

NEL MAR 2014
PROJECT ID: 4992-00-53
WITH:
COUNTY: WINNEBAGO

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
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 = 182



DESIGN DESIGNATION

A.D.T. (2014)	=	1,400
A.D.T. (2034)	=	1,700
D.H.V. (2034)	=	250
D.D.	=	58-42
T. (% OF ADT)	=	3.3%
DESIGN SPEED	=	40 MPH
ESALS	=	124,100

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	CAUTION
MARSH AREA	---
WOODED OR SHRUB AREA	---

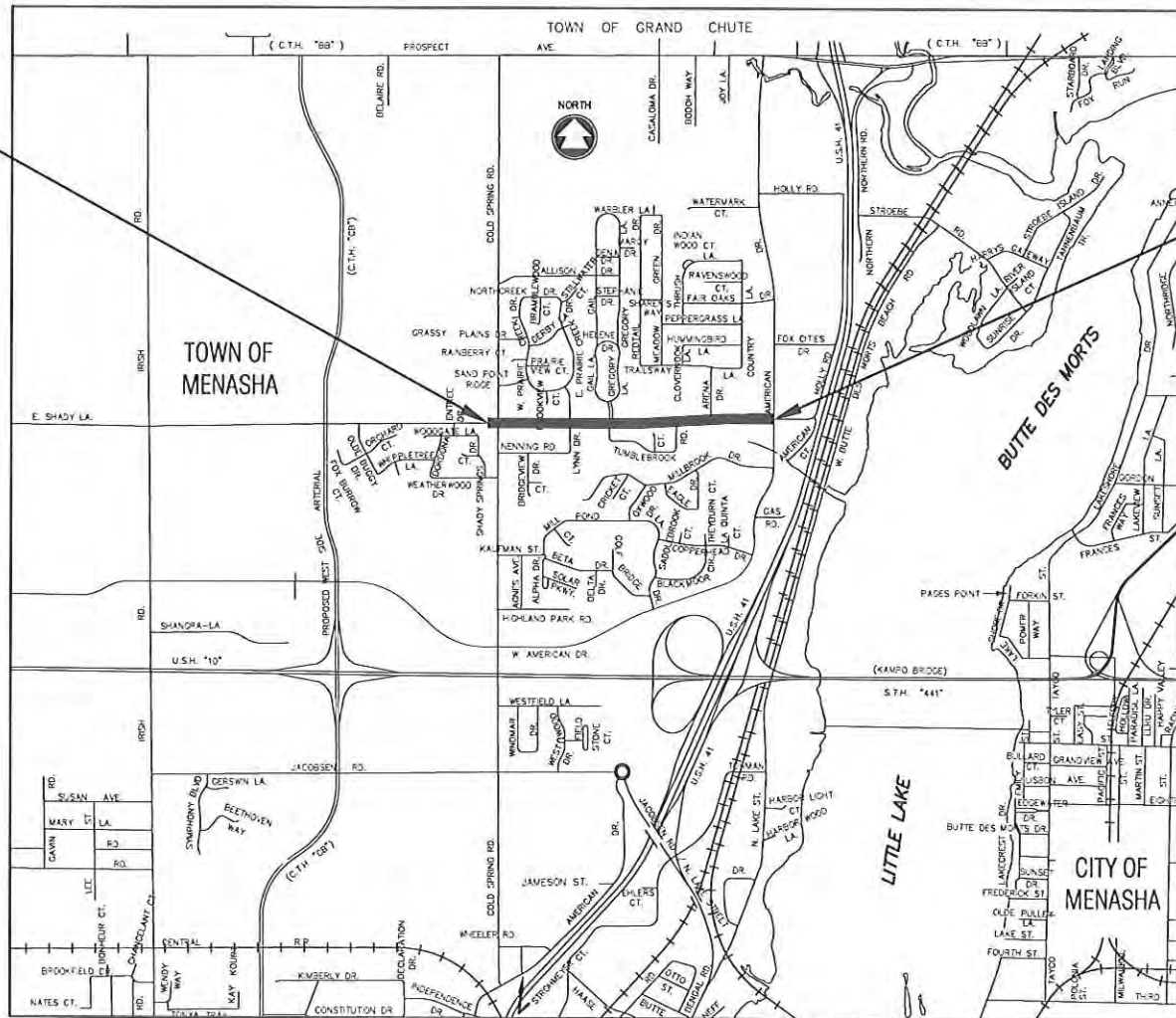
PROFILE	
GRADE LINE	---
ORIGINAL GROUND	---
MARSH OR ROCK PROFILE (To be noted as such)	---
SPECIAL DITCH	---
GRADE ELEVATION	---
CULVERT (Profile View)	---
UTILITIES	
ELECTRIC	---
FIBER OPTIC	---
GAS	---
SANITARY SEWER	---
STORM SEWER	---
TELEPHONE	---
WATER	---
UTILITY PEDESTAL	---
POWER POLE	---
TELEPHONE POLE	---

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
T MENASHA, EAST SHADY LN
AMERICAN DR - COLD SPRING RD
TOWN ROAD
WINNEBAGO COUNTY

STATE PROJECT NUMBER
4992-00-53

BEGIN PROJECT
4992-00-53
STA 48+00.00
N. 569194.30
E. 852379.00

END PROJECT
4992-00-53
STA 91+20.57
N. 571318.28
E. 859875.98



SCALE 0 1/2 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.818 MILES

Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), "Winnebago" County.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4992-00-53	WISC 2014076	1

ACCEPTED FOR
TOWN OF MENASHA

11/10/14
DATE
Signature: Randy J. Jellison

ORIGINAL PLANS PREPARED BY

McMAHON
ENGINEERS ARCHITECTS



01/10/2014
DATE
Signature: Robert Buffone

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	McMAHON
SURVEYOR	McMAHON
DESIGNER	McMAHON
MANAGEMENT CONSULTANT	SEH
C.O. EXAMINER	WSDOT BPD

APPROVED FOR THE DEPARTMENT
DATE: 1/16/2014

Robert Buffone SEH
MANAGEMENT CONSULTANT SIGNATURE

E

GENERAL NOTES

THE ELEVATIONS SHOWN OF THIS PLAN ARE 0.12 FEET BELOW NAVD 1988 (07) DATUM BASED ON GPS OBSERVATIONS TO NGS POINT PN0273.

BEARINGS AND COORDINATES SHOWN ON THIS PLAN ARE REFERENCED TO THE WINNEBAGO COUNTY COORDINATE SYSTEM. DISTANCES SHOWN ARE GROUND DISTANCES.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY FACILITIES AS SHOWN ON THE PLAN AND CROSS SECTIONS ARE APROXIMATE AND ARE BASED ON UTILITY LOCATES OBTAINED FROM THE UTILITIES WHEN THE SURVEY DATA WAS COLLECTED PRIOR TO THE FINAL DESIGN OF THE PROJECT. IT IS ANTICIPATED THAT UTILITY FACILITIES WILL BE RELOCATED AS PART OF THIS PROJECT AS DESCRIBED IN THE SPECIAL PROVISIONS. LOCATIONS OF THE PROPOSED RELOCATED UTILITY FACILITIES ARE NOT SHOWN ON THE PLAN SHEETS OR CROSS SECTIONS. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT LIMITS THAT ARE NOT SHOWN ON THE PLAN SHEETS OR CROSS SECTIONS.

NO TREES, SHRUBS OR LANDSCAPING ARE TO BE REMOVED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

THE EXACT LOCATION OF ALL EROSION CONTROL ITEMS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL RADII SHOWN ON THE PLAN SHEETS ARE TO THE BACK OF CURB.

THE ELEVATIONS SHOWN ON THE ROADWAY CROSS SECTIONS ARE FINISHED SUBGRADE ELEVATIONS AT THE CENTERLINE, EDGE OF SUBGRADE; FINISHED SURFACE ELEVATION AT 1.0’ O/S FRONT OF TRAIL, FINISHED SURFACE ELEVATION AT 1.0’ O/S BACK OF TRAIL, FINISHED SURFACE AT CENTER OF DITCH, AND FINISHED SURFACE ELEVATIONS AT THE SLOPE INTERCEPTS.

THE EXACT LIMITS OF CONCRETE, ASPHALT OR GRAVEL DRIVEWAY REMOVALS AND REPLACEMENT SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

CURB RAMP DETECTABLE WARNING FIELDS ARE REQUIRED AT ALL CURB RAMP LOCATIONS.

ALL DISTURBED AREAS NOT OTHERWISE SURFACED SHALL BE RESTORED WITH TOPSOIL, FERTILIZER, SEED, MULCH OR EMAT, SEE EROSION CONTROL DETAIL.

FILL AS SHOWN ON THE PLAN PERTAINS TO EMBANKMENT CONSTRUCTED FROM COMMON EXCAVATION. THE FACTOR USED FOR EXPANDING THE FILLS TO COMPLETE THE VOLUME OF MATERIAL REQUIRED IS 30% FOR COMMON EXCAVATION.

EXCAVATION BELOW SUBGRADE (EBS) AREAS ARE CALLED OUT AS UNDISTRIBUTED ON THE PLAN QUANTITIES FOR COMMON EXCAVATION AND ARE NOT SHOWN ON THE PLAN CROSS SECTIONS. EBS IS MEASURED AND PAID FOR AS COMMON EXCAVATION. EBS VOLUME IS NOT USED TO BALANCE YARDAGE. EBS AREAS ARE TO BE BACKFILLED WITH BASE AGGREGATE DENSE 3–INCH. EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER.

CROSS SLOPES AS SHOWN ON THE TYPICAL SECTION WILL VARY. SEE PAVING DETAIL SHEETS AND CROSS SECTIONS FOR SLOPES AND GRADES.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERYIFY DRAINAGE RELATED INFORMATION IN THE PLAN WITH THE ENGINEER.

THE LIMITS OF PAVEMENT REMOVAL ON SIDE STREETS AND MATCH POINTS IS APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE ENGINEER.

REMOVAL, STOCKPILING AND REPLACEMENT OF LANDSCAPING STONE AND MATERIALS IMPACTED BY CONSTRUCTION OUTSIDE OF RIGHT–OF–WAY SHALL BE CONSIDERED INCIDENTAL TO EXCAVATION COMMON.

REMOVAL AND DISPOSAL OF CONCRETE, ENDWALL MASONRY, STONE, BRICK AND BLOCKS USED AS HEADWALLS ON EXISTING DRIVEWAY CULVERTS SHALL BE CONSIDERED INCIDENTAL TO REMOVING SMALL PIPE CULVERTS

TLE’S AND PLE’S HAVE BEEN OBTAINED FOR SLOPING, DITCHING, DRIVEWAY AND STORM SEWER WORK UNDER THIS CONTRACT AND SUCH RIGHTS WILL BE EXTENDED TO THE CONTRACTOR PERFORMING WORK UNDER THIS CONTRACT.

MODIFY CATCH BASINS 2x3–FT TO INCLUDE A 12–INCH SUMP INSTEAD OF THE 24–INCH MINIMUM SUMP SHOWN ON THE STANDARD DETAIL DRAWING.

THE SLOPE INTERCEPTS SHOWN BETWEEN STA 78+50 RT TO STA 82+50 RT ARE BASED ON THE PLAN CROSS SECTIONS. THE FINAL GRADE BEHIND THE CURB IN THIS AREA WILL BE COMPLETED BY THE TOWN OF MENASHA’S CONTRACTOR FOR THE STORM WATER POND, AND WILL VARY FROM WHAT IS SHOWN IN THE PLAN CROSS SECTIONS.

STANDARD ABBREVIATIONS AND SYMBOLS

ADJ.	ADJUST	NOR.	NORMAL
ASPH	ASPHALT	P.E.	PRIVATE ENTRANCE
AVE.	AVENUE	P.G.L.	PROFILE GRADE LINE
	BENCH MARK	P.I.	POINT OF INTERSECTION
B–B	BACK TO BACK OF CURB	P.T.	POINT OF TANGENCY
B.A.D.	BASE AGGREGATE DENSE	P.V.C.	POINT OF VERTICAL CURVATURE
B.O.C. or B/C	BACK OF CURB	P.V.I.	POINT OF VERTICAL INTERSECTION
CL or CL	CENTERLINE	P.V.T.	POINT OF VERTICAL TANGENCY
CONC.	CONCRETE	P/L	PROPERTY LINE
CL.	CLASS	PVT.	PAVEMENT
C.O.	CLEAN OUT	PED.	PEDESTAL
CPP	CORRUGATED PLASTIC PIPE	R or RAD	RADIUS
	DELTA	R.C.P.	REINFORCED CONCRETE PIPE
D.	DEGREE OF CURVE	RECONST.	RECONSTRUCT
D.W.	DRIVEWAY	REQ'D	REQUIRED
E.	EAST	R/L	REFERENCE LINE
EB	EASTBOUND	REM.	REMOVE
E–MAT	EROSION MAT	R/W	RIGHT OF WAY
ELEV	ELEVATION	RD.	ROAD
EOP	EDGE OF PAVEMENT	RT.	RIGHT
EOR	END OF RADIUS	S.	SOUTH
EXIST.	EXISTING	SAN	SANITARY SEWER
F–F	FACE TO FACE OF CURB	SB	SOUTH BOUND
FL	FLOWLINE	S.D.D.	STANDARD DETAIL DRAWING
F.M.	FORCE MAIN	S.I.	SLOPE INTERCEPT
GRAV	GRAVEL	SS	STORM SEWER
GV	GAS VALVE	STA.	STATION
HDPE	HIGH DENSITY POLYETHYLENE CULVERT PIPE	S.T.H.	STATE TRUNK HIGHWAY
HE	HIGHWAY EASEMENT	STA.	STATION
HMA	HMA	SW	CONCRETE SIDEWALK
H.P.	HIGH POINT	T.I.	TEMPORARY INTEREST
HYD.	HYDRANT	TLE	TEMPORARY LIMITED INTEREST
L.	LENGTH OF CURVE	TYP.	TYPICAL
L.V.C.	LENGTH OF VERTICAL CURVE	V.C.	VERTICAL CURVE
L.S.	LANDSCAPING	WB	WESTBOUND
LT.	LEFT	W	WATERMAIN
MH	MANHOLE	WV	WATER VALVE/SHUTOFF
MAX	MAXIMUM		HYDRANT W/AUXILIARY VALVE
MIN	MINIMUM		LIGHT POLE
NB	NORTH BOUND		EXISTING PROPERTY IRON
NO.	NUMBER		

UTILITIES

WE ENERGIES (GAS)
KENNETH VAN OSS
800 SOUTH LYNNDALE DRIVE
P.O. BOX 1699
APPLETON, WI 54912-1699
(920) 380-3318
kenneth.van-oss@we-energies.com

TIME WARNER CABLE (CABLE)
VINCE ALBIN
3520 DESTINATION DRIVE
APPLETON, WI 54915
(920) 831-9249
vince.albin@twcable.com

WE ENERGIES (ELECTRIC)
JIM QUINN
800 SOUTH LYNNDALE DRIVE
P.O. BOX 1699
APPLETON , WI 54912-1699
(920) 380-3401
jim.quinn@we-energies.com

AT&T (Telephone)
GARY LAABS
221 W. WASHINGTON STREET
FLOOR 4
APPLETON, WI 54911
(920) 735-3063
gl1784@att.com

TRANS CANADA PIPELINE
ROBERT BIBELHAUSEN
NORTH 4956 OAKCRST DRIVE
BONDUEL, WI 54107
(715) 758-3343
Robert_Bibelhausae@transcanada.com

TOWN OF MENASHA-WATER DEPT.
JEFF ROTH
2340 AMERICAN DRIVE
NEENAH, WI 54956-1096
(920) 720-7100
(920) 419-3866
jeffr@town-menasha.com

TOWN OF MENASHA-WASTEWATER DEPT.
STEVE LAABS
2340 AMERICAN DRIVE
NEENAH, WI 54923-1096
(920) 720-7100
(920) 419-3869
stevel@town-menasha.com

TOWN OF MENASHA-STREET DEPT.
RANDY GALLOW
2000 MUNICIPAL DRIVE
NEENAH, WI 54956-5665
(920) 720-7110
(920) 419-3836
randy@town-menasha.com

DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES
DNR NORTHEAST REGIONAL HEADQUARTERS
2984 SHAWANO AVE.
GREEN BAY, WI 54313

JAMES DOPERALSKI
(920) 662-5119
james.doperalski@wisconsin.com

RUNOFF COEFFICIENT TABLE

LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
	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	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .26	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .80											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

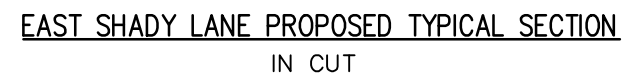
TOTAL PROJECT AREA= 10.0 ACRES
TOTAL DISTURBED AREA= 10.0 ACRES

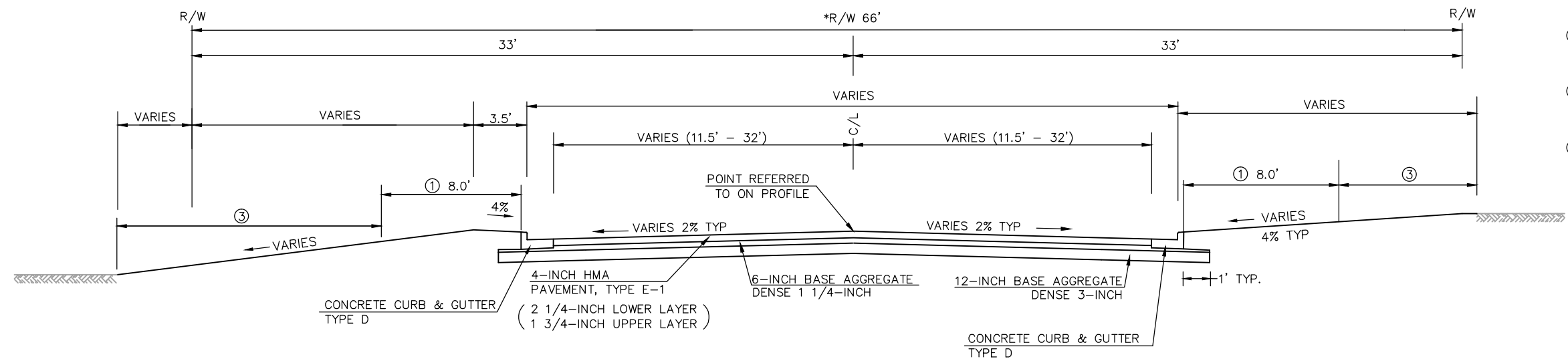
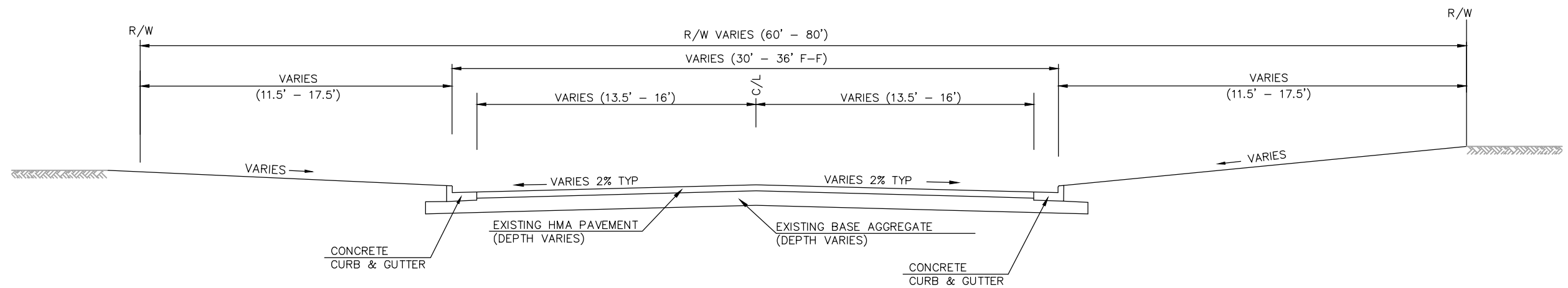
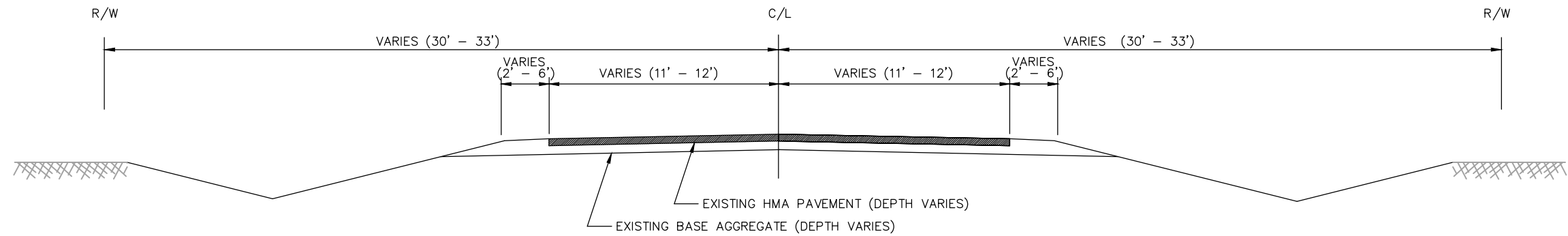


DIGGERS**HOTLINE**

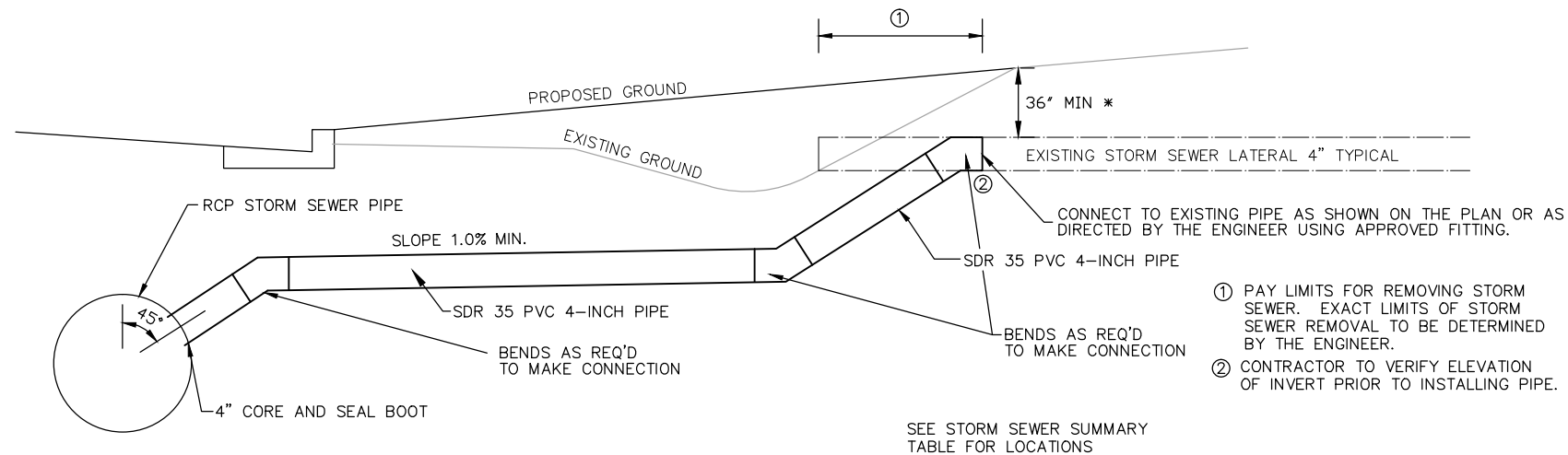
Call 811 or Toll Free (800) 242-8511
Milwaukee Area (414) 258-1181
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

2





- ① TOPSOIL, SEED, FERTILIZER, AND E-MAT, URBAN CLASS I, TYPE A.
 - ② TOPSOIL, SEED, FERTILIZER, AND E-MAT, CLASS I, TYPE B.
 - ③ TOPSOIL, SEED, FERTILIZER, AND MULCH
- *LYNN DR. SOUTH OF EAST SHADY LN. HAS A 60' R/W.



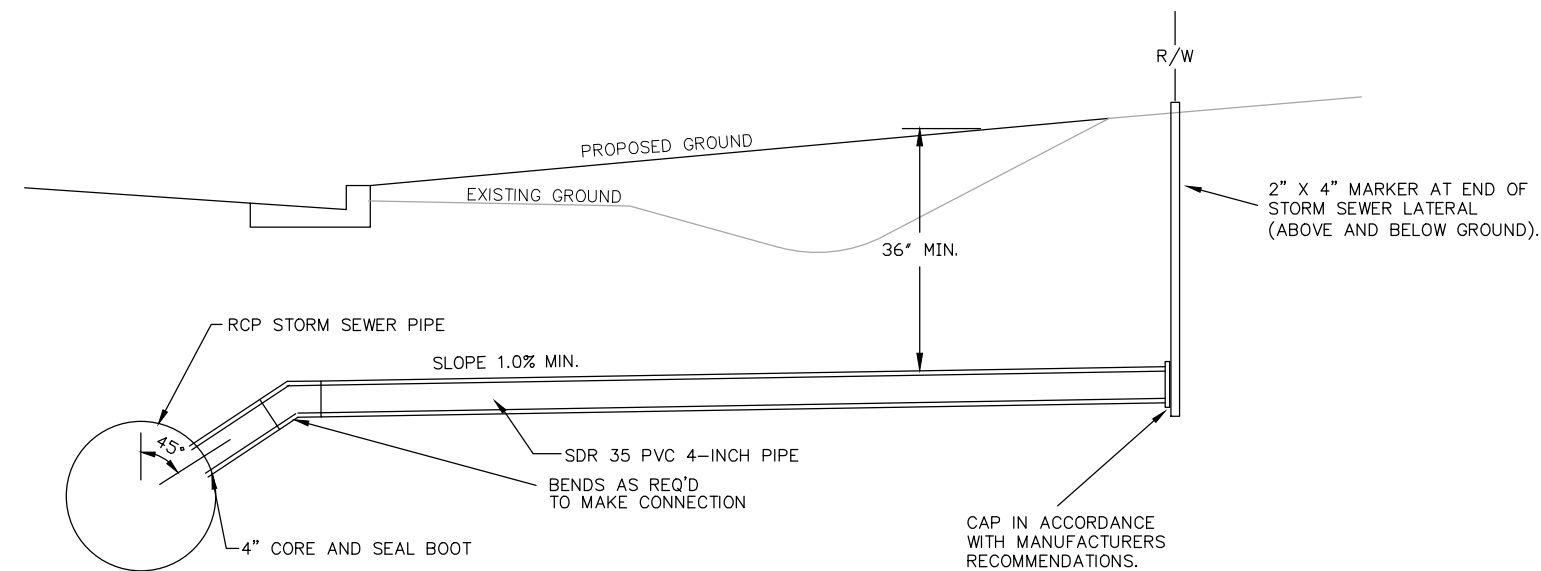
STORM SEWER LATERAL CONNECTION DETAIL

*CONTRACTOR TO NOTIFY ENGINEER IN THE EVENT THAT A MIN 36" DEPTH CANNOT BE OBTAINED.

THE CONTRACTOR SHALL INSTALL STORM LATERALS TO AVOID CONFLICTS WITH OTHER UTILITIES. THIS IS TO BE ACCOMPLISHED BY HAVING A RISER AT THE STORM MAIN, IF NECESSARY. THE HORIZONTAL LATERAL PIPE RUN SHALL BE SLOPED AT 1/8" PER FOOT AND THE CONTRACT PRICE FOR STORM LATERAL SHALL INCLUDE RISERS, CONNECTIONS AND FITTINGS NECESSARY TO PROVIDE A COMPLETE WORKING LATERAL WITH A MIN. 36" DEPTH AT THE EXISTING CONNECTION.

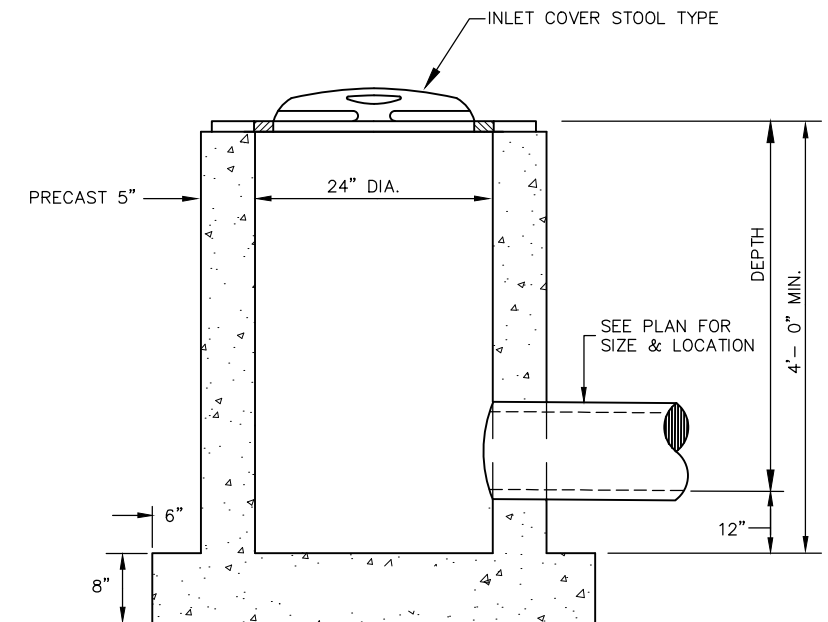
- ① PAY LIMITS FOR REMOVING STORM SEWER. EXACT LIMITS OF STORM SEWER REMOVAL TO BE DETERMINED BY THE ENGINEER.
- ② CONTRACTOR TO VERIFY ELEVATION OF INVERT PRIOR TO INSTALLING PIPE.

SEE STORM SEWER SUMMARY TABLE FOR LOCATIONS



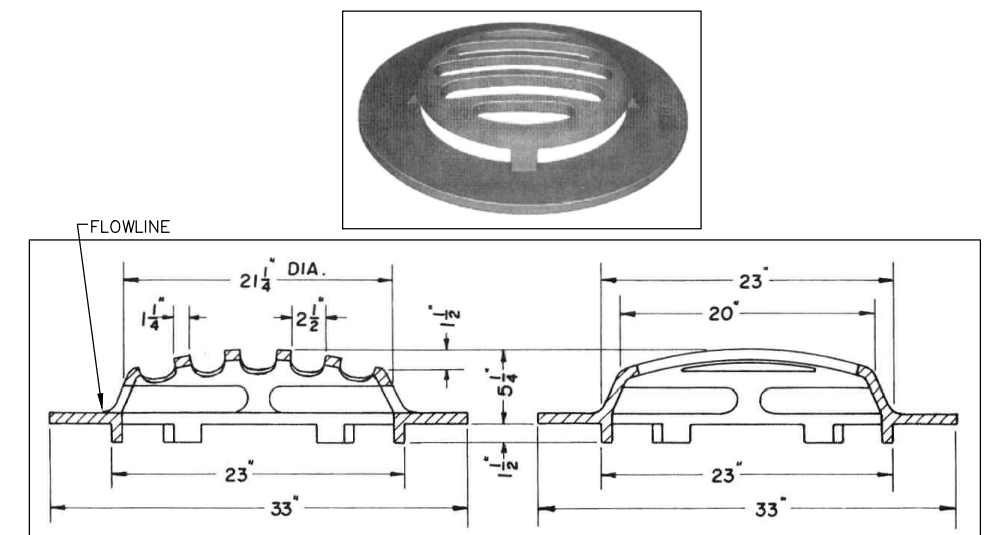
STORM SEWER LATERAL DETAIL

THE CONTRACTOR SHALL INSTALL STORM LATERALS TO AVOID CONFLICTS WITH OTHER UTILITIES. THIS IS TO BE ACCOMPLISHED BY HAVING A RISER AT THE STORM MAIN, IF NECESSARY. THE HORIZONTAL LATERAL PIPE RUN SHALL BE SLOPED AT 1/8" PER FOOT AND THE CONTRACT PRICE FOR STORM LATERAL SHALL INCLUDE RISERS, CONNECTIONS AND FITTINGS NECESSARY TO PROVIDE A COMPLETE WORKING LATERAL WITH A MIN. 36" DEPTH AT RIGHT OF WAY LINE.



2' DIA CATCH BASIN, SPECIAL

REFER TO SDD "CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER" FOR REINFORCEMENT AND OTHER INFORMATION NOT INCLUDED ON THIS DETAIL.



INLET COVER STOOL TYPE

GENERAL NOTES FOR DRIVEWAYS

MATERIALS FOR DRIVEWAY TRANSITION AREAS TO BE THE SAME AS EXISTING.

LENGTH OF DRIVEWAY TRANSITION AREA TO BE DETERMINED BY THE ENGINEER.

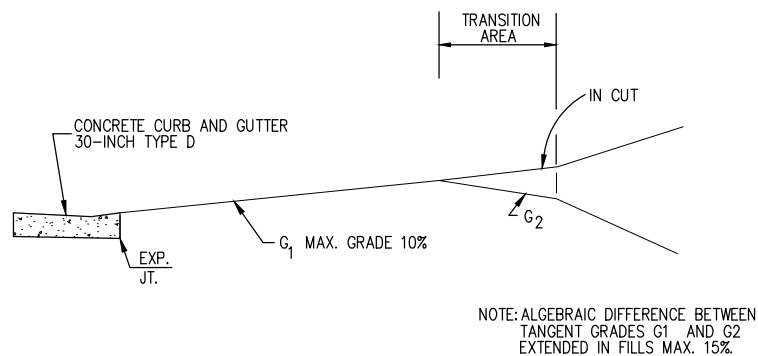
MATCH EXISTING WIDTH OF RESIDENTIAL AND COMMERCIAL DRIVEWAYS AT THE R/W.

FOR ASPHALTIC P.E.'S USE 12" BASE AGGREGATE DENSE 1 1/4-INCH AND 3-INCHES ASPHALTIC SURFACE ON TRAIL THROUGH DRIVEWAY. THIS SHALL BE INSTALLED IN A SINGLE LIFT. THE APPROACHES AND TRANSITIONS SHALL BE 12-INCHES BASE AGGREGATE DENSE 1 1/4-INCH AND 3-INCHES ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. THIS SHALL BE INSTALLED IN A SINGLE LIFT.

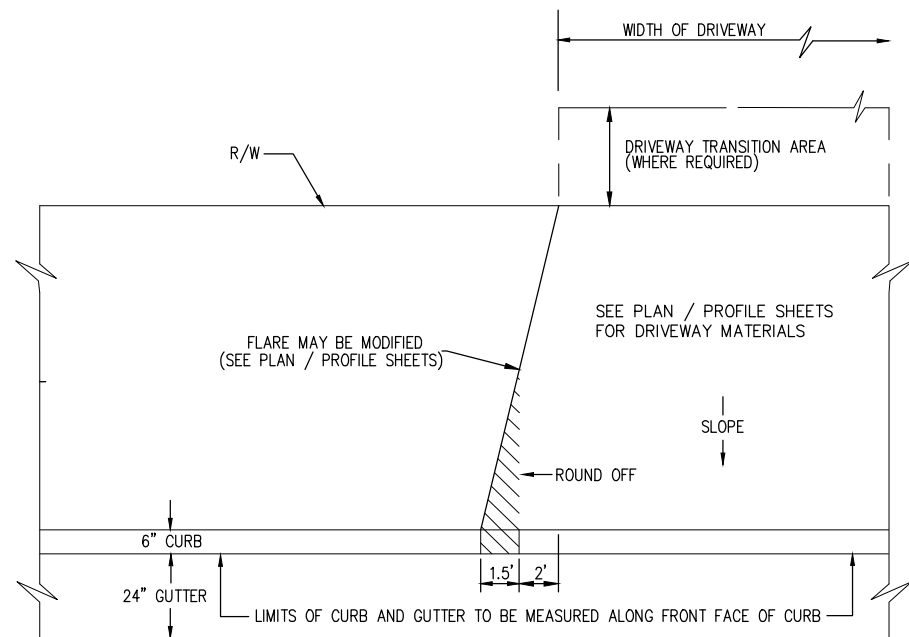
FOR ASPHALTIC C.E.'S USE 15" BASE AGGREGATE DENSE 1 1/4-INCH AND 4-INCHES ASPHALTIC SURFACE ON TRAIL THROUGH DRIVEWAY. THIS SHALL BE INSTALLED IN TWO LIFTS. 2 1/4 INCH LOWER LAYER AND 1 3/4 INCH UPPER LAYER. THE APPROACHES AND TRANSITIONS SHALL BE 15-INCHES BASE AGGREGATE DENSE 1 1/4-INCH AND 4-INCHES ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. THIS SHALL BE INSTALLED IN TWO LIFTS. 2 1/4 INCH LOWER LAYER AND 1 3/4 INCH UPPER LAYER.

CONCRETE DRIVEWAY APPROACHES AND CONCRETE TRANSITIONS SHALL BE 6-INCHES BASE AGGREGATE DENSE 1 1/4-INCH AND CONCRETE DRIVEWAY 6-INCH.

EXACT LOCATIONS FOR DRIVEWAY CURB CUTS WILL BE DETERMINED IN THE FIELD BY THE TOWN OF MENASHA.

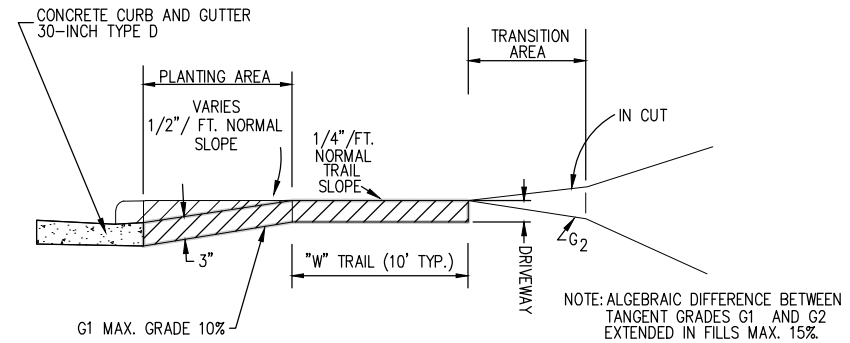


PROFILE PARALLEL TO C/L OF DRIVEWAY

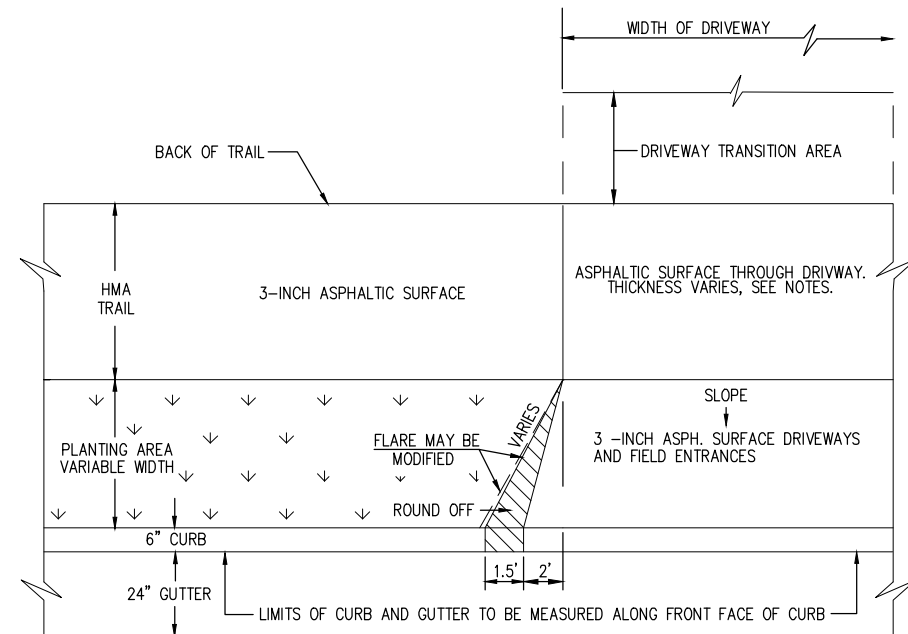


PLAN

URBAN DRIVEWAY DETAIL W/O SIDEWALK OR TRAIL



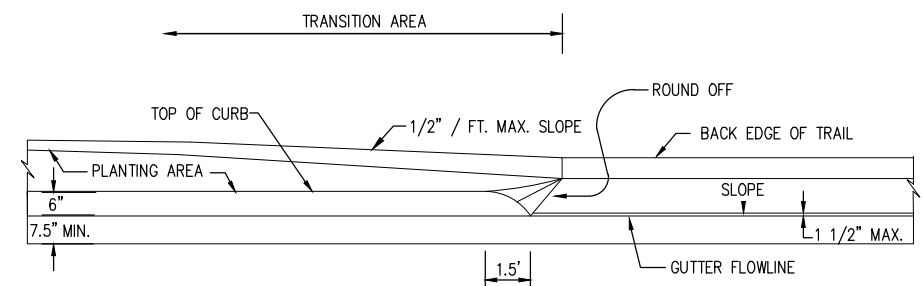
PROFILE PARALLEL TO C/L OF DRIVEWAY



PLAN

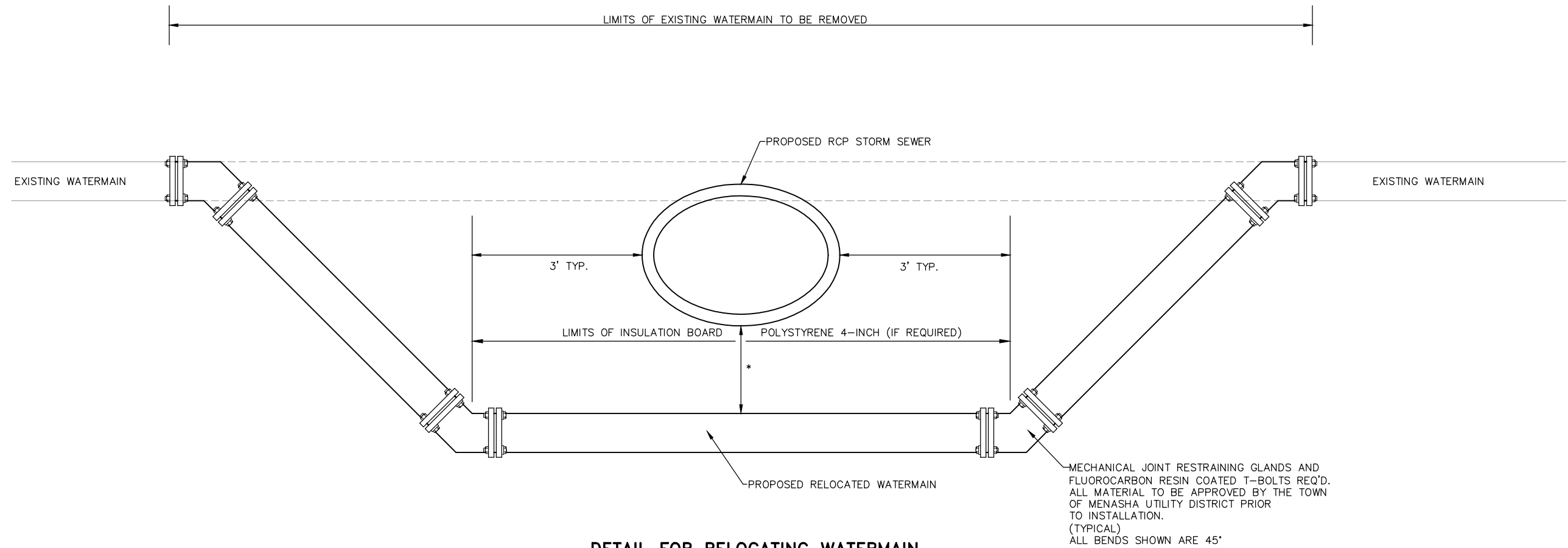
DRIVEWAY DETAIL

DRIVEWAY DETAIL WITH ASPHALT TRAIL



PROFILE PARALLEL TO CENTERLINE OF ROADWAY

DRIVEWAY DETAIL WITH ASPHALT TRAIL

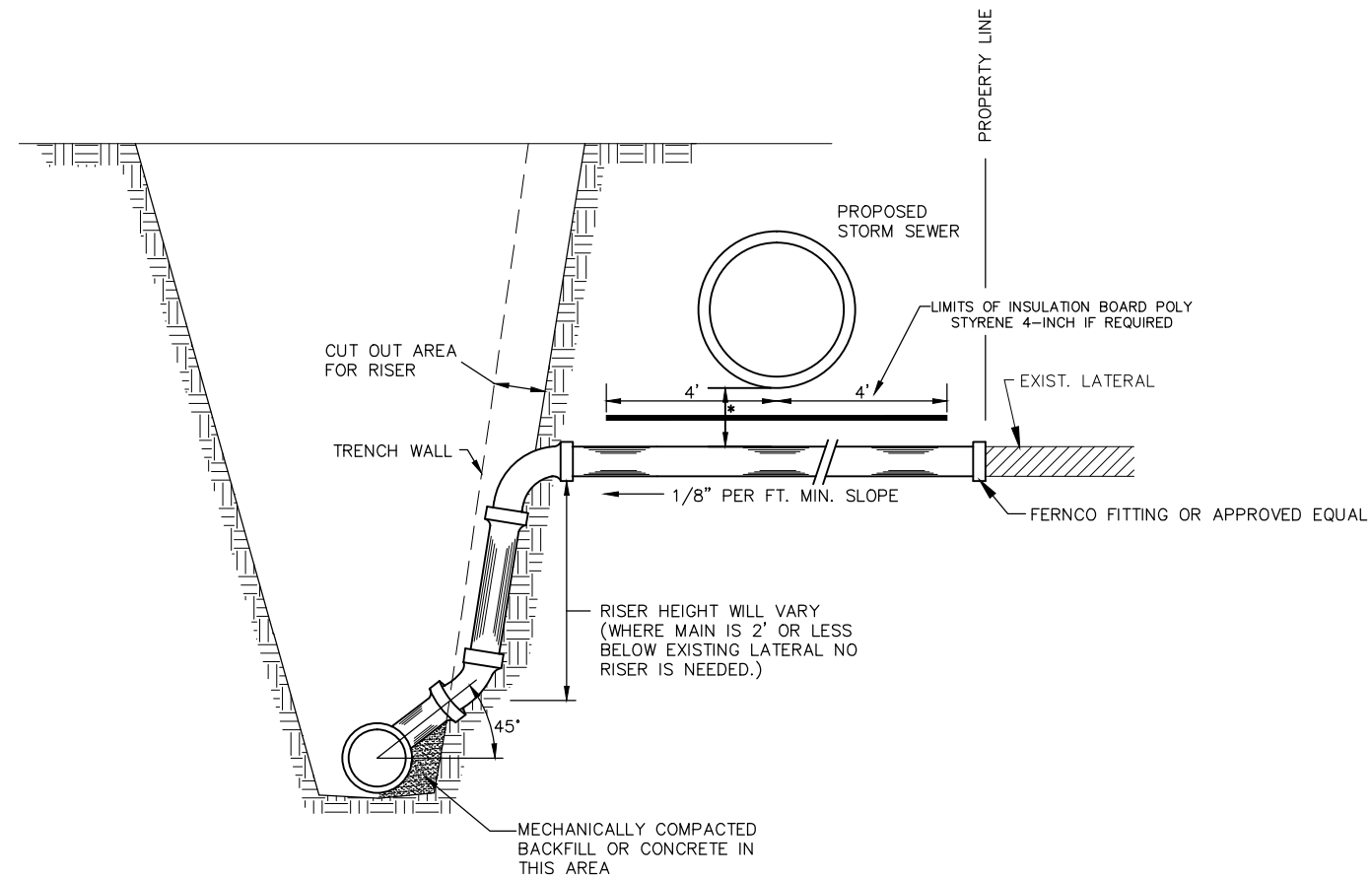


DETAIL FOR RELOCATING WATERMAIN

64+40 RT

*CLEARANCE REQUIREMENTS:
18" MINIMUM REQUIRED. IF THIS CLEARANCE CAN NOT BE PROVIDED DUE TO FIELD CONDITIONS, THIS CLEARANCE MAY BE REDUCED IF APPROVED BY THE TOWN OF MENASHA UTILITY DISTRICT.

IF CLEARANCE LESS THAN 12", 4" INSULATION IS REQ'D.

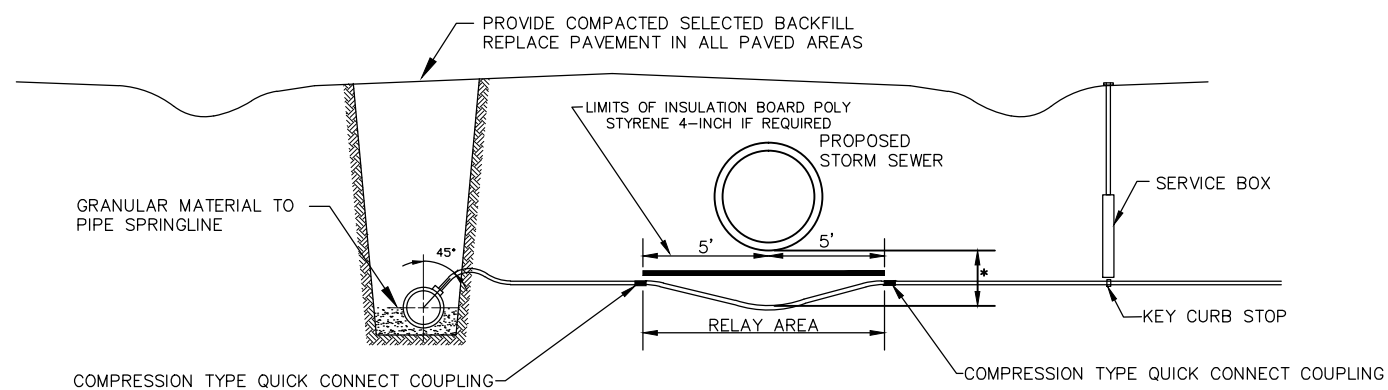


RELOCATE SANITARY SEWER LATERAL

*CLEARANCE REQUIREMENTS:
12" MINIMUM REQUIRED. IF THIS CLEARANCE CAN NOT BE PROVIDED DUE TO FIELD CONDITIONS, THIS CLEARANCE MAY BE REDUCED IF APPROVED BY THE TOWN OF MENASHA UTILITY DISTRICT.

IF CLEARANCE LESS THAN 12", 4" INSULATION IS REQ'D.

IF LESS THAN 4", RELAY LATERAL

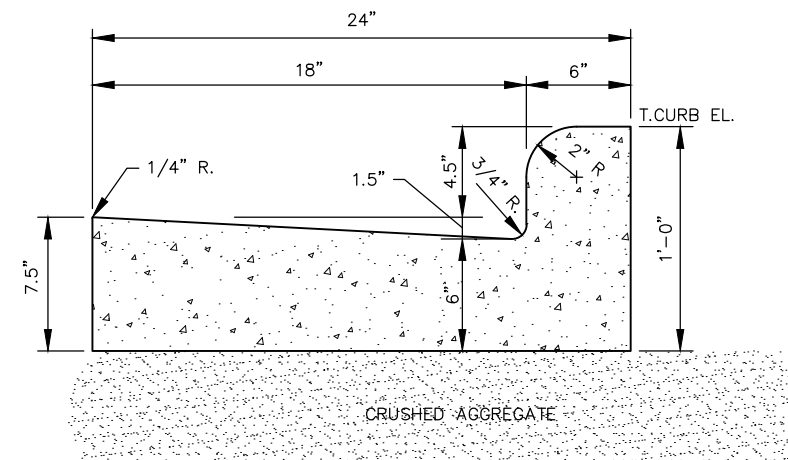


RELOCATE WATER SERVICE

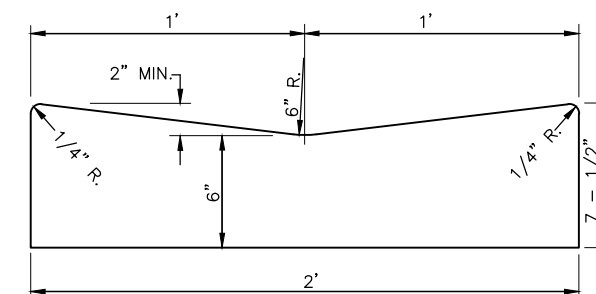
*CLEARANCE REQUIREMENTS:
12" MINIMUM REQUIRED. IF THIS CLEARANCE CAN NOT BE PROVIDED DUE TO FIELD CONDITIONS, THIS CLEARANCE MAY BE REDUCED IF APPROVED BY THE TOWN OF MENASHA UTILITY DISTRICT.

IF CLEARANCE LESS THAN 12", 4" INSULATION IS REQ'D.

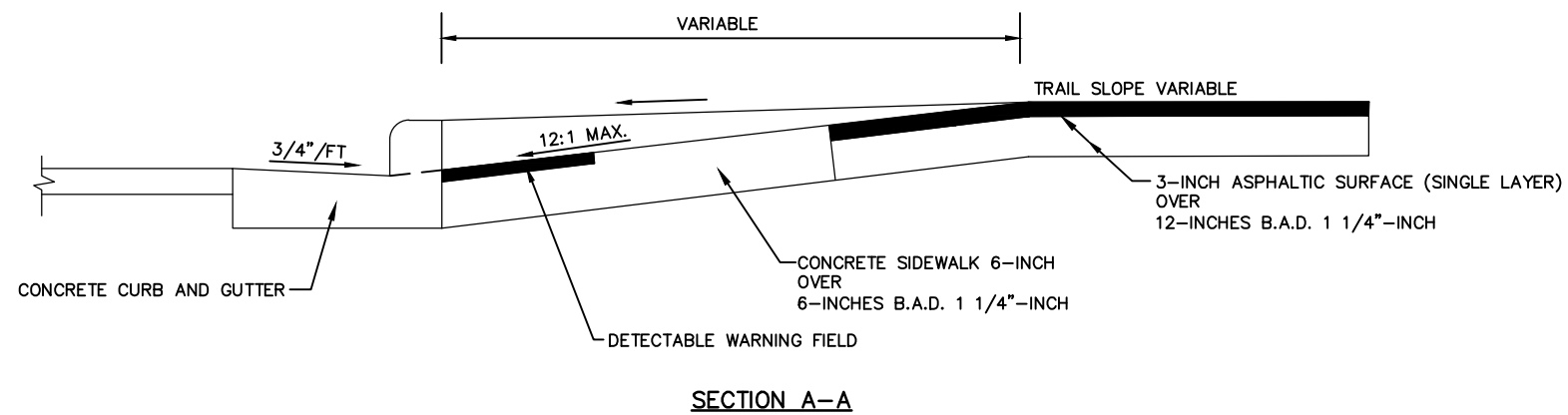
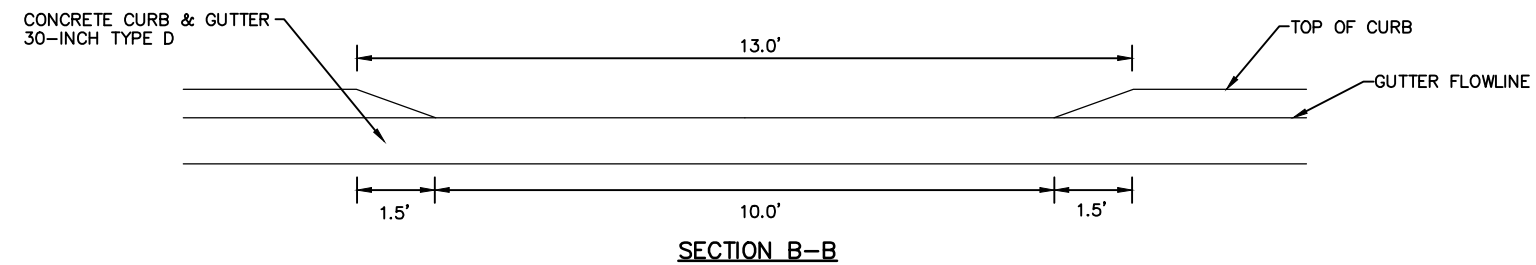
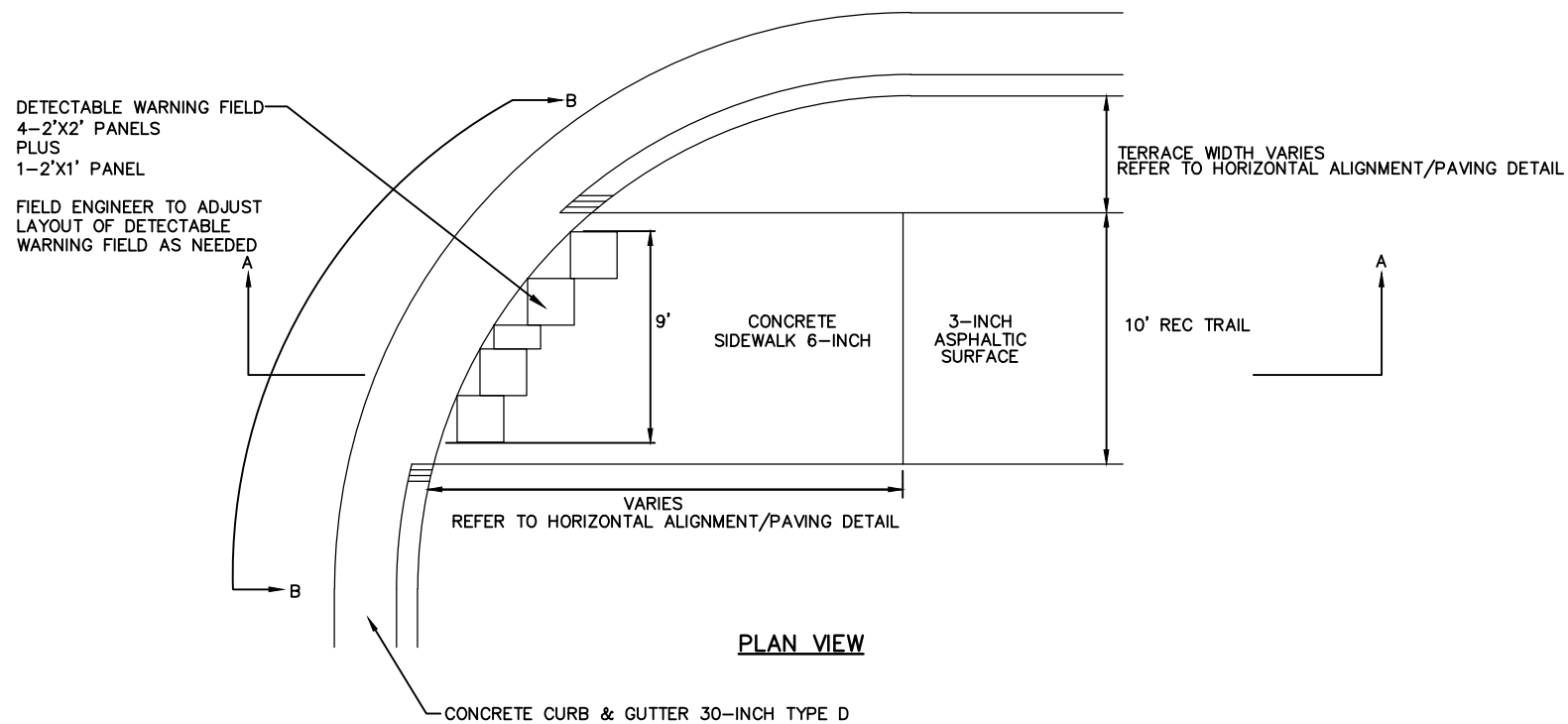
IF LESS THAN 4", RELAY LATERAL



CONCRETE CURB & GUTTER SPECIAL 24-INCH TYPE D1

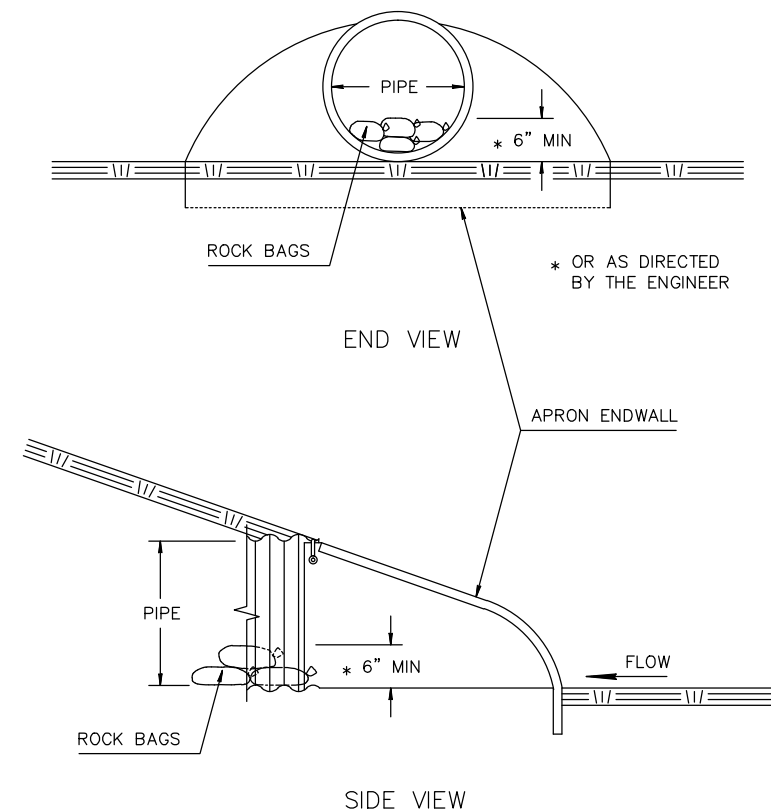


CONCRETE CURB & GUTTER SPECIAL 24-INCH TYPE D2

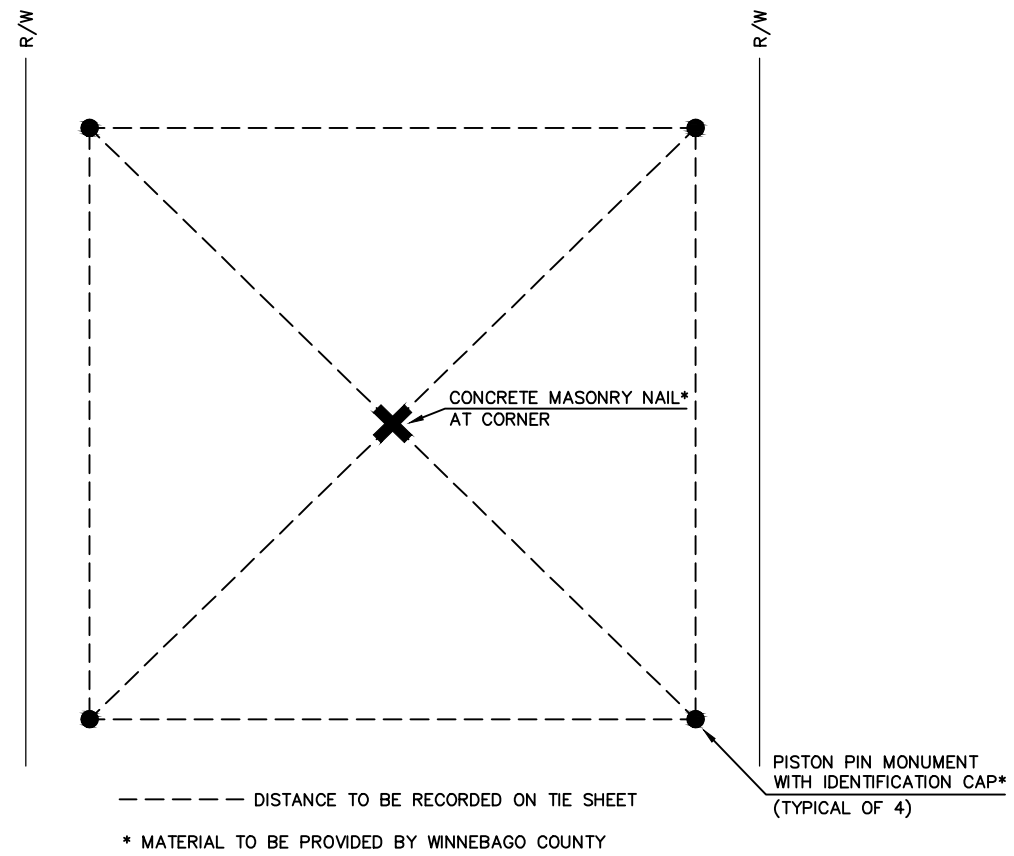


CURB RAMP SPECIAL

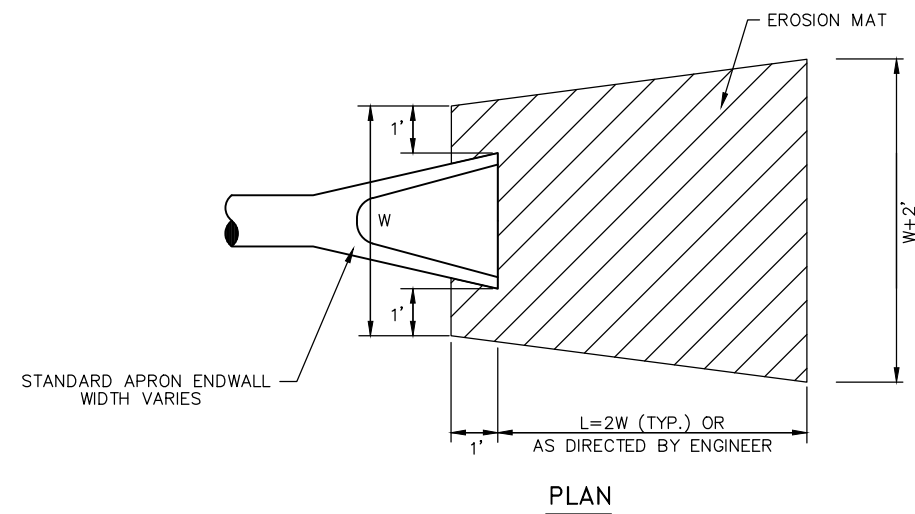
FOR INFORMATION NOT SHOWN ON THIS DETAIL,
REFER TO SDD "CURB RAMPS TYPES 1 AND 1A"



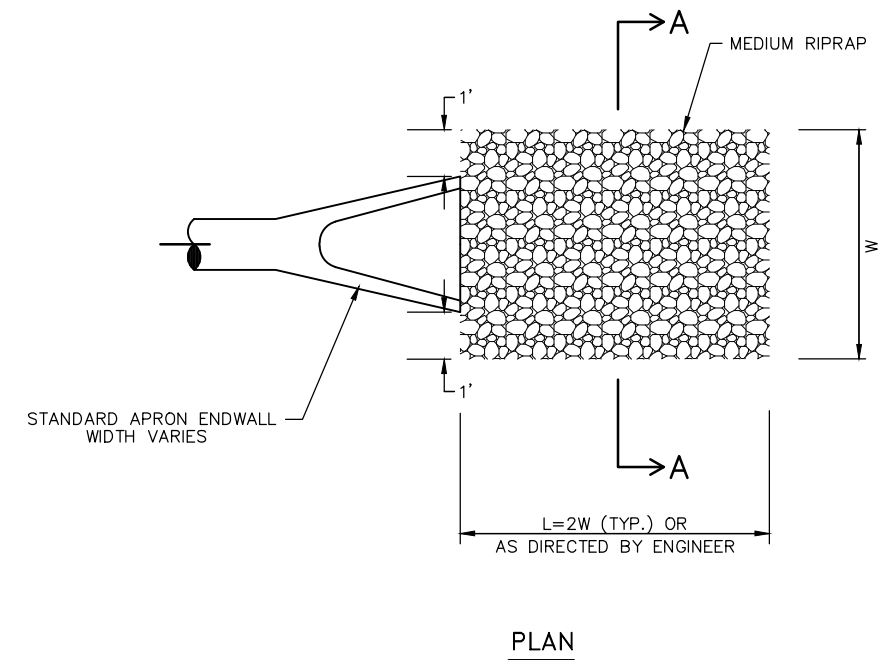
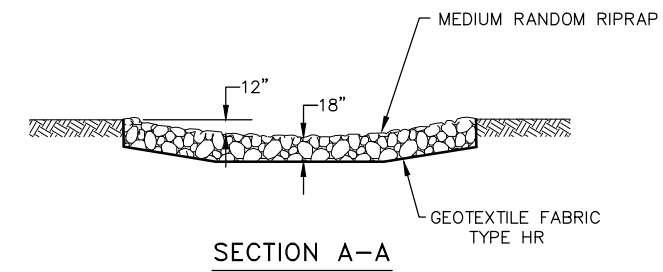
CULVERT PIPE CHECKS



LANDMARK REFERENCE MONUMENTS, SPECIAL



EROSION MAT TREATMENT AT CULVERTS



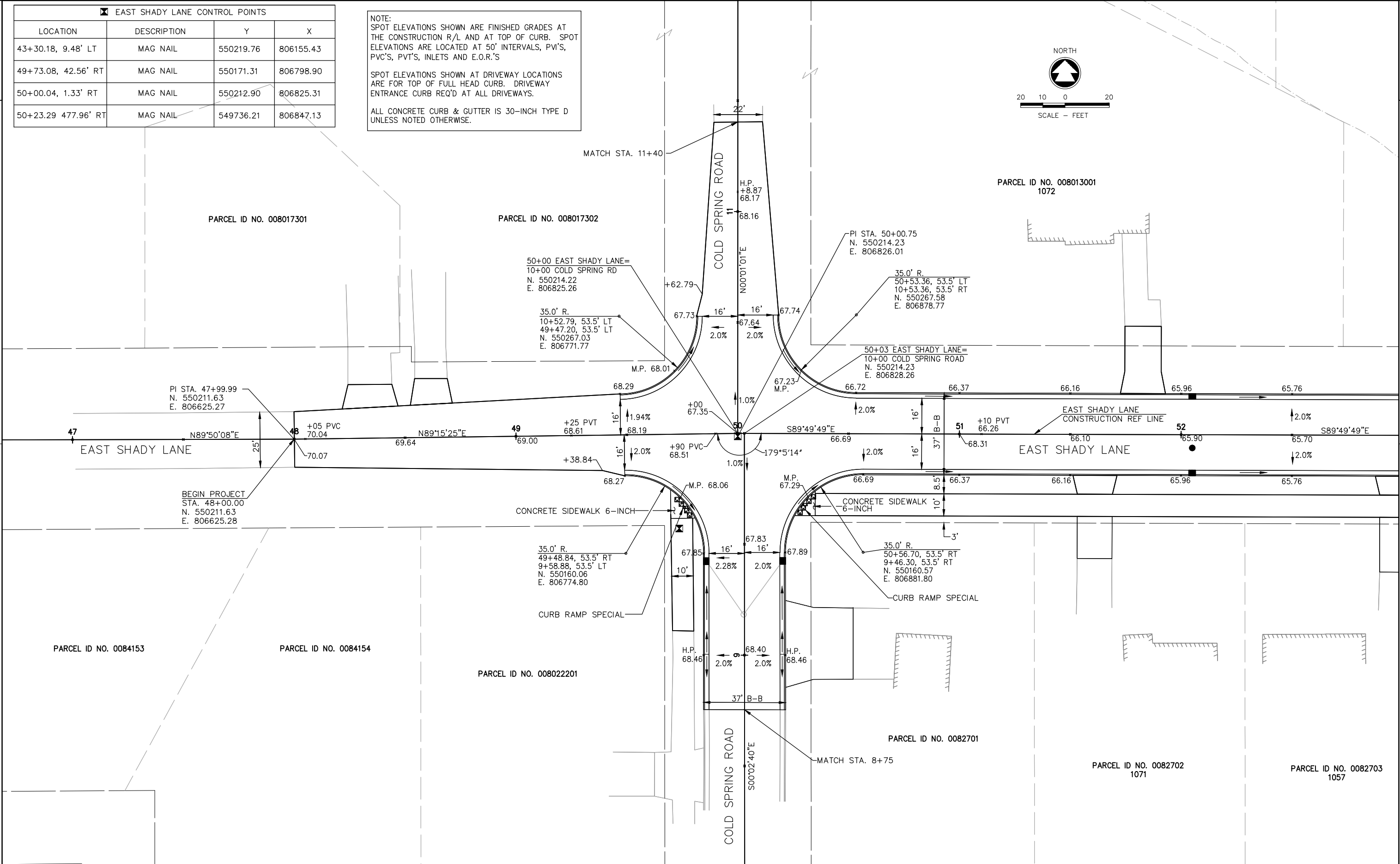
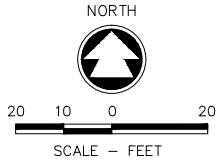
MEDIUM RANDOM RIPRAP TREATMENT AT CULVERTS

EAST SHADY LANE CONTROL POINTS			
LOCATION	DESCRIPTION	Y	X
43+30.18, 9.48' LT	MAG NAIL	550219.76	806155.43
49+73.08, 42.56' RT	MAG NAIL	550171.31	806798.90
50+00.04, 1.33' RT	MAG NAIL	550212.90	806825.31
50+23.29 477.96' RT	MAG NAIL	549736.21	806847.13

NOTE:
SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND AT TOP OF CURB. SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, PVI'S, PVC'S, PVT'S, INLETS AND E.O.R.'S

SPOT ELEVATIONS SHOWN AT DRIVEWAY LOCATIONS ARE FOR TOP OF FULL HEAD CURB. DRIVEWAY ENTRANCE CURB REQ'D AT ALL DRIVEWAYS.

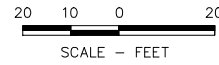
ALL CONCRETE CURB & GUTTER IS 30-INCH TYPE D UNLESS NOTED OTHERWISE.



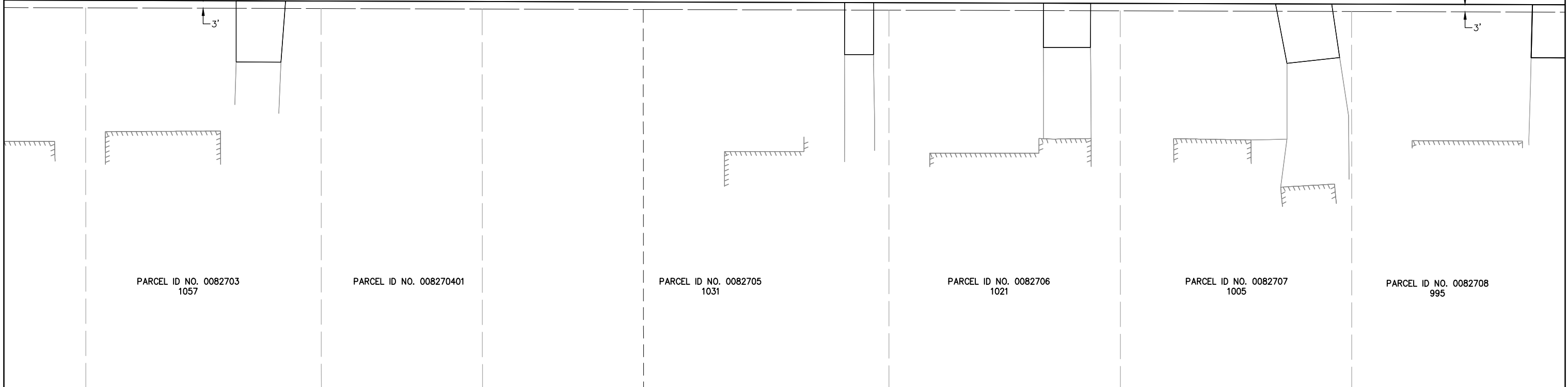
2

2

ALL CONCRETE CURB & GUTTER IS 30-INCH TYPE D
UNLESS NOTED OTHERWISE.



PARCEL ID NO. 0084782



mkohlbeck, W:\PROJECTS\M0003\910520\00\ACAD\02-Pavement Details\2 HORIZONTAL ALIGNMENT & PAVING DETAIL.dwg, 2 horizontal alignment & paving detail, Plot Date: 11/1/2013 11:34 AM, xrefs: (x-proposed info shady ln, x-existing shady ln, x-horizontal alignment & paving detail)

NOTE:
SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND AT TOP OF CURB. SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, PVI'S, PVC'S, PVT'S, INLETS AND E.O.R.'S

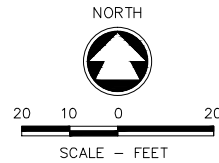
SPOT ELEVATIONS SHOWN AT DRIVEWAY LOCATIONS ARE FOR TOP OF FULL HEAD CURB. DRIVEWAY ENTRANCE CURB REQ'D AT ALL DRIVEWAYS.

ALL CONCRETE CURB & GUTTER IS 30-INCH TYPE D UNLESS NOTED OTHERWISE.

A north arrow pointing upwards, labeled "NORTH". Below it is a scale bar with markings for 20, 10, 0, and 20 feet. The text "SCALE - FEET" is written below the bar.



EAST SHADY LANE CONTROL POINTS			
LOCATION	DESCRIPTION	Y	X
64+09.32, 59.58' RT	MAG NAIL	550150.48	808234.38



NOTE:
SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND AT TOP OF CURB. SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, PVI'S, PVC'S, PVT'S, INLETS AND E.O.R.'S

SPOT ELEVATIONS SHOWN AT DRIVEWAY LOCATIONS ARE FOR TOP OF FULL HEAD CURB. DRIVEWAY ENTRANCE CURB REQ'D AT ALL DRIVEWAYS.

ALL CONCRETE CURB & GUTTER IS 30-INCH TYPE D UNLESS NOTED OTHERWISE.

PARCEL ID NO. 008013201
892

CONCRETE CURB & GUTTER SPECIAL
24-INCH TYPE D1

67+14.32 EAST SHADY LANE =
10+00 GAIL LANE
N. 550209.15
E. 808539.55

25.0' R.
66+55.78, 43.5' LT
10+43.53, 58.5' LT
N. 550252.83
E. 808481.17

CONCRETE SIDEWALK 6-INCH

MATCH STA. 11+50

GAIL LANE

① TRANSITION 30" C&G TO 24" C&G IN 10- FEET BEGINNING AT E.O.R.

② 10.2' R.
10+95.60, 0.52' RT
N. 550304.75
E. 808540.31

③ 10.0' R. (TO B.O.C.)
10+87.26, 41.0' RT
N. 550296.31
E. 808580.77

④ 10.0' R. (TO B.O.C.)
10+34.99, 41.0' RT
N. 550344.04
E. 808580.88

⑤ 5.0' R.
10+49.99, 39.25' RT
N. 550359.05
E. 808579.17

CONCRETE CURB & GUTTER SPECIAL
24-INCH TYPE D1

PARCEL ID NO. 0080132

25.0' R.
67+72.78, 43.5' LT
10+43.47, 58.5' RT
N. 550252.48
E. 808598.16

EAST SHADY LANE

EAST SHADY LANE
CONSTRUCTION REF LINE

TYPE 2 RAMP

CONCRETE SIDEWALK 6-INCH

CURB RAMP SPECIAL

25.0' R.
66+50.45, 43.5' RT
9+56.85, 39' LT
N. 550165.84
E. 808475.57

C/L H.P.
+32.93
762.54

PARCEL ID NO. 0083872

MATCH STA. 8+90

TUMBLEBROOK ROAD
S00°21'11"E

CONCRETE SIDEWALK 6-INCH

CURB RAMP SPECIAL

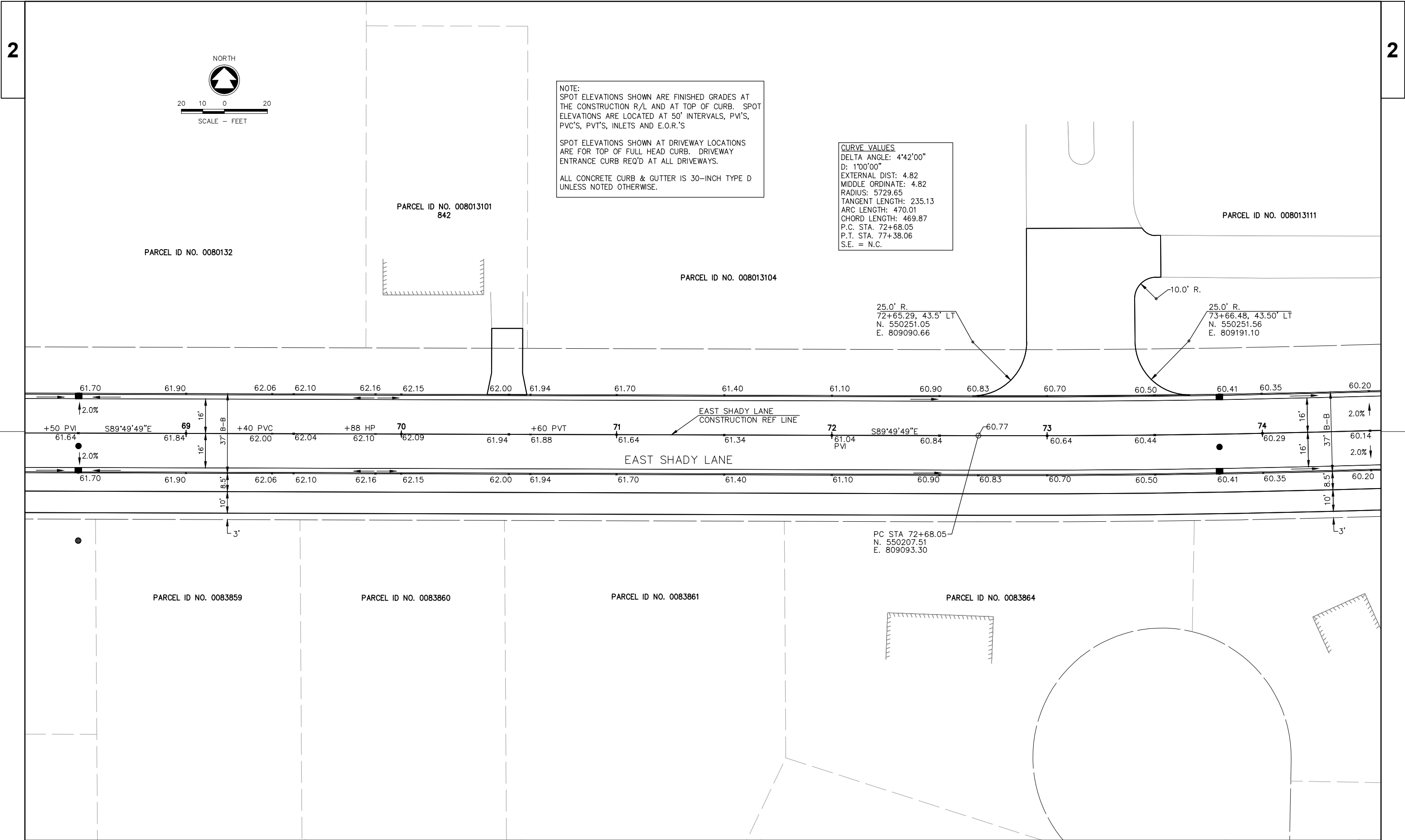
66+89.06 EAST SHADY LANE =
10+00 TUMBLEBROOK ROAD
N. 550209.23
E. 808514.31

PARCEL ID NO. 0083857

CONCRETE CURB & GUTTER SPECIAL
24-INCH TYPE D2

PARCEL ID NO. 0083858

PARCEL ID NO. 0083859

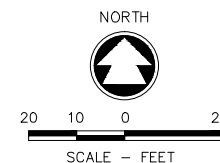


mkohibeck, W:\PROJECTS\M0003\910520\00\ACAD\02-Pavement Details\5 HORIZONTAL ALIGNMENT & PAVING DETAIL.dwg, 5 horizontal alignment & paving detail, Plot Date: 11/1/2013 11:35 AM, xrefs: (x-proposed info shady ln, x-existing shady ln, x-horizontal alignment & paving detail)

NOTE:
SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND AT TOP OF CURB. SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, PVI'S, PVC'S, PVT'S, INLETS AND E.O.R'S

SPOT ELEVATIONS SHOWN AT DRIVEWAY LOCATIONS ARE FOR TOP OF FULL HEAD CURB. DRIVEWAY ENTRANCE CURB REQ'D AT ALL DRIVEWAYS.

ALL CONCRETE CURB & GUTTER IS 30-INCH TYPE D UNLESS NOTED OTHERWISE.



① TRANSITION 30" C&G TO 24" C&G IN
10-FEET BEGINNING AT E.O.R.

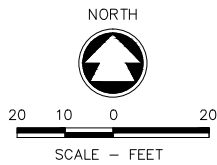


NOTE:
SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE CONSTRUCTION R/L AND AT TOP OF CURB. SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, PVI'S, PVC'S, PVT'S, INLETS AND E.O.R.'S

SPOT ELEVATIONS SHOWN AT DRIVEWAY LOCATIONS ARE FOR TOP OF FULL HEAD CURB. DRIVEWAY ENTRANCE CURB REQ'D AT ALL DRIVEWAYS.

ALL CONCRETE CURB & GUTTER IS 30-INCH TYPE D UNLESS NOTED OTHERWISE.

PARCEL ID NO. 008014002



EAST SHADY LANE CONTROL POINTS			
LOCATION	DESCRIPTION	Y	X
80+24.00, 20.44' LT	MAG NAIL	550268.35	809846.26

PARCEL ID NO. 008014001

CONCRETE CURB & GUTTER BY OTHERS

CONSTRUCTION LIMITS
MATCH STA. 10+46.66

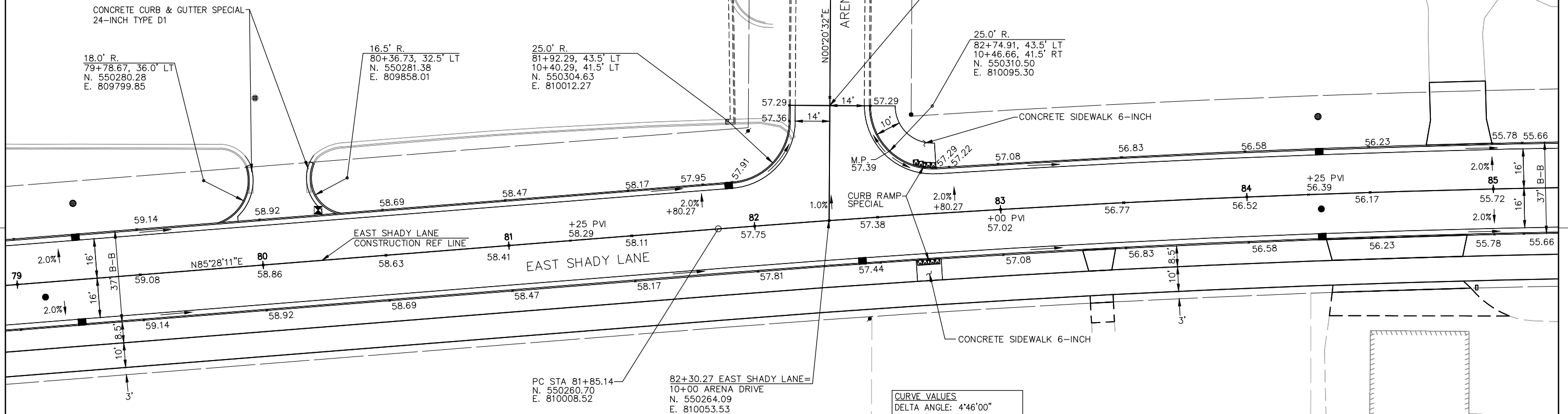
CONCRETE CURB & GUTTER SPECIAL
24-INCH TYPE D1

18.0' R.
79+78.67, 36.0' LT
N. 550280.28
E. 809799.85

16.5' R.
80+36.73, 32.5' LT
N. 550281.38
E. 809858.01

25.0' R.
81+92.29, 43.5' LT
10+40.29, 41.5' LT
N. 550304.63
E. 810012.27

25.0' R.
82+74.91, 43.5' LT
10+46.66, 41.5' RT
N. 550310.50
E. 810095.30



CURVE VALUES
DELTA ANGLE: 4'46'00"
D: 1'00'00"
EXTERNAL DIST: 4.96
MIDDLE ORDINATE: 4.96
RADIUS: 5729.65
TANGENT LENGTH: 238.48
ARC LENGTH: 476.68
CHORD LENGTH: 476.54
P.C. STA. 81+85.14
P.T. STA. 86+61.82
S.E. = N.C.

PARCEL ID NO. 008025202

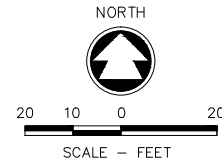
PARCEL ID NO. 008025200

PARCEL ID NO. 008025201

NOTE:
SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT
THE CONSTRUCTION R/L AND AT TOP OF CURB. SPOT
ELEVATIONS ARE LOCATED AT 50' INTERVALS, PVI'S,
PVC'S, PVT'S, INLETS AND E.O.R.'S

SPOT ELEVATIONS SHOWN AT DRIVEWAY LOCATIONS
ARE FOR TOP OF FULL HEAD CURB. DRIVEWAY
ENTRANCE CURB REQ'D AT ALL DRIVEWAYS.

ALL CONCRETE CURB & GUTTER IS 30-INCH TYPE D
UNLESS NOTED OTHERWISE.

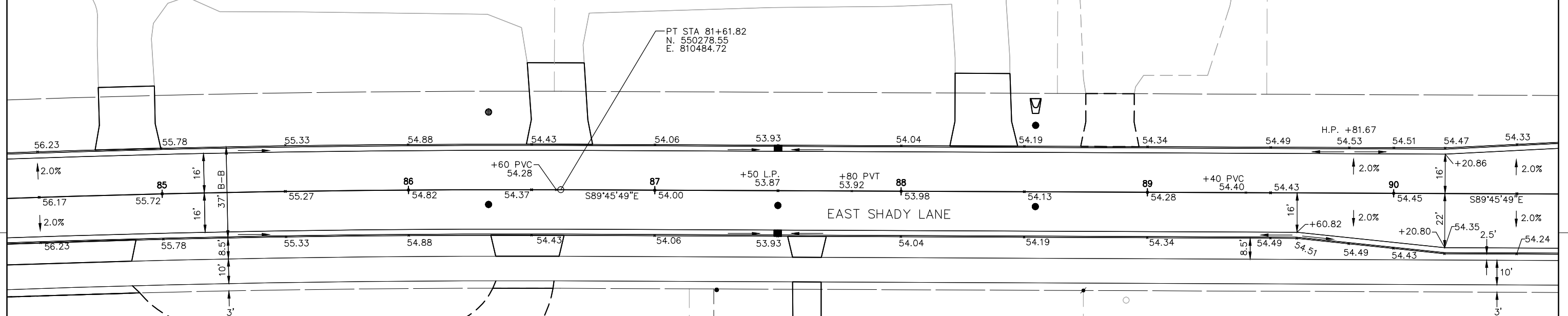


PARCEL ID NO. 008014001

PARCEL ID NO. 00801400101

PARCEL ID NO. 008013901

PARCEL ID NO. 008014508

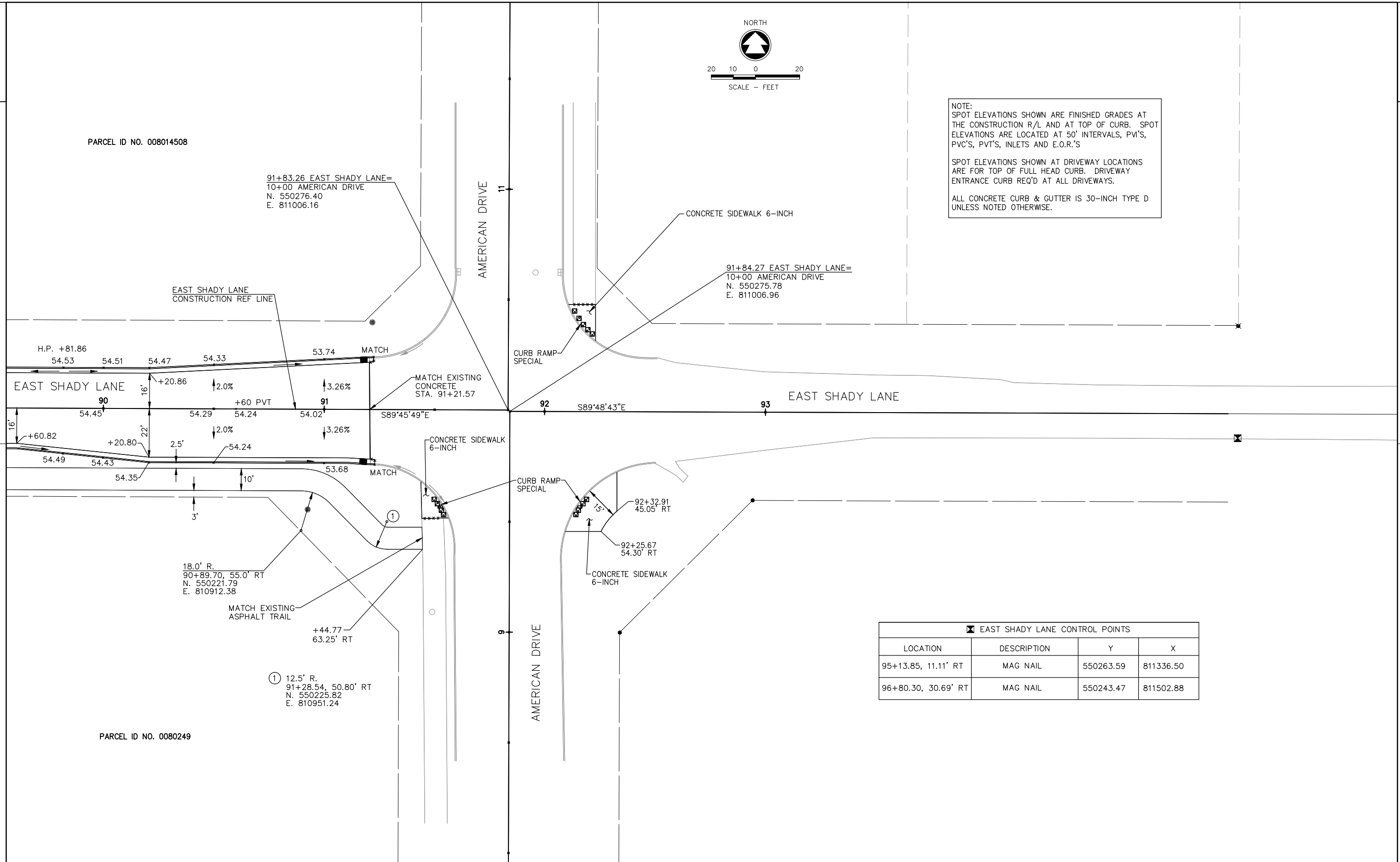


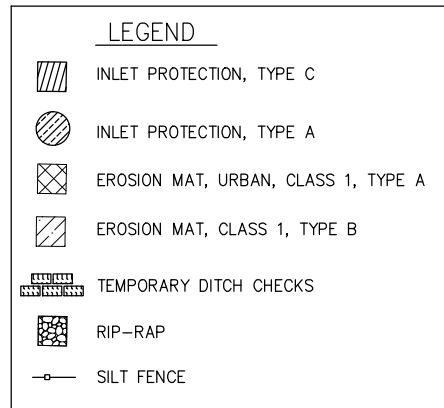
CURVE VALUES
DELTA ANGLE: 4°46'00"
D: 1°00'00"
EXTERNAL DIST: 4.96
MIDDLE ORDINATE: 4.96
RADIUS: 5729.65
TANGENT LENGTH: 238.48
ARC LENGTH: 476.68
CHORD LENGTH: 476.54
P.C. STA. 81+85.14
P.T. STA. 86+61.82
S.E. = N.C.

PARCEL ID NO. 008025201

PARCEL ID NO. 008025203

PARCEL ID NO. 0080249





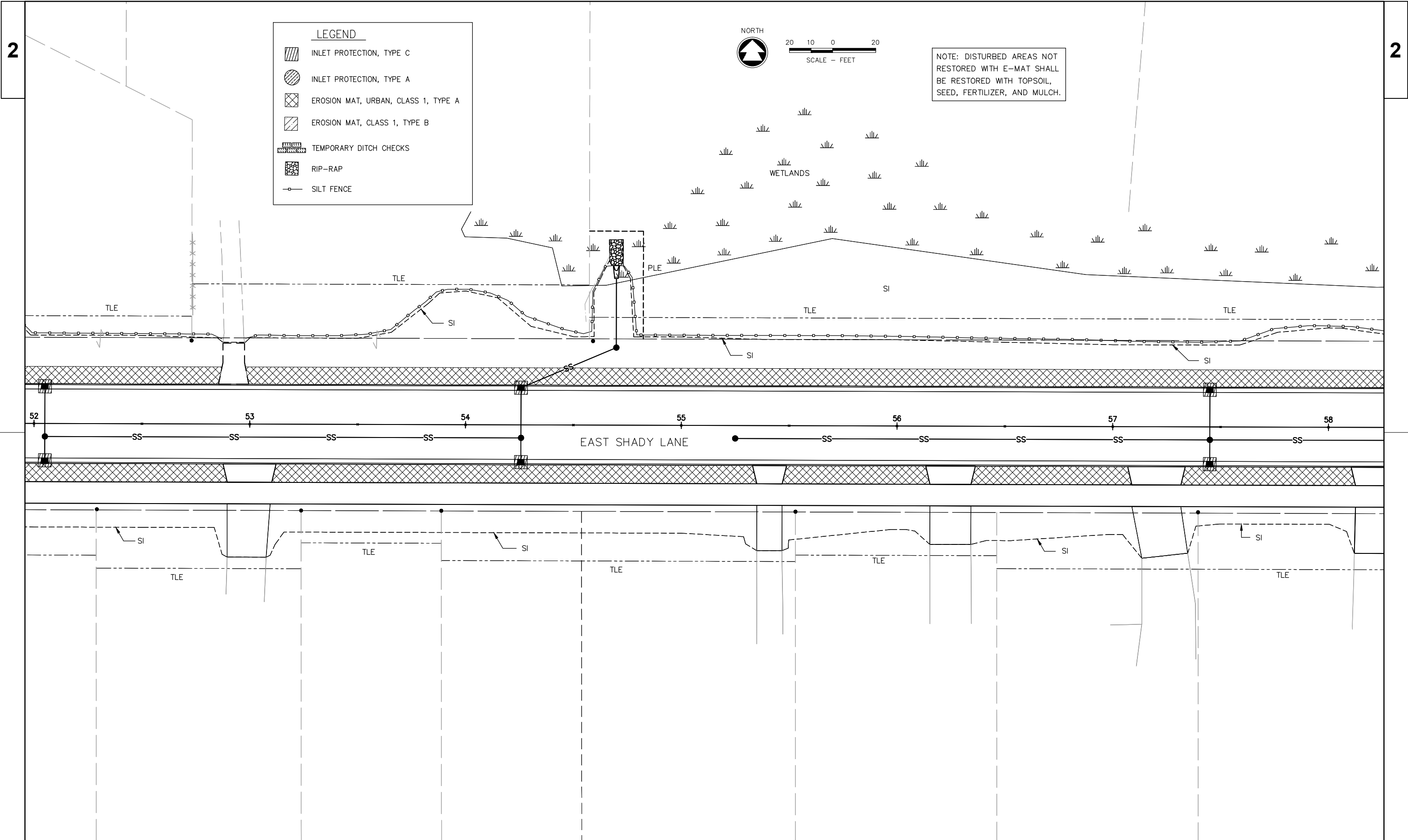
20 10 0 20
SCALE - FEET

NOTE: DISTURBED AREAS NOT
RESTORED WITH E-MAT SHALL
BE RESTORED WITH TOPSOIL,
SEED, FERTILIZER, AND MULCH.

