

Madison, Wisconsin

CITY OF MADISON

CITY ENGINEERING DIVISION

DEPARTMENT OF PUBLIC WORKS

PLAN OF PROPOSED IMPROVEMENT

PUBLIC IMPROVEMENT PROJECT APPROVED

FEBRUARY 4, 2014

BY THE COMMON COUNCIL
OF MADISON, WISCONSIN

PUBLIC IMPROVEMENT DESIGN
APPROVED BY:

[Signature] *[Signature]*
City Engineer Date

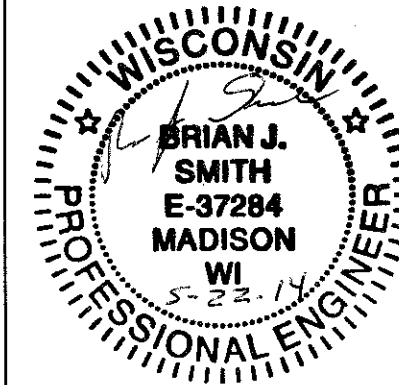
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CANNONBALL PATH PHASE 5

CITY PROJECT NO. 53W1547
CONTRACT NO. 7238

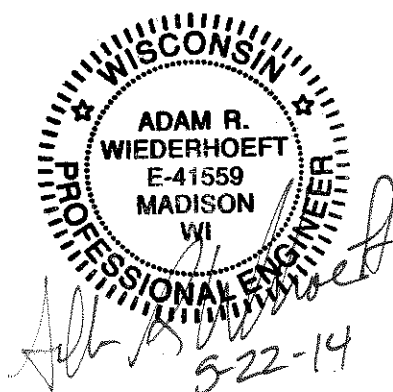
LIGHTING AND ELECTRICAL
DESIGNED BY:



PATH AND STREET GRADES
DESIGNED BY:



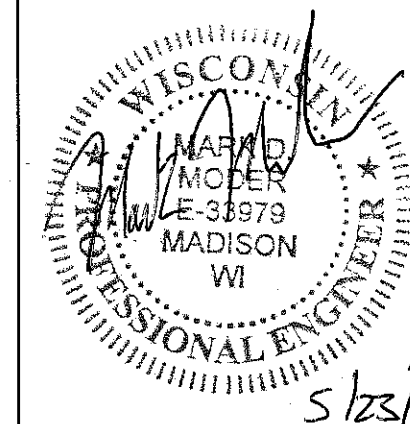
WATER MAIN
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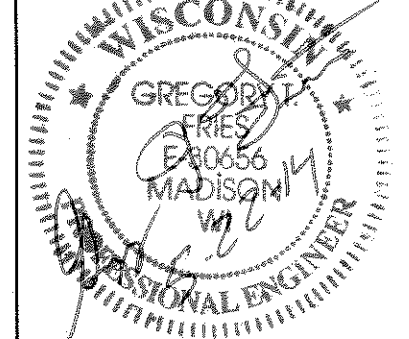
PAVEMENT MARKING
DESIGNED BY:



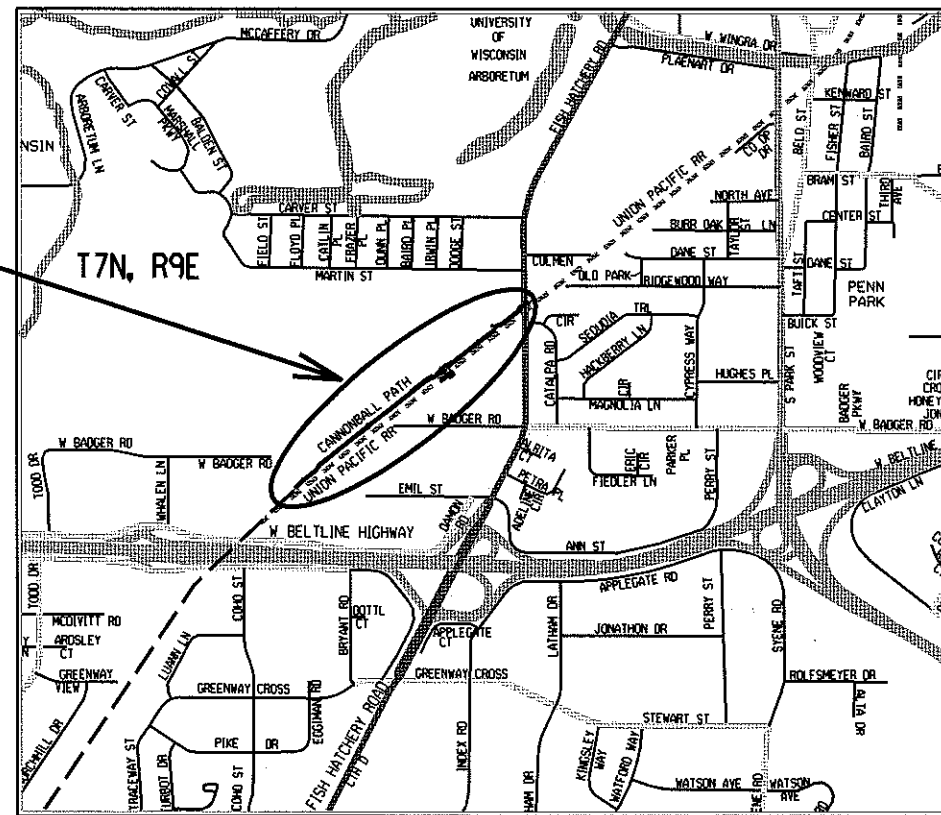
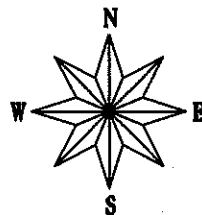
SANITARY SEWER
DESIGNED BY:



STORM SEWER
DESIGNED BY:



PROJECT
LOCATION



CONVENTIONAL SIGNS

FIELD VERIFY ALL UTILITY LOCATIONS

GAS	— G —
STORM SEWER	— ST —
SANITARY SEWER	— SAN —
WATER	— W —
OVERHEAD ELECTRIC	— OH —
POWER POLE	⊓

NOTES:

SIDEWALK RAMPS AND CURB THRU SIDEWALK RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1" PER 12". SIDEWALK AND CURB RAMPS SHALL BE CONSTRUCTED WITH A SIDE SLOPE OF 2.00%. SIDEWALK SHALL HAVE A MINIMUM LONGITUDINAL SLOPE OF 0.50% AND A MAXIMUM LONGITUDINAL SLOPE OF 5.00%

STRUCTURE PLANS S1 THROUGH S8 PREPARED, STAMPED AND SIGNED BY CONSULTANT

SEE SHEET D-1 FOR EARTHWORK SUMMARY

PLOT SCALE: PLOT NAME: REV. DATE: ORIGINATOR: CITY OF MADISON, STREETS DIVISION

TYPICAL SECTIONS
CANNONBALL PATH /
FISH HATCHERY ROAD CITY OF MADISON

LEGEND

- ① 10" CRUSHED AGGREGATE BASE COURSE, GRAD. NO. 2
- ② 8" CRUSHED AGGREGATE BASE COURSE, GRAD. NO. 2
- ③ 3.5" HMA PAVEMENT TYPE E-0.3 (SEE NOTE 1)
- ④ 3" HMA PAVEMENT TYPE E-0.3 (SEE NOTE 1)
- ⑤ CONCRETE CURB AND GUTTER TYPE H (24-INCH) (NOTE 3)
- ⑥ CONCRETE CURB AND GUTTER TYPE E (24" REJECT) (NOTE 3)
- ⑦ REMOVE EXISTING CONCRETE CURB & GUTTER (NOTE 4)
- ⑧ REMOVE EXISTING 5" CONCRETE SIDEWALK (NOTE 4)
- ⑨ 7-INCH CONCRETE SIDEWALK
- ⑩ SAW CUT EXISTING ASPHALT PAVEMENT (FULL DEPTH)
- ⑪ 4" TOPSOIL, SEED AND MATTING CL 1 TY URBAN A
- ⑫ MODULAR BLOCK WALL (SEE DETAILS)
- ⑬ EXISTING 5.5" HMA PAVEMENT
- ⑭ EXISTING 12" DENSE AGGREGATE BASE
- ⑮ EXISTING 21.5" SELECT CRUSHED MATERIAL
- ⑯ 2" MINIMUM GRANULAR FILL (INCIDENTAL TO WALK)

NOTES

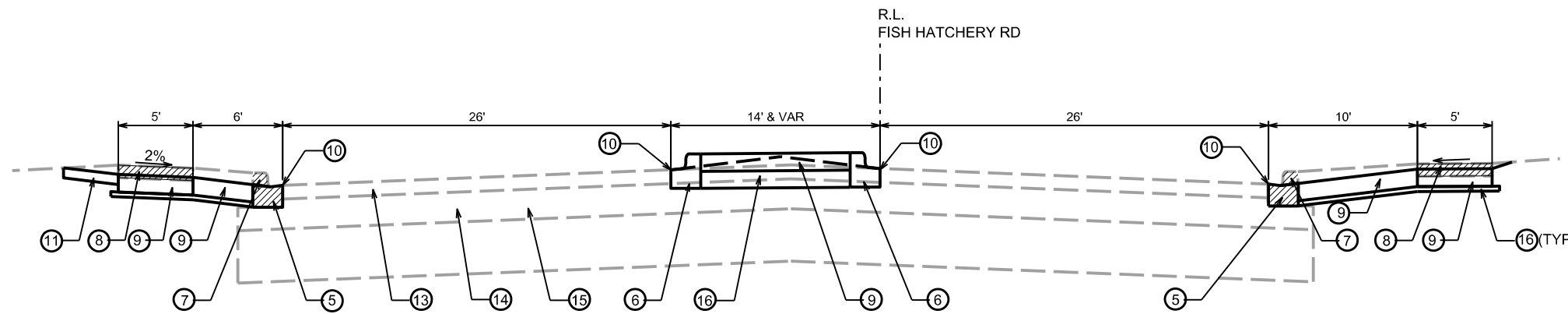
1. CONSTRUCT HMA PAVEMENTS AS FOLLOWS:

TYPE	LAYER	THICK	NOM. AGG SIZE
3.5" E-0.3	UPPER	1.75"	12.5
	LOWER	1.75"	12.5
3" E-0.3	SINGLE	3.0"	12.5

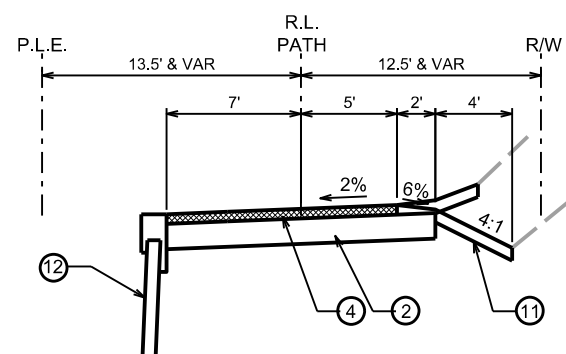
- 2. THE UPPER LAYER OF 4.25" PAVEMENT SHALL BE PLACED AS A SINGLE CONTINUOUS LIFT WITH THE 2" PAVEMENT IN THE AREA OF GRINDING.
- 3. CURB HEIGHT VARIES THROUGH RAMP. PAID FOR AS CONCRETE CURB & GUTTER, TYPE H OR TYPE E. SEE DETAIL.
- 4. SEE PLAN FOR LIMITS OF CRUB AND SIDEWALK REMOVAL.
- 5. SEE TABLE OF FENCE OFFSETS FOR TRANSITIONS.

EARTHWORK SUMMARY

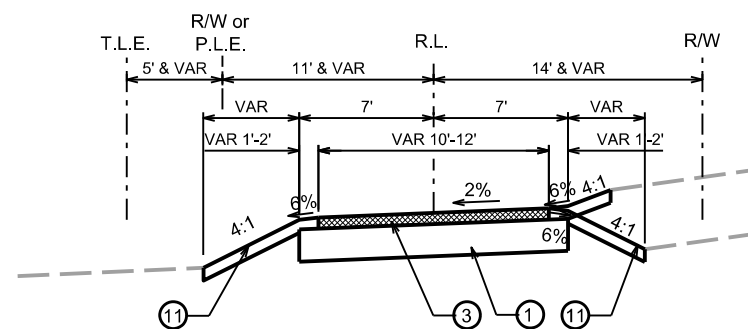
UNCLASSIFIED EXCAVATION	170 CY	(PLAN QUANTITY)
ESTIMATED UNDERCUT (EBS)	450 CY	
EXCAVATION CUT	620 CY	(PROPOSAL QUANTITY)
FILL (UNADJUSTED)	1570 CY	(PLAN QUANTITY)
FILL BORROW	1400 CY	(PROPOSAL QUANTITY)



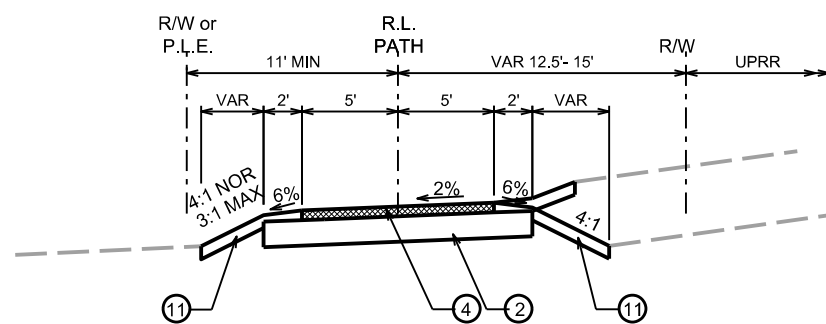
PROPOSED TYPICAL SECTION
FISH HATCHERY ROAD STA 52+00 TO STA 52+75



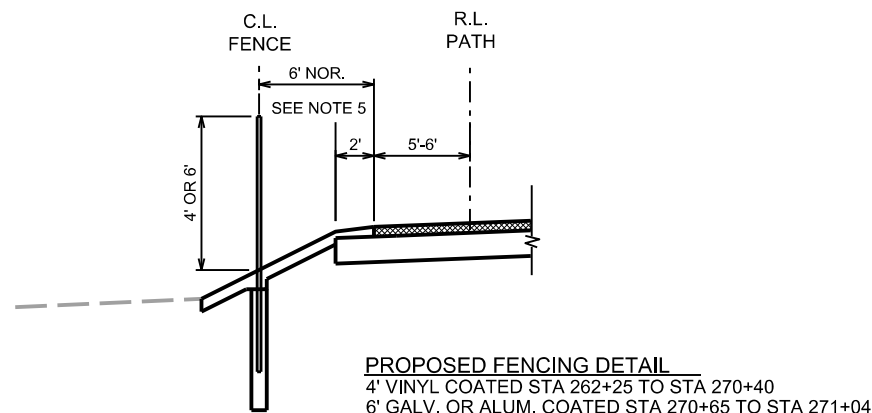
PROPOSED TYPICAL SECTION
PATH STA 259+75 TO STA 262+25



PROPOSED TYPICAL SECTION
PATH STA 268+40 TO STA 274+30



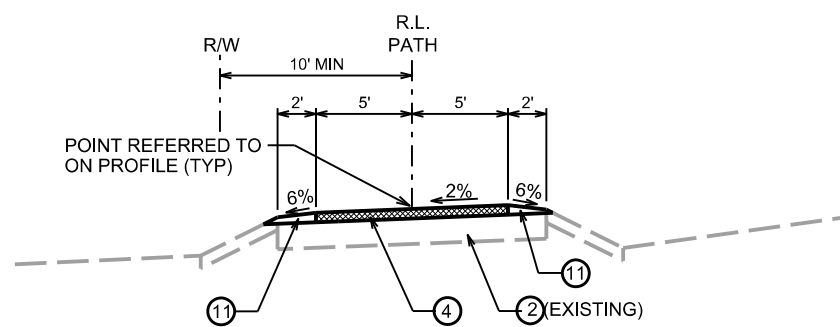
PROPOSED TYPICAL SECTION
PATH STA 245+60 TO STA 259+75
PATH STA 262+25 TO STA 268+40



PROPOSED FENCING DETAIL
4' VINYL COATED STA 262+25 TO STA 270+40
6' GALV. OR ALUM. COATED STA 270+65 TO STA 271+04

TABLE OF FENCE OFFSETS

STATION	OFFSET	REMARKS
262+25	8.67' LT	MATCH RAILING OFFSET
262+78	11.0' LT	PC
263+45	11.0' LT	BEGIN TRANSITION
263+55	8.0' LT	MATCH BRIDGE RAILING
264+25	7.8' LT	MATCH BRIDGE RAILING
264+35	11.0' LT	
268+30	11.0' LT	P.I.
268+38	16.0' LT	P.I.
268+44	16.0' LT	BEGIN ACCESS GATE
268+62	16.0' LT	END ACCESS GATE
268+68	16.0' LT	P.I.
268+75	11.0' LT	P.I.
270+25	11.0' LT	BEGIN TRANSITION
270+40.8	9.1' LT	MATCH EXIST. FENCE
270+65.6	21.9' LT	MATCH EXIST. FENCE
270+75	26' LT	P.I.
270+98	27.1' LT	P.I.
271+04.2	24.0' LT	MATCH EXIST. FENCE



PROPOSED TYPICAL SECTION
PATH STA 244+00 TO STA 245+60

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

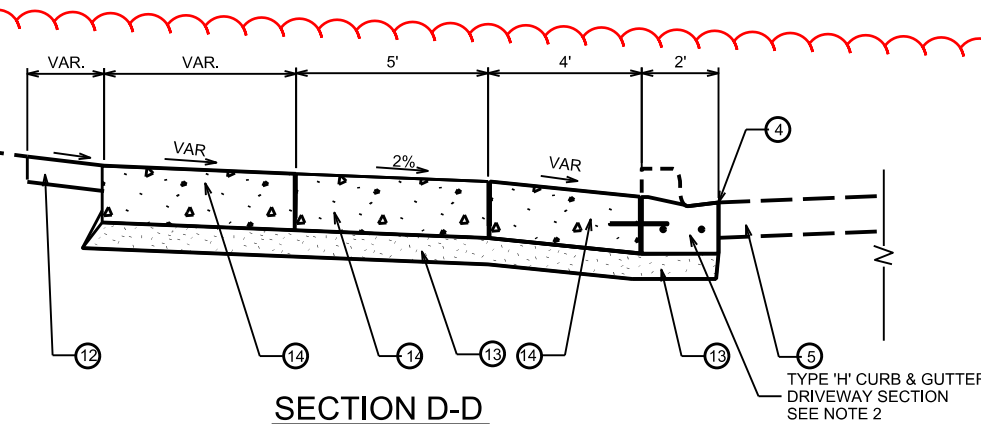
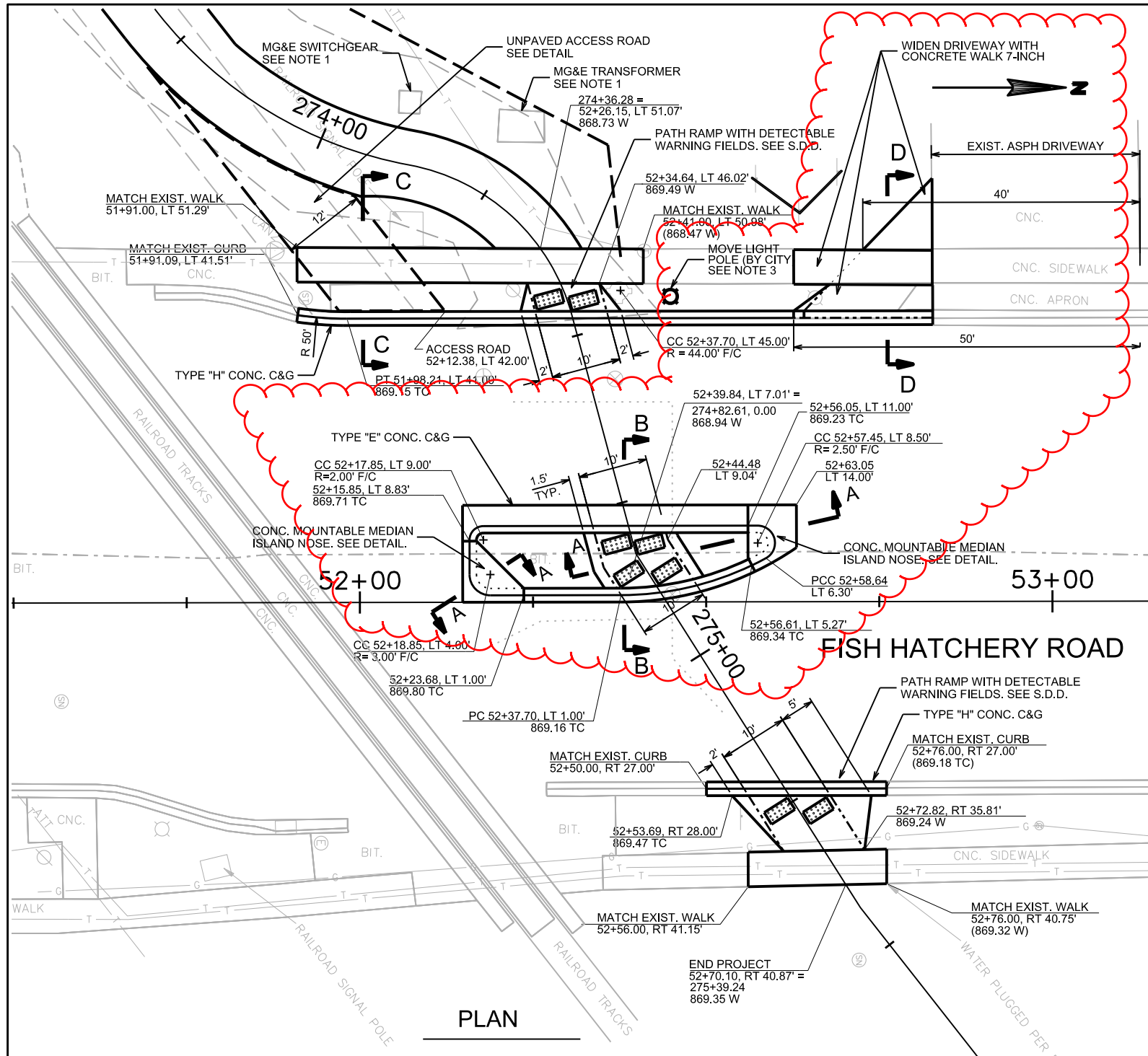
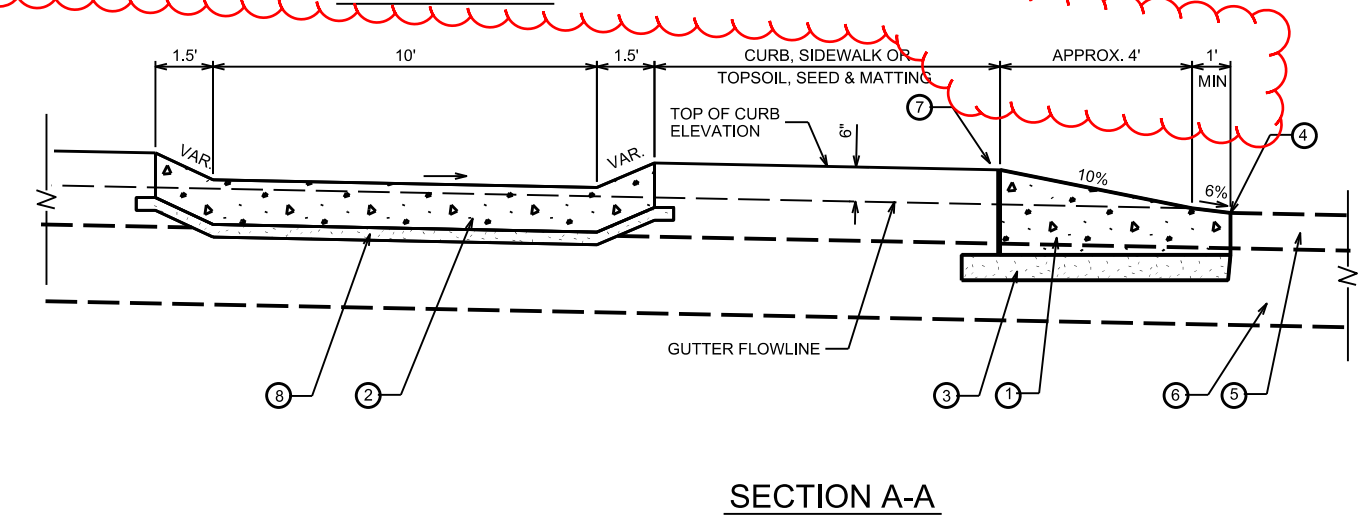
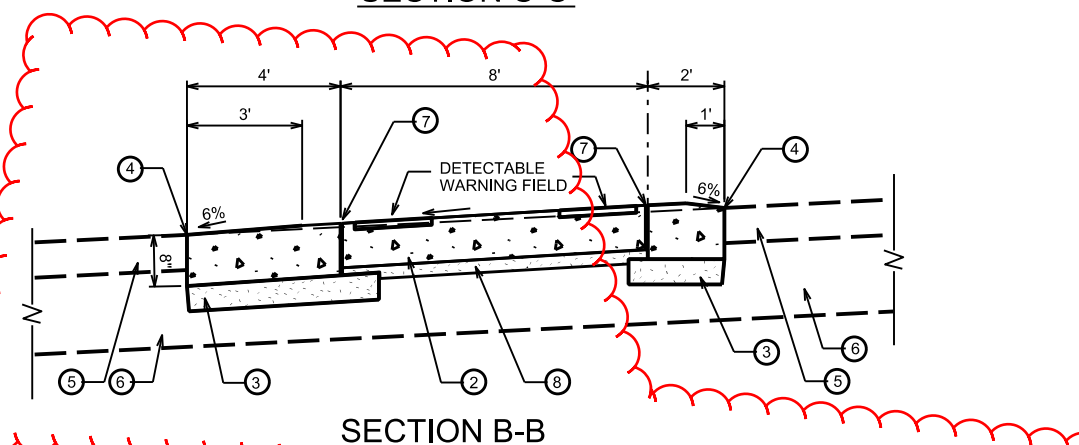
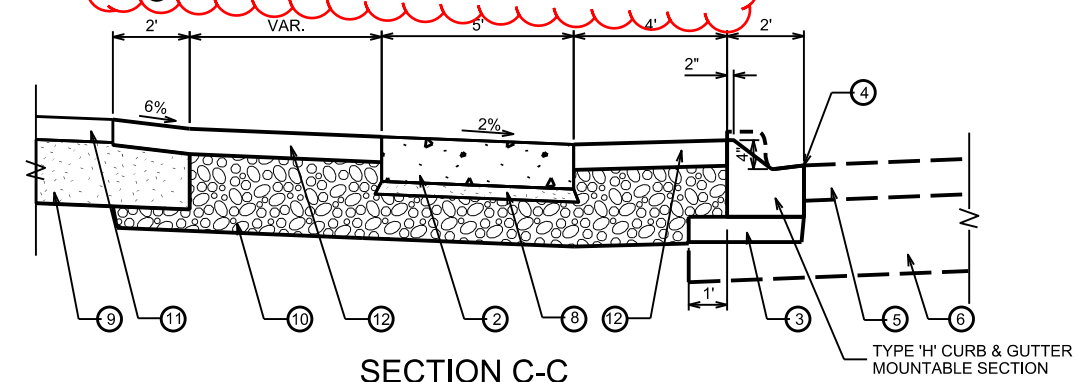
ORIGINATOR: CITY OF MADISON, STREETS DIVISION

INTERSECTION DETAIL
CANNONBALL PATH /
FISH HATCHERY ROAD CITY OF MADISON

REV. 8-07-14 ASF
REV. 8-10-15 ASF

LEGEND

- ① CONCRETE MOUNTABLE MEDIAN ISLAND NOSE
- ② CONCRETE SIDEWALK 7-INCH
- ③ MIN. 4-INCH CRUSHED AGGREGATE BASE COURSE GRAD. NO. 2 OR 3
- ④ SAWCUT ASPHALT PAVEMENT (FULL DEPTH)
- ⑤ EXISTING 5.5" ASPHALT PAVEMENT TO REMAIN
- ⑥ EXISTING 12" CRUSHED AGGREGATE BASE TO REMAIN
- ⑦ 3/4" JOINT FILLER (WHERE ADJACENT TO CONCRETE)
- ⑧ MIN. 2-INCH COMPACTED GRANULAR FILL (INCIDENTAL)
- ⑨ 10-INCH CRUSHED AGGREGATE BASE COURSE GRAD. NO. 2 OR 3
- ⑩ 12" CRUSHED AGGREGATE BASE GRAD NO 1
- ⑪ HMA PAVEMENT. SEE PATH TYPICAL SECTION.
- ⑫ 4 INCH TOPSOIL, SEED AND EROSION MATTING
- ⑬ MIN 6-INCH CRUSHED AGGREGATE BASE COURSE GRAD. NO. 2 OR 3
- ⑭ 9-INCH CONCRETE PAVEMENT, NON-REINFORCED



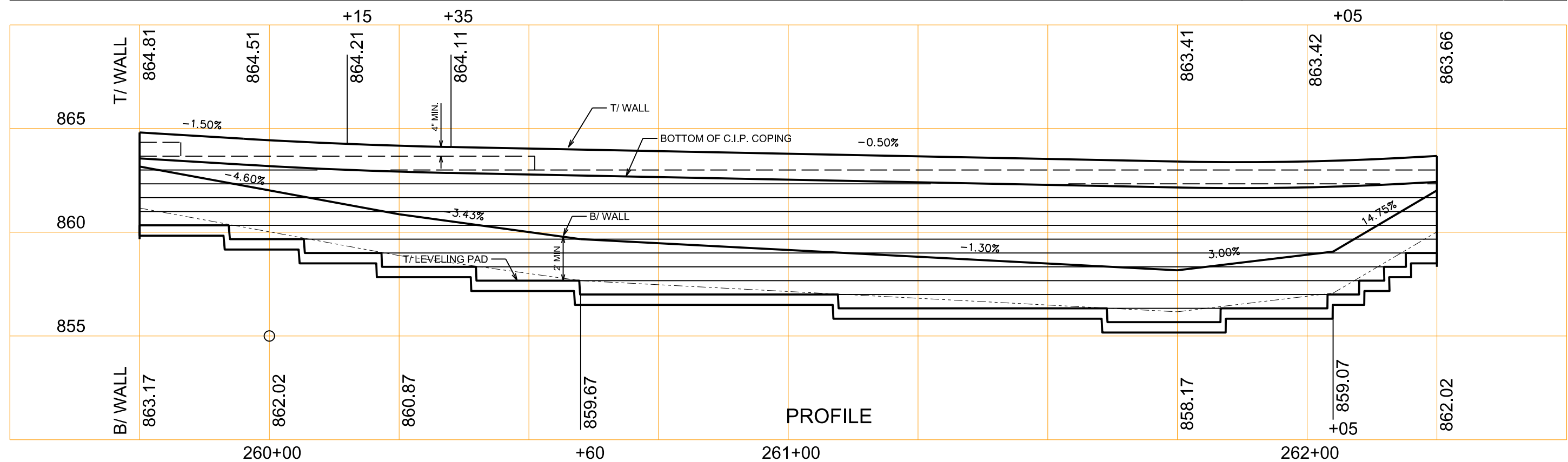
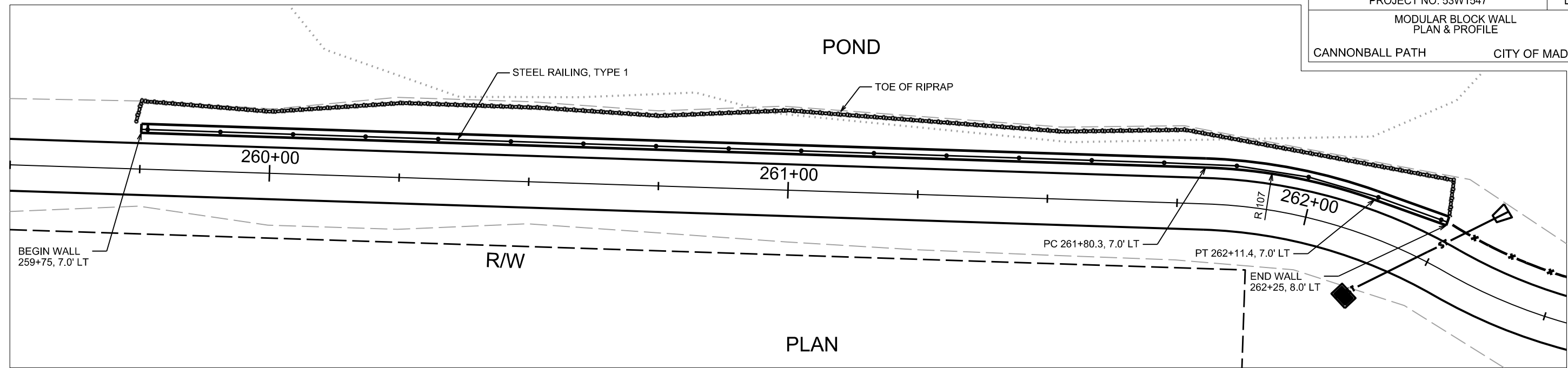
- NOTES:
1. GRADING IN VICINITY OF MG&E TRANSFORMER AND SWITCHGEAR SHALL BE DONE WITH EXTREME CARE TO PREVENT DAMAGE TO EQUIPMENT AND INSURE THAT FINAL GRADES AT EQUIPMENT PADS CLOSELY MATCH EXISTING. ANY CHANGE IN FINAL GRADE IS SUBJECT TO APPROVAL BY MG&E.
 2. PLACE 2-#4 EPOXY COATED BARS LONGITUDINALLY IN CURB FOR FULL LENGTH OF DRIVEWAY SECTION AND TIE TO EXISTING CURB AT NORTH END OF NEW CURB. TIE CURB TO CONCRETE APRON WITH 18" #4 TIE BARS AT 24" O.C.
 3. NEW LIGHT POLE BASE AND CONNECTIONS TO EXISTING CONDUIT. REMOVAL OF EXISTING POLE, INSTALLATION OF NEW POLE AND ALL ELECTRICAL WORK COMPLETED BY CITY OF MADISON FORCES.

PLOT SCALE: PLOT NAME: REV. DATE: ORIGINATOR: CITY OF MADISON, STREETS DIVISION

MODULAR BLOCK WALL
PLAN & PROFILE

CANNONBALL PATH

CITY OF MADISON



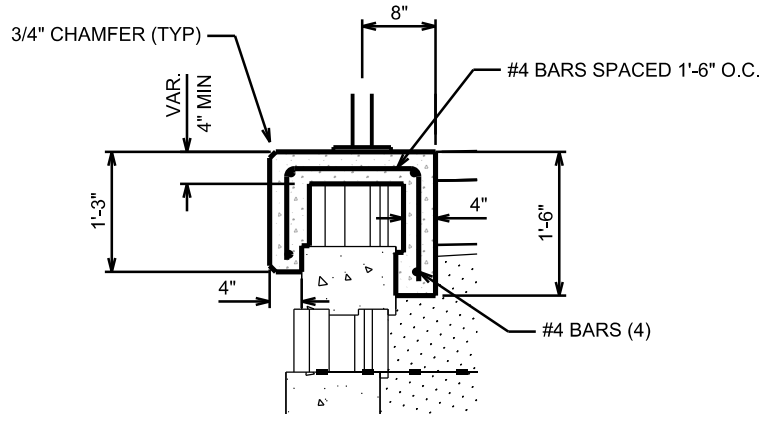
NOTES:
1. SEE SHEET D-4 FOR TYPICAL WALL SECTION AND DETAILS

PLOT SCALE: _____

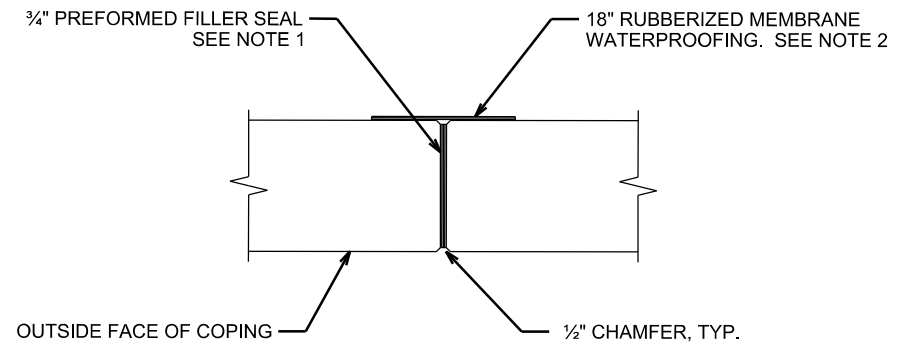
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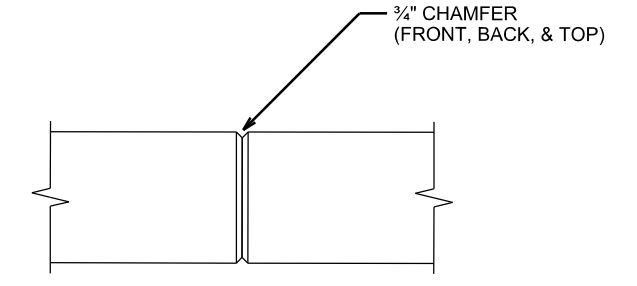
ORIGINATOR: CITY OF MADISON, STREETS DIVISION



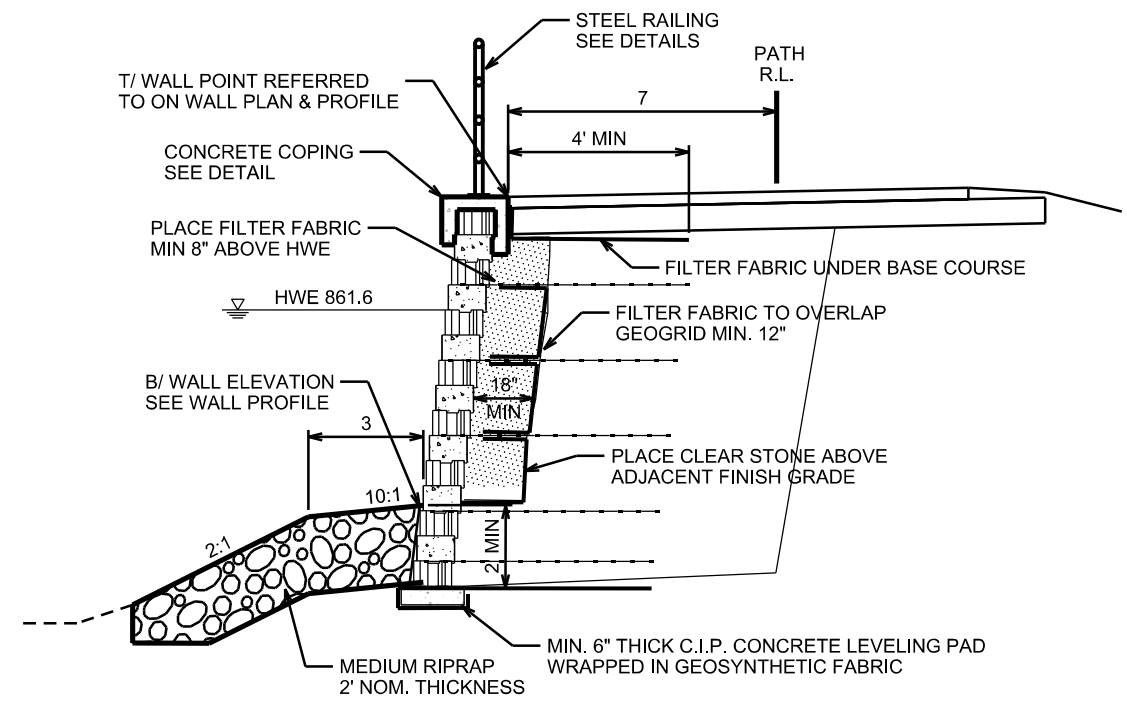
COPING DETAIL



COPING EXPANSION JOINT



COPING CONTRACTION JOINT



TYPICAL WALL SECTION

NOTES FOR CONCRETE COPING:

1. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONC.)
2. MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO BOTTOM OF COPING
3. PLACE EXPANSION JOINTS AT ALL WALL RADIUS PC/PT POINTS AND BEND POINTS, AND AT 30' MAX. SPACING ON TANGENTS.
4. PLACE CONTRACTION JOINTS AT MAX. 10' SPACING BETWEEN EXPANSION JOINTS. DO NOT RUN BAR STEEL THRU JOINT.
5. MAINTAIN 2" MIN. COVER ON ALL REBAR.

PLOT SCALE: _____

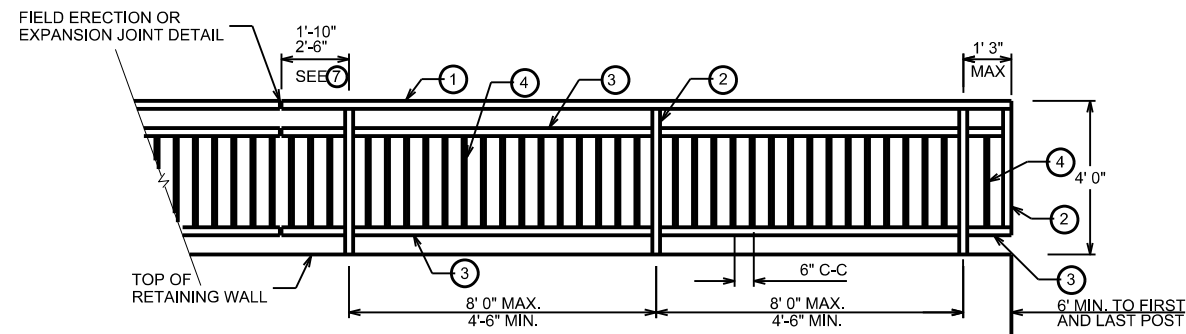
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REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

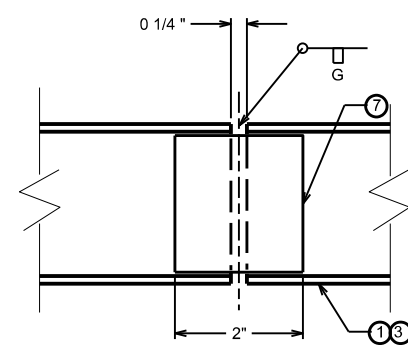
RAILING DETAILS

PATH CITY OF MADISON



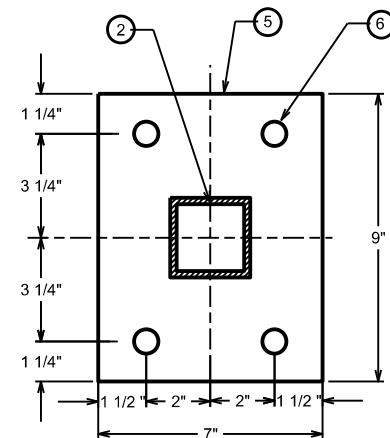
RAILING FOR RETAINING WALL - ELEVATION

SEE RETAINING WALL DETAIL FOR LOCATION

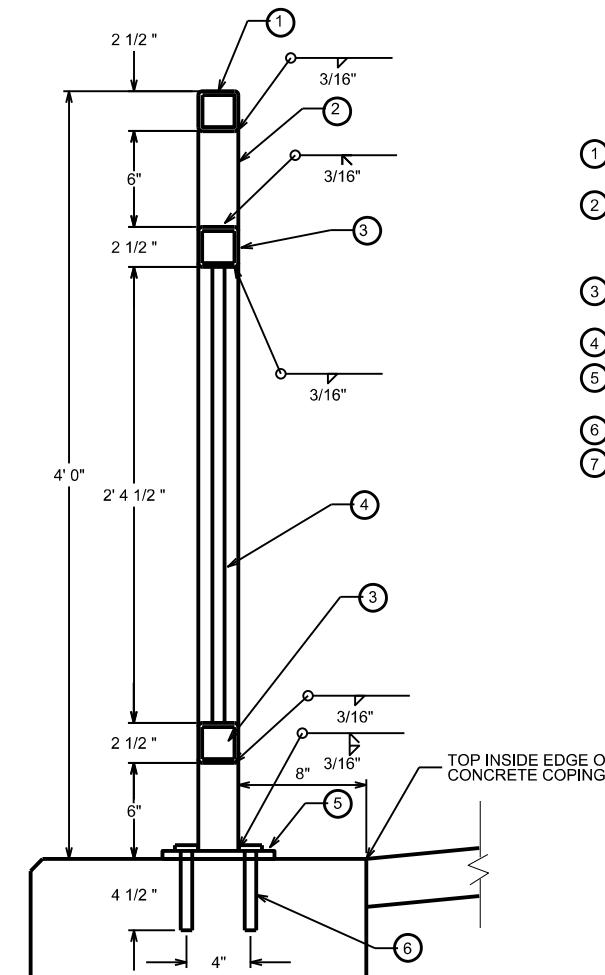


SHOP RAIL SPLICE DETAIL

(SHOW LOCATION ON SHOP DRAWINGS)



RAILING BASE PLATE



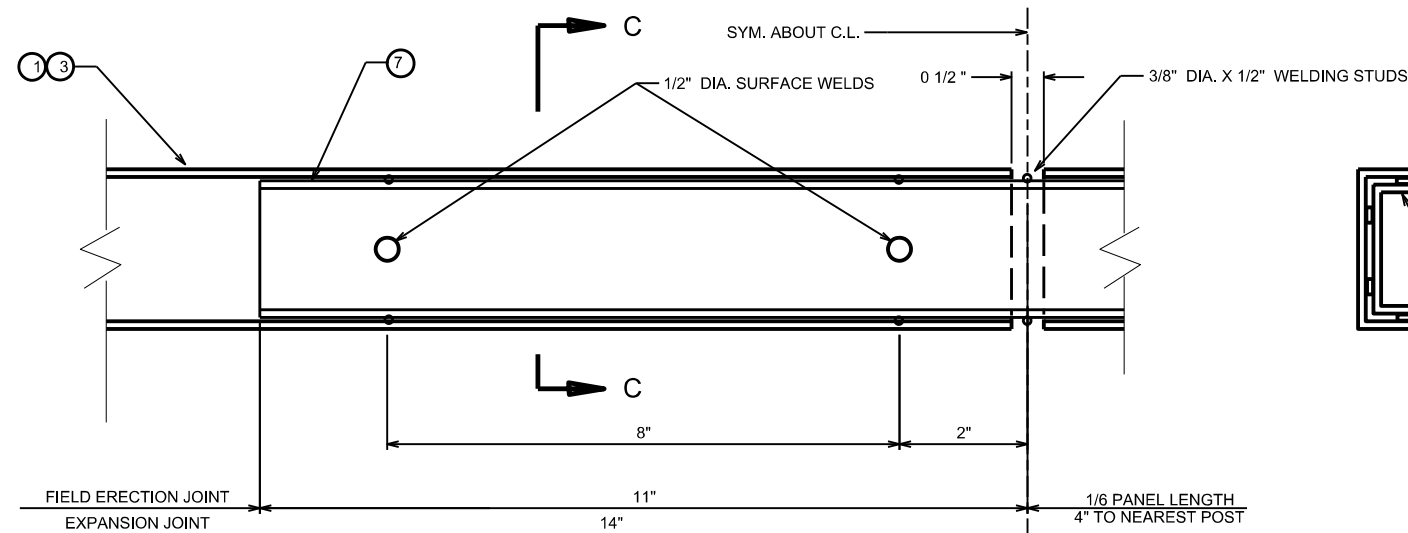
SECTION THRU RAILING

LEGEND

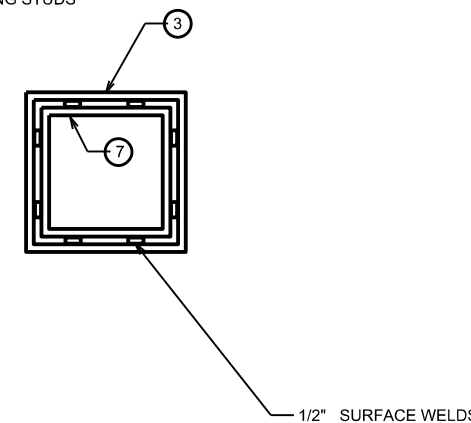
- ① TS 2 1/2" X 2 1/2" X 0.188" STRUCTURAL TUBING CONFORMING TO ASTM DESIGNATION A501 OR A500 GRADE B.
- ② TS 2 1/2" X 2 1/2" X 0.188" STRUCTURAL TUBING CONFORMING TO ASTM DESIGNATION A501 OR A500 GRADE B. CUT BOTTOM OF POST TO MATCH SLOPE OF TOP OF WALL. HOLD 1/16" ABOVE BASE PLATE TO ALLOW POST AND BASE PLATE TO BE WELDED TOGETHER. PLACE POST VERTICAL AND CENTERED ON THE BASE PLATE.
- ③ TS 2 1/2" X 2 1/2" X 0.188" STRUCTURAL TUBING CONFORMING TO ASTM DESIGNATION A501 OR A500 GRADE B.
- ④ 3/4" X 3/4" STEEL BAR STOCK
- ⑤ BASE PLATE 1/2" X 9" X 7" CONFORMING TO ASTM DESIGNATION A709 GRADE 36 WITH 3/4" HOLES FOR ANCHOR BOLTS. WELD TO VERTICAL POSTS AS SHOWN.
- ⑥ 3/4" HOLE FOR CONCRETE MASONRY ANCHORS, TYPE S, 5/8". PULLOUT STRENGTH SHALL BE 3.6 KIPS.
- ⑦ SQUARE SLEEVE FABRICATED FROM 1/2" COLD DRAWN STEEL ALLOY CONFORMING TO ASTM A331 2-4" LONG AT EXPANSION JOINTS AND 1'-10" LONG AT FIELD JOINTS. PROVIDE 1/2" DIA. SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS TO FIT FREE INTO I.D. OF NO. 3. PROVIDE 3/8" DIA. X 1/2" WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.

GENERAL NOTES

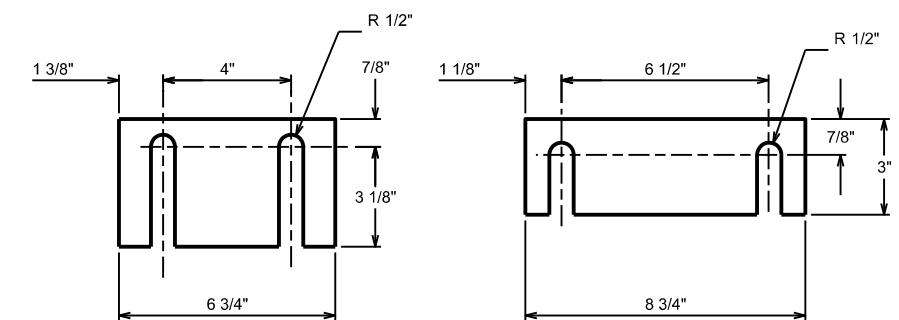
- BID ITEM SHALL BE "STEEL RAILING TYPE 1" WHICH INCLUDES ALL ITEMS SHOWN INCLUDING GALVANIZED COATING
- RAILING SHALL BE FABRICATED IN 2 OR 3 PANEL LENGTHS.
- POST BASE PLATES NO. 5 SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP, AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
- BASE PLATES AND SHIMS TO BE ASTM A709, GRADE 36, ALL GALVANIZED AFTER FABRICATION.
- SHIMS SHALL BE USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.
- CAULK AROUND PERIMETER OF BASE PLATES WITH NON-STAINING GREY NON-BITUMINOUS JOINT SEALER.
- ALL MATERIALS EXCEPT ANCHOR BOLTS NO. 6 SHALL BE GALVANIZED AFTER FABRICATION.
- RAILING IS TO BE GALVANIZED AND PAINTED. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS, STEEL TUBING AND STEEL PIPE SHALL BE GIVEN A NO. 6 BLAST CLEANING PER S.S.P.C. SPECIFICATIONS. PAINT OVER GALVANIZING WITH APPROVED TIE COAT AND TOP COAT.
- VERTICAL MEMBERS (POSTS AND PICKETS) SHALL BE PLUMB. HORIZONTAL MEMBERS SHALL BE PARALLEL TO TOP OF WALL.
- ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF ASTM 307, BOLTS NUTS AND WASHERS SHALL BE GALVANIZED.
- VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING.
- SUBMIT SHOP DRAWINGS FOR ENGINEER'S REVIEW AND APPROVAL PRIOR TO FABRICATION.



