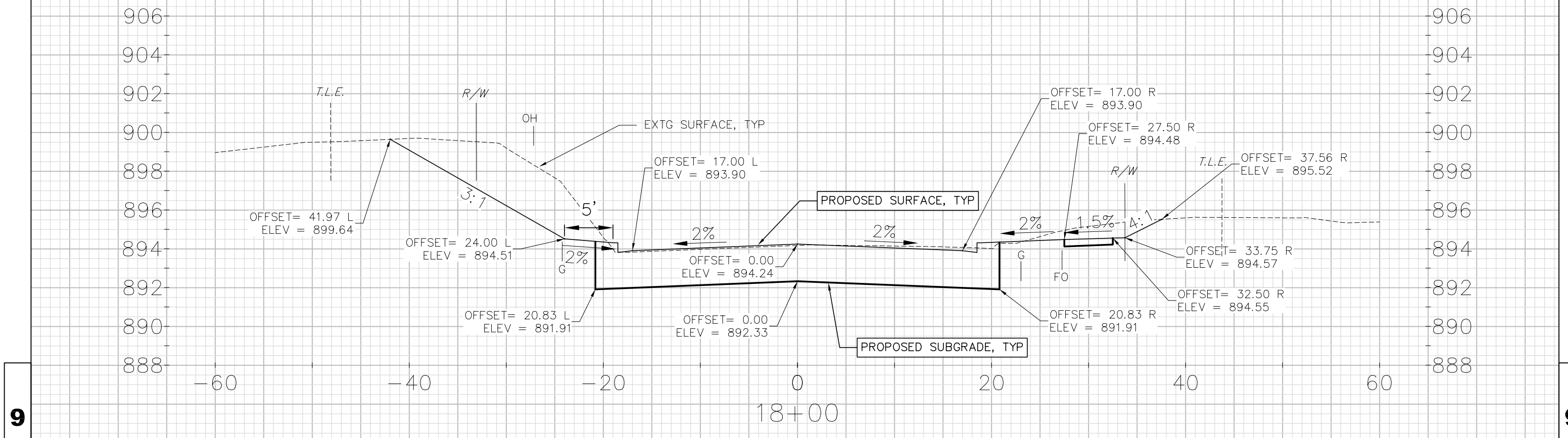
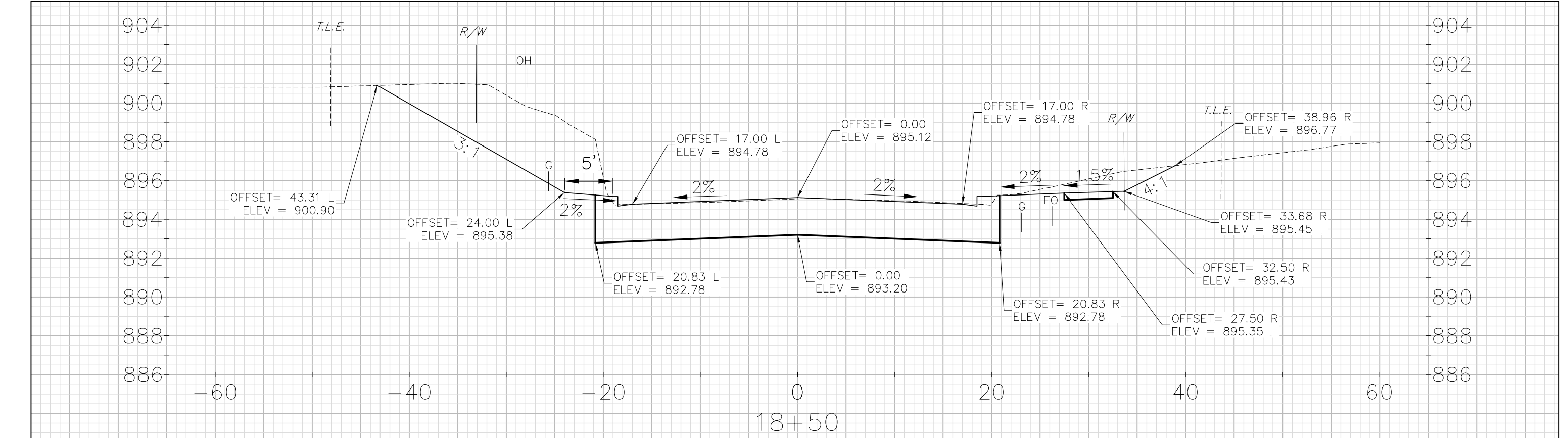


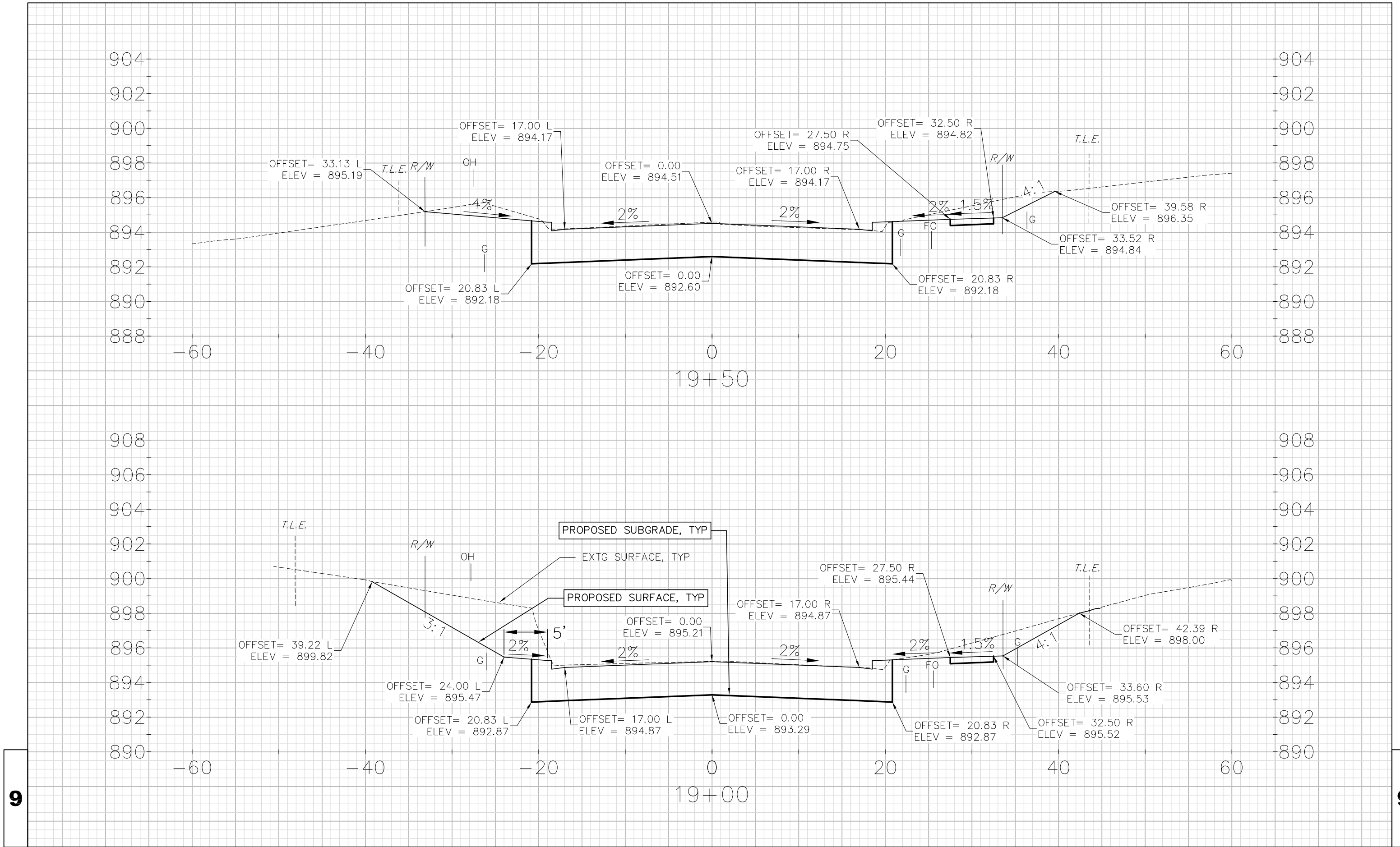


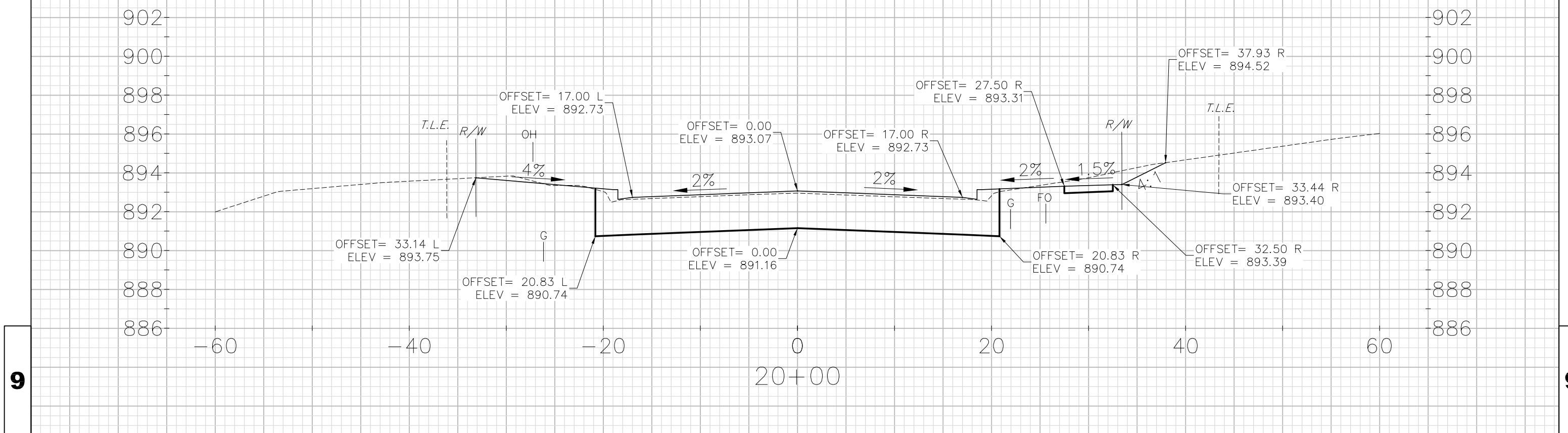
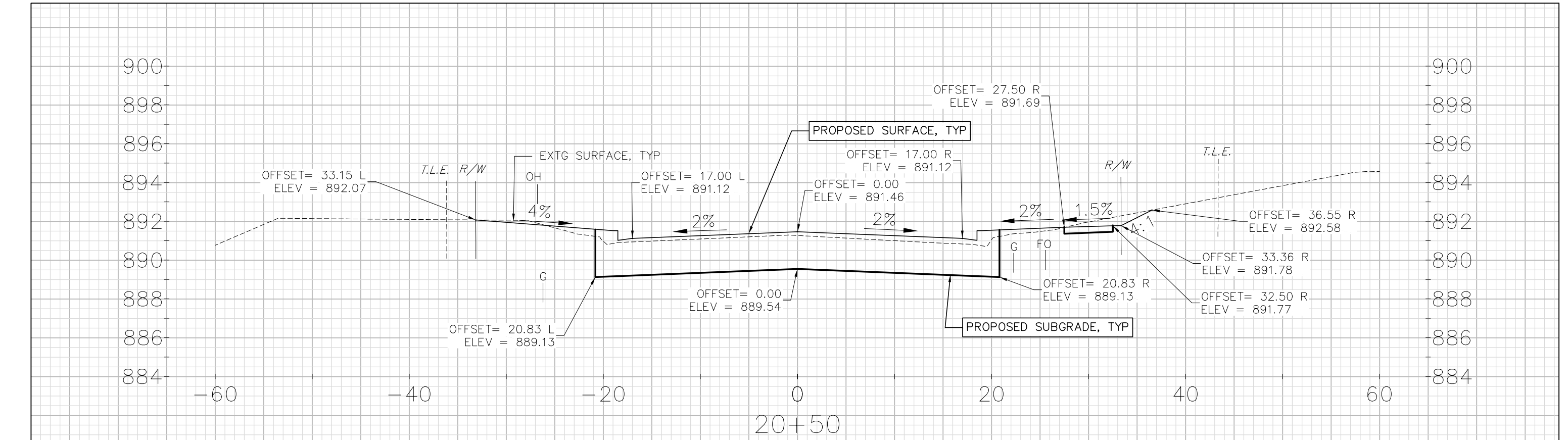