PLACE EROSION CONTROL
INLET PROTECTION TYPE C
AT DOWN GRADE INLETS.

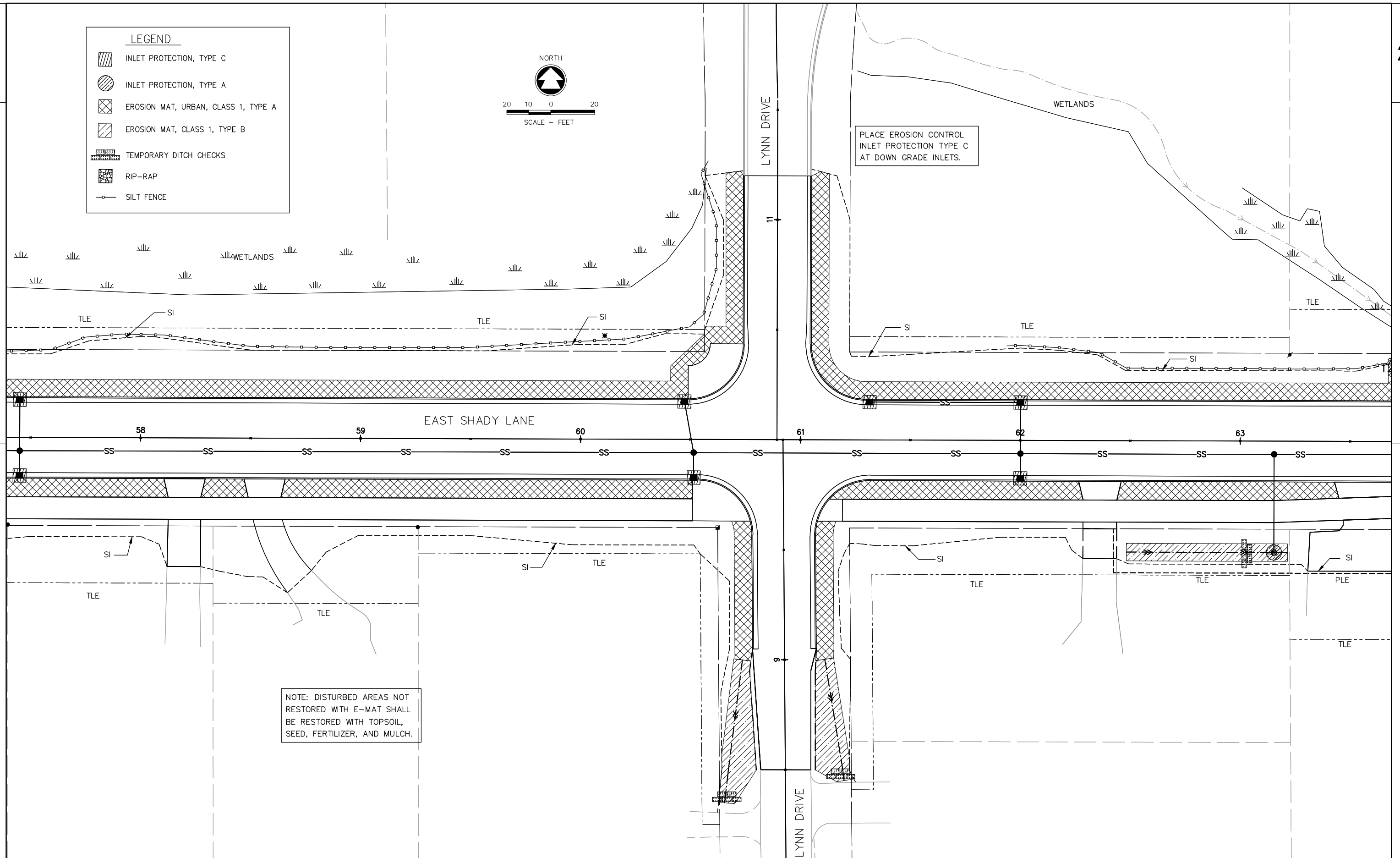
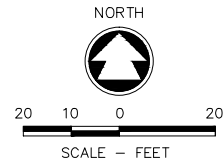
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2



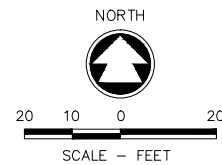
LEGEND

- INLET PROTECTION, TYPE C
- INLET PROTECTION, TYPE A
- EROSION MAT, URBAN, CLASS 1, TYPE A
- EROSION MAT, CLASS 1, TYPE B
- TEMPORARY DITCH CHECKS
- RIP-RAP
- SILT FENCE

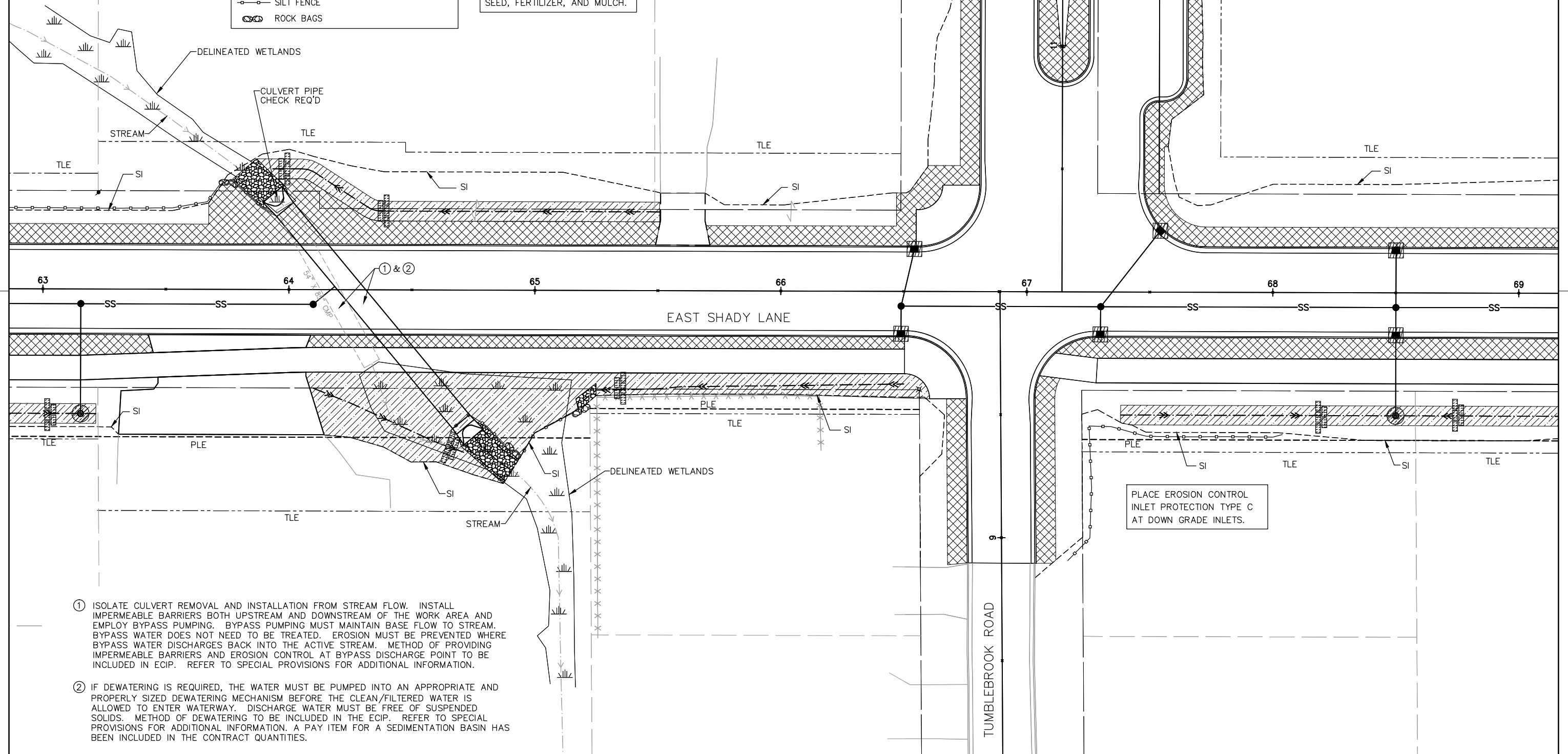


LEGEND

-  INLET PROTECTION, TYPE C
-  INLET PROTECTION, TYPE A
-  EROSION MAT, URBAN, CLASS 1, TYPE A
-  EROSION MAT, CLASS 1, TYPE B
-  TEMPORARY DITCH CHECKS
-  RIP-RAP
-  SILT FENCE
-  ROCK BAGS



NOTE: DISTURBED AREAS NOT RESTORED WITH E-MAT SHALL BE RESTORED WITH TOPSOIL, SEED, FERTILIZER, AND MULCH.



LEGEND



INLET PROTECTION, TYPE C



INLET PROTECTION, TYPE A



EROSION MAT, URBAN, CLASS 1, TYPE A



EROSION MAT, CLASS 1, TYPE B



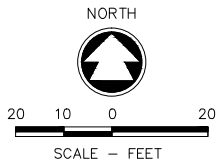
TEMPORARY DITCH CHECKS



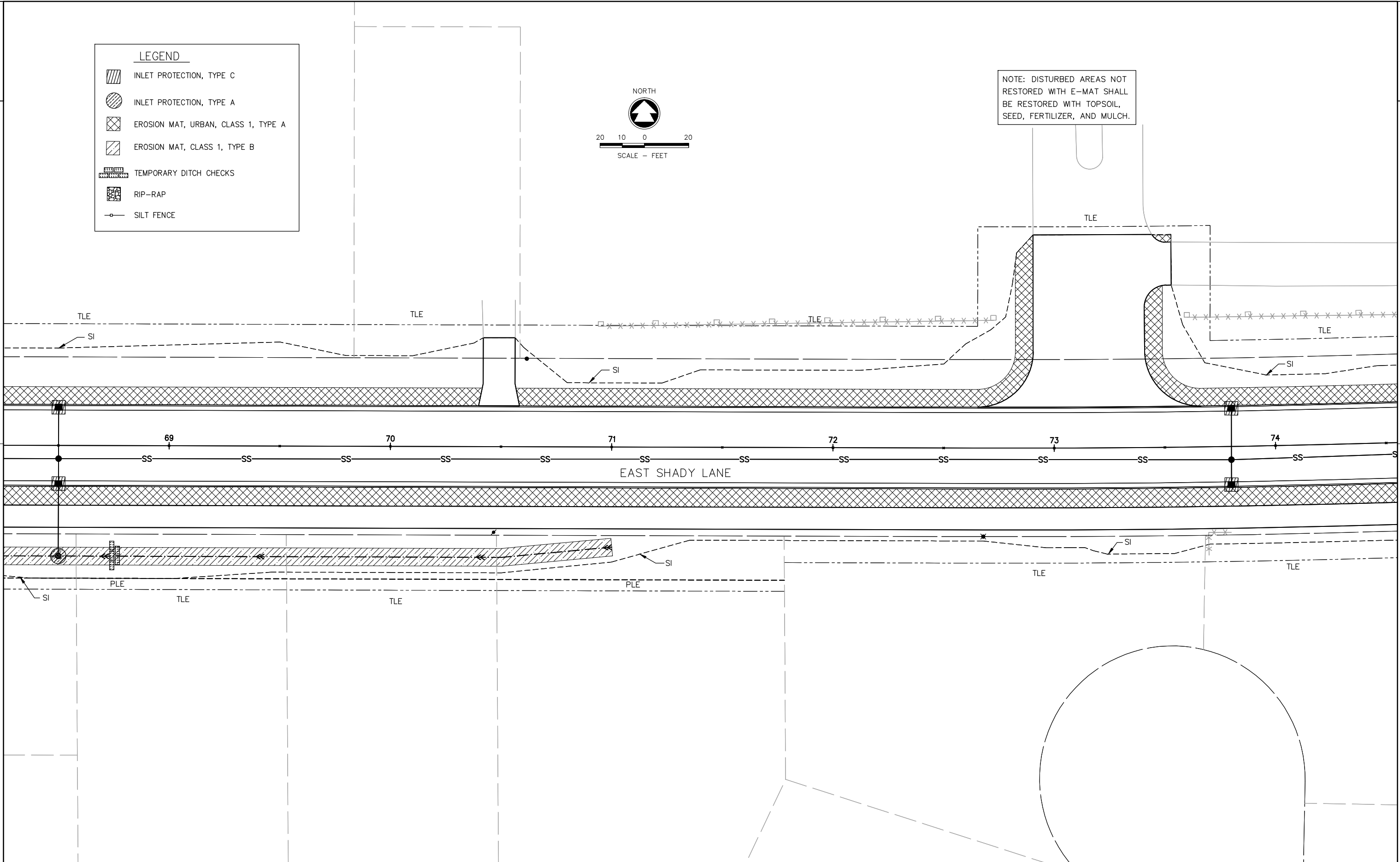
RIP-RAP



SILT FENCE

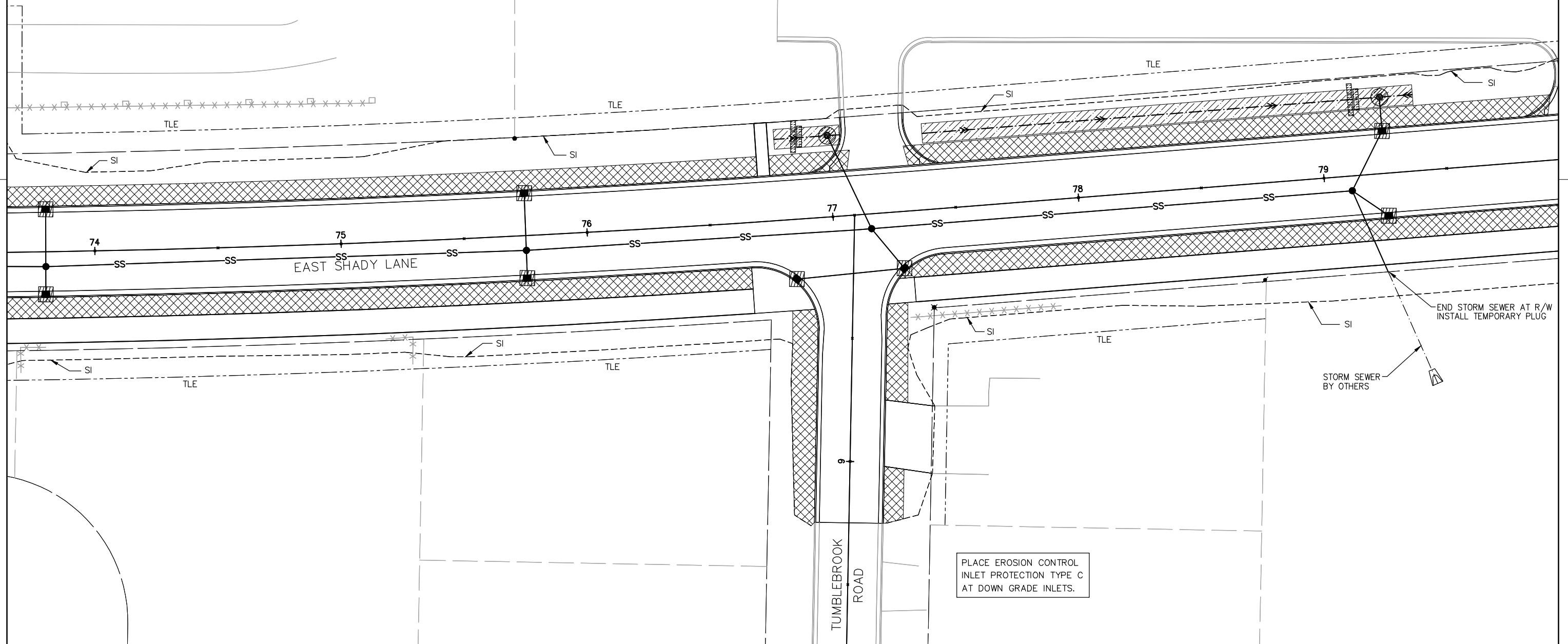
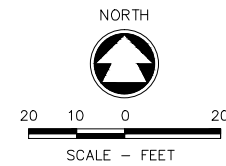


NOTE: DISTURBED AREAS NOT RESTORED WITH E-MAT SHALL BE RESTORED WITH TOPSOIL, SEED, FERTILIZER, AND MULCH.



LEGEND	
	INLET PROTECTION, TYPE C
	INLET PROTECTION, TYPE A
	EROSION MAT, URBAN, CLASS 1, TYPE A
	EROSION MAT, CLASS 1, TYPE B
	TEMPORARY DITCH CHECKS
	RIP-RAP
	SILT FENCE

NOTE: DISTURBED AREAS NOT RESTORED WITH E-MAT SHALL BE RESTORED WITH TOPSOIL, SEED, FERTILIZER, AND MULCH.

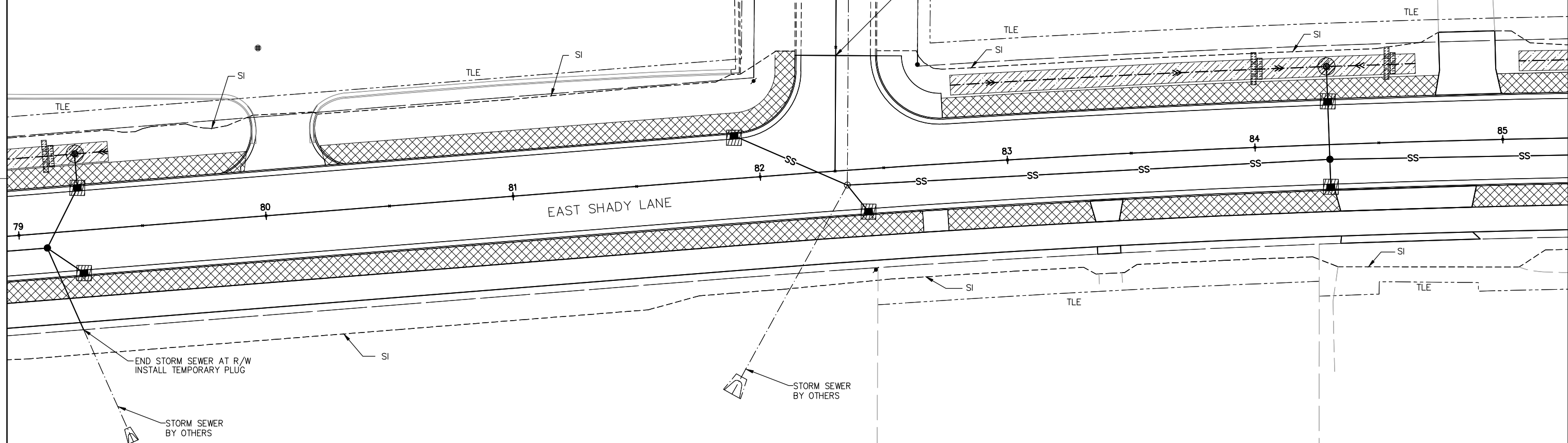
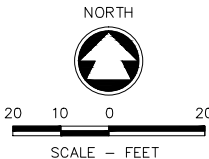


2

LEGEND

	INLET PROTECTION, TYPE C
	INLET PROTECTION, TYPE A
	EROSION MAT, URBAN, CLASS 1, TYPE A
	EROSION MAT, CLASS 1, TYPE B
	TEMPORARY DITCH CHECKS
	RIP-RAP
	SILT FENCE

NOTE: DISTURBED AREAS NOT RESTORED WITH E-MAT SHALL BE RESTORED WITH TOPSOIL, SEED, FERTILIZER, AND MULCH.

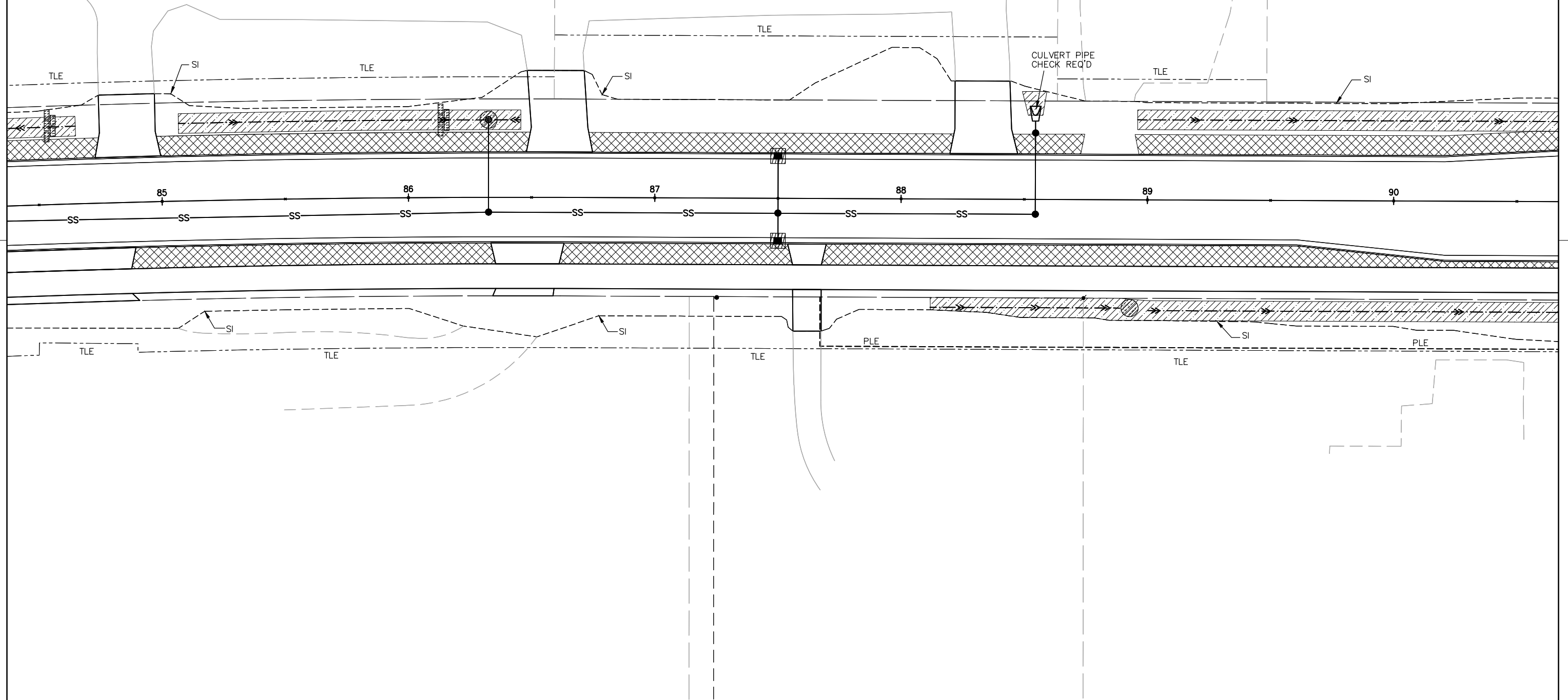
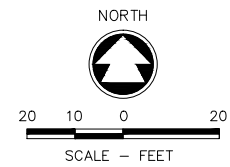


E

LEGEND

-  INLET PROTECTION, TYPE C
-  INLET PROTECTION, TYPE A
-  EROSION MAT, URBAN, CLASS 1, TYPE A
-  EROSION MAT, CLASS 1, TYPE B
-  TEMPORARY DITCH CHECKS
-  RIP-RAP
-  SILT FENCE

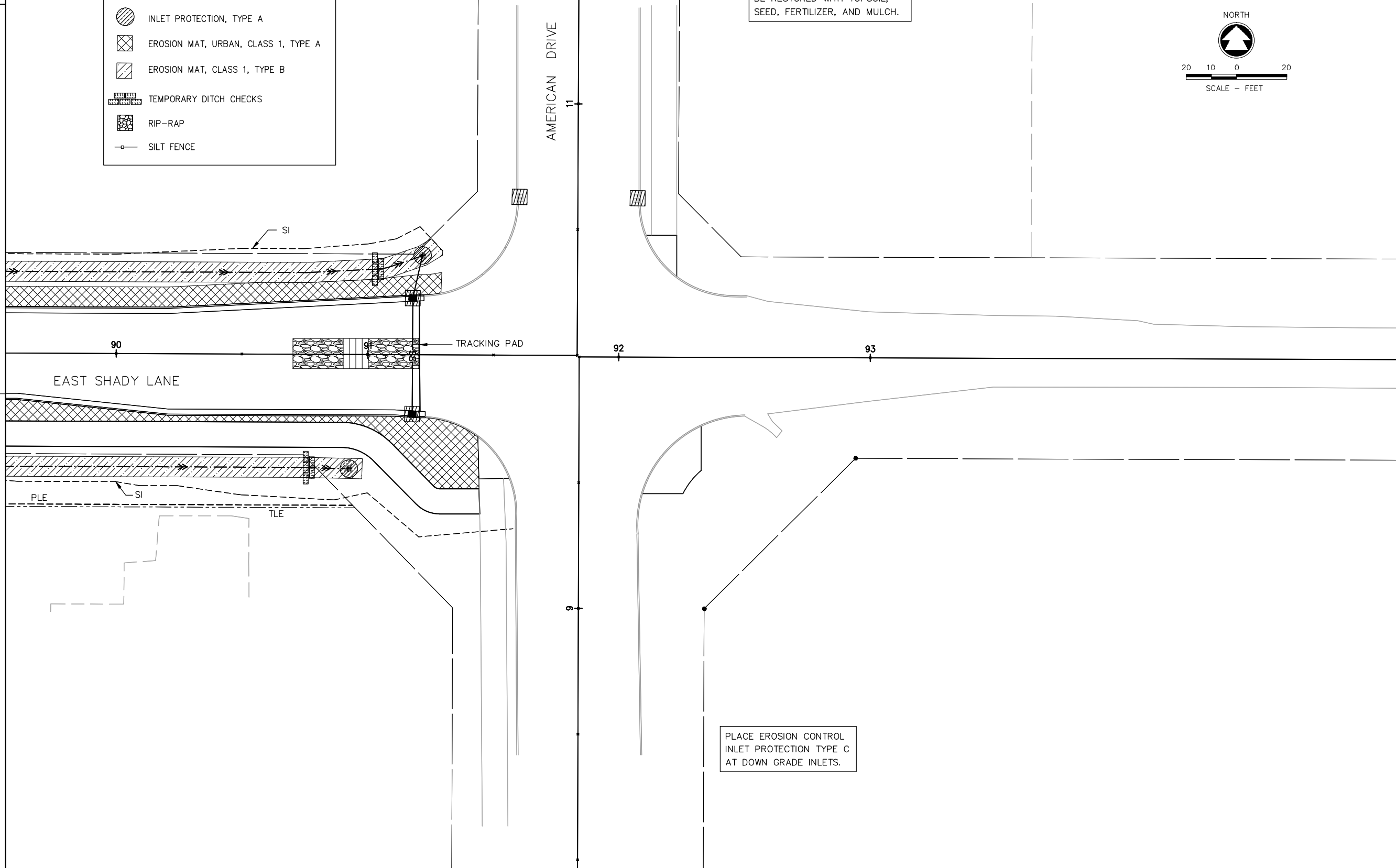
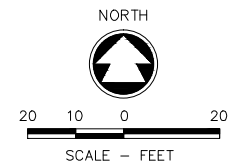
NOTE: DISTURBED AREAS NOT
RESTORED WITH E-MAT SHALL
BE RESTORED WITH TOPSOIL,
SEED, FERTILIZER, AND MULCH.

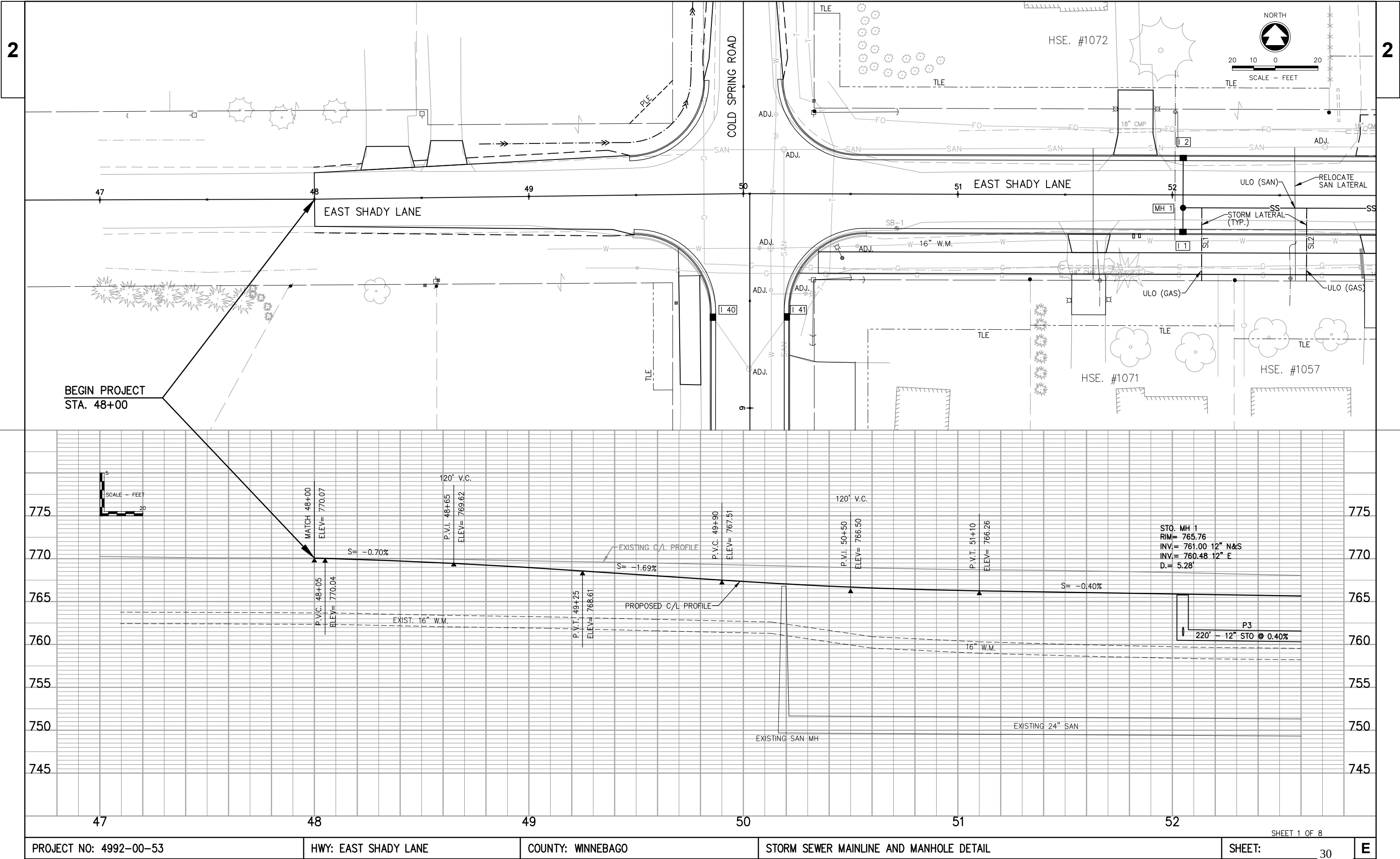


LEGEND

-  INLET PROTECTION, TYPE C
-  INLET PROTECTION, TYPE A
-  EROSION MAT, URBAN, CLASS 1, TYPE A
-  EROSION MAT, CLASS 1, TYPE B
-  TEMPORARY DITCH CHECKS
-  RIP-RAP
-  SILT FENCE

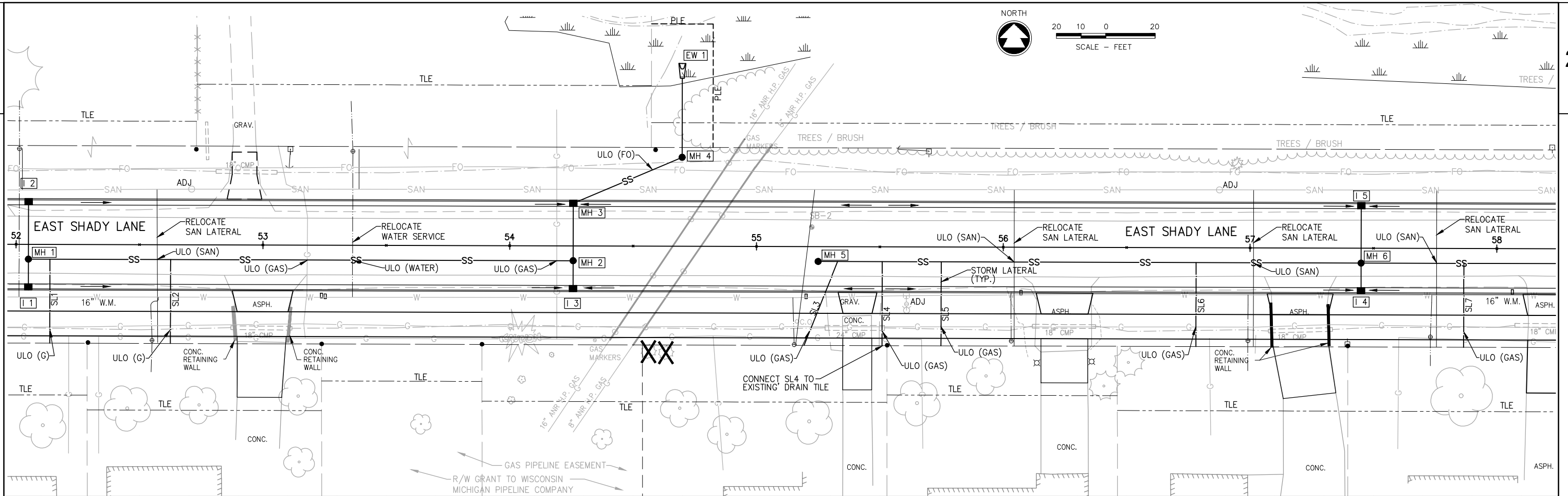
NOTE: DISTURBED AREAS NOT
RESTORED WITH E-MAT SHALL
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SEED, FERTILIZER, AND MULCH.



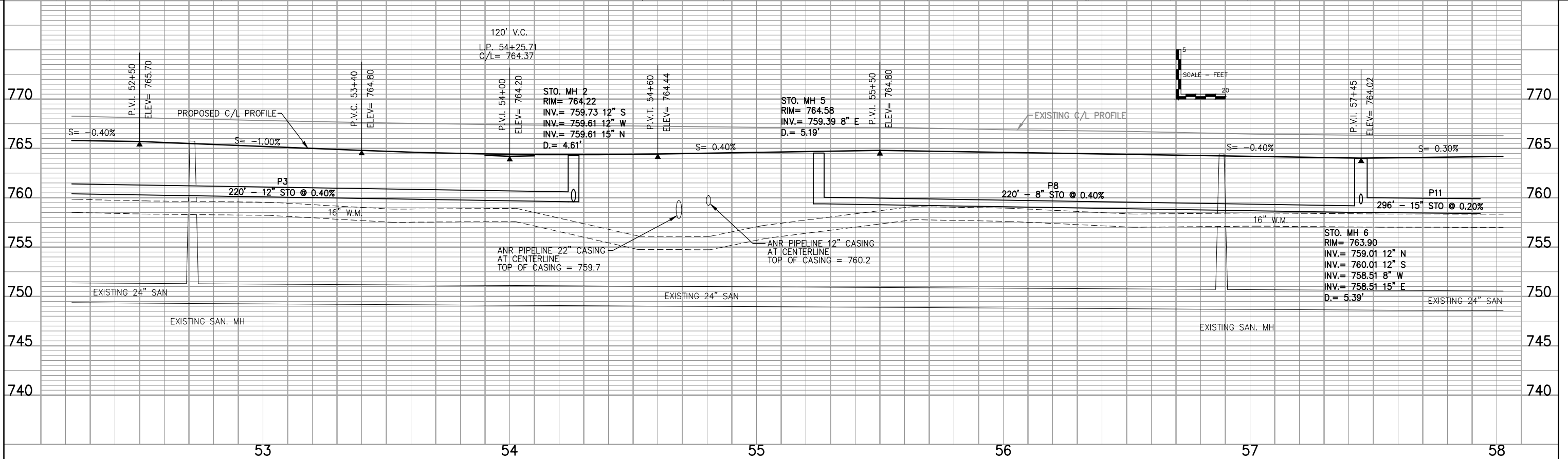


mkohilbeck, W:\PROJECTS\M0003\910520\00\ACAD\02-Storm Sewer Plan and Profile\01 STORM SEWER MAINLINE AND MANHOLE DETAIL.dwg, 01 storm sewer mainline and manhole detail, Plot Date: 11/1/2013 11:39 AM, xrefs: (x-proposed info shady ln, row-comps-dew, x-existing shady ln)

2



2



PROJECT NO: 4992-00-53

HWY: EAST SHADY LANE

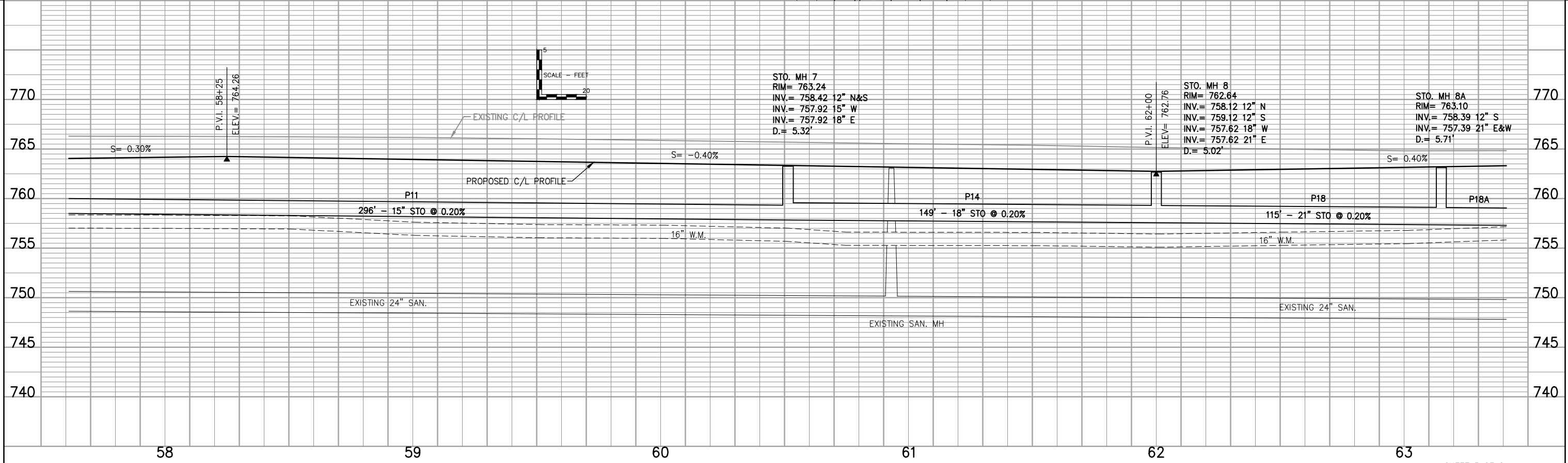
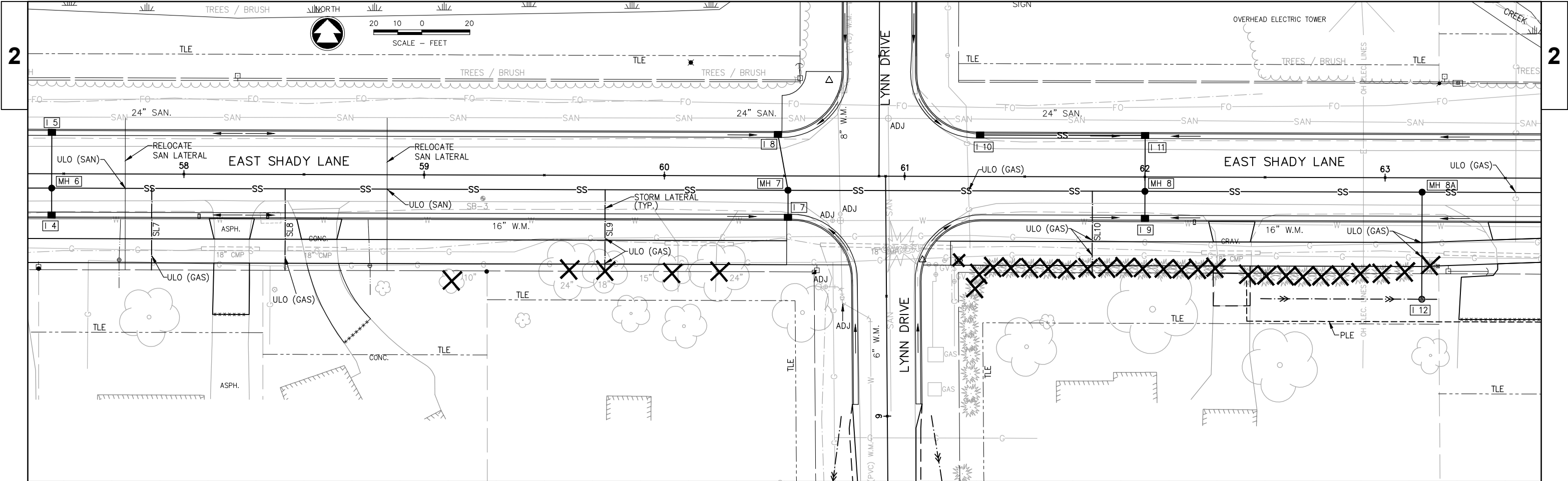
COUNTY: WINNEBAGO

STORM SEWER MAINLINE AND MANHOLE DETAIL

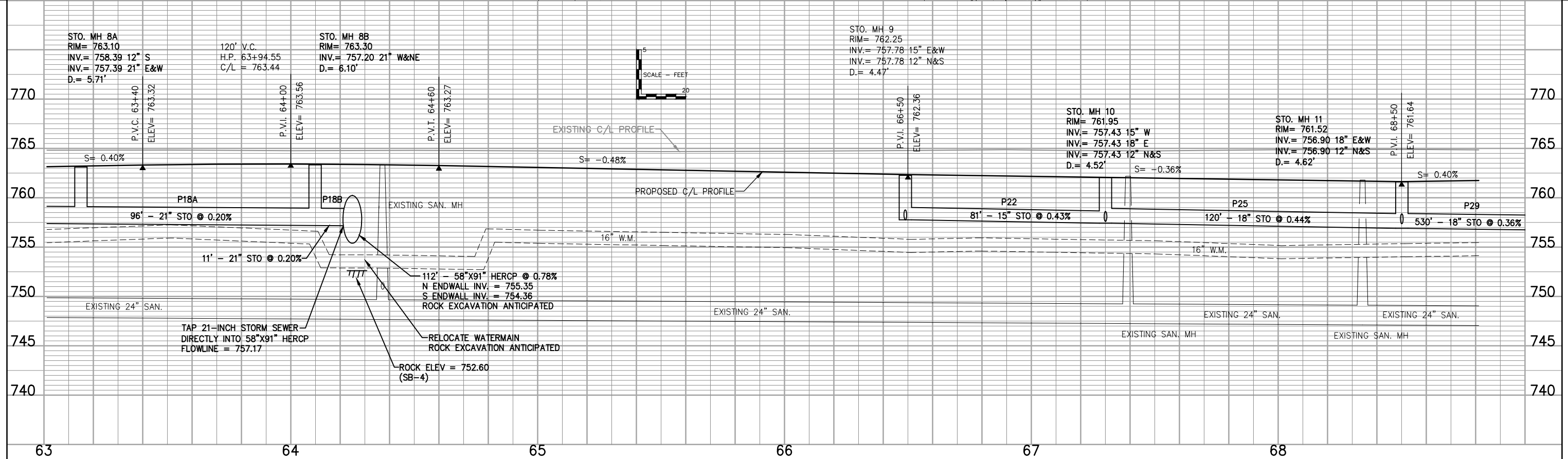
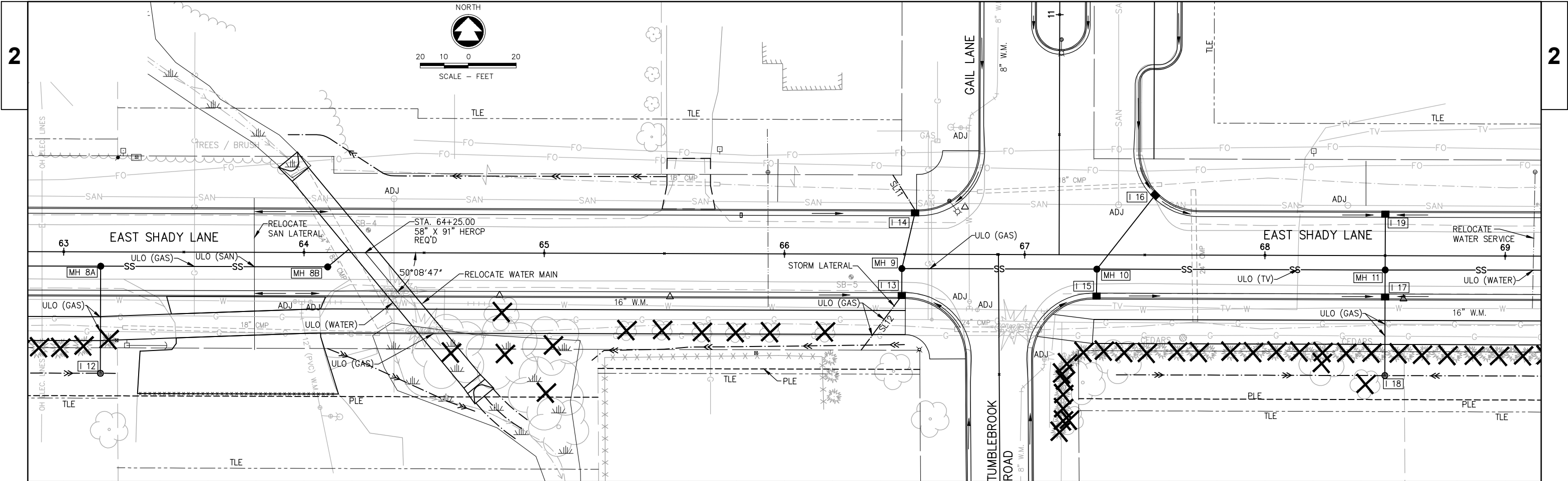
SHEET:

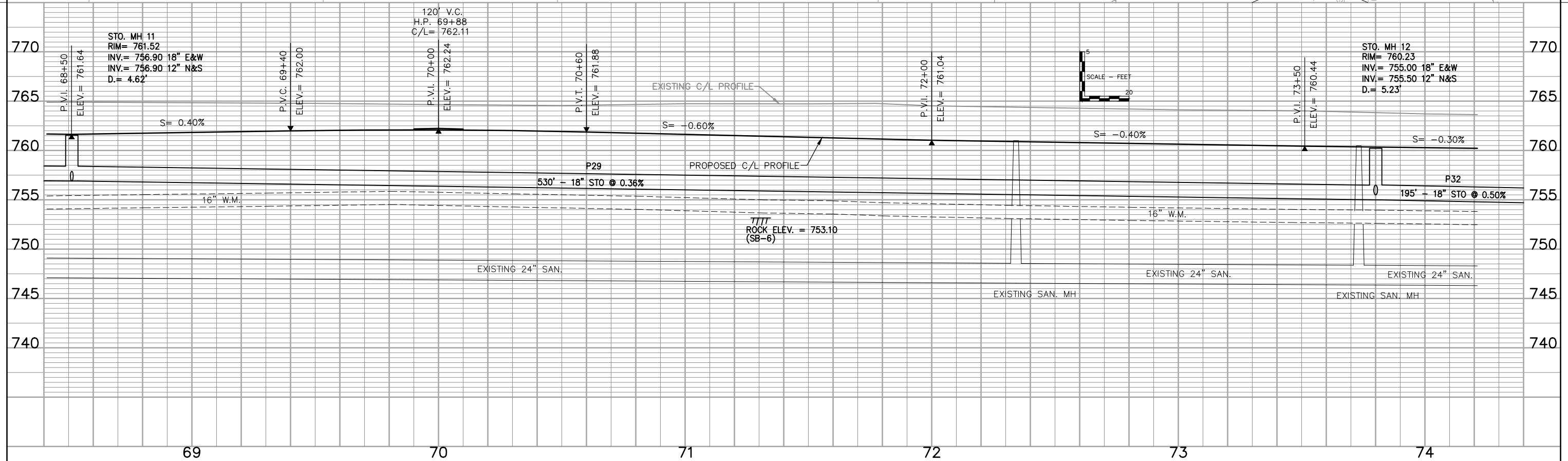
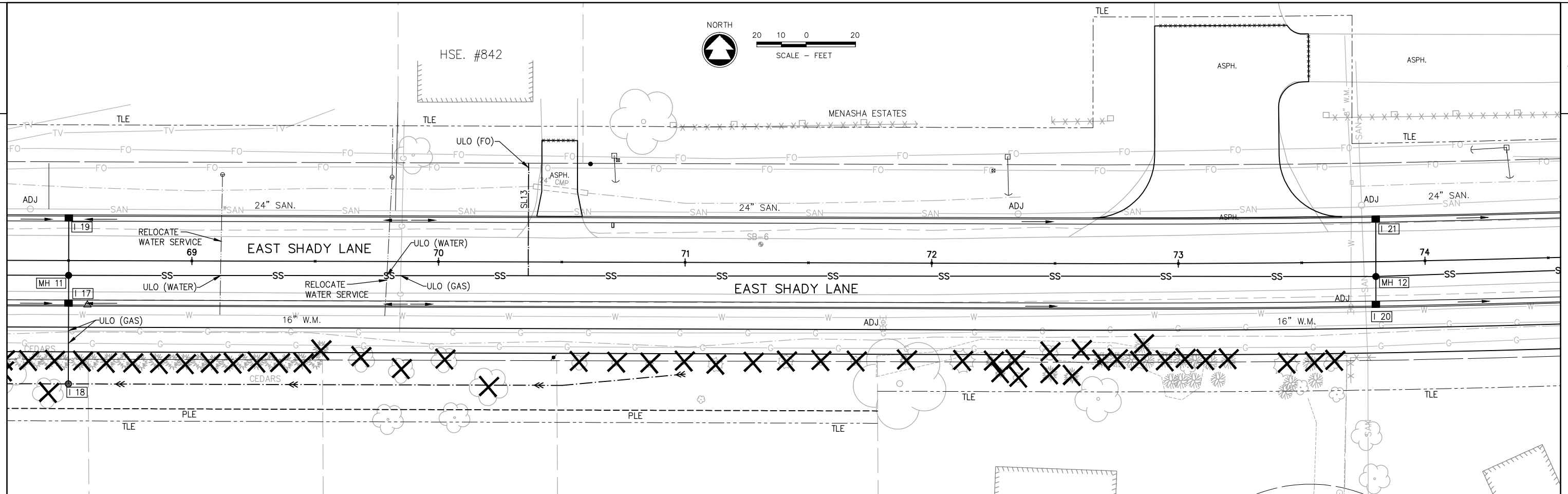
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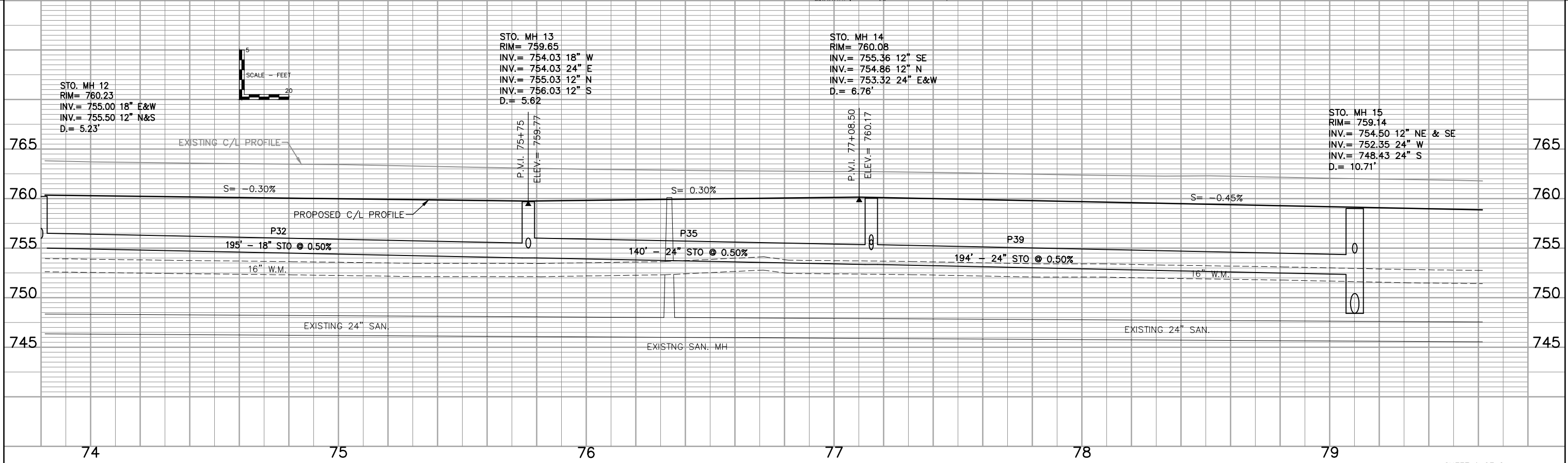
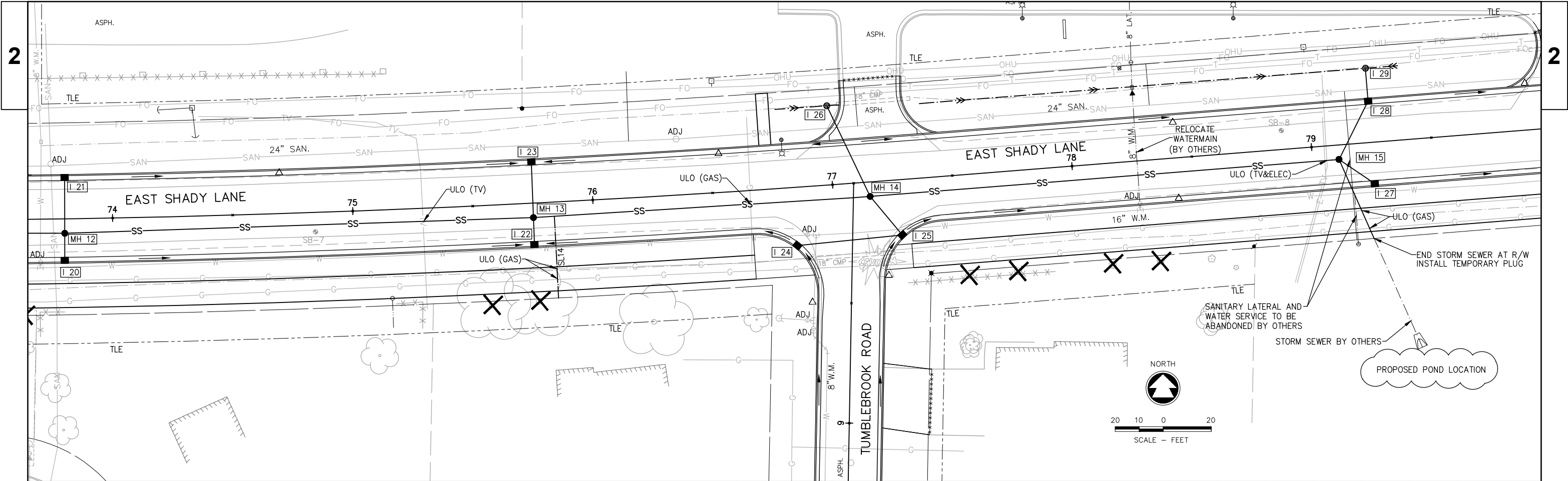
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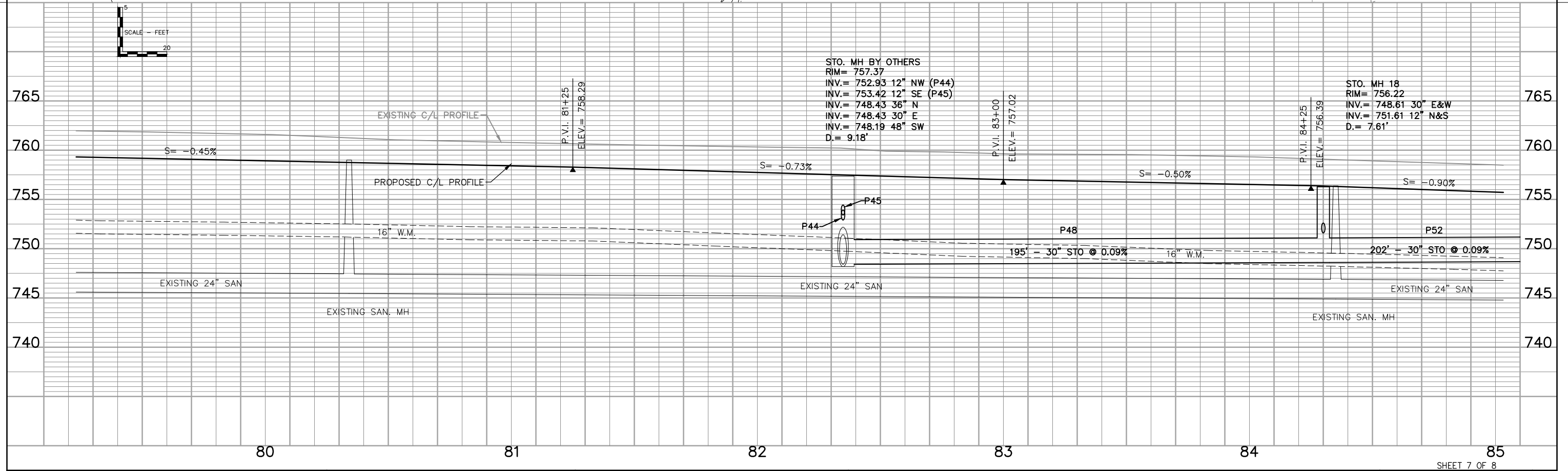
mkohibeck, W:\PROJECTS\M0003\910520\00\ACAD\02-Storm Sewer Plan and Profile\03 STORM SEWER MAINLINE AND MANHOLE DETAIL.dwg, 03 storm sewer mainline and manhole detail, Plot Date: 11/1/2013 11:39 AM, xrefs: (x-shady-in, row-comps-dew)

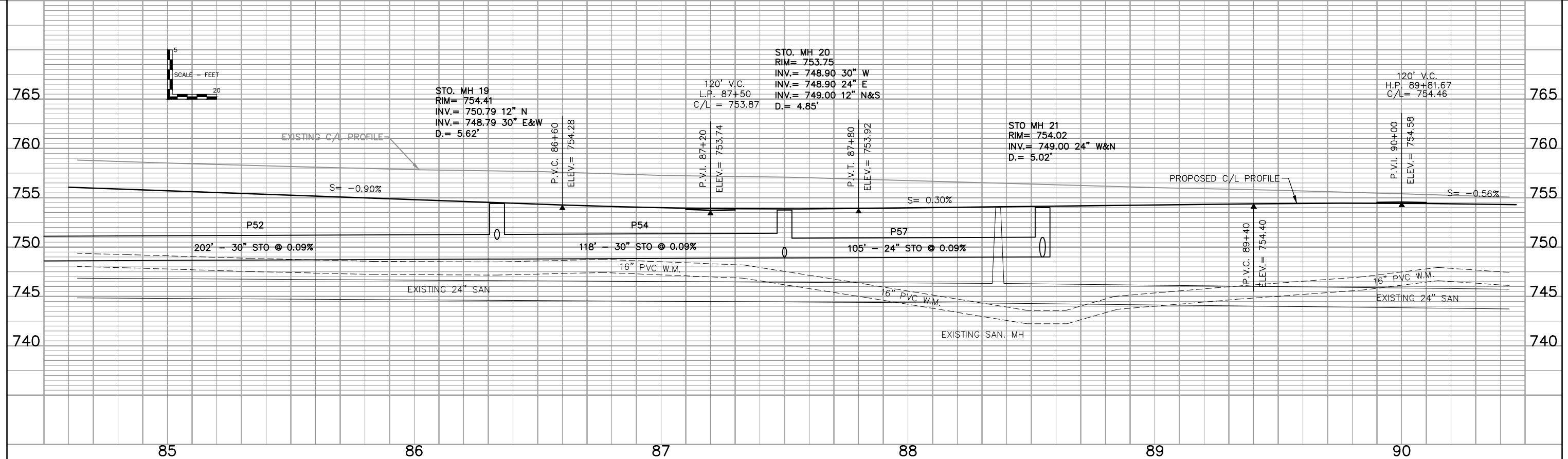
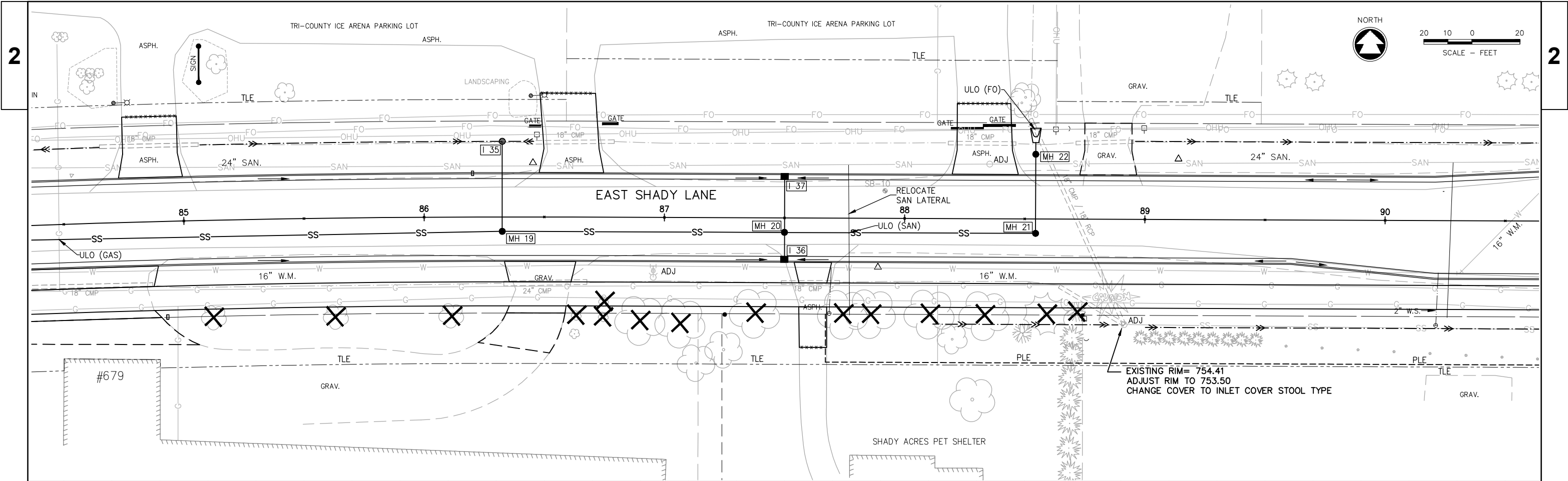






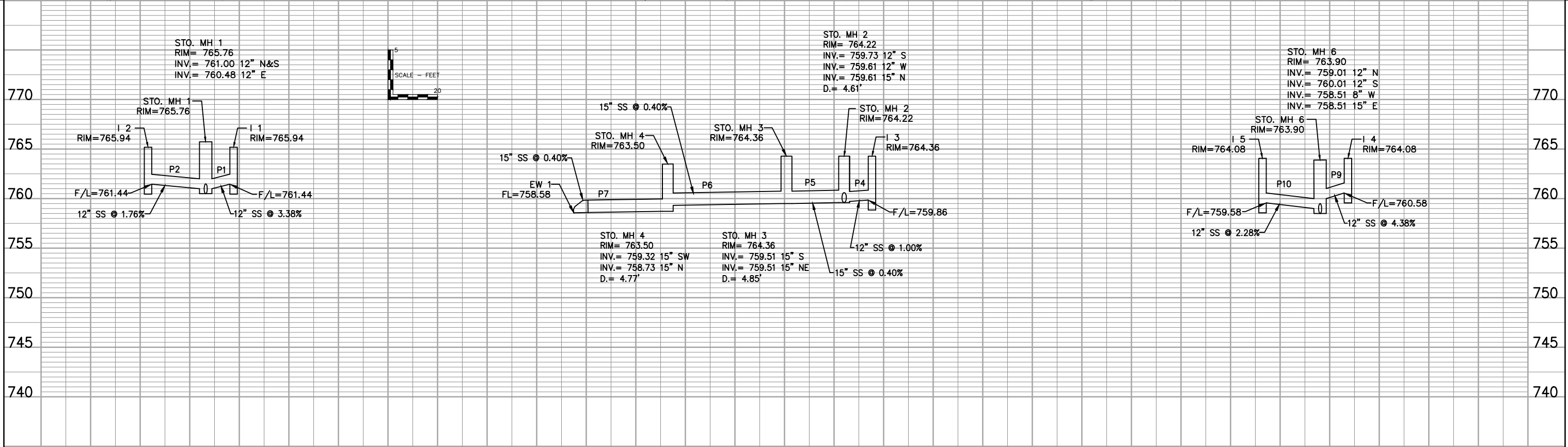
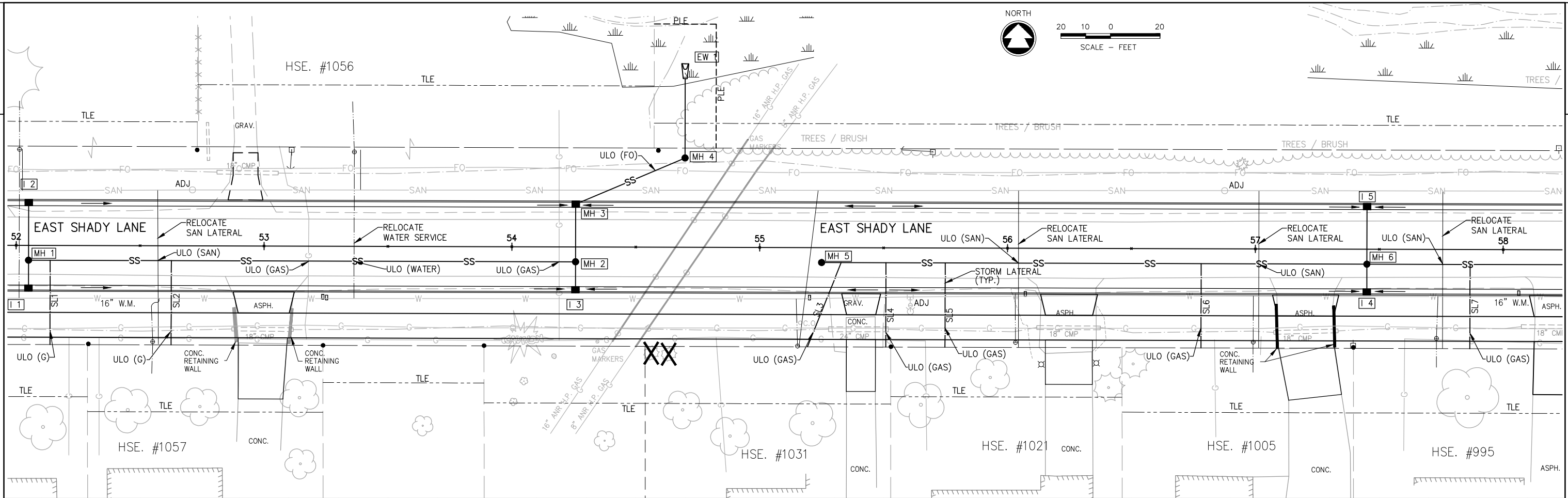
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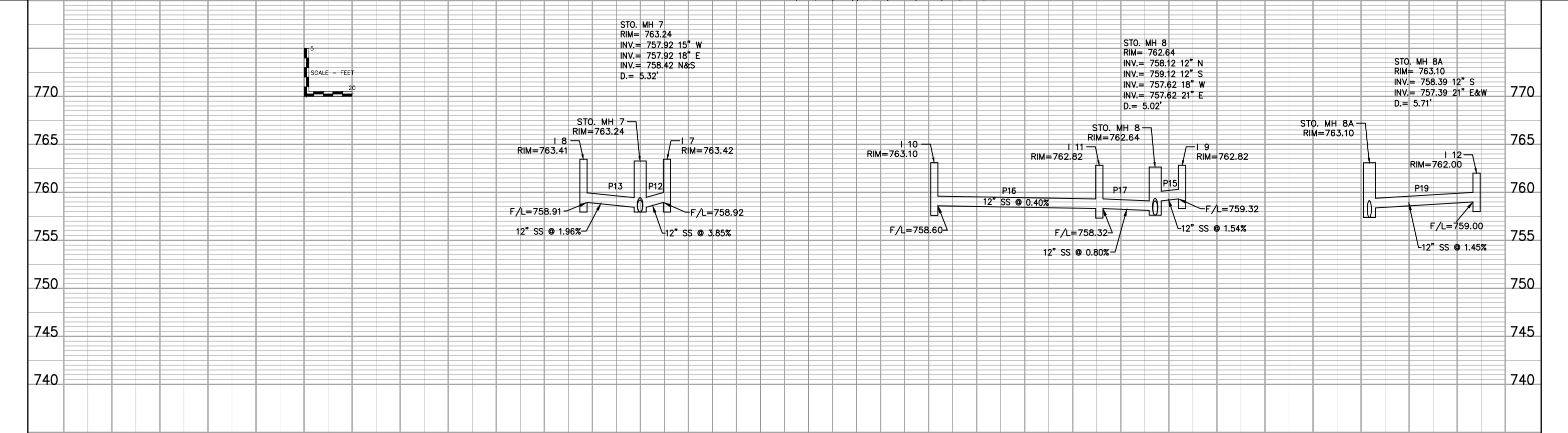
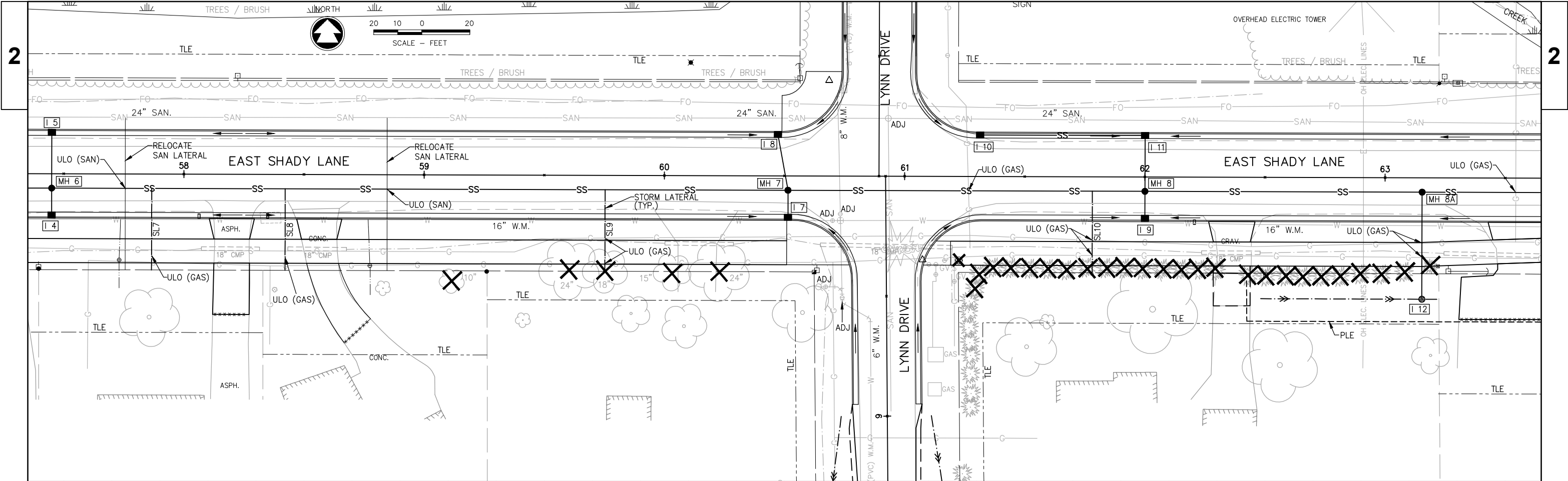


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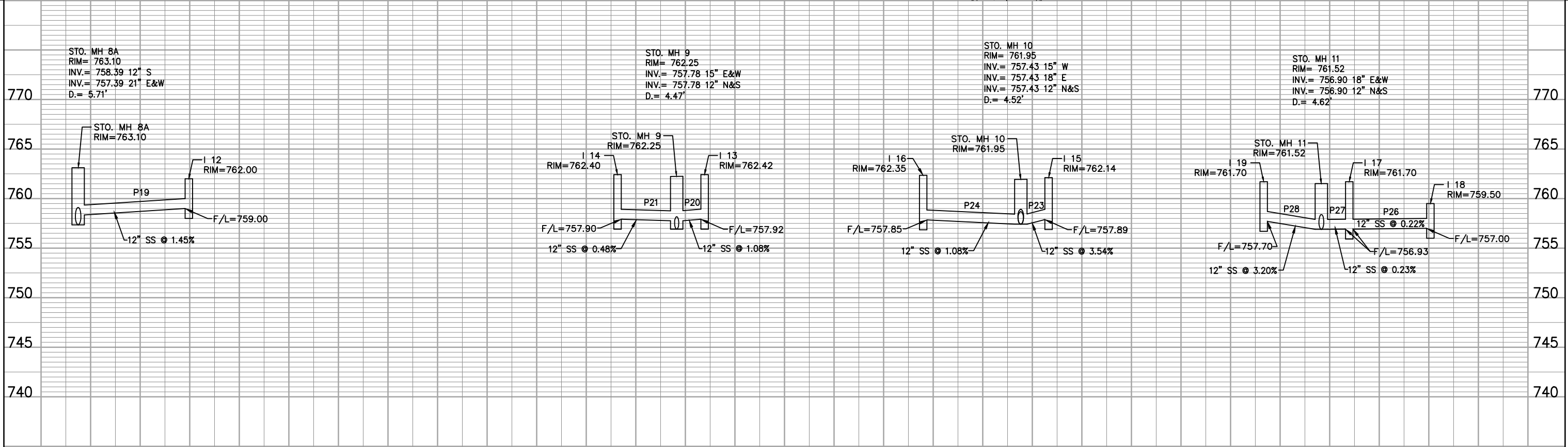
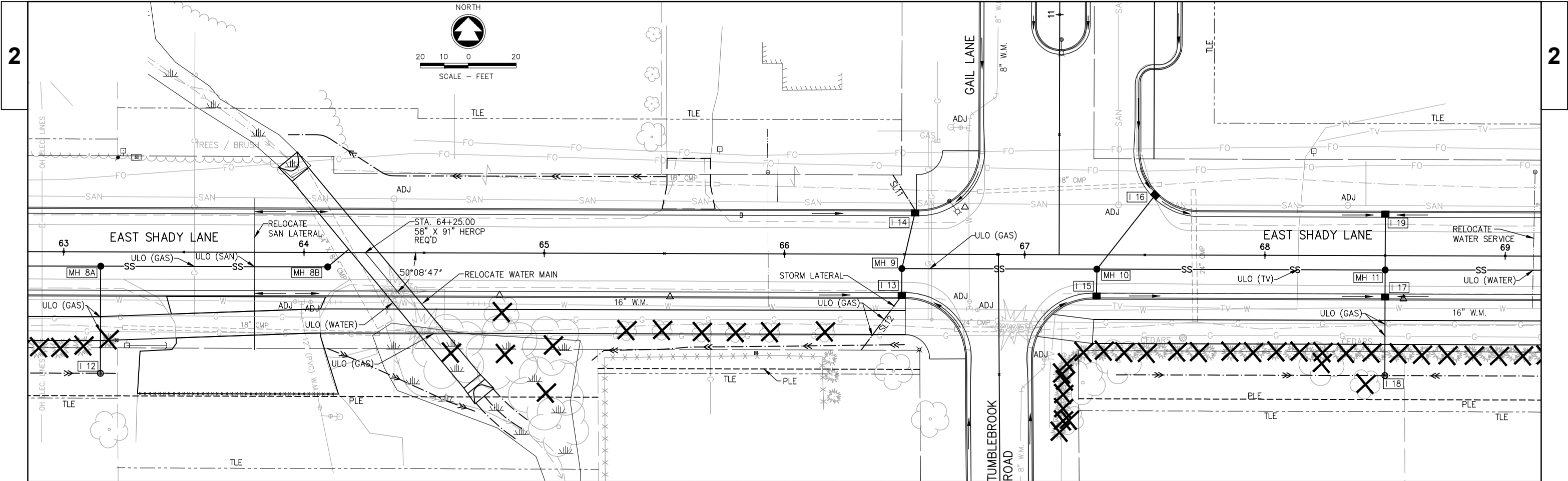
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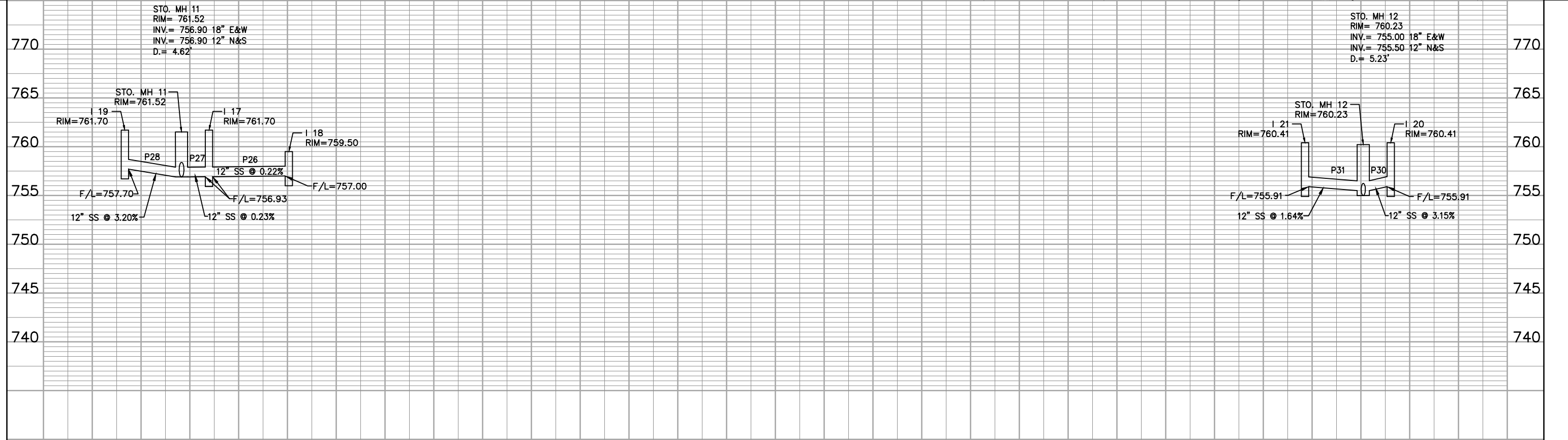


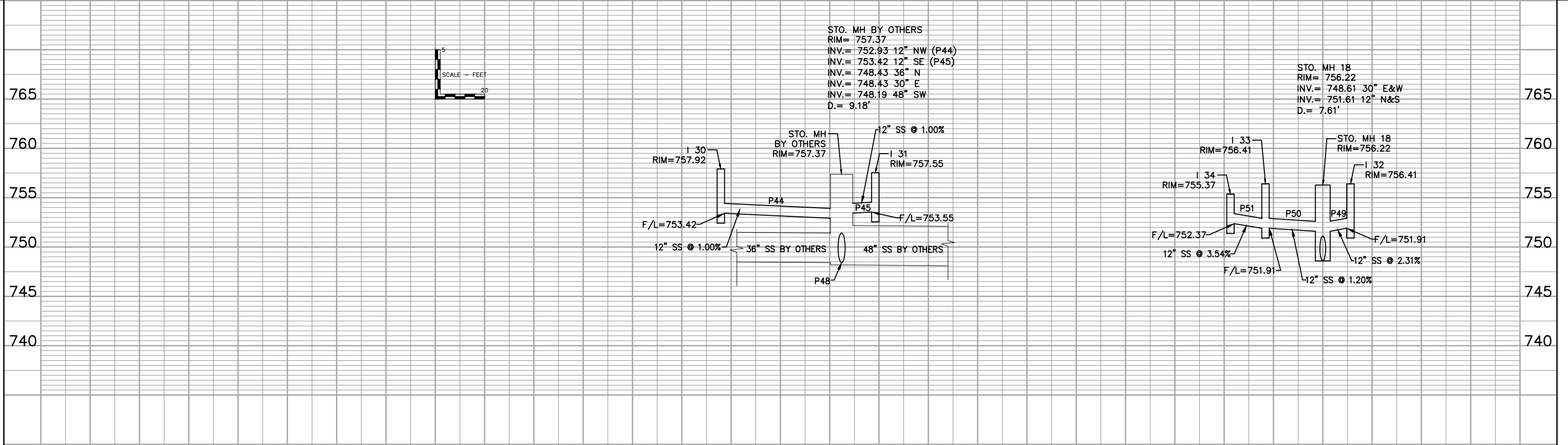
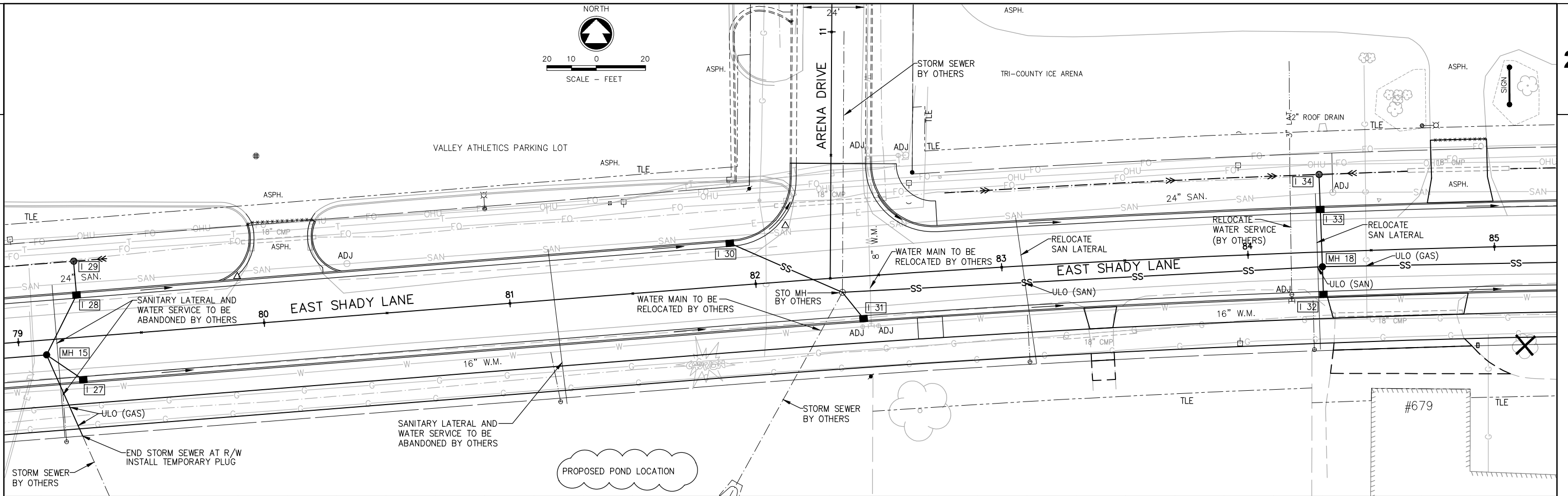
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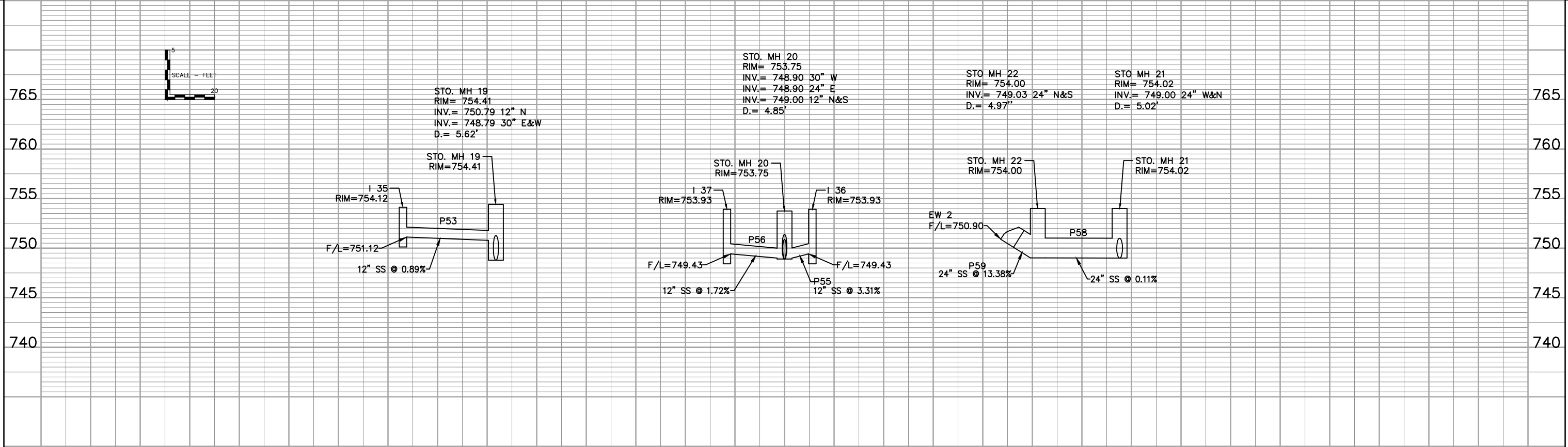
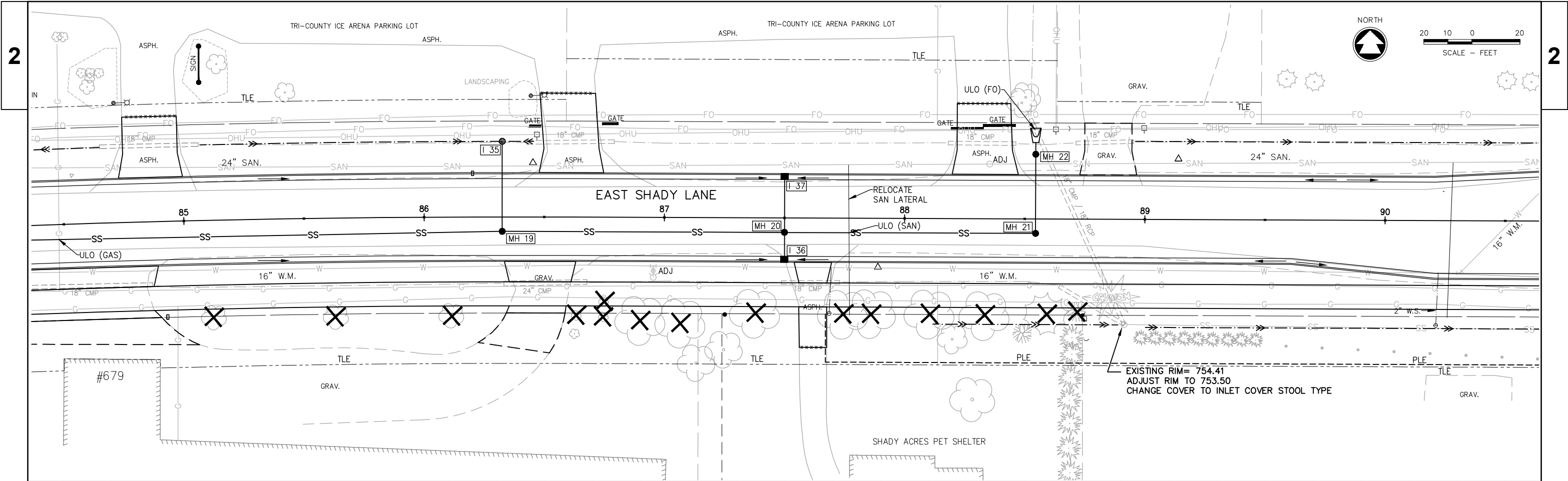


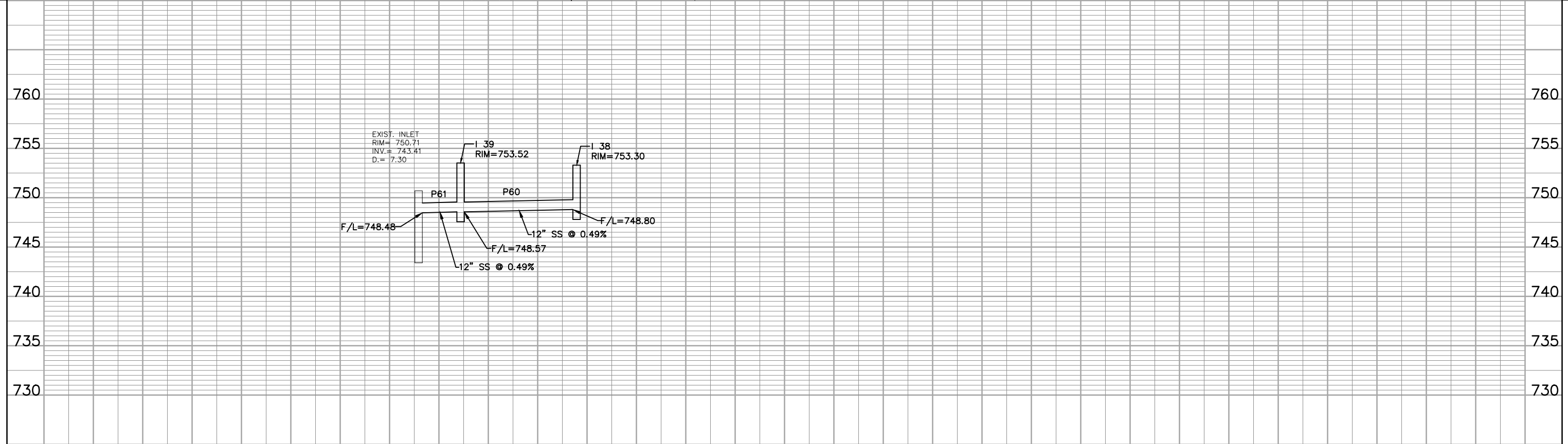
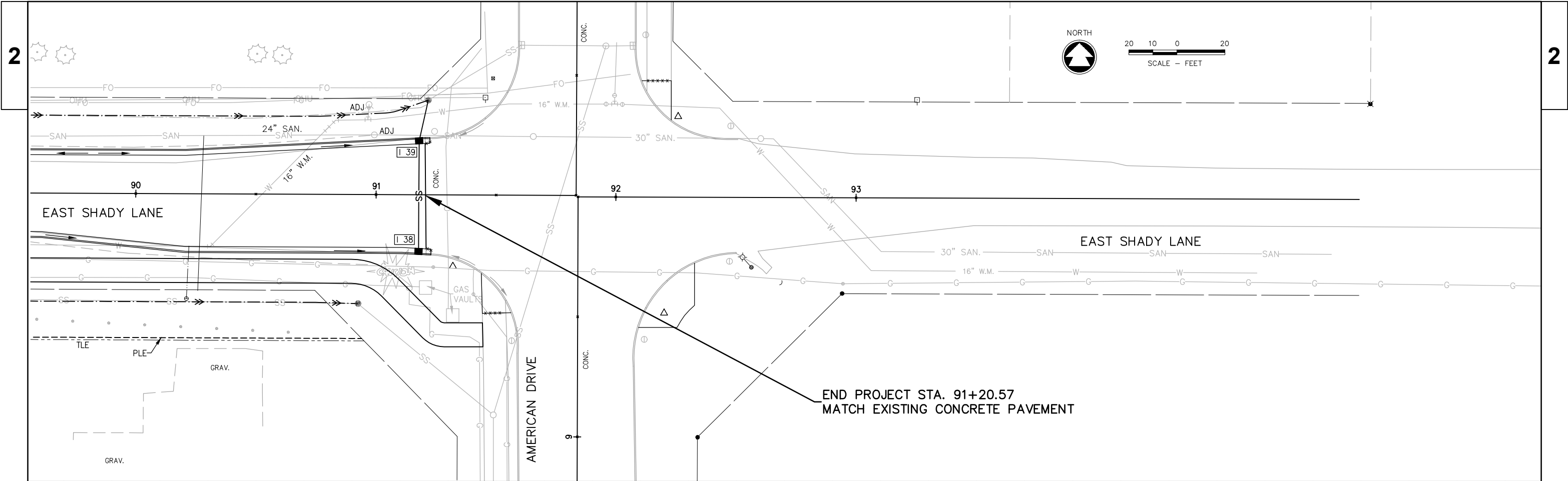
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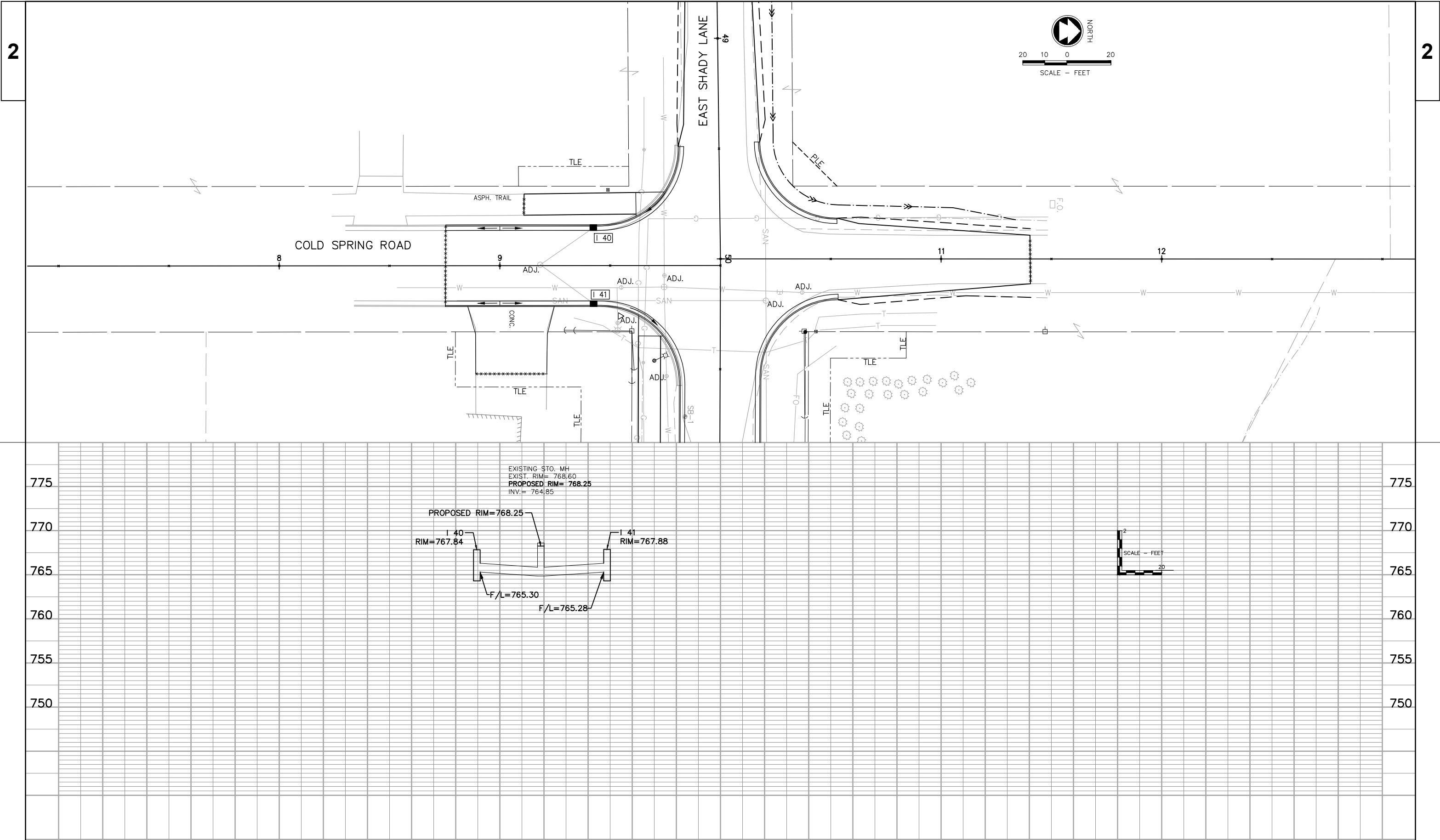
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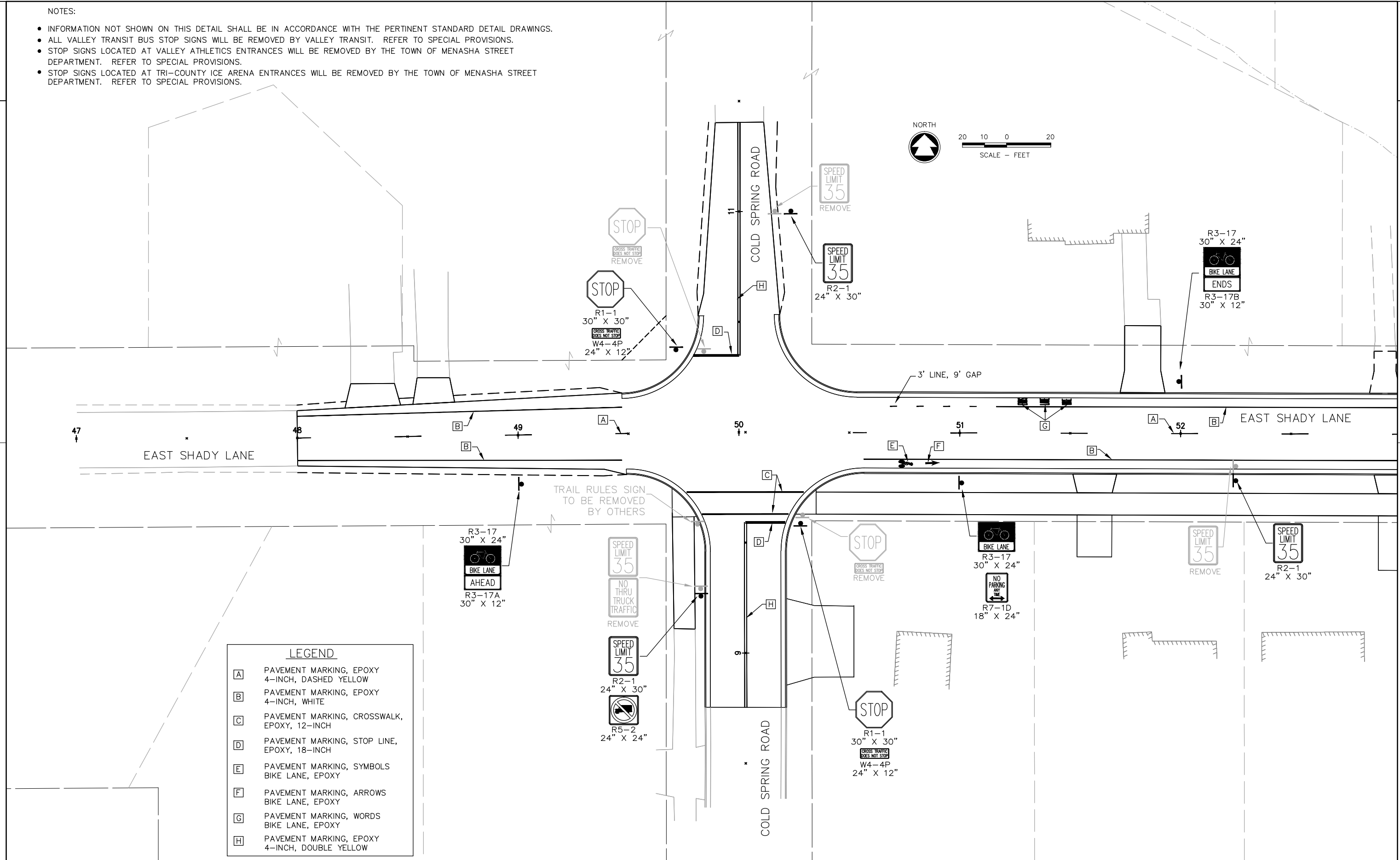