FIELD ERECTION / EXPANSION JOINT DETAIL



SECTION C-C



SHIM PLATE DETAILS

1/16" THICK MATERIAL
TWO EACH REQUIRED PER POST

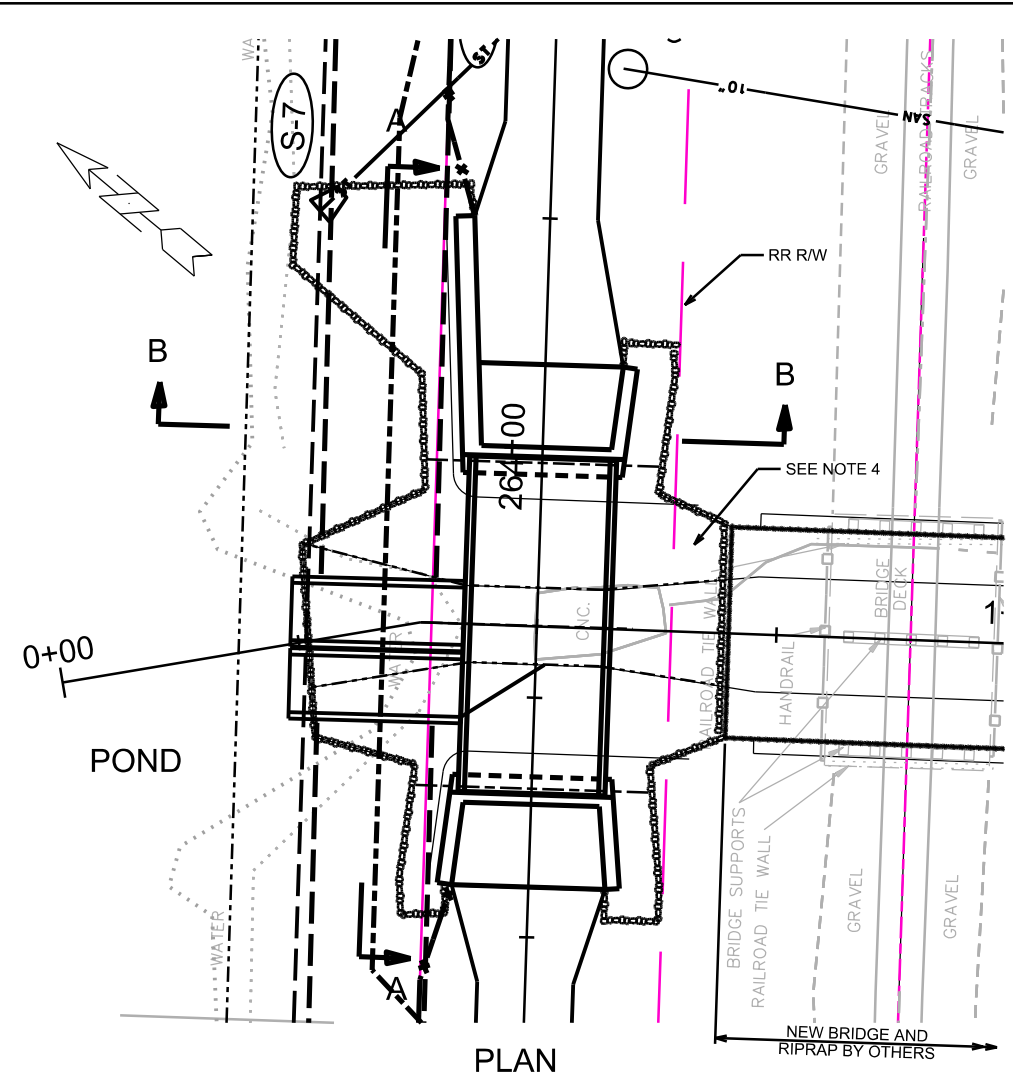
PLOT SCALE: _____

PLOT NAME: _____

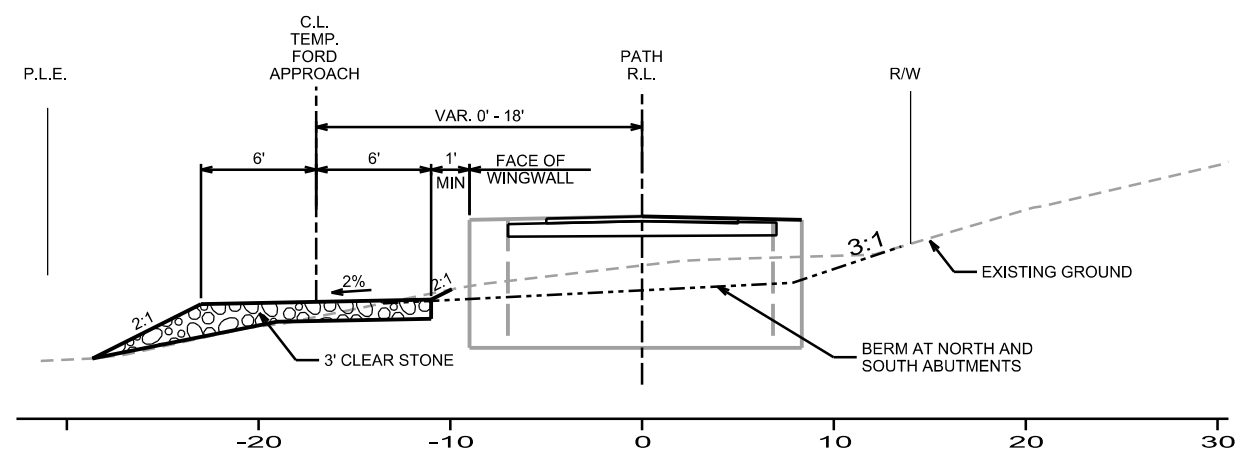
REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

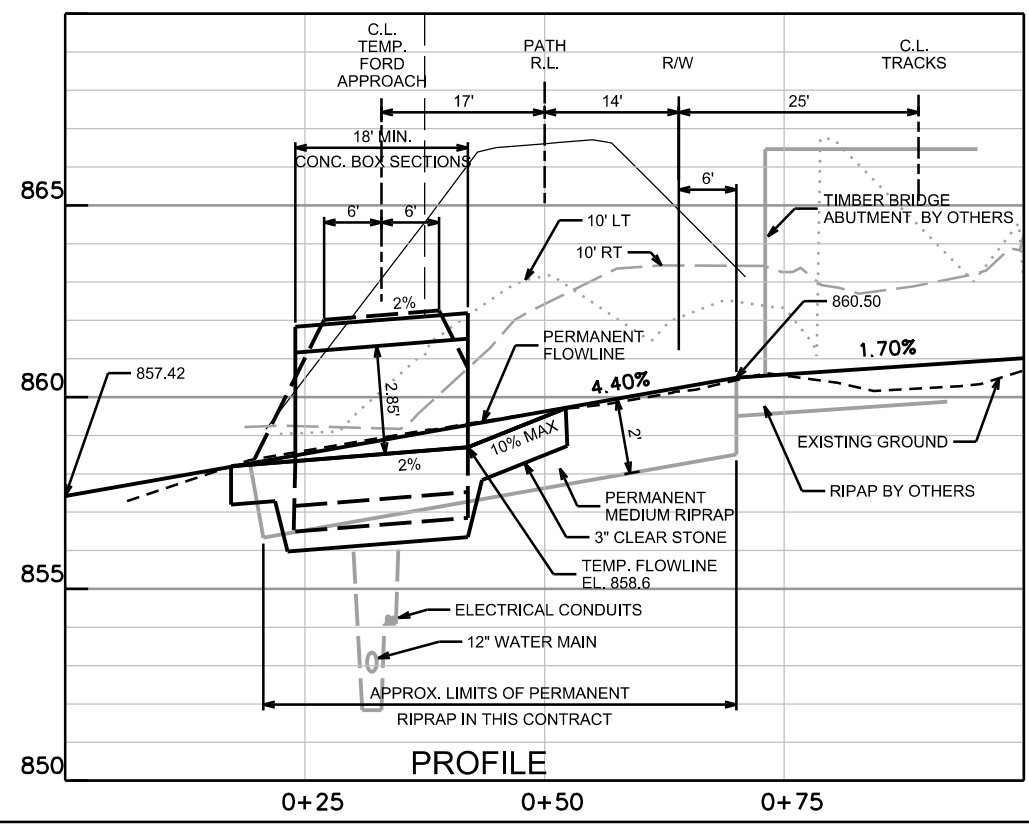
- NOTES:
1. CONTRACTOR MAY CHOOSE DEPTH AND WIDTH OF BOX SECTIONS PROVIDED MINIMUM VERTICAL OPENING AND WATERWAY AREA ARE ACHIEVED. FILL BOX SECTION WITH CLEAR STONE TO TEMPORARY FLOWLINE ELEVATION.
 2. PROVIDE MINIMUM 1' THICKNESS OF CLEAR STONE FOR TEMPORARY RIDING SURFACE.
 3. SEE EROSION CONTROL PLANS FOR TEMPORARY HAUL ROUTE LIMITS.
 4. RIGHT OF ENTRY FROM RAILROAD REQUIRED TO CONSTRUCT RIPRAP IN AREA BETWEEN RR R/W LINE AND LIMITS OF NEW RIPRAP FOR RAILROAD BRIDGE.



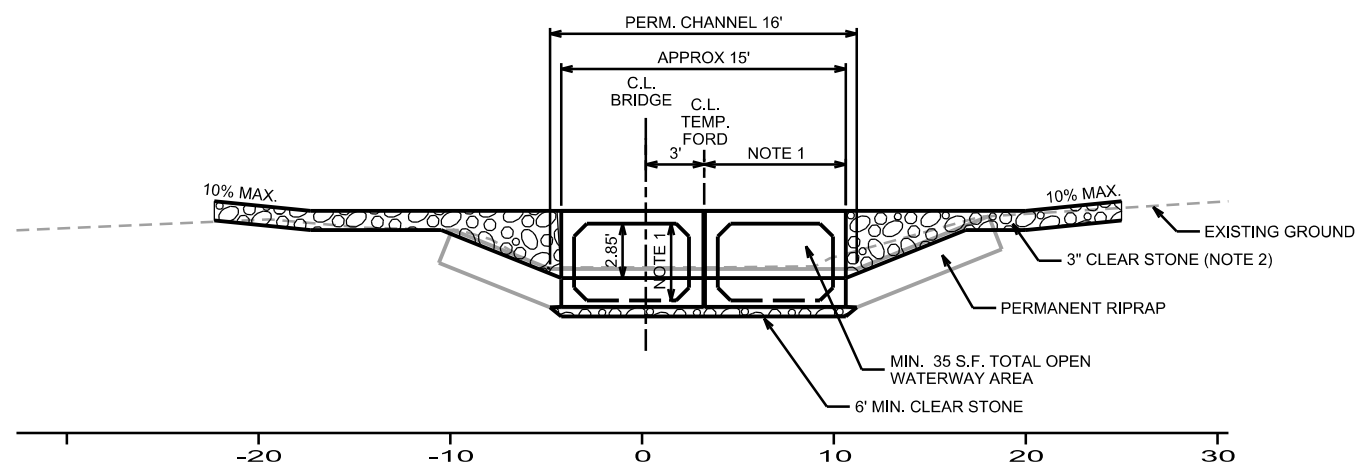
PLAN



SECTION B-B



PROFILE



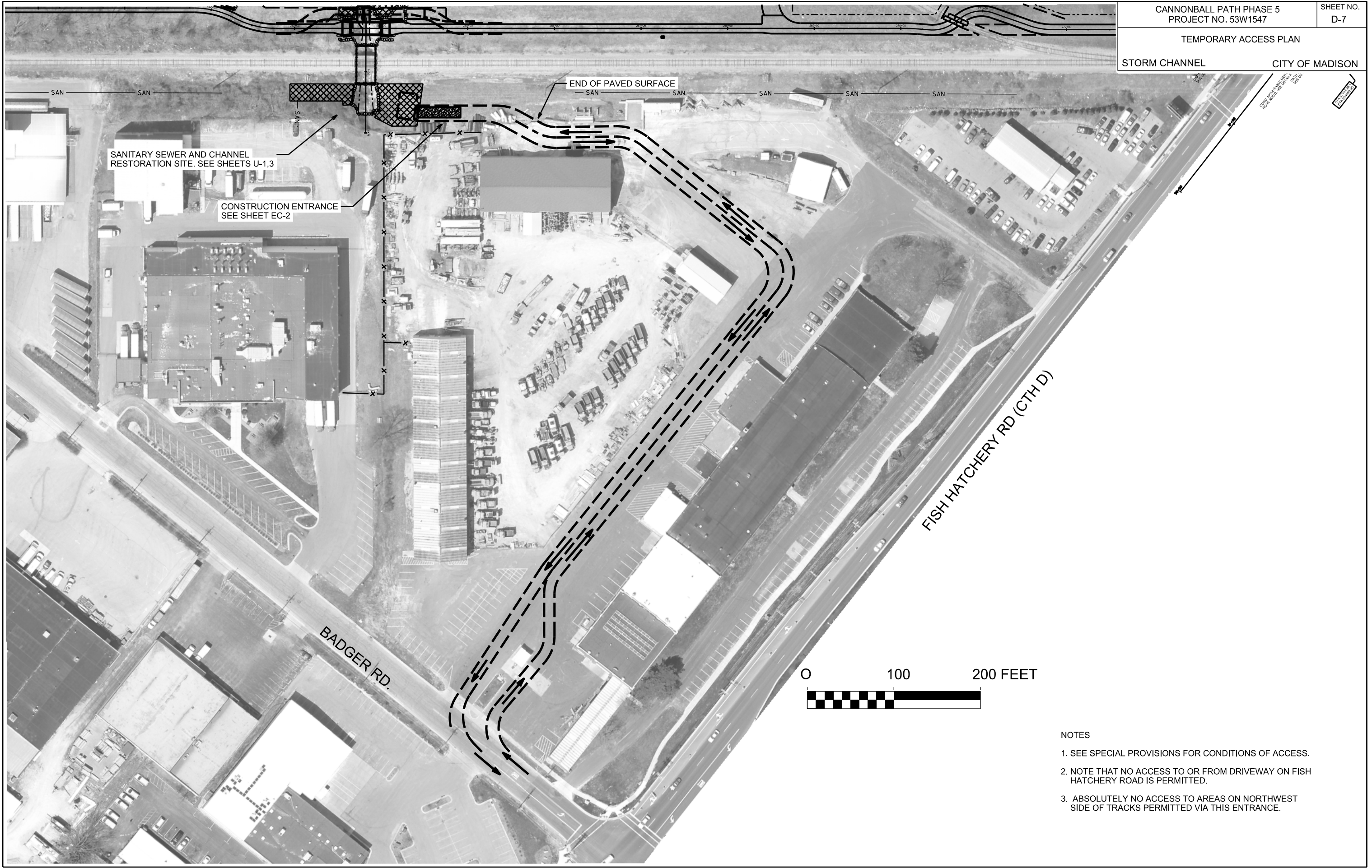
SECTION A-A

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



PLOT SCALE: _____

PLOT NAME: _____

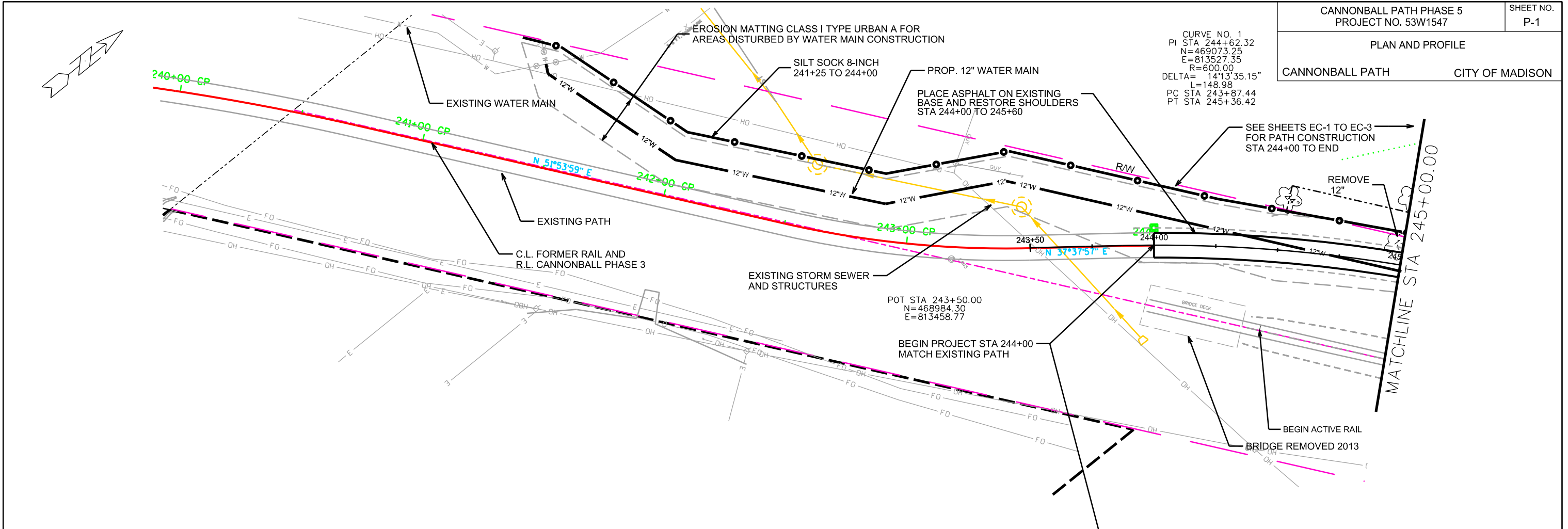
REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

NOTES

1. SEE SPECIAL PROVISIONS FOR CONDITIONS OF ACCESS.
2. NOTE THAT NO ACCESS TO OR FROM DRIVEWAY ON FISH HATCHERY ROAD IS PERMITTED.
3. ABSOLUTELY NO ACCESS TO AREAS ON NORTHWEST SIDE OF TRACKS PERMITTED VIA THIS ENTRANCE.

CURVE NO. 1
PI STA 244+62.32
N=469073.25
E=813527.35
R=600.00
DELTA= 14°13'35.15"
L=148.98
PC STA 243+87.44
PT STA 245+36.42



PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

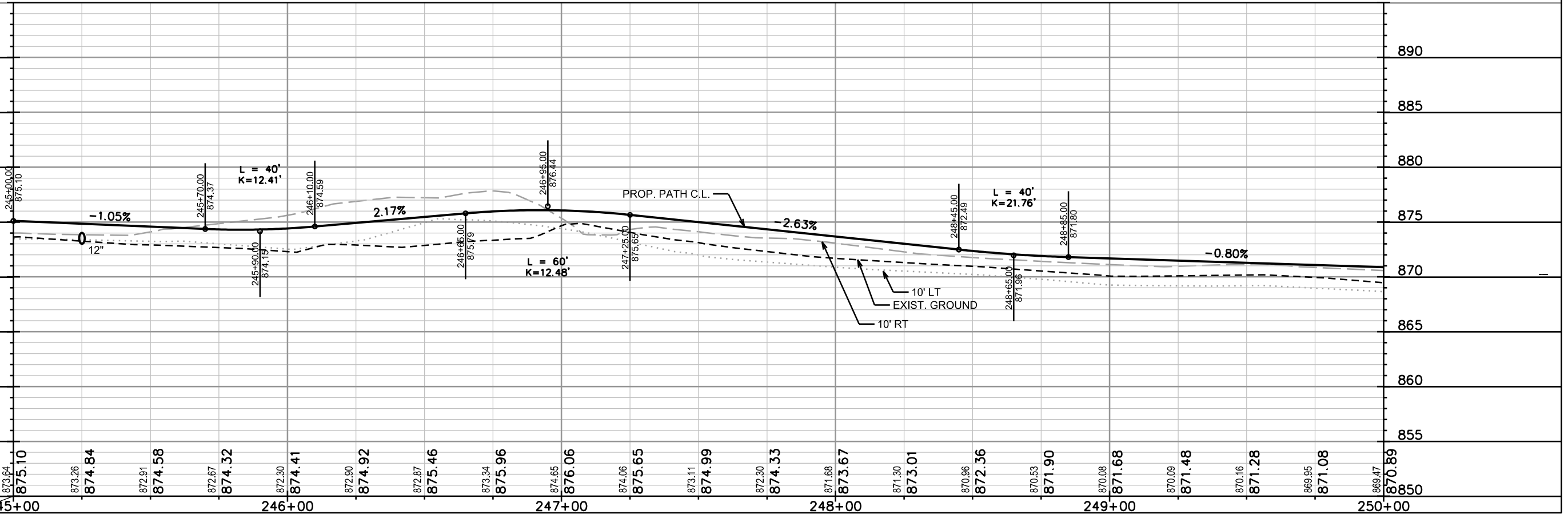
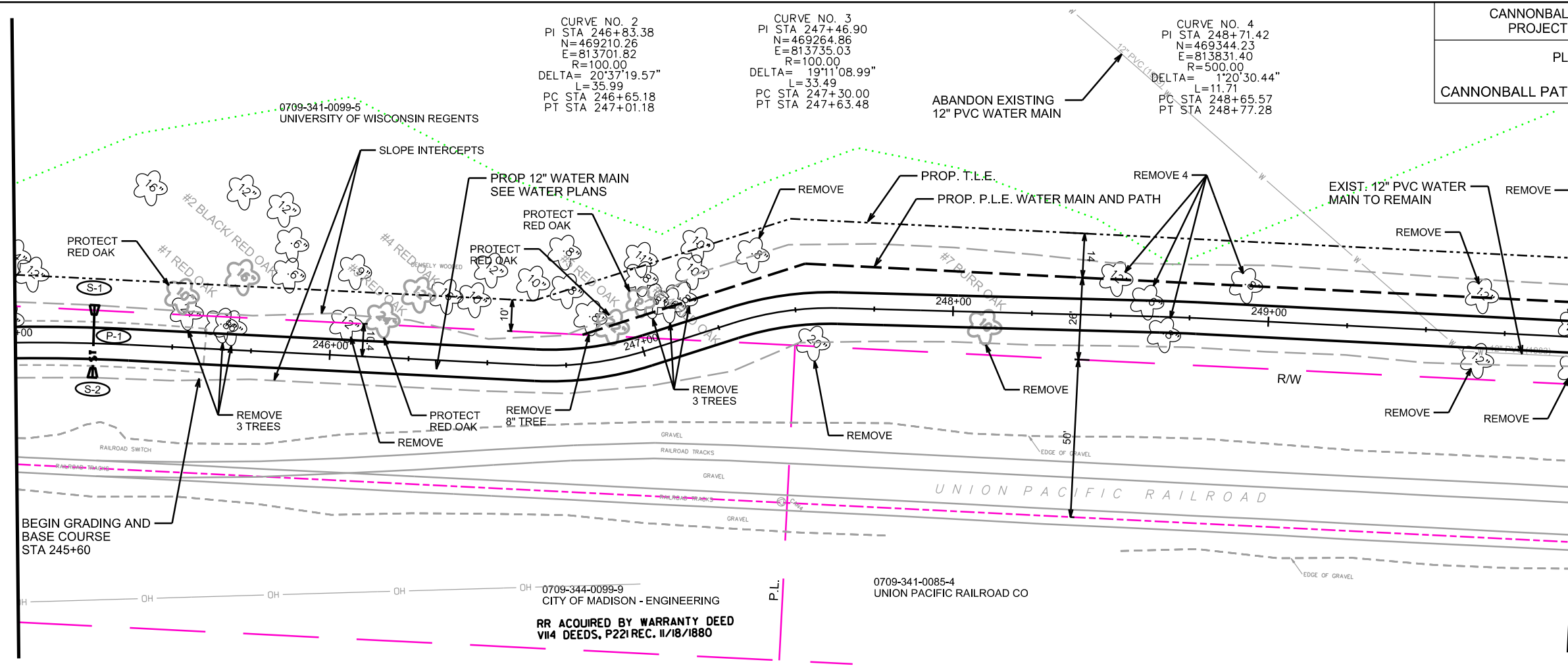
CURVE NO. 2
PI STA 246+83.38
N=469210.26
E=813701.82
R=100.00
DELTA= 20°37'19.57"
L=35.99
PC STA 246+65.18
PT STA 247+01.18

CURVE NO. 3
PI STA 247+46.90
N=469264.86
E=813735.03
R=100.00
DELTA= 19°11'08.99"
L=33.49
PC STA 247+30.00
PT STA 247+63.48

CURVE NO. 4
PI STA 248+71.42
N=469344.23
E=813831.40
R=500.00
DELTA= 1°20'30.44"
L=11.71
PC STA 248+65.57
PT STA 248+77.28

MATCHLINE STA 245+00.00

MATCHLINE STA 250+00.00



PLOT SCALE: _____

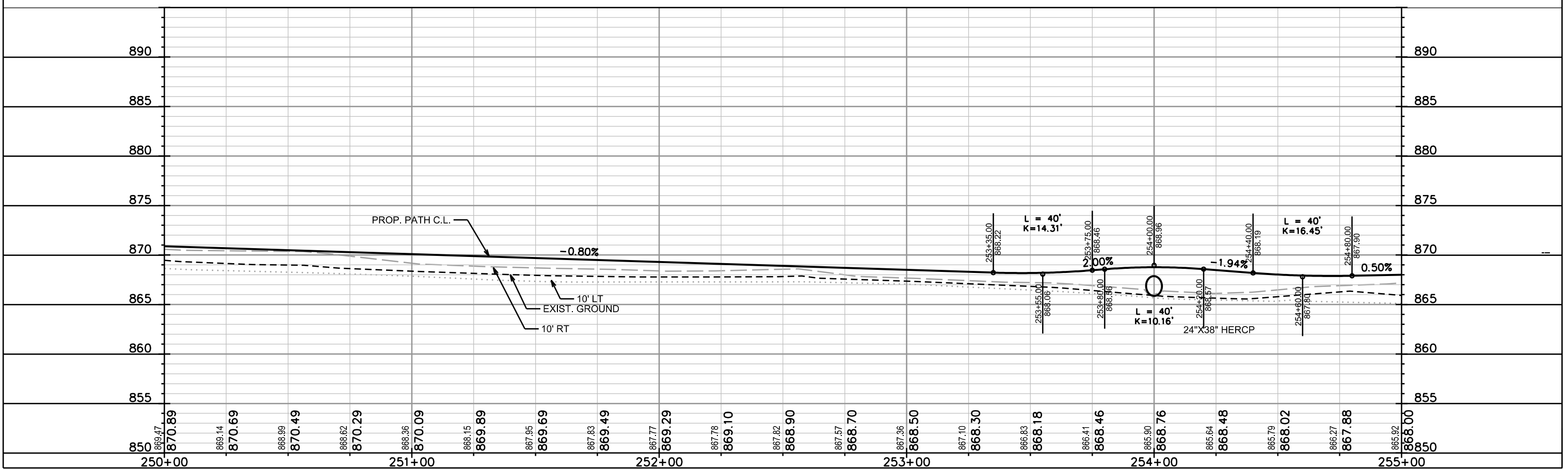
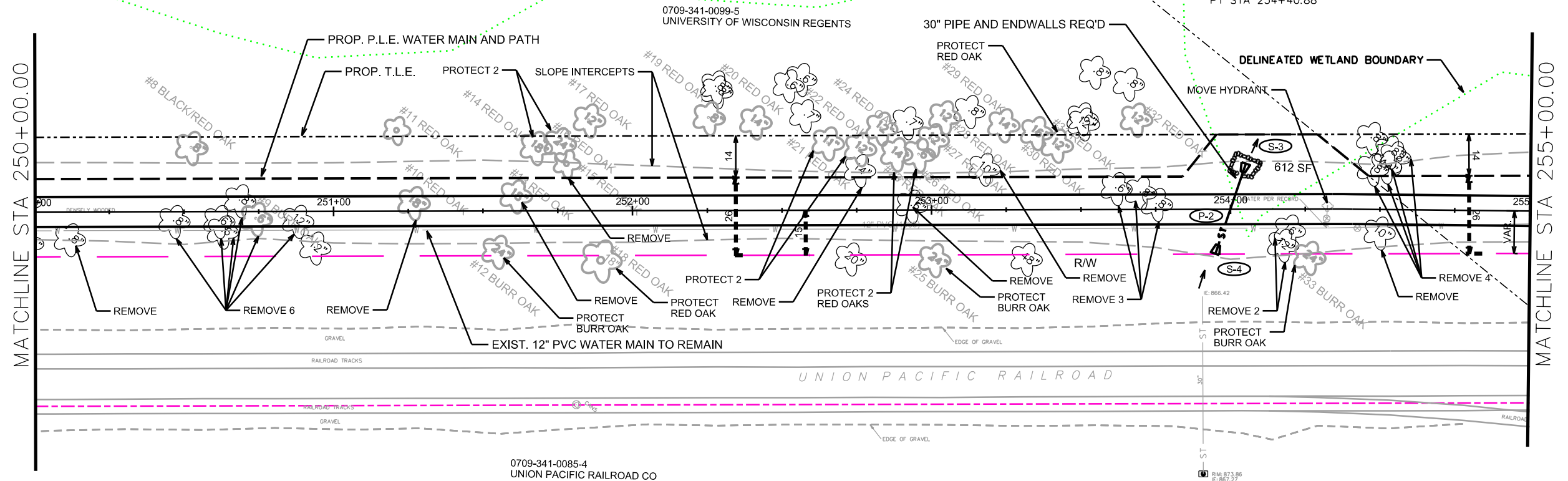
PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

PLAN AND PROFILE
CANNONBALL PATH CITY OF MADISON

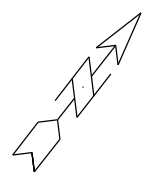
CURVE NO. 5
PI STA 254+37.54
N=469693.80
E=814276.70
R=500.00
DELTA= 0°45'55.06"
L=6.68
PC STA 254+34.20
PT STA 254+40.88



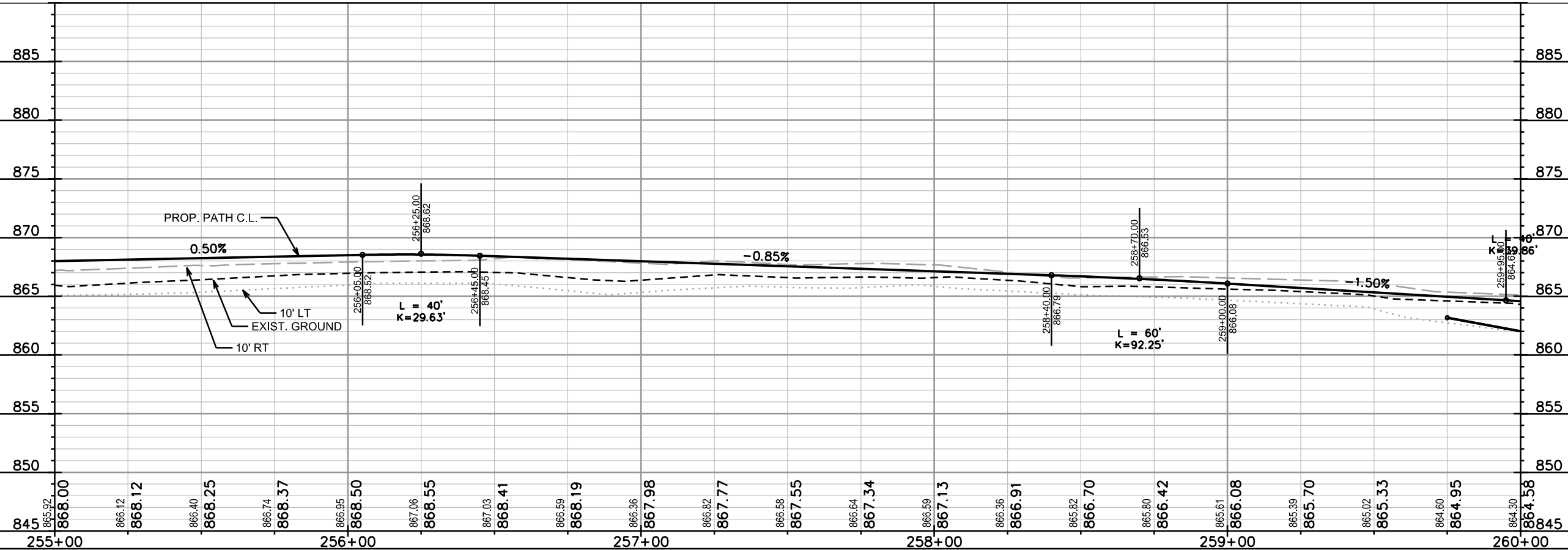
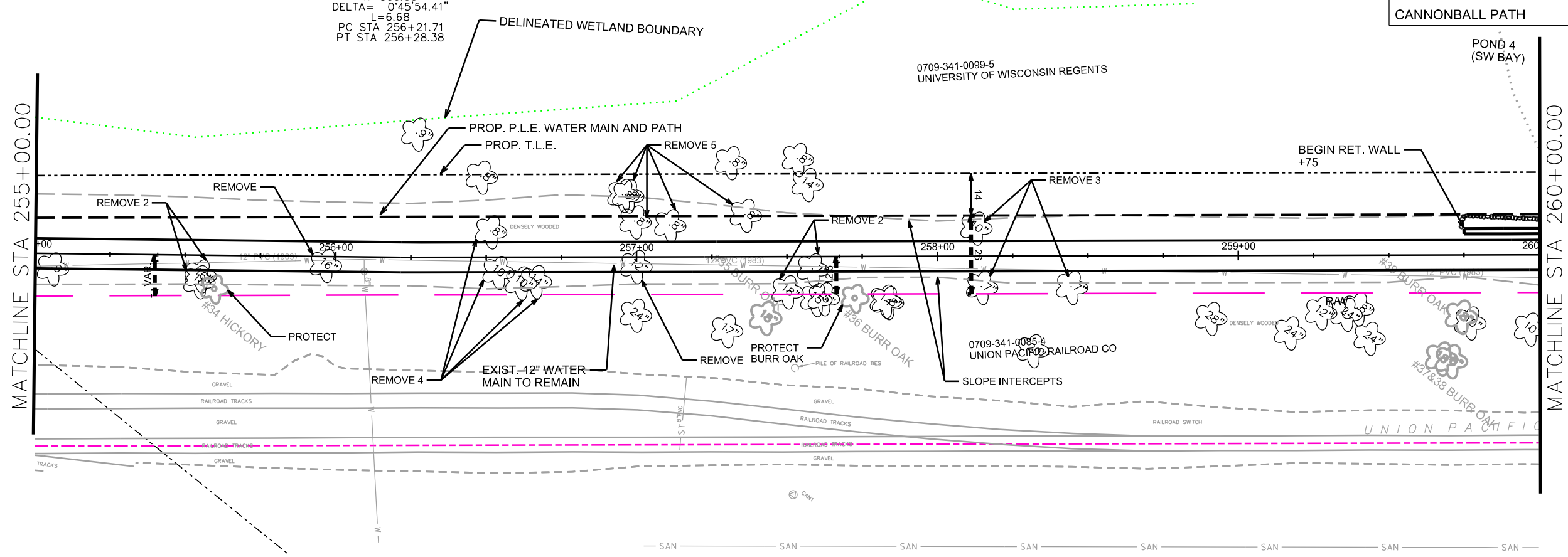
PLOT SCALE: _____
 PLOT NAME: _____
 REV. DATE: _____
 ORIGINATOR: CITY OF MADISON, STREETS DIVISION

PLAN AND PROFILE

CANNONBALL PATH CITY OF MADISON



CURVE NO. 6
PI STA 256+25.05
N=469807.60
E=814425.72
R=500.00
DELTA= 0°45'54.41"
L=6.68
PC STA 256+21.71
PT STA 256+28.38

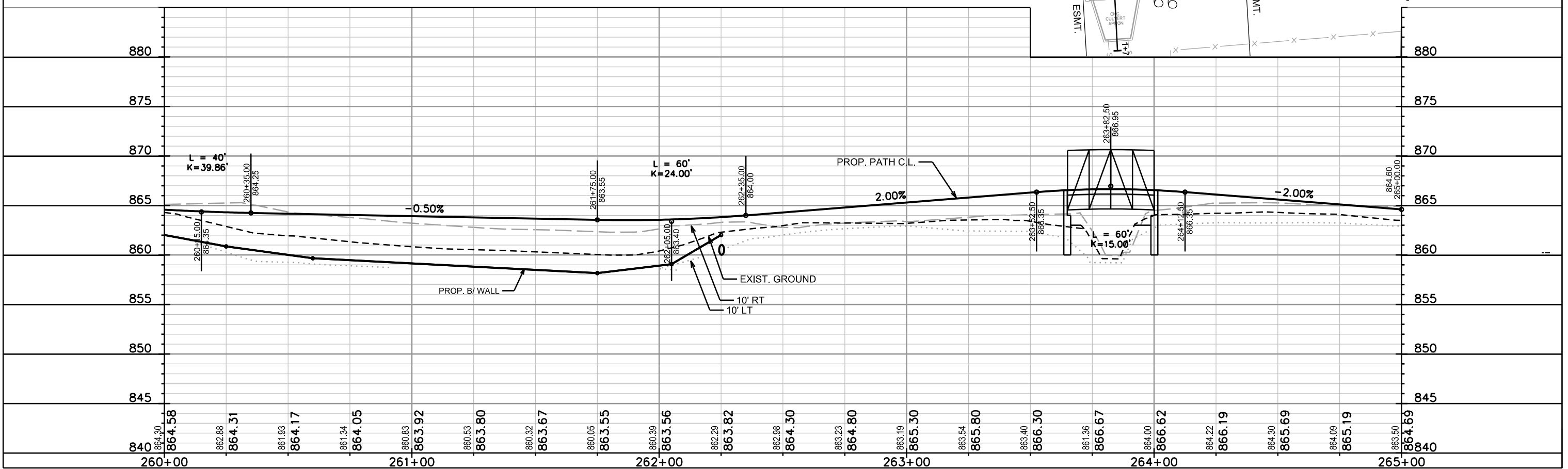
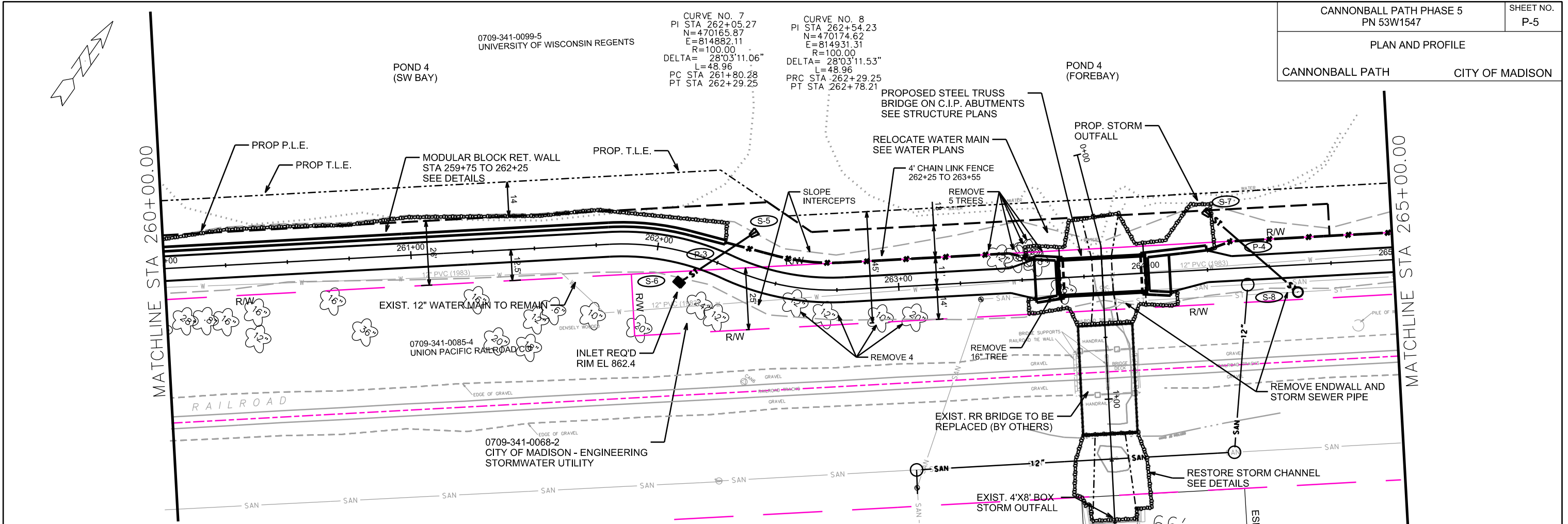


PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



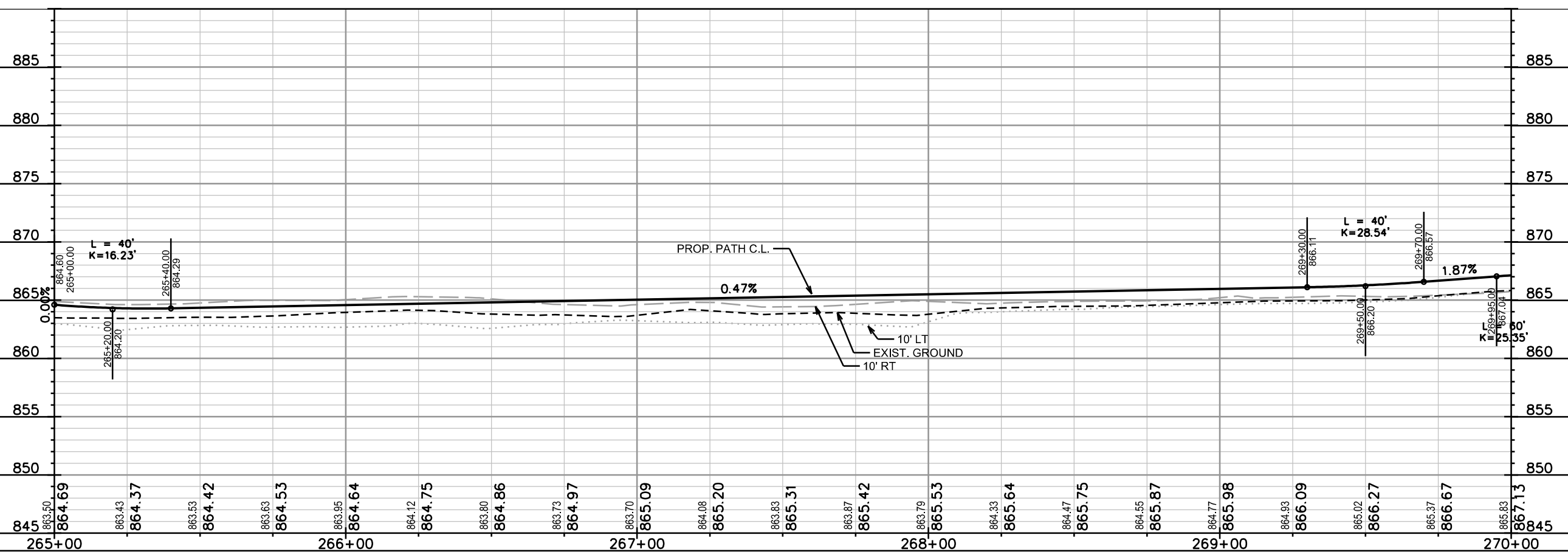
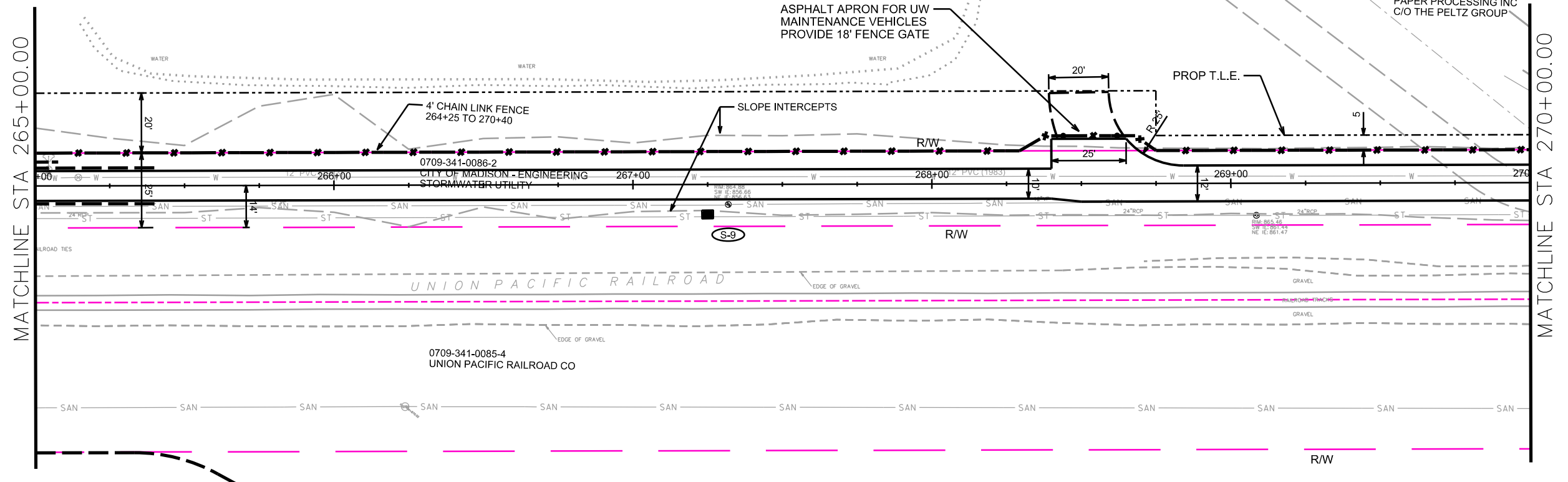
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PLOT NAME: _____
REV. DATE: _____
ORIGINATOR: CITY OF MADISON, STREETS DIVISION

PLAN AND PROFILE

CANNONBALL PATH CITY OF MADISON

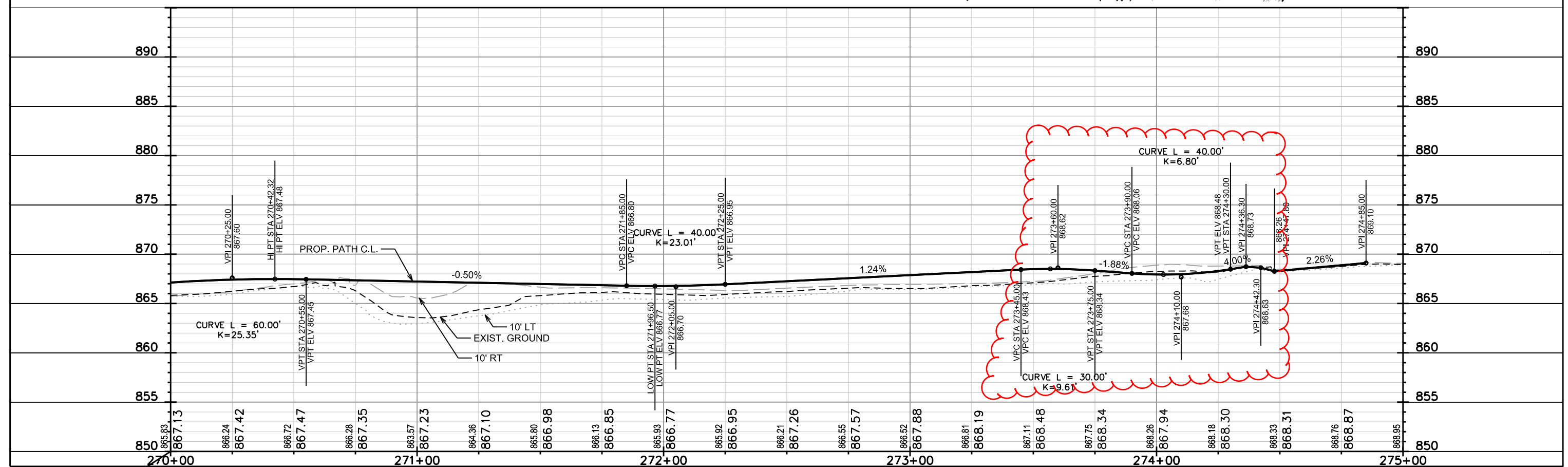
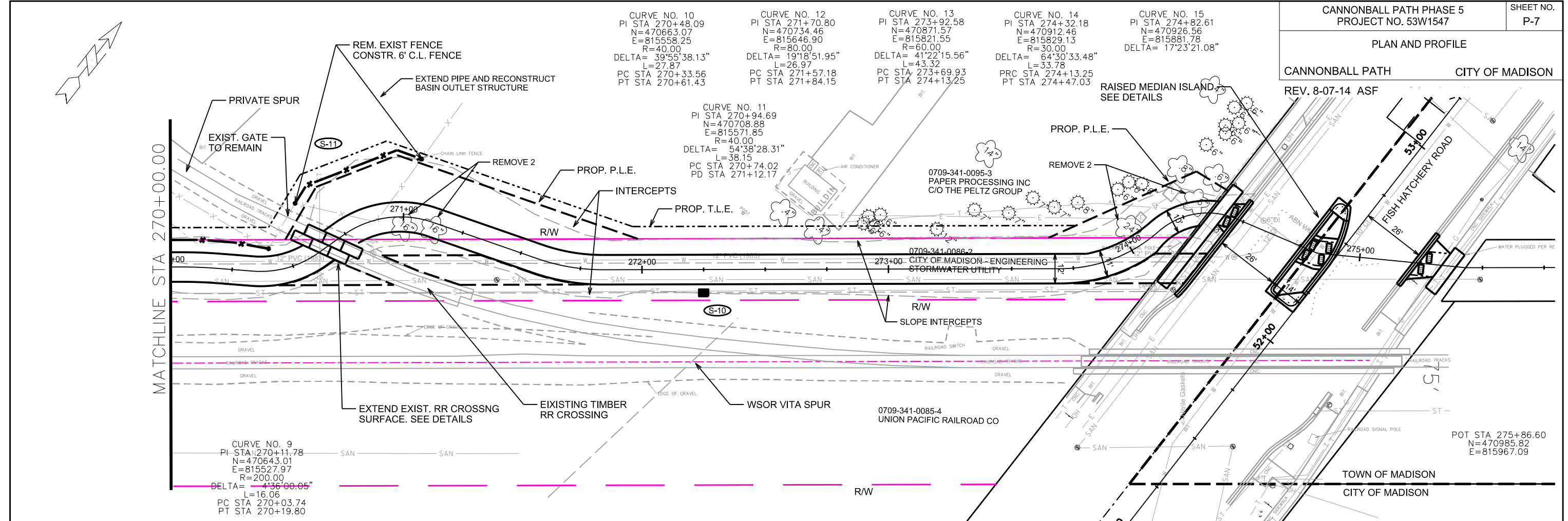
POND 4 (NE BAY) 0709-341-0099-5 UNIVERSITY OF WISCONSIN REGENTS