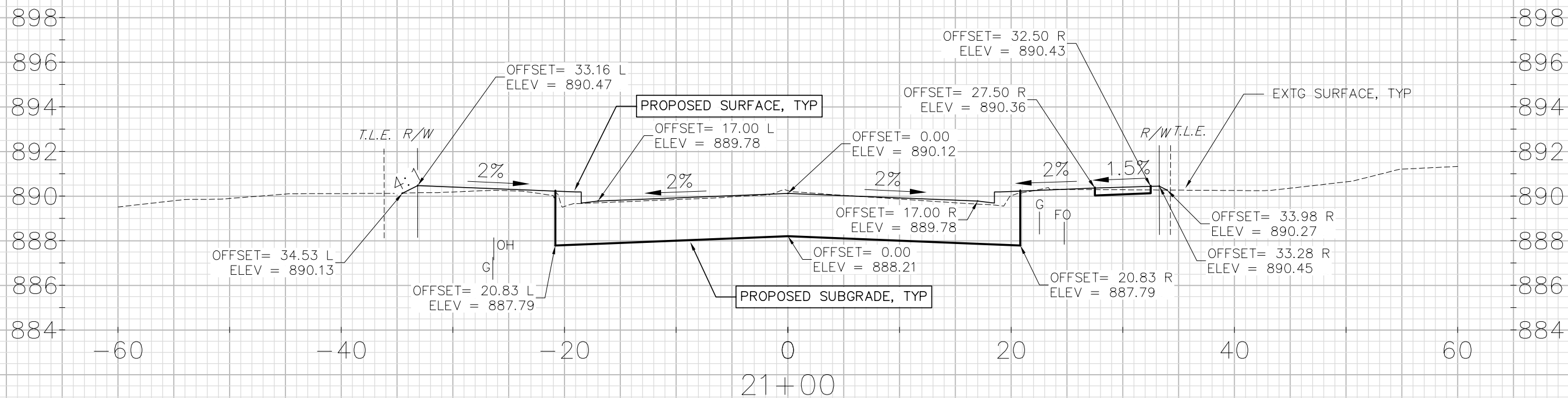
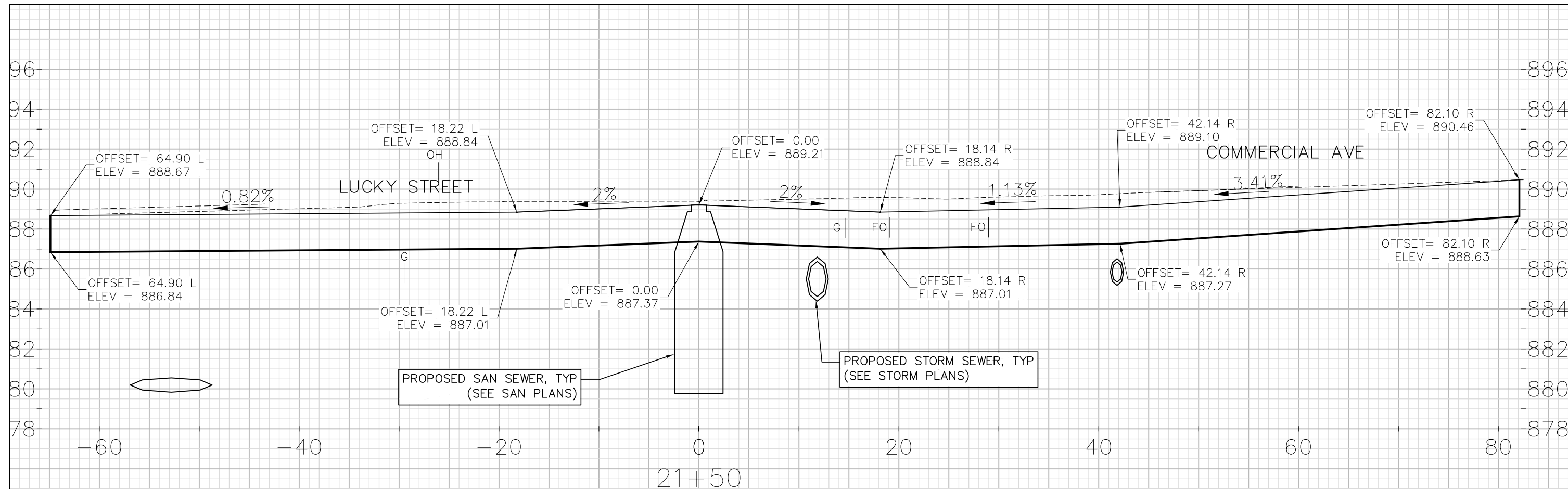