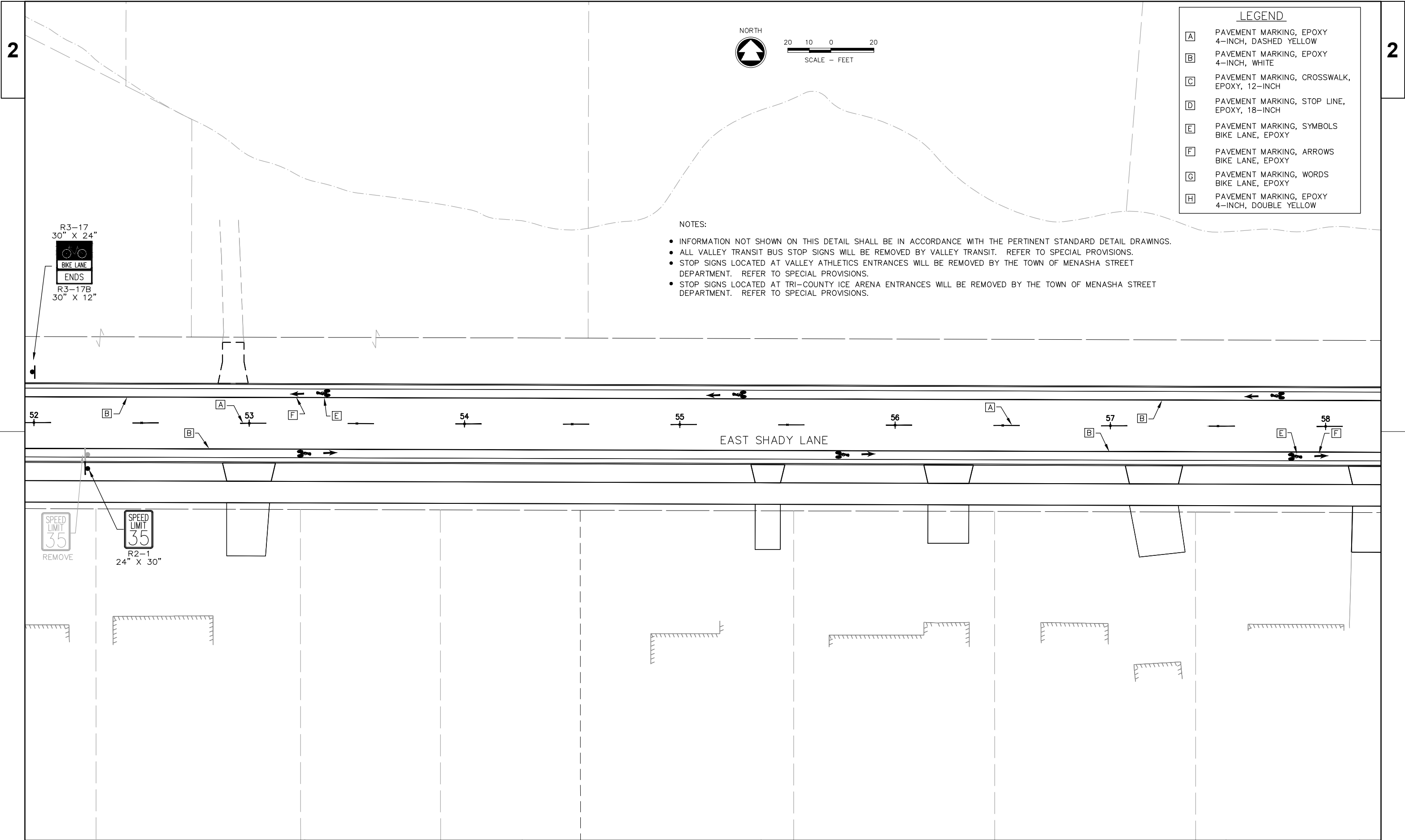
2

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2

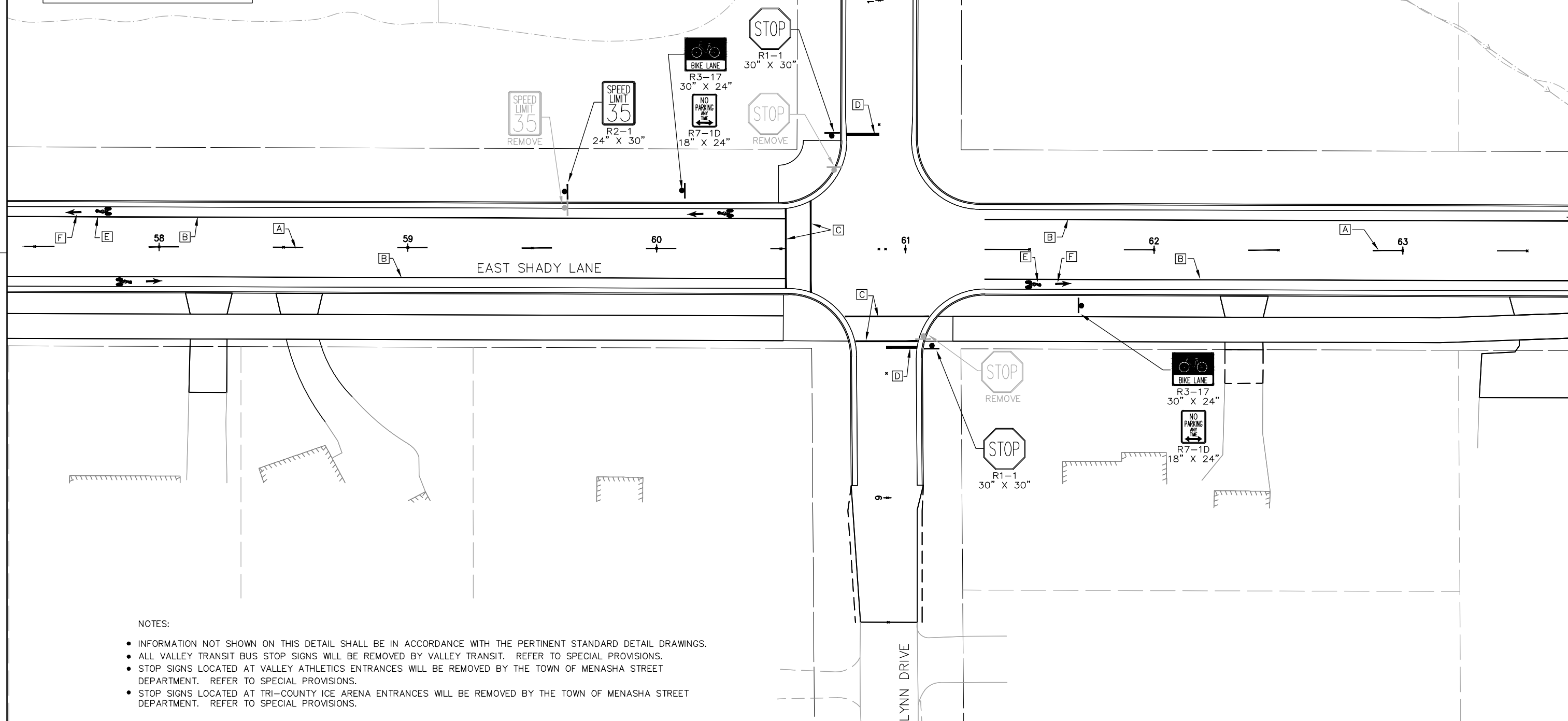
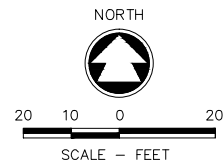


11



LEGEND

- | | |
|-----|--|
| [A] | PAVEMENT MARKING, EPOXY
4-INCH, DASHED YELLOW |
| [B] | PAVEMENT MARKING, EPOXY
4-INCH, WHITE |
| [C] | PAVEMENT MARKING, CROSSWALK,
EPOXY, 12-INCH |
| [D] | PAVEMENT MARKING, STOP LINE,
EPOXY, 18-INCH |
| [E] | PAVEMENT MARKING, SYMBOLS
BIKE LANE, EPOXY |
| [F] | PAVEMENT MARKING, ARROWS
BIKE LANE, EPOXY |
| [G] | PAVEMENT MARKING, WORDS
BIKE LANE, EPOXY |
| [H] | PAVEMENT MARKING, EPOXY
4-INCH, DOUBLE YELLOW |



NOTES:

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PROJECT NO: 4992-00-53

HWY: EAST SHADY LANE

COUNTY: WINNEBAGO

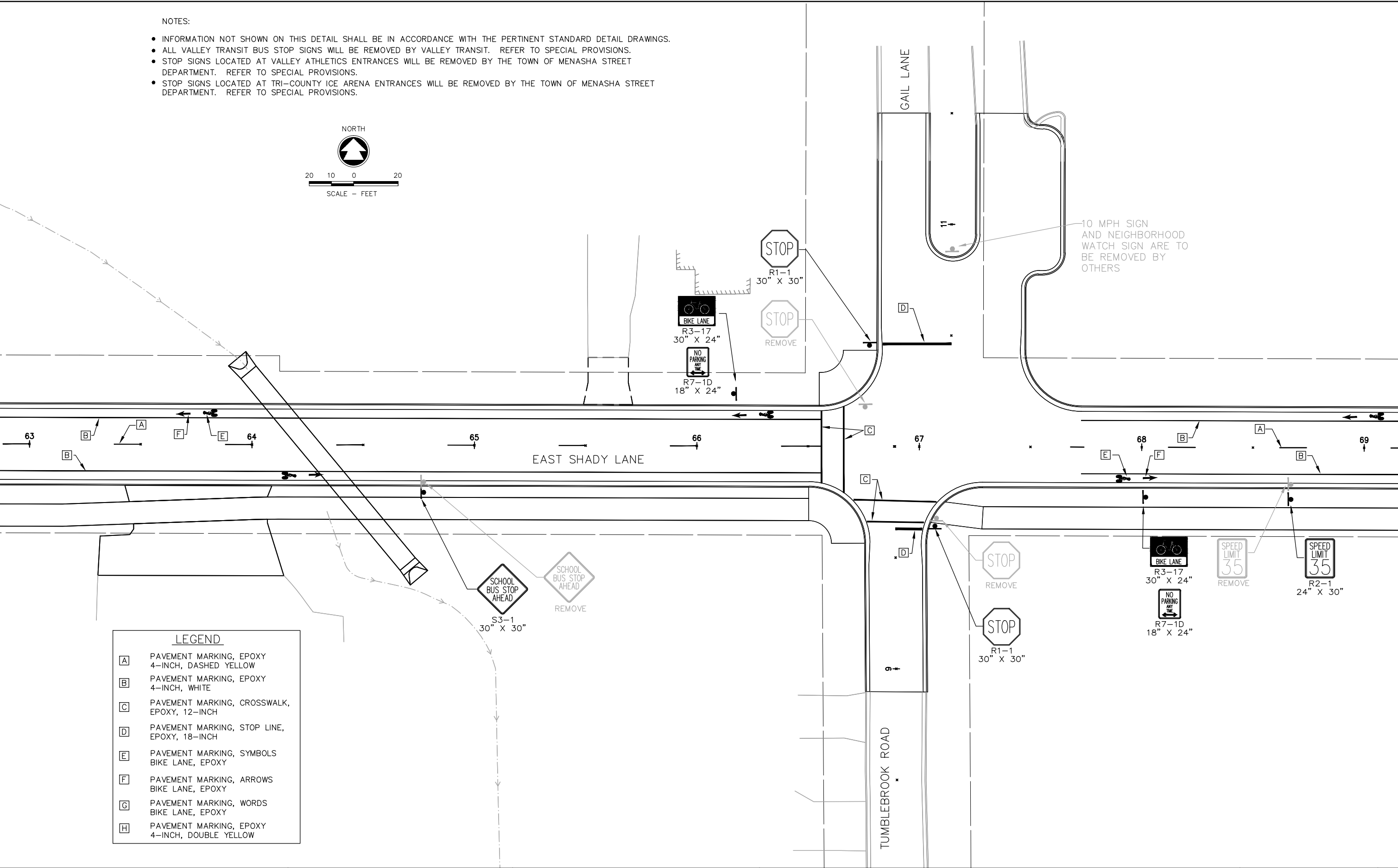
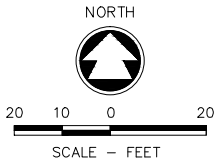
PAVEMENT MARKING AND SIGNING DETAIL

SHEET:

49

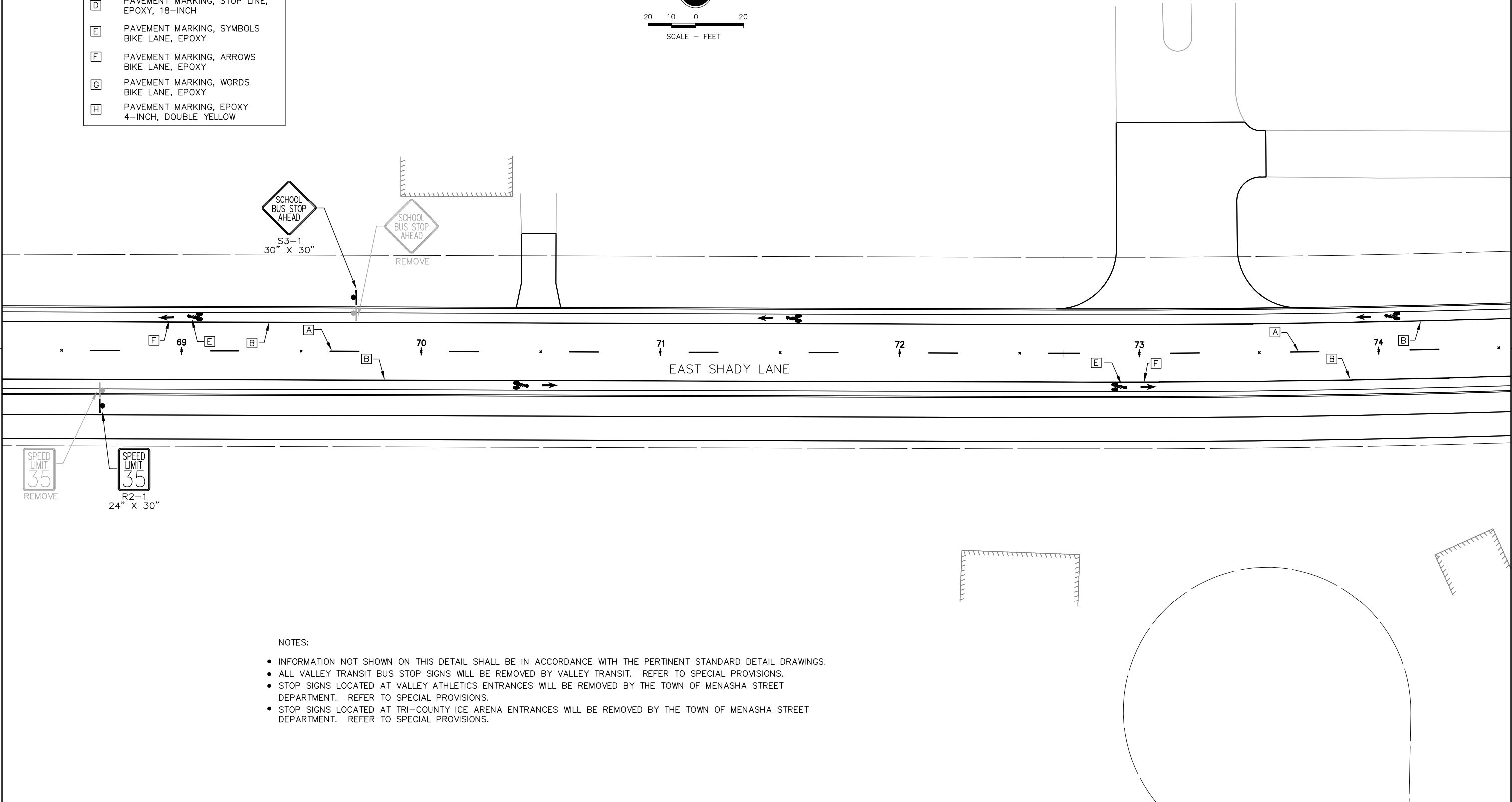
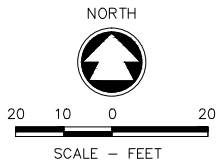
E

- NOTES:
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LEGEND	
[A]	PAVEMENT MARKING, EPOXY 4-INCH, DASHED YELLOW
[B]	PAVEMENT MARKING, EPOXY 4-INCH, WHITE
[C]	PAVEMENT MARKING, CROSSWALK, EPOXY, 12-INCH
[D]	PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH
[E]	PAVEMENT MARKING, SYMBOLS BIKE LANE, EPOXY
[F]	PAVEMENT MARKING, ARROWS BIKE LANE, EPOXY
[G]	PAVEMENT MARKING, WORDS BIKE LANE, EPOXY
[H]	PAVEMENT MARKING, EPOXY 4-INCH, DOUBLE YELLOW

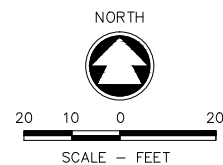
LEGEND	
A	PAVEMENT MARKING, EPOXY 4-INCH, DASHED YELLOW
B	PAVEMENT MARKING, EPOXY 4-INCH, WHITE
C	PAVEMENT MARKING, CROSSWALK, EPOXY, 12-INCH
D	PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH
E	PAVEMENT MARKING, SYMBOLS BIKE LANE, EPOXY
F	PAVEMENT MARKING, ARROWS BIKE LANE, EPOXY
G	PAVEMENT MARKING, WORDS BIKE LANE, EPOXY
H	PAVEMENT MARKING, EPOXY 4-INCH, DOUBLE YELLOW



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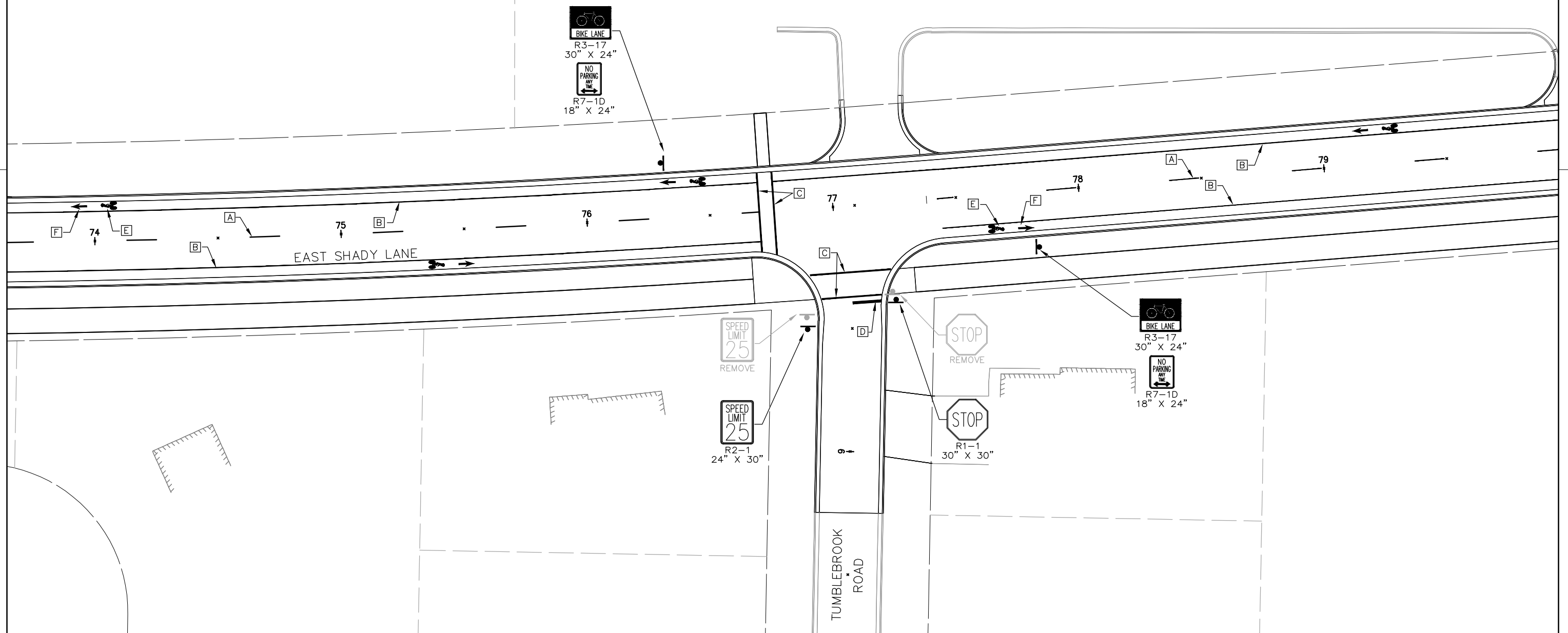
LEGEND

[A]	PAVEMENT MARKING, EPOXY 4-INCH, DASHED YELLOW
[B]	PAVEMENT MARKING, EPOXY 4-INCH, WHITE
[C]	PAVEMENT MARKING, CROSSWALK, EPOXY, 12-INCH
[D]	PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH
[E]	PAVEMENT MARKING, SYMBOLS BIKE LANE, EPOXY
[F]	PAVEMENT MARKING, ARROWS BIKE LANE, EPOXY
[G]	PAVEMENT MARKING, WORDS BIKE LANE, EPOXY
[H]	PAVEMENT MARKING, EPOXY 4-INCH, DOUBLE YELLOW



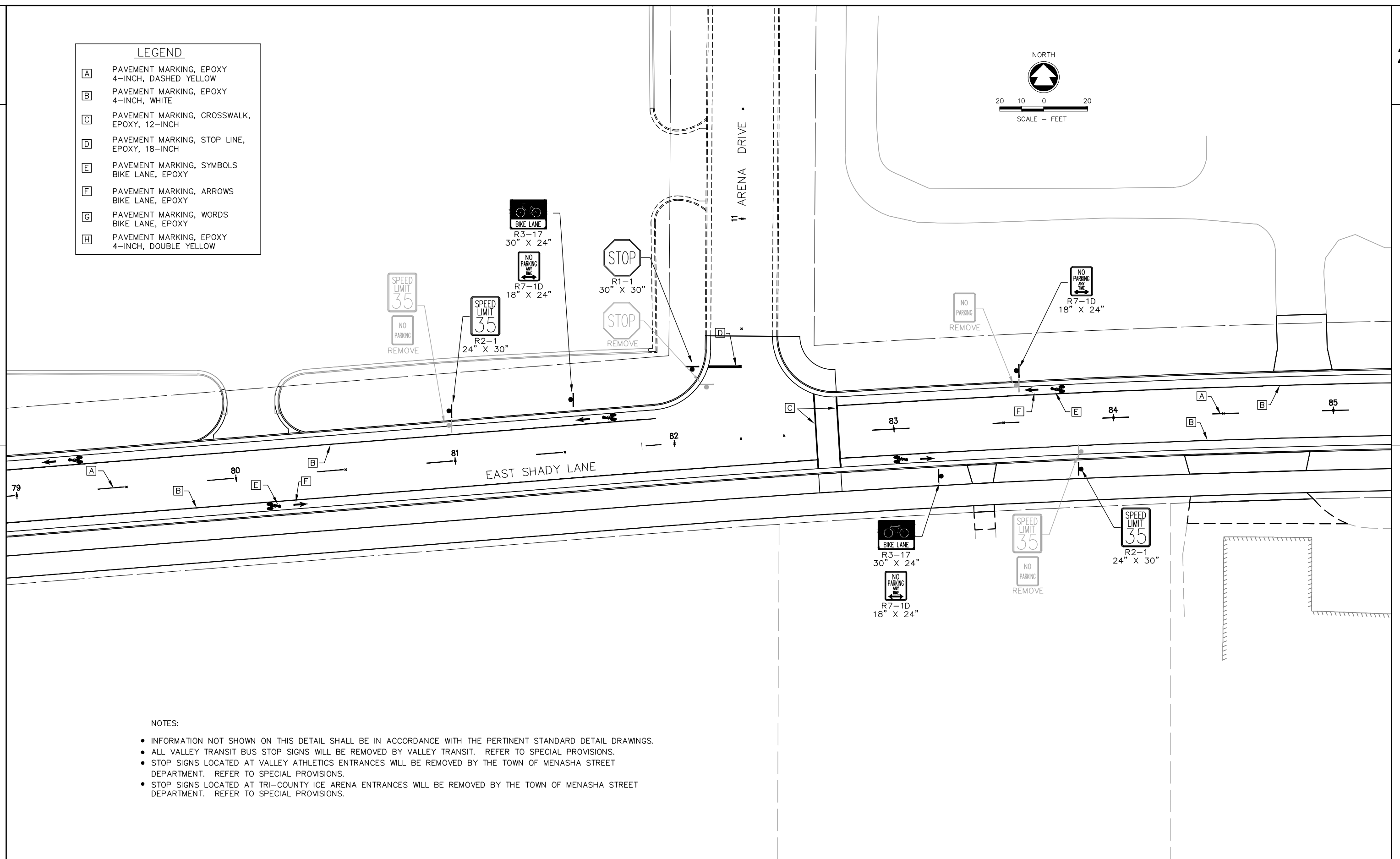
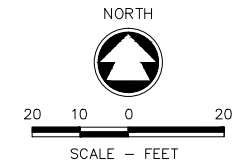
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LEGEND

[A]	PAVEMENT MARKING, EPOXY 4-INCH, DASHED YELLOW
[B]	PAVEMENT MARKING, EPOXY 4-INCH, WHITE
[C]	PAVEMENT MARKING, CROSSWALK, EPOXY, 12-INCH
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[G]	PAVEMENT MARKING, WORDS BIKE LANE, EPOXY
[H]	PAVEMENT MARKING, EPOXY 4-INCH, DOUBLE YELLOW

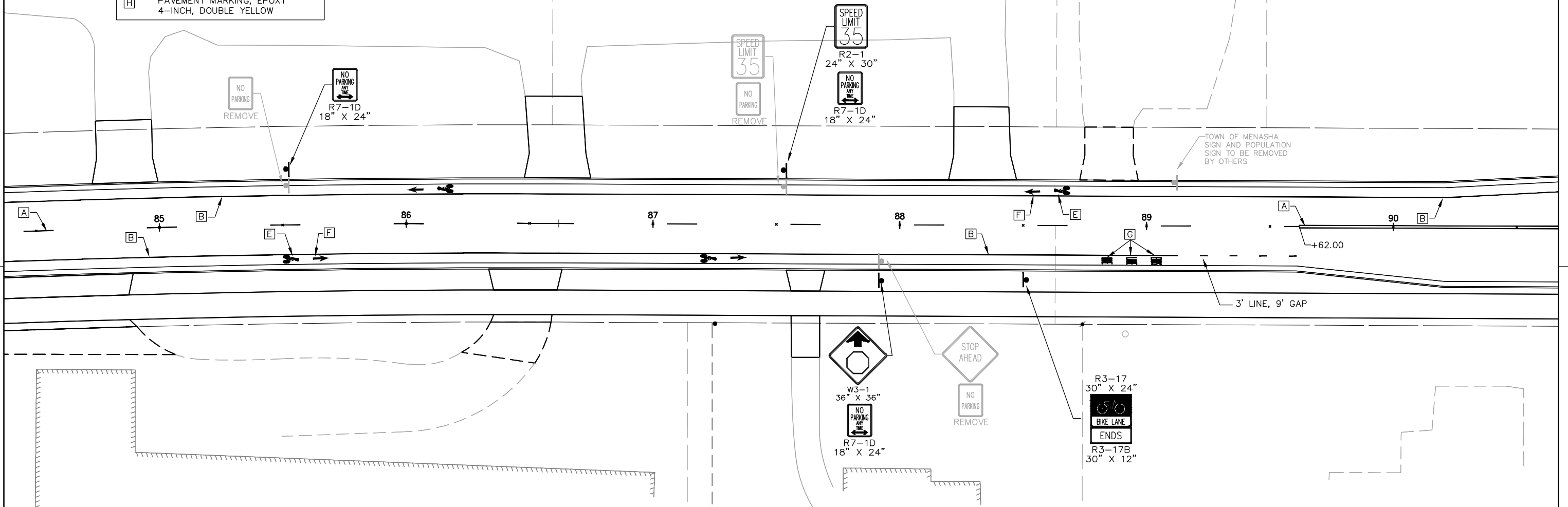
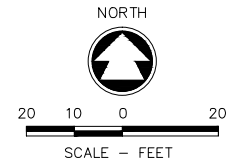


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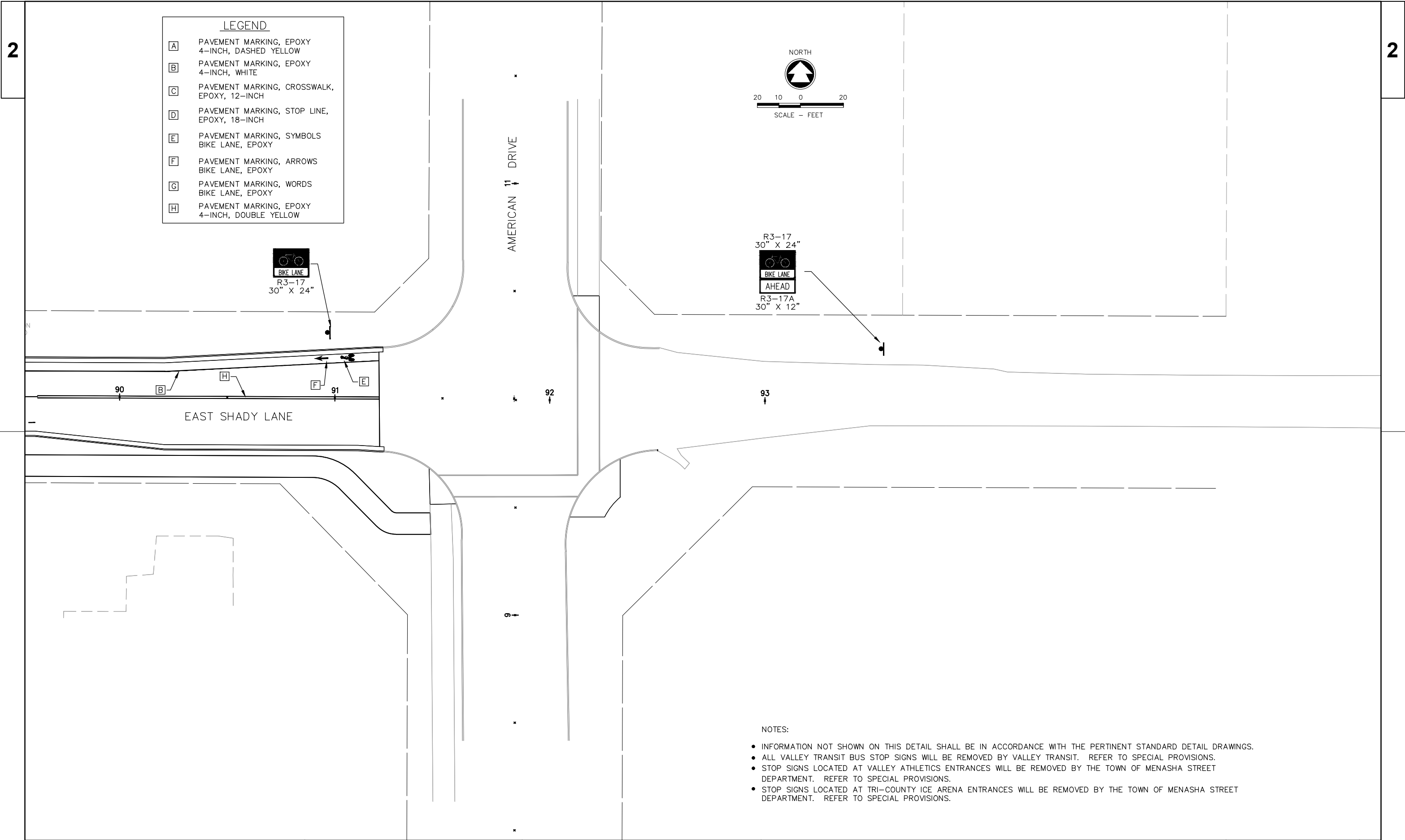
LEGEND

- | | |
|-----|--|
| [A] | PAVEMENT MARKING, EPOXY
4-INCH, DASHED YELLOW |
| [B] | PAVEMENT MARKING, EPOXY
4-INCH, WHITE |
| [C] | PAVEMENT MARKING, CROSSWALK,
EPOXY, 12-INCH |
| [D] | PAVEMENT MARKING, STOP LINE,
EPOXY, 18-INCH |
| [E] | PAVEMENT MARKING, SYMBOLS
BIKE LANE, EPOXY |
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| [G] | PAVEMENT MARKING, WORDS
BIKE LANE, EPOXY |
| [H] | PAVEMENT MARKING, EPOXY
4-INCH, DOUBLE YELLOW |

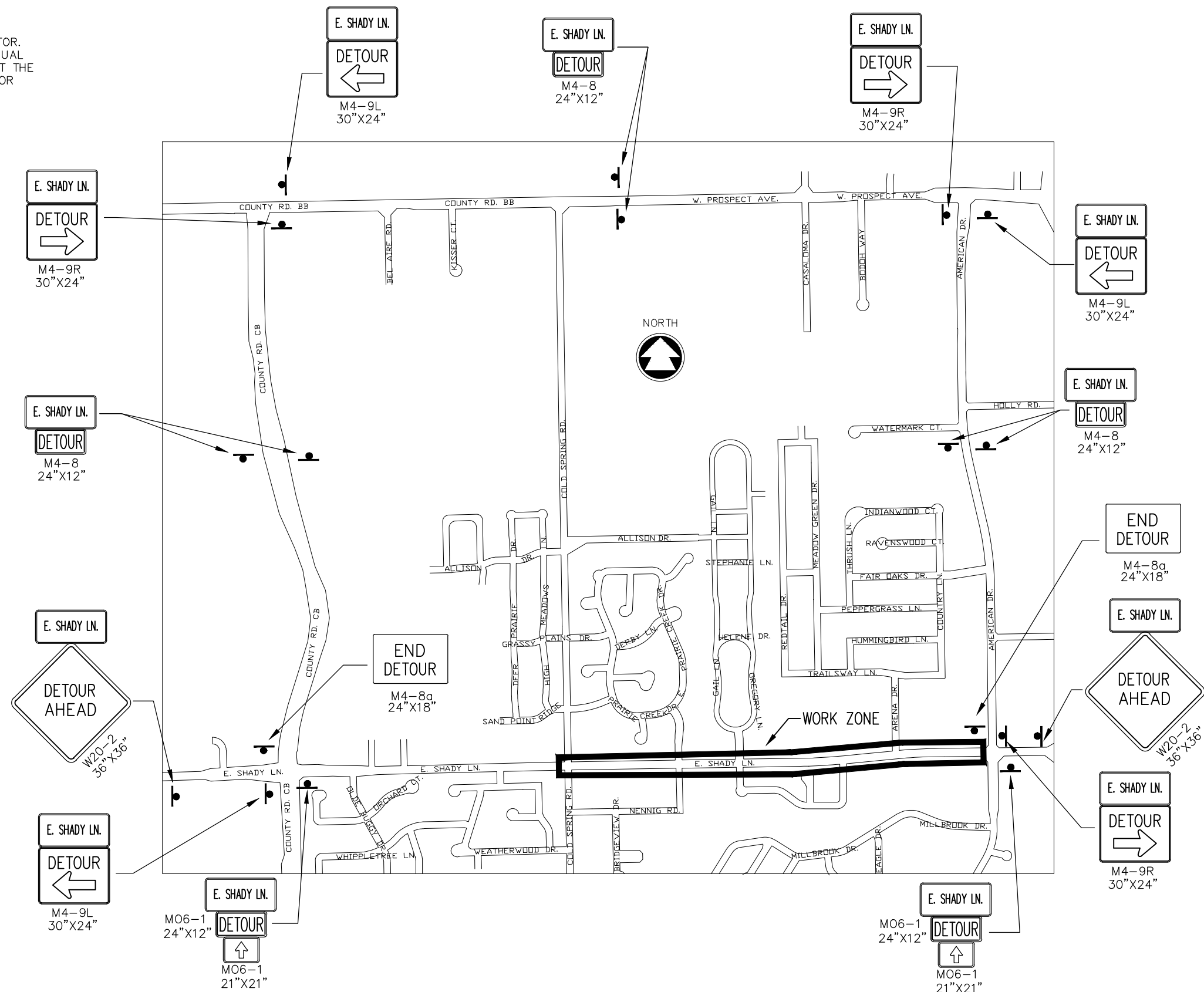


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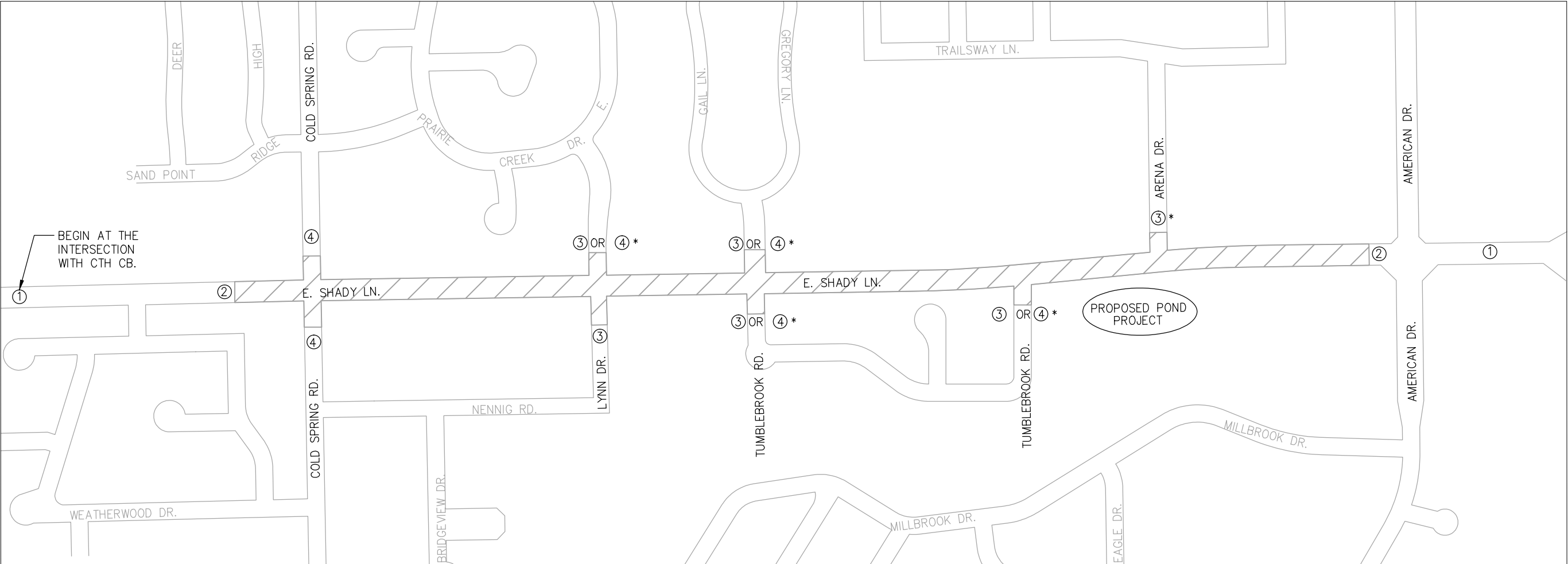


A DETOUR WILL BE SET UP AND MAINTAINED BY THE CONTRACTOR. THE DETOUR SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION. SUBMIT THE PROPOSED DETOUR MARKING AND SIGNING TO THE ENGINEER. FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.



NOTE: REFER TO SSD FOR BARRICADES AND SIGNS FOR MAINLINE CLOSURES WITH POSTED DETOUR (DETAIL B) FOR EAST AND WEST APPROACHES TO EAST SHADY LANE.

- ① REFER TO SSD FOR BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAIL B (MAINLINE CLOSURE WITH POSTED DETOUR)
- ② REFER TO SSD FOR BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAIL E (LANE CLOSURE BARRICADE DETAIL)
- ③ REFER TO SSD FOR BARRICADES AND SIGNS FOR SIDEROAD CLOSURES, DETAIL 1 (NO ACCESS TO PROJECT)
- ④ REFER TO SSD FOR BARRICADES AND SIGNS FOR SIDEROAD CLOSURES, DETAIL 3 (CONTRACTOR, LOCAL BUSINESS, AND RESIDENT ACCESS)



- * NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO TUMBLEBROOK ROAD AT A MINIMUM OF AT A MINIMUM OF ONE INTERSECTION WITH E. SHADY LN. REFER TO SPECIAL PROVISIONS.
 - LYNN DRIVE (NORTH) AND GAIL LANE MAY BY CLOSED (③) WHEN WORK IS OCCURRING WITHIN THE LIMITS OF THE INTERSECTION. REFER TO SPECIAL PROVISIONS.
 - ARENA DRIVE WILL BE UNDER CONSTRUCTION AS PART OF A SEPERATE TOWN PROJECT. COORDINATE TRAFFIC CONTROL WITH THE TOWN'S CONTRACTOR. REFER TO SPECIAL PROVISIONS.

3

DATE 15JAN14		E S T I M A T E O F Q U A N T I T I E S			
LINE		4992-00-53			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	CLEARING	STA	25.000	25.000
0020	201.0120	CLEARING	ID	22.000	22.000
0030	201.0205	GRUBBING	STA	25.000	25.000
0040	201.0220	GRUBBING	ID	22.000	22.000
0050	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	30.000	30.000
0060	203.0200	REMOVING OLD STRUCTURE (STATION) 01. STA. 64+15	LS	1.000	1.000
0070	204.0100	REMOVING PAVEMENT	SY	466.000	466.000
0080	204.0150	REMOVING CURB & GUTTER	LF	1,149.000	1,149.000
0090	204.0220	REMOVING INLETS	EACH	2.000	2.000
0100	204.0245	REMOVING STORM SEWER (SIZE) 01. 18-INCH	LF	125.000	125.000
0110	205.0100	EXCAVATION COMMON	CY	40,211.000	40,211.000
0120	205.0200	EXCAVATION ROCK	CY	26.000	26.000
0130	213.0100	FINISHING ROADWAY (PROJECT) 01. 4992-00-53	EACH	1.000	1.000
0140	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	12,583.000	12,583.000
0150	305.0135	BASE AGGREGATE DENSE 3-INCH	CY	21,297.000	21,297.000
0160	416.0160	CONCRETE DRIVEWAY 6-INCH	SY	429.000	429.000
0170	416.0610	DRILLED TIE BARS	EACH	28.000	28.000
0180	455.0105	ASPHALTIC MATERIAL PG58-28	TON	135.000	135.000
0190	455.0120	ASPHALTIC MATERIAL PG64-28	TON	105.000	105.000
0200	455.0605	TACK COAT	GAL	474.000	474.000
0210	460.1101	HMA PAVEMENT TYPE E-1	TON	4,366.000	4,366.000
0220	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	2,800.000	2,800.000
0230	465.0105	ASPHALTIC SURFACE	TON	758.000	758.000
0240	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	332.000	332.000
0250	522.1015	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH	EACH	1.000	1.000
0260	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	1.000	1.000
0270	523.0158	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 58X91-INCH	LF	112.000	112.000
0280	523.0558	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 58X91-INCH	EACH	2.000	2.000
0290	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	9,112.000	9,112.000
0300	602.0415	CONCRETE SIDEWALK 6-INCH	SF	3,372.000	3,372.000
0310	602.0515	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA	SF	322.000	322.000
0320	606.0200	RIPRAP MEDIUM	CY	19.000	19.000
0330	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	1,147.000	1,147.000
0340	608.0315	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH	LF	482.000	482.000
0350	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	994.000	994.000
0360	608.0321	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 21-INCH	LF	222.000	222.000
0370	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	510.000	510.000
0380	608.0330	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	515.000	515.000
0390	611.0530	MANHOLE COVERS TYPE J	EACH	21.000	21.000
0400	611.0624	INLET COVERS TYPE H	EACH	35.000	35.000

3

3

DATE 15JAN14		E S T I M A T E O F Q U A N T I T I E S			
LINE				4992-00-53	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0410	611.1230	CATCH BASINS 2X3-FT	EACH	34.000	34.000
0420	611.2004	MANHOLES 4-FT DIAMETER	EACH	17.000	17.000
0430	611.2005	MANHOLES 5-FT DIAMETER	EACH	5.000	5.000
0440	611.8110	ADJUSTING MANHOLE COVERS	EACH	16.000	16.000
0450	619.1000	MOBILIZATION	EACH	1.000	1.000
0460	624.0100	WATER	MGAL	20.000	20.000
0470	625.0100	TOPSOIL	SY	20,993.000	20,993.000
0480	627.0200	MULCHING	SY	9,651.000	9,651.000
0490	628.1504	SILT FENCE	LF	1,453.000	1,453.000
0500	628.1520	SILT FENCE MAINTENANCE	LF	1,453.000	1,453.000
0510	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	1.000	1.000
0520	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0530	628.2004	EROSION MAT CLASS I TYPE B	SY	2,471.000	2,471.000
0540	628.2006	EROSION MAT URBAN CLASS I TYPE A	SY	8,871.000	8,871.000
0550	628.7005	INLET PROTECTION TYPE A	EACH	8.000	8.000
0560	628.7015	INLET PROTECTION TYPE C	EACH	34.000	34.000
0570	628.7504	TEMPORARY DITCH CHECKS	LF	270.000	270.000
0580	628.7555	CULVERT PIPE CHECKS	EACH	20.000	20.000
0590	628.7560	TRACKING PADS	EACH	2.000	2.000
0600	629.0210	FERTILIZER TYPE B	CWT	13.000	13.000
0610	630.0140	SEEDING MIXTURE NO. 40	LB	378.000	378.000
0620	630.0200	SEEDING TEMPORARY	LB	50.000	50.000
0630	634.0814	POSTS TUBULAR STEEL 2X2-INCH X 14-FT	EACH	36.000	36.000
0640	637.2210	SIGNS TYPE II REFLECTIVE H	SF	209.440	209.440
0650	637.2230	SIGNS TYPE II REFLECTIVE F	SF	22.750	22.750
0660	638.2602	REMOVING SIGNS TYPE II	EACH	29.000	29.000
0670	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	22.000	22.000
0680	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000
0690	643.0100	TRAFFIC CONTROL (PROJECT) 01. 4992-00-53	EACH	1.000	1.000
0700	643.0300	TRAFFIC CONTROL DRUMS	DAY	1,300.000	1,300.000
0710	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	2,990.000	2,990.000
0720	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	4,355.000	4,355.000
0730	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	325.000	325.000
0740	643.0900	TRAFFIC CONTROL SIGNS	DAY	2,535.000	2,535.000
0750	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01. 4992-00-53	EACH	1.000	1.000
0760	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	2,535.000	2,535.000
0770	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	71.000	71.000
0780	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	9,343.000	9,343.000
0790	647.0206	PAVEMENT MARKING ARROWS BIKE LANE EPOXY	EACH	31.000	31.000
0800	647.0306	PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY	EACH	31.000	31.000
0810	647.0406	PAVEMENT MARKING WORDS BIKE LANE EPOXY	EACH	6.000	6.000
0820	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	133.000	133.000
0830	647.0776	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH	LF	685.000	685.000
0840	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	64.000	64.000
0850	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	5,341.000	5,341.000
0860	650.5000	CONSTRUCTION STAKING BASE	LF	5,341.000	5,341.000
0870	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	9,865.000	9,865.000
0880	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	1.000	1.000
0890	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	5,341.000	5,341.000
0900	690.0150	SAWING ASPHALT	LF	605.000	605.000
0910	690.0250	SAWING CONCRETE	LF	178.000	178.000

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DATE 15JAN14		E S T I M A T E O F Q U A N T I T I E S			
LINE				4992-00-53	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0920	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	HRS	1,200.000	1,200.000
0930	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR	HRS	600.000	600.000
0940	SPV.0060	SPECIAL 01. CATCH BASINS 2-FT DIAMETER	EACH	6.000	6.000
0950	SPV.0060	SPECIAL 02. STOOL TYPE INLET COVER	EACH	7.000	7.000
0960	SPV.0060	SPECIAL 03. SEDIMENTATION BASIN	EACH	1.000	1.000
0970	SPV.0060	SPECIAL 05. REMOVING GATES	EACH	4.000	4.000
0980	SPV.0060	SPECIAL 10. ADJUSTING WATER VALVE BOX	EACH	25.000	25.000
0990	SPV.0060	SPECIAL 15. UTILITY LINE OPENING	EACH	57.000	57.000
1000	SPV.0060	SPECIAL 20. LANDMARK REFERENCE MONUMENT SPECIAL	EACH	2.000	2.000
1010	SPV.0075	SPECIAL 01. STREET SWEEPING	HRS	20.000	20.000
1020	SPV.0090	SPECIAL 01. STORM SEWER LATERAL 4-INCH	LF	463.000	463.000
1030	SPV.0090	SPECIAL 05. RELOCATE SANITARY SEWER LATERAL 4-INCH	LF	660.000	660.000
1040	SPV.0090	SPECIAL 11. RELOCATE WATER MAIN 16-INCH	LF	25.000	25.000
1050	SPV.0090	SPECIAL 15. RELOCATE WATER SERVICE 1-INCH	LF	75.000	75.000
1060	SPV.0090	SPECIAL 20. STORM SEWER PIPE PVC 8-INCH	LF	220.000	220.000
1070	SPV.0090	SPECIAL 25. CONCRETE CURB & GUTTER 24-INCH TYPE D1	LF	485.000	485.000
1080	SPV.0090	SPECIAL 26. CONCRETE CURB & GUTTER 24-INCH TYPE D2	LF	389.000	389.000

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ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

CLEARING AND GRUBBING

STATION	LOCATION	201.0120	201.0220	201.0105	201.0205
		CLEARING ID	GRUBBING ID	CLEARING STA	GRUBBING STA
54+56 RT	EAST SHADY LANE	6	6		
54+63 RT	EAST SHADY LANE	6	6		
11+16	GAIL LANE	10	10		
55+00 - 74+00	EAST SHADY LANE			19	19
75+00 - 76+00	EAST SHADY LANE			1	1
77+50 - 78+50	EAST SHADY LANE			1	1
85+00 - 89+00	EAST SHADY LANE			4	4
PROJECT TOTALS		22	22	25	25

REMOVING CURB & GUTTER
204.0150

STATION - STATION	LOCATION	L.F.
8+75 LT - 9+83 LT	COLDSPRING RD.	125
8+75 RT - 9+83 RT	COLDSPRING RD.	125
10+35 LT - 11+20 LT	LYNN DR.	85
10+35 RT - 11+20 RT	LYNN DR.	85
8+90 LT - 9+61 LT	TUMBLEBROOK RD. (WEST)	71
8+90 RT - 9+62 RT	TUMBLEBROOK RD. (WEST)	72
10+41.47 LT - 11+28.47 LT	GAIL LN.	130
10+85 - 11+28.47	GAIL LN. (MEDIAN)	99
10+41.47 RT - 11+28.47 RT	GAIL LN.	158
8+75 LT - 9+60 LT	TUMBLEBROOK RD. (EAST)	85
8+75 RT - 9+61 RT	TUMBLEBROOK RD. (EAST)	86
77+15 LT	VALLEY ATHLECTICS	6
80+00 LT	VALLEY ATHLECTICS	22
PROJECT TOTAL		1,149

REMOVING SMALL PIPE CULVERTS
203.0100

STATION	LOCATION	EACH	REMARKS
51+60 RT	DRIVEWAY	1	25' - 18" CMP
51+83 LT	DRIVEWAY	1	25' - 18" CMP
52+78 LT	DITCH	1	15' - 12" CMP
52+92 LT	DRIVEWAY	1	25' - 18" CMP
53+00 RT	DRIVEWAY	1	25' - 18" CMP
55+40 RT	DRIVEWAY	1	24' - 24" CMP
56+25 RT	DRIVEWAY	1	26' - 18" CMP
57+20 RT	DRIVEWAY	1	26' - 18" CMP
58+20 RT	DRIVEWAY	1	24' - 18" CMP
58+56 RT	DRIVEWAY	1	24' - 18" CMP
60+15 LT	DRIVEWAY	1	29' - 18" CMP
60+92 RT	CROSS CULVERT	1	55' - 18" CMP
62+35 RT	DRIVEWAY	1	24' - 18" CMP
63+80 RT	DRIVEWAY	1	107' - 18" CMP
65+60 LT	DRIVEWAY	1	29' - 18" CMP
66+89 RT	CROSS CULVERT	1	36' - 24" CMP
67+15 LT	CROSS CULVERT	1	77' - 18" CMP
67+70	CROSS CULVERT	1	55' - 18" CMP
70+48 LT	DRIVEWAY	1	22' - 24" CMP
77+08 RT	CROSS CULVERT	1	36' - 18" CMP
77+20 LT	DRIVEWAY	1	31' - 18" CMP
80+08 LT	DRIVEWAY	1	30' - 18" CMP
83+37 RT	DRIVEWAY	1	30' - 18" CMP
84+61 RT	DRIVEWAY	1	53' - 18" CMP
84+88 LT	DRIVEWAY	1	41' - 18" CMP
86+50 RT	DRIVEWAY	1	35' - 24" CMP
86+62 LT	DRIVEWAY	1	36' - 18" CMP
87+61 RT	DRIVEWAY	1	24' - 18" CMP
88+33 LT	DRIVEWAY	1	28 - 18" CMP
88+86 LT	DRIVEWAY	1	24' - 18" CMP
PROJECT TOTAL		30	

REMOVING STORM SEWER, 18-INCH
204.0245.01

STATION - STATION	LOCATION	SIZE	L.F.
88+53 - 88+92	SHADY LANE	18"	94
88+64 - 88+92	SHADY LANE	18"	31
PROJECT TOTAL			125

REMOVING PAVEMENT
204.0100

STATION	LOCATION	REMARKS	S.Y.
9+00	COLD SPRING RD. RT	DRIVEWAY	113
51+60	EAST SHADY LN. RT	DRIVEWAY	46
53+00	EAST SHADY LN. RT	DRIVEWAY	47
55+40	EAST SHADY LN. RT	DRIVEWAY	39
56+25	EAST SHADY LN. RT	DRIVEWAY	27
57+20	EAST SHADY LN. RT	DRIVEWAY	49
58+56	EAST SHADY LN. RT	DRIVEWAY	87
9+13	TUMBLEBROOK RD. (EAST) RT	DRIVEWAY	58
PROJECT TOTAL			466

REMOVING OLD STRUCTURE (STATION)
203.0200

STATION	LOCATION	LS	REMARKS
64+15	CROSS CULVERT	1	73' - 54" X 85" CMP
PROJECT TOTAL		1	

REMOVING INLETS
204.0220

STATION	LOCATOIN	OFFSET	EACH
9+42.37	COLD SPRING RD LT.	18.5' LT	1
9+42.5	COLD SPRING RD LT.	18.4' RT	1
PROJECT TOTAL			2

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ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

EARTHWORK SUMMARY

From/To Station	Location	Common Excavation (item # 205.0100)		Available Material	Unexpanded Fill	*Expanded Fill	Mass Ordinate +/-	Comment
		Cut	EBS Ex cavation			Factor 1.30		
48+00.00 - 91+20.57	EAST SHADY LANE	29628	0	29628	1816	2361	27267	UNUSABLE EBS, FILL WITH 3-INCH AGGREGATE DENSE
8+75.39 - 9+84.00	S. COLD SPRING ROAD	608	0	608	9	12	596	
10+16.00 - 11+40.39	N. COLD SPRING ROAD	580	0	580	3	4	576	
8+50.00 - 9+84.00	S. LYNN DRIVE	536	0	536	23	30	506	
10+16.00 - 11+19.99	N. LYNN DRIVE	497	0	497	5	7	490	
8+90.00 - 9+84.00	TUMBLEBROOK ROAD (WEST)	385	0	385	8	11	374	
10+16.00 - 11+50	GAIL LANE	1066	0	1066	0	0	1066	
8+75.00 - 9+84.00	TUMBLEBROOK ROAD (EAST)	437	0	437	5	7	430	
10+16.00 - 10+46.66	ARENA DRIVE	224	0	224	5	6	218	
--	UNDISTRIBUTED	0	6250	0	0	0	6250	
TOTALS		33961	6250	33961	1875	2438	37773	
TOTAL COMMON EXC			40211					

*EXPANSION FACTOR FOR FILL = 30%

MASS ORDINATE: POSITIVE QUANTITY INDICATES AN EXCESS OF MATERIAL ON THE PROJECT

EXCAVATION ROCK
205.0200

STATION	LOCATION	C.Y.	REMARKS
64+25	EAST SHADY LANE	20	FOR CULVERT PIPE INSTALLATION, CATEGORY 0010
64+43 RT	EAST SHADY LANE	6	FOR WATERMAIN RELOCATE, CATEGORY 0020
	CAT 0010 TOTAL	20	
	CAT 0020 TOTAL	6	
	PROJECT TOTAL	26	

3

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

BASE AGGREGATE DENSE			
STATION TO STATION	LOCATION	305.0120	305.0135
		BASE	BASE
		AGGREGATE	AGGREGATE
		DENSE	DENSE
		1 1/4-INCH	3-INCH
		TON	TON
48+00 - 91+20.57	EAST SHADY LN.	6,243	12,486
48+00 - 91+20.57	DRIVEWAYS	1,380	--
48+00 - 91+20.57	TRAIL	3,550	--
48+00 - 91+20.58	CONCRETE SIDEWALK	130	--
8+75 - 9+83	COLD SPRING RD.	170	340
10+15 - 11+40	COLD SPRING RD.	167	333
8+50 - 9+84	LYNN DR.	151	302
10+16 - 11+20	LYNN DR.	132	265
8+90 - 9+84	TUMBLEBROOK RD. (WEST)	113	226
10+16 - 11+50	GAIL LN.	315	630
8+75 - 9+84	TUMBLEBROOK RD. (EAST)	127	253
10+16 - 11+00	ARENA DR.	106	212
UNDISTRIBUTED	EBS AREAS	--	6,250
PROJECT TOTALS		12,583	21,297

CONCRETE DRIVEWAY		
416.0160		
STATION	LOCATION	6-INCH S.Y.
9+00	COLD SPRING RD. RT	115
51+60	EAST SHADY LN. RT	33
53+00	EAST SHADY LN. RT	52
55+40	EAST SHADY LN. RT	27
56+25	EAST SHADY LN. RT	38
57+20	EAST SHADY LN. RT	56
58+56	EAST SHADY LN. RT	48
9+13	TUMBLEBROOK RD. (EAST) RT	60
PROJECT TOTAL		429

DRILLED TIE BARS			
416.0610			
STATION	LOCATION	EACH	REMARKS
8+75	COLD SPRING RD.	4	CURB AT MATCH POINT
11+20	LYNN DR.	4	CURB AT MATCH POINT
8+90	TUMBLEBROOK RD. (WEST)	4	CURB AT MATCH POINT
11+28.47	GAIL LN.	8	CURB AT MATCH POINT
8+75	TUMBLEBROOK RD. (EAST)	4	CURB AT MATCH POINT
91+22	EAST SHADY LN.	4	CURB AT MATCH POINT
PROJECT TOTAL		28	

CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL			
STATION	LOCATION	523.0158	523.0558
		CLASS HE-III	APRON ENDWALLS
		58x91 INCH	58x91 INCH
		L.F.	EACH
64+25	CROSS CULVERT	112	2
PROJECT TOTALS		112	2

NOTE: JOINT TIES ARE REQUIRED

CONCRETE CURB & GUTTER 30-INCH TYPE D		
601.0411		
STATION - STATION	LOCATION	L.F.
8+75 - 9+83	COLD SPRING RD.	260
10+15 - 10+53	COLD SPRING RD.	117
50+57 - 60+76	EAST SHADY LN. LT	1,048
50+57 - 60+80	EAST SHADY LN. RT	1,039
9+05 - 9+56	LYNN DR.	103
61+02 - 66+83	EAST SHADY LN. LT	726
61+05 - 66+78	EAST SHADY LN. RT	708
67+01 - 76+93	EAST SHADY LN. RT	1,144
67+45 - 81+92	EAST SHADY LN. LT	1,519
77+17 - 91+20.57	EAST SHADY LN. RT	1,478
82+75 - 91+22	EAST SHADY LN. LT	850
10+16 - 10+60	ARENA DR.	120
PROJECT TOTAL		9,112

		ASPHALTIC ITEMS					
		460.1101	465.0105	465.0120	*455.0105	**455.0120	455.0605
		HMA	ASPHALTIC	ASPHALTIC SURFACE	ASPHALTIC	ASPHALTIC	TACK
		PAVEMENT	SURFACE	DRIVEWAYS AND	MATERIAL	MATERIAL	COAT
		TYPE E-1		FIELD ENTRANCES	PG58-28	PG64-28	
STATION TO STATION	LOCATION	TON	TON	TON	TON	TON	GAL.
48+00 - 91+20.57	EAST SHADY LN.	3,560	--	--	110	86	387
48+00 - 91+20.57	DRIVEWAYS	--	--	332	--	--	--
48+00 - 91+20.57	TRAIL	--	758	--	--	--	--
8+75 - 9+83	COLD SPRING RD.	104	--	--	3	3	11
10+15 - 11+40	COLD SPRING RD.	110	--	--	3	3	12
8+50 - 9+84	LYNN DR.	92	--	--	3	2	10
10+16 - 11+20	LYNN DR.	79	--	--	2	2	9
8+90 - 9+84	TUMBLEBROOK RD. (WEST)	66	--	--	2	2	7
10+16 - 11+50	GAIL LN.	211	--	--	7	5	22
8+75 - 9+84	TUMBLEBROOK RD. (EAST)	75	--	--	2	2	8
10+16 - 11+00	ARENA DR.	68	--	--	2	2	7
PROJECT TOTALS		4,366	758	332	135	105	474

*LOWER LAYER
**UPPER LAYER

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ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

CONCRETE SIDEWALK 6-INCH 602.0415		
STATION	LOCATION	SF
49+75	EAST SHADY LN. RT	81
50+30	EAST SHADY LN. RT	57
60+62	EAST SHADY LN. LT	410
60+64	EAST SHADY LN. RT	79
61+13	EAST SHADY LN. RT	92
66+62	EAST SHADY LN. RT	414
66+68	EAST SHADY LN. LT	418
67+17	EAST SHADY LN. RT	207
76+72	EAST SHADY LN. LT	104
76+78	EAST SHADY LN. RT	332
77+26	EAST SHADY LN. RT	92
82+62	EAST SHADY LN. LT	397
82+70	EAST SHADY LN. RT	86
91+49	EAST SHADY LN. RT	118
92+18	EAST SHADY LN. LT	120
92+21	EAST SHADY LN. RT	365
PROJECT TOTAL		3,372

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA 602.0515		
STATION	LOCATION	SF
49+75	EAST SHADY LN. RT	18
50+30	EAST SHADY LN. RT	18
60+62	EAST SHADY LN. LT	18
60+64	EAST SHADY LN. RT	36
61+13	EAST SHADY LN. RT	18
66+62	EAST SHADY LN. RT	18
66+68	EAST SHADY LN. LT	36
67+17	EAST SHADY LN. RT	18
76+72	EAST SHADY LN. LT	8
76+78	EAST SHADY LN. RT	26
77+26	EAST SHADY LN. RT	18
82+62	EAST SHADY LN. LT	18
82+70	EAST SHADY LN. RT	18
91+49	EAST SHADY LN. RT	18
92+18	EAST SHADY LN. LT	18
92+21	EAST SHADY LN. RT	18
PROJECT TOTAL		322

ADJUSTING MANHOLE COVERS 611.8110						
STATION	LOCATION	CONE ELEV.	EXIST. RIM ELEV.	PROP. RIM ELEV.	EACH	REMARKS
9+18.5	COLDSPRING RD	--	768.60	768.25	1	STORM
50+19	20.3' LT	765.71	766.63	767.25	1	SANITARY - CAT 0020
52+71	22.2' RT	764.39	767.02	765.67	1	SANITARY - CAT 0020
56+87	23.3' LT	763.23	765.17	764.16	1	SANITARY - CAT 0020
60+93	24.1' LT	761.85	764.97	763.12	1	SANITARY - CAT 0020
64+37	22.4' LT	762.16	763.69	763.33	1	SANITARY - CAT 0020
67+39	20.8' LT	761.04	764.25	761.96	1	SANITARY - CAT 0020
68+34	20.9' LT	760.93	763.56	761.82	1	SANITARY - CAT 0020
72+35	20.0' LT	759.97	762.72	761.15	1	SANITARY - CAT 0020
73+74	23.0' LT	759.60	761.92	760.54	1	SANITARY - CAT 0020
76+36	23.4' LT	758.53	761.05	760.06	1	SANITARY - CAT 0020
80+35	21.3' LT	758.10	760.07	758.78	1	SANITARY - CAT 0020
84+35	24.1' LT	754.79	757.64	756.21	1	SANITARY - CAT 0020
88+35	22.6' LT	753.14	755.56	753.83	1	SANITARY - CAT 0020
88+91	44' RT	--	754.41	753.50	1	STORM (REPLACE COVER)
90+99	24.9' LT	--	753.62	754.08	1	SANITARY - CAT 0020
CAT 0010 TOTAL					2	
CAT 0020 TOTAL					14	
PROJECT TOTAL					16	

RIPRAP MEDIUM		
STATION	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE FABRIC TYPE HR SY
54+70 LT	1.6	6
63+90 LT	7	26
64+80 RT	9	34
65+22 RT	1.4	5
PROJECT TOTALS		71

WATER 624.0100		
STATION TO STATION	*LOCATION	MGAL
48+00 - 91+20.57	EAST SHADY LN. AND SIDE ROADS	20
PROJECT TOTAL		20
*FOR BASE AGGREGATE DENSE COMPACTION AND DUST CONTROL.		

3

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

STORM SEWER SUMMARY												
PIPE NO.	FROM STRUCTURE	TO STRUCTURE	INLET ELEVATION	OUTLET ELEVATION	SPV.0090.20	608.0312	608.0315	608.0318	608.0321	608.0324	608.0330	SLOPE %
					PVC SDR 35	RCPSS	RCPSS CLIII	RCPSS	RCPSS CLIII	RCPSS CLIII	RCPSS	
					8-INCH	CLIII 12-INCH	15-INCH	CLIII 18-INCH	21-INCH	24-INCH	CLIII 30-INCH	
					L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	
P 1	I 1	MH 1	761.44	761.00	--	13	--	--	--	--	--	3.38
P 2	I 2	MH 1	761.44	761.00	--	25	--	--	--	--	--	1.76
P 3	MH 1	MH 2	760.48	759.61	--	220	--	--	--	--	--	0.40
P 4	I 3	MH 2	759.86	759.73	--	13	--	--	--	--	--	1.00
P 5	MH 2	MH 3	759.61	759.51	--	--	25	--	--	--	--	0.40
P 6	MH 3	MH 4	759.51	759.32	--	--	48	--	--	--	--	0.40
P 7	MH 4	EW 1	758.73	758.60	--	--	32	--	--	--	--	0.40
P 8	MH 5	MH 6	759.39	758.51	220	--	--	--	--	--	--	0.40
P 9	I 4	MH 6	760.58	760.01	--	13	--	--	--	--	--	4.38
P 10	I 5	MH 6	759.58	759.01	--	25	--	--	--	--	--	2.28
P 11	MH 6	MH 7	758.51	757.92	--	--	296	--	--	--	--	0.20
P 12	I 7	MH 7	758.92	758.42	--	13	--	--	--	--	--	3.85
P 13	I 8	MH 7	758.91	758.42	--	25	--	--	--	--	--	1.96
P 14	MH 7	MH 8	757.92	757.62	--	--	--	149	--	--	--	0.20
P 15	I 9	MH 8	759.32	759.12	--	13	--	--	--	--	--	1.54
P 16	I 10	I 11	758.60	758.32	--	70	--	--	--	--	--	0.40
P 17	I 11	MH 8	758.32	758.12	--	25	--	--	--	--	--	0.80
P 18	MH 8	MH 8A	757.62	757.39	--	--	--	--	115	--	--	0.20
P 18A	MH 8A	MH 8B	757.39	757.20	--	--	--	--	96	--	--	0.20
P 18B	MH 8B	DIRECT TAP	757.20	757.17	--	--	--	--	11	--	--	0.27
P 19	I 12	MH 8A	759.00	758.39	--	42	--	--	--	--	--	1.45
P 20	I 13	MH 9	757.92	757.78	--	13	--	--	--	--	--	1.08
P 21	I 14	MH 9	757.90	757.78	--	25	--	--	--	--	--	0.48
P 22	MH 9	MH 10	757.78	757.43	--	--	81	--	--	--	--	0.43
P 23	I 15	MH 10	757.89	757.43	--	13	--	--	--	--	--	3.54
P 24	I 16	MH 10	757.85	757.43	--	39	--	--	--	--	--	1.08
P 25	MH 10	MH 11	757.43	756.90	--	--	--	120	--	--	--	0.44
P 26	I 18	I 17	757.00	756.93	--	32	--	--	--	--	--	0.22
P 27	I 17	MH 11	756.93	756.90	--	13	--	--	--	--	--	0.23
P 28	I 19	MH 11	757.70	756.90	--	25	--	--	--	--	--	3.20
P 29	MH 11	MH 12	756.90	755.00	--	--	--	530	--	--	--	0.36
P 30	I 20	MH 12	755.91	755.50	--	13	--	--	--	--	--	3.15
P 31	I 21	MH 12	755.91	755.50	--	25	--	--	--	--	--	1.64
P 32	MH 12	MH 13	755.00	754.03	--	--	--	195	--	--	--	0.50
P 33	I 22	MH 13	756.34	756.03	--	13	--	--	--	--	--	2.38
PAGE SUBTOTALS					220	708	482	994	222	0	0	

NOTES:
* FIELD VERIFY EXISTING ELEVATION

3

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

STORM SEWER SUMMARY												
PIPE NO.	FROM STRUCTURE	TO STRUCTURE	INLET ELEVATION	OUTLET ELEVATION	SPV.0090.20	608.0312	608.0315	608.0318	608.0321	608.0324	608.0330	SLOPE %
					PVC SDR 35	RCPSS	RCPSS CLIII	RCPSS	RCPSS CLIII	RCPSS CLIII	RCPSS	
					8-INCH	CLIII 12-INCH	15-INCH	CLIII 18-INCH	21-INCH	24-INCH	CLIII 30-INCH	
					L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	
P 34	I 23	MH 13	755.34	755.03	--	25	--	--	--	--	--	1.24
P 35	MH 13	MH 14	754.03	753.32	--	--	--	--	--	140	--	0.50
P 36	I 24	I 25	756.50	755.92	--	43	--	--	--	--	--	1.35
P 37	I 25	MH 14	755.92	755.36	--	20	--	--	--	--	--	2.80
P 38	I 26	MH 14	755.40	754.86	--	40	--	--	--	--	--	1.35
P 39	MH 14	MH 15	753.32	752.35	--	--	--	--	--	194	--	0.50
P 40	I 27	MH 15	754.75	754.50	--	18	--	--	--	--	--	1.39
P 41	I 28	MH 15	754.75	754.50	--	28	--	--	--	--	--	0.89
P 42	I 29	I 28	755.10	754.75	--	13	--	--	--	--	--	2.69
P 43	MH 15	TO R/W	748.43	748.25	--	--	--	--	--	36	--	0.50
P 44	I 30	STO MH	753.42	752.93	--	49	--	--	--	--	--	1.00
P 45	I 31	STO MH	753.55	753.42	--	13	--	--	--	--	--	1.00
--												
P 48	MH 18	MH 16	748.61	748.43	--	--	--	--	--	--	195	0.09
P 49	I 32	MH 18	751.91	751.61	--	13	--	--	--	--	--	2.31
P 50	I 33	MH 18	751.91	751.61	--	25	--	--	--	--	--	1.20
P 51	I 34	I 33	752.37	751.91	--	13	--	--	--	--	--	3.54
P 52	MH 19	MH 18	748.79	748.61	--	--	--	--	--	--	202	0.09
P 53	I 35	MH 19	751.12	750.79	--	37	--	--	--	--	--	0.89
P 54	MH 20	MH 19	748.90	748.79	--	--	--	--	--	--	118	0.09
P 55	I 36	MH 20	749.43	749.00	--	13	--	--	--	--	--	3.31
P 56	I 37	MH 20	749.43	749.00	--	25	--	--	--	--	--	1.72
P 57	MH 21	MH 20	749.00	748.90	--	--	--	--	--	105	--	0.09
P 58	MH 22	MH 21	749.03	749.00	--	--	--	--	--	30	--	0.11
P 59	EW 2	MH 22	750.10	749.03	--	--	--	--	--	5	--	13.38
P 60	I 38	I 39	748.80	748.57	--	47	--	--	--	--	--	0.49
P 61	I 39	EXIST INLET	748.57	748.48*	--	17	--	--	--	--	--	0.49
PAGE SUBTOTALS					0	439	0	0	0	510	515	
PROJECT TOTALS					220	1147	482	994	222	510	515	

NOTES:
* FIELD VERIFY EXISTING ELEVATION

3

3

STORM SEWER STRUCTURES												ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED		
STRUCTURE NO.	STATION	LOCATION	APRON ENDWALLS RCCP		CATCH BASINS		INLET COVERS		MANHOLES		MANHOLE COVER	RIM ELEVATION	FLOWLINE OF STUCTIONE	STRUCTURE DEPTH
			522.1015	522.1024	SPV.0060.01	611.1230	611.0624	SPV.0060.02	611.2004	611.2005	611.0530			
			15" EACH	24" EACH	2' DIA SPECIAL EACH	2x3-FT EACH	TYPE H EACH	STOOL TYPE EACH	4-FT DIA. EACH	5-FT DIA. EACH	TYPE J EACH			
I 1	52+05	18.5' RT	--	--	--	1	1	--	--	--	--	765.94	761.44	4.50'
I 2	52+05	18.5' LT	--	--	--	1	1	--	--	--	--	765.94	761.44	4.50'
MH 1	52+05	6' RT	--	--	--	--	--	--	1	--	1	765.76	760.48	5.28'
I 3	54+25.71	18.5' RT	--	--	--	1	1	--	--	--	--	764.36	759.86	4.50'
MH 2	54+25.71	6' RT	--	--	--	--	--	--	1	--	1	764.22	759.61	4.61'
MH 3	54+25.71	18.5' LT	--	--	--	--	1	--	1	--	--	764.36	759.51	4.85'
MH 4	54+70	36' LT	--	--	--	--	--	--	1	--	1	763.50	758.73	4.77'
MH 5	55+25	6' RT	--	--	--	--	--	--	1	--	1	764.58	759.39	5.19'
I 4	57+45	18.5' RT	--	--	--	1	1	--	--	--	--	764.08	760.58	3.50'
I 5	57+45	18.5' LT	--	--	--	1	1	--	--	--	--	764.08	759.58	4.50'
MH 6	57+45	6' RT	--	--	--	--	--	--	1	--	1	763.9	758.51	5.39'
I 7	60+51.44	18.5' RT	--	--	--	1	1	--	--	--	--	763.42	758.92	4.50'
I 8	60+47.27	18.5' LT	--	--	--	1	1	--	--	--	--	763.41	758.91	4.50'
MH 7	60+51.44	6' RT	--	--	--	--	--	--	1	--	1	763.24	757.92	5.32'
I 9	62+00	18.5' RT	--	--	--	1	1	--	--	--	--	762.82	759.32	3.50'
I 10	61+31	18.5' LT	--	--	--	1	1	--	--	--	--	763.1	758.60	4.50'
I 11	62+00	18.5' LT	--	--	--	1	1	--	--	--	--	762.82	758.32	4.50'
MH 8	62+00	6' RT	--	--	--	--	--	--	1	--	1	762.64	757.62	5.02'
MH 8A	63+15	6' RT	--	--	--	--	--	--	1	--	1	763.1	757.39	5.71'
MH 8B	64+11	6' RT	--	--	--	--	--	--	1	--	1	763.30	757.20	6.10'
I 12	63+15	48' RT	--	--	1	--	--	1	--	--	--	762	759.00	3.00'
I 13	66+48.88	18.5' RT	--	--	--	1	1	--	--	--	--	762.42	757.92	4.50'
I 14	66+54.28	18.5' LT	--	--	--	1	1	--	--	--	--	762.4	757.90	4.50'
MH 9	66+48.88	6' RT	--	--	--	--	--	--	1	--	1	762.25	757.78	4.47'
I 15	67+30	18.5' RT	--	--	--	1	1	--	--	--	--	762.14	757.89	4.25'
I 16	67+55.18	25.6' LT	--	--	--	1	1	--	--	--	--	762.35	757.85	4.50'
MH 10	67+30.05	6' RT	--	--	--	--	--	--	1	--	1	761.95	757.43	4.52'
I 17	68+50	18.5' RT	--	--	--	1	1	--	--	--	--	761.7	756.93	4.77'
I 18	68+50	50' RT	--	--	1	--	--	1	--	--	--	759.5	757.00	2.50'
I 19	68+50	18.5' LT	--	--	--	1	1	--	--	--	--	761.70	757.70	4.00'
MH 11	68+50	6' RT	--	--	--	--	--	--	1	--	1	761.52	756.90	4.62'
I 20	73+80	18.5' RT	--	--	--	1	1	--	--	--	--	760.41	755.91	4.50'
I 21	73+80	18.5' LT	--	--	--	1	1	--	--	--	--	760.41	755.91	4.50'
MH 12	73+80	6' RT	--	--	--	--	--	--	1	--	1	760.23	755.00	5.23'
I 22	75+75	18.5' RT	--	--	--	1	1	--	--	--	--	759.84	756.34	3.50'
PAGE SUBTOTALS			0	0	2	19	20	2	14	0	13			

NOTES:

* FIELD VERIFY EXISTING ELEVATION

STRUCTURE DEPTH = RIM ELEVATION MINUS FLOWLINE OF STRUCTURE. PROVIDE 6" OF ADJUSTMENT RINGS FOR ALL STRUCTURES.

LOCATION IS TO CENTER BACK OF CURB FOR STRUCTURES WITH TYPE H COVERS.

LOCATION IS TO CENTER OF STRUCTURE FOR STRUCTURES WITH TYPE J COVERS AND INLET COVERS STOOL TYPE.

LOCATION IS TO CENTER OUTERMOST END OF RCCP ENDWALLS.

FLOWLINE OF STRUCTURE = LOWEST PIPE FLOWLINE ELEVATION IN STRUCTURE.

RIM ELEVATION = FINISHED CENTER OF COVER ELEVATION FOR TYPE J COVERS: FINISHED FLOW LINE OF COVER FOR INLET COVERS STOOL TYPE: AND FINISHED TOP OF CURB ELEVATION FOR TYPE H COVERS.

2x3-FT CATCH BASINS SHALL BE CONSTRUCTED WITH A 12 INCH SUMP.

PAGE 1 OF 2

3

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STORM SEWER STRUCTURES												ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED		
STRUCTURE NO.	STATION	LOCATION	APRON ENDWALLS RCCP		CATCH BASINS		INLET COVERS		MANHOLES		MANHOLE COVER	RIM ELEVATION	FLOWLINE OF STUCTURE	STRUCTURE DEPTH
			522.1015	522.1024	SPV.0060.01	611.1230	611.0624	SPV.0060.02	611.2004	611.2005	611.0530			
			15" EACH	24" EACH	2' DIA SPECIAL EACH	2x3-FT EACH	TYPE H EACH	STOOL TYPE EACH	4-FT DIA. EACH	5-FT DIA. EACH	TYPE J EACH			
I 23	75+75	18.5' LT	--	--	--	1	1	--	--	--	--	759.84	755.34	4.50'
MH 13	75+75	6' RT	--	--	--	--	--	--	1	--	1	759.65	754.03	5.62'
I 24	76+82.82	25.1' RT	--	--	--	1	1	--	--	--	--	760.5	756.50	4.00'
I 25	77+28.15	24' RT	--	--	--	1	1	--	--	--	--	760.42	755.92	4.50'
I 26	77+00	33' LT	--	--	1	--	--	1	--	--	--	759.15	755.40	3.75'
MH 14	77+15.25	6' RT	--	--	--	--	--	--	1	--	1	760.08	753.32	6.76'
I 27	79+25	18.5' RT	--	--	--	1	1	--	--	--	--	759.25	754.75	4.50'
I 28	79+25	18.5' LT	--	--	--	1	1	--	--	--	--	759.25	754.75	4.50'
I 29	79+25	31' LT	--	--	1	--	--	1	--	--	--	758.1	755.10	3.00'
MH 15	79+10	6' RT	--	--	--	--	--	--	--	1	1	759.14	748.43	10.71'
I 30	81+90.80	18.5' LT	--	--	--	1	1	--	--	--	--	757.92	753.42	4.50'
I 31	82+43	18.5' RT	--	--	--	1	1	--	--	--	--	757.55	753.55	4.00'
I 32	84+30	18.5' RT	--	--	--	1	1	--	--	--	--	756.41	751.91	4.50'
I 33	84+30	18.5' LT	--	--	--	1	1	--	--	--	--	756.41	751.91	4.50'
I 34	84+30	31.5' LT	--	--	1	--	--	1	--	--	--	755.37	752.37	3.00'
MH 18	84+30	6' RT	--	--	--	--	--	--	--	1	1	756.22	748.61	7.61'
MH 19	86+32	6' RT	--	--	--	--	--	--	--	1	1	754.41	748.79	5.62'
I 35	86+32	31' LT	--	--	1	--	--	1	--	--	--	754.12	751.12	3.00'
I 36	87+50	18.5' RT	--	--	--	1	1	--	--	--	--	753.93	749.43	4.50'
I 37	87+50	18.5' LT	--	--	--	1	1	--	--	--	--	753.93	749.43	4.50'
MH 20	87+50	6' RT	--	--	--	--	--	--	--	1	1	753.75	748.90	4.85'
MH 21	88+55	6' RT	--	--	--	--	--	--	--	1	1	754.02	749.00	5.02'
MH 22	88+55	24' LT	--	--	--	--	--	--	1	--	1	754.00	749.03	4.97'
EXISTING	88+91	44' RT	--	--	--	--	--	1	--	--	--	753.50	--	--
I 38	91+18	24.7' RT	--	--	--	1	1	--	--	--	--	753.3	748.80	4.50'
I 39	91+18	24' LT	--	--	--	1	1	--	--	--	--	753.52	748.57	4.95'
I 40	9+42.37 COLDSPRING RD.	18.5' LT	--	--	--	1	1	--	--	--	--	767.84	765.30*	2.54'
I 41	9+42.5 COLD SPRING RD.	18.4' RT	--	--	--	1	1	--	--	--	--	767.88	765.28*	2.60'
EW 1	54+70	74' LT	1	--	--	--	--	--	--	--	--	--	758.58	--
EW 2	88+55	38' LT	--	1	--	--	--	--	--	--	--	--	750.90	--
PAGE SUBTOTALS			1	1	4	15	15	5	3	5	8			
PROJECT TOTALS			1	1	6	34	35	7	17	5	21			

NOTES:

* FIELD VERIFY EXISTING ELEVATION

STRUCTURE DEPTH = RIM ELEVATION MINUS FLOWLINE OF STRUCTURE. PROVIDE 6" OF ADJUSTMENT RINGS FOR ALL STRUCTURES.

LOCATION IS TO CENTER BACK OF CURB FOR STRUCTURES WITH TYPE H COVERS.

LOCATION IS TO CENTER OF STRUCTURE FOR STRUCTURES WITH TYPE J COVERS AND INLET COVERS STOOL TYPE.

LOCATION IS TO CENTER OUTERMOST END OF RCCP ENDWALLS.

FLOWLINE OF STRUCTURE = LOWEST PIPE FLOWLINE ELEVATION IN STRUCTURE.

RIM ELEVATION = FINISHED CENTER OF COVER ELEVATION FOR TYPE J COVERS; FINISHED FLOW LINE OF COVER FOR INLET COVERS STOOL TYPE; AND FINISHED TOP OF CURB ELEVATION FOR TYPE H COVERS.

2x3-FT CATCH BASINS SHALL BE CONSTRUCTED WITH A 12 INCH SUMP.