0709-341-0095-3 PAPER PROCESSING INC C/O THE PELTZ GROUP

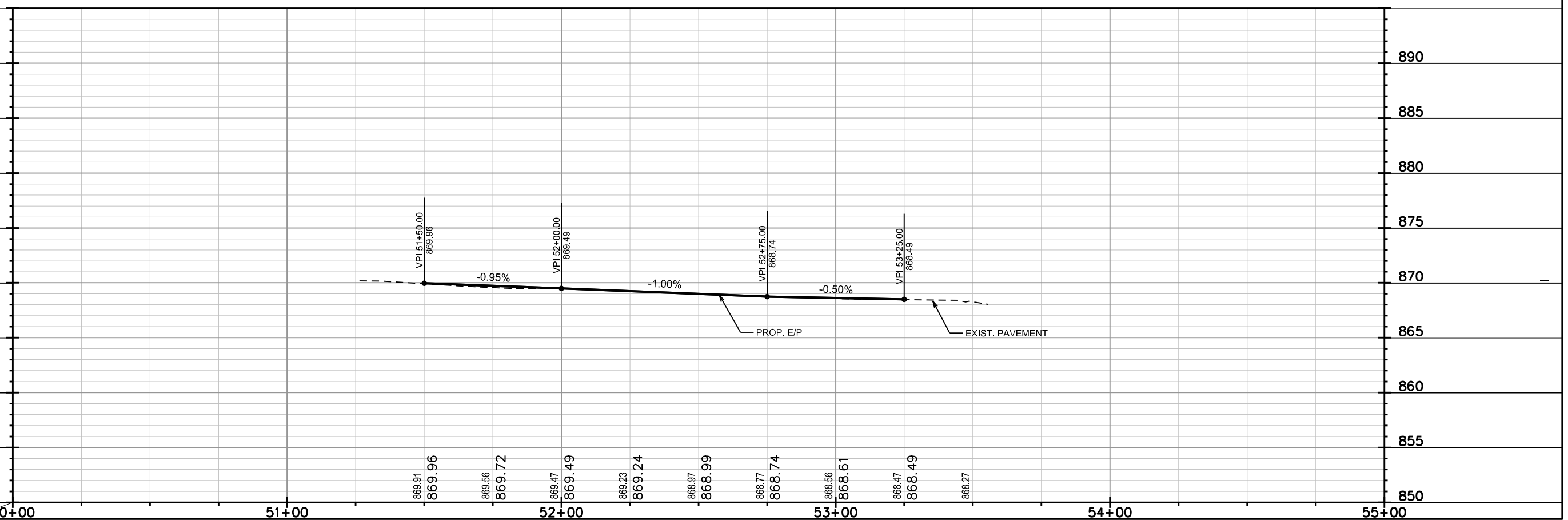
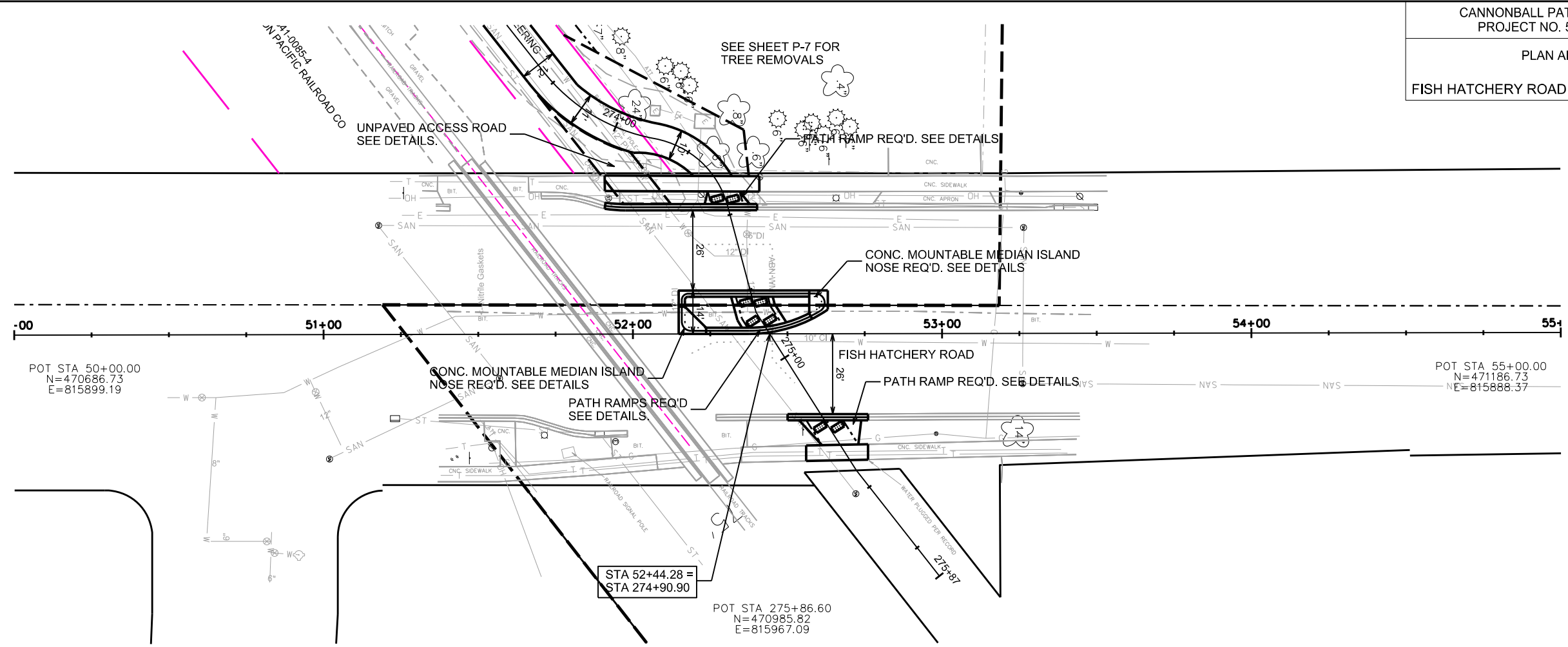


PLOT SCALE: _____
PLOT NAME: _____
REV. DATE: _____
ORIGINATOR: CITY OF MADISON, STREETS DIVISION

PLAN AND PROFILE
CANNONBALL PATH CITY OF MADISON



PLOT SCALE: _____
 REV. DATE: _____
 ORIGINATOR: CITY OF MADISON, STREETS DIVISION

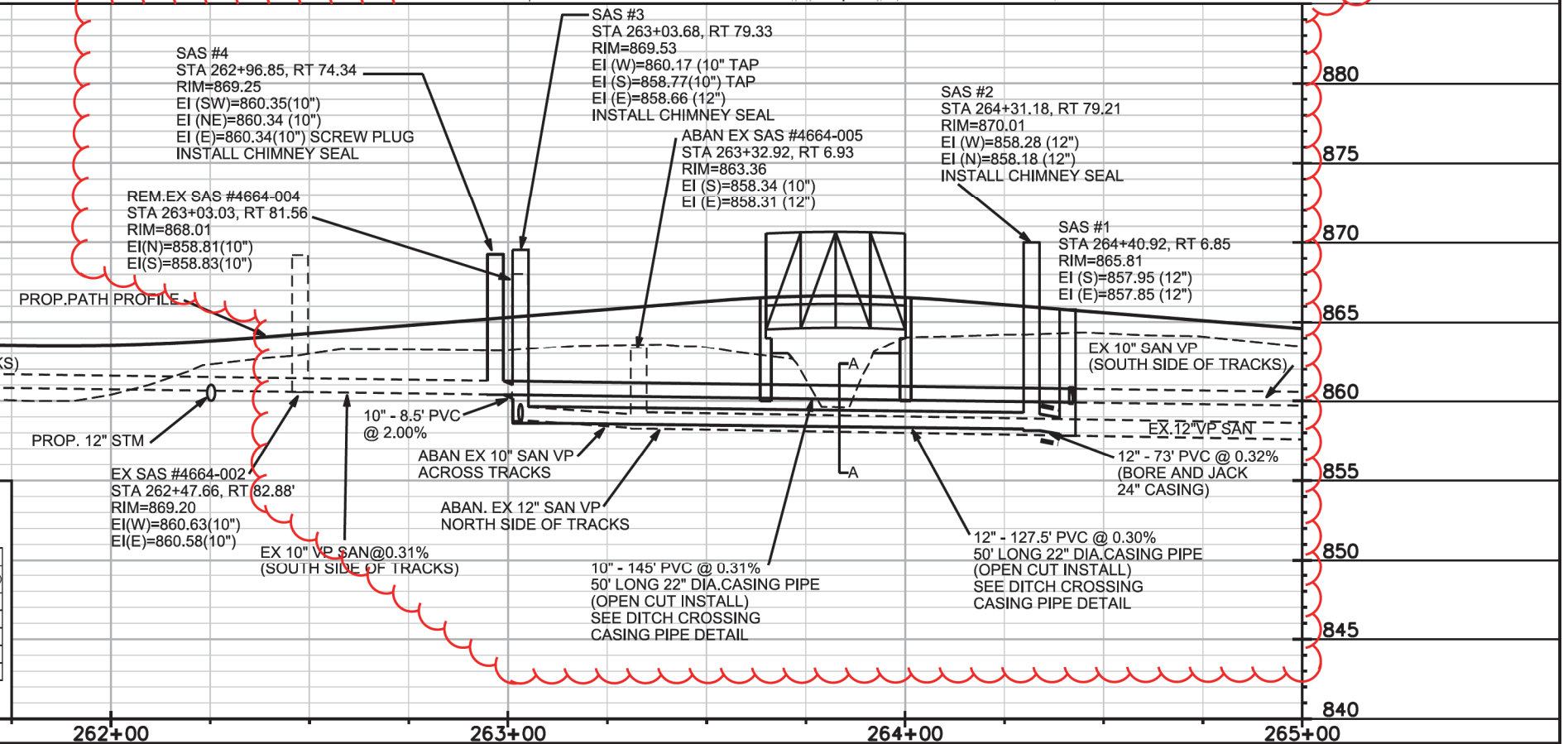
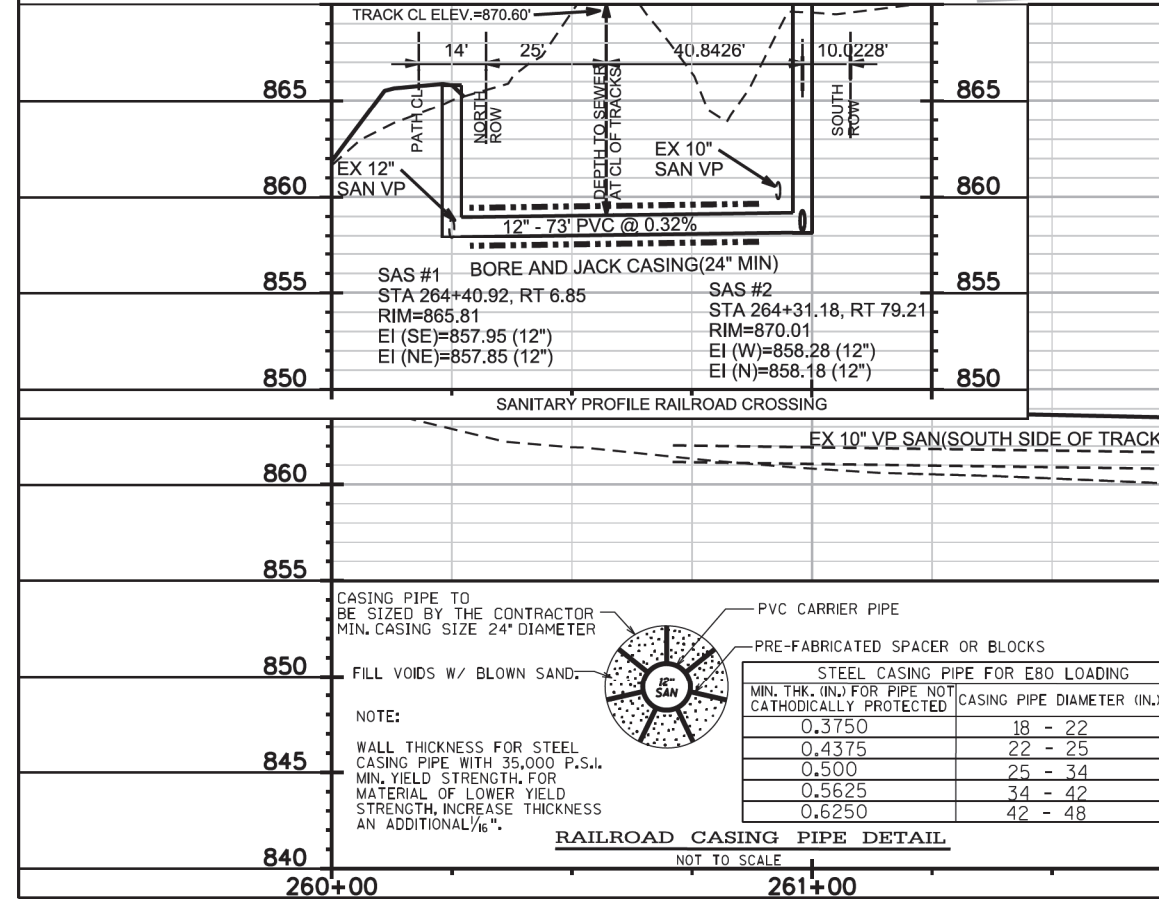
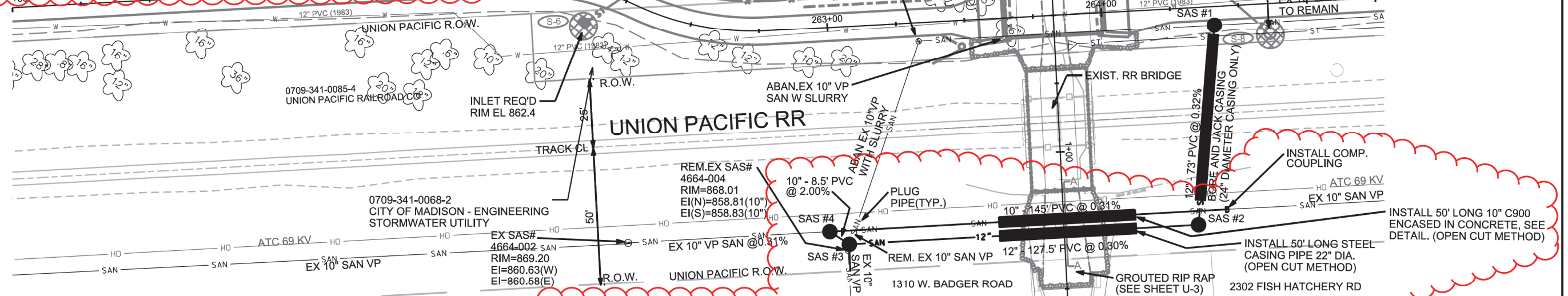
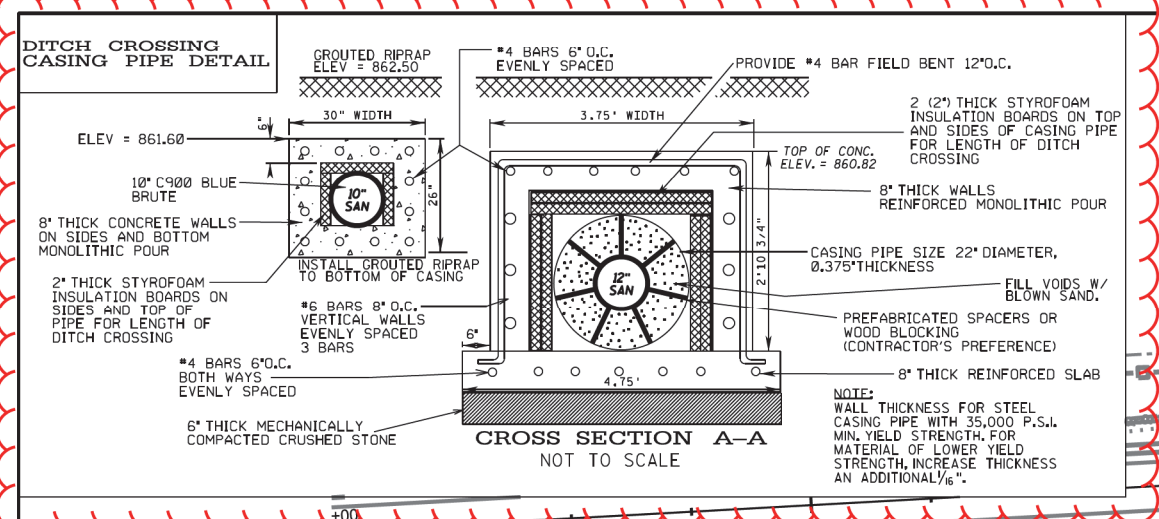


PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



SANITARY SCHEDULE

ALIGNMENT CODES:

STATIONING FOR ALL MANHOLES ARE THE CANNONBALL PATH BASELINE

*REV. 11/12/2014 MDM

CANNON BALL PATH
PROJECT NO. 53W1547

SHEET NO.
U-2

SANITARY SEWER SCHEDULE

CITY OF MADISON

PROPOSED SANITARY STRUCTURES

SAS NO.	STATION	LOCATION (OFFSET)	TOP OF CASTING	E.I.	DEPTH	NOTES
SAS#1	264+40.92	RT-6.85	865.81	857.85	7.96	
* SAS#2	264+31.18	RT-79.21	870.01	858.18	11.83	(1)
* SAS#3	263+03.68	RT-79.33	869.53	858.66	10.87	SAN TAP 10" LATERAL SOUTH (1)
* SAS#4	262+96.85	RT-74.34	869.25	860.34	8.91	-

PROPOSED SANITARY PIPES

FROM SAS (DWNSTRM)	TO SAS (UPSTREAM)	EI # (DWNSTRM)	EI # (UPSTRM)	LENGTH (FT)	SLOPE (%)	SIZE (DIA)	PVC TYPE	NOTES
* SAS#1	SAS#2	857.95	858.18	73	0.32%	12"	SDR-35	ALL SAN.PIPE INCLUDED WITH BORE AND JACK CASING
* SAS#2	SAS#3	858.28	858.66	127.50	0.30%	12"	SDR-35	50' OF PIPE INCLUDED WITH DITCH CROSSING
SAS#3	STA 263+03.03 RT 84.06	858.77	858.83	10	0.60%	10"	SDR-35	INSTALL COMPRESSION COUPLING
* SAS#3	SAS#4	860.17	860.34	8.5	2.00%	10"	SDR-35	INSTALL SCREW PLUG AT SAS #4
* STA 264+41.85, RT 74.20	SAS#4	859.89	860.34	145	0.31%	10"	C900	(2), INSTALL COMP. COUPLING AT DOWNSTREAM END

SANITARY SEWER PIPE REMOVAL

FROM SAS (DWNSTRM)	TO SAS (UPSTREAM)	LENGTH Feet	PAID (Y/N)*	SIZE (DIA in)	PIPE TYPE	NOTE
SAS#3	4664-004	33.00	N	10"	VP	
* COMP. COUPLING	SAS#4	145.00	N	10"	VP	

REMOVE SEWER ACCESS STRUCTURES

STRUCTURE	STATION	LOCATION (OFFSET)	RIM	EI	DEPTH	NOTES
4664-004	263+03.03	RT-81.56	868.01	858.81	9.20	

SANITARY SEWER PIPE ABANDONMENT

FROM SAS (DWNSTRM)	TO SAS (UPSTREAM)	LENGTH Feet	PAID (Y/N)*	SIZE (DIA in)	PIPE TYPE	NOTE
SAS#1	4664-005	33.00	Y	12"	VP	PIPE PLUGS
4664-005	SAS#3	33.00	Y	12"	VP	PIPE PLUGS

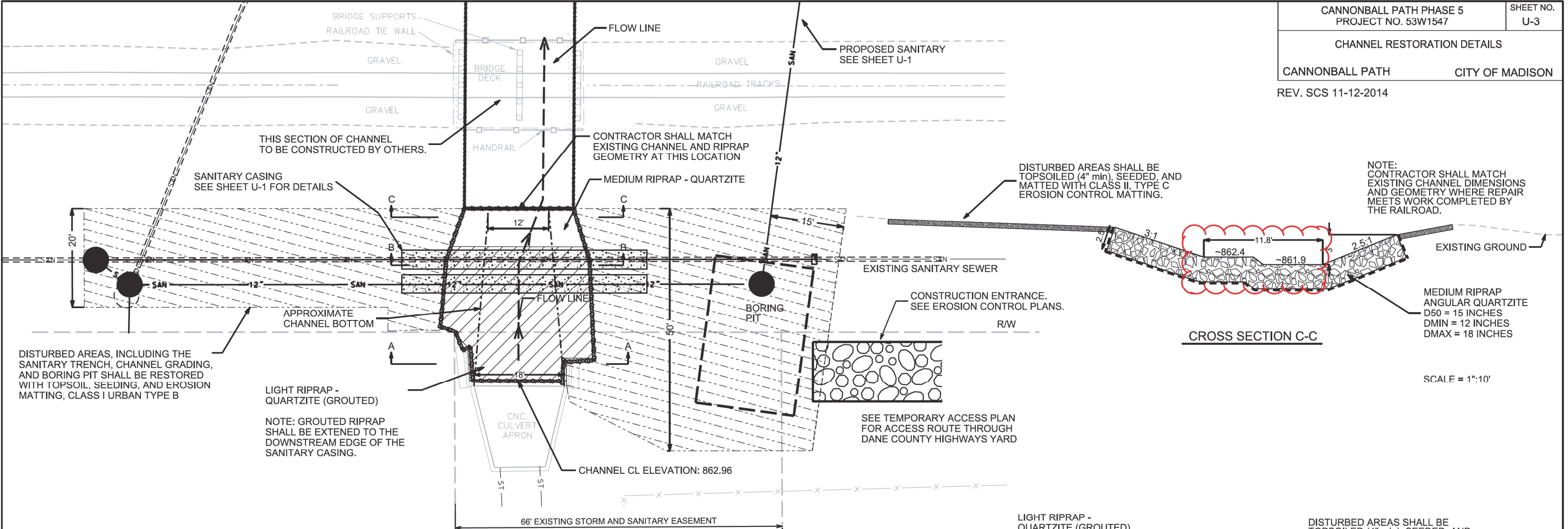
SEWER ACCESS STRUCTURES ABANDONMENT

STRUCTURE	STATION	LOCATION (OFFSET)	RIM	EI	DEPTH	NOTES
4664-005	263+32.90	RT-6.93	863.36	858.31	5.05	

NOTES:

(1) : Install Chimney Seal

*(2) SEE DETAIL ON SHEET U-1 FOR DITCH CROSSING CASING



CROSS SECTION C-C

SCALE = 1":10'

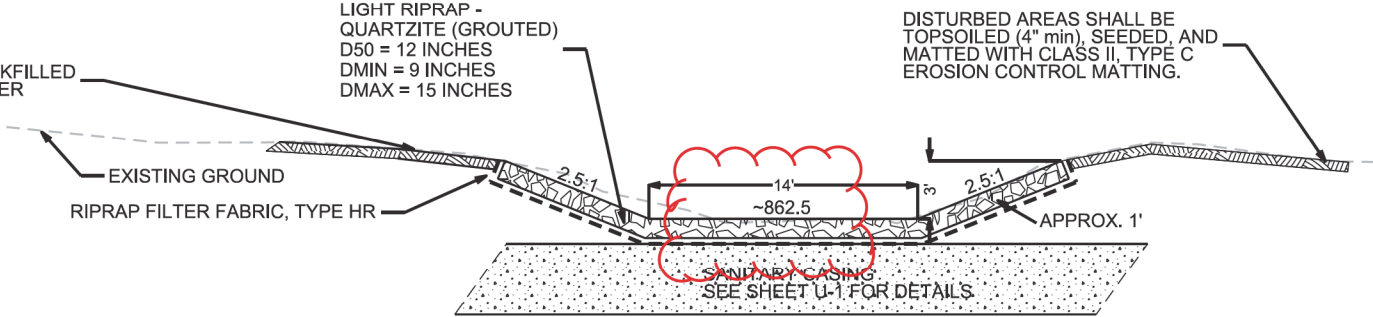
MEDIUM RIPRAP ANGULAR QUARTZITE
D50 = 15 INCHES
DMIN = 12 INCHES
DMAX = 18 INCHES

DISTURBED AREAS, INCLUDING THE SANITARY TRENCH, CHANNEL GRADING, AND BORING PIT SHALL BE RESTORED WITH TOPSOIL, SEEDING, AND EROSION MATTING, CLASS I URBAN TYPE B

LIGHT RIPRAP - QUARTZITE (GROUTED)
NOTE: GROUTED RIPRAP SHALL BE EXTENDED TO THE DOWNSTREAM EDGE OF THE SANITARY CASING.

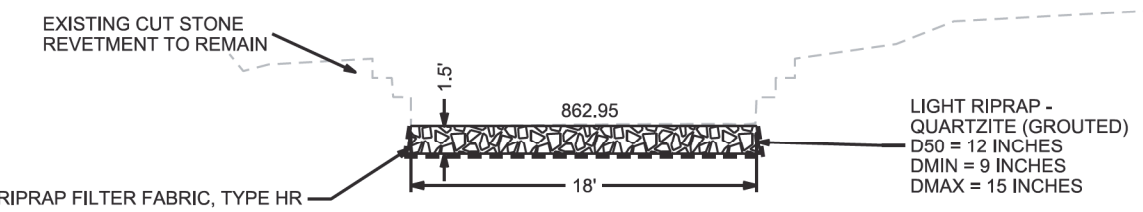
SEE TEMPORARY ACCESS PLAN FOR ACCESS ROUTE THROUGH DANE COUNTY HIGHWAYS YARD

- NOTES:
- 1: EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO GROUND DISTURBANCE.
 - 2: RESTORATION WITHIN LIMITS SHOWN SHALL BE MEASURED AND PAID UNDER APPROPRIATE ITEMS. ANY DISTURBED AREAS OUTSIDE THESE LIMITS SHALL BE RESTORED AS NOTED AT CONTRACTOR'S EXPENSE.



CROSS SECTION B-B

SCALE = 1":10'



CROSS SECTION A-A

SCALE = 1":10'



PLOT SCALE: _____
PLOT NAME: _____
REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

STORM SEWER SCHEDULE

CANNONBALL PATH PHASE 5 PROJECT NO. 53W1547		SHEET NO. U-4
STORM SEWER SCHEDULE CANNONBALL PATH		CITY OF MADISON

STRUCTURES

STRUC. NO.	STATION	LOCATION (OFFSET)	TYPE	TOP OF CASTING	E.I.	DEPTH	NOTES
S-1	245+25.00	LT-12.00	12" RCP AE	-	873.03	-	NO GATE
S-2	245+25.00	RT-10.80	12" RCP AE	-	873.41	-	NO GATE
S-3	254+10.00	LT-15.00	24"X38" HERCP AE	-	865.20	-	NO GATE
S-4	253+90.00	RT-14.80	24"X38" HERCP AE	-	866.09	-	NO GATE
S-5	262+35.00	LT-18.00	12" RCP AE	-	859.80	-	W/ GATE
S-6	262+12.00	RT-12.50	H INLET	862.40	860.00	2.40	FP; W/ R-1878-B7G
S-7	264+25.00	LT-24.00	24" RCP AE	-	859.06	-	W/ GATE
S-8	264+61.00	RT-11.00	3X3 SAS	864.90	860.00	4.90	W/ R-1878-B7G
S-9	267+25.00	RT-10.00	SADDLED INLET TYPE 1	864.35	861.04	3.31	W/ R-1878-B7G
S-10	272+25.00	RT-9.50	SADDLED INLET TYPE 1	866.25	862.15	4.10	W/ R-1878-B7G
S-11	270+75.00	LT-30	OUTLET STRUCTURE			0.00	

PIPES

PIPE NO.	FROM (DNSTM)	TO (UPSTM)	DISCH. E.I.	INLET E.I.	PLAN (PAY) LGTH (FT)	PIPE LGTH (FT)	SLOPE (%)	PIPE SIZE	TYPE	NOTES
P-1	S-1	S-2	873.13	873.31	11	11	1.65%	12"	RCP	(1), (2)
P-2	S-3	S-4	865.40	865.89	17	17	2.87%	24"X38"	HERCP	(1), (2)
P-3	S-5	S-6	859.83	860.00	31	30	0.56%	12"	RCP	(2)
P-4	S-7	S-8	859.17	860.00	45	43.5	1.90%	24"	RCP	(2)

NOTE:

PLAN LENGTH (PAY LENGTH) IS FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
PIPE LENGTH IS ACTUAL LENGTH OF PIPE FROM STRUCTURE WALL TO STRUCTURE WALL.
SLOPE CALCULATED USING PIPE LENGTH.

STANDARD NOTES:

- ABBREVIATIONS: AE = APRON ENDWALL; RCP = REINFORCED CONCRETE PIPE; HERCP = HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE; DNA = DOES NOT APPLY; SAS = SEWER ACCESS STRUCTURE; LP = LOW POINT INLET STRUCTURE; FP = FIELD POURED STRUCTURE; TR = TOP OF CONCRETE ROOF; NCM = NO CROWN MATCH FOR PIPES
- APPROXIMATE DISCHARGE E.I. GIVEN, ADJUST E.I. AND PIPE SLOPE IN THE FIELD.
- TOP OF CASTING GRADE GIVEN IS THE TOP OF CURB FOR INLET STRUCTURES AND THE FLOWLINE OF THE CLOSED CASTING FOR SAS's.
- TOP OF CONCRETE ROOF (TR) IS 1.25' BELOW TOP OF CASTING UNLESS OTHERWISE NOTED.
- ALL REINFORCED CONCRETE PIPES TO BE CLASS III UNLESS OTHERWISE NOTED.
- SURVEYOR TO CONFIRM THAT ALL INLET STATION / OFFSETS LINE UP WITH PROPOSED CURB AND GUTTER.
- ALL STRUCTURES CALLED OUT AS FIELD POURED SHALL BE FIELD POURED. ALL OTHER STRUCTURES (NOT INDICATED AS FIELD POURED) SHALL BE SUBMITTED TO CITY ENGINEERING FOR APPROVAL IF PRECAST STRUCTURES ARE PREFERRED. CONTACT GREG T. FRIES OF CITY ENGINEERING AT (608) 267-1199 FOR PRECAST APPROVALS, OR FAX SHOP DRAWINGS TO (608)264-9275.

SPECIFIC NOTES:

- (1) PIPE LENGTH DOES NOT INCLUDE END WALL LENGTH
- (2) PIPE E.I. AT ENDWALL CONNECTION, FOR ENDWALL E.I. SEE STRUCTURES CHART
- (3) STORM PIPES AND STRUCTURES SHOWN ON PATH PLAN & PROFILE SHEETS AND CROSS SECTIONS

WATER PLAN AND PROFILE
CANNONBALL PATH CITY OF MADISON

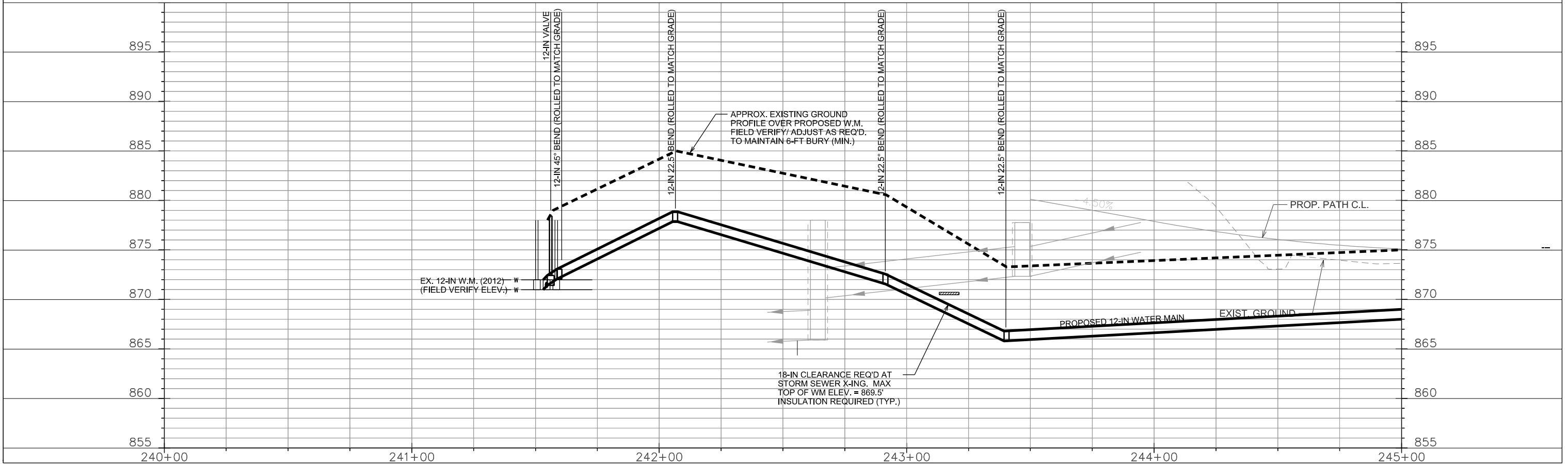
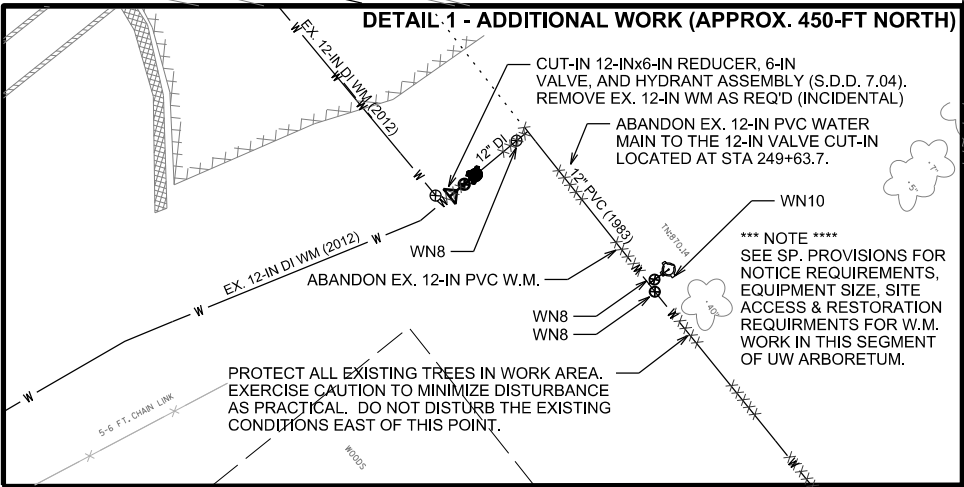
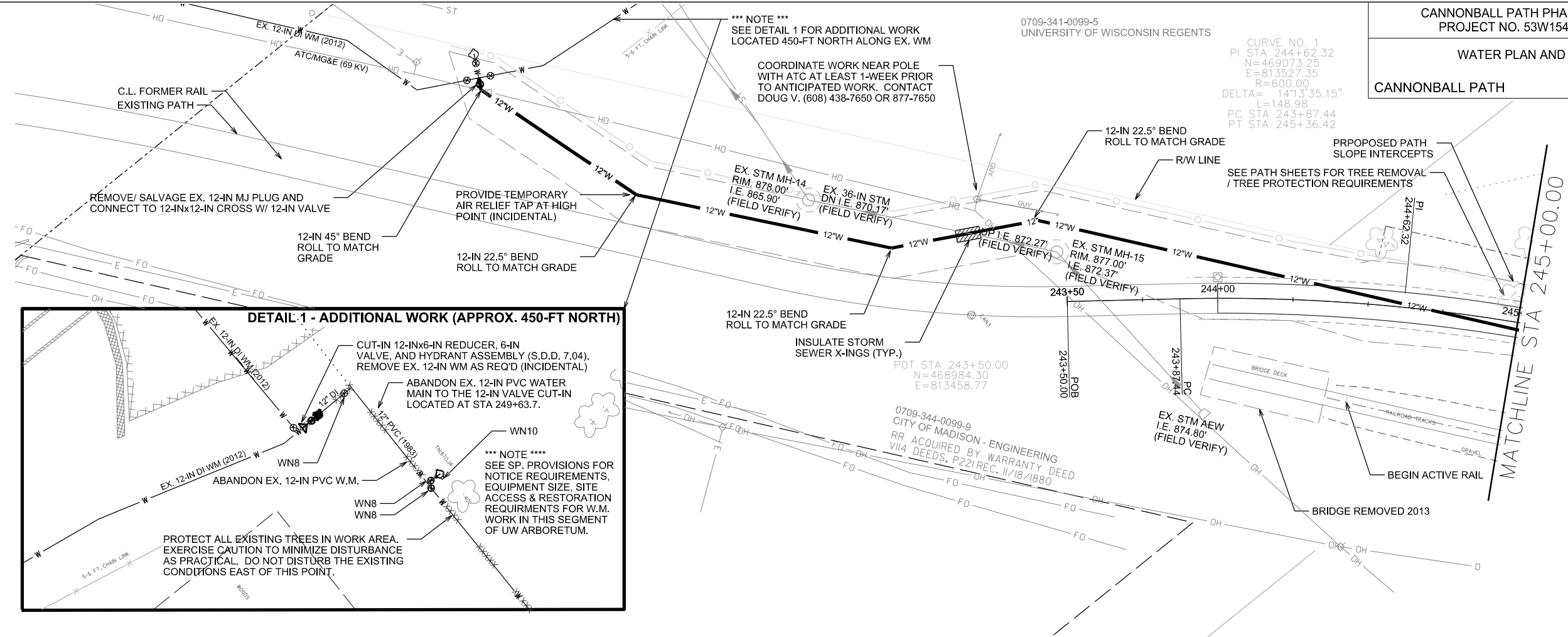
0709-341-0099-5
UNIVERSITY OF WISCONSIN REGENTS

CURVE NO. 1
PI STA 244+62.32
N=469073.25
E=813527.35
R=600.00
DELTA= 141°3'35.15"
L=148.98
PC STA 243+87.44
PT STA 245+36.42

*** NOTE ***
SEE DETAIL 1 FOR ADDITIONAL WORK
LOCATED 450-FT NORTH ALONG EX. WM

COORDINATE WORK NEAR POLE
WITH ATC AT LEAST 1-WEEK PRIOR
TO ANTICIPATED WORK. CONTACT
DOUG V. (608) 438-7650 OR 877-7650

PROPOSED PATH
SLOPE INTERCEPTS
SEE PATH SHEETS FOR TREE REMOVAL
/ TREE PROTECTION REQUIREMENTS



PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

WATER PLAN AND PROFILE
CANNONBALL PATH CITY OF MADISON

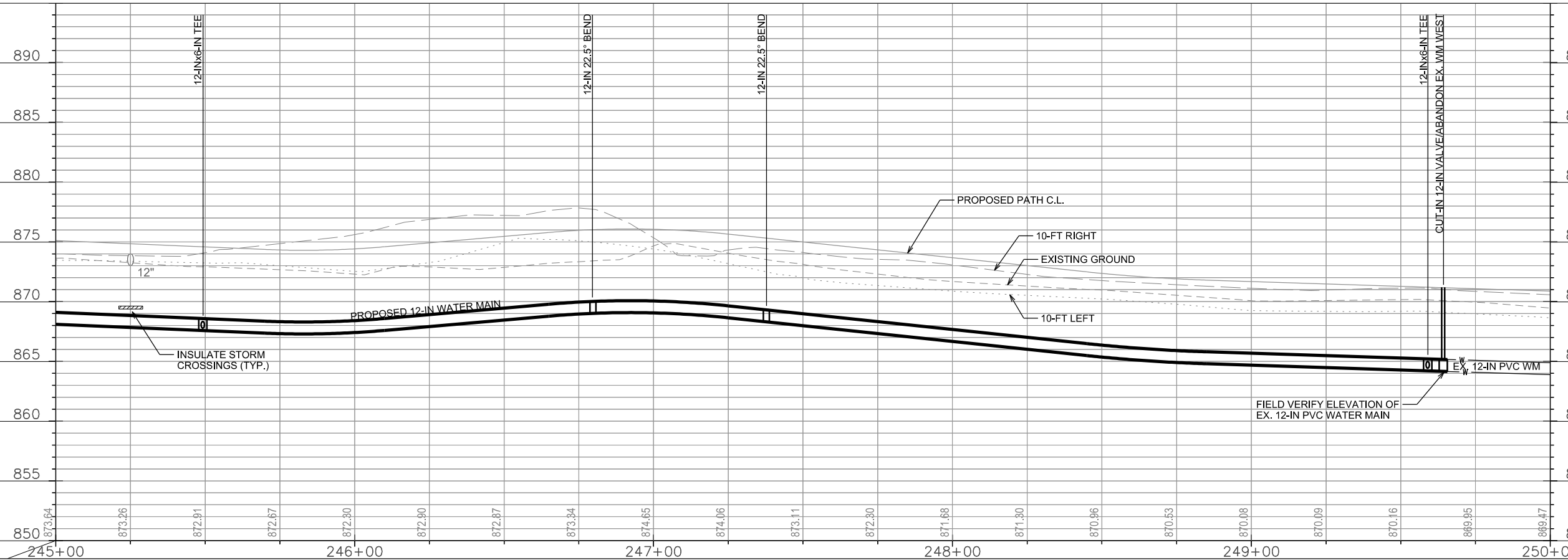
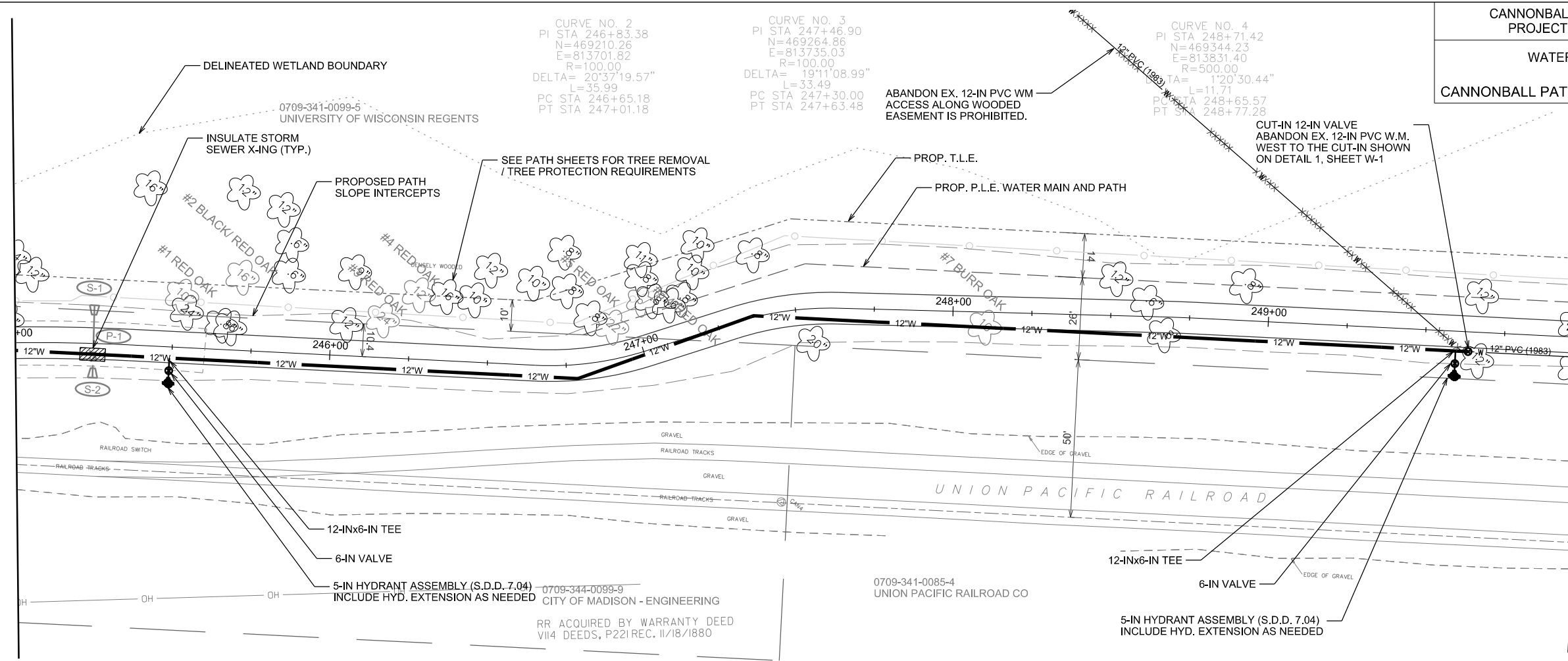
CURVE NO. 2
PI STA 246+83.38
N=469210.26
E=813701.82
R=100.00
DELTA= 20°37'19.57"
L=35.99
PC STA 246+65.18
PT STA 247+01.18

CURVE NO. 3
PI STA 247+46.90
N=469264.86
E=813735.03
R=100.00
DELTA= 19°11'08.99"
L=33.49
PC STA 247+30.00
PT STA 247+63.48

CURVE NO. 4
PI STA 248+71.42
N=469344.23
E=813831.40
R=500.00
DELTA= 1°20'30.44"
L=11.71
PC STA 248+65.57
PT STA 248+77.28

MATCHLINE STA 245+00.00

MATCHLINE STA 250+00.00



PLOT SCALE: _____

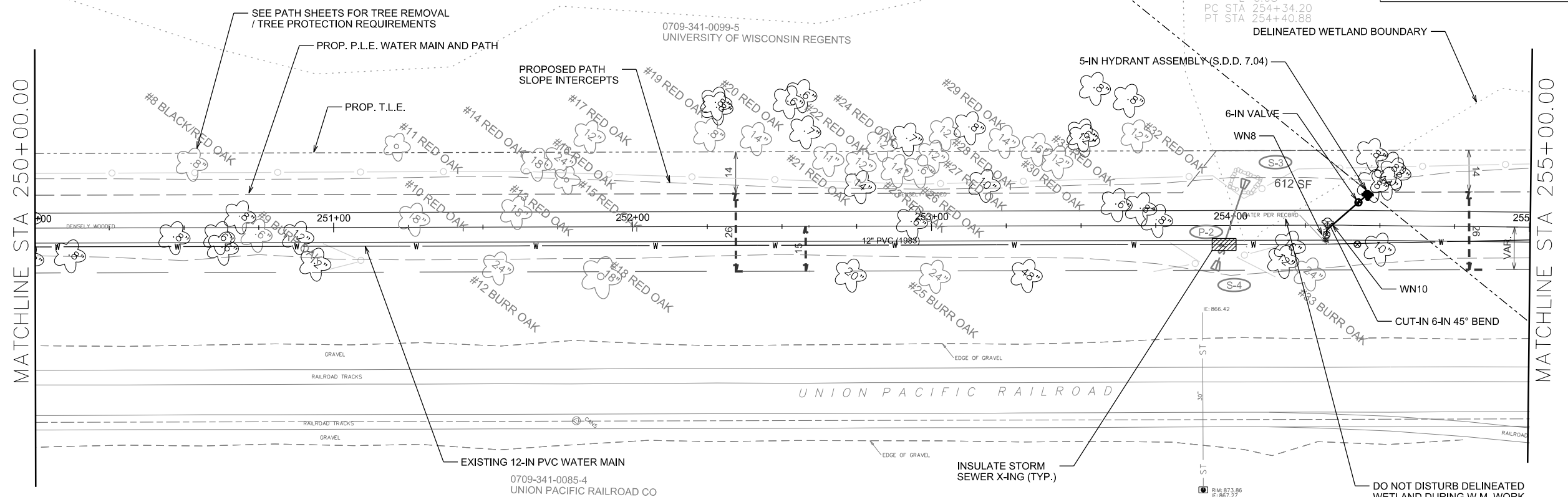
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ORIGINATOR: CITY OF MADISON, STREETS DIVISION

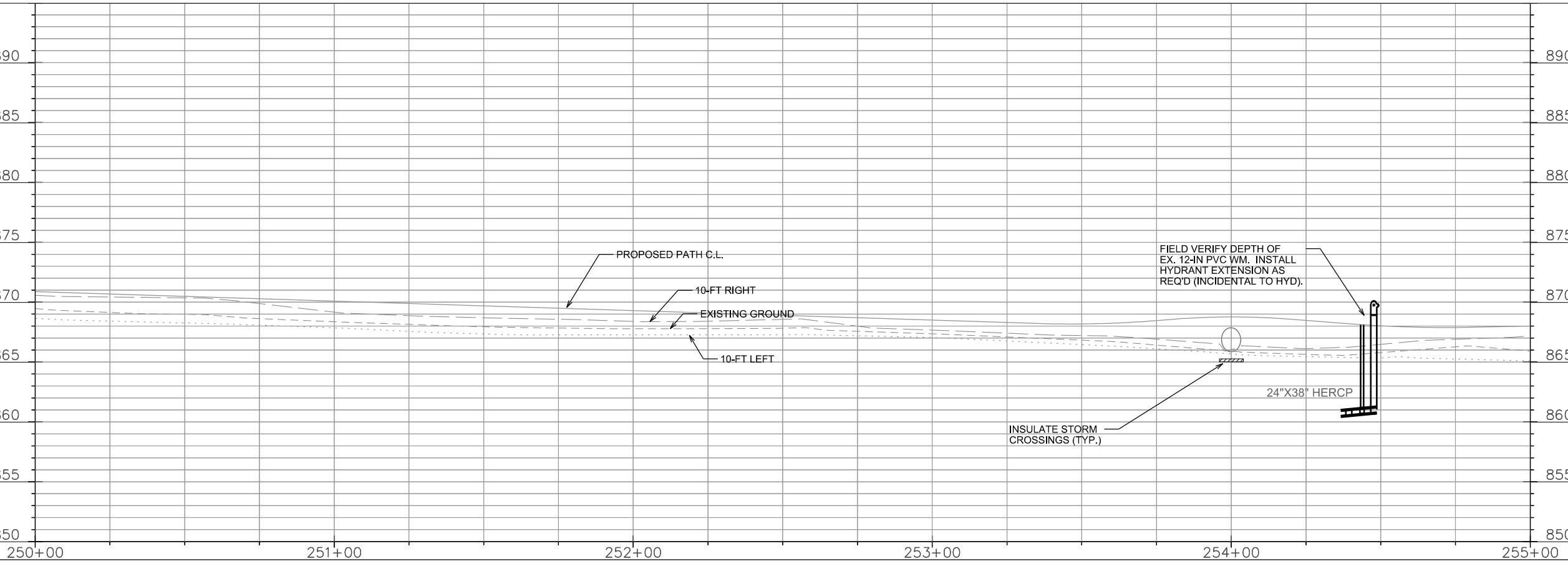
WATER PLAN AND PROFILE
CANNONBALL PATH CITY OF MADISON

CURVE NO. 5
PI STA 254+37.54
N=469693.80
E=814276.70
R=500.00
DELTA= 0°45'55.06"
L=6.68
PC STA 254+34.20
PT STA 254+40.88



MATCHLINE STA 250+00.00

MATCHLINE STA 255+00.00



PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

WATER PLAN AND PROFILE
CANNONBALL PATH CITY OF MADISON

CURVE NO. 6
PI STA 256+25.05
N=469807.60
E=814425.72
R=500.00
DELTA= 0°45'54.41"
L=6.68
PC STA 256+21.71
PT STA 256+28.38

DELINEATED WETLAND BOUNDARY

0709-341-0099-5
UNIVERSITY OF WISCONSIN REGENTS

SEE PATH SHEETS FOR TREE REMOVAL
/ TREE PROTECTION REQUIREMENTS

PROP. P.L.E. WATER MAIN AND PATH

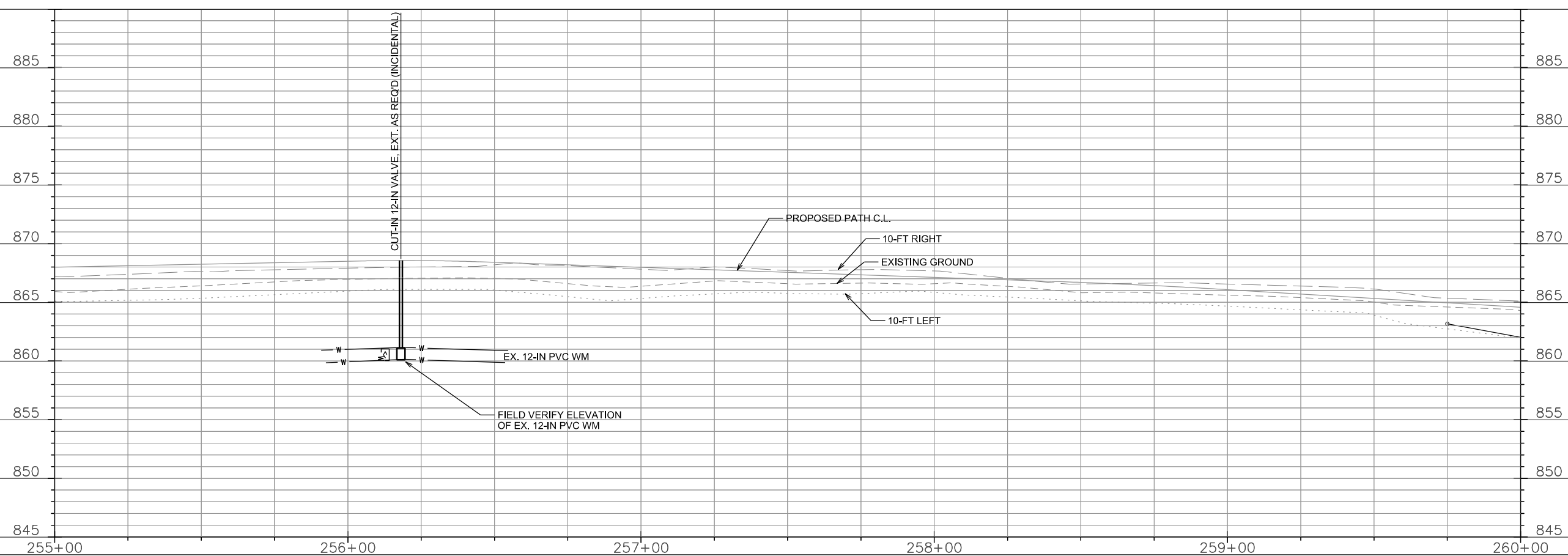
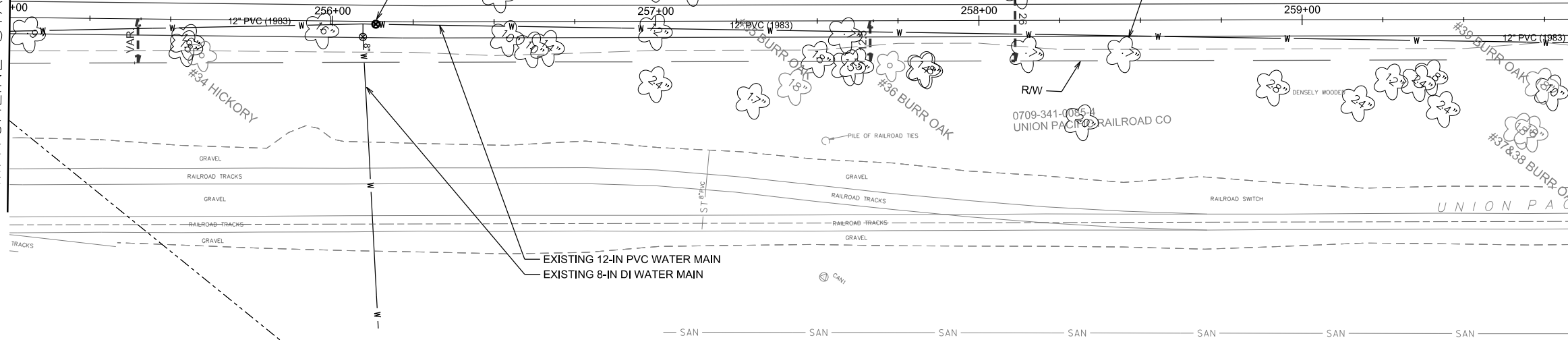
PROP. T.L.E.