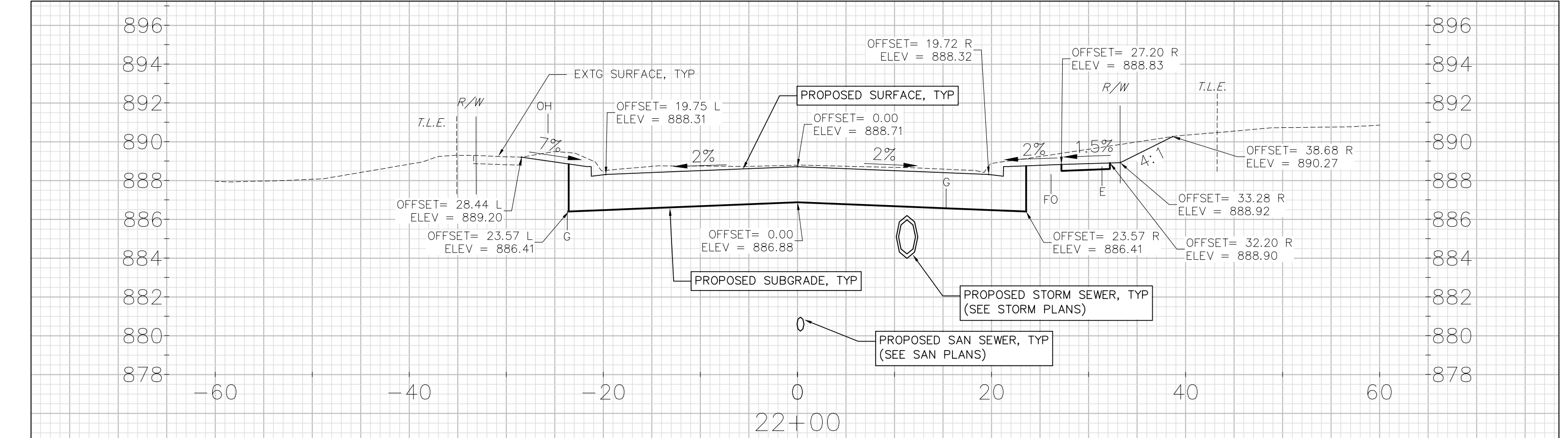


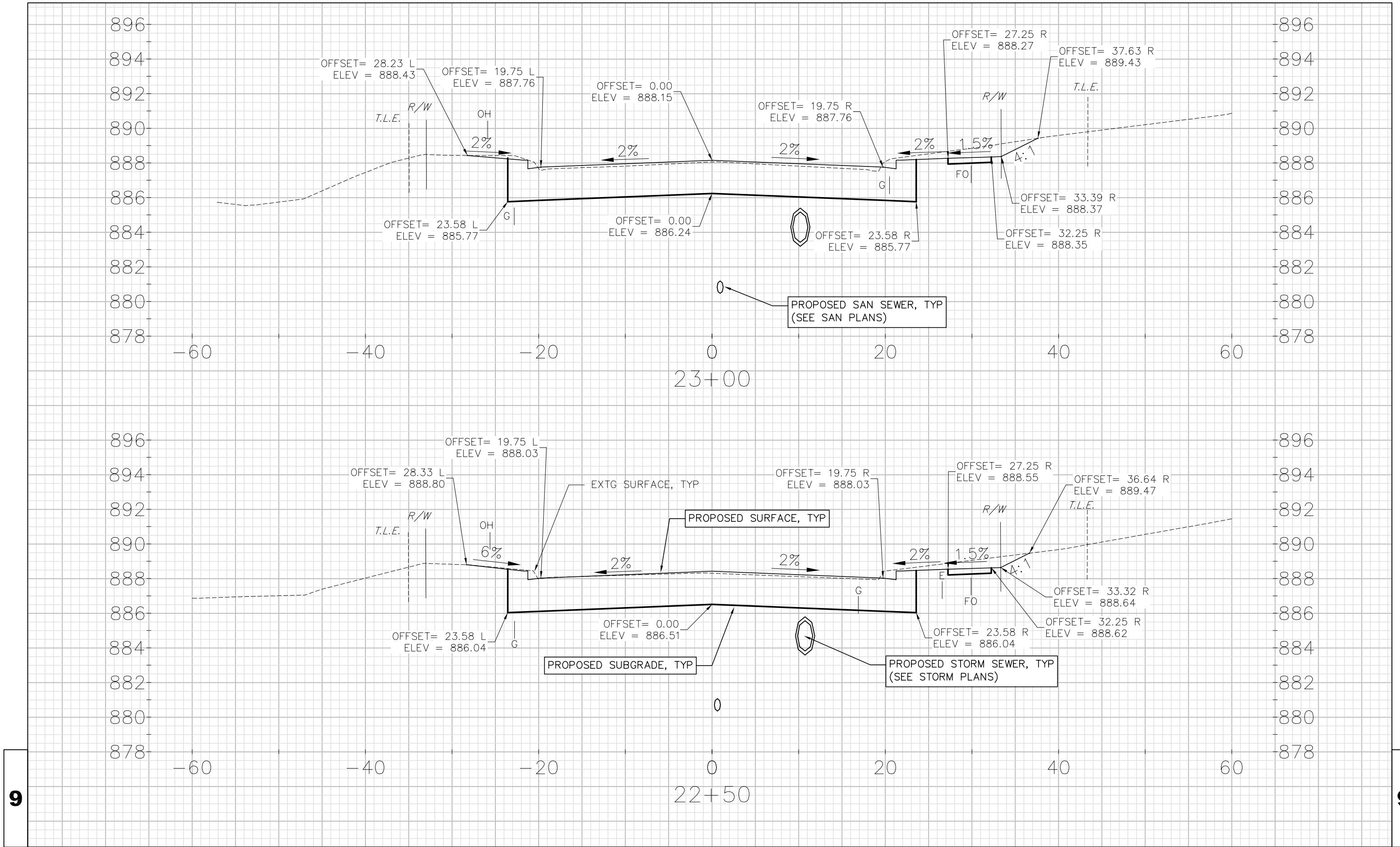


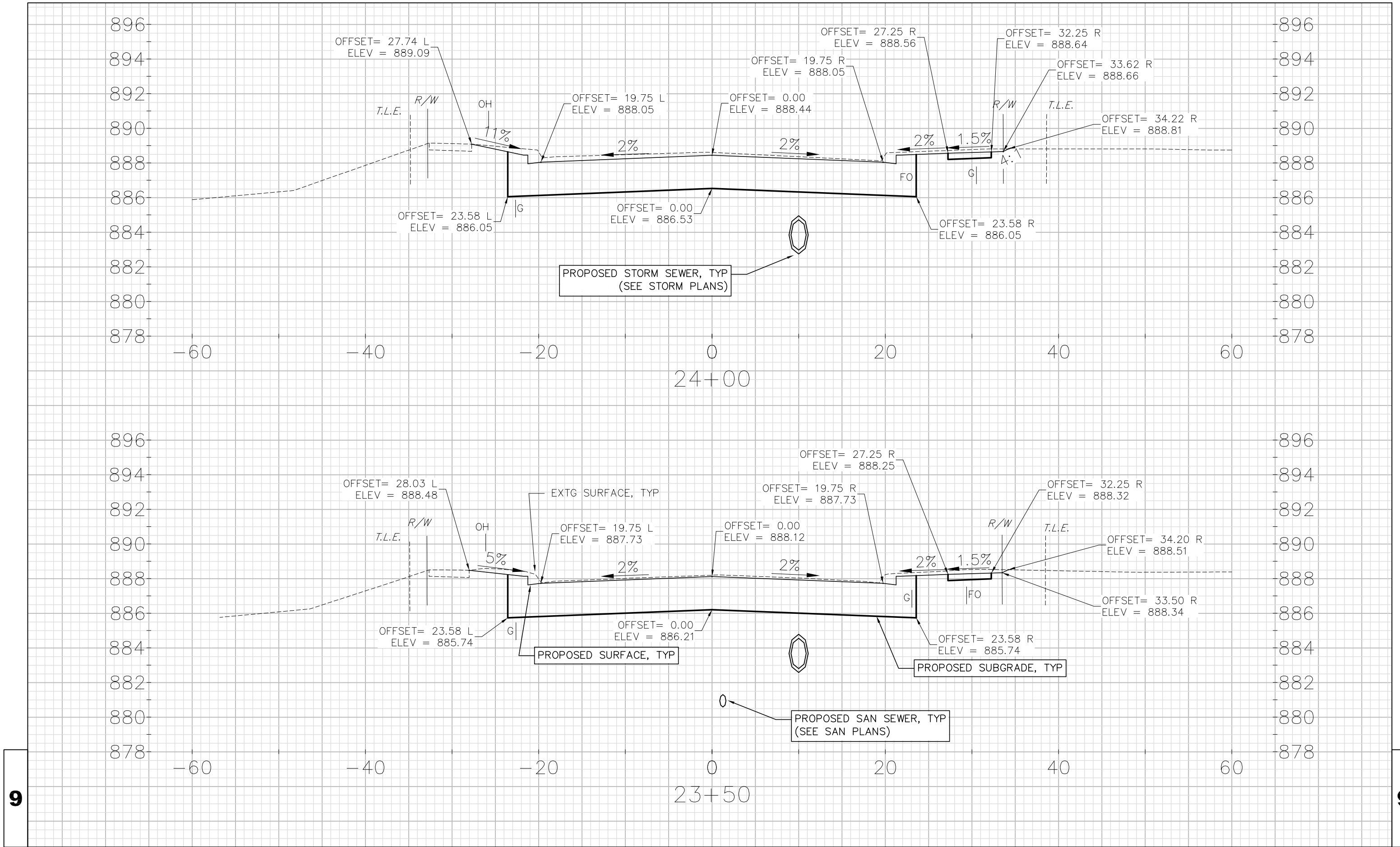


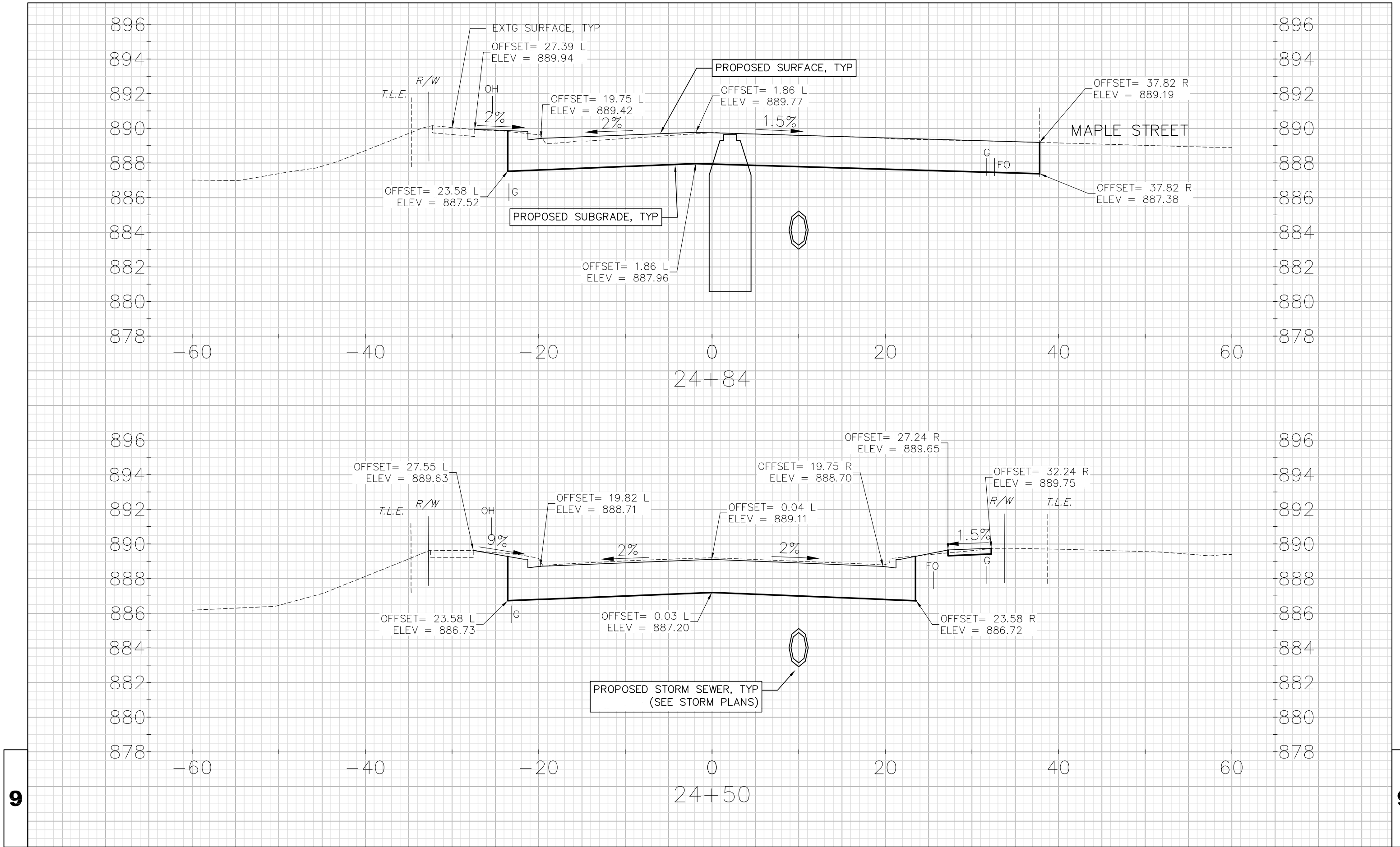


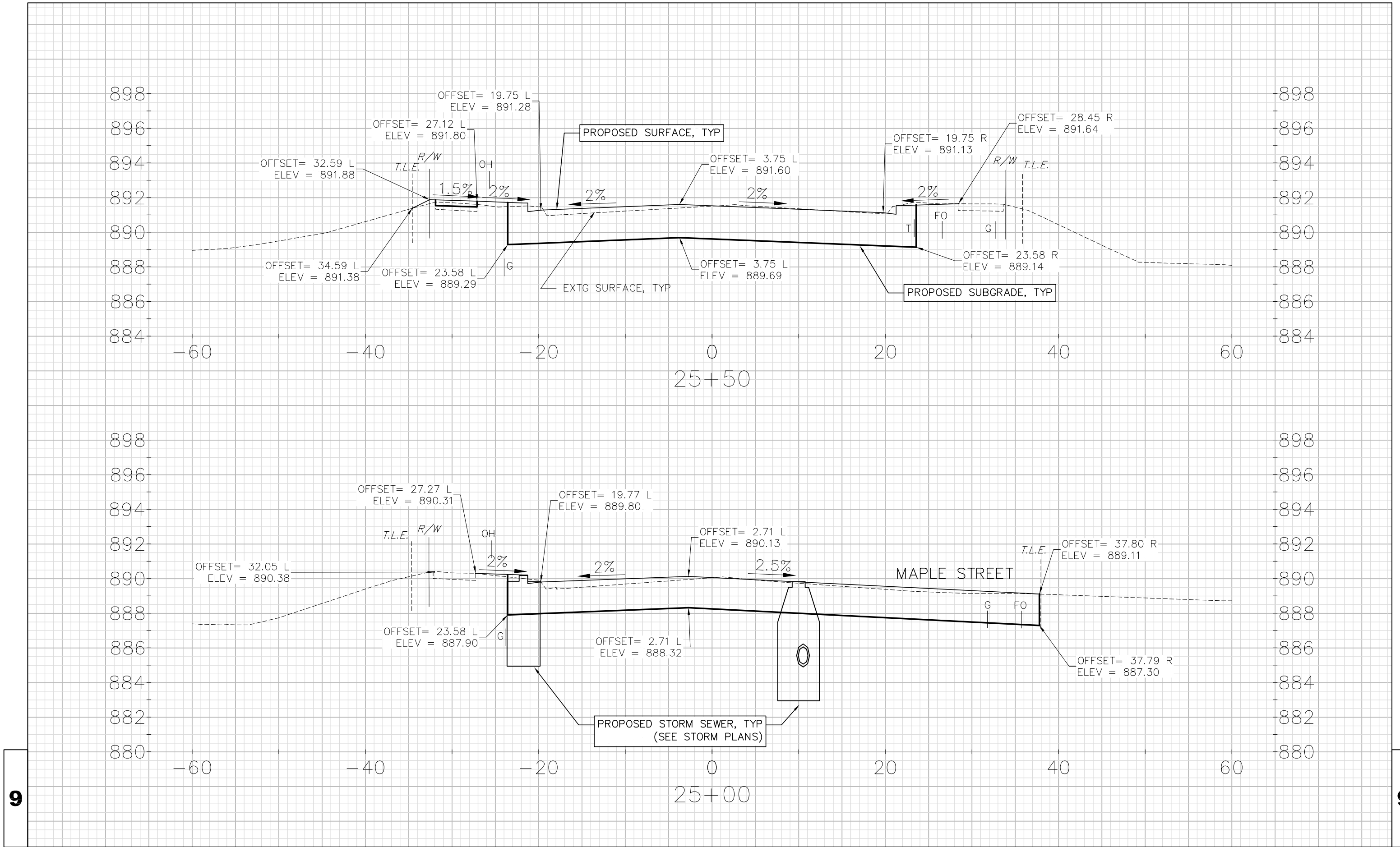


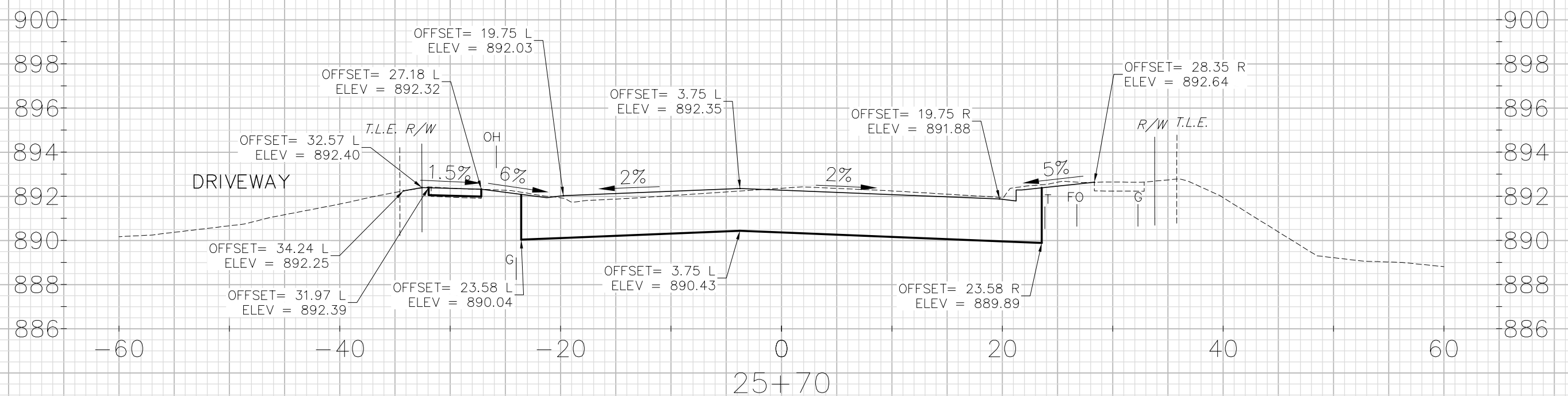
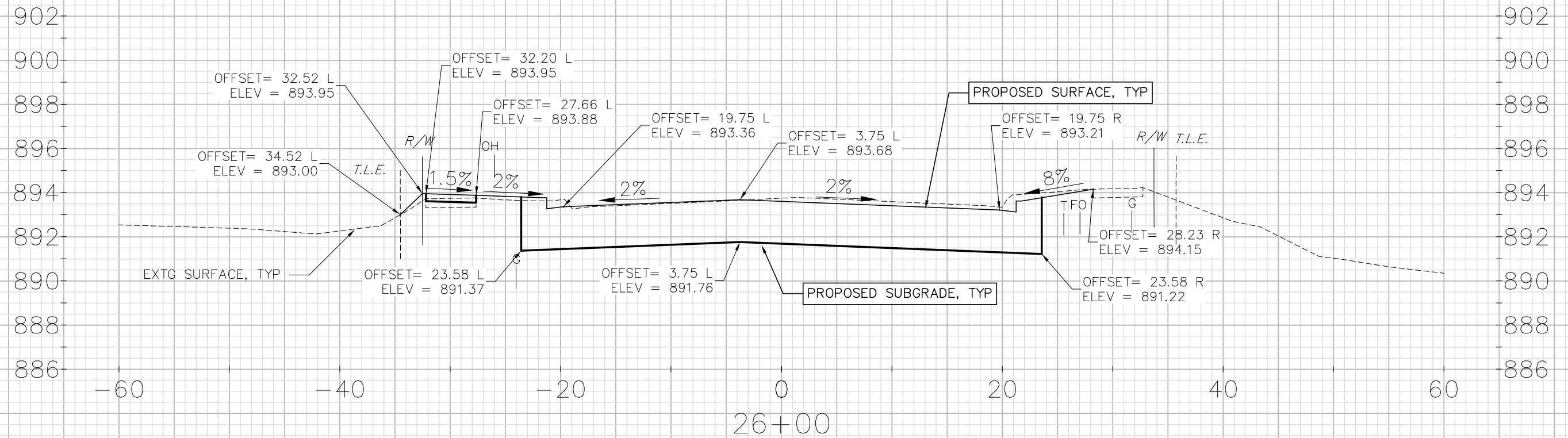