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ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

LANDSCAPING SUMMARY								
STATION TO STATION	LOCATION	625.0100	627.0200	629.0210	630.0140	630.0200	628.2004	628.2006
		TOPSOIL	MULCHING	FERTILIZER	SEEDING	SEEDING	EROSION MAT	EROSION MAT URBAN
		SY	SY	TYPE B CWT.	MIXTURE NO. 40 LB.	TEMPORARY LB.	CLASS 1 TYPE B SY	CLASS 1 TYPE A SY
48+00 - 61+00	LT & RT	6,034	3,487	4	109	--	334	2,213
61+00 - 67+00	LT & RT	3,037	1,160	2	55	--	773	1,103
67+00 - 77+00	LT & RT	5,906	2,357	4	106	--	345	3,203
77+00 - 82+30	LT & RT	2,429	1,236	2	44	--	226	968
82+30 - 91+20.57	LT & RT	3,587	1,411	2	65	--	793	1,384
48+00 - 91+20.57	UNDISTRIBUTED	--	--	--	--	50	--	--
PROJECT TOTALS		20,993	9,651	13	378	50	2,471	8,871

SILT FENCE			
STATION TO STATION	LOCATION	628.1504	628.1520
		SILT FENCE L.F.	SILT FENCE MAINTENANCE L.F.
51+93 - 52+87	EAST SHADY LN. LT	98	98
52+98 - 60+62	EAST SHADY LN. LT	846	846
61+95 - 63+64	EAST SHADY LN. LT	171	171
67+17 - 68+04	EAST SHADY LN. RT	138	138
48+00 - 91+21.57	UNDISTRIBUTED	200	200
PROJECT TOTALS		1453	1453

MOBILIZATIONS			
STATION - STATION	LOCATION	628.1905	628.1910
		EROSION CONTROL EACH	EMERGENCY EROSION CONTROL EACH
48+00 - 91+20.57	UNDISTRIBUTED	1	2
PROJECT TOTALS		1	2

TEMPORARY DITCH CHECKS	
628.7504	
STATION	L.F.
49+65 LT	15
11+35 LT - COLD SPRING RD.	15
8+40 LT - LYNN DR.	15
8+50 RT - LYNN. DR.	15
63+00 RT	15
64+15 LT	15
65+00 RT	15
68+20 RT	15
68+75 RT	15
76+85 LT	15
79+10 LT	15
11+00 LT & RT - ARENA DR.	30
84+00 LT	15
84+55 LT	15
86+15 LT	15
90+75 RT	15
91+05 LT	15
PROJECT TOTAL	
	270

INLET PROTECTION				
STATION	STRUCTURE NO.	LOCATION	628.7005	628.7015
			TYPE A EACH	TYPE C EACH
9+42 LT & RT	I 40 & I 41	COLD SPRING RD.	--	2
52+05 LT & RT	I 1 & I 2	EAST SHADY LN.	--	2
54+25.71 LT & RT	I 3 & MH 2	EAST SHADY LN.	--	2
57+45 LT & RT	I 4 & I 5	EAST SHADY LN.	--	2
60+47 LT	I 8	EAST SHADY LN.	--	1
60+51.44 RT	I 7	EAST SHADY LN.	--	1
61+31 LT	I 10	EAST SHADY LN.	--	1
62+00 LT & RT	I 9 & I 11	EAST SHADY LN.	--	2
63+15 RT	I 12	EAST SHADY LN.	1	--
66+48.88 RT	I 13	EAST SHADY LN.	--	1
66+54.28 LT	I 14	EAST SHADY LN.	--	1
67+30 RT	I 15	EAST SHADY LN.	--	1
67+55 LT	I 16	EAST SHADY LN.	--	1
68+50 LT & RT	I 17 & I 19	EAST SHADY LN.	--	2
68+50 RT	I 18	EAST SHADY LN.	1	--
73+80 LT & RT	I 20 & I 21	EAST SHADY LN.	--	2
75+75 LT & RT	I 22 & I 23	EAST SHADY LN.	--	2
76+82 RT	I 24	EAST SHADY LN.	--	1
77+00 LT	I 26	EAST SHADY LN.	1	--
77+28 RT	I 25	EAST SHADY LN.	--	--
79+25 LT & RT	I 27 & I 28	EAST SHADY LN.	--	2
79+25 LT	I 29	EAST SHADY LN.	1	--
81+90.80 LT	I 30	EAST SHADY LN.	--	1
82+43 RT	I 31	EAST SHADY LN.	--	1
84+30 LT & RT	I 32 & I 33	EAST SHADY LN.	--	2
84+30 LT	I 34	EAST SHADY LN.	1	--
86+32 LT	I 35	EAST SHADY LN.	1	--
87+50 LT & RT	I 36 & I 37	EAST SHADY LN.	--	2
88+91 RT	EXISTING	EAST SHADY LN.	1	--
91+18 LT & RT	I 38 & I 39	EAST SHADY LN.	--	2
91+22 LT	EXISTING	EAST SHADY LN.	1	--
PROJECT TOTALS			8	34

TRACKING PADS 628.7560			CULVERT PIPE CHECKS 628.7555		
STATION	LOCATION	EACH	STATION	LOCATION	EACH
11+25	COLD SPRING ROAD	1	63+90 LT	EAST SHADY LANE	16
91+20.57	EAST SHADY LANE	1	88+55 LT	EAST SHADY LANE	4
PROJECT TOTAL		2	PROJECT TOTAL		20

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ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

PERMANENT SIGNING

				637.2210	637.2230	634.0814	
				TYPE II	TYPE II	POSTS	
				REFLECTIVE H	REFLECTIVE F	TUBULAR STEEL	
STATION	LOCATION	CODE	SIZE	SF	SF	2x2-INCH x 14-FT	EACH
							DESCRIPTION
49+00 RT	EAST SHADY LN.	R3-17	30"X24"	5			1
49+00 RT	EAST SHADY LN.	R3-17A	30"X12"	2.5			--
9+30 LT	COLD SPRING RD.	R2-1	24"X30"	5			1
9+30 LT	COLD SPRING RD.	R5-2	24"X24"	4			--
9+60 RT	COLD SPRING RD.	R1-1	30"X30"	5.18			1
9+60 RT	COLD SPRING RD.	W4-4P	24"X12"		2		--
10+36 LT	COLD SPRING RD.	R1-1	30"X30"	5.18			1
10+36 LT	COLD SPRING RD.	W4-4P	24"X12"		2		--
11+00 RT	COLD SPRING RD.	R2-1	24"X30"	5			1
50+85 LT	EAST SHADY LN.	R3-17	30"X24"	5			1
50+85 LT	EAST SHADY LN.	R3-17B	30"X12"	2.5			--
52+00 RT	EAST SHADY LN.	R3-17	30"X24"	5			1
52+00 RT	EAST SHADY LN.	R7-1D	18"X24"	3			--
52+25 RT	EAST SHADY LN.	R2-1	24"X30"	5			1
59+65 LT	EAST SHADY LN.	R2-1	24"X30"	5			1
60+11 LT	EAST SHADY LN.	R3-17	30"X24"	5			1
60+11 LT	EAST SHADY LN.	R7-1D	18"X24"	3			--
9+60 RT	LYNN DR.	R1-1	30"X30"	5.18			1
10+45 LT	LYNN DR.	R1-1	30"X30"	5.18			1
61+70	EAST SHADY LN.	R3-17	30"X24"	5			1
61+70	EAST SHADY LN.	R7-1D	18"X24"	3			--
64+75 RT	EAST SHADY LN.	S3-1	30"X30"		6.25		1
66+18 LT	EAST SHADY LN.	R3-17	30"X24"	5			1
66+18 LT	EAST SHADY LN.	R7-1D	18"X24"	3			--
9+63 RT	TUMBLEBROOK RD. (WEST)	R1-1	30"X30"	5.18			1
10+47 LT	GAIL LN.	R1-1	30"X30"	5.18			1
68+00 RT	EAST SHADY LN.	R3-17	30"X24"	5			1
68+00 RT	EAST SHADY LN.	R7-1D	18"X24"	3			--
68+65 RT	EAST SHADY LN.	R2-1	24"X30"	5			1
69+75 LT	EAST SHADY LN.	S3-1	30"X30"		6.25		1

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ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REMOVING SIGNS SUMMARY

STATION	LOCATION	638.2602	638.3000	DESCRIPTION
		REMOVING	REMOVING SMALL	
		SIGNS, TYPE II	SIGN SUPPORTS	
		EACH	EACH	
9+30 LT	COLD SPRING RD.	2	1	SPEED LIMIT & TRUCK TRAFFIC
9+60 RT	COLD SPRING RD.	2	1	STOP SIGN & CROSS TRAFFIC
10+36 LT	COLD SPRING RD.	2	1	STOP SIGN & CROSS TRAFFIC
11+00 RT	COLD SPRING RD.	1	1	SPEED LIMIT - 35
52+25 RT	EAST SHADY LN.	1	1	SPEED LIMIT - 35
59+65 LT	EAST SHADY LN.	1	1	SPEED LIMIT - 35
9+65 RT	LYNN DR.	1	1	STOP SIGN
10+30 LT	LYNN DR.	1	1	STOP SIGN
64+75 RT	EAST SHADY LN.	1	1	SCHOOL BUS STOP AHEAD
9+66 RT	TUMBLEBROOK RD. (WEST)	1	1	STOP SIGN
10+20 LT	GAIL LN.	1	1	STOP SIGN
68+65 RT	EAST SHADY LN.	1	1	SPEED LIMIT - 35
69+75 LT	EAST SHADY LN.	1	1	SCHOOL BUS STOP AHEAD
9+55 LT	TUMBLEBROOK RD. (EAST)	1	1	SPEED LIMIT - 25
9+65 RT	TUMBLEBROOK RD. (EAST)	1	1	STOP SIGN
81+00 LT	COLD SPRING RD.	2	1	SPEED LIMIT & NO PARKING
10+25 LT	ARENA DR.	1	1	STOP SIGN
83+55 LT	EAST SHADY LN.	1	1	NO PARKING
83+85 RT	EAST SHADY LN.	2	1	SPEED LIMIT & NO PARKING
85+50 LT	EAST SHADY LN.	1	1	NO PARKING
87+55 LT	EAST SHADY LN.	2	1	SPEED LIMIT & NO PARKING
87+90 RT	EAST SHADY LN.	2	1	STOP AHEAD & NO PARKING
PROJECT TOTALS		29	22	

PAVEMENT MARKING EPOXY

STATION TO STATION	LOCATION	646.0106	647.0206	647.0306	647.0406	647.0566	647.0776
		4-INCH	ARROWS	SYMBOLS	WORDS	STOP LINE	CROSS WALK
			BIKE LANE	BIKE LANE	BIKE LANE	18 INCH	12 INCH
		LF	EACH	EACH	EACH	LF	LF
48+00 - 91+20.57	EAST SHADY LN.	8,963	31	31	6	--	414
8+75 - 11+40	COLD SPRING RD.	380	--	--	--	38	92
8+50 - 11+20	LYNN DR.	--	--	--	--	25	59
8+90 - 10+00	TUMBLEBROOK RD. (WEST)	--	--	--	--	12	63
10+00 - 11+50	GAIL LN.	--	--	--	--	31	--
8+75 - 10+00	TUMBLEBROOK RD. (EAST)	--	--	--	--	12	57
10+00 - 11+00	ARENA DR.	--	--	--	--	15	--
PROJECT TOTALS		9,343	31	31	6	133	685

CONSTRUCTION STAKING

STATION TO STATION	LOCATION	650.4000	650.4500	650.5000	650.5500	650.6000	650.9920
		STORM	SUBGRADE	BASE	CURB GUTTER AND	PIPE	SLOPE
		SEWER			CURB & GUTTER	CULVERTS	STAKES
		EACH	LF	LF	LF	EACH	LF
48+00 - 91+20.57	EAST SHADY LN	62	4,321	4,321	8,508	1	4,321
8+75 - 10+00	COLD SPRING RD.	2	125	125	260	--	125
10+00 - 11+40	COLD SPRING RD.	--	140	140	117	--	140
8+50 - 10+00	LYNN DR.	--	150	150	103	--	150
10+00 - 11+20	LYNN DR.	--	120	120	132	--	120
8+90 - 10+00	TUMBLEBROOK RD. (WEST)	--	110	110	114	--	110
10+00 - 11+50	GAIL LN.	--	150	150	368	--	150
8+75 - 10+00	TUMBLEBROOK RD. (EAST)	--	125	125	143	--	125
10+00 - 11+00	ARENA DR.	--	100	100	120	--	100
PROJECT TOTALS		64	5,341	5,341	9,865	1	5,341

TRAFFIC CONTROL

LOCATION	SERVICE PERIOD (DAYS)	643.0300		643.0420		643.0705		643.0715		643.0900		643.3000	
		DRUMS		BARRICADES		WARNING LIGHTS		WARNING LIGHTS		SIGNS		DETOUR SIGNS	
		(NO.)	(DAYS)	(NO.)	(DAYS)	(NO.)	(DAYS)	(NO.)	(DAYS)	(NO.)	(DAYS)	(NO.)	(DAYS)
ENTIRE PROJECT	65	--	--	41	2,665	62	4,030	--	--	34	2,210	34	2,210
UNDISTRIBUTED	65	20	1,300	5	325	5	325	5	325	5	325	5	325
PROJECT TOTALS			1,300		2,990		4,355		325		2,535		2,535

3

3

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

SAWING ASPHALT 690.0150			
STATION	LOCATION	LF	NOTES
48+00	EAST SHADY LN.	25	MATCH POINT
48+33	EAST SHADY LN. LT	20	DRIVEWAY
48+63	EAST SHADY LN. LT	15	DRIVEWAY
8+75	COLD SPRING RD.	32	MATCH POINT
9+10	COLD SPRING RD. LT	10	TRAIL
11+40	COLD SPRING RD.	18	MATCH POINT
51+83	EAST SHADY LN. LT	16	DRIVEWAY
58+20	EAST SHADY LN. RT	15	DRIVEWAY
8+50	LYNN DR.	23	MATCH POINT
11+20	LYNN DR.	31	MATCH POINT
63+80	EAST SHADY LN. RT	84	DRIVEWAY
8+90	TUMBLEBROOK RD. (WEST)	22	MATCH POINT
11+50	GAIL LN.	40	MATCH POINT
70+48	EAST SHADY LN. LT	14	DRIVEWAY
73+15	EAST SHADY LN. LT	54	DRIVEWAY
73+53	EAST SHADY LN. LT	19	DRIVEWAY
8+75	TUMBLEBROOK RD. (EAST)	22	MATCH POINT
77+20	EAST SHADY LN. LT	22	DRIVEWAY
80+08	EAST SHADY LN. LT	24	DRIVEWAY
84+61	EAST SHADY LN. LT	23	DRIVEWAY
86+62	EAST SHADY LN. LT	23	DRIVEWAY
87+61	EAST SHADY LN. RT	11	DRIVEWAY
88+33	EAST SHADY LN. LT	22	DRIVEWAY
91+50	EAST SHADY LN. RT	10	TRAIL
92+17	EAST SHADY LN. LT	10	TRAIL

PROJECT TOTAL	605
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SAWING CONCRETE 690.0250			
STATION	LOCATION	LF	NOTES
8+75	COLD SPRING RD.	5	MATCH POINT
9+00	COLD SPRING RD. RT	32	DRIVEWAY
51+60	EAST SHADY LN. RT	16	DRIVEWAY
53+00	EAST SHADY LN. RT	18	DRIVEWAY
55+40	EAST SHADY LN. RT	12	DRIVEWAY
56+25	EAST SHADY LN. RT	20	DRIVEWAY
57+20	EAST SHADY LN. RT	21	DRIVEWAY
58+56	EAST SHADY LN. RT	15	DRIVEWAY
11+20	LYNN DR.	4	MATCH POINT
8+90	TUMBLEBROOK RD. (WEST)	4	MATCH POINT
11+50	GAIL LN.	8	MATCH POINT
8+75	TUMBLEBROOK RD. (EAST)	4	MATCH POINT
77+20	EAST SHADY LN. LT	5	DRIVEWAY
80+08	EAST SHADY LN. LT	5	DRIVEWAY
91+22	EAST SHADY LN. LT & RT	9	CURB AT MATCH POINT

PROJECT TOTAL	178
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REMOVING GATES SPV.0060.05		
STATION	LOCATION	EACH
86+60 LT	EAST SHADY LANE	2
88+30 LT	EAST SHADY LANE	2

PROJECT TOTAL	4
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ADJUSTING WATER VALVE BOX SPV.0060.10			
STATION	LOCATION	OFFSET	EACH
9+53	COLDSPRING RD	26.4' RT	1
9+55	COLDSPRING RD	9.9' RT	1
10+37	COLDSPRING RD	15.2' RT	1
50+08	EAST SHADY LN.	25.5' RT	1
50+53	EAST SHADY LN.	24.4' RT	1
60+70	EAST SHADY LN.	18.8' RT	1
60+73	EAST SHADY LN.	16.0' RT	1
9+49	LYNN DR.	18.8' LT	1
9+54	LYNN DR.	25.6' LT	1
63+96	EAST SHADY LN.	20.5' RT	1
64+03	EAST SHADY LN.	20.6' RT	1
66+77	EAST SHADY LN.	19.9' RT	1
66+80	EAST SHADY LN.	23.3' RT	1
71+80	EAST SHADY LN.	24.0' RT	1
73+70	EAST SHADY LN.	18.0' RT	1
9+39	TUMBLEBROOK RD. (EAST)	15.6' LT	1
9+43	TUMBLEBROOK RD. (EAST)	18.2' LT	1
78+27	EAST SHADY LN.	17.8' RT	1
82+42	EAST SHADY LN.	20.5' RT	1
82+49	EAST SHADY LN.	20.5' RT	1
10+50	ARENA DR.	27.2' RT	1
10+53	ARENA DR.	14.3' RT	1
84+17	EAST SHADY LN.	16.8' RT	1
87+95	EAST SHADY LN.	22.6' RT	1
90+97	EAST SHADY LN.	35.7' LT	1

CAT 0020	PROJECT TOTAL	25
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3

3

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

STORM SEWER LATERAL, 4 INCH SPV.0090.01			
PVC SDR 35			
LATERAL NO.	STATION	4-INCH L.F.	SLOPE %
SL 1	52+09 RT	34	1.00
SL 2	52+63 RT	34	1.00
SL 3	55+27 RT	36	1.00
SL 4	55+41 RT	34	1.00
SL 5	55+75 RT	34	1.00
SL 6	56+78 RT	34	1.00
SL 7	57+86 RT	34	1.00
SL 8	58+42 RT	34	1.00
SL 9	59+75 RT	34	1.00
SL 10	61+78 RT	34	1.00
SL 11	66+54 LT	18	1.00
SL 12	66+49 RT	23	1.00
SL 13	70+36 LT	46	1.00
SL 14	75+83 RT	34	1.00

PROJECT TOTAL	463
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RELOCATE SANITARY LATERAL, 4 INCH SPV.0090.05		
STATION	L.F.	REMARKS
52+57	61	SERVICES TO THE SOUTH
56+04	60	SERVICES TO THE SOUTH
57+01	63	SERVICES TO THE SOUTH
57+76	62	SERVICES TO THE SOUTH
58+85	66	SERVICES TO THE SOUTH
63+79	70	SERVICES TO THE SOUTH
83+08	61	SERVICES TO THE SOUTH
84+28	73	SERVICES TO THE SOUTH
87+77	69	SERVICES TO THE SOUTH
UNDISTRIBUTED	75	--

PROJECT TOTAL	660
CAT 0020	

SEDIMENTATION BASIN SPV.0060.03		
STATION	LOCATION	EACH
64+25	EAST SHADY LANE	1
PROJECT TOTAL		1
RELOCATE WATER MAIN SPV.0090.11 16 INCH PVC		
STATION	L.F.	REMARKS
64+40 RT	25	WATER MAIN UNDER 58"X91" HERCP

PROJECT TOTALS	25
CAT 0020	

CONCRETE CURB & GUTTER SPECIAL 24-INCH			
STATION - STATION		SPV.0090.25 TYPE D1 L.F.	SPV.0090.26 TYPE D2 L.F.
10+16 - 11+20	LYNN DR.	--	132
8+90 - 9+47	TUMBLEBROOK RD. (WEST)	--	114
11+54 - 11+28.47	GAIL LN.	368	--
8+75 - 9+50	TUMBLEBROOK RD. (EAST)	--	143
77+15 LT	VALLEY ATHLETICS	62	--
80+00 LT	VALLEY ATHLETICS	55	--

PROJECT TOTAL	485	389
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LANDMARK REFERENCE MONUMENT SPECIAL SPV.0060.20		
STATION	LOCATION	EACH
49+99.98	EAST SHADY LANE, 1.33' RT	1
76+44.21	EAST SHADY LANE, 12.32' RT	1
PROJECT TOTAL		2
RELOCATE WATER SERVICE SPV.0090.15 1 INCH WATER SERVICE		
STATION	L.F.	REMARKS
53+36	15	SERVICES TO THE NORTH
69+12	15	SERVICES TO THE NORTH
69+79	15	SERVICES TO THE NORTH
UNDISTRIBUTED	30	--

PROJECT TOTALS	75
CAT 0020	

UTILITY LINE OPENING SPV.0060.15			
STATION	LOCATION	UTILITY FACILITY	EACH
52+14 RT	EAST SHADY LN.	GAS	2
52+57 RT	EAST SHADY LN.	SAN LAT	1
52+63 RT	EAST SHADY LN.	GAS	2
53+18 RT	EAST SHADY LN.	GAS	1
53+36 RT	EAST SHADY LN.	WATER	1
54+19 RT	EAST SHADY LN.	GAS	1
54+58 LT	EAST SHADY LN.	FO	1
55+22 RT	EAST SHADY LN.	GAS	2
55+51 RT	EAST SHADY LN.	GAS	2
55+75 RT	EAST SHADY LN.	GAS	1
56+05 RT	EAST SHADY LN.	SAN LAT	1
56+78 RT	EAST SHADY LN.	GAS	1
57+02 RT	EAST SHADY LN.	SAN LAT	1
57+76 RT	EAST SHADY LN.	SAN LAT	1
57+87 RT	EAST SHADY LN.	GAS	2
58+42 RT	EAST SHADY LN.	GAS	2
58+85 RT	EAST SHADY LN.	SAN LAT	1
59+75 RT	EAST SHADY LN.	GAS	2
61+26 RT	EAST SHADY LN.	GAS	1
61+78 RT	EAST SHADY LN.	GAS	2
63+15 RT	EAST SHADY LN.	GAS	2
63+55 RT	EAST SHADY LN.	GAS	1
63+79 RT	EAST SHADY LN.	SAN LAT	1
64+37 RT	EAST SHADY LN.	GAS	1
64+43 RT	EAST SHADY LN.	WATER	1
64+54 RT	EAST SHADY LN.	GAS	1
66+39 RT	EAST SHADY LN.	GAS	2
66+60 RT	EAST SHADY LN.	GAS	1
68+14 RT	EAST SHADY LN.	TV	1
68+50 RT	EAST SHADY LN.	GAS	2
69+11 RT	EAST SHADY LN.	WATER	1
69+79 RT	EAST SHADY LN.	WATER	1
69+85 RT	EAST SHADY LN.	GAS	1
70+37 LT	EAST SHADY LN.	FO	1
75+29 RT	EAST SHADY LN.	TV	1
75+84 RT	EAST SHADY LN.	GAS	2
76+66 RT	EAST SHADY LN.	GAS	1
79+06 RT	EAST SHADY LN.	TV & ELEC	1
79+20 RT	EAST SHADY LN.	GAS	2
83+09 RT	EAST SHADY LN.	SAN LAT	1
84+28 RT	EAST SHADY LN.	SAN LAT	1
84+48 RT	EAST SHADY LN.	GAS	1
87+76 RT	EAST SHADY LN.	SAN LAT	1
88+54 LT	EAST SHADY LN.	FO	1

PROJECT TOTALS	57
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ACCESS POINT/	AP	PROPERTY LINE	PL
DRIVEWAY CONNECTION		RECORDED AS	(100')
ACCESS RIGHTS	AR	REFERENCE LINE	R/L
ACRES	AC.	RELEASE OF RIGHTS	ROR
AND OTHERS	ET.AL.	REMAINING	REM.
BUILDING	BLDG	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	SECTION LINE	S/L
CORNER	COR.	STATION	STA.
DOCUMENT	DOC.	TELEPHONE MANHOLE	TEL MH
EASEMENT	EASE.	TEMPORARY LIMITED EASEMENT	TEL ME
ELECTRIC	ELEC.	VOLUME	V.
GAS VALVE	GV	WATER SERVICE	W.S.
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC	<u>CURVE DATA</u>	
LANDSCAPED AREA	L.S.	LONG CHORD	LCH
MAIL BOX	MB	LONG CHORD BEARING	LCB
MANHOLE	MH	RADIUS	R
MONUMENT	MON.	DEGREE OF CURVE	D
PAGE	P.	CENTRAL ANGLE OR DELTA	DELTA
PERMANENT LIMITED EASEMENT	P.L.E	LENGTH OF CURVE	L
		TANGENT	TAN

3/4" IRON REBAR FOUND	✕	PROPOSED R/W LINE	
1" IRON PIPE FOUND	●	EXISTING H.E. LINE	
1 1/4" IRON REBAR FOUND 2"	✕	PROPERTY LINE	
IRON PIPE FOUND	✕	LOT & TIE LINES	
3/4" x 24" ROUND IRON REBAR	○	SLOPE INTERCEPTS	
WEIGHING 1.5 lbs./lineal ft. SET		CORPORATE LIMITS	
SECTION CORNER MONUMENT	⊙	NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
SECTION CORNER SYMBOL		NO ACCESS (BY ACQUISITION)	
SIGN		NO ACCESS (BY STATUTORY AUTHORITY)	
HIGHWAY EASEMENT		SECTION LINE	
		QUARTER LINE	
		SIXTEENTH LINE	
		EXISTING CENTERLINE	
		PROPOSED REFERENCE LINE	
		PARALLEL OFFSET	
R/W BOUNDARY POINT		FIRE HYDRANT	
PARCEL NUMBER		WATER/GAS VALVE	
UTILITY PARCEL NUMBER		CATCH BASIN INLET	
SIGN NUMBER (OFF PREMISE)		MANHOLE	
BUILDING/HOUSE		STREET LIGHT	
TRAFFIC SIGNAL LIGHT		FENCE	
DOWN GUY		TREES	
RAILROAD TRACKS			
PERMANENT LIMITED EASEMENT AREA			
TEMPORARY LIMITED EASEMENT AREA			

WATER	— W —		
GAS	— G —		
TELEPHONE	— T —		
OVERHEAD	— OH —		
TRANSMISSION LINES			
ELECTRIC	— E —		
CABLE TELEVISION	— TV —		
FIBER OPTIC	— FO —		
SANITARY SEWER	— SAN —		
STORM SEWER	— STO — SS —		

			NON
			COMPENSABLE COMPENSABLE
POWER POLE		⊕	⊕
TELEPHONE POLE		⊗	⊗
TELEPHONE PEDESTAL		⊙	⊙

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WINNEBAGO COUNTY ZONE, NAD 83 (1991) ADJUSTMENT. THE COORDINATES SHOWN ARE GROUND COORDINATES AND ARE TO BE USED AS GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" X 24" REBAR AND WILL BE PLACED PRIOR TO COMPLETION OF THE PROJECT.

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

EXISTING RIGHT-OF-WAY ESTABLISHED FROM FIELD LOCATED
MONUMENTATION, PREVIOUS SURVEYS AND CURRENT PROPERTY DEEDS.

R-17-E

WINNEBAGO COUNTY
TOWN OF MENASHA

WINNEBAGO COUNTY
TOWN OF MENASHA

SE 1/4 SE 1/4
SEC. 5

SW 1/4 SW 1/4
SEC. 4

NE 1/4 NE 1/4
SEC. 8

NW 1/4 NW 1/4
SEC. 9

SE 1/4 SW 1/4
SEC. 4

SW 1/4 SE 1/4
SEC. 4

SE 1/4 SE 1/4
SEC. 4

NE 1/4 NW 1/4
SEC. 9

NW 1/4 NE 1/4
SEC. 9

NE 1/4 NE 1/4
SEC. 9

ENTREE DR.

COLD SPRING ROAD

LYNN DR.

GAIL LN

EAST SHADY LANE

TUMBLEBROOK ROAD

TUMBLEBROOK CT.

TUMBLEBROOK RD.

ARENA DR.

AMERICAN DR.

BEGIN RELOCATION ORDER
PROJECT 4992-00-52
STATION 48+00
199.98' WEST AND 1.26' SOUTH OF THE
SOUTHEAST CORNER OF SECTION 5,
TOWNSHIP 20 NORTH, RANGE 17 EAST
Y-550211.63
X-806625.28

END RELOCATION ORDER
PROJECT 4992-00-52
STATION 91+20.62
1473.52' EAST AND 70.21' NORTH OF
THE SOUTH 1/4 CORNER OF SECTION 4,
TOWNSHIP 20 NORTH, RANGE 17 EAST
Y-550276.66
X-810943.52

LAYOUT

T-20-N

Basis for Existing R/W

SUBDIVISION PLATS
SHADY SPRINGS ESTATES-APRIL 20TH 1979
ZENO NENNING PLAT-APRIL 4TH 1961
BROOKFIELD MANOR-DECEMBER 8TH 1977

CERTIFIED SURVEY MAPS
CSM 2957 APRIL 30TH 1994
CSM 6492 OCTOBER 8TH 2010
CSM 629 MAY 23RD 1977

DEEDS OF RECORD
AWARD OF DAMAGES FOR HIGHWAY EASEMENTS
VOLUME 760 PAGE 581 JUNE 28TH 1955
VOLUME 760 PAGE 427 MAY 25TH 1955
VOLUME 760 PAGE 579 JUNE 28TH 1955
VOLUME 760 PAGE 580 JUNE 28TH 1955

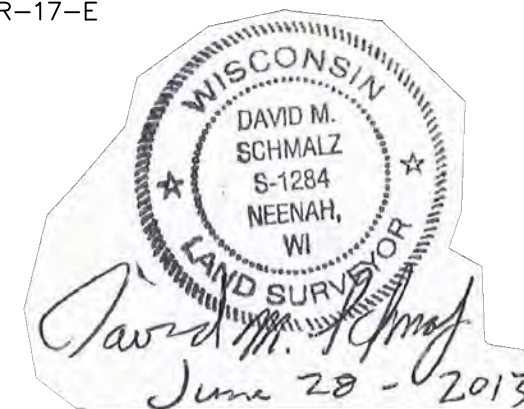
CONVEYANCE OF LAND FOR HIGHWAY PURPOSES
VOLUME 777 PAGE 412 MAY 24TH 1955
VOLUME 778 PAGE 454 JUNE 22ND 1955
VOLUME 778 PAGE 453 JUNE 22ND 1955
VOLUME 777 PAGE 413 MAY 24TH 1955
VOLUME 778 PAGE 451 JUNE 22ND 1955

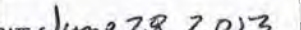
FOUND SURVEY MONUMENTATION AS SHOWN ON THIS PLAT OF RIGHT-OF-WAY
PLAT OF SURVEYS

300 150 0 300
SCALE - FEET

TOTAL NET LENGTH OF CENTERLINE = 0.818 MI.

GN

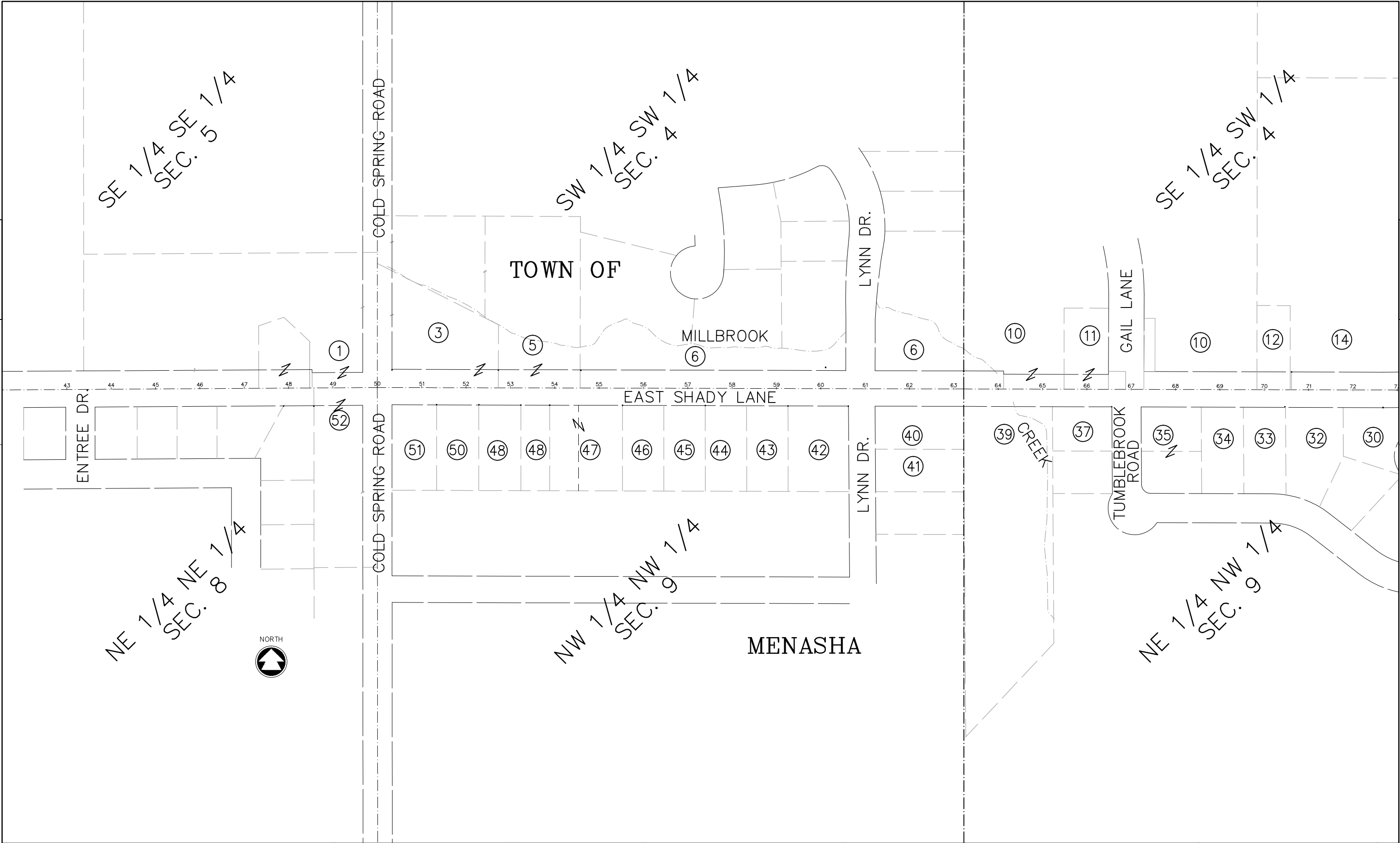


REVISION DATE 06/28/2013 10/23/2013 11/01/13 --- --- --- --- ---	SURVEYOR  DATE: June 28 2013 (Signature)	TOWN OF MENASHA DATE: _____ (Signature)
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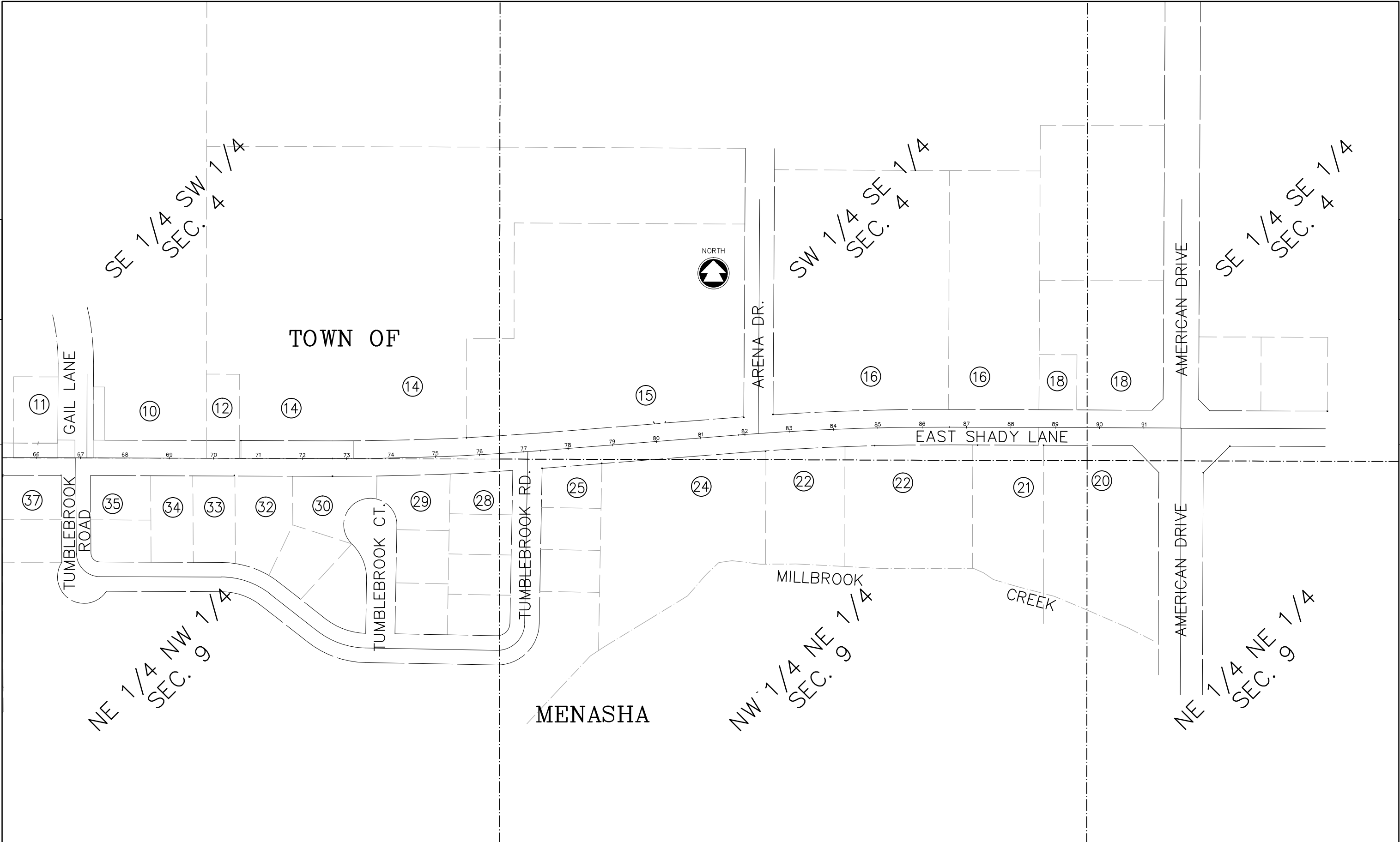
SCHEDULE OF LAND & INTEREST REQUIRED												
PARCEL NUMBER	SHEET NUMBER	OWNER(S)	PARCEL ID NUMBER	INTEREST REQUIRED	TOTAL ACRES	R/W ACRES REQUIRED			TOTAL ACRES REMAINING	HIGHWAY EASEMENT	TLE ACRES	PLE ACRES
1	4.05	EDWARD A. & ELIZABETH H. HOOYMAN	008017302	PLE	4.269				4.269			0.005
3	4.05 & 4.06	COENEN ENTERPRISE, INC.,	008013001	TLE	1.350				1.350		0.065	
5	4.06	BRIAN M. MEGALE & TIFFANY L. MEGALE	008013002	TLE	1.899				1.899		0.106	
6	4.06, 4.07 & 4.08	PRAIRIE CREEK PROPERTY OWNERS ASSOCIATION LTD.	0084782 & 0084783	TLE/PLE	1.359				1.359		0.170	0.029
10	4.08 & 4.09	REESEVILLE ASSOCIATES, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	0080132	TLE/HE	16.579				16.579	0.069	0.256	
11	4.08 & 4.09	RANDY L. GUYETTE & MELANIE R. RENARD	008013201	TLE	0.419				0.419		0.053	
12	4.09	JASON HUEY	008013101	TLE	0.330				0.330		0.026	
	4.09 & 4.10	TOWN OF MENASHA			0.230				0.230			
14	4.09 & 4.10	MEE BELLEVUE, LLC	008013104 & 008013111	TLE	11.772				11.772		0.253	
15	4.10, 4.11 & 4.12	720 EAST SHADY LANE, LLC	008014002	TLE	5.989				5.989		0.120	
16	4.12 & 4.13	WINNEBAGO COUNTY	008014001 & 00801400101	TLE	7.999				7.999		0.206	
18	4.13	COENEN ENTERPRISES, INC	008013901 & 008014508	TLE	1.859				1.859		0.018	
20	4.13	G & L PROPERTIES, LLC	0080249	TLE/PLE	2.069				2.069		0.102	0.097
21	4.13	JOHN A. SCHADLER & CAROL A. SCHADLER	008025203	TLE/PLE	1.129				1.129		0.077	0.049
22	4.12 & 4.13	TRI-COUNTY RECREATION ASSOCIATION, INC.	008025200 & 008025201	TLE	2.890				2.890		0.196	
24	4.11 & 4.12	TOWN OF MENASHA	008025202	TLE/PLE	2.950				2.950		0.128	0.171
25	4.11	DAVID M. WATTERS	0083890	TLE	0.293				0.293		0.057	
28	4.10 & 4.11	FRANK A. OLSON & LOIS J. OLSON	0083871	TLE	0.306				0.306		0.039	
29	4.10	STEVEN J. KLUSS & RHONDA M. KLUSS	0083865	TLE	0.411				0.411		0.046	
30	4.10	BRUCE McCONNELL & LANI McCONNELL	0083864	TLE	0.446				0.446		0.052	
32	4.09 & 4.10	MARK E. BACHORZ & CHRISTINA L. BACHORZ	0083861	TLE/PLE	0.569				0.569		0.075	0.060
33	4.09	MICHAEL J. WELSCH	0083860	TLE/PLE	0.426				0.426		0.055	0.044
34	4.09	GERALD B. Le MOINE & SANDRA L. Le MOINE	0083859	TLE/PLE	0.420				0.420		0.055	0.044
35	4.09	KIESLING REVOCABLE TRUST	0083857 & 0083858	TLE/PLE	0.310				0.310		0.078	0.062
37	4.08 & 4.09	JASON H. JONES	0083872	TLE/PLE	0.300				0.300		0.031	0.025
39	4.08	SANITARY DISTRICT NO. 4 TOWN OF MENASHA	008026101	TLE/PLE	3.119				3.119		0.230	0.092
40	4.07 & 4.08	CHARLES F. HOERNING & BARBARA J. HOERNING	0082711	TLE/PLE	0.439				0.439		0.114	0.037
41	4.07 & 4.08	JOEL D. MURPHY & SHERRY K. MURPHY	0082712	TLE	0.439				0.439		0.005	
42	4.07	ROBERT R. GILREATH & MYRA R. GILREATH	0082710	TLE	0.600				0.600		0.060	
43	4.07	LEANN JAHNKE	0082709	TLE	0.409				0.409		0.075	
44	4.07	CHARLES C. BUCHANAN & JACQUELINE L. BUCHANAN	0082708	TLE	0.409				0.409		0.056	
45	4.07 & 4.06	SHIRLEY A. DORDEL	0082707	TLE	0.409				0.409		0.056	
46	4.06	LYNDA E. COLLINS	0082706	TLE	0.409				0.409		0.043	
47	4.06	BRIAN G. NETT & SUSAN M. NETT	0082705	TLE	0.720				0.720		0.087	
48	4.06	WILLEMS VAN DIJK, LLC	008270401 & 0082703	TLE	0.699				0.699		0.081	
50	4.05 & 4.06	JOSEPH D. HARTFEL	0082702	TLE	0.419				0.419		0.046	
51	4.05	SHANNON R. WOHLRABE	0082701	TLE	0.439				0.439		0.086	
52	4.05	GRETCHEN M. MARTINEZ	008022201	TLE	0.920				0.920		0.010	
80	4.05, 4.08 - 4.13	AT&T WISCONSIN		TEMPORARY CONSTRUCTION EASEMENT								
81	4.10, 4.11	TIME WARNER CABLE		TEMPORARY CONSTRUCTION EASEMENT								
82	4.06, 4.08 & 4.13	WE ENERGIES-GAS DIVISION		TEMPORARY CONSTRUCTION EASEMENT								
83	4.07 - 4.13	WE ENERGIES-ELECTRIC DIVISION		TEMPORARY CONSTRUCTION EASEMENT								
84	4.08	TOWN OF MENASHA-WATER DEPT.		TEMPORARY CONSTRUCTION EASEMENT								
85	4.09	TOWN OF MENASHA SANITARY DISTRICT		TEMPORARY CONSTRUCTION EASEMENT								
86	4.06	ANR PIPELINE COMPANY		TEMPORARY CONSTRUCTION EASEMENT								
TOTAL										0.069	3.207	0.712

OWNER'S NAME ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

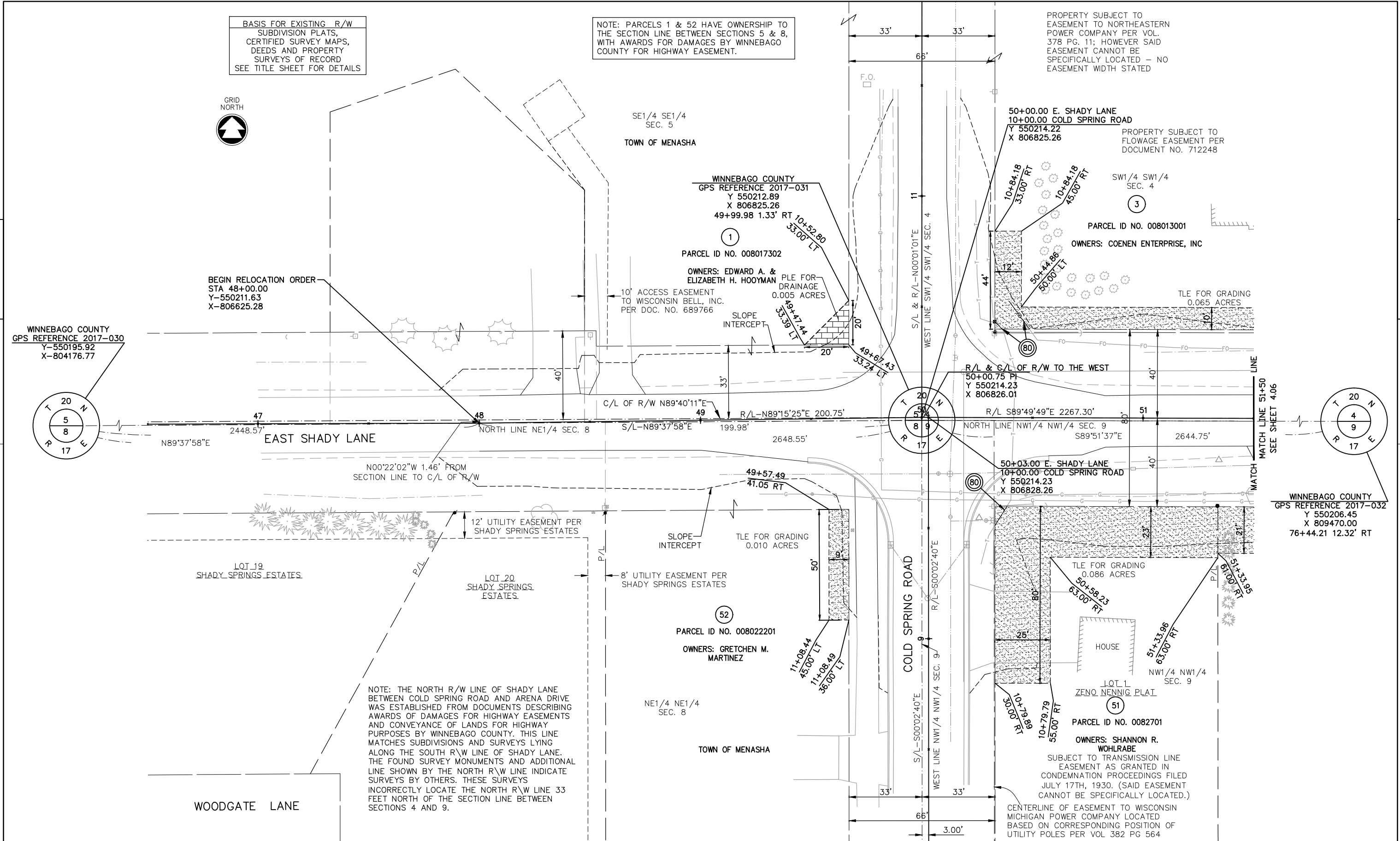
REVISION DATE 6/28/2013 10/23/2013 11/01/13	DATE 3-13-13	SCALE, FEET 	HWY: EAST SHADY LANE	STATE R/W PROJECT NUMBER ----	PLAT SHEET 4.02	E
	GRID FACTORN/A		COUNTY: WINNEBAGO	CONSTRUCTION PROJECT NUMBER 4992-00-53	PS&E SHEET -- 75	



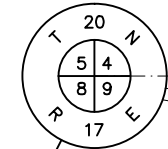
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	GRID FACTOR 1"=200'		COUNTY: WINNEBAGO		PS&E SHEET --76	



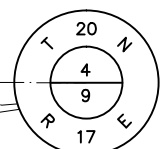
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	GRID FACTOR 1"=200'		COUNTY: WINNEBAGO	CONSTRUCTION PROJECT NUMBER 4992-00-53	PS&E SHEET --77	



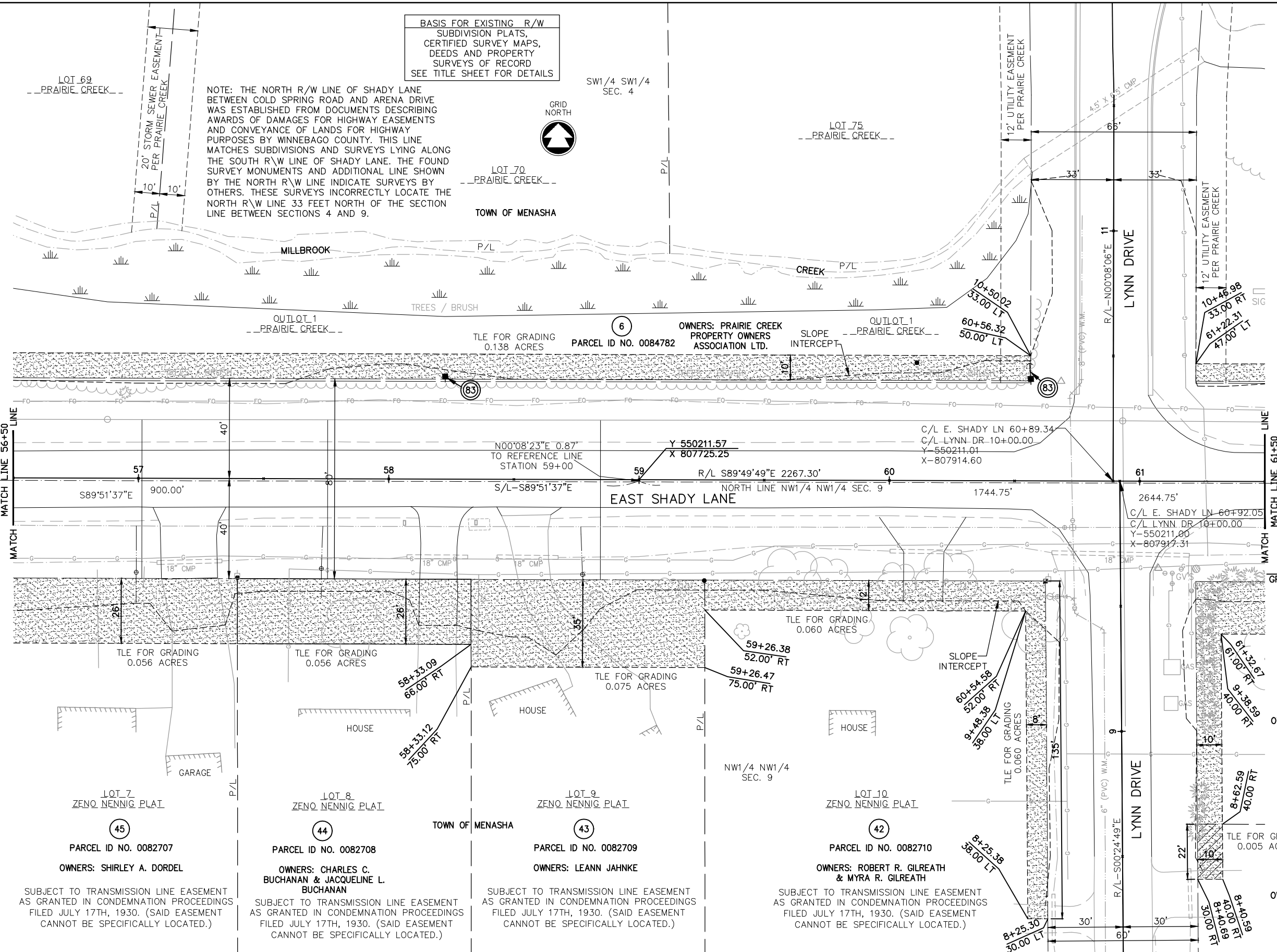
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	GRID FACTOR N/A		COUNTY: WINNEBAGO	CONSTRUCTION PROJECT NUMBER 4992-00-53	PS&E SHEET -- 78



WINNEBAGO COUNTY
GPS REFERENCE 2017-031
Y 550212.89
X 806825.26
49+99.98 1.33' RT



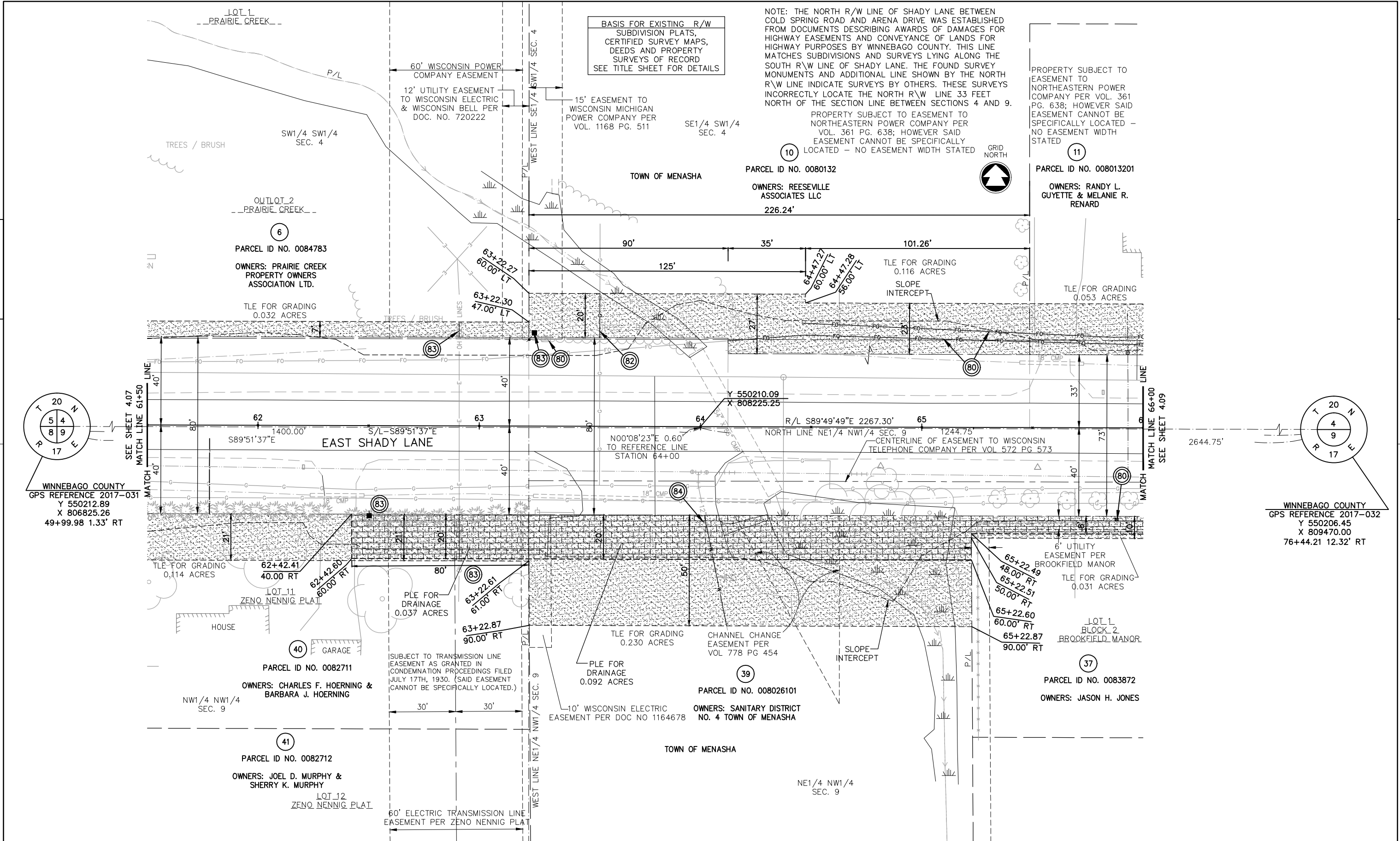
WINNEBAGO COUNTY
GPS REFERENCE 2017-032
Y 550206.45
X 809470.00
76+44.21 12.32' RT



REVISION DATE 6/28/2013	DATE 3-13-13	SCALE, FEET 0 20 40	HWY: EAST SHADY LANE	STATE R/W PROJECT NUMBER ----	PLAT SHEET 4.07
	GRID FACTOR N/A		COUNTY: WINNEBAGO	CONSTRUCTION PROJECT NUMBER 4992-00-53	PS&E SHEET -- 80

4

4



REVISION DATE 6/28/2013	DATE 3-13-13	SCALE, FEET 0 20 40	HWY: EAST SHADY LANE	STATE R/W PROJECT NUMBER ----	PLAT SHEET 4.08
	GRID FACTOR N/A		COUNTY: WINNEBAGO	CONSTRUCTION PROJECT NUMBER 4992-00-53	PS&E SHEET --81

BASIS FOR EXISTING R/W
SUBDIVISION PLATS,
CERTIFIED SURVEY MAPS,
DEEDS AND PROPERTY
SURVEYS OF RECORD
SEE TITLE SHEET FOR DETAILS

10' DISTRIBUTION EASEMENT TO
WISCONSIN ELECTRIC POWER COMPANY
& WISCONSIN GAS COMPANY FOR JOINT
ELECTRIC & GAS PER DOC NO 1381669



PROPERTY SUBJECT TO EASEMENT TO
NORTHEASTERN POWER COMPANY PER
VOL. 361 PG. 636; HOWEVER SAID
EASEMENT CANNOT BE SPECIFICALLY
LOCATED - NO EASEMENT WIDTH STATED

SE1/4 SW1/4
SEC. 4

PARCEL ID NO. 008013111
OWNERS: MEE BELLEVUE, LLC
TOWN OF MENASHA

NOTE: THE NORTH R/W LINE OF SHADY LANE
BETWEEN COLD SPRING ROAD AND ARENA DRIVE
WAS ESTABLISHED FROM DOCUMENTS DESCRIBING
AWARDS OF DAMAGES FOR HIGHWAY EASEMENTS
AND CONVEYANCE OF LANDS FOR HIGHWAY
PURPOSES BY WINNEBAGO COUNTY. THIS LINE
MATCHES SUBDIVISIONS AND SURVEYS LYING
ALONG THE SOUTH R/W LINE OF SHADY LANE.
THE FOUND SURVEY MONUMENTS AND ADDITIONAL
LINE SHOWN BY THE NORTH R/W LINE INDICATE
SURVEYS BY OTHERS. THESE SURVEYS
INCORRECTLY LOCATE THE NORTH R/W LINE 33
FEET NORTH OF THE SECTION LINE BETWEEN
SECTIONS 4 AND 9.

PROPERTY SUBJECT TO
UNRESTRICTED EASEMENT IN
GROSS TO TIME WARNER
CABLE PER DOC NO 1375785

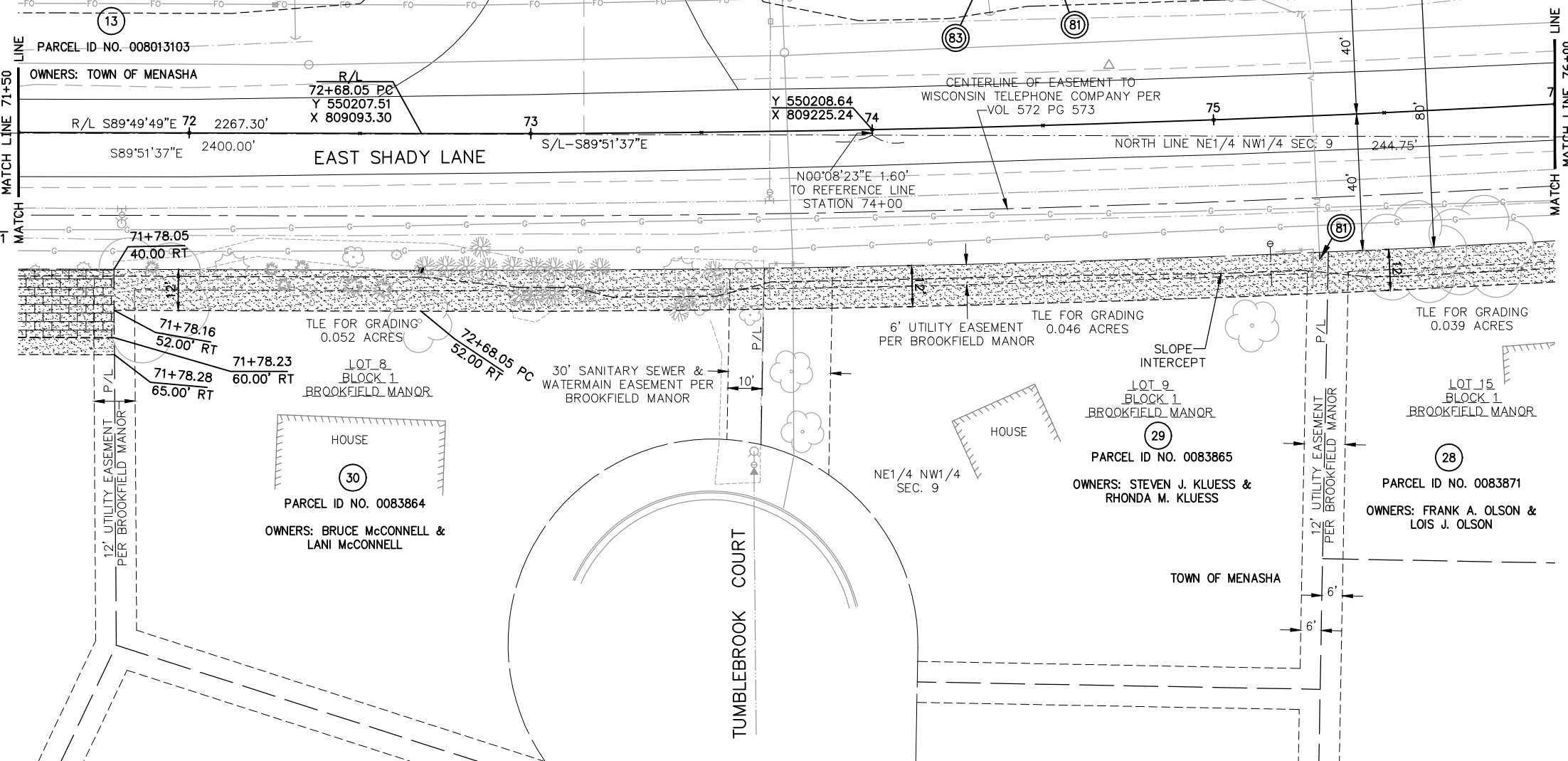
LIMITED COMMON AREA
ASSIGNED TO UNIT 1

LIMITED COMMON AREA
ASSIGNED TO UNIT 8

206.81'

MENASHA ESTATES CONDOMINIUMS
CONDOMINIUM PLAT

MENASHA ESTATES CONDOMINIUMS
CONDOMINIUM PLAT



WINNEBAGO COUNTY
GPS REFERENCE 2017-031
Y 550212.89
X 806825.26
49+99.98 1.33' RT

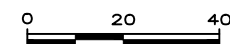
WINNEBAGO COUNTY
GPS REFERENCE 2017-032
Y 550206.45
X 809470.00
76+44.21 12.32' RT

REVISION DATE
6/28/2013

DATE 3-13-13

GRID FACTOR N/A

SCALE, FEET



HWY: EAST SHADY LANE

COUNTY: WINNEBAGO

STATE R/W PROJECT NUMBER ----

CONSTRUCTION PROJECT NUMBER 4992-00-53

PLAT SHEET 4.10

PS&E SHEET --83

E

BASIS FOR EXISTING R/W
SUBDIVISION PLATS,
CERTIFIED SURVEY MAPS,
DEEDS AND PROPERTY
SURVEYS OF RECORD
SEE TITLE SHEET FOR DETAILS

LOT 2
CSM NO. 4474
VOL. 1 PAGE 4474

SW1/4 SE1/4
SEC. 4



NOTE: THE NORTH R/W LINE OF SHADY LANE BETWEEN COLD SPRING ROAD AND ARENA DRIVE WAS ESTABLISHED FROM DOCUMENTS DESCRIBING AWARDS OF DAMAGES FOR HIGHWAY EASEMENTS AND CONVEYANCE OF LANDS FOR HIGHWAY PURPOSES BY WINNEBAGO COUNTY. THIS LINE MATCHES SUBDIVISIONS AND SURVEYS LYING ALONG THE SOUTH R/W LINE OF SHADY LANE. THE FOUND SURVEY MONUMENTS AND ADDITIONAL LINE SHOWN BY THE NORTH R/W LINE INDICATE SURVEYS BY OTHERS. THESE SURVEYS INCORRECTLY LOCATE THE NORTH R/W LINE 33 FEET NORTH OF THE SECTION LINE BETWEEN SECTIONS 4 AND 9.

PARCEL ID NO. 008014002
OWNERS: 720 EAST SHADY LANE, LLC

TOWN OF MENASHA

WINNEBAGO COUNTY
GPS REFERENCE 2017-032
Y 550206.45
X 809470.00
76+44.21 12.32' RT

14' EASEMENT TO NORTHEASTERN
POWER COMPANY PER VOL 378 PG 155
ASSIGNED TO WISCONSIN MICHIGAN
POWER COMPANY PER VOL 862 PG 35
(ASSUMED EASEMENT LOCATION BASED
ON EXISTING UTILITY LINES)

TLE FOR GRADING
0.120 ACRES

SLOPE
INTERCEPT

Y 550238.18
X 809724.27

C/L E. SHADY LN 77+08.82
C/L TUMBLEBROOK RD 10+00.00
Y-550223.15
X-809533.69

CENTERLINE OF EASEMENT TO
WISCONSIN MICHIGAN POWER
COMPANY VOL 434 PG 86

N00°09'02"E 32.40'
TO REFERENCE LINE
STATION 79+00

R/L N85°28'11"E 447.08'

EAST SHADY LANE

R/L
77+38.06 PT
Y 550225.39
X 809562.84

NORTH LINE NW1/4 NE1/4 SEC. 9
254.19'

S/L-S89°50'58"E

2395.94'

2650.13'

PLE FOR
DRAINAGE
0.170 ACRES

PARCEL ID NO. 008025202

OWNERS: THE JUNGEN MARITAL
TRUST (ALINE M. JUNGEN-TRUSTEE)

WINNEBAGO COUNTY
GPS REFERENCE 2017-033
CALCULATED POINT
FROM WITNESS TIES
Y-550199.48
X-812120.12

PARCEL ID NO. 0083890
OWNERS: DAVID M. WATTERS

NW1/4 NE1/4
SEC. 9

TOWN OF MENASHA

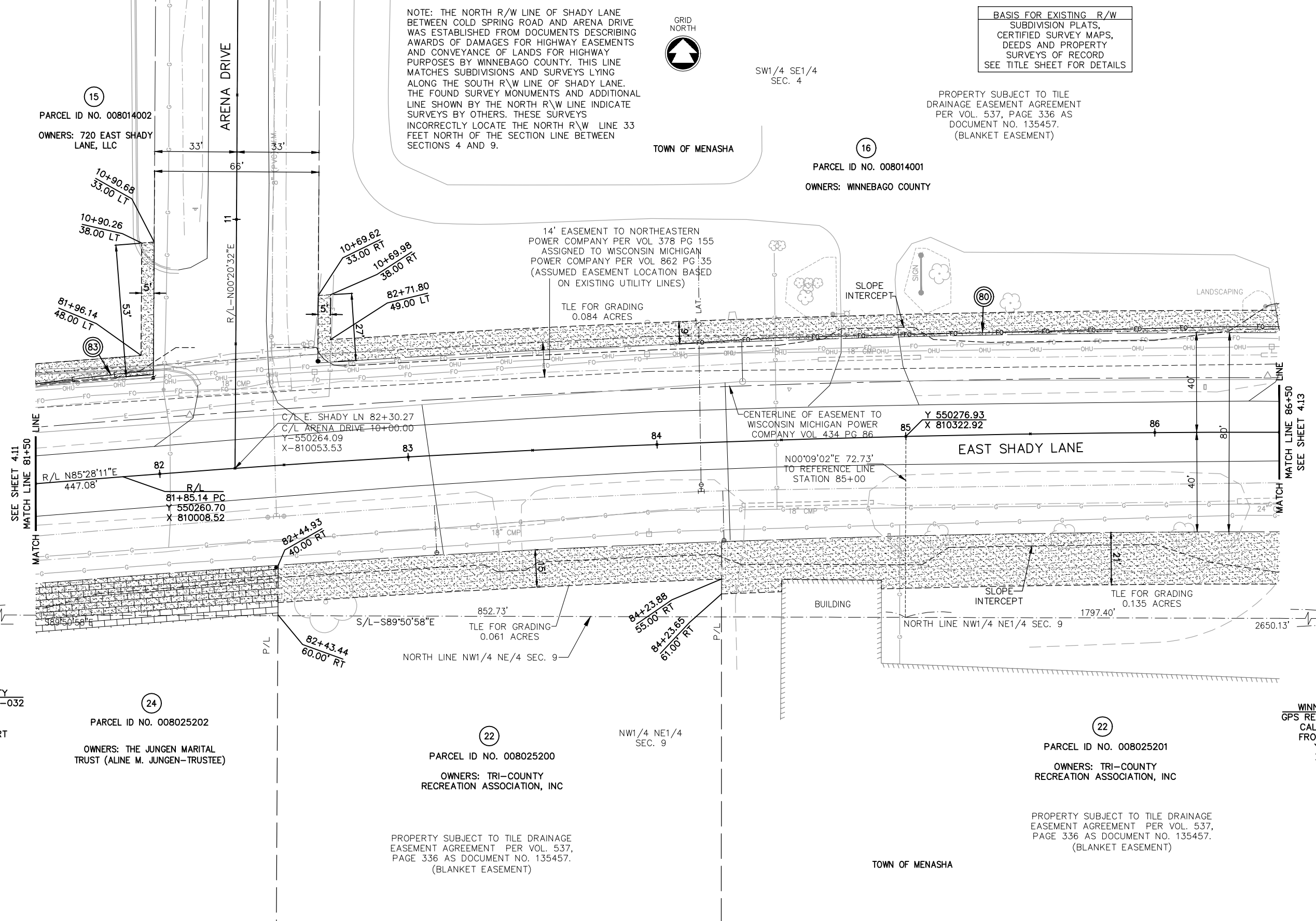
SEE SHEET 4.10
MATCH LINE 76+00

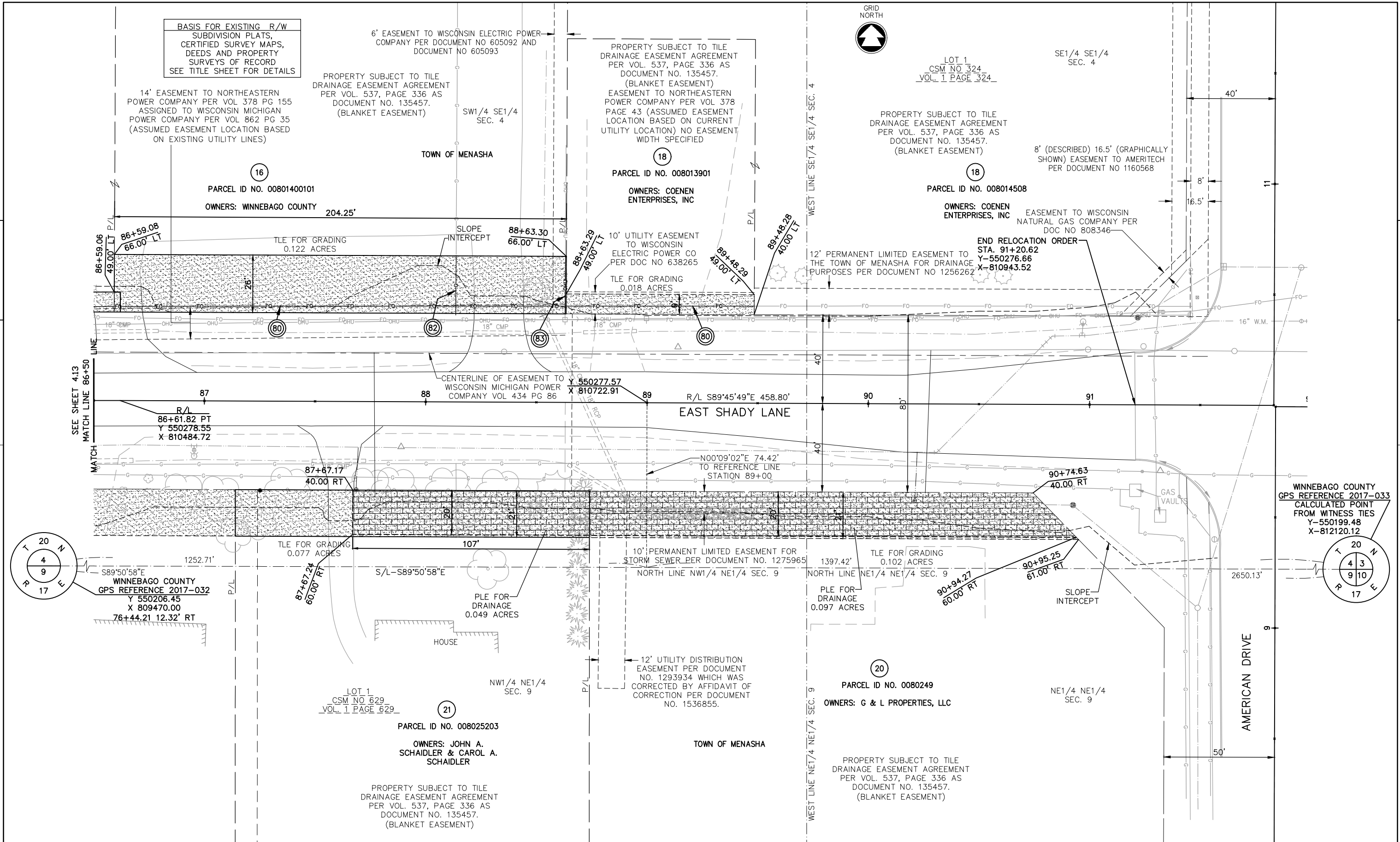
MATCH LINE 81+50
SEE SHEET 4.12

SEE SHEET 4.10
MATCH LINE 76+00

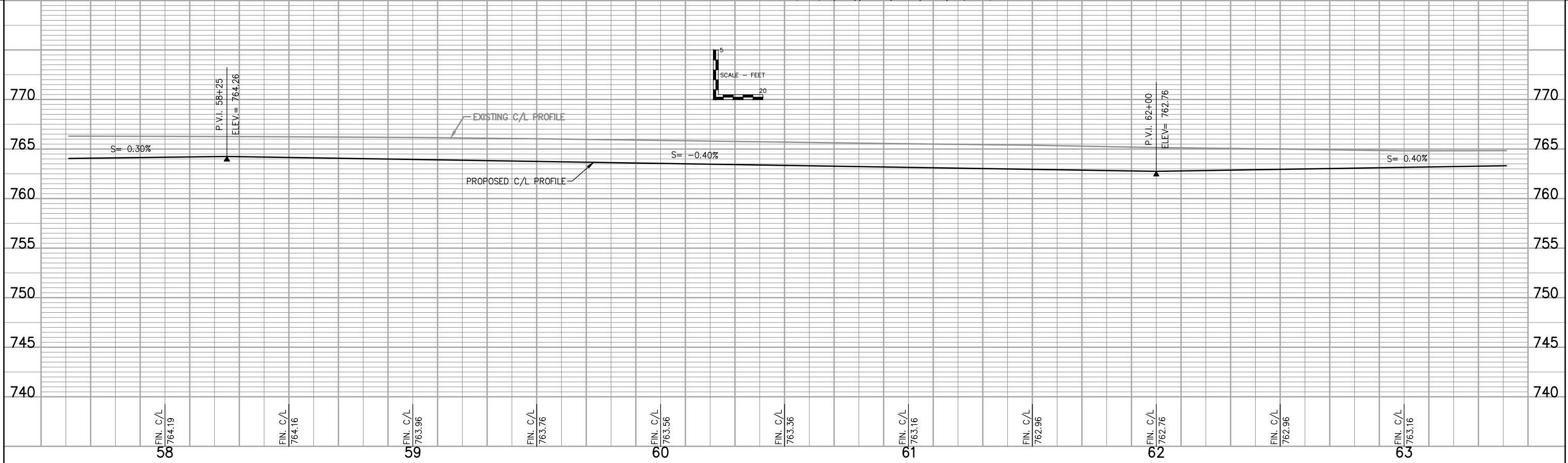
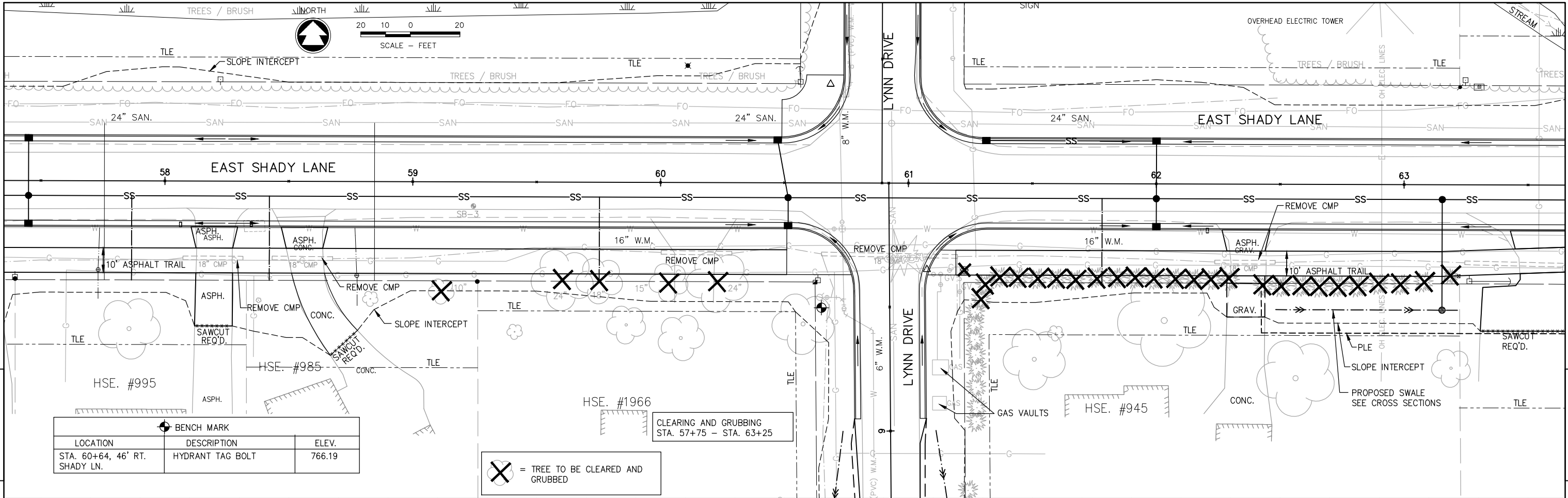
MATCH LINE 81+50
SEE SHEET 4.12

REVISION DATE 6/28/2013	DATE 3-13-13	SCALE, FEET 0 20 40	HWY: EAST SHADY LANE	STATE R/W PROJECT NUMBER ----	PLAT SHEET 4.11
	GRID FACTOR N/A		COUNTY: WINNEBAGO	CONSTRUCTION PROJECT NUMBER 4992-00-53	PS&E SHEET --84

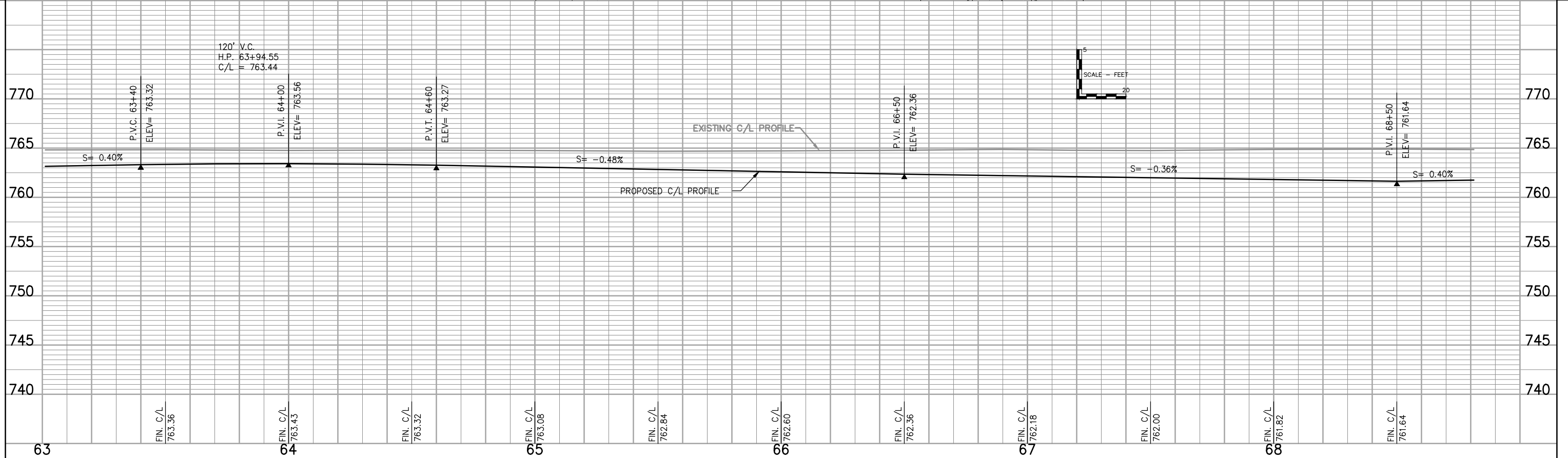
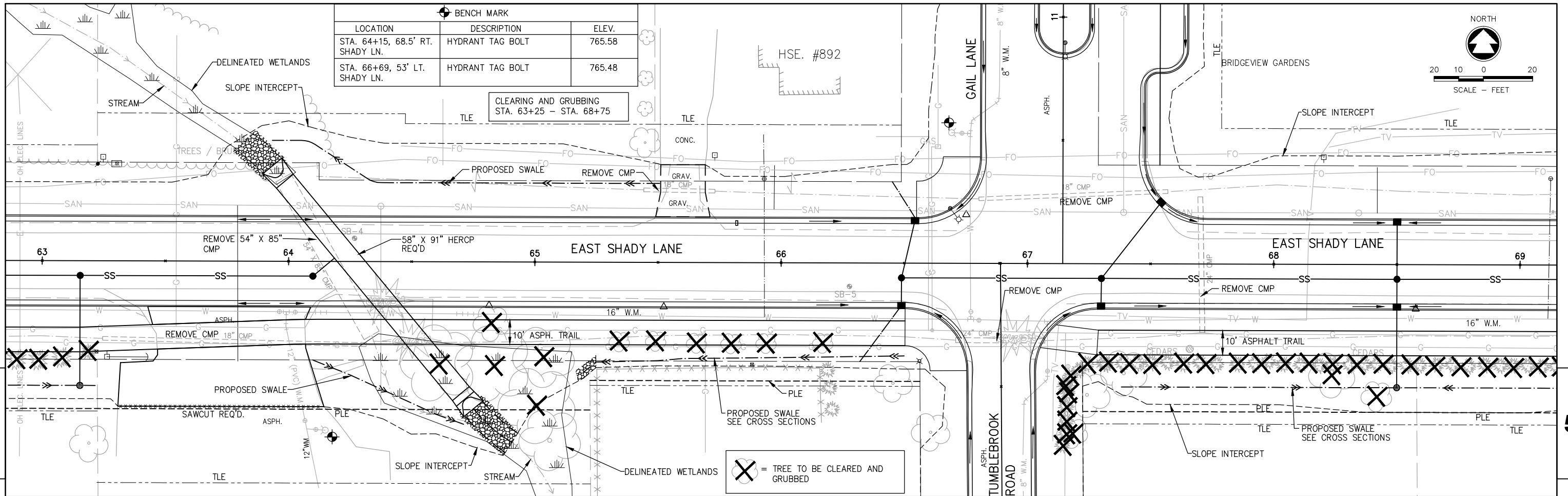


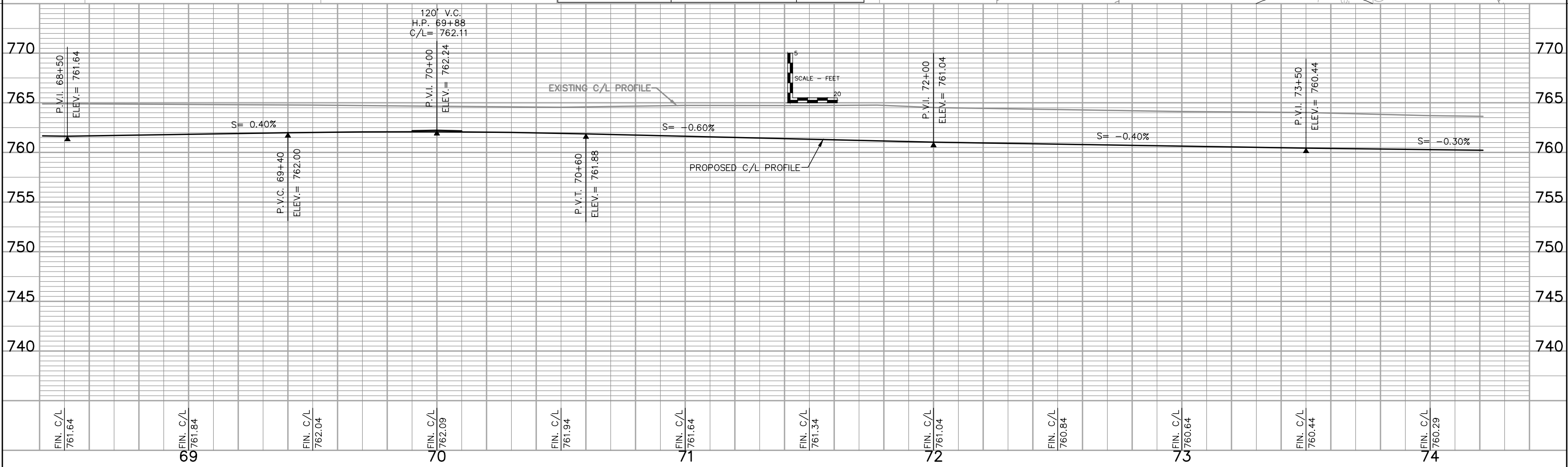
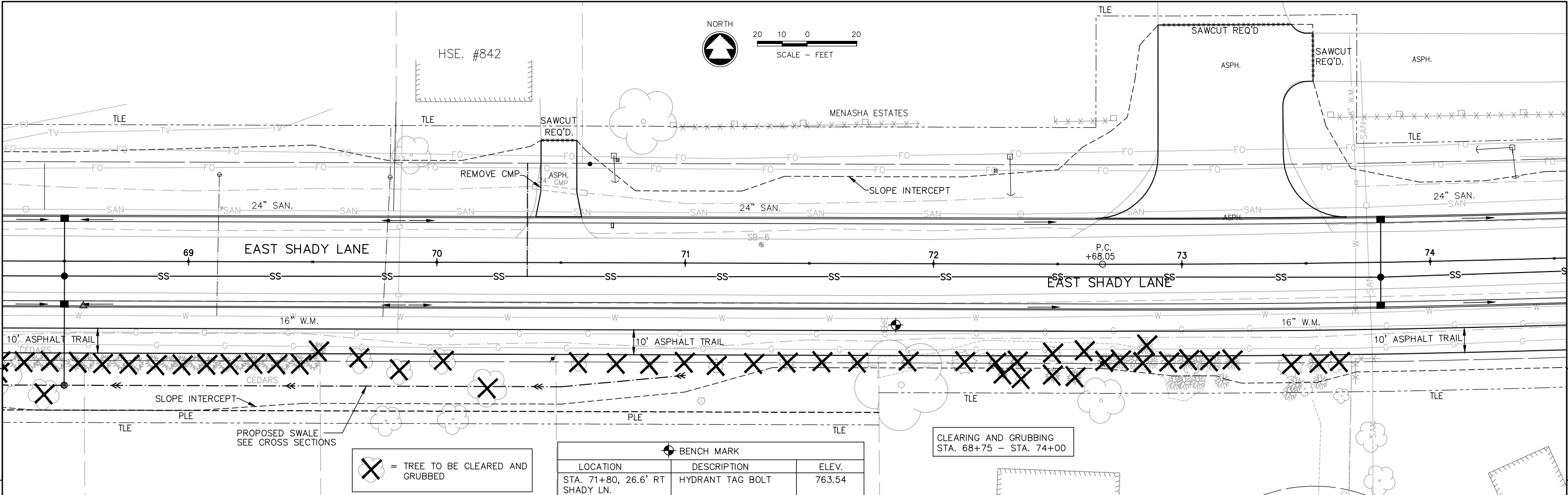


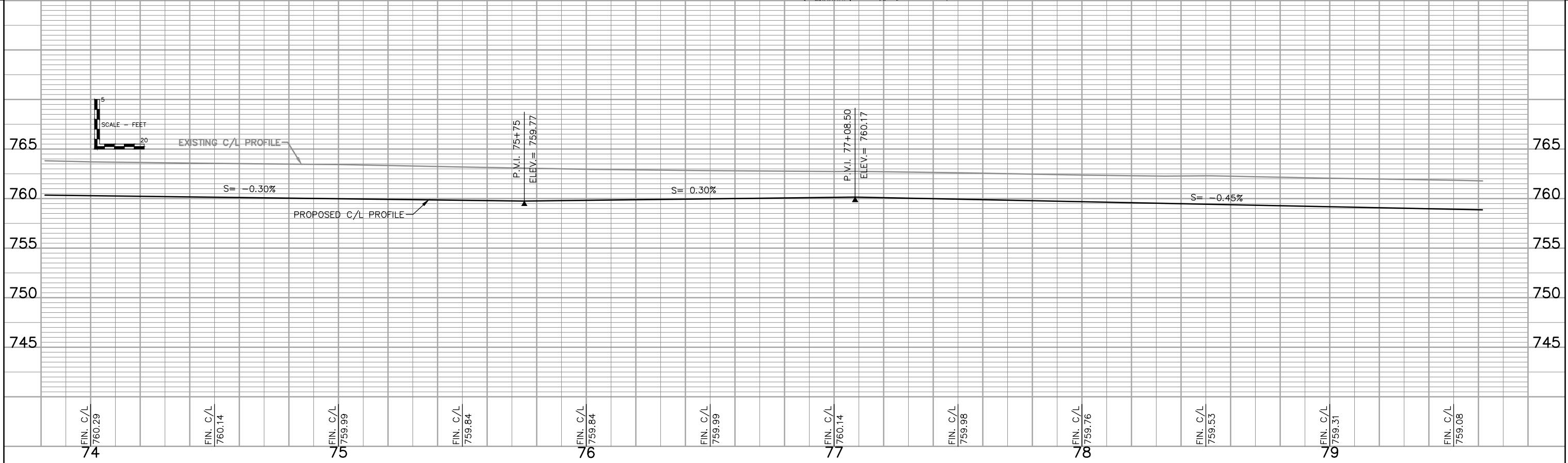
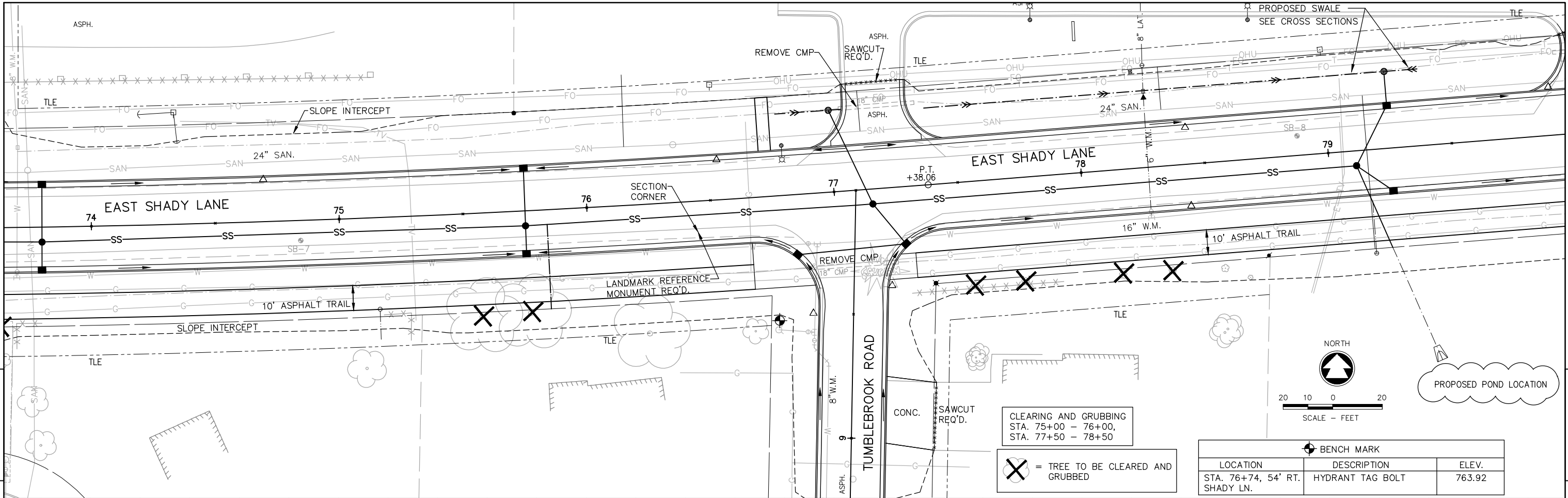
REVISION DATE 6/28/2013	DATE 3-13-13	SCALE, FEET 0 20 40	HWY: EAST SHADY LANE	STATE R/W PROJECT NUMBER ----	PLAT SHEET 4.13
	GRID FACTORN/A		COUNTY: WINNEBAGO	CONSTRUCTION PROJECT NUMBER 4992-00-53	PS&E SHEET -- 86

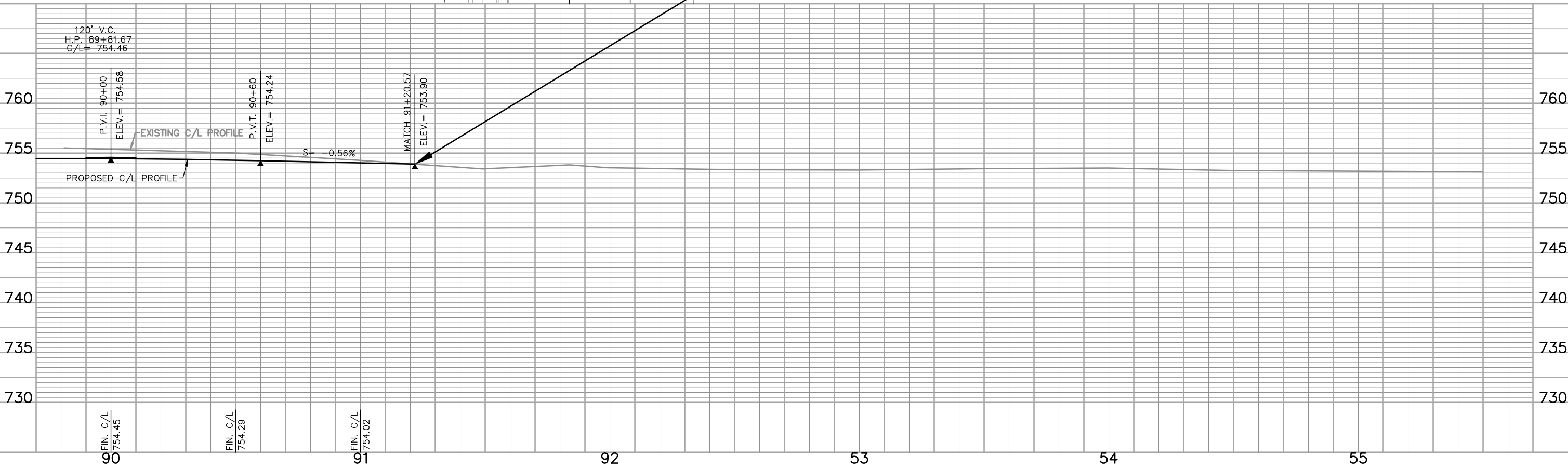
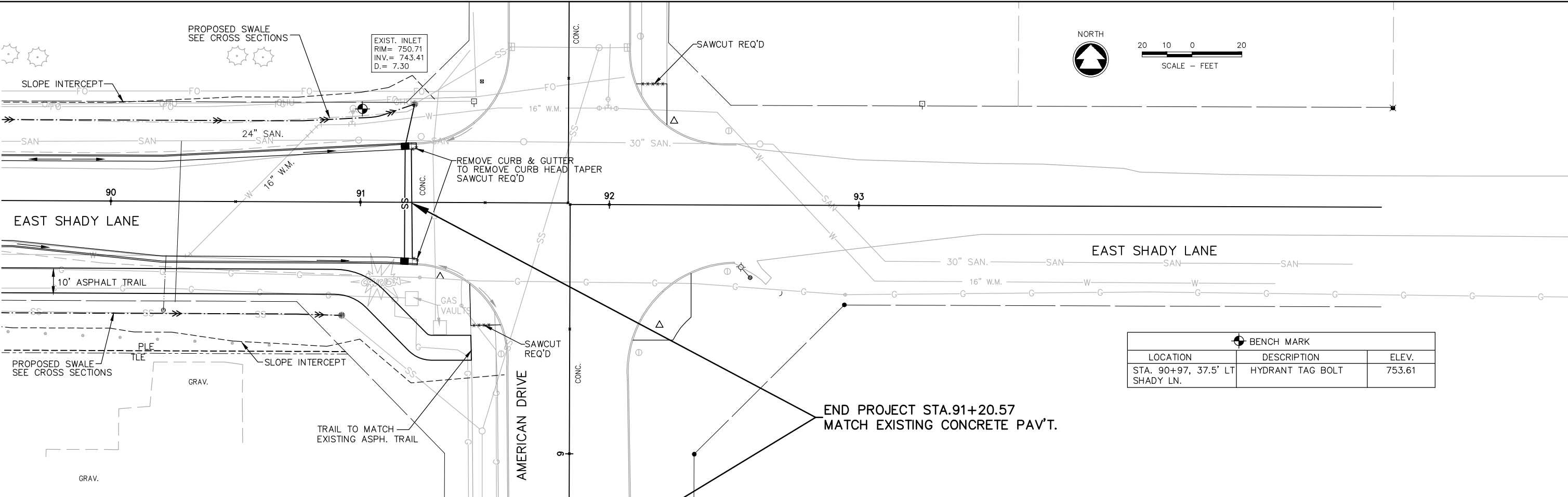


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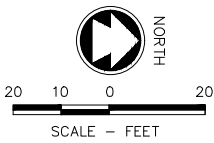






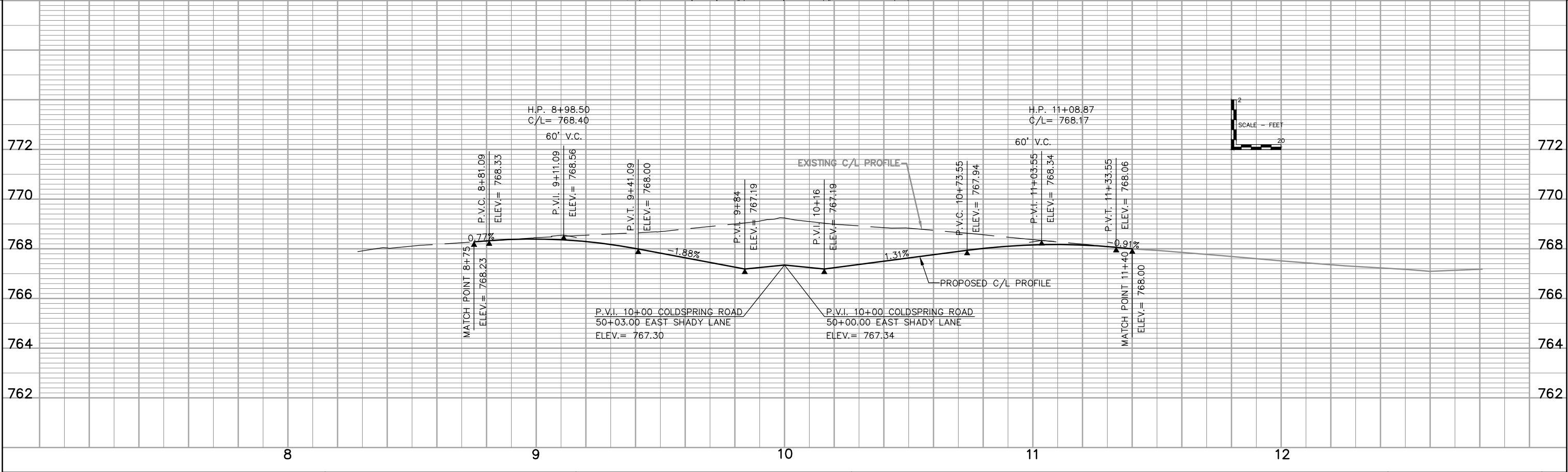
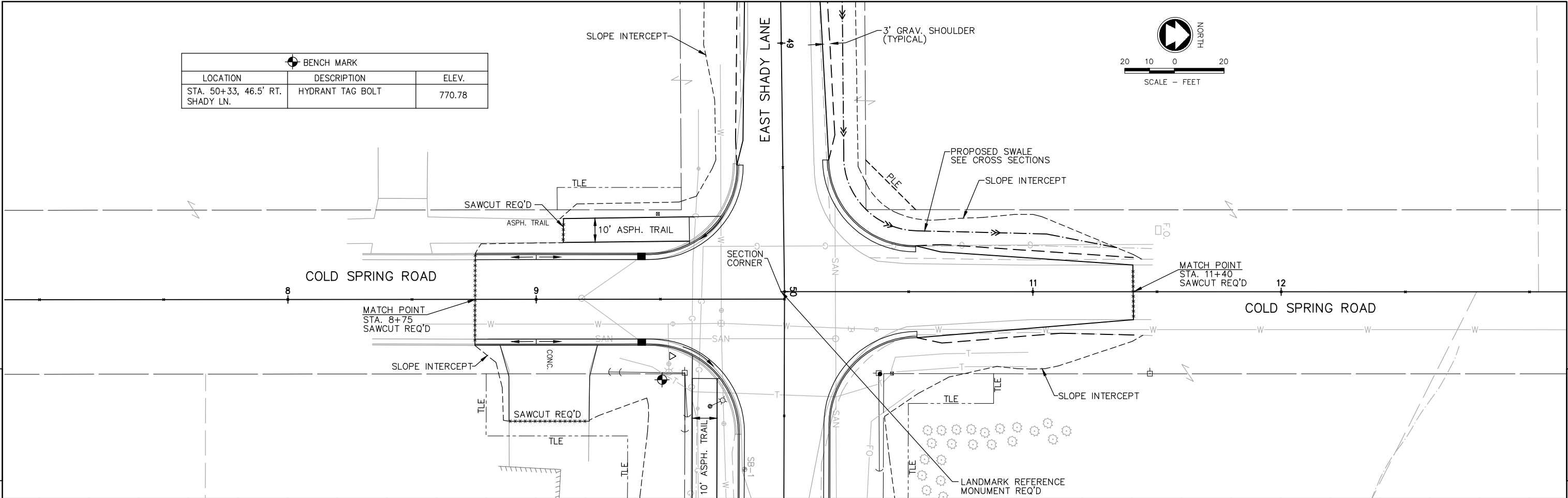
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BENCH MARK		
LOCATION	DESCRIPTION	ELEV.
STA. 50+33, 46.5' RT. SHADY LN.	HYDRANT TAG BOLT	770.78

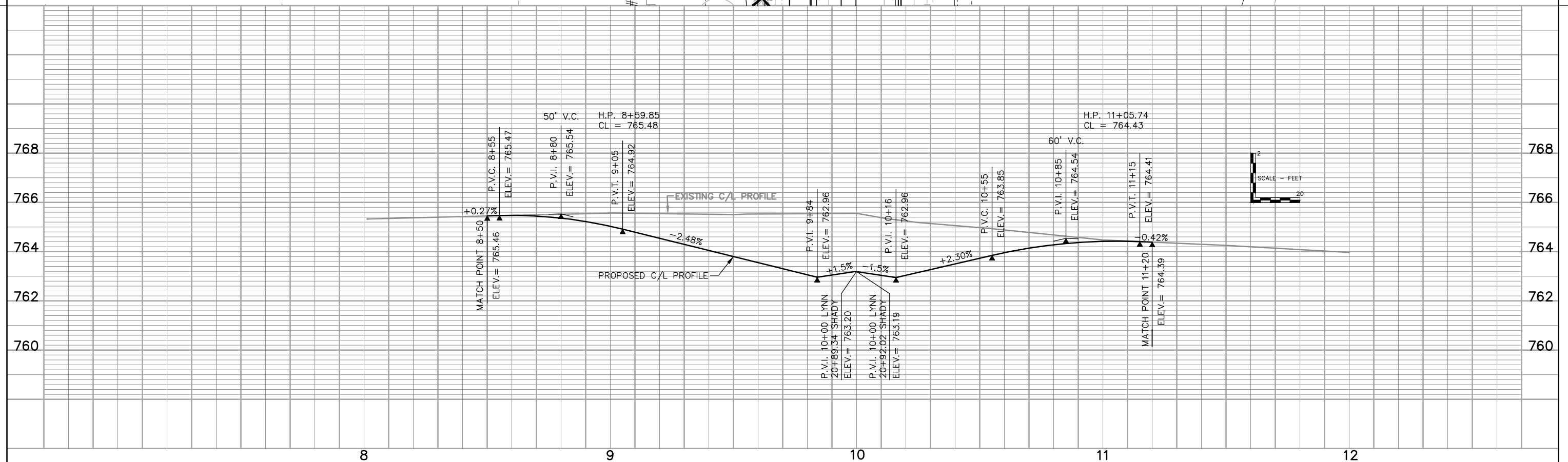
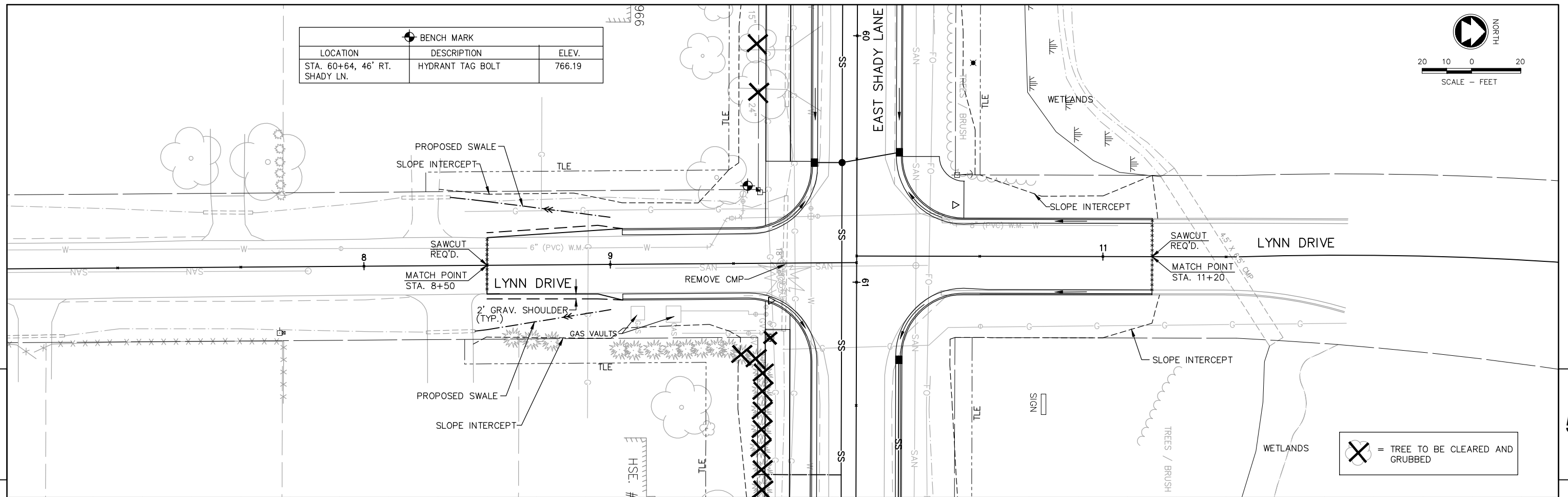
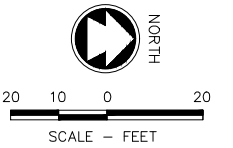


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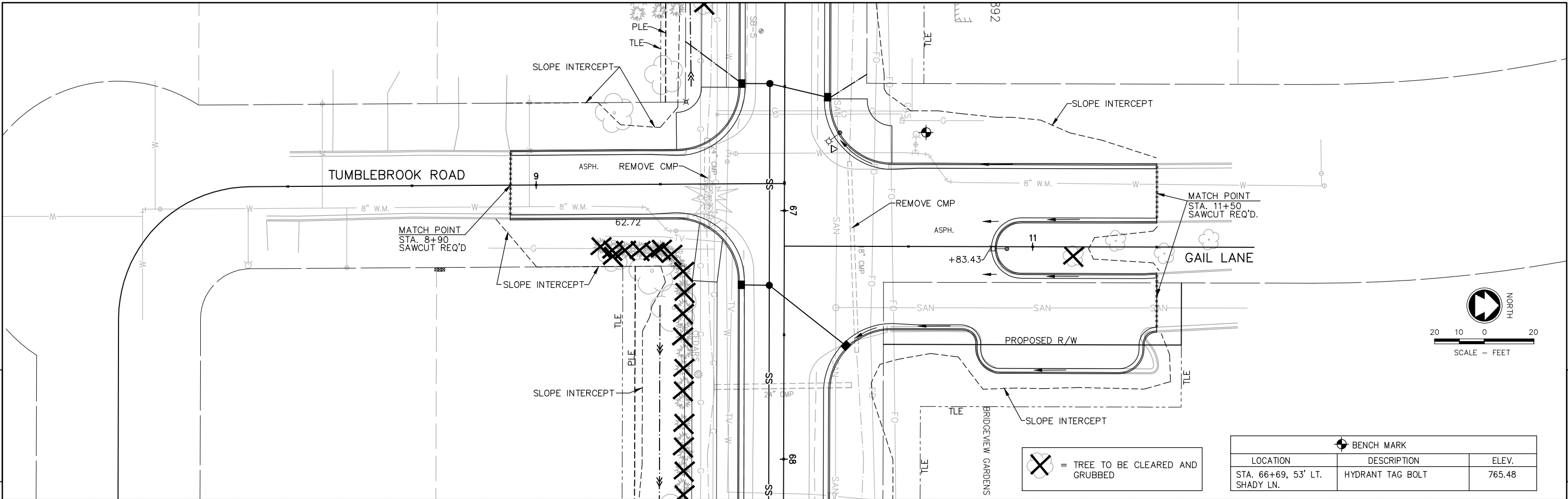
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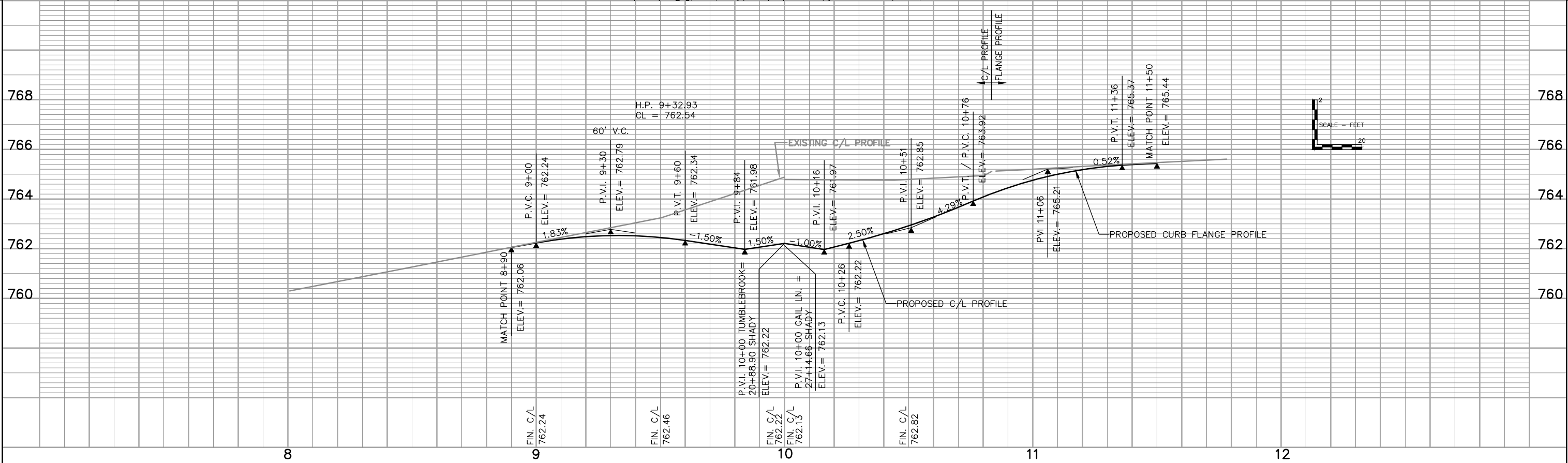
BENCH MARK		
LOCATION	DESCRIPTION	ELEV.
STA. 60+64, 46' RT. SHADY LN.	HYDRANT TAG BOLT	766.19



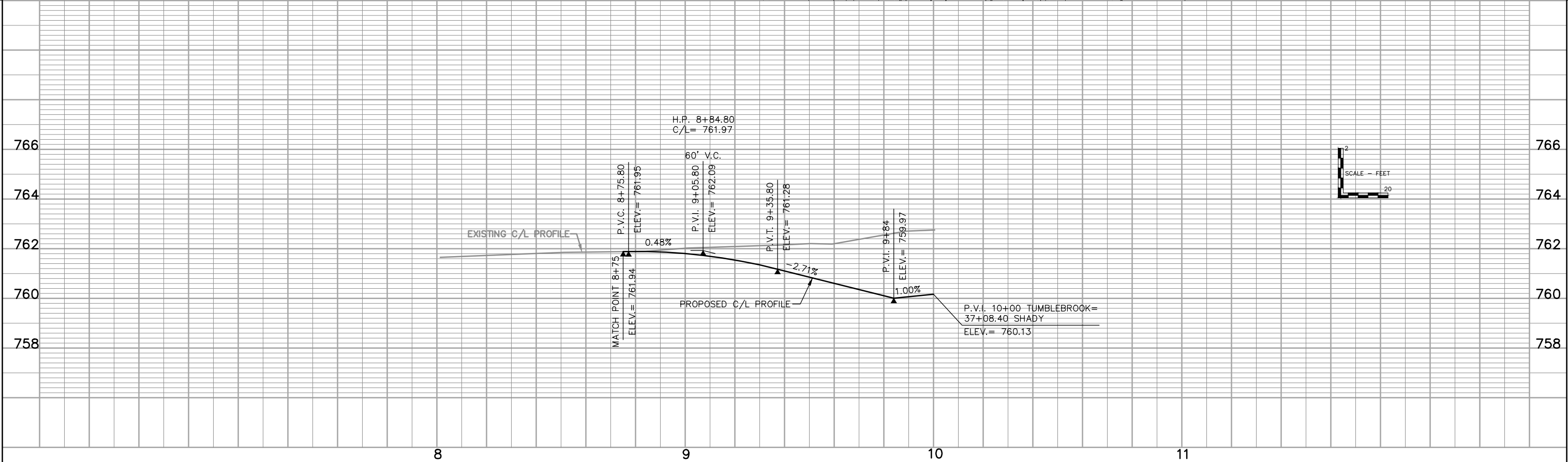
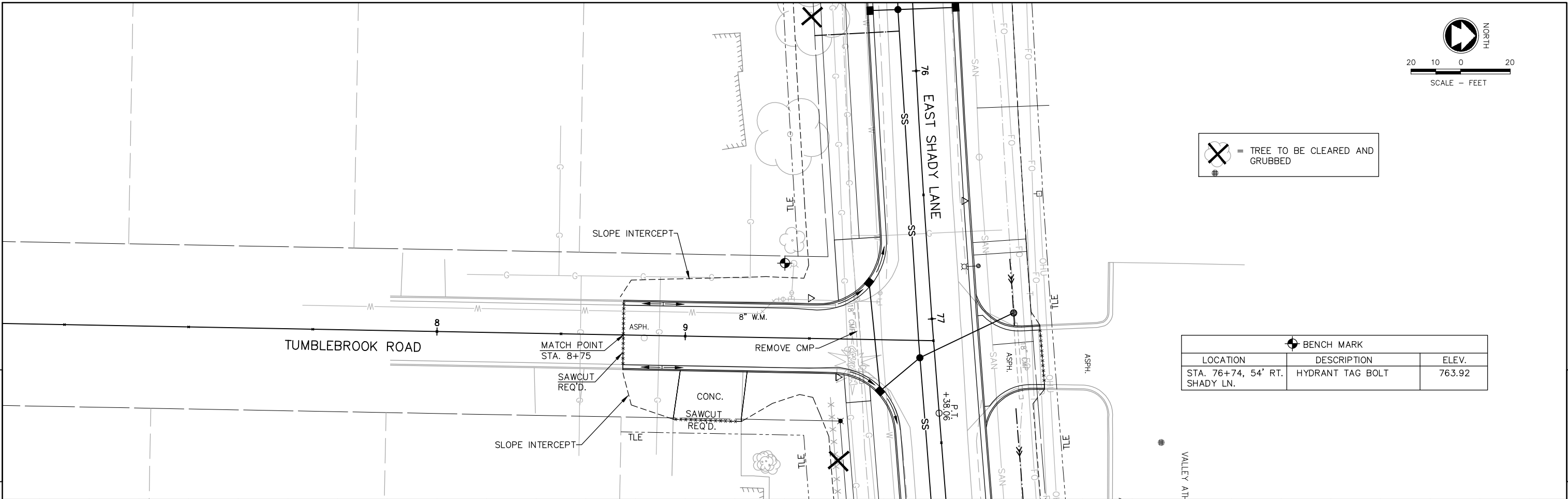
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5

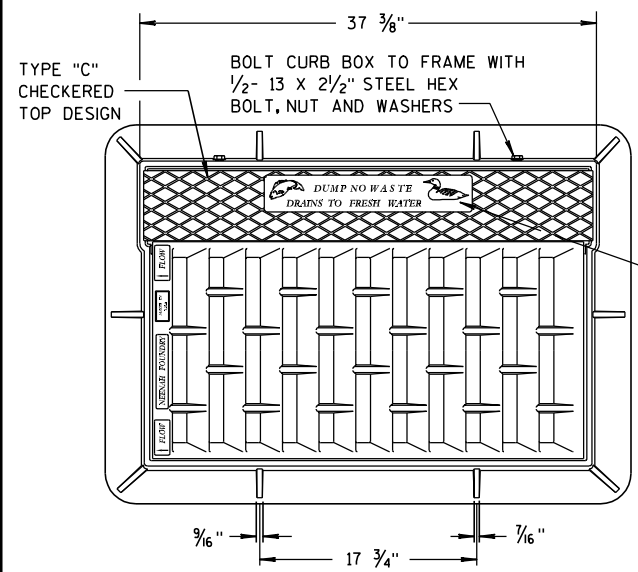


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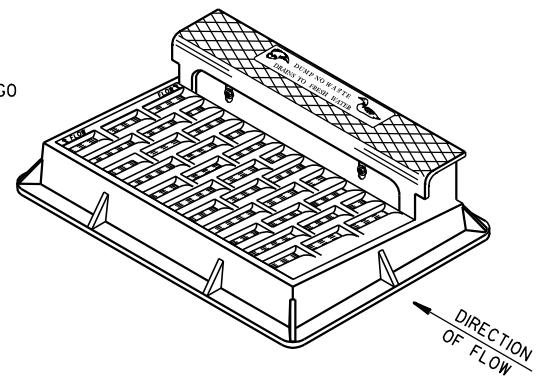


Standard Detail Drawing List

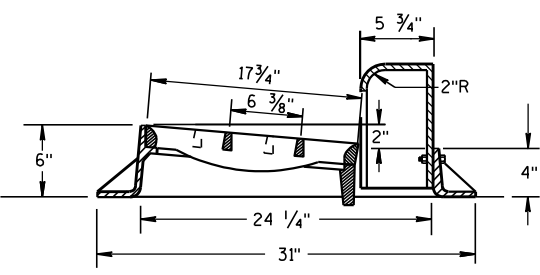
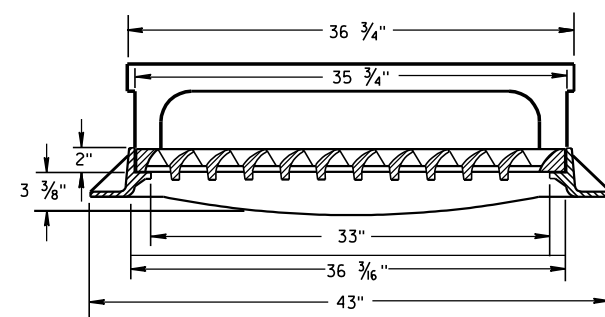
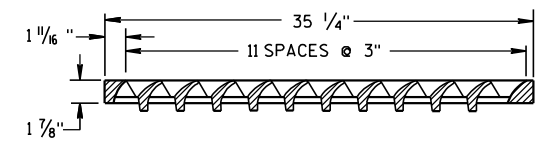
08A05-18A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-18D	INLET COVER, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-01	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08A09-01	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
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
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C29-03D	URBAN BICYCLE LANE MARKING
15C29-03E	PAVEMENT MARKING FOR BIKE LANES
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS



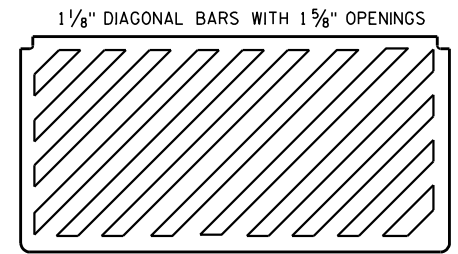
NOTE:
GRATE IS REVERSIBLE.