PROPOSED PATH
SLOPE INTERCEPTS

CUT-IN 12-IN VALVE

MATCHLINE STA 255+00.00

MATCHLINE STA 260+00.00



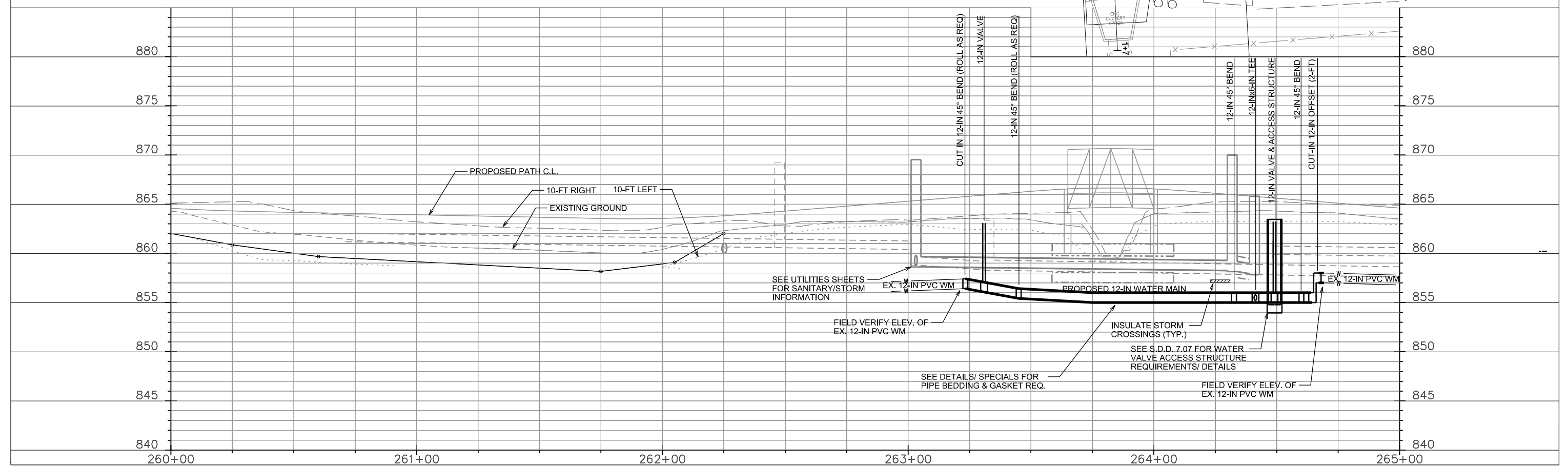
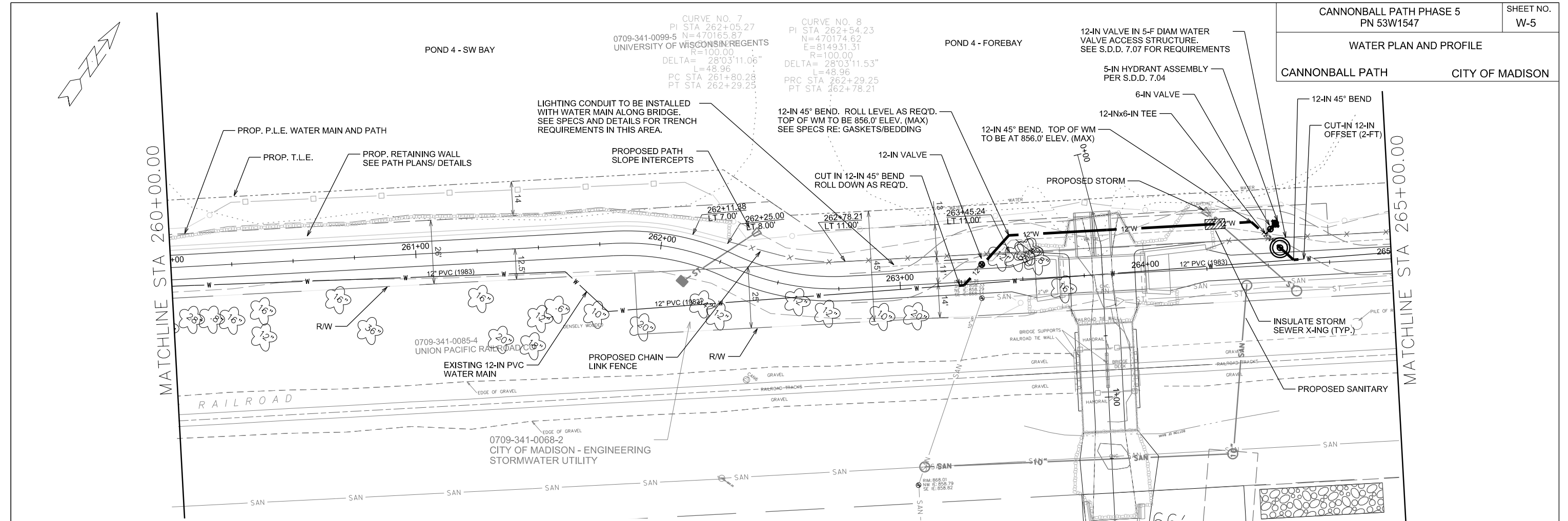
PLOT SCALE: _____

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WATER PLAN AND PROFILE
CANNONBALL PATH CITY OF MADISON



PLOT SCALE: _____

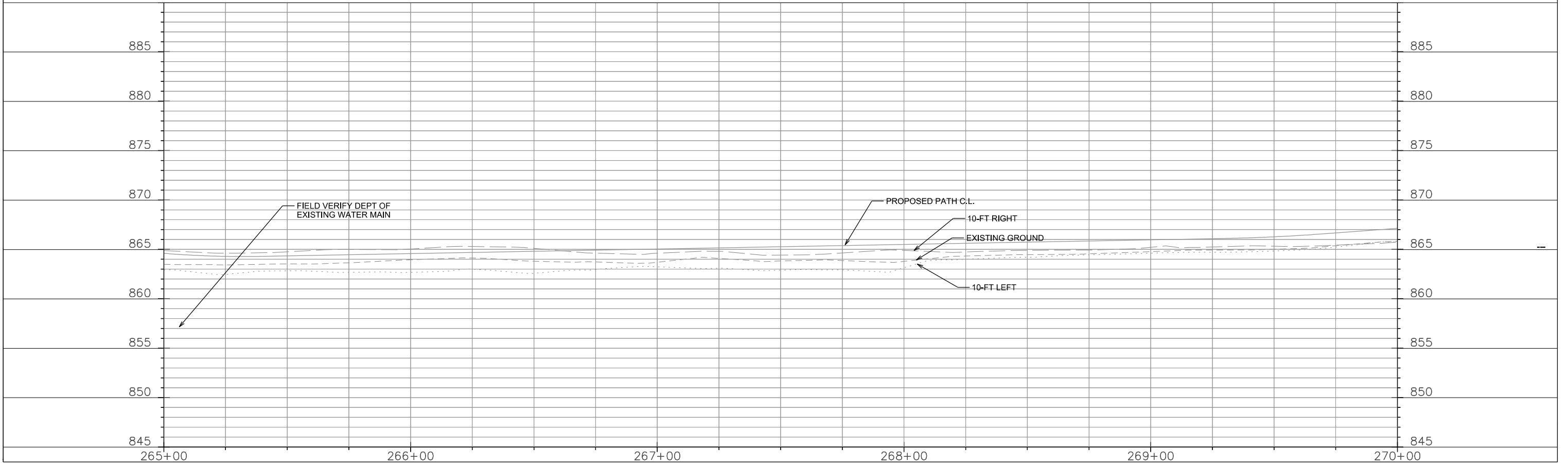
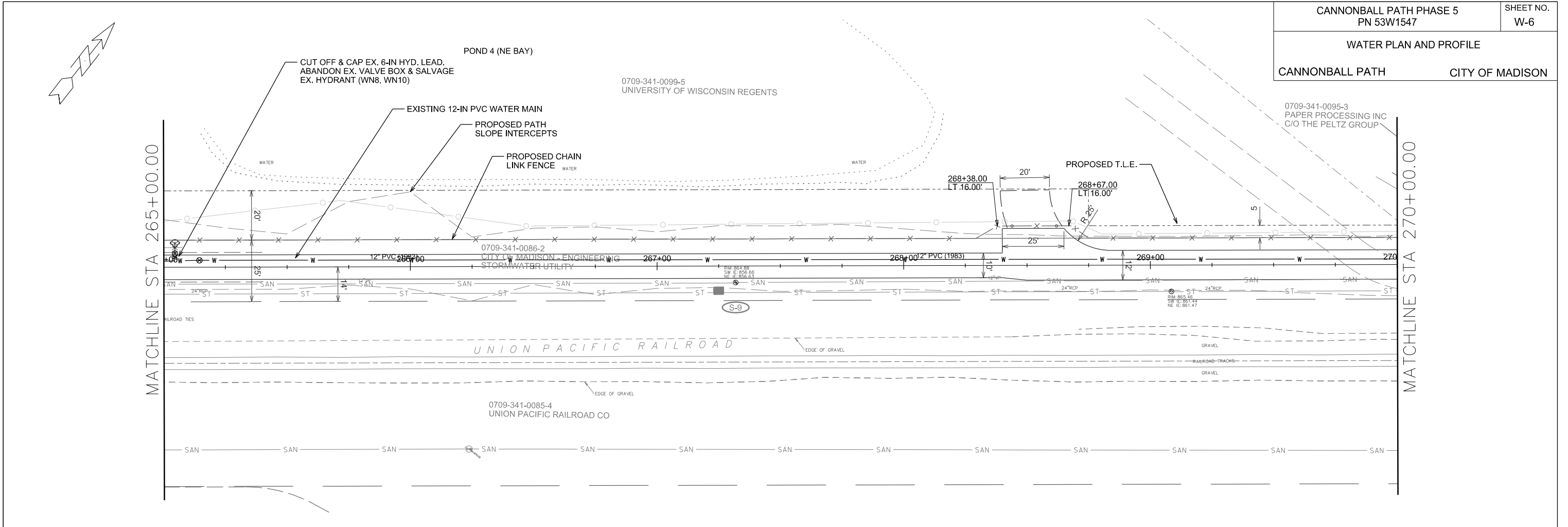
PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

WATER PLAN AND PROFILE

CANNONBALL PATH CITY OF MADISON



PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

WATER PLAN AND PROFILE
CANNONBALL PATH CITY OF MADISON

CURVE NO. 10
PI STA 270+48.09
N=470663.07
E=815558.25
R=40.00
DELTA= 39°55'38.13"
L=27.87
PC STA 270+33.56
PT STA 270+61.43

CURVE NO. 11
PI STA 270+94.69
N=470708.88
E=815571.85
R=40.00
DELTA= 54°38'28.31"
L=38.15
PC STA 270+74.02
PD STA 271+12.17

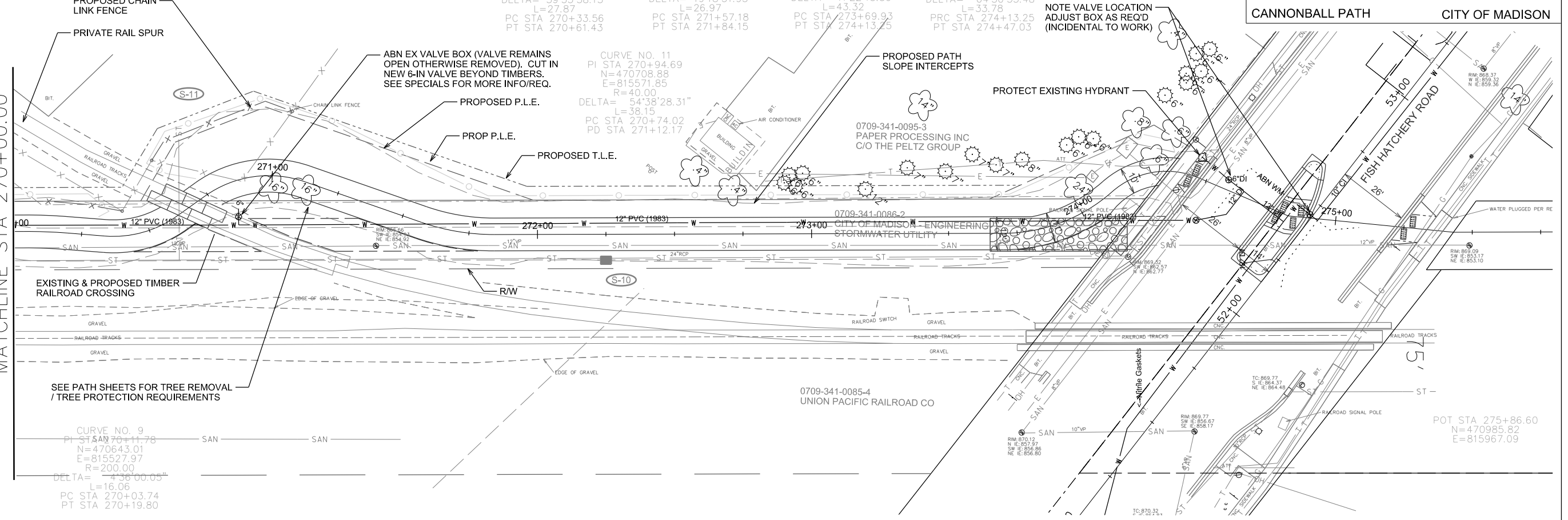
CURVE NO. 12
PI STA 271+70.80
N=470734.46
E=815646.90
R=80.00
DELTA= 19°18'51.95"
L=26.97
PC STA 271+57.18
PT STA 271+84.15

CURVE NO. 13
PI STA 273+92.58
N=470871.57
E=815821.55
R=60.00
DELTA= 41°22'15.56"
L=43.32
PC STA 273+69.93
PT STA 274+13.25

CURVE NO. 14
PI STA 274+32.18
N=470912.46
E=815829.13
R=30.00
DELTA= 64°30'33.48"
L=33.78
PRC STA 274+13.25
PT STA 274+47.03

CURVE NO. 15
PI STA 274+82.61
N=470926.56
E=815881.78
DELTA= 17°23'21.08"

MATCHLINE STA 270+00.00

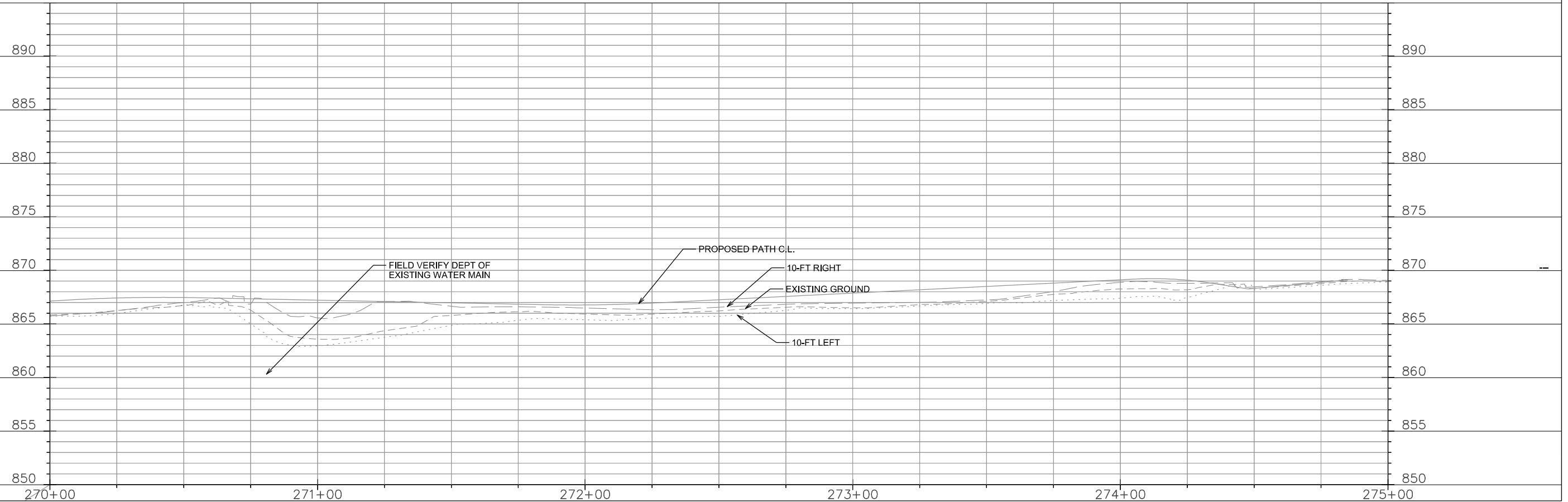


PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



WATER ESTIMATE OF MATERIALS

CANNONBALL PATH CITY OF MADISON

CONSTRUCTION NOTES:

- CONSTRUCT NEW WATER MAIN 6.0' BELOW FINISHED GRADE, UNLESS OTHERWISE NOTED. INSULATE MAIN WITH POLYSTYRENE BOARD AT UTILITY CROSSINGS OR OTHER AREAS IDENTIFIED BY ENGINEER AS HAVING INADEQUATE COVER.
- VERIFY SIZE OF EXISTING WATER SERVICES AND RECONNECT SERVICES AS INDICATED.
- MINIMIZE DISTRUPTION OF SERVICE TO EXISTING CUSTOMERS. NOTIFY PER CONTRACT REQUIREMENTS OF ANY PLANNED WATER OUTAGE.
- EXISTING WATER MAIN SHALL REMAIN IN SERVICE UNTIL NEW WATER MAIN IS TESTED AND ACCEPTED BY MADISON WATER UTILITY AND ALL SERVICES ARE RECONNECTED.
- THE EXISTING UTILITIES SHOWN ON THIS PLAN REPRESENT THE BEST INFORMATION AVAILABLE TO THE WATER UTILITY AT THE TIME OF PLAN PREPARATION. CONTRACTOR IS RESPONSIBLE FOR HAVING EACH UTILITY LOCATED PRIOR TO COMMENCING WORK.

- WN1 REPLACE THE EXISTING LEAD SERVICE WITH A NEW COPPER SERVICE.
- WN2 EXTEND AND RECONNECT THE EXISTING COPPER SERVICE TO THE NEW WATER MAIN.
- WN3 EXISTING SERVICE TO BE ABANDONED WHEN THE WATER MAIN IS CUT OFF.
- WN4 DISCONNECT FROM THE OLD WATER MAIN AND RECONNECT THE EXISTING COPPER WATER SERVICE LATERAL TO THE NEW WATER MAIN.
- WN5 RELOCATE THE EXISTING FIRE HYDRANT.
- WN6 ABANDON WATER VALVE ACCESS STRUCTURE.
- WN7 FURNISH AND INSTALL THE NEW TOP SECTION FOR THE WATER ACCESS STRUCTURE.
- WN8 ABANDON THE VALVE BOX.
- WN9 FURNISH THE DITCH, COMPACTION, AND ALL MATERIALS AND LABOR FOR THE INSTALLATION OF NEW SERVICE LATERAL.
- WN10 REMOVE AND SALVAGE EXISTING HYDRANT
- WN11 REPLACE THE EXISTING COPPER SERVICE WITH A COPPER SERVICE
- WN20+ SEE WATER IMPACT PLAN FOR CONNECTION POINT ISOLATION AND WATER SHUT-OFF NOTIFICATION INFORMATION.

DISCLAIMER NOTE:
UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING WORK.

ESTIMATE OF MATERIALS SUPPLIED BY CONTRACTOR:

* ESTIMATE OF MATERIALS IS FOR INFORMATION ONLY. ENGINEER DOES NOT GUARANTEE ACCURACY OF MATERIAL TAKE-OFF.

- | | |
|-------------------------------|---------------------------|
| 55-FEET - 6-IN PIPE | 1 - 6-IN 45° BEND |
| 1000-FEET - 12-IN PIPE | 3 - 12-IN 22-1/5° BEND |
| 1160-FEET - POLYWRAP | 9 - 12-IN 45° BEND |
| 6 - 6-IN VALVE & BOX | 2 - 8-IN X 18-IN OFFSET |
| 5 - 12-IN VALVE & BOX | 1 - 6-IN MJ PLUG |
| 1 - VALVE ACCESS STRUCTURE | 24-FEET - STYROFOAM BOARD |
| VALVE BOX EXTENSIONS (AS REQ) | |
| 5 - 5-IN HYDRANTS | |
| HYDRANT EXTENSIONS (AS REQ) | |
| 3 - 12-IN X 6-IN TEE | |
| 1 - 12-IN X 6-IN REDUCER | |

MATERIALS SUPPLIED BY CITY:

NONE

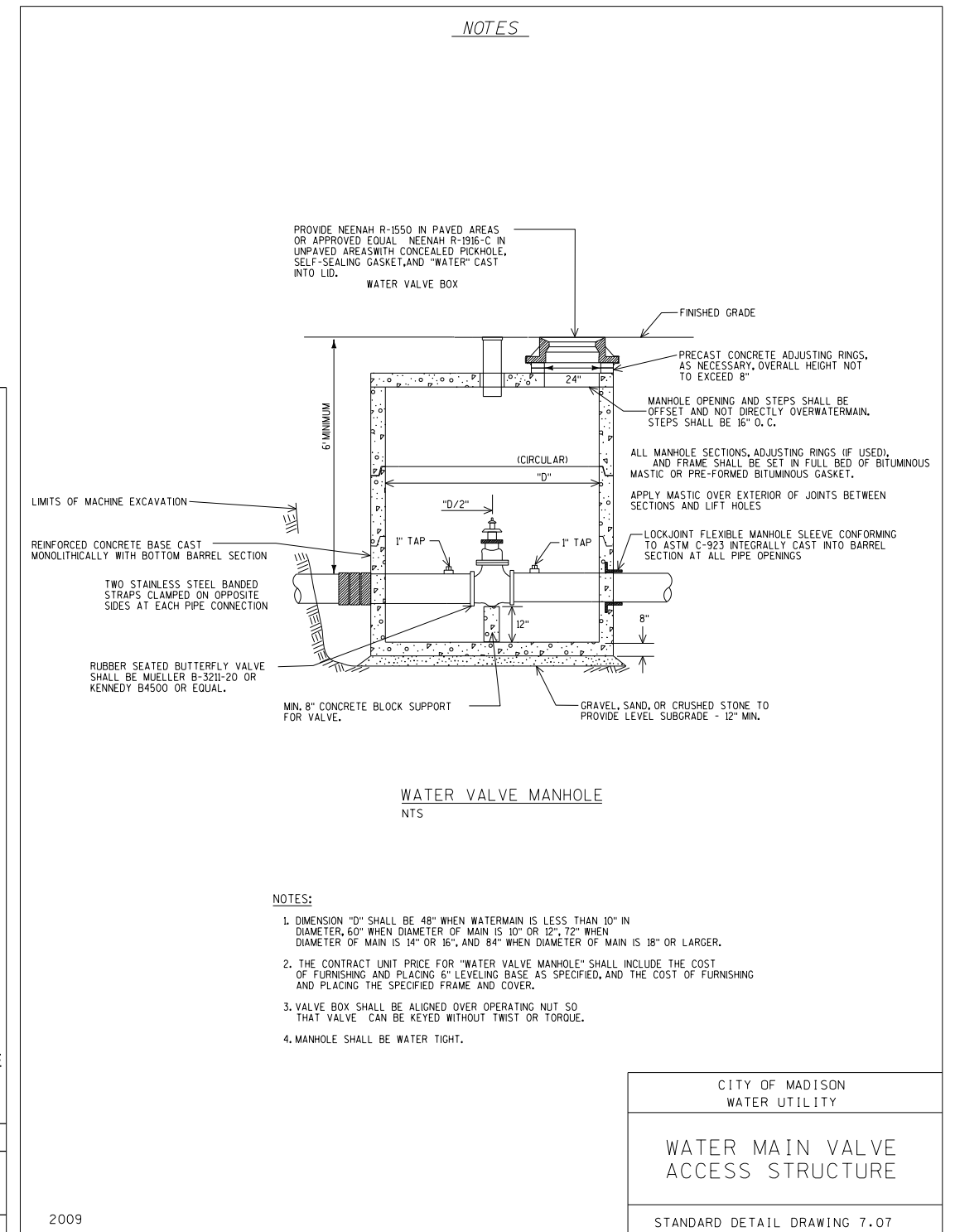
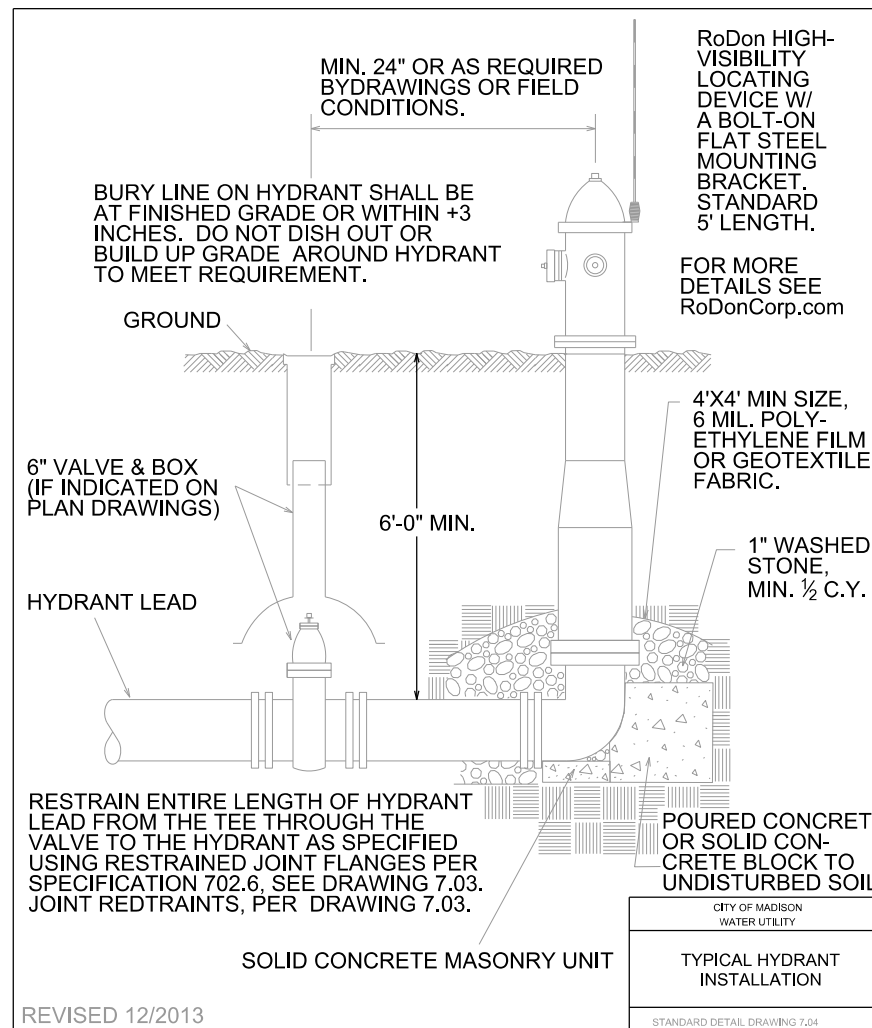
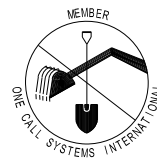
REUSED MATERIALS

NONE

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
TOLL FREE
811 OR 1-800-242-8511
FAX-A-LOCATE 1-800-338-3860
TDD (FOR HEARING IMPAIRED) 1-800-542-2289

WIS. STATUTE 182.0175 (1974)
REQUIRES MIN. OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE.



EROSION CONTROL NOTES:

EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY.

THE CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES UNTIL FINAL ACCEPTANCE BY THE CITY OF MADISON.

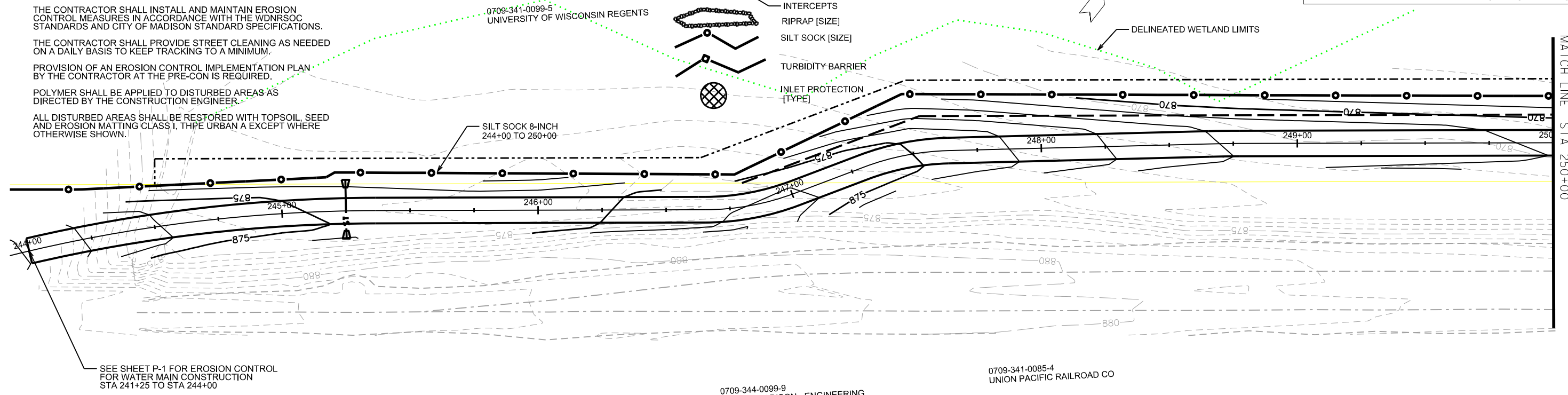
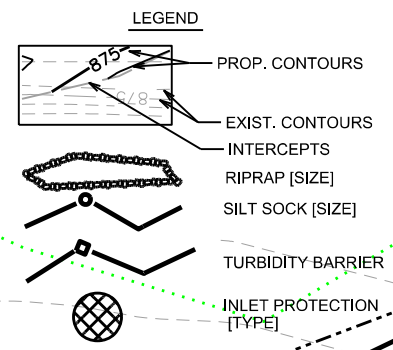
THE CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE WDNR SOC STANDARDS AND CITY OF MADISON STANDARD SPECIFICATIONS.

THE CONTRACTOR SHALL PROVIDE STREET CLEANING AS NEEDED ON A DAILY BASIS TO KEEP TRACKING TO A MINIMUM.

PROVISION OF AN EROSION CONTROL IMPLEMENTATION PLAN BY THE CONTRACTOR AT THE PRE-CON IS REQUIRED.

POLYMER SHALL BE APPLIED TO DISTURBED AREAS AS DIRECTED BY THE CONSTRUCTION ENGINEER.

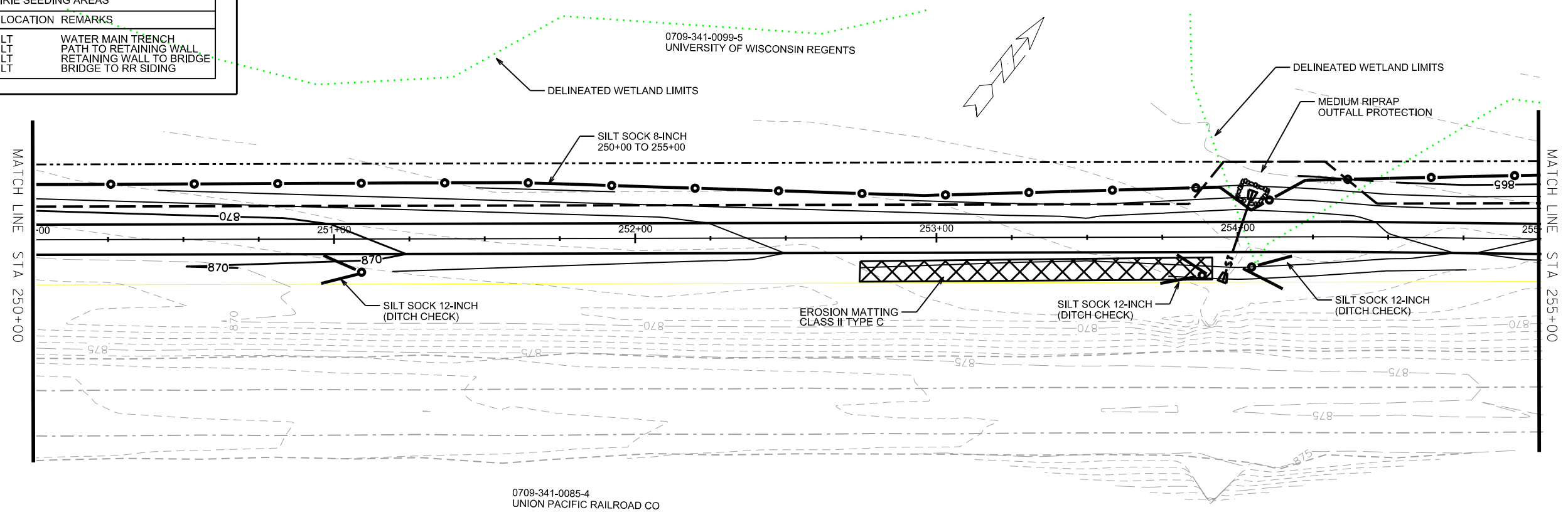
ALL DISTURBED AREAS SHALL BE RESTORED WITH TOPSOIL, SEED AND EROSION MATTING CLASS I, TYPE URBAN A EXCEPT WHERE OTHERWISE SHOWN.



SEEDING TYPE

ALL GRASS RESTORATION SHALL USE TERRACE SEEDING EXCEPT AS PROVIDED IN FOLLOWING TABLE:

TALL GRASS PRAIRIE SEEDING AREAS			
STATION - STATION	LOCATION	REMARKS	
241+25 - 244+00	LT	WATER MAIN TRENCH	
244+00 - 259+75	LT	PATH TO RETAINING WALL	
262+25 - 263+50	LT	RETAINING WALL TO BRIDGE	
264+25 - 270+65	LT	BRIDGE TO RR SIDING	

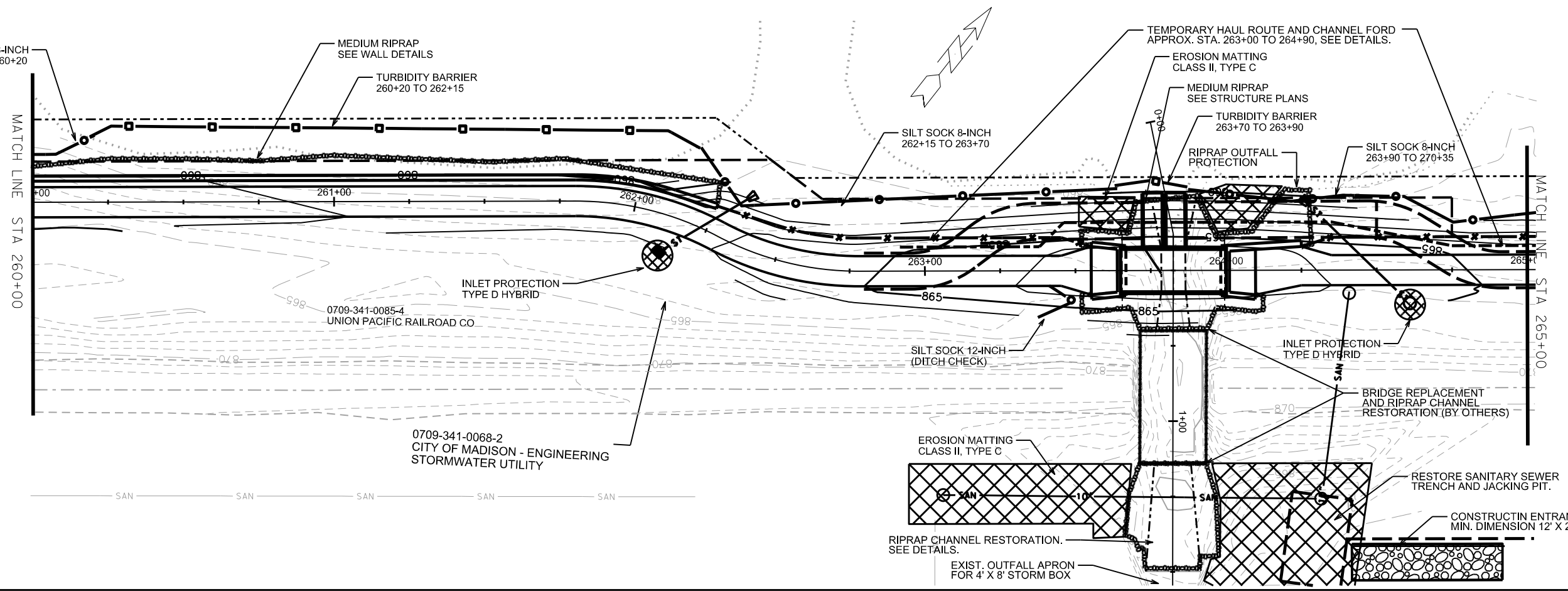
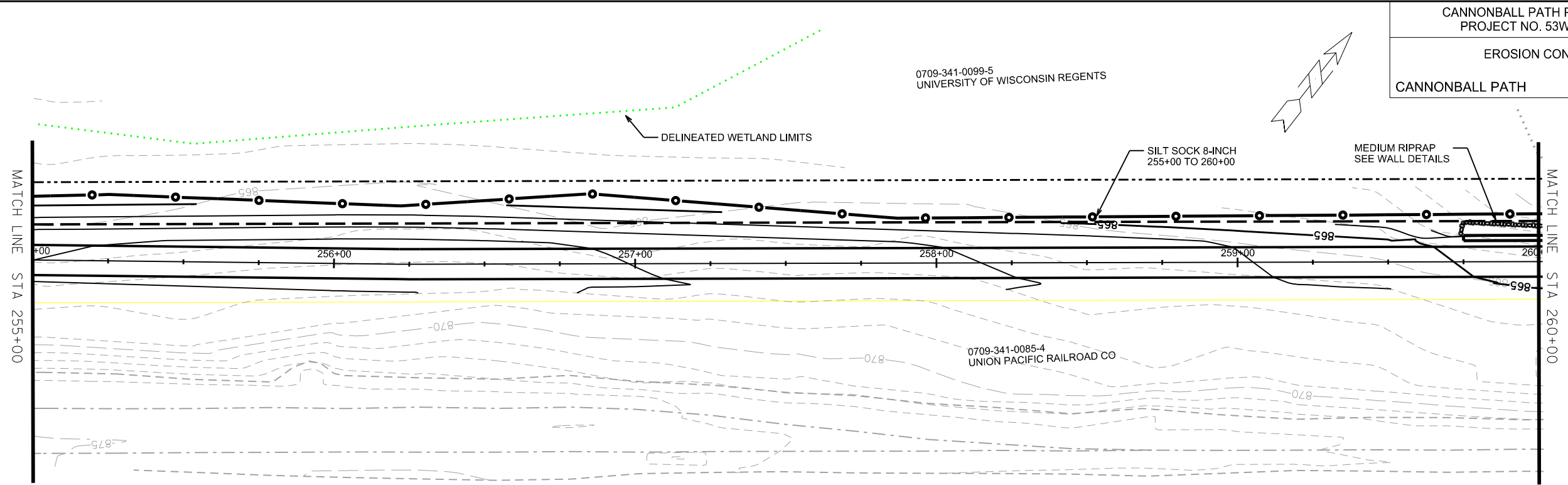


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PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREET'S DIVISION



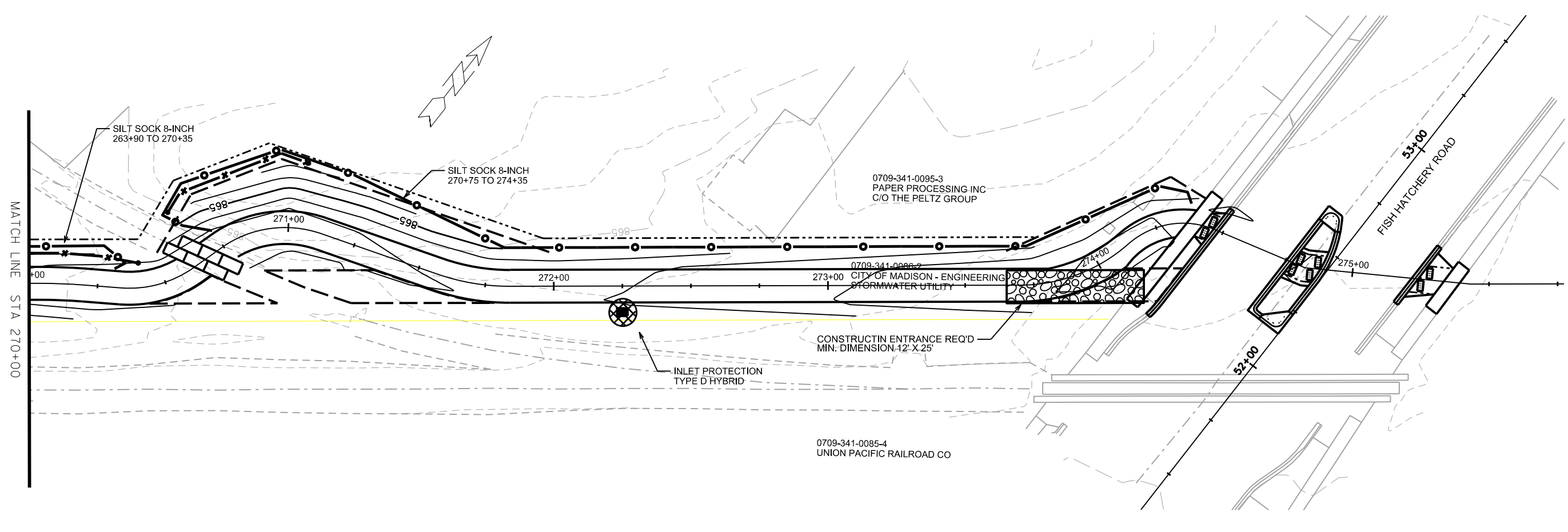
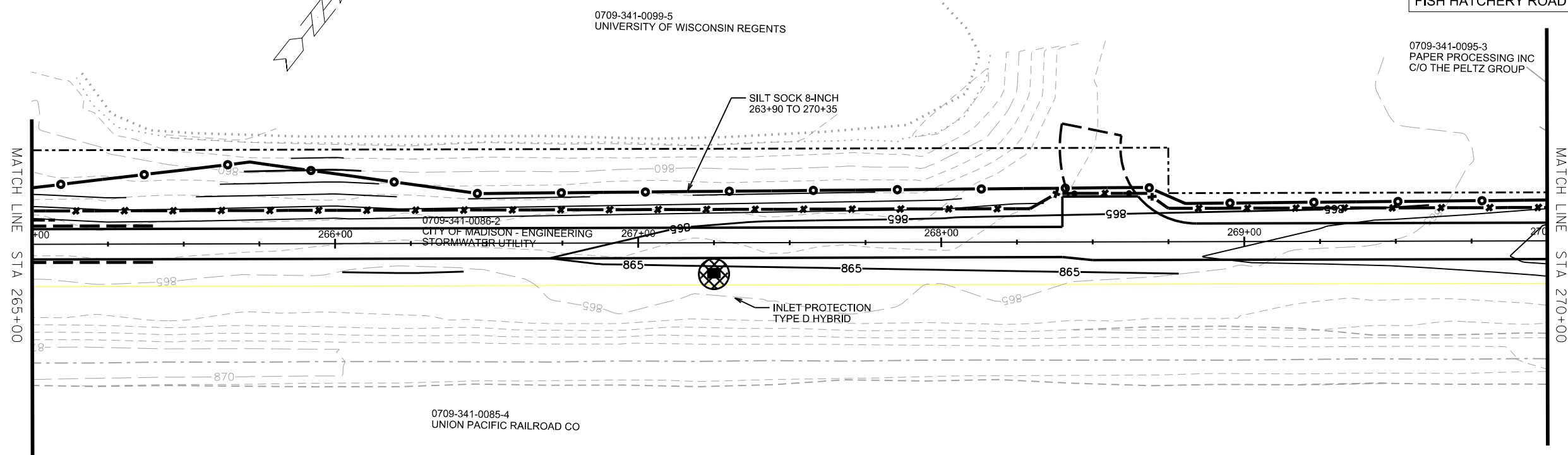
PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREET'S DIVISION