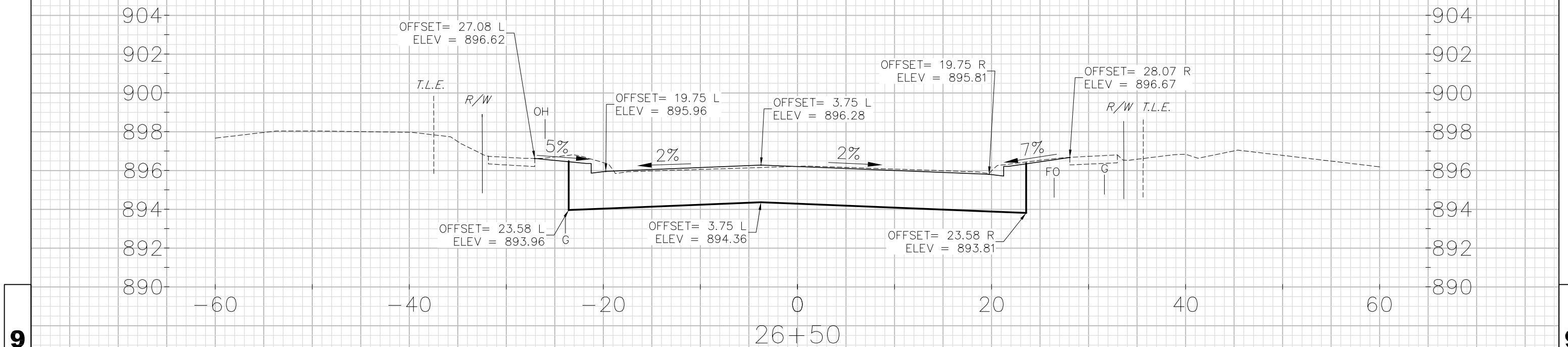
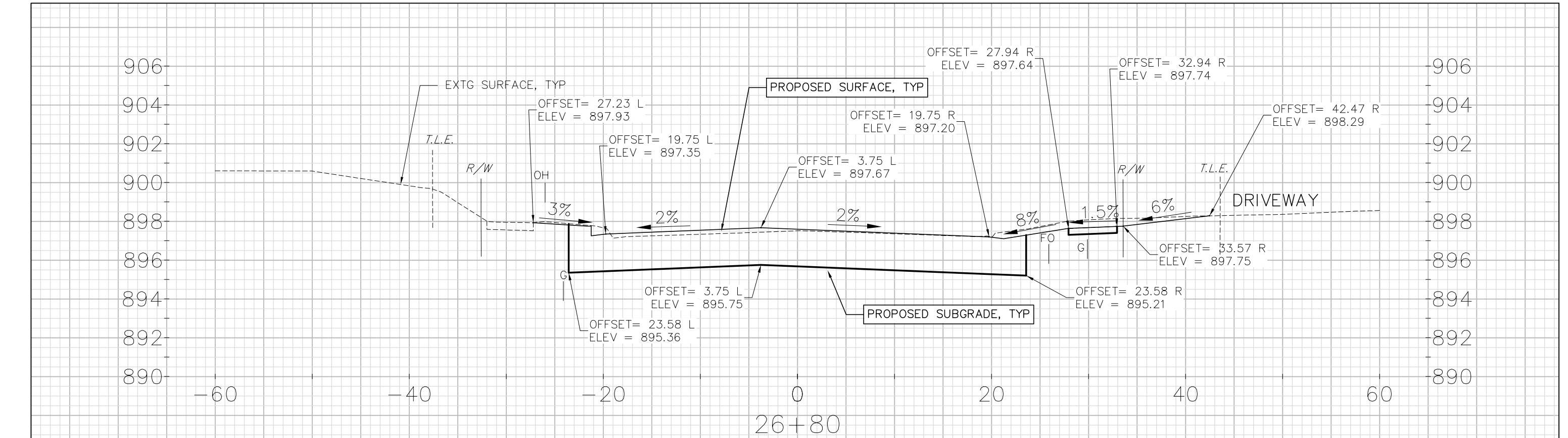


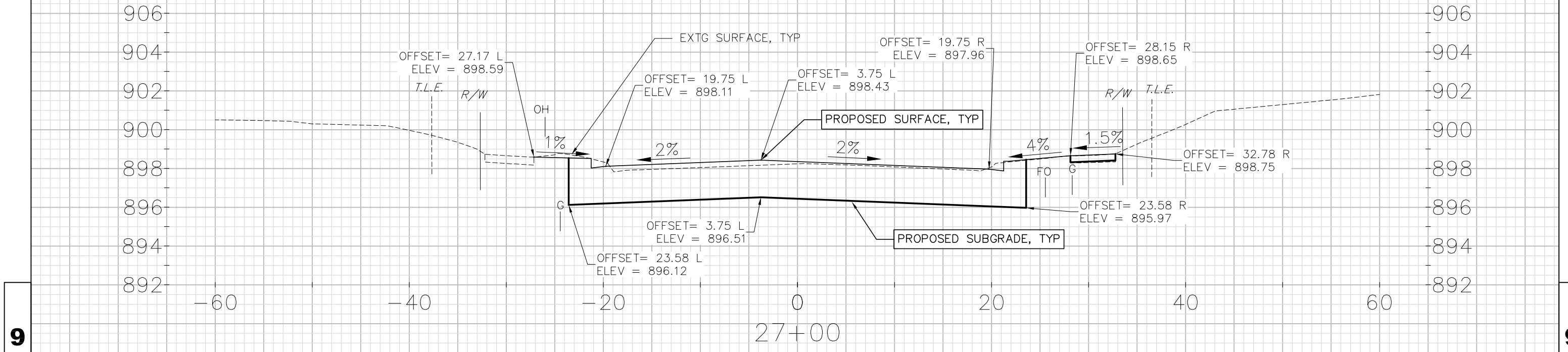
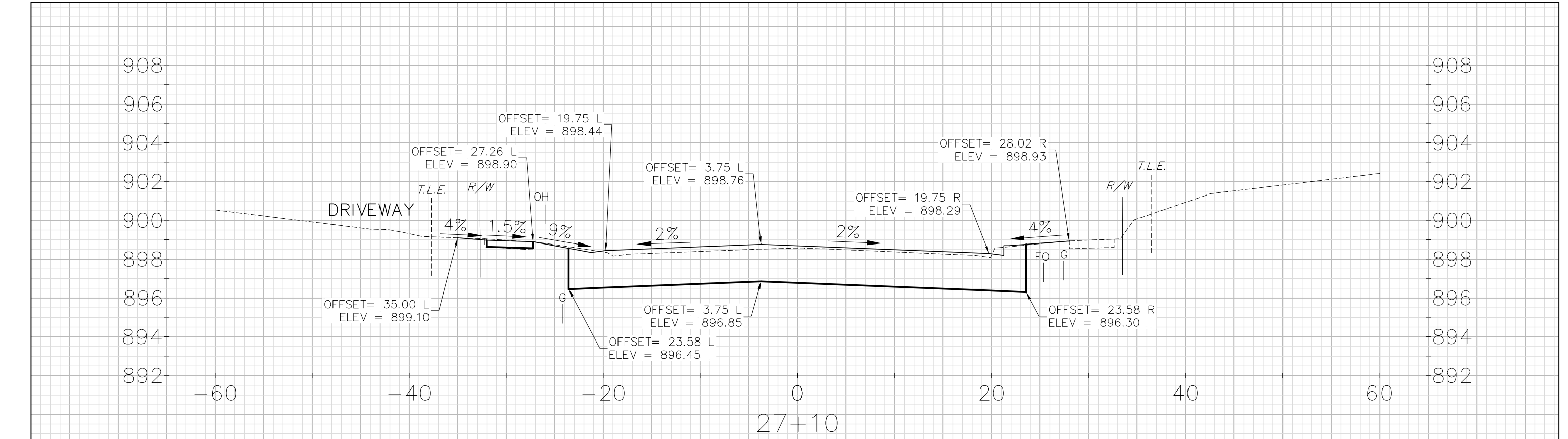


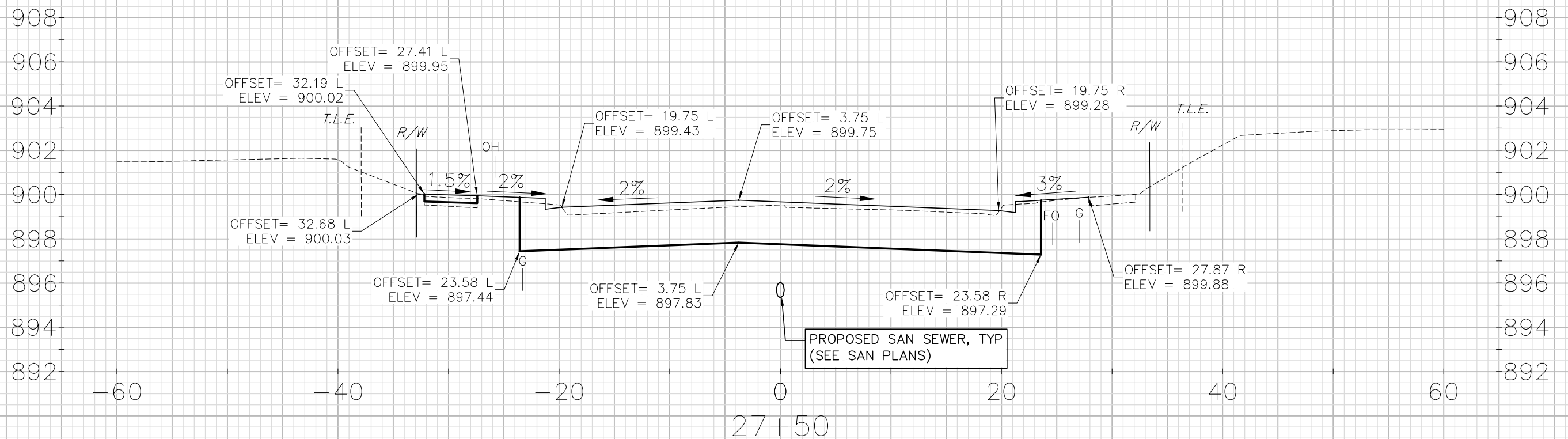
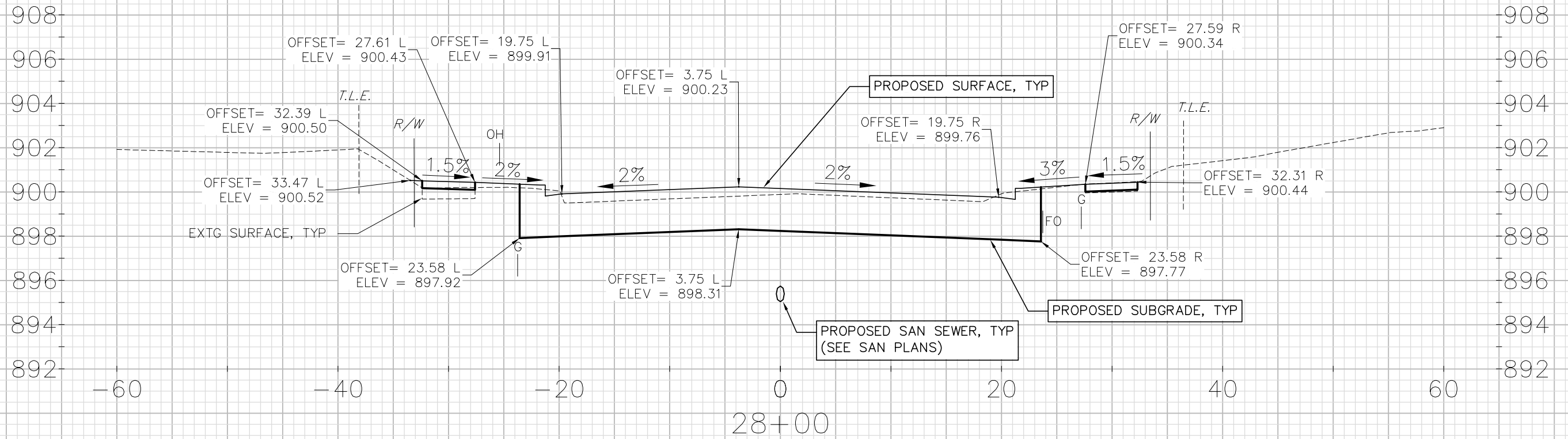