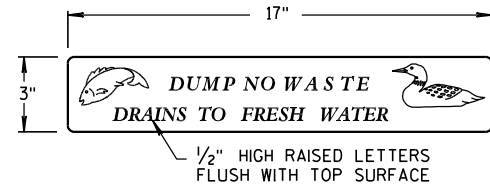
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



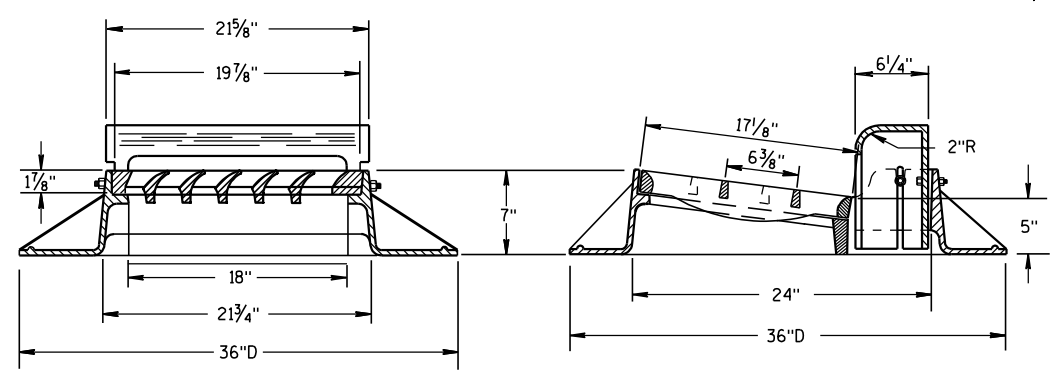
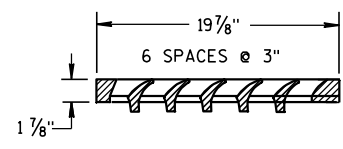
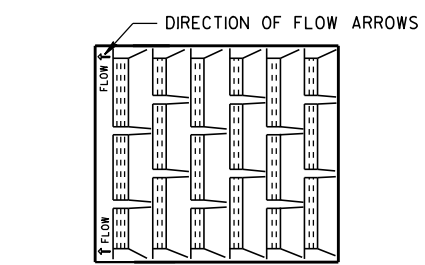
TYPE "H"
(APPROXIMATE WEIGHT 441 LBS.)
FRAME..... 181 LBS.
GRATE..... 146 LBS.
CURB BOX..... 114 LBS.



SPECIAL GRATE FOR TYPE "H" COVER
(MEASURES 35 1/4" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 159 LBS.)
GRATE..... 159 LBS.
(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



TYPE "A"
(APPROXIMATE WEIGHT 340 LBS.)
FRAME..... 185 LBS.
GRATE..... 71 LBS.
CURB BOX..... 84 LBS.

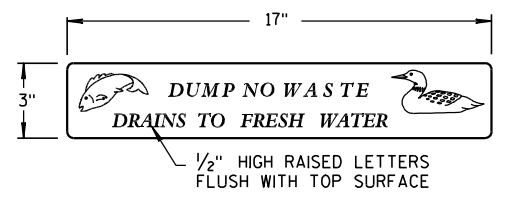
GENERAL NOTES

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 CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

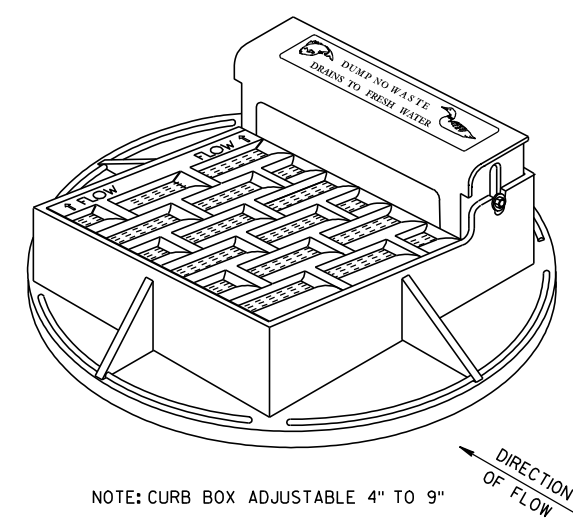
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

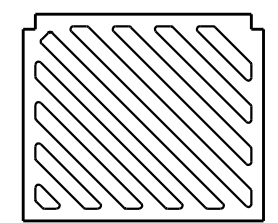


LOGO DETAIL

NOTE:
GRATE IS REVERSIBLE.



1" DIAGONAL BARS WITH 1 1/2" OPENINGS

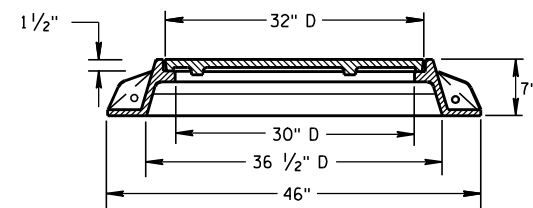
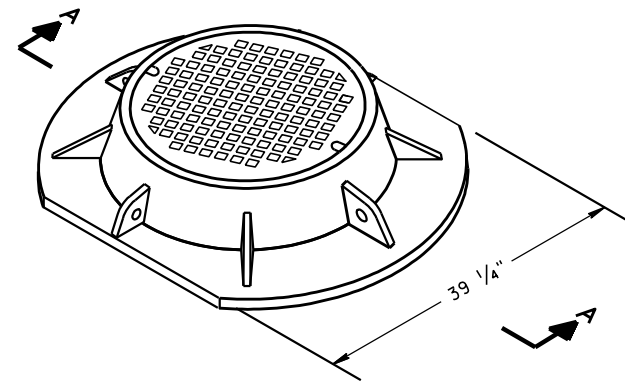


SPECIAL GRATE FOR TYPE "A" COVER
(MEASURES 19 3/4" X 17" X 1 7/8")
GRATE..... 84 LBS.
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

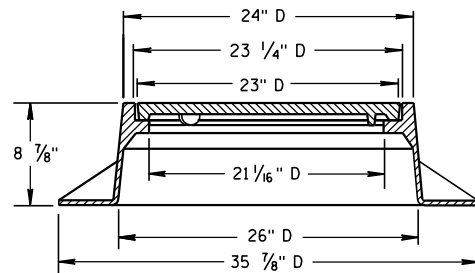
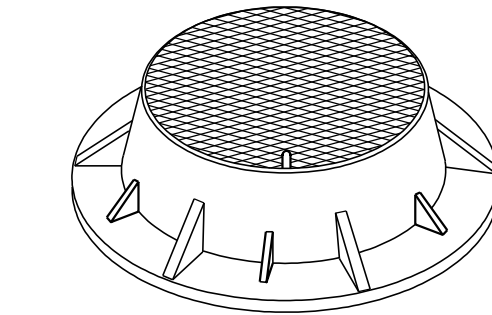
**INLET COVERS
TYPE A, H, A-S, & H-S**

STATE OF WISCONSIN
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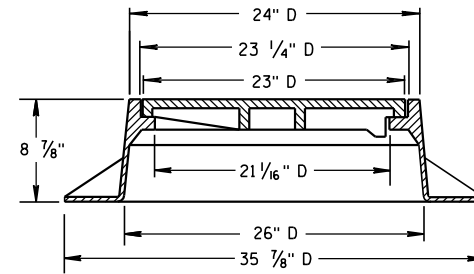
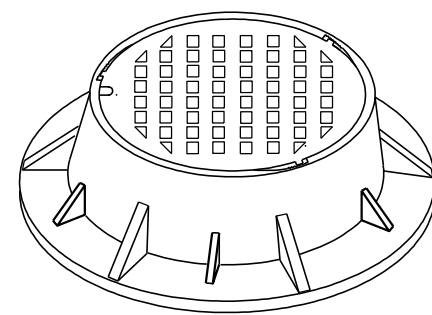
APPROVED
6/5/2012 DATE /S/ Jerry H. Zocco ROADWAY STANDARDS 101 ENGINEER
FHWA



SECTION A-A
TYPE "K"
(APPROXIMATE WEIGHT 439 LBS.)
FRAME.....216 LBS.
LID.....223 LBS.



TYPE "J"
(APPROXIMATE WEIGHT 267 LBS.)
FRAME.....152 LBS.
LID.....115 LBS.



TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(APPROXIMATE WEIGHT 267 LBS.)
FRAME.....158 LBS.
LID.....109 LBS.
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

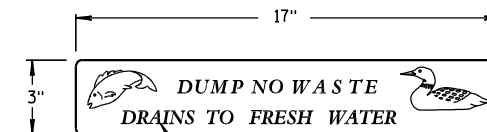
GENERAL NOTES

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.

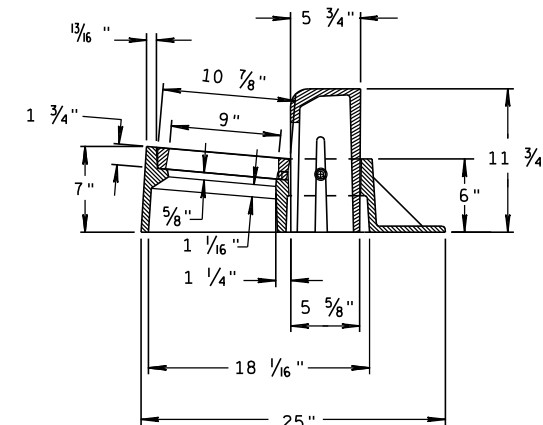
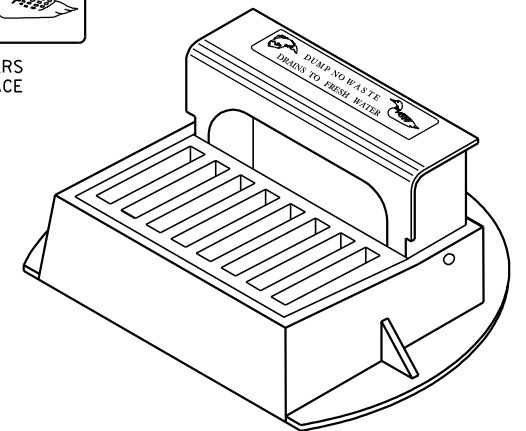
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

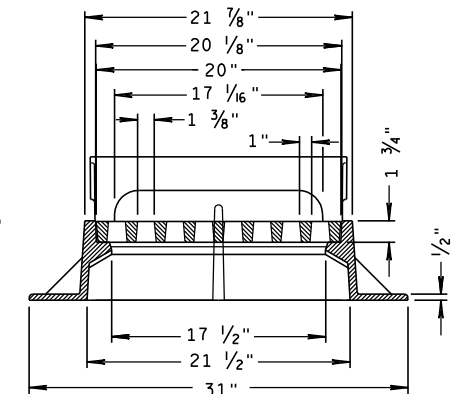
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



LOGO DETAIL



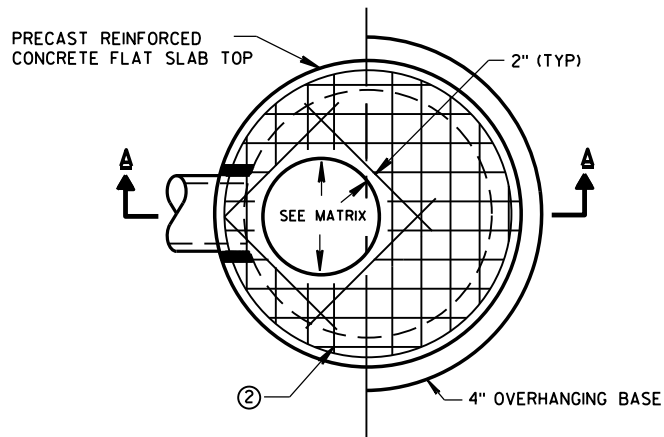
INLET COVER TYPE "Z"
(APPROXIMATE WEIGHT 344 LBS.)
FRAME.....206 LBS.
GRATE.....46 LBS.
CURB BOX.....92 LBS.



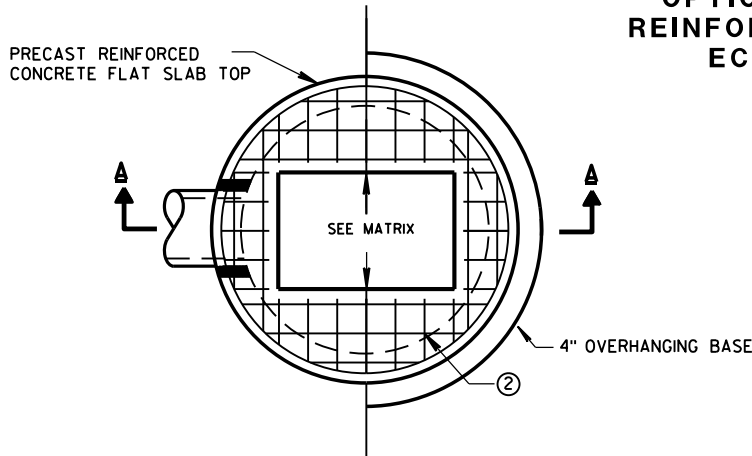
INLET COVERS, TYPE BW, Z
MANHOLE COVERS, TYPE
K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

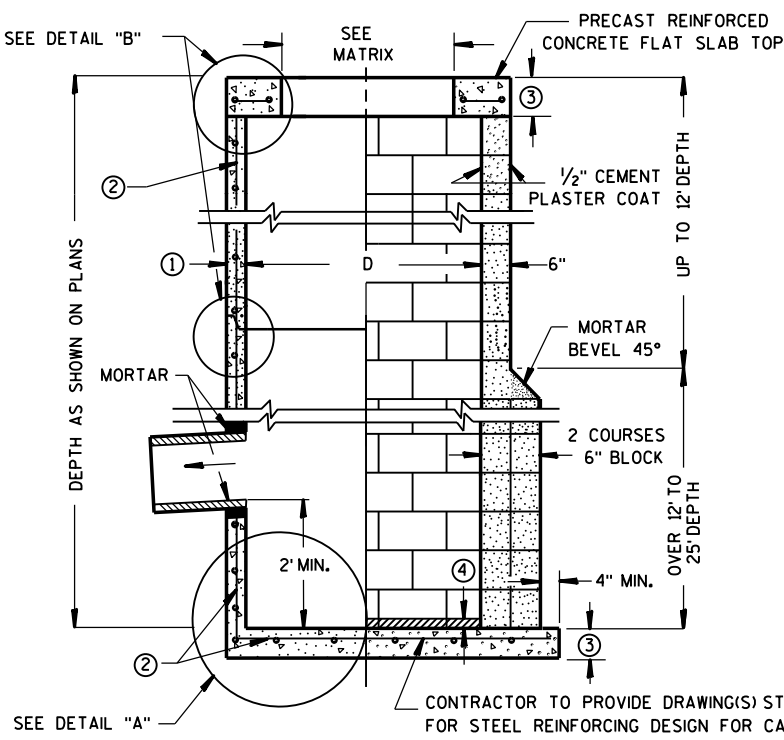
APPROVED
6/5/2012 DATE /S/ Jerry H. Zocco
FHWA ROADWAY STANDARDS 102 NT
ENGINEER



PLAN VIEW CIRCULAR OPENING



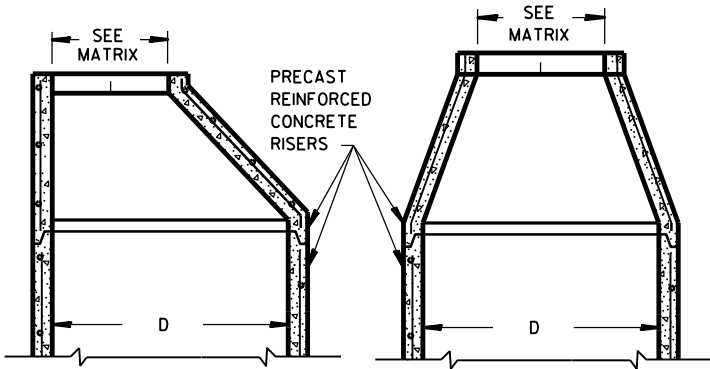
PLAN VIEW RECTANGULAR OPENING



SECTION A-A

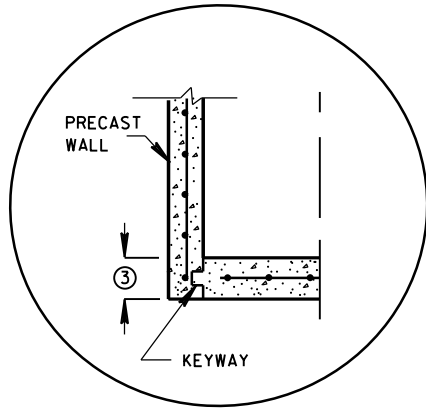
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

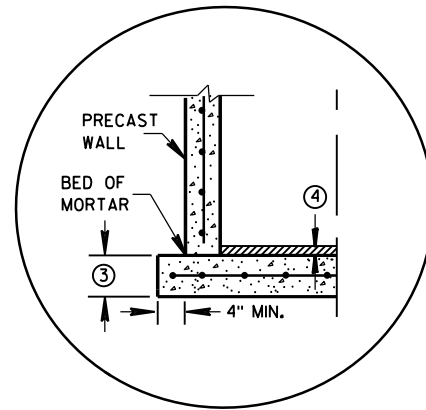


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



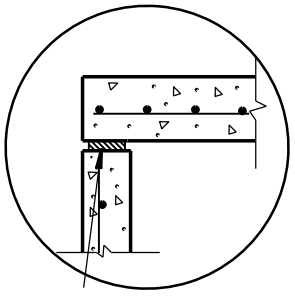
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



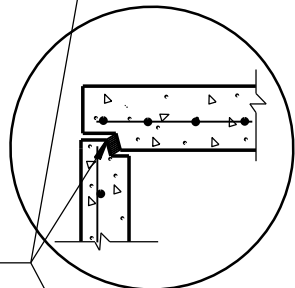
SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

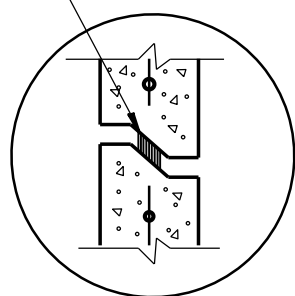
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



TOP WITH PLAIN END JOINT

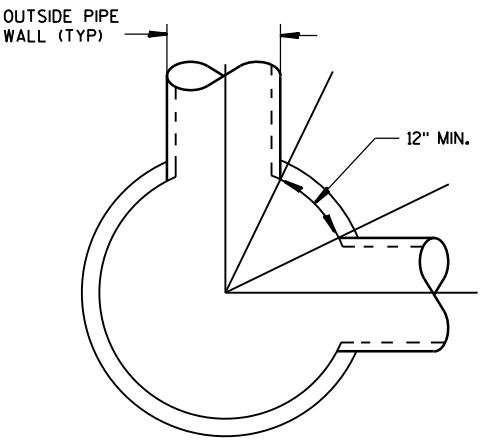


TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



DETAIL "C"

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 CATCH BASIN 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 GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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 INCH 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.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

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

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".

- MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.
- FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- 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".
- 1" CONCRETE KEY POURED AFTER INSTALLATION. 2" SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE OPENING SIZE (FT)	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
3-FT	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT- 6-FT	2X2	X	X							X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

PIPE MATRIX

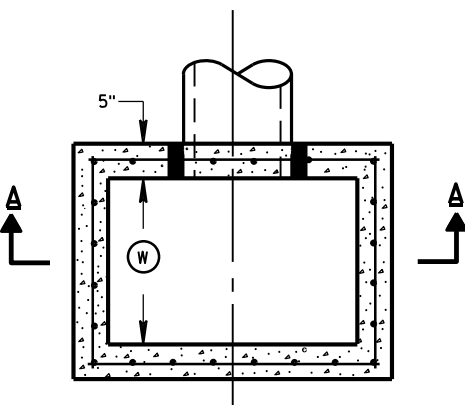
CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

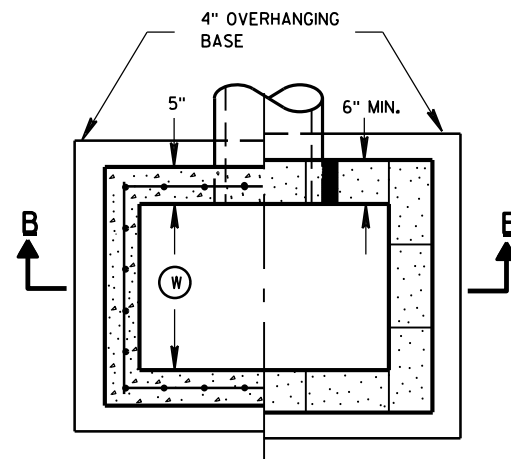
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 DATE /S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER 103
FHWA

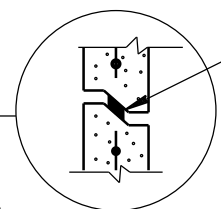
CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER



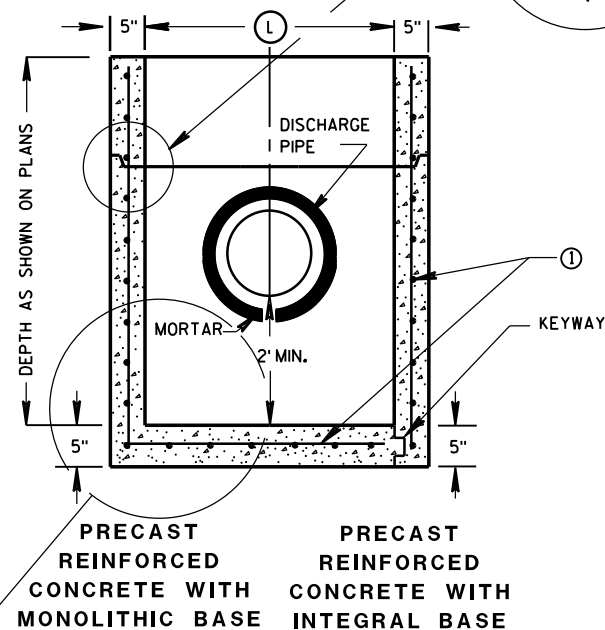
PLAN VIEW



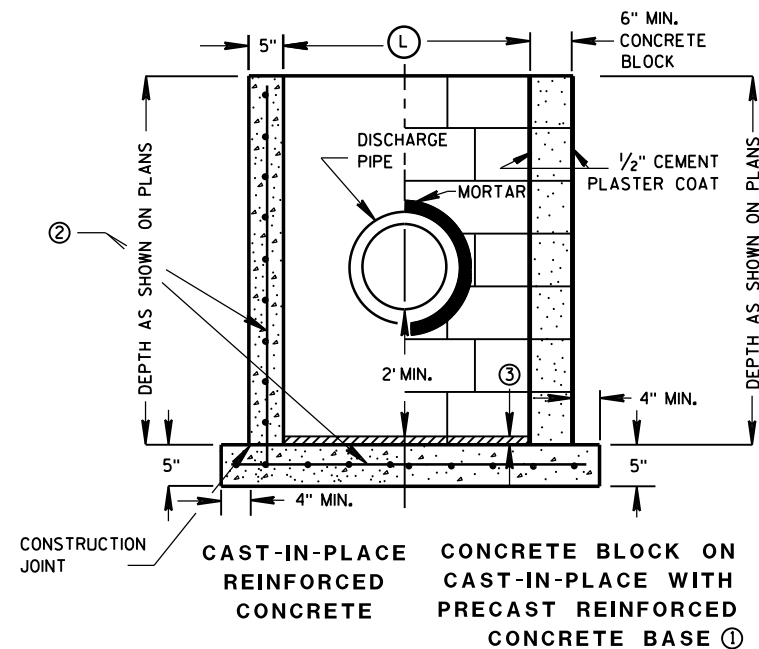
PLAN VIEW



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

CATCH BASINS 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 CATCH BASIN 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 CATCH BASIN 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 GRANULAR 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" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST CATCH BASINS 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.

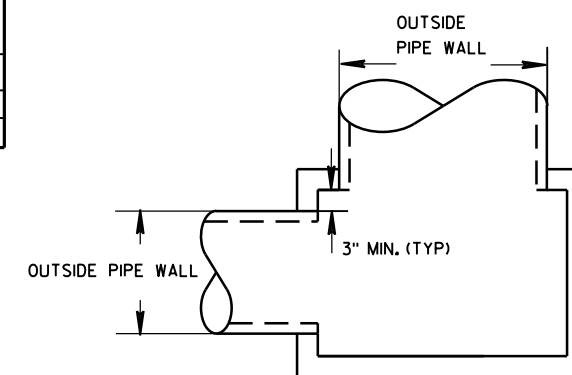
③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE	WIDTH (W) (FT)	LENGTH (L) (FT)	F	ALL H'S
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

CATCH BASINS 2X3-FT
AND 2.5X3-FT

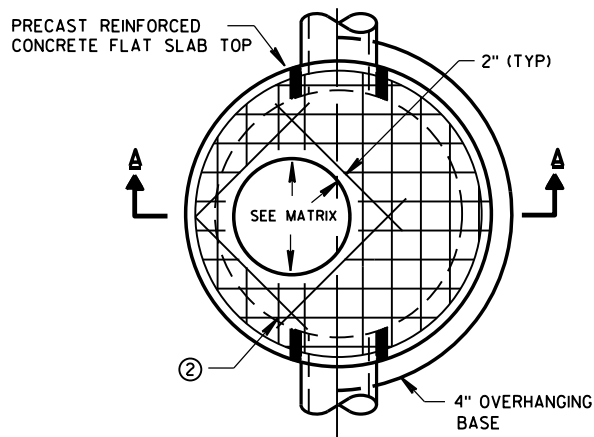
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

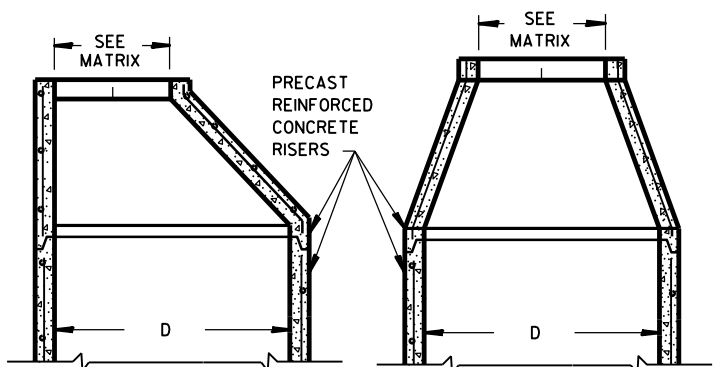
6/5/2012
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS 104
ENGINEER

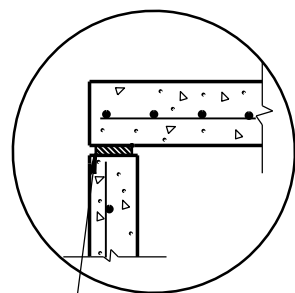


PLAN VIEW CIRCULAR OPENING

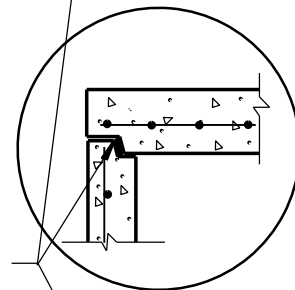


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

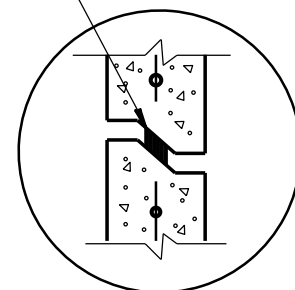
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



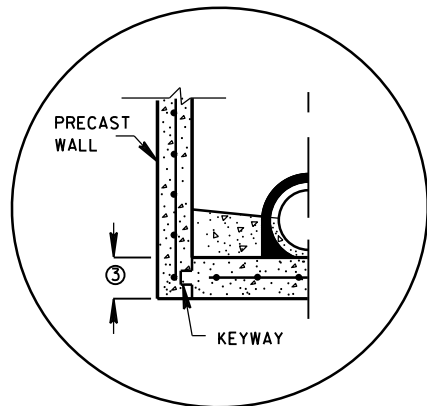
TOP WITH PLAIN END JOINT



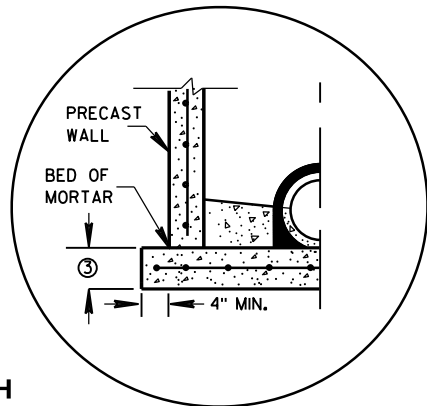
TOP WITH TONGUE AND GROOVE JOINT



DETAIL "B"

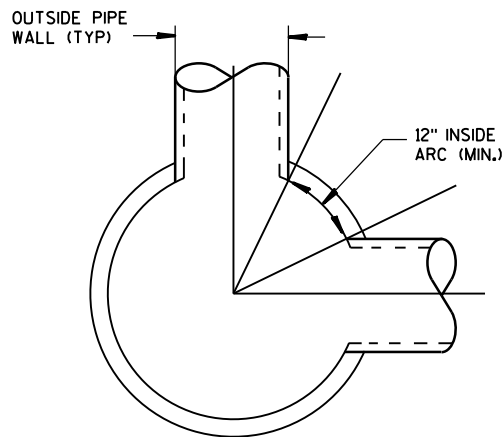


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



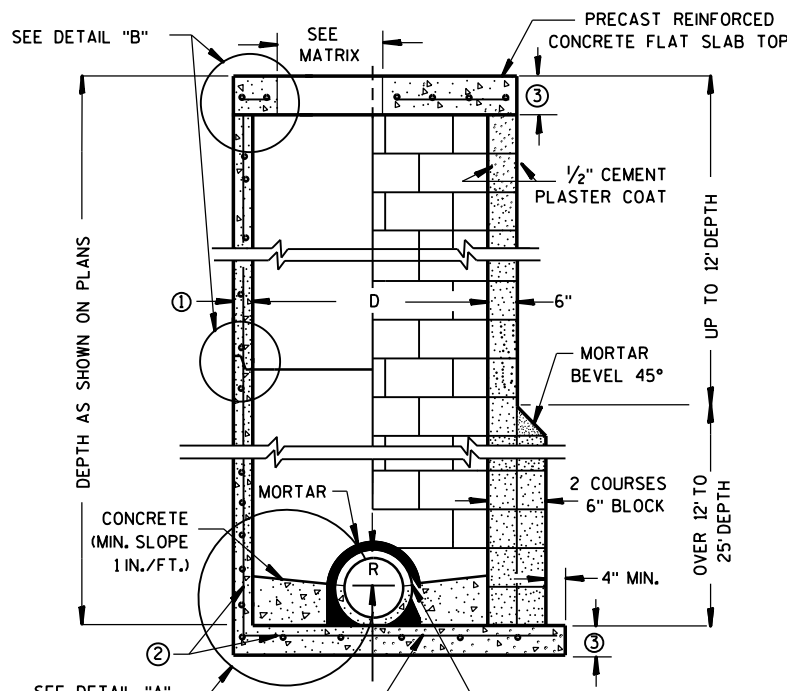
SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

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



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

SPLIT PIPE OR FORM CONCRETE TO FIT

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 GRANULAR 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. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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

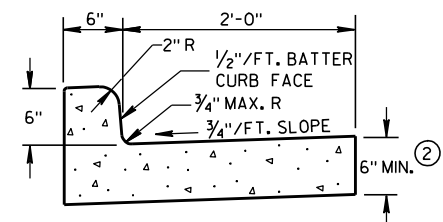
PIPE MATRIX

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

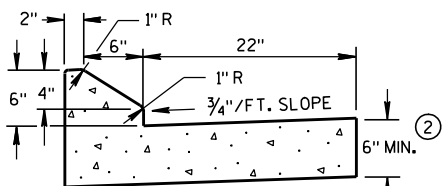
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

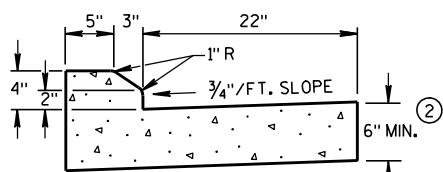
APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 105
FHWA



TYPES A & D ①

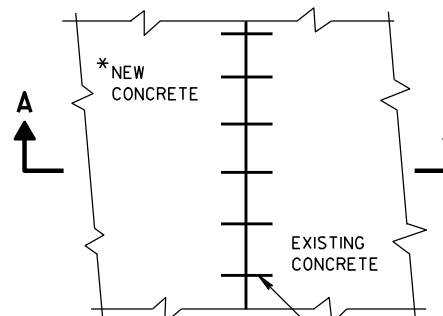


6" SLOPED CURB TYPES G & J ①



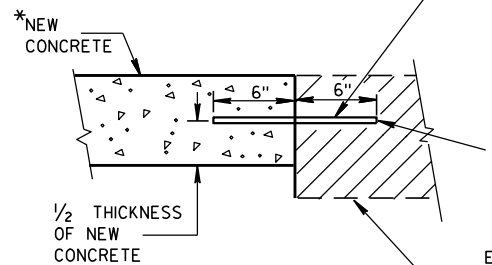
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"



PLAN VIEW

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

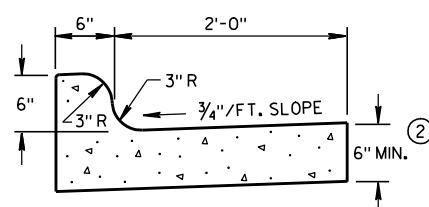


SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

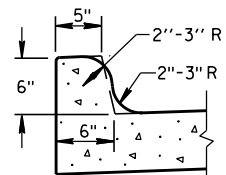
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

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

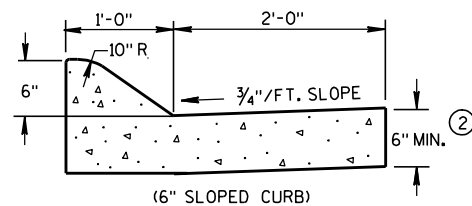
EXISTING
CONCRETE



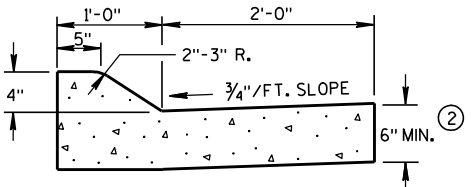
TYPES K & L ①



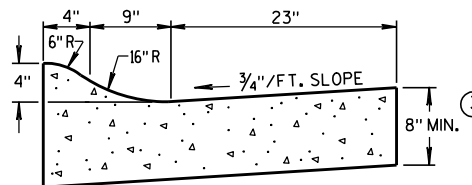
OPTIONAL CURB SHAPE
FOR TYPES K & L ①



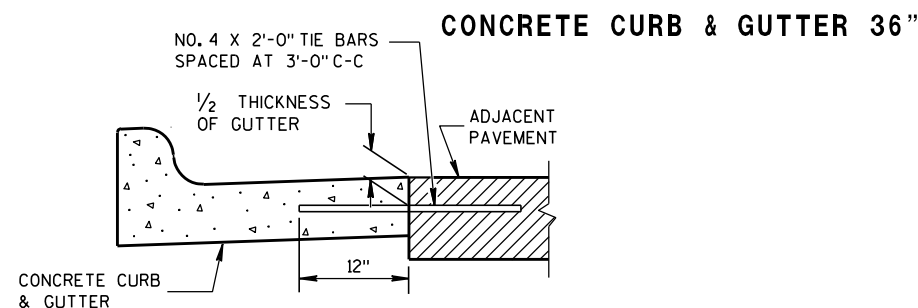
(6" SLOPED CURB)



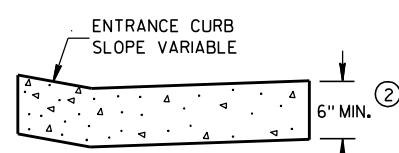
TYPES A & D ①



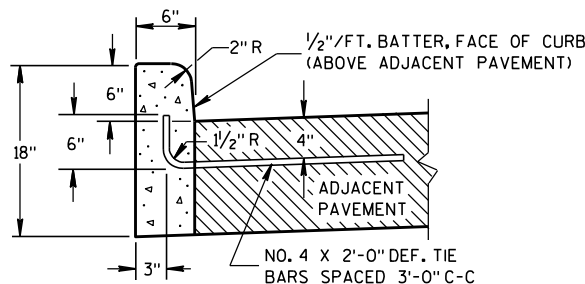
4" SLOPED CURB TYPES R & T ① ④



TYPICAL TIE BAR LOCATION ①

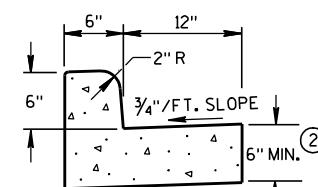


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

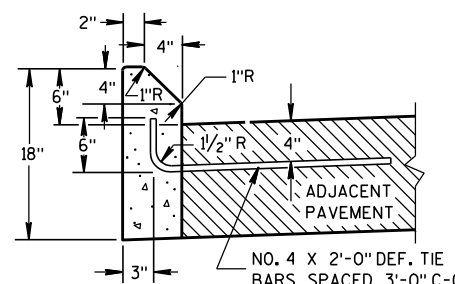


TYPES A & D ①

CONCRETE CURB



TYPES A & D
CONCRETE CURB & GUTTER 18"



TYPES G & J ①

GENERAL NOTES

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

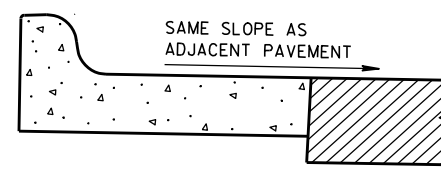
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.

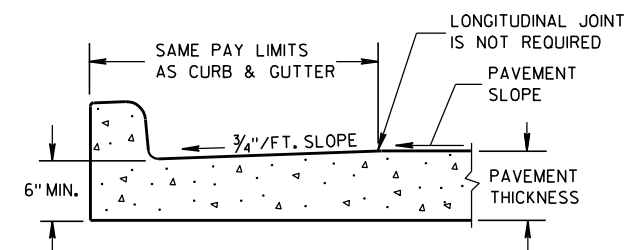
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

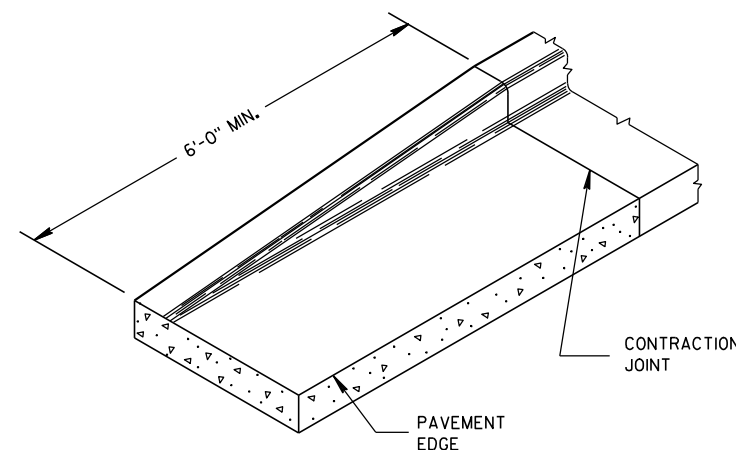
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

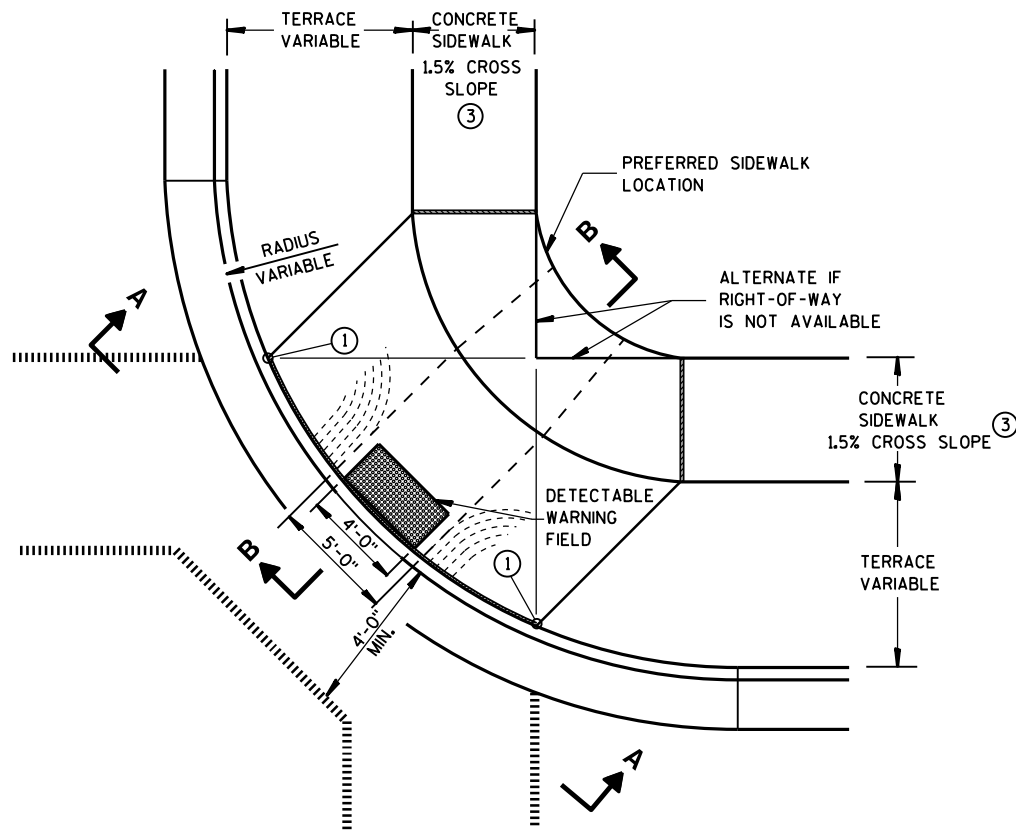
9/4/08

DATE

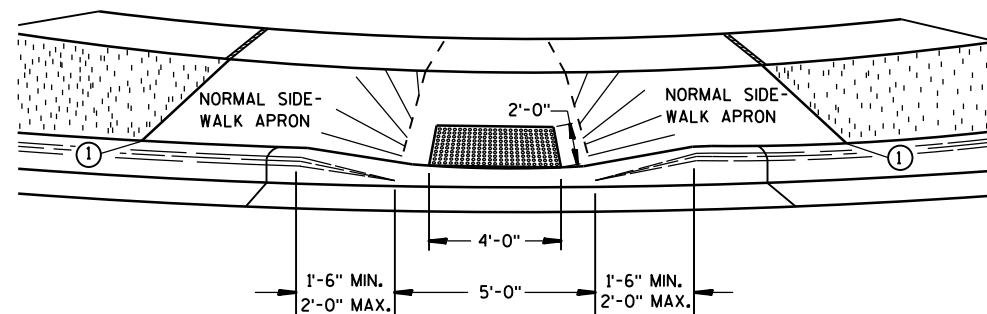
FHWA

/S/ Jerry H. 7-
ROADWAY STANDARDS 106
ENGINEER

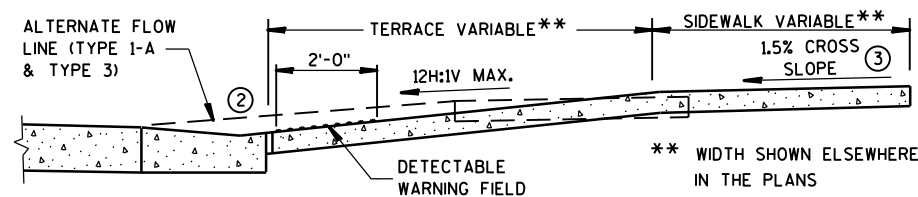
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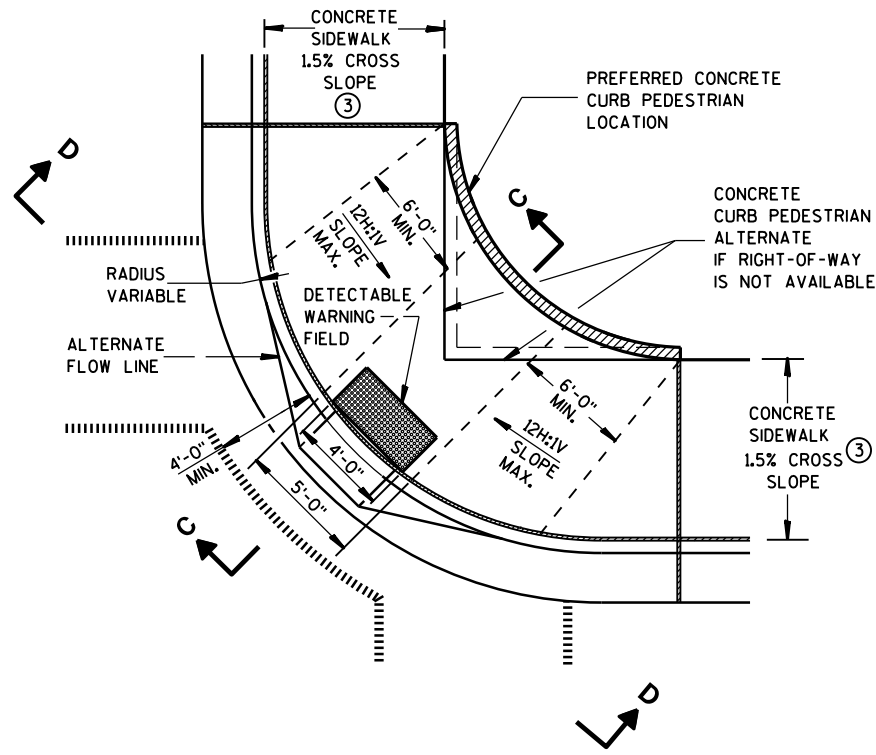
**PLAN VIEW
TYPE 1 RAMP**
(CENTER OF CORNER RADIUS)



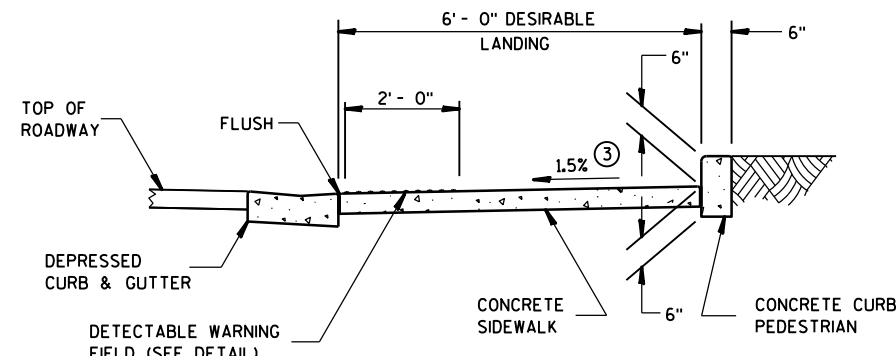
VIEW A-A



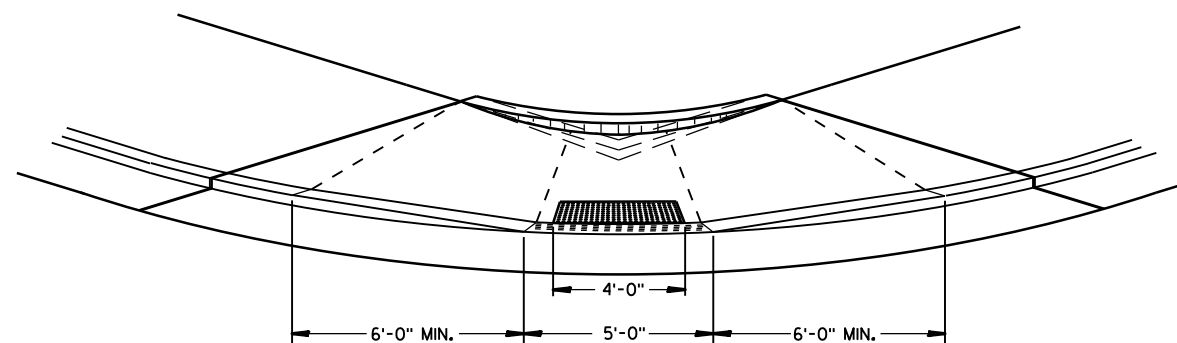
SECTION B-B



**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.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. 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.

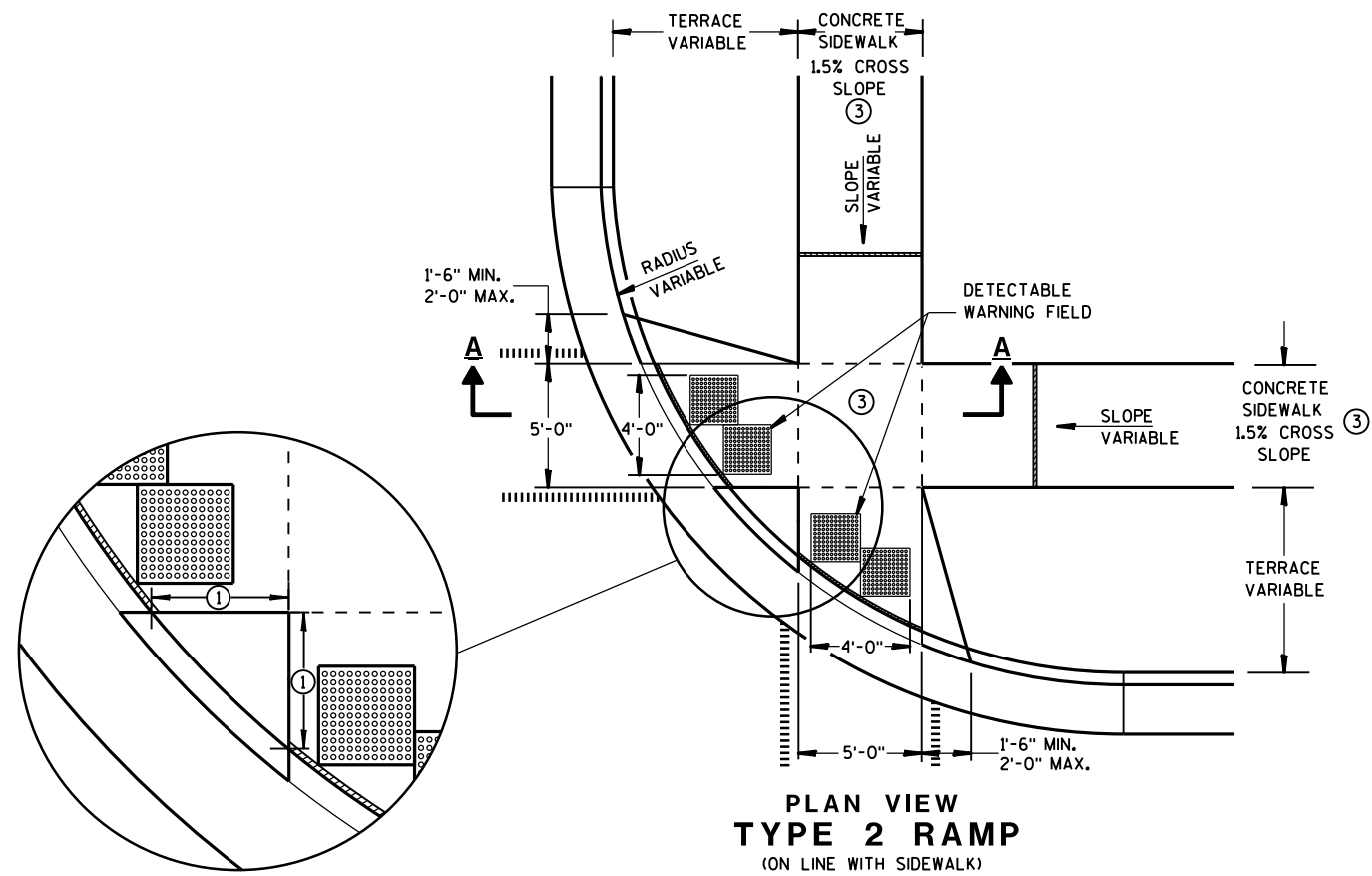
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

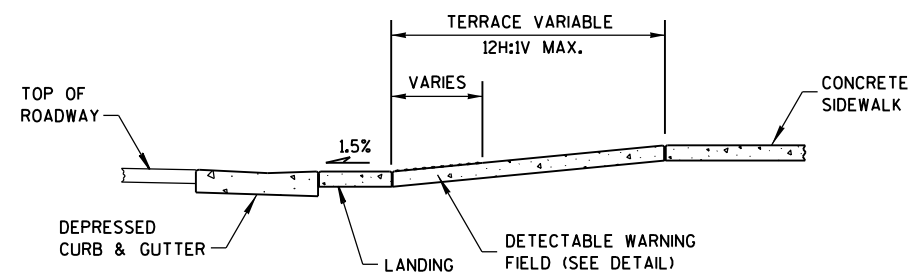
- 1/2" EXPANSION JOINT-SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

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

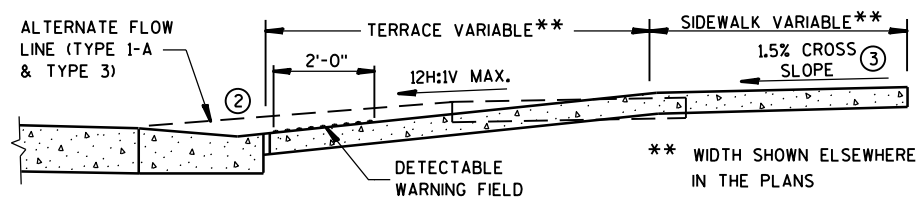
STATE OF WISCONSIN
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**PLAN VIEW
TYPE 2 RAMP**
(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

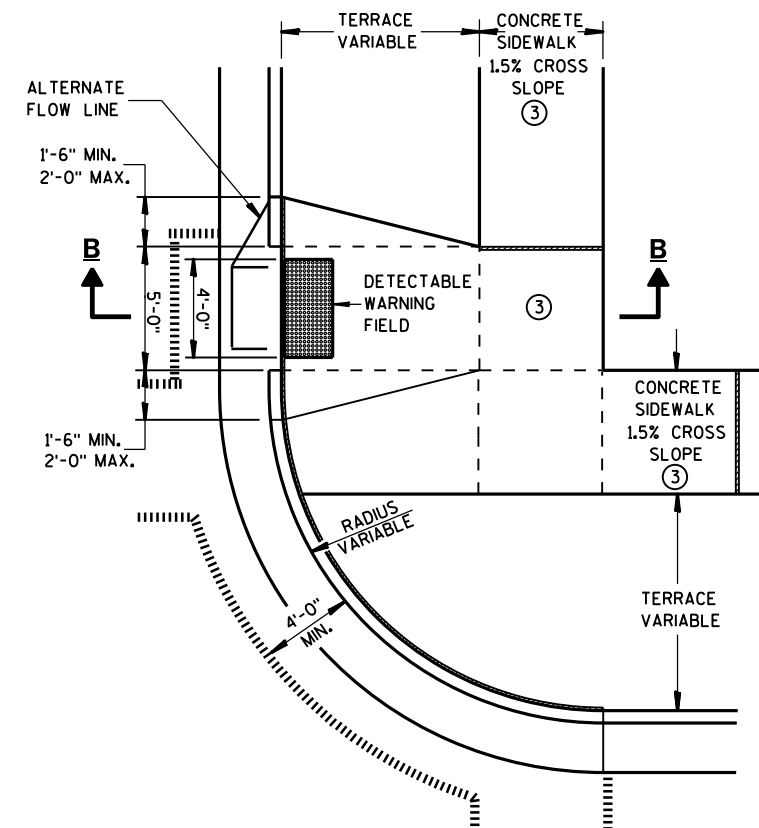
USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

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

- ① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

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



**PLAN VIEW
TYPE 3 RAMP**
(OUTSIDE OF CROSSWALK AREA)

**CURB RAMPS
TYPES 2 AND 3**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 108



CURB RAMP TYPE 4A



INTERMEDIATE RADII CAN BE INTERPOLATED



GENERAL NOTES

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

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

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

- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.)
DO NOT MARK TRANSITION NOSE.
- ④ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

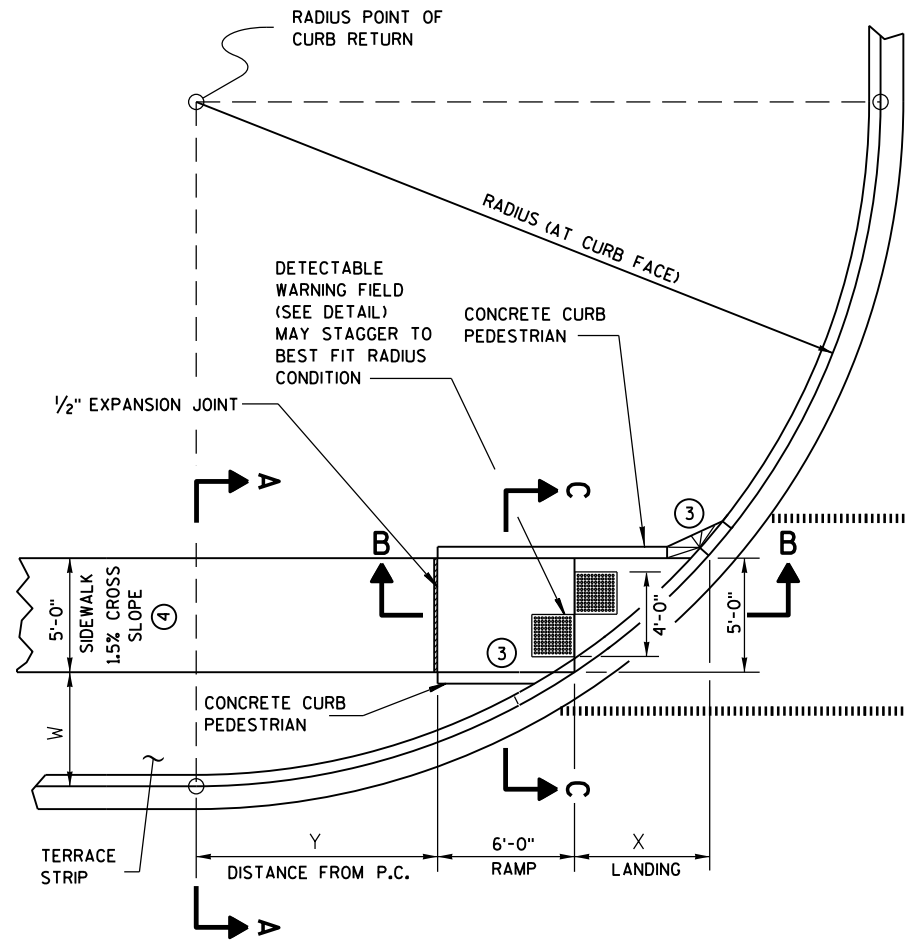


LEGEND

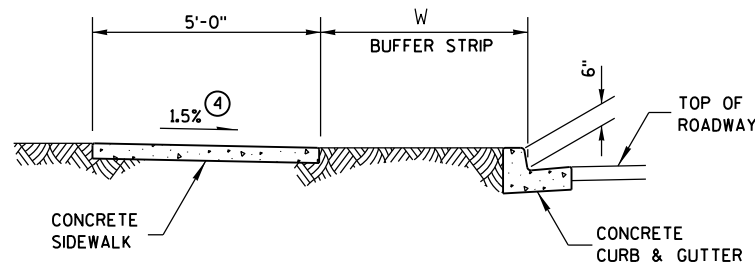
- | | |
|---------|------------------------------------|
| ===== | 1/2" EXPANSION JOINT-SIDEWALK |
| - - - - | CONTRACTION JOINT FIELD LOCATED |
| | PAVEMENT MARKING CROSSWALK (WHITE) |

CURB RAMPS TYPES 4A AND 4A1

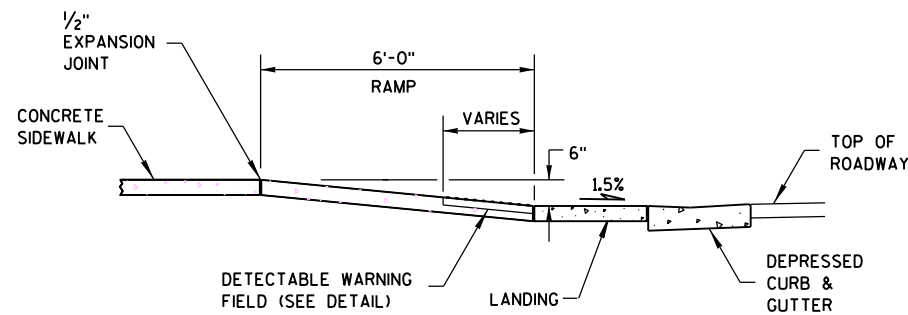
STATE OF WISCONSIN
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**CURB RAMP TYPE 4B
PLAN VIEW**



SECTION A-A FOR TYPE 4B

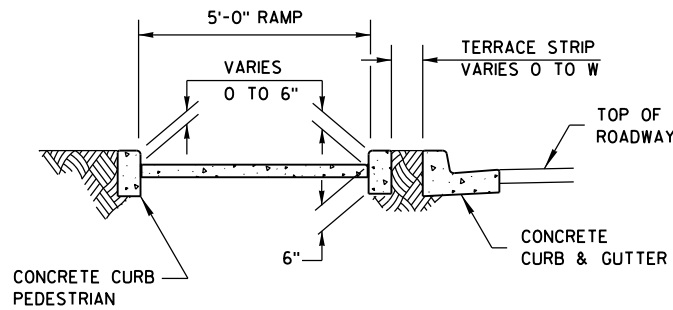


SECTION B-B FOR TYPE 4B

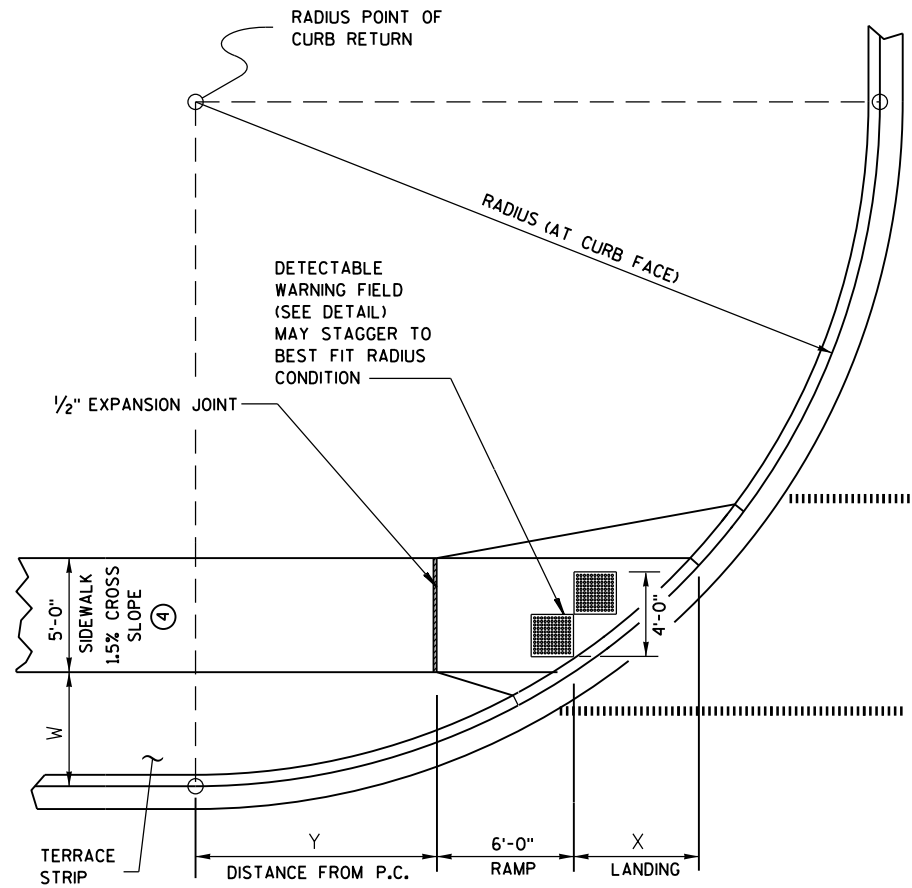
- LEGEND**
- 1/2" EXPANSION JOINT-SIDEWALK
 - - - CONTRACTION JOINT FIELD LOCATED
 - ===== PAVEMENT MARKING CROSSWALK (WHITE)

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'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3/4"	11'-3/4"	9'-1/4"	13'-7 1/4"	8'-2 1/2"	15'-9 1/2"	7'-6 1/2"	17'-9"	6'-11 3/4"	19'-6 1/4"
60 FEET	11'-2 1/2"	12'-8 3/4"	10'-3/4"	15'-6 1/2"	9'-2 1/4"	17'-11 3/4"	8'-5 3/4"	20'-1 3/4"	7'-10 1/2"	22'-1 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4B



**CURB RAMP TYPE 4B1
PLAN VIEW**

GENERAL NOTES

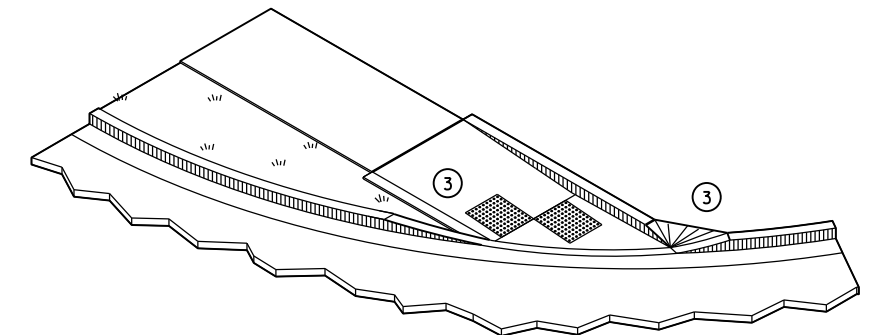
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

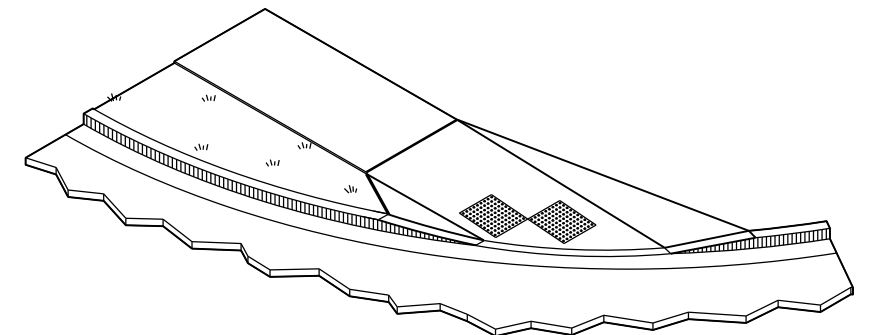
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



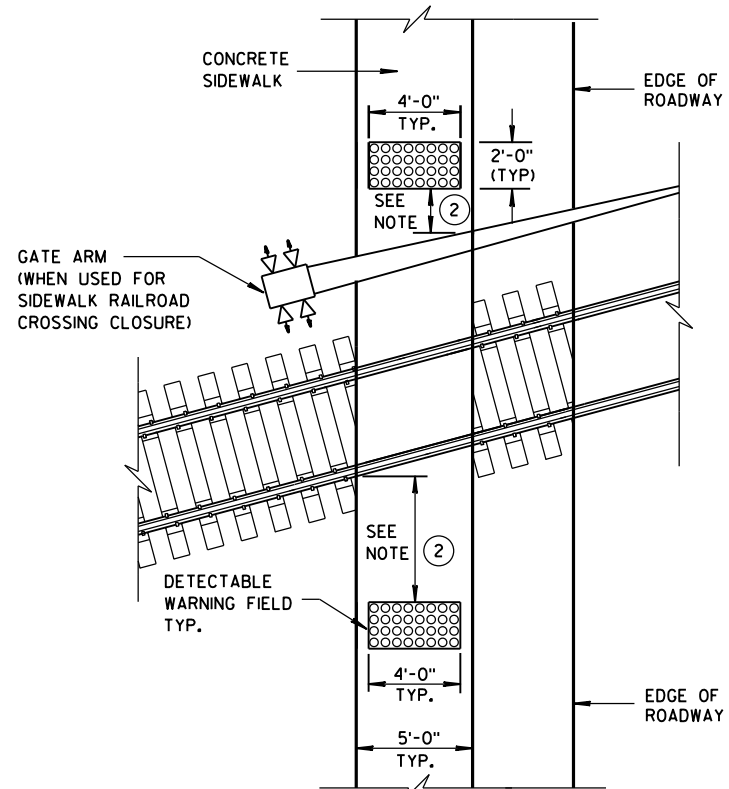
ISOMETRIC VIEW FOR TYPE 4B



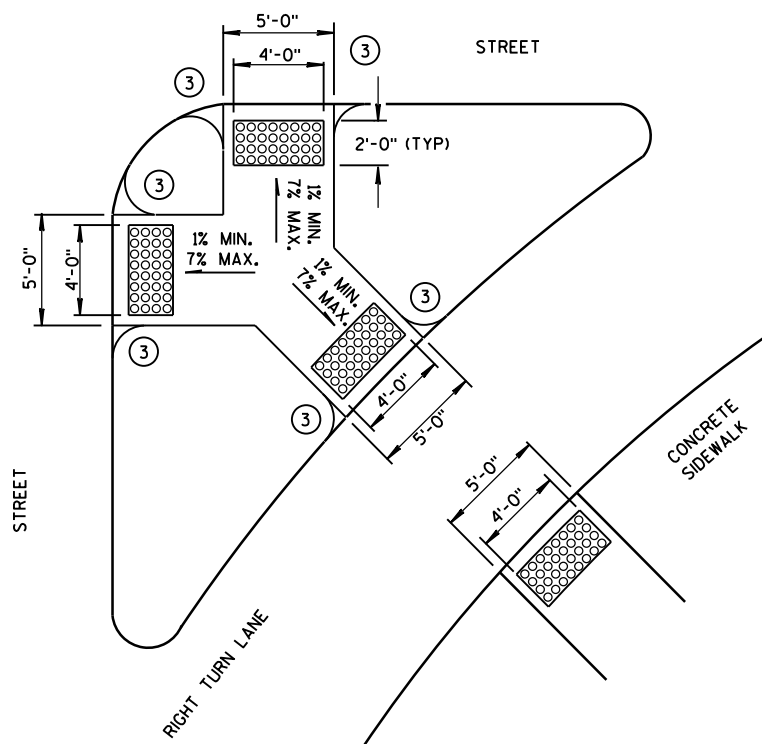
ISOMETRIC VIEW FOR TYPE 4B1

**CURB RAMPS
TYPE 4B AND 4B1**

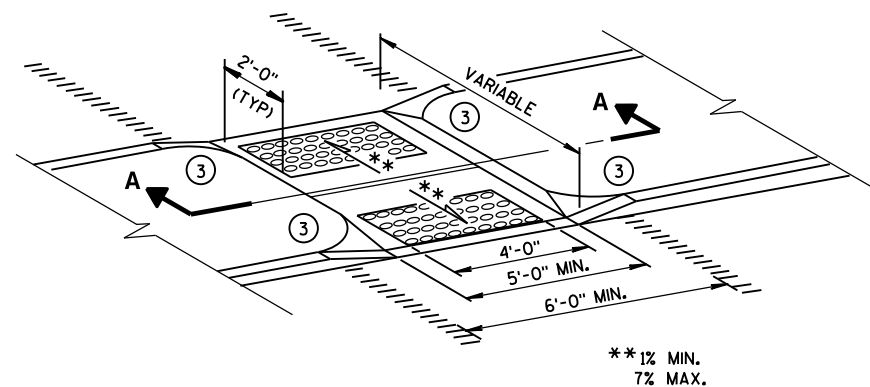
STATE OF WISCONSIN
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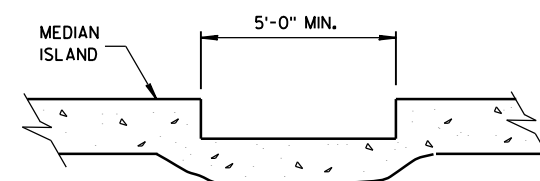
TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING



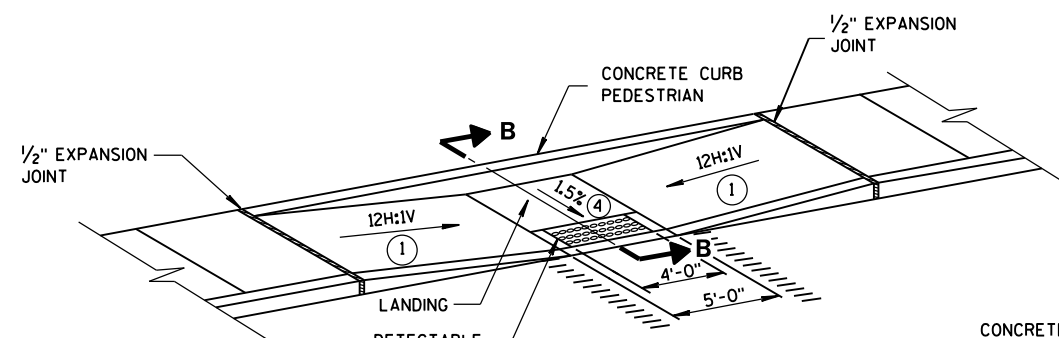
TYPE 6
DETECTABLE WARNING AT ISLANDS



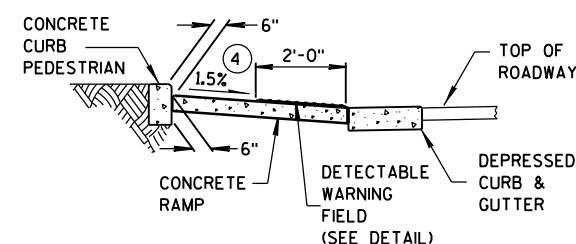
MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



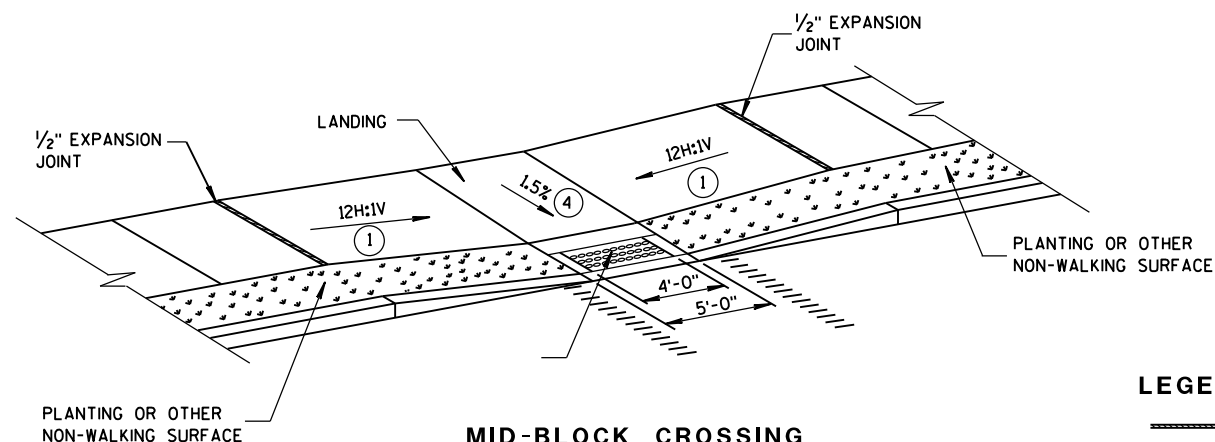
SECTION A-A



MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



MID-BLOCK CROSSING
TYPE 7B

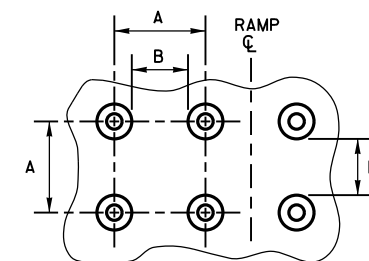
NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

GENERAL NOTES

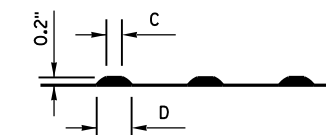
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

- 1 SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- 2 THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET $\pm$ 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.
- 3 INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.
- 4 $\pm$ 0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



PLAN VIEW



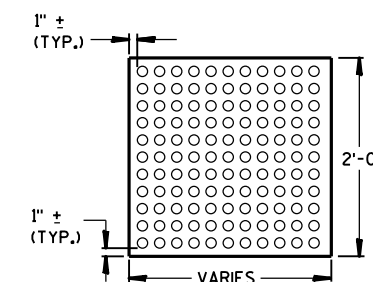
ELEVATION VIEW

	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.

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

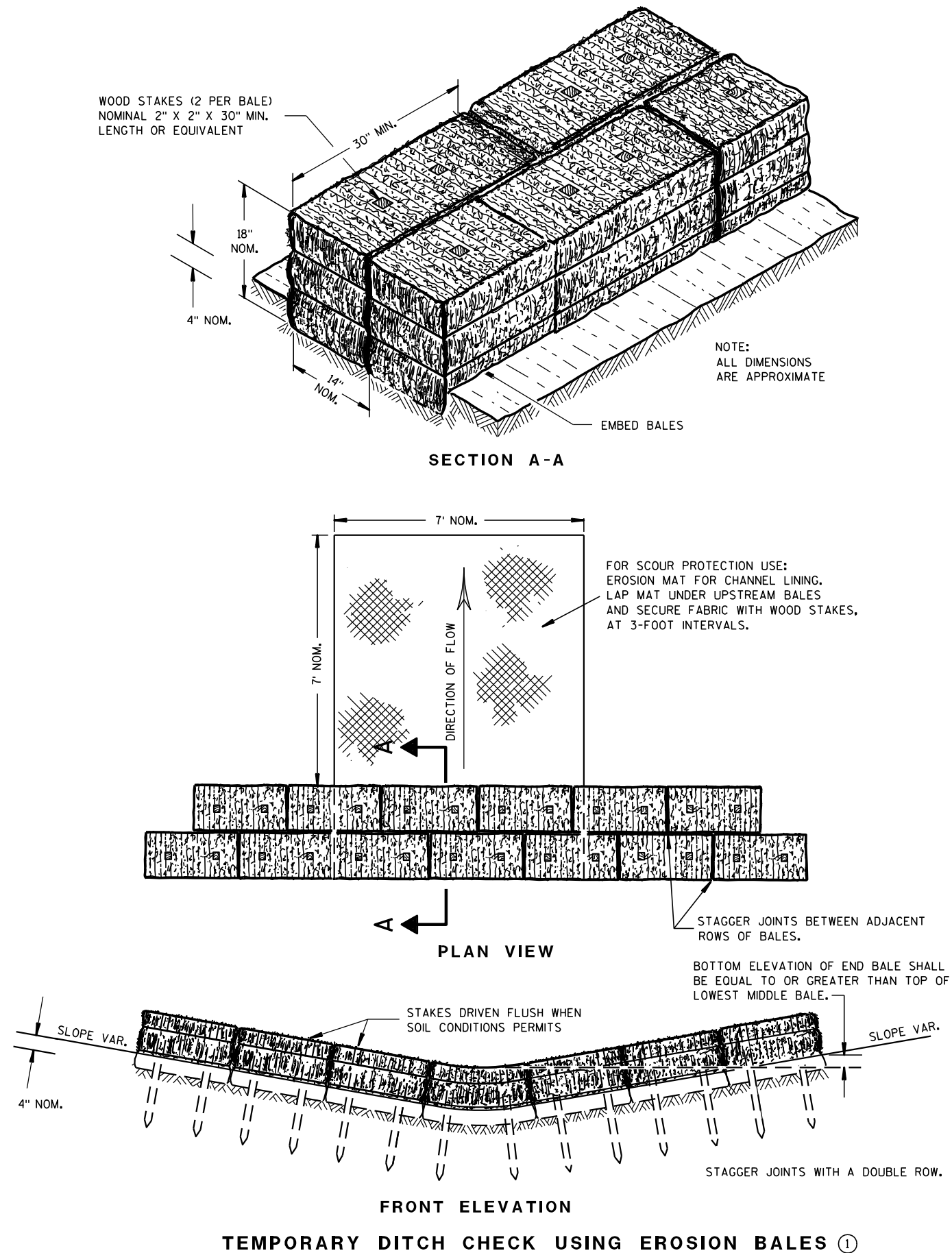
2-6-2013
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

111

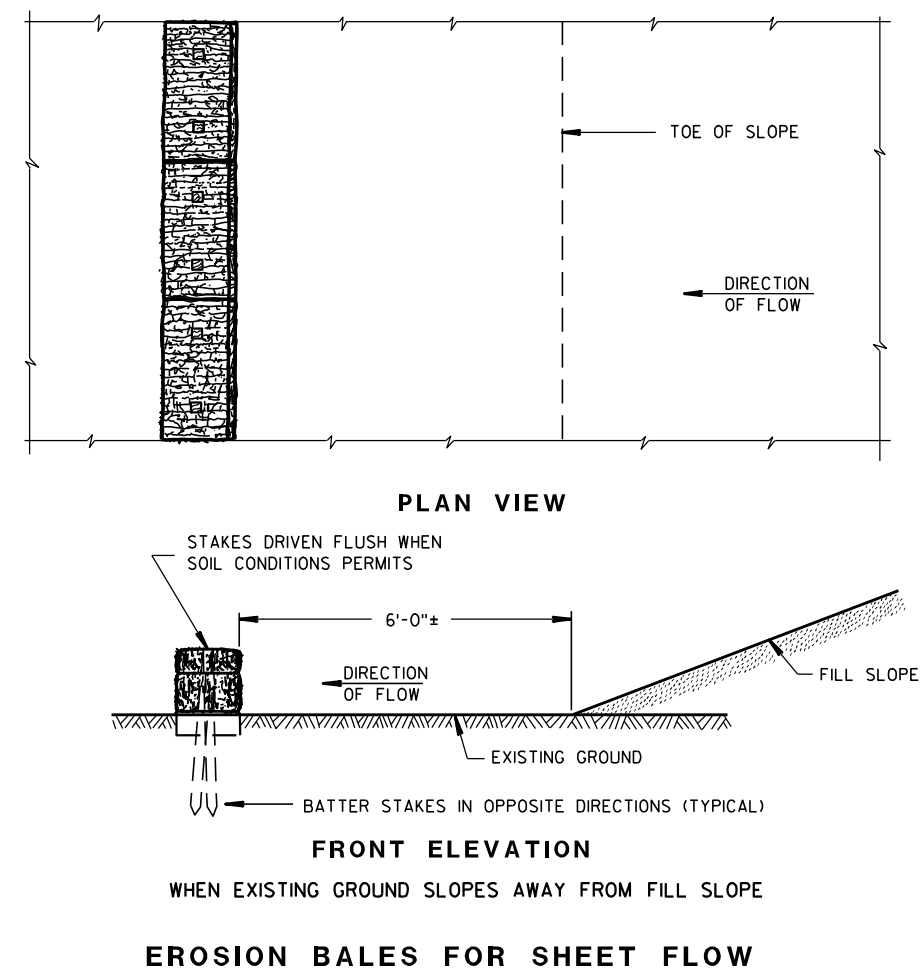
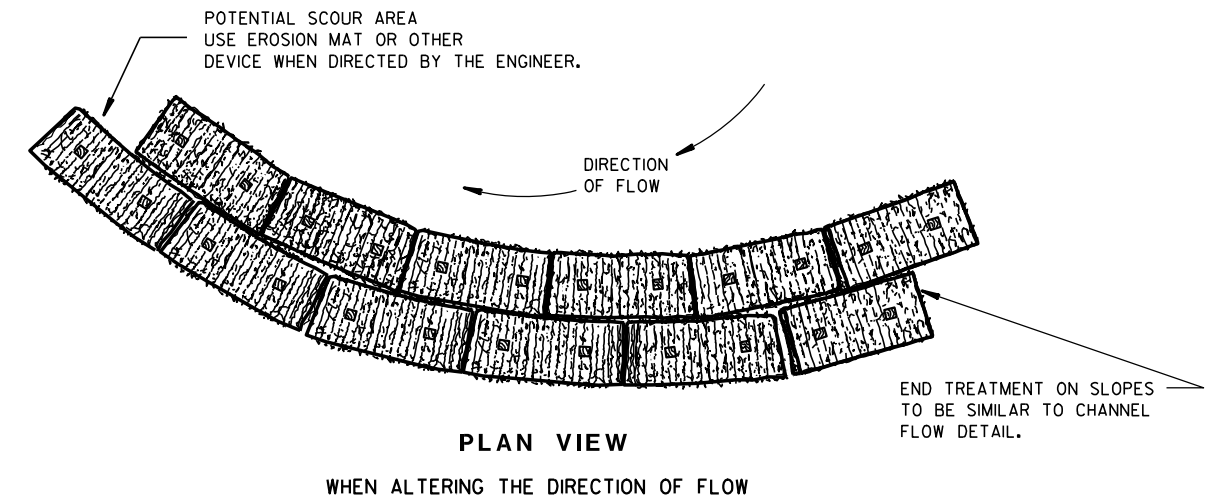
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GENERAL NOTES

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.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

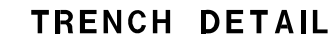
6/04/02
DATE

/S/ Beth Conn
CHIEF ROADWAY DEVELOPER 112 ENGINEER

FHWA



- 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 1½" X 1½" 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.

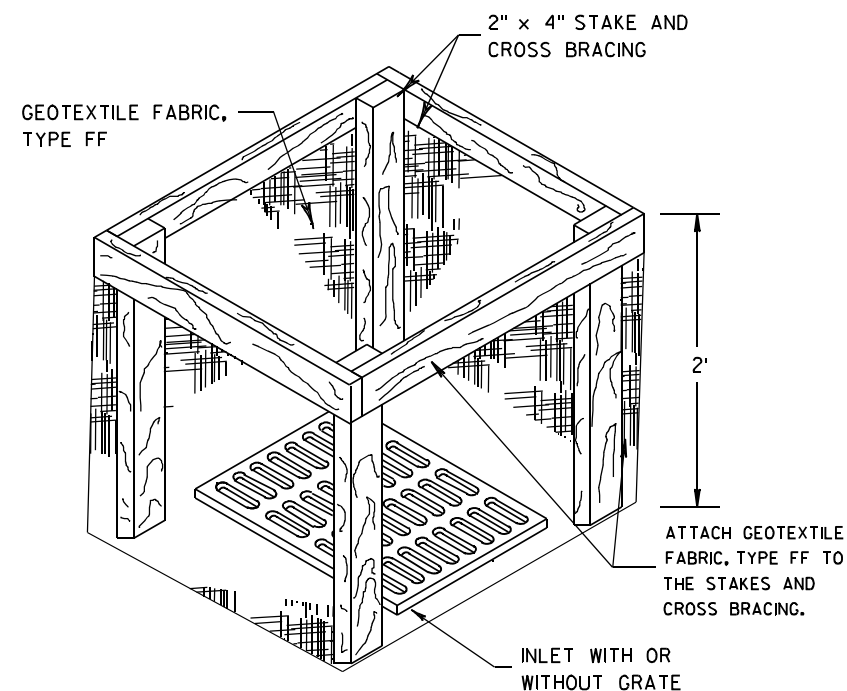
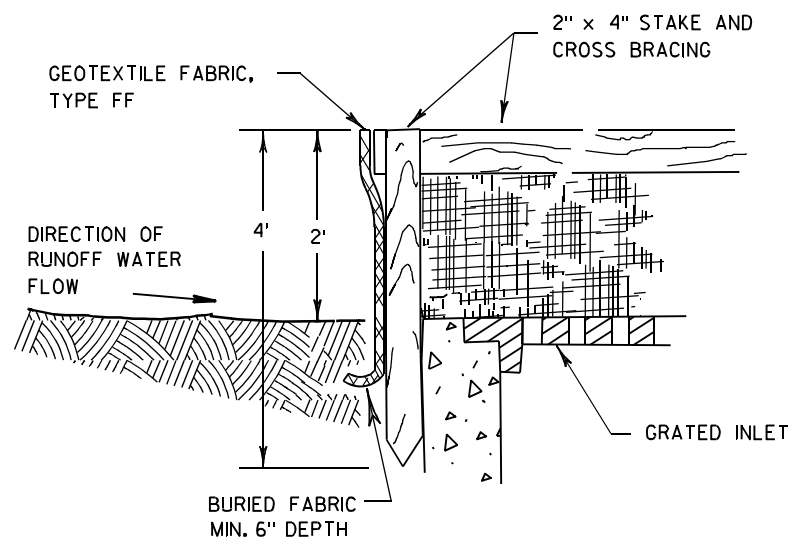


SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05
DATE /S/ Beth Connolly
CHIEF ROADWAY DEVELOPMENT **113** INCHES

FHWA



INLET PROTECTION, TYPE A

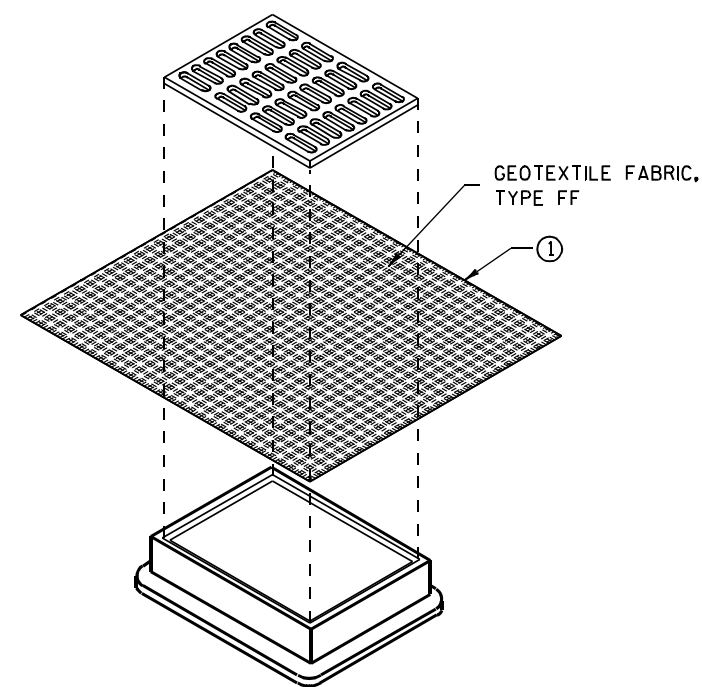
GENERAL NOTES

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.

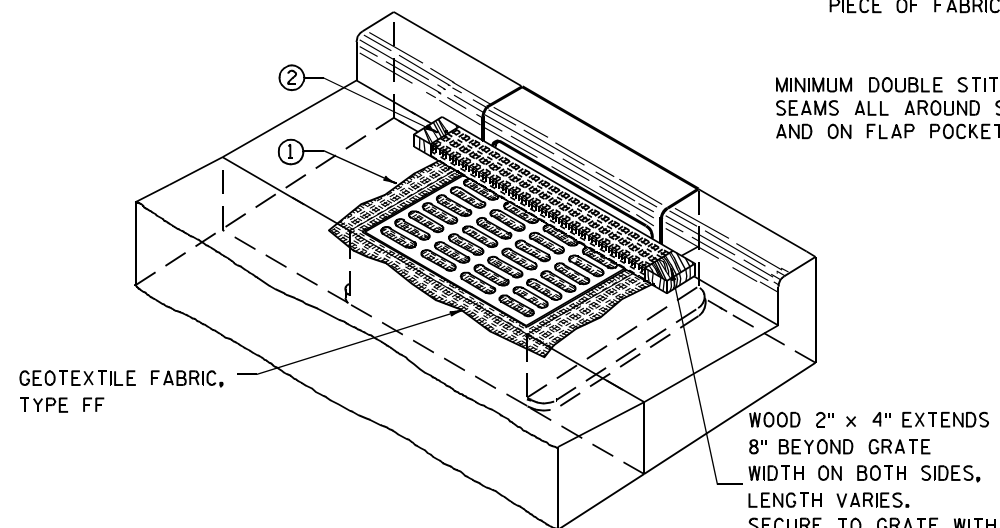
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

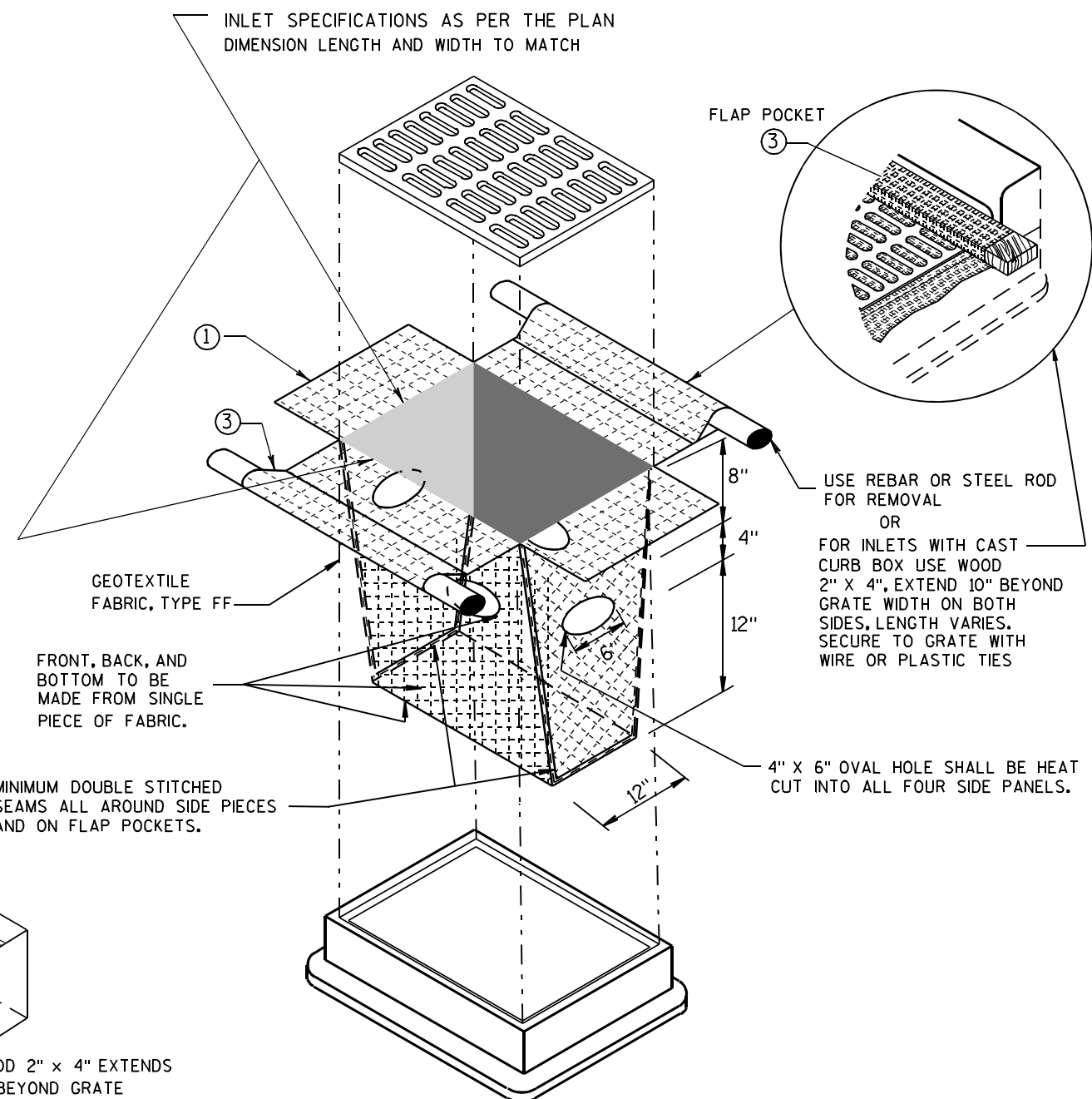
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.



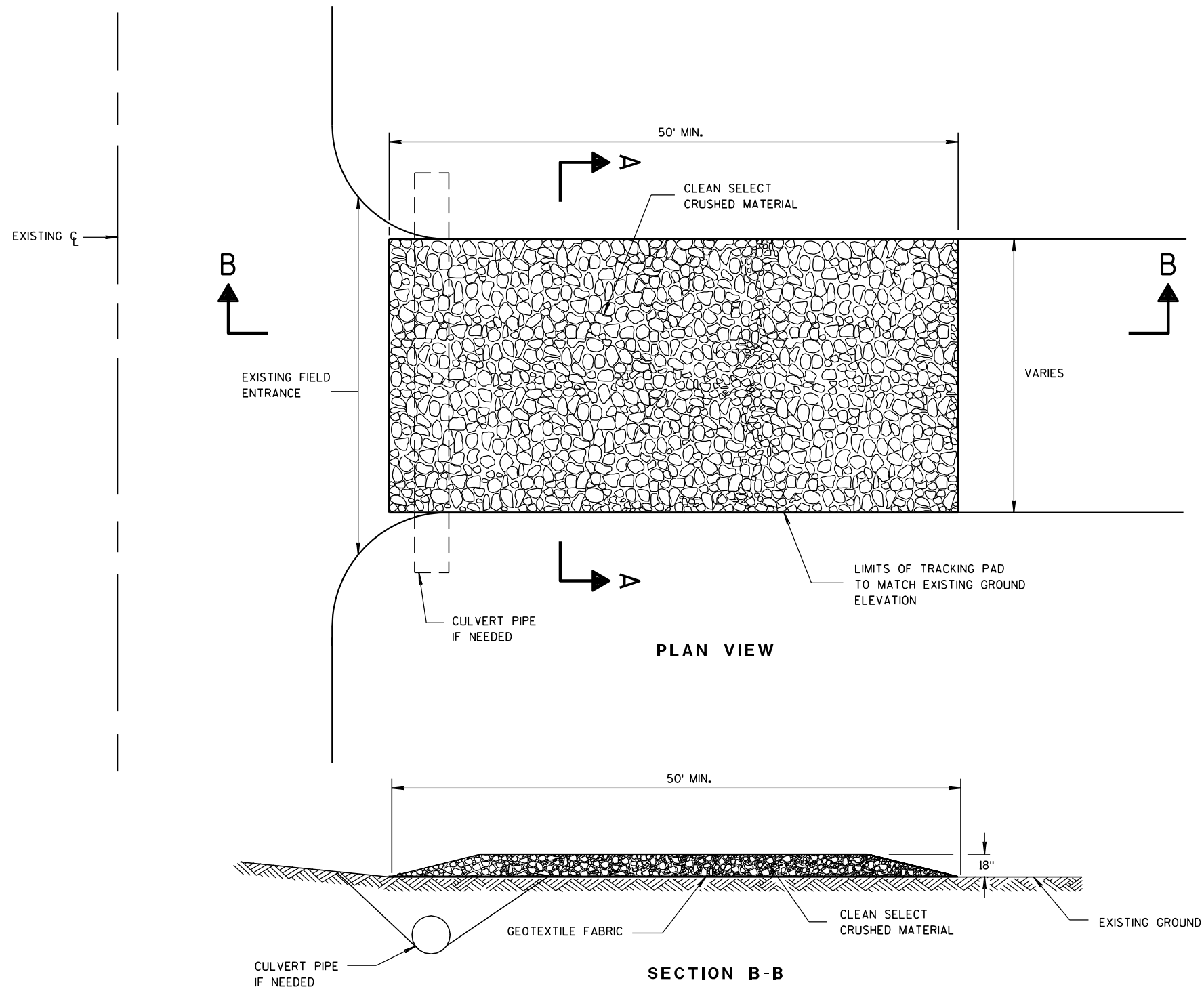
INLET PROTECTION, TYPE D

(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 Connolly
DATE 114
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.

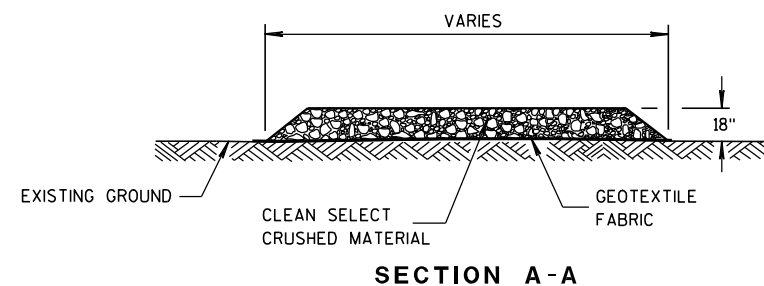
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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.



SECTION A-A

TRACKING PAD

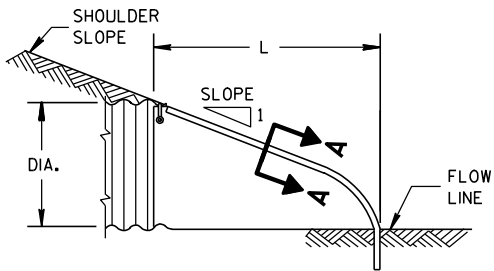
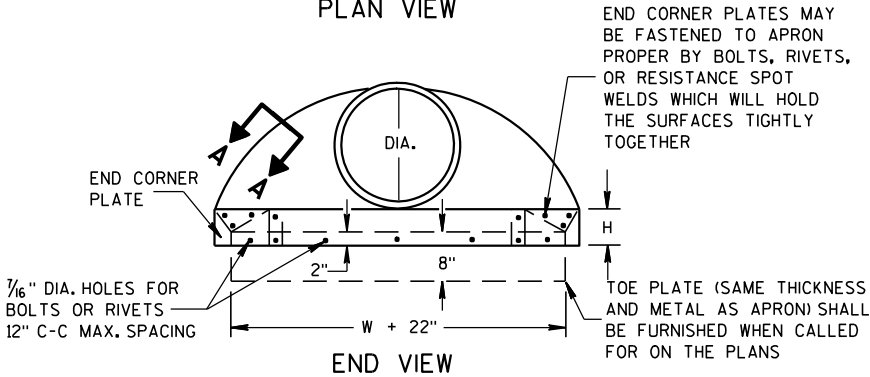
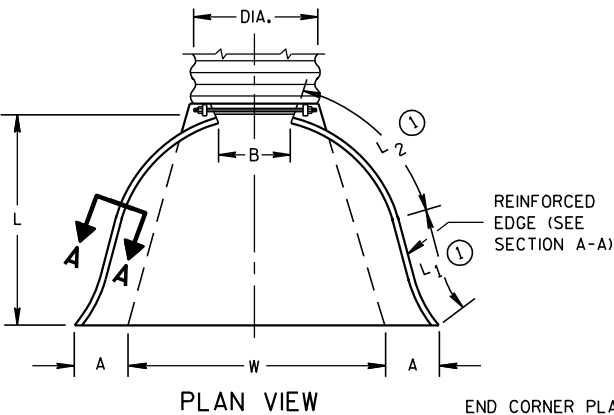
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011
DATE
/S/ Jerry H. Zonn
ROADWAY STANDARDS 115
ENGINEER
ENT

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	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3	3 Pc.

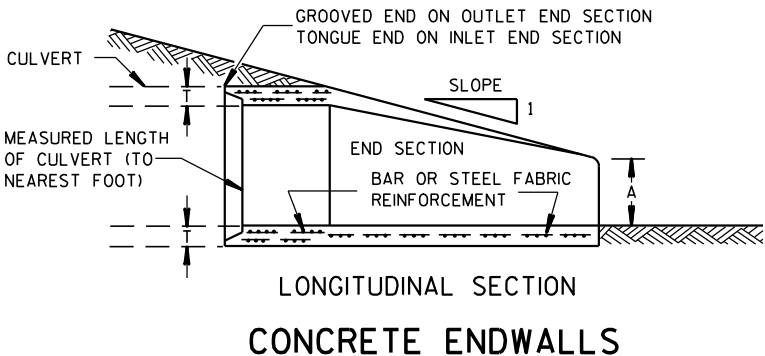
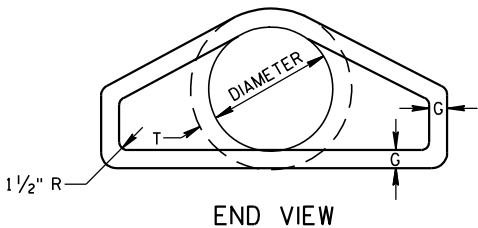
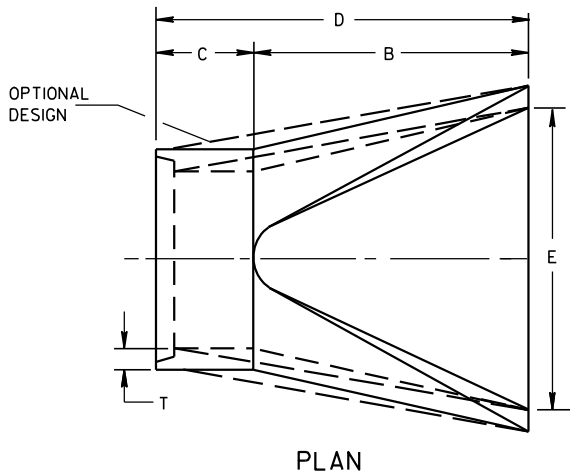
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



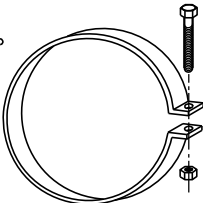
METAL ENDWALLS

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	1	1	1	1 Pc.
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1	1	1	1	1 Pc.
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1	1	1	1	1 Pc.
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1	1	1	1	1 Pc.
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1	1	1	1	1 Pc.
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1	1	1	1	1 Pc.
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1	1	1	1	1 Pc.
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1	1	1	1	1 Pc.
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1	1	1	1	1 Pc.
48	5	24	72	26	98	84	5	3 to 1	1	1	1	1 Pc.
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 1/2 to 1	1	1	1	1 Pc.
60	6	30-35	60	39	99	96	5	2 to 1	1	1	1	1 Pc.
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1	1	1	1	1 Pc.
72	7	24-36	78	21	99	108	6	2 to 1	1	1	1	1 Pc.
78	7 1/2	24-36	78	21	99	114	6 1/2	2 to 1	1	1	1	1 Pc.
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1	1	1	1	1 Pc.
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1	1	1	1	1 Pc.

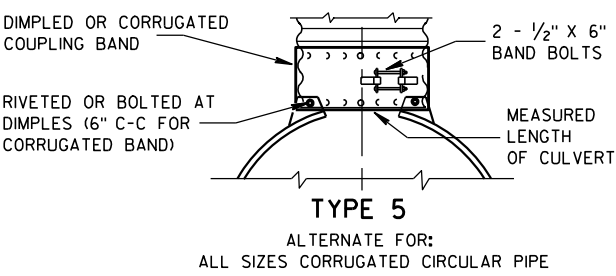
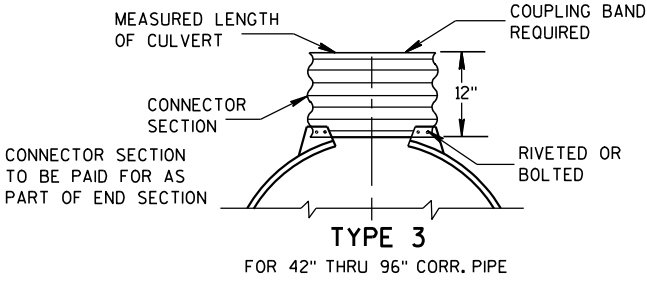
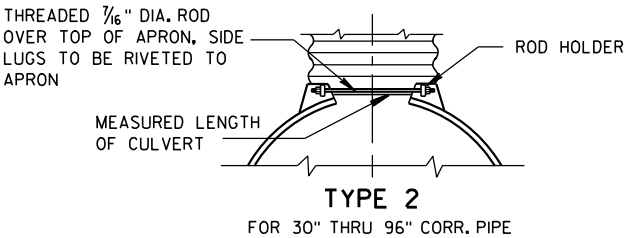
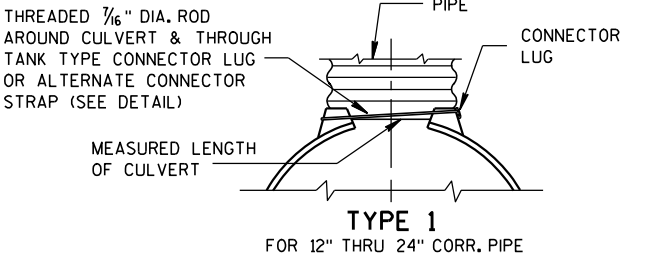
* MINIMUM
** MAXIMUM



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



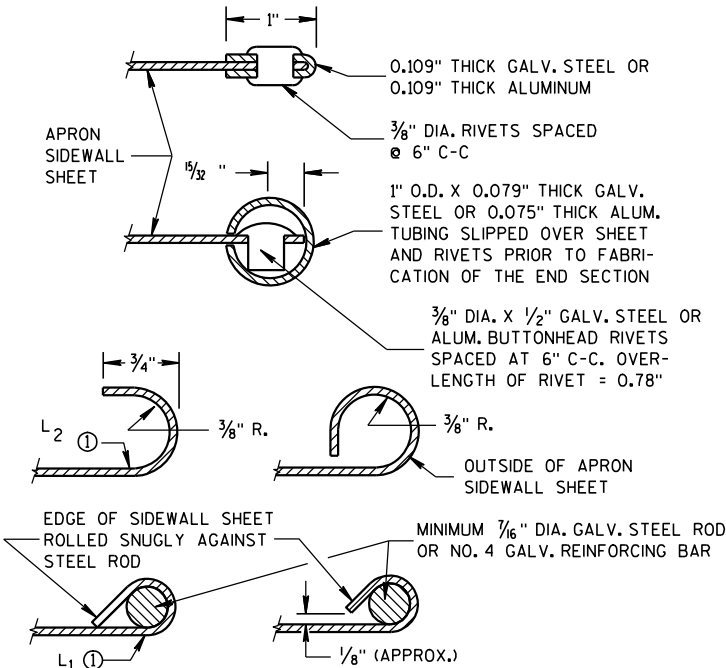
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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



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.

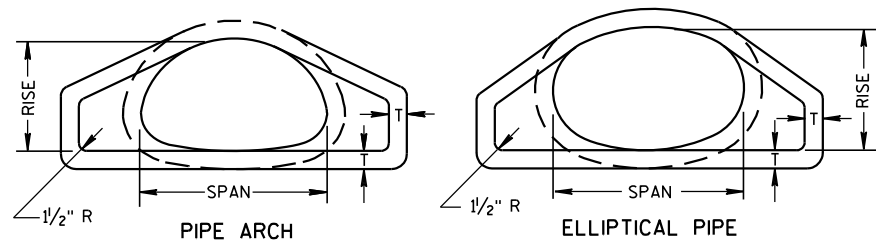
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT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

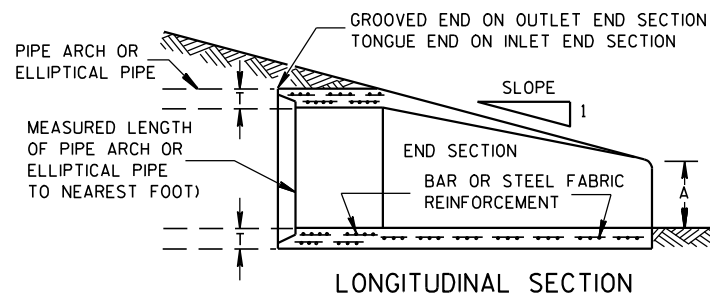
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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. Rhinehart CHIEF ROADWAY DEVELOP	116	NEER
FHWA			

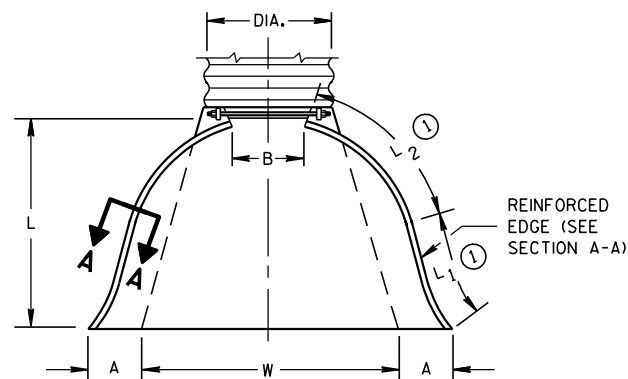


END VIEW

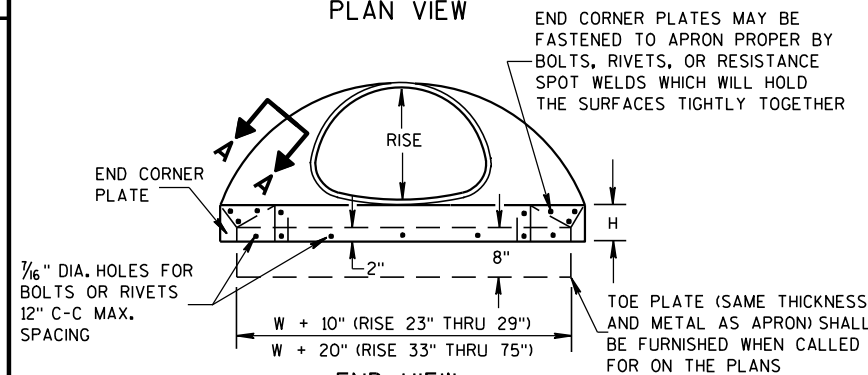


LONGITUDINAL SECTION

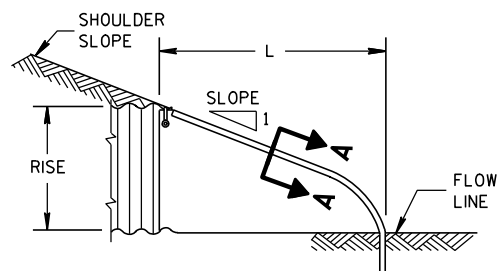
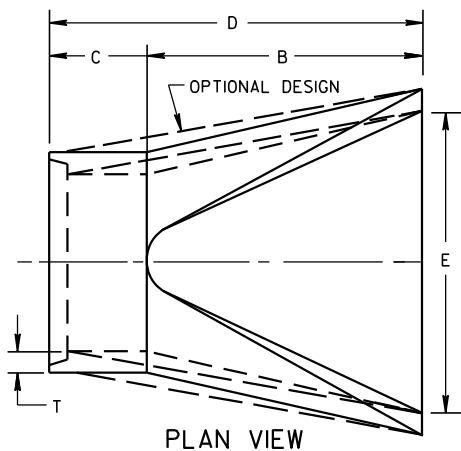
CONCRETE ENDWALLS



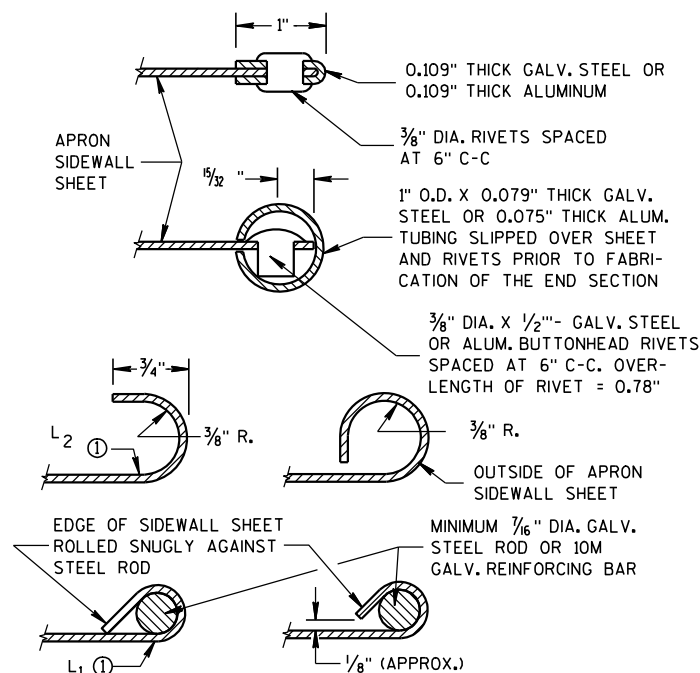
PLAN VIEW



END VIEW

SIDE ELEVATION
METAL ENDWALLS

PLAN VIEW



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1/2")	L1 ①	L2 ①	W (±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

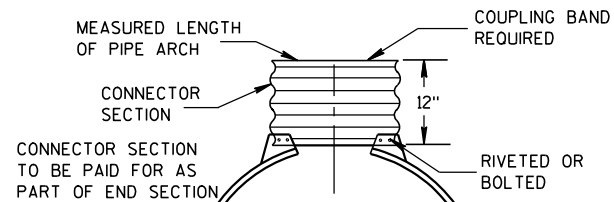
3" X 1" CORRUGATIONS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1/2")	L1 ①	L2 ①	W (±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

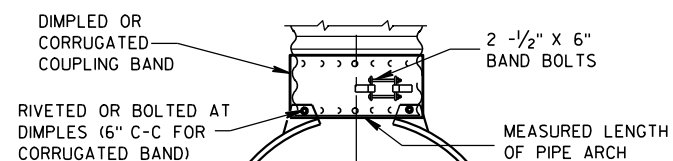
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:
ALL SIZES CORRUGATED PIPE ARCHESNOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL,
AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	29	18	3	8 1/2	39	33	72	48	3 to 1
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1
36	44	27	4	11 1/8	60	36	96	72	3 to 1
42	51	31	4 1/2	15 1/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5 1/2	25 1/2	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28 1/2	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	30	19	3 1/4	8 1/2	39	33	72	48	3 to 1
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1
42	53	34	5	15 1/4	60	36	96	78	2 1/2 to 1
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1

**NOMINAL SIZE

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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 ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR
PIPE ARCH AND
ELLIPTICAL PIPESTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94

DATE

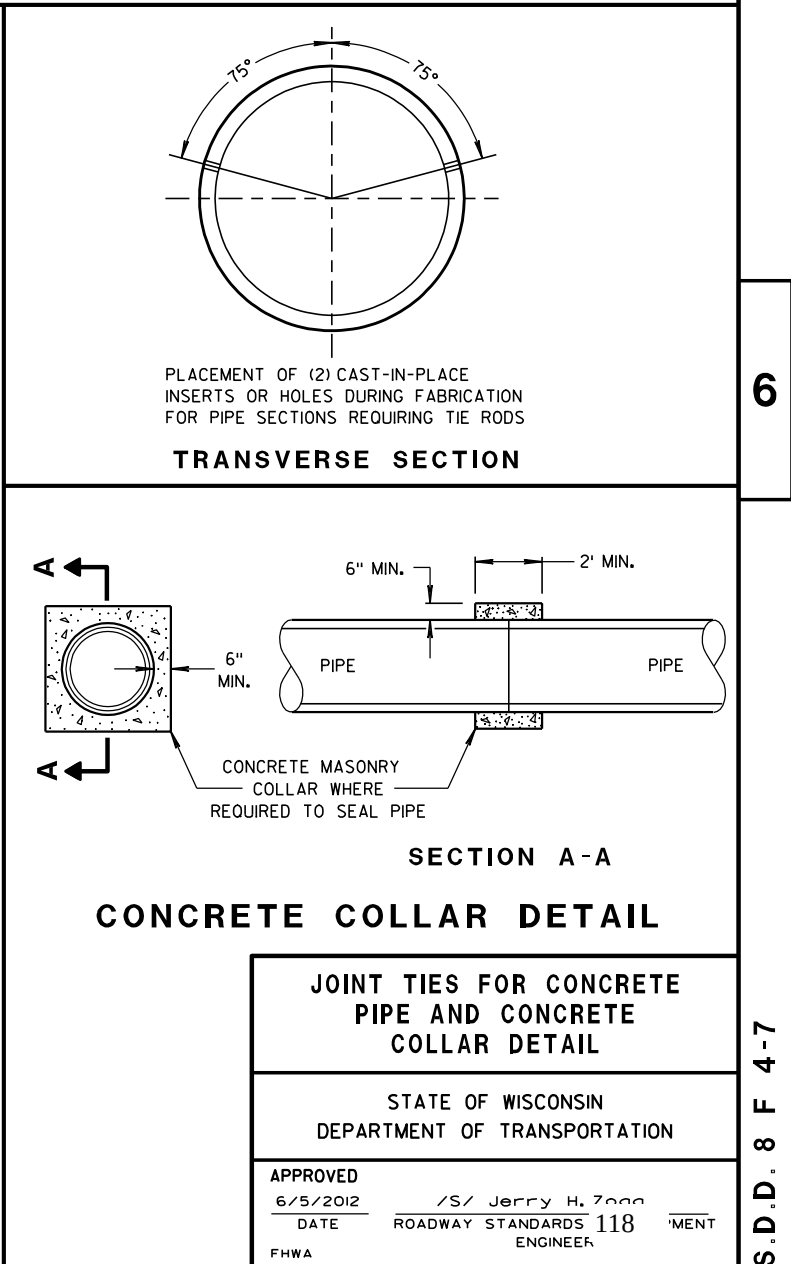
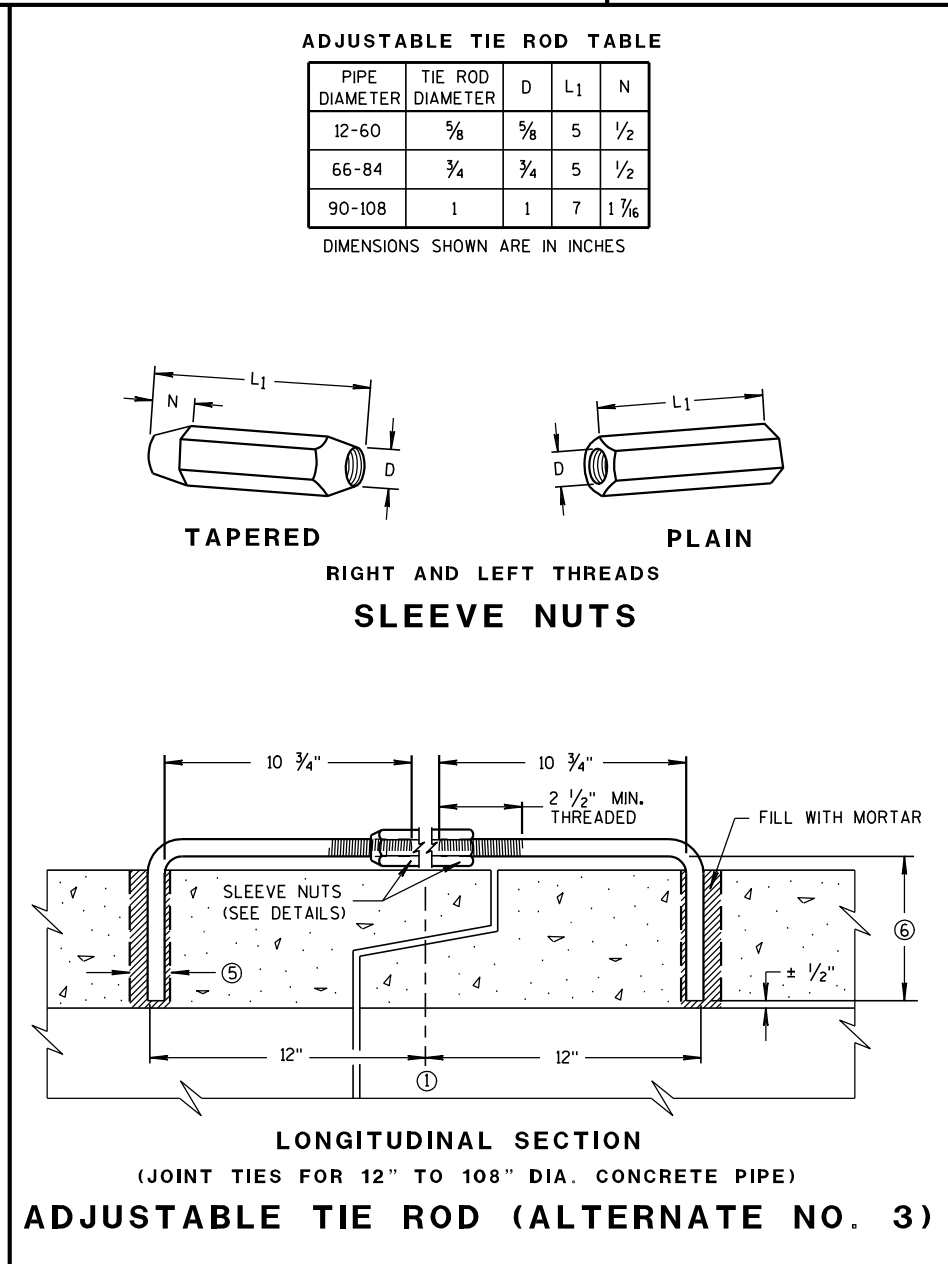
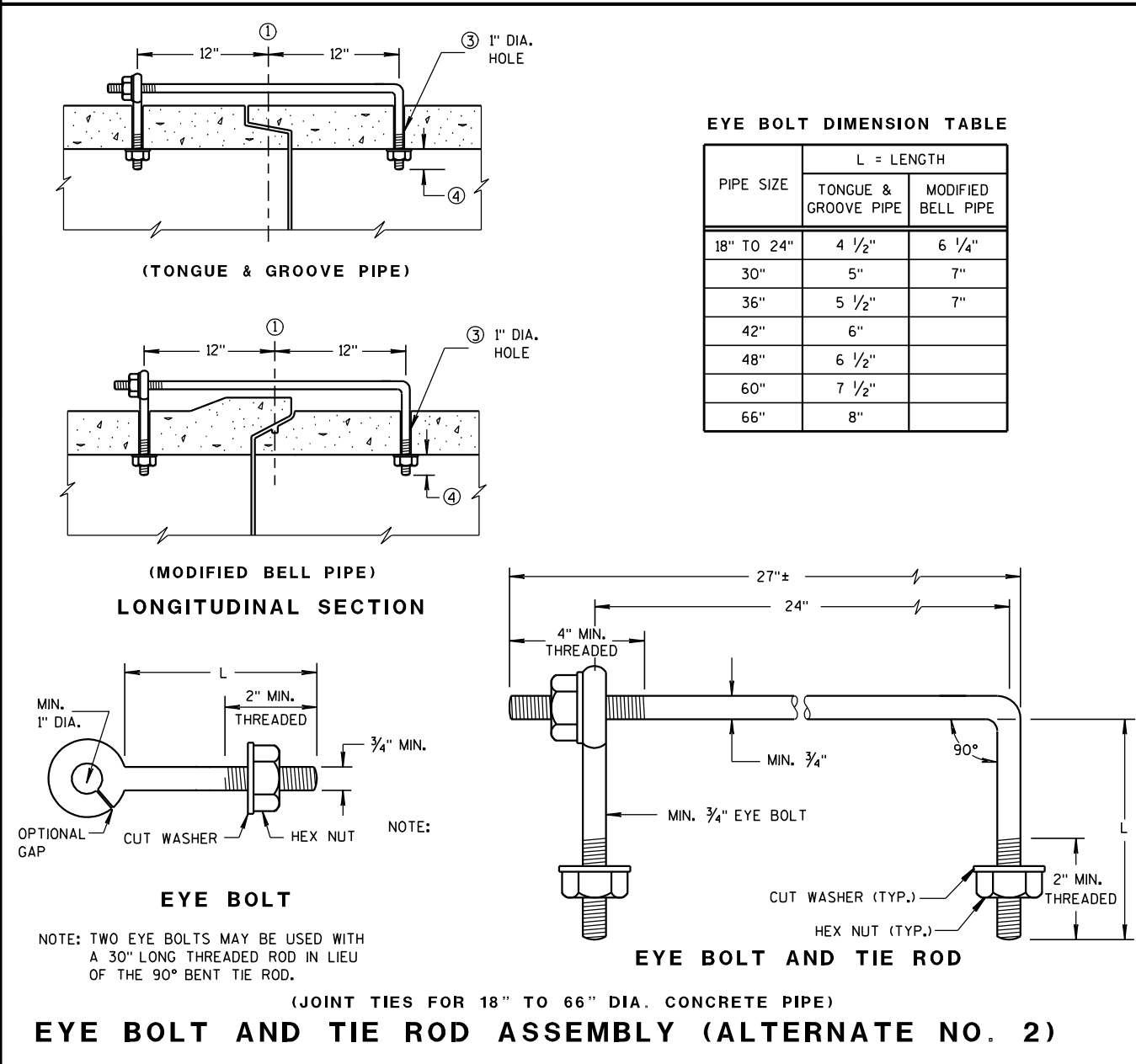
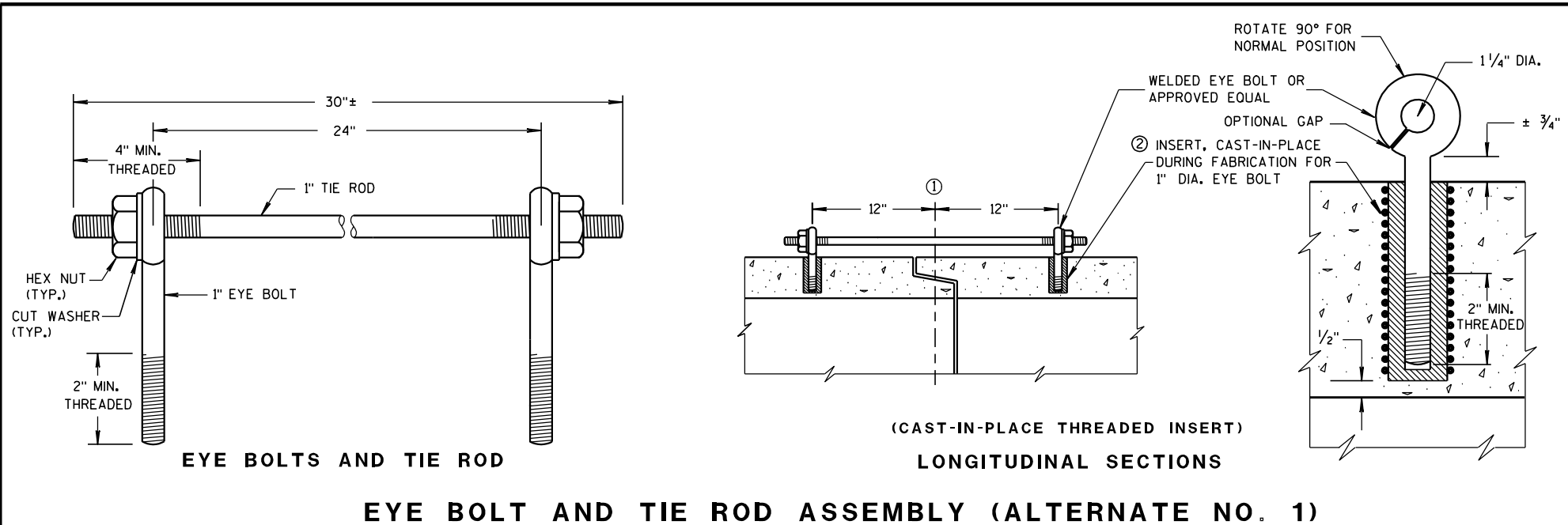
FHWA

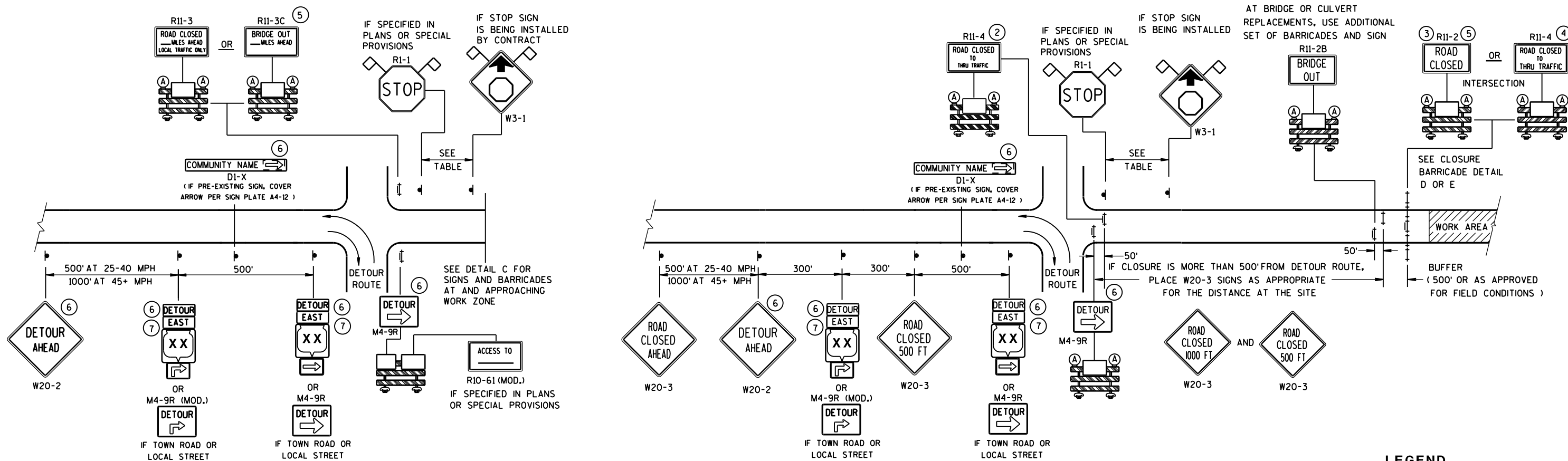
/S/ Rory L. Rhinehart

CHIEF ROADWAY DEVELOPER

117

ENGINEER





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)

LEGEND

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

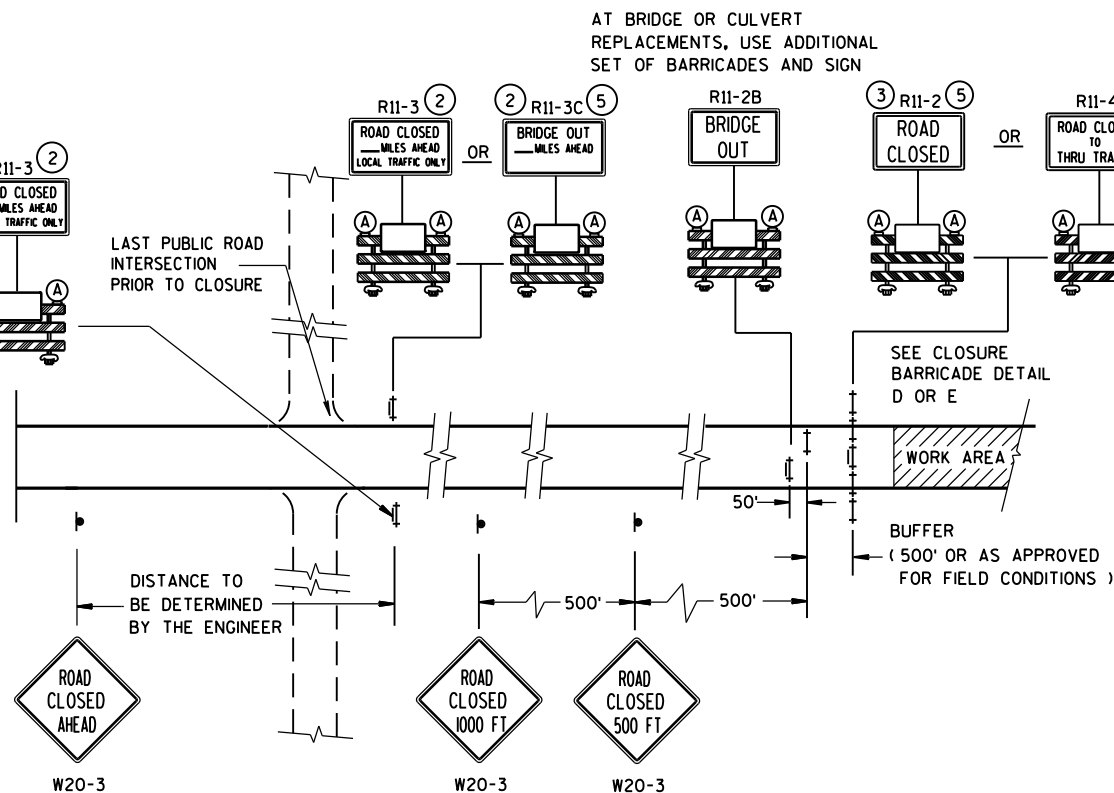
WORK AREA

DETOUR EAST M4-8
M3-X
XX OR COUNTY XX OR XX
M1-4 M1-5A M1-6

M05-1 OR M06-1

FLAGS, 16" X 16" MIN., (ORANGE)

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



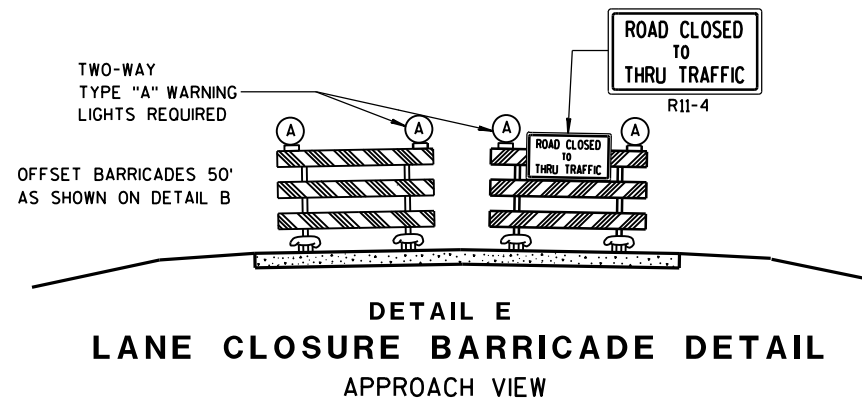
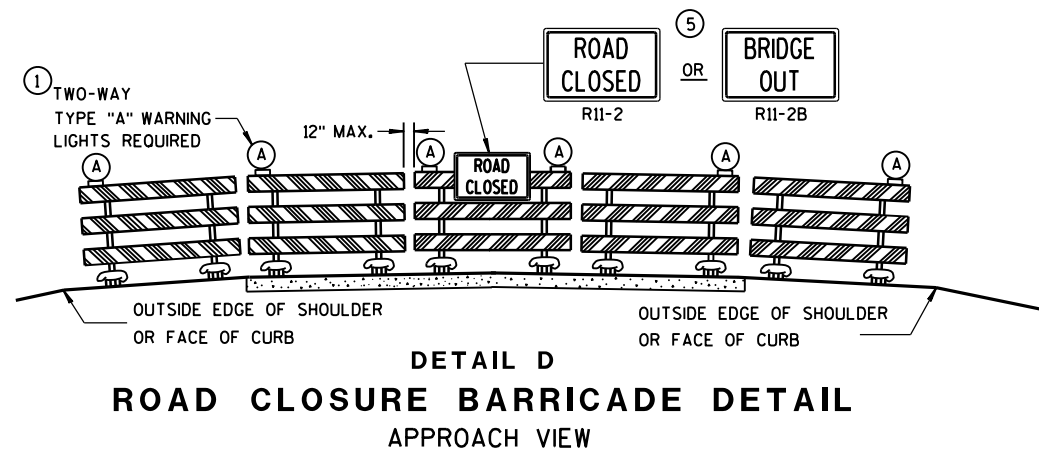
DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINE 119 EISN
FHWA



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.

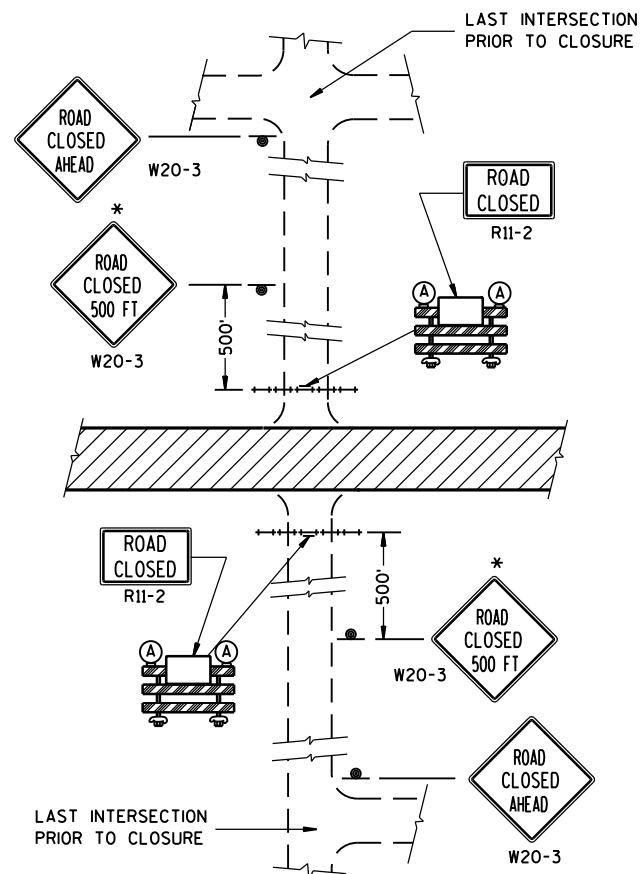
R1-1 SHALL BE 36" X 36".

- 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.

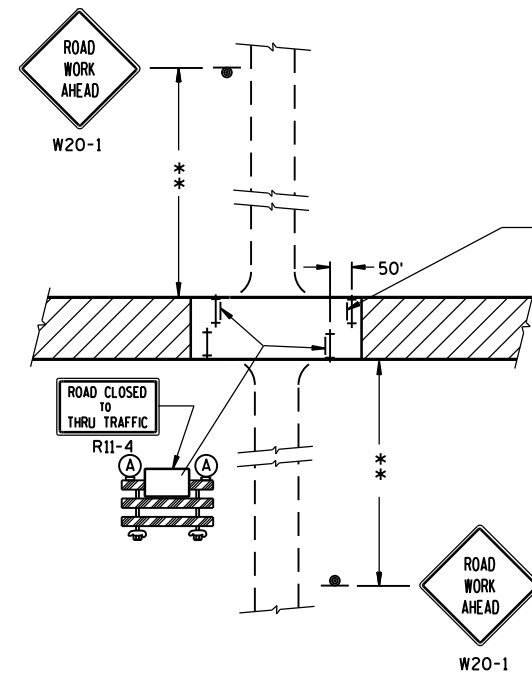
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

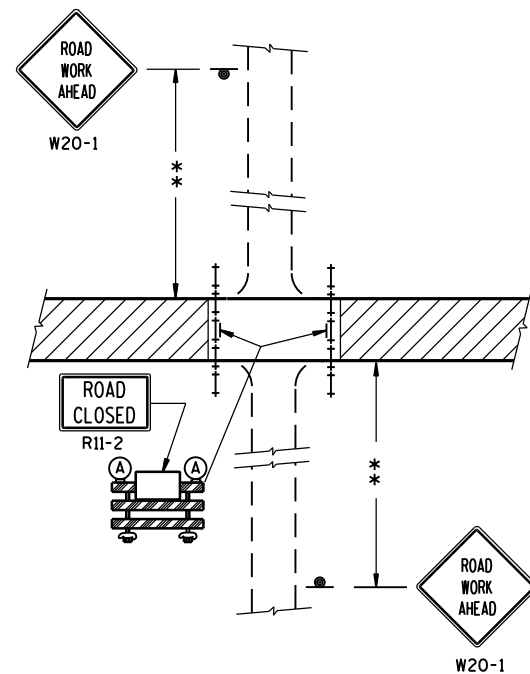
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINE 120 ESIGN
FHWA



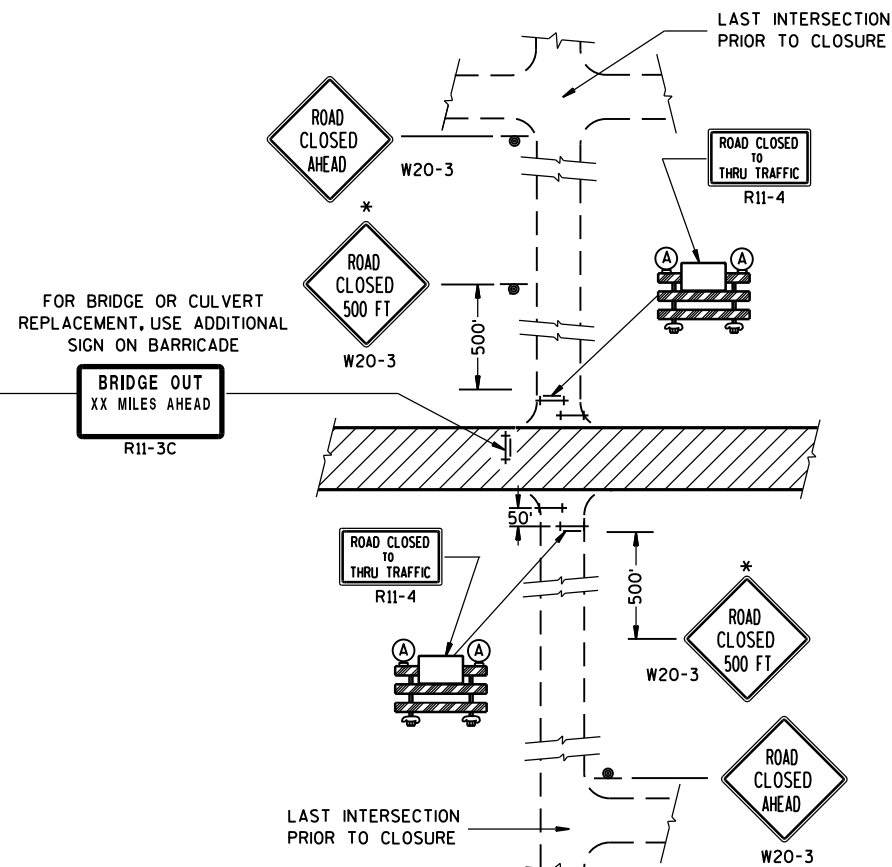
DETAIL 1
(NO ACCESS TO PROJECT)



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
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- ▨ WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

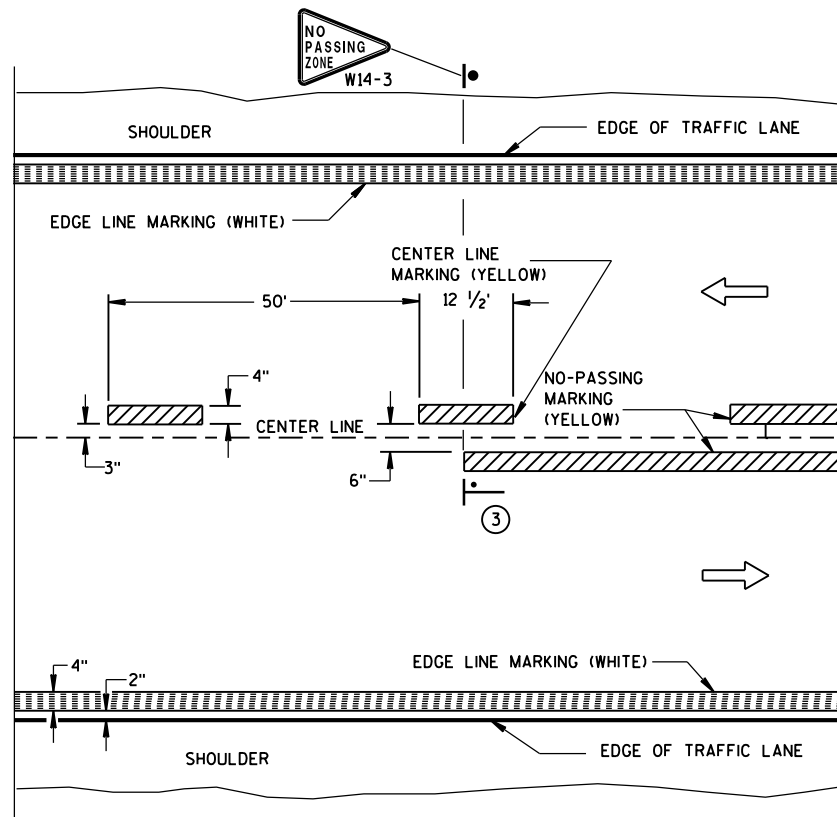
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

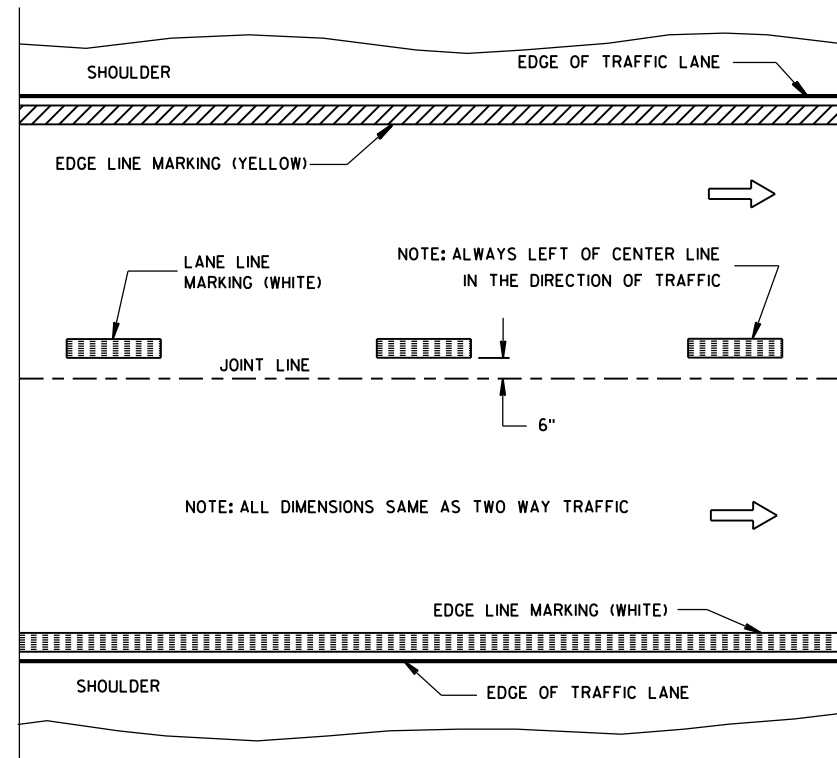
8/2013 /S/ Travis Feltes

DATE STATE TRAFFIC ENGINE 121 SIGN

FHWA

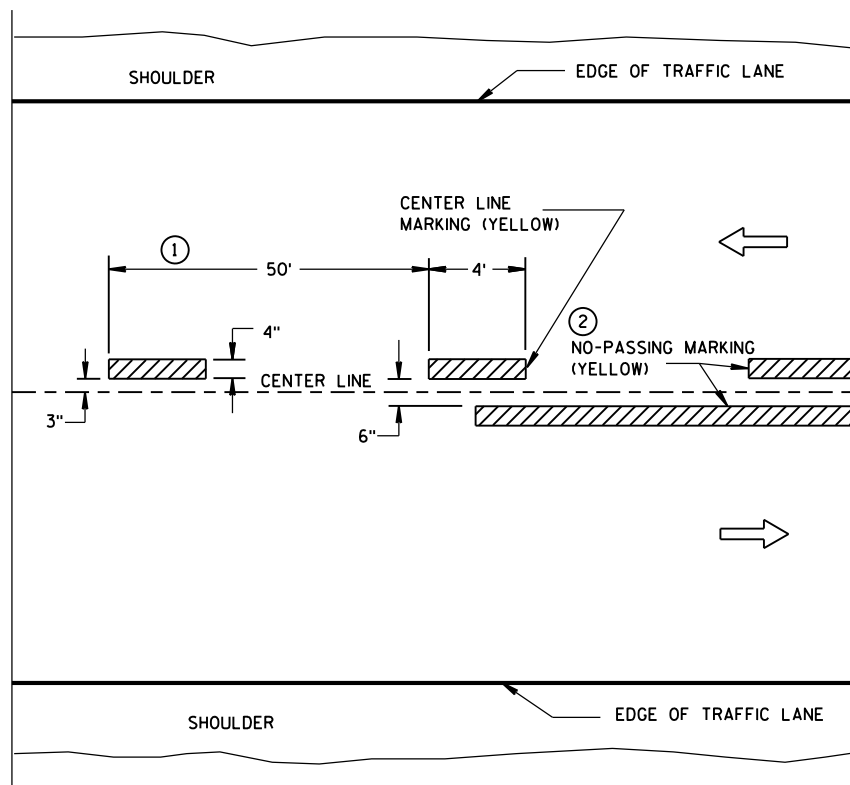


TWO WAY TRAFFIC

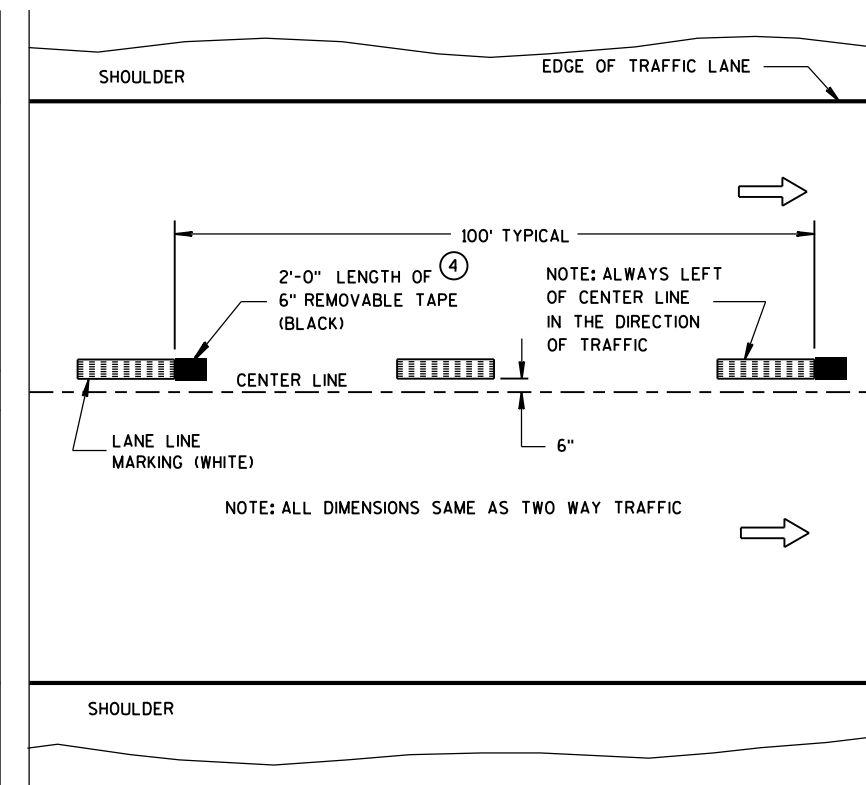


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

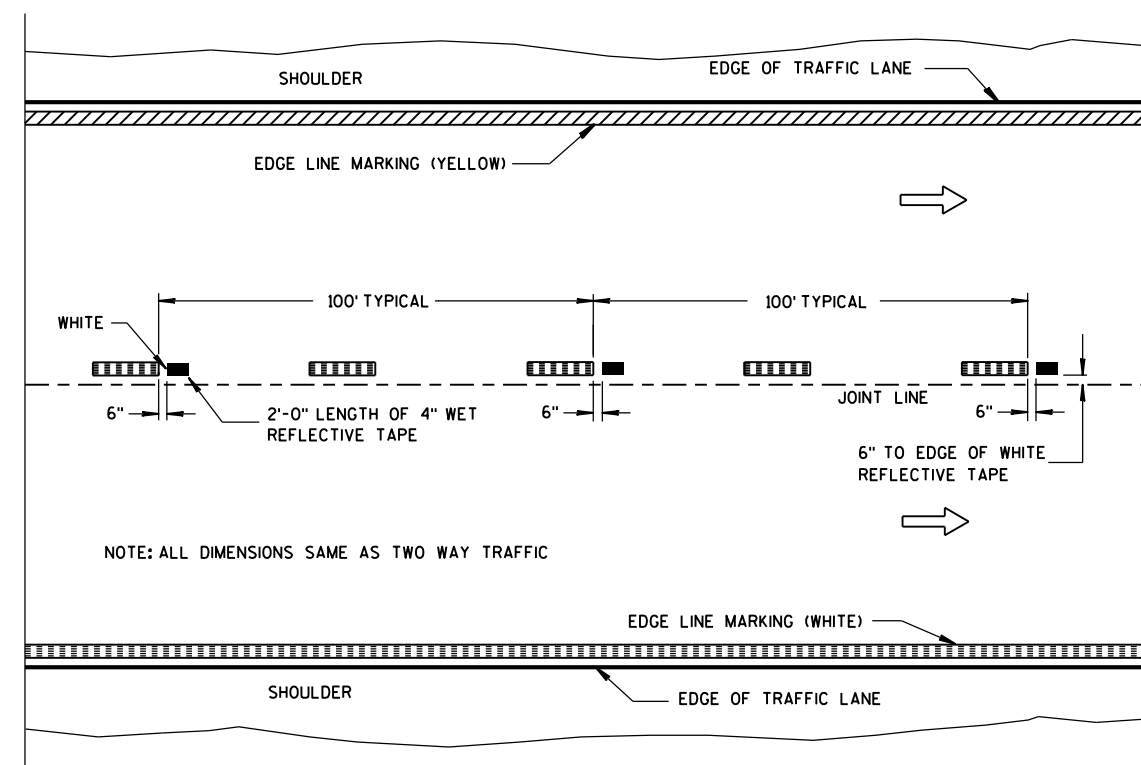
GENERAL NOTES

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

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- ③ NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- ④ CONCRETE ONLY.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

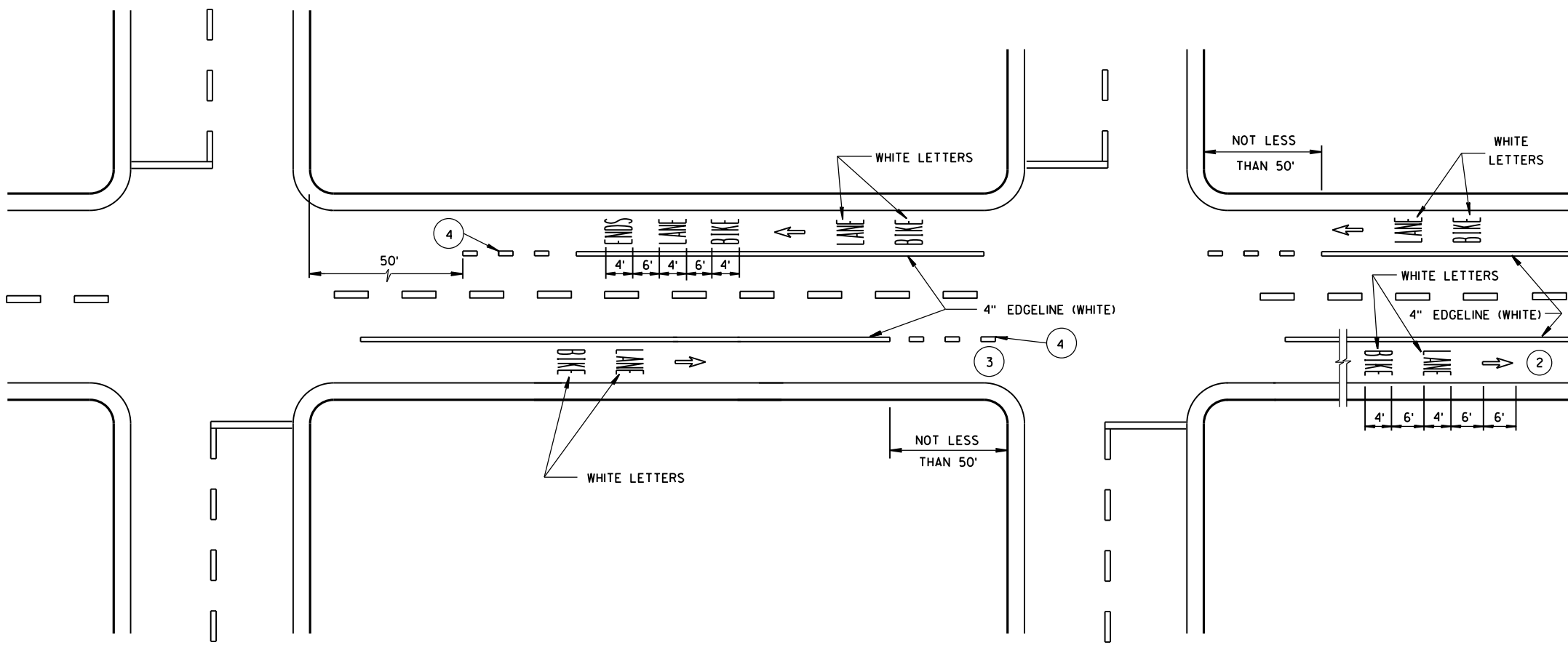
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC E 122



GENERAL NOTES

- 1 DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- 2 THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
- 3 DOTTED LINES SHOULD BE USED 50' TO 200' 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 3' LINE, 9' GAP - 4" WIDE, WHITE.

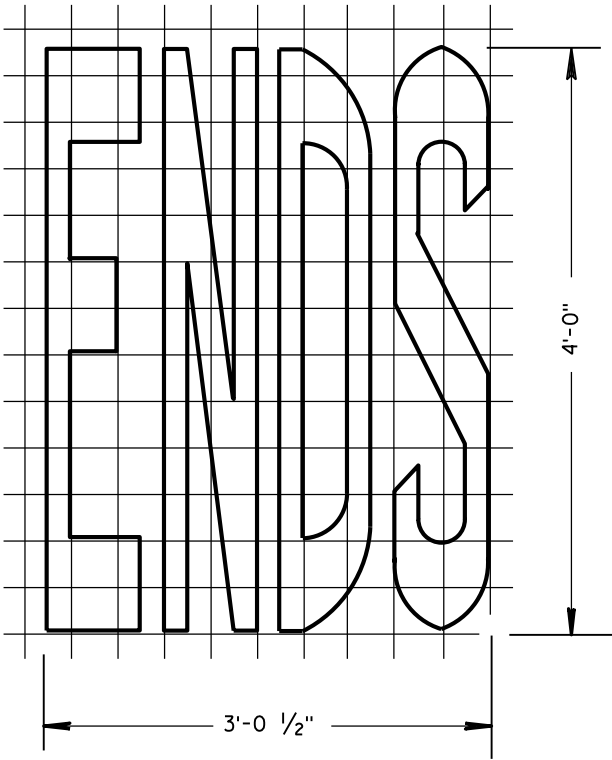
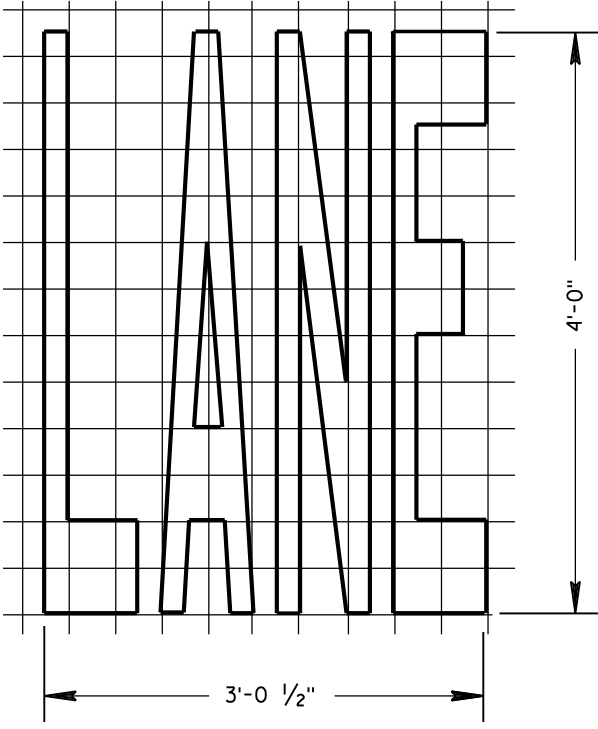
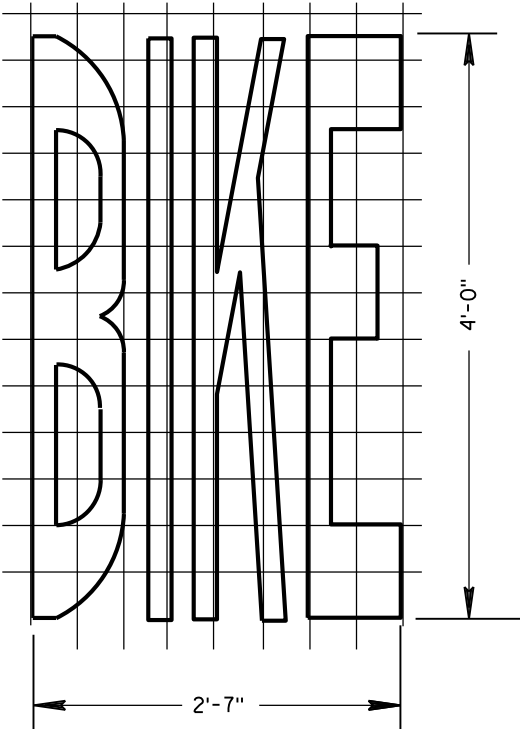
DESIGNATED BICYCLE LANE
NO PARKING

URBAN BICYCLE LANE MARKING		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED 4/30/2013 DATE	/S/ Travis Fettes STATE TRAFFIC ENGINEER 123	
FHWA		

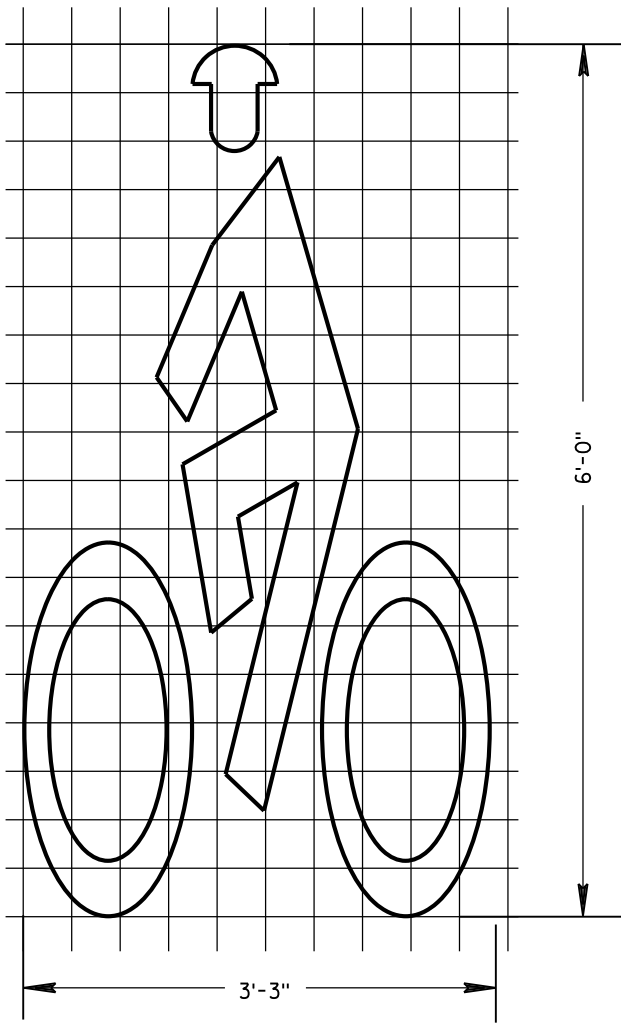
GENERAL NOTES

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.

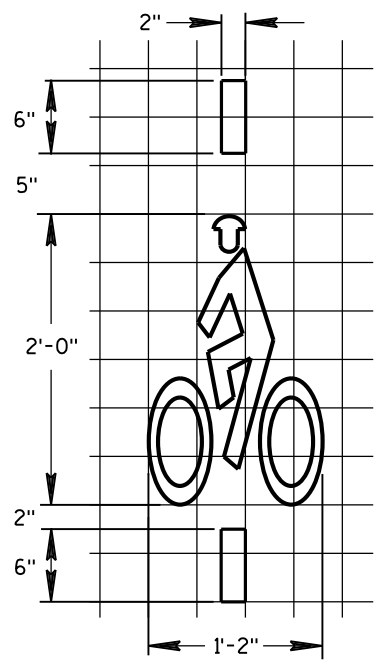
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



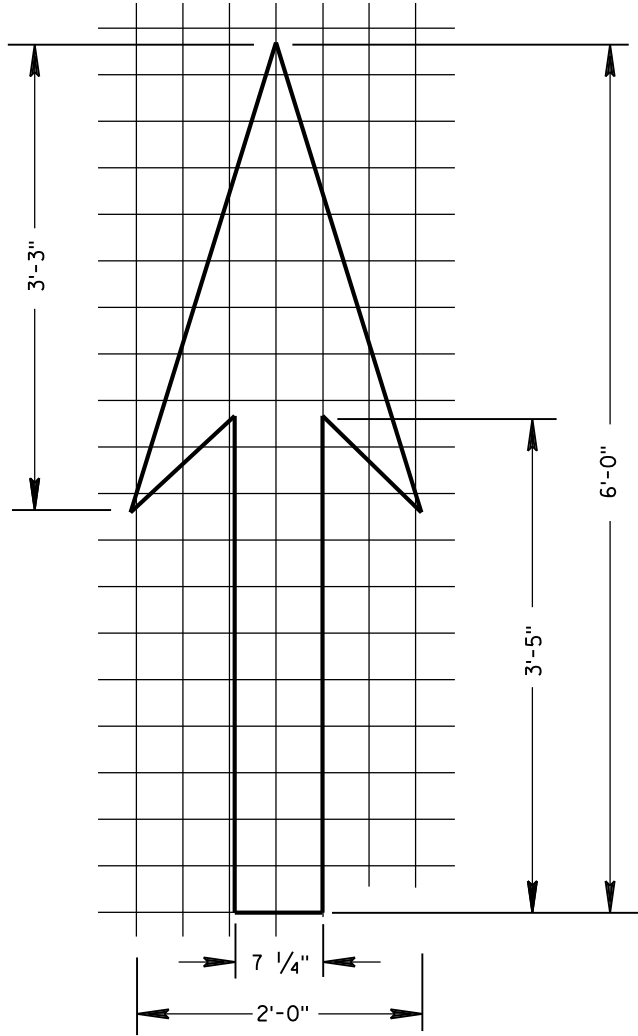
BIKE LANE WORDS



BIKE LANE SYMBOL

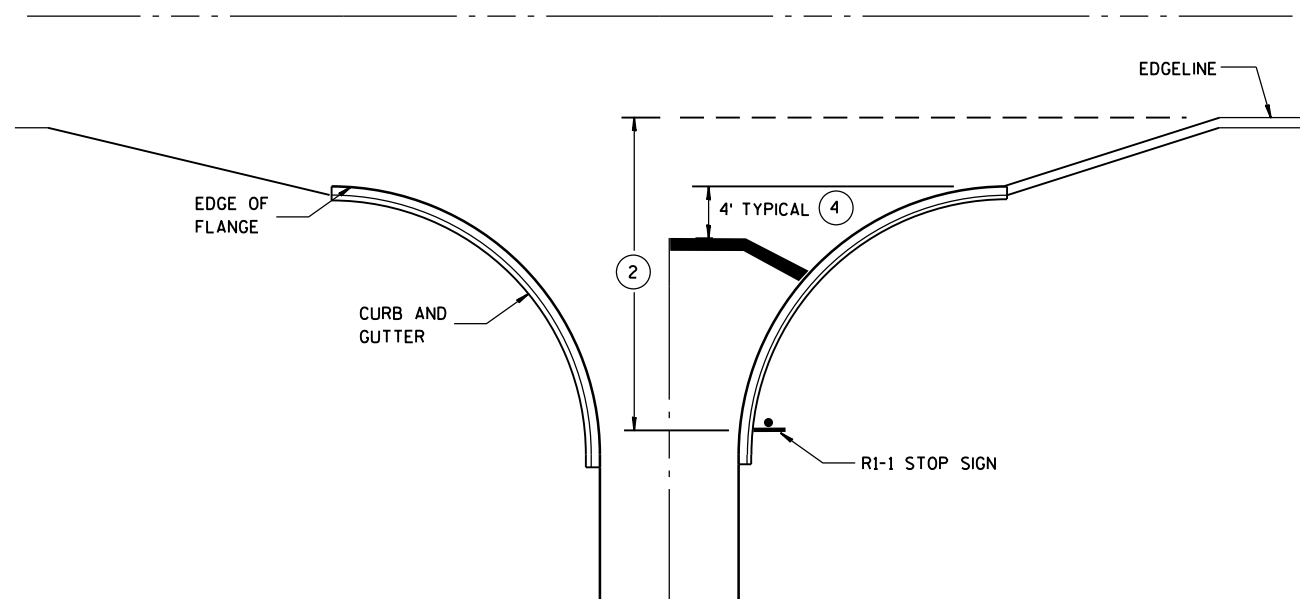


BICYCLE DETECTOR PAVEMENT MARKING

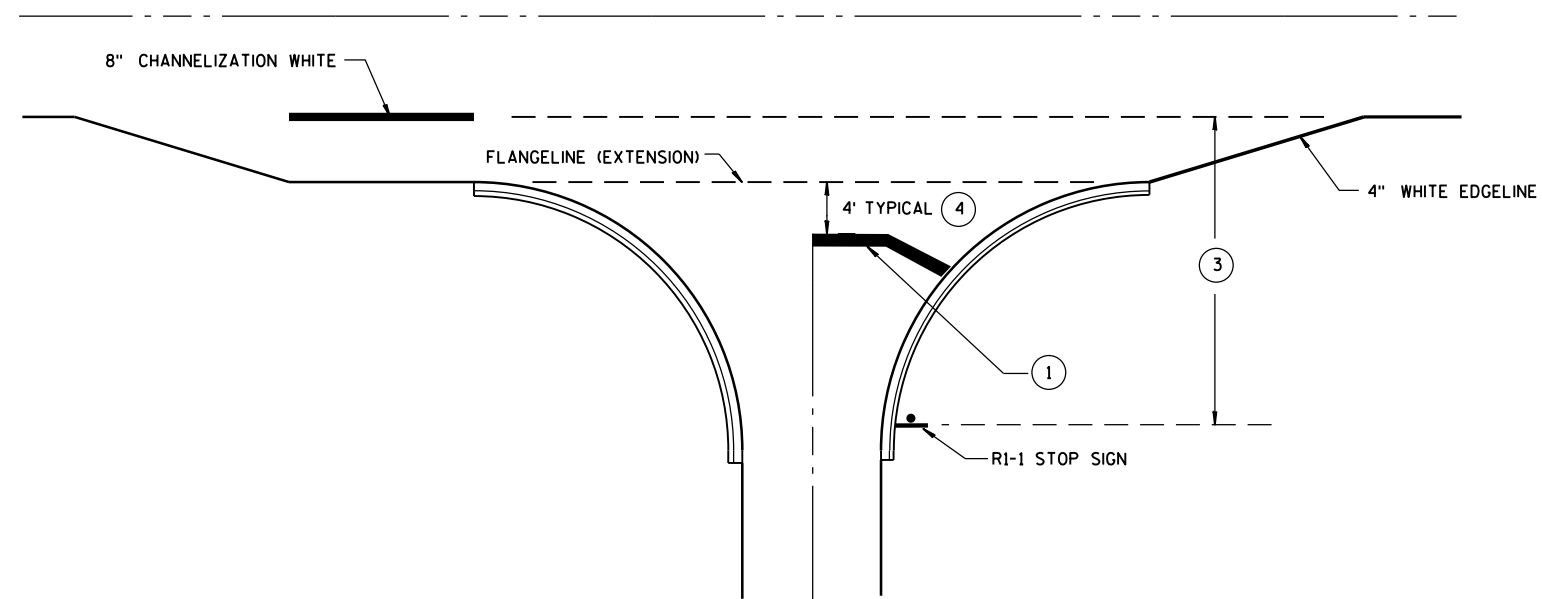


BIKE LANE ARROW

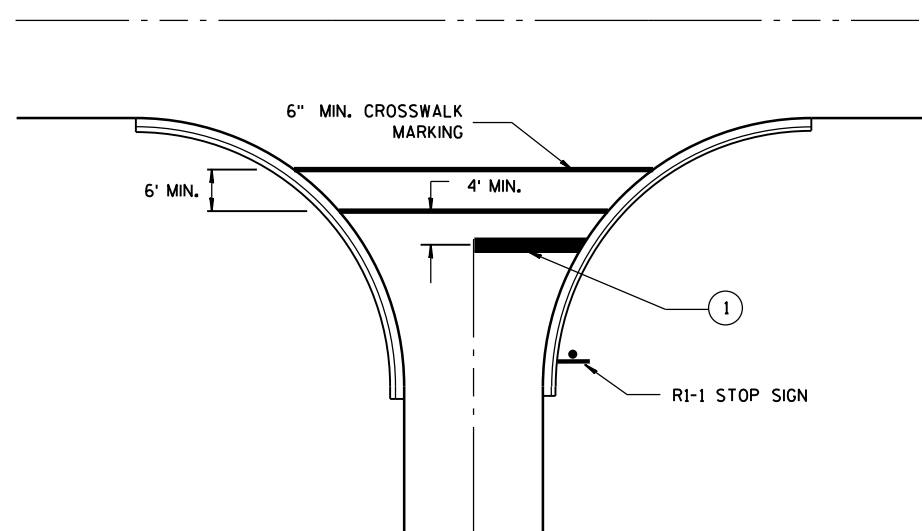
PAVEMENT MARKING FOR BIKE LANES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-30-2013 DATE	/S/ Travis Feltes STATE TRAFFIC EN 124
FHWA	



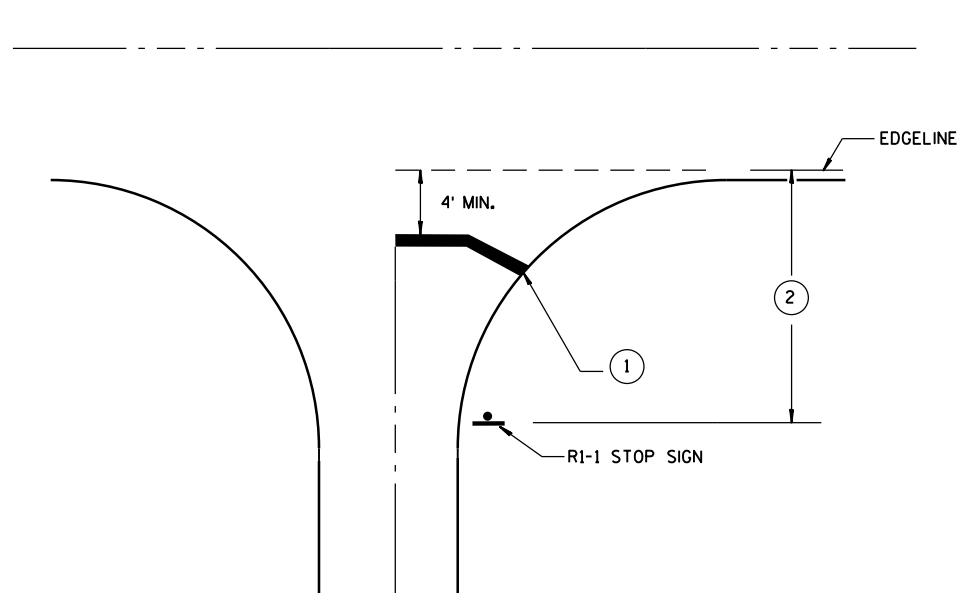
**TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER**



**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.

STOP LINE AND CROSSWALK PAVEMENT MARKING

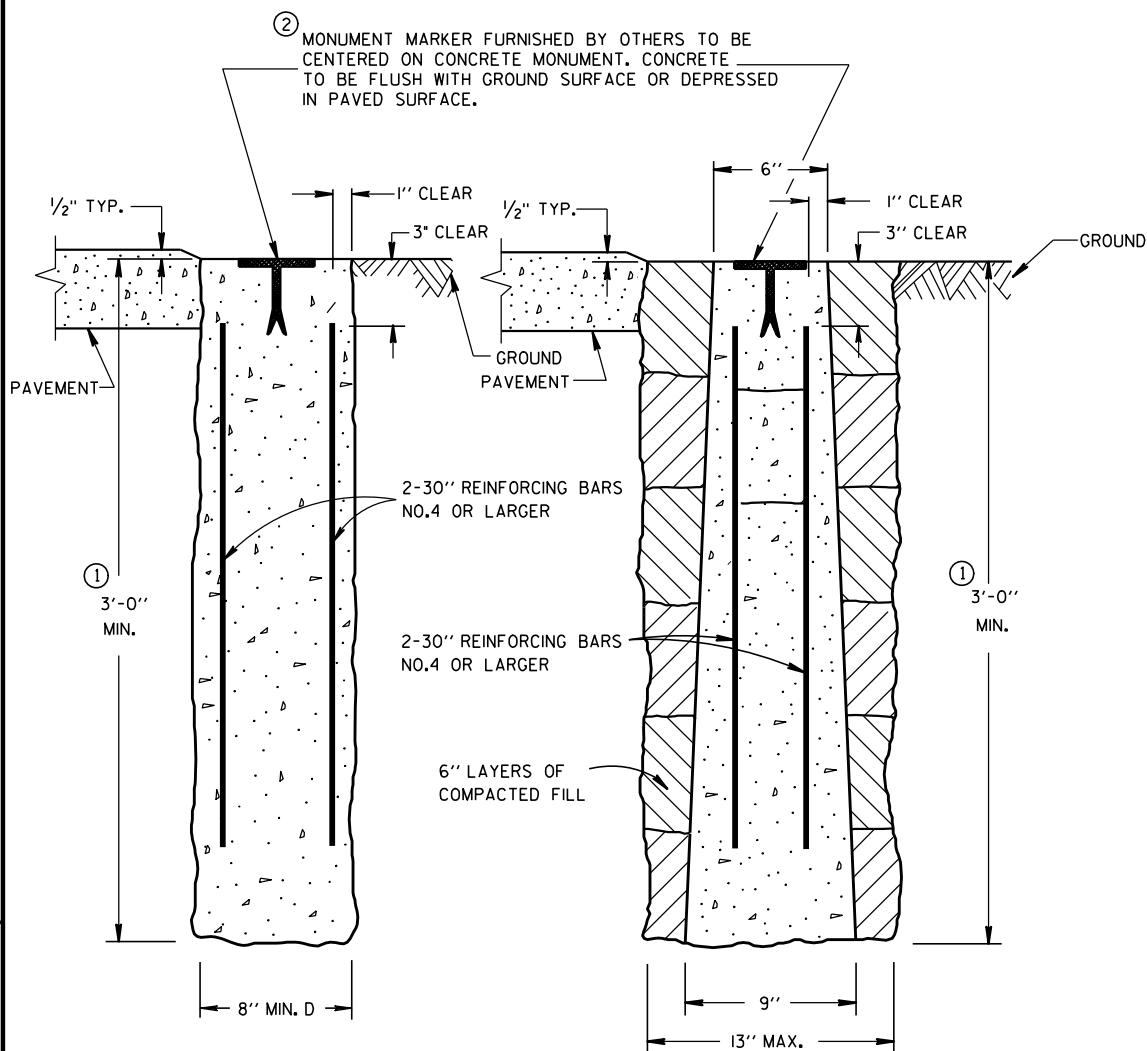
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER 125

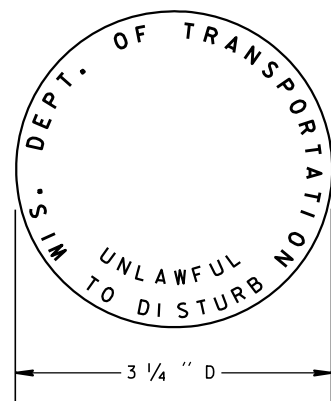


CAST-IN-PLACE

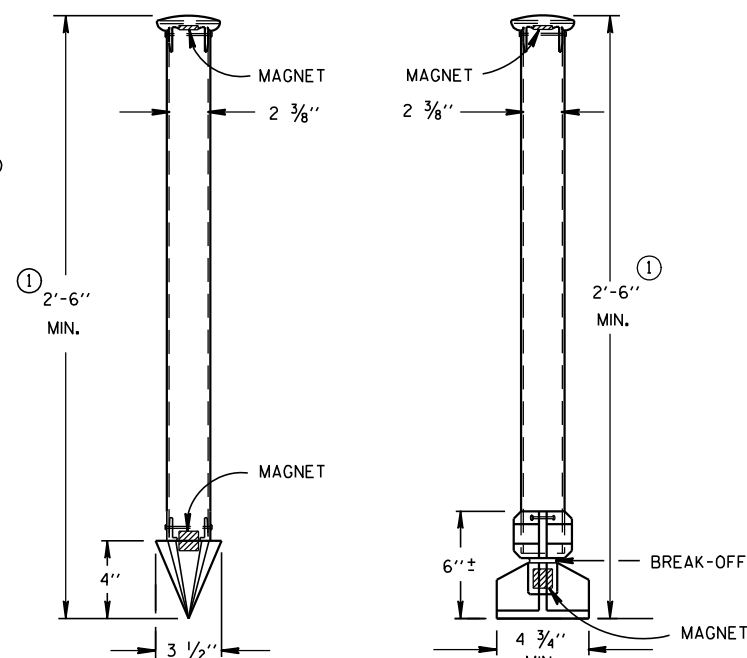
PRECAST

CONCRETE MONUMENTS

TYPE A



② WIS DOT MONUMENT MARKER LOGO
FOR TYPES "A", "C" & "D"



TYPE C

TYPE D

DRIVE-IN MONUMENT

BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

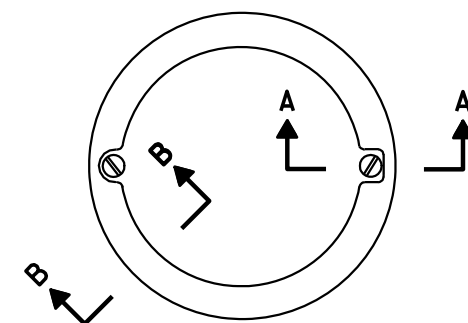
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

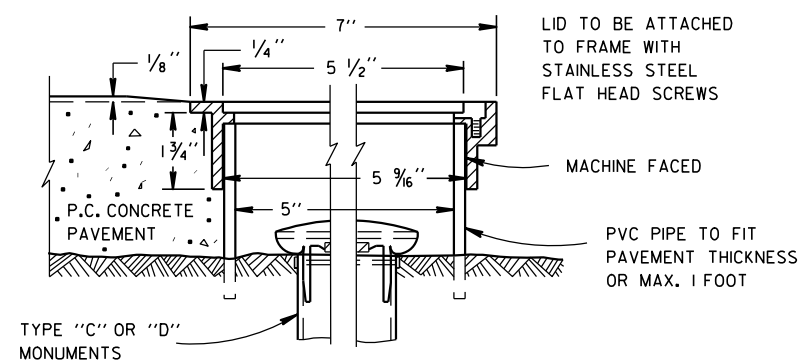
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

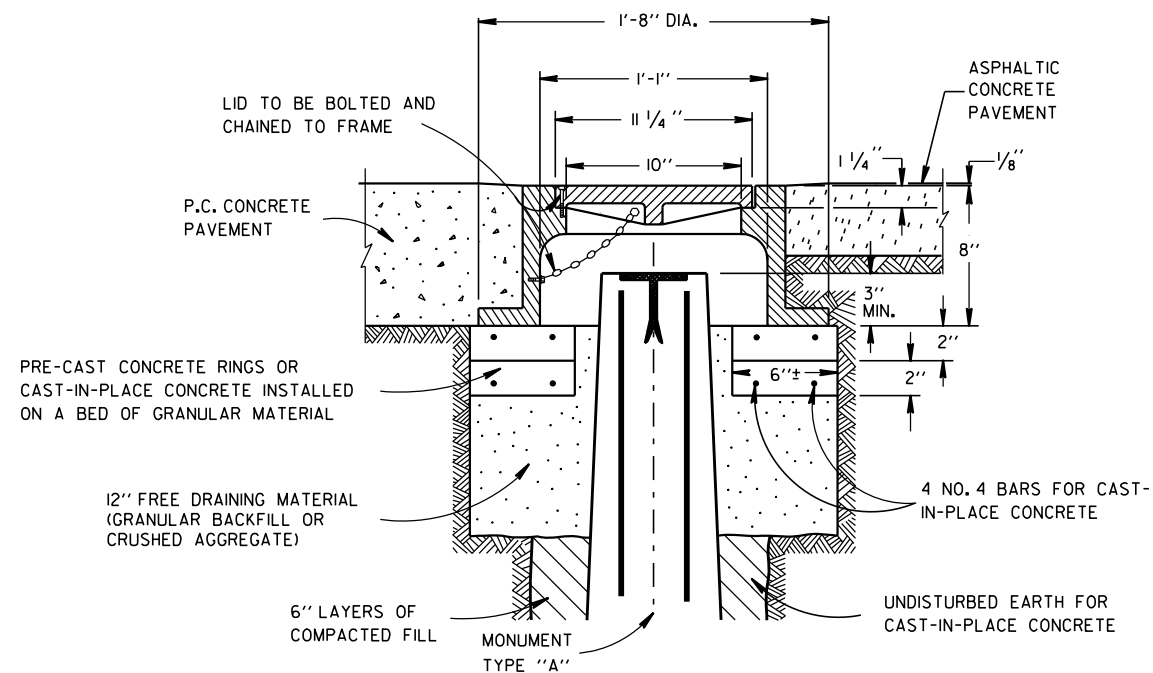
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW

SECTION B-B SECTION A-A
ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)



CAST IRON MONUMENT COVER

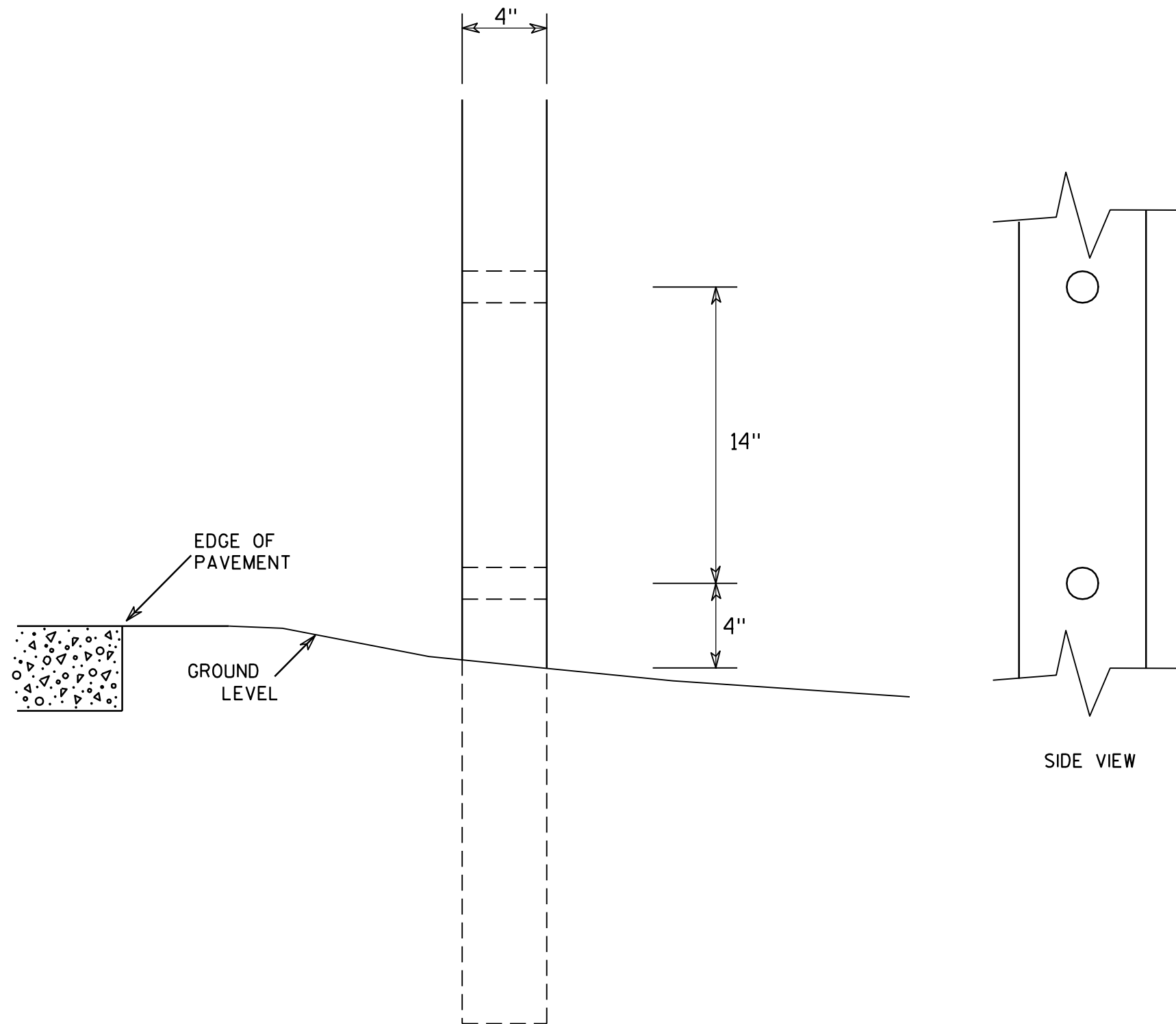
(APPROXIMATE WEIGHT - 95 LBS.)