EROSION CONTROL PLAN
CANNONBALL PATH /
FISH HATCHERY ROAD CITY OF MADISON

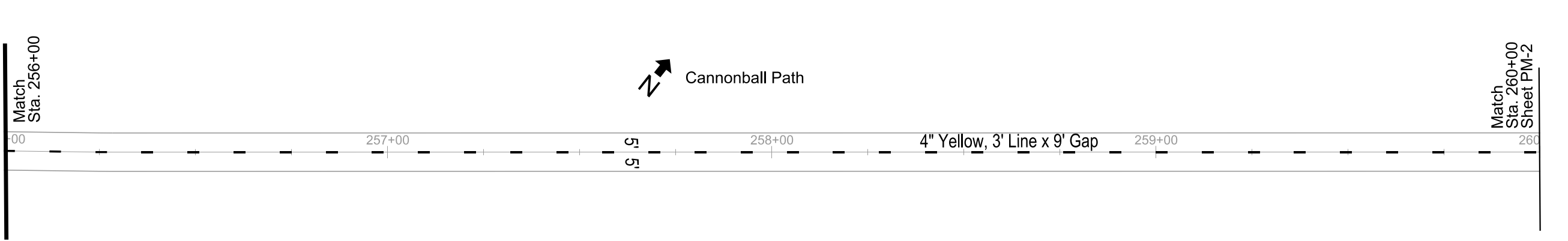
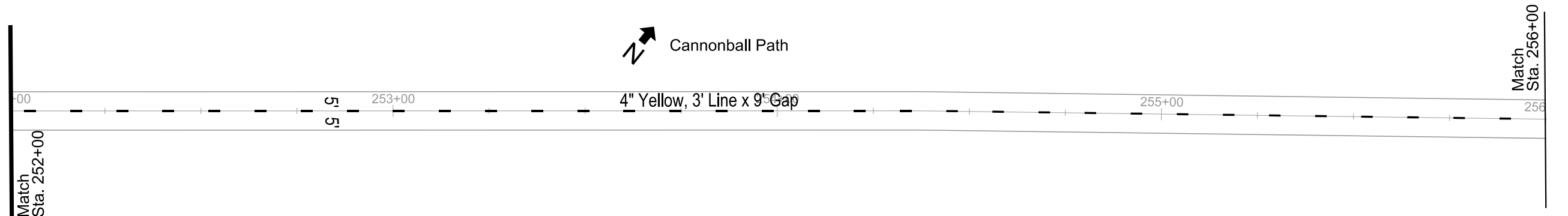
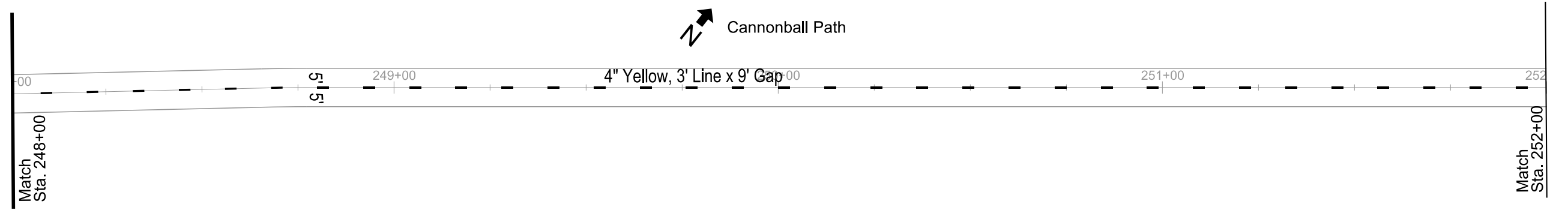
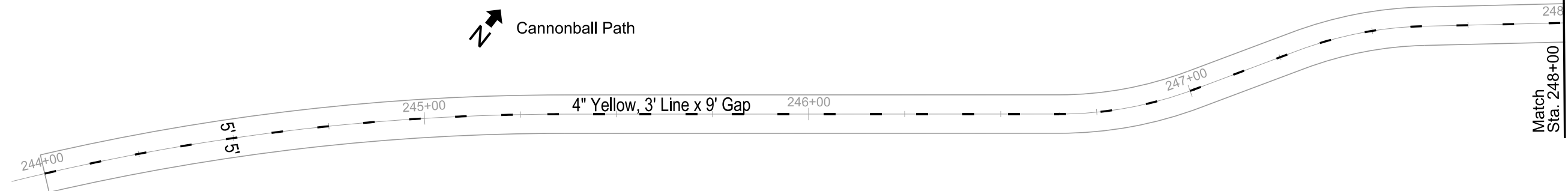


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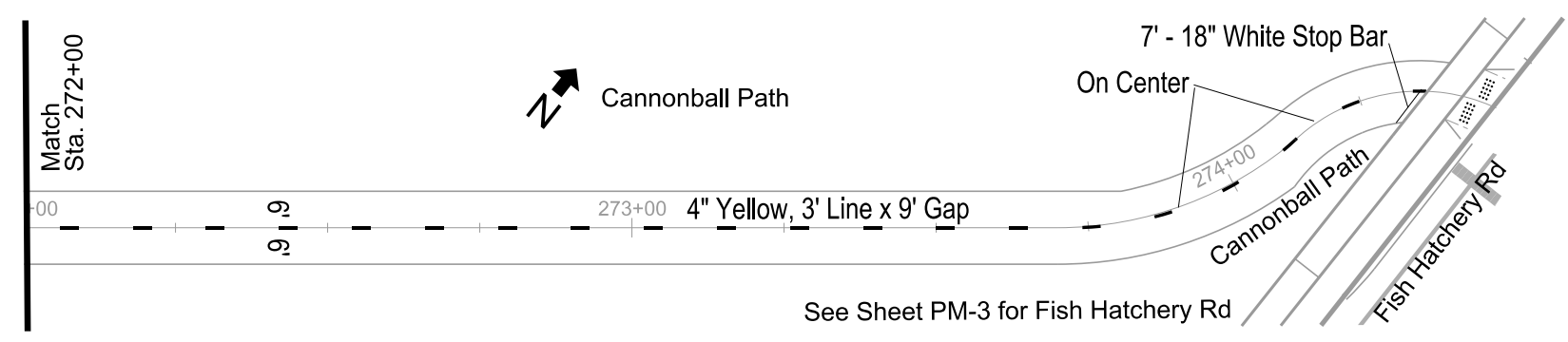
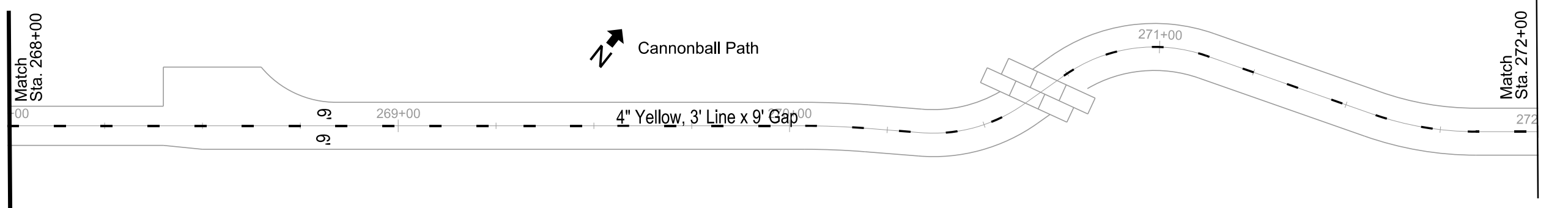
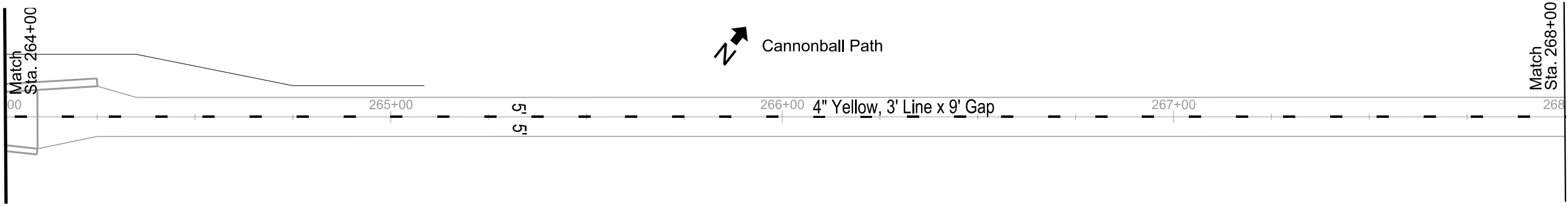
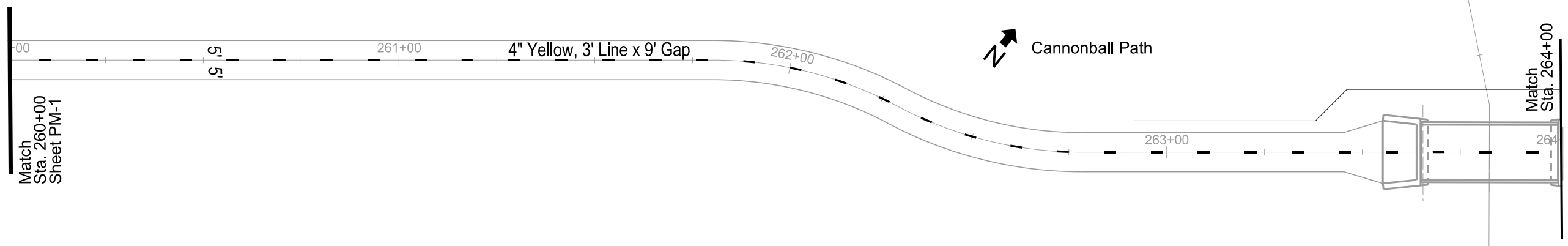
PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREET'S DIVISION



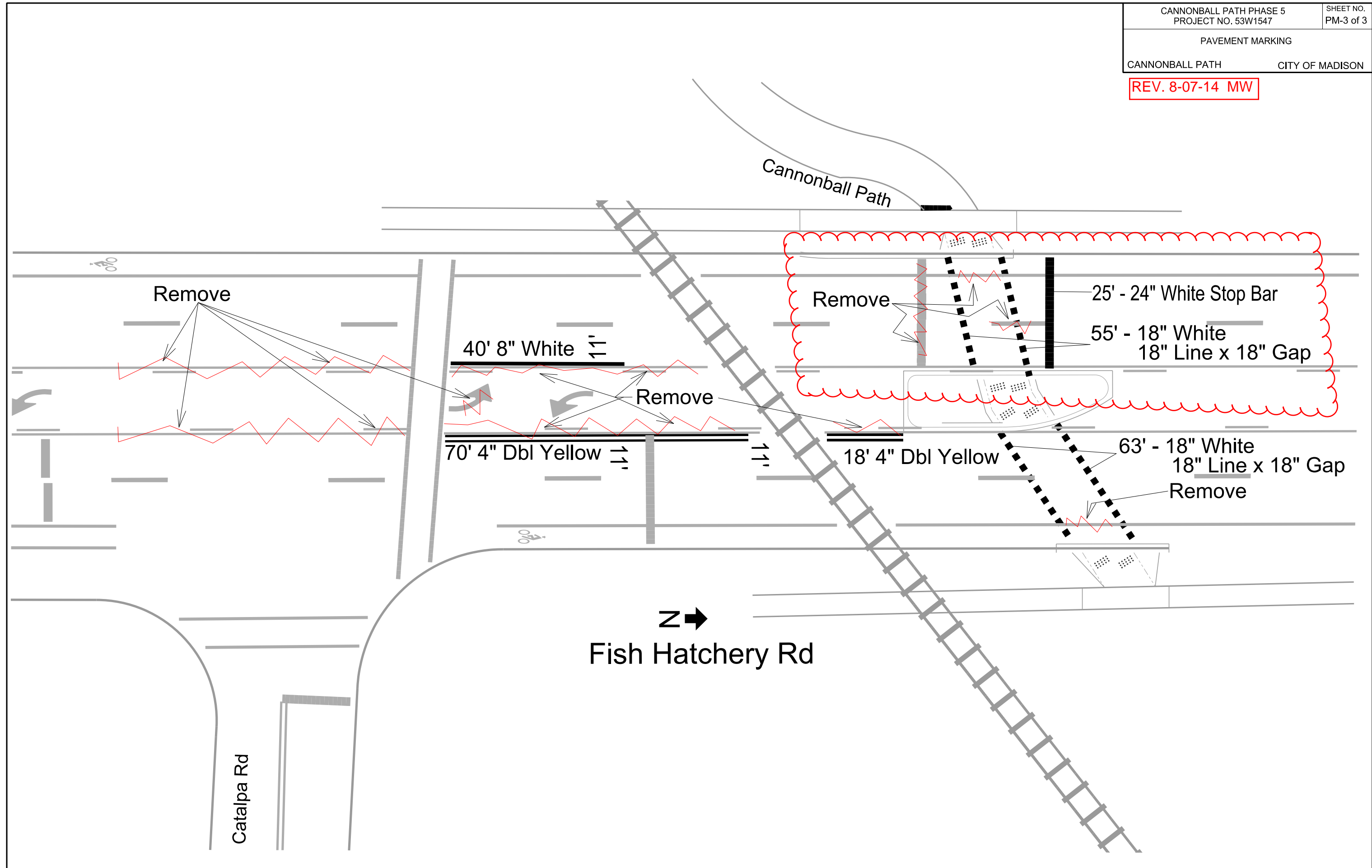
PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

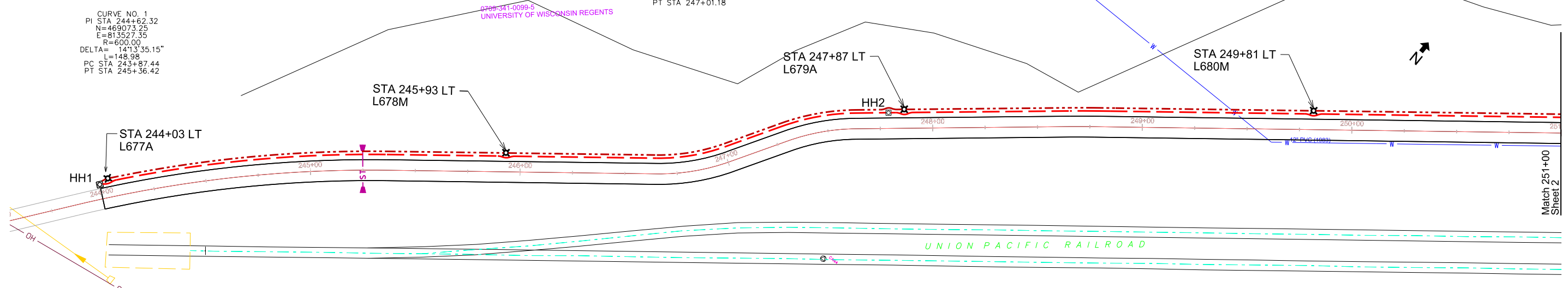


PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

REV. 8-07-14 MW

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.





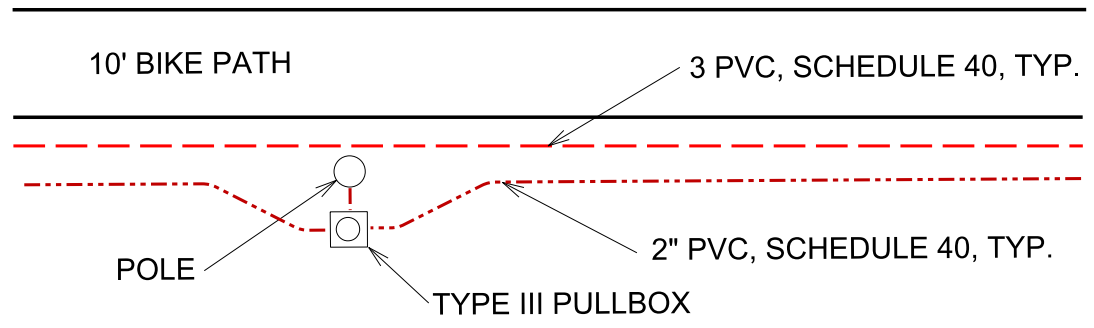
LEGEND

- CONSTRUCT ELECTRICAL HANDHOLE TYPE 1
- CONSTRUCT ELECTRICAL HANDHOLE TYPE 5
- CONSTRUCT ELECTRICAL HANDHOLE TYPE-3 AND INSTALL CITY-FURNISHED CONCRETE POLE STREET LIGHT UNIT
- INSTALL 2-INCH PVC
- INSTALL 3-INCH PVC UNLESS NOTED AS OTHER

GENERAL ELECTRIC NOTES:

1. ALL LOCATIONS ARE APPROXIMATE. THE TRAFFIC ENGINEER SHALL APPROVE FINAL LOCATIONS, INCLUDING SETBACK, IN THE FIELD AFTER CONTRACTOR SURVEYS STAKING. THE CONTRACTOR SHALL NOTIFY BRIAN SMITH(261-9625) CITY TRAFFIC ENGINEERING, AT LEAST 24-HOURS IN ADVANCE OF NEEDING CONDUIT OR BASE LOCATIONS MARKED.
2. THE CONTRACTOR SHALL DO ALL WORK IN ACCORDANCE WITH "CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2013 EDITION" AND ALL ADDENDUMS THERETO.
3. THE CONTRACTOR SHALL CALL MIKE CHRISTOPH (266-9031) AT THE TRAFFIC ENGINEERING SHOP AT LEAST 24-HOURS IN ADVANCE OF POURING BASES OR BURYING CONDUIT TO ARRANGE FOR INSPECTION. ANY WORK COMPLETED WITHOUT INSPECTION IS SUBJECT TO REJECTION.
4. CONTRACTOR SHALL INSTALL STREETLIGHTING WIRE IN ALL CONDUIT , 3#6 & 1#8, PER STANDARD SPEC 602.2(A). SPLICING SHALL ONLY OCCUR IN POLE, NOT IN PULLBOX.
5. CONTRACTOR SHALL INSTALL CITY-FURNISHED STREETLIGHT UNITS AS FOLLOWS: 29-FOOT DIRECT BURIED CONCRETE POLE, 6' ARM, AND 50-WATT LED FIXTURE
6. LOCATION OF CONDUIT AND POLES SHALL BE FIVE FEET FROM EDGE OF PATH, SUBJECT TO NOTE 1 ABOVE.

TYPICAL AT EACH LIGHT LOCATION:



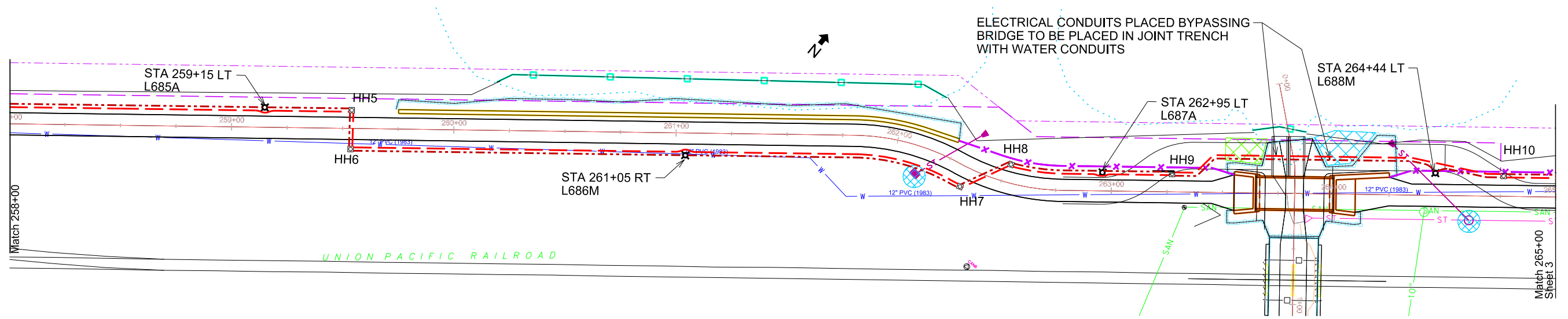
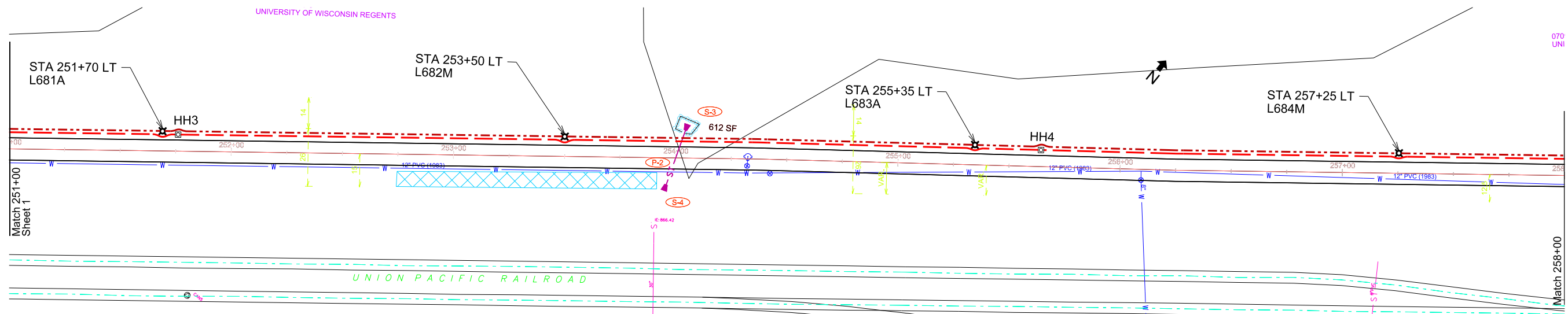
CONNECTION FROM POLE TO PULLBOX: TWO (2) THIN WALL FLEXIBLE 1" (ONE-INCH) CONDUITS.

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.



PLOT SCALE:

PLOT NAME:

REV. DATE:

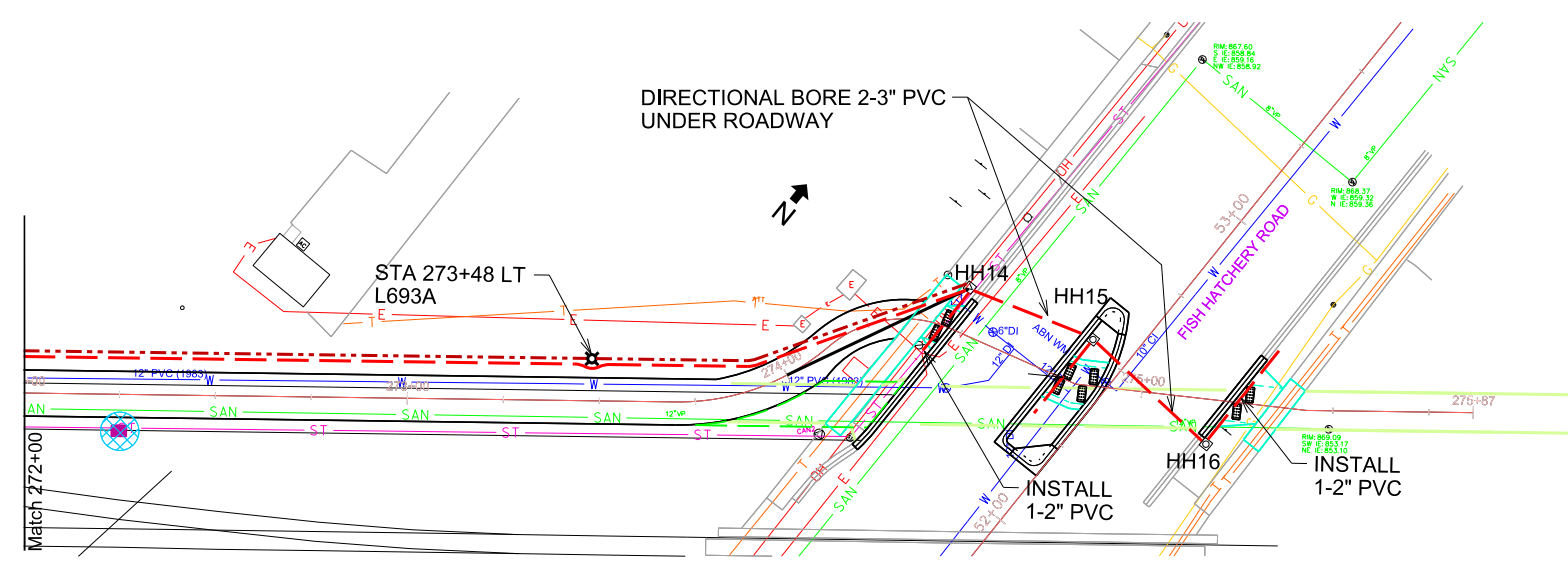
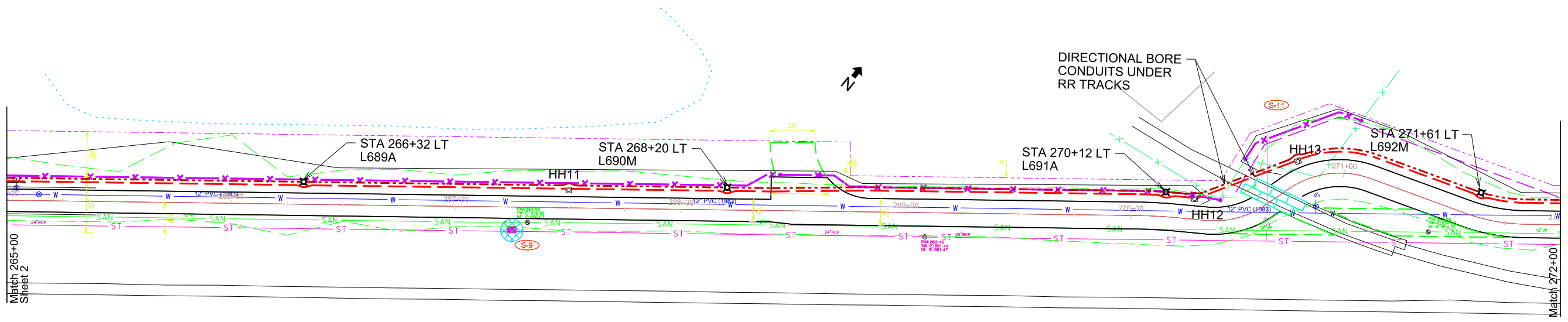
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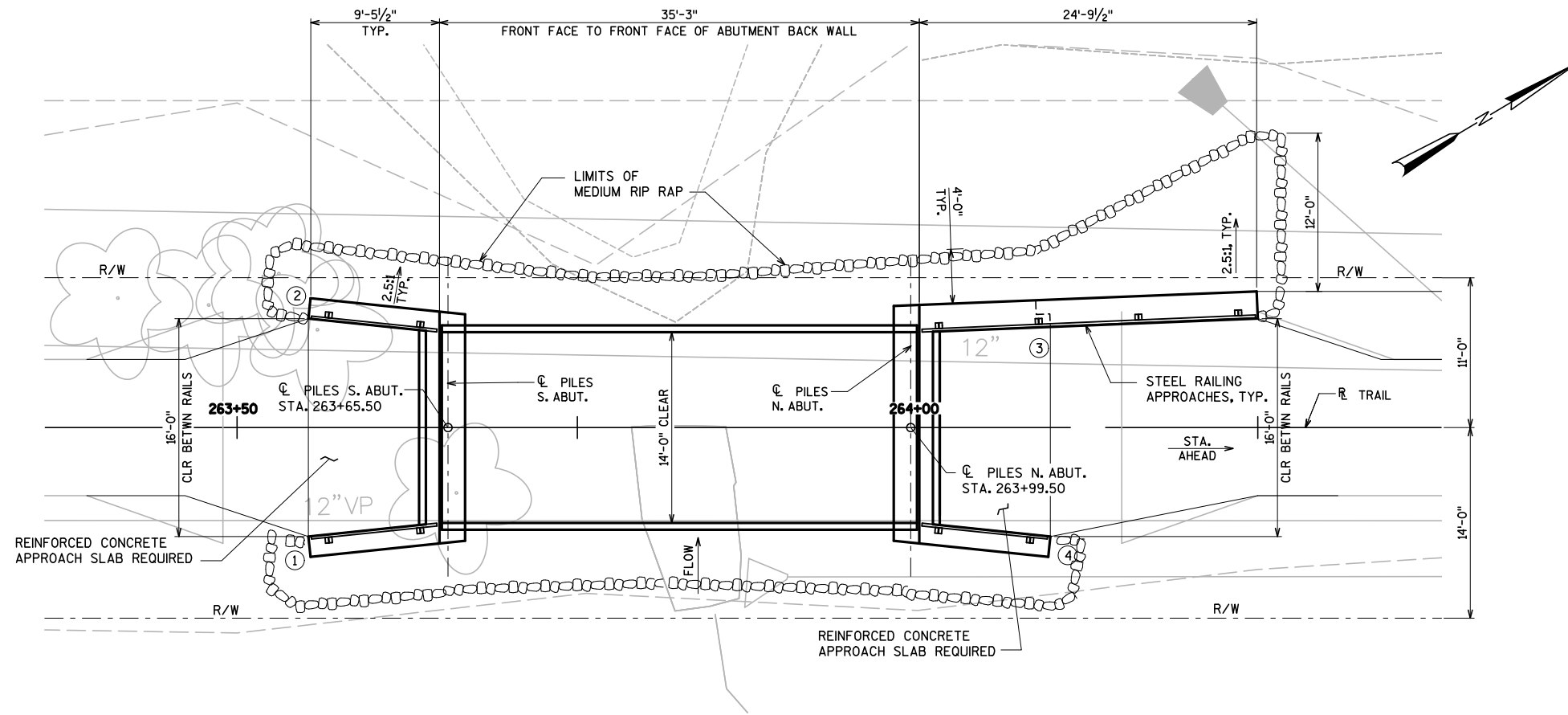
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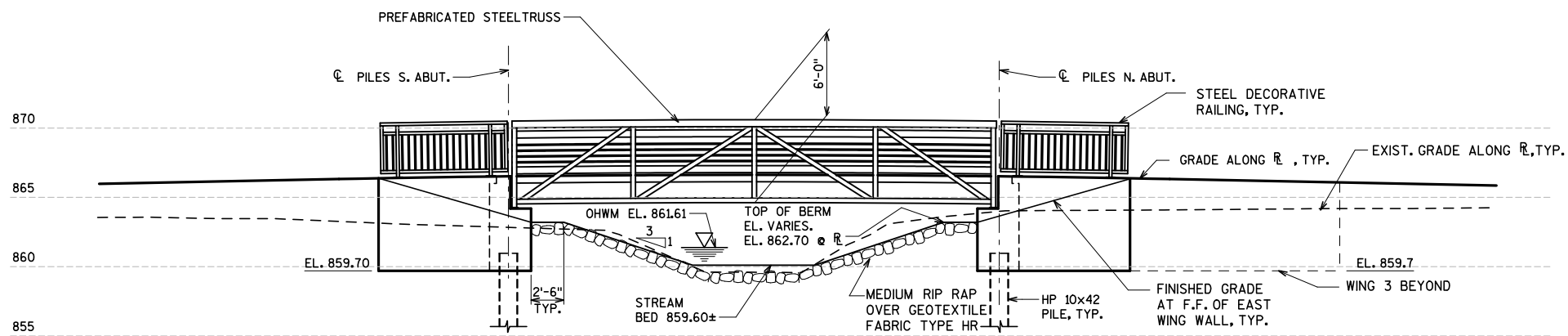
REV. DATE:

ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.





PLAN
(SINGLE SPAN PREFABRICATED TRUSS PEDESTRIAN BRIDGE)



ELEVATION
(LOOKING WEST)

LIST OF DRAWINGS

- S1. GENERAL PLAN AND ELEVATION
- S2. TYPICAL SECTIONS AND QUANTITIES
- S3. SOUTH ABUTMENT
- S4. NORTH ABUTMENT
- S5. ABUTMENT DETAILS
- S6. WING DETAILS
- S7. BILL OF BARS
- S8. APPROACH SLAB DETAILS
- S9. RAILING DETAILS
- S10. SUBSURFACE EXPLORATION

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

AT THE BACKFACE OF ABUTMENT ALL VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURAL BACKFILL.

FABRICATION, MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE WISCONSIN DOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, 2014.

THE FINISHED GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFY THE BAR SIZE.

ALL DIMENSIONS ARE IN FEET AND INCHES, UNLESS OTHERWISE NOTED.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH MEDIUM RIP RAP AND GEOTEXTILE FABRIC TYPE HR TO THE EXTENT SHOWN ON THIS SHEET.

STEEL RAILING FOR THE WINGWALLS SHALL BE GALVANIZED AND PAINTED AND INCLUDED IN THE BID ITEM "STEEL RAILING APPROACHES" AND SHALL BE FURNISHED BY THE FABRICATOR FOR THE STEEL TRUSS BRIDGE.

THE CONCRETE DECK AND COATED BAR STEEL REINFORCEMENT IN THE DECK SHALL BE INCLUDED IN THE BID ITEM "PREFABRICATED STEEL TRUSS BRIDGE FURNISHED AND INSTALLED".

THE PREFABRICATED STEEL TRUSS BRIDGE SHALL CONFORM TO THE PROFILE ON SHEET S2 PLUS A MINIMAL CAMBER FOR DEAD LOAD DEFLECTION.

○ WINGWALL NUMBER

DESIGN DATA

VEHICLE: AASHTO H-10 (20,000 LBS)
PEDESTRIAN: 90 PSF

ULTIMATE DESIGN STRESSES:

CONCRETE SUBSTRUCTURES.....f'c = 3,500 psi
CONCRETE DECK.....f'c = 4,000 psi

HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60).....fy = 60,000 psi

THE STEEL FOR THE PREFABRICATED STEEL TRUSS:
W SHAPES (ASTM A588).....Fy = 50,000 psi MIN.
RECTANGULAR HSS (ASTM A847).....Fy = 50,000 psi MIN.
CHANNELS AND ANGLES (ASTM A588).....Fy = 50,000 psi MIN.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON STEEL HP10x42 PILING.
REQUIRED DRIVING RESISTANCE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA IS 75 TONS PER PILE.

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

ESTIMATED PILE LENGTH:
S. ABUTMENT= 32 FEET
N. ABUTMENT= 39 FEET

NO.	REVISIONS	DATE

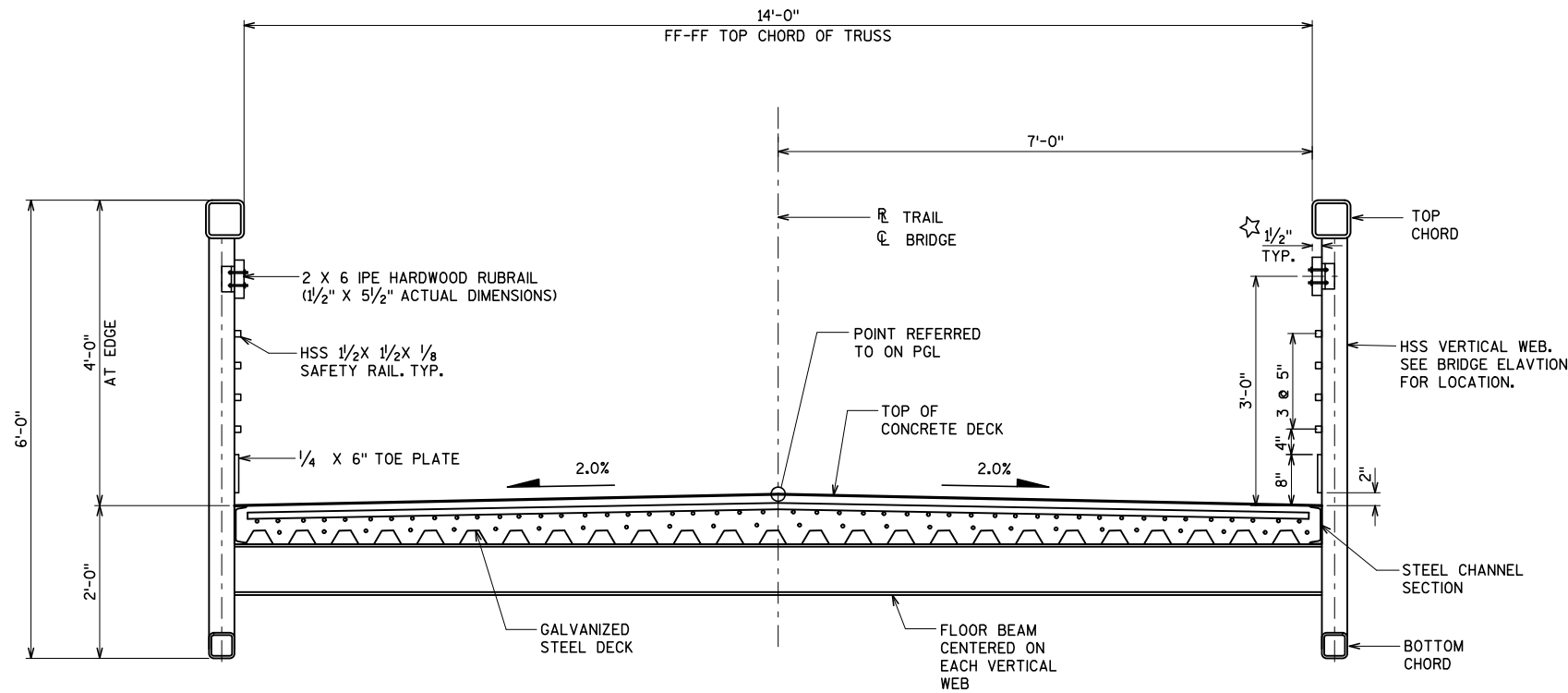
DESIGNED BY: BDT
DRAWN BY: TAL
CHECKED BY: TAZ
APPROVED BY:
DATE:
PHASE:

GRAPHIC SCALE:
SCALE OF DRAWING:
PER STANDARD INCH

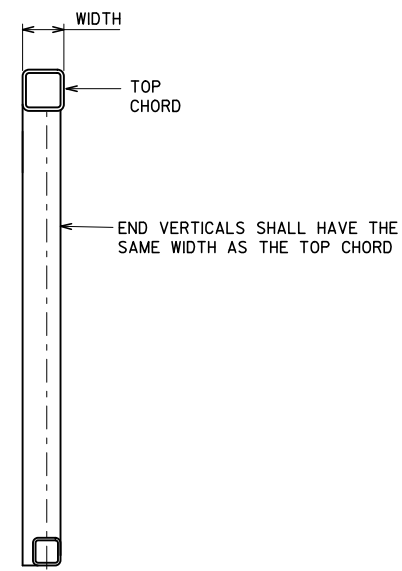
BLOOM COMPANIES, LLC
Infrastructure, Erection and Rigging
10501 W. Research Drive • Milwaukee, WI 53228
Phone: (414) 771-3390 Fax: (414) 771-4490

GENERAL PLAN AND ELEVATION
CANNONBALL TRAIL BRIDGE
CITY OF MADISON

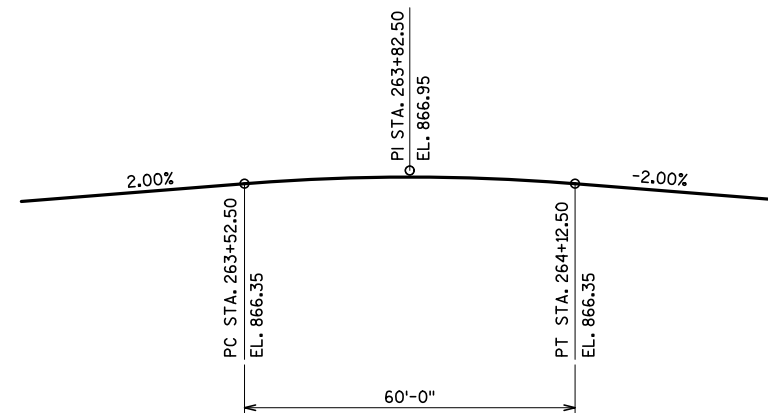
PROJECT NO.
BM6-1031
SHEET NO.
S1



TYPICAL SECTION
(LOOKING NORTH)



TYPICAL SECTION
THRU END VERTICAL



PROFILE GRADE LINE

TOTAL ESTIMATED QUANTITIES

ITEM	TYPE OF WORK	QUANTITIES	
20101	MEDIUM RIP RAP	98	CY
20102	GEOTEXTILE FABRIC TYPE HR	210	SY
20701	STEEL H.P. PILES DELIVERED AND INSTALLED	369	LF
21002	REINFORCED CONCRETE BRIDGE ABUTMENTS AND WINGWALLS	1	LS
40102	PREFABRICATED STEEL TRUSS BRIDGE FURNISHED AND INSTALLED	1	LS
90002	REINFORCED CONCRETE APPROACH SLABS	29	SY
90003	STEEL RAILING APPROACHES	1	LS

ALL COMPONENTS IN THIS PAGE INCLUDED IN THE BID ITEM "PREFABRICATED STEEL TRUSS BRIDGE FURNISHED AND INSTALLED".

LEGEND

☆ TOP CHORD TO OVERHANG INTERMEDIATE VERTICALS AND DIAGONAL MEMBERS (EXCEPT FOR END VERTICALS) BY 1/2" AND SHALL BE FLUSH WITH IPE RUBRAIL.

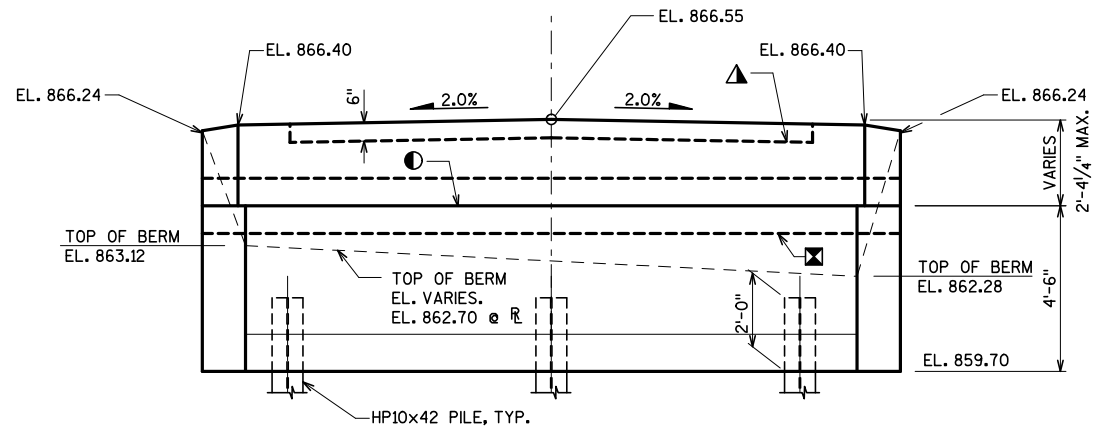
NO.	REVISIONS	DATE

DESIGNED BY: BDT	TAL
DRAWN BY: TAL	TAZ
CHECKED BY: TAZ	
APPROVED BY:	
DATE:	
PHASE:	

BLOOM COMPANIES, LLC
Infrastructure Engineering and Design
10501 W. Research Drive • Milwaukee, WI 53228
Phone: (414) 771-3390 Fax: (414) 771-4490

TYPICAL SECTIONS AND QUANTITIES
CANONBALL TRAIL BRIDGE
CITY OF MADISON

PROJECT NO.
BM6-1031
SHEET NO.
S2



ELEVATION

LOOKING AT FRONT FACE OF ABUTMENT

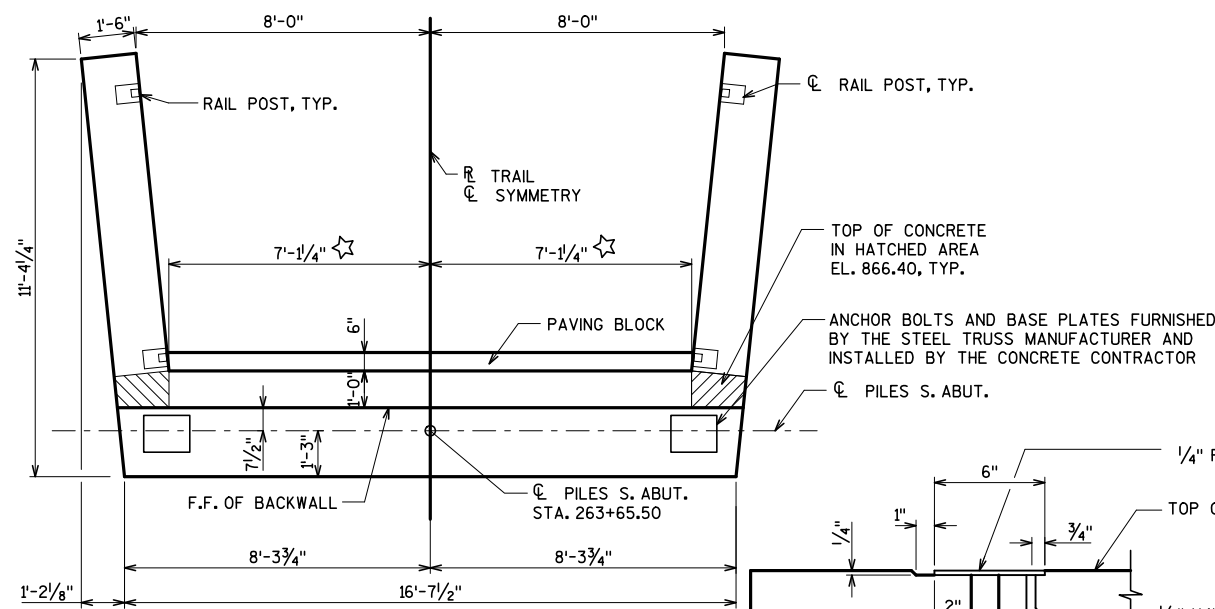
NOTES

THE CONTRACTOR SHALL DEWATER THE ABUTMENT/WINGWALL FORMWORK, IF NECESSARY, PRIOR TO THE CONCRETE FOOTING POUR. DEWATERING INCLUDED IN THE BID ITEM "REINFORCED CONCRETE BRIDGE ABUTMENTS AND WINGWALLS".

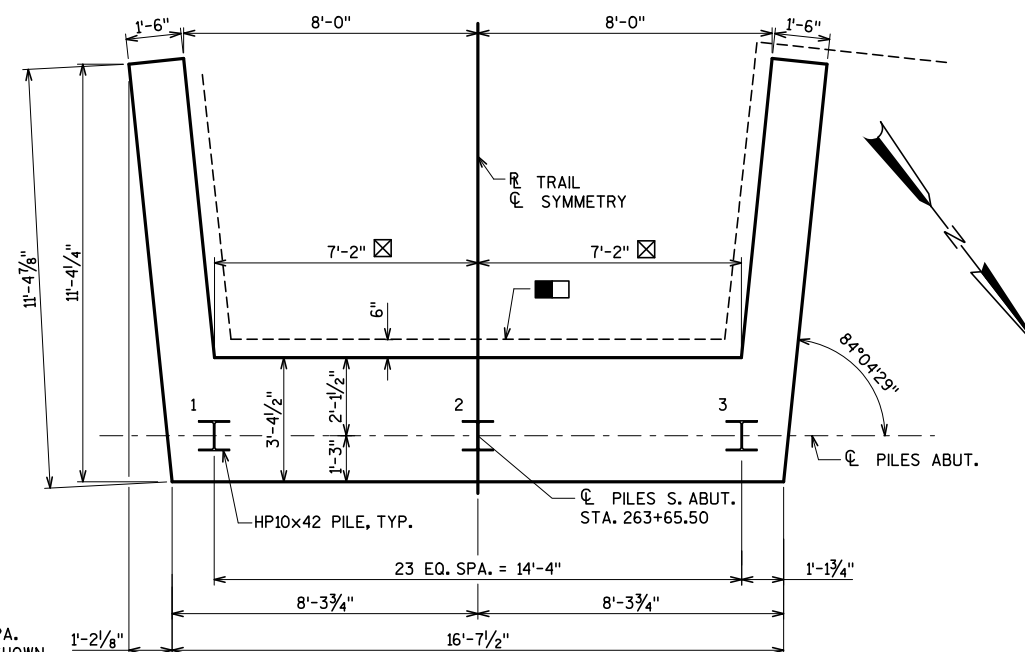
SLIDING PLATES AND BEARINGS, INCLUDING ALL COMPONENTS, SHALL BE DESIGNED AND FURNISHED BY THE BRIDGE MANUFACTURER AND INCLUDED IN THE BID ITEM "PREFABRICATED STEEL TRUSS BRIDGE FURNISHED AND INSTALLED".

LEGEND

- OPTIONAL CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2" X 6".
- ▲ CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.
- ☒ 18" RUBBERIZED MEBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE ABOVE FOOTING.
- PIPE UNDERDRAIN, WRAPPED (6-INCH), SLOPE MIN. 0.5% TO SUITABLE DRAINAGE. ATTACH RODENT SHEILD AT ENDS OF PIPE.

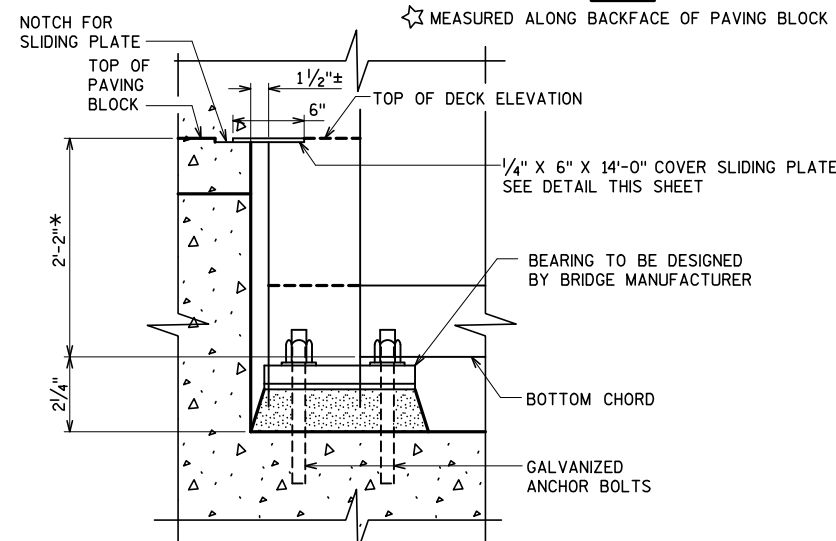


PLAN



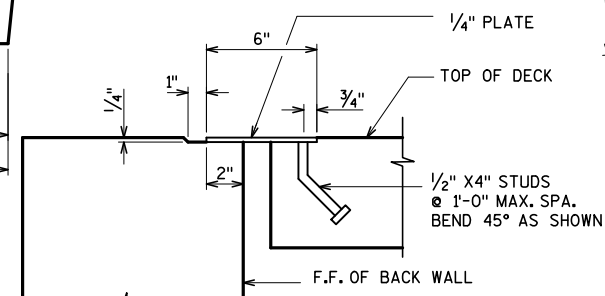
FOOTING PLAN

☒ MEASURED ALONG BACKFACE OF ABUTMENT

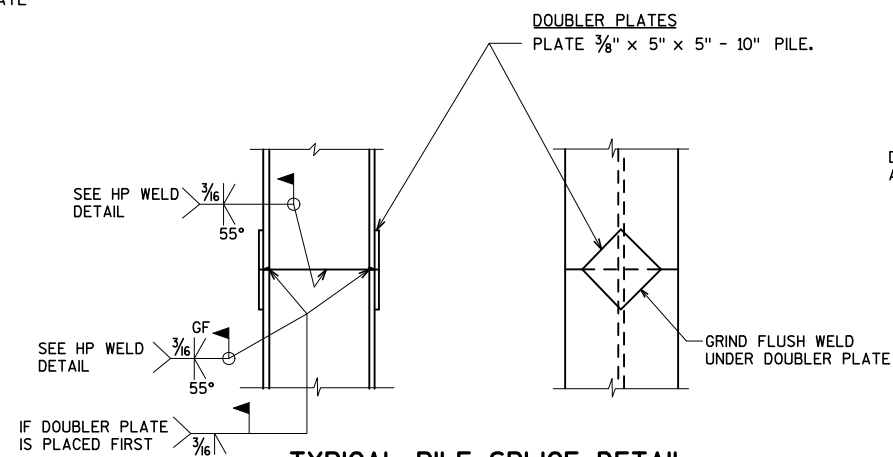


TYPICAL SLIDING PLATE / BEARING DETAIL

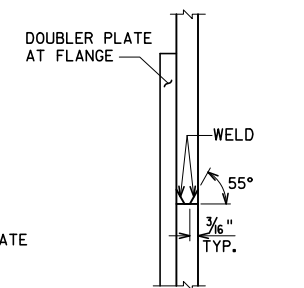
*MEASURED AT CROWN



SLIDING PLATE DETAIL

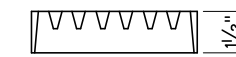


TYPICAL PILE SPLICE DETAIL

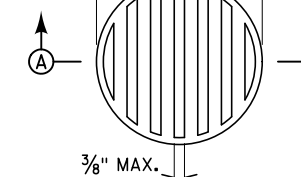


HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR



SECTION A-A



TYPICAL RODENT SHIELD

☆ DIMENSIONS ARE APPROXIMATE, THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

ORIENT SHIELD SO SLOTS ARE VERTICAL.