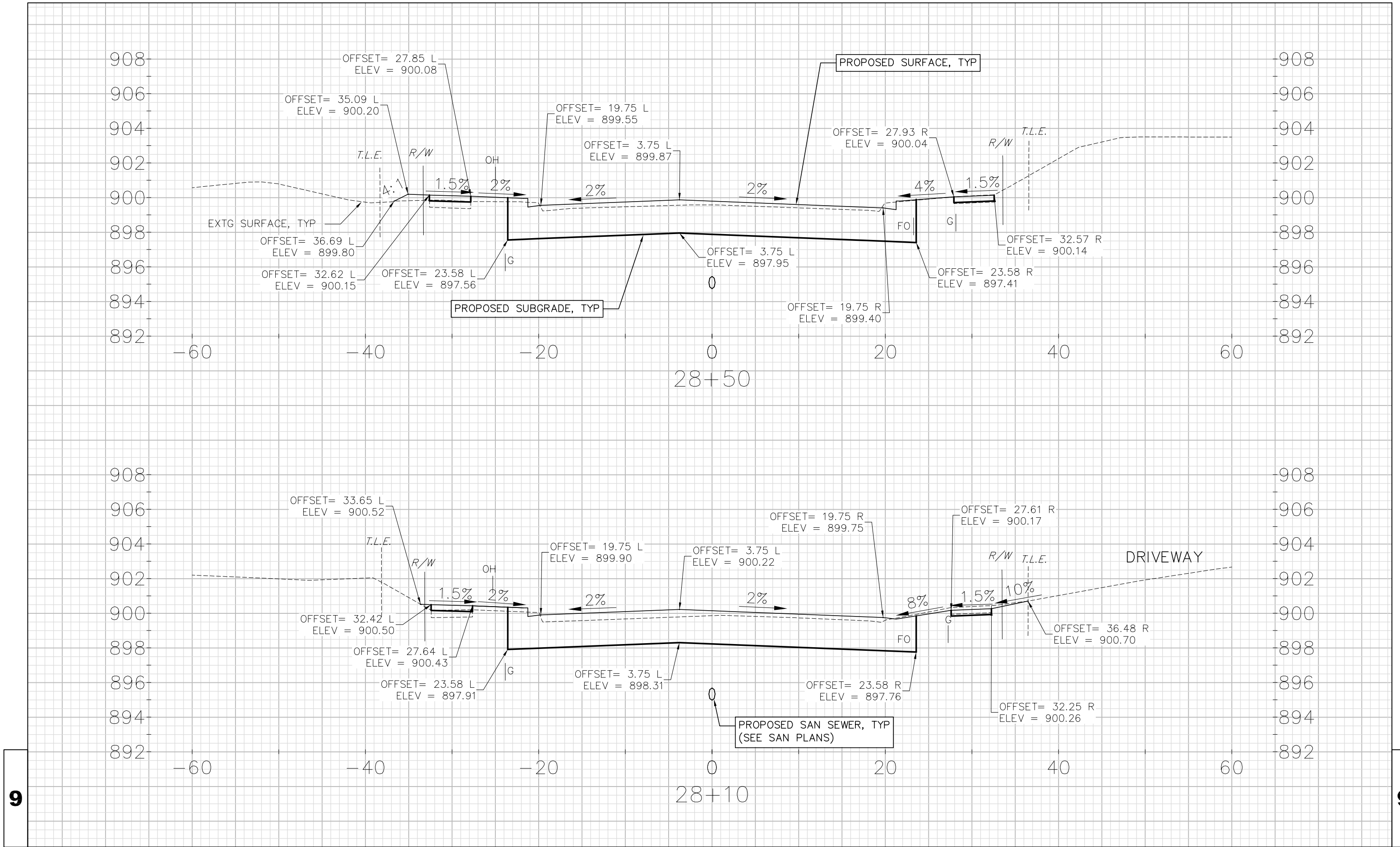


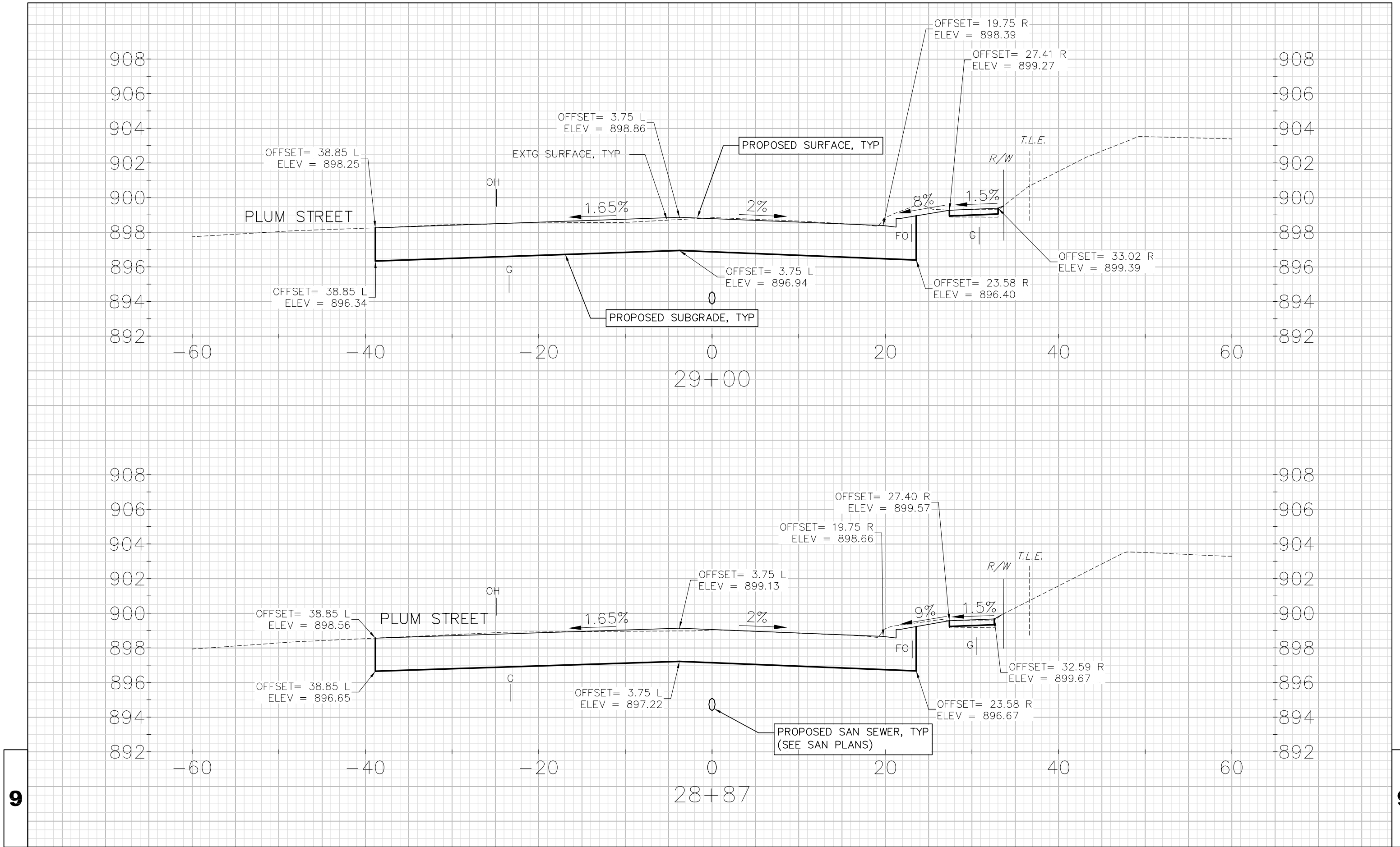


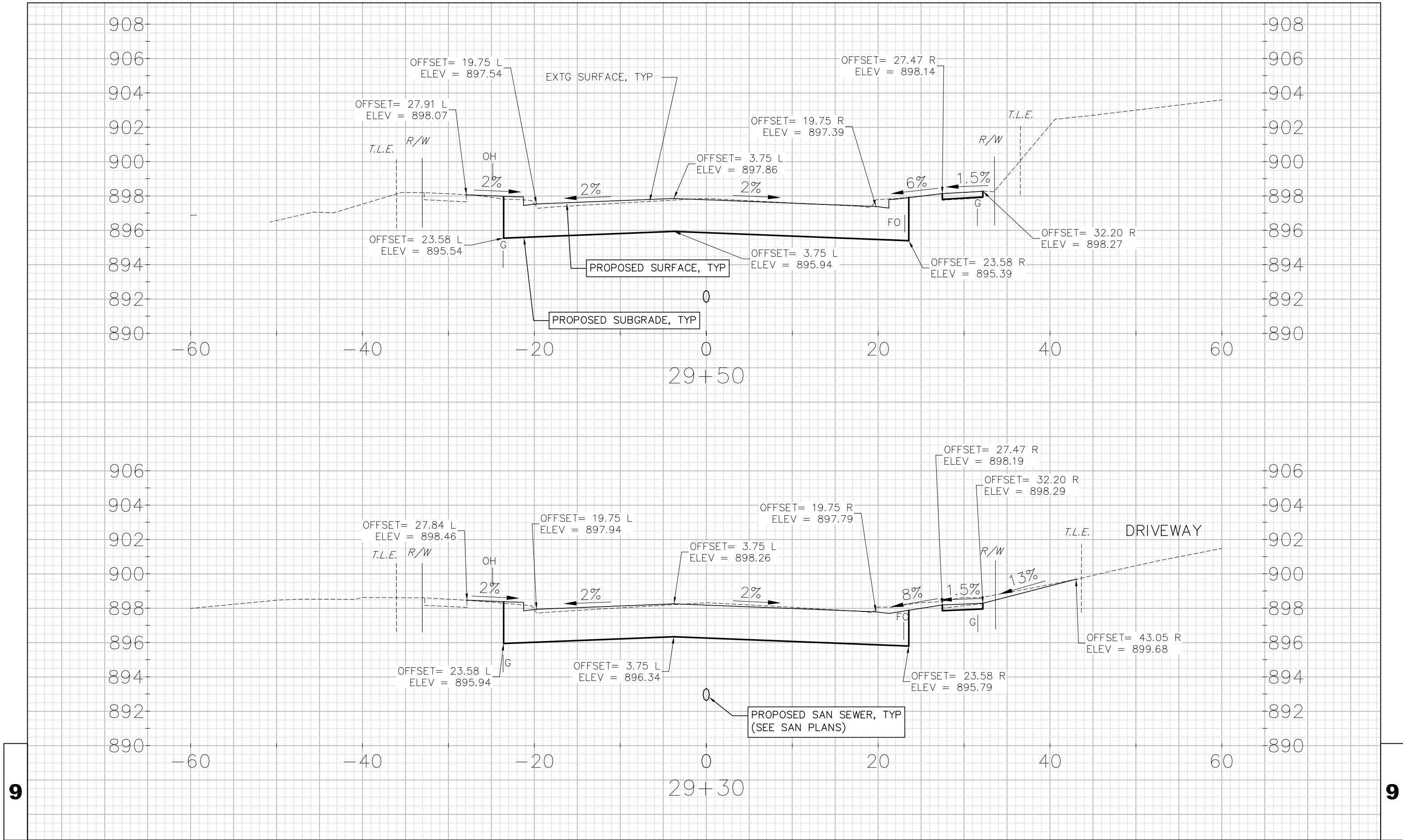


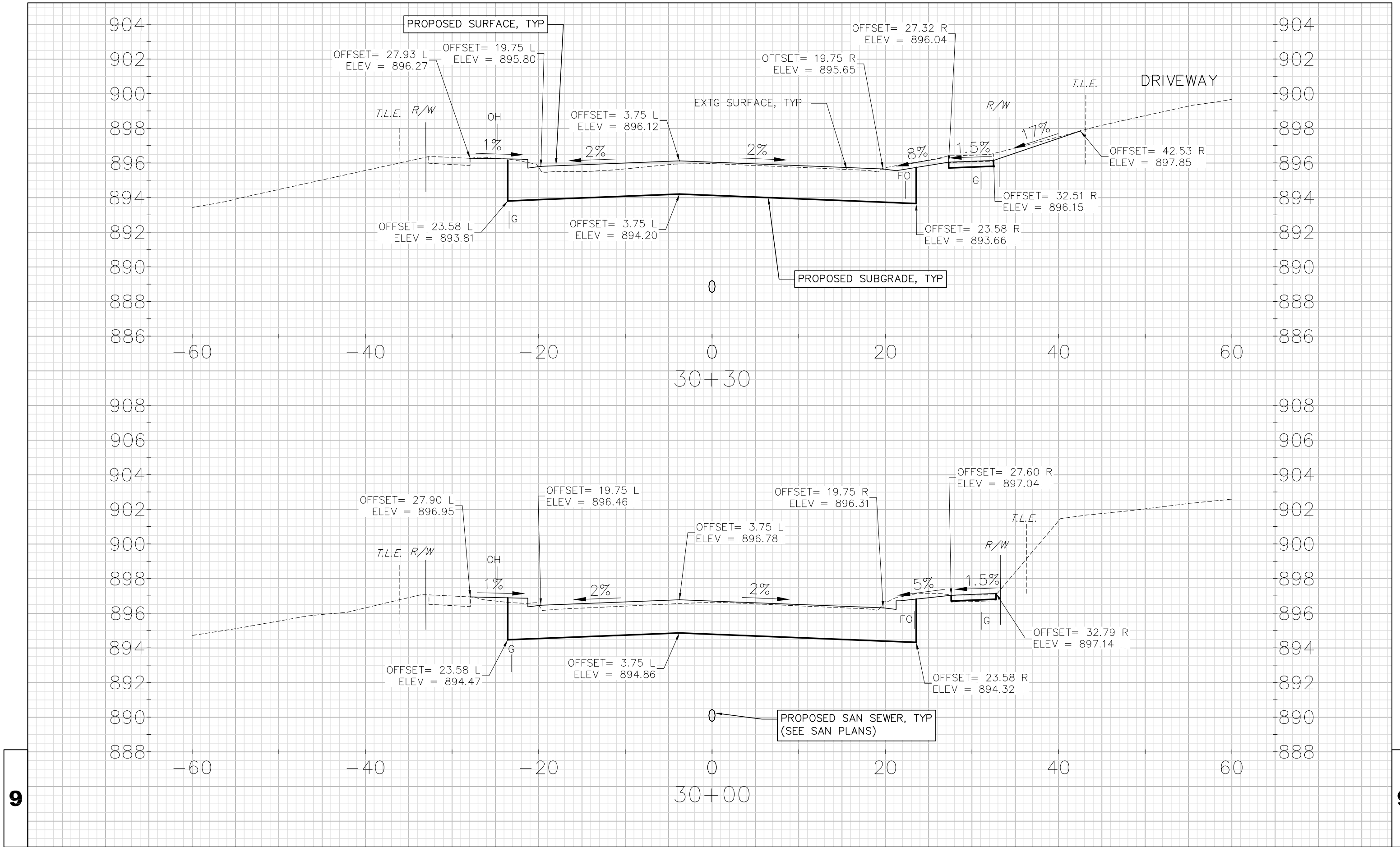