LANDMARK REFERENCE
MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/22/1999 /S/ Rory L. Rhin...
DATE CHIEF ROADWAY DEVELOP 126 NEER
FHWA

7



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

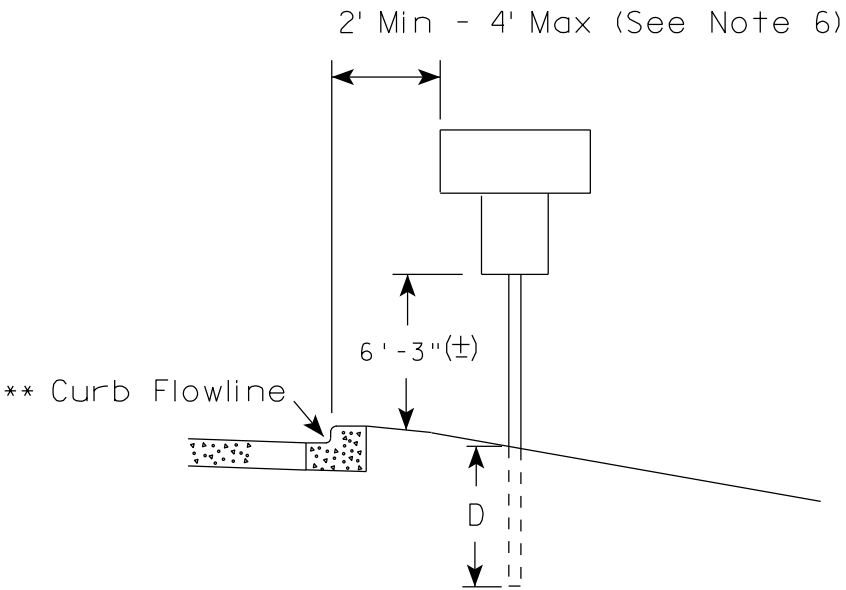
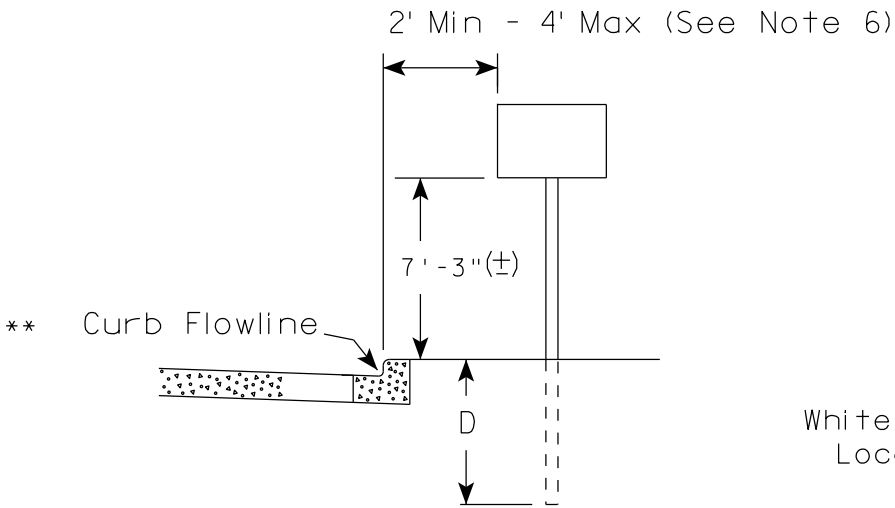
4 X 6 WOOD POST
MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

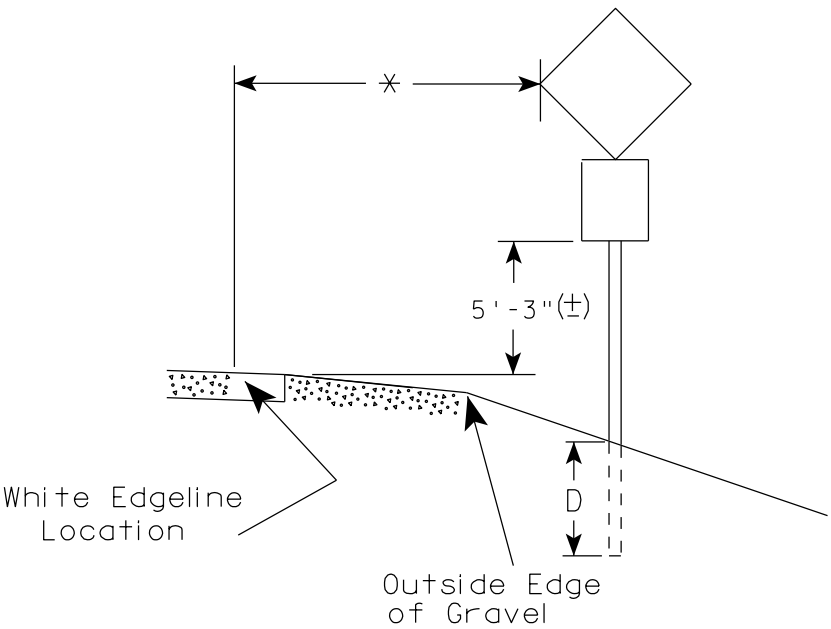
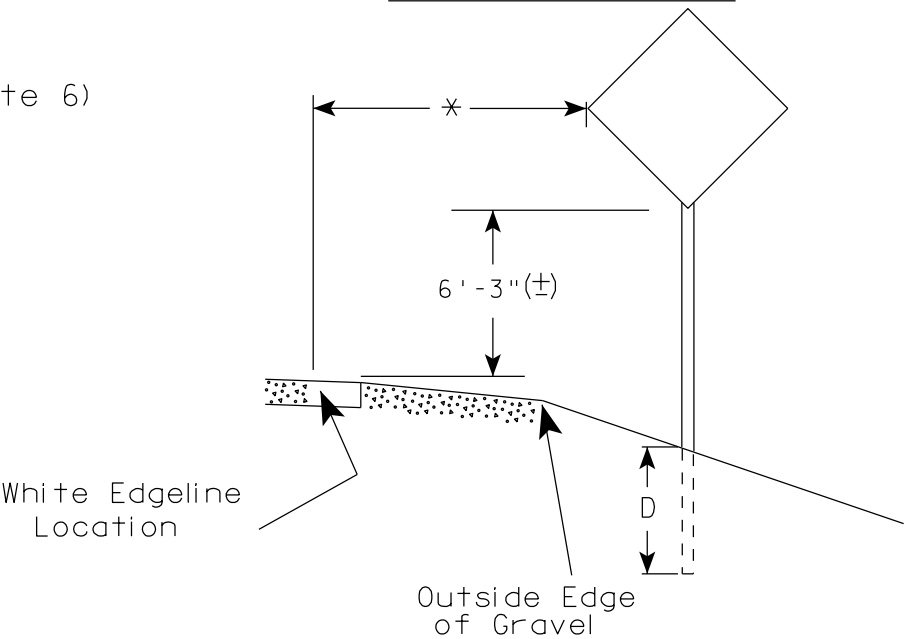
APPROVED *Chester J. Spang*
for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. 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) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

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.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-3.18

128

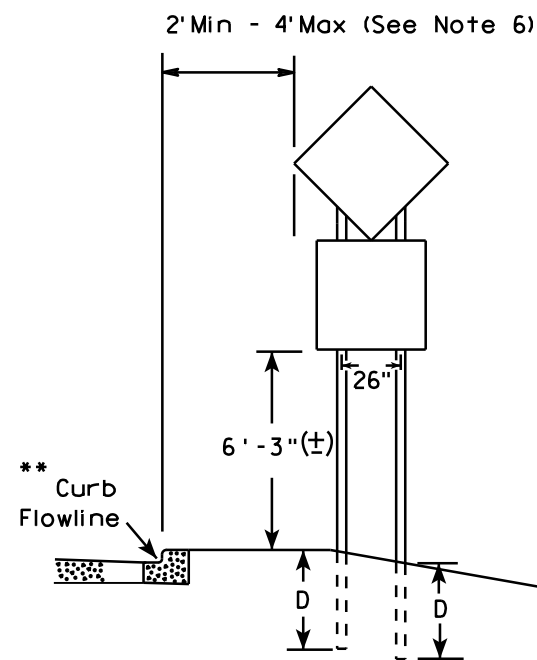
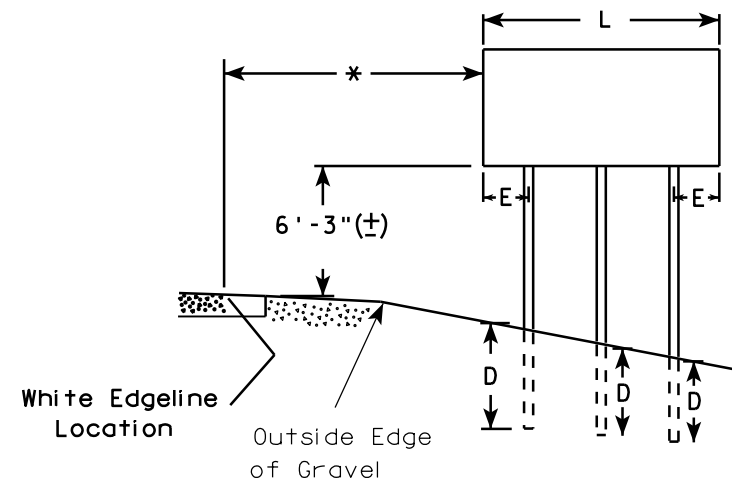
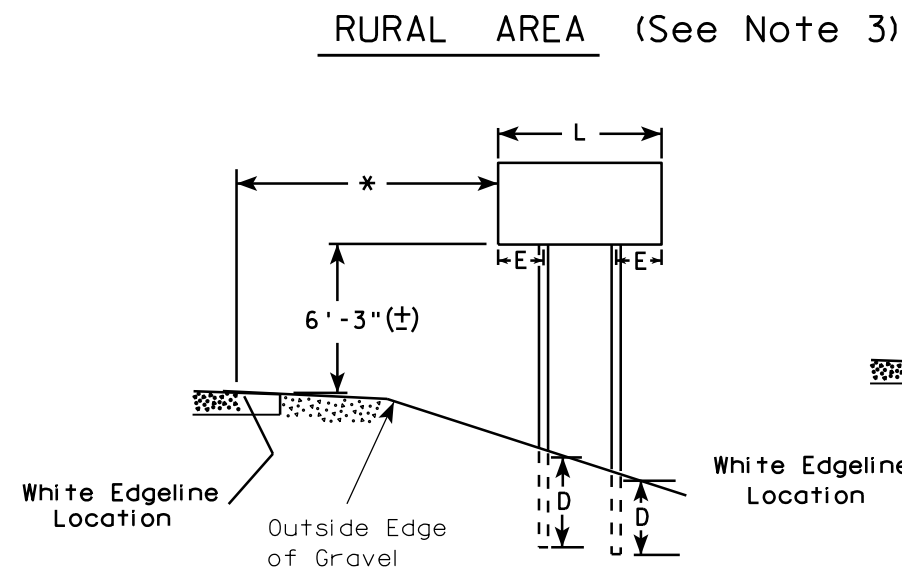
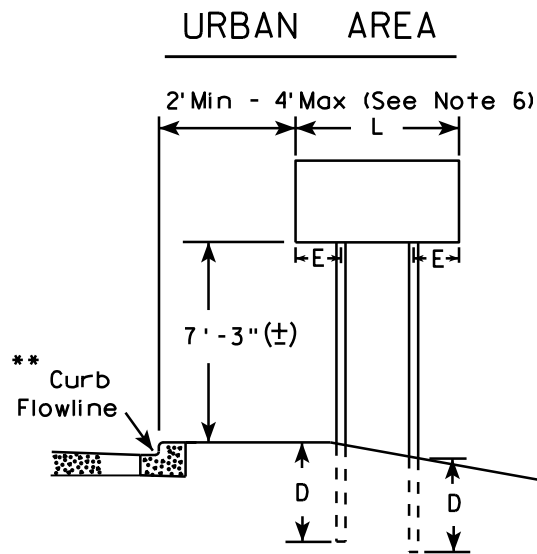
PROJECT NO:

HWY:

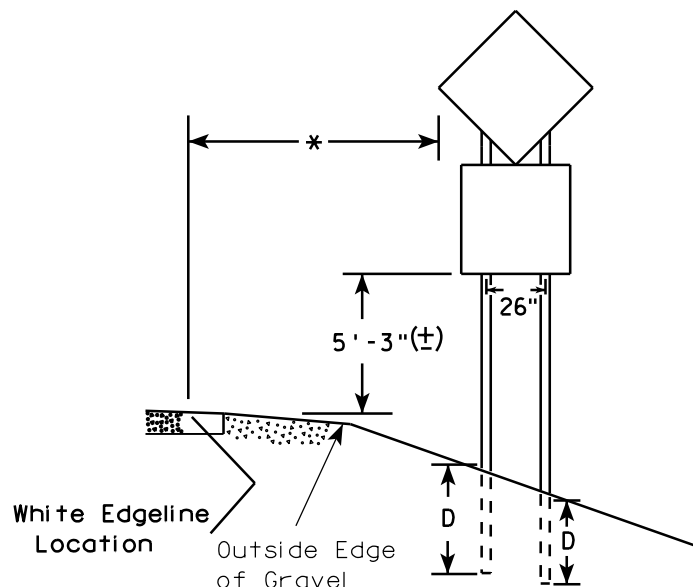
COUNTY:

SHEET NO:

E



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

- GENERAL NOTES**
1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 2. See tables below for required number of posts.
 3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 4. The (±) tolerance for mounting height is 3 inches.
 5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 8. 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), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

* 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.

** 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.

*** See A4-3 sign plate for signs 4' or less in width or 20 S.F. or less in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

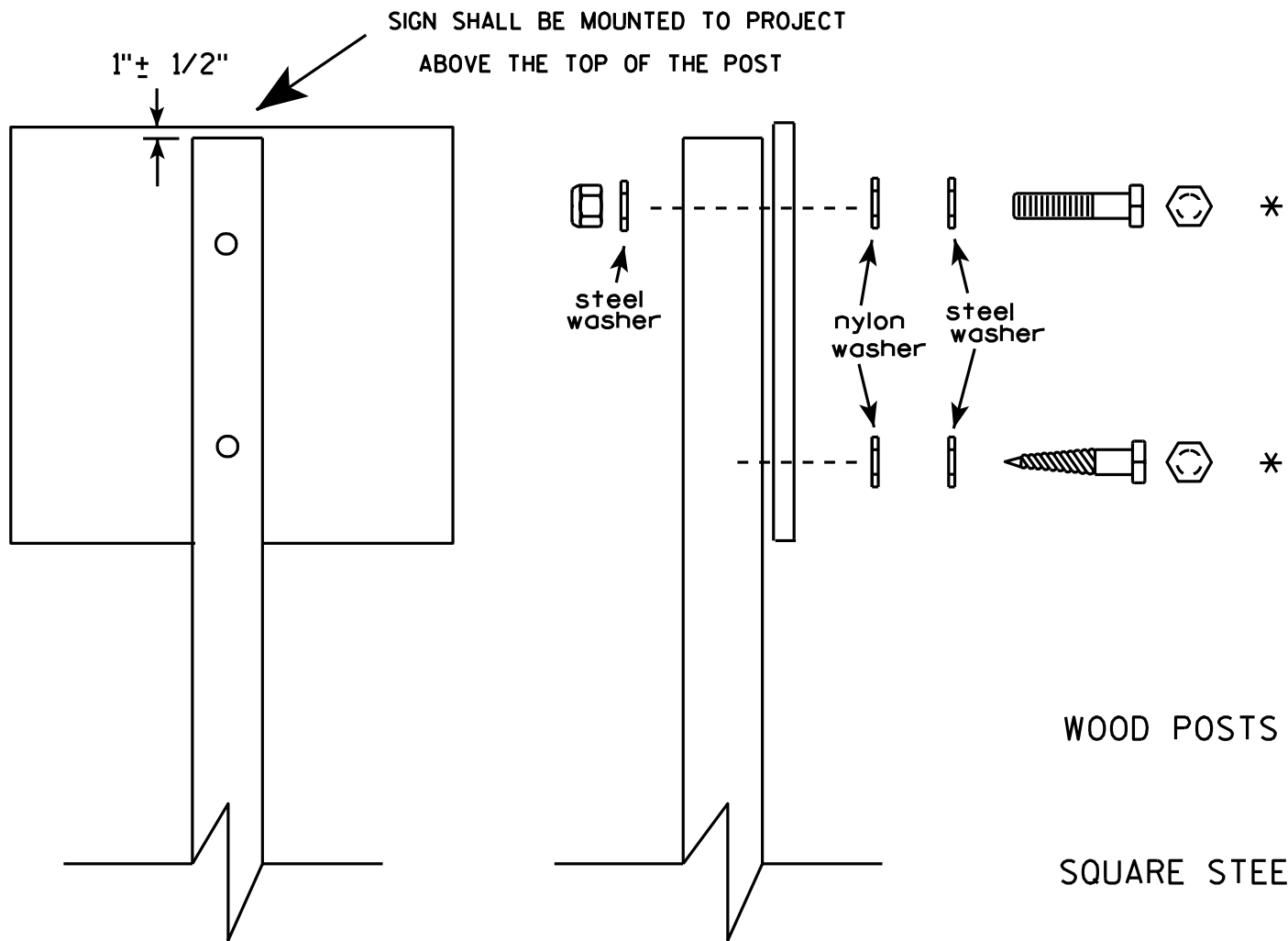
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/30/13 PLATE NO. 129 12

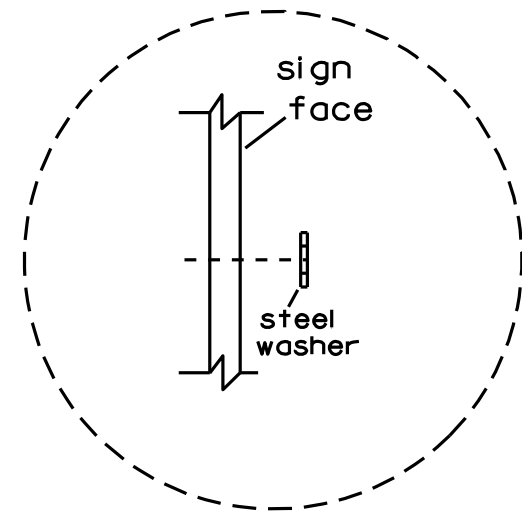


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- 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.



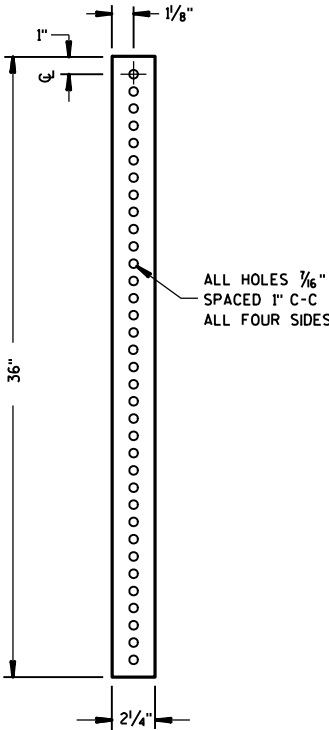
Washer Placement when Sign Has Other Than Type H or Type F Face

* 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.

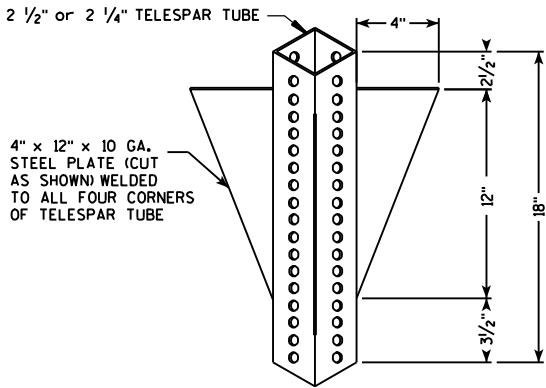
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

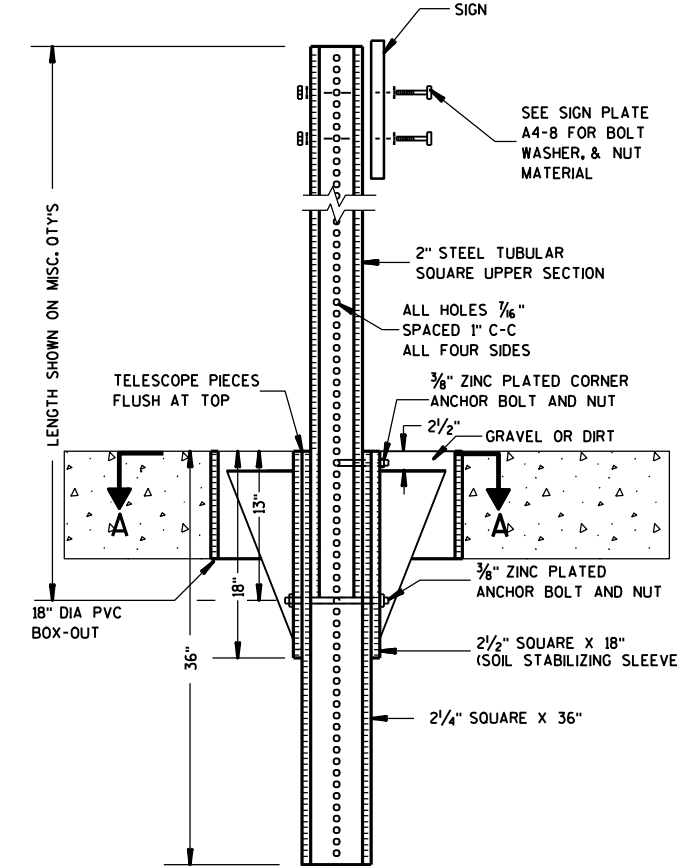
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



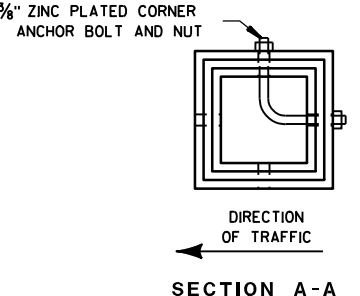
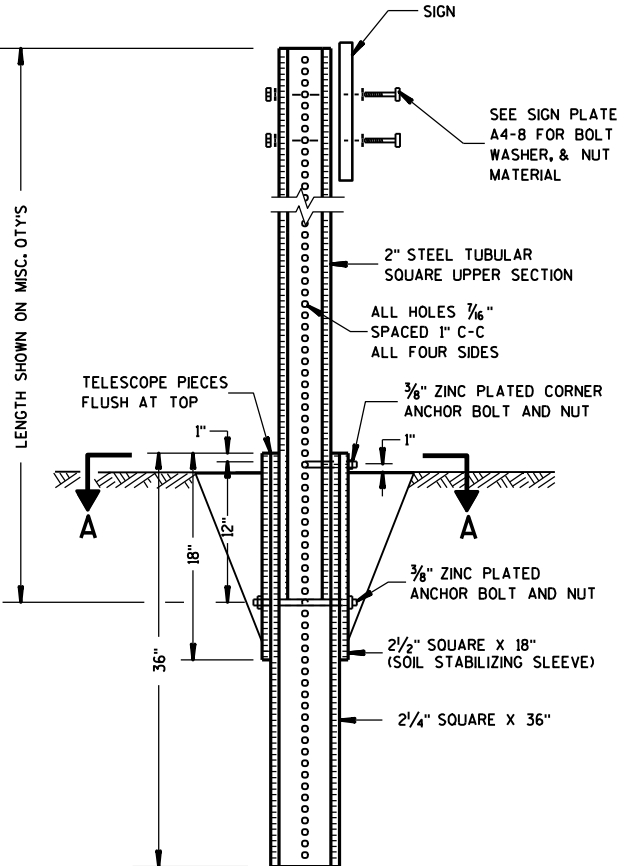
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



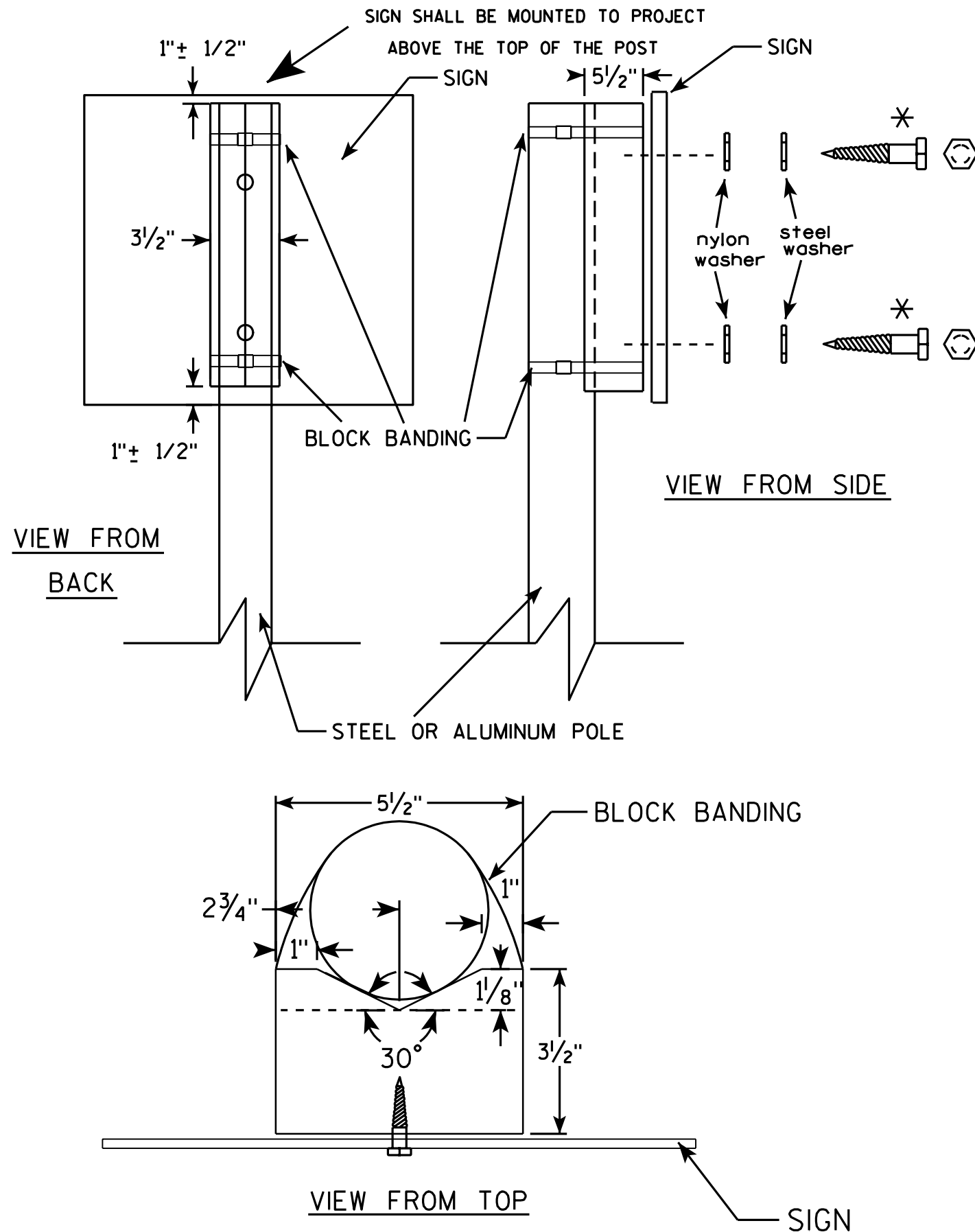
DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)



Area of Sign Installation (Sq. Ft.)	Number of Required 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).

TUBULAR STEEL SIGN POST A4-9	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i>
for State Traffic Engineer	
DATE 5/30/12	PLATE NO. A4-9.7



GENERAL NOTES

1. WOOD 4"x6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
 - b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
 - c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

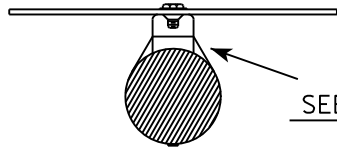
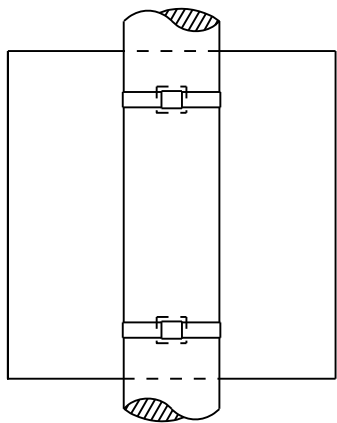
PROJECT NO:

SHEET NO: 132

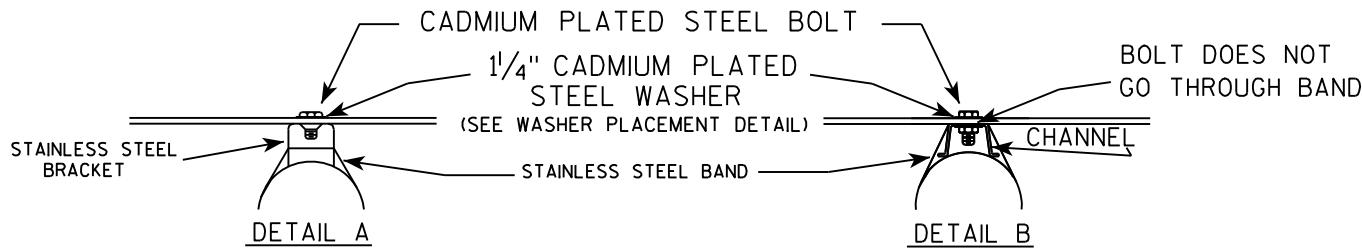
E

BANDING

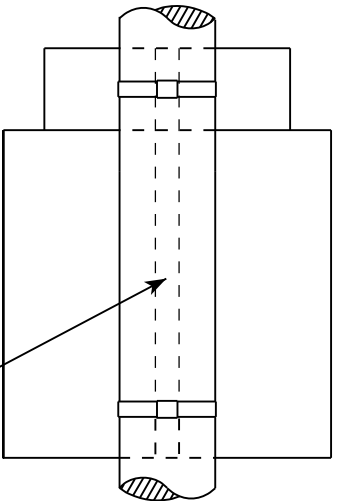
SINGLE SIGN



SEE DETAIL A



"J" ASSEMBLY



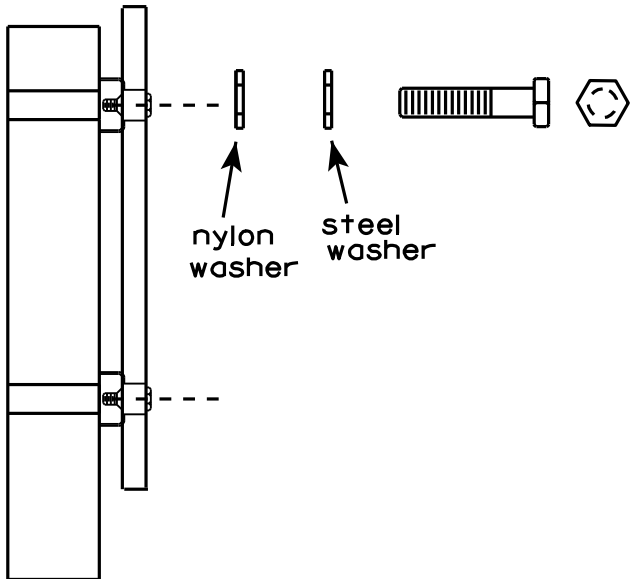
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be $\frac{3}{4}$ " in width and 0.025" thickness.

WASHER PLACEMENT



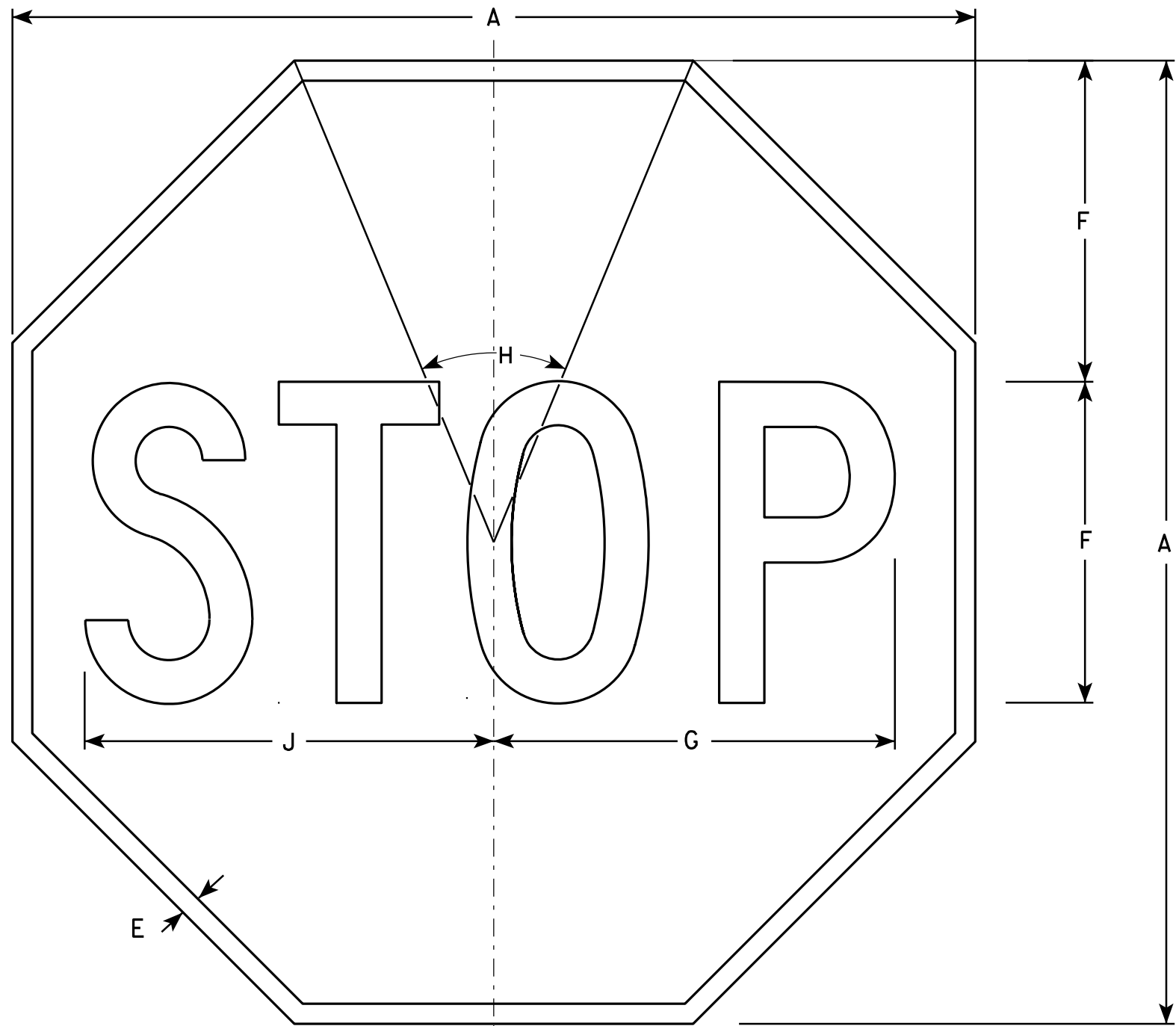
WASHERS (ALL POSTS) -
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Red
Message - White
- 3. Message Series - C

R1-1

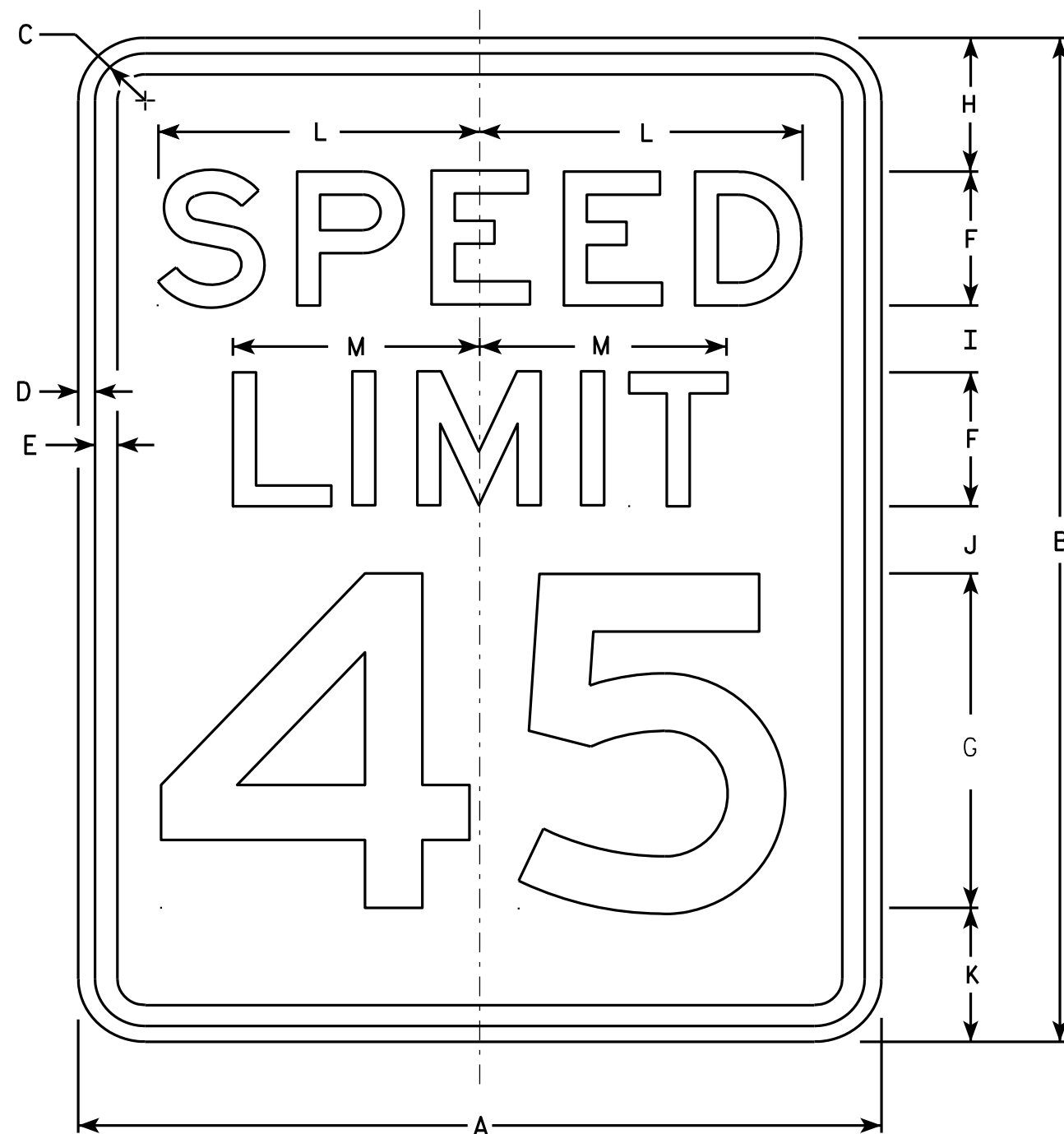
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12



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 - Black
3. Message Series - E
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. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

R2-1

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	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

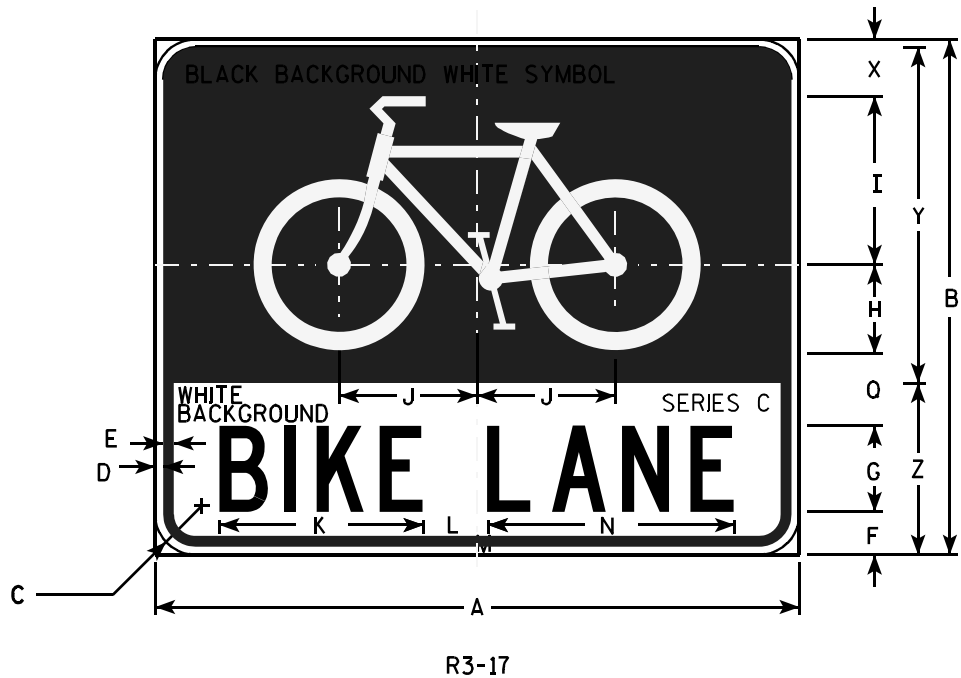
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

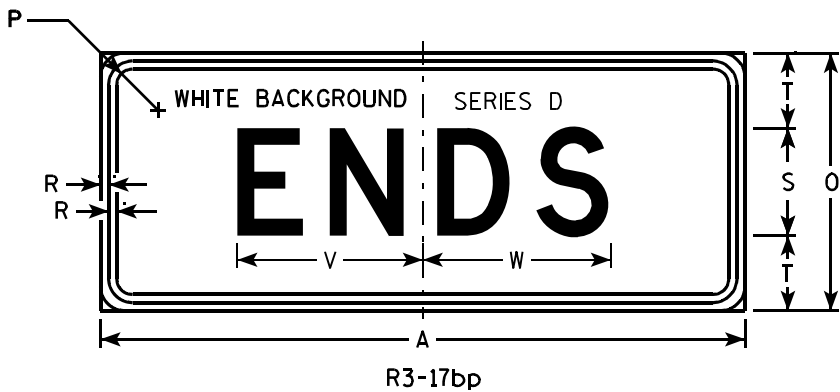
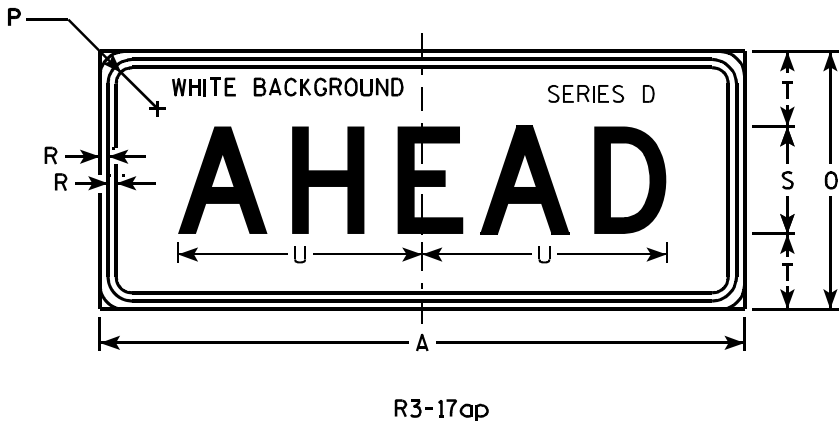
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: 135 E



- NOTES**
- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 - 2. Color:
Background - AS SHOWN
Message - BLACK
 - 3. Message Series - C or as noted on the Signs.
 - 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.



																												R3-17	R3-17ap	R3-17bp
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.	Area sq. ft.	Area sq. ft.	
1																														
2S	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5	
2M	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5	
3																														
4																														
5																														

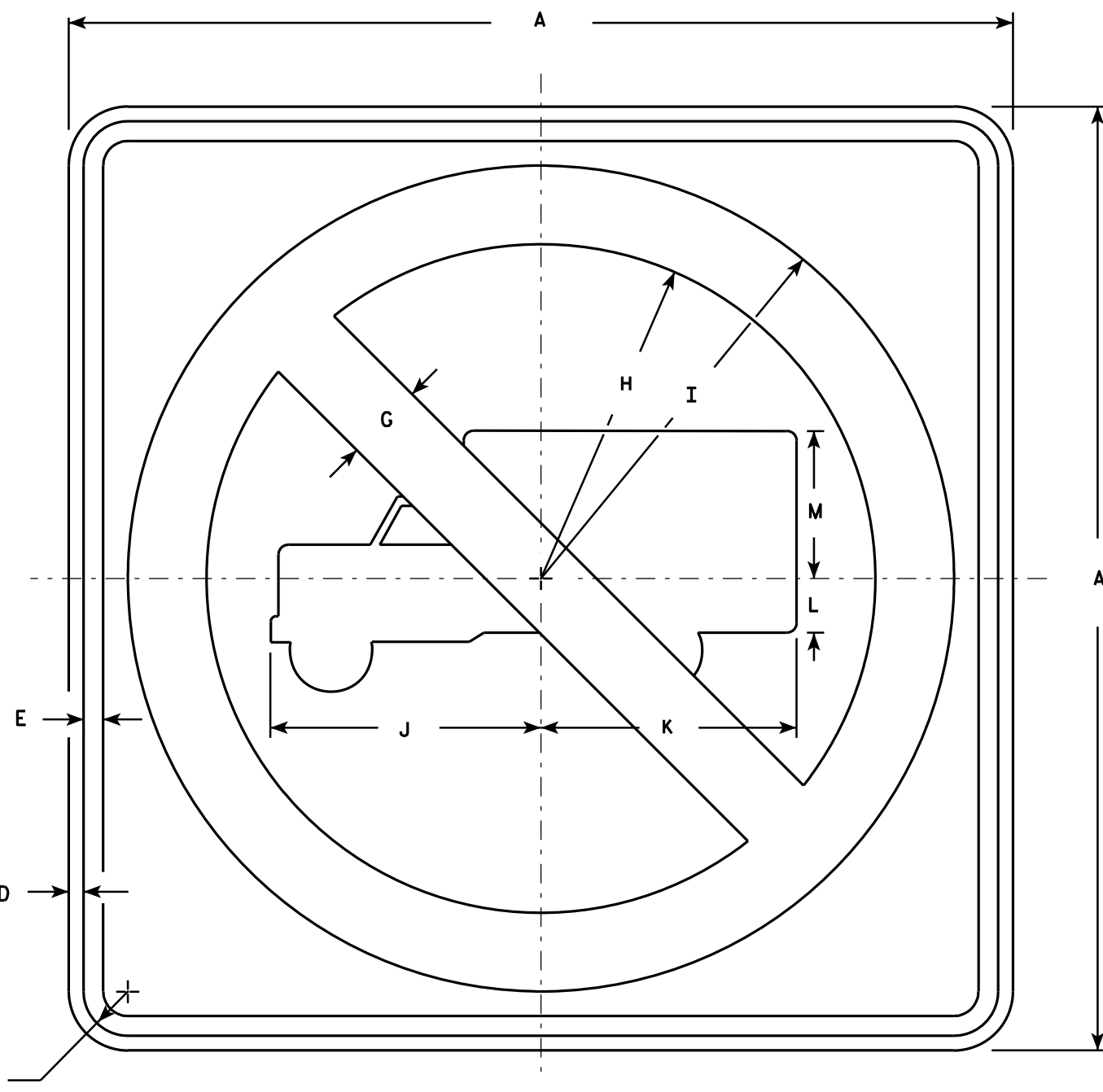
STANDARD SIGN

R3-17 & R3-17a&bp

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/12/2011 PLATE NO. R3-17.2



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 - See Note 4
3. 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.
4. Circle & Diagonal - Reflective red.
Truck Symbol & Border - Non-reflective black.

R5-2

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																											
2S	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
2M	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
3	30		1 3/8	1/2	5/8		2 1/2	10 5/8	13 1/8	8 1/2	8 1/8	1 5/8	4 3/4														6.25
4	36		1 5/8	5/8	3/4		3	12 3/4	15 3/4	10 1/4	9 3/4	2	5 3/4														9.0
5	48		2 1/4	3/4	1		4	17	21	13 5/8	13	2 5/8	7 5/8														16.0

STANDARD SIGN
R5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-2.6

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 137

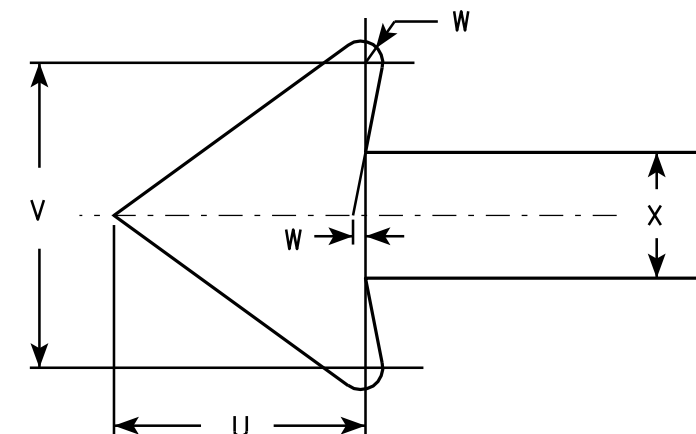
E



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																											

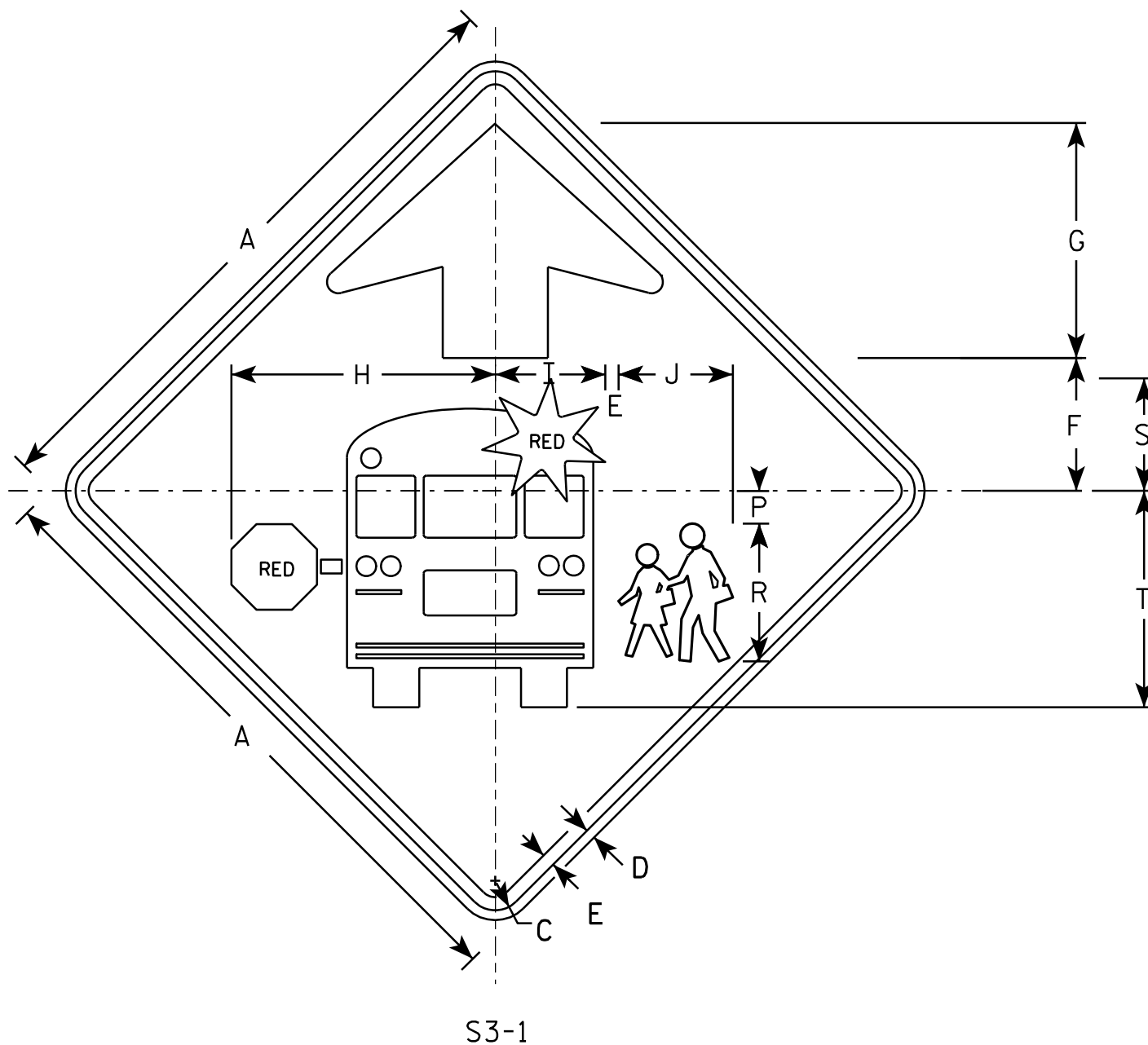
STANDARD SIGN R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

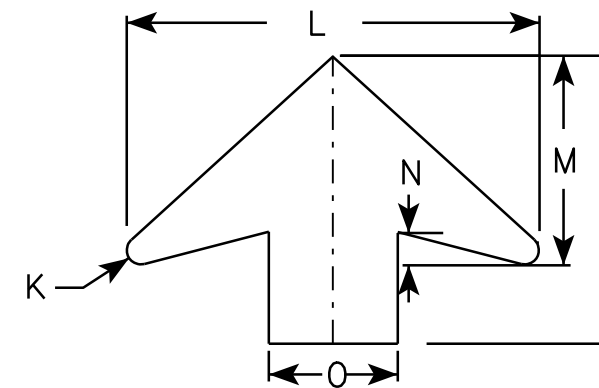
DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO: HWY: COUNTY: SHEET NO: 138 E

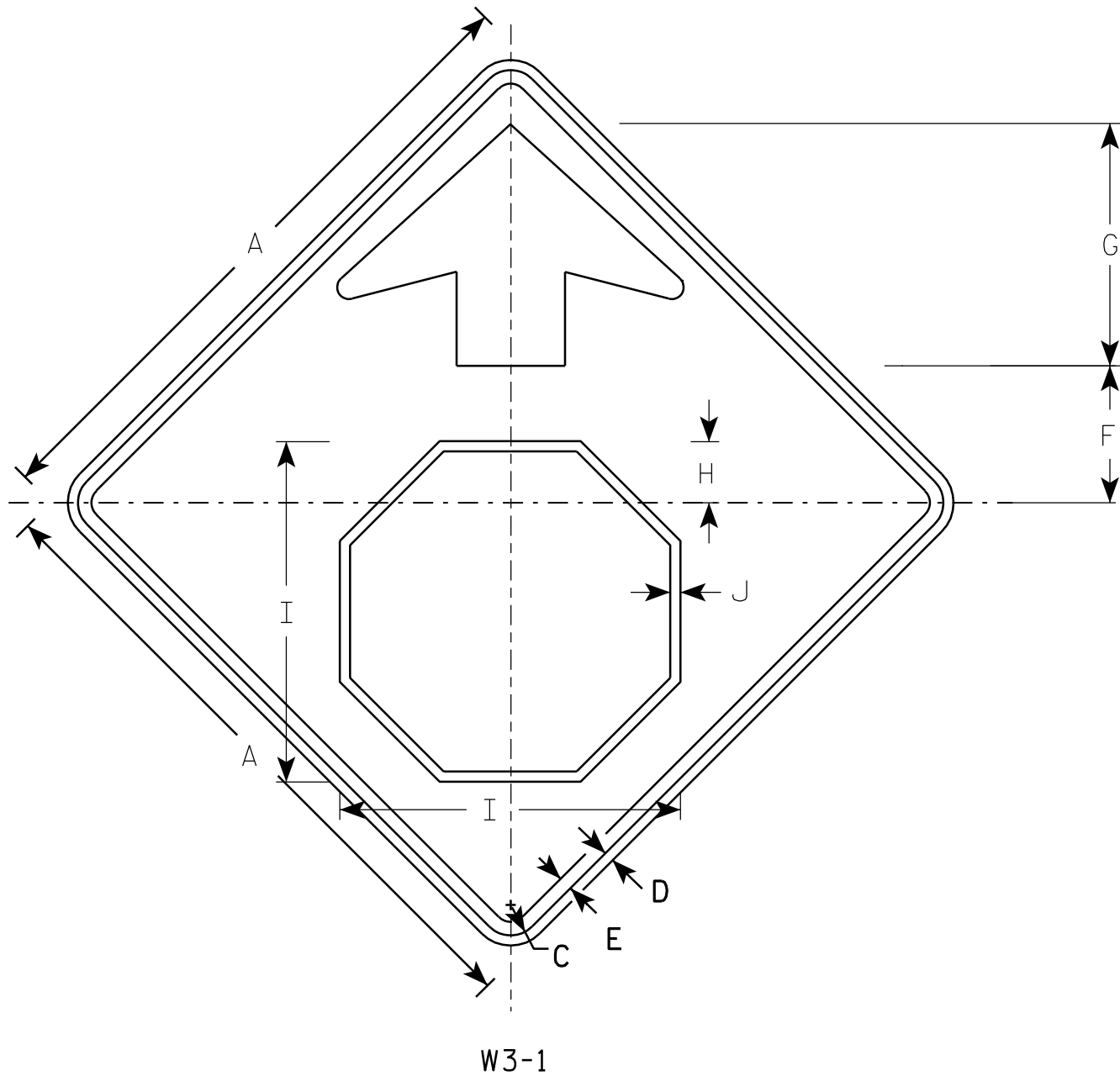


NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 - Background - YELLOW-GREEN
 - Message - BLACK except as noted
 - Circles except PEDS- RED BACKGROUND
3. 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.

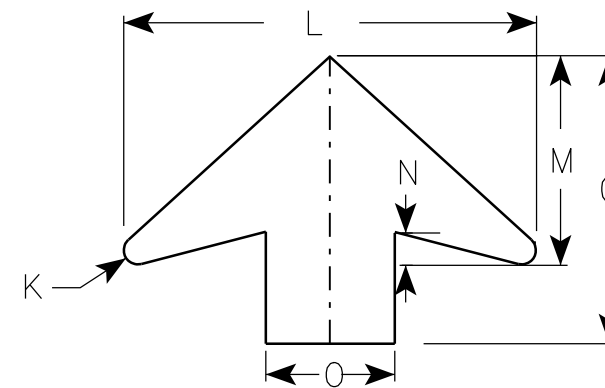
[illegible]

STANDARD SIGN	
S3-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<u>Matthew R. Rauch</u> for State Traffic Engineer
DATE <u>6/8/10</u>	PLATE NO. <u>S3-16</u>



NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW
Arrow & Border - BLACK
Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

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	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

PROJECT NO:

STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W3-1.12

SHEET NO: 140

E



W4-4P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - B
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.

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																											
2S	24	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	8	1 1/2	3/8	10	6 1/4	2 1/4	2 1/4	6 1/4											2.0
2M	24	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	8	1 1/2	3/8	10	6 1/4	2 1/4	2 1/4	6 1/4											2.0
3	36	15	1 1/8	3/8	1/2	4	2 5/8	1 3/4	10 3/4	2 3/8	3/8	13 1/2	8 3/8	3	3 1/8	8 3/8											3.75
4	42	18	1 1/8	3/8	1/2	5	3	2	13 3/8	3 1/8	3/8	16 7/8	10 1/2	3 5/8	3 7/8	10 3/8											5.25
5																											

STANDARD SIGN

W4-4P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rasch*
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-4P.2

PROJECT NO: HWY: COUNTY: SHEET NO: 141 E

EAST SHADY LANE

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
47+50.00	0.00	0.00	0.00	0.00	0.00	0.00
48+00.00	2.02	55.69	2.43	51.56	2.43	51.56
48+35.00	1.16	67.92	2.68	80.12	5.11	131.68
48+50.00	1.49	75.25	0.96	39.77	6.07	171.45
48+60.00	0.28	79.16	0.43	28.60	6.50	200.04
49+00.00	0.01	98.96	0.28	131.94	6.77	331.99
49+50.00	0.00	99.41	0.01	183.68	6.78	515.67
50+00.00	0.00	119.31	0.00	202.53	6.78	718.20
50+50.00	0.00	129.39	0.00	230.29	6.78	948.48
51+00.00	12.55	177.98	15.10	284.60	21.88	1233.09
51+50.00	1.67	198.44	17.11	348.53	39.00	1581.62
51+60.00	8.03	210.30	2.34	75.69	41.33	1657.31
51+80.00	2.14	190.43	4.90	148.42	46.23	1805.73
52+00.00	12.96	174.51	7.27	135.16	53.50	1940.89
52+50.00	15.49	168.78	34.24	317.86	87.75	2258.75
52+90.00	0.00	231.79	14.91	296.72	102.66	2555.47
53+00.00	0.34	243.89	0.08	88.09	102.75	2643.56
53+50.00	9.67	196.89	12.05	408.13	114.80	3051.69
54+00.00	21.84	200.46	37.93	367.92	152.73	3419.61
54+50.00	6.13	191.42	33.67	362.86	186.39	3782.46

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
68+50.00	12.15	214.21	50.16	379.54	1805.22	12334.93
69+00.00	10.86	208.42	27.69	391.32	1832.90	12726.25
69+50.00	15.43	185.67	31.64	364.90	1864.55	13091.15
70+00.00	15.42	184.44	37.14	342.70	1901.68	13433.85
70+50.00	2.25	218.10	21.27	372.72	1922.95	13806.57
71+00.00	1.52	220.68	4.53	406.27	1927.49	14212.84
71+50.00	0.13	234.70	1.98	421.65	1929.46	14634.49
72+00.00	0.07	229.75	0.24	430.05	1929.70	15064.54
72+50.00	0.00	251.70	0.09	445.79	1929.79	15510.33
72+68.05	0.00	280.02	0.00	177.74	1929.79	15688.07
73+00.00	0.00	355.37	0.00	375.93	1929.79	16064.00
73+50.00	0.00	339.49	0.00	643.40	1929.79	16707.39
74+00.00	0.03	234.21	0.03	531.20	1929.82	17238.60
74+50.00	1.32	230.58	1.62	430.36	1931.44	17668.96
75+00.00	2.44	227.33	4.54	424.00	1935.98	18092.95
75+03.05	2.31	226.71	0.35	25.68	1936.33	18118.63
75+50.00	3.22	229.31	6.25	396.45	1942.58	18515.08
76+00.00	1.91	222.99	6.18	418.80	1948.75	18933.88
76+50.00	4.98	199.30	8.29	391.01	1957.04	19324.89
77+00.00	0.02	162.27	6.01	334.79	1963.05	19659.68

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
91+20.57	41.57	95.70	32.34	78.29	2360.87	29627.85

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
55+00.00	25.26	180.14	37.79	344.04	224.18	4126.51
55+40.00	21.86	207.84	45.38	287.39	269.56	4413.90
55+50.00	21.56	189.22	10.45	73.53	280.02	4487.43
56+00.00	20.47	159.42	50.59	322.81	330.61	4810.24
56+25.00	12.75	191.93	19.99	162.66	350.60	4972.91
56+50.00	22.11	161.55	20.98	163.65	371.58	5136.56
57+00.00	16.97	159.79	47.03	297.54	418.62	5434.09
57+20.00	8.43	202.31	12.23	134.11	430.85	5568.21
57+50.00	11.22	168.59	14.19	206.06	445.04	5774.27
58+00.00	23.40	156.18	41.67	300.72	486.71	6074.98
58+20.00	13.30	198.85	17.67	131.49	504.38	6206.47
58+50.00	11.52	205.46	17.93	224.62	522.31	6431.09
59+00.00	18.28	154.32	35.87	333.13	558.18	6764.22
59+50.00	12.04	165.15	36.50	295.81	594.67	7060.02
60+00.00	16.92	182.96	34.86	322.32	629.53	7382.35
60+50.00	20.41	168.22	44.94	325.17	674.47	7707.52
61+00.00	0.00	134.19	24.57	280.01	699.03	7987.52
61+50.00	10.14	173.84	12.21	285.21	711.24	8272.73
62+00.00	9.25	171.88	23.34	320.11	734.58	8592.84
62+35.00	5.88	186.52	12.75	232.30	747.33	8825.14

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
77+20.00	0.00	177.04	0.01	125.67	1963.06	19785.35
77+38.06	1.09	167.71	0.47	115.28	1963.53	19900.63
77+50.00	1.74	190.74	0.81	79.28	1964.35	19979.91
78+00.00	1.58	184.30	4.00	347.26	1968.34	20327.17
78+50.00	2.10	191.55	4.43	348.01	1972.77	20675.18
79+00.00	1.74	204.54	4.62	366.75	1977.39	21041.92
79+50.00	4.74	193.15	7.80	368.23	1985.19	21410.15
80+00.00	1.41	205.67	7.41	369.28	1992.60	21779.43
80+50.00	8.58	180.71	12.03	357.75	2004.63	22137.19
81+00.00	14.20	173.63	27.42	328.09	2032.05	22465.28
81+50.00	9.63	179.81	28.68	327.26	2060.73	22792.54
81+85.14	10.88	183.95	17.35	236.69	2078.07	23029.23
82+00.00	0.13	172.08	3.94	98.00	2082.01	23127.23
82+50.00	0.01	170.10	0.17	316.83	2082.18	23444.06
83+00.00	0.21	192.25	0.26	335.51	2082.44	23779.56
83+40.00	1.94	215.97	2.07	302.38	2084.51	24081.95
83+50.00	2.03	195.99	0.96	76.29	2085.47	24158.23
84+00.00	0.99	194.54	3.64	361.60	2089.11	24519.83
84+23.47	1.02	202.27	1.14	172.50	2090.25	24692.33
84+50.00	1.23	227.57	1.44	211.14	2091.68	24903.47

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
62+50.00	12.36	160.18	6.59	96.31	753.91	8921.45
63+00.00	23.74	134.81	43.45	273.14	797.37	9194.59
63+50.00	0.00	154.52	28.58	267.90	825.95	9462.49
63+89.00	0.83	162.98	0.77	229.31	826.72	9691.79
64+00.00	41.06	152.70	11.09	64.31	837.81	9756.10
64+25.00	75.75	131.83	70.30	131.73	908.11	9887.83
64+50.00	161.20	123.56	142.61	118.24	1050.72	10006.06
64+60.00	159.42	124.92	77.18	46.01	1127.91	10052.08
64+71.25	152.53	123.75	84.49	51.81	1212.39	10103.88
64+79.15	115.99	135.11	51.04	37.85	1263.44	10141.74
64+85.00	121.17	130.30	33.42	28.77	1296.86	10170.51
65+00.00	123.90	127.23	88.50	71.54	1385.36	10242.04
65+20.00	78.07	130.82	97.24	95.57	1482.60	10337.62
65+50.00	26.54	140.56	75.55	150.76	1558.15	10488.38
65+60.00	22.08	148.44	11.71	53.52	1569.86	10541.90
66+00.00	26.49	150.16	46.77	221.18	1616.63	10763.08
66+50.00	15.39	160.96	50.41	288.07	1667.04	11051.15
67+00.00	0.00	144.37	18.52	282.71	1685.56	11333.85
67+50.00	14.11	165.60	16.98	287.01	1702.54	11620.86
68+00.00	29.52	195.69	52.52	334.53	1755.06	11955.40

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
84+80.00	0.00	233.41	0.89	256.10	2092.57	25159.58
85+00.00	0.45	215.02	0.22	166.09	2092.79	25325.66
85+50.00	3.10	196.03	4.27	380.60	2097.06	25706.26
86+00.00	1.43	206.77	5.45	372.96	2102.51	26079.22
86+50.00	0.00	317.63	1.73	485.55	2104.24	26564.77
86+61.81	0.00	272.06	0.00	128.99	2104.24	26693.77
87+00.00	7.47	221.27	6.87	348.87	2111.11	27042.64
87+50.00	5.74	231.88	15.90	419.58	2127.01	27462.21
87+65.00	10.56	245.90	5.88	132.71	2132.89	27594.93
88+00.00	19.33	198.17	25.19	287.82	2158.07	27882.75
88+35.00	1.78	196.36	17.79	255.72	2175.87	28138.46
88+50.00	6.30	178.86	2.92	104.23	2178.78	28242.69
88+85.00	0.96	163.09	6.12	221.63	2184.90	28464.32
89+00.00	3.75	160.90	1.70	90.00	2186.60	28554.32
89+50.00	13.76	139.73	21.07	278.36	2207.67	28832.68
89+60.82	12.08	135.52	6.73	55.15	2214.40	28887.83
90+00.00	18.70	129.40	29.03	192.21	2243.43	29080.04
90+20.80	17.38	133.70	18.07	101.34	2261.50	29181.38
90+50.00	13.76	132.39	21.90	143.89	2283.39	29325.27
91+00.00	23.74	109.83	45.14	224.28	2328.53	29549.55

COLD SPRING ROAD (NORTH)

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
10+16.00	0.00	367.64	0.00	0.00	0.00	0.00
10+50.00	0.39	120.63	0.32	307.43	0.32	307.43
10+53.18	0.36	113.66	0.06	13.80	0.38	321.23
11+00.00	1.38	72.51	1.96	161.42	2.34	482.64
11+40.39	0.02	57.88	1.37	97.53	3.70	580.18

COLD SPRING ROAD (SOUTH)

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
8+75.39	0.60	78.85	0.00	0.00	0.00	0.00
9+00.00	3.56	81.75	2.47	73.19	2.47	73.19
9+50.00	2.52	138.76	7.32	204.17	9.79	277.36
9+84.00	0.00	385.24	2.06	329.92	11.85	607.28

LYNN DRIVE (NORTH)

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
10+16.00	0.00	328.72	0.00	0.00	0.00	0.00
10+43.52	0.00	140.62	0.00	239.19	0.00	239.19
10+50.00	0.00	125.58	0.00	31.94	0.00	271.13
11+00.00	0.00	69.67	0.00	180.79	0.00	451.92
11+19.99	24.65	52.58	11.86	45.25	11.86	497.18

LYNN DRIVE (SOUTH)

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
8+50.00	0.35	48.90	0.00	0.00	0.00	0.00
9+00.00	4.73	71.13	6.12	111.14	6.12	111.14
9+05.00	12.87	71.29	2.12	13.19	8.24	124.33
9+50.00	5.56	111.15	19.96	152.04	28.20	276.37
9+56.90	1.31	126.29	1.14	30.34	29.34	306.71
9+84.00	0.00	330.84	0.86	229.41	30.20	536.12

TUMBLEBROOK ROAD (WEST)

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
8+90.00	0.31	55.01	0.00	0.00	0.00	0.00
9+00.00	3.61	59.29	0.94	21.17	0.94	21.17
9+50.00	1.63	80.57	6.31	129.50	7.26	150.67
9+56.14	3.70	90.04	0.79	19.40	8.04	170.07
9+84.00	0.00	325.86	2.48	214.57	10.52	384.64

GAIL LANE

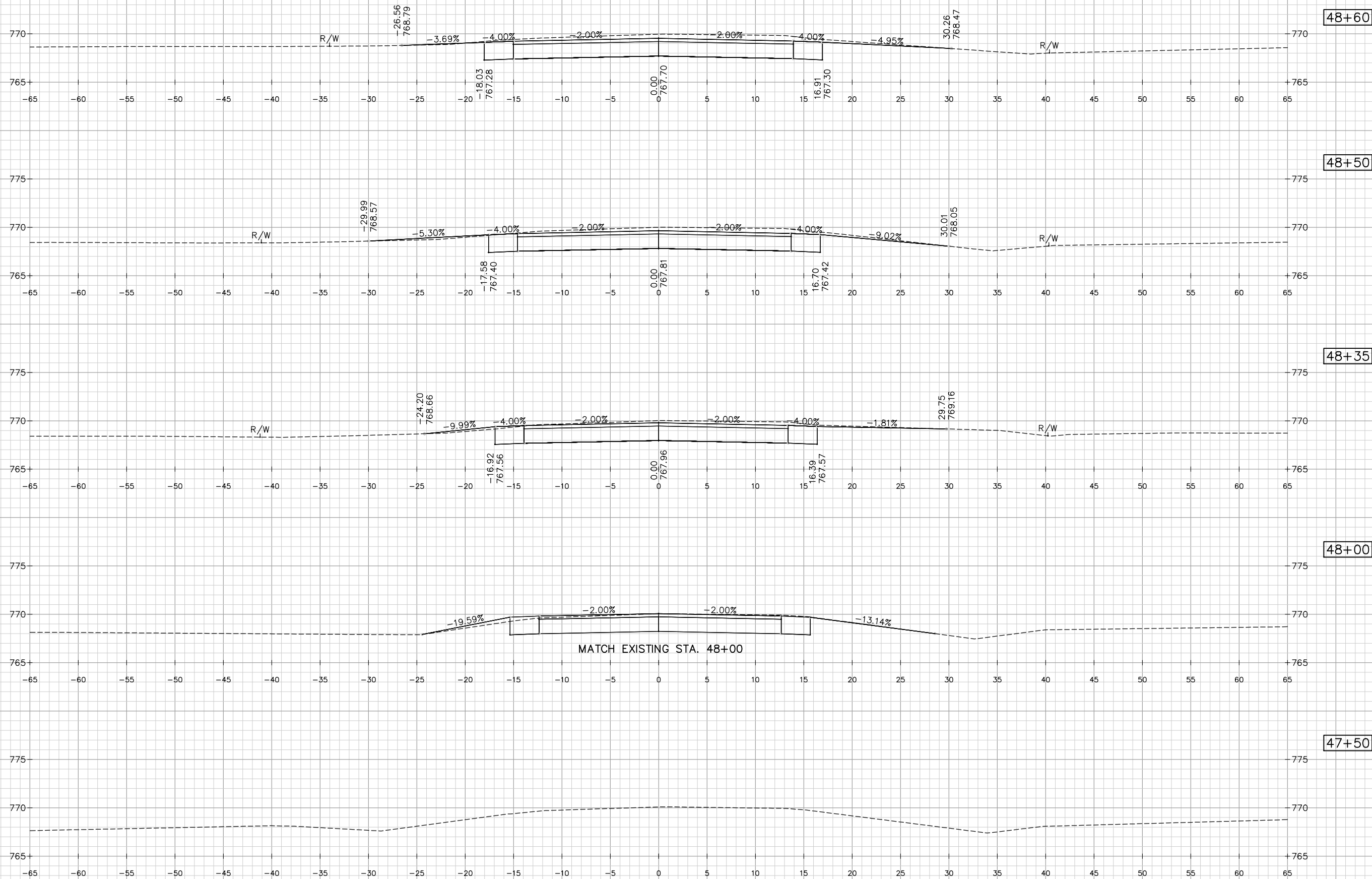
Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
10+16.00	0.00	485.99	0.00	0.00	0.00	0.00
10+43.40	0.00	287.01	0.00	392.22	0.00	392.22
10+50.00	0.01	260.19	0.00	66.88	0.00	459.10
10+71.26	0.00	217.32	0.00	188.00	0.01	647.10
10+79.26	0.00	231.50	0.00	66.49	0.01	713.59
10+83.43	0.00	228.62	0.00	35.53	0.01	749.12
10+95.60	0.00	162.23	0.00	88.09	0.01	837.21
11+00.00	0.00	154.36	0.00	25.80	0.01	863.01
11+28.47	0.01	130.89	0.01	150.39	0.01	1013.40
11+50.00	0.00	0.00	0.00	52.19	0.02	1065.59

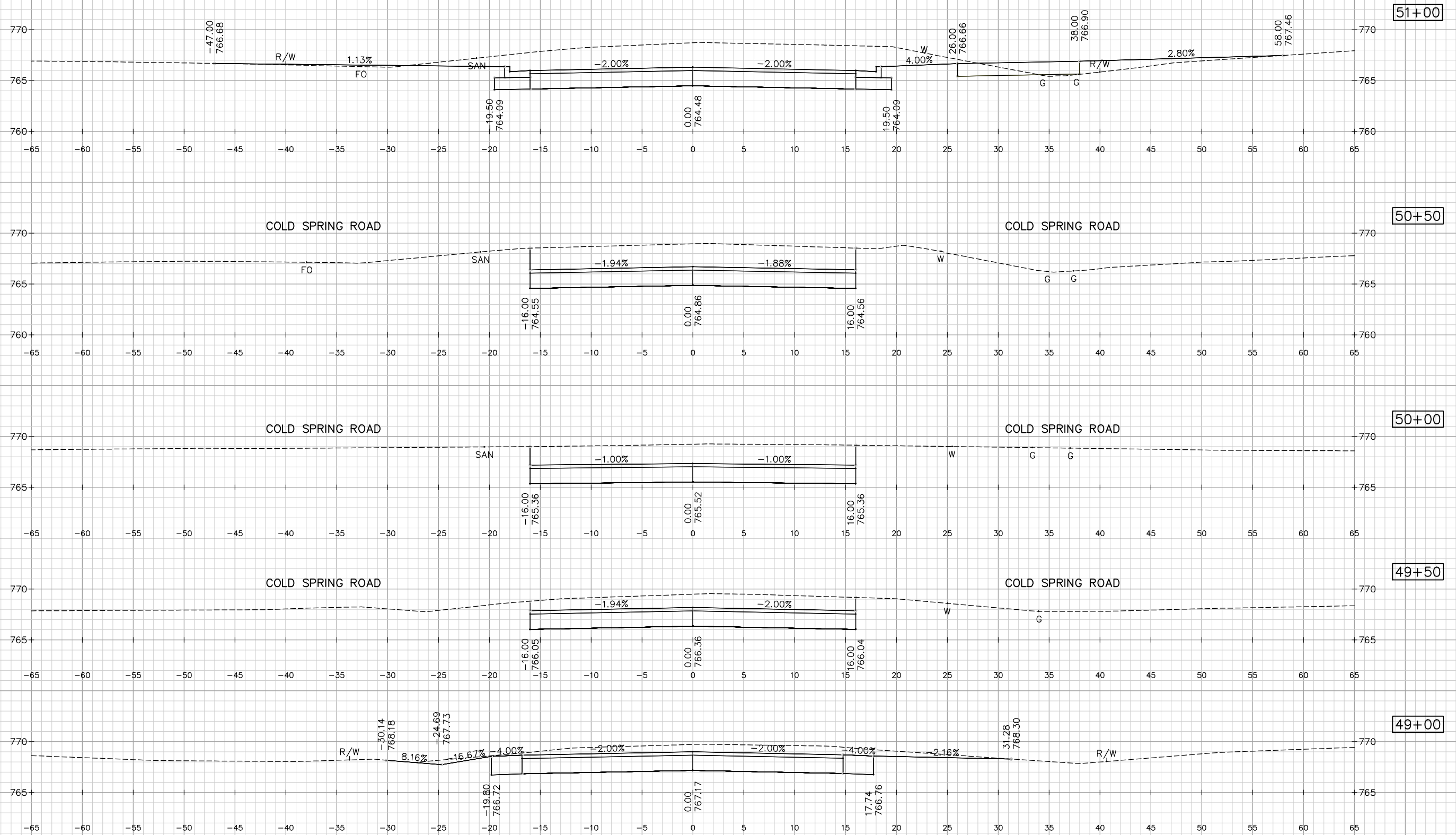
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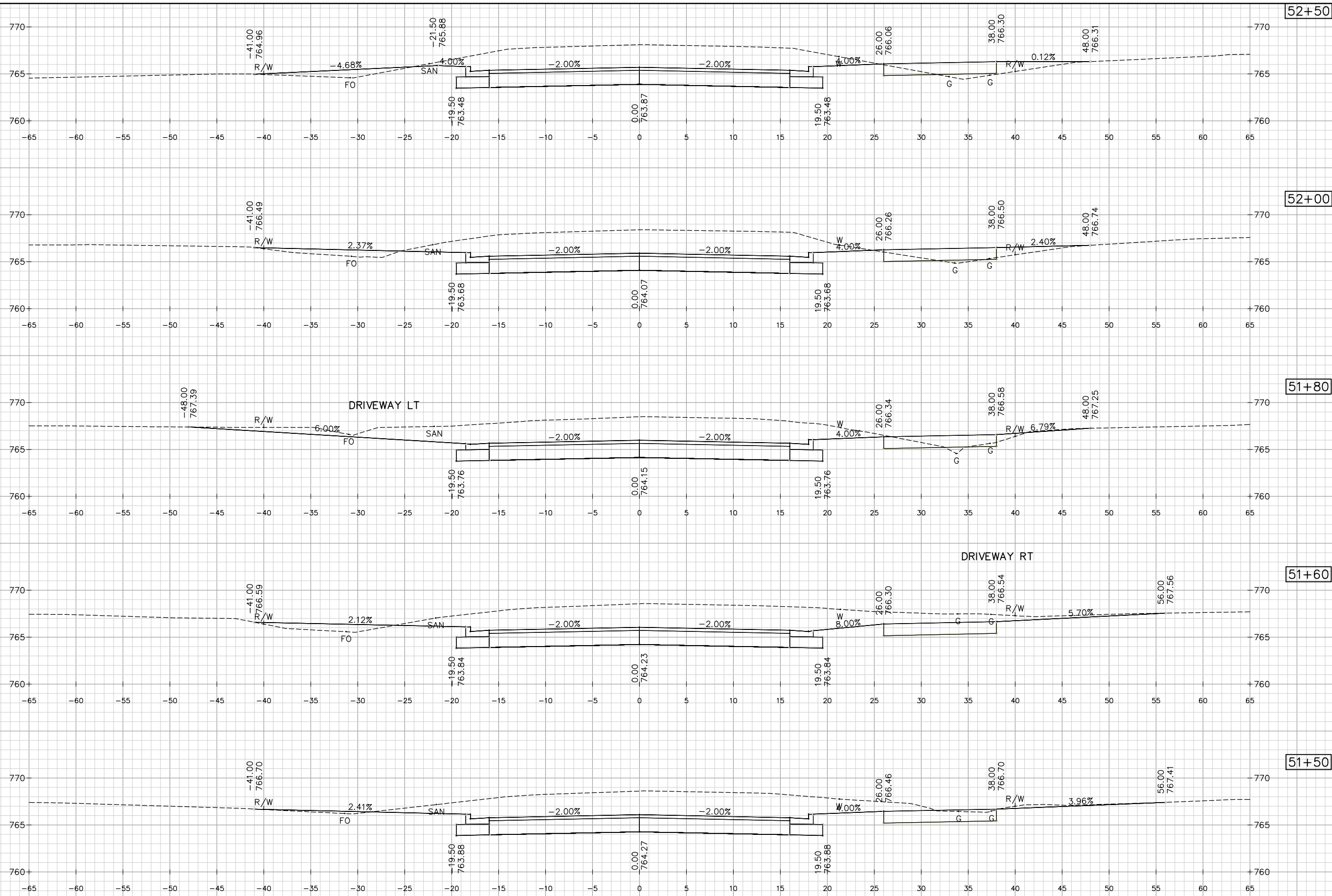
Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
8+75.00	0.00	58.18	0.00	0.00	0.00	0.00
9+00.00	0.02	59.60	0.02	54.53	0.02	54.53
9+50.00	0.00	112.23	0.03	159.11	0.05	213.63
9+52.86	0.65	109.50	0.04	11.74	0.09	225.38
9+60.03	9.58	113.20	1.77	29.57	1.86	254.95
9+80.20	0.00	289.12	4.65	150.27	6.51	405.22
9+84.00	0.00	157.64	0.00	31.44	6.51	436.66

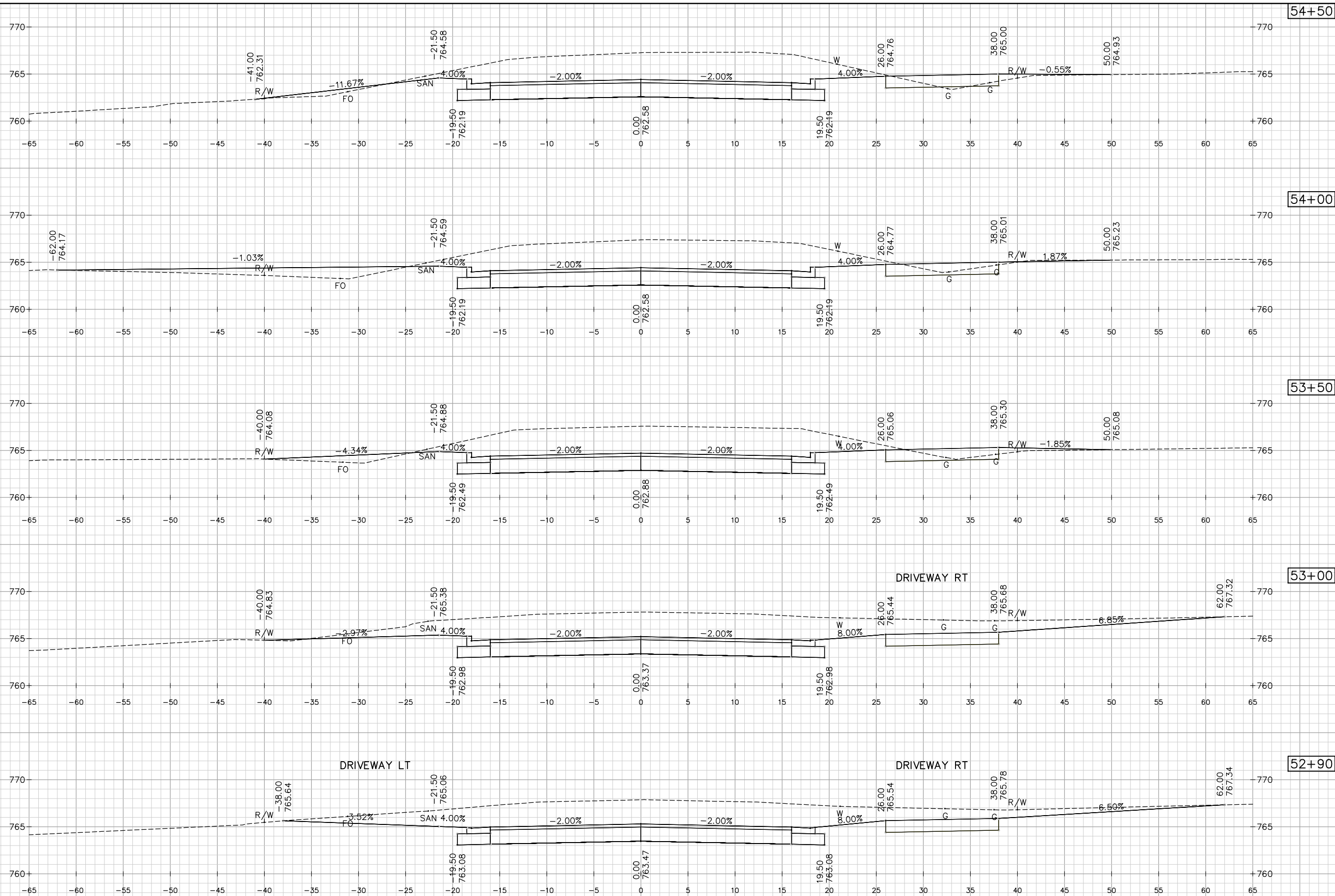
ARENA DRIVE

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
10+16.00	0.00	140.46	0.00	0.00	0.00	0.00
10+19.00	0.00	278.99	0.00	23.30	0.00	23.30
10+40.29	7.20	143.85	3.69	166.71	3.69	190.01
10+46.66	3.80	141.98	1.69	33.72	5.38	223.73

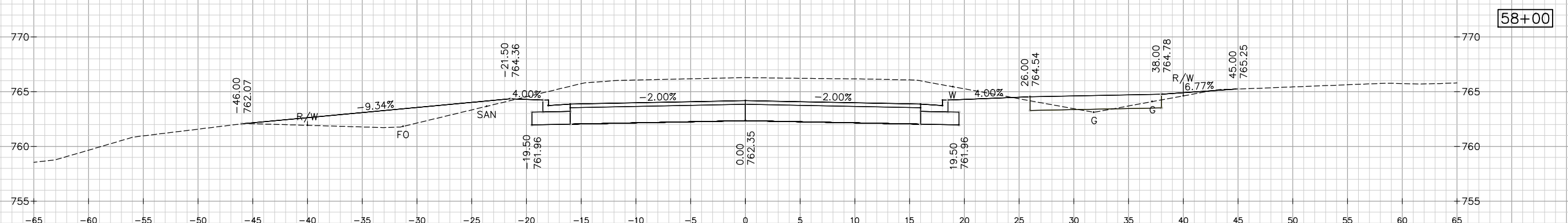
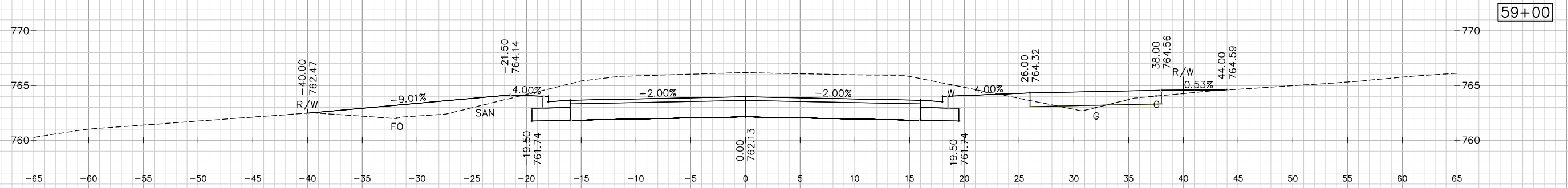


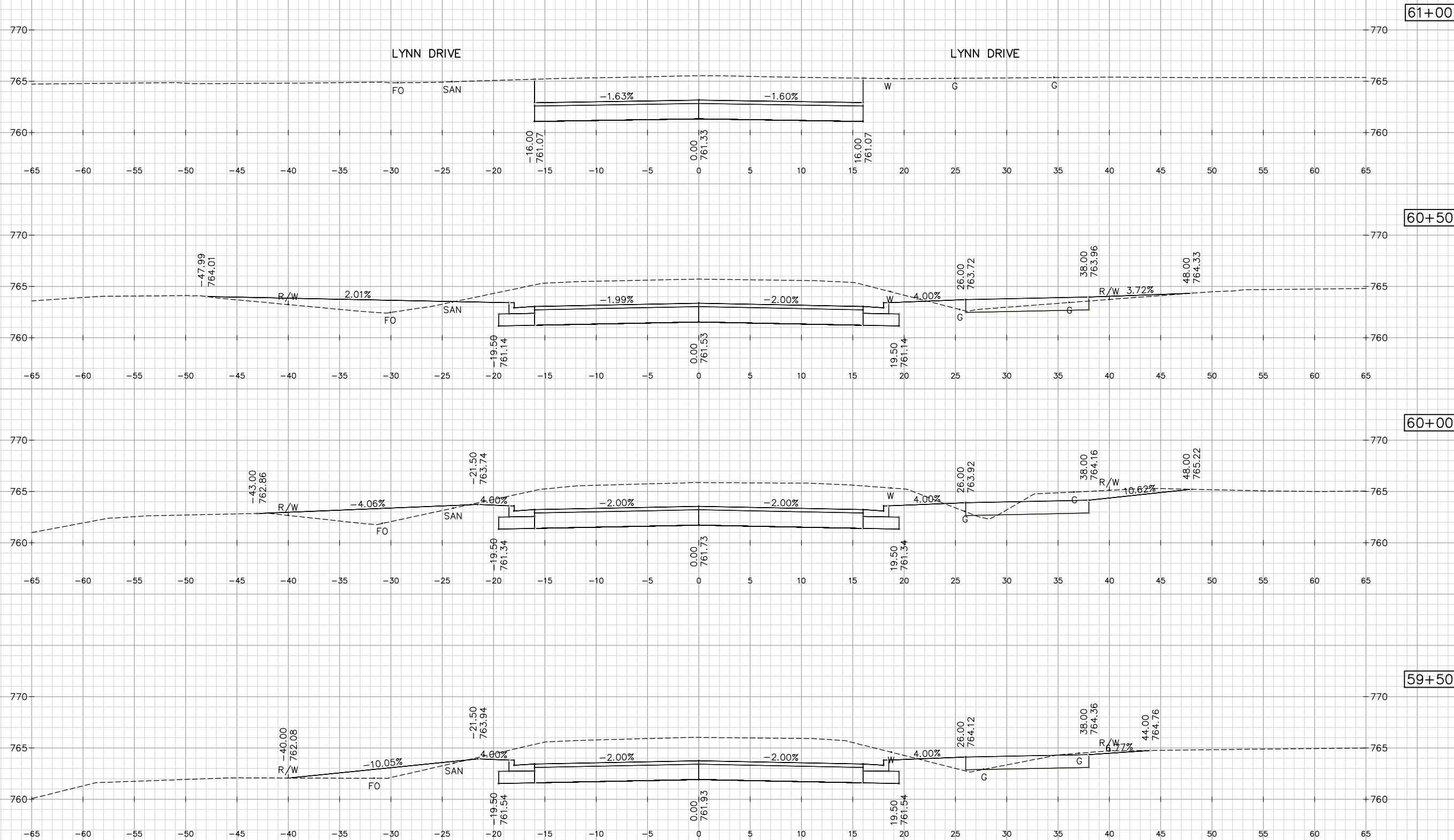


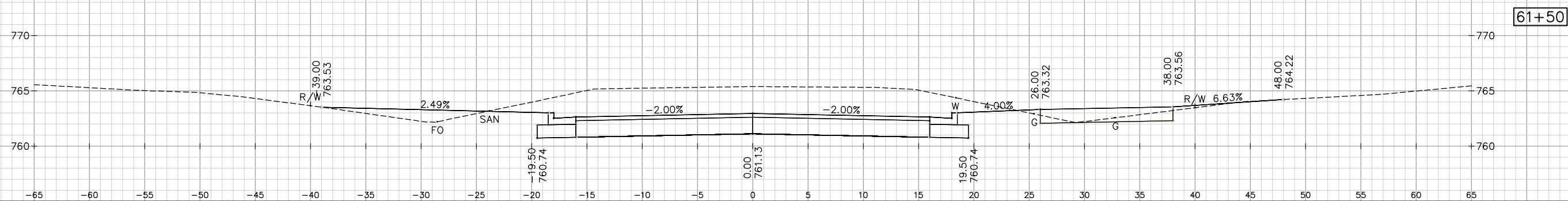
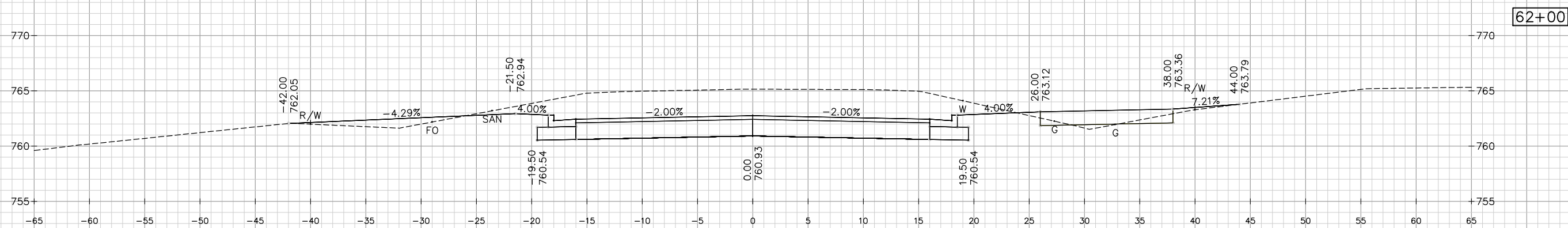
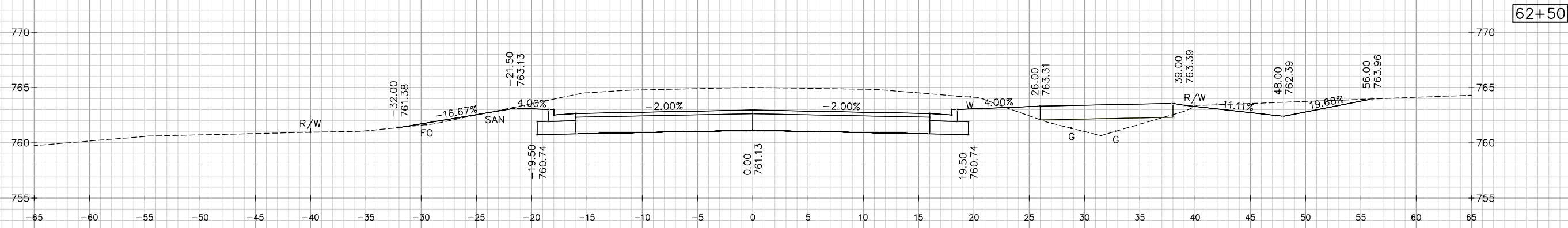












PROJECT NUMBER: 4992-00-53

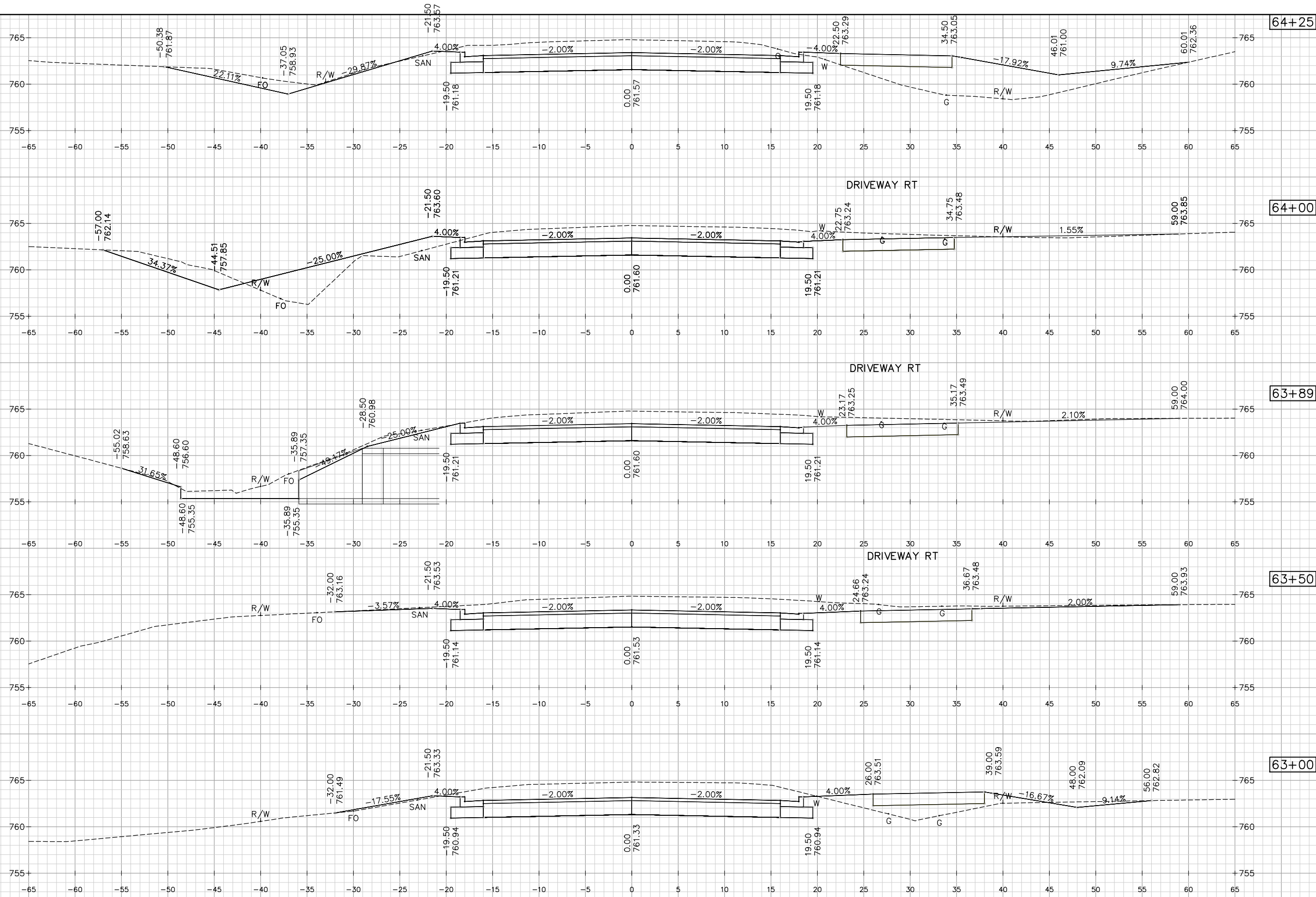
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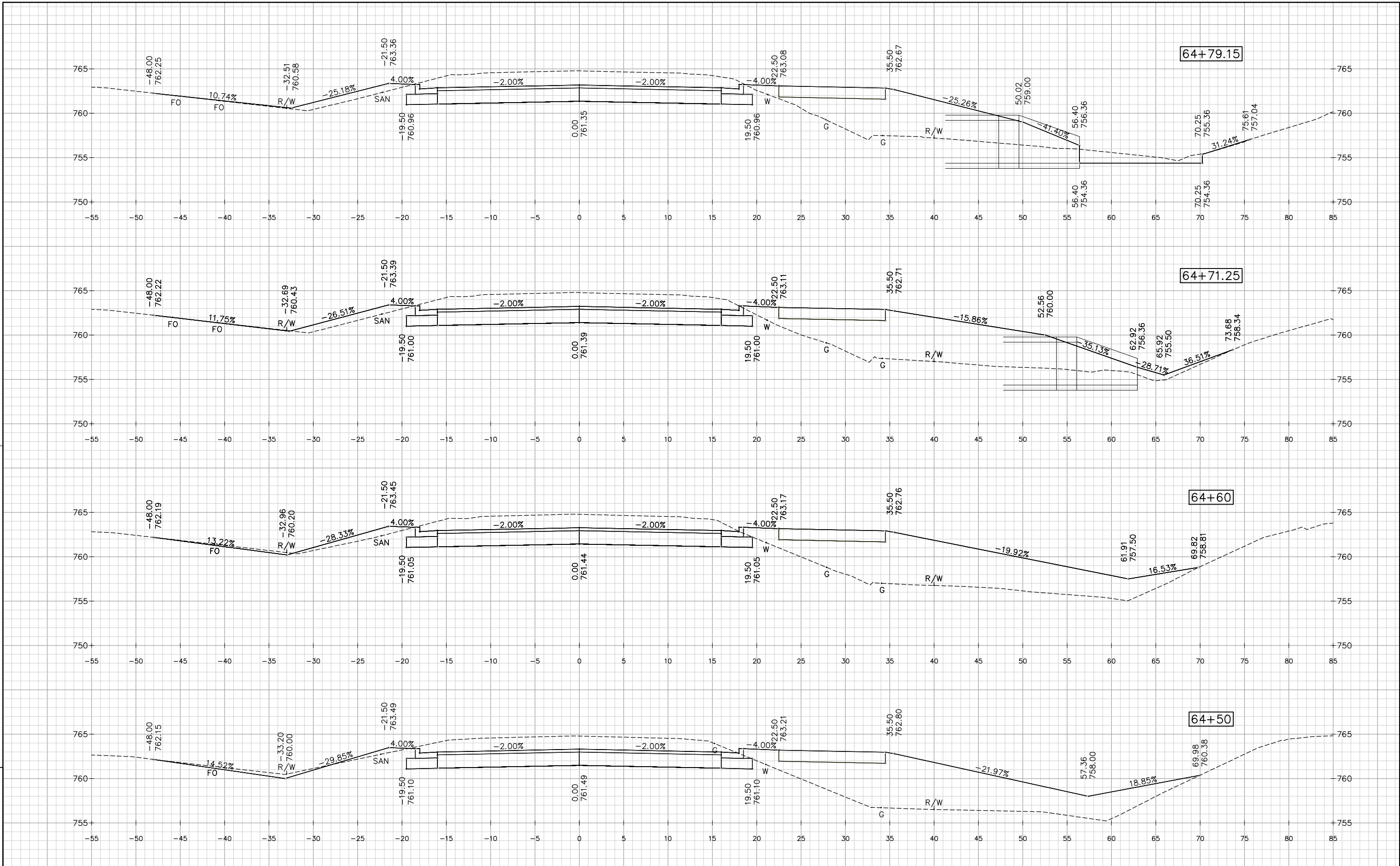
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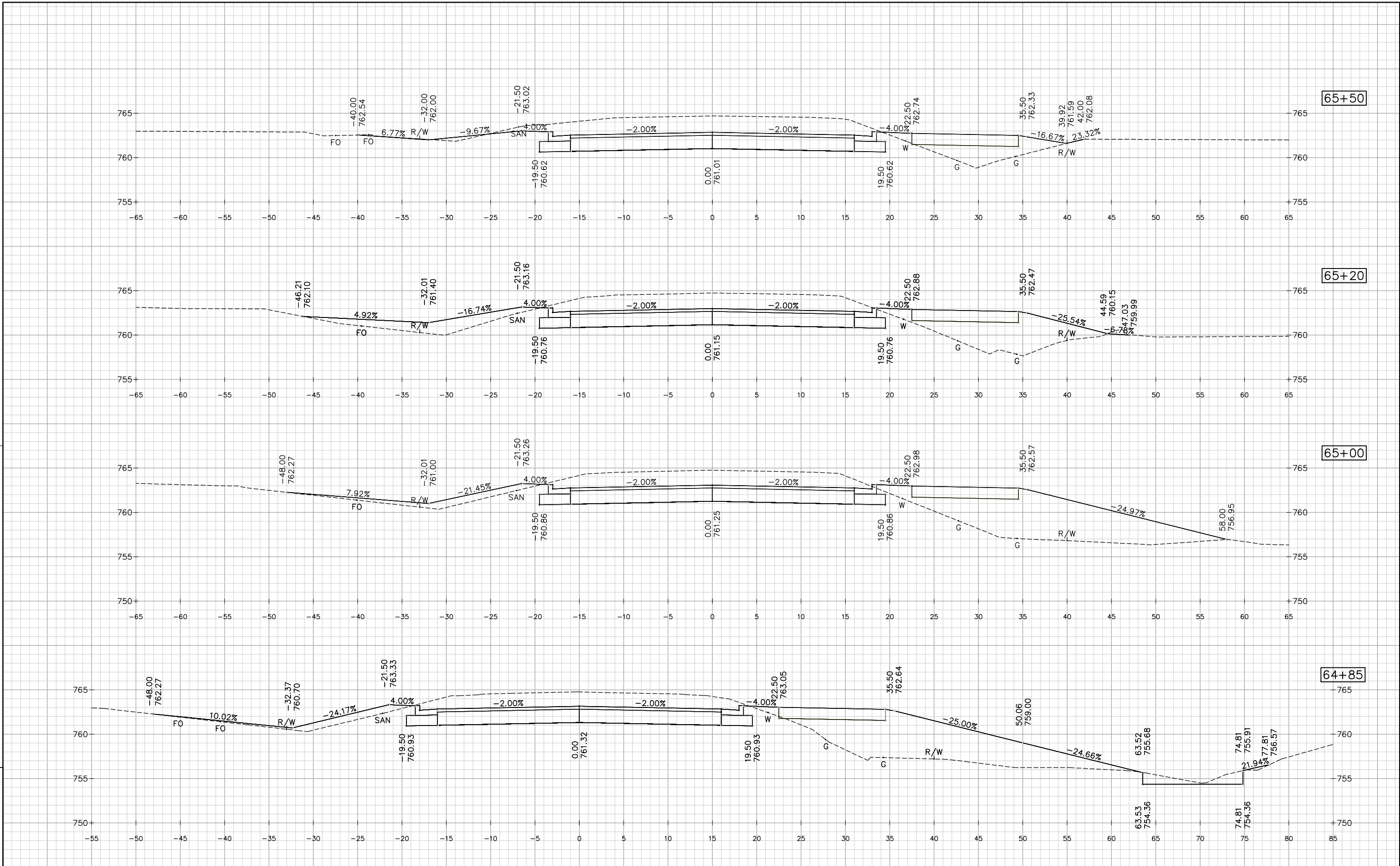
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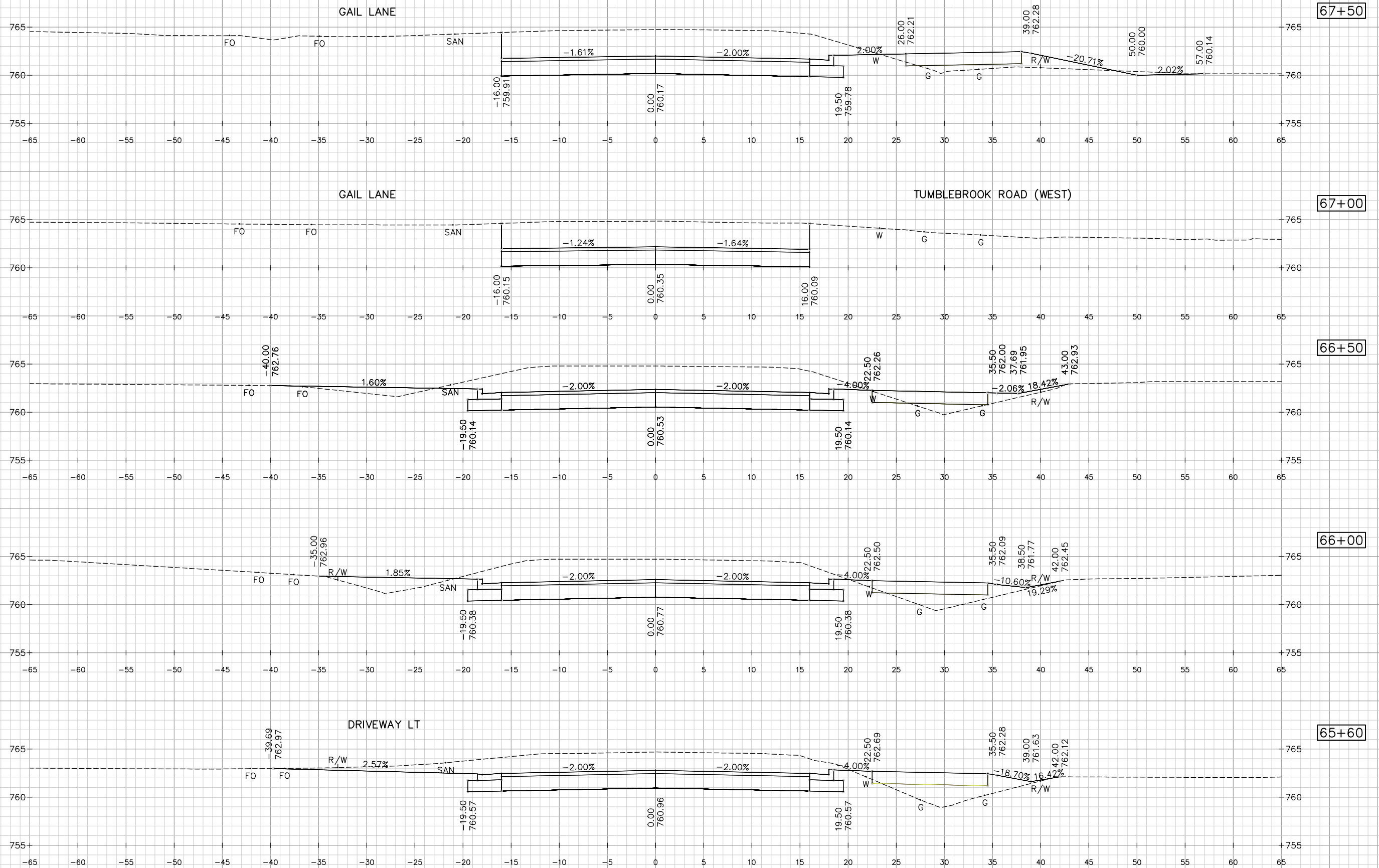
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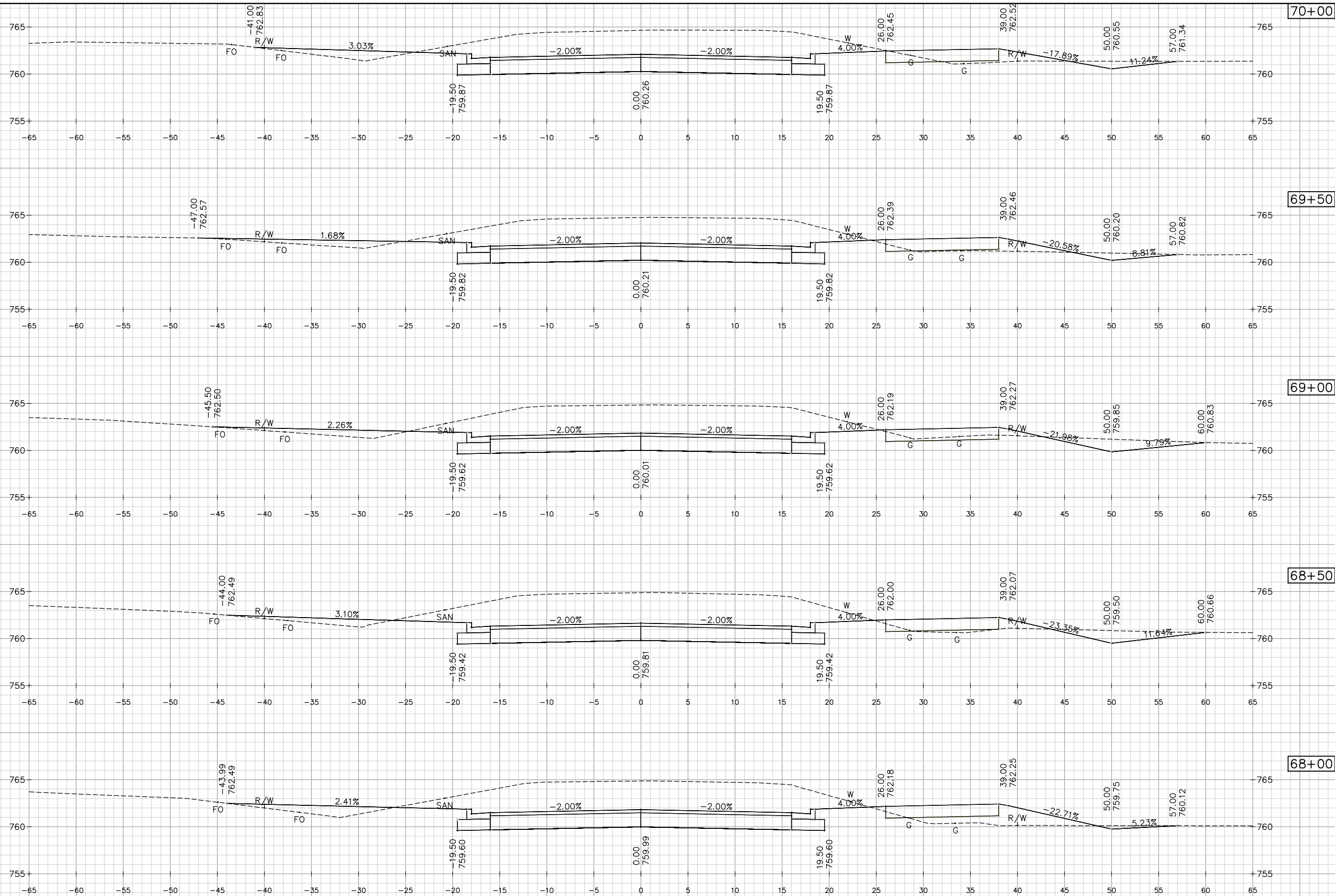
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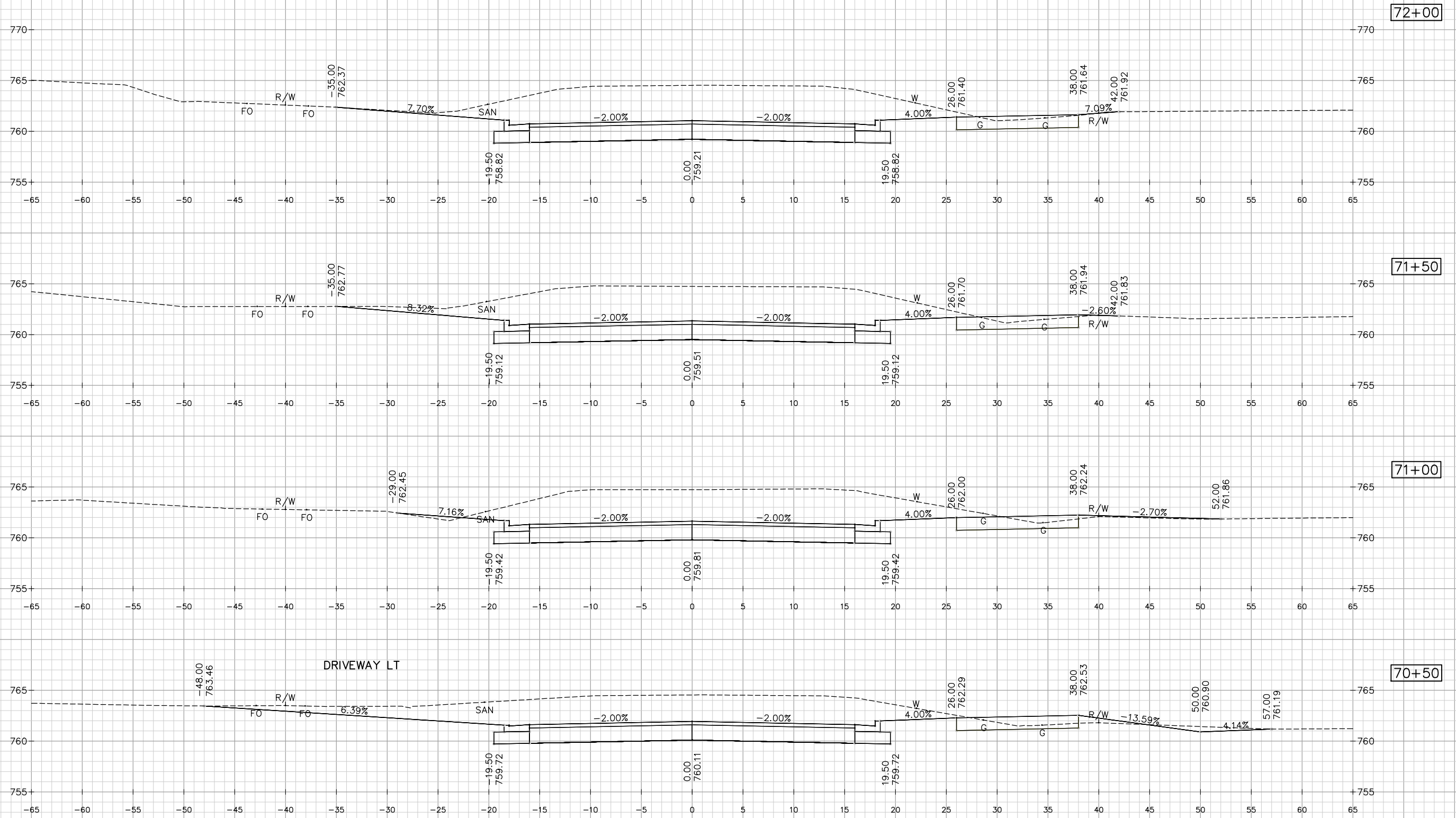






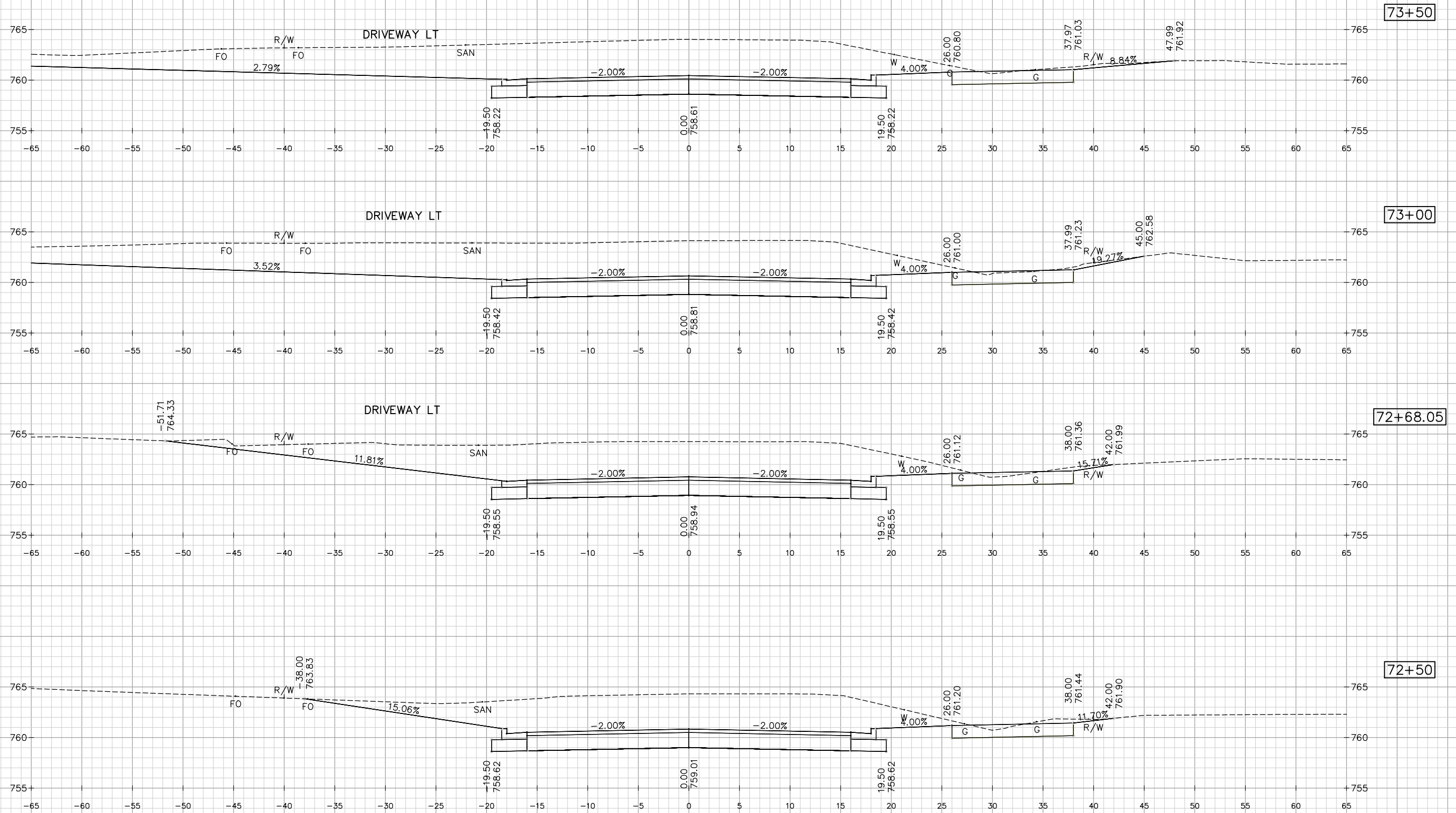


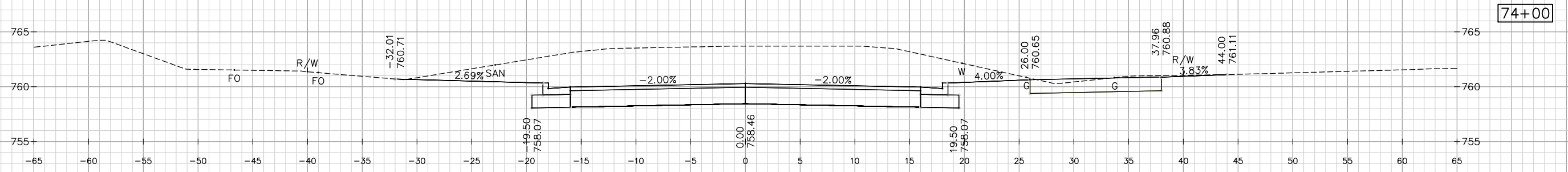
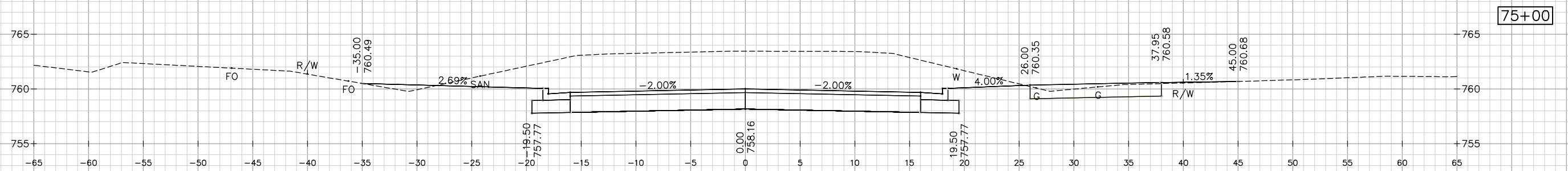
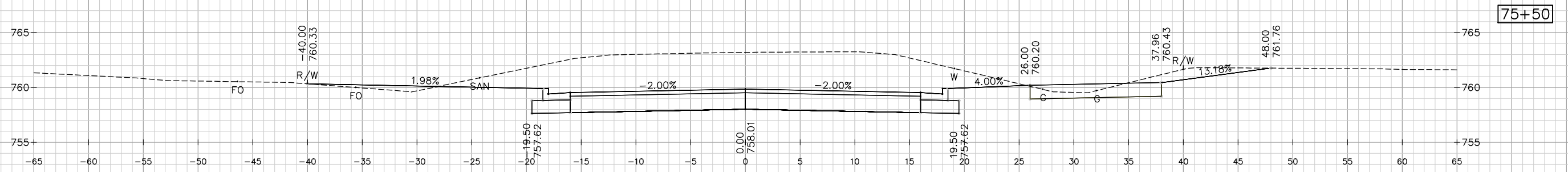




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PROJECT NUMBER: 4992-00-53

HWY: EAST SHADY LANE

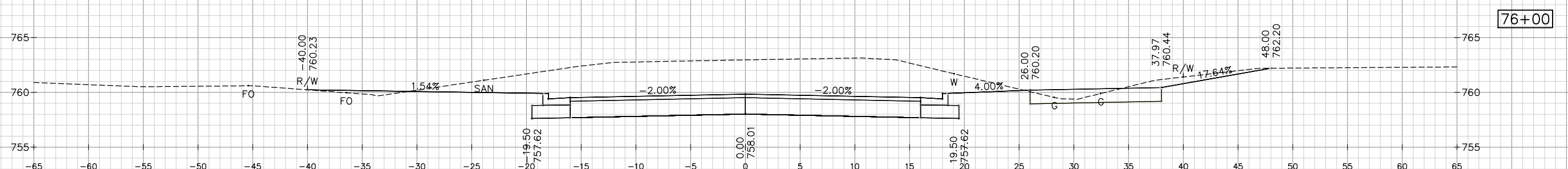
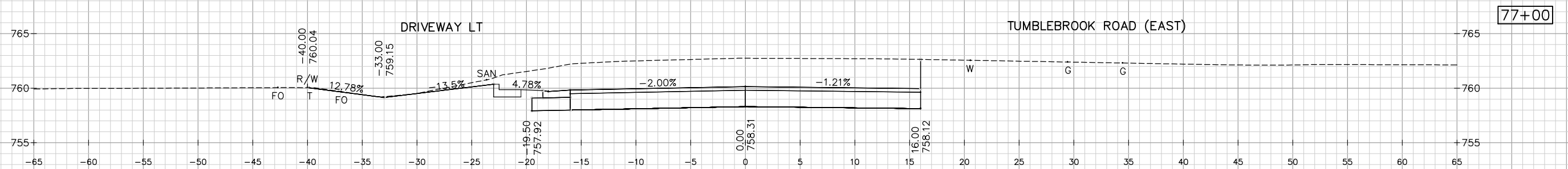
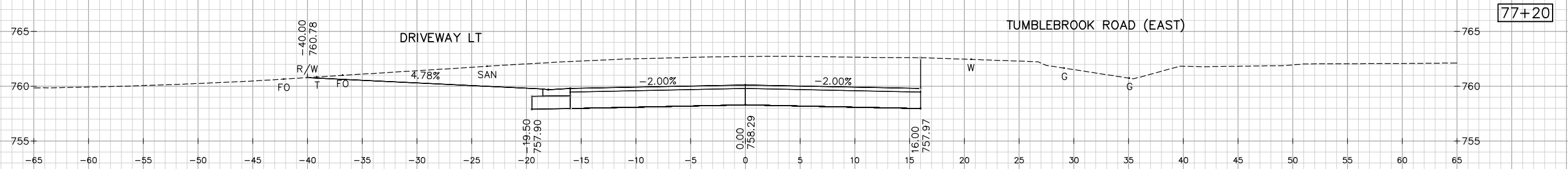
COUNTY: WINNEBAGO

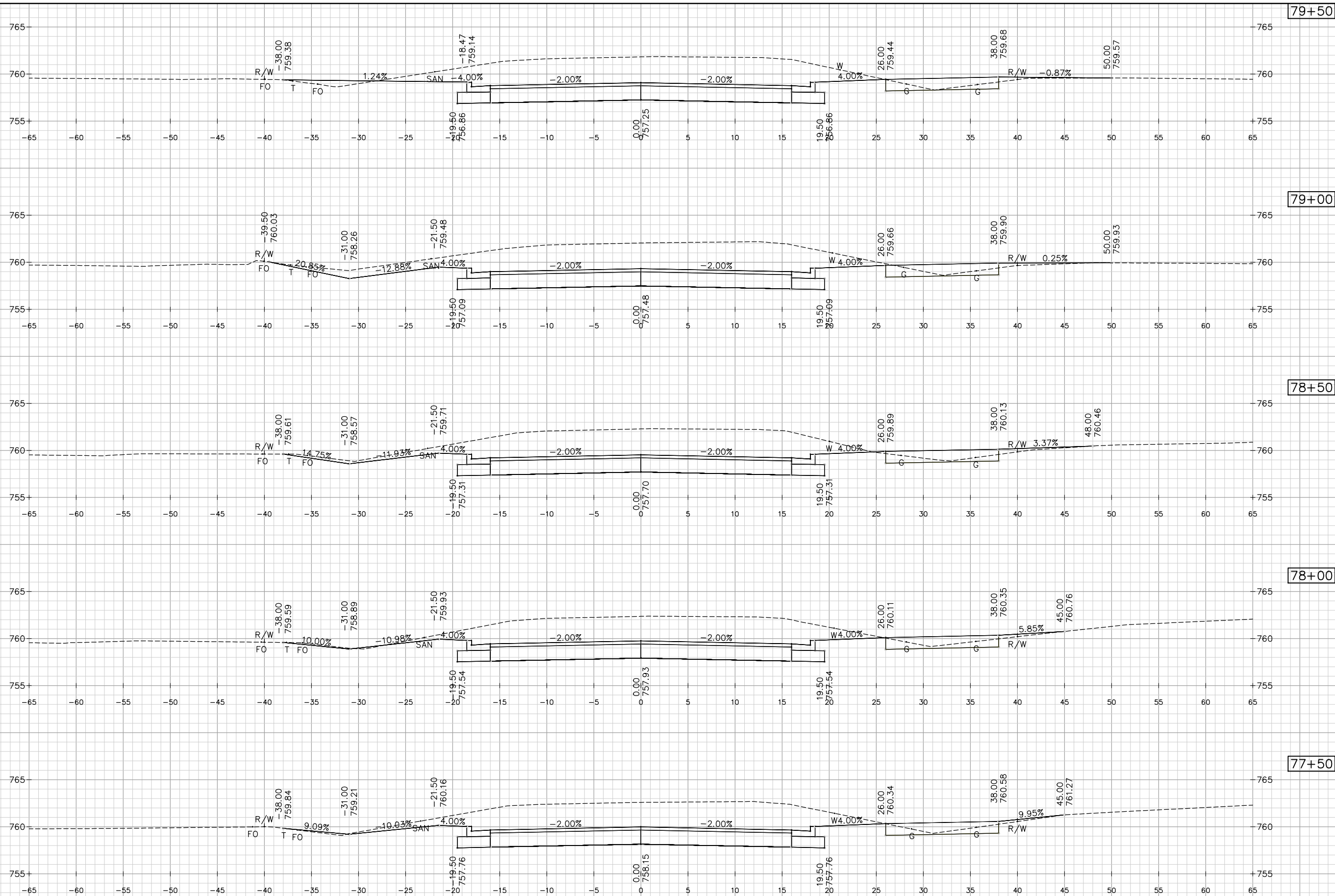
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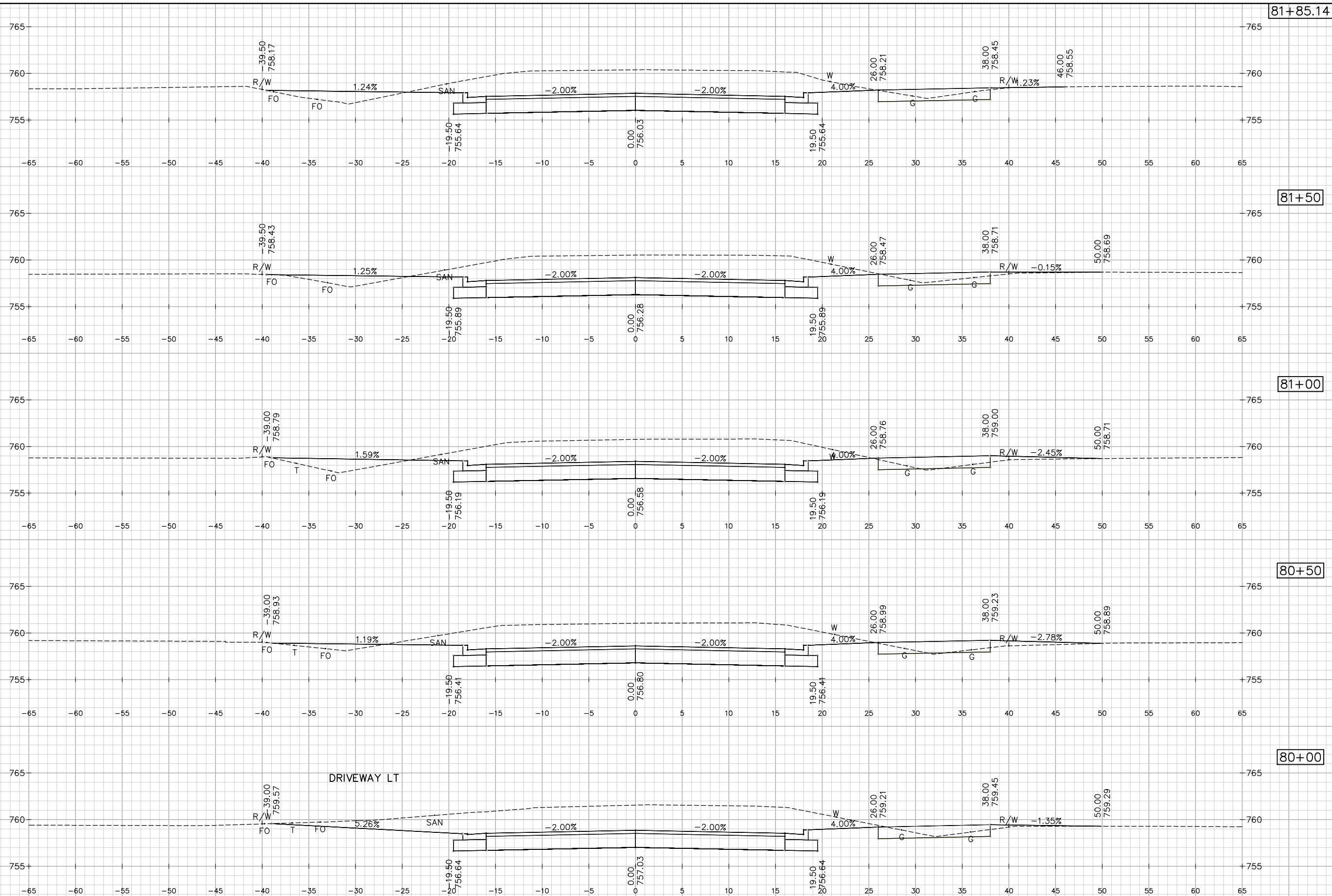
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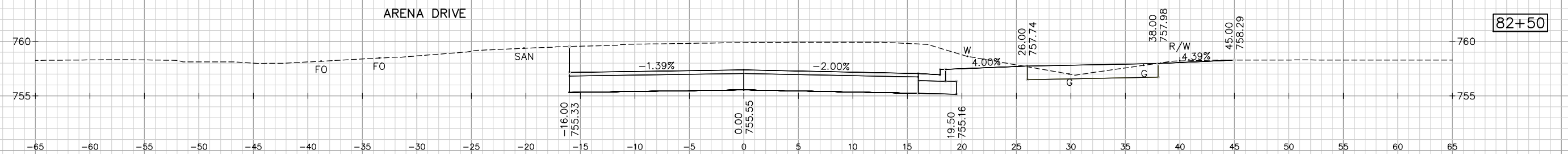
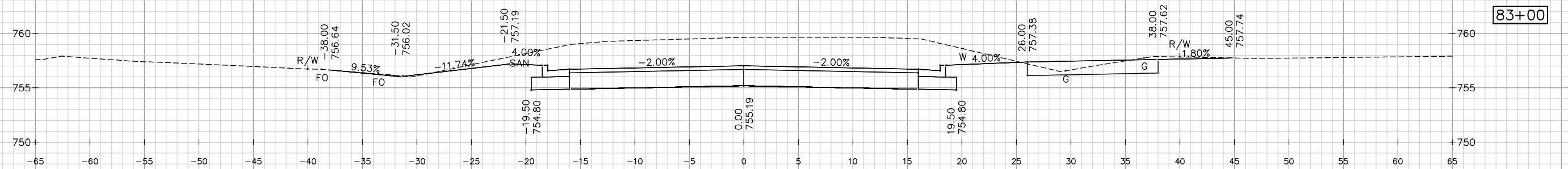
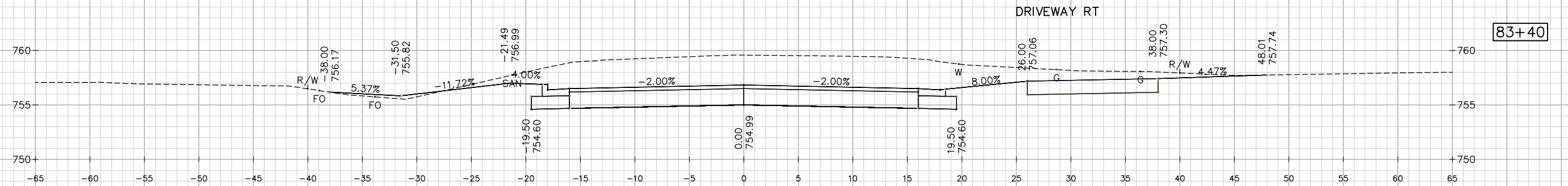
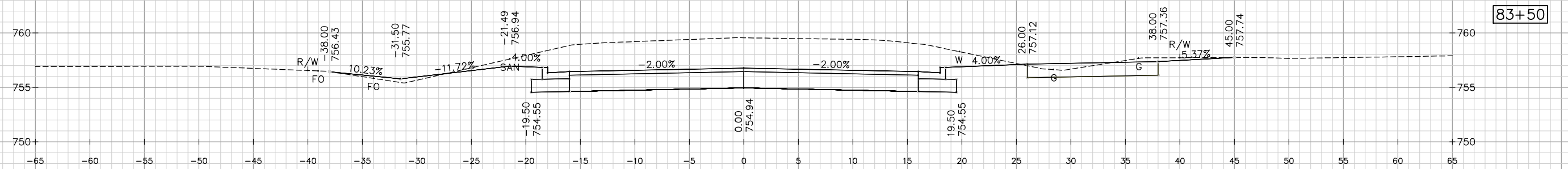
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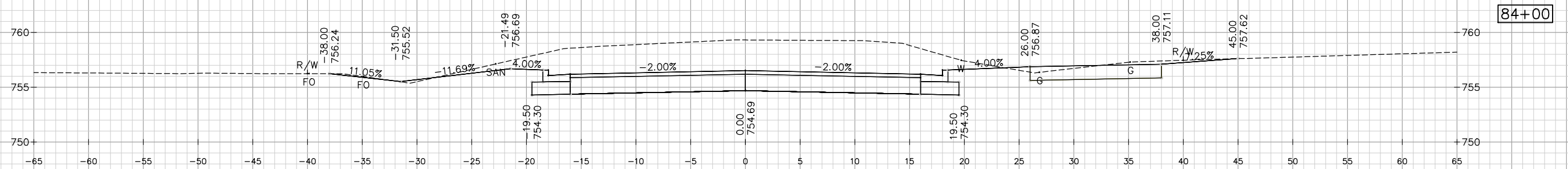
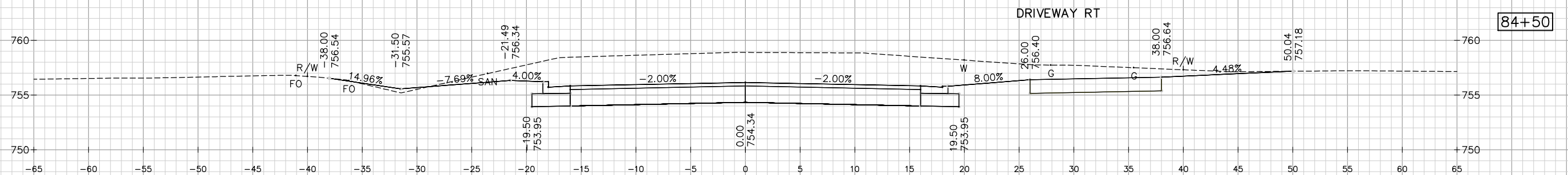
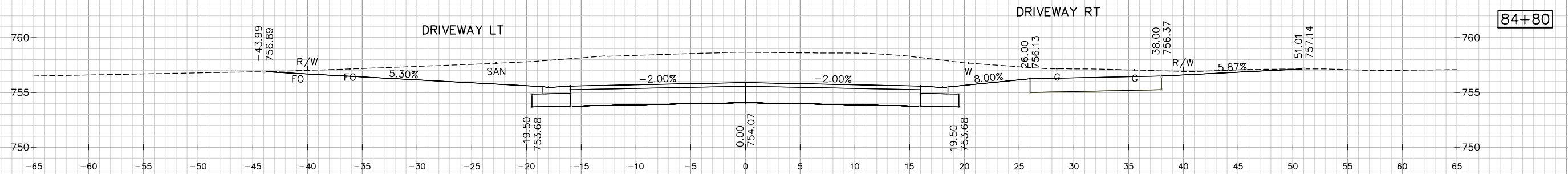
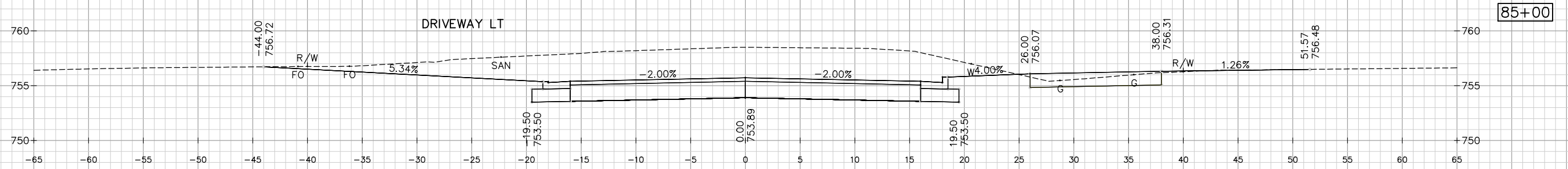
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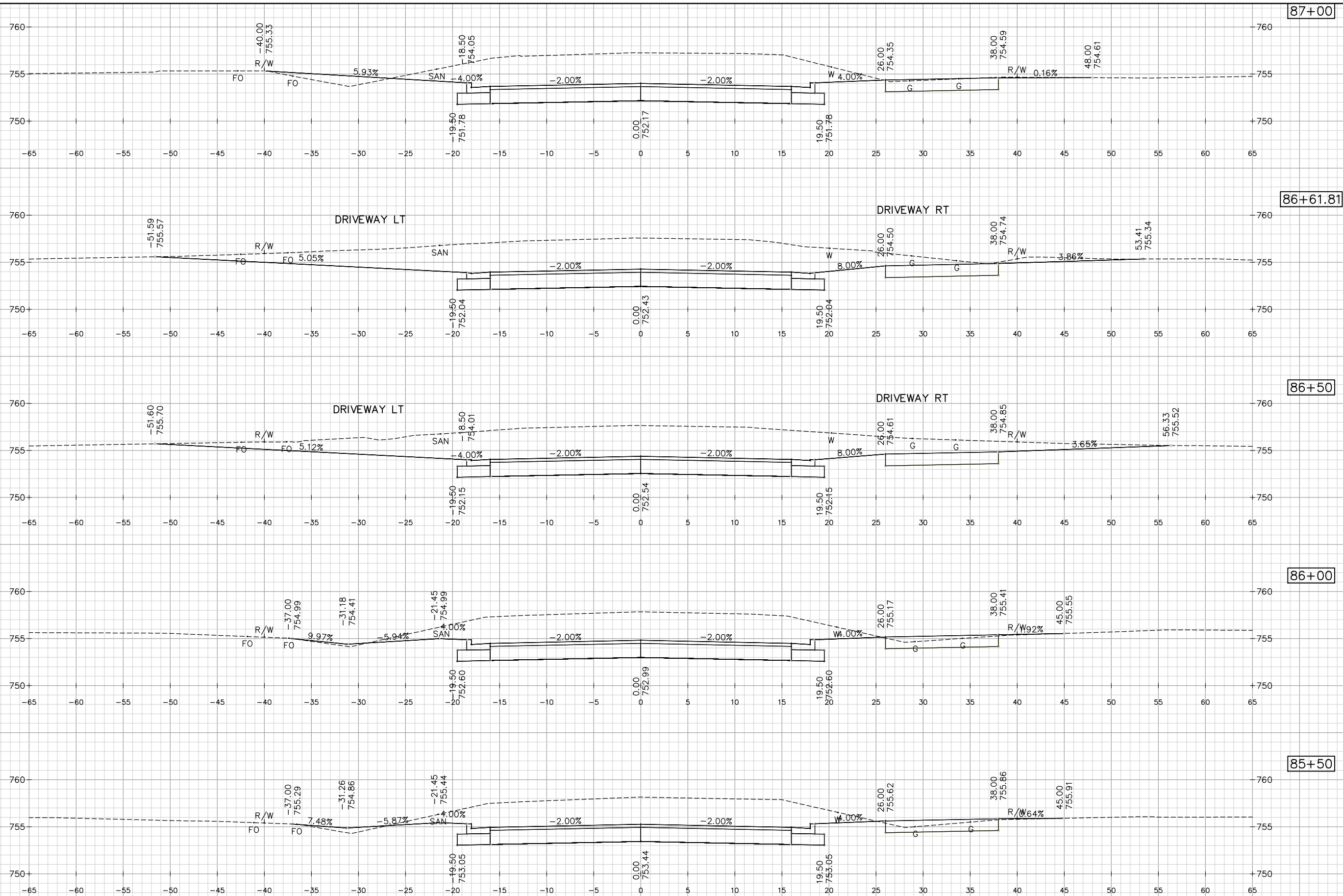


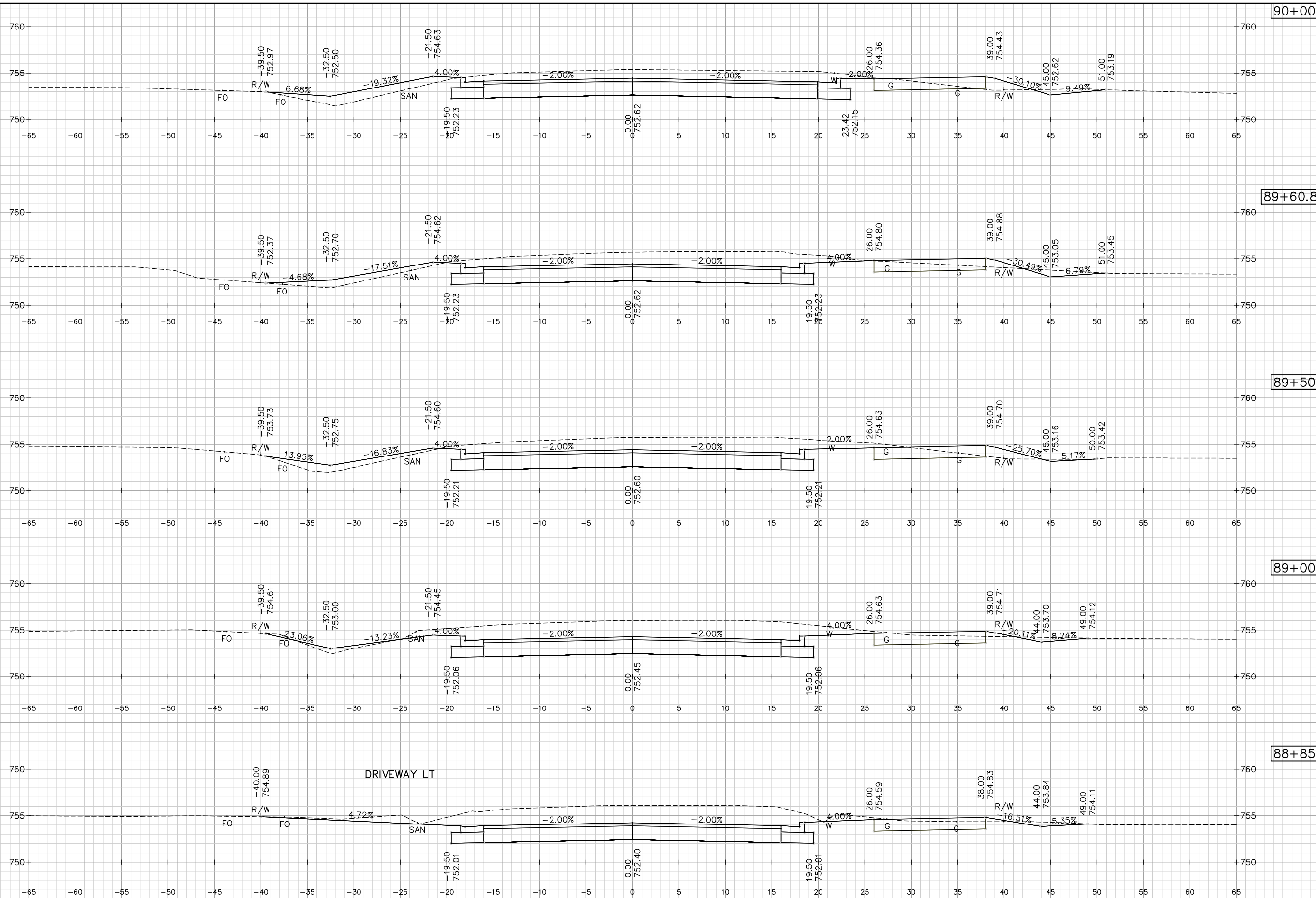


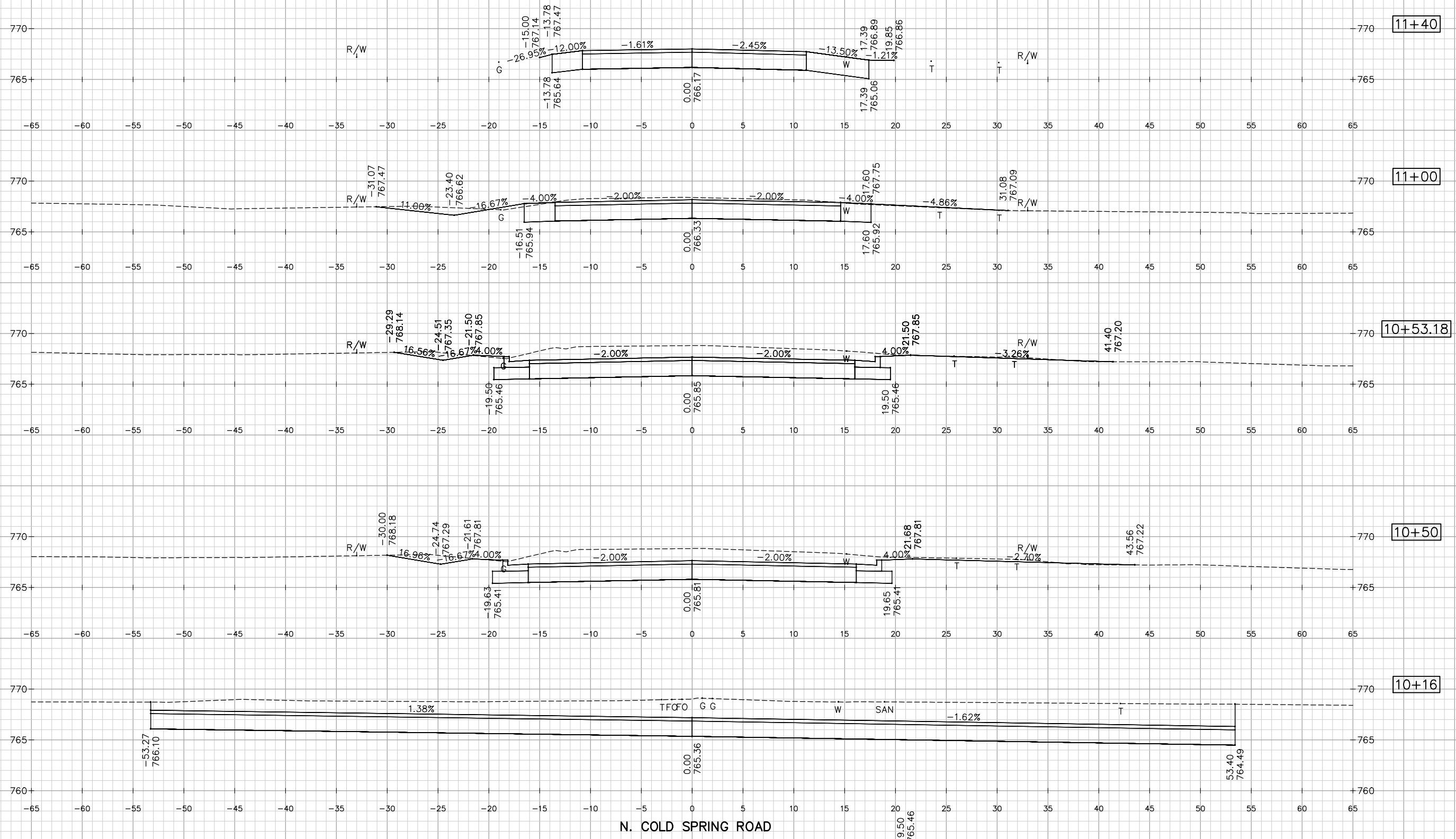


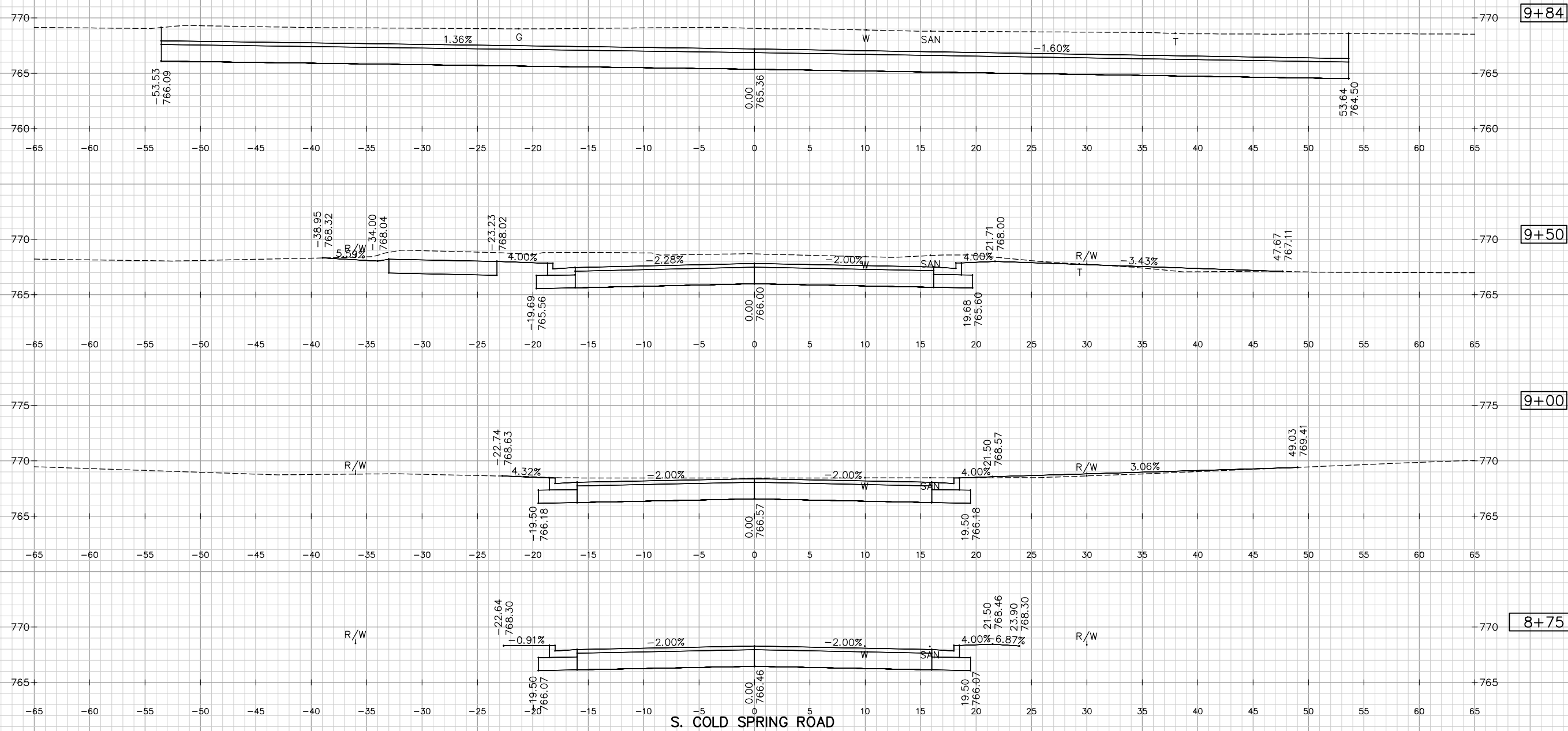


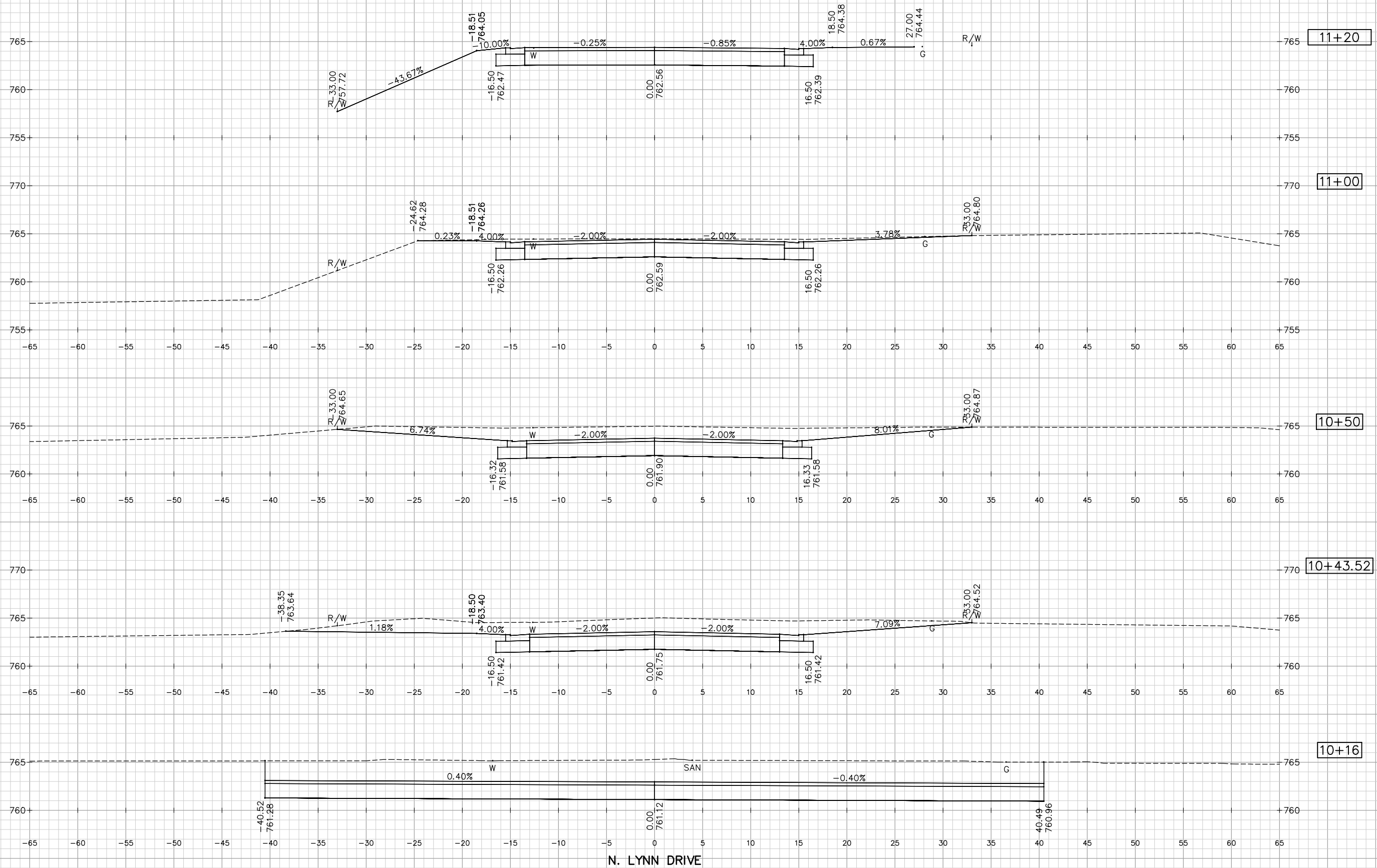




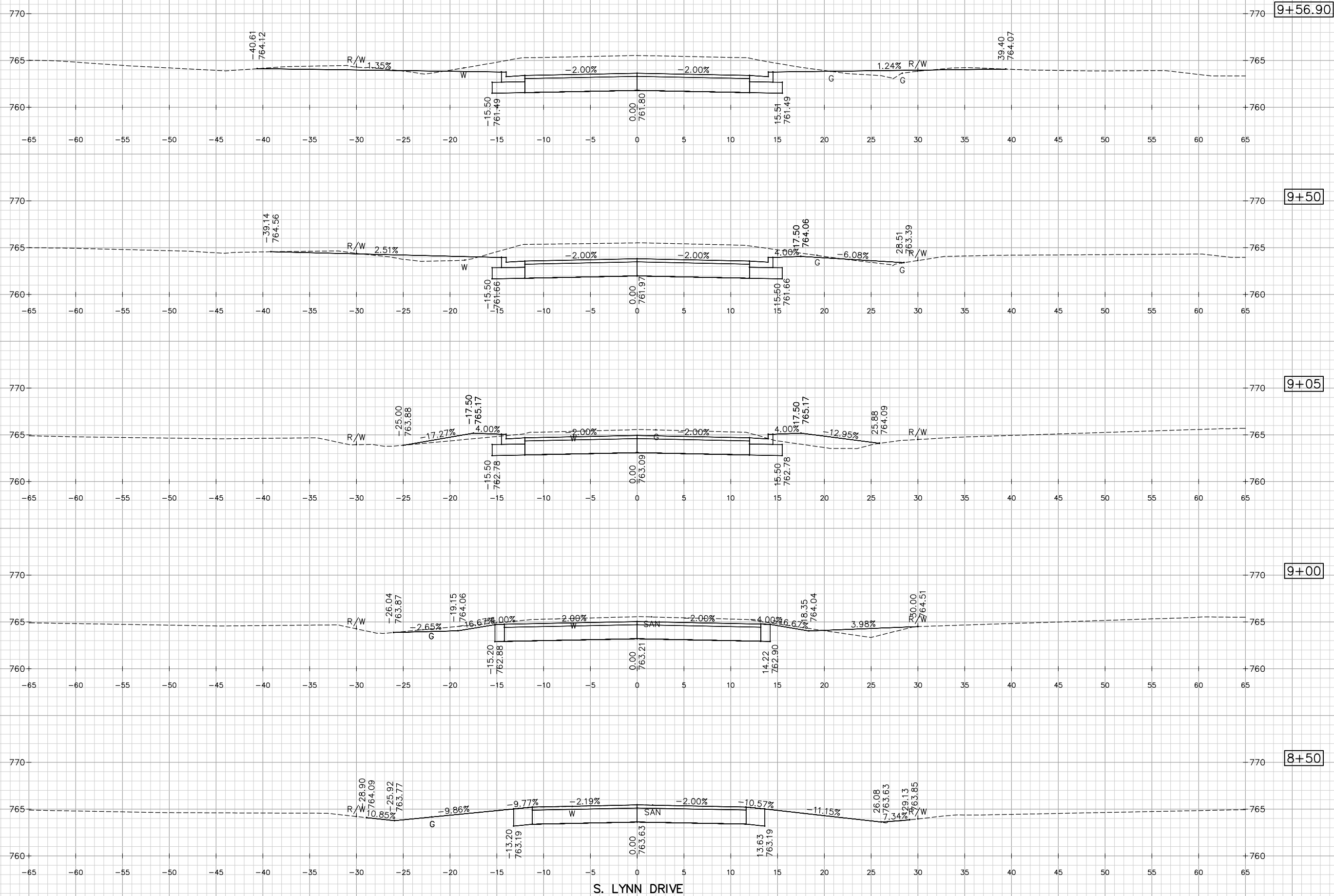






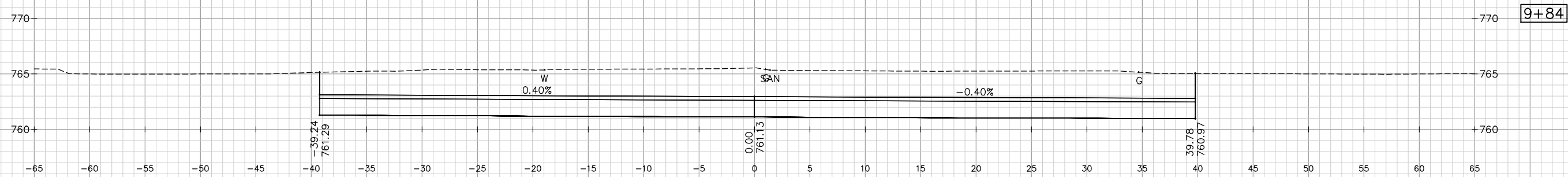


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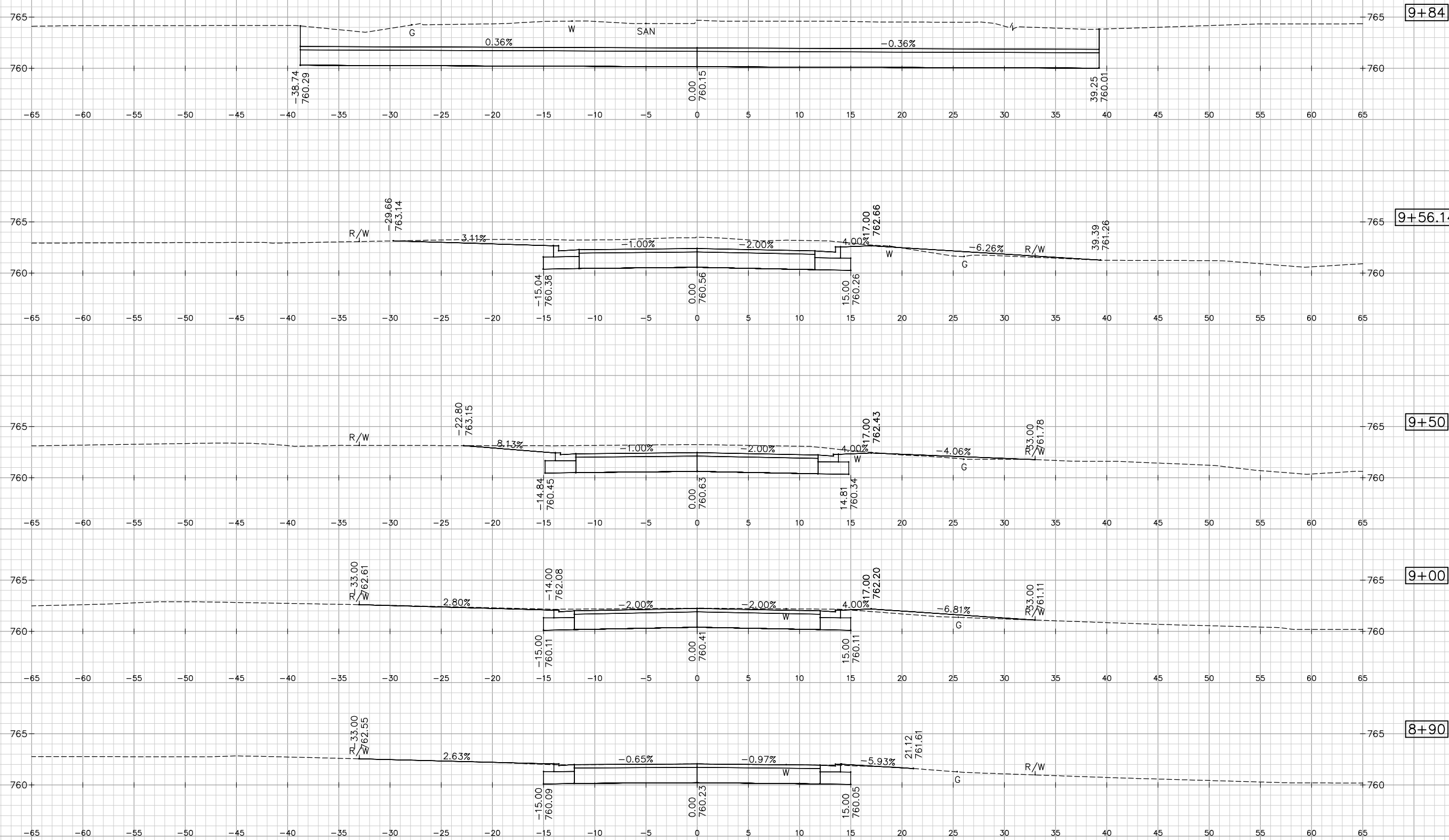


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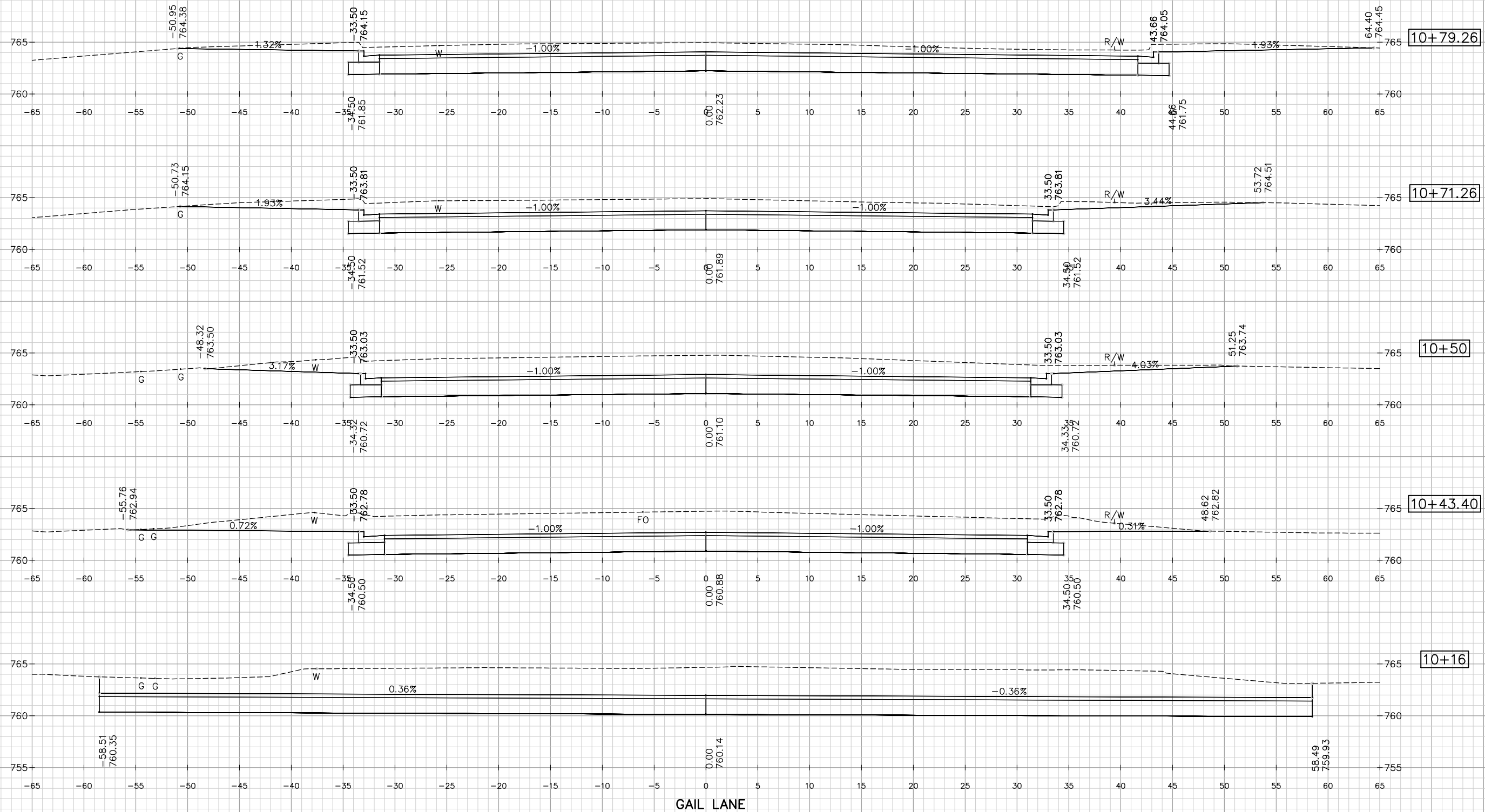


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TUMBLEBROOK ROAD (WEST)

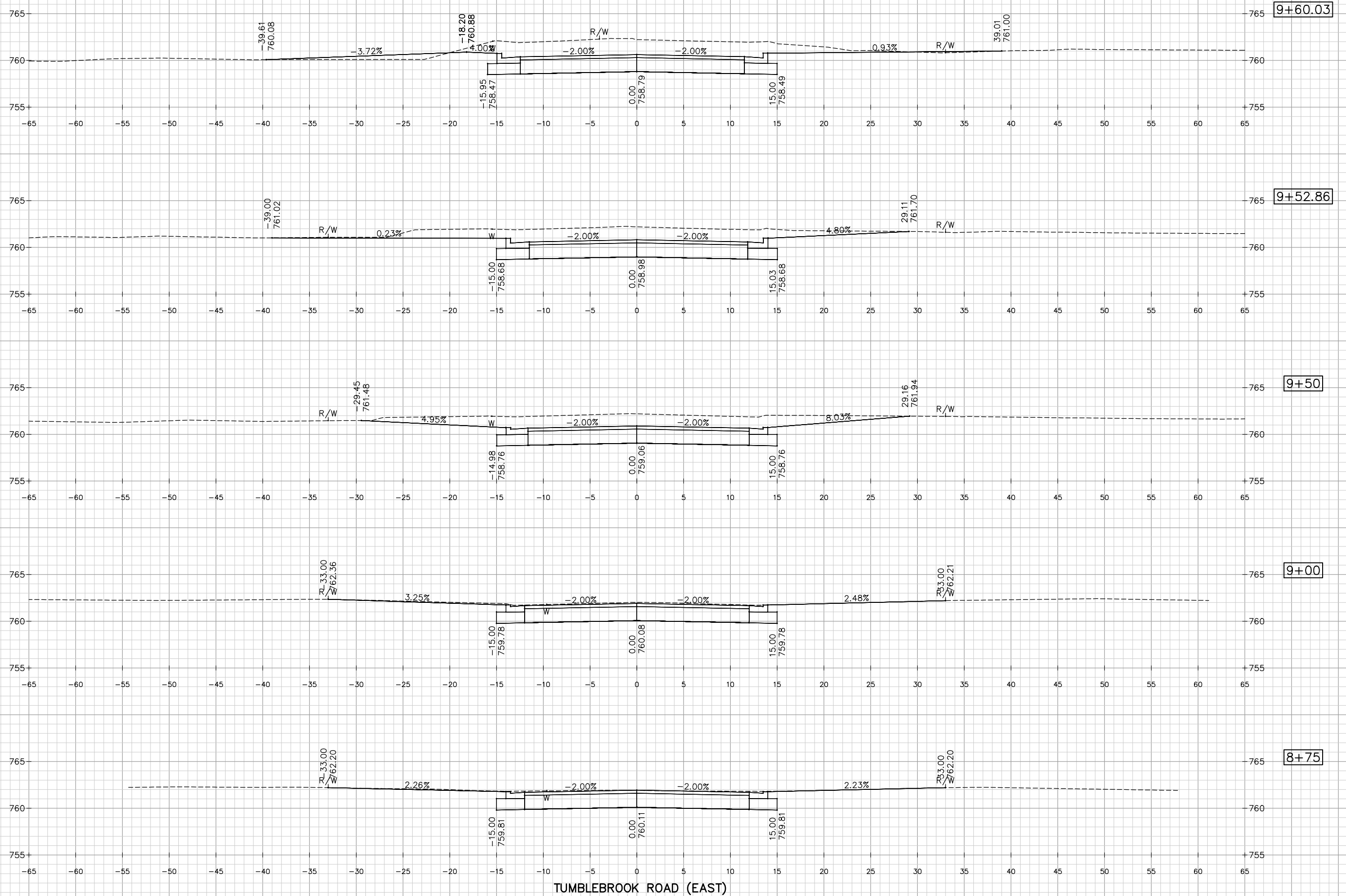
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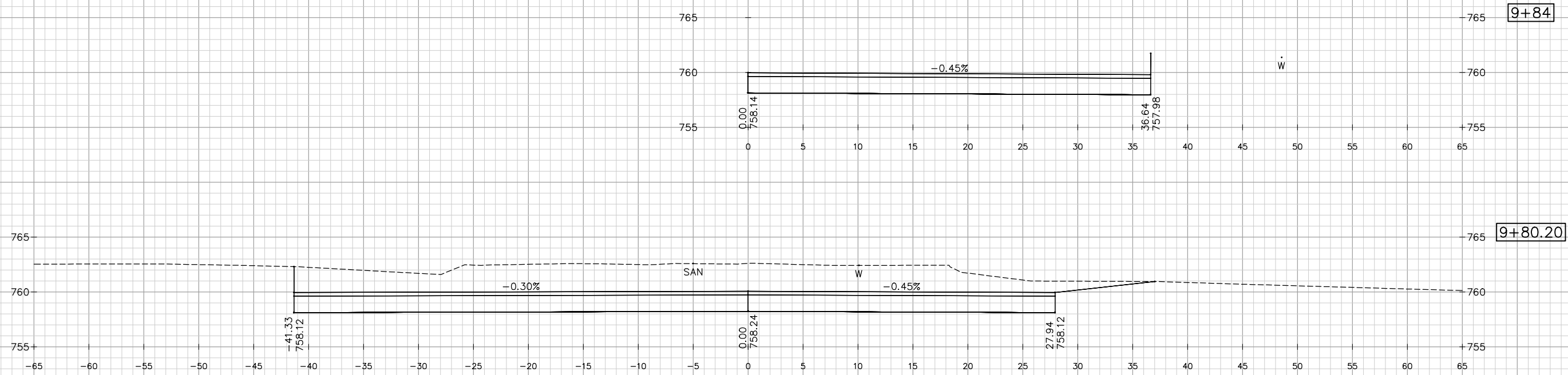
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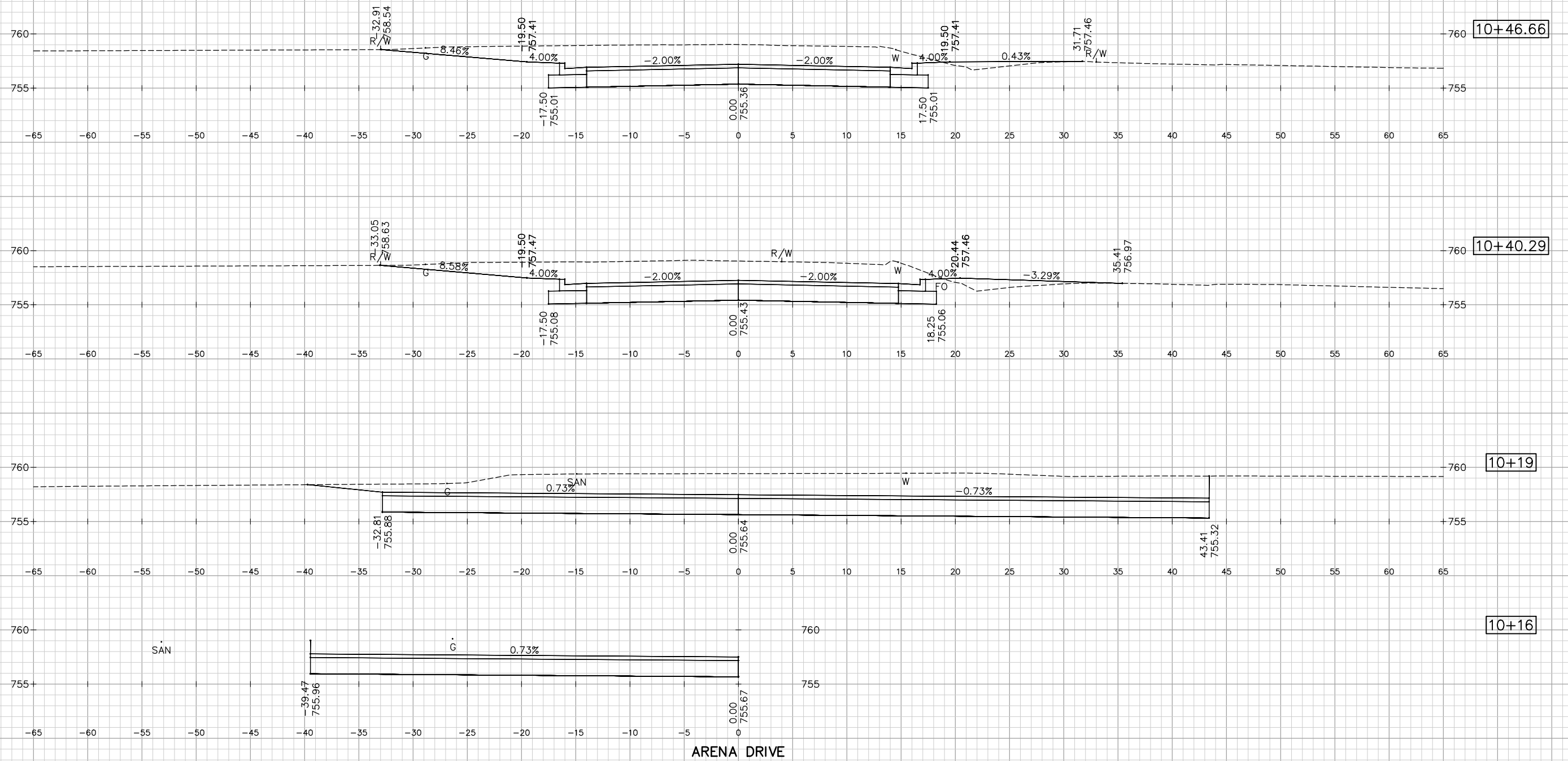


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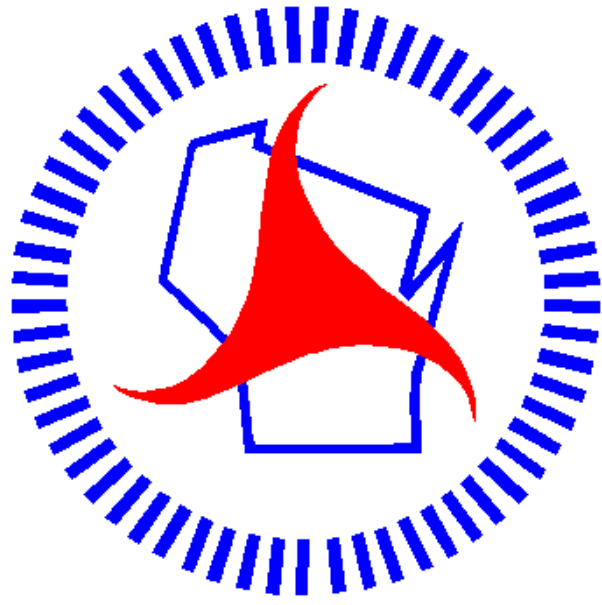


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Notes



Wisconsin Department of Transportation

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