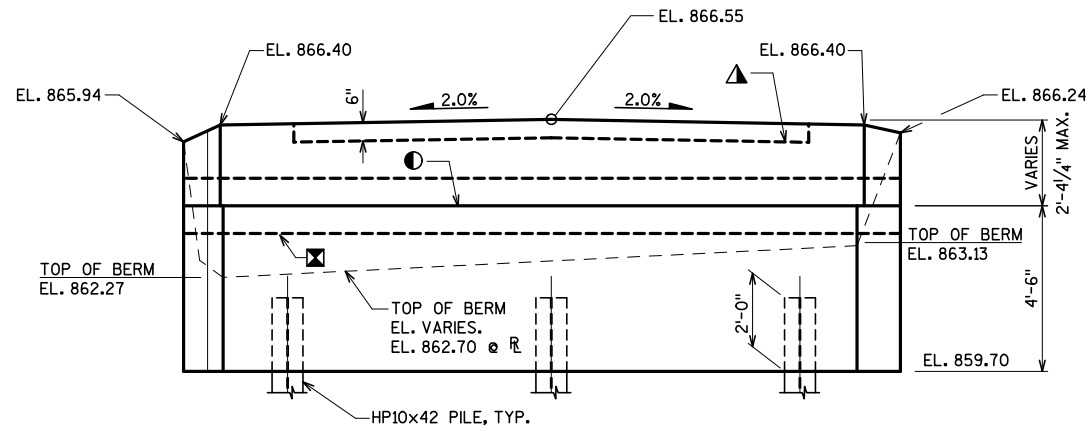
COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN THE BID ITEM "REINFORCED CONCRETE BRIDGE ABUTMENTS AND WINGWALLS FOR NORTH BRIDGE"

NO.	REVISIONS	DATE

DESIGNED BY: BDT	TAL
DRAWN BY: TAZ	TAZ
CHECKED BY:	
APPROVED BY:	
DATE:	
PHASE:	

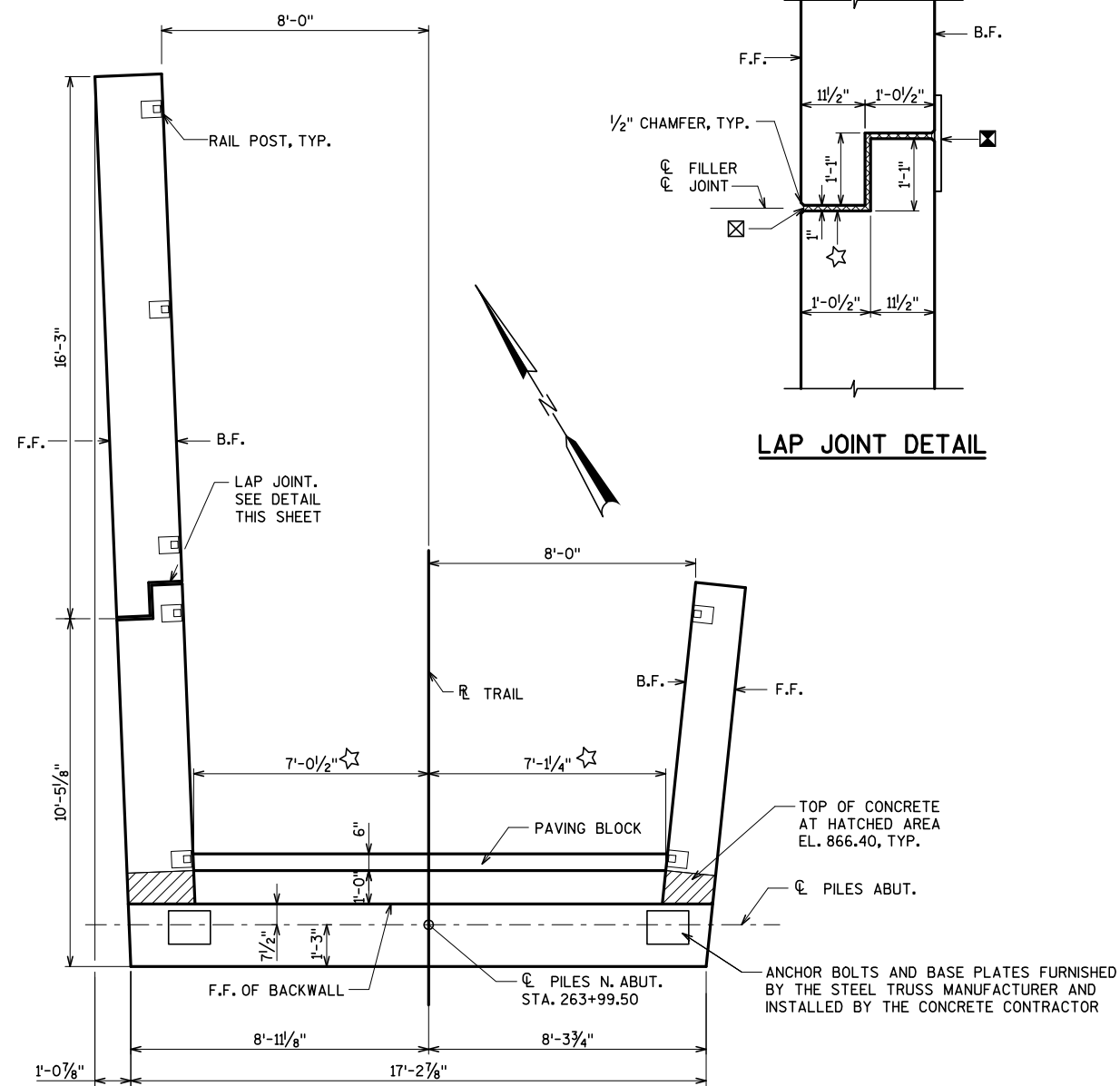
BLOOM COMPANIES, LLC
 Affiliated with the American Road & Builders Builders Association
 10501 W. Research Drive • Milwaukee, WI 53228
 Phone: (414) 771-3390 Fax: (414) 771-4490

SOUTH ABUTMENT
 CANNONBALL TRAIL BRIDGE
 CITY OF MADISON



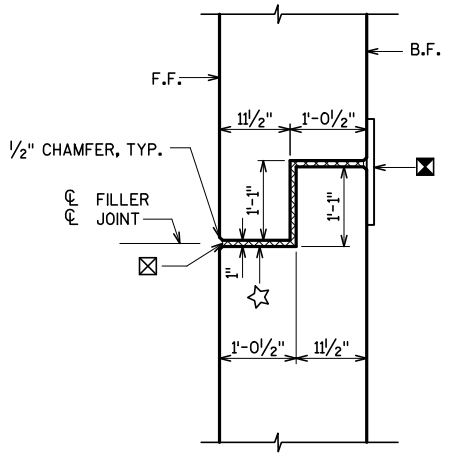
ELEVATION

LOOKING AT FRONT FACE OF ABUTMENT



PLAN

☆ MEASURED ALONG BACK FACE OF PAVING BLOCK



LAP JOINT DETAIL

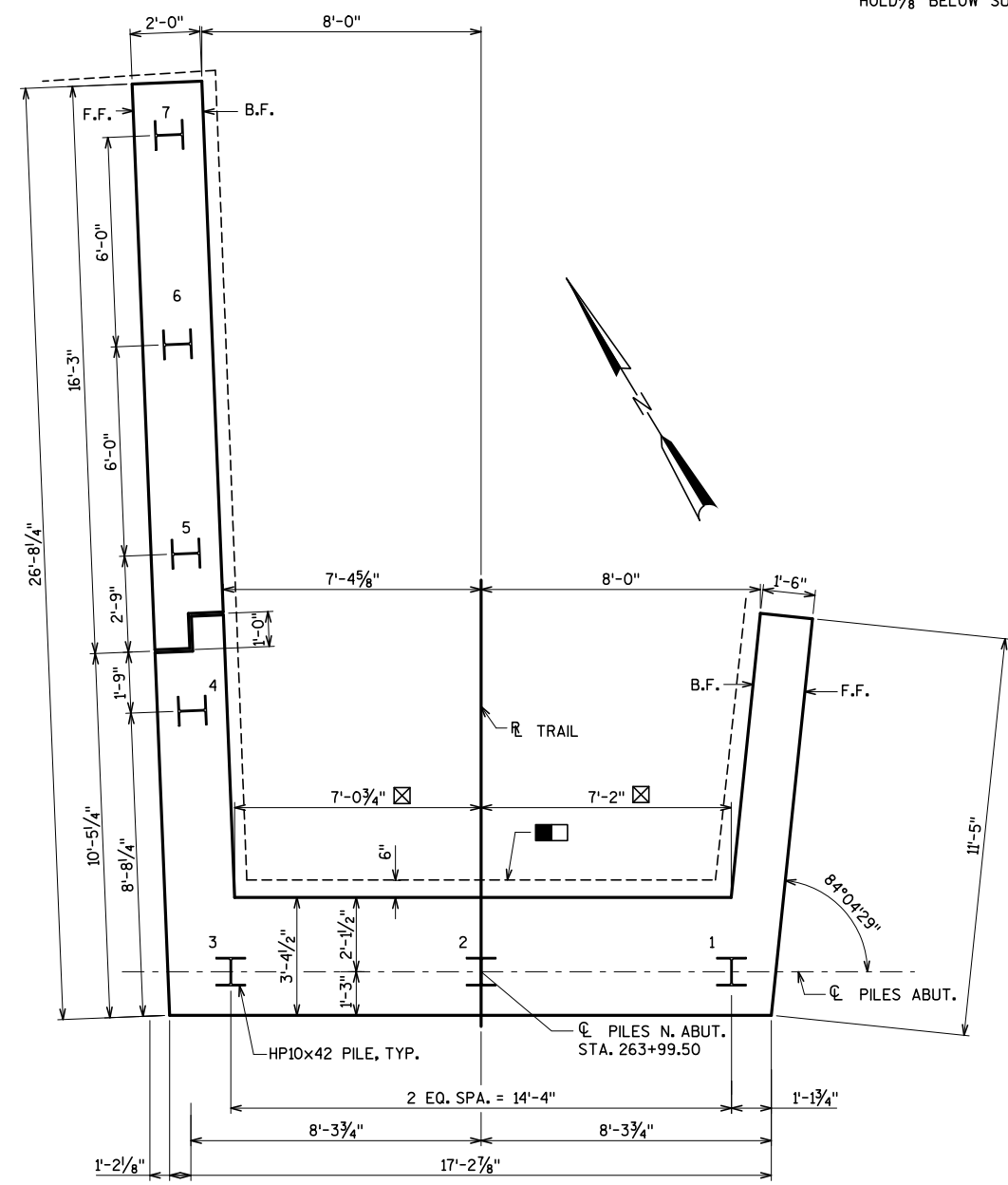
NOTES

THE CONTRACTOR SHALL DEWATER THE ABUTMENT/WINGWALL FORMWORK, IF NECESSARY, PRIOR TO THE CONCRETE FOOTING POUR. DEWATERING INCLUDED IN THE BID ITEM "REINFORCED CONCRETE BRIDGE ABUTMENTS AND WINGWALLS".

SEE "SOUTH ABUTMENT" SHEET FOR ADDITIONAL DETAILS.

LEGEND

- OPTIONAL CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2" X 6".
- ▲ CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.
- ☒ 18" RUBBERIZED MEBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE ABOVE FOOTING.
- PIPE UNDERDRAIN, WRAPPED (6-INCH), SLOPE MIN. 0.5% TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE.
- ☆ 1" PREFORMED FILLER FOR FULL HEIGHT OF WALL
- ☒ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).



FOOTING PLAN

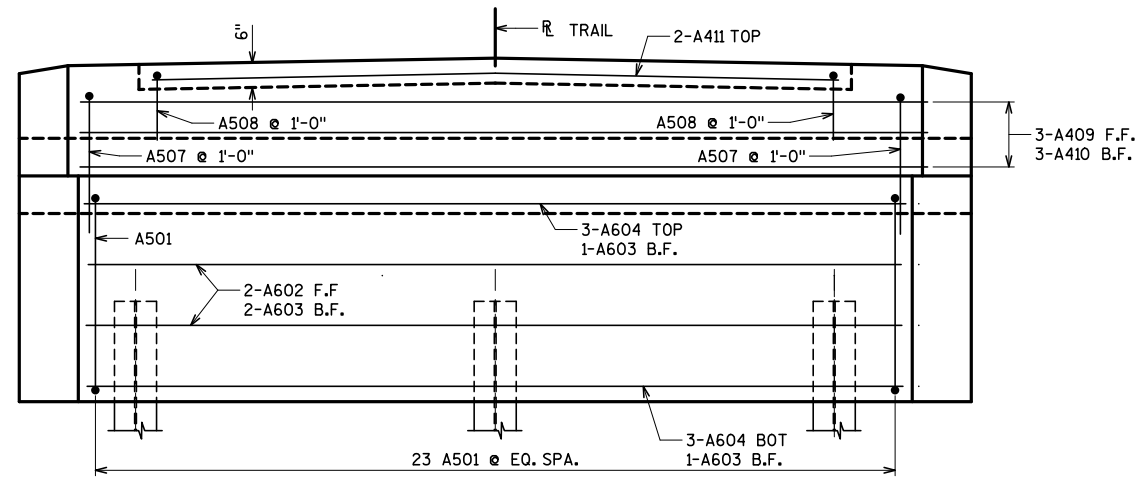
☒ MEASURED ALONG BACK FACE OF ABUTMENT

NO.	REVISIONS	DATE

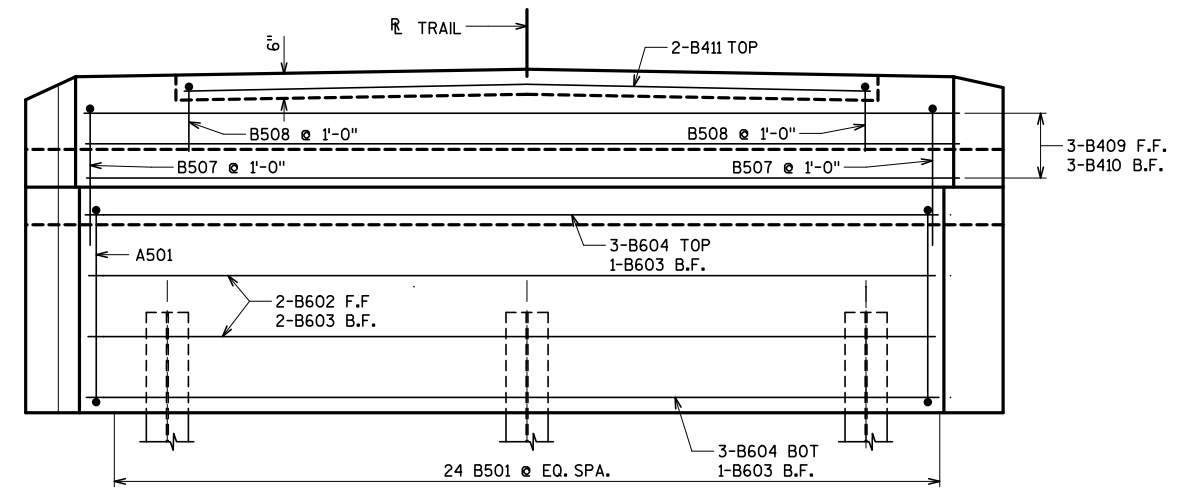
BLOOM COMPANIES, LLC
 Affiliations: *Architecture, Engineering and Agency*
 10501 W. Research Drive • Milwaukee, WI 53228
 Phone: (414) 771-3390 Fax: (414) 771-4490

NORTH ABUTMENT
 CANNONBALL TRAIL BRIDGE
 CITY OF MADISON

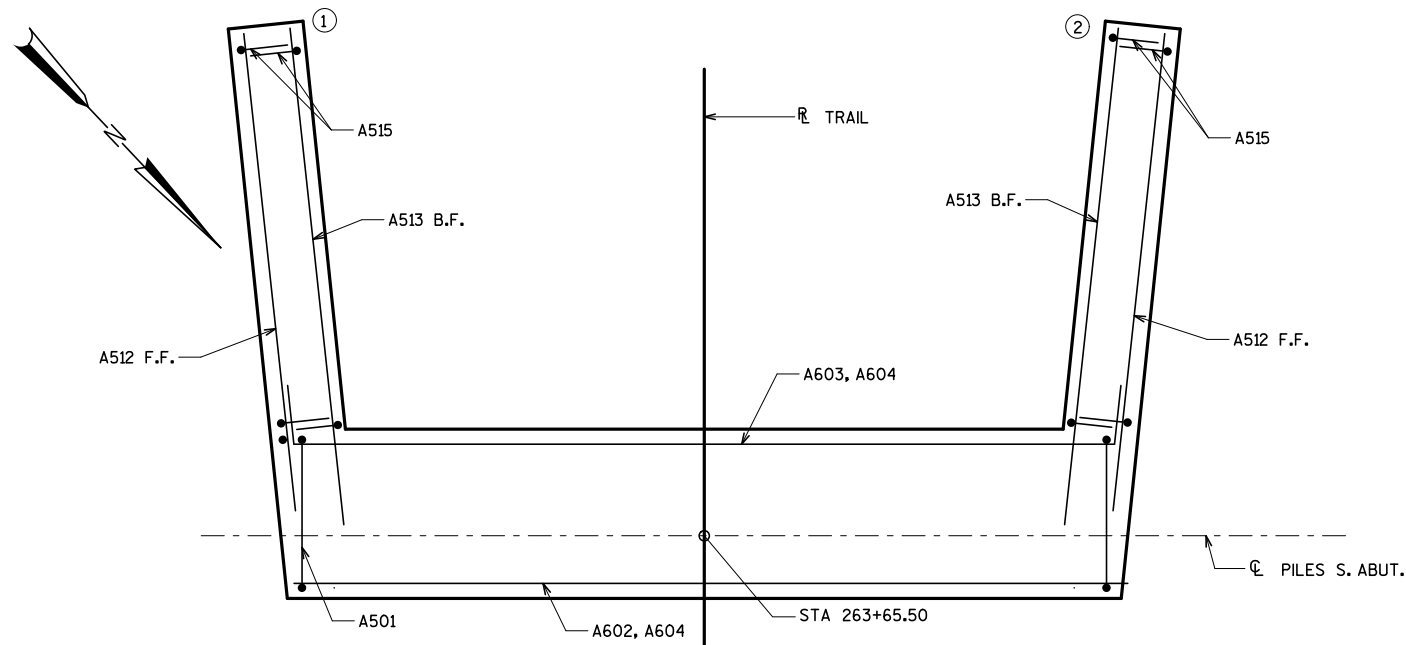
PROJECT NO. BM6-1031
 SHEET NO. S4



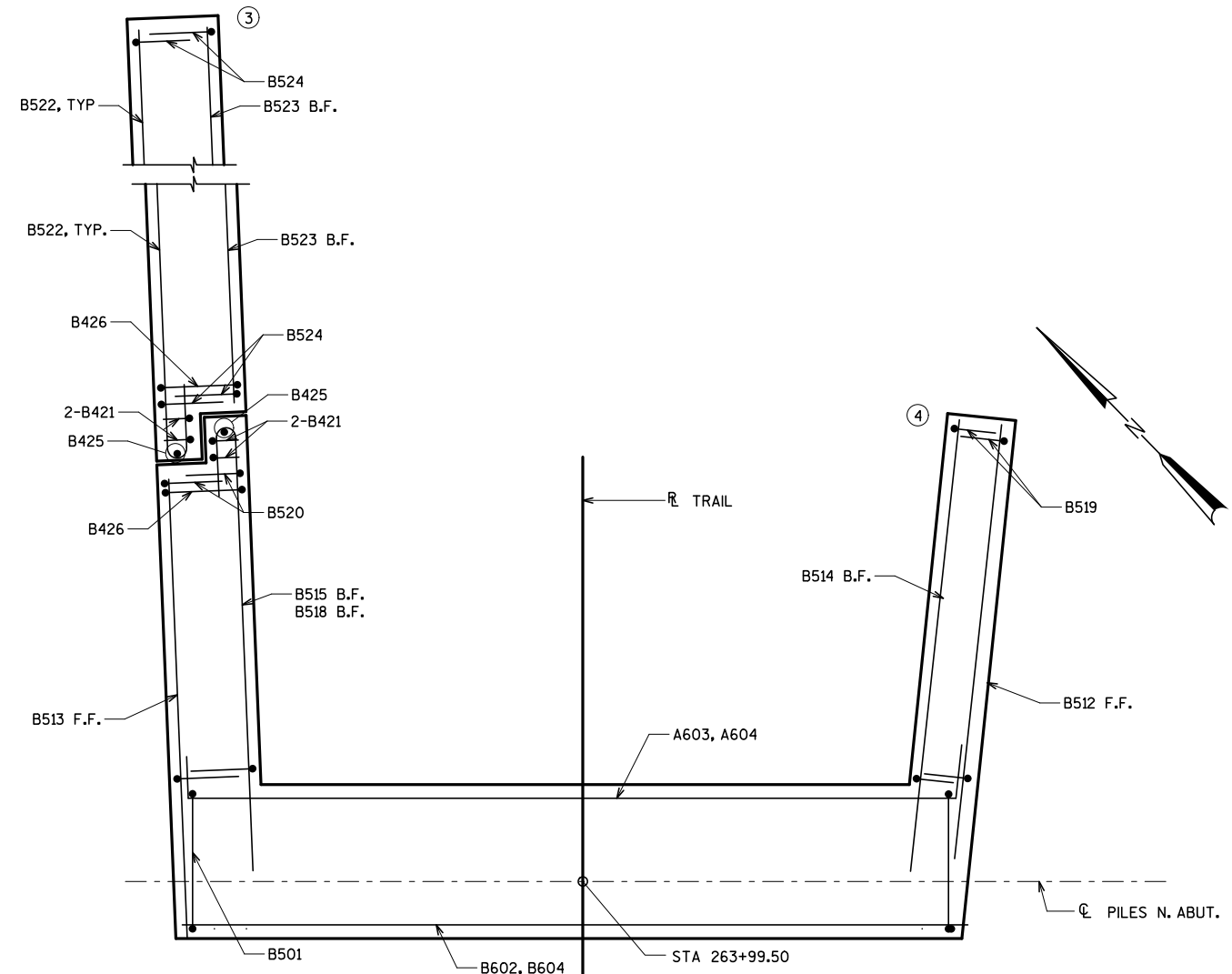
SOUTH ABUT. ELEVATION
(LOOKING SOUTH)



NORTH ABUT. ELEVATION
(LOOKING NORTH)



SOUTH ABUT. PLAN



NORTH ABUT. PLAN

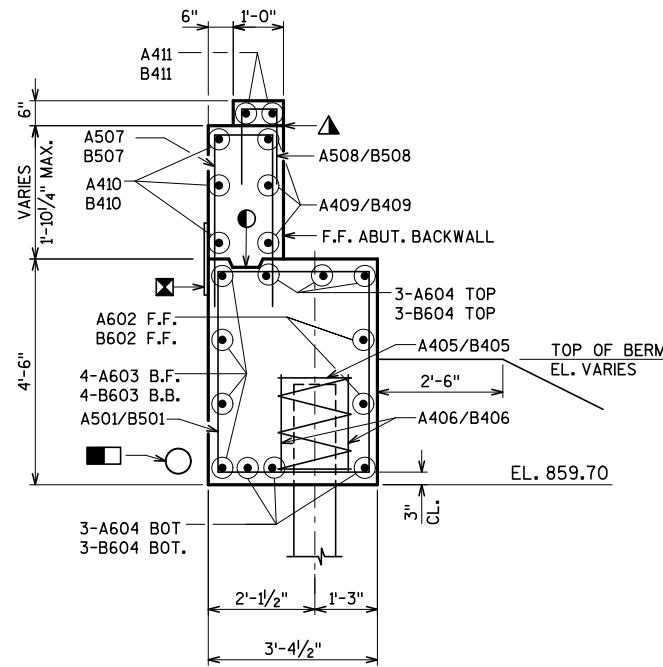
NO.	DATE	REVISIONS
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DRAWN BY: TAL		
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APPROVED BY:		
DATE:		
PHASE:		

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SCALE OF DRAWING
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PER STANDARD INCH

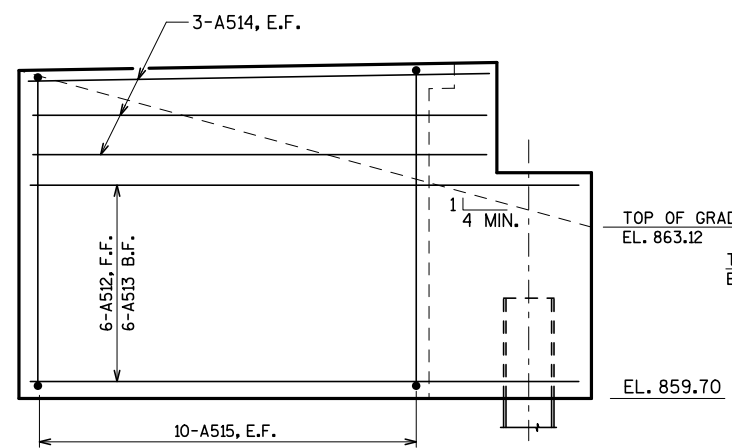
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ABUTMENT DETAILS
CANNONBALL TRAIL BRIDGE
CITY OF MADISON

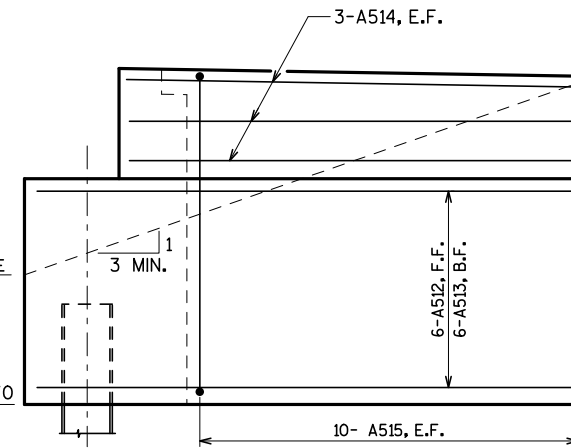
PROJECT NO.
BM6-1031
SHEET NO.
S5



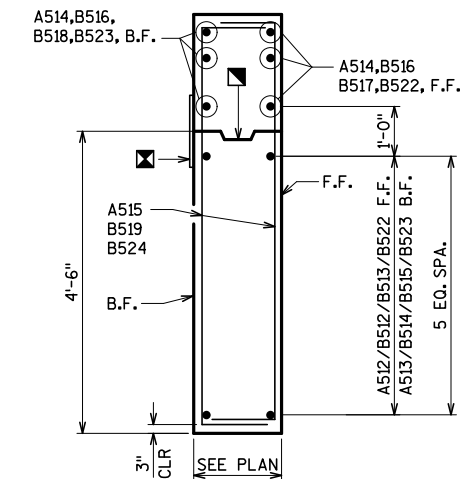
TYPICAL SECTION THRU BODY



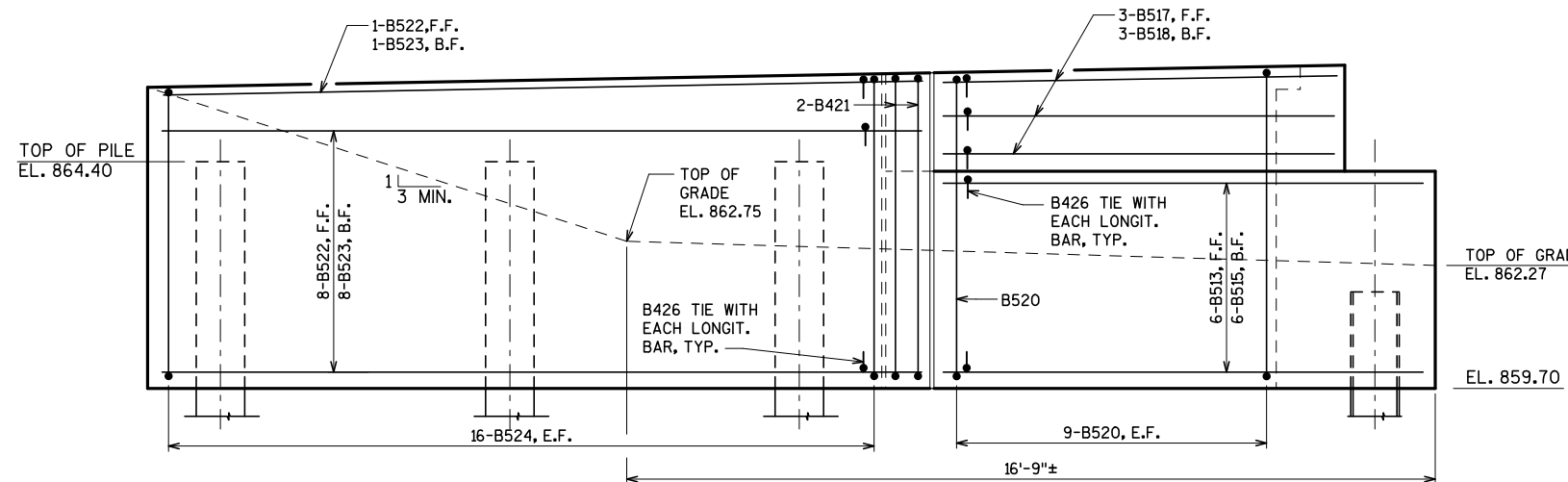
WING 1 ELEVATION
(LOOKING AT F.F. OF WING)



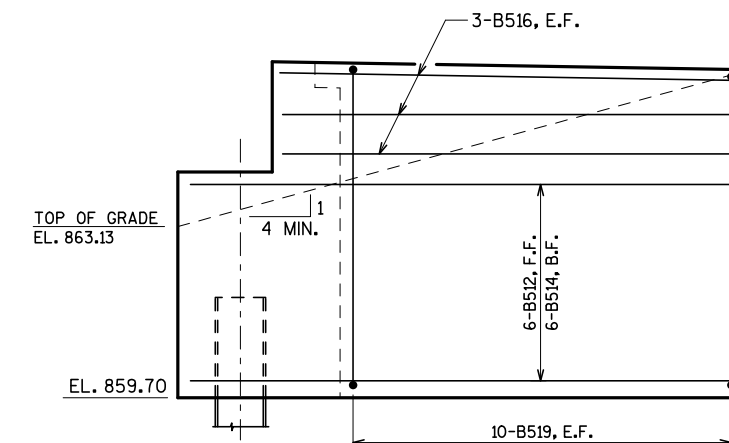
WING 2 ELEVATION
(LOOKING AT F.F. OF WING)



SECTION THRU WING



WING 3 ELEVATION
(LOOKING AT F.F. OF WING)



WING 4 ELEVATION
(LOOKING AT F.F. OF WING)

LEGEND

- OPTIONAL CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6.
- ▲ CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.
- OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 X 6. (18" R.M.W. @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).
- ▣ PIPE UNDERDRAIN, WRAPPED (6-INCH), SLOPE MIN. 0.5% TO SUITABLE DRAINAGE. ATTACH RODENT SHEILD AT ENDS OF PIPE.
- ⊗ 18" RUBBERIZED MEMBRANE WATERPROOFING (RMW) SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- F.F. - FRONT FACE
- B.F. - BACK FACE
- E.F. - EACH FACE

NO.	REVISIONS	DATE

DESIGNED BY: BDT
 DRAWN BY: TAL
 CHECKED BY: TAZ
 APPROVED BY:
 DATE:
 PHASE:

GRAPHIC SCALE
 SCALE OF DRAWING
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WING DETAILS
 CANNONBALL TRAIL BRIDGE
 CITY OF MADISON

PROJECT NO. BM6-1031
SHEET NO. S6

BILL OF BARS- SOUTH ABUTMENT

FOR INFORMATION PURPOSES ONLY

BAR MARK	COAT	QTY	LENGTH	BENT	BAR SERIES	LOCATION
A501	X	23	14'-8"	X	-	BODY STIRRUPS
A602	X	2	16'-2"	-	-	BODY LONGIT, F.F.
A603	X	4	18'-5"	X	-	BODY LONGIT, B.F.
A604	X	6	16'-5"	-	X	BODY LONGIT, TOP
A405	X	3	28'-0"	X	-	BODY, AROUND PILE
A406	X	6	2'-3"	-	-	BODY, SIDE OF PILE
A507	X	18	8'-3"	X	-	BACKWALL, VERTICAL
A508	X	15	3'-5"	X	-	PAVING BLOCK, VERTICAL
A409	X	3	16'-8"	-	-	BACKWALL, LONGIT., F.F.
A410	X	3	16'-11"	-	-	BACKWALL, LONGIT., B.F.
A411	X	2	13'-8"	-	-	PAVING BLOCK, LONGIT
A512	X	12	11'-1"	-	-	WING LONGITUDINAL, F.F.
A513	X	12	10'-6"	-	-	WING LONGITUDINAL, B.F.
A514	X	12	9'-4"	-	-	WING LONGITUDINAL
A515	X	40	8'-3"	X	X	WING VERTICAL

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BAR MARK	NUMBER REQUIRED	LENGTH
A604	2 SERIES OF 3	16'-2" TO 16'-9"
A515	4 SERIES OF 10	8'-2" TO 8'-4"

BUNDLE AND TAG EACH SERIES SEPARATELY

BILL OF BARS- NORTH ABUTMENT

FOR INFORMATION PURPOSES ONLY

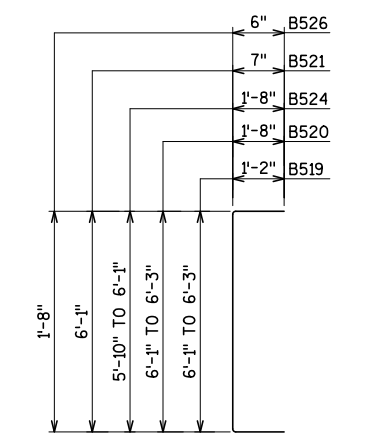
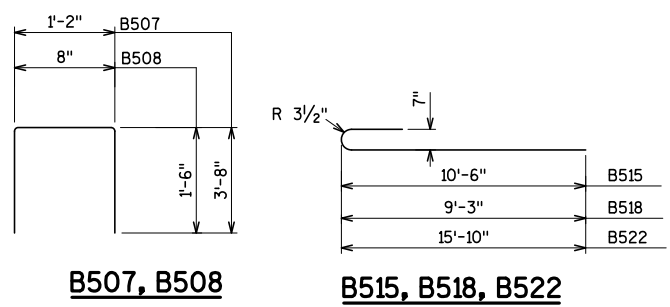
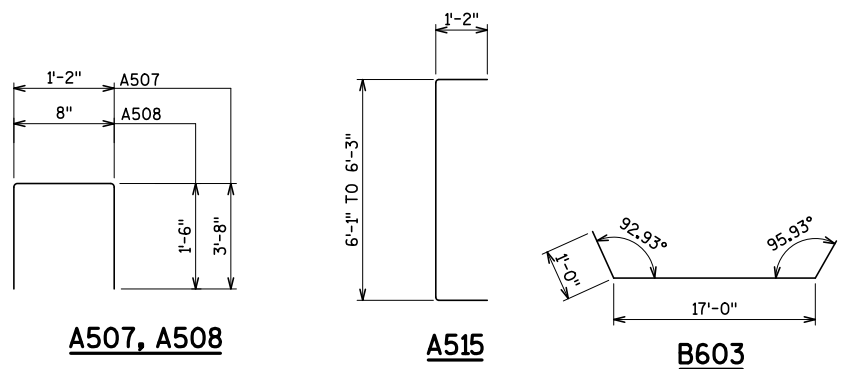
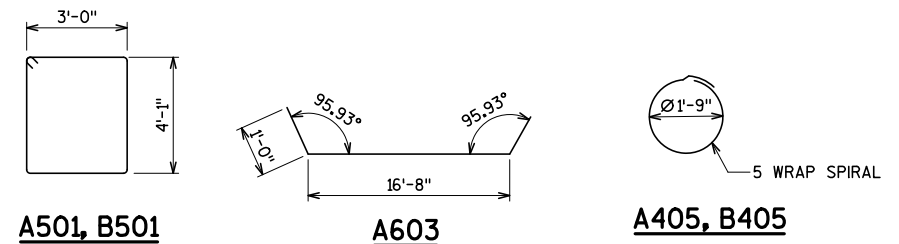
BAR MARK	COAT	QTY	LENGTH	BENT	BAR SERIES	LOCATION
B501	X	24	14'-8"	X	-	BODY STIRRUPS
B602	X	2	16'-2"	-	-	BODY LONGIT, F.F.
B603	X	4	18'-9"	X	-	BODY LONGIT, B.F.
B604	X	6	17'-1"	-	X	BODY LONGIT, TOP
B405	X	7	28'-0"	X	-	BODY, AROUND PILE
B406	X	14	2'-3"	-	-	BODY, SIDE OF PILE
B507	X	19	8'-3"	X	-	BACKWALL, VERTICAL
B508	X	15	3'-5"	X	-	PAVING BLOCK, VERTICAL
B409	X	3	17'-2"	-	-	BACKWALL, LONGIT., F.F.
B410	X	3	17'-4"	-	-	BACKWALL, LONGIT., B.F.
B411	X	2	13'-8"	-	-	PAVING BLOCK, LONGIT
B512	X	6	11'-1"	-	-	WING 4 LONGITUDINAL, F.F.
B513	X	6	10'-0"	-	-	WING 3 LONGITUDINAL, F.F.
B514	X	6	10'-6"	-	-	WING 4 LONGITUDINAL, B.F.
B515	X	6	13'-3"	X	-	WING 3 LONGITUDINAL, B.F.
B516	X	6	9'-4"	-	-	WING 4 LONGITUDINAL
B517	X	3	8'-2"	-	-	WING 3 LONGITUDINAL, F.F.
B518	X	3	12'-0"	X	-	WING 3 LONGITUDINAL, B.F.
B519	X	20	8'-3"	-	X	WING 4 VERTICAL
B520	X	18	9'-3"	-	X	WING 3 VERTICAL
B421	X	4	7'-1"	X	-	WING 3 VERTICAL
B522	X	9	18'-10"	X	-	WING 3 LONGIT., F.F.
B523	X	9	14'-10"	-	-	WING 3 LONGIT., B.F.
B524	X	32	9'-1"	X	X	WING 3 VERTICAL
B425	X	2	6'-1"	-	-	WING 3 VERTICAL
B426	X	18	2'-6"	X	-	WING 3 TIES

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BAR MARK	NUMBER REQUIRED	LENGTH
B604	2 SERIES OF 3	16'-11" TO 17'-2"
B519	2 SERIES OF 10	8'-2" TO 8'-4"
B520	2 SERIES OF 9	9'-2" TO 9'-4"
B524	2 SERIES OF 16	8'-11" TO 9'-2"

BUNDLE AND TAG EACH SERIES SEPARATELY



ABUTMENT ESTIMATED QUANTITIES (SEE NOTE 1)

FOR INFORMATION PURPOSES ONLY

ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	TOTAL
206.1000	EXCAVATION FOR STRUCTURES	LS	-	-	1
210.0100	BACKFILL STRUCTURES	CY	37	61	98
502.0100	CONCRETE MASONRY BRIDGES	CY	18	27	45
505.0405	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	1750	2480	4230
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	5	9	14
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	40	60	100

NOTE 1

ALL ITEMS IN ESTIMATE QUANTITIES ON THIS SHEET SHALL BE INCLUDED IN THE BID ITEM "REINFORCED CONCRETE BRIDGE ABUTMENTS" AND SHALL CONFORM TO THE SPECIFICATIONS FOR EACH INDIVIDUAL BID ITEM CONTAINED WITHIN THE WISDOT "2014 STANDARD SPECIFICATIONS".

BENDING DIAGRAMS

NO.	REVISIONS	DATE

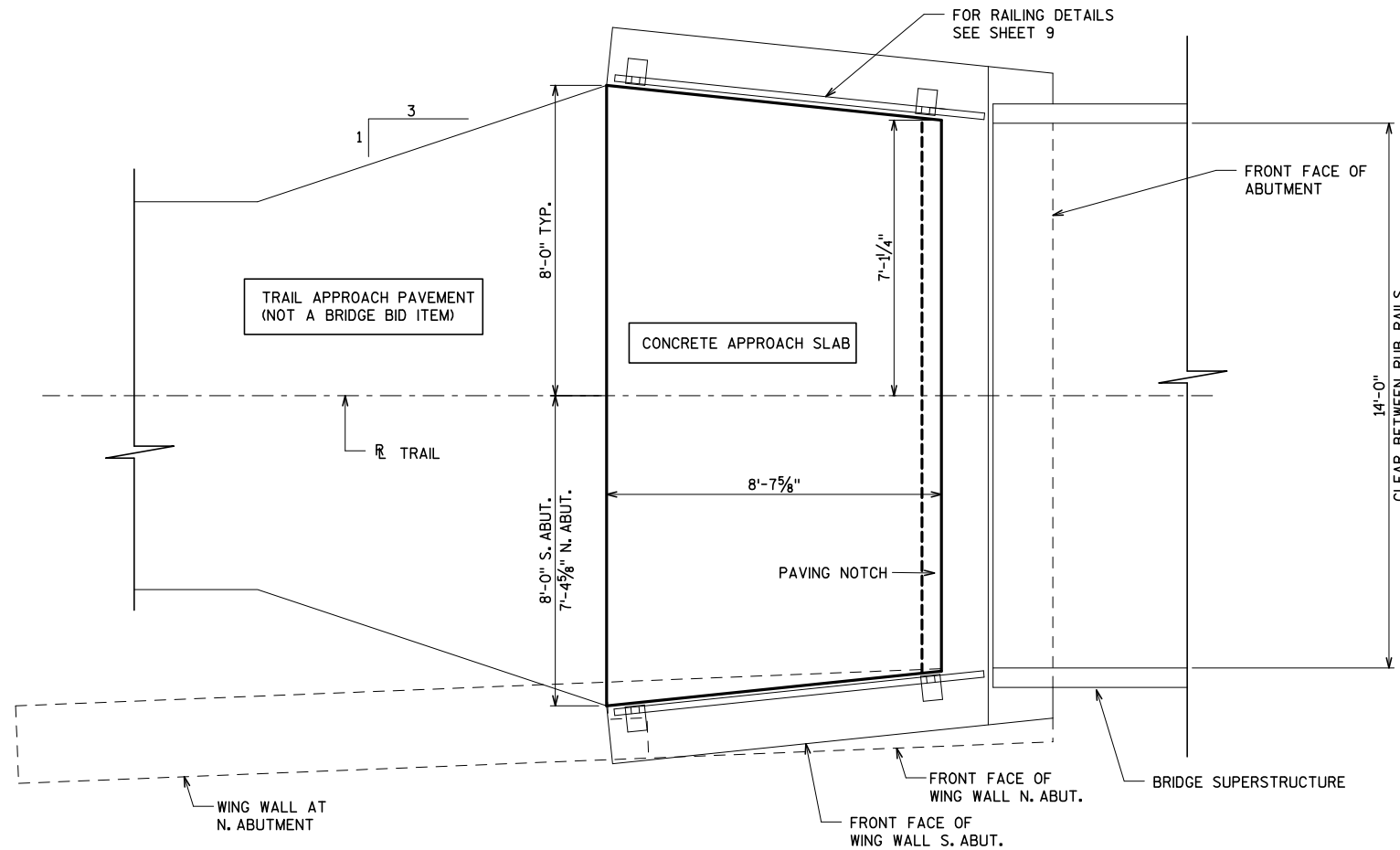
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DRAWN BY: TAZ	TAZ
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SCALE OF DRAWING
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PER STANDARD INCH

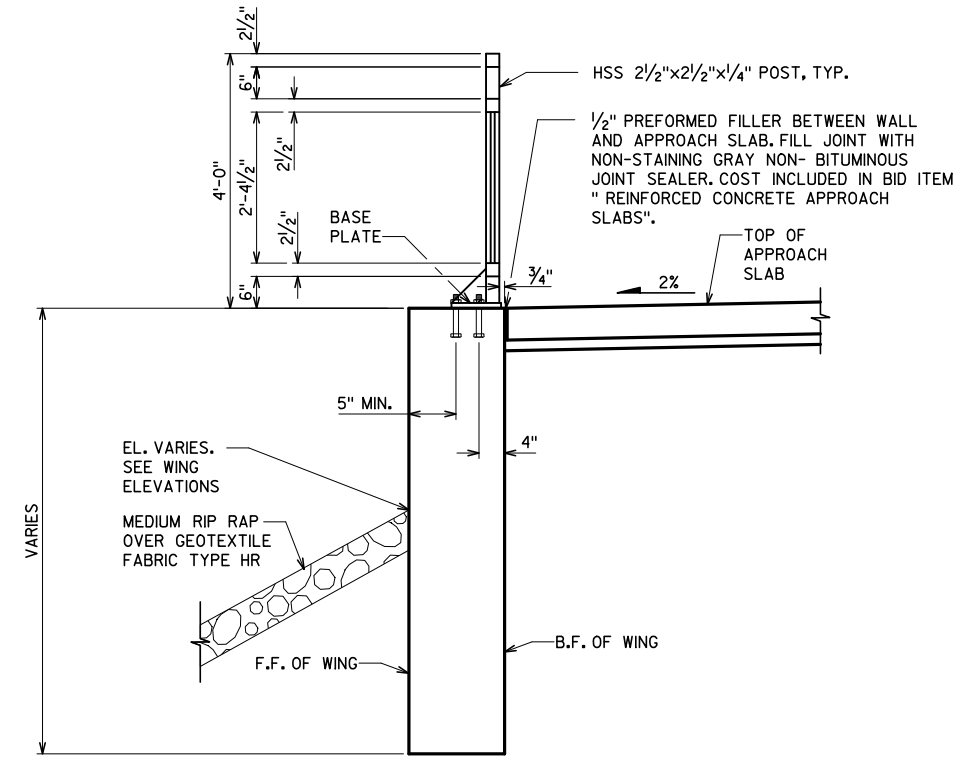
BLOOM COMPANIES, LLC
Infrastructure, Measurement and Agency
10501 W. Research Drive • Milwaukee, WI 53228
Phone: (414) 771-3390 Fax: (414) 771-4490

BILL OF BARS
CANNONBALL TRAIL BRIDGE
CITY OF MADISON

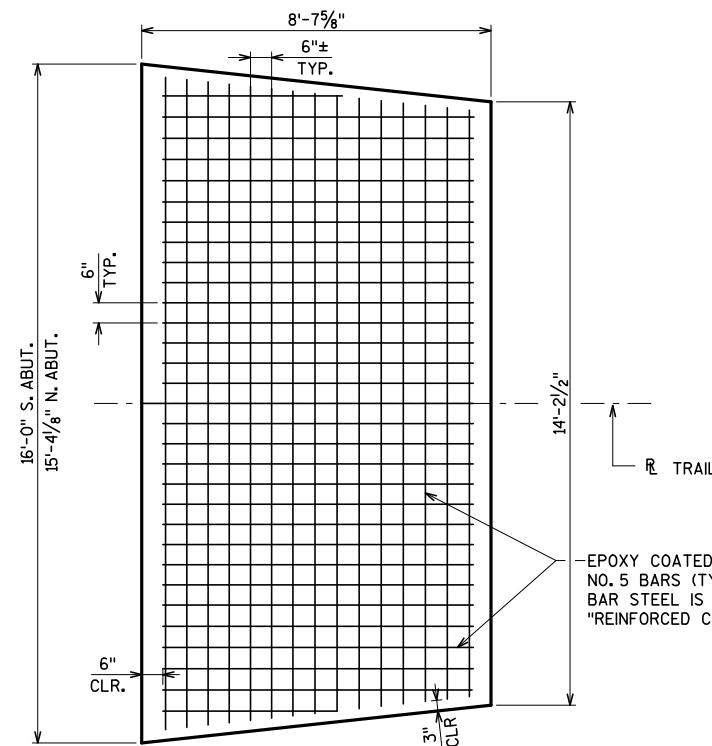
PROJECT NO. BM6-1031
SHEET NO. S7



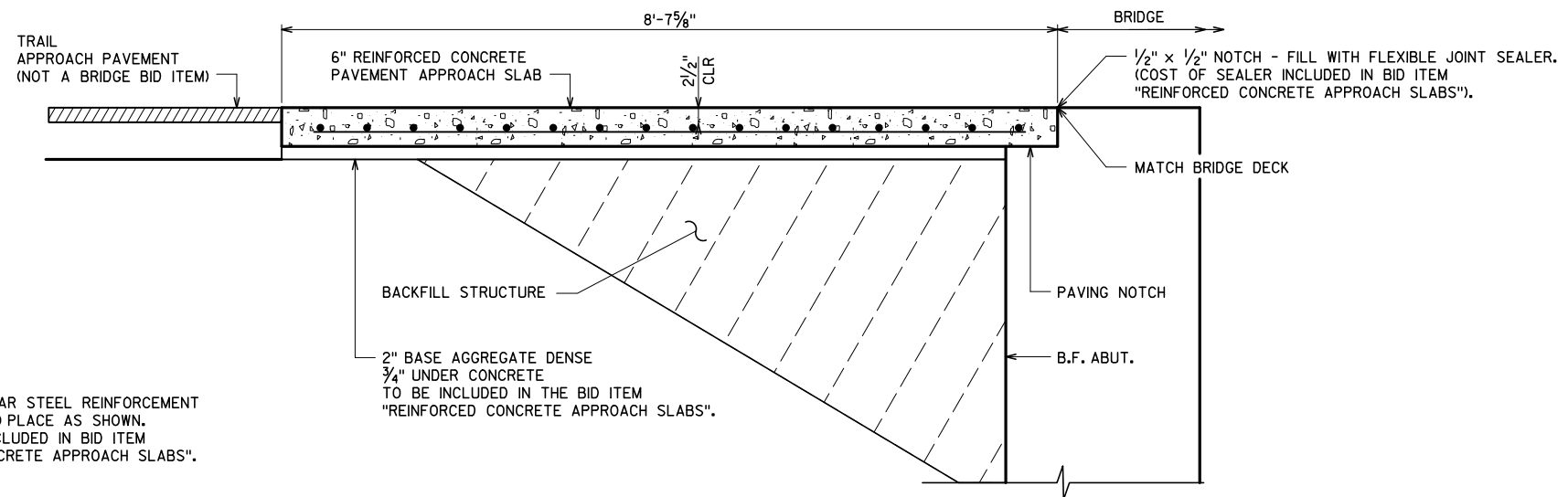
APPROACH SLAB PLAN



SECTION THRU WING



SOUTH APPROACH SLAB PLAN - REINFORCEMENT



APPROACH SLAB ELEVATION

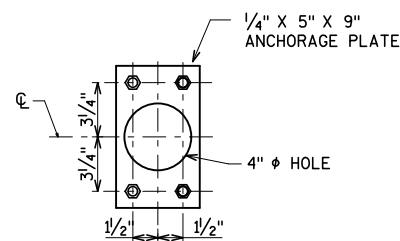
NO.	REVISIONS	DATE

DESIGNED BY: BDT	NO.	
DRAWN BY: TAL		
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DATE:		
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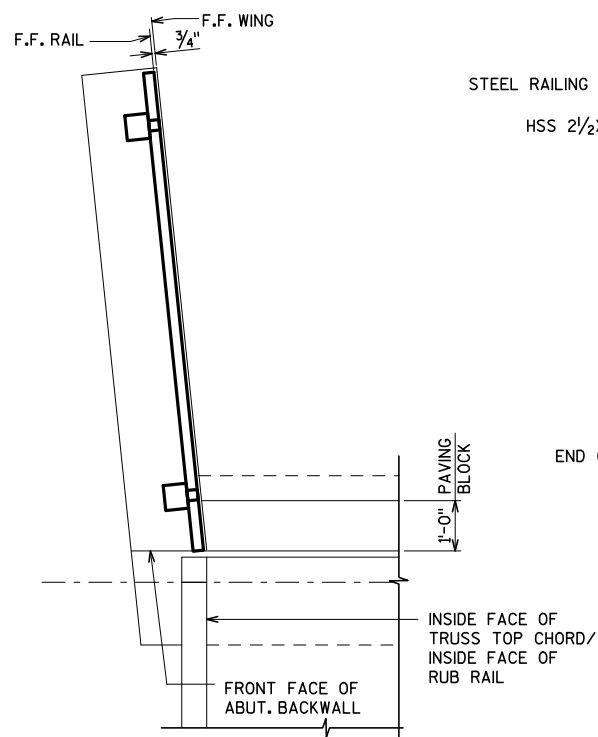
APPROACH SLAB DETAILS
 CANNONBALL TRAIL BRIDGE
 CITY OF MADISON

PROJECT NO. BM6-1031
SHEET NO. S8

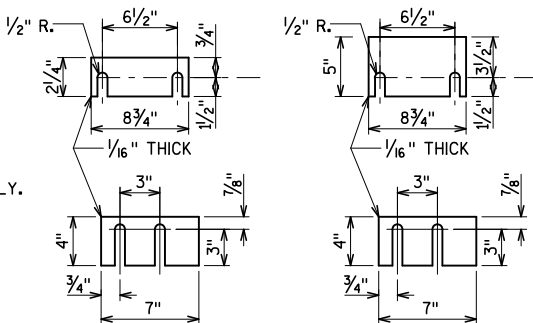
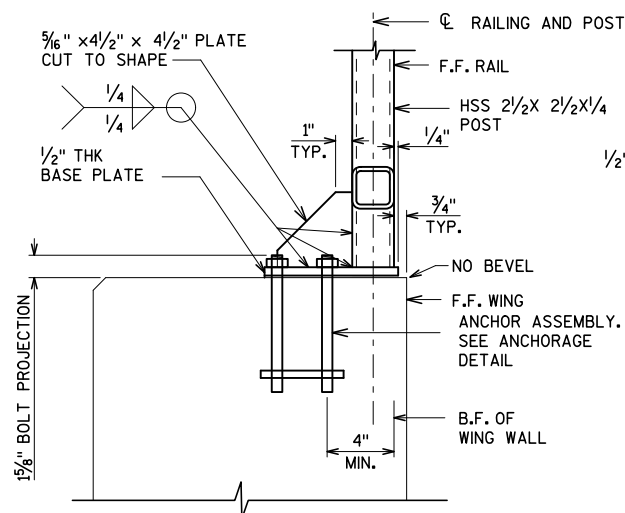


ANCHORAGE DETAIL

5/8" ϕ CONCRETE MASONRY ANCHOR, TYPE S EPOXY, 7" MINIMUM EMBEDMENT WITH A MINIMUM PULLOUT OF 20 KIPS MAY BE SUBSTITUTED FOR 5/8" CAST IN PLACE ANCHOR BOLTS. ANCHORAGE PLATE NOT REQUIRED WHEN TYPE S ANCHORS ARE USED.