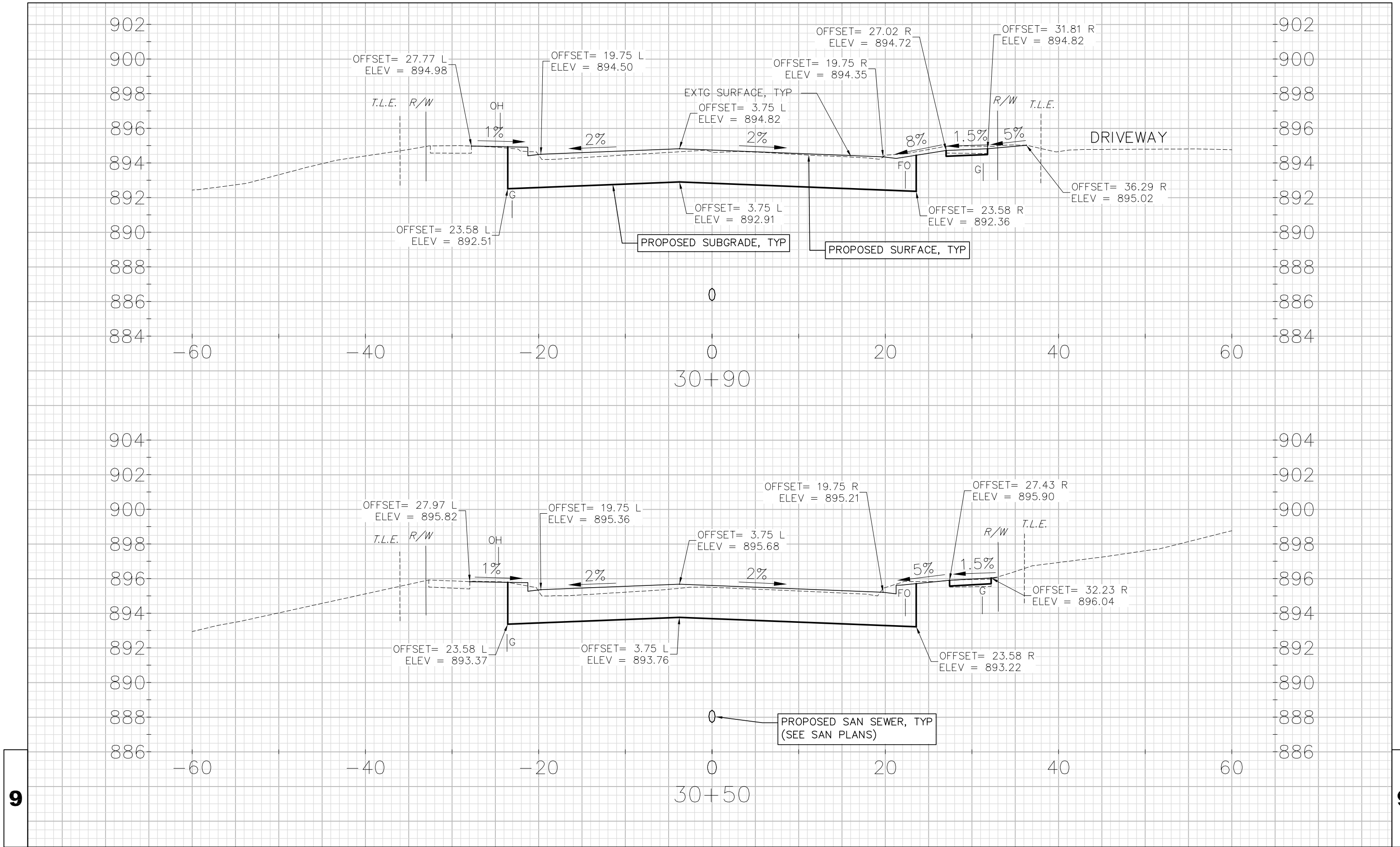


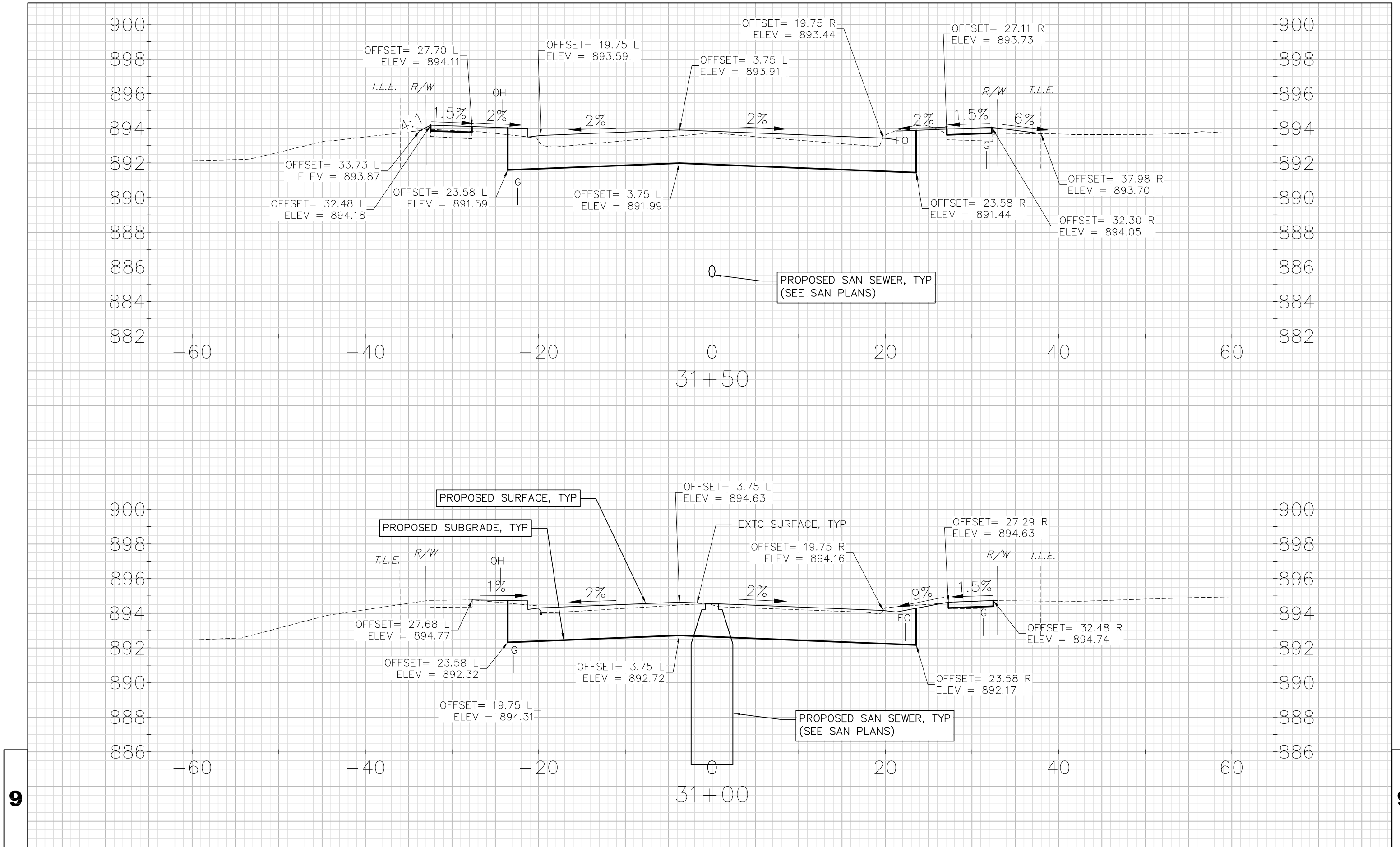


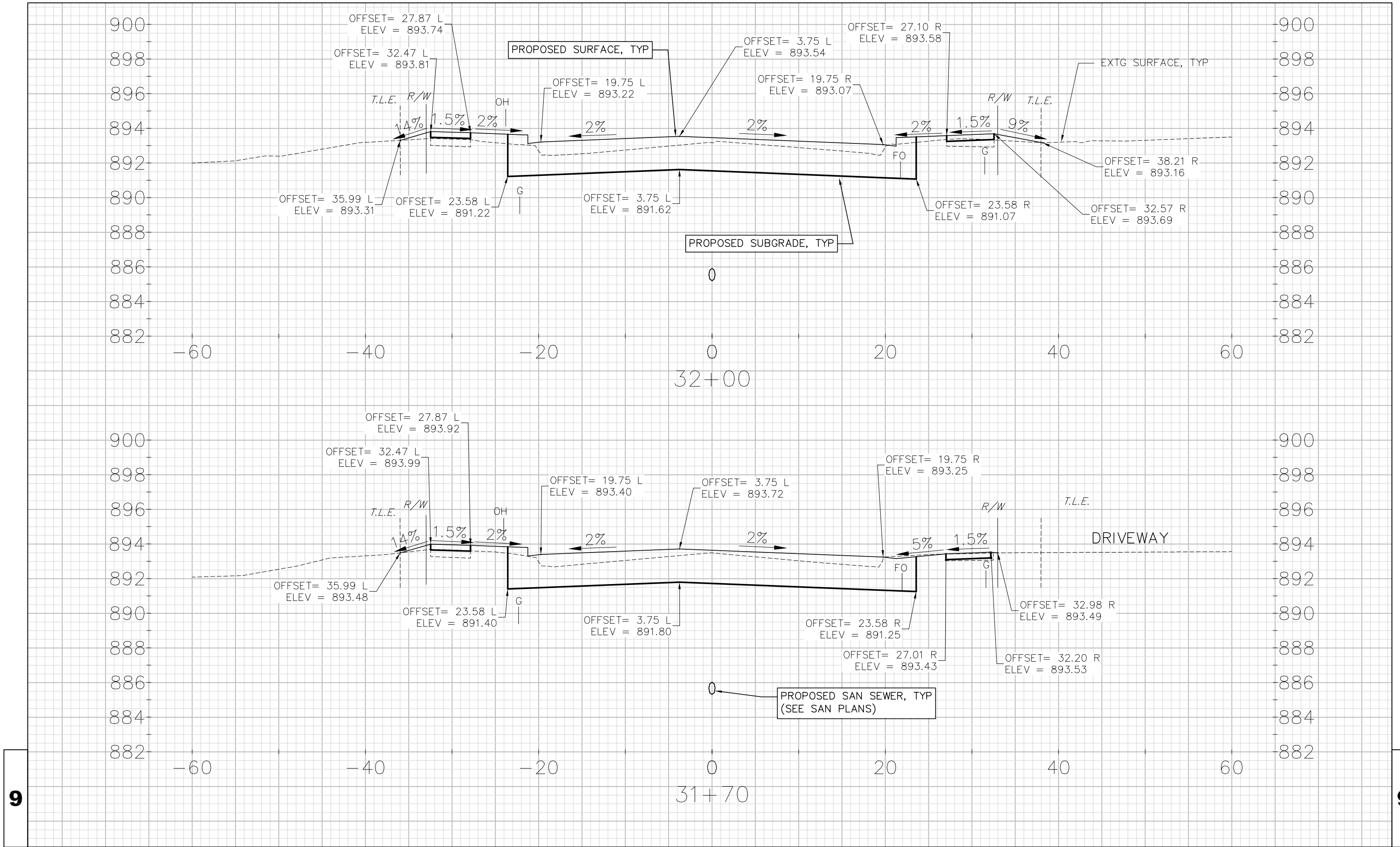


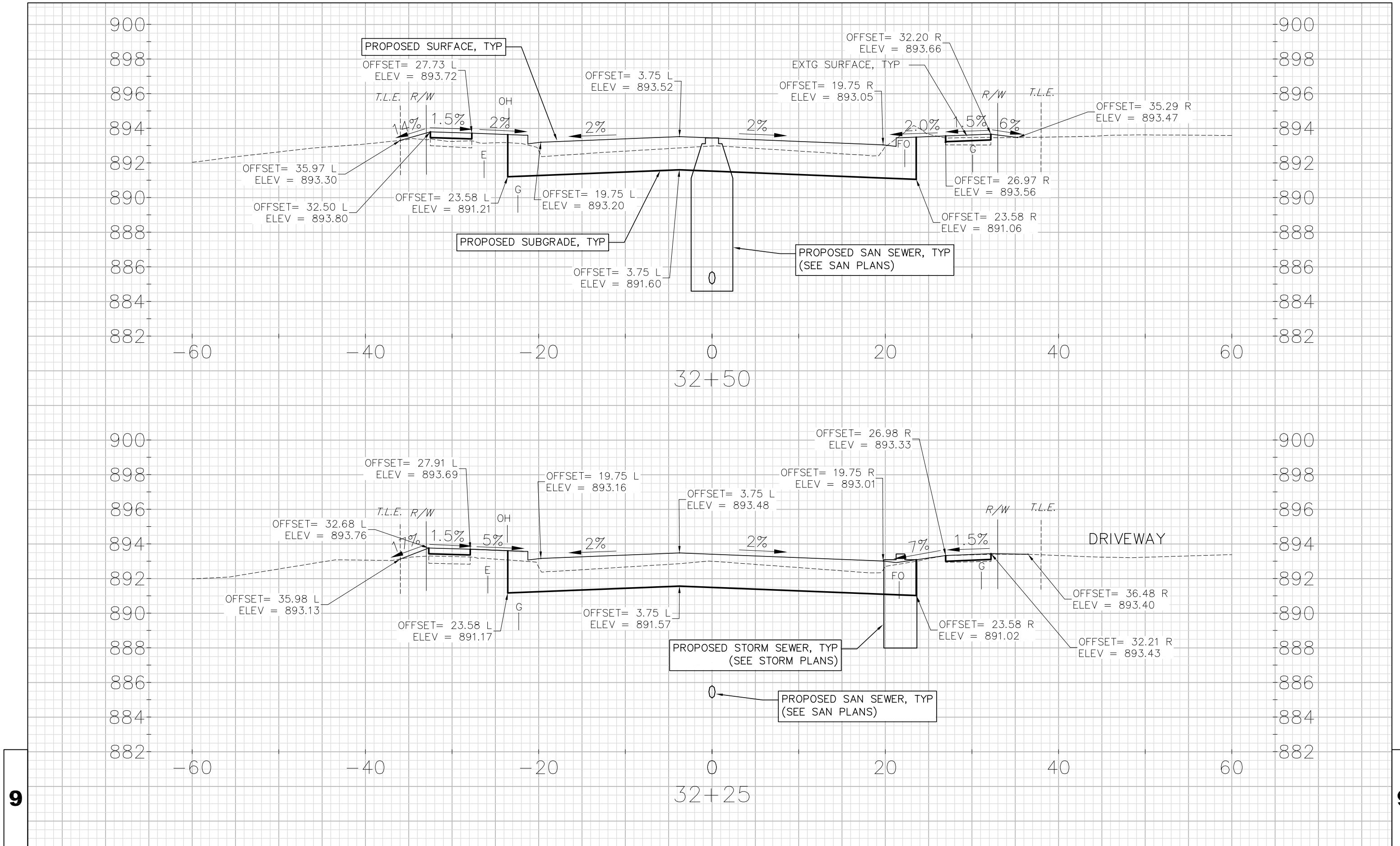


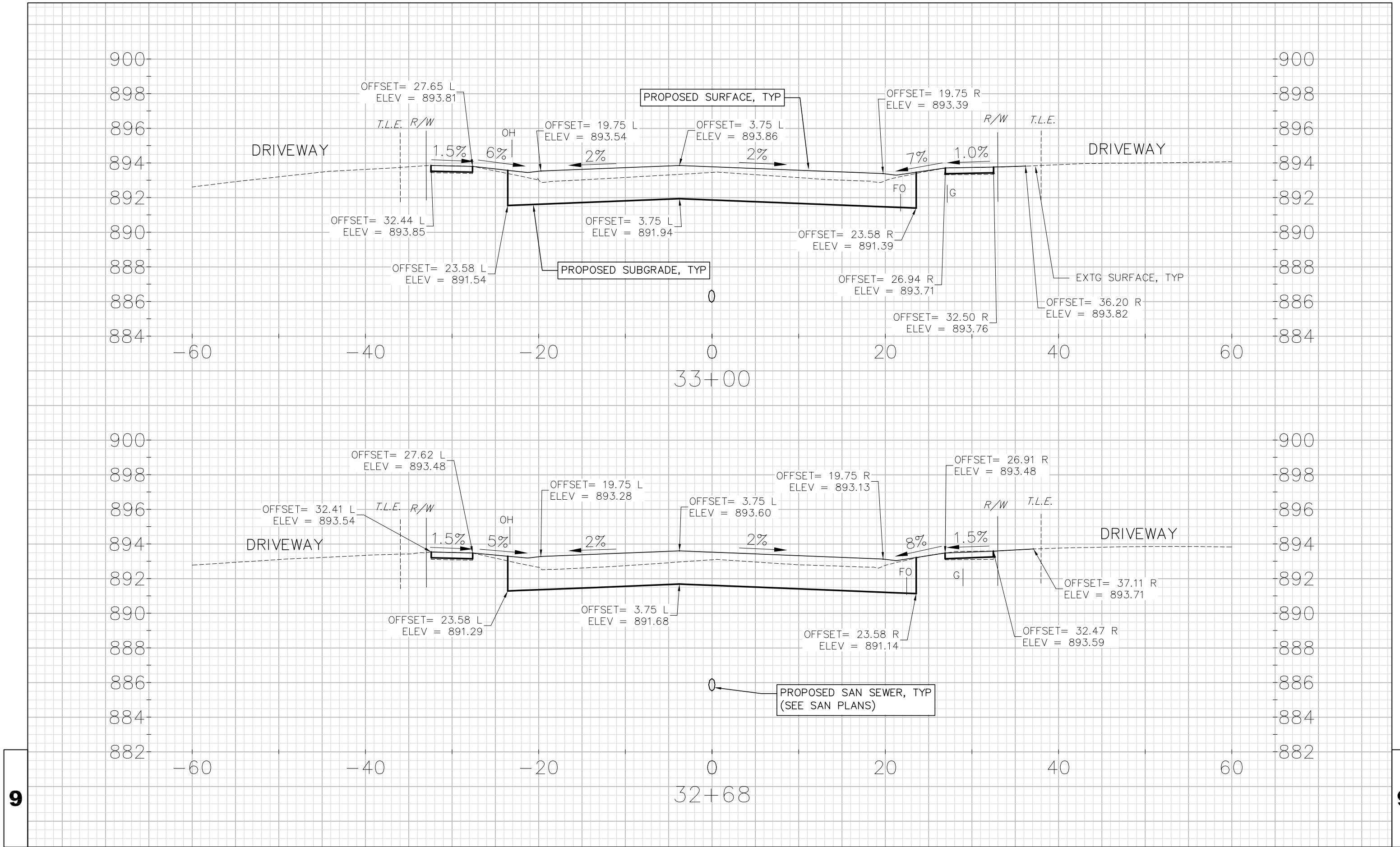


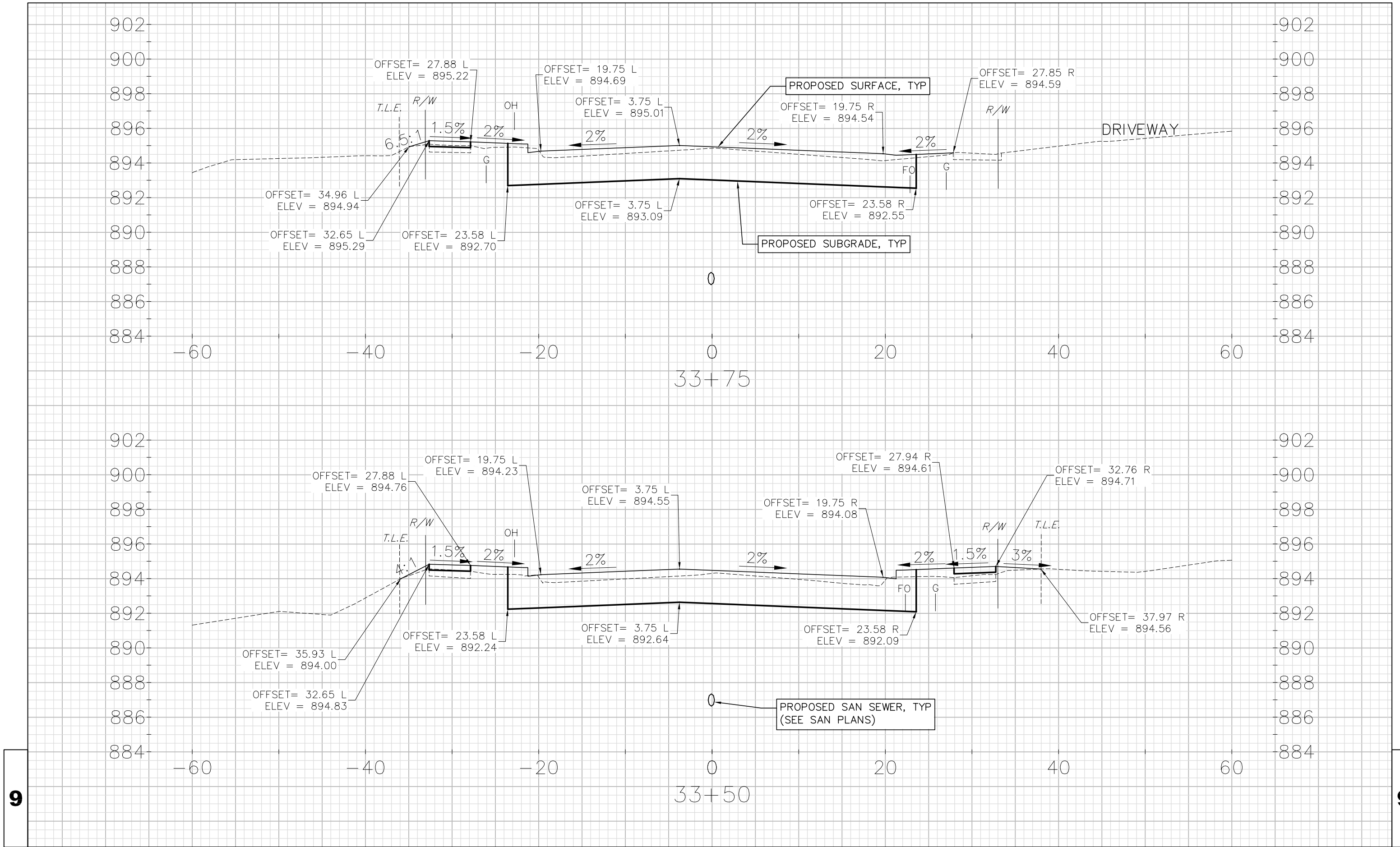


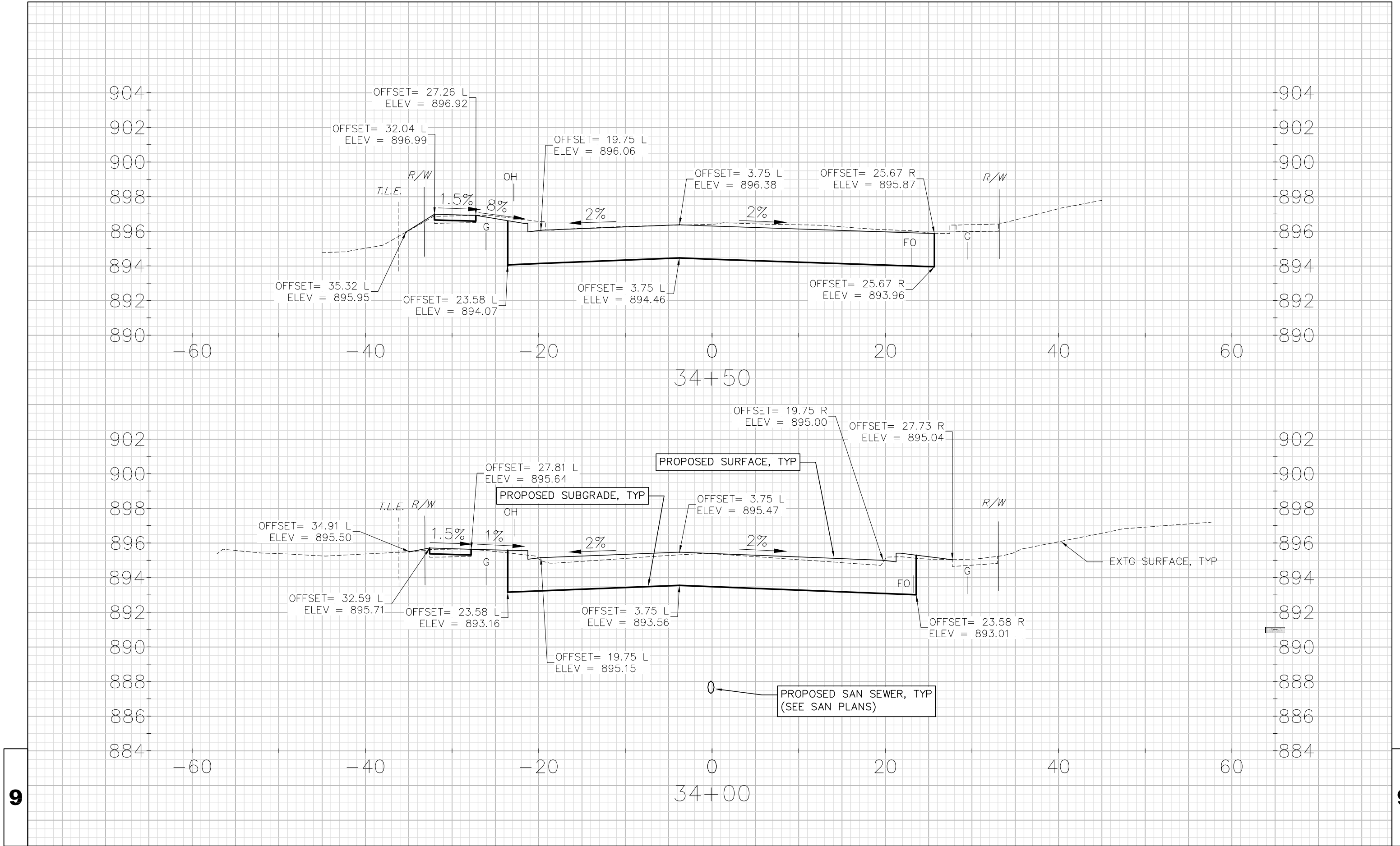


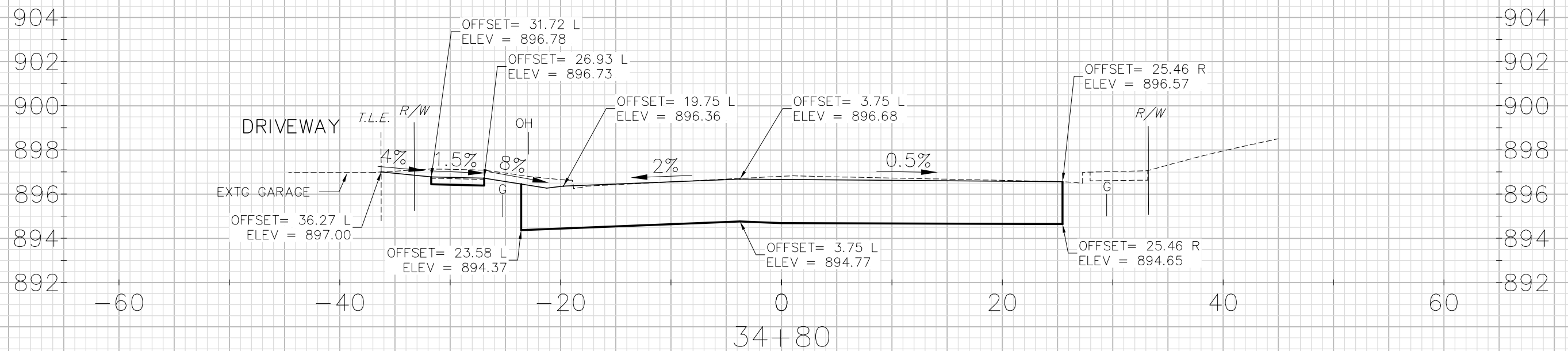
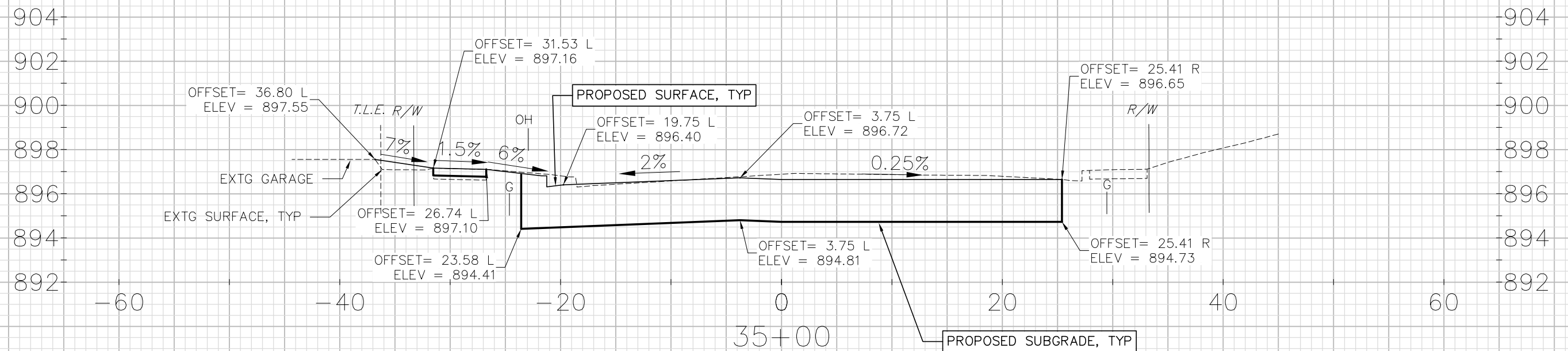


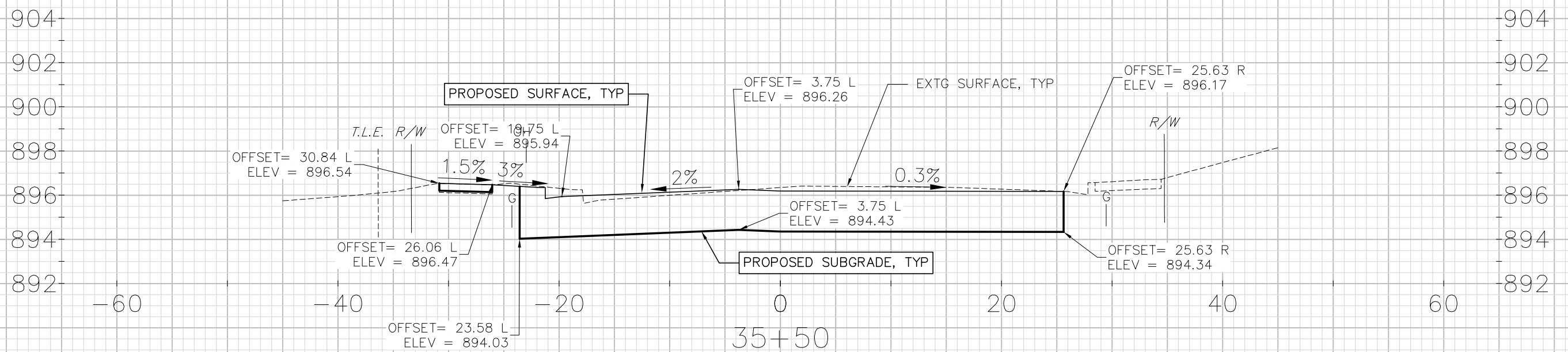
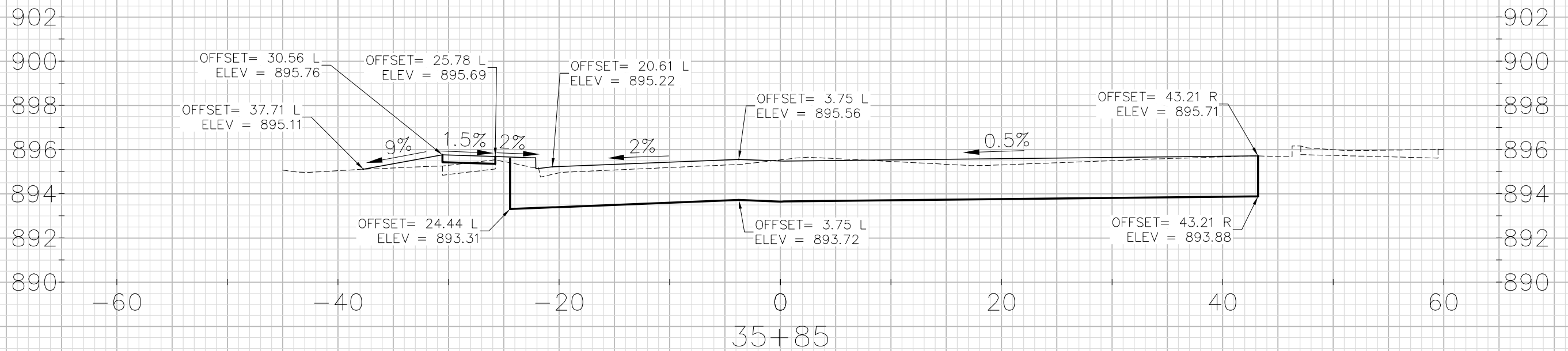














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