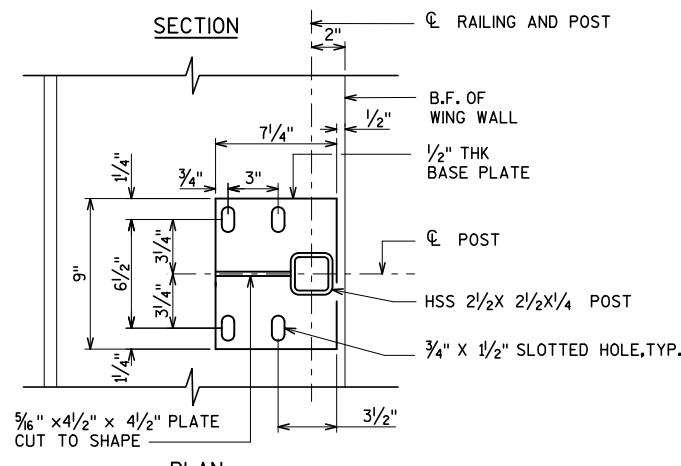


TYPICAL PLAN OF RAILING

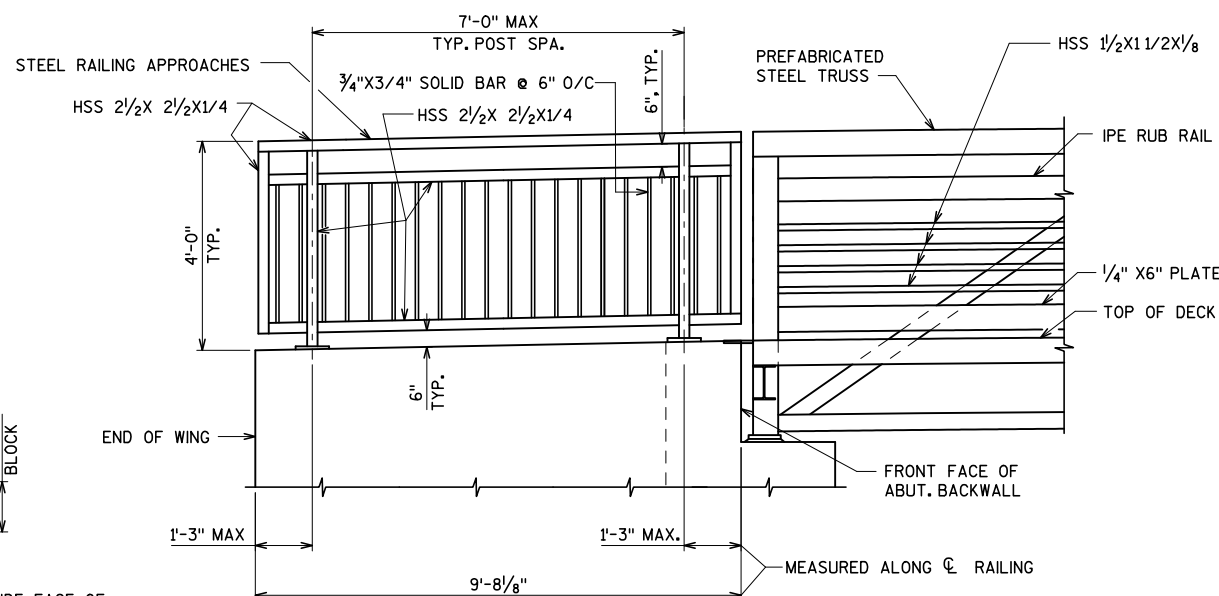


SHIM PLATE DETAILS

ONE SHIM OF EACH SIZE REQUIRED PER POST

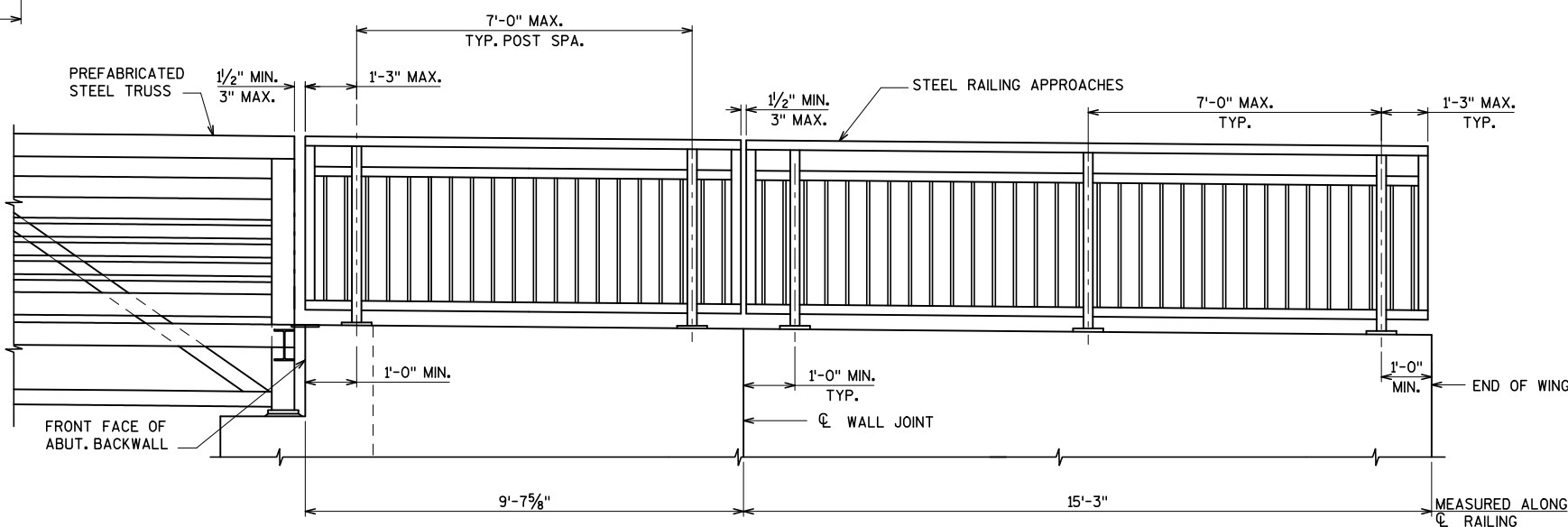


RAILING BASE PLATE



RAILING INSIDE ELEVATION

WING 2 SHOWN. WINGS 1 & 4 SIMILAR



RAILING INSIDE ELEVATION

(WING 3)

NOTES

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

RAILS AND POSTS TO BE ASTM A500, GRADE B. BASE PLATES AND SHIMS TO BE ASTM A709, GRADE 36. ALL GALVANIZED AFTER FABRICATION.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS NORMAL TO GRADE.

ALL POST SPA. ARE TAKEN HORIZ. ALONG CENTER LINE OF RAILING AT BASE OF POST.

SHIMS SHALL BE USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

POSTS AND PICKETS SHALL BE SET VERTICAL AND RAILS SHALL BE SET PARALLEL TO TOP OF WING WALL.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF 307 IS USED, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED.

RAILING IS TO BE GALVANIZED AND PAINTED.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE NOT MORE THAN 3 POSTS.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING.

ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A #6 BLAST CLEANING BY SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH APPROVED TIE COAT AND TOPCOAT.

RAIL POST SPACING IS MEASURED ALONG ϕ RAILING.

CLEAR SPACING BETWEEN PICKETS TO BE 6" MAXIMUM.

SUBMIT SHOP DRAWINGS FOR ENGINEER'S REVIEW AND FABRICATE RAILING COMPONENTS ONLY AFTER SHOP DRAWINGS ARE APPROVED.

NO.	REVISIONS	DATE

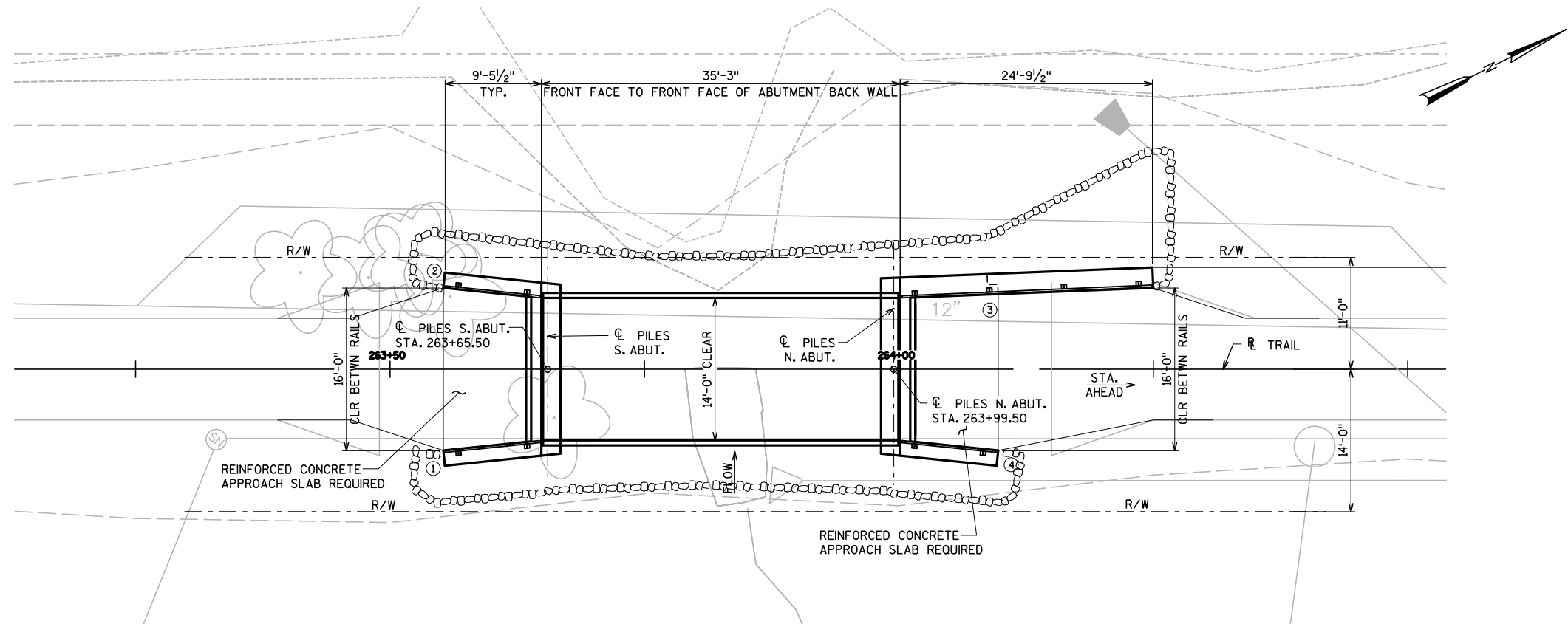
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DRAWN BY: TAZ	TAZ
CHECKED BY:	DATE:
APPROVED BY:	PHASE:

GRAPHIC SCALE
SCALE OF DRAWING
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PER STANDARD INCH

BLOOM COMPANIES, LLC
Fabrication, Inspection and Rigging
10501 W. Research Drive • Milwaukee, WI 53228
Phone: (414) 771-3390 Fax: (414) 771-4490

RAILING DETAILS
CANNONBALL TRAIL BRIDGE
CITY OF MADISON

PROJECT NO. BM6-1031
SHEET NO. S9



PLAN
(SINGLE SPAN PREFABRICATED TRUSS PEDESTRIAN BRIDGE)

ABBREVIATIONS

F— FINE	M— MEDIUM	C— COARSE
WS— WEATHERED	SO— SOUND	

MATERIAL SYMBOLS

LEGEND OF PROBING

PROBING NO. _____
STA. _____
ELEVATION _____

95/6=95 BLOWS FOR 6" PENETRATION TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

7 AVERAGE BLOWS PER FOOT

REFUSAL 95/6

LEGEND OF BORING

BORING NO. _____
STA. _____
ELEV. _____

UNCONFINED STRENGTH 7.7
BLOWS PER FT. USING 140# WT. FALLING 30"

WASH SAMPLE

SHELBY TUBE — S.T.

GROUND WATER ELEVATION

NO GROUND WATER OBSERVED ABOVE THIS ELEVATION

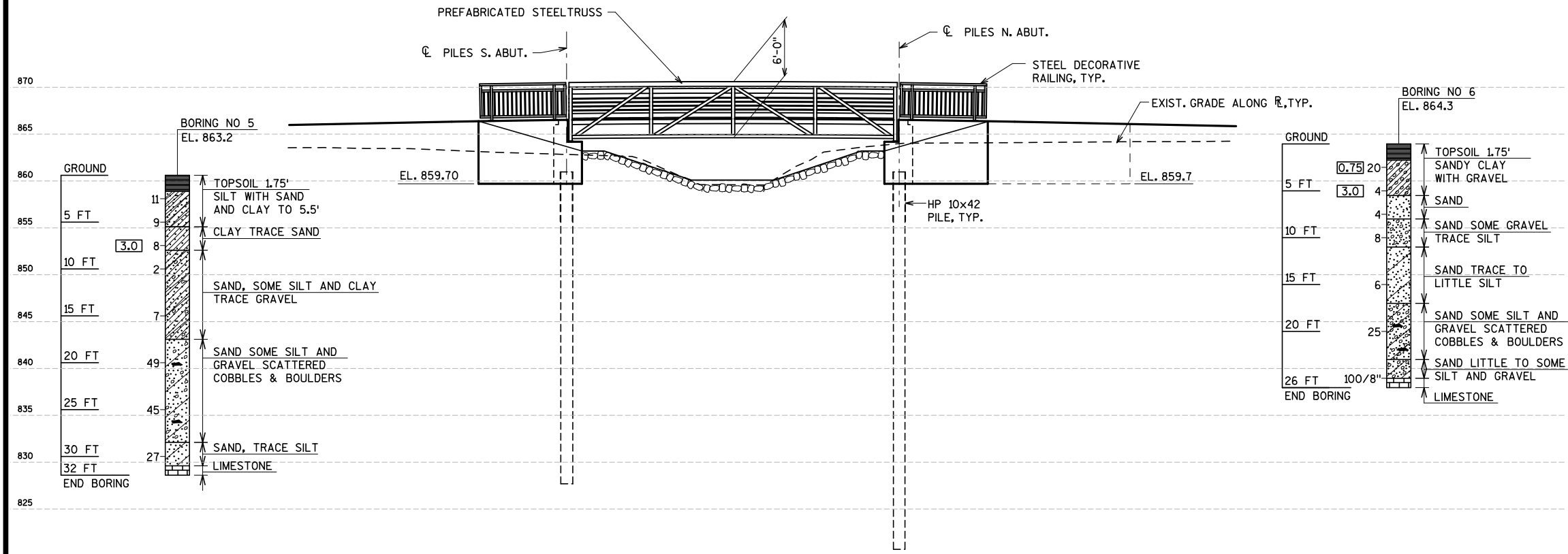
SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO
LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

SUBSURFACE INFORMATION PRESENTED ON THIS SHEET IS OBTAINED FROM THE GEOTECHNICAL REPORT PREPARED BY CGC, INC. DATED MARCH 28, 2013. SOIL BORING WERE PERFORMED BY CGC, INC. BETWEEN FEBRUARY 25 AND FEBRUARY 26, 2013.



ELEVATION
(LOOKING WEST)

DATE	
REVISIONS	
NO.	
DESIGNED BY: BDT	TAL
DRAWN BY: TAL	TAZ
CHECKED BY: TAZ	
APPROVED BY:	
DATE:	
PHASE:	
GRAPHIC SCALE:	
SCALE OF DRAWING:	PER STANDARD INCH

BLOOM COMPANIES LLC
Infrastructure Engineering and Agency

10501 W. Research Drive • Milwaukee, WI 53228
Phone: (414) 771-3390 Fax: (414) 771-4490

SUBSURFACE EXPLORATION
CANNONBALL TRAIL BRIDGE
CITY OF MADISON

PROJECT NO.
BM6-1031
SHEET NO.
S10

CROSS SECTIONS

PATH

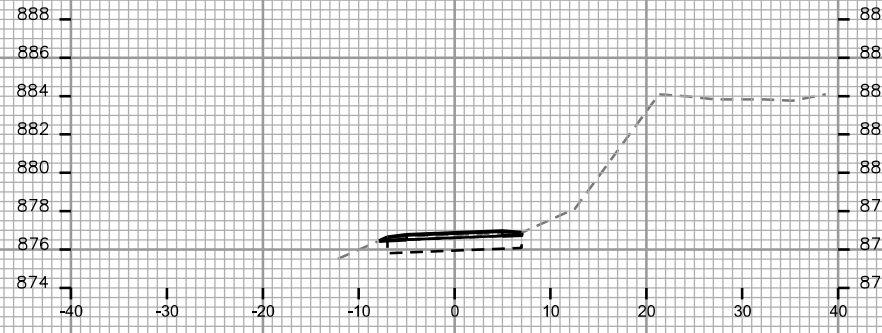
CITY OF MADISON

PLOT SCALE: _____

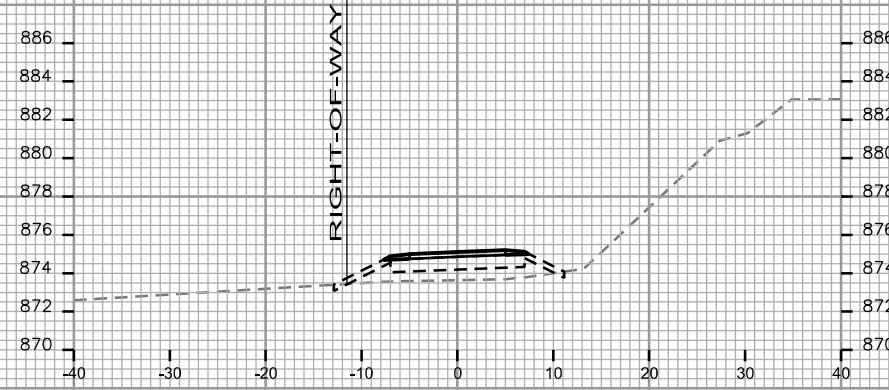
PLOT NAME: _____

REV. DATE: _____

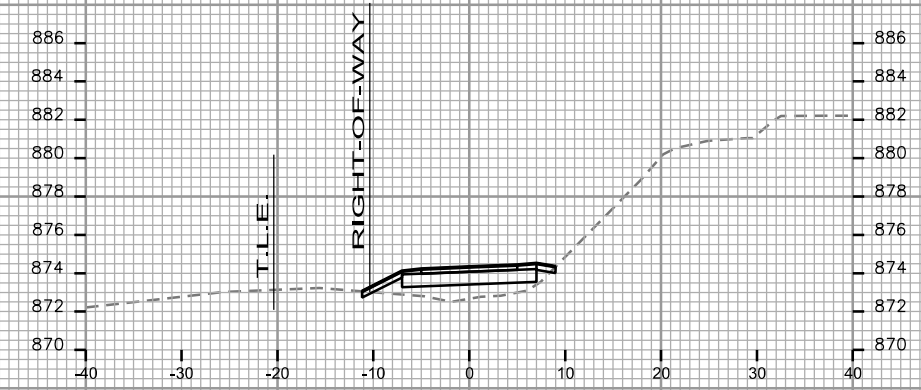
ORIGINATOR: CITY OF MADISON - STREETS DIVISION



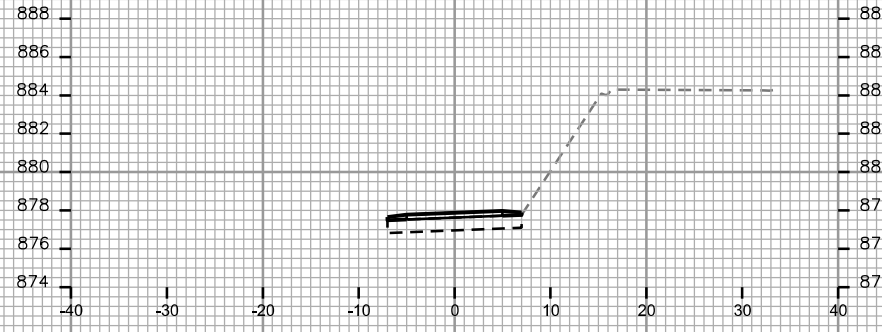
STA. 244+25



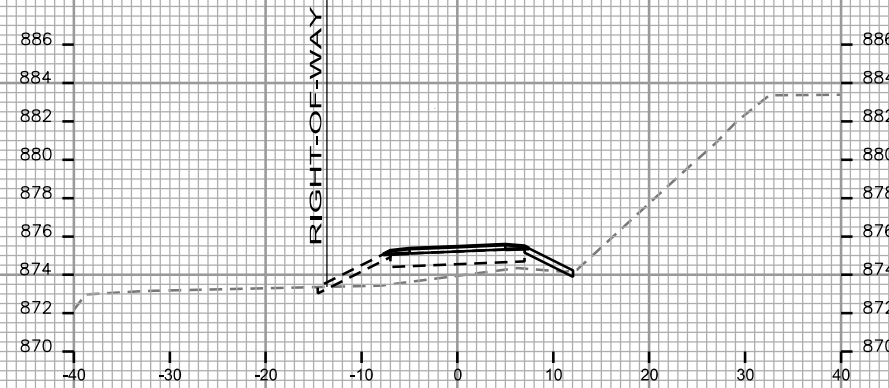
STA. 245+00



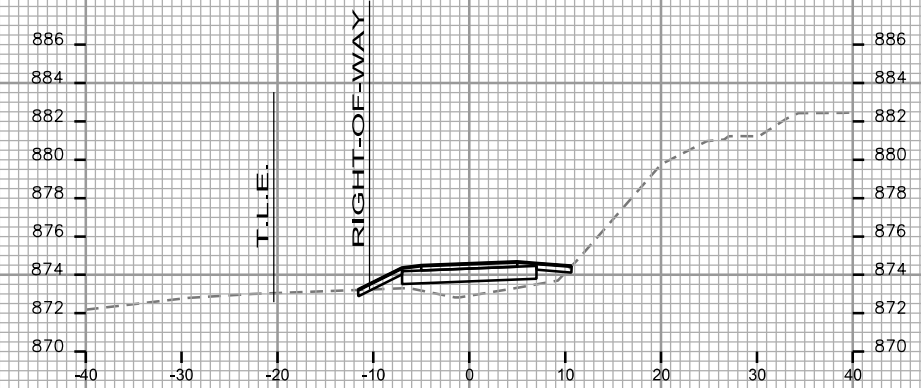
STA. 245+75



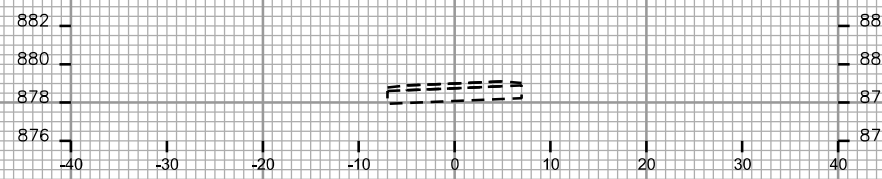
STA. 244+00



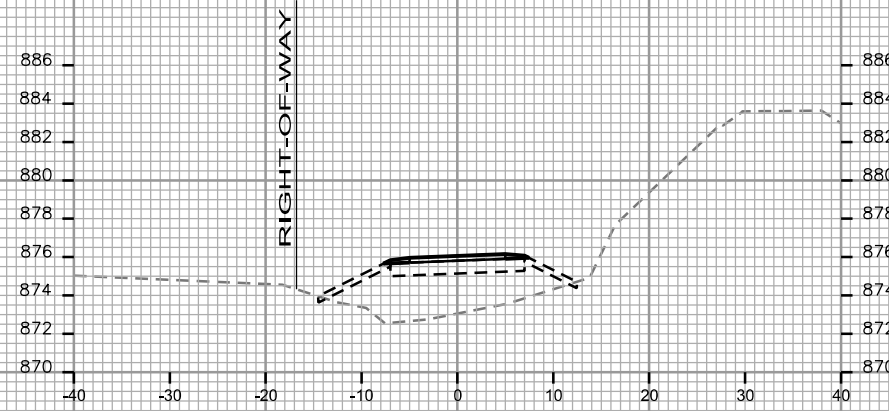
STA. 244+75



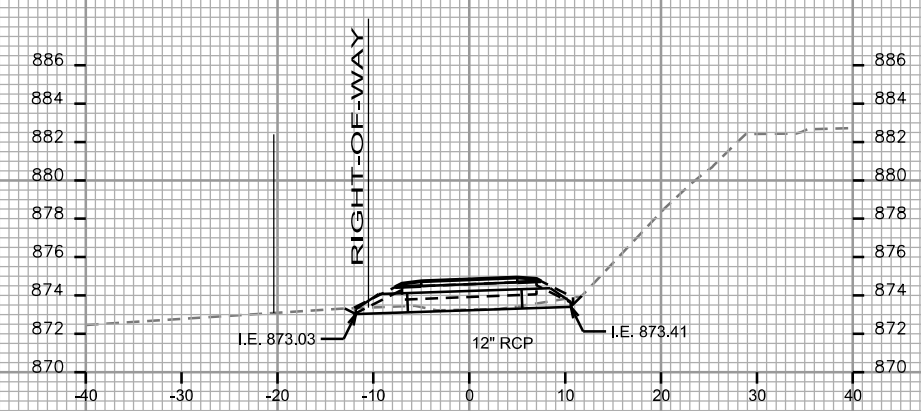
STA. 245+50



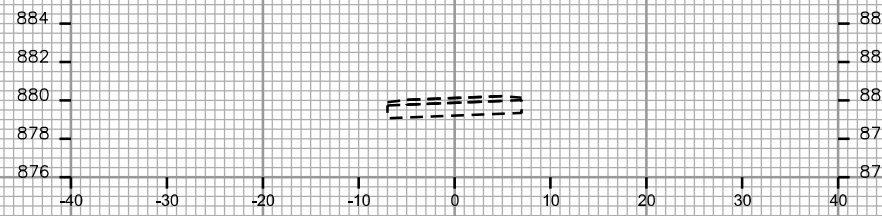
STA. 243+75



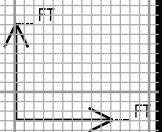
STA. 244+50



STA. 245+25



STA. 243+50

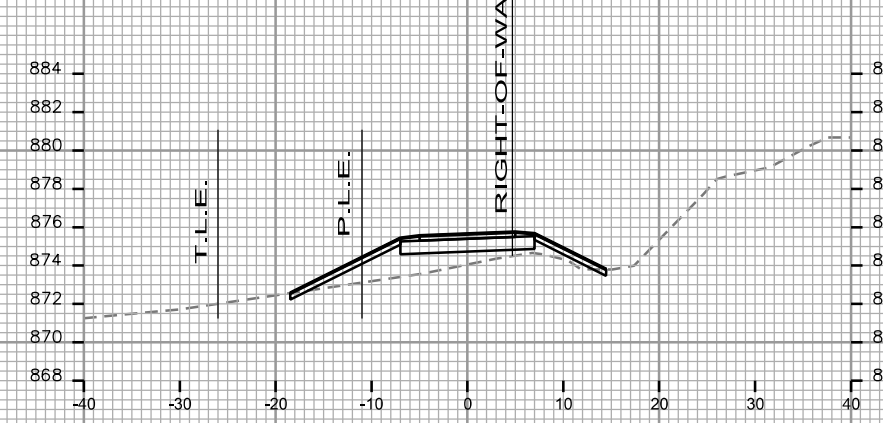


CROSS SECTIONS

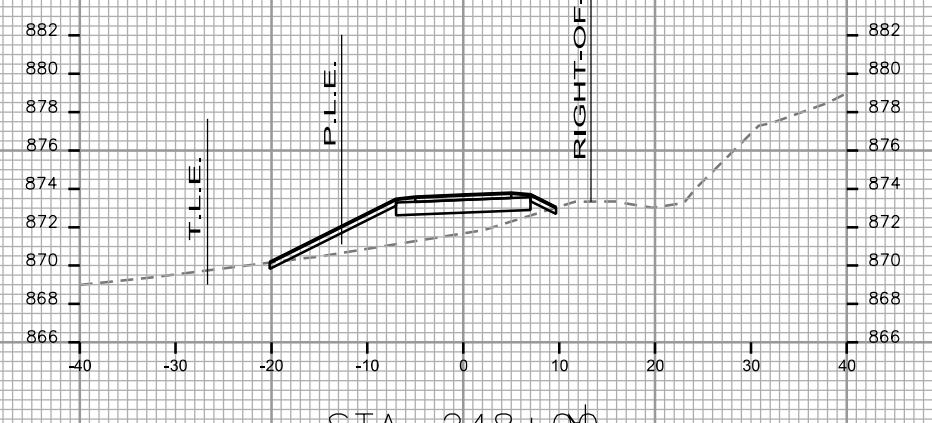
PATH CITY OF MADISON



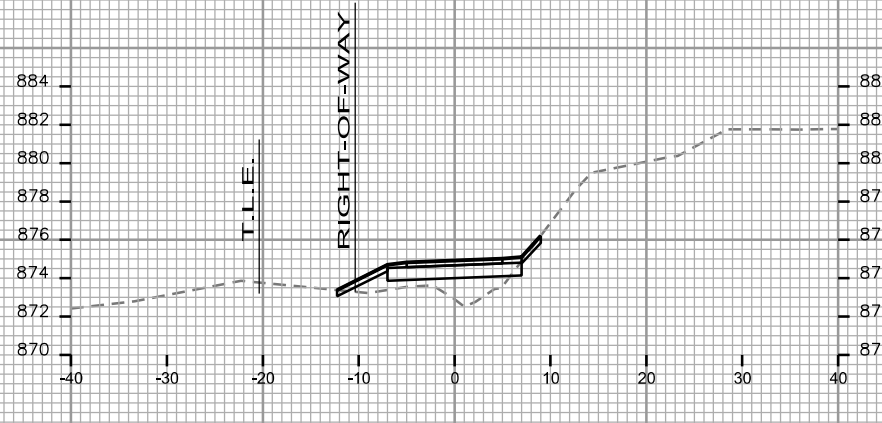
STA. 246+50



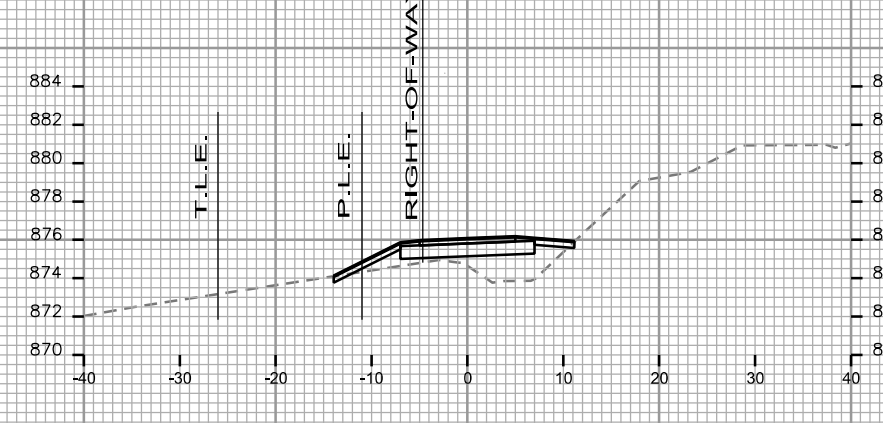
STA. 247+25



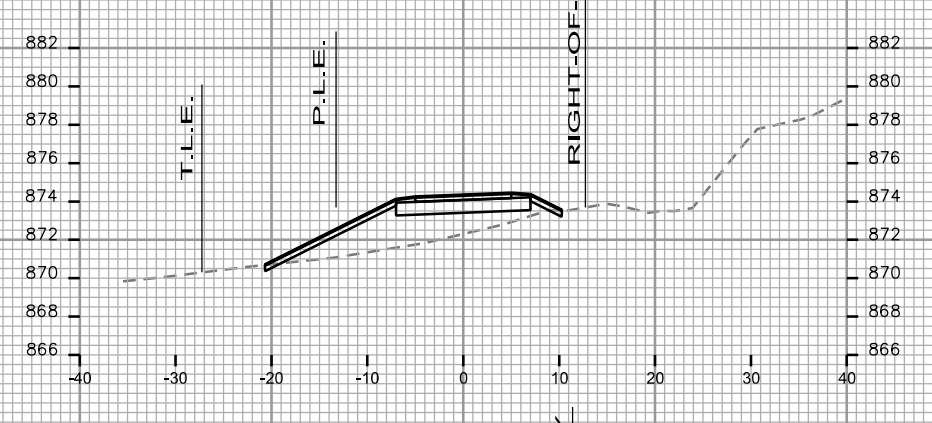
STA. 248+00



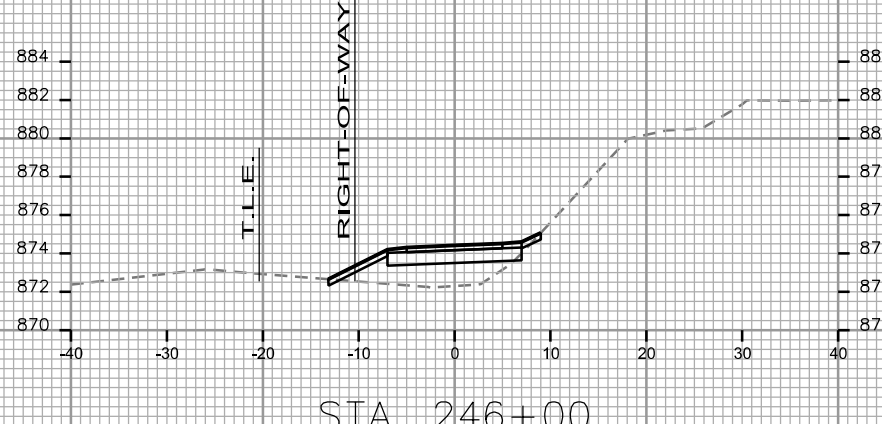
STA. 246+25



STA. 247+00



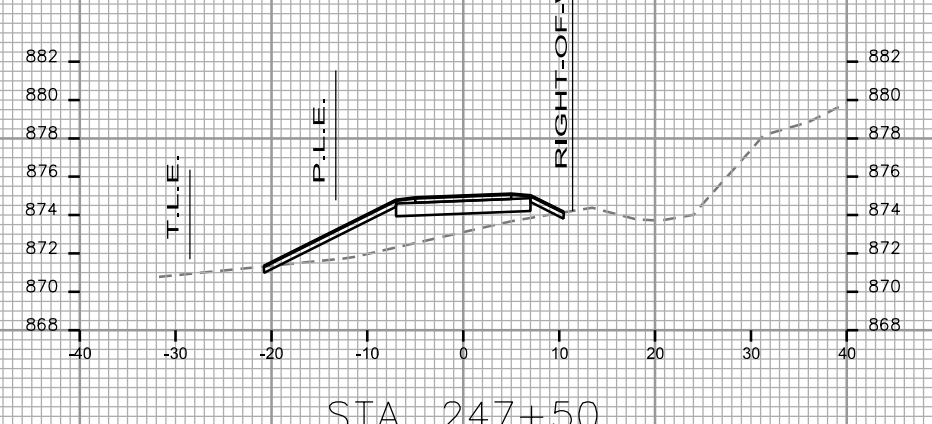
STA. 247+75



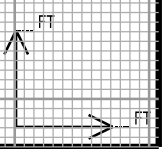
STA. 246+00



STA. 246+75



STA. 247+50



PLOT SCALE: _____
PLOT NAME: _____

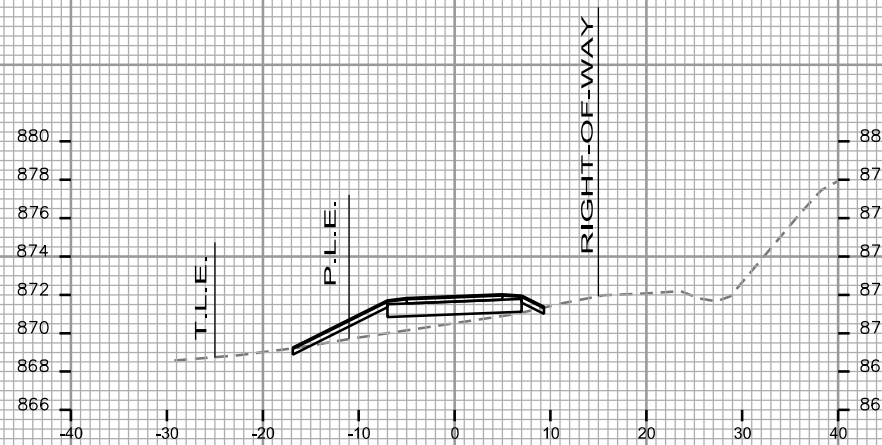
REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION

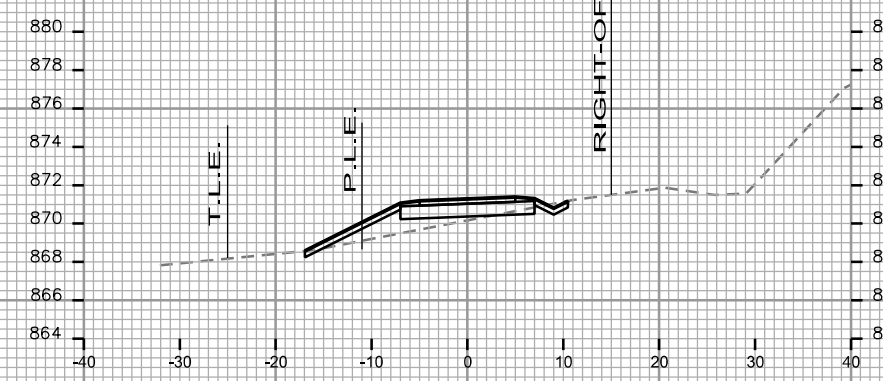
CROSS SECTIONS

PATH

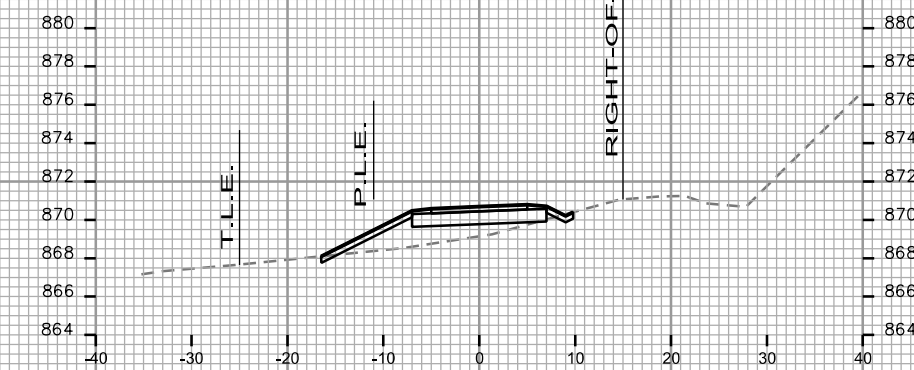
CITY OF MADISON



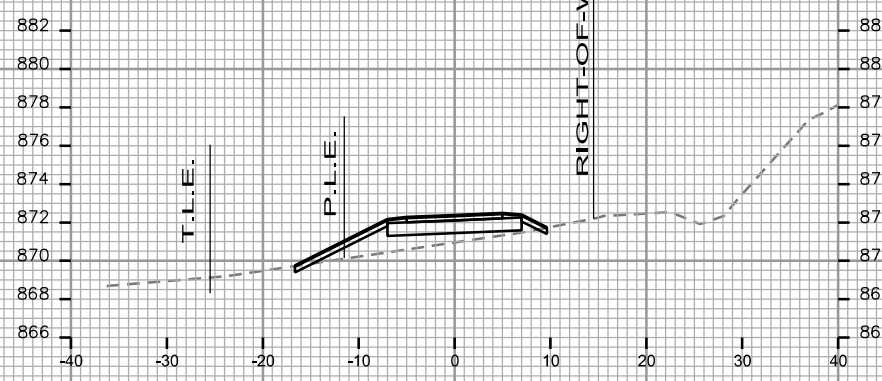
STA. 248+75



STA. 249+50



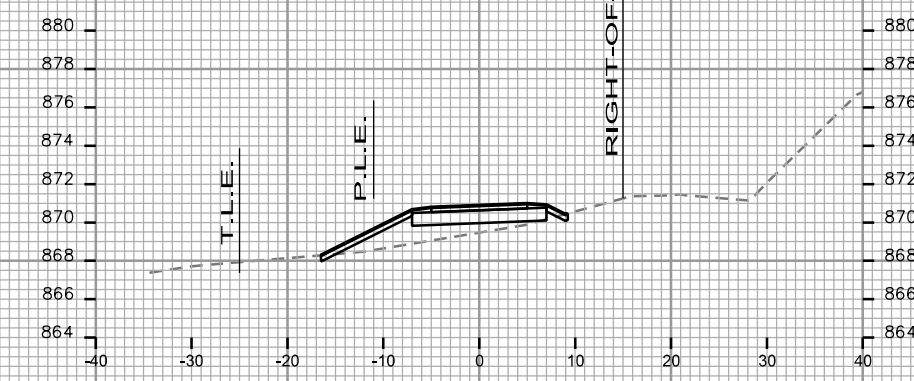
STA. 250+25



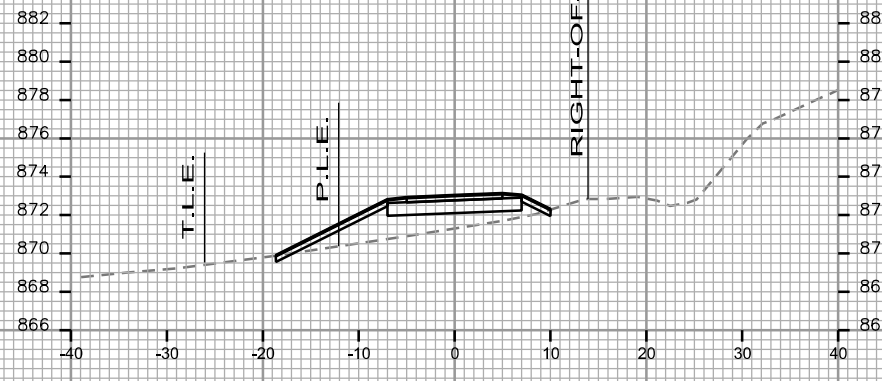
STA. 248+50



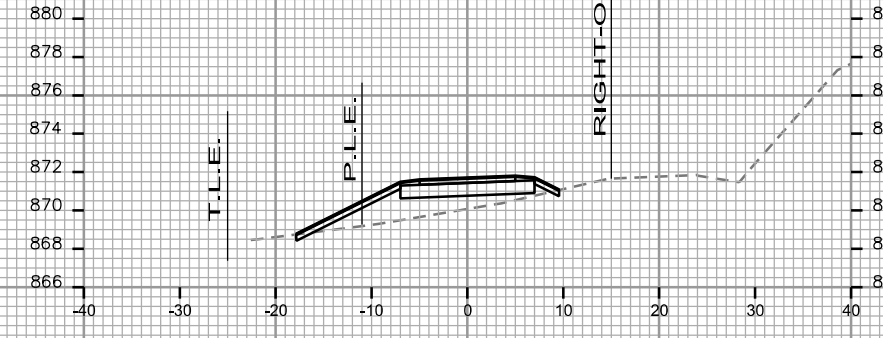
STA. 249+25



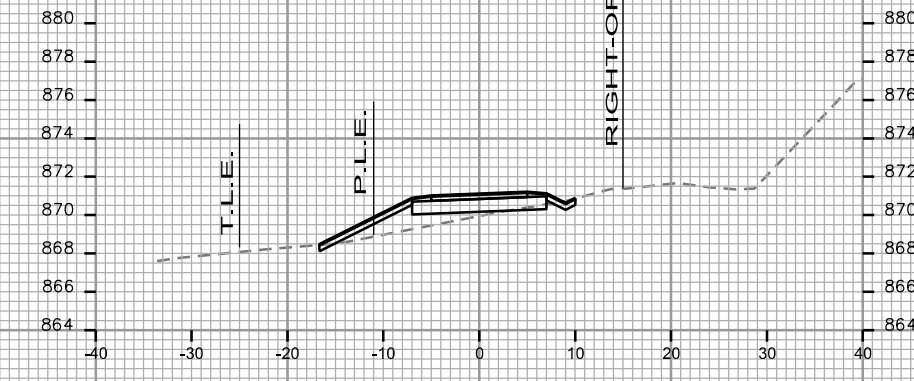
STA. 250+00



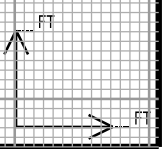
STA. 248+25



STA. 249+00



STA. 249+75



PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION

CROSS SECTIONS

PATH

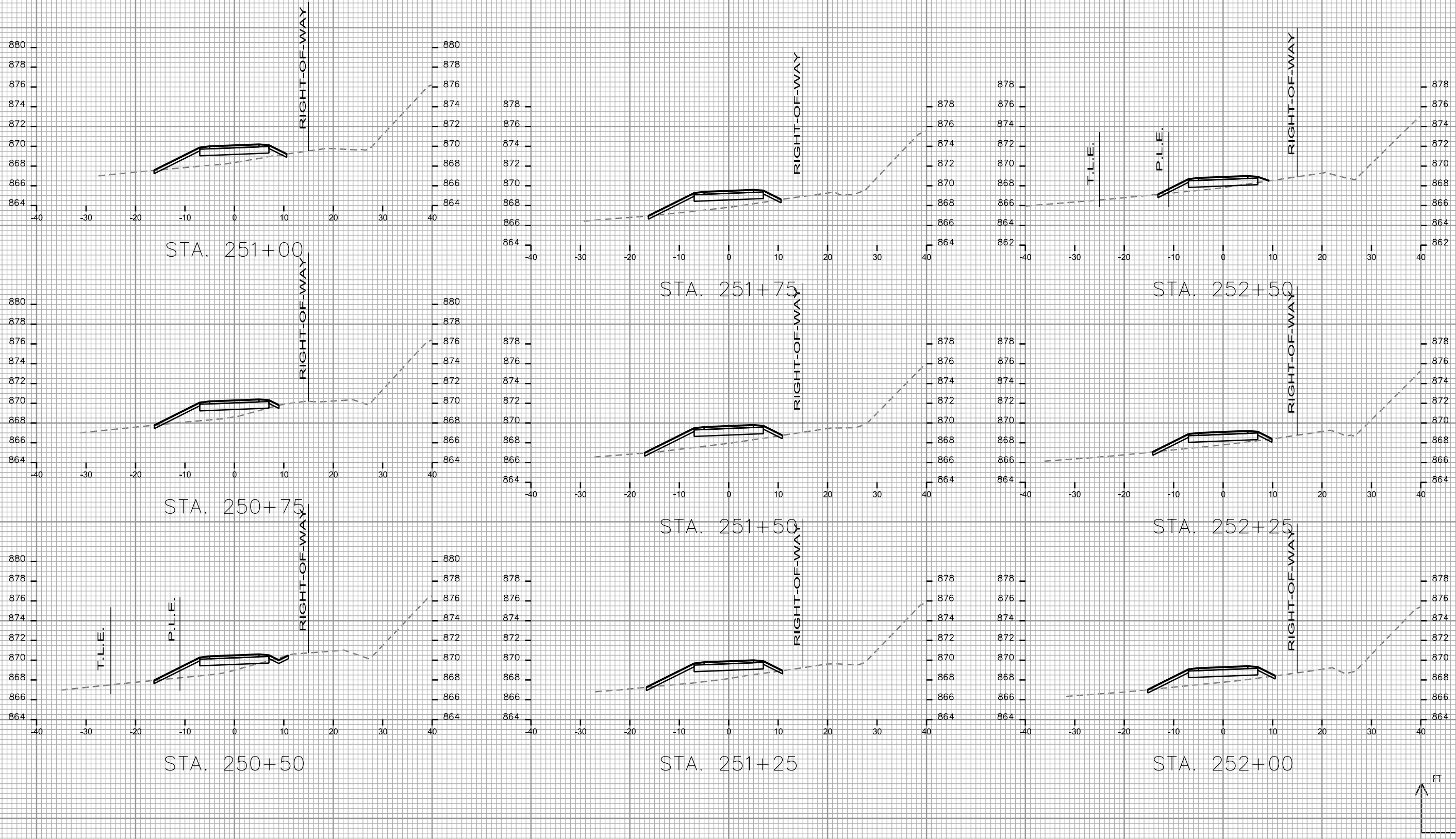
CITY OF MADISON

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION



CROSS SECTIONS

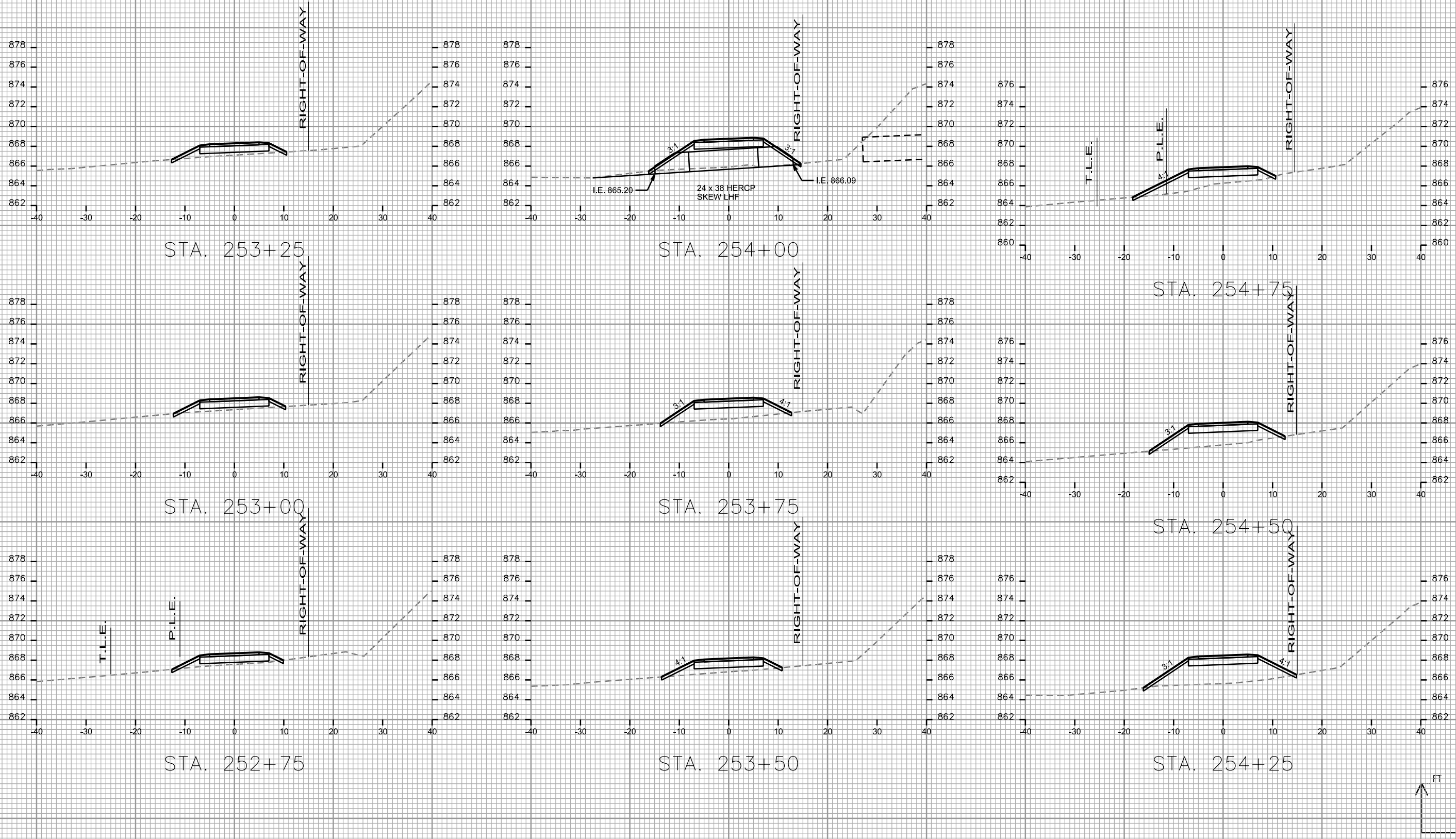
PATH CITY OF MADISON

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION



CROSS SECTIONS

PATH

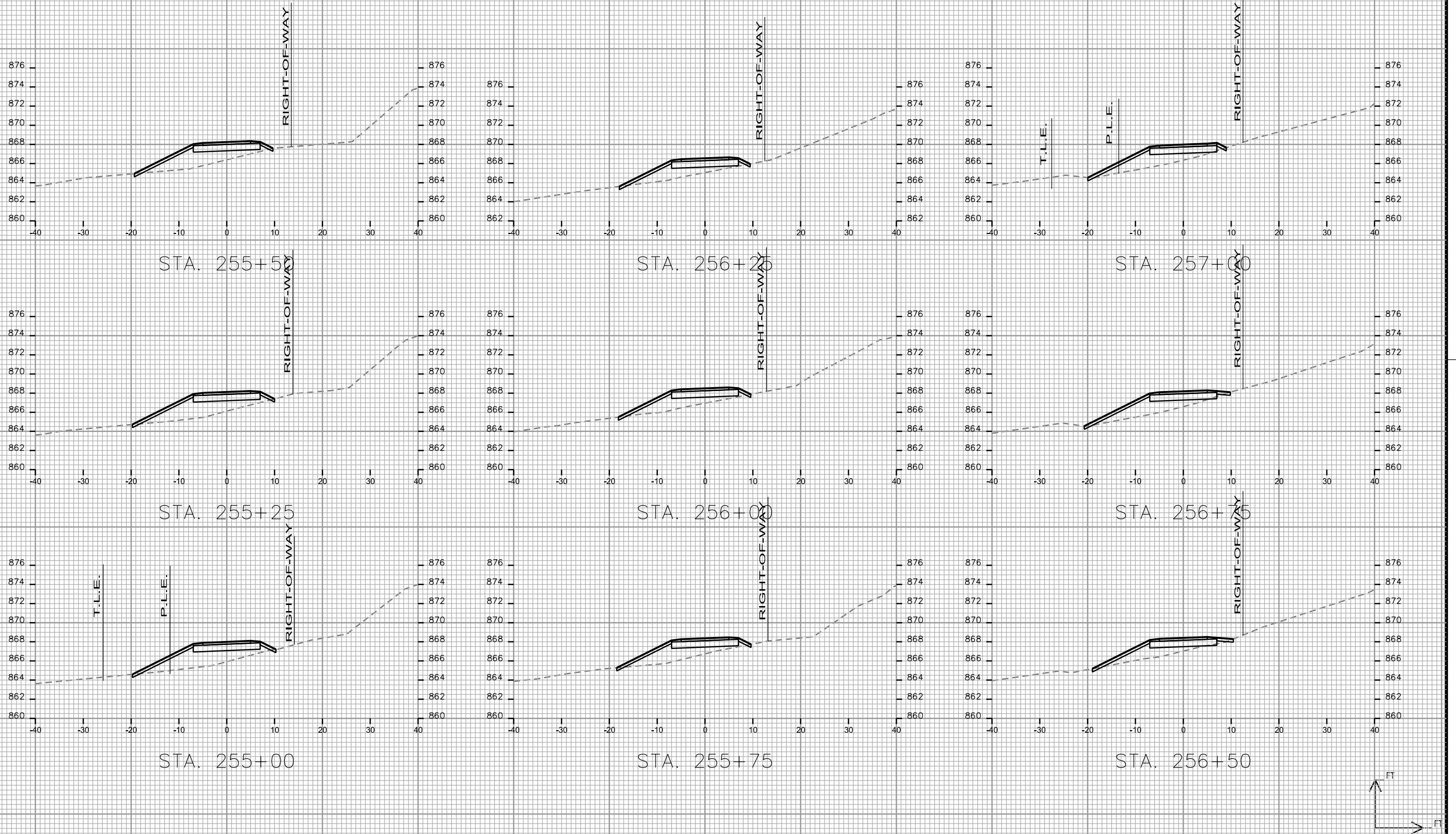
CITY OF MADISON

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

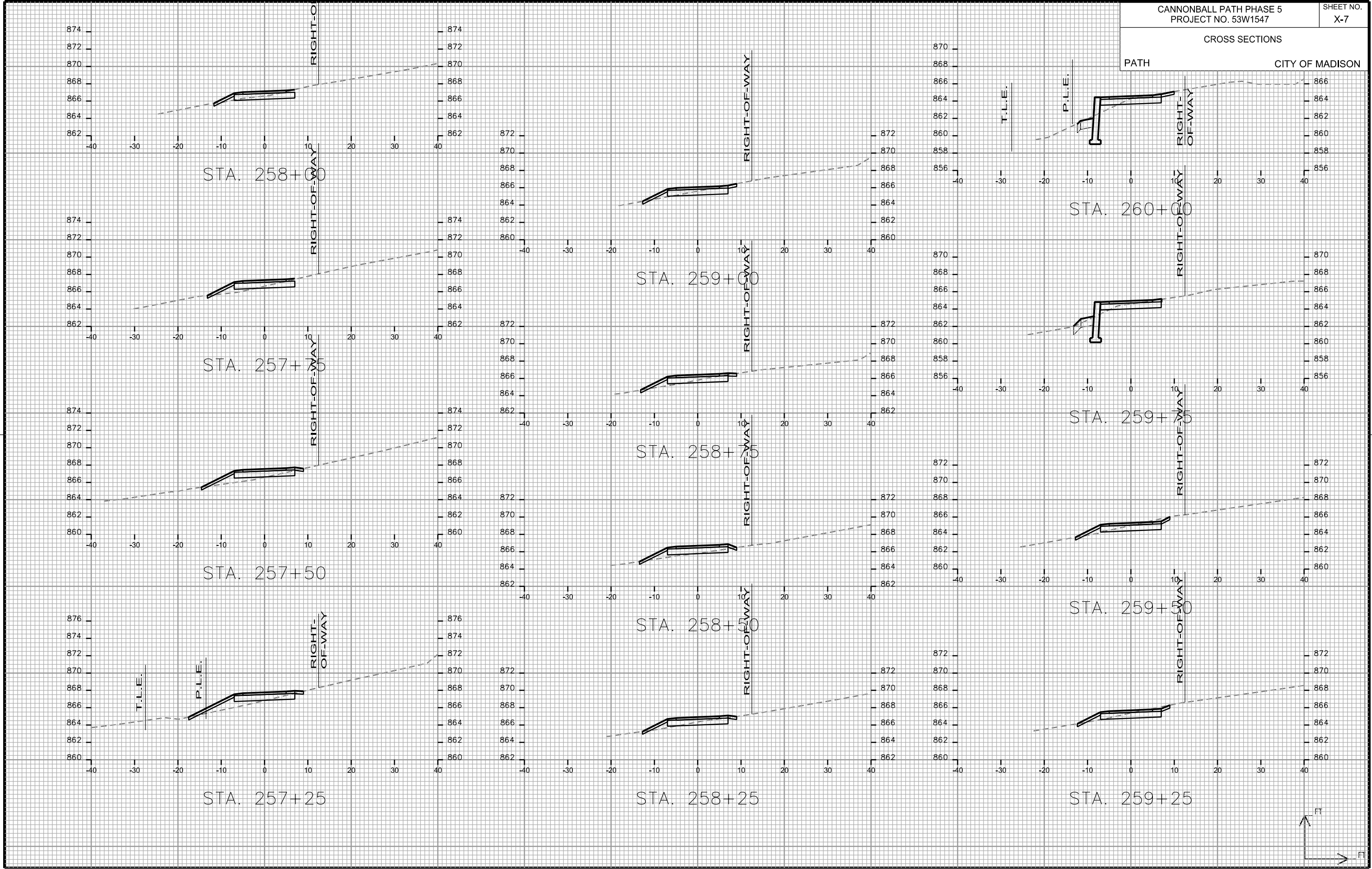
ORIGINATOR: CITY OF MADISON - STREETS DIVISION



CROSS SECTIONS

PATH CITY OF MADISON

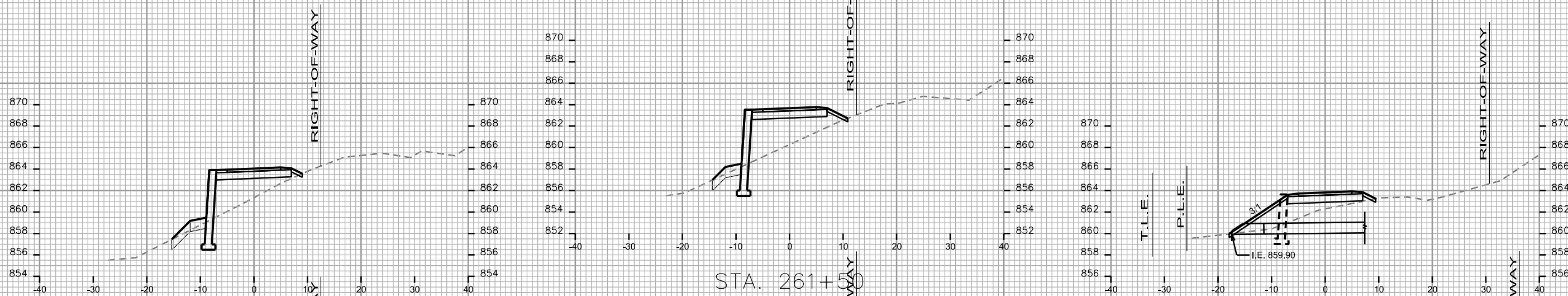
PLOT SCALE: _____
PLOT NAME: _____
REV. DATE: _____
ORIGINATOR: CITY OF MADISON - STREETS DIVISION



CROSS SECTIONS

PATH

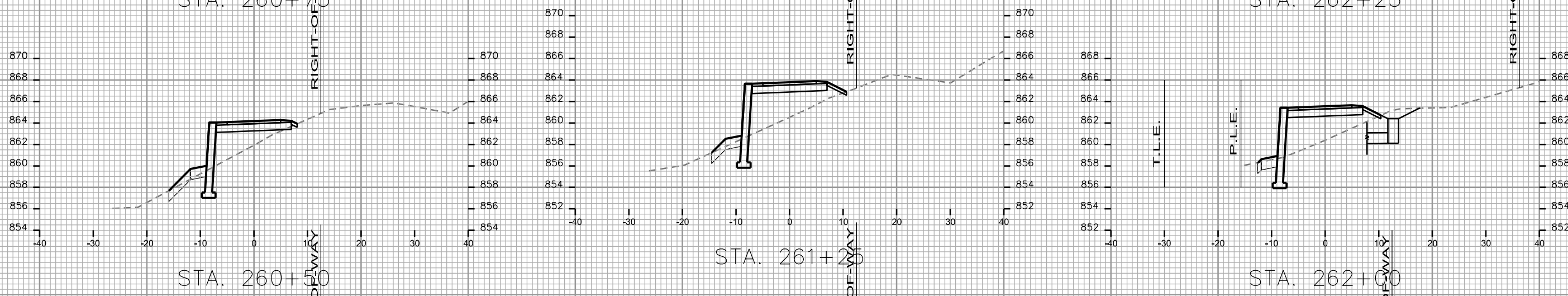
CITY OF MADISON



STA. 260+75

STA. 261+00

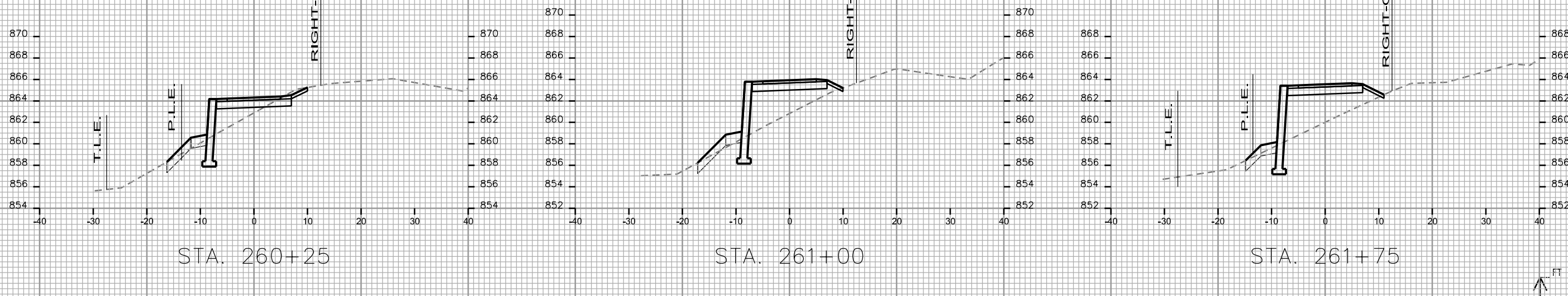
STA. 262+25



STA. 260+50

STA. 261+25

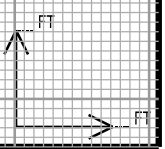
STA. 262+00



STA. 260+25

STA. 261+00

STA. 261+75



PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION

CROSS SECTIONS

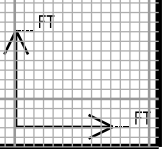
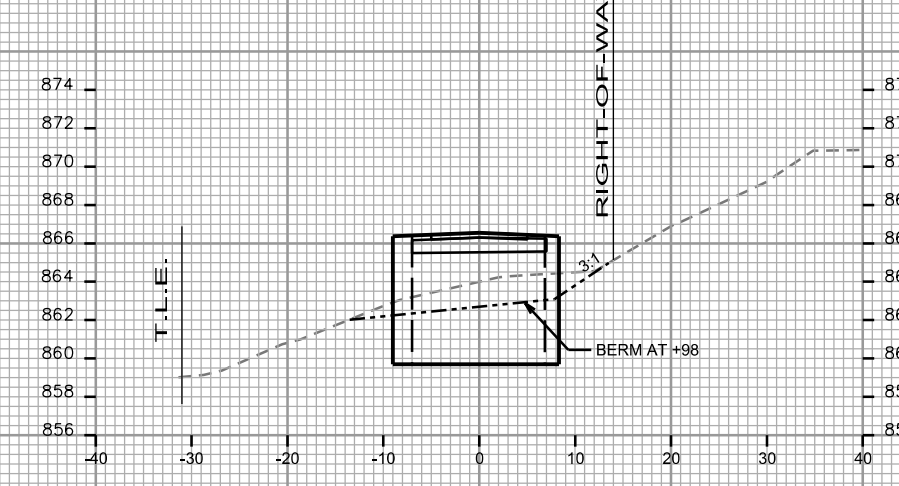
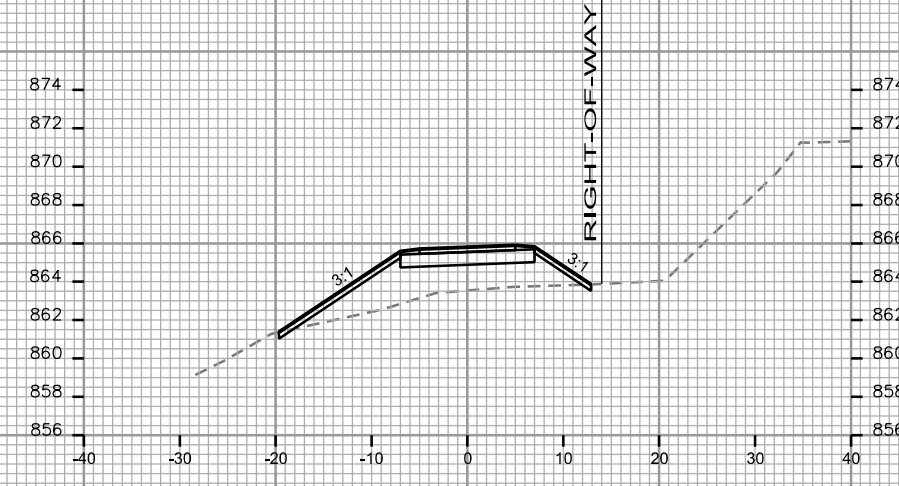
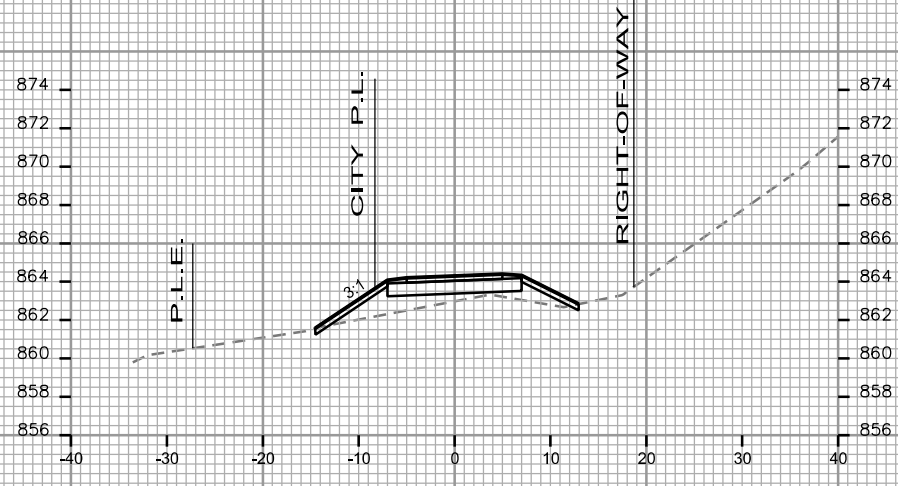
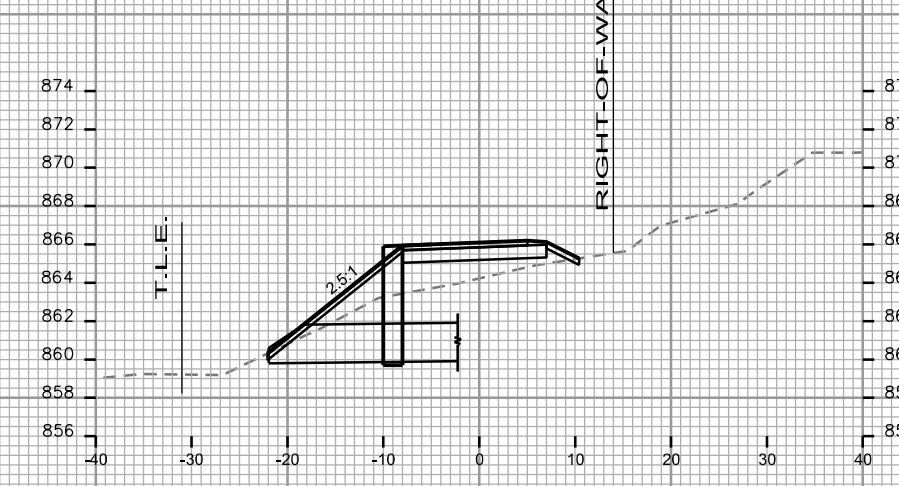
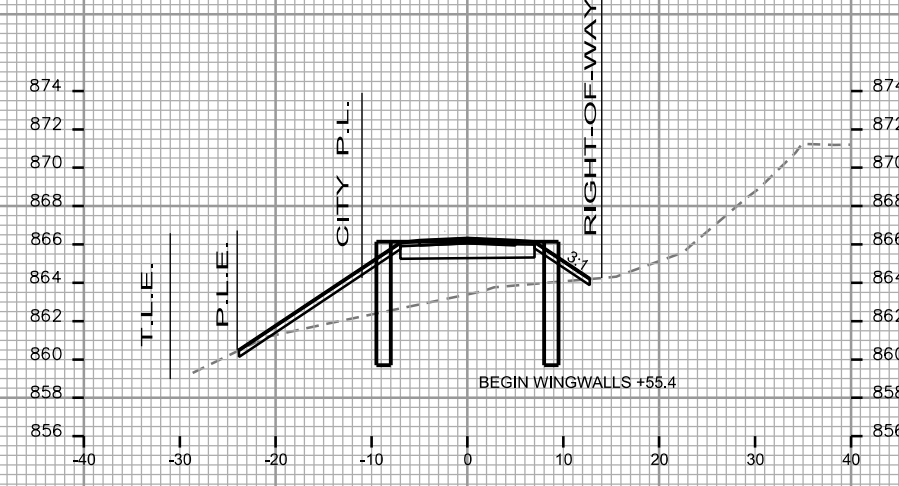
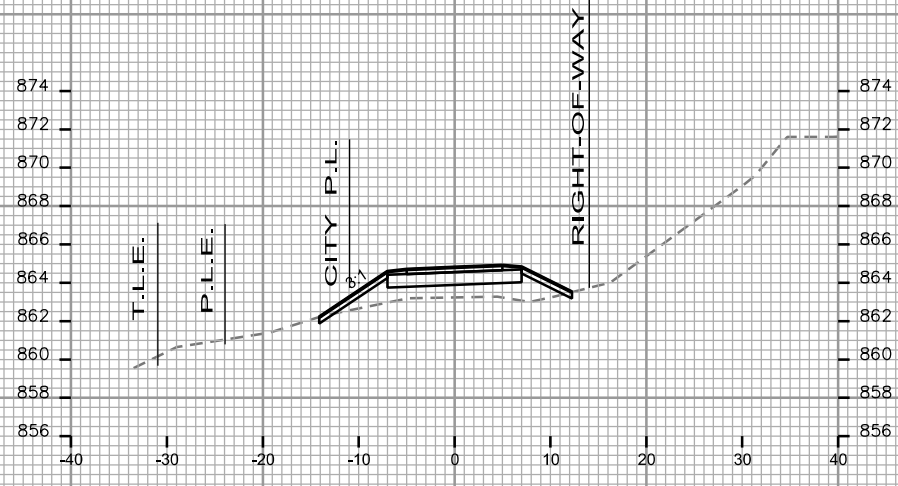
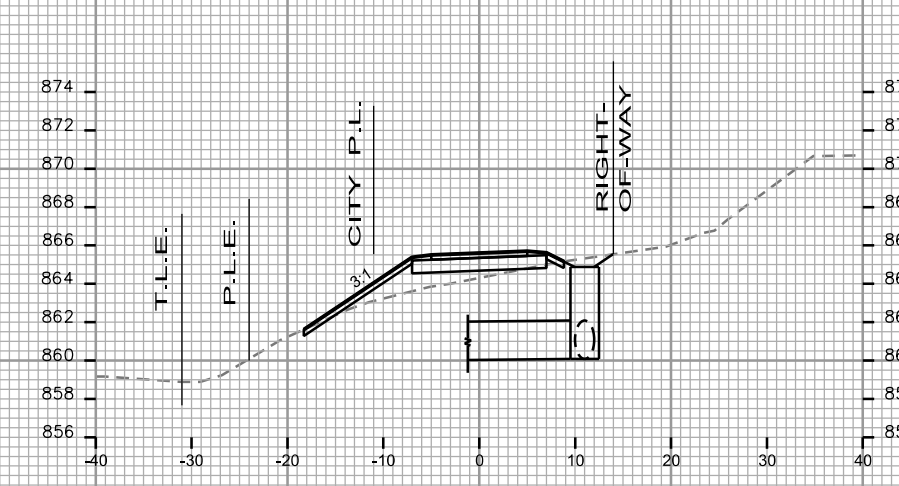
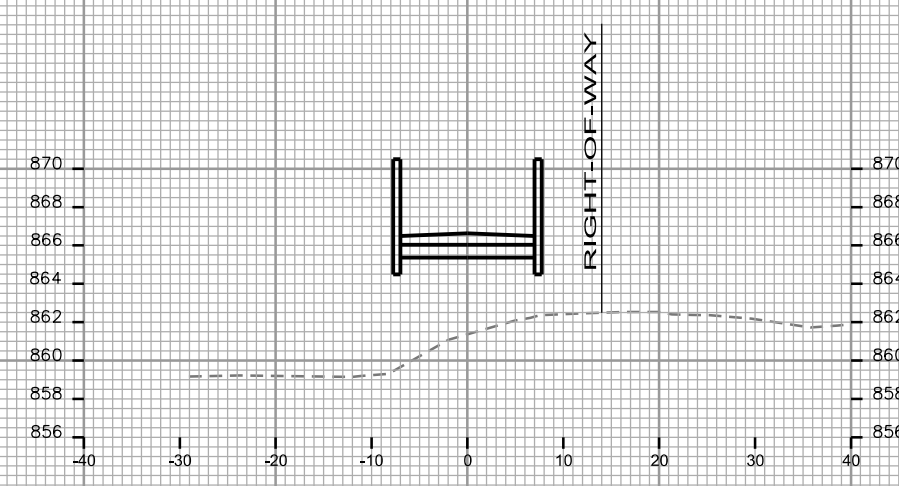
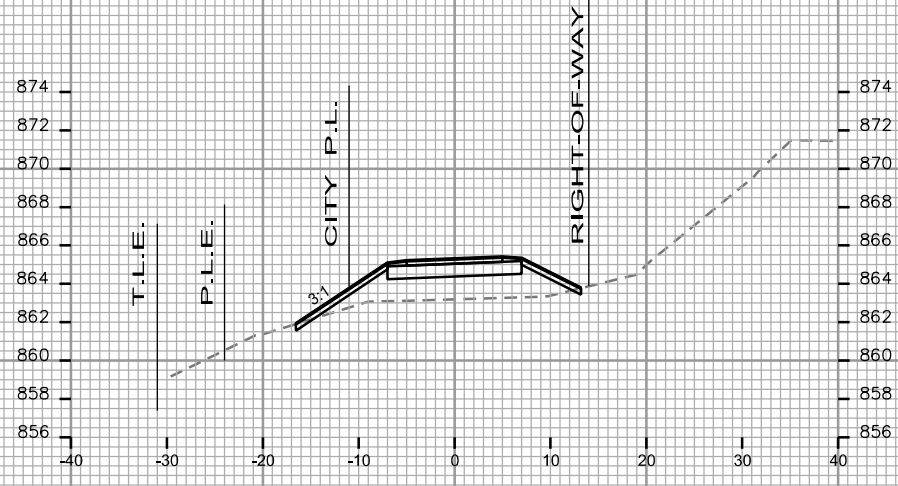
PATH CITY OF MADISON

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION



CROSS SECTIONS

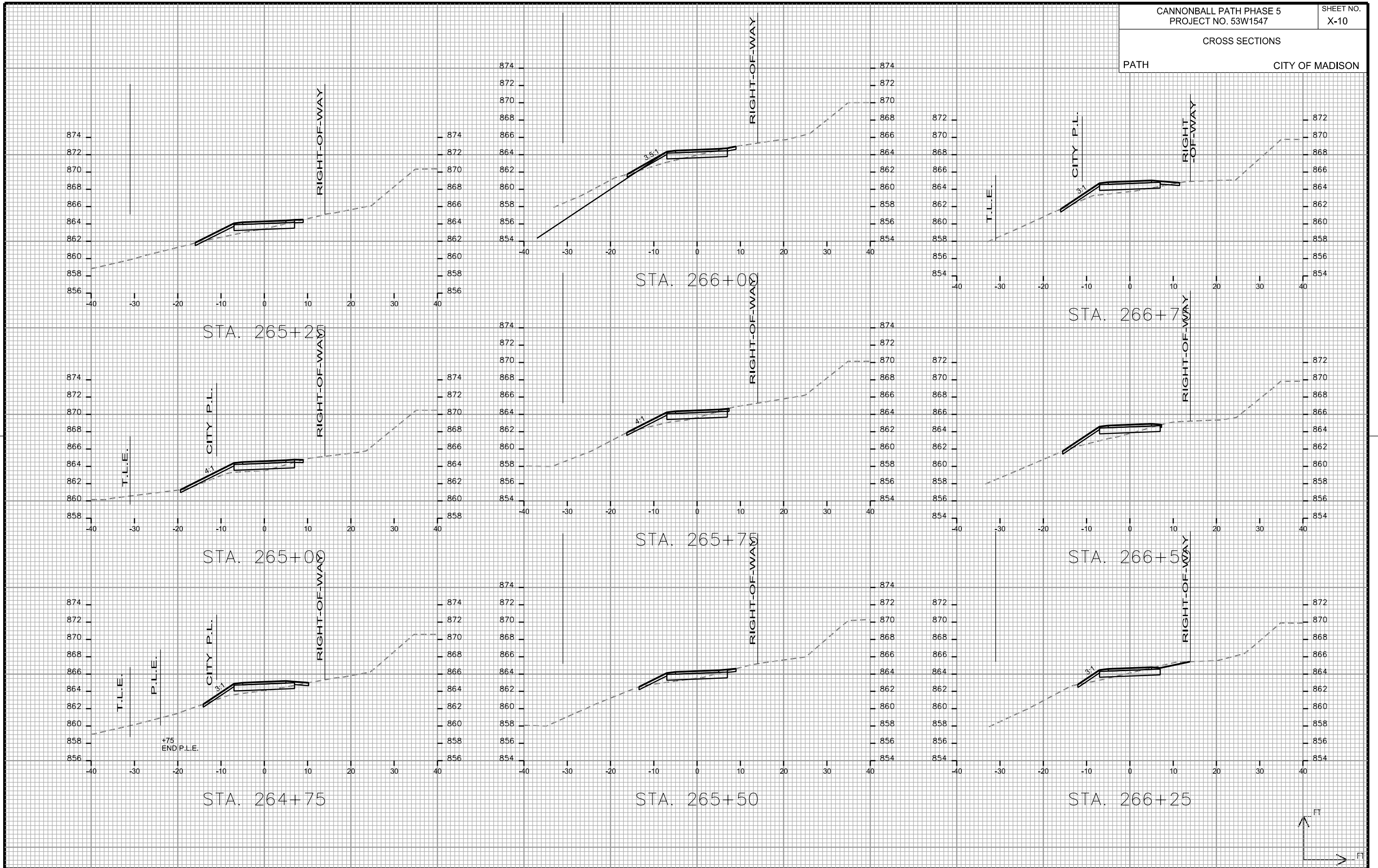
PATH CITY OF MADISON

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION



CROSS SECTIONS

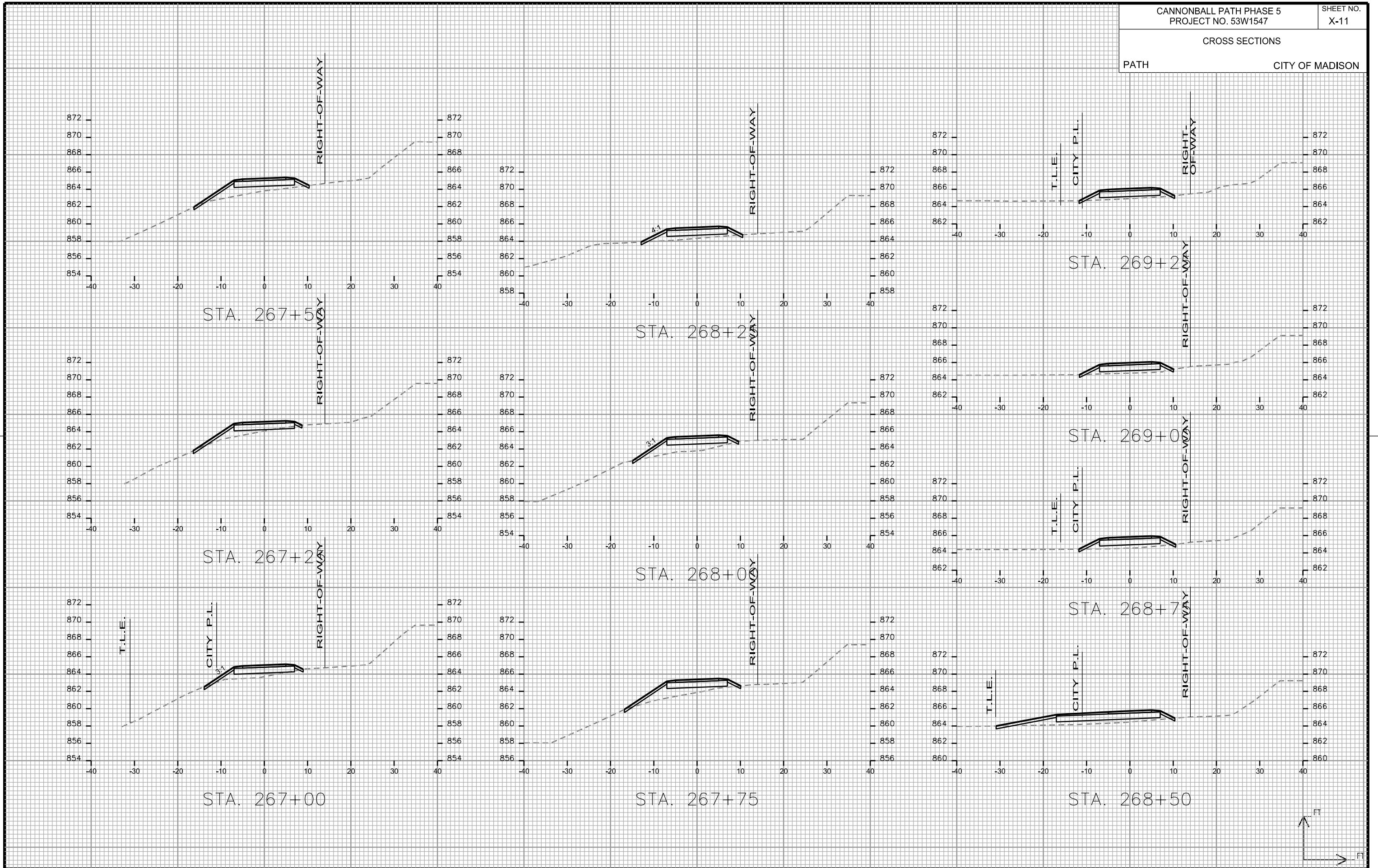
PATH CITY OF MADISON

PLOT SCALE: _____

PLOT NAME: _____

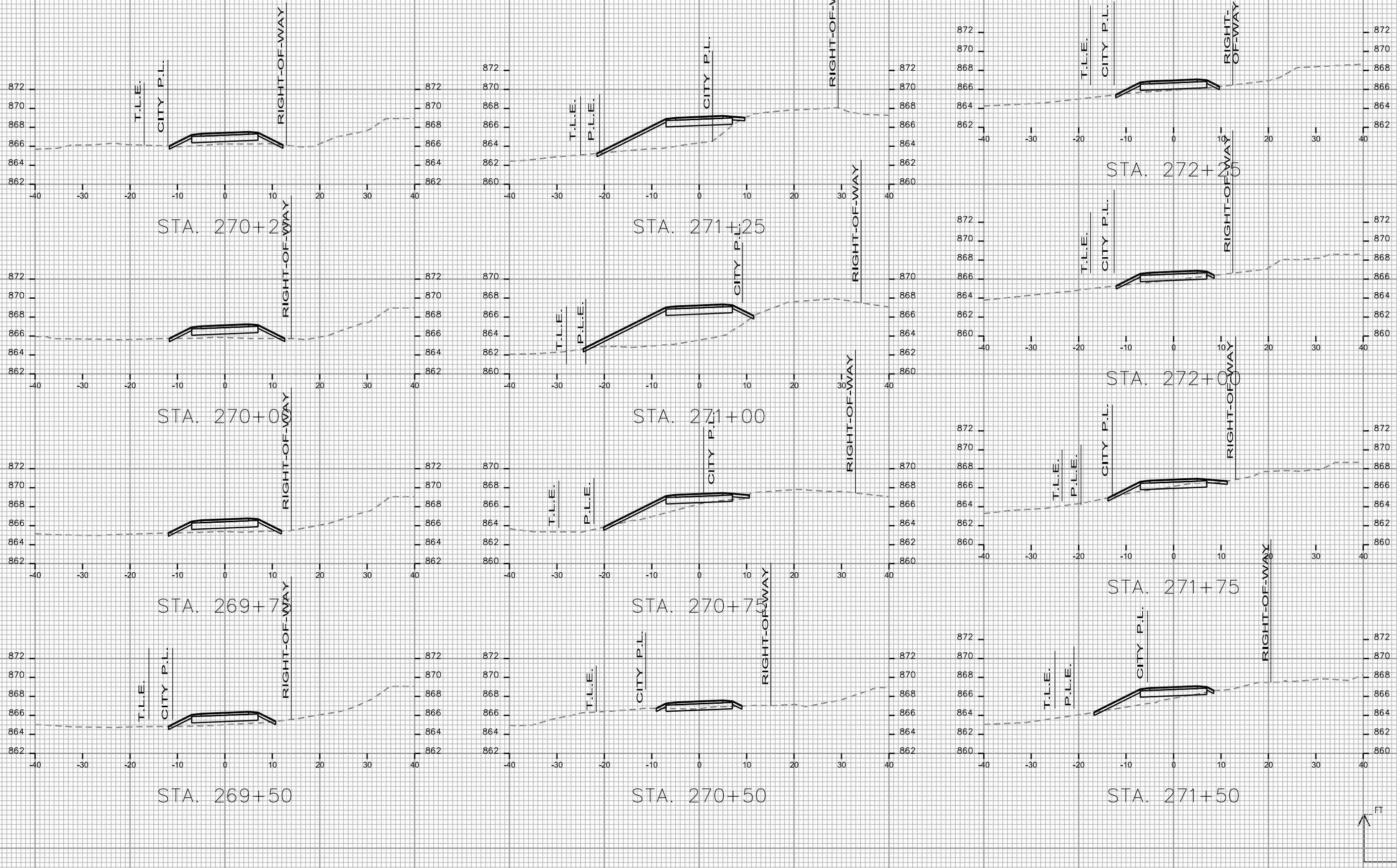
REV. DATE: _____

ORIGINATOR: CITY OF MADISON - STREETS DIVISION



CROSS SECTIONS

PATH CITY OF MADISON

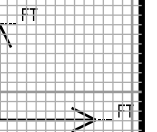


PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



CROSS SECTIONS

PATH CITY OF MADISON

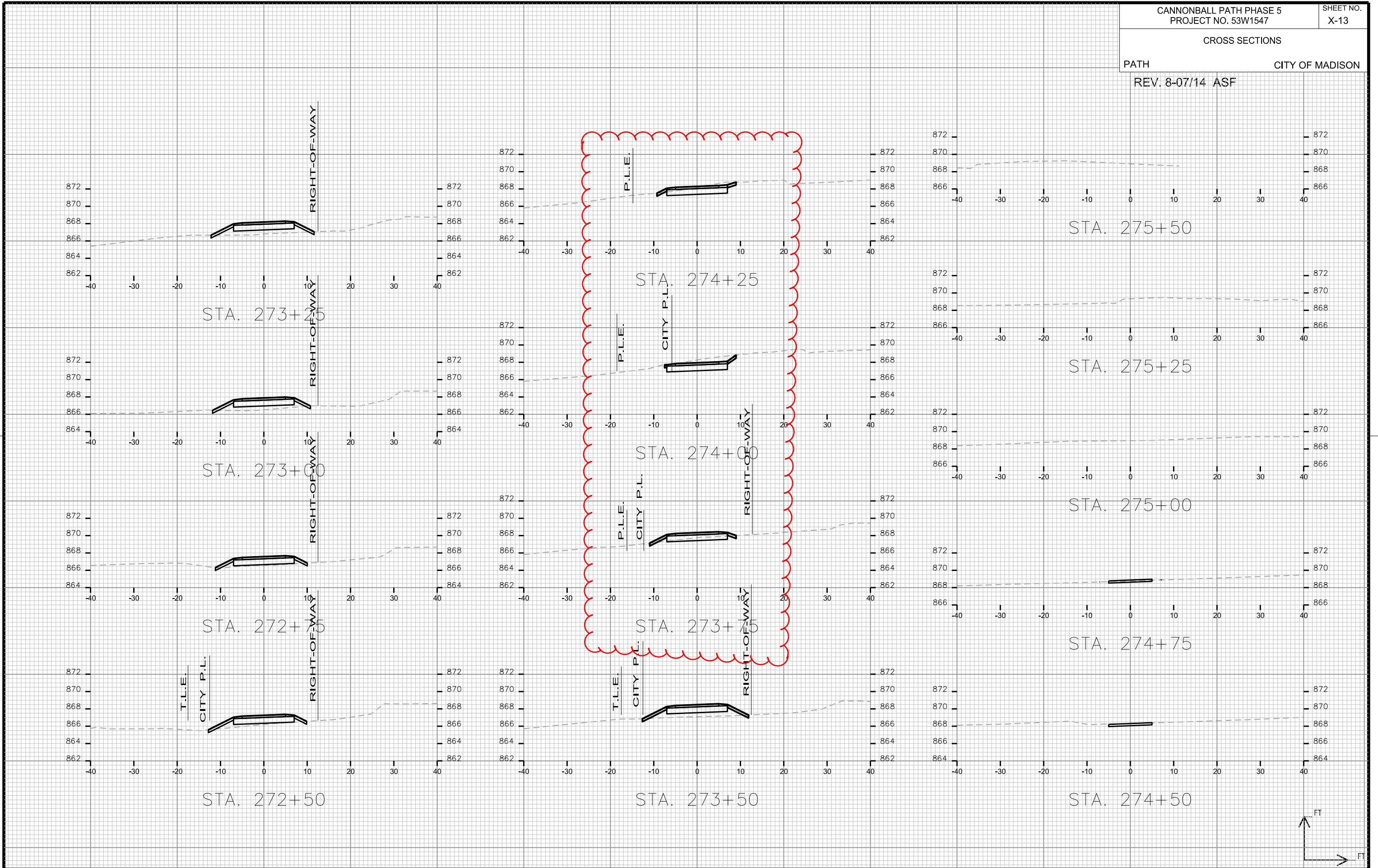
REV. 8-07/14 ASF

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

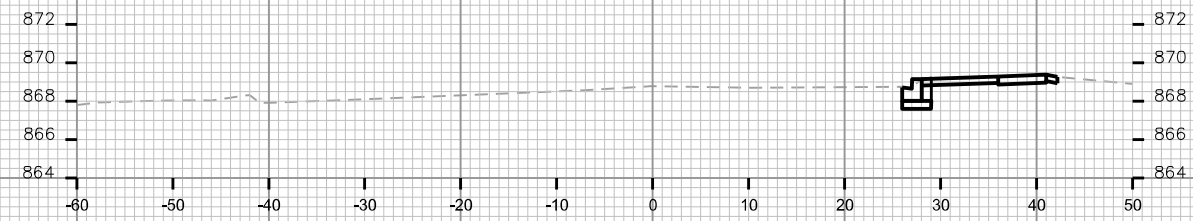
ORIGINATOR: CITY OF MADISON, STREETS DIVISION



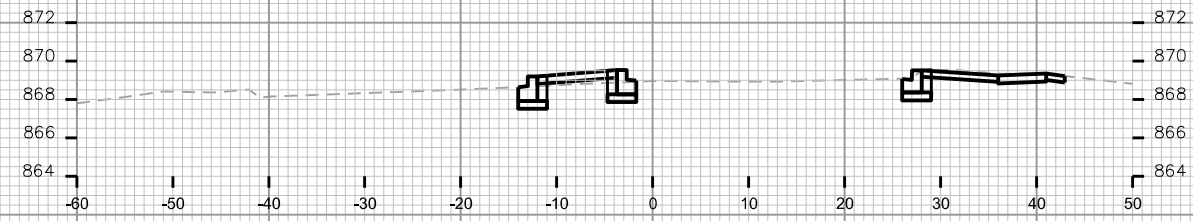
CROSS SECTIONS

FISH HATCHERY ROAD

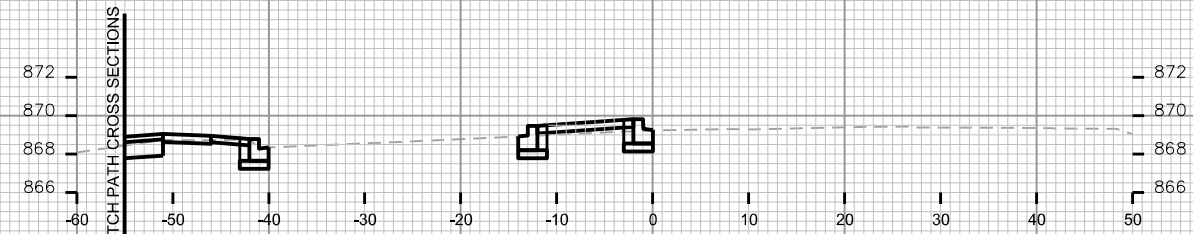
CITY OF MADISON



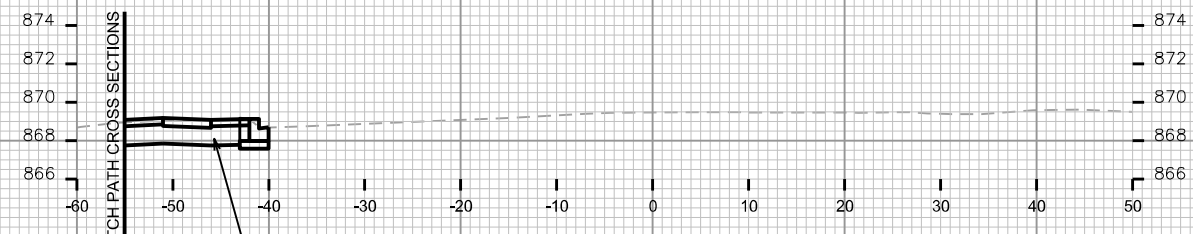
STA. 52+75



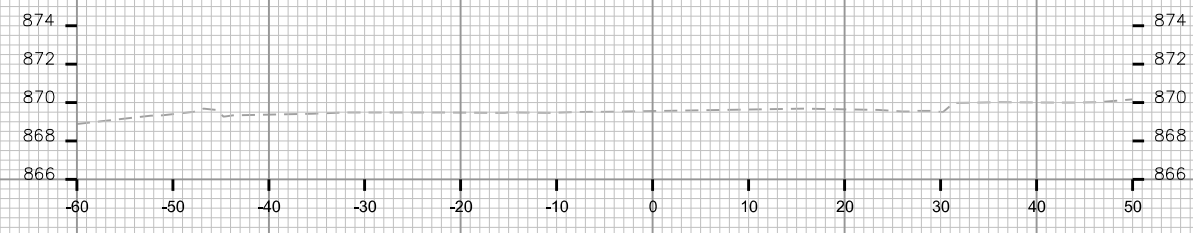
STA. 52+50



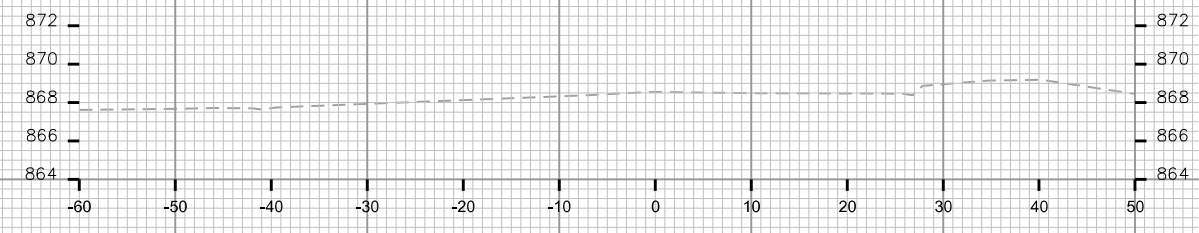
STA. 52+25



STA. 52+00



STA. 51+75



STA. 53+00



PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION