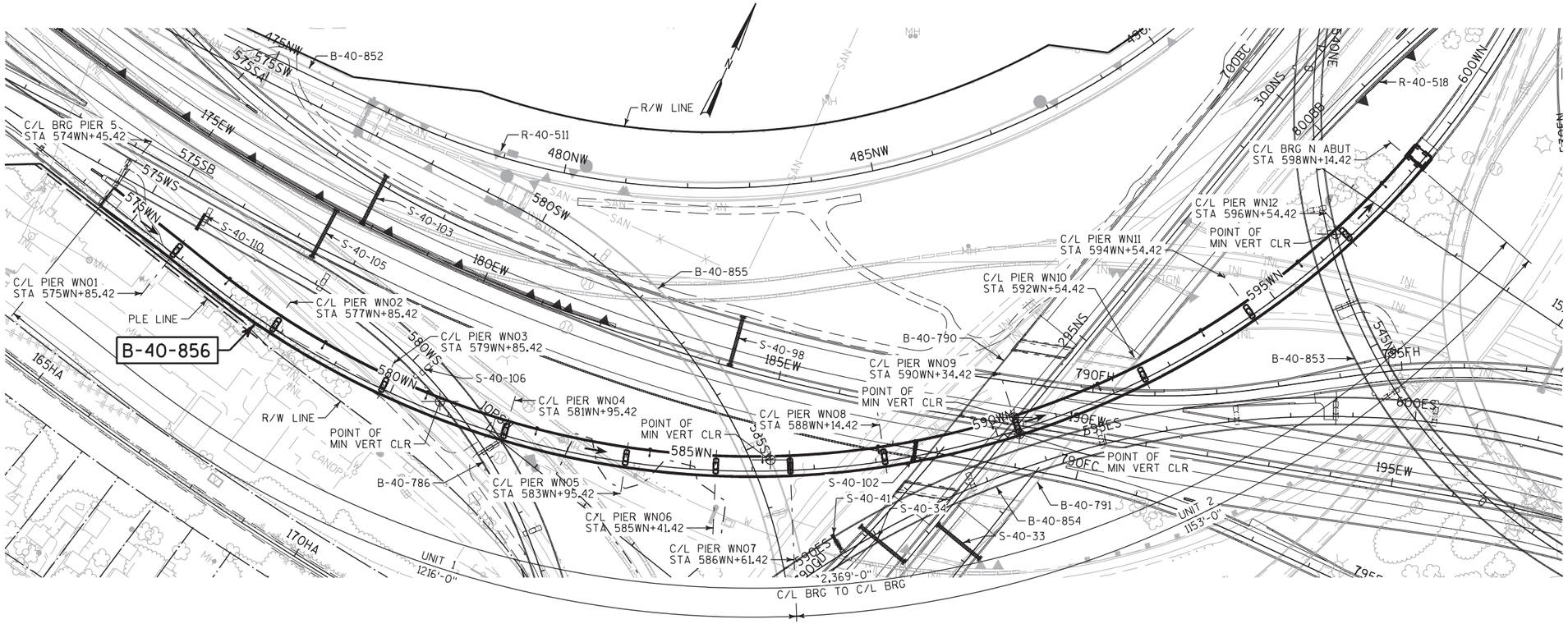
STATE PROJECT NUMBER

1060-33-81

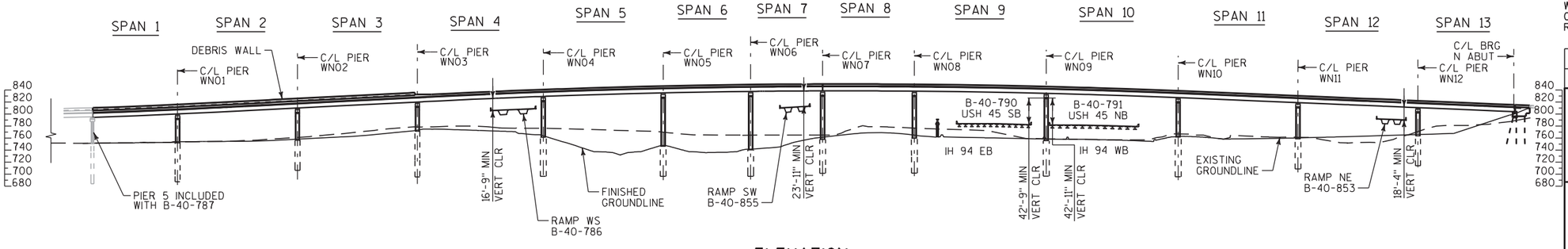


PLAN

13-SPAN CURVED STEEL TRAPEZOIDAL BOX GIRDER, 7 FOOT WEB DEPTH
ABUTMENTS AND PIERS ARE NORMAL OR RADIAL TO R/L WN
DIMENSIONS SHOWN ARE ALONG R/L WN

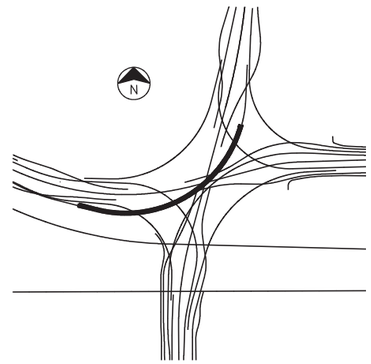
LEGEND

← INDICATES LANE LOCATION AND DIRECTION OF TRAVEL



ELEVATION

ALONG R/L WN



LOCATION MAP

WISCONSIN
W. RANDALL THOMAS
E-37361
MILWAUKEE, WI
PROFESSIONAL ENGINEER
07/21/2015

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
RANDY THOMAS (414) 847-0447

NO.	DATE	REVISION	BY

FORWARD 45

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher NK 07/23/15
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-856

ZOO INTERCHANGE RAMP WN

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
MILWAUKEE	MILWAUKEE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
WRT	BKS	GLM	WRT

GENERAL PLAN & ELEVATION

SHEET 1 OF 119

8

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080101_gp.dgn PLOT DATE : 13-MAY-2015 17:10 PLOT BY : MSCBKS PLOT NAME : B856_080101_gp PLOT SCALE : 200:1

STATE PROJECT NUMBER
1060-33-81

DRAWING LIST

MANDATORY

1. GENERAL PLAN & ELEVATION
2. DRAWING LIST
3. TYPICAL SECTION & DESIGN DATA
4. GENERAL NOTES
5. QUANTITIES
6. ROADWAY GEOMETRY (1 OF 2)
7. ROADWAY GEOMETRY (2 OF 2)
8. PLAN & ELEVATION SPANS 1 & 2
9. PLAN & ELEVATION SPANS 3 & 4
10. PLAN & ELEVATION SPANS 5, 6 & 7
11. PLAN & ELEVATION SPANS 8 & 9
12. PLAN & ELEVATION SPANS 10 & 11
13. PLAN & ELEVATION SPANS 12 & 13
14. SUBSURFACE EXPLORATION SPANS 1 & 2
15. SUBSURFACE EXPLORATION SPANS 3 & 4
16. SUBSURFACE EXPLORATION SPANS 5, 6 & 7
17. SUBSURFACE EXPLORATION SPANS 8 & 9
18. SUBSURFACE EXPLORATION SPANS 10 & 11
19. SUBSURFACE EXPLORATION SPANS 12 & 13
20. CONSTRUCTION STAGING NOTES (1 OF 3)
21. CONSTRUCTION STAGING NOTES (2 OF 3)
22. CONSTRUCTION STAGING NOTES (3 OF 3)
23. CONSTRUCTION STAGING (1 OF 8)
24. CONSTRUCTION STAGING (2 OF 8)
25. CONSTRUCTION STAGING (3 OF 8)
26. CONSTRUCTION STAGING (4 OF 8)
27. CONSTRUCTION STAGING (5 OF 8)
28. CONSTRUCTION STAGING (6 OF 6)
29. CONSTRUCTION STAGING (7 OF 8)
30. CONSTRUCTION STAGING (8 OF 8)
31. NORTH ABUTMENT PLAN & ELEVATION
32. NORTH ABUTMENT DETAILS (1 OF 3)
33. NORTH ABUTMENT DETAILS (2 OF 3)
34. NORTH ABUTMENT DETAILS (3 OF 3)
35. ABUTMENT PEDESTAL REINFORCEMENT
36. ABUTMENT REINFORCEMENT SCHEDULE
37. BEARING LAYOUT UNIT 1
38. BEARING LAYOUT UNIT 2
39. BEARING DETAILS
40. JACKING PROVISIONS
41. GIRDER SECTION
42. FRAMING PLAN UNIT 1
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44. GIRDER PLAN AND ELEVATION: FIELD SECTIONS 1 & 2
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48. GIRDER PLAN AND ELEVATION: FIELD SECTIONS 9 & 10
49. GIRDER PLAN AND ELEVATION: FIELD SECTIONS 11, 12 & 13
50. GIRDER PLAN AND ELEVATION: FIELD SECTIONS 14 & 15
51. GIRDER PLAN AND ELEVATION: FIELD SECTIONS 16 & 17
52. GIRDER PLAN AND ELEVATION: FIELD SECTIONS 18 & 19
53. GIRDER PLAN AND ELEVATION: FIELD SECTIONS 20 & 21
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60. LATERAL BRACING DETAILS
61. FIELD SPLICE DETAILS UNIT 1
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63. ABUTMENT DIAPHRAGM

MANDATORY CONT

64. TYPICAL PIER DIAPHRAGM
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66. INTERMEDIATE DIAPHRAGM
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83. SUPERSTRUCTURE CROSS SECTION
84. DECK REINFORCEMENT (1 OF 6)
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87. DECK REINFORCEMENT (4 OF 6)
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90. DECK DETAILS
91. DECK POURING SEQUENCE AND NOTES
92. DECK REINFORCEMENT SCHEDULE
93. EXPANSION JOINT LAYOUT - NORTH ABUTMENT
94. EXPANSION JOINT LAYOUT - PIER WN07
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96. EXPANSION JOINT SECTIONS
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98. MODULAR EXPANSION JOINT DETAILS
99. STRUCTURAL APPROACH SLAB
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102. PARAPET EMBEDDED WORK UNIT 1 (1 OF 2)
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107. PARAPET EMBEDDED WORK UNIT 2 (2 OF 2)
108. PARAPET ELEVATIONS UNIT 2 (1 OF 2)
109. PARAPET ELEVATIONS UNIT 2 (2 OF 2)
110. PARAPET SECTIONS & DETAILS (1 OF 2)
111. PARAPET SECTIONS & DETAILS (2 OF 2)
112. LIGHT SUPPORT DETAILS (1 OF 2)
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115. FLOOR DRAIN PIPING (1 OF 2)
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119. SLOPE PAVING DETAILS

PIERS-OPTION A

A1. OPTION A - QUANTITIES
A2. OPTION A - FOUNDATION LAYOUT (1 OF 4)
A3. OPTION A - FOUNDATION LAYOUT (2 OF 4)
A4. OPTION A - FOUNDATION LAYOUT (3 OF 4)
A5. OPTION A - FOUNDATION LAYOUT (4 OF 4)
A6. OPTION A - EXCAVATION PLAN (1 OF 8)
A7. OPTION A - EXCAVATION PLAN (2 OF 8)
A8. OPTION A - EXCAVATION PLAN (3 OF 8)
A9. OPTION A - EXCAVATION PLAN (4 OF 8)
A10. OPTION A - EXCAVATION PLAN (5 OF 8)
A11. OPTION A - EXCAVATION PLAN (6 OF 8)
A12. OPTION A - EXCAVATION PLAN (7 OF 8)
A13. OPTION A - EXCAVATION PLAN (8 OF 8)
A14. OPTION A - 98.43" DRILLED SHAFT DETAILS (1 OF 2)
A15. OPTION A - 98.43" DRILLED SHAFT DETAILS (2 OF 2)
A16. OPTION A - 118.11" DRILLED SHAFT DETAILS (1 OF 2)
A17. OPTION A - 118.11" DRILLED SHAFT DETAILS (2 OF 2)
A18. OPTION A - DRILLED SHAFT REINFORCEMENT SCHEDULE
A19. OPTION A - TYPICAL PIER LAYOUT
A20. OPTION A - TYPICAL PIER CAP REINFORCEMENT
A21. OPTION A - PIER WN01 DETAILS
A22. OPTION A - PIER WN02 DETAILS
A23. OPTION A - PIER WN03 DETAILS
A24. OPTION A - PIER WN04 DETAILS
A25. OPTION A - PIER WN05 DETAILS
A26. OPTION A - PIER WN06 DETAILS
A27. OPTION A - PIER WN07 DETAILS
A28. OPTION A - PIER WN08 DETAILS
A29. OPTION A - PIER WN09 DETAILS
A30. OPTION A - PIER WN10 DETAILS
A31. OPTION A - PIER WN11 DETAILS
A32. OPTION A - PIER WN12 DETAILS
A33. OPTION A - TYPICAL PEDESTAL REINFORCEMENT
A34. OPTION A - PIER REINFORCEMENT SCHEDULE (1 OF 2)
A35. OPTION A - PIER REINFORCEMENT SCHEDULE (2 OF 2)

PIERS-OPTION B

B1. OPTION B - QUANTITIES
B2. OPTION B - FOUNDATION LAYOUT (1 OF 4)
B3. OPTION B - FOUNDATION LAYOUT (2 OF 4)
B4. OPTION B - FOUNDATION LAYOUT (3 OF 4)
B5. OPTION B - FOUNDATION LAYOUT (4 OF 4)
B6. OPTION B - EXCAVATION PLAN (1 OF 8)
B7. OPTION B - EXCAVATION PLAN (2 OF 8)
B8. OPTION B - EXCAVATION PLAN (3 OF 8)
B9. OPTION B - EXCAVATION PLAN (4 OF 8)
B10. OPTION B - EXCAVATION PLAN (5 OF 8)
B11. OPTION B - EXCAVATION PLAN (6 OF 8)
B12. OPTION B - EXCAVATION PLAN (7 OF 8)
B13. OPTION B - EXCAVATION PLAN (8 OF 8)
B14. OPTION B - 98.43" DRILLED SHAFT DETAILS (1 OF 2)
B15. OPTION B - 98.43" DRILLED SHAFT DETAILS (2 OF 2)
B16. OPTION B - 118.11" DRILLED SHAFT DETAILS (1 OF 2)
B17. OPTION B - 118.11" DRILLED SHAFT DETAILS (2 OF 2)
B18. OPTION B - DRILLED SHAFT REINFORCEMENT SCHEDULE
B19. OPTION B - TYPICAL PIER LAYOUT
B20. OPTION B - TYPICAL PIER CAP REINFORCEMENT
B21. OPTION B - PIER WN01 DETAILS
B22. OPTION B - PIER WN02 DETAILS
B23. OPTION B - PIER WN03 DETAILS
B24. OPTION B - PIER WN04 DETAILS
B25. OPTION B - PIER WN05 DETAILS
B26. OPTION B - PIER WN06 DETAILS
B27. OPTION B - PIER WN06 FOOTING
B28. OPTION B - PIER WN07 DETAILS
B29. OPTION B - PIER WN07 FOOTING
B30. OPTION B - PIER WN08 DETAILS
B31. OPTION B - PIER WN08 FOOTING
B32. OPTION B - PIER WN09 DETAILS
B33. OPTION B - PIER WN10 DETAILS
B34. OPTION B - PIER WN11 DETAILS
B35. OPTION B - PIER WN11 FOOTING
B36. OPTION B - PIER WN12 DETAILS
B37. OPTION B - PIER WN12 FOOTING
B38. OPTION B - TYPICAL PEDESTAL REINFORCEMENT
B39. OPTION B - PIER REINFORCEMENT SCHEDULE (1 OF 2)
B40. OPTION B - PIER REINFORCEMENT SCHEDULE (2 OF 2)

NOTES

THIS CONTRACT CONTAINS TWO OPTIONS FOR PIER CONSTRUCTION.
THE CONTRACTOR MUST BID EITHER OPTION A OR OPTION B.

PIERS - OPTION A
DRILLED SHAFT FOUNDATION AT ALL LOCATIONS
SHEETS A1 THRU A35

PIERS - OPTION B
DRIVEN PILE FOUNDATION AT PIERS WN06, WN07, WN08, WN11, WN12
DRILLED SHAFT FOUNDATION AT ALL OTHER LOCATIONS
SHEETS B1 THRU B40

WISCONSIN
W. RANDALL THOMAS
E-37361
MILWAUKEE, WI
PROFESSIONAL ENGINEER
07/21/2015

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

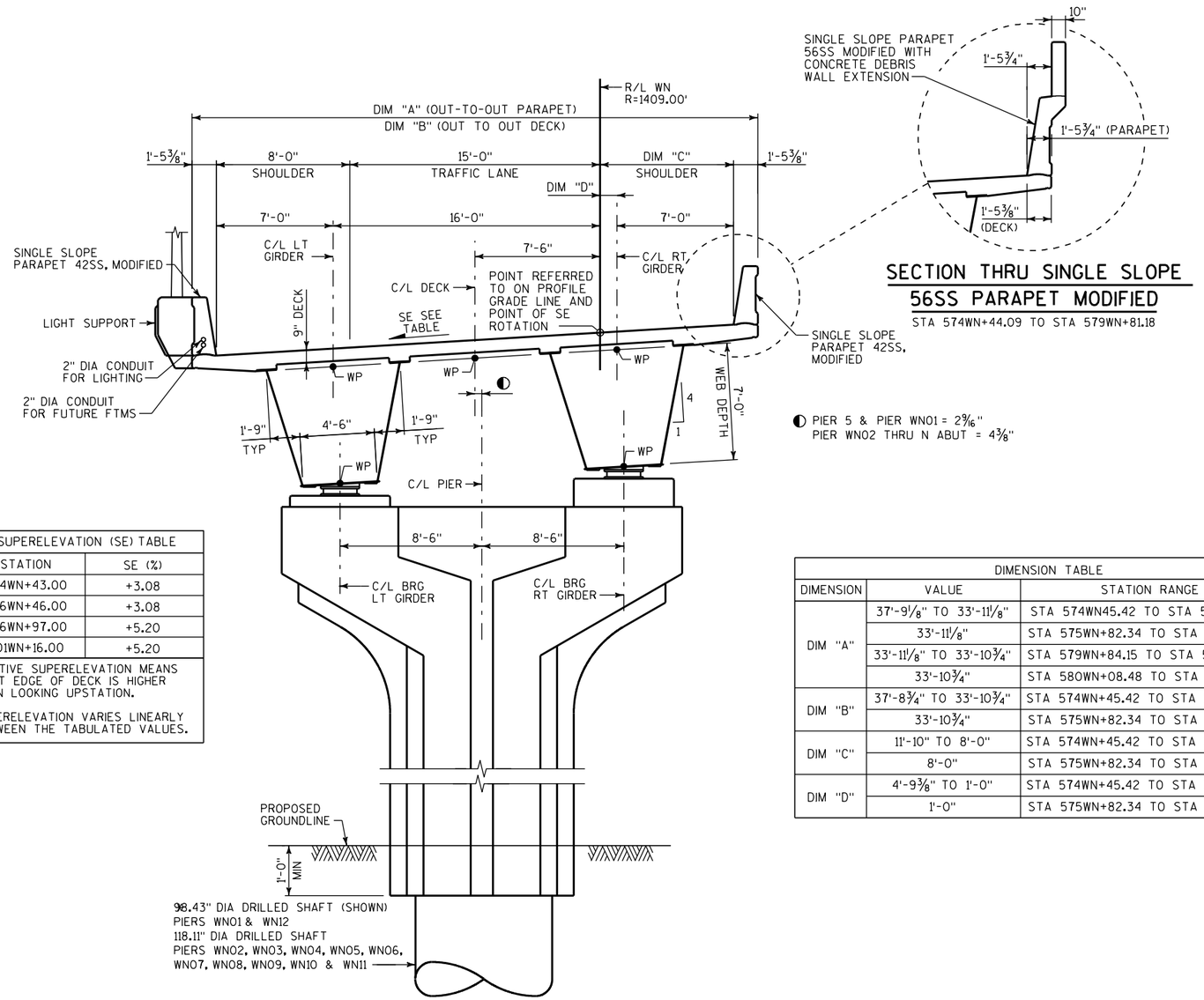
STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

DRAWING LIST

SHEET 2 OF 119

STATE PROJECT NUMBER
1060-33-81



TYPICAL SECTION THRU RAMP WN

(LOOKING UPSTATION)

* DRILLED SHAFT FOUNDATION SHOWN.
IF OPTION B IS BID, CONSTRUCT DRIVEN
PILE FOUNDATION AT PIERS WN06, WN07
WN08, WN11 & WN12. SEE NOTES ON SHEET 4.

SECTION THRU SINGLE SLOPE 56SS PARAPET MODIFIED

STA 574WN+44.09 TO STA 579WN+81.18

◐ PIER 5 & PIER WN01 = 2⅜"
PIER WN02 THRU N ABUT = 4⅜"

SUPERELEVATION (SE) TABLE	
STATION	SE (%)
574WN+43.00	+3.08
576WN+46.00	+3.08
576WN+97.00	+5.20
601WN+16.00	+5.20

POSITIVE SUPERELEVATION MEANS RIGHT EDGE OF DECK IS HIGHER WHEN LOOKING UPSTATION.

SUPERELEVATION VARIES LINEARLY BETWEEN THE TABULATED VALUES.

DIMENSION TABLE		
DIMENSION	VALUE	STATION RANGE
DIM "A"	37'-9⅛" TO 33'-11⅛"	STA 574WN45.42 TO STA 575WN+82.34
	33'-11⅛"	STA 575WN+82.34 TO STA 579WN+84.15
	33'-11⅛" TO 33'-10¾"	STA 579WN+84.15 TO STA 580WN+08.48
	33'-10¾"	STA 580WN+08.48 TO STA 598WN+14.42
DIM "B"	37'-8¾" TO 33'-10¾"	STA 574WN+45.42 TO STA 575WN+82.34
	33'-10¾"	STA 575WN+82.34 TO STA 598WN+14.42
DIM "C"	11'-10" TO 8'-0"	STA 574WN+45.42 TO STA 575WN+82.34
	8'-0"	STA 575WN+82.34 TO STA 598WN+14.42
DIM "D"	4'-9⅜" TO 1'-0"	STA 574WN+45.42 TO STA 575WN+82.34
	1'-0"	STA 575WN+82.34 TO STA 598WN+14.42

DESIGN DATA

LIVE LOAD

DESIGN LOADING: HL-93

CONTROLLING RATINGS FOR UNIT 1
INVENTORY RATING FACTOR: RF = 1.11
OPERATING RATING FACTOR: RF = 1.44
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 240 KIPS

CONTROLLING RATINGS FOR UNIT 2
INVENTORY RATING FACTOR: RF = 1.13
OPERATING RATING FACTOR: RF = 1.46
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES

CONCRETE MASONRY:
SUPERSTRUCTURE (HPC) _____ f'c = 4,000 PSI
SUBSTRUCTURE, PIERS _____ f'c = 5,000 PSI
SUBSTRUCTURE, ABUTMENTS _____ f'c = 4,000 PSI
DRILLED SHAFTS _____ f'c = 4,000 PSI
C.I.P. CONCRETE PILING _____ f'c = 3,500 PSI
BAR STEEL REINFORCEMENT _____ fy = 60,000 PSI
STRUCTURAL STEEL
ASTM A709 (AASHTO M270) GRADE HPS 50W _____ Fy = 50,000 PSI
ASTM A709 (AASHTO M270) GRADE 50 _____ Fy = 50,000 PSI

TRAFFIC DATA									
ROUTE	RAMP WN	RAMP WS	RAMP SW	USH 45 NB	USH 45 SB	IH 94 EB	IH 94 WB	RAMP FH	RAMP NE
A.A.D.T.	13,100	29,900	29,900	59,900	63,600	44,900	44,900	5,600	29,000
YEAR	2035	2035	2035	2035	2035	2035	2035	2035	2035
R.D.S. (MPH)	50	50	50	60	60	60	60	50	50

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

TYPICAL SECTION & DESIGN DATA

SHEET 3 OF 119

8

8

STATE PROJECT NUMBER
1060-33-81

GENERAL

G.1. DRAWINGS SHALL NOT BE SCALED.

G.2. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS NOTED OTHERWISE.

G.3. COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

G.4. GIRDERS AND OTHER ELEMENTS OF THE STRUCTURE ARE REFERRED TO AS 'LEFT' AND 'RIGHT'. THESE DIRECTIONS ARE WITH RESPECT TO THE REFERENCE LINE WHEN LOOKING UP STATION.

G.5. TRANSVERSE DIMENSIONS ARE RADIAL TO THE REFERENCE LINE UNLESS NOTED OTHERWISE.

G.6. THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

G.7. ABOVE GROUND PORTIONS OF EXISTING BRIDGE B-40-755 ARE SCHEDULED TO BE REMOVED IN YEAR 2015 IN CONTRACT 1060-33-80. PORTIONS OF THE NORTH ABUTMENT STEEL H-PILE MAY REMAIN BELOW GROUND. THE H-PILE AT PIER WN07 IS CLASSIFIED AS A KNOWN OBSTRUCTION FOR CONSTRUCTION OF DRILLED SHAFT FOUNDATION (OPTION A), SEE SHEET A3 OR B3. FOR THE PILE SUPPORTED FOOTING (OPTION B), THE REMOVAL OF THE H-PILE IS INCLUDED IN THE "EXCAVATION FOR STRUCTURES BRIDGES B-40-856" BID ITEM.

G.8. THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF BRIDGE B-40-856 WITH PROPOSED BRIDGES B-40-786, B-40-787, B-40-790, B-40-854, AND B-40-853, AND EXISTING BRIDGE B-40-791. SEE PLANS FOR THOSE STRUCTURES.

G.9. STRUCTURE PLANS OF EXISTING STRUCTURES ARE AVAILABLE FOR REVIEW AT WISDOT SE REGION OFFICE, 141 NW BARSTOW STREET, WAUKESHA, WI, OR THROUGH THE WISDOT STRUCTURES WEBSITE.

G.10. SEE CONSTRUCTION STAGING SHEETS FOR INFORMATION ON ASSUMED DEMOLITION AND CONSTRUCTION SEQUENCES.

G.11. THIS CONTRACT CONTAINS TWO OPTIONS FOR PIER CONSTRUCTION. THE CONTRACTOR MUST BID EITHER OPTION A OR OPTION B. SEE NOTE ON SHEET 2.

EXCAVATION AND BACKFILL

EB.1. THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES, BRIDGES B-40-856" SHALL BE AS FOLLOWS:
NORTH ABUTMENT: EXISTING GROUNDLINE
PIERS: AS DEFINED ON THE EXCAVATION PLAN SHEETS

EB.2. AT THE BACKFACE OF THE NORTH ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE THE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

EB.3. SLOPE OF FILL IN FRONT OF NORTH ABUTMENT SHALL BE COVERED WITH SLOPE PAVING CRUSHED AGGREGATE SPECIAL MATERIAL TO THE EXTENT SHOWN ON THE SLOPE PAVING DETAILS SHEET.

DESIGN

D.1. DESIGN IS IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 6TH EDITION, 2012, UNLESS NOTED OTHERWISE.

D.2. LOAD MODIFIERS (AASHTO LRFD 1.3)
DUCTILITY: 1.00
REDUNDANCY: 1.05 FOR STEEL BOX GIRDERS AND DIAPHRAGMS
1.00 ALL OTHER ELEMENTS
OPERATIONAL IMPORTANCE: 1.00

D.3. TEMPERATURE CHANGE USED FOR DETERMINING SUBSTRUCTURE FORCES = 90°F.

D.4. ABSOLUTE TEMPERATURE RANGE FOR DETERMINING BEARING AND EXPANSION JOINT MOVEMENTS = -30°F TO +120°F.

D.5. DESIGN ASSUMED 200 LB/FT ON EACH GIRDER FOR STAY-IN-PLACE METAL FORMS, INCLUDING CONCRETE WITHIN FORM FLUTES.

D.6. DESIGN ASSUMED 10 PSF FOR TEMPORARY FORMWORK BETWEEN BOX GIRDERS.

D.7. DESIGN ASSUMED 160 PLF PER BOX GIRDER TO ACCOUNT FOR TEMPORARY FORMWORK, SCREED RAIL, HANDRAIL, AND OVERHANG BRACKETS.

D.8. DESIGN ASSUMED A SCREED MACHINE TOTAL WEIGHT OF 10,000 POUNDS.

D.9 LIVE LOAD DEFLECTION LIMIT = SPAN/800 (HL93)

D.10. LOAD RATINGS REPORTED ON SHEET 3 INCLUDE THE FOLLOWING SYSTEM FACTORS: 0.85 FOR FLEXURE, 1.00 FOR SHEAR

STRUCTURAL STEEL

SS.1. STEEL GRADE FOR WEBS AND FLANGES OF GIRDERS, AND DIAPHRAGMS; SPLICE PLATES; AND ALL PLATES WELDED TO GIRDER WEBS; SHALL BE ASTM A709 GRADE HPS 50W.

SS.2. STEEL GRADE FOR ACCESS HOLE STIFFENERS, DIAPHRAGM BEARING STIFFENERS AND JACKING STIFFENERS, K-FRAMES, STRUTS, LATERAL BRACING, AND JACKING PADS SHALL BE ASTM A709 GRADE 50.

SS.3. STEEL GRADE FOR MASONRY PLATES, SOLE PLATES, AND BEVELED TOP PLATES FOR THE BEARING ASSEMBLIES SHALL BE ASTM A709 GRADE 50W. FOR STEEL GRADE OF OTHER BEARING COMPONENTS, SEE SPECIAL PROVISIONS FOR BEARINGS.

SS.4. ALL STRUCTURAL STEEL PLATE FOR BOX GIRDER FLANGES AND WEBS IN TENSION ZONES AS SHOWN ON THE PLANS, ALL SPLICE PLATES, ALL WEB STIFFENERS, AND ALL INTERNAL AND EXTERNAL DIAPHRAGM PLATES, SHALL BE CLASSIFIED AS FRACTURE CRITICAL MEMBERS (FCM). ALL WELDS FOR THESE ELEMENTS SHALL BE CONSIDERED FRACTURE CRITICAL WELDS.

SS.5. CHARPY V-NOTCH TOUGHNESS REQUIREMENTS FOR ALL STEEL SHALL CONFORM TO THE REQUIREMENTS FOR ZONE 2.

SS.6. FIELD WELDING ON HIGH PERFORMANCE STEEL (HPS) PLATES IN TENSION IS NOT PERMITTED, EXCEPT FOR FIELD WELDED SHEAR CONNECTORS. THE CONTRACTOR WILL NEED TO ESTABLISH A METHOD OF ATTACHING FORMS WITHOUT WELDING.

SS.7. ALL BOLTS SHALL BE ASTM A325-X TYPE 1. BOLTS SHALL BE 1" DIAMETER UNLESS NOTED OTHERWISE. ALL HOLES SHALL BE STANDARD DIAMETER - NO OVERSIZED HOLES. ALL CONNECTIONS SHALL BE FABRICATED AND ASSEMBLED AS SLIP-CRITICAL CONNECTIONS. DESIGN ASSUMED CLASS B FAYING SURFACE FOR SLIP RESISTANCE.

SS.8. PAINT ALL STRUCTURAL STEEL, INCLUDING SURFACES AND BRACING MEMBERS ON THE INSIDE OF THE BOX GIRDERS. FINISH COAT FOR EXTERIOR SURFACES SHALL HAVE A COLOR TO MATCH SHERWIN WILLIAMS COLOR "SW6523". FINISH COAT FOR INTERIOR SURFACES SHALL BE WHITE, FEDERAL COLOR #27925.

SS.9. CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING A CONSTANT 4" HAUNCH HEIGHT, MEASURED FROM THE UNDERSIDE OF THE TOP FLANGE TO THE UNDERSIDE OF THE DECK (TOP OF STAY-IN-PLACE METAL FORMS). ANY ADDITIONAL QUANTITIES REQUIRED AS A RESULT OF VARIATION IN THE HAUNCH HEIGHT ARE ASSUMED TO BE INCIDENTAL TO OTHER PAY ITEMS AND WILL NOT BE PAID FOR SEPARATELY. THIS INCLUDES ADDITIONAL CONCRETE IN THE HAUNCH, ADDITIONAL OR MORE COMPLICATED FORM WORK, EXTRA SHEAR STUD LENGTH AND ANY REQUIRED REINFORCEMENT IN THE HAUNCH.

SS.10. TEMPORARY SUPPORTS AND FALSE WORK (INCLUDING OVERHANG BRACKETS) SHALL NOT BEAR ON GIRDER WEBS, EXCEPT WITHIN 8 INCHES OF THE BOTTOM FLANGE.

SS.11. ALL PLAN DIMENSIONS ARE BASED ON THE FINAL DEFLECTED SHAPE.

REINFORCING STEEL

RS.1. ALL REINFORCING BARS ARE ENGLISH DESIGNATION AND THE FIRST DIGIT OF A 3-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A 4-DIGIT BAR MARK SIGNIFY THE BAR SIZE.

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

RS.3. FOR BARS NOTED IN THE BILL OF BAR TABLES AS STAINLESS STEEL, PROVIDE STAINLESS STEEL REINFORCEMENT PER THE SPECIAL PROVISION "BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES".

CONCRETE

C.1. THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE HAUNCH DEPTH OF 4" MEASURED FROM TOP OF WEB TO UNDERSIDE OF SLAB (EXCLUDING THE VOLUME TAKEN UP BY THE TOP FLANGE) WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

C.2. THE PARAPET CONCRETE QUANTITY FOR PARAPET ON THE DECK, ABUTMENT BACKWALL, AND APPROACH SLAB SHALL BE PAID FOR UNDER BID ITEM "HPC MASONRY STRUCTURES".

C.3. THE CONCRETE QUANTITY FOR APPROACH SLAB FOOTING SHALL BE PAID FOR UNDER BID ITEM "CONCRETE MASONRY BRIDGES". THE REMAINING CONCRETE QUANTITY FOR APPROACH SLAB SHALL BE PAID FOR UNDER BID ITEM "HPC MASONRY STRUCTURES".

C.4. CONCRETE ABOVE THE ABUTMENT UPPER BACKWALL CONSTRUCTION JOINT SHALL BE PAID FOR UNDER BID ITEM "HPC MASONRY STRUCTURES". THE REMAINING CONCRETE QUANTITY FOR ABUTMENT SHALL BE PAID FOR UNDER BID ITEM "CONCRETE MASONRY BRIDGES".

CONCRETE (CONT'D)

C.5. THE CONCRETE QUANTITY FOR THE PIERS SHALL BE PAID FOR UNDER BID ITEM "CONCRETE MASONRY BRIDGES".

C.6. THE CONCRETE QUANTITY FOR DRILLED SHAFT SOCKETS SHALL BE PAID FOR UNDER BID ITEM "CONCRETE MASONRY BRIDGES". SEE SHEET A16 OR B16.

C.7. CHAMFER ALL EXPOSED OUTSIDE CORNERS ¾" UNLESS NOTED OTHERWISE.

FOUNDATION DATA

DRIVEN PILES:

FD.1. ABUTMENTS AND PIERS SHALL BE SUPPORTED ON 16" DIA CIP CONCRETE PILING DRIVEN TO FOLLOWING REQUIRED DRIVING RESISTANCE AS DETERMINED BY THE PDA/CAPWAP METHOD.
REQUIRED DRIVING RESISTANCE:
PIER WN06: 246 TONS (BID OPTION B ONLY)
PIER WN07: 246 TONS (BID OPTION B ONLY)
PIER WN08: 246 TONS (BID OPTION B ONLY)
PIER WN11: 246 TONS (BID OPTION B ONLY)
PIER WN12: 246 TONS (BID OPTION B ONLY)
NORTH ABUTMENT: 246 TONS

FD.2. THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.65 USING THE PDA/CAPWAP METHOD TO DETERMINE DRIVEN PILE CAPACITY.

FD.3. ESTIMATED PILE LENGTHS:
PIER WN06: 70 FEET (BID OPTION B ONLY)
PIER WN07: 50 FEET (BID OPTION B ONLY)
PIER WN08: 50 FEET (BID OPTION B ONLY)
PIER WN11: 45 FEET (BID OPTION B ONLY)
PIER WN12: 50 FEET (BID OPTION B ONLY)
NORTH ABUTMENT: 50 FEET

FD.4. PILE SPLICES SHALL BE MADE BY A CERTIFIED WELDER.

FD.5. MINIMUM PILE PENETRATION FOR UPLIFT RESISTANCE:
PIER WN06: EL = 666.0 (BID OPTION B ONLY)
PIER WN07: EL = 702.0 (BID OPTION B ONLY)
PIER WN08: EL = 709.0 (BID OPTION B ONLY)
PIER WN11: EL = 712.0 (BID OPTION B ONLY)
PIER WN12: EL = 709.0 (BID OPTION B ONLY)

DRILLED SHAFTS:

FD.6. PIERS SHALL BE SUPPORTED ON BASE GROUTED DRILLED SHAFTS. SHAFT DIAMETERS, FACTORED AXIAL RESISTANCES, TOP OF SHAFT AND BOTTOM OF SHAFT ELEVATIONS, AND CORRESPONDING SHAFT LENGTHS FOR EACH DRILLED SHAFT ARE GIVEN IN THE TABLE BELOW.

FD.7. THE MINIMUM FACTORED AXIAL RESISTANCE OF DRILLED SHAFTS IN COMPRESSION USED FOR DESIGN IS THE REQUIRED AXIAL RESISTANCE MULTIPLIED BY A SHAFT RESISTANCE FACTOR OF 0.56. THE RESISTANCE FACTOR INCLUDES A 20% REDUCTION FOR NON-REDUNDANCY.

FD.8. SUCCESSFUL INSTALLATION AND ENGINEER ACCEPTANCE OF THE ITEM "TRIAL DRILLED FOUNDATION SHAFT, 118.11-INCH", INCLUDED IN THIS CONTRACT WITH THE QUANTITIES FOR B-40-854, IS REQUIRED PRIOR TO BEGINNING THE CONSTRUCTION OF THE ITEMS "DRILLED FOUNDATION SHAFT 96.43-INCH" AND "DRILLED FOUNDATION SHAFT 118.11-INCH" FOR B-40-856.

DRILLED SHAFT DATA

SHAFT LOCATION	SHAFT DIA (IN)	MINIMUM FACTORED AXIAL RESIST (KIP)	TOP OF SHAFT EL	BOTTOM OF SHAFT EL	SHAFT LENGTH (FT)
PIER WN01	98.43	4000	752.0	687.0	65.0
PIER WN02	118.11	4300	756.0	706.0	50.0
PIER WN03	118.11	4100	771.0	695.0	76.0
PIER WN04	118.11	4500	761.0	697.0	65.0
PIER WN05	118.11	4200	746.0	696.0	50.0
PIER WN06*	118.11	3800	740.0	665.0	75.0
PIER WN07*	118.11	2900	757.0	702.0	55.0
PIER WN08*	118.11	4400	759.0	696.0	63.0
PIER WN09	118.11	4700	755.0	705.0	50.0
PIER WN10	118.11	4300	761.0	696.0	65.0
PIER WN11 *	118.11	4100	758.0	708.0	50.0
PIER WN12 *	98.43	3900	763.0	713.0	50.0

* BID OPTION A ONLY

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

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GENERAL NOTES

SHEET 4 OF 119

STATE PROJECT NUMBER

1060-33-81

TOTAL ESTIMATED QUANTITIES

ITEM CATEGORY	ITEM NO.	BID ITEMS	UNIT	PIER 5	PIER WN01	PIER WN02	PIER WN03	PIER WN04	PIER WN05	PIER WN06	PIER WN07	PIER WN08	PIER WN09	PIER WN10	PIER WN11	PIER WN12	NORTH ABUT	N APPR SLAB	SUPER UNIT 1	SUPER UNIT 2	TOTAL
2110	210.0100	BACKFILL STRUCTURE	CY	---	---	---	---	---	---	---	---	---	---	---	---	---	160	---	---	---	160
2110	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	---	---	---	---	---	---	---	---	---	---	---	---	---	---	103	---	---	103
2110	502.0100	CONCRETE MASONRY BRIDGES	CY	---	---	---	---	---	---	---	---	---	---	---	---	---	129.0	10.0	---	---	139
2110	502.3200	PROTECTIVE SURFACE TREATMENT	SY	---	---	---	---	---	---	---	---	---	---	---	---	---	16	70	5,383	5,091	10,560
2110	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	---	---	---	---	---	---	---	---	---	---	---	---	---	700	---	---	---	700
2110	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	---	---	---	---	---	---	---	---	---	---	---	---	---	13,480	1,520	---	---	15,000
2110	505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	---	---	---	---	---	---	---	---	---	---	---	---	---	880	6,210	415,970	359,970	783,030
2110	506.0605	STRUCTURAL STEEL HS	LB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,250,500	2,191,100	4,441,600
2110	506.3015	WELDED STUD SHEAR CONNECTORS 7/8X6-INCH	EACH	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15,900	14,900	30,800
2110	514.2608	DOWNSPOUT 8-INCH	LF	18	63	69	65	86	104	113	---	---	93	78	75	62	---	---	---	---	826
2110	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	---	---	---	---	---	---	---	---	---	---	---	---	6	---	---	---	6
2110	517.0650.S.0004	PAINTING POLYSILOXANE SYSTEM B-40-856	LS	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1
2110	517.1010.S.0012	CONCRETE STAINING B-40-856	SF	---	1,940	2,150	1,960	2,680	3,465	3,780	3,185	3,080	3,090	2,595	2,390	1,890	620	140	20,440	15,610	69,015
2110	550.2168	PILING CIP CONCRETE 16 X 0.50-INCH	LF	---	---	---	---	---	---	---	---	---	---	---	---	---	700	---	---	---	700
2110	606.0200	RIPRAP MEDIUM	CY	---	1	1	1	1	1	1	---	---	---	1	1	---	---	---	---	---	8
2110	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	---	---	---	---	---	---	---	---	---	---	---	---	---	35	---	---	---	35
2110	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	---	---	---	---	---	---	---	---	---	---	---	---	---	52	---	---	---	52
2110	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23	8	15	46
2110	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,247	1,166	2,413
2110	653.0220	JUNCTION BOXES 18X6X6-INCH	EACH	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2	4	6
2110	653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7	6	13
2110	657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7	6	13
2110	SPV.0035.4000	HPC MASONRY STRUCTURES	CY	---	---	---	---	---	---	---	---	---	---	---	---	---	2.5	39.3	1,661.2	1,533.0	3,236
2110	SPV.0060.4110	PILE DYNAMIC ANALYZER (PDA) TESTING	EACH	---	---	---	---	---	---	---	---	---	---	---	---	---	2	---	---	---	2
2110	SPV.0060.4115	PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH	---	---	---	---	---	---	---	---	---	---	---	---	---	2	---	---	---	2
2110	SPV.0060.4116	CASE PILE WAVE ANALYSIS PROGRAM (CAP/WAP) EVALUATION	EACH	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	1
2110	SPV.0060.4120	BEARINGS HIGH-LOAD MULTI-ROTATIONAL FIXED	EACH	---	---	---	2	2	---	---	---	---	2	2	2	---	---	---	---	---	10
2110	SPV.0060.4125	BEARINGS HIGH-LOAD MULTI-ROTATIONAL GUIDED	EACH	2	2	2	---	---	2	2	4	2	---	---	---	2	2	---	---	---	20
2110	SPV.0060.4130	FLOOR DRAIN SPECIAL	EACH	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7	4	11
2110	SPV.0105.4550	EXPANSION DEVICE MODULAR LRFD B-40-856	LS	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1
2110	SPV.0165.4700	LONGITUDINAL GROOVING BRIDGE DECK	SF	---	---	---	---	---	---	---	---	---	---	---	---	---	54	627	37,620	35,610	73,911
2110	SPV.0180.4800	SLOPE PAVING CRUSHED AGGREGATE SPECIAL	SY	---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	---	170
		NON-BID ITEMS																			
		BRIDGE SEAT PROTECTION	EACH																		
		PREFORMED JOINT FILLER	SIZE																		
		NAME PLATE	LS																		
		EXPANDED POLYSTYRENE	SIZE																		

8

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NOTES

THIS CONTRACT CONTAINS TWO OPTIONS FOR PIER CONSTRUCTION.
THE CONTRACTOR MUST BID EITHER OPTION A OR OPTION B.

ITEMS ON THIS SHEET ARE MANDATORY AND ARE REQUIRED WITH PIER OPTION A AND PIER OPTION B. FOR ADDITIONAL ITEMS AND QUANTITIES, SEE SHEET A1 FOR OPTION A AND SHEET B1 FOR OPTION B.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

QUANTITIES

SHEET 5 OF 119

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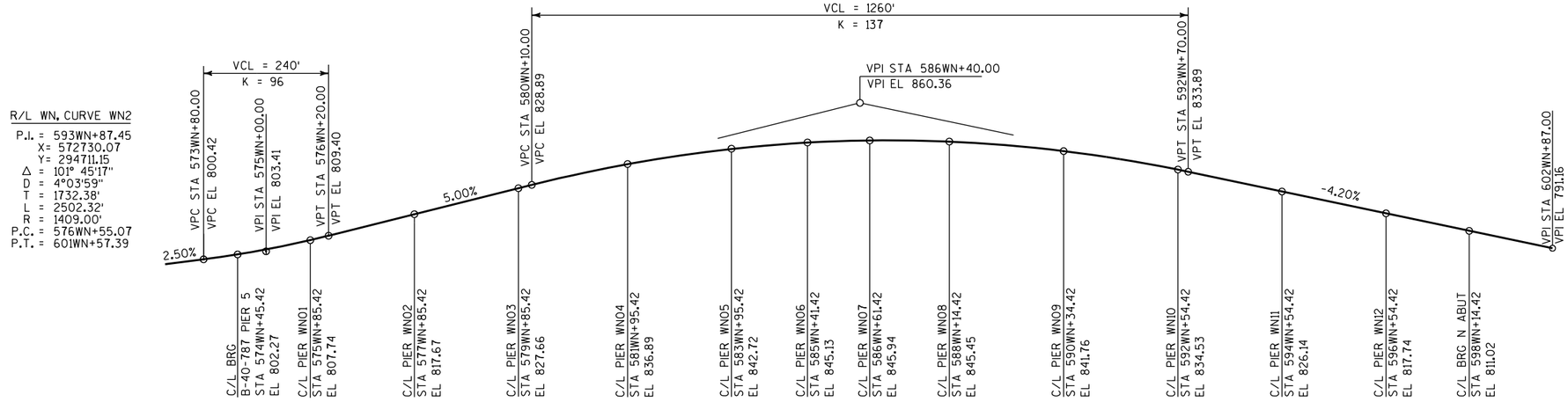
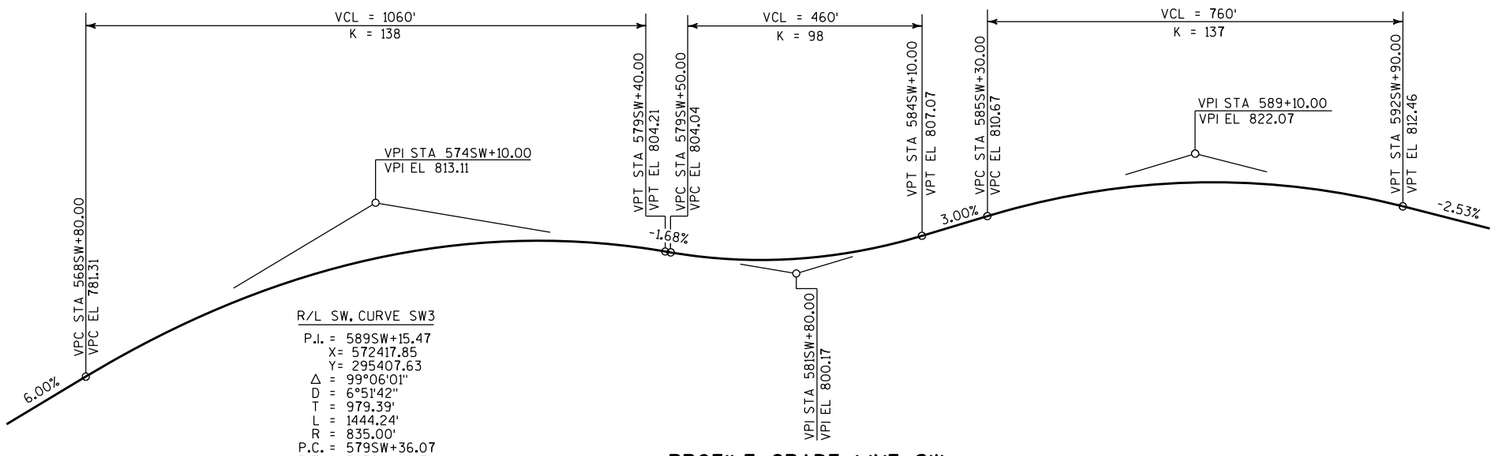
PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



PROFILE GRADE LINE WN

RAMP WN



PROFILE GRADE LINE SW

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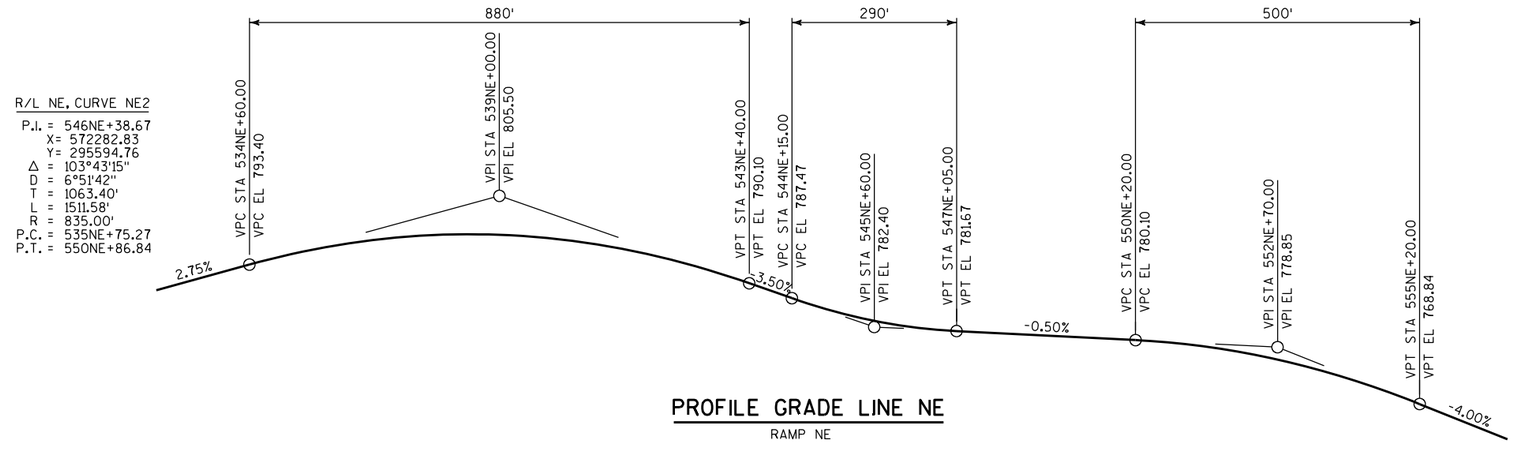


PROFILE GRADE LINE NE

RAMP NE

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

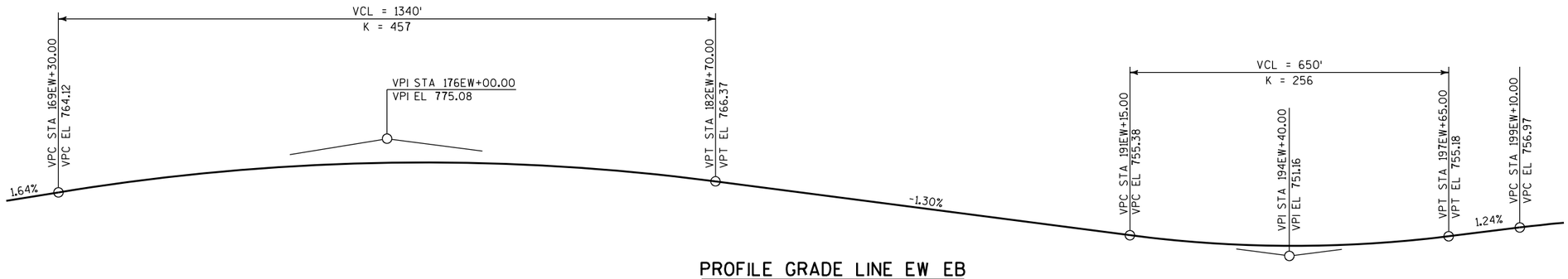
STRUCTURE B-40-856

DRAWN BY: GLM | PLANS CK'D.: WRT

ROADWAY GEOMETRY (1 OF 2)

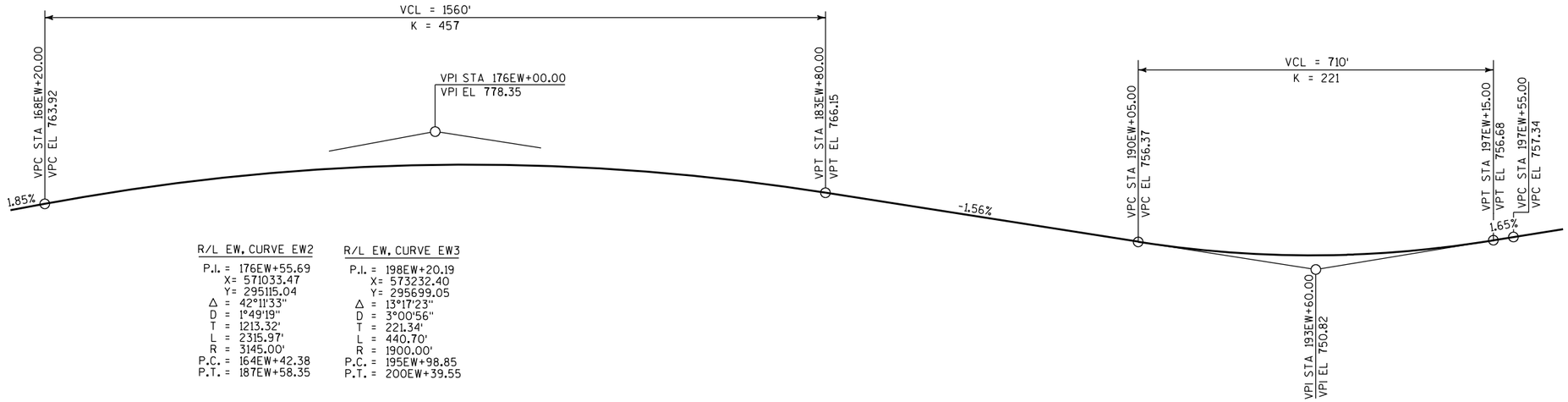
SHEET 6 OF 119

STATE PROJECT NUMBER
1060-33-81



PROFILE GRADE LINE EW EB

IH 94 EB



R/L EW, CURVE EW2

P.I. = 176EW+55.69
X= 571033.47
Y= 295115.04
Δ = 42°11'33"
D = 1°49'19"
T = 1213.32'
L = 2315.97'
R = 3145.00'
P.C. = 164EW+42.38
P.T. = 187EW+58.35

R/L EW, CURVE EW3

P.I. = 198EW+20.19
X= 573232.40
Y= 295699.05
Δ = 13°17'23"
D = 3°00'56"
T = 221.34'
L = 440.70'
R = 1900.00'
P.C. = 195EW+98.85
P.T. = 200EW+39.55

PROFILE GRADE LINE EW WB

IH 94 WB

PROFILE GRADE LINE NS

RAMP NS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

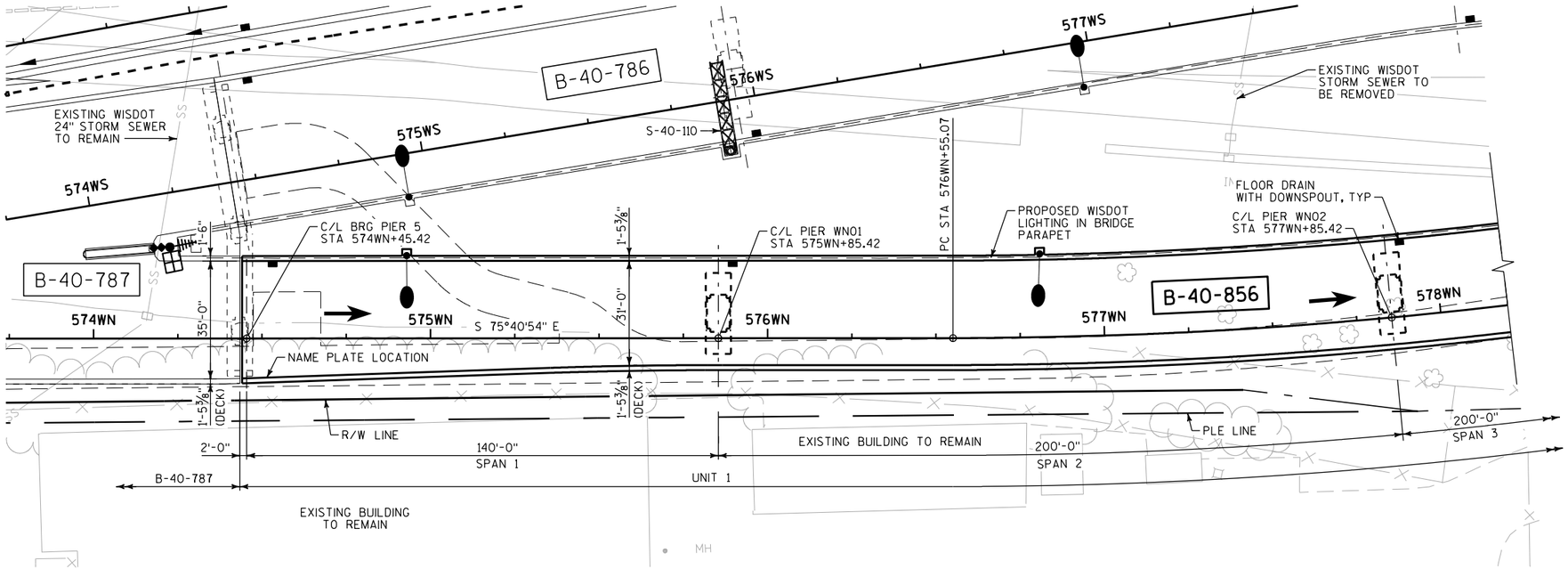
STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

ROADWAY
GEOMETRY
(2 OF 2)

SHEET 7 OF 119

STATE PROJECT NUMBER
1060-33-81



PLAN

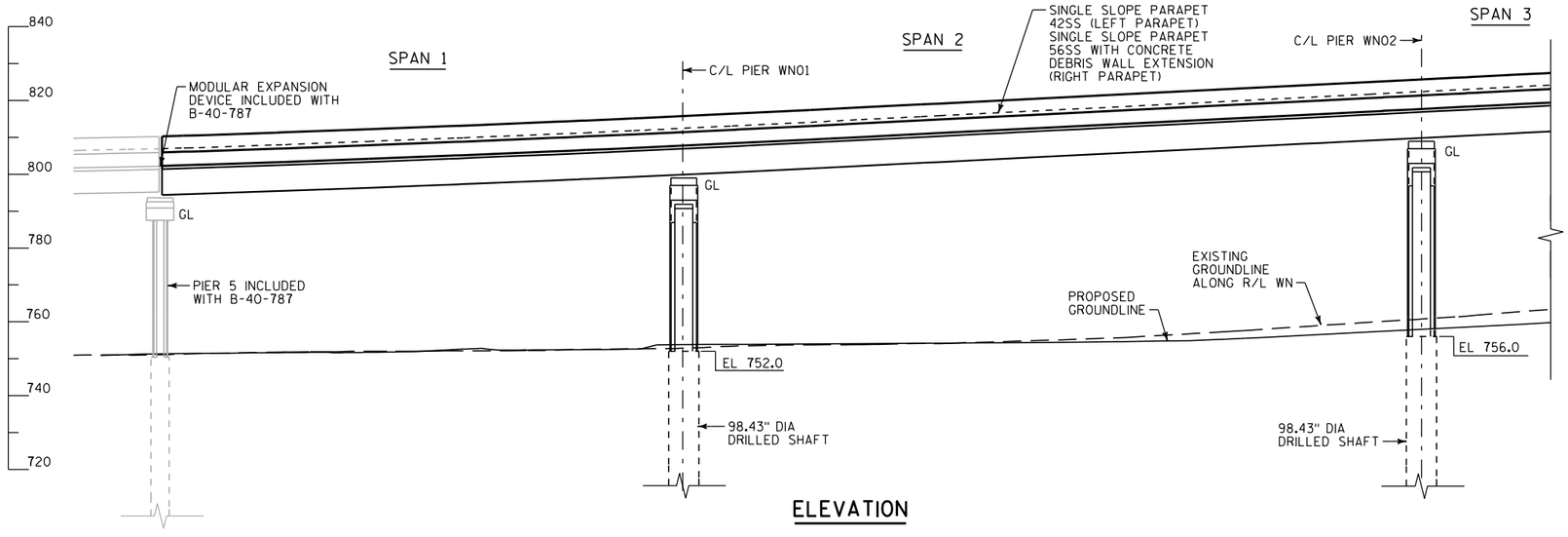
DIMENSIONS SHOWN ARE ALONG R/L WN

LEGEND

INDICATES LANE LOCATION AND DIRECTION OF TRAVEL

FIX = FIXED BEARINGS

GL = UNIDIRECTIONAL BEARINGS



ELEVATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

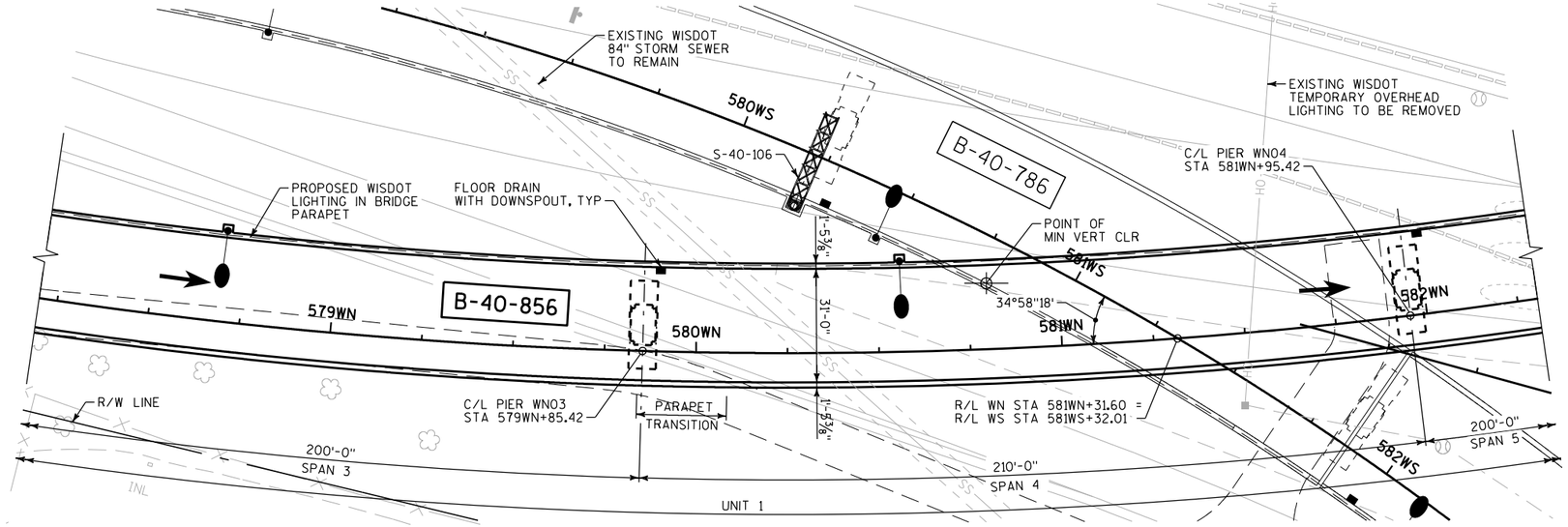
STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

PLAN & ELEVATION SPANS 1 & 2

SHEET 8 OF 119

STATE PROJECT NUMBER
1060-33-81



LEGEND

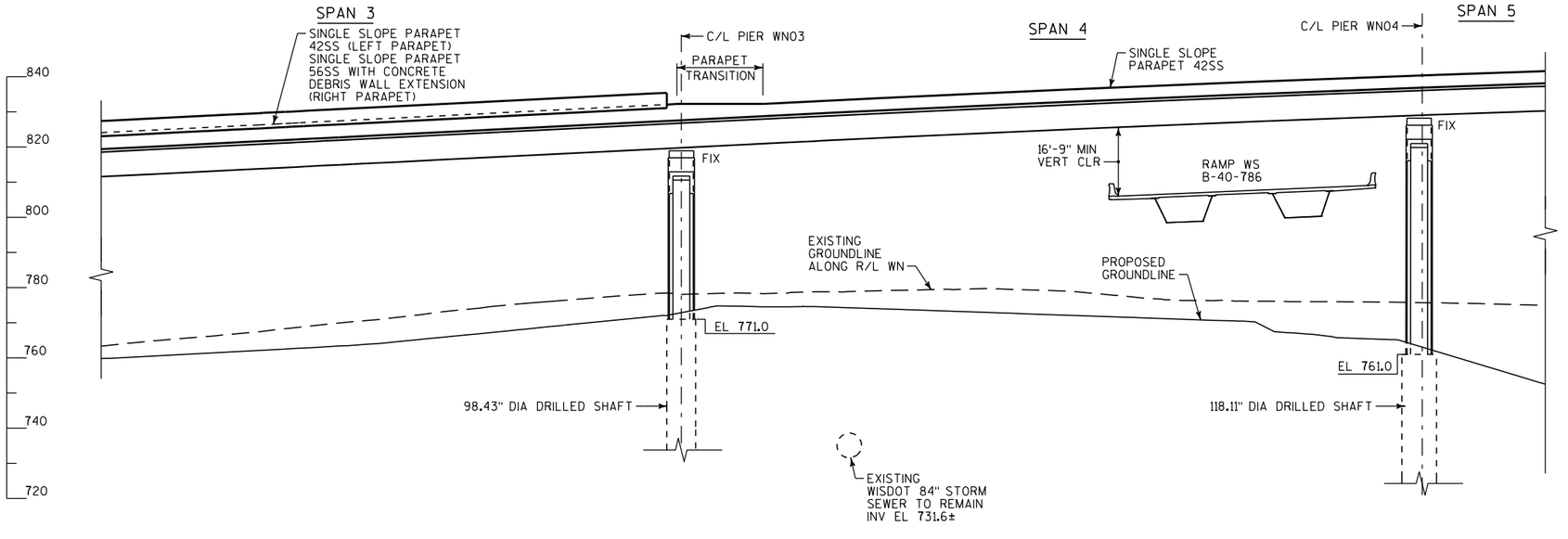
← INDICATES LANE LOCATION AND DIRECTION OF TRAVEL

FIX = FIXED BEARINGS

GL = UNIDIRECTIONAL BEARINGS

PLAN

DIMENSIONS SHOWN ARE ALONG R/L WN



ELEVATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

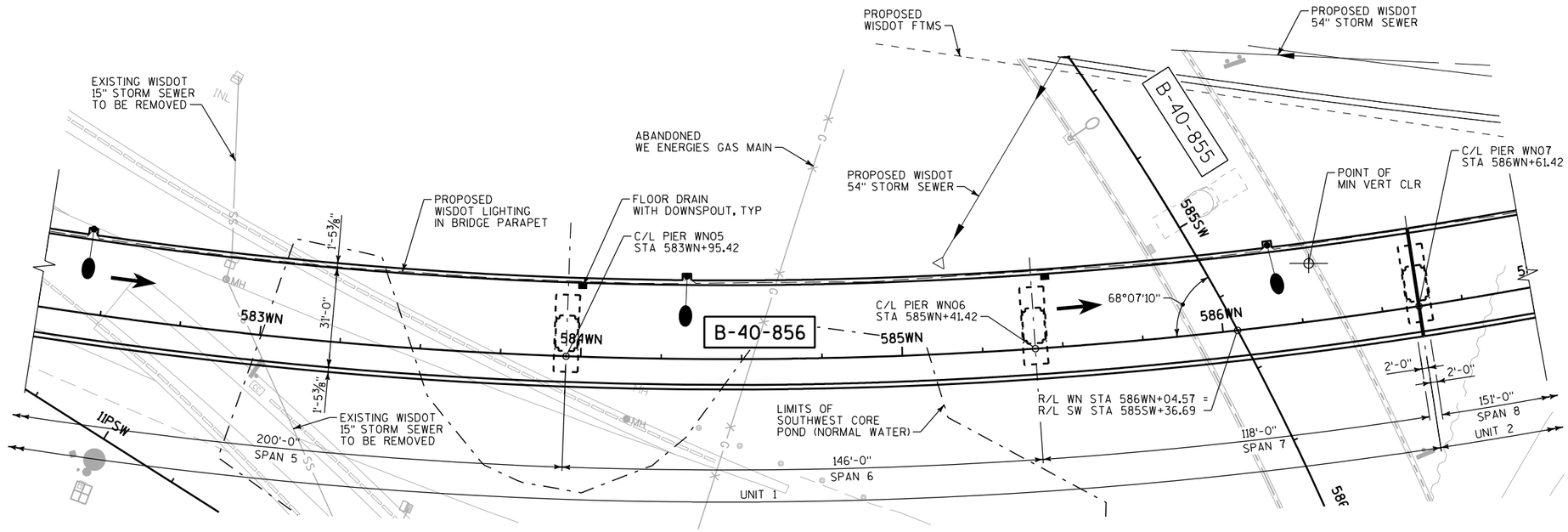
PLAN & ELEVATION SPANS 3 & 4

SHEET 9 OF 119

8

8

STATE PROJECT NUMBER
1060-33-81



PLAN

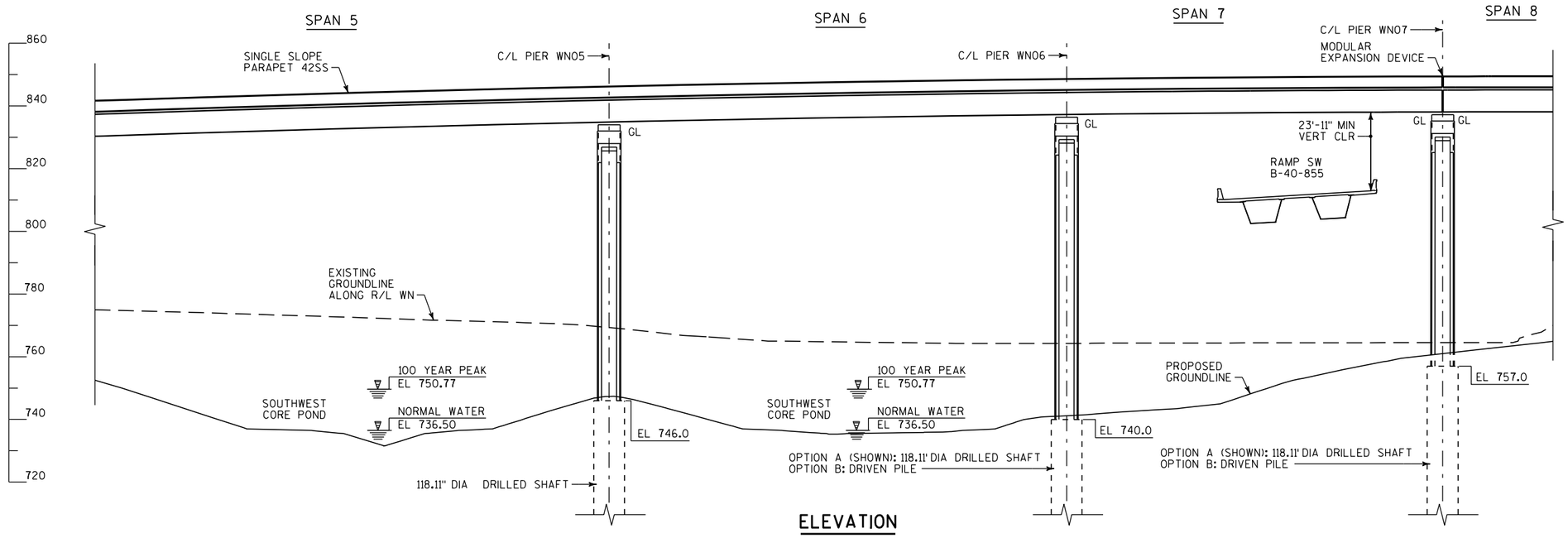
DIMENSIONS SHOWN ARE ALONG R/L WN

LEGEND

INDICATES LANE LOCATION AND DIRECTION OF TRAVEL

FIX = FIXED BEARINGS

GL = UNIDIRECTIONAL BEARINGS



ELEVATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

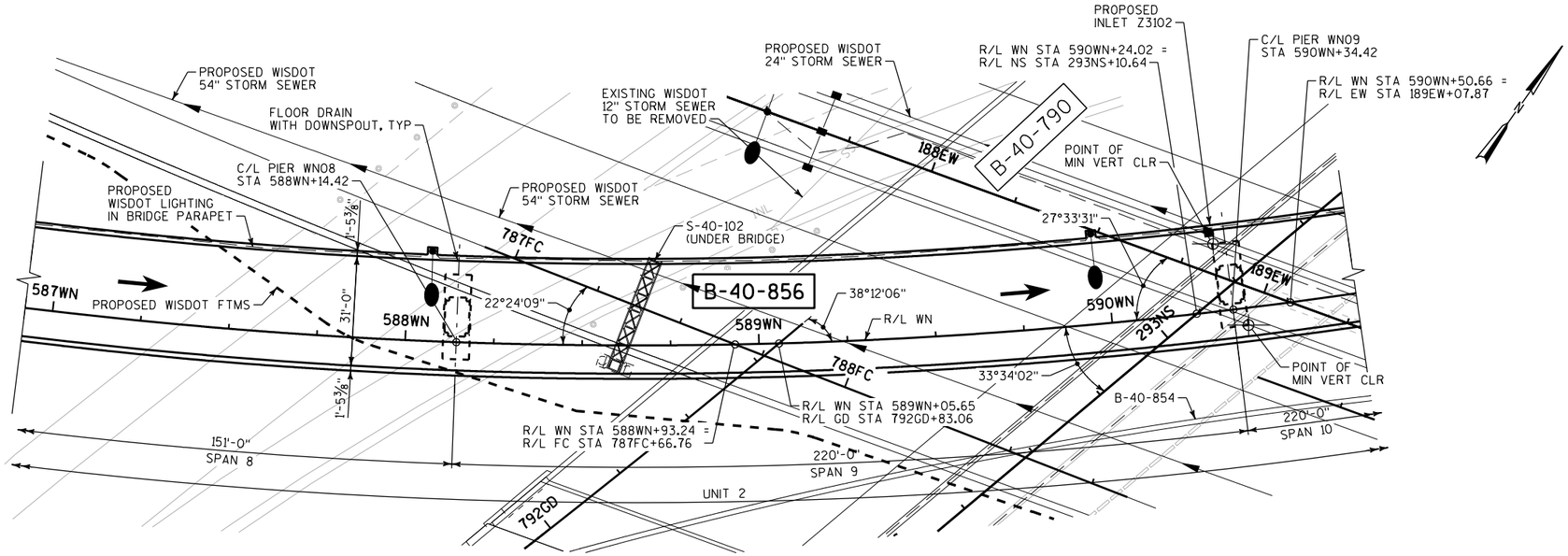
STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

PLAN & ELEVATION SPANS 5, 6 & 7

SHEET 10 OF 119

STATE PROJECT NUMBER
1060-33-81



PLAN

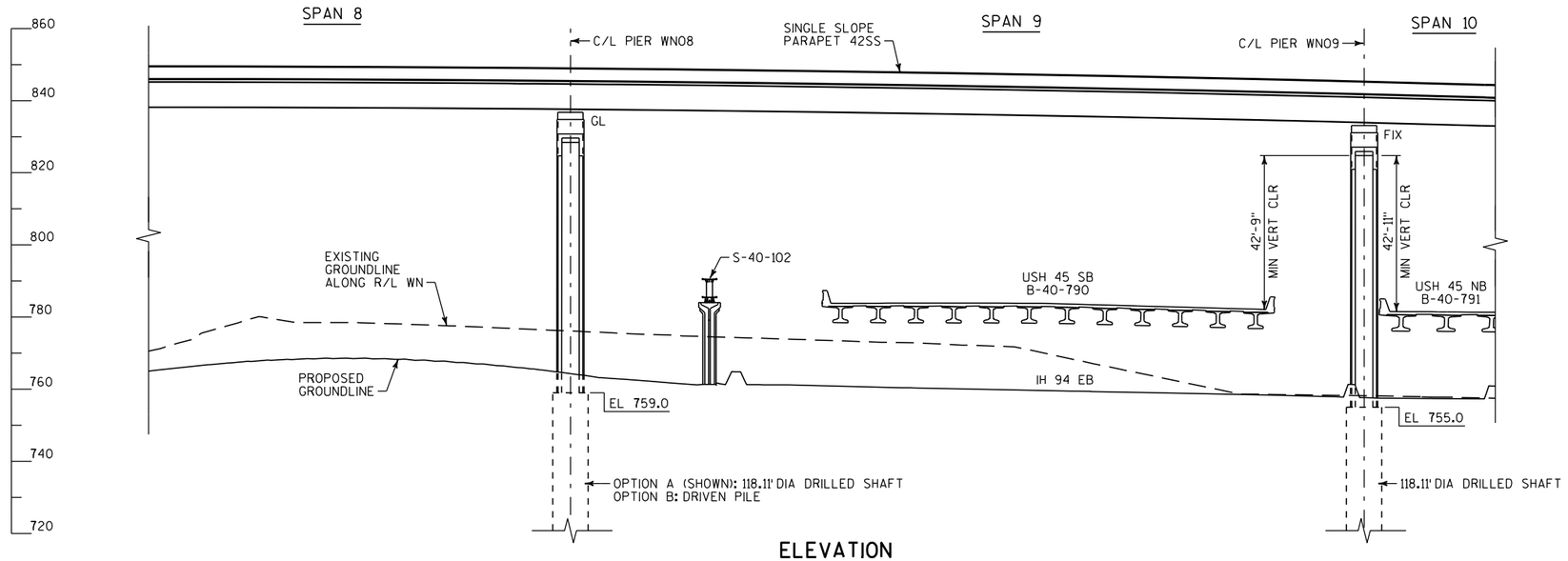
DIMENSIONS SHOWN ARE ALONG R/L WN

LEGEND

← INDICATES LANE LOCATION AND DIRECTION OF TRAVEL

FIX = FIXED BEARINGS

GL = UNIDIRECTIONAL BEARINGS



ELEVATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

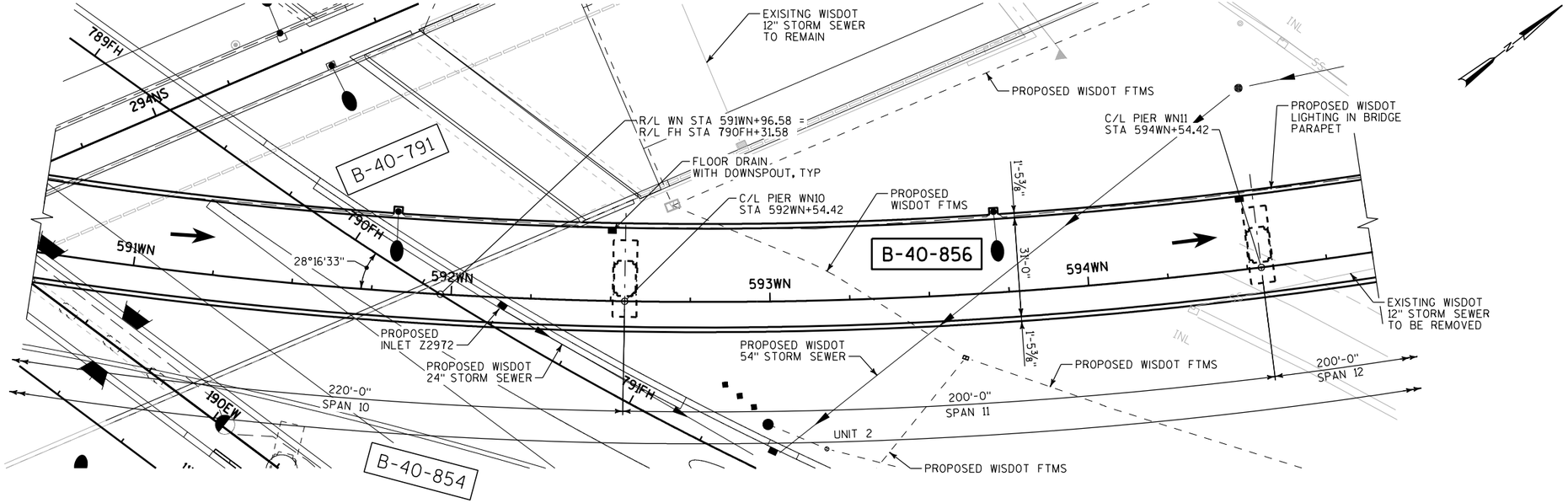
PLAN & ELEVATION SPANS 8 & 9

SHEET 11 OF 119

8

8

STATE PROJECT NUMBER
1060-33-81



PLAN

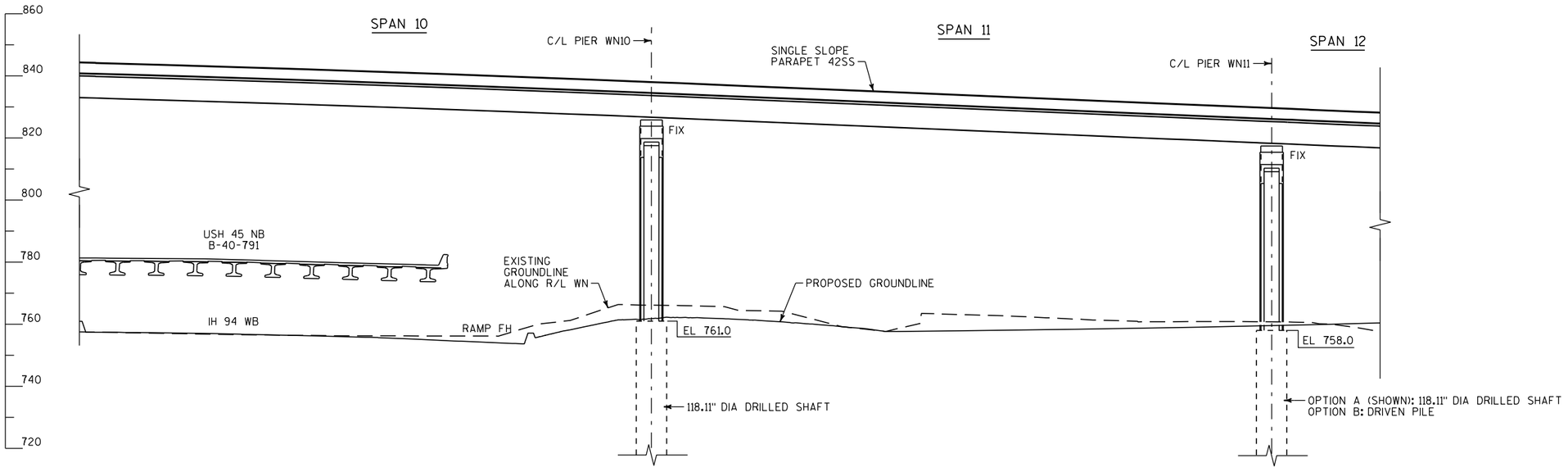
DIMENSIONS SHOWN ARE ALONG R/L WN

LEGEND

← INDICATES LANE LOCATION AND DIRECTION OF TRAVEL

FIX = FIXED BEARINGS

GL = UNIDIRECTIONAL BEARINGS



ELEVATION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

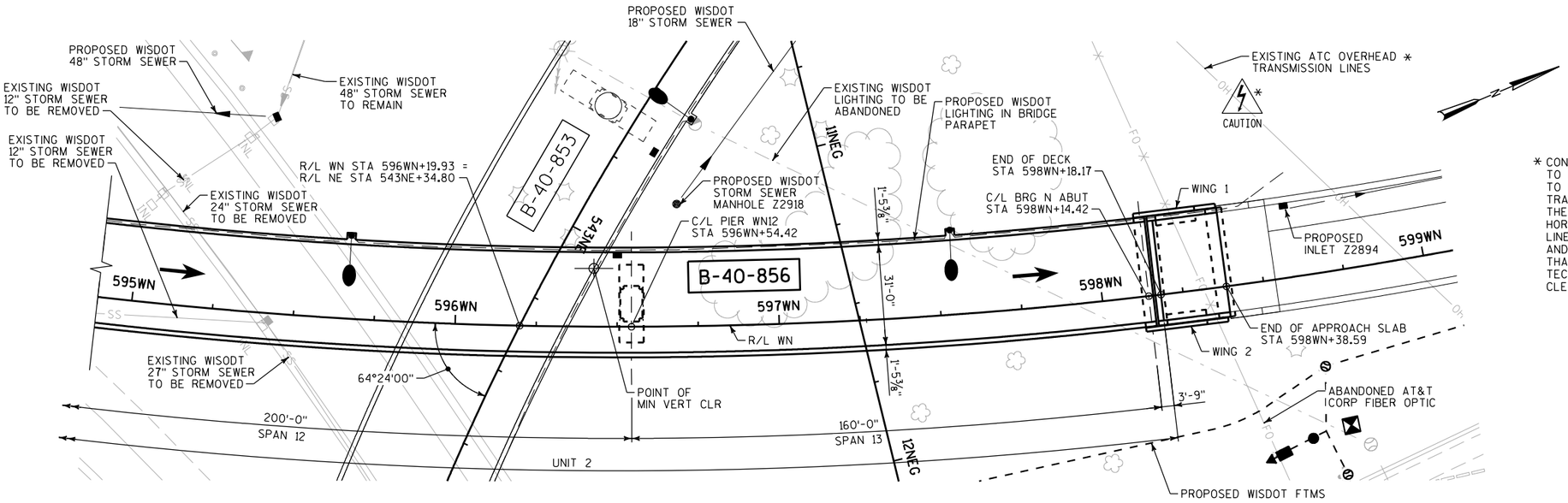
DRAWN BY GLM | PLANS CK'D. WRT

PLAN & ELEVATION SPANS 10 & 11

SHEET 12 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080112_gp.dgn PLOT DATE : 13-MAY-2015 15:58 PLOT BY : MSCBKS PLOT NAME : B856_080112_gp PLOT SCALE : 40:1

STATE PROJECT NUMBER
1060-33-81



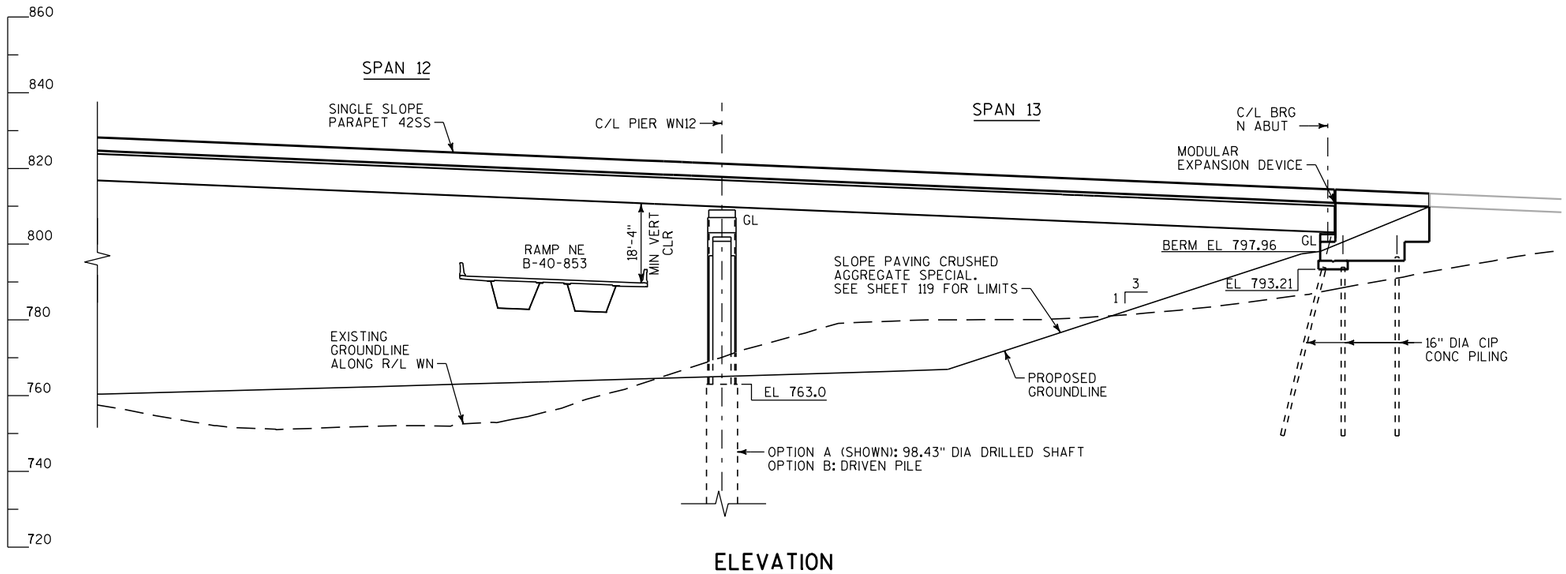
* CONSTRUCTION OF BRIDGE B-40-856 MAY NEED TO BE ACCOMPLISHED BENEATH AND/OR ADJACENT TO ENERGIZED OVERHEAD 138KV ELECTRIC TRANSMISSION LINES OWNED AND OPERATED BY THE AMERICAN TRANSMISSION COMPANY (ATC). THE HORIZONTAL AND VERTICAL LOCATION OF THESE LINES CAN VARY WITH WIND, AMBIENT TEMPERATURE AND POWER LOADING. THE CONTRACTOR IS ADVISED THAT LOW OVERHEAD EQUIPMENT AND INSTALLATION TECHNIQUES MAY BE REQUIRED TO MAINTAIN SAFE CLEARANCES FROM THESE LINES.

LEGEND

- INDICATES LANE LOCATION AND DIRECTION OF TRAVEL
- FIX = FIXED BEARINGS
- GL = UNIDIRECTIONAL BEARINGS

PLAN

DIMENSIONS SHOWN ARE ALONG R/L WN



ELEVATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

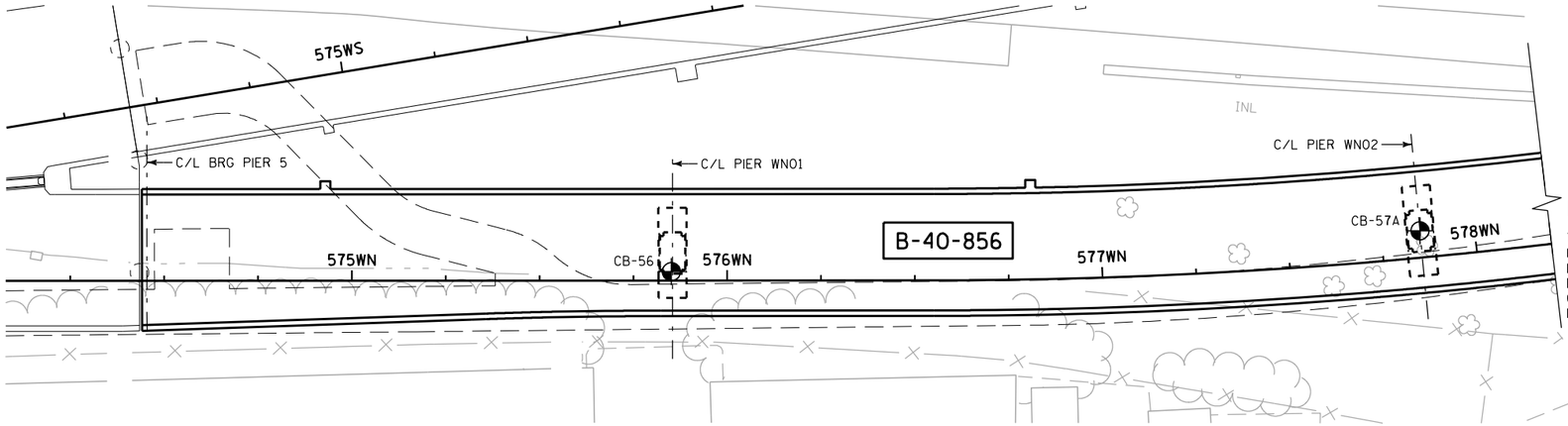
STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

PLAN & ELEVATION SPANS 12 & 13

SHEET 13 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080113_gp.dgn PLOT DATE : 13-MAY-2015 15:58 PLOT BY : MSCBKS PLOT NAME : B856_080113_gp PLOT SCALE : 40:1



NOTES

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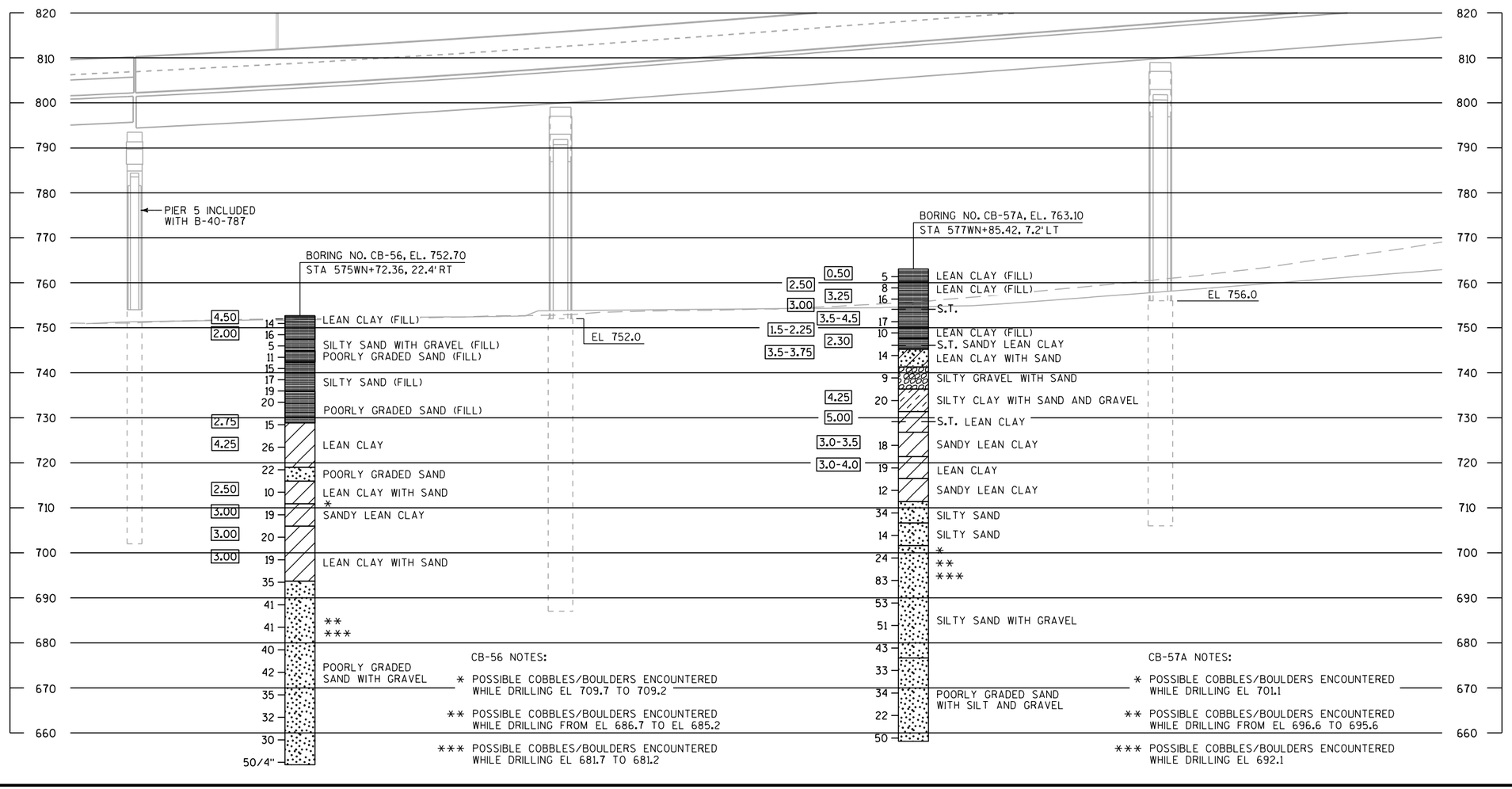
⊕ DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING, INC.

SOIL BORINGS TAKEN:
MAY 11, 2012 = BORING CB-56
MARCH 7, 2013 = BORING CB-57A



CB-56 NOTES:

* POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING EL 709.7 TO 709.2

** POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING FROM EL 686.7 TO EL 685.2

*** POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING EL 681.7 TO 681.2

CB-57A NOTES:

* POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING EL 701.1

** POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING FROM EL 696.6 TO 695.6

*** POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING EL 692.1

STATE PROJECT NUMBER

1060-33-81

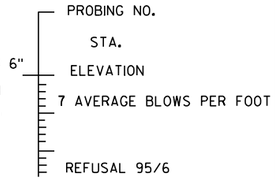
ABBREVIATIONS

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

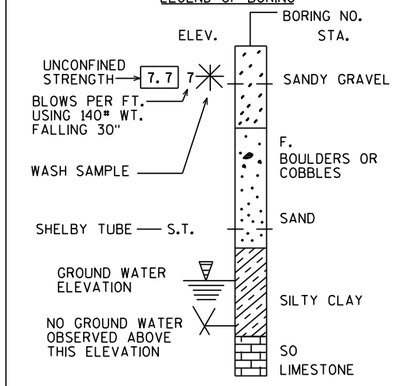
MATERIAL SYMBOLS

TOPSOIL / FILL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



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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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

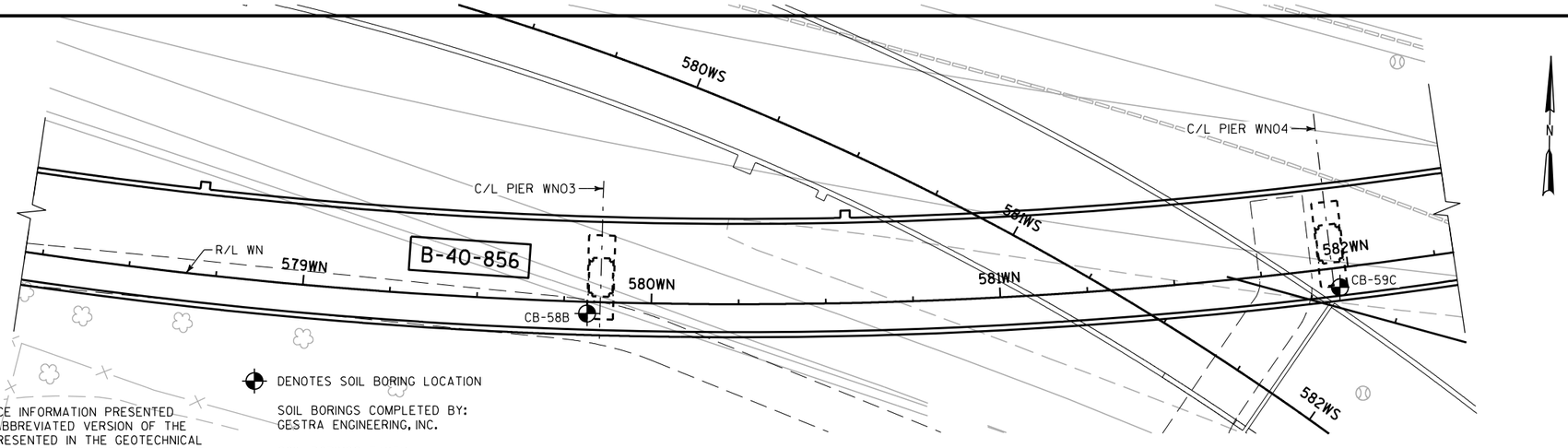
DRAWN BY GLM | PLANS CK'D. WRT

SUBSURFACE EXPLORATION SPANS 1 & 2

SHEET 14 OF 119

8

8



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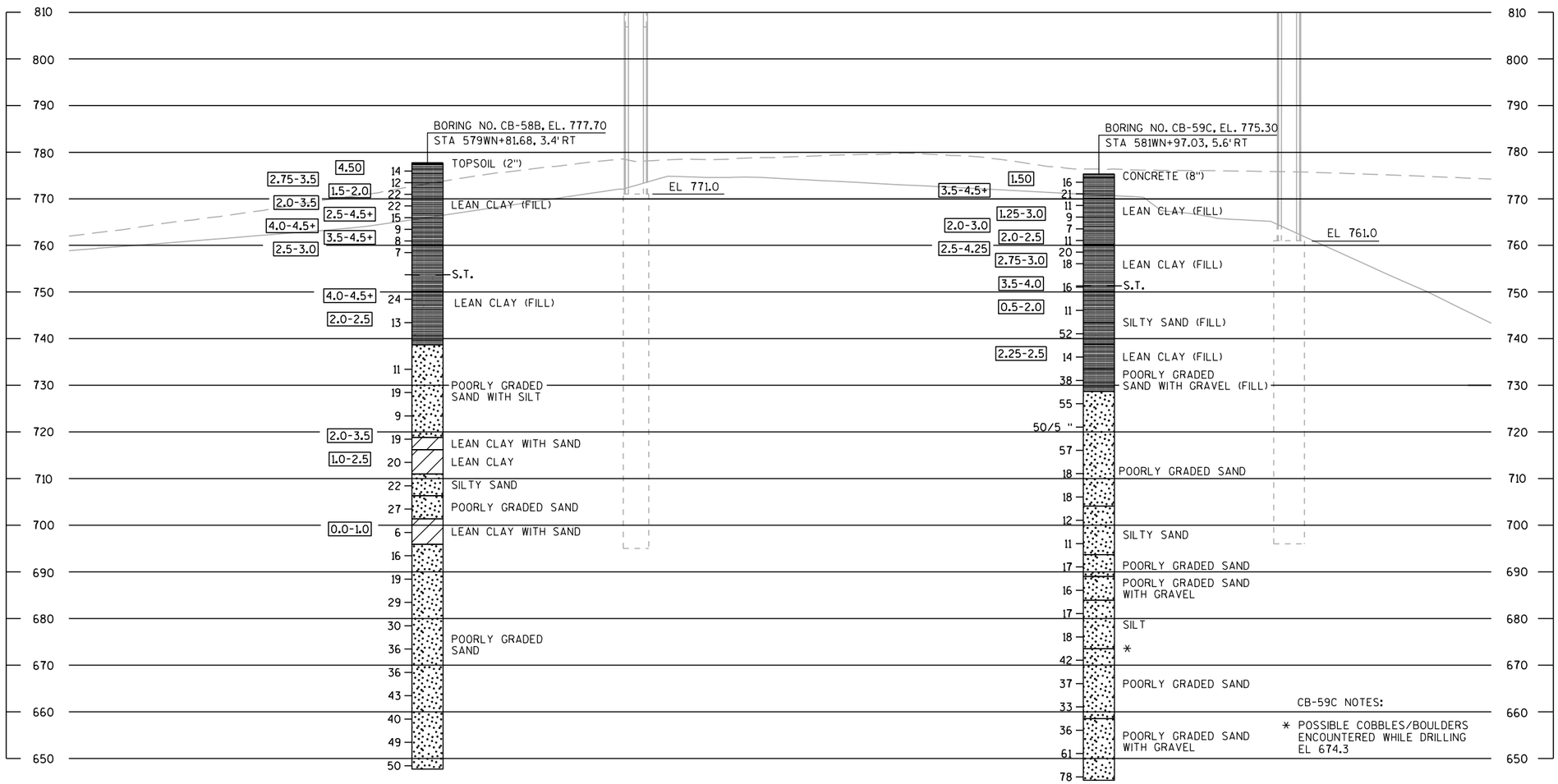
DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING, INC.

SOIL BORINGS TAKEN:
NOVEMBER 8, 2013 = BORING CB-58B
NOVEMBER 21, 2013 = BORING CB-59C



STATE PROJECT NUMBER

1060-33-81

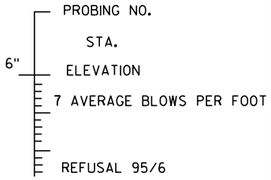
ABBREVIATIONS

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

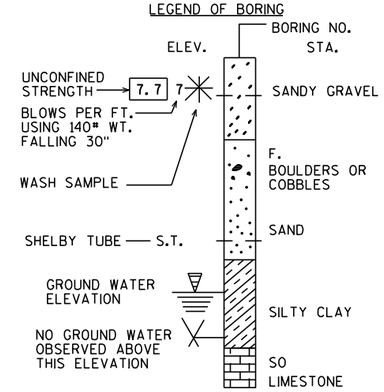
MATERIAL SYMBOLS

TOPSOIL / FILL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



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SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

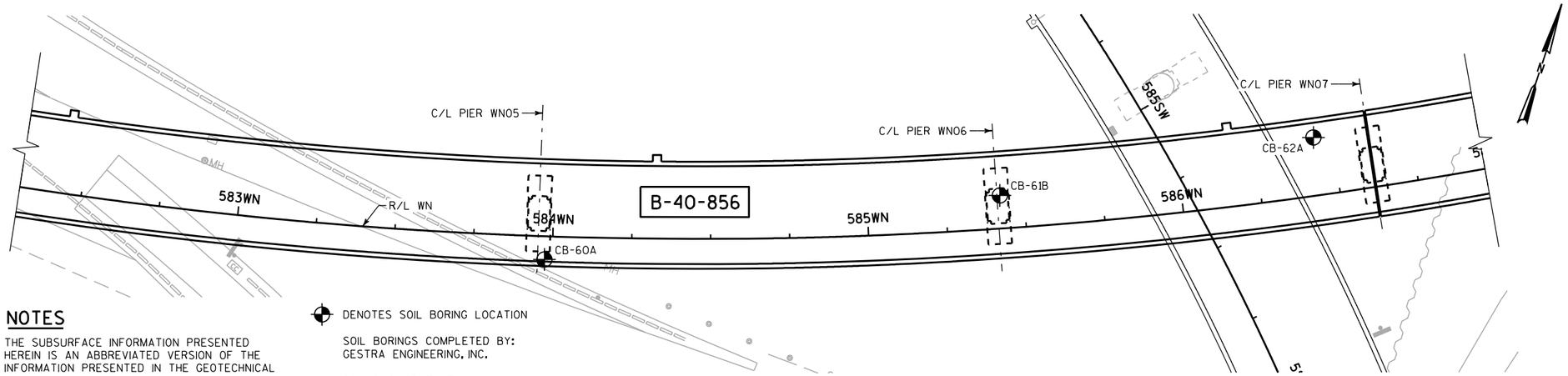
DRAWN BY GLM | PLANS CK'D. WRT

SUBSURFACE EXPLORATION SPANS 3 & 4

SHEET 15 OF 119

8

8



NOTES

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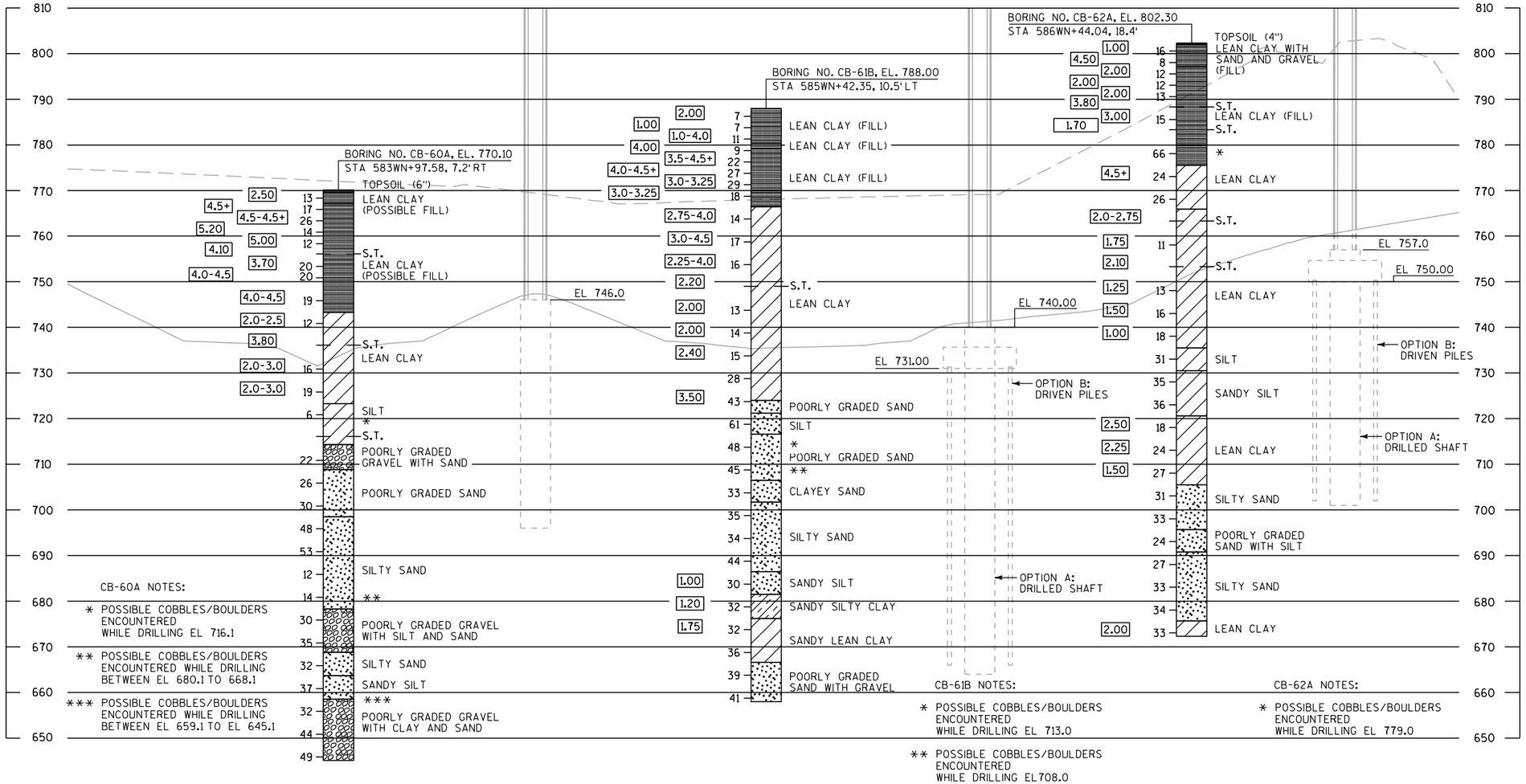
DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING, INC.

SOIL BORINGS TAKEN:
JUNE 7, 2013 = BORING CB-60A
JUNE 19, 2013 = BORING CB-61B
APRIL 2, 2013 = BORING CB-62A



CB-60A NOTES:

* POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING EL 716.1

** POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING BETWEEN EL 680.1 TO 668.1

*** POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING BETWEEN EL 659.1 TO EL 645.1

CB-61B NOTES:

* POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING EL 713.0

** POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING EL 708.0

CB-62A NOTES:

* POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING EL 779.0

STATE PROJECT NUMBER

1060-33-81

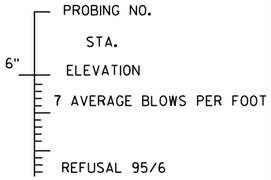
ABBREVIATIONS

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

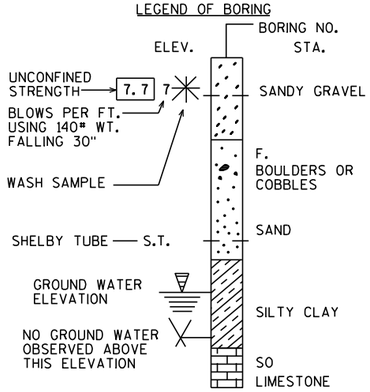
MATERIAL SYMBOLS

TOPSOIL / FILL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



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SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

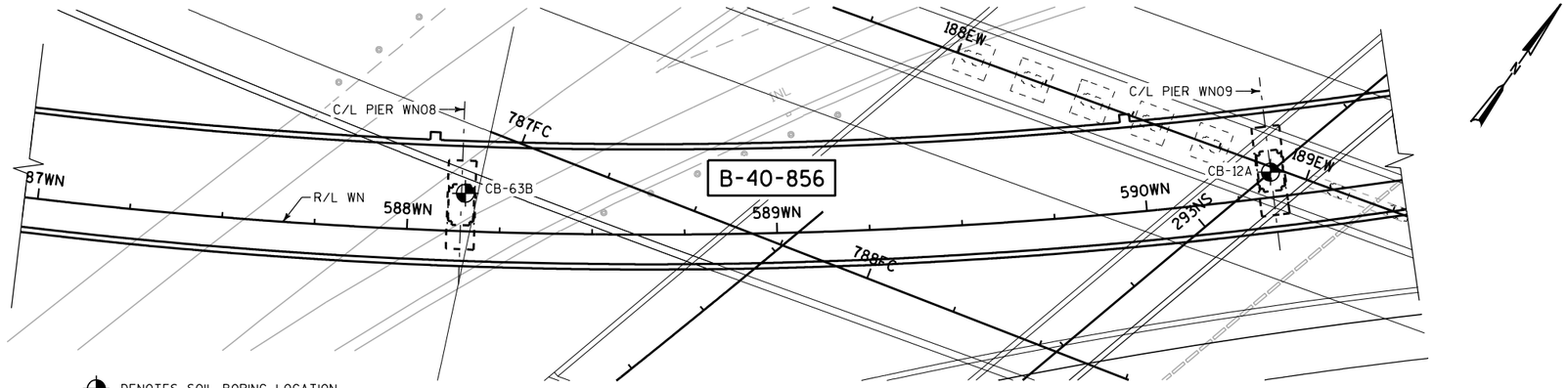
DRAWN BY GLM | PLANS CK'D. WRT

SUBSURFACE EXPLORATION SPANS 5, 6 & 7

SHEET 16 OF 119

8

8



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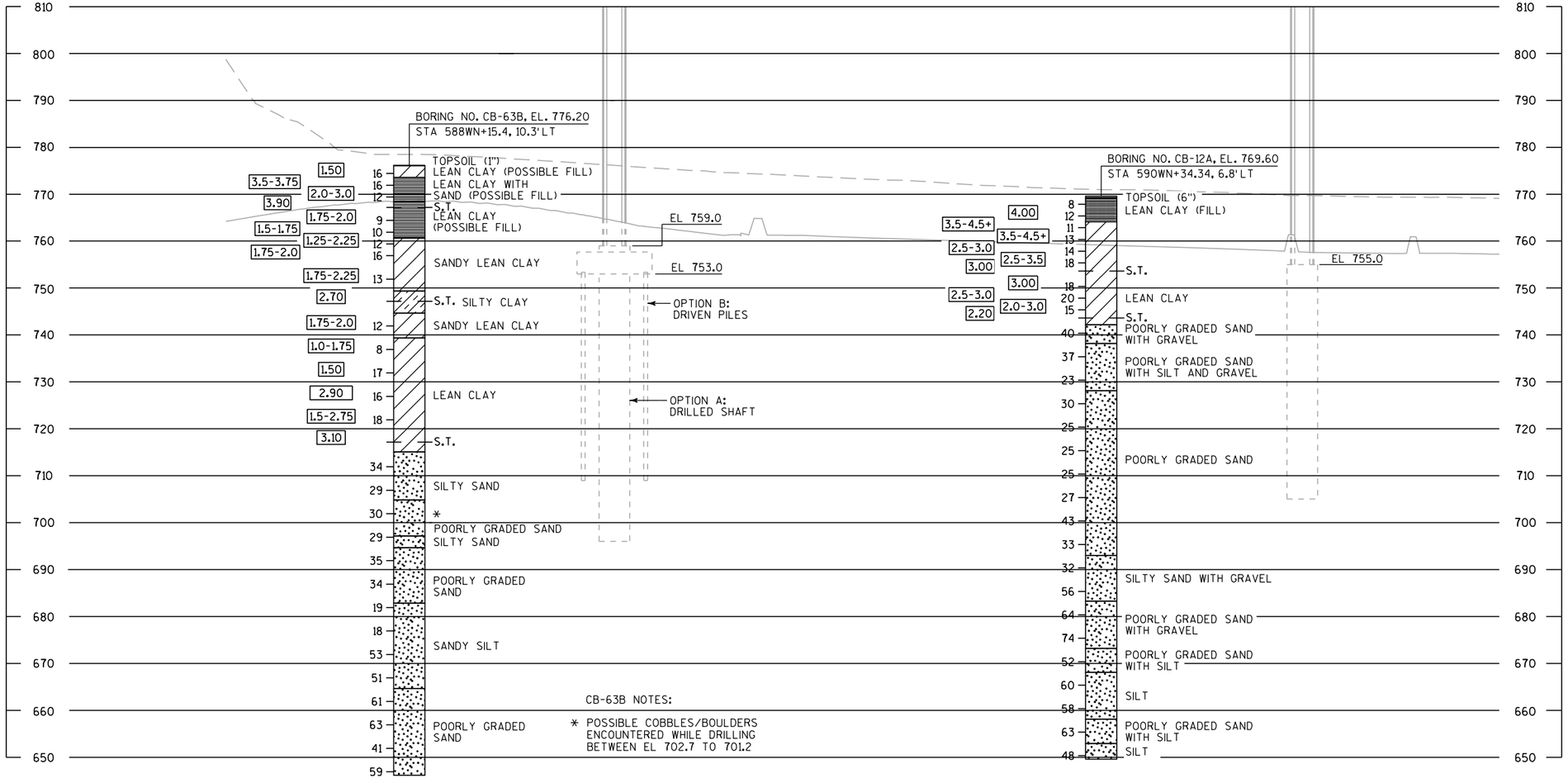
⊕ DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING, INC.

SOIL BORINGS TAKEN:
JUNE 17, 2013 = BORING CB-63B
SEPTEMBER 6, 2012 = BORING CB-12A



STATE PROJECT NUMBER

1060-33-81

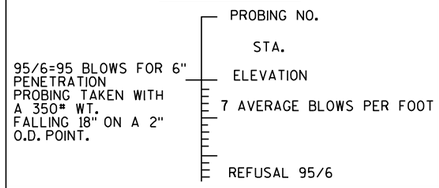
ABBREVIATIONS

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

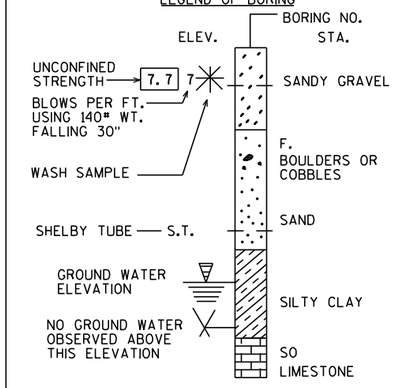
MATERIAL SYMBOLS

TOPSOIL / FILL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

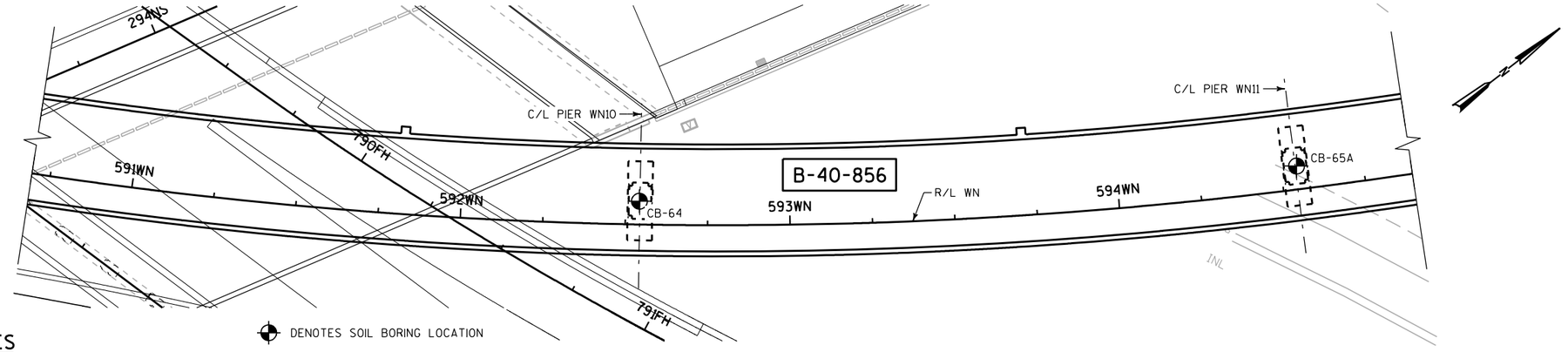
DRAWN BY GLM | PLANS CK'D. WRT

SUBSURFACE EXPLORATION SPANS 8 & 9

SHEET 17 OF 119

8

8



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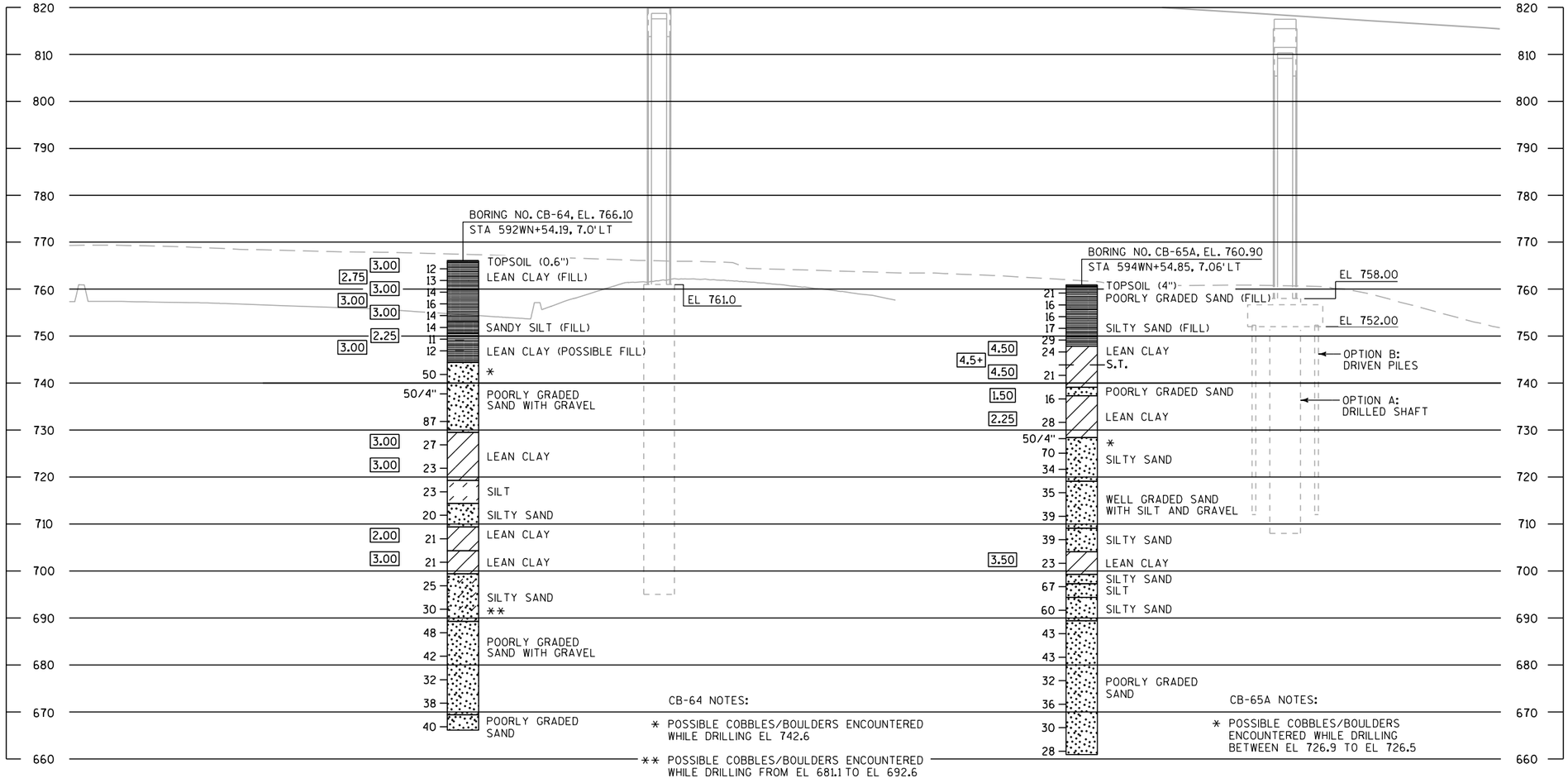
DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING, INC.

SOIL BORINGS TAKEN:
JUNE 3, 2012 = BORING CB-64
JUNE 26, 2013 = BORING CB-65A



STATE PROJECT NUMBER

1060-33-81

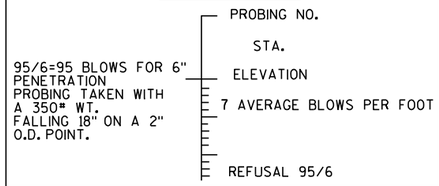
ABBREVIATIONS

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

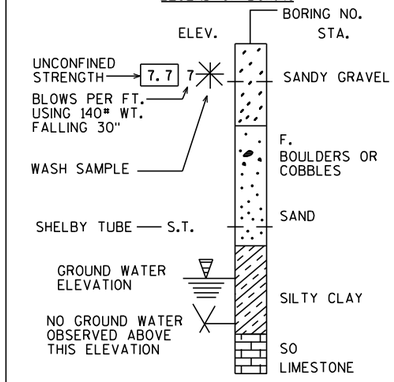
MATERIAL SYMBOLS

TOPSOIL / FILL · SILT · SANDSTONE
SAND · PEAT · LIMESTONE
GRAVEL · CLAY · IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

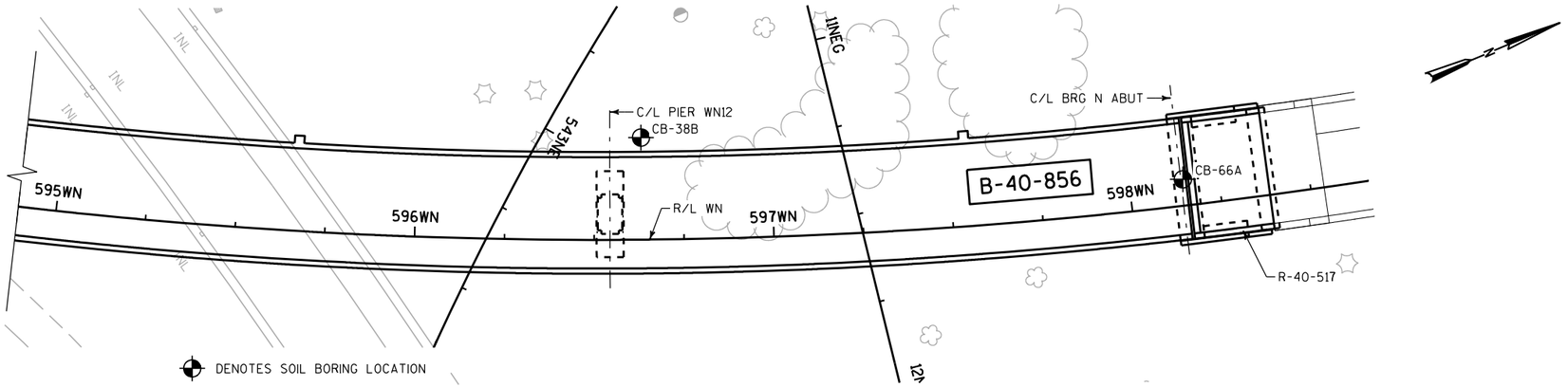
DRAWN BY GLM | PLANS CK'D. WRT

SUBSURFACE EXPLORATION SPANS 10 & 11

SHEET 18 OF 119

8

8



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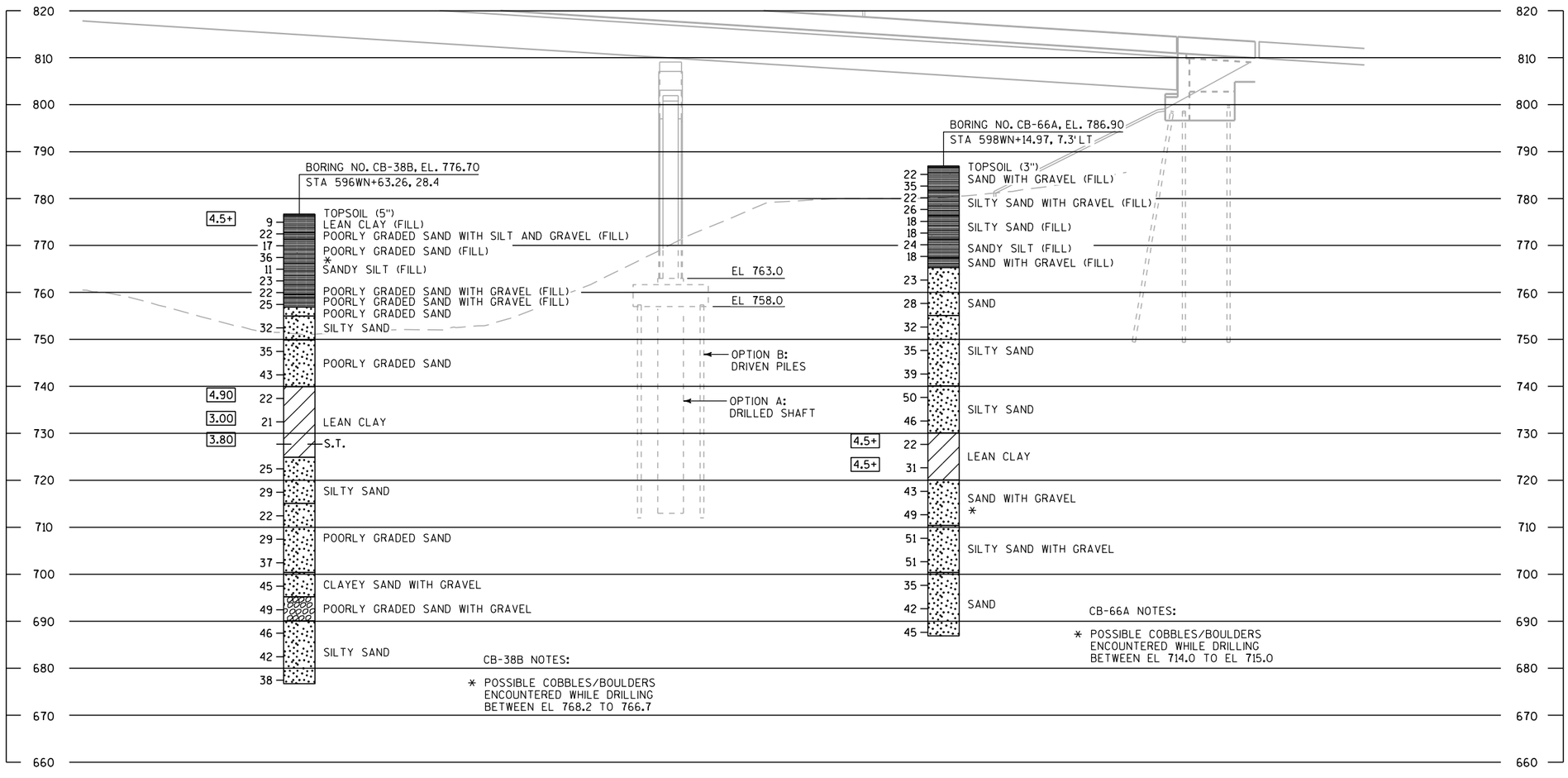
⊕ DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING, INC.

SOIL BORINGS TAKEN:
MARCH 27, 2013 = BORING CB-38B
MARCH 26, 2013 = BORING CB-66A



CB-38B NOTES:

* POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING BETWEEN EL 768.2 TO 766.7

CB-66A NOTES:

* POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING BETWEEN EL 714.0 TO EL 715.0

STATE PROJECT NUMBER

1060-33-81

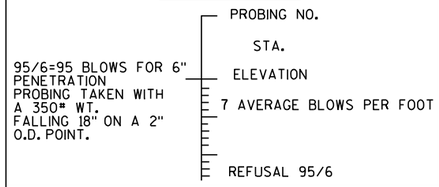
ABBREVIATIONS

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

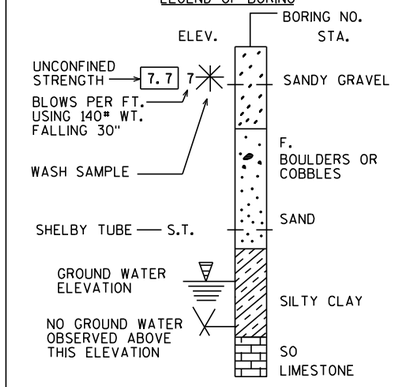
MATERIAL SYMBOLS

TOPSOIL / FILL; SILT; SANDSTONE
SAND; PEAT; LIMESTONE
GRAVEL; CLAY; IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

SUBSURFACE EXPLORATION SPANS 12 & 13

SHEET 19 OF 119

8

8

STATE PROJECT NUMBER

1060-33-81

CONSTRUCTION STAGING NOTES

N1. THE CONSTRUCTION STAGING NOTES OUTLINED BELOW APPLY TO ALL CONSTRUCTION STAGING SHEETS.

N2. THE ASSUMED CONSTRUCTION SEQUENCE DESCRIBED AND SHOWN IN THIS PLAN SET IS ONLY ONE POTENTIAL CONSTRUCTION SEQUENCE AND IS PRESENTED FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR THE SEQUENCE OF CONSTRUCTION EVEN IF THE EXACT SEQUENCE IN THE PLANS IS FOLLOWED.

N3. DETERMINE THE CONSTRUCTION SEQUENCE BEST SUITED TO THE MEANS AND METHODS AVAILABLE AND SUBJECT TO THE RESTRICTIONS PRESENTED BY THE OVERALL PROJECT STAGING, SITE RESTRICTIONS AND OTHER LIMITATIONS.

N4. THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

N5. UTILITY INFORMATION IS SHOWN MORE CLEARLY ELSEWHERE WITHIN THIS PLAN SET AND WITHIN THE COMPLETE CONTRACT DOCUMENT PACKAGE - ENSURE THAT ALL SOURCES OF UTILITY INFORMATION ARE PROPERLY CONSIDERED.

N6. THE CONSTRUCTION STAGING PLANS SHOW EXISTING AND PROPOSED STRUCTURES EXPECTED OR ASSUMED TO BE IN PLACE AS CONSTRUCTION PROCEEDS. THE STRUCTURES ACTUALLY IN PLACE MAY VARY FROM THOSE SHOWN DEPENDING ON THE OVERALL SCHEDULE SELECTED BY THE CONTRACTOR. THE CONSTRUCTION SEQUENCE SHOWN IN THIS PLAN SET INCLUDES ONLY MAJOR CONSTRUCTION TASKS AND IS NOT INTENDED TO BE ALL-INCLUSIVE.

N7. ACCESS TO THE CRANE LOCATIONS, ASSEMBLY AND STAGING AREAS SHOWN MAY REQUIRE CONSTRUCTION OF TEMPORARY DRILLING AND WORKING PLATFORMS NOT EXPLICITLY DESCRIBED IN THE CONSTRUCTION SEQUENCE.

N8. ENSURE THE STABILITY OF PARTIALLY ERECTED STEEL THROUGH THE USE OF TEMPORARY CROSS FRAMES, SUPPORTS, BRACES OR OTHER MEANS AND METHODS AS DEEMED NECESSARY. TEMPORARILY LOCK EXPANSION BEARINGS OR PROVIDE ALTERNATIVE MEANS OF RESTRAINT AS REQUIRED TO MAINTAIN STABILITY AT ALL TIMES.

N9. COMPUTE ALL LOADS ON TEMPORARY SHORING TOWERS AND DESIGN ACCORDINGLY. ENSURE THAT THE POTENTIAL FOR UPLIFT IS PROPERLY ASSESSED AND THAT SHORING TOWER DESIGN, FOUNDATION DESIGN AND STEEL CONNECTION DETAILS ACCOUNT FOR ANY EXPECTED UPLIFT FORCES.

N10. CRANE LOADS SPECIFIED IN THE TABLE ARE BASED ON THE NOMINAL FIELD SECTION WEIGHTS SHOWN PLUS A SMALL PERCENTAGE TO ALLOW FOR VARIABILITY IN THE LOAD DISTRIBUTION. THESE LOADS ARE APPROXIMATE AND ARE PROVIDED FOR INFORMATION ONLY. VERIFY ALL CRANE LOADS BASED ON APPROVED SHOP DRAWINGS AND THE FINAL SELECTED ERECTION SEQUENCE.

ASSUMED CONSTRUCTION SEQUENCE

REFER TO SHEETS 23 AND 24 FOR THE FOLLOWING STAGES:

1. BEGIN GRADING TO DRILLING PLATFORM (OPTION A) AND WORKING PLATFORM (OPTION B) FOR SUBSTRUCTURE CONSTRUCTION. AT PIER WN08, CONSTRUCT AND BACKFILL PROPOSED STORM SEWER (P3093) PRIOR TO PIER CONSTRUCTION. INSTALL TEMPORARY SHORING AS INDICATED. SEE ROADWAY GRADING SHEETS FOR FINAL GRADING LIMITS. SEE EXCAVATION PLAN SHEETS FOR DETAILS OF TEMPORARY SHORING AND LOCAL EXCAVATION AT EACH PIER.

ASSUMED CONSTRUCTION SEQUENCE, CONT.

2. BEGIN CONSTRUCTION OF DRILLED SHAFTS AT PIERS WN01, WN02 WN03, WN04, WN05, WN09 AND WN10. AT PIERS WN06, WN07, WN08, WN11 AND WN12, BEGIN CONSTRUCTION OF DRILLED SHAFT (OPTION A) OR PILE FOUNDATION (OPTION B). ASSUMED DRILLING ELEVATION OR WORKING PLATFORM ELEVATION FOR ALL PIERS ARE INDICATED ON THE EXCAVATION PLAN SHEETS. COORDINATE CONSTRUCTION OF PIER WN04 WITH PIER WS04 OF STRUCTURE B-40-786. WHERE THE DRILLING ELEVATION IS ABOVE TOP OF SHAFT ELEVATION, THE NEED FOR TEMPORARY HOLE BRACING IS ANTICIPATED PRIOR TO COLUMN CONSTRUCTION. TEMPORARY HOLE BRACING MAY CONSIST OF SLIP-IN CASING OR OTHER APPROVED METHOD.

3. BEGIN CONSTRUCTION OF NORTH ABUTMENT. DRIVE PILE AND CONSTRUCT PILE CAP.

4. AFTER INSTALLATION OF THE DRILLED SHAFTS OR PILE FOUNDATION, BEGIN CONSTRUCTION OF THE HAMMERHEAD PIER COLUMN AND CAP AT PIERS WN01, WN02, WN03, WN04, WN05, WN06, WN07, WN08, WN09, WN10, WN11, AND WN12. UPON COMPLETION OF THE HAMMERHEAD PIER COLUMNS, BACKFILL THE EXCAVATION AS INDICATED ON THE EXCAVATION PLAN SHEETS. PROVIDE COLUMN PROTECTION WHERE INDICATED. THE CONSTRUCTION SEQUENCE ASSUMES THAT THE CONTRACTOR WILL BACKFILL THE EXCAVATION NEAR PIERS WN04, WN05, AND WN06 AFTER COLUMN CONSTRUCTION TO PROVIDE A PLATFORM FOR GIRDER ERECTION. AT A FUTURE CONSTRUCTION STAGE, THE CONTRACTOR WOULD THEN EXCAVATE DOWN TO PROPOSED GRADE. REMOVE TEMPORARY SHORING AT PIER WN10 PRIOR TO GIRDER ERECTION.

REFER TO SHEET 25 FOR THE FOLLOWING STAGES:

5. ERECTION OF I-GIRDERS FOR STRUCTURE B-40-787 MAY OCCUR BEFORE OR AFTER THE ERECTION OF BOX GIRDERS FOR STRUCTURE B-40-856.

6. INSTALL TEMPORARY SHORING TOWER T1 UNDER LEFT AND RIGHT GIRDERS. TWO SUPPORT TOWERS ARE SHOWN, BUT ONE COMBINED TOWER MAY BE PROVIDED.

7. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER 5 OF STRUCTURE B-40-787.

8. PROVIDE TEMPORARY LANE CLOSURE OF RAMP WS AND THE RIGHT LANE OF EB IH 94 NEAR FIELD SECTION 1.

9. TRANSPORT RIGHT GIRDER OF FIELD SECTION 1 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L1 AND L2, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 1. TEMPORARILY BRACE GIRDER FOR STABILITY.

10. TRANSPORT LEFT GIRDER OF FIELD SECTION 1 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L1 AND L2, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 1. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGM FOR FIELD SECTION 1.

11. REMOVE TEMPORARY LANE CLOSURE OF RAMP WS AND THE RIGHT LANE OF EB IH 94 NEAR FIELD SECTION 1.

12. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WN01.

13. PROVIDE TEMPORARY LANE CLOSURE OF RAMP WS AND THE RIGHT LANE OF EB IH 94 NEAR FIELD SECTION 2.

14. TRANSPORT RIGHT GIRDER OF FIELD SECTION 2 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L3 AND L4, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 2. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #1. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

ASSUMED CONSTRUCTION SEQUENCE, CONT.

15. TRANSPORT LEFT GIRDER OF FIELD SECTION 2 AND MAKE READY FOR ERECTION USING TWO CRANES LOCATED AT POSITIONS L3 AND L4, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 2. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #1. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTION 2.

16. REMOVE TEMPORARY LANE CLOSURE OF RAMP WS AND THE RIGHT LANE OF EB IH 94 NEAR FIELD SECTION 2.

17. INSTALL TEMPORARY SHORING TOWER T2 UNDER LEFT AND RIGHT GIRDERS. TWO SUPPORT TOWERS ARE SHOWN, BUT ONE COMBINED TOWER MAY BE PROVIDED.

18. TRANSPORT RIGHT GIRDER OF FIELD SECTION 3 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L5 AND L6, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 3. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #2. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

19. TRANSPORT LEFT GIRDER OF FIELD SECTION 3 AND MAKE READY FOR ERECTION USING TWO CRANES LOCATED AT POSITIONS L5 AND L6, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 3. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #2. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTION 3.

20. REMOVE TEMPORARY SHORING TOWER T1.

21. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WN02.

22. TRANSPORT RIGHT GIRDER OF FIELD SECTION 4 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L7 AND L8, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 4. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #3. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

23. TRANSPORT LEFT GIRDER OF FIELD SECTION 4 AND MAKE READY FOR ERECTION USING TWO CRANES LOCATED AT POSITIONS L7 AND L8, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 4. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #3. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTION 4.

24. INSTALL TEMPORARY SHORING TOWER T3 UNDER LEFT AND RIGHT GIRDERS. TWO SUPPORT TOWERS ARE SHOWN, BUT ONE COMBINED TOWER MAY BE PROVIDED.

25. TRANSPORT RIGHT GIRDER OF FIELD SECTION 5 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L9 AND L10, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 5. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #4. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

26. TRANSPORT LEFT GIRDER OF FIELD SECTION 5 AND MAKE READY FOR ERECTION USING TWO CRANES LOCATED AT POSITIONS L9 AND L10, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 5. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #4. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTION 5.

27. REMOVE TEMPORARY SHORING TOWER T2.

28. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WN03.

ASSUMED CONSTRUCTION SEQUENCE, CONT.

29. TRANSPORT RIGHT GIRDER OF FIELD SECTION 6 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L11 AND L12, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 6. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #5. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

30. TRANSPORT LEFT GIRDER OF FIELD SECTION 6 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L11 AND L12, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 6. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #5. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGM FOR FIELD SECTION 6.

31. PERFORM GRADING BETWEEN UNIT 1 OF STRUCTURE B-40-856 AND UNIT 1 OF STRUCTURE B-40-786.

32. ERECT BOX GIRDERS FOR STRUCTURE B-40-786 AS INDICATED ON THE CONSTRUCTION STAGING PLANS FOR B-40-786.

REFER TO SHEET 26 FOR THE FOLLOWING STAGES:

33. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WN04.

34. BEGIN DETOUR OF RAMP WS TRAFFIC.

35. TRANSPORT AND GROUND ASSEMBLE LEFT GIRDERS OF FIELD SECTIONS 7 AND 8 AND MAKE READY FOR ERECTION USING HELPER CRANES OR CRANES AT POSITIONS L13 OR L14. INSTALL BOLTS AT FIELD SPLICE #7 AND INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. USING TWO CRANES LOCATED AT POSITIONS L13 AND L14, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTIONS 7 AND 8. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #6. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

36. TRANSPORT AND GROUND ASSEMBLE RIGHT GIRDERS OF FIELD SECTIONS 7 AND 8 AND MAKE READY FOR ERECTION USING HELPER CRANES OR CRANES AT POSITIONS L13 OR L14. INSTALL BOLTS AT FIELD SPLICE #7 AND INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. USING TWO CRANES LOCATED AT POSITIONS L13 AND L14, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTIONS 7 AND 8. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #6. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTIONS 7 AND 8.

37. END DETOUR OF RAMP WS TRAFFIC.

38. REMOVE TEMPORARY SHORING TOWER T3.

39. ERECTION OF BOX GIRDERS FOR UNIT 2 OF STRUCTURE B-40-786 CAN OCCUR AFTER ERECTION OF FIELD SECTIONS 7 AND 8.

40. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WN05.

41. BEGIN DETOUR OF EB IH 94 AND RAMP WS TRAFFIC.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

CONSTRUCTION STAGING NOTES (1 OF 3)

SHEET 20 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080120_st.dgn PLOT DATE : 13-MAY-2015 15:59 PLOT BY : MSCBKS PLOT NAME : B856_080120_st PLOT SCALE : 8:1

STATE PROJECT NUMBER

1060-33-81

ASSUMED CONSTRUCTION SEQUENCE, CONT.

42. TRANSPORT AND GROUND ASSEMBLE RIGHT GIRDERS OF FIELD SECTIONS 9 AND 10 AND MAKE READY FOR ERECTION USING HELPER CRANES OR CRANES AT POSITIONS L15 OR L16. INSTALL BOLTS AT FIELD SPLICE #9 AND INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. USING TWO CRANES LOCATED AT POSITIONS L15 AND L16, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTIONS 9 AND 10. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #8. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

43. TRANSPORT AND GROUND ASSEMBLE LEFT GIRDERS OF FIELD SECTIONS 9 AND 10 AND MAKE READY FOR ERECTION USING HELPER CRANES OR CRANES AT POSITIONS L15 OR L16. INSTALL BOLTS AT FIELD SPLICE #9 AND INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. USING TWO CRANES LOCATED AT POSITIONS L15 AND L16, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTIONS 9 AND 10. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #8. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTIONS 9 AND 10.

44. END DETOUR OF EB IH 94 AND RAMP WS TRAFFIC.

45. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WN06.

46. TRANSPORT AND GROUND ASSEMBLE RIGHT GIRDERS OF FIELD SECTIONS 11 AND 12 AND MAKE READY FOR ERECTION USING HELPER CRANES OR CRANES AT POSITIONS L17 OR L18. INSTALL BOLTS AT FIELD SPLICE #11 AND INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. USING TWO CRANES LOCATED AT POSITIONS L17 AND L18, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTIONS 11 AND 12. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #10. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

47. TRANSPORT AND GROUND ASSEMBLE LEFT GIRDERS OF FIELD SECTIONS 11 AND 12 AND MAKE READY FOR ERECTION USING HELPER CRANES OR CRANES AT POSITIONS L17 OR L18. INSTALL BOLTS AT FIELD SPLICE #11 AND INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. USING TWO CRANES LOCATED AT POSITIONS L17 AND L18, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTIONS 11 AND 12. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #10. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTIONS 11 AND 12.

48. INSTALL LEFT AND RIGHT SIDE BEARINGS ON THE UNIT 1 SIDE OF PIER WN07.

49. BEGIN DETOUR OF RAMP SW TRAFFIC.

50. TRANSPORT LEFT GIRDER OF FIELD SECTION 13 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L19 AND L20, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 13. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #12. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

51. TRANSPORT RIGHT GIRDER OF FIELD SECTION 13 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L19 AND L20, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 13. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #12. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTION 13.

52. END DETOUR OF RAMP SW TRAFFIC.

ASSUMED CONSTRUCTION SEQUENCE, CONT.

REFER TO SHEET 27 FOR THE FOLLOWING STAGES:

53. ERECT BOX GIRDERS FOR STRUCTURE B-40-853 PRIOR TO ERECTION OF FIELD SECTIONS 22 AND 23. SEE B-40-853 CONSTRUCTION STAGING PLANS.

54. INSTALL TEMPORARY SHORING TOWER T7 UNDER LEFT AND RIGHT GIRDERS. TWO SUPPORT TOWERS ARE SHOWN, BUT ONE COMBINED TOWER MAY BE PROVIDED.

55. INSTALL LEFT AND RIGHT SIDE BEARINGS AT NORTH ABUTMENT.

56. TRANSPORT RIGHT GIRDER OF FIELD SECTION 24 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L39 AND L40, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 24. TEMPORARILY BRACE GIRDER FOR STABILITY.

57. TRANSPORT LEFT GIRDER OF FIELD SECTION 24 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L39 AND L40, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 24. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTION 24.

58. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WN12.

59. TRANSPORT LEFT GIRDER OF FIELD SECTION 23 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L37 AND L38, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 23. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #22. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

60. TRANSPORT RIGHT GIRDER OF FIELD SECTION 23 AND MAKE READY FOR ERECTION USING TWO CRANES LOCATED AT POSITIONS L37 AND L38, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 23. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #22. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTION 23.

61. INSTALL TEMPORARY SHORING TOWER T6 UNDER LEFT AND RIGHT GIRDERS. TWO SUPPORT TOWERS ARE SHOWN, BUT ONE COMBINED TOWER MAY BE PROVIDED.

62. BEGIN DETOUR OF WB IH 94 TRAFFIC.

63. TRANSPORT RIGHT GIRDER OF FIELD SECTION 22 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L35 AND L36, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 22. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #21. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

64. TRANSPORT LEFT GIRDER OF FIELD SECTION 22 AND MAKE READY FOR ERECTION USING TWO CRANES LOCATED AT POSITIONS L35 AND L36, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 22. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #21. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTION 22.

65. END DETOUR OF WB IH 94 TRAFFIC.

66. REMOVE TEMPORARY SHORING TOWER T7.

67. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WN11.

68. TRANSPORT LEFT GIRDER OF FIELD SECTION 21 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L33 AND L34, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 21. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #20. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

ASSUMED CONSTRUCTION SEQUENCE, CONT.

69. TRANSPORT RIGHT GIRDER OF FIELD SECTION 21 AND MAKE READY FOR ERECTION USING TWO CRANES LOCATED AT POSITIONS L33 AND L34, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 21. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #20. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTION 21.

70. INSTALL TEMPORARY SHORING TOWER T5 UNDER LEFT AND RIGHT GIRDERS. TWO SUPPORT TOWERS ARE SHOWN, BUT ONE COMBINED TOWER MAY BE PROVIDED.

71. TRANSPORT LEFT GIRDER OF FIELD SECTION 20 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L31 AND L32, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 20. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #19. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

72. TRANSPORT RIGHT GIRDER OF FIELD SECTION 20 AND MAKE READY FOR ERECTION USING TWO CRANES LOCATED AT POSITIONS L31 AND L32, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 20. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #19. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTION 20.

73. REMOVE TEMPORARY SHORING TOWER T6.

REFER TO SHEET 28 FOR THE FOLLOWING STAGES:

74. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WN10.

75. TRANSPORT LEFT GIRDER OF FIELD SECTION 19 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L29 AND L30, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 19. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #18. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

76. TRANSPORT RIGHT GIRDER OF FIELD SECTION 19 AND MAKE READY FOR ERECTION USING TWO CRANES LOCATED AT POSITIONS L29 AND L30, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 19. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #18. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTION 19.

77. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WN09.

78. BEGIN DETOUR OF SB USH 45 & NB USH 45 TRAFFIC. REMOVE TEMPORARY MEDIAN BARRIER BELOW GIRDERS FOR GIRDER DELIVERY.

79. TRANSPORT RIGHT GIRDERS OF FIELD SECTIONS 17 AND 18. MAKE READY FOR ERECTION.

80. USING TWO CRANES LOCATED AT POSITIONS L27 AND L28, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 18. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #17. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. HOLD BOX GIRDER IN THE AIR.

81. USING TWO CRANES LOCATED AT POSITIONS L25 AND L26, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 17. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #16. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

82. TRANSPORT LEFT GIRDERS OF FIELD SECTIONS 17 AND 18. MAKE READY FOR ERECTION.

ASSUMED CONSTRUCTION SEQUENCE, CONT.

83. USING TWO CRANES LOCATED AT POSITIONS L27 AND L28, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 18. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #17. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. HOLD BOX GIRDER IN THE AIR.

84. USING TWO CRANES LOCATED AT POSITIONS L25 AND L26, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 17. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #16. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTIONS 17 AND 18.

85. END DETOUR OF SB USH 45 & NB USH 45 TRAFFIC. REPLACE TEMPORARY MEDIAN BARRIER.

86. REMOVE TEMPORARY SHORING TOWER T5.

87. INSTALL TEMPORARY SHORING TOWER T4 UNDER LEFT AND RIGHT GIRDERS. TWO SUPPORT TOWERS ARE SHOWN, BUT ONE COMBINED TOWER MAY BE PROVIDED.

88. TRANSPORT RIGHT GIRDER OF FIELD SECTION 16 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L23 AND L24, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 16. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #15. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

89. TRANSPORT LEFT GIRDER OF FIELD SECTION 16 AND MAKE READY FOR ERECTION USING TWO CRANES LOCATED AT POSITIONS L23 AND L24, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 16. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #15. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTION 16.

90. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WN08.

91. INSTALL LEFT AND RIGHT SIDE BEARINGS ON THE UNIT 2 SIDE OF PIER WN07.

92. TRANSPORT AND GROUND ASSEMBLE RIGHT GIRDERS OF FIELD SECTIONS 14 AND 15 AND MAKE READY FOR ERECTION USING HELPER CRANES OR CRANES AT POSITIONS L21 OR L22. INSTALL BOLTS AT FIELD SPLICE #13 AND INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. USING TWO CRANES LOCATED AT POSITIONS L21 AND L22, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTIONS 14 AND 15. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #14. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

93. TRANSPORT AND GROUND ASSEMBLE LEFT GIRDERS OF FIELD SECTIONS 14 AND 15 AND MAKE READY FOR ERECTION USING HELPER CRANES OR CRANES AT POSITIONS L21 OR L22. INSTALL BOLTS AT FIELD SPLICE #13 AND INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. USING TWO CRANES LOCATED AT POSITIONS L21 AND L22, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTIONS 14 AND 15. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #14. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTIONS 14 AND 15.

94. REMOVE TEMPORARY SHORING TOWER T4.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

CONSTRUCTION STAGING NOTES (2 OF 3)

SHEET 21 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080121_st.dgn PLOT DATE : 13-MAY-2015 15:59 PLOT BY : MSCBKS PLOT NAME : B856_080121_st PLOT SCALE : 8:1

STATE PROJECT NUMBER

1060-33-81

ASSUMED CONSTRUCTION SEQUENCE, CONT.

REFER TO SHEETS 29 AND 30 FOR THE FOLLOWING STAGES:

95. POUR THE DECK SLAB IN EACH UNIT USING AN APPROVED POUR SEQUENCE, EXCLUDING THE BLOCKOUTS AT THE EXPANSION JOINTS.

96. POUR THE LEFT AND RIGHT PARAPETS OVER THE FULL LENGTH OF EACH UNIT, EXCLUDING ZONES ADJACENT TO THE EXPANSION JOINTS.

97. CONSTRUCT APPROACH SLAB AT NORTH ABUTMENT.

98. INSTALL THE EXPANSION JOINTS AND PLACE CONCRETE IN BLOCKOUTS. COORDINATE THE EXPANSION JOINT AT PIER 5 WITH STRUCTURE B-40-787.

99. POUR THE PARAPETS IN ZONES ADJACENT TO THE EXPANSION JOINTS AND POUR PARAPETS ON APPROACH SLAB.

CRANE LOCATION AND LIFT SUMMARY-UNIT 1

LOC'N ID	LIFT DESC'N	SEQ. NO.	WEIGHT (TONS)	RADIUS (FEET)	HEIGHT (FEET)
L1	FS*1R	9	25	90	35
L1	FS*1L	10	25	90	35
L2	FS*1R	9	25	90	35
L2	FS*1L	10	25	90	35
L3	FS*2R	14	25	85	40
L3	FS*2L	15	25	85	40
L4	FS*2R	14	25	85	40
L4	FS*2L	15	25	85	40
L5	FS*3R	18	25	85	45
L5	FS*3L	19	25	85	45
L6	FS*3R	18	25	85	45
L6	FS*3L	19	25	85	45
L7	FS*4R	22	25	80	50
L7	FS*4L	23	25	80	50
L8	FS*4R	22	25	80	50
L8	FS*4L	23	25	80	50
L9	FS*5R	25	25	70	55
L9	FS*5L	26	25	70	55
L10	FS*5R	25	25	65	55
L10	FS*5L	26	25	65	55
L11	FS*6R	29	25	60	55
L11	FS*6L	30	25	60	55
L12	FS*6R	29	25	45	55
L12	FS*6L	30	25	45	55
L13	FS*7R + FS*8R	36	50	50	65
L13	FS*7L + FS*8L	35	50	50	65
L14	FS*7R + FS*8R	36	50	70	65
L14	FS*7L + FS*8L	35	50	70	65
L15	FS*9R + FS*10R	42	50	65	70
L15	FS*9L + FS*10L	43	50	65	70
L16	FS*9R + FS*10R	42	50	50	80
L16	FS*9L + FS*10L	43	50	50	80
L17	FS*11R + FS*12R	46	35	40	85
L17	FS*11L + FS*12L	47	35	40	85
L18	FS*11R + FS*12R	46	35	40	85
L18	FS*11L + FS*12L	47	35	40	85
L19	FS*13R	51	20	65	85
L19	FS*13L	50	20	65	85
L20	FS*13R	51	20	65	85
L20	FS*13L	50	20	65	85

CRANE LOCATION AND LIFT SUMMARY-UNIT 2

LOC'N ID	LIFT DESC'N	SEQ. NO.	WEIGHT (TONS)	RADIUS (FEET)	HEIGHT (FEET)
L21	FS*14R + FS*15R	92	50	50	90
L21	FS*14L + FS*15L	93	50	50	90
L22	FS*14R + FS*15R	92	50	50	90
L22	FS*14L + FS*15L	93	50	50	90
L23	FS*16R	88	30	60	90
L23	FS*16L	89	30	60	90
L24	FS*16R	88	30	60	90
L24	FS*16L	89	30	60	90
L25	FS*17R	81	30	50	90
L25	FS*17L	84	30	50	90
L26	FS*17R	81	30	50	90
L26	FS*17L	84	30	50	90
L27	FS*18R	80	30	70	85
L27	FS*18L	83	30	70	85
L28	FS*18R	80	30	70	85
L28	FS*18L	83	30	70	85
L29	FS*19L	76	25	60	85
L29	FS*19R	75	25	60	85
L30	FS*19L	76	25	60	85
L30	FS*19R	75	25	60	85
L31	FS*20L	72	25	50	80
L31	FS*20R	71	25	50	80
L32	FS*20L	72	25	50	80
L32	FS*20R	71	25	50	80
L33	FS*21L	69	25	50	70
L33	FS*21R	68	25	50	70
L34	FS*21L	69	25	50	70
L34	FS*21R	68	25	50	70
L35	FS*22R	63	25	50	75
L35	FS*22L	64	25	50	75
L36	FS*22R	63	25	60	75
L36	FS*22L	64	25	60	75
L37	FS*23L	60	25	60	55
L37	FS*23R	59	25	60	55
L38	FS*23L	60	25	45	55
L38	FS*23R	59	25	45	55
L39	FS*24R	56	25	80	50
L39	FS*24L	57	25	80	50
L40	FS*24R	56	25	55	50
L40	FS*24L	57	25	55	50

THE 85 FEET SHOWN IS THE LIFT HEIGHT. TO PICK THE FIELD SECTION #18 LEFT GIRDER AN ADDITIONAL CRANE HEIGHT IS NEEDED FOR THE CRANE TO REACH OVER THE PREVIOUSLY SET FIELD SECTION #18 RIGHT GIRDER

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

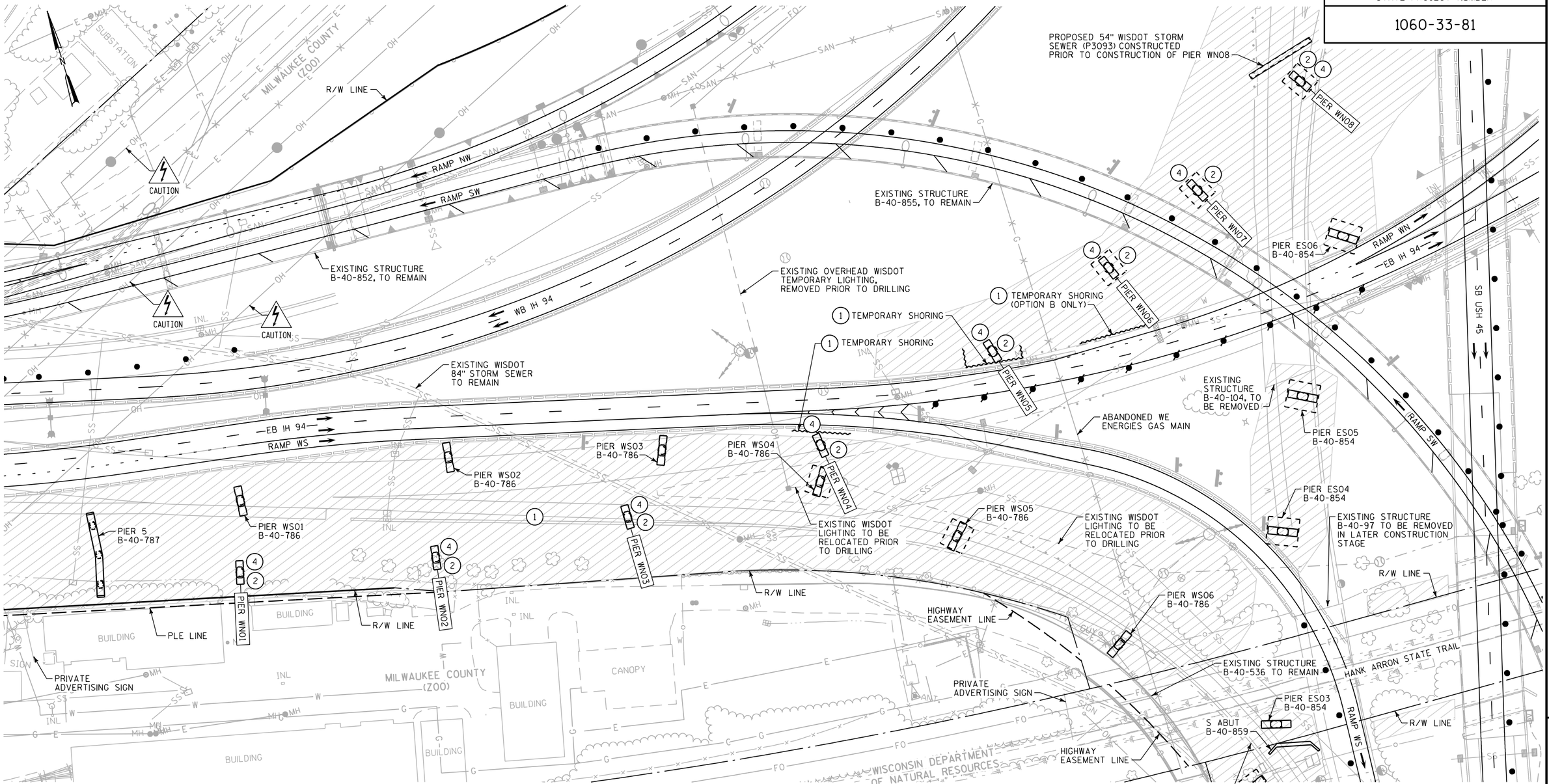
DRAWN BY GLM | PLANS CK'D. WRT

CONSTRUCTION STAGING NOTES (3 OF 3)

SHEET 22 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080122_st.dgn PLOT DATE : 13-MAY-2015 15:59 PLOT BY : MSCBKS PLOT NAME : B856_080122_st PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



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8

LEGEND

(3) CONSTRUCTION SEQUENCE NUMBER

TEMPORARY SHORING, SEE EXCAVATION PLAN FOR DETAILS

PROPOSED GRADING, PAVEMENT OR STRUCTURE WORK IN CONSTRUCTION STAGE 1 OR STAGE 2, SEE ROADWAY PLANS

NOTES

SEE CONSTRUCTION STAGING NOTES SHEETS FOR GENERAL CONSTRUCTION STAGING NOTES.

PROPOSED SUBSTRUCTURES OF ADJACENT STRUCTURES ARE SHOWN FOR INFORMATION ONLY AND MAY NOT NECESSARILY BE CONSTRUCTED IN THE DEPICTED CONSTRUCTION STAGE. SEE CONSTRUCTION STAGING PLAN FOR EACH STRUCTURE FOR DETAILS AND STAGING INFORMATION.

PLAN - UNIT 1 SUBSTRUCTURE

CONSTRUCTION STAGE 1 TRAFFIC SHOWN,
CONSTRUCTION STAGE 2 TRAFFIC SIMILAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

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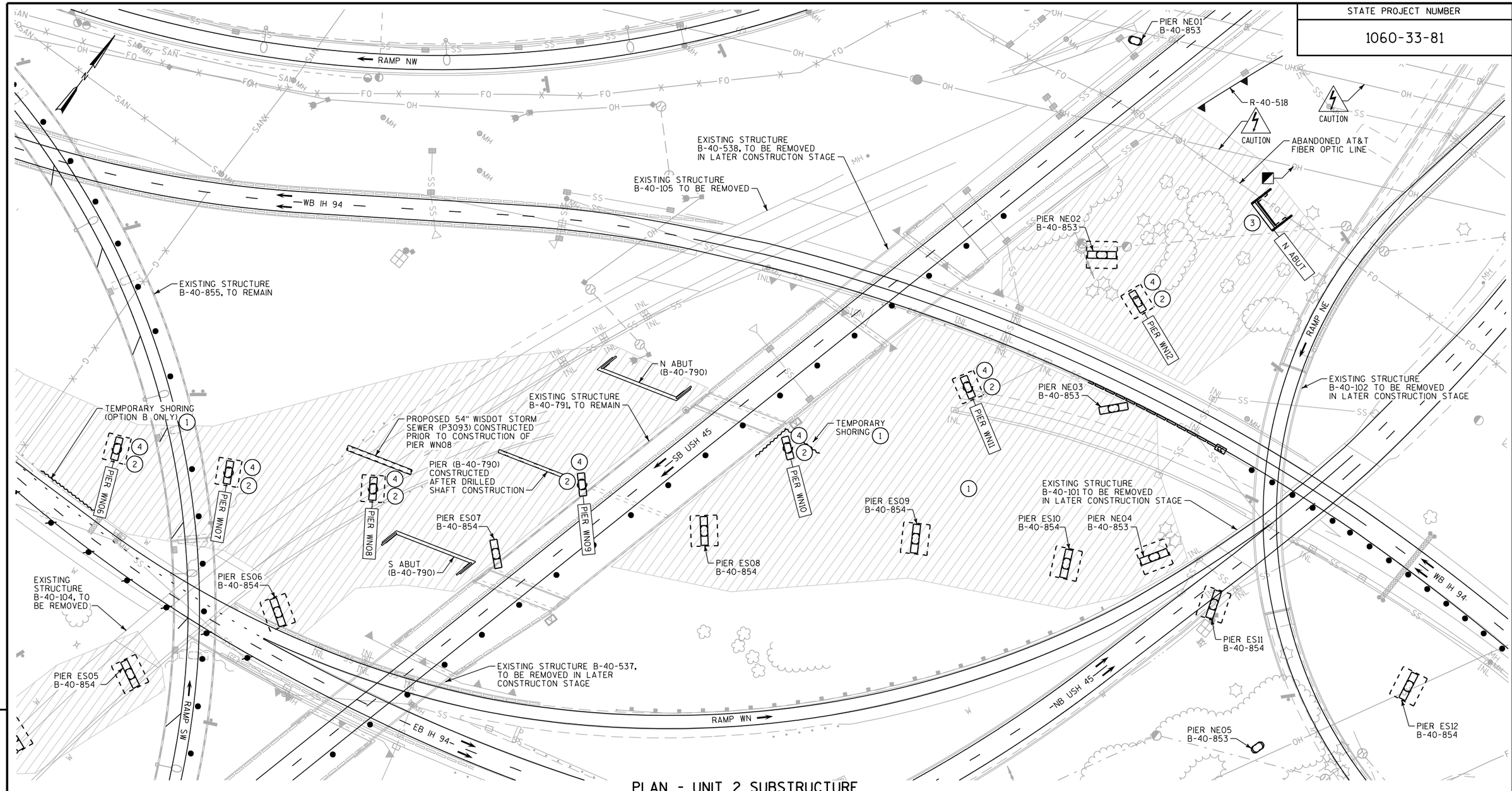
CONSTRUCTION STAGING (1 OF 8)

SHEET 23 OF 119

3320

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080123_st.dgn PLOT DATE : 13-MAY-2015 16:00 PLOT BY : MSCBKS PLOT NAME : B856_080123_st PLOT SCALE : 100:1

STATE PROJECT NUMBER
1060-33-81



PLAN - UNIT 2 SUBSTRUCTURE

CONSTRUCTION STAGE 1 TRAFFIC SHOWN,
CONSTRUCTION STAGE 2 TRAFFIC SIMILAR

LEGEND

(3) CONSTRUCTION SEQUENCE NUMBER

TEMPORARY SHORING, SEE EXCAVATION PLAN FOR DETAILS

PROPOSED GRADING, PAVEMENT OR STRUCTURE WORK IN CONSTRUCTION STAGE 1 OR STAGE 2, SEE ROADWAY PLANS

CONSTRUCTION OF BRIDGE B-40-787 MAY NEED TO BE ACCOMPLISHED BENEATH AND/OR ADJACENT TO ENERGIZED OVERHEAD 138KV ELECTRIC TRANSMISSION LINES OWNED AND OPERATED BY THE AMERICAN TRANSMISSION COMPANY (ATC). THE HORIZONTAL AND VERTICAL LOCATION OF THESE LINES CAN VARY WITH WIND, AMBIENT TEMPERATURE AND POWER LOADING. THE CONTRACTOR IS ADVISED THAT LOW OVERHEAD EQUIPMENT AND INSTALLATION TECHNIQUES MAY BE REQUIRED TO MAINTAIN SAFE CLEARANCES FROM THESE LINES.

NOTES

SEE CONSTRUCTION STAGING NOTES SHEETS FOR GENERAL CONSTRUCTION STAGING NOTES.

PROPOSED SUBSTRUCTURES OF ADJACENT STRUCTURES ARE SHOWN FOR INFORMATION ONLY AND MAY NOT NECESSARILY BE CONSTRUCTED IN THE DEPICTED CONSTRUCTION STAGE. SEE CONSTRUCTION STAGING PLAN FOR EACH STRUCTURE FOR DETAILS AND STAGING INFORMATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY: BKS | PLANS CK'D.: WRT

CONSTRUCTION STAGING (2 OF 8)

SHEET 24 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080124_st.dgn
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PLOT SCALE : 100:1

STATE PROJECT NUMBER
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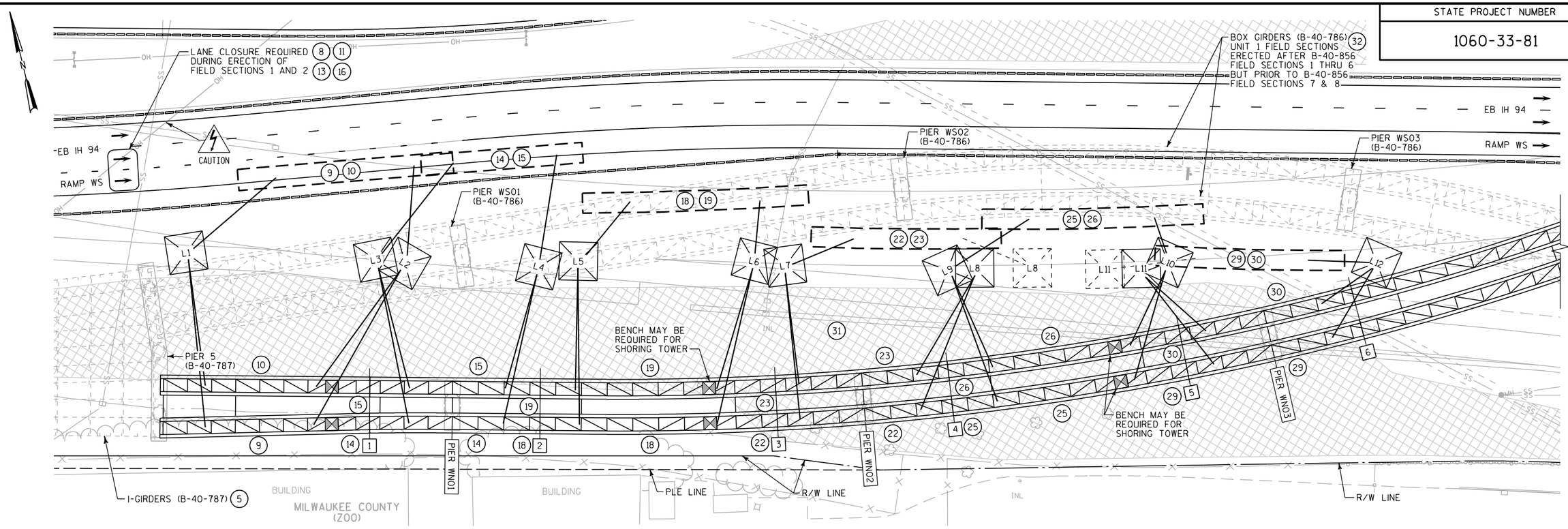
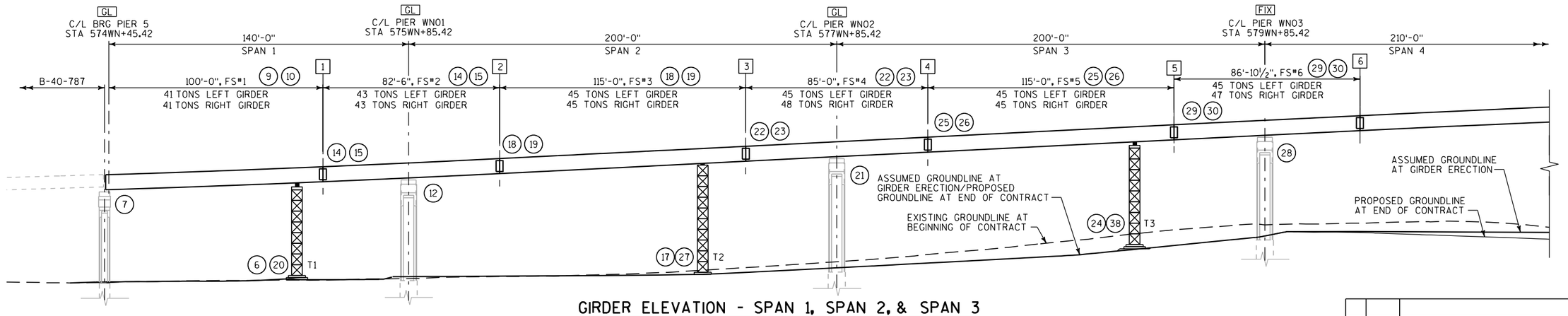


GIRDER PLAN - SPAN 1, SPAN 2, & SPAN 3

CONSTRUCTION STAGE 2 TRAFFIC SHOWN.
CONSTRUCTION STAGE 3A & 3B TRAFFIC SIMILAR



GIRDER ELEVATION - SPAN 1, SPAN 2, & SPAN 3

SPAN AND FIELD SECTION LENGTHS SHOWN ARE TAKEN ALONG THE REFERENCE LINE

LEGEND

- L1 — POTENTIAL CRANE LOCATION
- L1 — CRANE LOCATION IDENTIFIER
- POTENTIAL TEMPORARY SHORING TOWER
- T1 — SHORING TOWER IDENTIFIER
- (3) — CONSTRUCTION SEQUENCE NUMBER
- [1] — FIELD SPLICE NUMBER
- OUTLINE OF TRANSPORTED GIRDER
- CROSSHATCHED AREA INDICATES LOCATIONS WHERE CRANE PLACEMENT MAY BE DIFFICULT DUE TO GRADING

NOTES

SEE CONSTRUCTION STAGING NOTES SHEETS FOR GENERAL CONSTRUCTION STAGING NOTES.

FIELD SECTION WEIGHTS SHOWN ARE GIVEN FOR INFORMATION ONLY. VERIFY ALL STEEL WEIGHTS FROM APPROVED SHOP DRAWINGS. THE WEIGHT IS THE APPROXIMATE TOTAL WEIGHT FOR THE LEFT OR RIGHT GIRDER INCLUDING INTERNAL DIAPHRAGMS, STRUTS, K-FRAMES, AND BRACING. THE WEIGHT OF EXTERNAL DIAPHRAGMS IS NOT INCLUDED. VERIFY ALL STEEL WEIGHTS FROM APPROVED SHOP DRAWINGS ONLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

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CONSTRUCTION STAGING (3 OF 8)

SHEET 25 OF 119

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080125_st.dgn
PLOT DATE : 13-MAY-2015 16:00
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PLOT SCALE : 50:1

STATE PROJECT NUMBER
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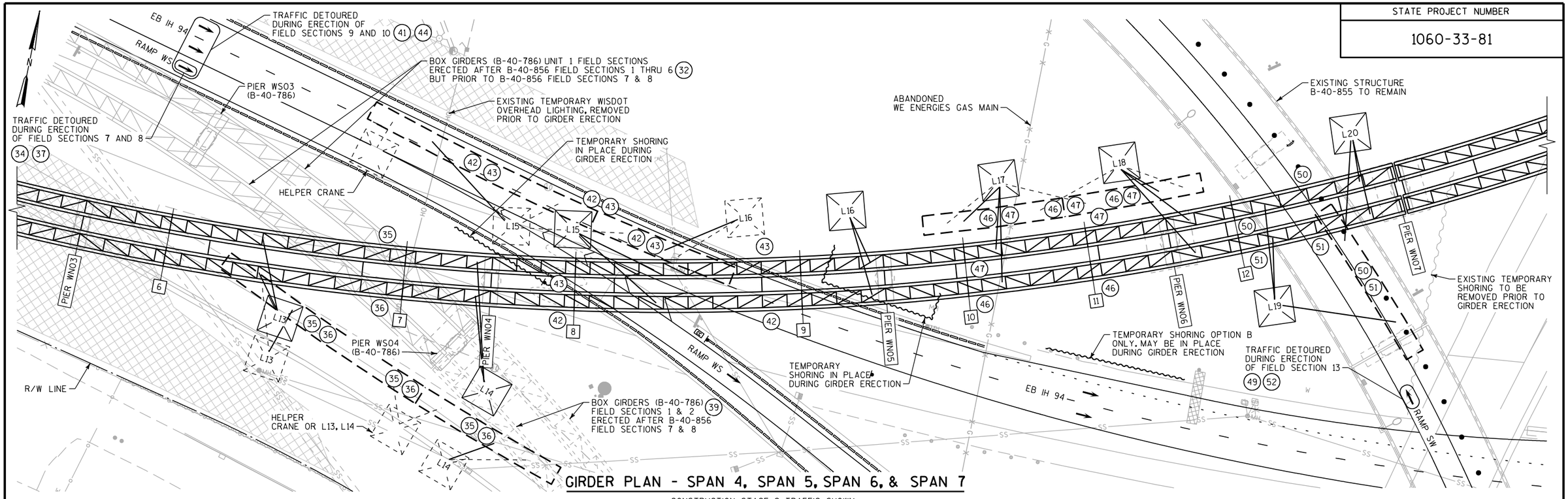
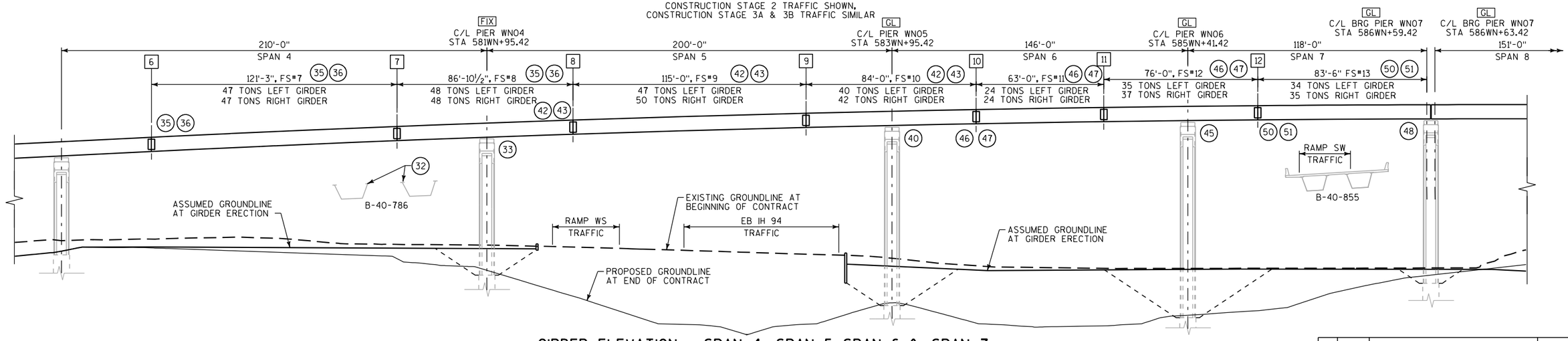


GIRDER PLAN - SPAN 4, SPAN 5, SPAN 6, & SPAN 7

CONSTRUCTION STAGE 2 TRAFFIC SHOWN.
CONSTRUCTION STAGE 3A & 3B TRAFFIC SIMILAR



GIRDER ELEVATION - SPAN 4, SPAN 5, SPAN 6 & SPAN 7

SPAN AND FIELD SECTION LENGTHS SHOWN ARE TAKEN ALONG THE REFERENCE LINE

LEGEND

- L1 — POTENTIAL CRANE LOCATION
- L1 — CRANE LOCATION IDENTIFIER
- POTENTIAL TEMPORARY SHORING TOWER
- T1 — SHORING TOWER IDENTIFIER
- (3) — CONSTRUCTION SEQUENCE NUMBER
- [1] — FIELD SPLICE NUMBER
- OUTLINE OF TRANSPORTED GIRDER
- CROSSHATCHED AREA INDICATES LOCATIONS WHERE CRANE PLACEMENT MAY BE DIFFICULT DUE TO GRADING

NOTES

SEE CONSTRUCTION STAGING NOTES SHEETS FOR GENERAL CONSTRUCTION STAGING NOTES.

FIELD SECTION WEIGHTS SHOWN ARE GIVEN FOR INFORMATION ONLY. VERIFY ALL STEEL WEIGHTS FROM APPROVED SHOP DRAWINGS. THE WEIGHT IS THE APPROXIMATE TOTAL WEIGHT FOR THE LEFT OR RIGHT GIRDER INCLUDING INTERNAL DIAPHRAGMS, STRUTS, K-FRAMES, AND BRACING. THE WEIGHT OF EXTERNAL DIAPHRAGMS IS NOT INCLUDED. VERIFY ALL STEEL WEIGHTS FROM APPROVED SHOP DRAWINGS ONLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

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CONSTRUCTION STAGING (4 OF 8)

SHEET 26 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080126_st.dgn
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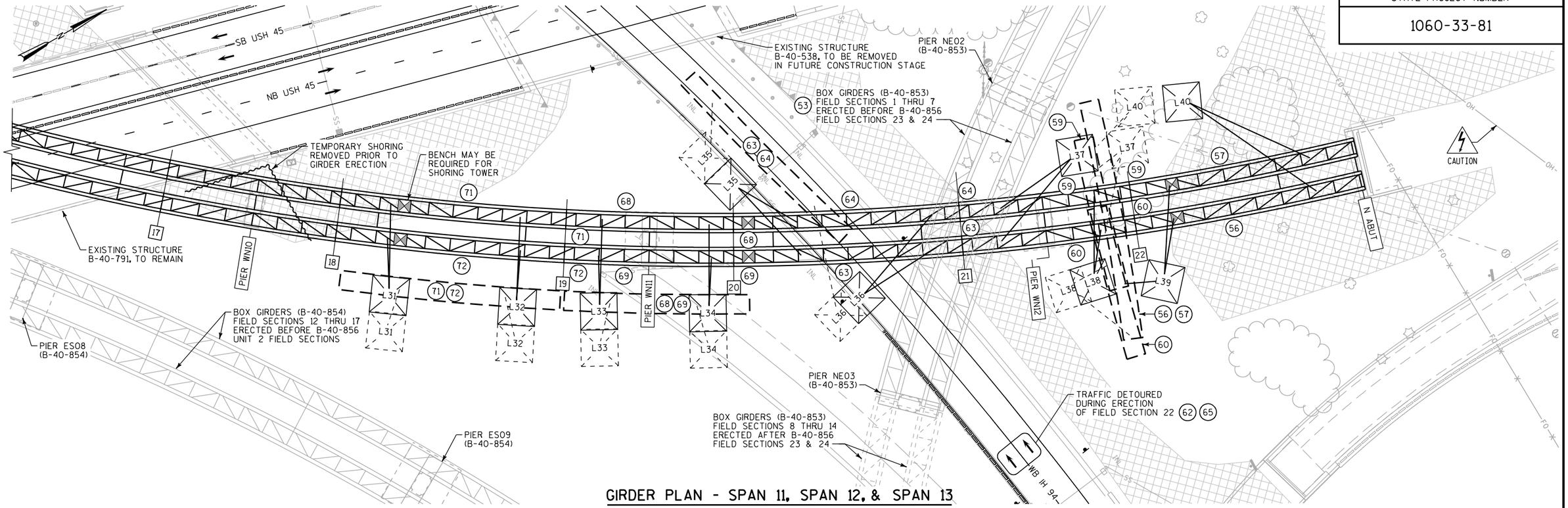
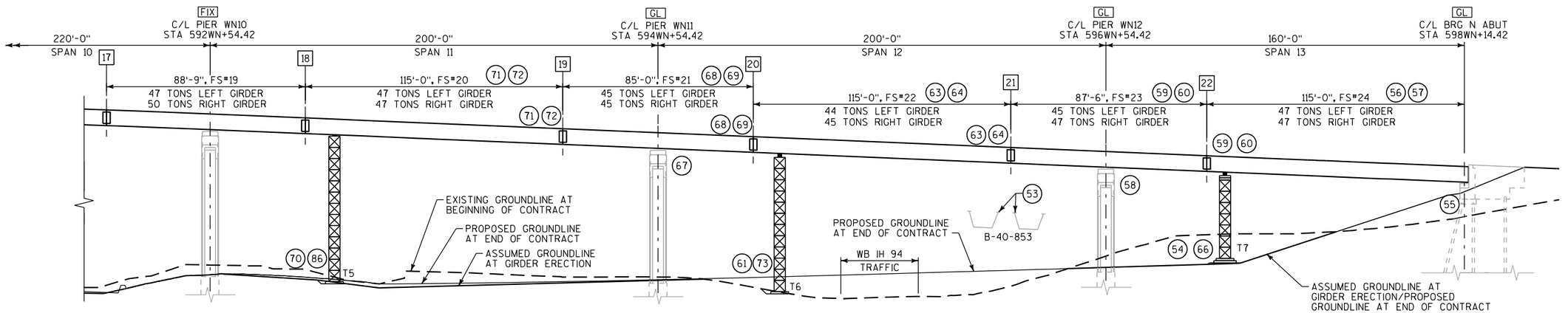


GIRDER PLAN - SPAN 11, SPAN 12, & SPAN 13

CONSTRUCTION STAGE 4 TRAFFIC SHOWN



GIRDER ELEVATION - SPAN 11, SPAN 12, & SPAN 13

SPAN AND FIELD SECTION LENGTHS SHOWN ARE TAKEN ALONG THE REFERENCE LINE

LEGEND

- L1 — POTENTIAL CRANE LOCATION
- L1 — CRANE LOCATION IDENTIFIER
- POTENTIAL TEMPORARY SHORING TOWER
- T1 — SHORING TOWER IDENTIFIER
- (3) — CONSTRUCTION SEQUENCE NUMBER
- [1] — FIELD SPLICE NUMBER
- OUTLINE OF TRANSPORTED GIRDER
- CROSSHATCHED AREA INDICATES LOCATIONS WHERE CRANE PLACEMENT MAY BE DIFFICULT DUE TO GRADING

NOTES

SEE CONSTRUCTION STAGING NOTES SHEETS FOR GENERAL CONSTRUCTION STAGING NOTES.

FIELD SECTION WEIGHTS SHOWN ARE GIVEN FOR INFORMATION ONLY. VERIFY ALL STEEL WEIGHTS FROM APPROVED SHOP DRAWINGS. THE WEIGHT IS THE APPROXIMATE TOTAL WEIGHT FOR THE LEFT OR RIGHT GIRDER INCLUDING INTERNAL DIAPHRAGMS, STRUTS, K-FRAMES, AND BRACING. THE WEIGHT OF EXTERNAL DIAPHRAGMS IS NOT INCLUDED. VERIFY ALL STEEL WEIGHTS FROM APPROVED SHOP DRAWINGS ONLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY BKS | PLANS CK'D. WRT

CONSTRUCTION STAGING (5 OF 8)

SHEET 27 OF 119

8

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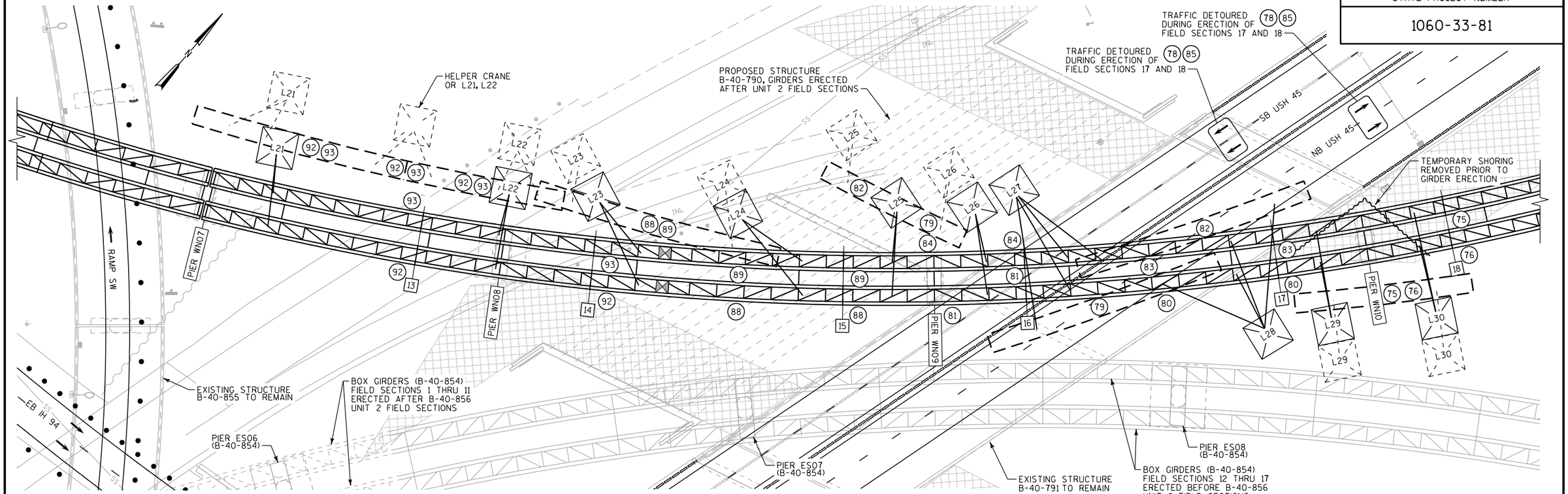
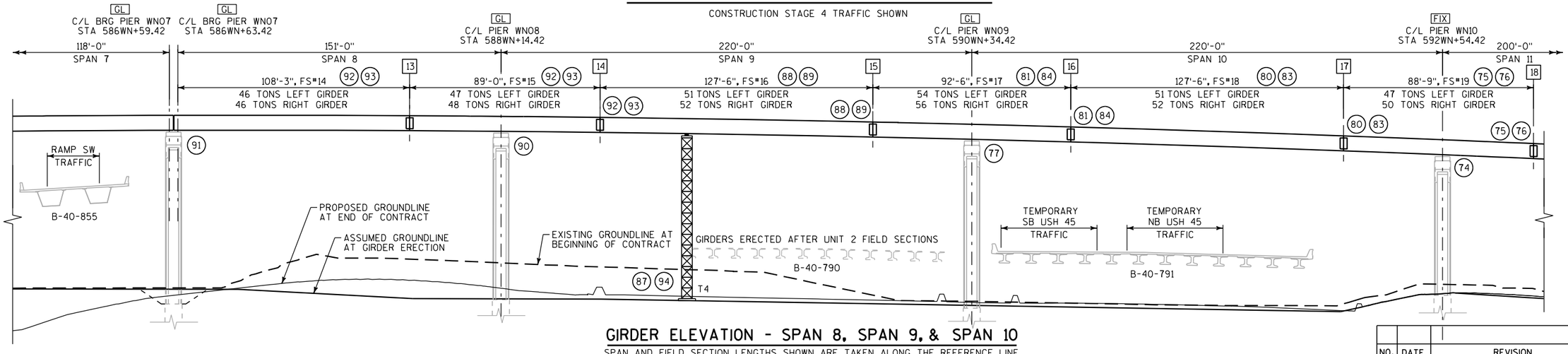


GIRDER PLAN - SPAN 8, SPAN 9, & SPAN 10



GIRDER ELEVATION - SPAN 8, SPAN 9, & SPAN 10

SPAN AND FIELD SECTION LENGTHS SHOWN ARE TAKEN ALONG THE REFERENCE LINE

LEGEND

- L1 — POTENTIAL CRANE LOCATION
- L1 — CRANE LOCATION IDENTIFIER
- POTENTIAL TEMPORARY SHORING TOWER
- T1 — SHORING TOWER IDENTIFIER
- (3) — CONSTRUCTION SEQUENCE NUMBER
- [1] — FIELD SPLICE NUMBER
- OUTLINE OF TRANSPORTED GIRDER
- CROSSHATCHED AREA INDICATES LOCATIONS WHERE CRANE PLACEMENT MAY BE DIFFICULT DUE TO GRADING

NOTES

SEE CONSTRUCTION STAGING NOTES SHEETS FOR GENERAL CONSTRUCTION STAGING NOTES.

FIELD SECTION WEIGHTS SHOWN ARE GIVEN FOR INFORMATION ONLY. VERIFY ALL STEEL WEIGHTS FROM APPROVED SHOP DRAWINGS. THE WEIGHT IS THE APPROXIMATE TOTAL WEIGHT FOR THE LEFT OR RIGHT GIRDER INCLUDING INTERNAL DIAPHRAGMS, STRUTS, K-FRAMES, AND BRACING. THE WEIGHT OF EXTERNAL DIAPHRAGMS IS NOT INCLUDED. VERIFY ALL STEEL WEIGHTS FROM APPROVED SHOP DRAWINGS ONLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY: BKS | PLANS CK'D.: WRT

CONSTRUCTION STAGING (6 OF 8)

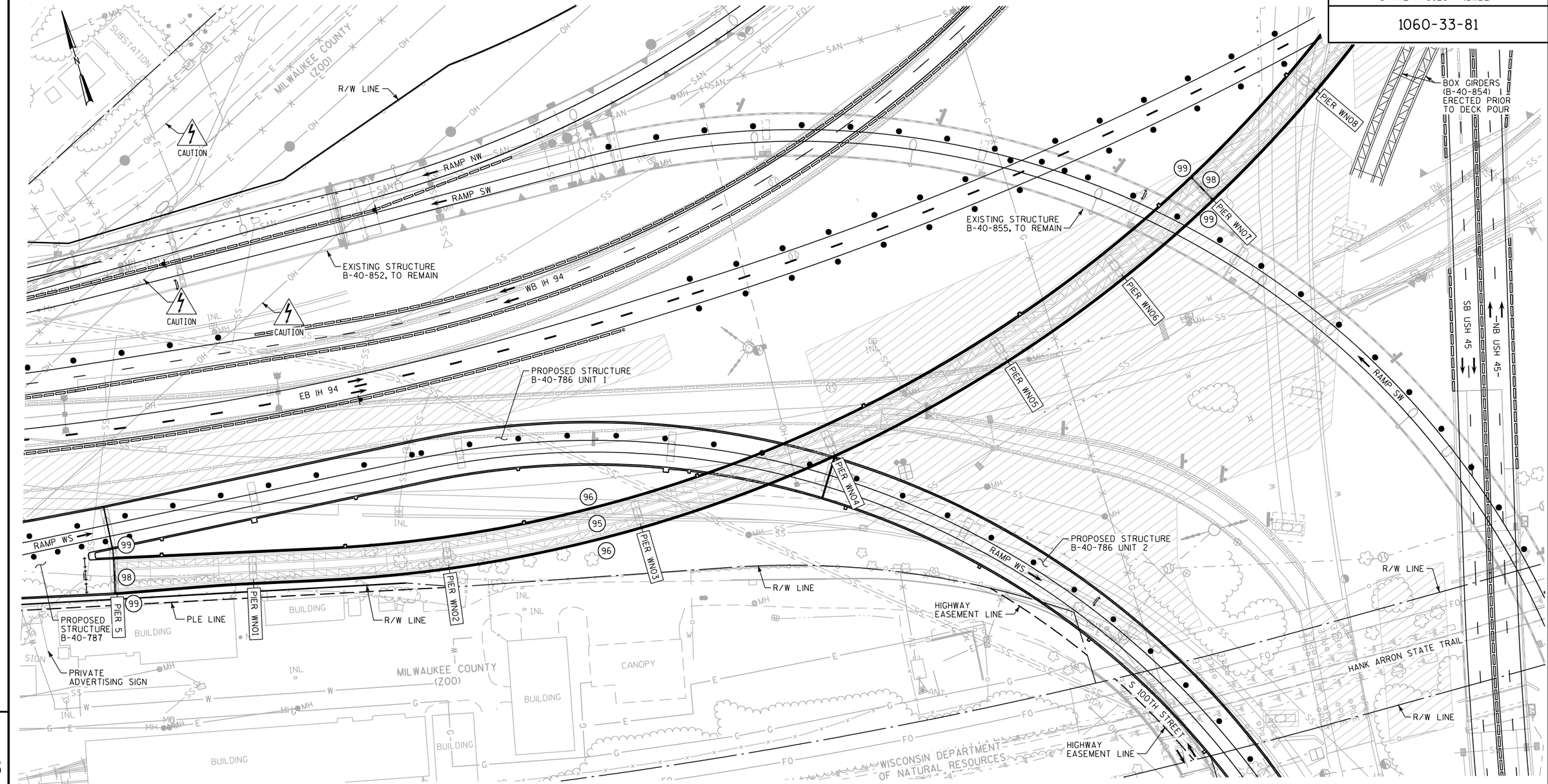
SHEET 28 OF 119

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080128_st.dgn
PLOT DATE : 13-MAY-2015 16:00
PLOT BY : MSCBKS
PLOT NAME : B856_080128_st
PLOT SCALE : 50:1

STATE PROJECT NUMBER

1060-33-81



8

8

PLAN - UNIT 1 SUPERSTRUCTURE

CONSTRUCTION STAGE 5 TRAFFIC SHOWN

LEGEND

(3) CONSTRUCTION SEQUENCE NUMBER

PROPOSED GRADING, PAVEMENT OR STRUCTURE WORK IN CONSTRUCTION STAGE 5, SEE ROADWAY PLANS

NOTES

SEE CONSTRUCTION STAGING NOTES SHEETS FOR GENERAL CONSTRUCTION STAGING NOTES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

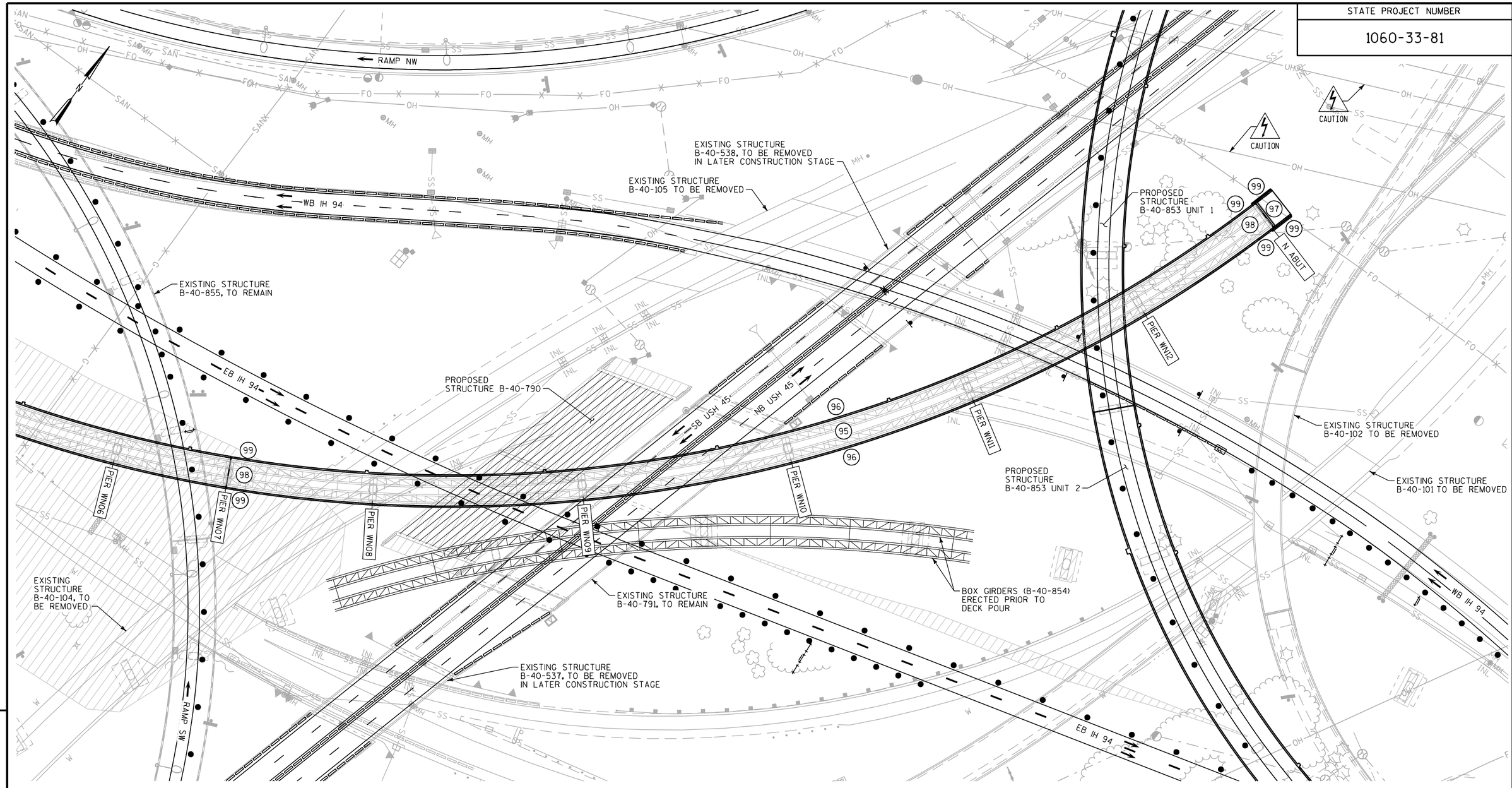
STRUCTURE B-40-856

DRAWN BY BKS | PLANS CK'D. WRT

CONSTRUCTION STAGING (7 OF 8)

SHEET 29 OF 119

STATE PROJECT NUMBER
1060-33-81



8

8

PLAN - UNIT 2 SUPERSTRUCTURE

CONSTRUCTION STAGE 5 TRAFFIC SHOWN

LEGEND

(3) CONSTRUCTION SEQUENCE NUMBER

PROPOSED GRADING, PAVEMENT OR STRUCTURE WORK IN CONSTRUCTION STAGE 5, SEE ROADWAY PLANS

NOTES

SEE CONSTRUCTION STAGING NOTES SHEETS FOR GENERAL CONSTRUCTION STAGING NOTES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

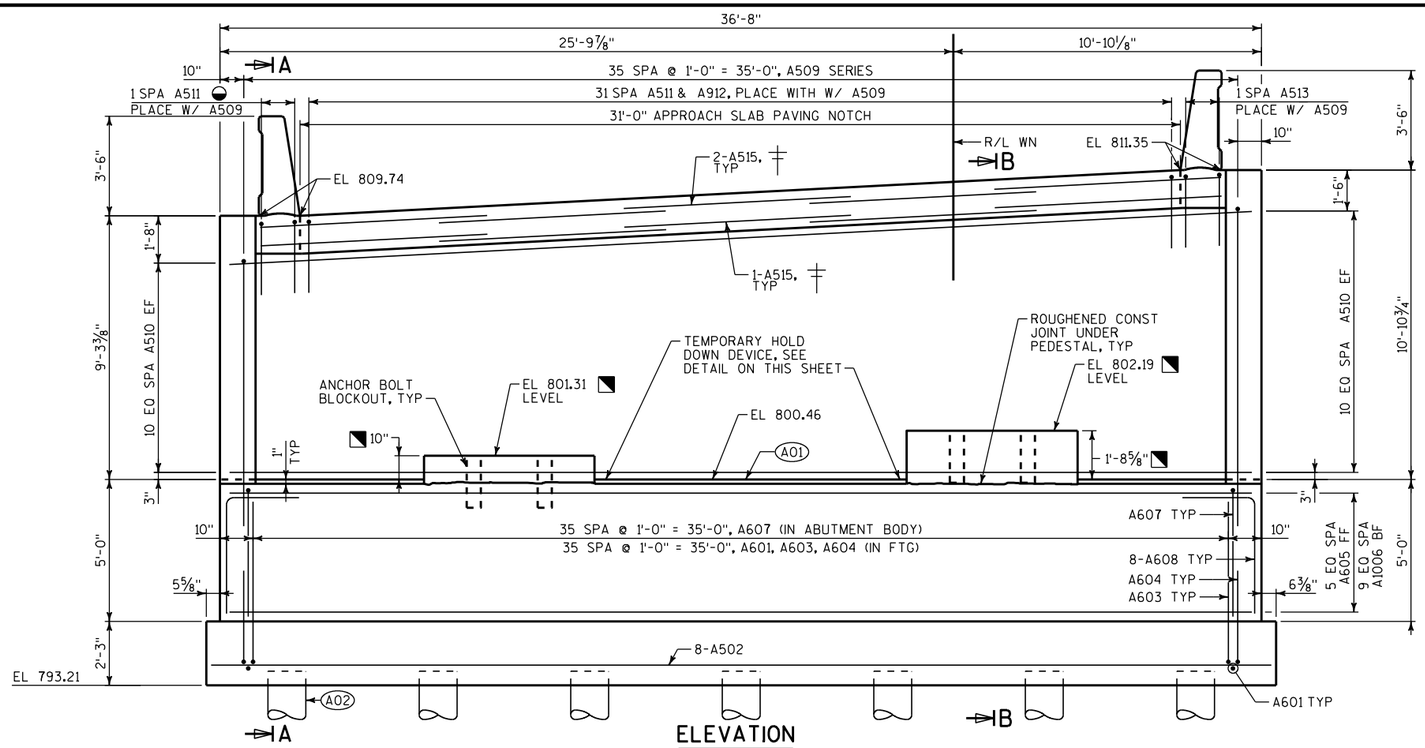
STRUCTURE B-40-856

DRAWN BY BKS | PLANS CK'D. WRT

CONSTRUCTION STAGING (8 OF 8)

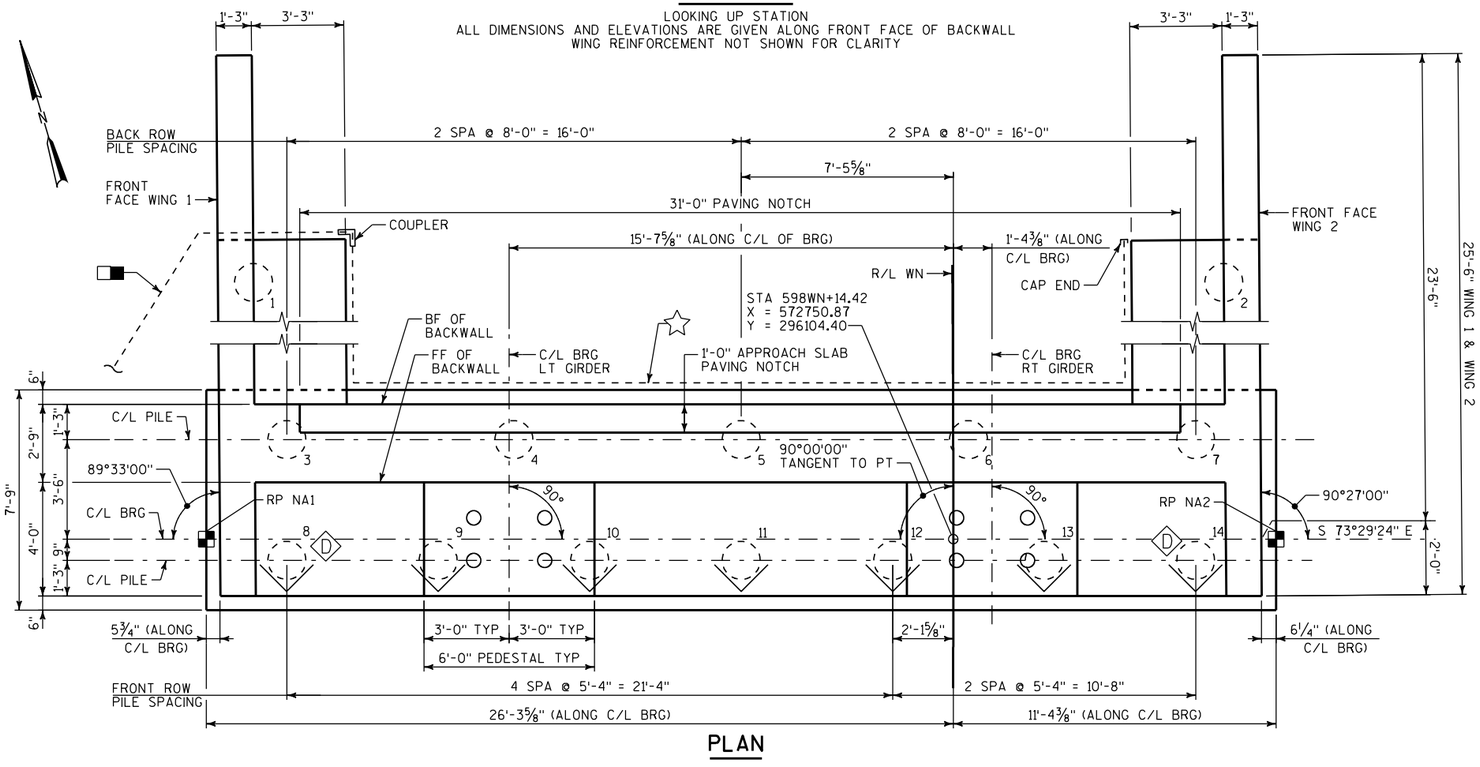
SHEET 30 OF 119

STATE PROJECT NUMBER
1060-33-81



ELEVATION

LOOKING UP STATION
ALL DIMENSIONS AND ELEVATIONS ARE GIVEN ALONG FRONT FACE OF BACKWALL
WING REINFORCEMENT NOT SHOWN FOR CLARITY



PLAN

NOTES

FOR SECTIONS A-A & B-B, SEE NORTH ABUTMENT DETAILS (1 OF 3).

FOR WING 1 PLAN AND ELEVATION, SEE NORTH ABUTMENT DETAILS (2 OF 3).

FOR WING 2 PLAN AND ELEVATION, SEE NORTH ABUTMENT DETAILS (3 OF 3).

FOR DETAILS OF BEARINGS, SEE BEARING LAYOUT AND BEARING DETAILS SHEETS.

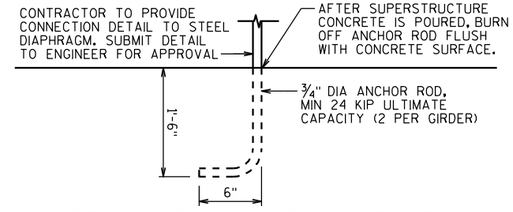
FOR DETAILS OF PEDESTALS AND ANCHOR BOLT BLOCKOUTS, SEE ABUTMENT PEDESTAL REINFORCEMENT SHEET.

FOR DETAILS OF EXPANSION JT, SEE EXPANSION JOINT SHEETS.

FOR DETAILS OF PARAPET ON BACKWALL, SEE PARAPET SHEETS.

LEGEND

- (A01) KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2"x6".
- (A02) ABUTMENT SUPPORTED ON 16" DIA CIP PILING WITH A REQUIRED DRIVING RESISTANCE OF 246 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP ACCEPTANCE METHOD. BATTER FRONT ROW 4:12.
  ESTIMATED PILE LENGTH = 50'.
  MINIMUM PILE TIP ELEVATION FOR UPLIFT = 749.0.
- (A11) CONST JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.
- ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS. MINIMUM PEDESTAL HEIGHT = 8" MAXIMUM PEDESTAL HEIGHT INCREASE = 3"
- (D) DYNAMIC PILE LOAD TESTING
- ANCHOR REBAR INTO PLACE W/ EPOXY RESIN AFTER MODULAR JOINT IS IN POSITION. FOLLOW STD SPEC FOR MASONRY ANCHOR TYPE S WITH A MIN PULLOUT CAPACITY OF 20 KIPS AND EMBEDMENT OF 1'-0".
- REFERENCE POINT, SEE SHEET A5 OR B5.
- 8'-0" LONG BAR WITH 1'-0" MIN LAP, CUT IN FIELD TO CLEAR JOINT SUPPORT SYSTEM AS REQUIRED.
- PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN TO DRAIN.
- PIPE UNDERDRAIN UNPERFORATED (6-INCH) SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.



TEMPORARY HOLD DOWN DEVICE

LOCATE WITHIN 1'-6" OF GIRDER BOTTOM FLANGE.
PAYMENT IS INCIDENTAL TO "CONCRETE MASONRY BRIDGES"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

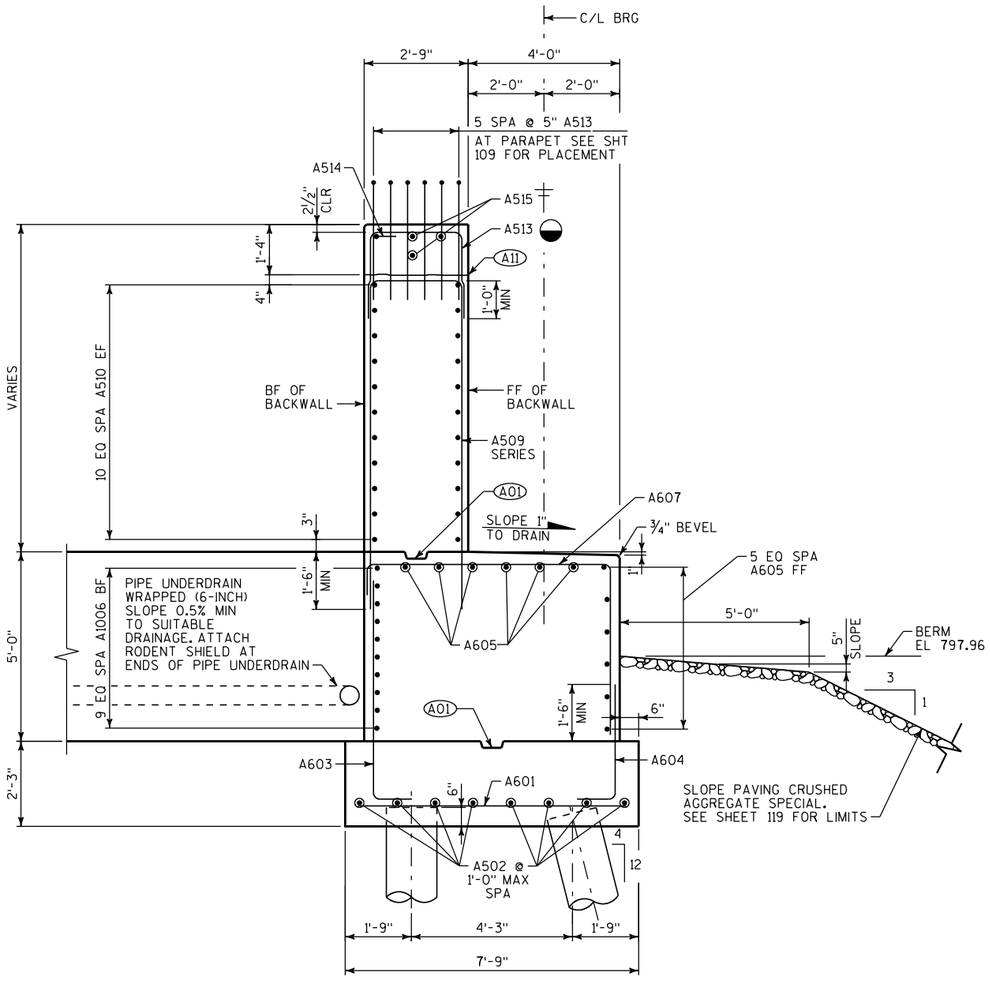
STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

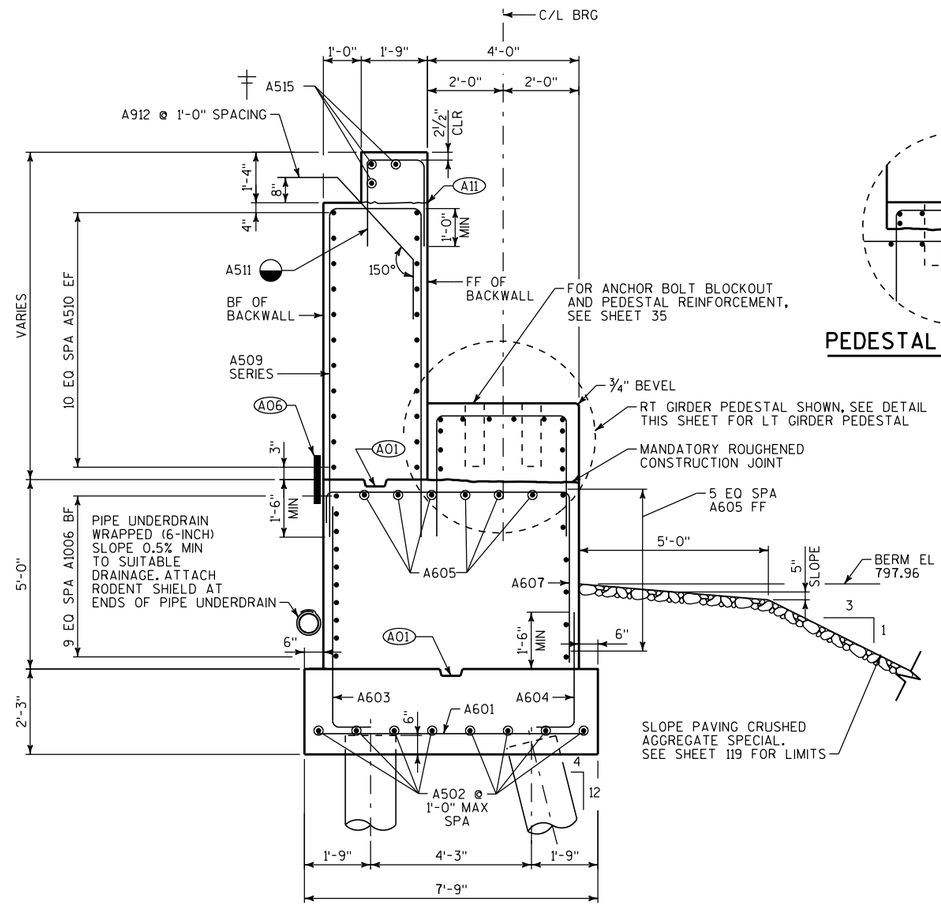
NORTH ABUTMENT PLAN & ELEVATION

SHEET 31 OF 119

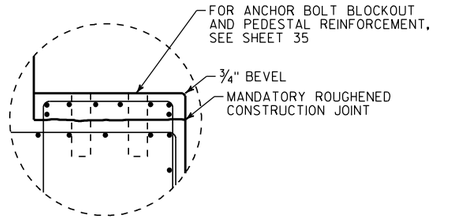
STATE PROJECT NUMBER
1060-33-81



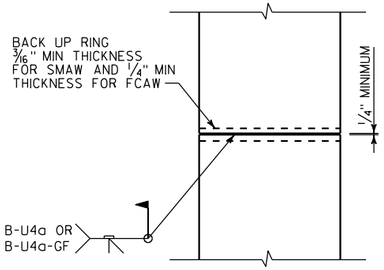
SECTION A-A



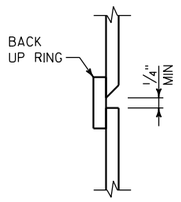
SECTION B-B



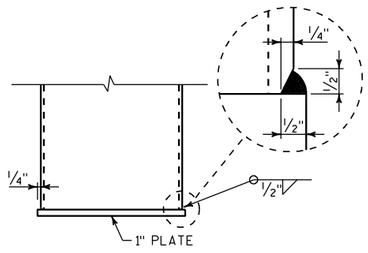
PEDESTAL - LT GIRDER



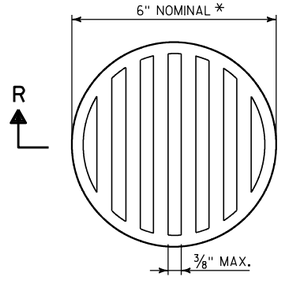
CIP PILE SPLICE DETAIL

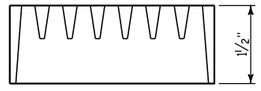


CIP PILE WELD DETAIL



CIP PILE END PLATE DETAIL





SECTION R-R

RODENT SHIELD

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SHIELD SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS

LEGEND

- (A01) KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2"X6"
- (A06) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENTS AND WING WALLS.
- (A11) CONST JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.
- ANCHOR REBAR INTO PLACE W/ EPOXY RESIN AFTER MODULAR JOINT IS IN POSITION. FOLLOW STD SPEC FOR MASONRY ANCHOR TYPE S WITH A MIN. PULLOUT CAPACITY OF 20 KIPS AND EMBEDMENT OF 1'-0".
- 8'-0" LONG BAR WITH 1'-0" MIN LAP, CUT IN FIELD TO CLEAR JOINT SUPPORT SYSTEM AS REQUIRED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

NORTH ABUTMENT DETAILS (1 OF 3)

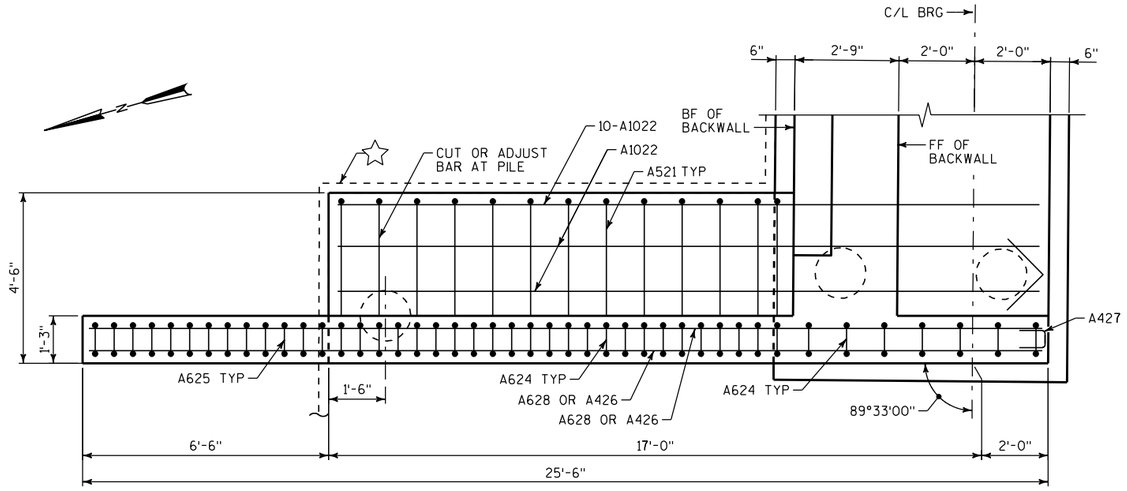
SHEET 32 OF 119

8

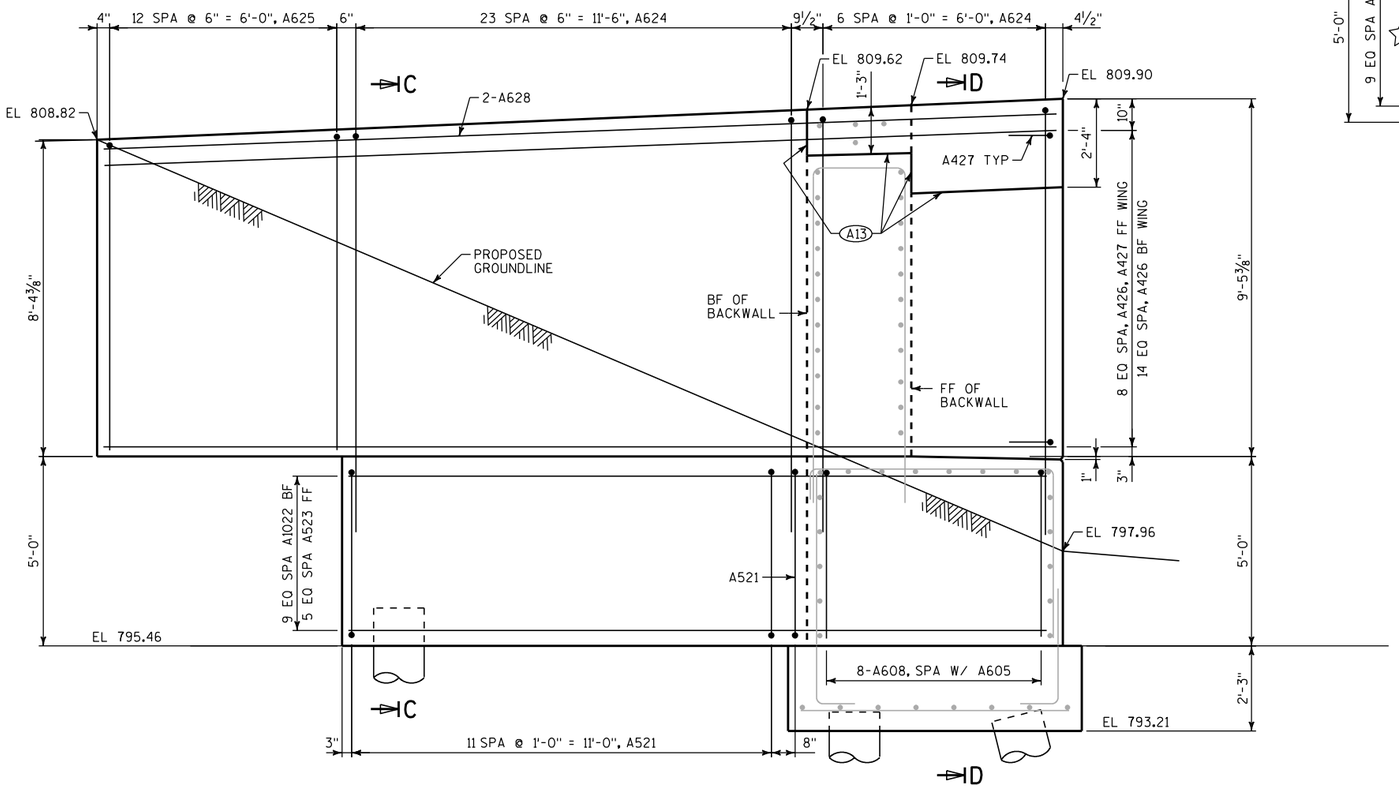
8

STATE PROJECT NUMBER

1060-33-81

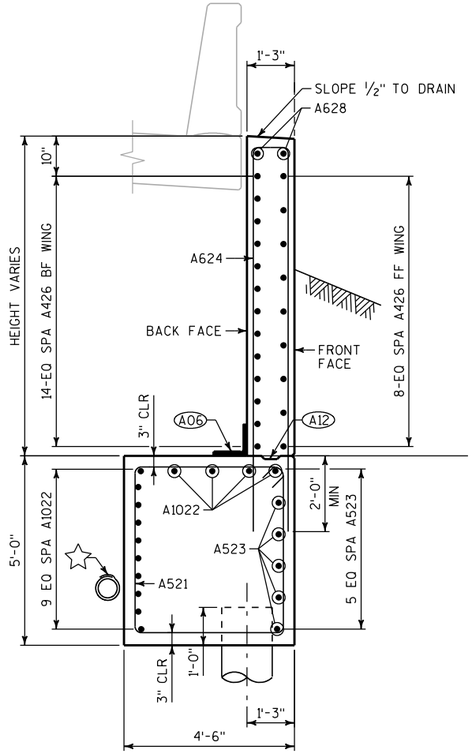


WING 1 PLAN

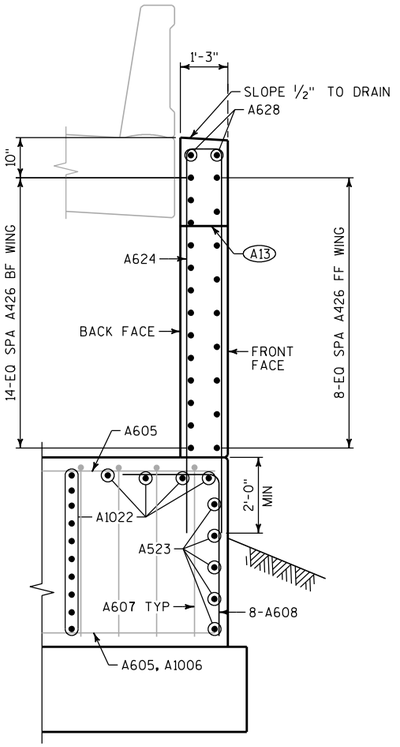


WING 1 ELEVATION

(LOOKING EAST)
ELEVATIONS GIVEN AT BACK FACE OF WING



SECTION C-C



SECTION D-D

LEGEND

- (A06) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENTS AND WING WALLS.
- (A12) OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACKFACE.
- (A13) OPTIONAL CONSTRUCTION JOINT.
- ☆ PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN TO SUITABLE DRAINAGE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

NORTH ABUTMENT DETAILS (2 OF 3)

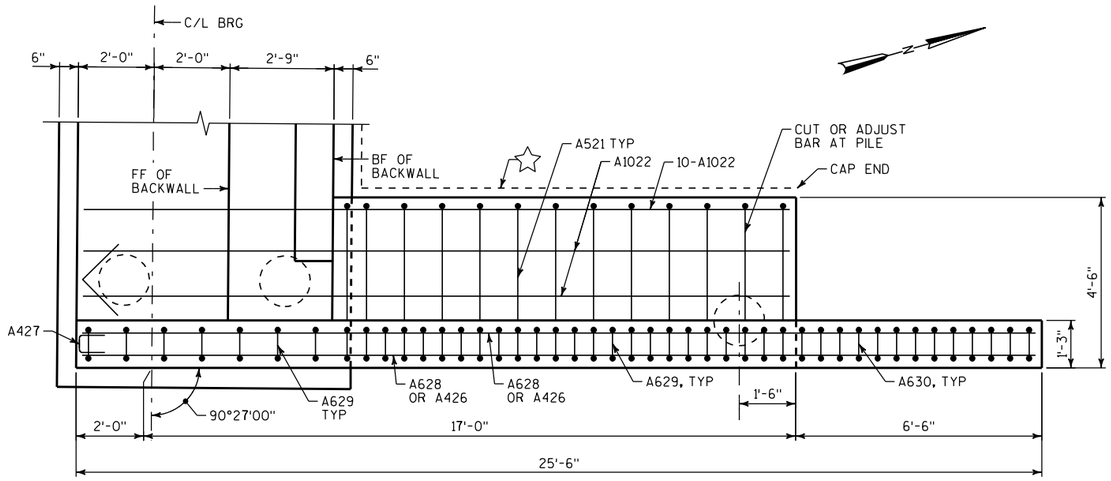
SHEET 33 OF 119

8

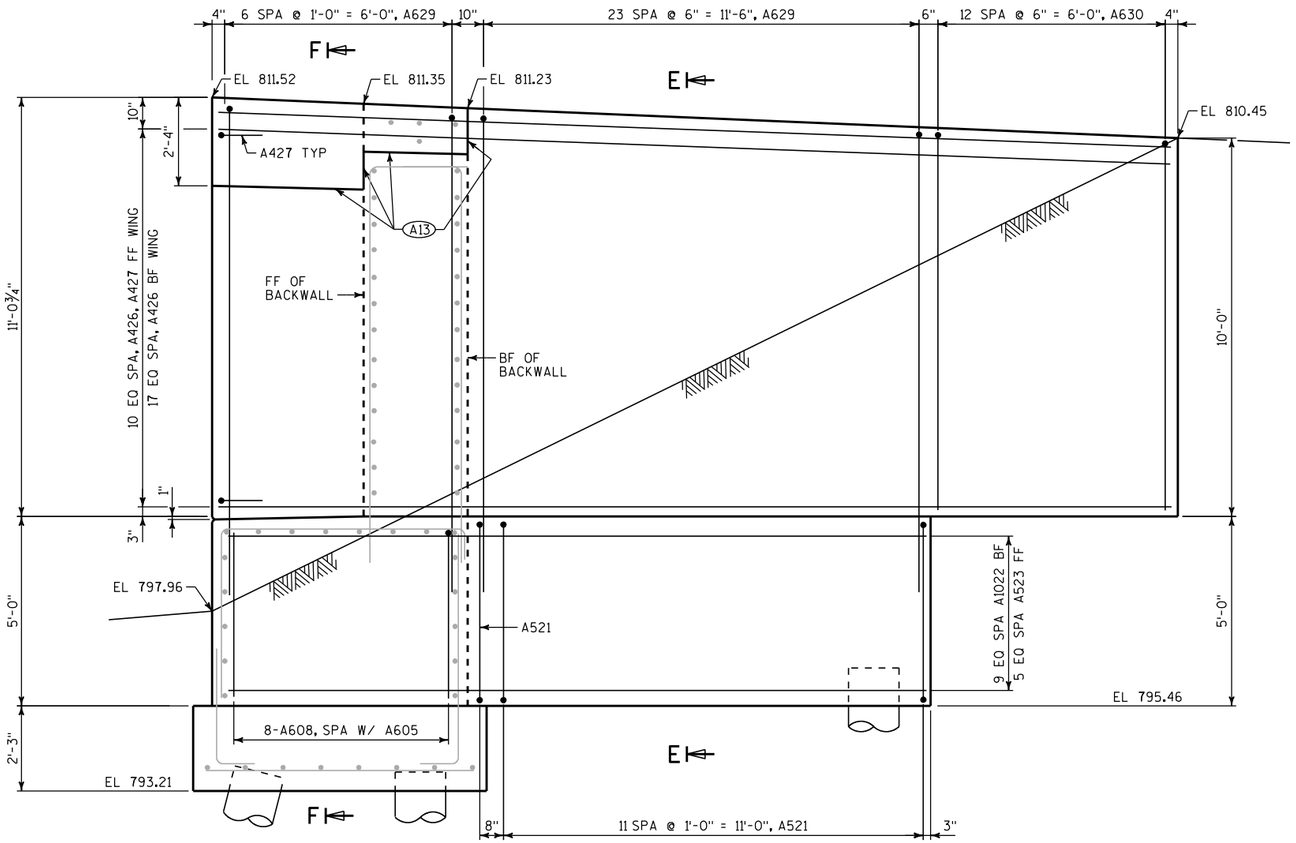
8

STATE PROJECT NUMBER

1060-33-81

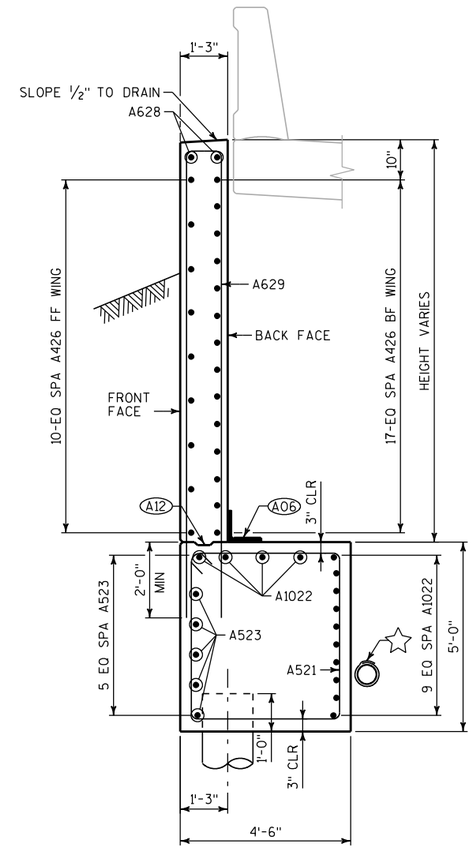


WING 2 PLAN

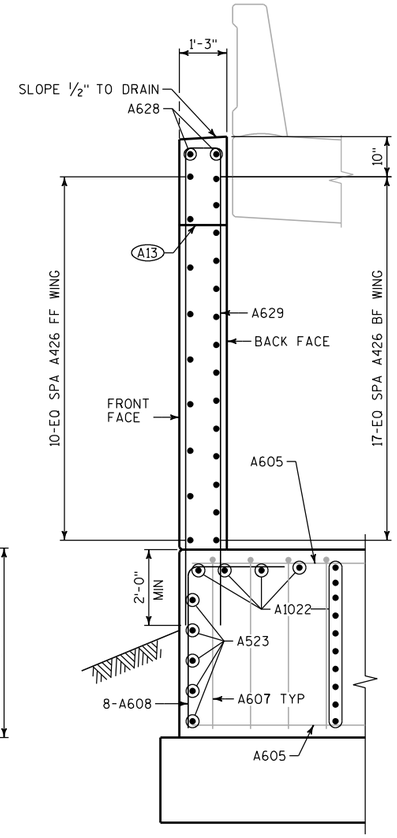


WING 2 ELEVATION

(LOOKING WEST)
ELEVATIONS GIVEN AT BACK FACE OF WING



SECTION E-E



SECTION F-F

LEGEND

- (A06) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENTS AND WING WALLS.
- (A12) OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACKFACE.
- (A13) OPTIONAL CONSTRUCTION JOINT.
- ☆ PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN TO SUITABLE DRAINAGE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

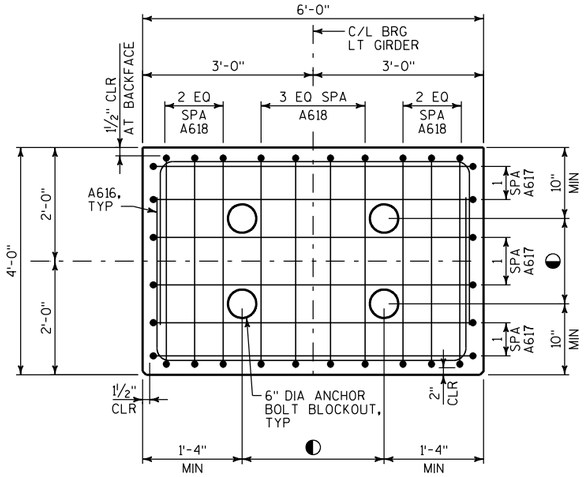
NORTH ABUTMENT DETAILS (3 OF 3)

SHEET 34 OF 119

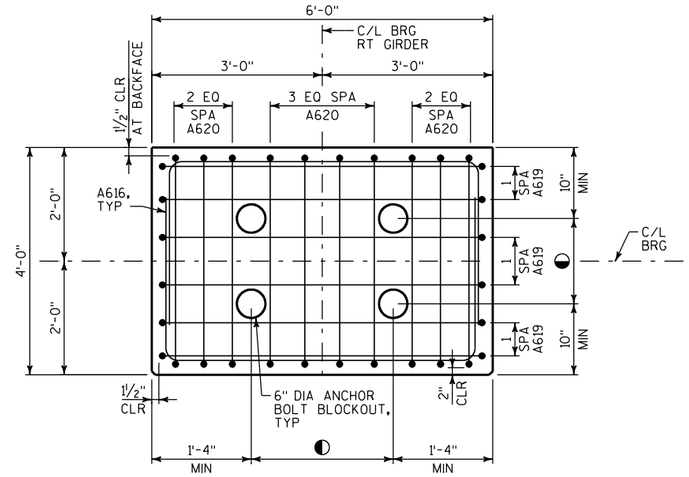
8

8

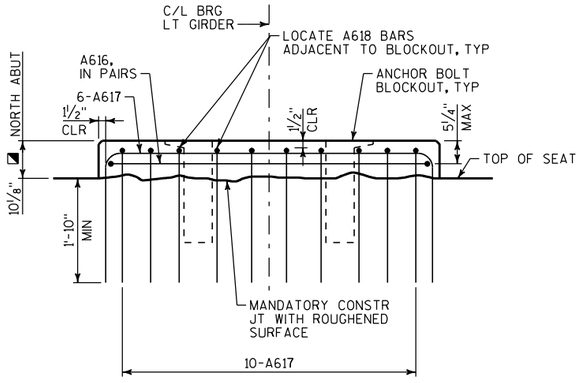
STATE PROJECT NUMBER
1060-33-81



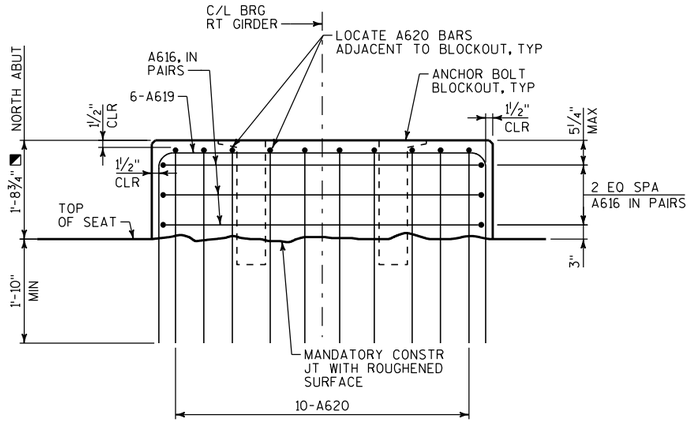
PEDESTAL PLAN - LEFT GIRDER



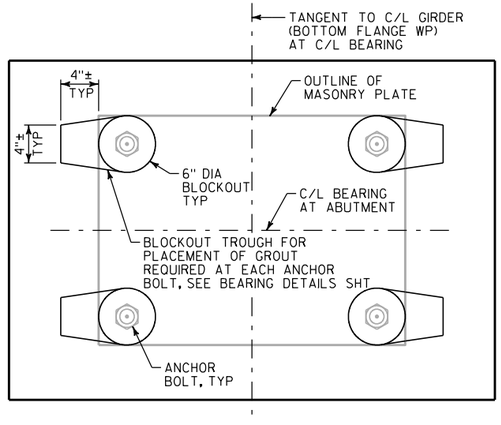
PEDESTAL PLAN - RIGHT GIRDER



PEDESTAL ELEVATION - LEFT GIRDER



PEDESTAL ELEVATION - RIGHT GIRDER



PEDESTAL PLAN - GROUT TROUGHS

SEE BEARING DETAILS SHEET

NOTES

FOR DETAILS OF ANCHOR BOLT BLOCKOUTS, SEE BEARING DETAILS SHEET.

FOR DETAILS OF BEARINGS, SEE BEARING LAYOUT SHEET AND BEARING DETAILS SHEET.

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL FABRICATED BEARING DIMENSIONS. MINIMUM PEDESTAL HEIGHT = 8". MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

◐ SEE BEARING LAYOUT SHEET FOR ANCHOR BOLT BLOCKOUT LOCATION. VERIFY LOCATIONS WITH BEARING MANUFACTURER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY PAK | PLANS CK'D. DGS

ABUTMENT PEDESTAL REINFORCEMENT

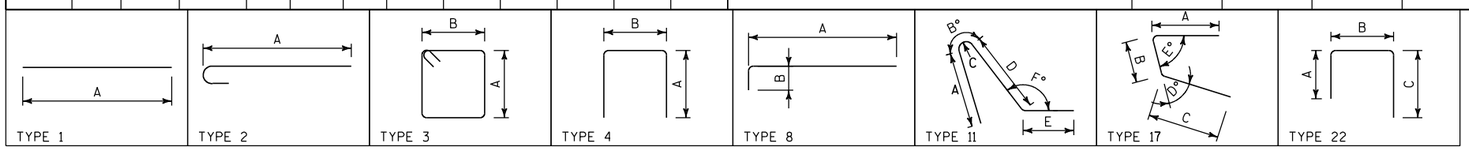
SHEET 35 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080305_ab.dgn PLOT DATE : 13-MAY-2015 16:01 PLOT BY : MSCBKS PLOT NAME : B856_080305_ab PLOT SCALE : 2.666667:1

STATE PROJECT NUMBER
1060-33-81

BAR INFORMATION							BAR DIMENSIONS						LOCATION	BAR SERIES INFORMATION				
BAR MARK	MATL	NO. REQ'D	LENGTH	BENT	BAR SERIES	BEND TYPE	A	B	C	D	E	F		DIM	MIN	MAX	NO REQ'D	LENGTH
A601	U	36	7'-3"			1	7'-3"						FOOTING HORIZONTAL					
A502	U	8	37'-2"			1	37'-2"						FOOTING HORIZONTAL					
A603	E	36	7'-4"	X		8	6'-6"	1'-0"					FOOTING VERTICAL					
A604	E	36	4'-0"	X		8	3'-2"	1'-0"					FOOTING VERTICAL					
A605	E	12	36'-3"			1	36'-3"						BODY HORIZONTAL					
A1006	E	10	39'-4"	X		4	1'-10"	36'-3"					BODY HORIZONTAL					
A607	E	36	11'-9"	X		22	1'-0"	6'-5"	4'-8"				BODY VERTICAL					
A608	E	16	6'-4"	X		8	4'-6"	2'-0"					BODY VERTICAL					
A509	E	36	22'-9"	X	X	4	10'-3½"	2'-5"					BACKWALL VERTICAL	2'-5"	9'-6"	11'-1"	1 SERIES OF 36	21'-2" TO 24'-4"
A510	E	22	36'-3"			1	36'-3"						BACKWALL HORIZONTAL					
A511	E	36	6'-0"	X		4	2'-5"	1'-5"					BACKWALL VERTICAL					
A912	S	32	7'-3"	X		17	1'-7"	4'-1"	1'-7"	60	150		BACKWALL APPROACH TIE					
A513	S	12	6'-10"	X		11	2'-10"	172	0'-4½"	0'-10"	2'-0"	188	PARAPET TIE					
A514	E	2	6'-7"	X		4	2'-3"	2'-4"					BACKWALL HORIZONTAL					
A515	E	15	8'-0"			1	8'-0"						BACKWALL HORIZONTAL					
A616	E	8	11'-1"	X		4	2'-11"	5'-7"					RIGHT & LEFT PEDESTAL					
A617	E	6	10'-11"	X		4	2'-9"	5'-9"					LEFT PEDESTAL					
A618	E	10	8'-11"	X		4	2'-9"	3'-9"					LEFT PEDESTAL					
A619	E	6	12'-9"	X		4	3'-8"	5'-9"					RIGHT PEDESTAL					
A620	E	10	10'-9"	X		4	3'-8"	3'-9"					RIGHT PEDESTAL					
A521	E	26	17'-11"	X		3	4'-6"	4'-2"					WING BODY VERTICAL					
A1022	E	28	18'-7"			1	18'-7"						WING BODY HORIZONTAL					
A523	E	10	18'-7"			1	18'-7"						WING BODY HORIZONTAL					
A624	E	31	23'-3"	X		4	11'-4"	0'-11"					WING 1 VERTICAL					
A625	E	13	16'-11"	X		4	8'-2"	0'-11"					WING 1 VERTICAL					
A426	E	53	25'-1"			1	25'-1"						WING HORIZONTAL					
A427	E	20	3'-7"	X		4	1'-6"	0'-9"					WING HORIZONTAL					
A628	E	4	25'-1"			1	25'-1"						WING HORIZONTAL					
A629	E	31	26'-5"	X		4	12'-11"	0'-11"					WING 2 VERTICAL					
A630	E	13	20'-3"	X		4	9'-10"	0'-11"					WING 2 VERTICAL					

BAR MARK BREAKDOWN			
BAR MARK	NORTH ABUTMENT	TOTAL NO	WEIGHT
A601	36	36	392
A502	8	8	310
A603	36	36	397
A604	36	36	216
A605	12	12	653
A1006	10	10	1693
A607	36	36	635
A608	16	16	152
A509	36	36	854
A510	22	22	832
A511	36	36	225
A912	32	32	789
A513	12	12	86
A514	2	2	14
A515	15	15	125
A616	8	8	133
A617	6	6	98
A618	10	10	134
A619	6	6	115
A620	10	10	161
A521	26	26	486
A1022	28	28	2239
A523	10	10	194
A624	31	31	1083
A625	13	13	330
A426	53	53	888
A427	20	20	48
A628	4	4	151
A629	31	31	1230
A630	13	13	395
TOT WEIGHT	15058	614	15058



NOTES

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

DIMENSIONS ARE TO OUTSIDE OF BARS, EXCEPT FOR RADIUS DIMENSIONS WHICH ARE TO INSIDE OF BENDS.

FOR A BAR SERIES, LENGTH SHOWN IN THE FOURTH COLUMN OF TABLE IS THE AVERAGE BAR LENGTH USED TO COMPUTE BAR WEIGHT.

BAR MATERIAL CODES USED IN SECOND COLUMN OF TABLE
- U - STEEL, HIGH STRENGTH, UNCOATED.
- E - STEEL, HIGH STRENGTH, EPOXY COATED.
- S - STAINLESS STEEL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

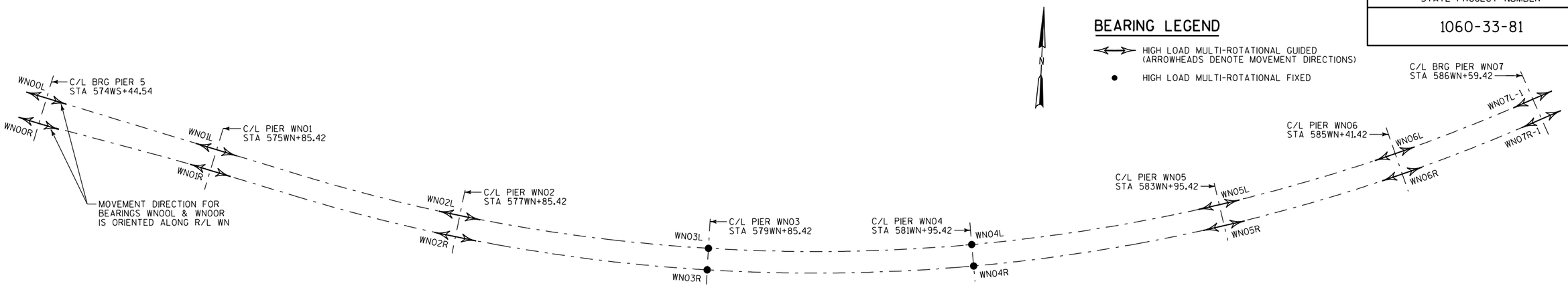
STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

ABUTMENT REINFORCEMENT SCHEDULE

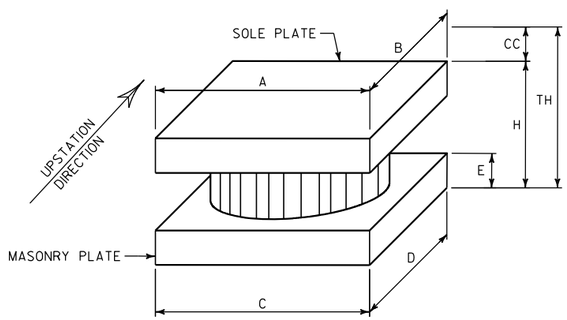
SHEET 36 OF 119

STATE PROJECT NUMBER
1060-33-81

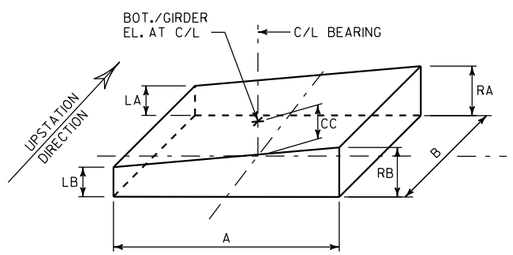


PLAN

BEARING MARK	BEARING TYPE	SKEW ANGLE 'SK'	BOT./ GIRDER EL. AT C/L	TOP OF PEDESTAL EL.	VERTICAL FORCES				TRANSVERSE		LONGITUDINAL		MOVEMENT 90° (ONE WAY)		ROTATIONS	NOMINAL BEARING DIMENSIONS												ANCHOR BOLTS
					SERVICE		STRENGTH									BEVELED TOP PLATE THICKNESS					TOP PLATE & SOLE PLATE		MASONRY PLATE			BEARING ASSEMBLY		
					PERMANENT	TOTAL	PERMANENT	TOTAL	SERVICE	STRENGTH	SERVICE	STRENGTH	TRANS	LONGIT	STRENGTH	LB	RB	LA	RA	CC	A	B	C	D	E	H	TH	
					(KIPS)	(KIPS)	(KIPS)	(KIPS)	(KIPS)	(KIPS)	(KIPS)	(KIPS)	(IN)	(IN)	RADIANS	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	
WN00L	GUIDED	0°	793.63	792.94	210	430	320	650	40	80	30	30	---	6"	0.014	1"	1 5/16"	1 5/16"	2 7/8"	1 5/16"	30"	32"	36"	20"	1 1/4"	6 3/8"	8 5/16"	4 - 1" DIA.
WN00R		+1°55'	794.16	793.46	270	490	400	720	40	80	30	30	---	6"	0.014	1"	1 5/16"	1 5/16"	2 7/8"	1 5/16"	30"	32"	36"	20"	1 1/4"	6 3/8"	8 5/16"	4 - 1" DIA.
WN01L	GUIDED	0°	799.02	798.13	740	1160	1110	1670	50	90	110	110	---	4 5/8"	0.011	1"	2 3/16"	2 3/4"	3 15/16"	2 7/16"	38"	36"	48"	30"	1 1/4"	8 1/8"	10 9/16"	6 - 1 1/2" DIA.
WN01R			799.54	798.66	1070	1560	1600	2210	50	90	110	110	---	4 5/8"	0.011	1"	2 3/16"	2 3/4"	3 15/16"	2 7/16"	38"	36"	48"	30"	1 1/4"	8 1/8"	10 9/16"	6 - 1 1/2" DIA.
WN02L	GUIDED	0°	808.61	807.66	840	1290	1260	1850	70	120	110	110	---	2 5/8"	0.012	1"	3"	2 7/8"	4 1/8"	2 5/16"	38"	32"	48"	30"	1 1/4"	8 3/8"	11 5/16"	6 - 1 1/2" DIA.
WN02R			809.47	808.53	1090	1600	1630	2270	70	120	110	110	---	2 5/8"	0.012	1"	3"	2 7/8"	4 1/8"	2 5/16"	38"	32"	48"	30"	1 1/4"	8 3/8"	11 5/16"	6 - 1 1/2" DIA.
WN03L	FIXED	N/A	818.60	817.61	870	1320	1300	1890	90	160	50	60	---	---	0.013	1"	3"	2 7/8"	4 7/8"	2 5/16"	38"	32"	44"	34"	1 1/4"	8 7/8"	11 13/16"	6 - 1 1/2" DIA.
WN03R			819.46	818.48	980	1500	1470	2150	90	160	50	60	---	---	0.013	1"	3"	2 7/8"	4 7/8"	2 5/16"	38"	32"	44"	34"	1 1/4"	8 7/8"	11 13/16"	6 - 1 1/2" DIA.
WN04L	FIXED	N/A	827.81	826.86	950	1400	1420	2000	70	120	70	90	---	---	0.012	1"	3"	2 3/16"	4 1/8"	2 9/16"	38"	32"	44"	34"	1 1/4"	8 7/8"	11 7/16"	6 - 1 1/2" DIA.
WN04R			828.70	827.74	940	1450	1400	2090	70	120	70	90	---	---	0.012	1"	3"	2 3/16"	4 1/8"	2 9/16"	38"	32"	44"	34"	1 1/4"	8 7/8"	11 7/16"	6 - 1 1/2" DIA.
WN05L	GUIDED	0°	833.68	832.72	760	1180	1140	1690	40	70	80	80	---	3 7/8"	0.011	1"	3"	1 3/4"	3 11/16"	2 3/8"	38"	34"	44"	28"	1 1/4"	8 1/8"	11 7/16"	4 - 1 1/2" DIA.
WN05R			834.56	833.61	760	1240	1140	1810	40	70	80	80	---	3 7/8"	0.011	1"	3"	1 3/4"	3 11/16"	2 3/8"	38"	34"	44"	28"	1 1/4"	8 1/8"	11 7/16"	4 - 1 1/2" DIA.
WN06L	GUIDED	0°	836.13	835.28	590	950	890	1380	40	70	70	70	---	5 1/4"	0.008	1"	2 7/8"	1 3/8"	3 1/4"	2 1/8"	36"	36"	42"	26"	1 1/4"	8"	10 1/8"	4 - 1 1/2" DIA.
WN06R			836.99	836.15	610	1040	910	1520	40	70	70	70	---	5 1/4"	0.008	1"	2 7/8"	1 3/8"	3 1/4"	2 1/8"	36"	36"	42"	26"	1 1/4"	8"	10 1/8"	4 - 1 1/2" DIA.
WN07L-1	GUIDED	0°	836.96	836.27	200	370	290	550	50	80	30	30	---	6 3/8"	0.012	1"	2 9/16"	1 1/16"	2 5/8"	1 13/16"	30"	32"	36"	20"	1 1/4"	6 3/8"	8 3/16"	4 - 1" DIA.
WN07R-1			837.84	837.16	210	420	310	640	50	80	30	30	---	6 3/8"	0.012	1"	2 9/16"	1 1/16"	2 5/8"	1 13/16"	30"	32"	36"	20"	1 1/4"	6 3/8"	8 3/16"	4 - 1" DIA.



BEARING DIMENSION KEY



BEVELED TOP PLATE DIMENSION KEY

LB = LEFT BACK STATION
LA = LEFT AHEAD STATION
RB = RIGHT BACK STATION
RA = RIGHT AHEAD STATION

NOTES

1. FOR TYPICAL BEARING DETAILS, SEE BEARING DETAILS SHEET.
2. BEARING DIMENSIONS SHOWN ARE NOMINAL VALUES ONLY AND WILL VARY WITH THE SELECTED MANUFACTURER. MAKE ALL NECESSARY ADJUSTMENTS TO DIMENSIONS AND ELEVATIONS AS REQUIRED TO INCORPORATE THE SPECIFIC BEARINGS SELECTED.
3. FORCES SPECIFIED ARE MAXIMUM EFFECTS FOR LRFD LOAD COMBINATIONS, INCLUDING DYNAMIC LOAD ALLOWANCE.
4. HORIZONTAL FORCES SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED FORCES. DESIGN BEARINGS FOR THESE VALUES OR 15 PERCENT OF THE VERTICAL PERMANENT LOAD, WHICHEVER IS LARGER.
5. DESIGN BEARINGS FOR THE ROTATION VALUES SHOWN IN THE TABLE OR 0.02 RADIANS, WHICHEVER IS LARGER.

   ROTATION VALUES IN THE TABLE INCLUDE AN ALLOWANCE OF 0.005 RADIANS FOR UNCERTANTIES.

   FOR POT BEARINGS, INCREASE THE ROTATIONAL DEMAND BY AN ADDITIONAL 0.005 RADIANS TO ACCOUNT FOR CONSTRUCTION TOLERANCES.
6. FOR DEFINITION OF SKEW ANGLE 'SK', SEE "PLAN - MASONRY PLATE" ON THE BEARING DETAILS SHEET.
7. FOR TEMPERATURE SETTING DATA, SEE SHEET "BEARING LAYOUT UNIT 2".
8. C/L BEARINGS NORMAL OR RADIAL TO R/L WN AT ALL PIERS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

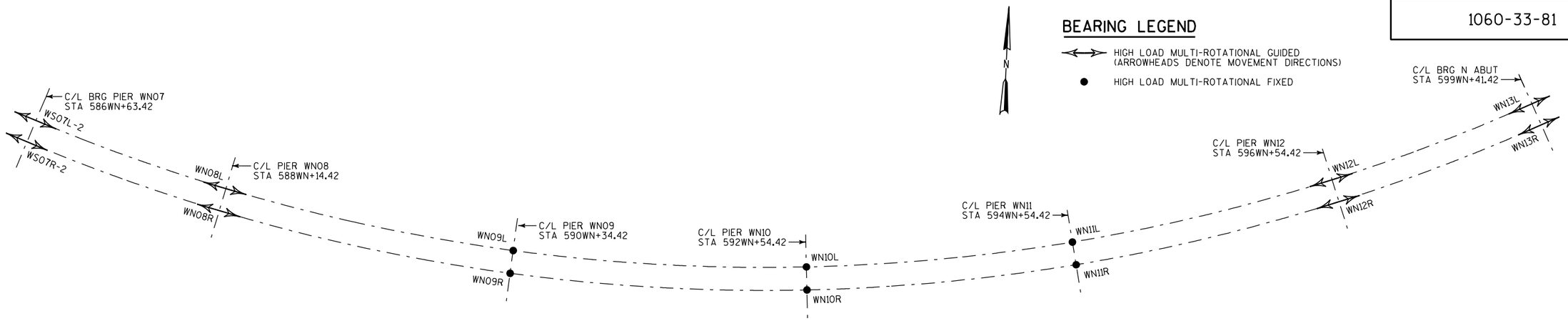
DRAWN BY: GLM | PLANS CK'D.: WRT

BEARING LAYOUT UNIT 1

SHEET 37 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080501_ss.dgn
PLOT DATE : 21-JUL-2015 09:43
PLOT BY : MSCBKS
PLOT NAME : B856_080501_ss
PLOT SCALE : 80:1

STATE PROJECT NUMBER
1060-33-81

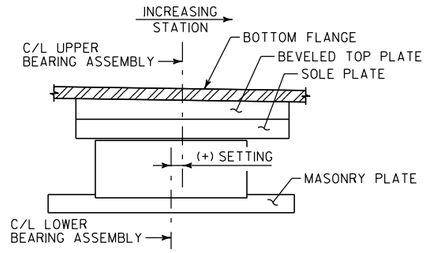


PLAN

BEARING MARK	BEARING TYPE	SKEW ANGLE 'SK'	BOT./ GIRDER EL. AT C/L	TOP OF PEDESTAL EL.	VERTICAL FORCES				TRANSVERSE		LONGITUDINAL		MOVEMENT 90° (ONE WAY)		ROTATIONS	NOMINAL BEARING DIMENSIONS												ANCHOR BOLTS
					SERVICE		STRENGTH									BEVELED TOP PLATE THICKNESS					TOP PLATE & SOLE PLATE		MASONRY PLATE			BEARING ASSEMBLY		
					PERMANENT	TOTAL	PERMANENT	TOTAL	SERVICE	STRENGTH	SERVICE	STRENGTH	TRANS	LONGIT	STRENGTH	LB	RB	LA	RA	CC	A	B	C	D	E	H	TH	
					(KIPS)	(KIPS)	(KIPS)	(KIPS)	(KIPS)	(KIPS)	(KIPS)	(KIPS)	(IN)	(IN)	RADIANS	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	
WN07L-2	GUIDED	0°	836.97	836.28	220	420	330	640	50	80	30	30	---	6 3/4"	0.015	1"	2 9/16"	1 1/16"	2 5/8"	1 13/16"	30"	32"	36"	20"	1 1/4"	6 3/8"	8 3/16"	4 - 1" DIA.
WN07R-2			837.85	837.17	220	450	330	680	50	80	30	30	---	6 3/4"	0.015	1"	2 9/16"	1 1/16"	2 5/8"	1 13/16"	30"	32"	36"	20"	1 1/4"	6 3/8"	8 3/16"	4 - 1" DIA.
WN08L	GUIDED	0°	836.39	835.50	890	1330	1330	1900	60	110	90	90	---	5 3/8"	0.013	1 5/16"	3 7/16"	1"	3 1/16"	2 3/16"	40"	38"	46"	30"	1 1/4"	8 1/2"	10 11/16"	6 - 1 1/2" DIA.
WN08R			837.28	836.38	890	1340	1340	1910	60	110	90	90	---	5 3/8"	0.013	1 5/16"	3 7/16"	1"	3 1/16"	2 3/16"	40"	38"	46"	30"	1 1/4"	8 1/2"	10 11/16"	6 - 1 1/2" DIA.
WN09L	FIXED	N/A	832.66	831.72	1020	1500	1530	2130	60	100	70	80	---	---	0.013	1 11/16"	3 3/4"	1"	3"	2 3/8"	38"	32"	44"	34"	1 1/4"	8 7/8"	11 1/4"	6 - 1 1/2" DIA.
WN09R			833.54	832.60	990	1450	1480	2070	60	100	70	80	---	---	0.013	1 11/16"	3 3/4"	1"	3"	2 3/8"	38"	32"	44"	34"	1 1/4"	8 7/8"	11 1/4"	6 - 1 1/2" DIA.
WN10L	FIXED	N/A	825.45	824.49	920	1380	1380	1970	80	130	50	60	---	---	0.013	2 5/16"	4 5/16"	1"	3"	2 5/8"	38"	32"	44"	34"	1 1/4"	8 7/8"	11 1/2"	6 - 1 1/2" DIA.
WN10R			826.34	825.38	890	1350	1340	1940	80	130	50	60	---	---	0.013	2 5/16"	4 5/16"	1"	3"	2 5/8"	38"	32"	44"	34"	1 1/4"	8 7/8"	11 1/2"	6 - 1 1/2" DIA.
WN11L	FIXED	N/A	817.06	816.10	870	1320	1300	1890	70	120	90	110	---	---	0.011	2 3/8"	4 5/16"	1"	3"	2 11/16"	38"	32"	44"	34"	1 1/4"	8 7/8"	11 3/16"	6 - 1 1/2" DIA.
WN11R			817.94	816.98	840	1280	1250	1840	70	120	90	110	---	---	0.011	2 3/8"	4 5/16"	1"	3"	2 11/16"	38"	32"	44"	34"	1 1/4"	8 7/8"	11 3/16"	6 - 1 1/2" DIA.
WN12L	GUIDED	0°	808.68	807.75	870	1300	1300	1860	70	110	90	90	---	3 5/8"	0.012	2 7/16"	4 3/8"	1"	3"	2 11/16"	38"	34"	46"	30"	1 1/4"	8 3/8"	11 1/16"	6 - 1 1/2" DIA.
WN12R			809.56	808.64	880	1320	1320	1880	70	110	90	90	---	3 5/8"	0.012	2 7/16"	4 3/8"	1"	3"	2 11/16"	38"	34"	46"	30"	1 1/4"	8 3/8"	11 1/16"	6 - 1 1/2" DIA.
WN13L	GUIDED	0°	802.04	801.31	240	430	350	630	30	40	30	30	---	5 1/4"	0.019	2 1/4"	3 13/16"	1"	2 9/16"	2 7/16"	30"	30"	36"	20"	1 1/4"	6 3/8"	8 13/16"	4 - 1" DIA.
WN13R			802.92	802.19	260	470	380	700	30	40	30	30	---	5 1/4"	0.019	2 1/4"	3 13/16"	1"	2 9/16"	2 7/16"	30"	30"	36"	20"	1 1/4"	6 3/8"	8 13/16"	4 - 1" DIA.

BEARING TEMPERATURE SETTING DATA

TEMP (°F)	UNIT 1						UNIT 2			
	PIER 5	WN01	WN02	WN05	WN06	WN07-1	WN07-2	WN08	WN12	NORTH ABUT
	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)
120°	-3.34	-2.55	-1.47	2.14	2.91	3.55	-3.77	-2.96	2.01	2.91
110°	-2.78	-2.12	-1.23	1.78	2.43	2.96	-3.14	-2.47	1.68	2.43
100°	-2.23	-1.70	-0.98	1.43	1.94	2.37	-2.51	-1.97	1.34	1.94
90°	-1.67	-1.27	-0.74	1.07	1.46	1.77	-1.88	-1.48	1.01	1.46
80°	-1.11	-0.85	-0.49	0.71	0.97	1.18	-1.26	-0.99	0.67	0.97
70°	-0.56	-0.42	-0.25	0.36	0.49	0.59	-0.63	-0.49	0.34	0.49
60°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50°	0.56	0.42	0.25	-0.36	-0.49	-0.59	0.63	0.49	-0.34	-0.49
40°	1.11	0.85	0.49	-0.71	-0.97	-1.18	1.26	0.99	-0.67	-0.97
30°	1.67	1.27	0.74	-1.07	-1.46	-1.77	1.88	1.48	-1.01	-1.46
20°	2.23	1.70	0.98	-1.43	-1.94	-2.37	2.51	1.97	-1.34	-1.94
10°	2.78	2.12	1.23	-1.78	-2.43	-2.96	3.14	2.47	-1.68	-2.43
0°	3.34	2.55	1.47	-2.14	-2.91	-3.55	3.77	2.96	-2.01	-2.91
-10°	3.90	2.97	1.72	-2.50	-3.40	-4.14	4.39	3.46	-2.35	-3.40
-20°	4.45	3.39	1.96	-2.85	-3.89	-4.73	5.02	3.95	-2.68	-3.89
-30°	5.01	3.82	2.21	-3.21	-4.37	-5.32	5.65	4.44	-3.02	-4.37



NOTE:
DATA IS PROVIDED FOR BEARING MANUFACTURER. FIELD SETTING SHALL BE BASED ON TABLE IN FINAL APPROVED SHOP DRAWINGS PER SPECIAL PROVISION FOR HLMR BEARINGS.

NOTES

1. FOR BEARING NOTES AND DIMENSION KEYS, SEE SHEET "BEARING LAYOUT UNIT 1".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

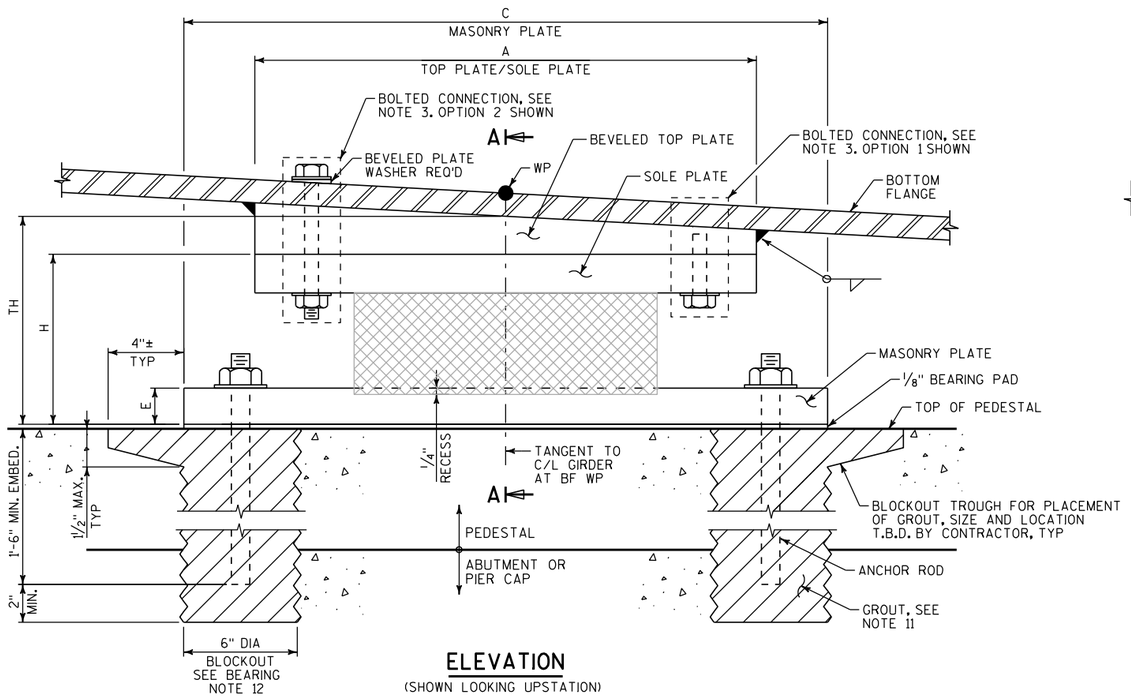
STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

BEARING LAYOUT UNIT 2

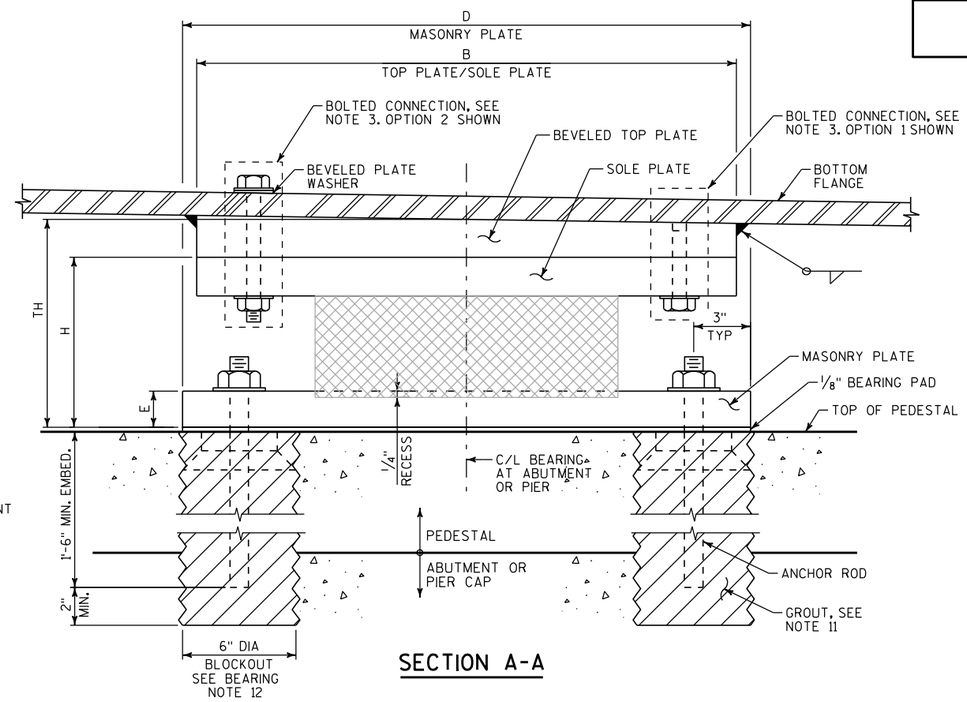
SHEET 38 OF 119

STATE PROJECT NUMBER
1060-33-81



ELEVATION

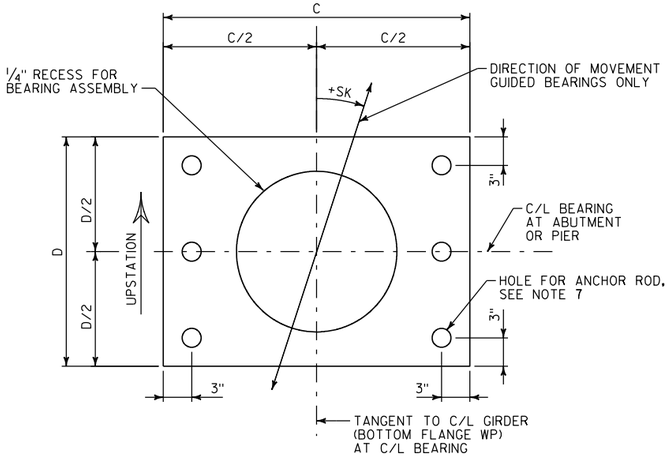
(SHOWN LOOKING UPSTATION)



SECTION A-A

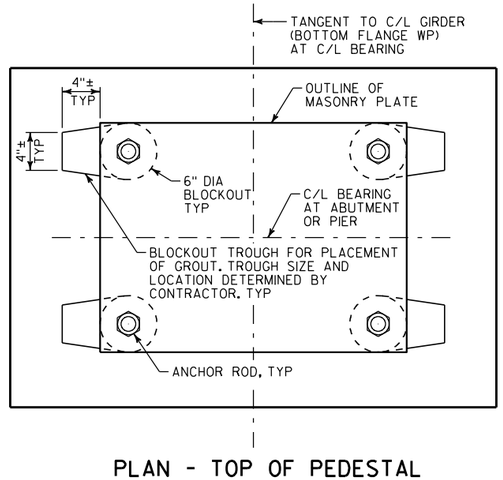
LEGEND

CROSSHATCHING INDICATES PART OF THE BEARING ASSEMBLY THAT IS TO BE SUPPLIED AND DESIGNED BY THE BEARING MANUFACTURER. THE MASONRY PLATE AND SOLE PLATE ARE TO BE PROVIDED BY THE BEARING MANUFACTURER AND SIZED ACCORDING TO BEARING NOTES 4 & 6. THE BEVELED TOP PLATE DIMENSIONS SHOULD BE COORDINATED BETWEEN THE STEEL FABRICATOR AND THE BEARING MANUFACTURER. THE BEVELED TOP PLATE IS INCLUDED IN THE QUANTITY FOR "STRUCTURAL STEEL HS".



PLAN - MASONRY PLATE

A POSITIVE SKEW ANGLE (+SK) IS SHOWN ABOVE AND INDICATED BY A CLOCKWISE OR LEFT HAND FORWARD ROTATION



PLAN - TOP OF PEDESTAL

BEARING NOTES

1. SEE BEARING LAYOUT SHEETS FOR BEARING LAYOUT AND LOCATION SPECIFIC DIMENSIONS.
2. SEE JACKING PROVISION SHEET FOR LOCATION AND SIZE OF BEARING REPLACEMENT JACKING PADS ATTACHED TO BOTTOM OF GIRDER FLANGE.
3. DESIGN BOLTED CONNECTION BETWEEN SOLE PLATE AND BEVELED TOP PLATE FOR A MINIMUM OF 1.25 TIMES THE COMBINED SPECIFIED HORIZONTAL LOADS. ARRANGE CONNECTION TO ENSURE ALL BOLTS CAN BE REMOVED WITHOUT INTERFERENCE FROM ANCHOR RODS OR OTHER OBSTRUCTIONS AFTER BEARING IS INSTALLED.

   BOLTED CONNECTION OPTION 1: TAP HOLES COMPLETELY THROUGH TOP PLATE. ENGAGE BOLTS TO WITHIN 1/4" OF BOTTOM FLANGE.

   BOLTED CONNECTION OPTION 2: BOLT DOWNWARD THROUGH BOTTOM FLANGE, BEVELED TOP PLATE, & SOLE PLATE.
4. SOLE PLATE THICKNESS TO BE SELECTED BY THE BEARING MANUFACTURER. MINIMUM 1".
5. HOLES IN SOLE PLATE MAY BE SLOTTED OR OVERSIZED AS REQUIRED TO FACILITATE STEEL ERECTION. IF OVERSIZED OR SLOTTED HOLES ARE USED, THE CONNECTION SHALL BE DESIGNED AS SLIP-RESISTANT.
6. MASONRY PLATE THICKNESS TO BE CONFIRMED BY THE BEARING DESIGNER AND INCREASED IF REQUIRED. NO REDUCTION PERMITTED.
7. HOLES IN MASONRY PLATE SHALL BE A MAXIMUM OF 1/8" LARGER THAN THE SPECIFIED ANCHOR BOLT DIAMETER. SEE BEARING LAYOUT SHEETS FOR NUMBER AND SIZE OF ANCHOR RODS.

BEARING NOTES, CONTINUED

8. ANCHOR RODS SHALL BE IN ACCORDANCE WITH ASTM F1554 (GRADE 105) AND HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M232.
9. BEARINGS SHALL BE DESIGNED TO PERMIT REPLACEMENT BY JACKING THE BRIDGE A MAXIMUM OF 1/2".
10. PROVIDE A 1/8" THICK BEARING PAD THE SAME SIZE AS THE MASONRY PLATE. THE THICKNESS OF THE PAD IS NOT INCLUDED IN THE HEIGHT ("H" OR "TH") OF THE BEARING ASSEMBLY.
11. NON-SHRINK GROUT USED IN FILLING THE ANCHOR BOLT BLOCKOUTS SHALL BE PROVIDED AS STATED IN THE BEARING SPECIAL PROVISION. THE MINIMUM 28-DAY COMPRESSIVE STRENGTH SHALL BE 6.0 KSI. GROUTING MATERIALS AND INSTALLATION ARE CONSIDERED INCIDENTAL TO THE PAY ITEM FOR THE BEARING ASSEMBLY.
12. THE TYPE OF BLOCKOUT SHALL BE DETERMINED BY THE CONTRACTOR. TEMPORARY BLOCKOUTS OR BLOCKOUTS WITH STAY-IN-PLACE FORMS ARE ALLOWED. IF BLOCKOUTS CONSISTING OF STAY-IN-PLACE FORMS ARE USED, THE TOP OF THE FORM MUST BE AT OR BELOW THE TOP OF THE PEDESTAL CONCRETE. THE CONTRACTOR SHALL PREVENT WATER FROM FREEZING AND EXPANDING WITHIN THE BLOCKOUT.
13. THE BEARING ASSEMBLIES SHALL BE PAINTED OR ZINC METALIZED AS OUTLINED IN THE BEARING SPECIAL PROVISION. IF BEARING ASSEMBLIES ARE PAINTED, THE COLOR SHALL MATCH THE COLOR OF THE EXTERIOR OF THE BOX GIRDER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

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BEARING DETAILS

SHEET 39 OF 119

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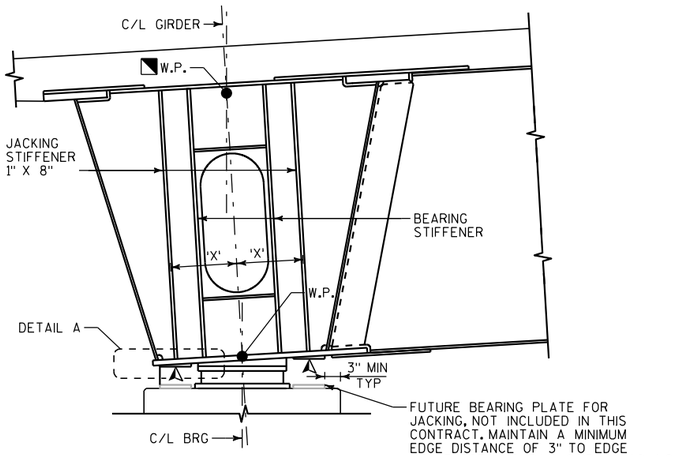
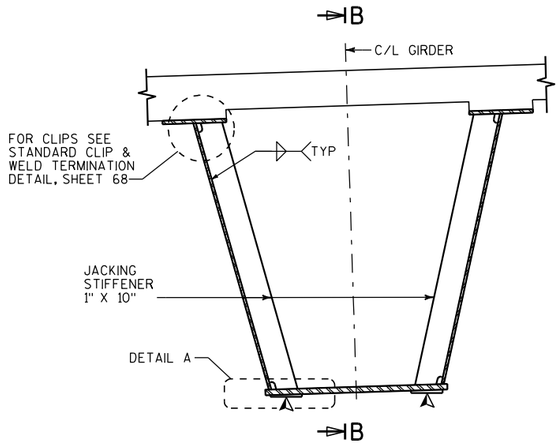
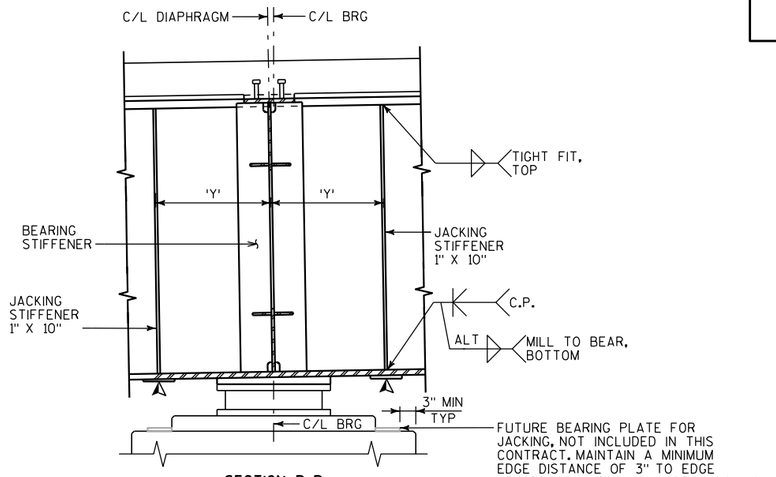


TYPE 1 JACKING STIFFENER

STIFFENER WELDED TO DIAPHRAGM
SEE DIAPHRAGM SHEETS



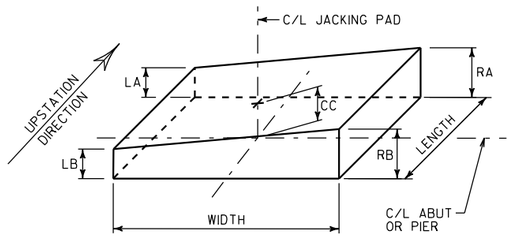
SECTION THRU TUB GIRDER



SECTION B-B

TYPE 2 JACKING STIFFENER

STIFFENER WELDED TO GIRDER WEB



JACKING PAD DIMENSION KEY

LB = LEFT BACK STATION
LA = LEFT AHEAD STATION
RB = RIGHT BACK STATION
RA = RIGHT AHEAD STATION

LOCATION	UNIT	JACKING STIFFENER LOCATION	TYPE	NUMBER OF PADS PER GIRDER	JACKING PAD DIMENSIONS							OFFSET 'X' *	OFFSET 'Y' *	JACK FORCE PER GIRDER (KIPS) **	JACK FORCE PER PAD (KIPS) **
					WIDTH (IN) *	LENGTH (IN) *	LB (IN)	RB (IN)	LA (IN)	RA (IN)	CC (IN)				
PIER 5	UNIT 1	DIAPHRAGM	1	2	8"	1'-2"	1/2"	3/4"	1 3/16"	1 3/16"	7/8"	1'-8 3/4"	-	280	140
PIER WN01	UNIT 1	WEB	2	4	8"	1'-2"	1/2"	3/4"	1 3/16"	1 3/8"	15/16"	-	3'-0"	1080	270
PIER WN02	UNIT 1	WEB	2	4	8"	1'-2"	1/2"	15/16"	1 3/16"	1 5/8"	1 1/16"	-	3'-0"	1100	275
PIER WN03	UNIT 1	WEB	2	4	8"	1'-2"	1/2"	15/16"	1"	1 5/8"	1 1/16"	-	3'-0"	980	245
PIER WN04	UNIT 1	WEB	2	4	8"	1'-2"	1/2"	15/16"	13/16"	1 7/16"	15/16"	-	3'-0"	960	240
PIER WN05	UNIT 1	WEB	2	4	8"	1'-2"	1/2"	15/16"	13/16"	1 1/4"	7/8"	-	3'-0"	760	190
PIER WN06	UNIT 1	WEB	2	4	8"	1'-2"	1/2"	15/16"	11/16"	1 1/16"	13/16"	-	3'-0"	620	155
PIER WN07	UNIT 1	DIAPHRAGM	1	2	8"	1'-2"	1/2"	15/16"	9/16"	15/16"	3/4"	1'-8 3/4"	-	220	110
PIER WN07	UNIT 2	DIAPHRAGM	1	2	8"	1'-2"	1/2"	15/16"	9/16"	15/16"	3/4"	1'-8 3/4"	-	220	110
PIER WN08	UNIT 2	WEB	2	4	8"	1'-2"	5/8"	1 1/16"	1/2"	15/16"	3/4"	-	3'-0"	900	225
PIER WN09	UNIT 2	WEB	2	4	8"	1'-2"	7/8"	1 1/4"	1/2"	15/16"	7/8"	-	3'-0"	1020	255
PIER WN10	UNIT 2	WEB	2	4	8"	1'-2"	1 1/16"	1 1/2"	1/2"	15/16"	1"	-	3'-0"	920	230
PIER WN11	UNIT 2	WEB	2	4	8"	1'-2"	1 1/16"	1 1/2"	1/2"	15/16"	1"	-	3'-0"	880	220
PIER WN12	UNIT 2	WEB	2	4	8"	1'-2"	1 1/16"	1 1/2"	1/2"	15/16"	1"	-	3'-0"	900	220
N ABUT	UNIT 2	DIAPHRAGM	1	2	8"	1'-2"	1 1/16"	1 1/2"	1/2"	15/16"	1"	1'-8 3/4"	-	260	130

* SEE NOTE 2
** SEE NOTE 4

LEGEND

SUGGESTED JACKING LOCATIONS FOR FUTURE BEARING REPLACEMENT

SEE GIRDER SECTION SHEET FOR DEFINITION OF WORKING POINTS

NOTES

1. THIS DRAWING SHOWS DETAILS AND LOCATION OF JACKING PADS AND ADDITIONAL WEB STIFFENERS REQUIRED FOR FUTURE BEARING REPLACEMENT.
2. JACKING PAD DIMENSIONS AND LOCATIONS ARE BASED ON THE MINIMUM CLEARANCES SHOWN AND THE NOMINAL BEARING DIMENSIONS GIVEN ON BEARING LAYOUT SHEET. MAKE ADJUSTMENTS AS REQUIRED TO ACCOMMODATE ACTUAL BEARINGS SUPPLIED.
3. JACKING PADS ARE PROVIDED TO GIVE A JACKING SURFACE THAT IS APPROXIMATELY LEVEL AND TO ENSURE THAT JACKING LOADS ARE APPLIED TO THE CORRECT LOCATION.

   ADDITIONAL MEASURES SHALL BE TAKEN TO CORRECT FOR ANY UNINTENDED SLOPE AND TO ENSURE THAT JACKS ARE POSITIVELY HELD IN POSITION ON THE JACKING PADS.
4. ESTIMATED JACKING FORCE IS BASED ON UNFACTORED DEAD LOAD REACTIONS ONLY - NO LIVE LOAD IS INCLUDED AND NO ADDITIONAL ALLOWANCES HAVE BEEN MADE.

   THESE FORCES MUST BE INCREASED TO ALLOW FOR JACK FRICTION AND OTHER FACTORS.
5. FORCES AND RECOMMENDATIONS ARE PROVIDED FOR INFORMATION ONLY AND MUST BE VERIFIED BY THE ENGINEER RESPONSIBLE FOR JACKING OPERATIONS.
6. JACKING PROVISIONS HAVE BEEN DESIGNED ASSUMING THAT THE STRUCTURE IS CLOSED TO TRAFFIC AT ALL TIMES THAT THE STRUCTURE IS NOT RESTING ON THE PERMANENT BEARINGS.
7. CONTROL JACKS TO ENSURE THAT FORCES APPLIED TO ALL JACKING PADS AT A SINGLE BEARING LOCATION ARE APPROXIMATELY EQUAL.

   IF THIS REQUIREMENT IS NOT MET, A COMPLETE ANALYSIS OF THE ABUTMENT AND PIER DIAPHRAGM SYSTEM WILL BE REQUIRED IN ORDER TO ACCOUNT FOR THE REDISTRIBUTION OF FORCES WITHIN THE SYSTEM.
8. JACKING STIFFENERS HAVE BEEN DESIGNED FOR A FACTORED LOAD OF 1.5 TIMES DEAD LOAD.

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STRUCTURE B-40-856

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JACKING PROVISIONS

SHEET 40 OF 119

8

8

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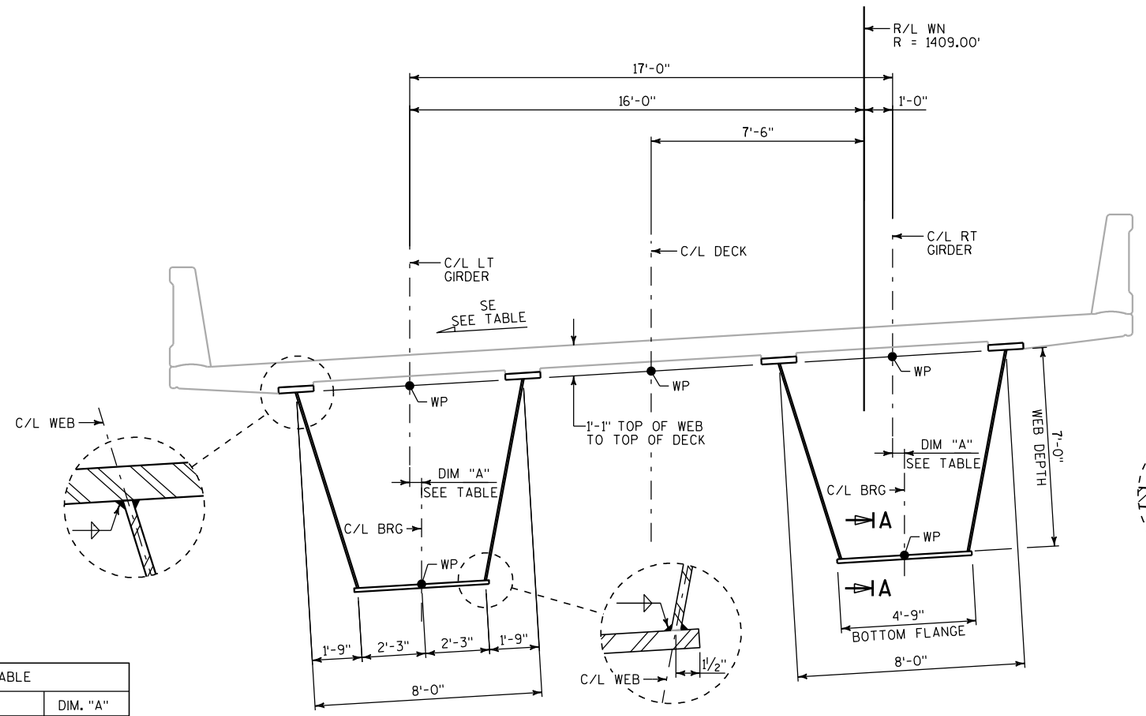
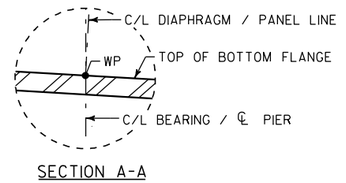


TYPICAL SECTION

LOOKING UPSTATION



SECTION A-A

SUPERELEVATION SE TABLE		
STATION	SE (%)	DIM. "A"
574WN+45.42 C/L BRG PIER 5	+3.08	2 9/16"
575WN+85.42 C/L PIER WN01	+3.08	2 9/16"
577WN+85.42 C/L PIER WN02	+5.20	4 3/8"
579WN+85.42 C/L PIER WN03	+5.20	4 3/8"
581WN+95.42 C/L PIER WN04	+5.20	4 3/8"
583WN+95.42 C/L PIER WN05	+5.20	4 3/8"
585WN+41.42 C/L PIER WN06	+5.20	4 3/8"
586WN+61.42 C/L PIER WN07	+5.20	4 3/8"
588WN+14.42 C/L PIER WN08	+5.20	4 3/8"
590WN+34.42 C/L PIER WN09	+5.20	4 3/8"
592WN+54.42 C/L PIER WN10	+5.20	4 3/8"
594WN+54.42 C/L PIER WN11	+5.20	4 3/8"
596WN+54.42 C/L PIER WN12	+5.20	4 3/8"
598WN+14.42 C/L BRG N ABUT	+5.20	4 3/8"

POSITIVE SUPERELEVATION MEANS RIGHT EDGE OF DECK IS HIGHER WHEN LOOKING UPSTATION.

SUPERELEVATION VARIES LINEARLY BETWEEN THE TABULATED VALUES.

NOTES

1. FOR ADDITIONAL STRUCTURAL STEEL NOTES, SEE GENERAL NOTES SHEET.
2. ENSURE THE STABILITY OF ALL COMPONENTS DURING FABRICATION, HANDLING, TRANSPORTATION AND ERECTION UNTIL THE STRUCTURAL STEEL IS IN FINAL POSITION WITH ALL PERMANENT BRACING, CONNECTIONS AND SUPPORTS IN PLACE AND THE CONCRETE IN THE DECK HAS REACHED THE SPECIFIED DESIGN STRENGTH.

   DESIGN AND USE TEMPORARY CROSS FRAMES, SUPPORTS, BRACES OR WHATEVER OTHER MEANS AND METHODS DEEMED NECESSARY.
3. CARRY OUT DESIGN CALCULATIONS AS REQUIRED TO VERIFY MATERIAL STRESSES AND SUPPORT FORCES (INCLUDING UPLIFT) DURING ALL STAGES OF ERECTION AS REQUIRED BY AASHTO LRFD SPECIFICATIONS.
4. MINIMUM FILLET WELD SIZE:

THICKNESS OF THICKER PART JOINED, "T"	MINIMUM FILLET WELD SIZE
T <= 1/2"	3/16"
1/2" < T <= 3/4"	1/4"
3/4" < T <= 1 1/2"	5/16"
T > 1 1/2"	3/8"

MINIMUM WELD SIZES SHOWN IN TABLE ABOVE SHALL BE USED WHEN A SIZE IS NOT OTHERWISE SPECIFIED OR SHOWN.

WELD SIZE SHALL NOT EXCEED THE THICKNESS OF THE THINNER PART BEING JOINED.

FOR ALL WELDS 5/16" OR LARGER, THE MINIMUM PASS SIZE SHALL BE 5/16".

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

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GIRDER SECTION

SHEET 41 OF 119

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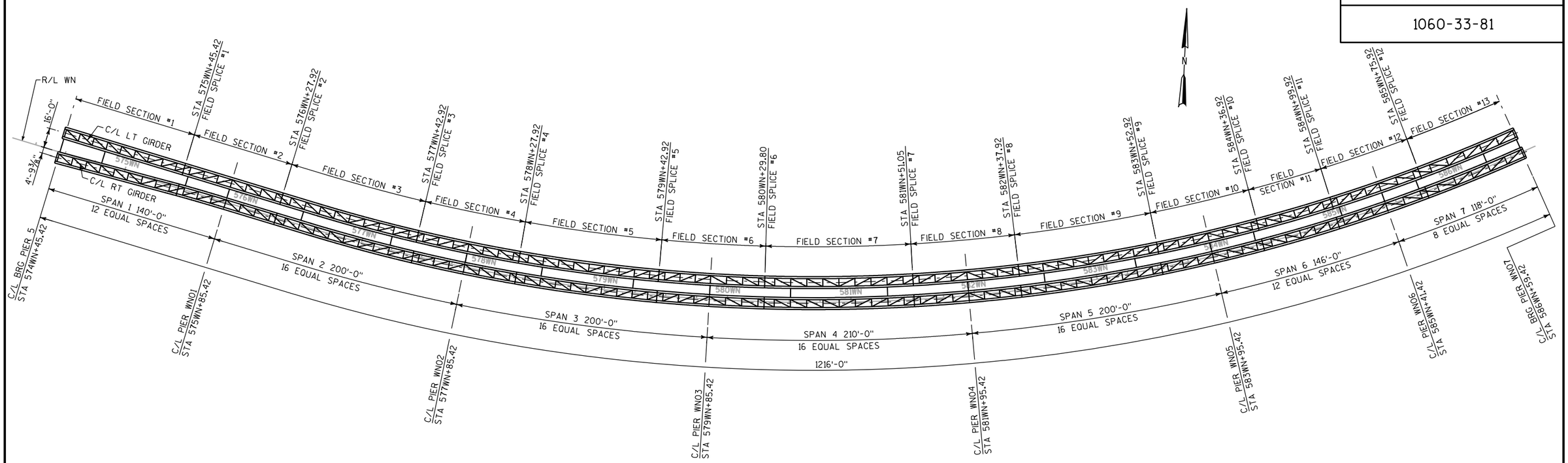
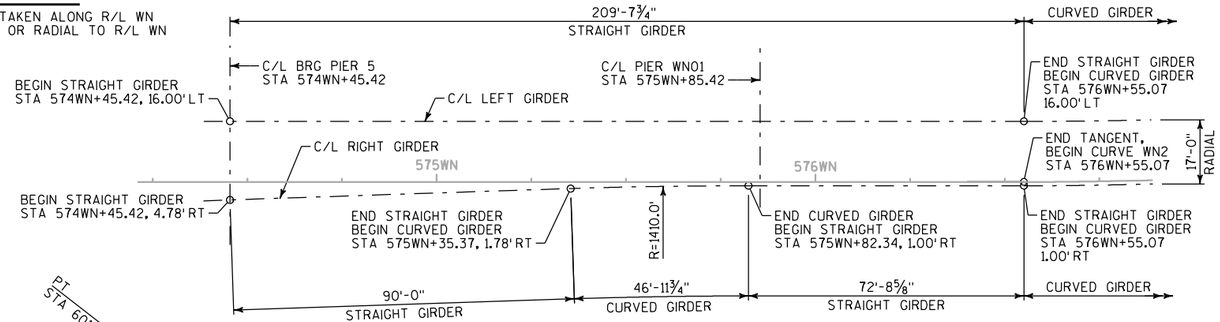


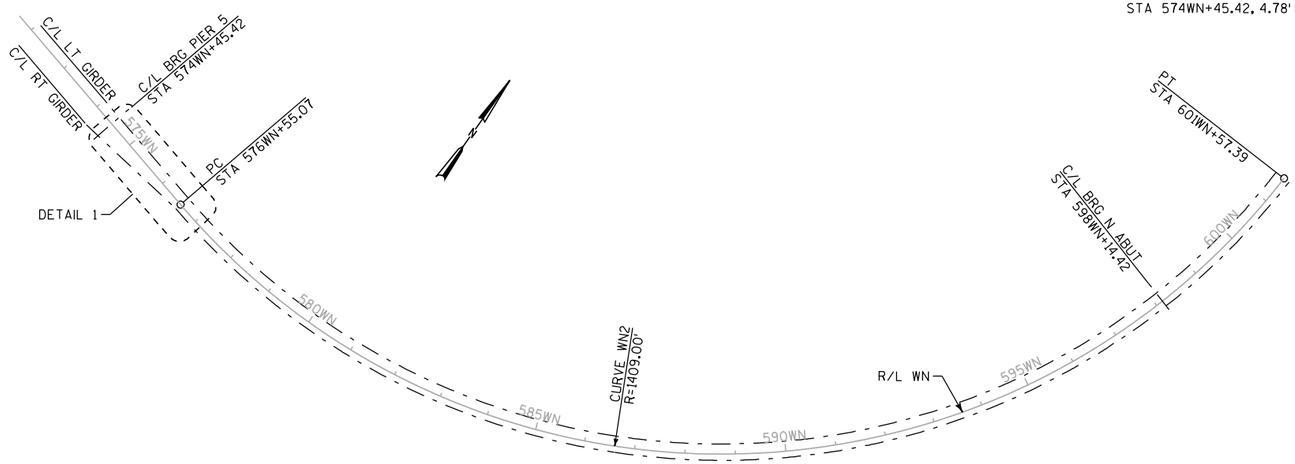
FRAMING PLAN

ALL DIMENSIONS ARE TAKEN ALONG R/L WN
ALL PIERS ARE NORMAL OR RADIAL TO R/L WN



DETAIL 1

DIMENSIONS ARE TAKEN ALONG C/L GIRDER



PLAN LAYOUT SKETCH

NOT TO SCALE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

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FRAMING PLAN
UNIT 1

SHEET 42 OF 119

8

8

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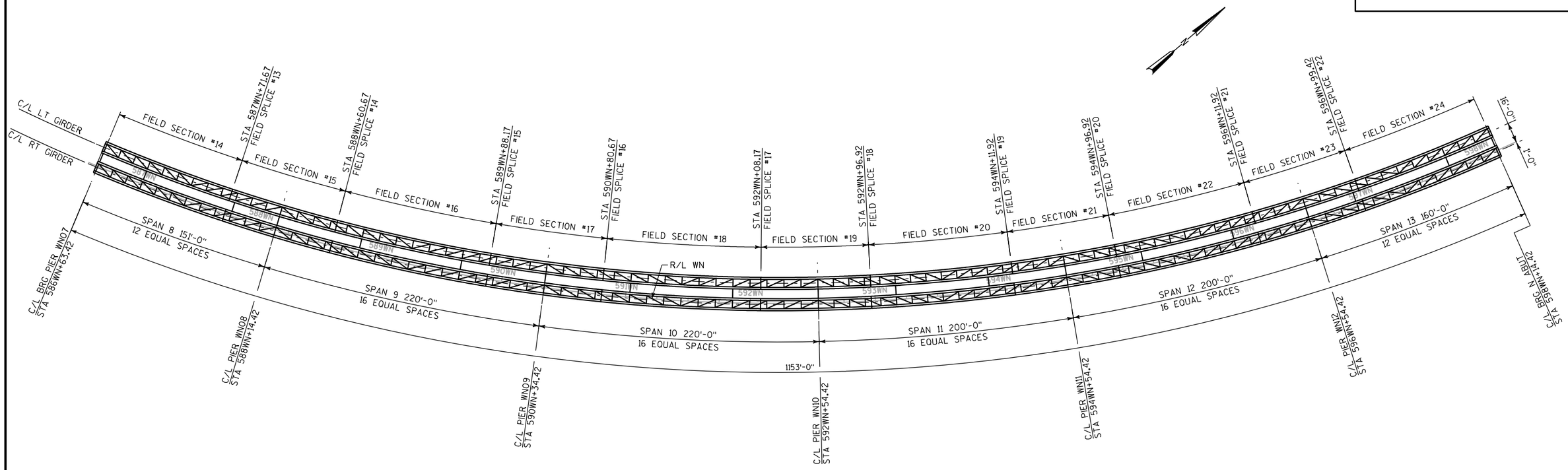
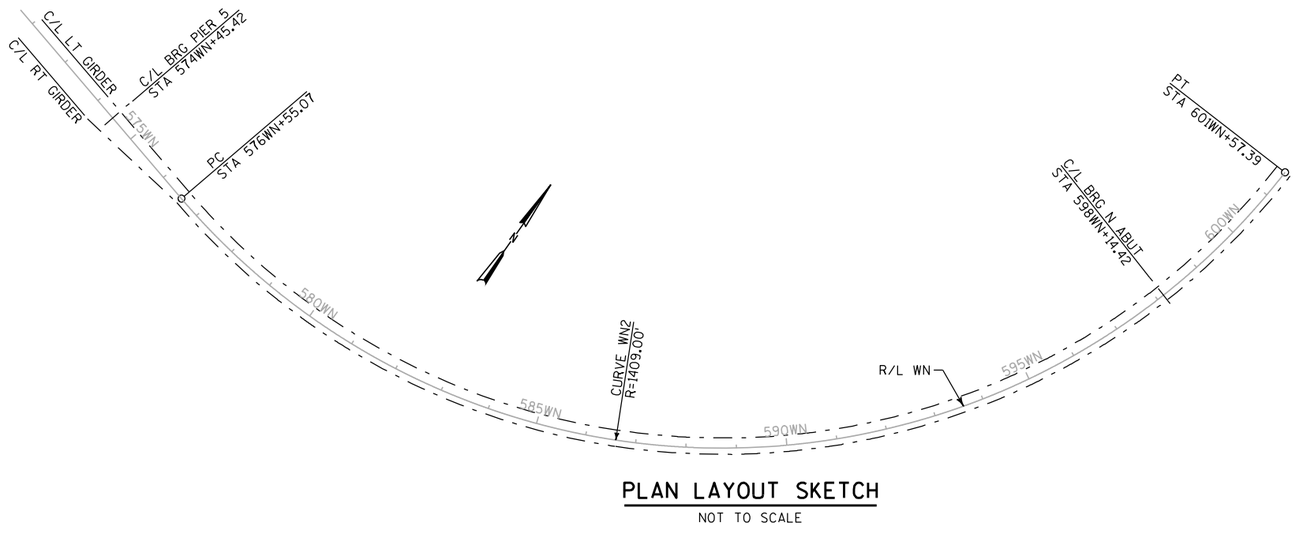


FRAMING PLAN

ALL DIMENSIONS ARE TAKEN ALONG R/L WN
ALL PIERS AND ABUT ARE RADIAL TO R/L WN



PLAN LAYOUT SKETCH

NOT TO SCALE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

FRAMING PLAN
UNIT 2

SHEET 43 OF 119

STATE PROJECT NUMBER
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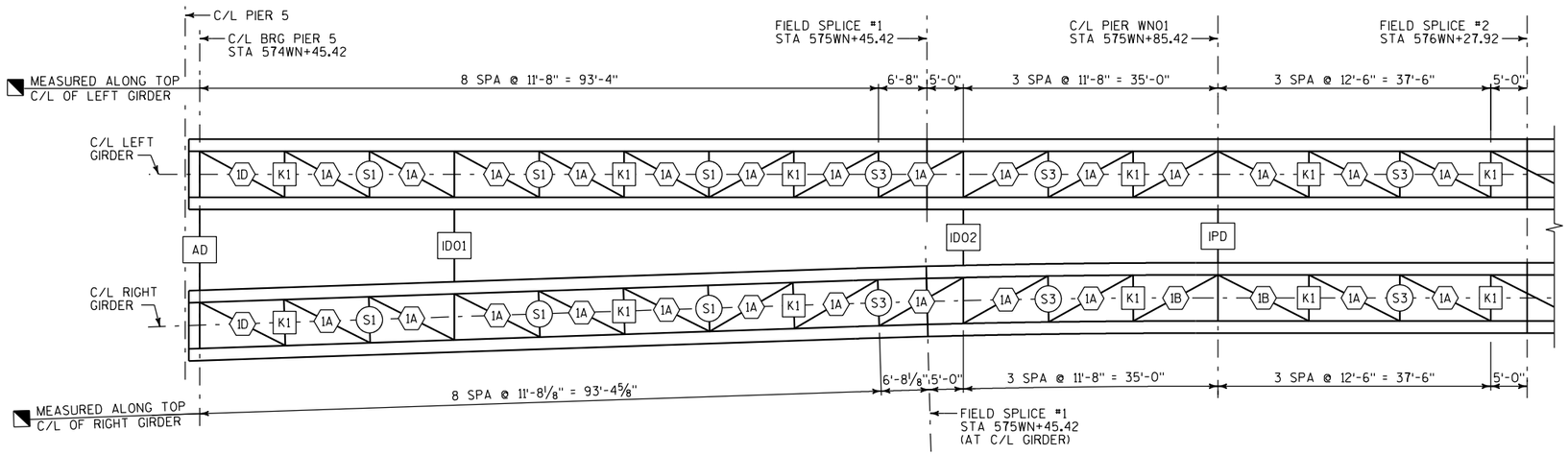
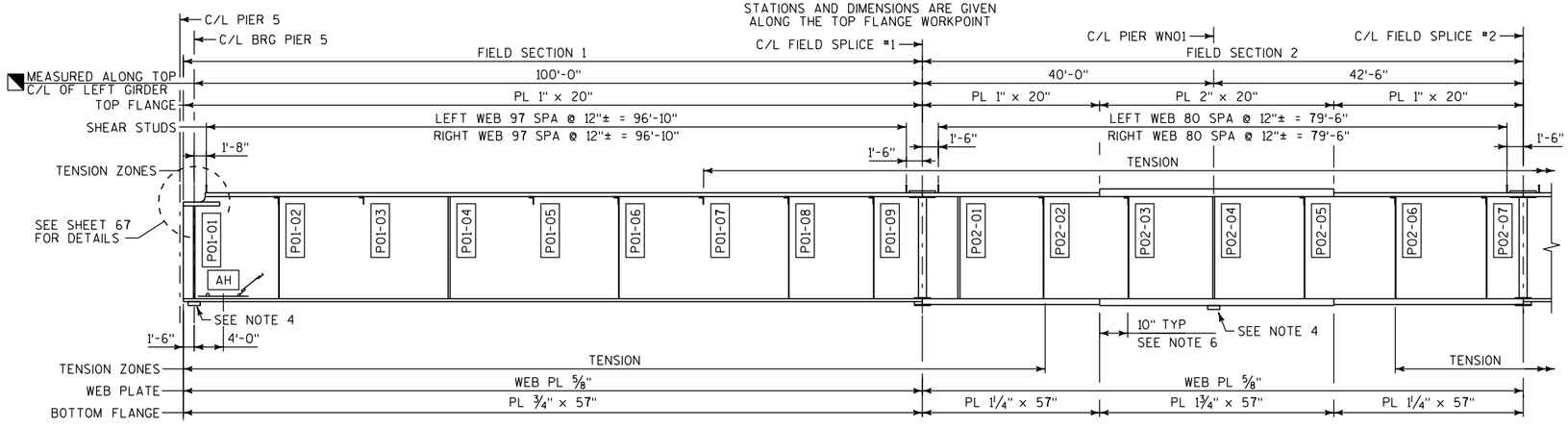
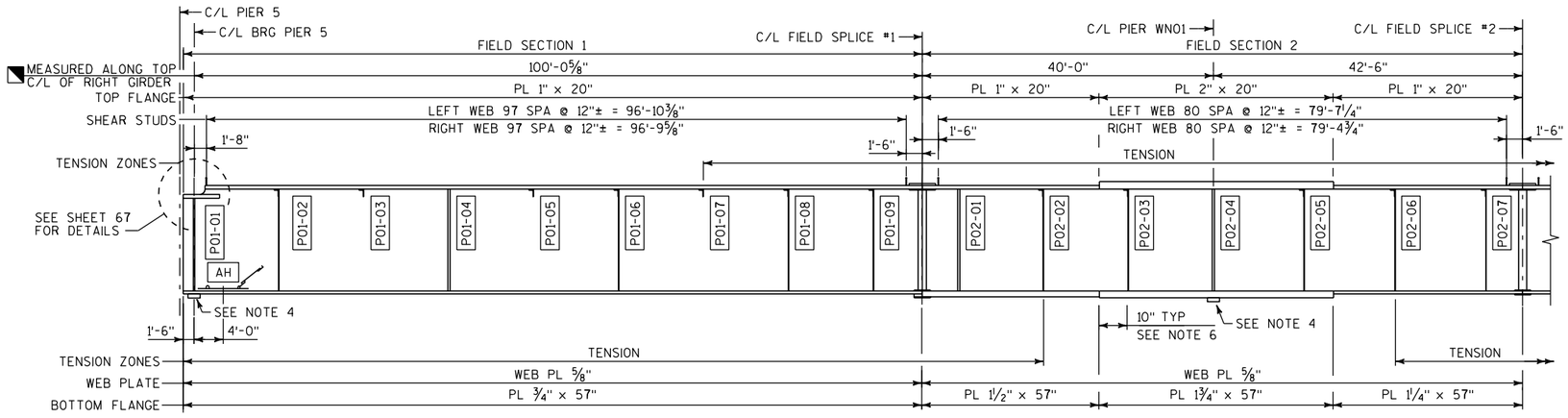


GIRDER PLAN

STATIONS AND DIMENSIONS ARE GIVEN ALONG THE TOP FLANGE WORKPOINT



LEFT GIRDER INTERIOR ELEVATION



RIGHT GIRDER INTERIOR ELEVATION

LEGEND

K1	K-FRAME IDENTIFIER, SEE SHEET 59.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 59.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 63, 67 & 68.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 64, 67 & 68.
PED	PIER END DIAPHRAGM, SEE SHEETS 65, 67 & 68.
IDXX	INTERMEDIATE DIAPHRAGM, SEE SHEETS 66, 67 & 68. "XX" INDICATES DIAPHRAGM NUMBER.
1A	LATERAL BRACING IDENTIFIER, SEE SHEET 60 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 58.
V	WEB PLATE VENT HOLE, SEE SHEET 58.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 56.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 57.
PXX-XX	PANEL POINT IDENTIFIER. FIRST "XX" INDICATES FIELD SECTION. SECOND "XX" INDICATES PANEL SEQUENCE WITHIN THE FIELD SECTION.
◥	SEE GIRDER SECTION SHEET FOR LOCATION OF WORKING POINT.

NOTES

1. FOR SHOP SPLICE DETAILS AND SHEAR CONNECTOR DETAILS, SEE MISCELLANEOUS GIRDER DETAILS SHEET.
2. FOR CAMBER REQUIREMENTS, SEE CAMBER DIAGRAM SHEETS AND CAMBER AND DECK ELEVATIONS SHEETS.
3. 'TENSION' DENOTES ZONES OF TOP AND BOTTOM FLANGES ASSUMED TO CARRY TENSILE STRESS IN THE COMPLETED STRUCTURE. FIELD WELDING TO TENSION FLANGES AND WEB IS PROHIBITED, EXCEPT FOR SHEAR STUD CONNECTIONS TO THE TOP FLANGE.
4. BEVELED TOP PLATE, SEE BEARING SHEETS FOR DETAILS. THE DIMENSIONS OF THE BEVELED TOP PLATE SHALL BE COORDINATED WITH THE BEARING MANUFACTURER. PAYMENT FOR THE BEVELED TOP PLATE IS INCLUDED WITH THE BID ITEM "STRUCTURAL STEEL HS".
5. DIMENSIONS SHOWN IN GIRDER PLAN AND ELEVATION ARE HORIZONTAL DIMENSIONS.
6. LOCATE FLANGE SHOP SPLICE 10" FROM PANEL POINT, TYP. SEE DETAIL ON SHEET 58.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

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GLM	WRT

GIRDER PLAN AND ELEVATION: FIELD SECTIONS 1 & 2

SHEET 44 OF 119

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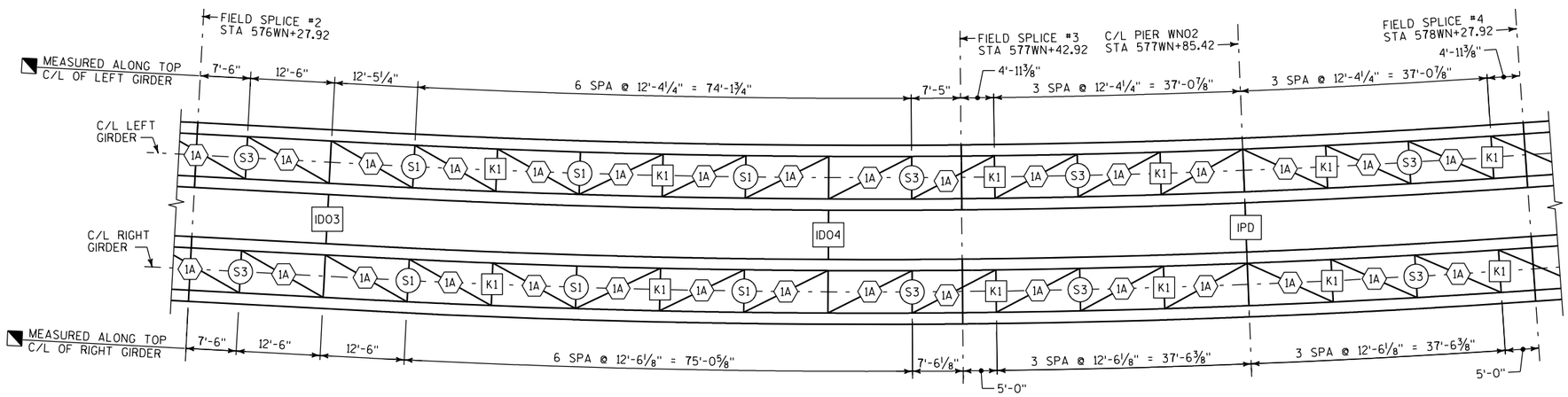
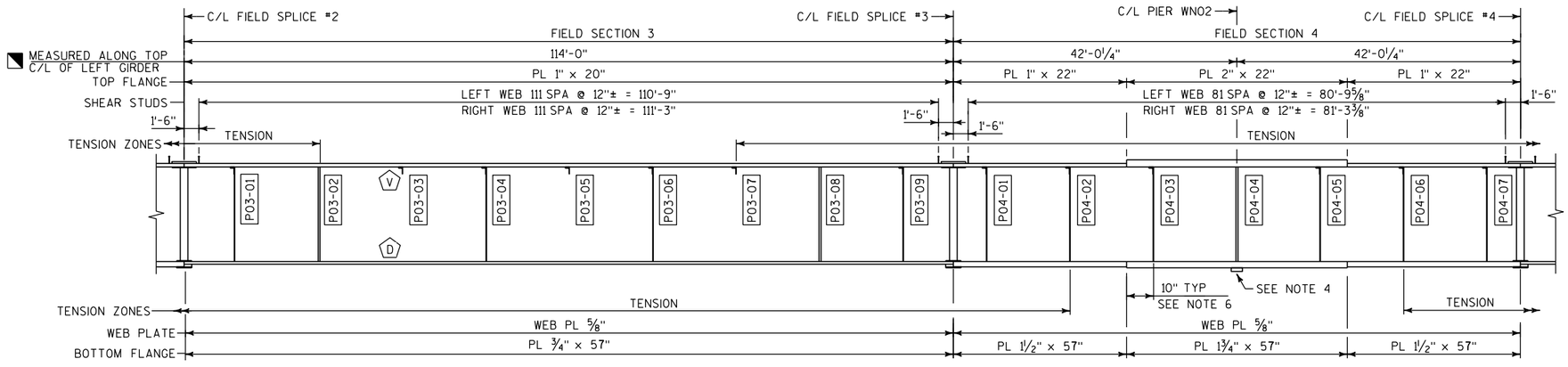
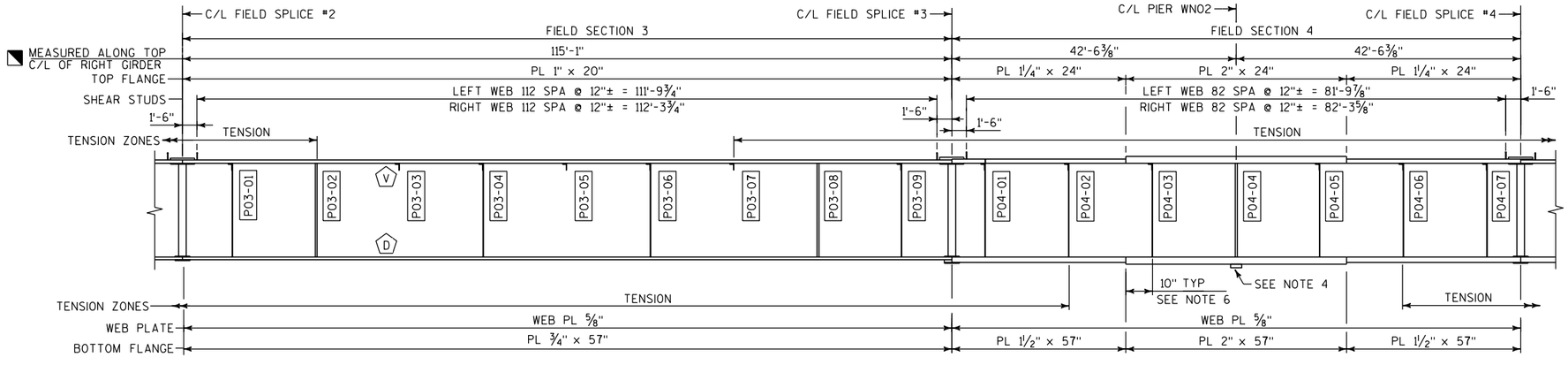


GIRDER PLAN

STATIONS AND DIMENSIONS ARE GIVEN ALONG THE TOP FLANGE WORKPOINT



LEFT GIRDER INTERIOR ELEVATION



RIGHT GIRDER INTERIOR ELEVATION

LEGEND

K1	K-FRAME IDENTIFIER, SEE SHEET 59.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 59.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 63, 67 & 68.
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IDXX	INTERMEDIATE DIAPHRAGM, SEE SHEETS 66, 67 & 68. "XX" INDICATES DIAPHRAGM NUMBER.
1A	LATERAL BRACING IDENTIFIER, SEE SHEET 60 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 58.
V	WEB PLATE VENT HOLE, SEE SHEET 58.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 56.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 57.
PXX-XX	PANEL POINT IDENTIFIER. FIRST "XX" INDICATES FIELD SECTION. SECOND "XX" INDICATES PANEL SEQUENCE WITHIN THE FIELD SECTION.
◥	SEE GIRDER SECTION SHEET FOR LOCATION OF WORKING POINT.

NOTES

1. FOR SHOP SPLICE DETAILS AND SHEAR CONNECTOR DETAILS, SEE MISCELLANEOUS GIRDER DETAILS SHEET.
2. FOR CAMBER REQUIREMENTS, SEE CAMBER DIAGRAM SHEETS AND CAMBER AND DECK ELEVATIONS SHEETS.
3. 'TENSION' DENOTES ZONES OF TOP AND BOTTOM FLANGES ASSUMED TO CARRY TENSILE STRESS IN THE COMPLETED STRUCTURE. FIELD WELDING TO TENSION FLANGES AND WEB IS PROHIBITED, EXCEPT FOR SHEAR STUD CONNECTIONS TO THE TOP FLANGE.
4. BEVELED TOP PLATE, SEE BEARING SHEETS FOR DETAILS. THE DIMENSIONS OF THE BEVELED TOP PLATE SHALL BE COORDINATED WITH THE BEARING MANUFACTURER. PAYMENT FOR THE BEVELED TOP PLATE IS INCLUDED WITH THE BID ITEM "STRUCTURAL STEEL HS".
5. DIMENSIONS SHOWN IN GIRDER PLAN AND ELEVATION ARE HORIZONTAL DIMENSIONS.
6. LOCATE FLANGE SHOP SPLICE 10" FROM PANEL POINT, TYP. SEE DETAIL ON SHEET 58.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

GIRDER PLAN AND ELEVATION: FIELD SECTIONS 3 & 4

SHEET 45 OF 119

8

8

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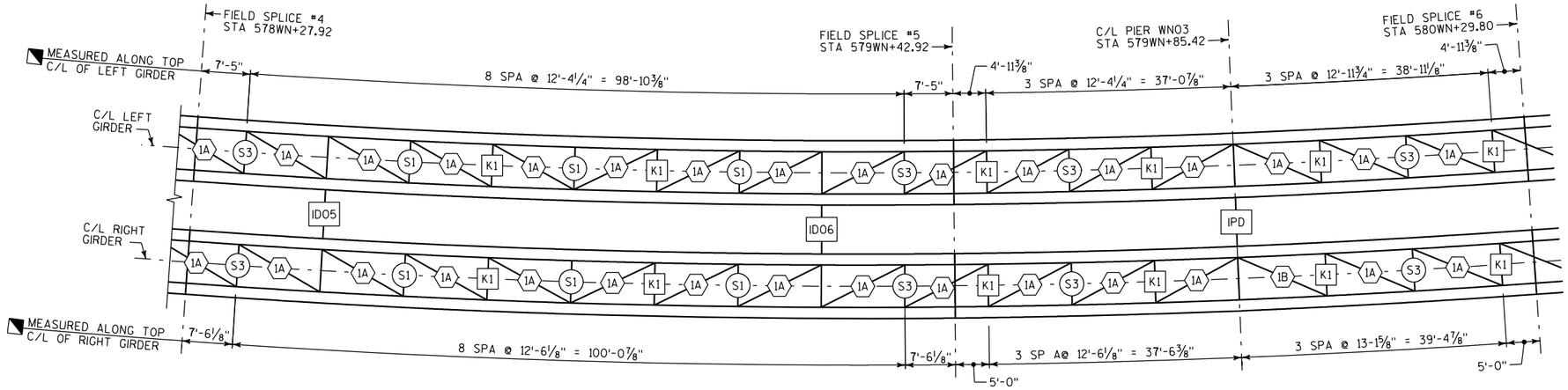
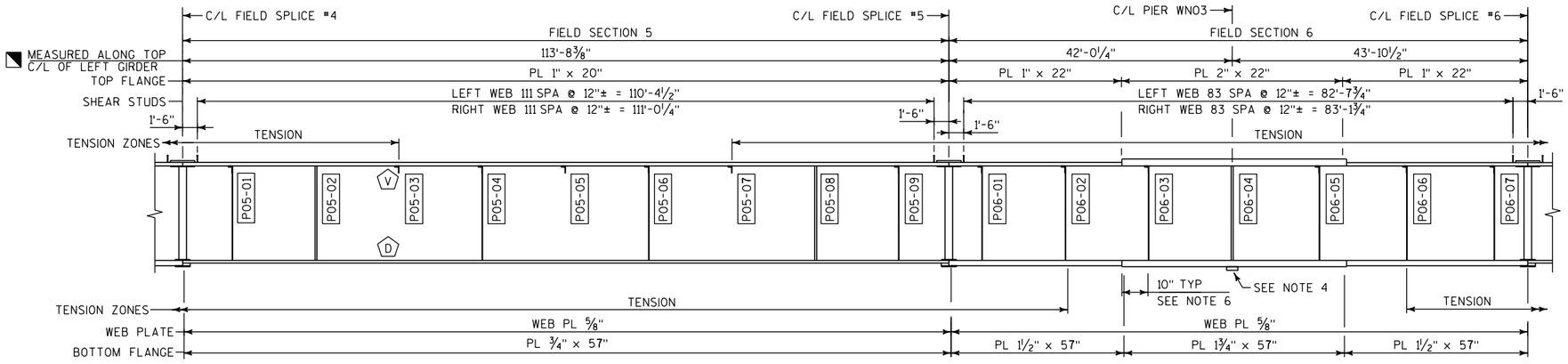
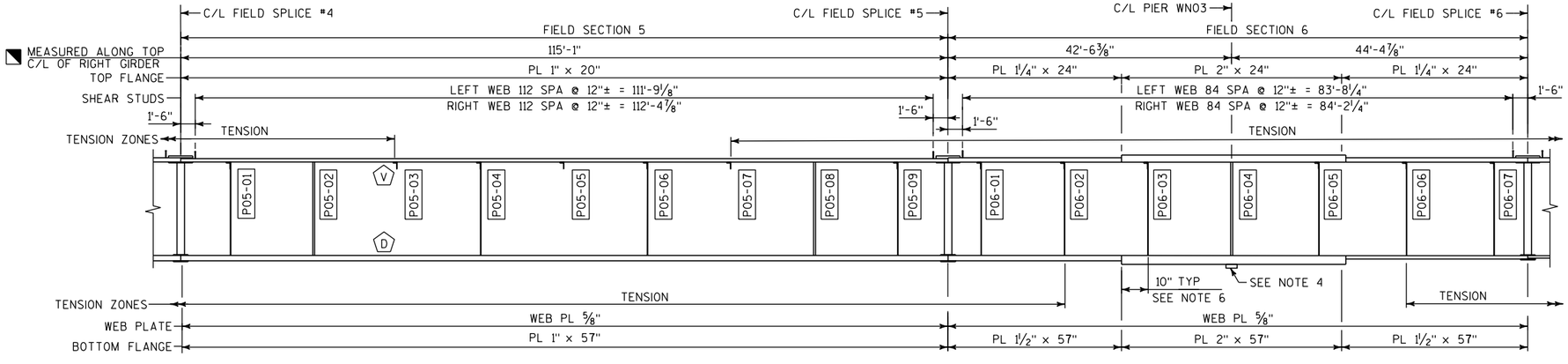


GIRDER PLAN

STATIONS AND DIMENSIONS ARE GIVEN ALONG THE TOP FLANGE WORKPOINT



LEFT GIRDER INTERIOR ELEVATION



RIGHT GIRDER INTERIOR ELEVATION

LEGEND

K1	K-FRAME IDENTIFIER, SEE SHEET 59.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 59.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 63, 67 & 68.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 64, 67 & 68.
PED	PIER END DIAPHRAGM, SEE SHEETS 65, 67 & 68.
IDXX	INTERMEDIATE DIAPHRAGM, SEE SHEETS 66, 67 & 68. "XX" INDICATES DIAPHRAGM NUMBER.
1A	LATERAL BRACING IDENTIFIER, SEE SHEET 60 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 58.
V	WEB PLATE VENT HOLE, SEE SHEET 58.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 56.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 57.
PXX-XX	PANEL POINT IDENTIFIER. FIRST "XX" INDICATES FIELD SECTION. SECOND "XX" INDICATES PANEL SEQUENCE WITHIN THE FIELD SECTION.
◥	SEE GIRDER SECTION SHEET FOR LOCATION OF WORKING POINT.

NOTES

1. FOR SHOP SPLICE DETAILS AND SHEAR CONNECTOR DETAILS, SEE MISCELLANEOUS GIRDER DETAILS SHEET.
2. FOR CAMBER REQUIREMENTS, SEE CAMBER DIAGRAM SHEETS AND CAMBER AND DECK ELEVATIONS SHEETS.
3. 'TENSION' DENOTES ZONES OF TOP AND BOTTOM FLANGES ASSUMED TO CARRY TENSILE STRESS IN THE COMPLETED STRUCTURE. FIELD WELDING TO TENSION FLANGES AND WEB IS PROHIBITED, EXCEPT FOR SHEAR STUD CONNECTIONS TO THE TOP FLANGE.
4. BEVELED TOP PLATE, SEE BEARING SHEETS FOR DETAILS. THE DIMENSIONS OF THE BEVELED TOP PLATE SHALL BE COORDINATED WITH THE BEARING MANUFACTURER. PAYMENT FOR THE BEVELED TOP PLATE IS INCLUDED WITH THE BID ITEM "STRUCTURAL STEEL HS".
5. DIMENSIONS SHOWN IN GIRDER PLAN AND ELEVATION ARE HORIZONTAL DIMENSIONS.
6. LOCATE FLANGE SHOP SPLICE 10" FROM PANEL POINT, TYP. SEE DETAIL ON SHEET 58.

STATE PROJECT NUMBER

1060-33-81

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

GIRDER PLAN AND ELEVATION: FIELD SECTIONS 5 & 6

SHEET 46 OF 119

8

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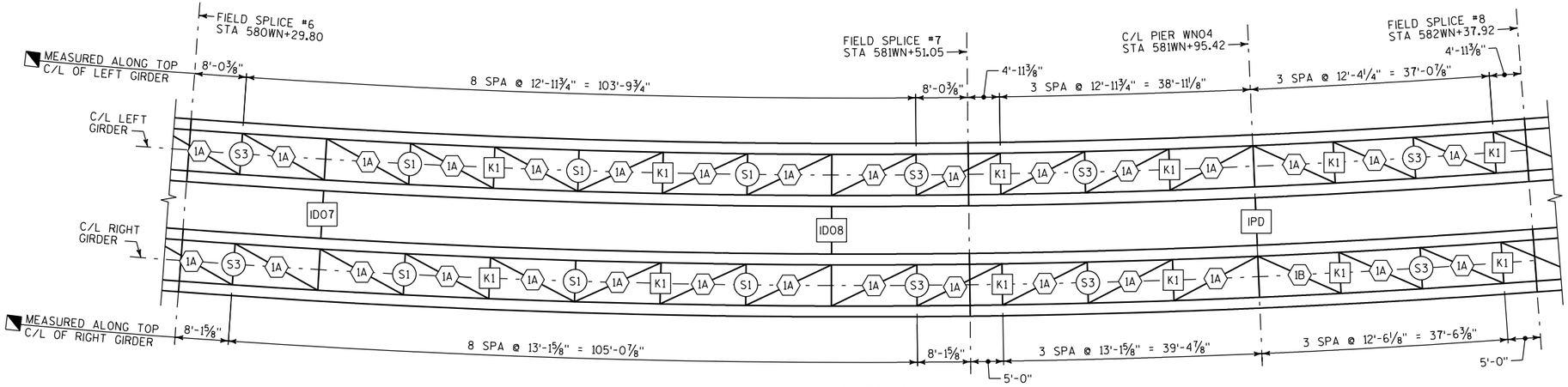
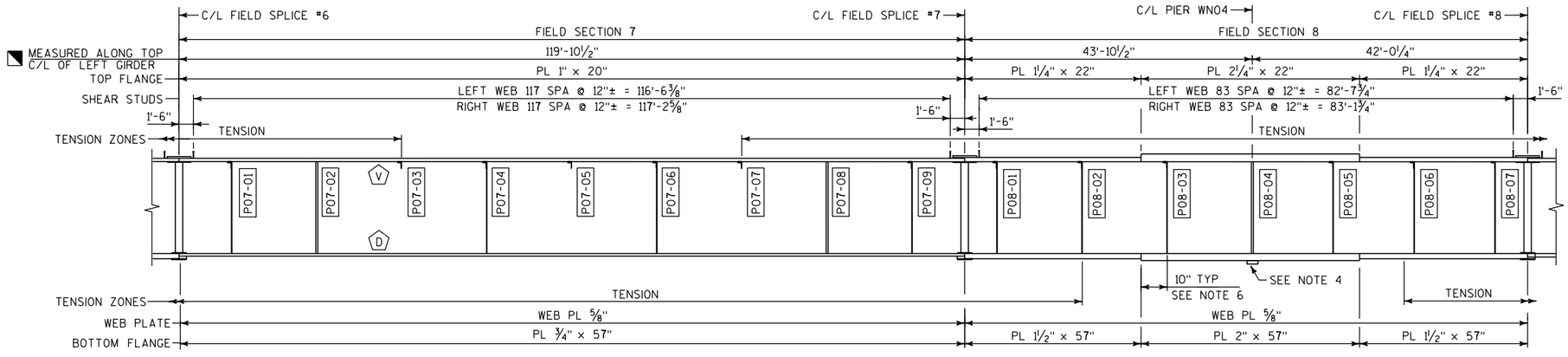
STATE PROJECT NUMBER
1060-33-81

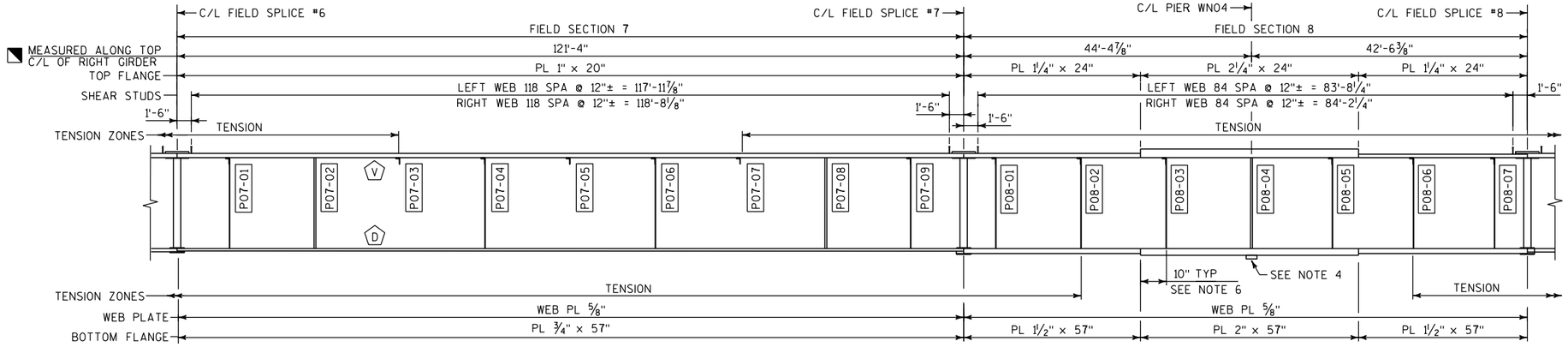


GIRDER PLAN

STATIONS AND DIMENSIONS ARE GIVEN ALONG THE TOP FLANGE WORKPOINT



LEFT GIRDER INTERIOR ELEVATION



RIGHT GIRDER INTERIOR ELEVATION

LEGEND

K1	K-FRAME IDENTIFIER, SEE SHEET 59.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 59.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 63, 67 & 68.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 64, 67 & 68.
PED	PIER END DIAPHRAGM, SEE SHEETS 65, 67 & 68.
IDXX	INTERMEDIATE DIAPHRAGM, SEE SHEETS 66, 67 & 68. "XX" INDICATES DIAPHRAGM NUMBER.
1A	LATERAL BRACING IDENTIFIER, SEE SHEET 60 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 58.
V	WEB PLATE VENT HOLE, SEE SHEET 58.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 56.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 57.
PXX-XX	PANEL POINT IDENTIFIER. FIRST "XX" INDICATES FIELD SECTION. SECOND "XX" INDICATES PANEL SEQUENCE WITHIN THE FIELD SECTION.
◥	SEE GIRDER SECTION SHEET FOR LOCATION OF WORKING POINT.

NOTES

1. FOR SHOP SPLICE DETAILS AND SHEAR CONNECTOR DETAILS, SEE MISCELLANEOUS GIRDER DETAILS SHEET.
2. FOR CAMBER REQUIREMENTS, SEE CAMBER DIAGRAM SHEETS AND CAMBER AND DECK ELEVATIONS SHEETS.
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5. DIMENSIONS SHOWN IN GIRDER PLAN AND ELEVATION ARE HORIZONTAL DIMENSIONS.
6. LOCATE FLANGE SHOP SPLICE 10" FROM PANEL POINT, TYP. SEE DETAIL ON SHEET 58.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

GIRDER PLAN AND ELEVATION: FIELD SECTIONS 7 & 8

SHEET 47 OF 119

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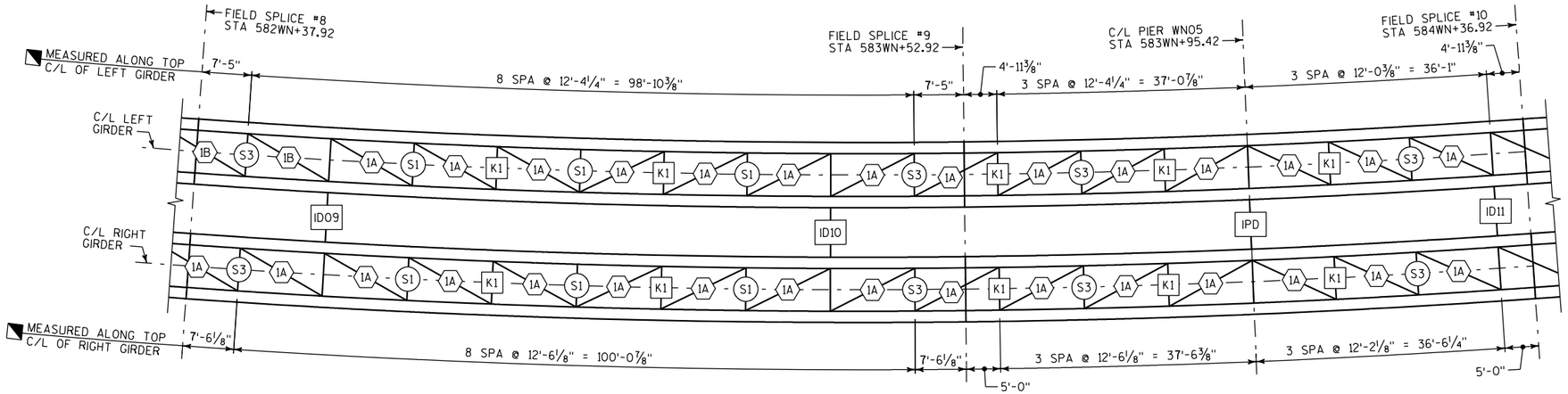
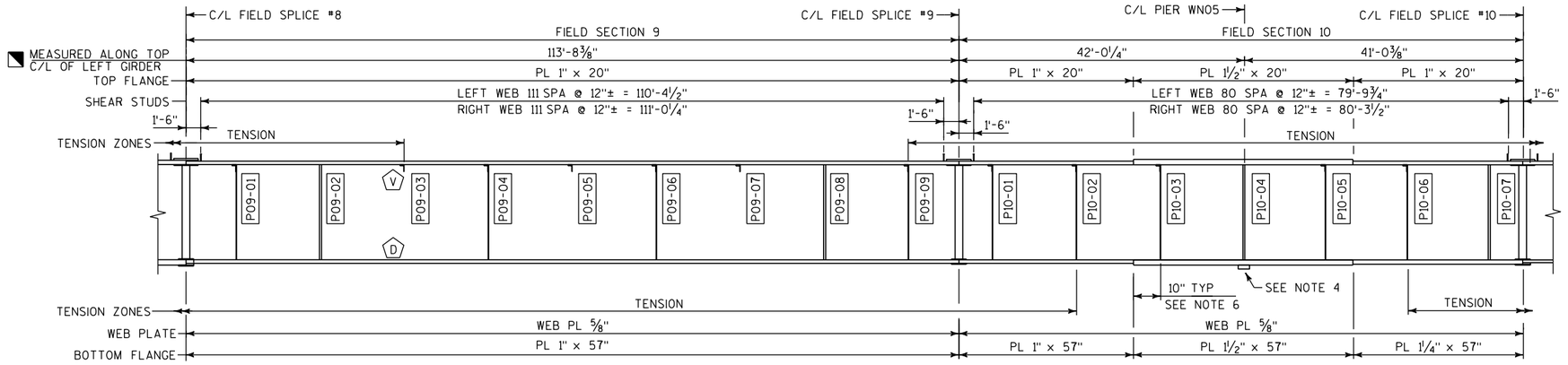
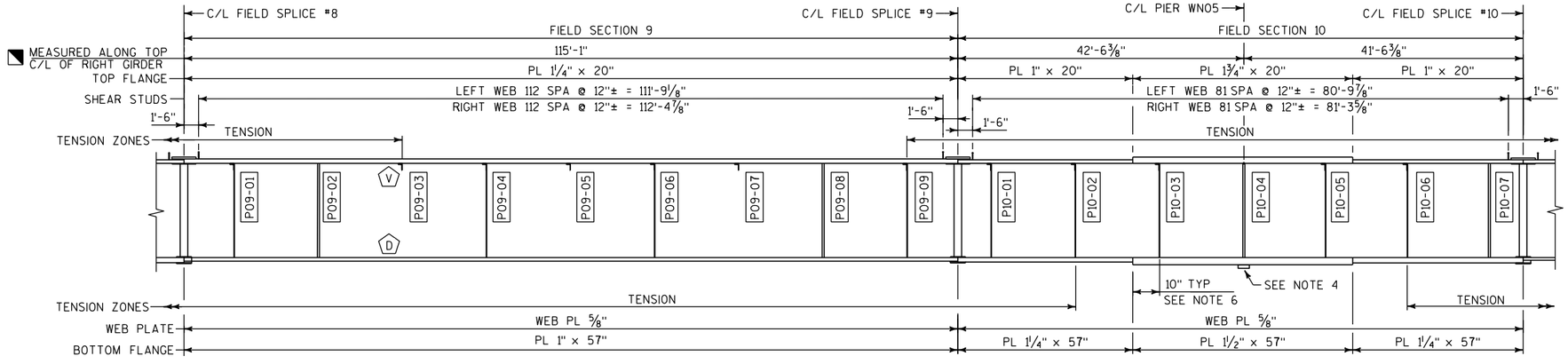


GIRDER PLAN

STATIONS AND DIMENSIONS ARE GIVEN ALONG THE TOP FLANGE WORKPOINT



LEFT GIRDER INTERIOR ELEVATION



RIGHT GIRDER INTERIOR ELEVATION

LEGEND

K1	K-FRAME IDENTIFIER, SEE SHEET 59.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 59.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 63, 67 & 68.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 64, 67 & 68.
PED	PIER END DIAPHRAGM, SEE SHEETS 65, 67 & 68.
IDXX	INTERMEDIATE DIAPHRAGM, SEE SHEETS 66, 67 & 68. "XX" INDICATES DIAPHRAGM NUMBER.
1A	LATERAL BRACING IDENTIFIER, SEE SHEET 60 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 58.
V	WEB PLATE VENT HOLE, SEE SHEET 58.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 56.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 57.
PXX-XX	PANEL POINT IDENTIFIER. FIRST "XX" INDICATES FIELD SECTION. SECOND "XX" INDICATES PANEL SEQUENCE WITHIN THE FIELD SECTION.
◥	SEE GIRDER SECTION SHEET FOR LOCATION OF WORKING POINT.

NOTES

1. FOR SHOP SPLICE DETAILS AND SHEAR CONNECTOR DETAILS, SEE MISCELLANEOUS GIRDER DETAILS SHEET.
2. FOR CAMBER REQUIREMENTS, SEE CAMBER DIAGRAM SHEETS AND CAMBER AND DECK ELEVATIONS SHEETS.
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4. BEVELED TOP PLATE, SEE BEARING SHEETS FOR DETAILS. THE DIMENSIONS OF THE BEVELED TOP PLATE SHALL BE COORDINATED WITH THE BEARING MANUFACTURER. PAYMENT FOR THE BEVELED TOP PLATE IS INCLUDED WITH THE BID ITEM "STRUCTURAL STEEL HS".
5. DIMENSIONS SHOWN IN GIRDER PLAN AND ELEVATION ARE HORIZONTAL DIMENSIONS.
6. LOCATE FLANGE SHOP SPLICE 10" FROM PANEL POINT, TYP. SEE DETAIL ON SHEET 58.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

GIRDER PLAN AND ELEVATION: FIELD SECTIONS 9 & 10

SHEET 48 OF 119

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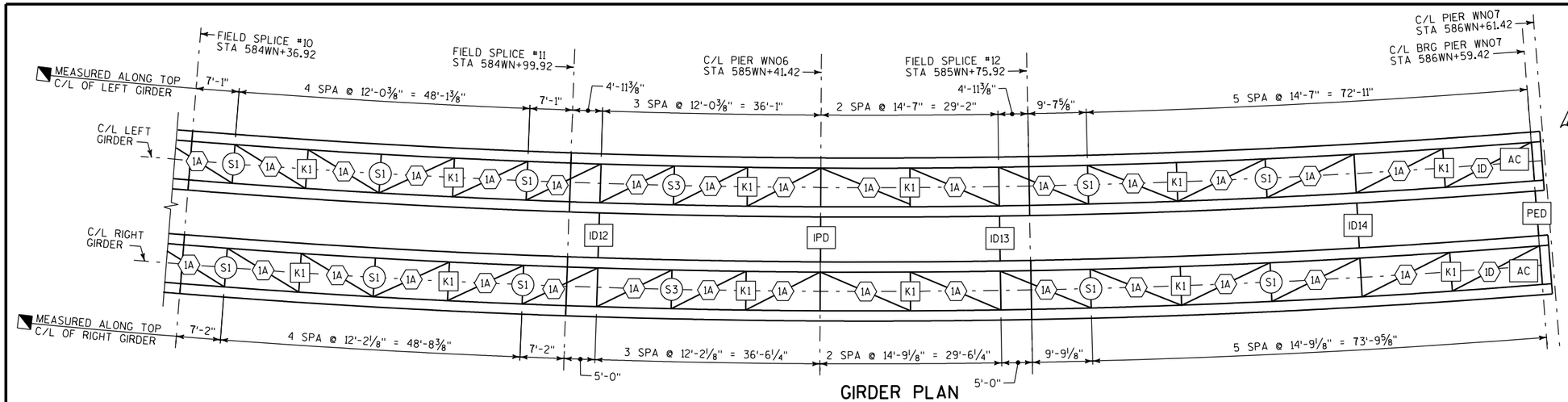
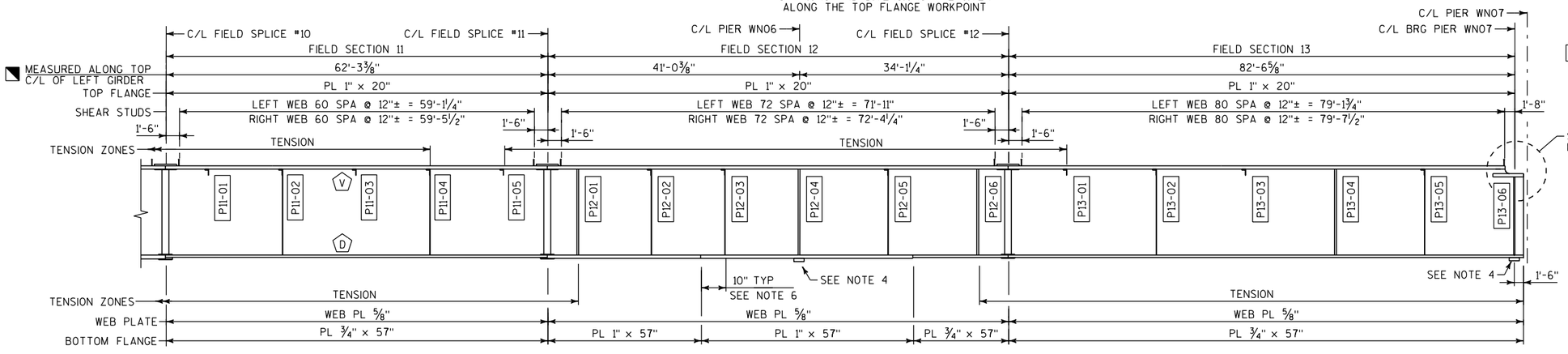
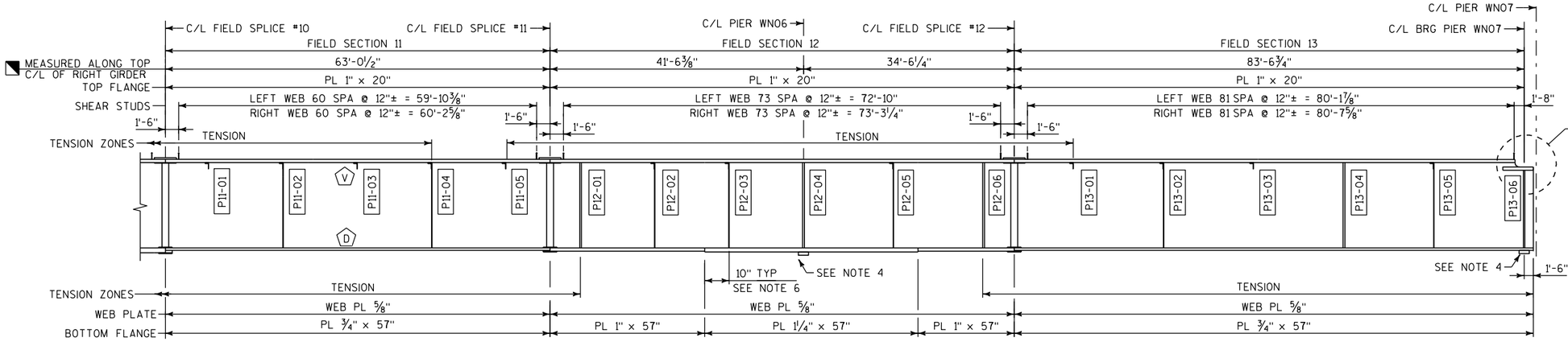


GIRDER PLAN

STATIONS AND DIMENSIONS ARE GIVEN ALONG THE TOP FLANGE WORKPOINT



LEFT GIRDER INTERIOR ELEVATION



RIGHT GIRDER INTERIOR ELEVATION

LEGEND

- K1 — K-FRAME IDENTIFIER, SEE SHEET 59.
- S1 — TRANSVERSE STRUT IDENTIFIER, SEE SHEET 59.
- AD — ABUTMENT DIAPHRAGM, SEE SHEETS 63, 67 & 68.
- IPD — INTERIOR PIER DIAPHRAGM, SEE SHEETS 64, 67 & 68.
- PED — PIER END DIAPHRAGM, SEE SHEETS 65, 67 & 68.
- IDXX — INTERMEDIATE DIAPHRAGM, SEE SHEETS 66, 67 & 68. "XX" INDICATES DIAPHRAGM NUMBER.
- 1A — LATERAL BRACING IDENTIFIER, SEE SHEET 60 FOR MEMBER SIZE AND CONNECTION DETAILS.
- D — BOTTOM FLANGE DRAIN HOLE, SEE SHEET 58.
- V — WEB PLATE VENT HOLE, SEE SHEET 58.
- AH — BOTTOM FLANGE ACCESS HATCH, SEE SHEET 56.
- AC — END DIAPHRAGM ACCESS DOOR, SEE SHEET 57.
- PXX-XX — PANEL POINT IDENTIFIER. FIRST "XX" INDICATES FIELD SECTION. SECOND "XX" INDICATES PANEL SEQUENCE WITHIN THE FIELD SECTION.
- SEE GIRDER SECTION SHEET FOR LOCATION OF WORKING POINT.

NOTES

1. FOR SHOP SPLICE DETAILS AND SHEAR CONNECTOR DETAILS, SEE MISCELLANEOUS GIRDER DETAILS SHEET.
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5. DIMENSIONS SHOWN IN GIRDER PLAN AND ELEVATION ARE HORIZONTAL DIMENSIONS.
6. LOCATE FLANGE SHOP SPLICE 10" FROM PANEL POINT, TYP. SEE DETAIL ON SHEET 58.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY: GLM | PLANS CK'D.: WRT

GIRDER PLAN AND ELEVATION: FIELD SECTIONS 11, 12 & 13

SHEET 49 OF 119

8

8

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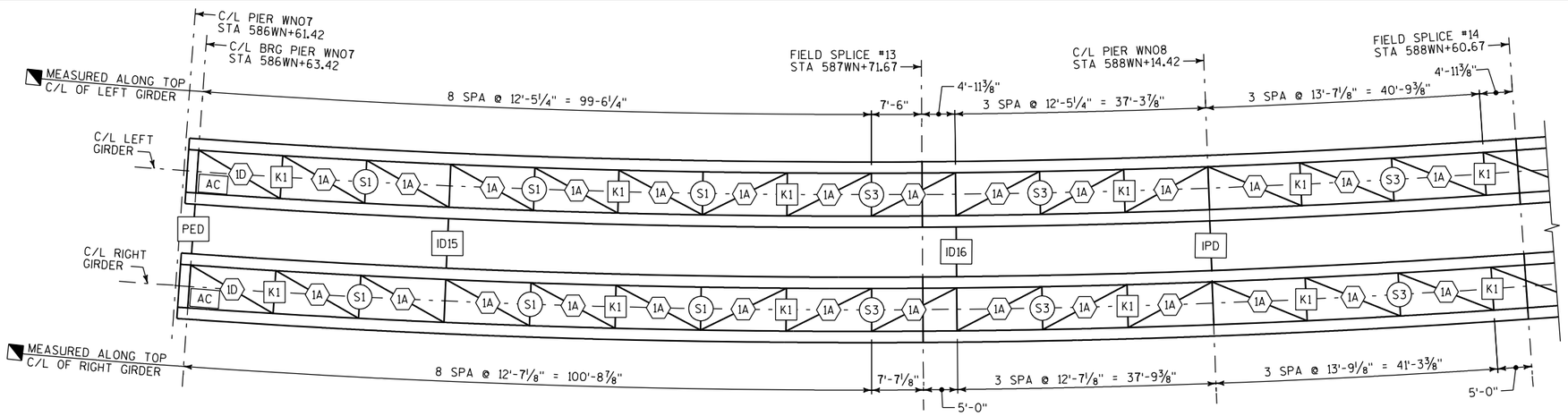
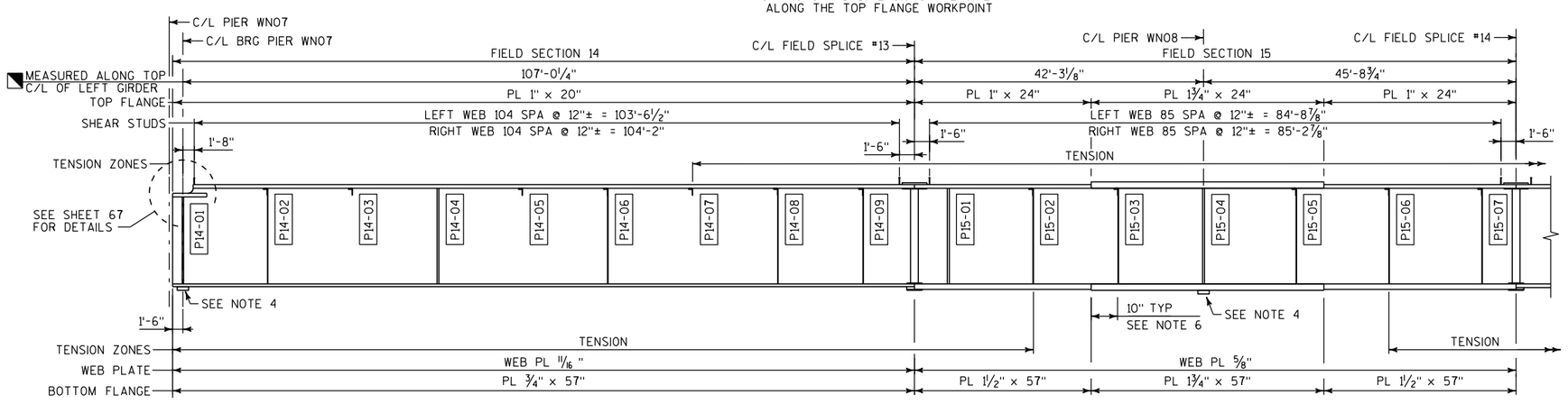
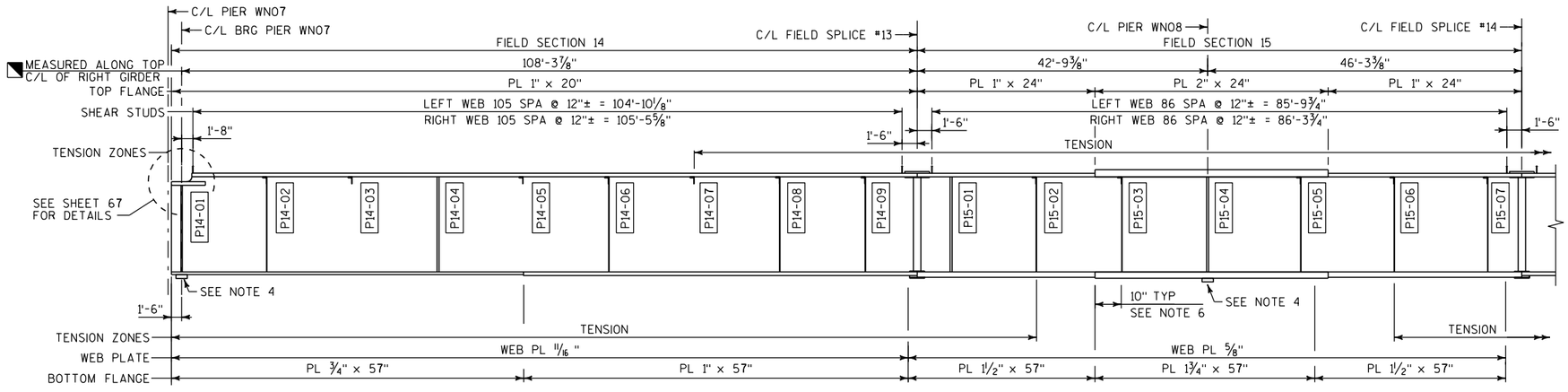


GIRDER PLAN

STATIONS AND DIMENSIONS ARE GIVEN ALONG THE TOP FLANGE WORKPOINT



LEFT GIRDER INTERIOR ELEVATION



RIGHT GIRDER INTERIOR ELEVATION

LEGEND

K1	K-FRAME IDENTIFIER, SEE SHEET 59.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 59.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 63, 67 & 68.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 64, 67 & 68.
PED	PIER END DIAPHRAGM, SEE SHEETS 65, 67 & 68.
IDXX	INTERMEDIATE DIAPHRAGM, SEE SHEETS 66, 67 & 68. "XX" INDICATES DIAPHRAGM NUMBER.
1A	LATERAL BRACING IDENTIFIER, SEE SHEET 60 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 58.
V	WEB PLATE VENT HOLE, SEE SHEET 58.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 56.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 57.
PXX-XX	PANEL POINT IDENTIFIER. FIRST "XX" INDICATES FIELD SECTION. SECOND "XX" INDICATES PANEL SEQUENCE WITHIN THE FIELD SECTION.
◥	SEE GIRDER SECTION SHEET FOR LOCATION OF WORKING POINT.

NOTES

1. FOR SHOP SPLICE DETAILS AND SHEAR CONNECTOR DETAILS, SEE MISCELLANEOUS GIRDER DETAILS SHEET.
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5. DIMENSIONS SHOWN IN GIRDER PLAN AND ELEVATION ARE HORIZONTAL DIMENSIONS.
6. LOCATE FLANGE SHOP SPLICE 10" FROM PANEL POINT, TYP. SEE DETAIL ON SHEET 58.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

GIRDER PLAN AND ELEVATION: FIELD SECTIONS 14 & 15

SHEET 50 OF 119

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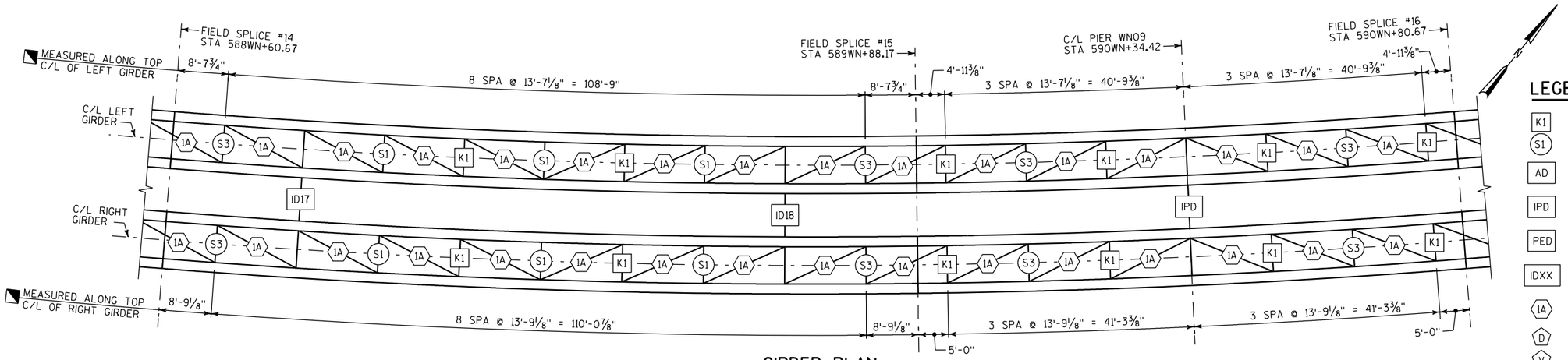
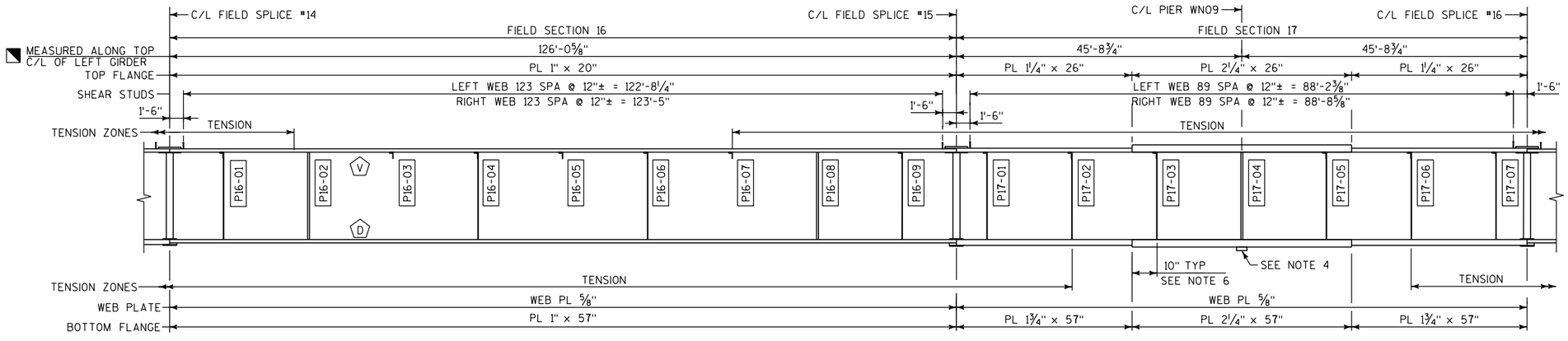
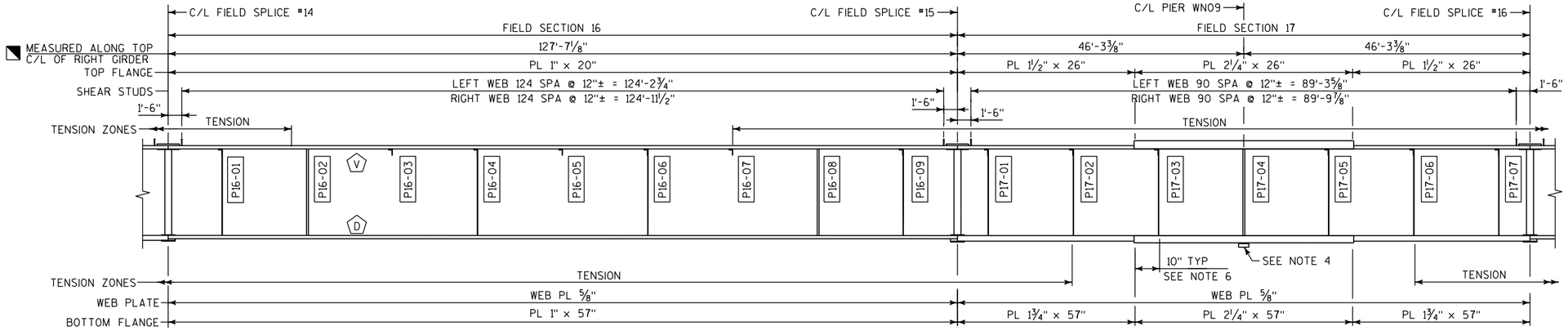


GIRDER PLAN

STATIONS AND DIMENSIONS ARE GIVEN ALONG THE TOP FLANGE WORKPOINT



LEFT GIRDER INTERIOR ELEVATION



RIGHT GIRDER INTERIOR ELEVATION

LEGEND

K1	K-FRAME IDENTIFIER, SEE SHEET 59.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 59.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 63, 67 & 68.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 64, 67 & 68.
PED	PIER END DIAPHRAGM, SEE SHEETS 65, 67 & 68.
IDXX	INTERMEDIATE DIAPHRAGM, SEE SHEETS 66, 67 & 68. "XX" INDICATES DIAPHRAGM NUMBER.
1A	LATERAL BRACING IDENTIFIER, SEE SHEET 60 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 58.
V	WEB PLATE VENT HOLE, SEE SHEET 58.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 56.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 57.
PXX-XX	PANEL POINT IDENTIFIER. FIRST "XX" INDICATES FIELD SECTION. SECOND "XX" INDICATES PANEL SEQUENCE WITHIN THE FIELD SECTION.
◥	SEE GIRDER SECTION SHEET FOR LOCATION OF WORKING POINT.

NOTES

1. FOR SHOP SPLICE DETAILS AND SHEAR CONNECTOR DETAILS, SEE MISCELLANEOUS GIRDER DETAILS SHEET.
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5. DIMENSIONS SHOWN IN GIRDER PLAN AND ELEVATION ARE HORIZONTAL DIMENSIONS.
6. LOCATE FLANGE SHOP SPLICE 10" FROM PANEL POINT, TYP. SEE DETAIL ON SHEET 58.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

GIRDER PLAN AND ELEVATION: FIELD SECTIONS 16 & 17

SHEET 51 OF 119

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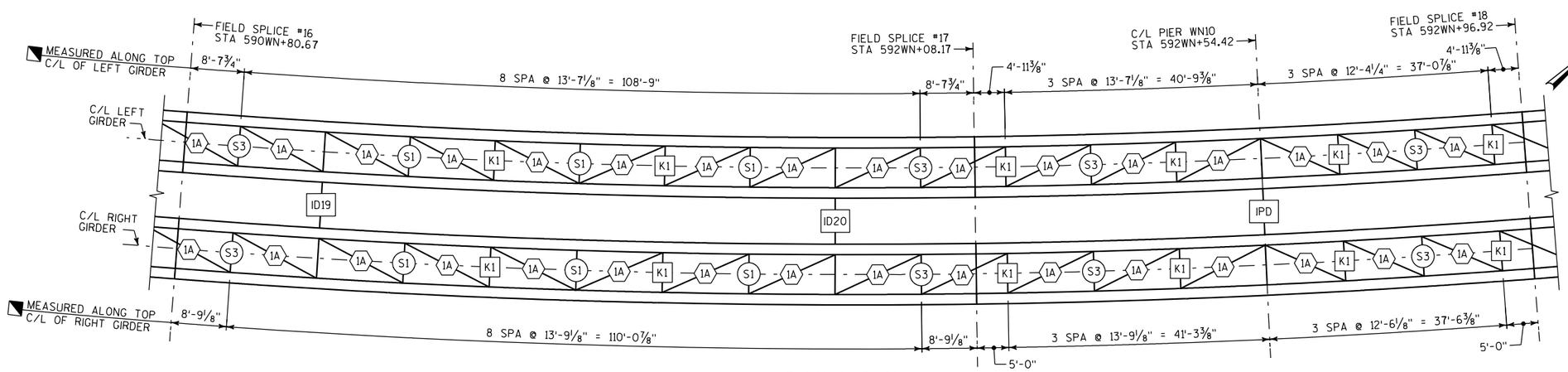
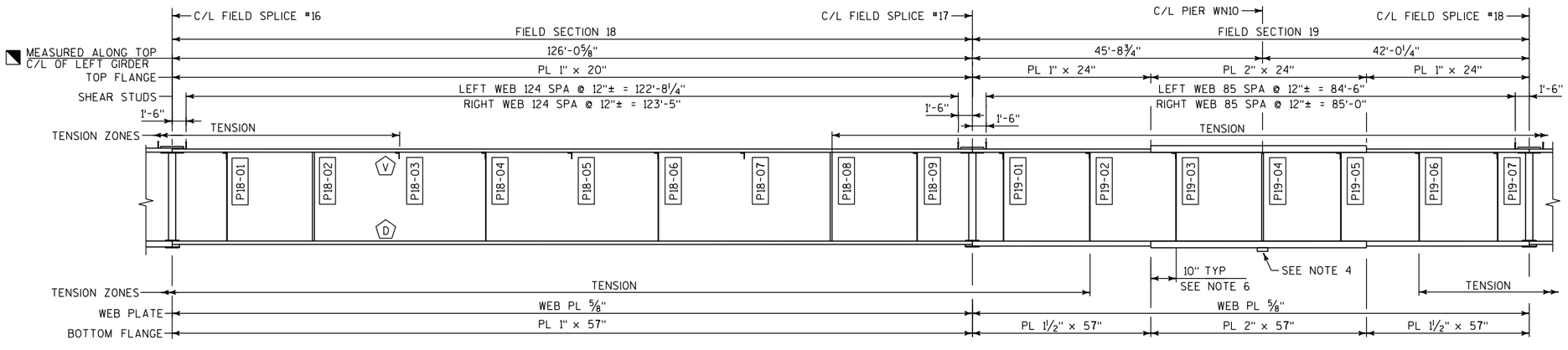
STATE PROJECT NUMBER
1060-33-81

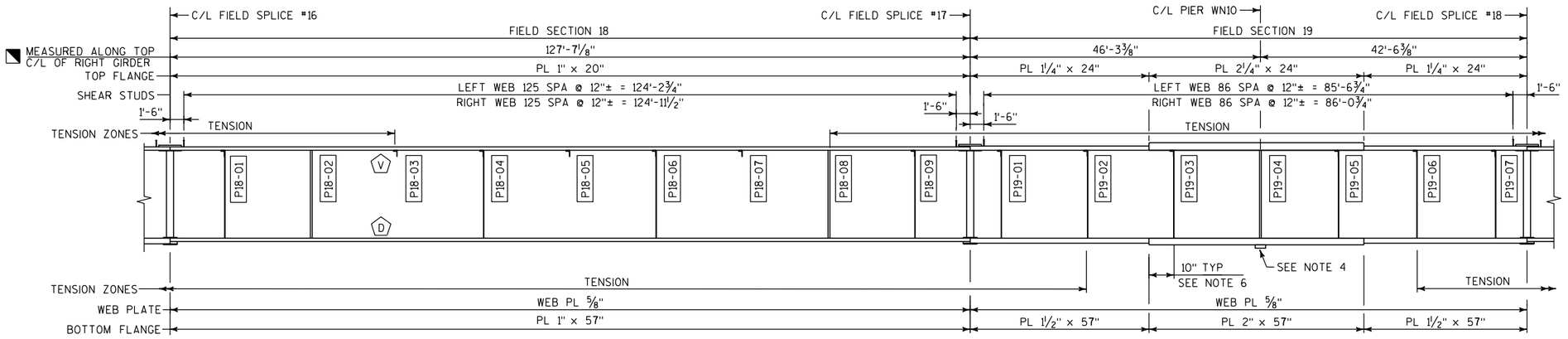


GIRDER PLAN

STATIONS AND DIMENSIONS ARE GIVEN ALONG THE TOP FLANGE WORKPOINT



LEFT GIRDER INTERIOR ELEVATION



RIGHT GIRDER INTERIOR ELEVATION

LEGEND

K1	K-FRAME IDENTIFIER, SEE SHEET 59.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 59.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 63, 67 & 68.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 64, 67 & 68.
PED	PIER END DIAPHRAGM, SEE SHEETS 65, 67 & 68.
IDXX	INTERMEDIATE DIAPHRAGM, SEE SHEETS 66, 67 & 68. "XX" INDICATES DIAPHRAGM NUMBER.
1A	LATERAL BRACING IDENTIFIER, SEE SHEET 60 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 58.
V	WEB PLATE VENT HOLE, SEE SHEET 58.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 56.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 57.
PXX-XX	PANEL POINT IDENTIFIER. FIRST "XX" INDICATES FIELD SECTION. SECOND "XX" INDICATES PANEL SEQUENCE WITHIN THE FIELD SECTION.
◥	SEE GIRDER SECTION SHEET FOR LOCATION OF WORKING POINT.

NOTES

1. FOR SHOP SPLICE DETAILS AND SHEAR CONNECTOR DETAILS, SEE MISCELLANEOUS GIRDER DETAILS SHEET.
2. FOR CAMBER REQUIREMENTS, SEE CAMBER DIAGRAM SHEETS AND CAMBER AND DECK ELEVATIONS SHEETS.
3. 'TENSION' DENOTES ZONES OF TOP AND BOTTOM FLANGES ASSUMED TO CARRY TENSILE STRESS IN THE COMPLETED STRUCTURE. FIELD WELDING TO TENSION FLANGES AND WEB IS PROHIBITED, EXCEPT FOR SHEAR STUD CONNECTIONS TO THE TOP FLANGE.
4. BEVELED TOP PLATE, SEE BEARING SHEETS FOR DETAILS. THE DIMENSIONS OF THE BEVELED TOP PLATE SHALL BE COORDINATED WITH THE BEARING MANUFACTURER. PAYMENT FOR THE BEVELED TOP PLATE IS INCLUDED WITH THE BID ITEM "STRUCTURAL STEEL HS".
5. DIMENSIONS SHOWN IN GIRDER PLAN AND ELEVATION ARE HORIZONTAL DIMENSIONS.
6. LOCATE FLANGE SHOP SPLICE 10" FROM PANEL POINT, TYP. SEE DETAIL ON SHEET 58.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

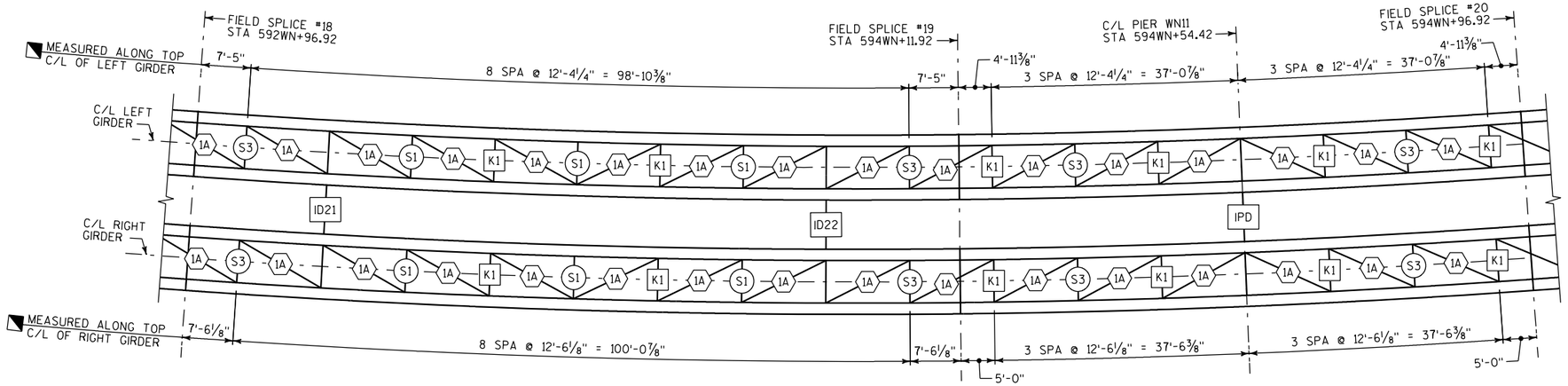
DRAWN BY GLM | PLANS CK'D. WRT

GIRDER PLAN AND ELEVATION: FIELD SECTIONS 18 & 19

SHEET 52 OF 119

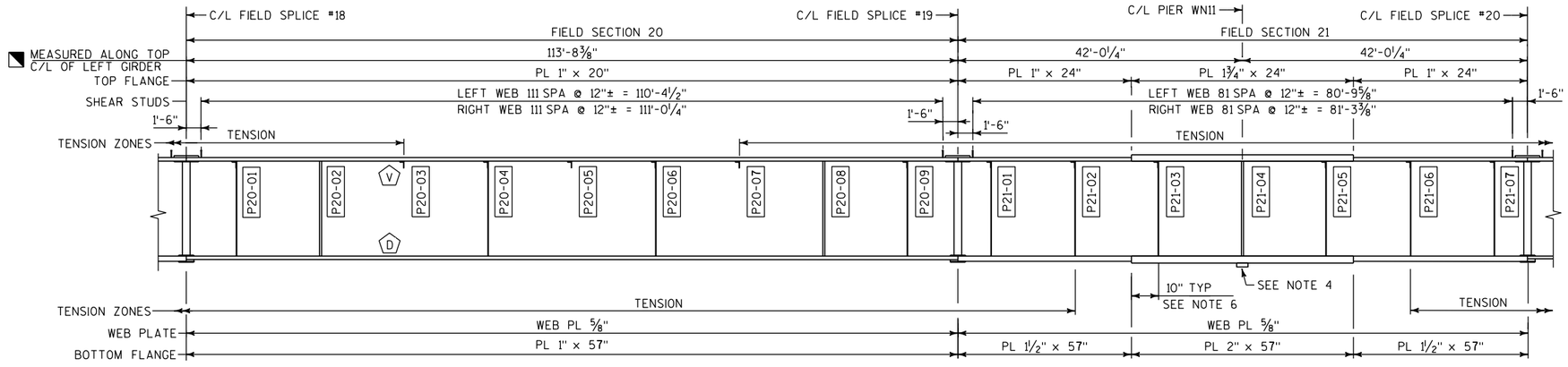
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080516_ss.dgn
PLOT DATE : 13-MAY-2015 16:25
PLOT BY : MSCBKS
PLOT NAME : B856_080516_ss
PLOT SCALE : 20:1

STATE PROJECT NUMBER
1060-33-81

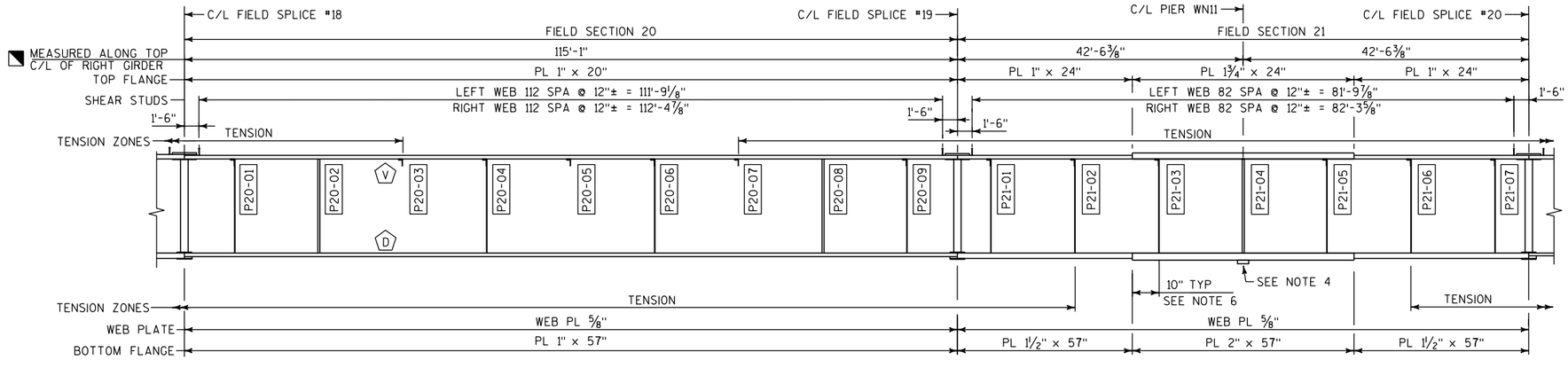


GIRDER PLAN

STATIONS AND DIMENSIONS ARE GIVEN ALONG THE TOP FLANGE WORKPOINT



LEFT GIRDER INTERIOR ELEVATION



RIGHT GIRDER INTERIOR ELEVATION

LEGEND

K1	K-FRAME IDENTIFIER, SEE SHEET 59.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 59.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 63, 67 & 68.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 64, 67 & 68.
PED	PIER END DIAPHRAGM, SEE SHEETS 65, 67 & 68.
IDXX	INTERMEDIATE DIAPHRAGM, SEE SHEETS 66, 67 & 68. "XX" INDICATES DIAPHRAGM NUMBER.
1A	LATERAL BRACING IDENTIFIER, SEE SHEET 60 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 58.
V	WEB PLATE VENT HOLE, SEE SHEET 58.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 56.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 57.
PXX-XX	PANEL POINT IDENTIFIER. FIRST "XX" INDICATES FIELD SECTION. SECOND "XX" INDICATES PANEL SEQUENCE WITHIN THE FIELD SECTION.
◥	SEE GIRDER SECTION SHEET FOR LOCATION OF WORKING POINT.

NOTES

1. FOR SHOP SPLICE DETAILS AND SHEAR CONNECTOR DETAILS, SEE MISCELLANEOUS GIRDER DETAILS SHEET.
2. FOR CAMBER REQUIREMENTS, SEE CAMBER DIAGRAM SHEETS AND CAMBER AND DECK ELEVATIONS SHEETS.
3. 'TENSION' DENOTES ZONES OF TOP AND BOTTOM FLANGES ASSUMED TO CARRY TENSILE STRESS IN THE COMPLETED STRUCTURE. FIELD WELDING TO TENSION FLANGES AND WEB IS PROHIBITED, EXCEPT FOR SHEAR STUD CONNECTIONS TO THE TOP FLANGE.
4. BEVELED TOP PLATE, SEE BEARING SHEETS FOR DETAILS. THE DIMENSIONS OF THE BEVELED TOP PLATE SHALL BE COORDINATED WITH THE BEARING MANUFACTURER. PAYMENT FOR THE BEVELED TOP PLATE IS INCLUDED WITH THE BID ITEM "STRUCTURAL STEEL HS".
5. DIMENSIONS SHOWN IN GIRDER PLAN AND ELEVATION ARE HORIZONTAL DIMENSIONS.
6. LOCATE FLANGE SHOP SPLICE 10" FROM PANEL POINT, TYP. SEE DETAIL ON SHEET 58.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

GIRDER PLAN AND ELEVATION: FIELD SECTIONS 20 & 21

SHEET 53 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080517_ss.dgn
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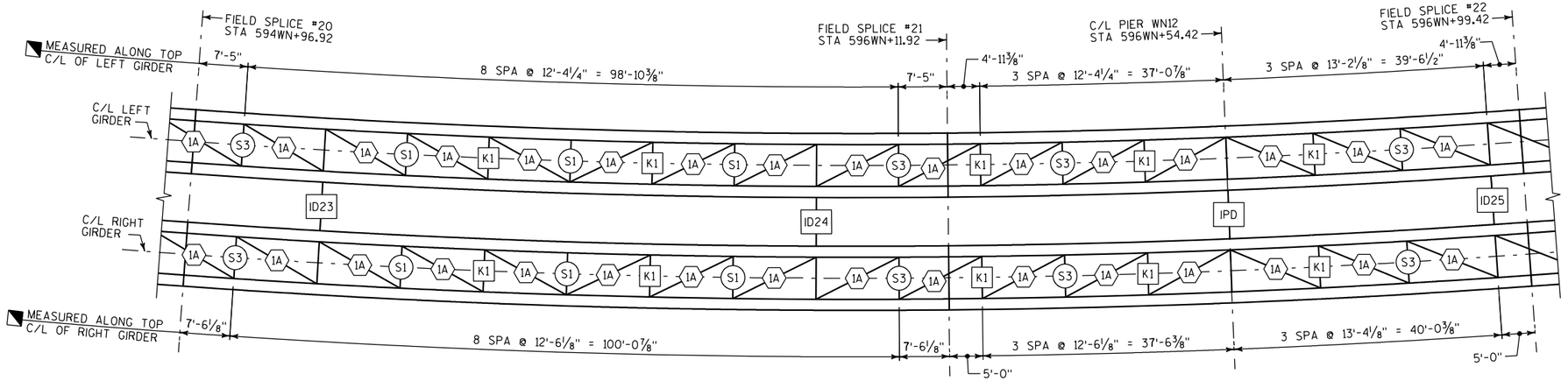
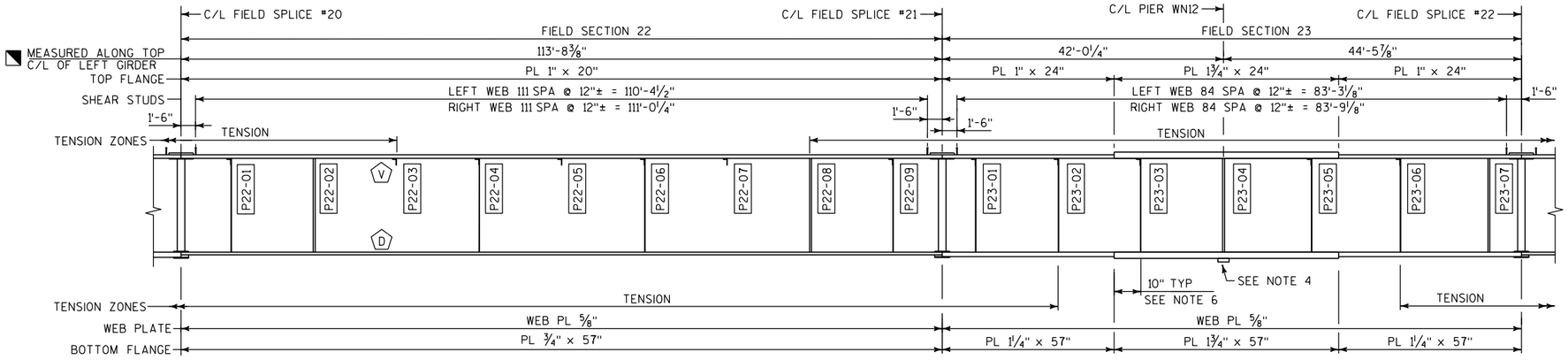
PLOT BY : MSCBKS
PLOT NAME : B856_080517_ss
PLOT SCALE : 20:1

STATE PROJECT NUMBER
1060-33-81

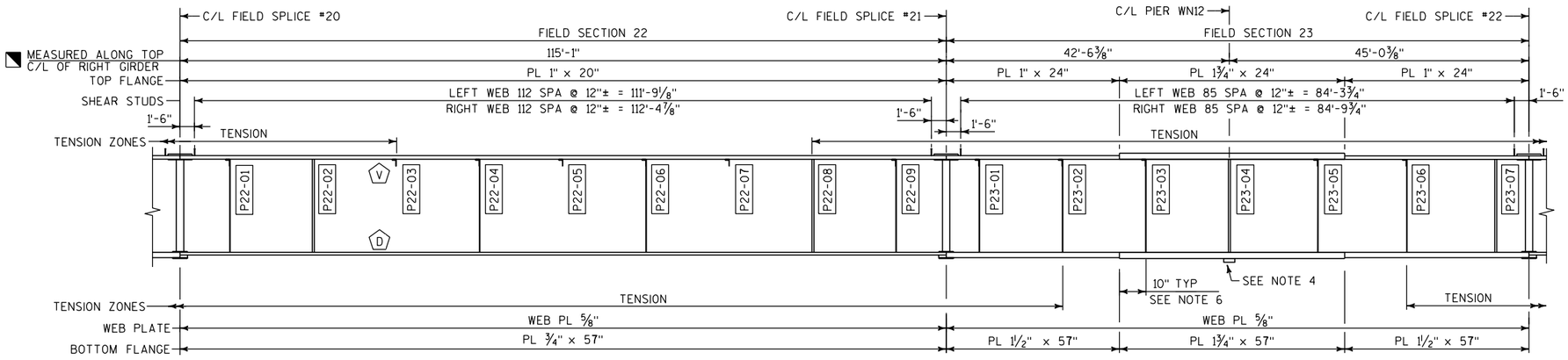


GIRDER PLAN

STATIONS AND DIMENSIONS ARE GIVEN ALONG THE TOP FLANGE WORKPOINT



LEFT GIRDER INTERIOR ELEVATION



RIGHT GIRDER INTERIOR ELEVATION

LEGEND

K1	K-FRAME IDENTIFIER, SEE SHEET 59.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 59.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 63, 67 & 68.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 64, 67 & 68.
PED	PIER END DIAPHRAGM, SEE SHEETS 65, 67 & 68.
IDXX	INTERMEDIATE DIAPHRAGM, SEE SHEETS 66, 67 & 68. "XX" INDICATES DIAPHRAGM NUMBER.
1A	LATERAL BRACING IDENTIFIER, SEE SHEET 60 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 58.
V	WEB PLATE VENT HOLE, SEE SHEET 58.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 56.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 57.
PXX-XX	PANEL POINT IDENTIFIER. FIRST "XX" INDICATES FIELD SECTION. SECOND "XX" INDICATES PANEL SEQUENCE WITHIN THE FIELD SECTION.
◥	SEE GIRDER SECTION SHEET FOR LOCATION OF WORKING POINT.

NOTES

1. FOR SHOP SPLICE DETAILS AND SHEAR CONNECTOR DETAILS, SEE MISCELLANEOUS GIRDER DETAILS SHEET.
2. FOR CAMBER REQUIREMENTS, SEE CAMBER DIAGRAM SHEETS AND CAMBER AND DECK ELEVATIONS SHEETS.
3. 'TENSION' DENOTES ZONES OF TOP AND BOTTOM FLANGES ASSUMED TO CARRY TENSILE STRESS IN THE COMPLETED STRUCTURE. FIELD WELDING TO TENSION FLANGES AND WEB IS PROHIBITED, EXCEPT FOR SHEAR STUD CONNECTIONS TO THE TOP FLANGE.
4. BEVELED TOP PLATE, SEE BEARING SHEETS FOR DETAILS. THE DIMENSIONS OF THE BEVELED TOP PLATE SHALL BE COORDINATED WITH THE BEARING MANUFACTURER. PAYMENT FOR THE BEVELED TOP PLATE IS INCLUDED WITH THE BID ITEM "STRUCTURAL STEEL HS".
5. DIMENSIONS SHOWN IN GIRDER PLAN AND ELEVATION ARE HORIZONTAL DIMENSIONS.
6. LOCATE FLANGE SHOP SPLICE 10" FROM PANEL POINT, TYP. SEE DETAIL ON SHEET 58.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

GIRDER PLAN AND ELEVATION: FIELD SECTIONS 22 & 23

SHEET 54 OF 119

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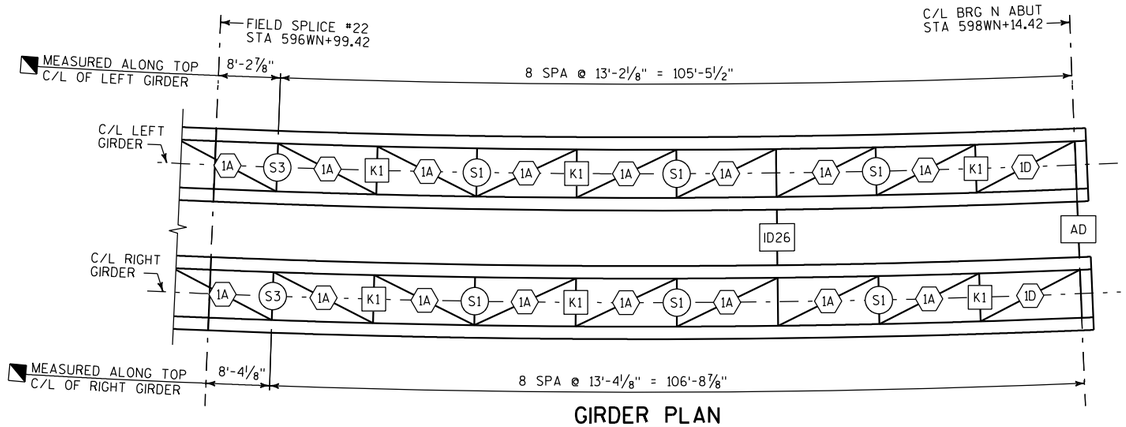
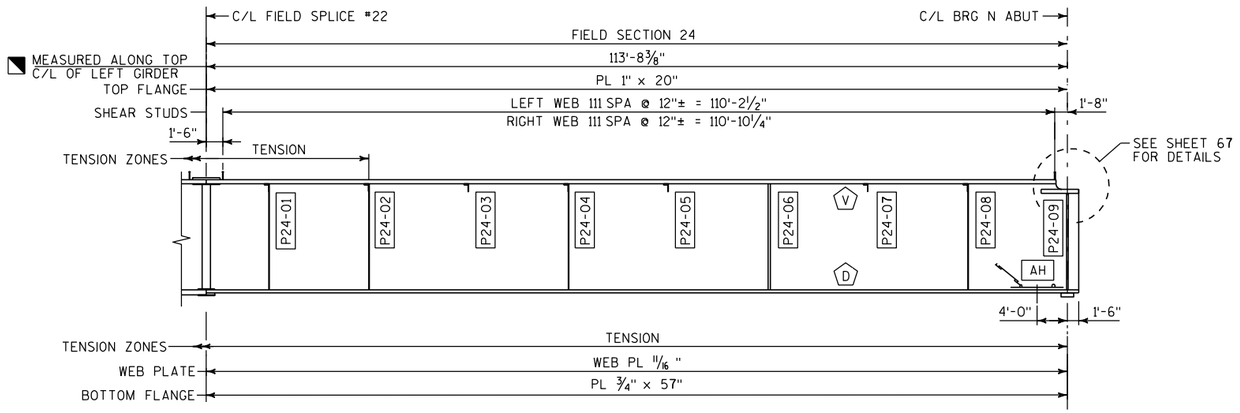
PLOT SCALE : 20:1

STATE PROJECT NUMBER
1060-33-81

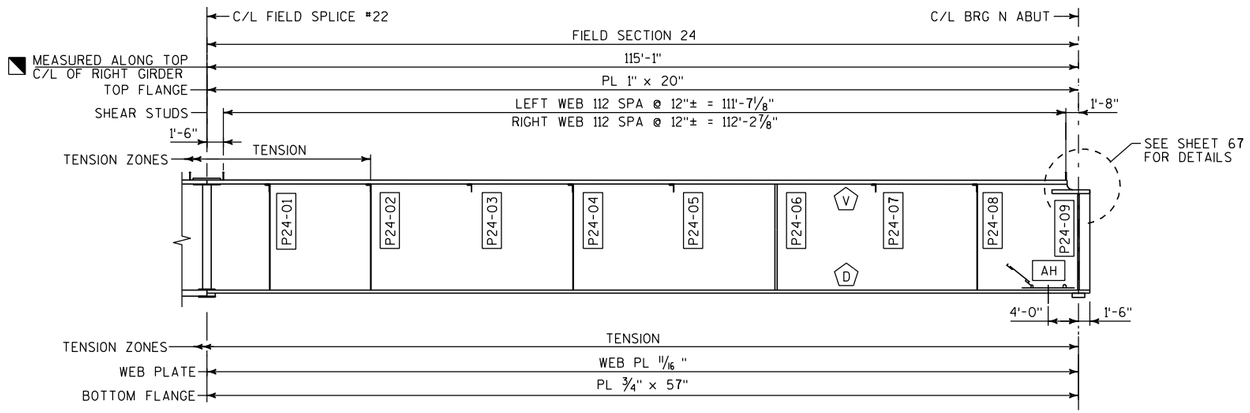


GIRDER PLAN

STATIONS AND DIMENSIONS ARE GIVEN ALONG THE TOP FLANGE WORKPOINT



LEFT GIRDER INTERIOR ELEVATION



RIGHT GIRDER INTERIOR ELEVATION

LEGEND

K1	K-FRAME IDENTIFIER, SEE SHEET 59.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 59.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 63, 67 & 68.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 64, 67 & 68.
PED	PIER END DIAPHRAGM, SEE SHEETS 65, 67 & 68.
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1A	LATERAL BRACING IDENTIFIER, SEE SHEET 60 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 58.
V	WEB PLATE VENT HOLE, SEE SHEET 58.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 56.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 57.
PXX-XX	PANEL POINT IDENTIFIER. FIRST "XX" INDICATES FIELD SECTION. SECOND "XX" INDICATES PANEL SEQUENCE WITHIN THE FIELD SECTION.
◥	SEE GIRDER SECTION SHEET FOR LOCATION OF WORKING POINT.

NOTES

1. FOR SHOP SPLICE DETAILS AND SHEAR CONNECTOR DETAILS, SEE MISCELLANEOUS GIRDER DETAILS SHEET.
2. FOR CAMBER REQUIREMENTS, SEE CAMBER DIAGRAM SHEETS AND CAMBER AND DECK ELEVATIONS SHEETS.
3. 'TENSION' DENOTES ZONES OF TOP AND BOTTOM FLANGES ASSUMED TO CARRY TENSILE STRESS IN THE COMPLETED STRUCTURE. FIELD WELDING TO TENSION FLANGES AND WEB IS PROHIBITED, EXCEPT FOR SHEAR STUD CONNECTIONS TO THE TOP FLANGE.
4. BEVELED TOP PLATE, SEE BEARING SHEETS FOR DETAILS. THE DIMENSIONS OF THE BEVELED TOP PLATE SHALL BE COORDINATED WITH THE BEARING MANUFACTURER. PAYMENT FOR THE BEVELED TOP PLATE IS INCLUDED WITH THE BID ITEM "STRUCTURAL STEEL HS".
5. DIMENSIONS SHOWN IN GIRDER PLAN AND ELEVATION ARE HORIZONTAL DIMENSIONS.
6. LOCATE FLANGE SHOP SPLICE 10" FROM PANEL POINT, TYP. SEE DETAIL ON SHEET 58.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

GIRDER PLAN AND ELEVATION: FIELD SECTION 24

SHEET 55 OF 119

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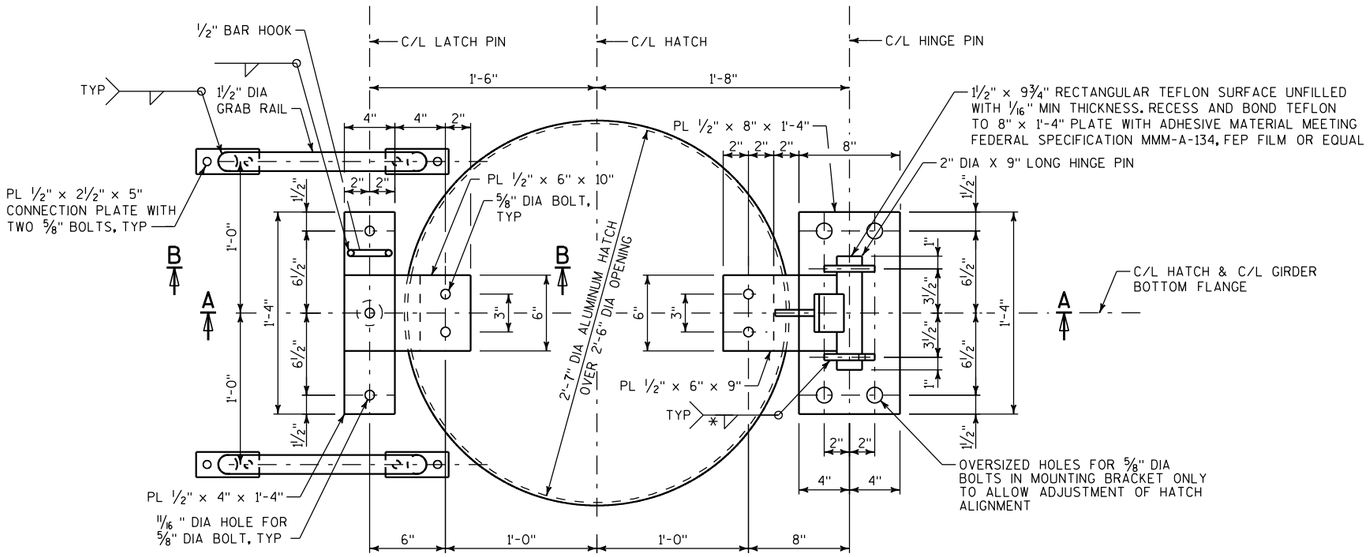
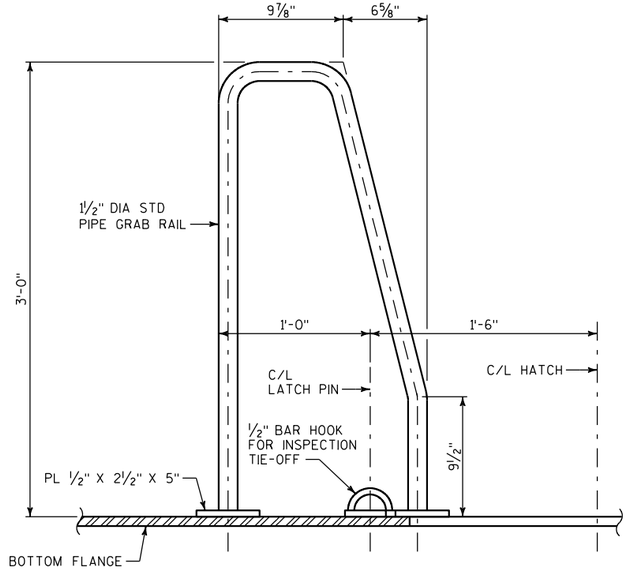
PLOT NAME : B856_080519_ss
PLOT SCALE : 20:1

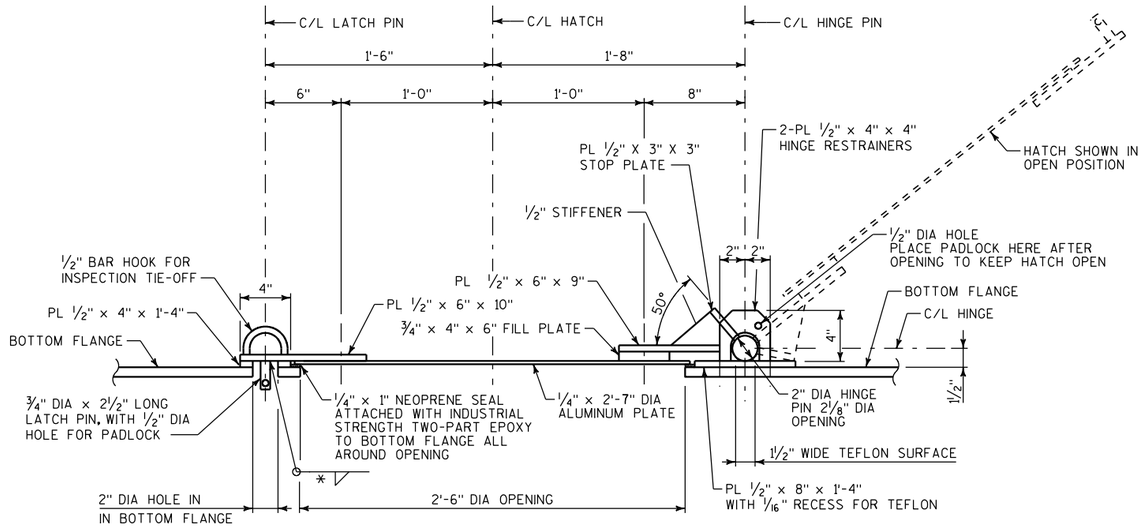
STATE PROJECT NUMBER
1060-33-81



ACCESS HATCH PLAN



SECTION B-B



SECTION A-A

*SEE TABLE OF FILLET WELD SIZES ON GIRDER SECTION SHEET.

NOTES:

1. ALL BOLTS SHOWN ARE ⅝" DIAMETER ASTM A325 TYPE 1.
2. FOUR ACCESS HATCHES REQUIRED. SEE GIRDER PLAN AND ELEVATIONS SHEETS FOR HATCH LOCATIONS.
3. STEEL FOR HATCH IS ASTM A709 GRADE 50, EXCEPT THE HATCH PLATE SHALL BE MADE OF ALUMINUM PLATE CONFORMING TO ASTM B209, ALLOY 6061-T651 AND THE PIPE GRAB RAIL SHALL BE ASTM A53.
4. THE INTERIOR COMPONENTS OF THE HATCH INCLUDING THE PIPE GRAB RAIL SHALL BE PAINTED TO MATCH THE INTERIOR COLOR OF THE BOX GIRDER.
5. ALL EXTERIOR COMPONENTS OF THE HATCH AND THE ALUMINUM PLATE SHALL BE PAINTED TO MATCH THE EXTERIOR COLOR OF THE BOX GIRDER. THE CONTRACTOR SHALL FOLLOW THE COATING MANUFACTURER'S RECOMMENDATIONS FOR SURFACE PREPARATION AND PRIMING OF THE ALUMINUM PLATE.
6. ALL MATERIALS SHOWN ON THIS SHEET FOR THE ACCESS HATCH AND GRAB RAIL WILL BE PAID FOR AT THE UNIT BID FOR "STRUCTURAL STEEL HS".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

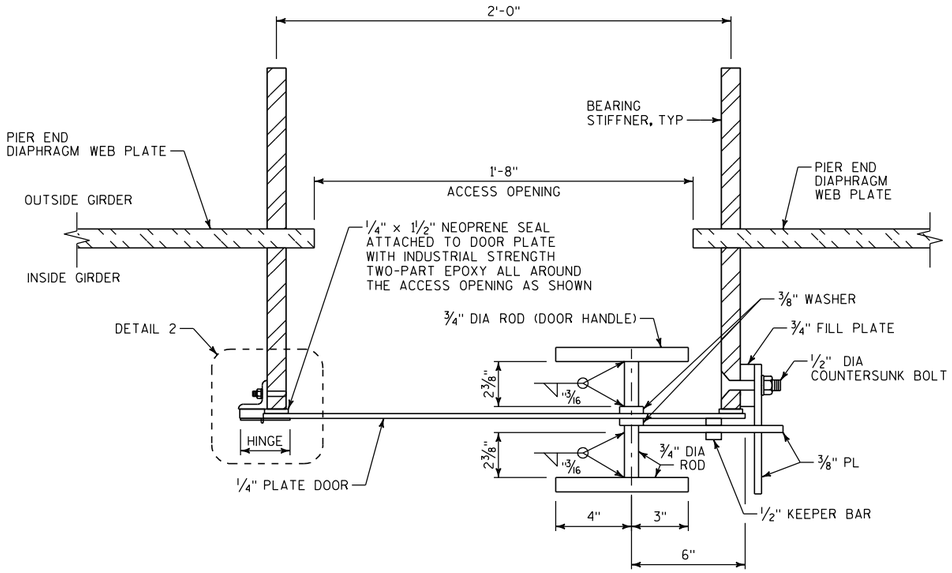
ACCESS HATCH DETAILS

SHEET 56 OF 119

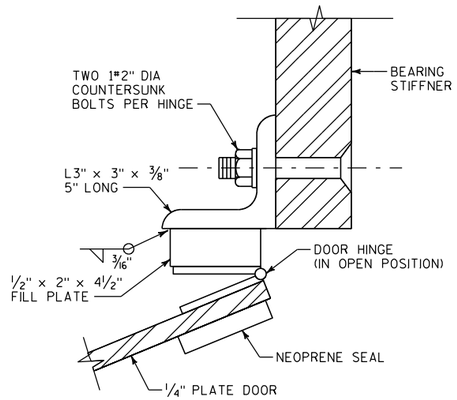
8

8

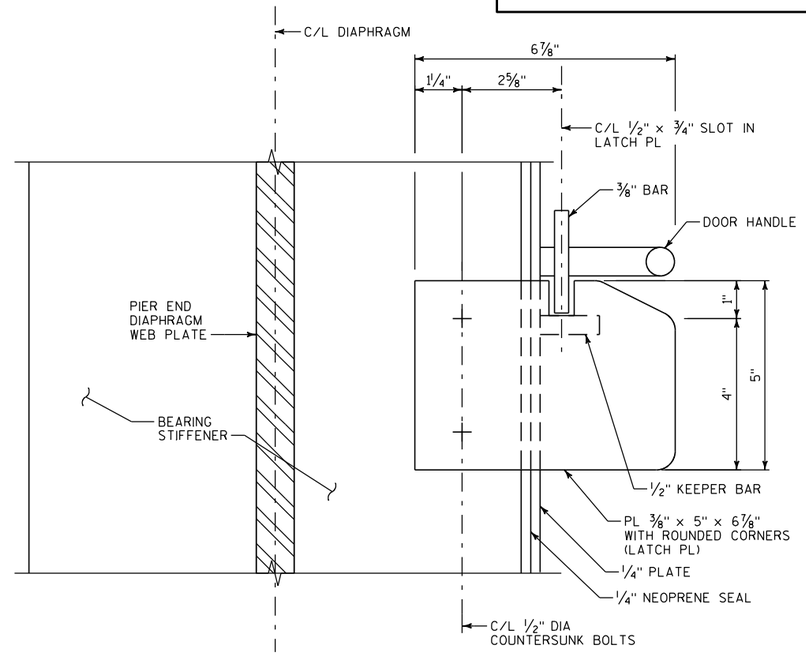
STATE PROJECT NUMBER
1060-33-81



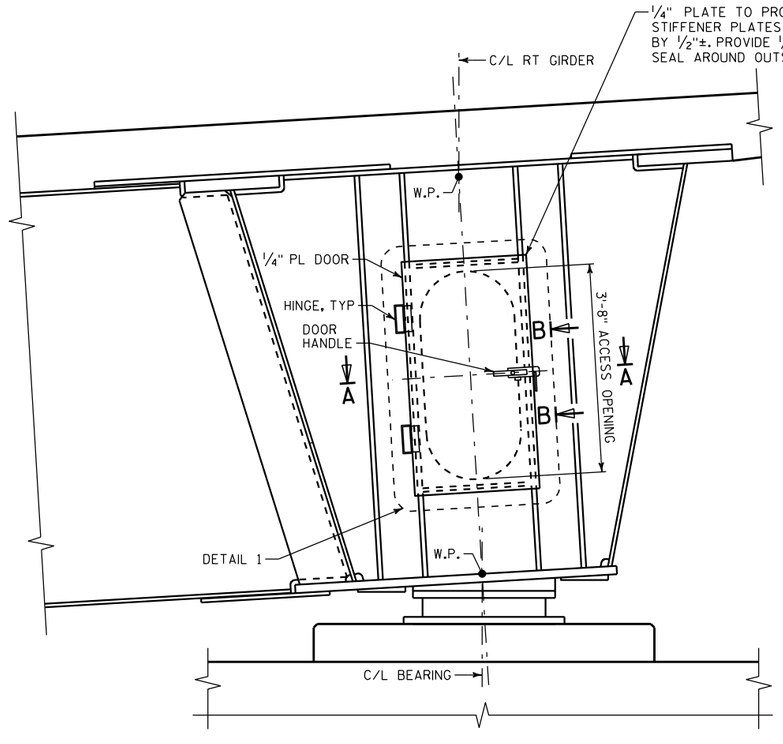
SECTION A-A



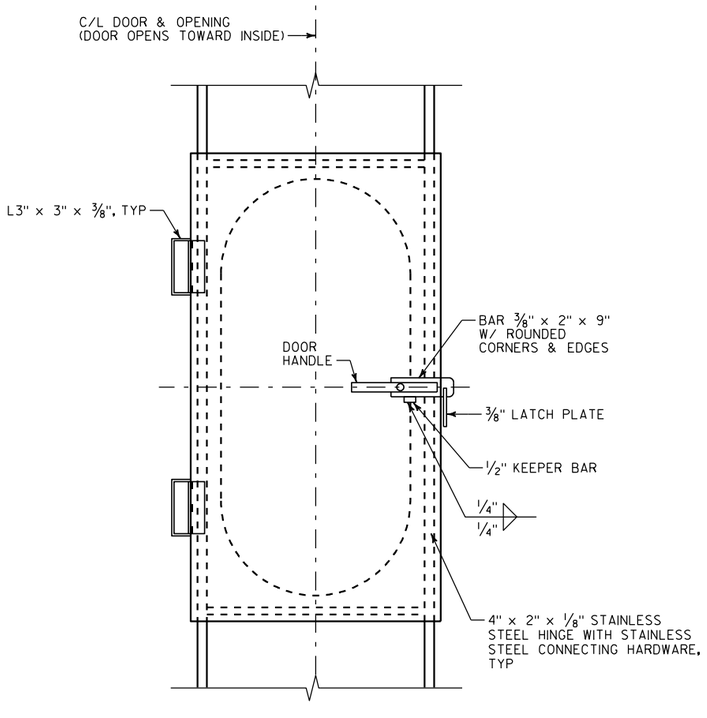
DETAIL 2
(WITH DOOR OPEN)



SECTION B-B



ELEVATION
LEFT GIRDER SHOWN, RIGHT GIRDER SIMILAR



DETAIL 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

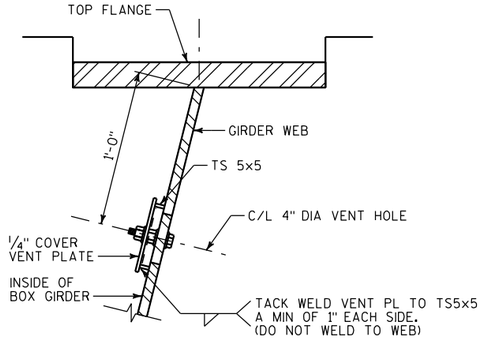
DRAWN BY	GLM	PLANS CK'D.	WRT

ACCESS DOOR DETAILS

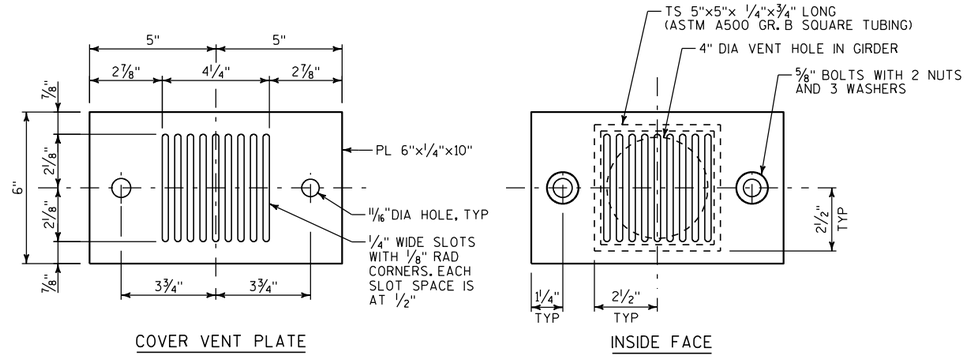
SHEET 57 OF 119

8

8

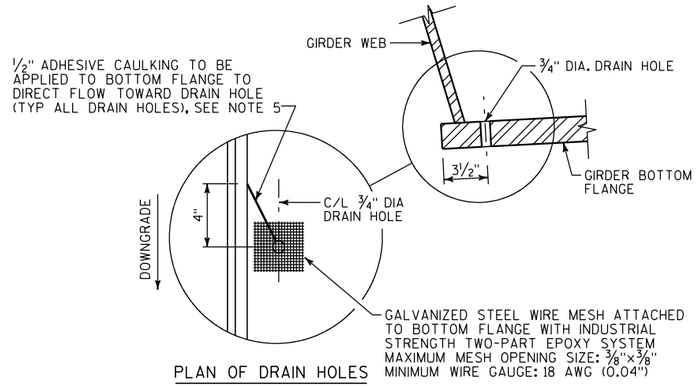


VENT HOLE LOCATION



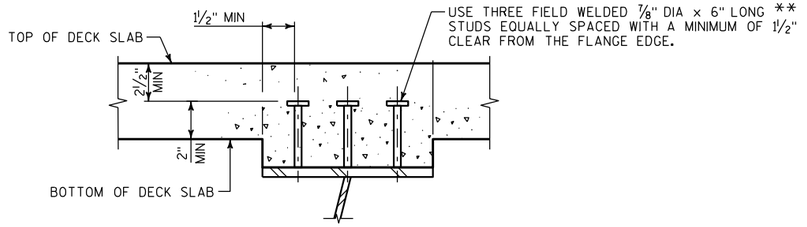
COVER VENT PLATE INSIDE FACE

VENT HOLE COVER ASSEMBLY
NOT TO SCALE

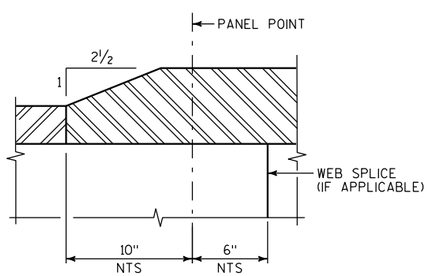


PLAN OF DRAIN HOLES

DRAIN HOLE DETAILS
NOT TO SCALE



SHEAR CONNECTOR DETAIL
** USE DIFFERENT LENGTH STUDS IF 2 1/2" MIN. CLEARANCE OR 2" EXTENSION CRITERIA IS VIOLATED.



SHOP SPLICE DETAIL

NOTES

1. SEE GIRDER PLAN AND ELEVATION SHEETS FOR DRAIN AND VENT HOLE LOCATION.
2. LOCATE ALL VENT HOLES ON THE INTERIOR WEBS - I.E. THE RIGHT WEB OF THE LEFT GIRDER AND THE LEFT WEB OF THE RIGHT GIRDER.
3. VENT HOLE COVER ASSEMBLIES SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION AND INSTALLED AFTER GIRDERS ARE PAINTED. PAYMENT FOR VENT HOLE COVER ASSEMBLIES IS INCLUDED WITH COST OF "STRUCTURAL STEEL HS".
4. LOCATE ALL DRAIN HOLES ON THE LOW SIDE OF THE GIRDER AS SHOWN.
5. COST OF ADHESIVE CAULKING AND WIRE MESH ATTACHMENT AT DRAIN HOLES IS INCLUDED IN THE COST OF "STRUCTURAL STEEL HS".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

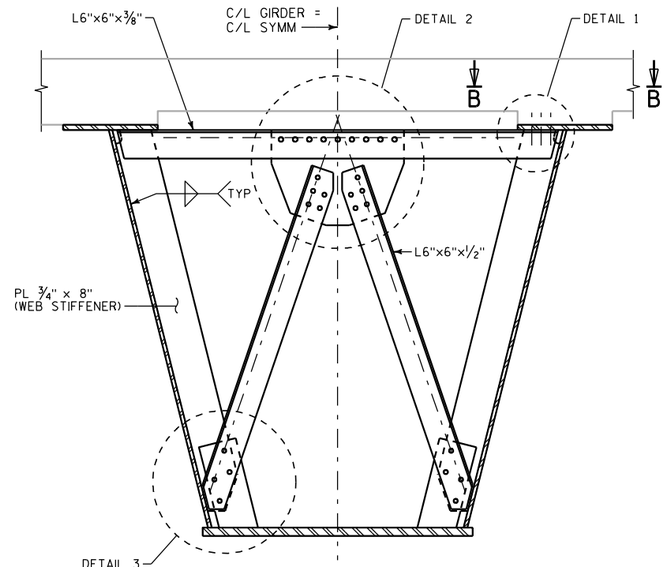
MISCELLANEOUS GIRDER DETAILS

SHEET 58 OF 119

8

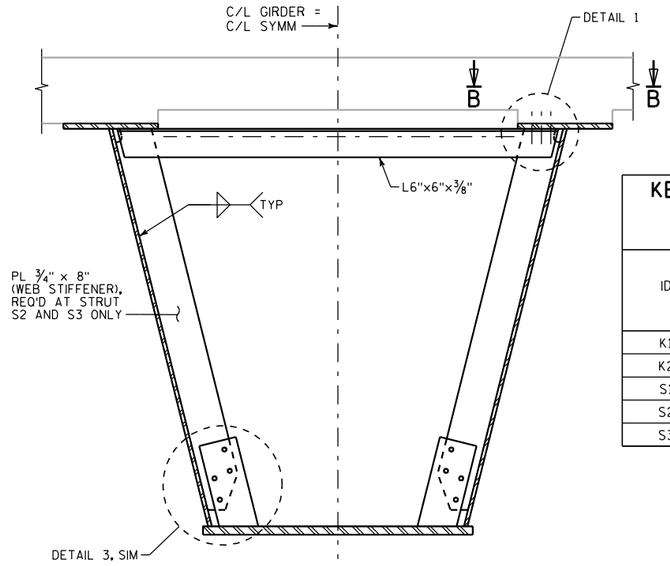
8

STATE PROJECT NUMBER
1060-33-81



TYPICAL SECTION AT K-FRAME

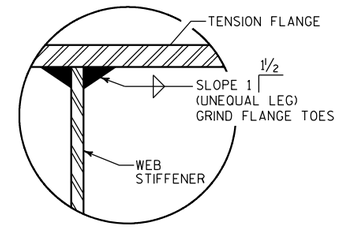
FOR LOCATION OF K-FRAMES K1 AND K2
SEE GIRDER PLAN AND ELEVATION SHEETS



TYPICAL SECTION AT STRUT

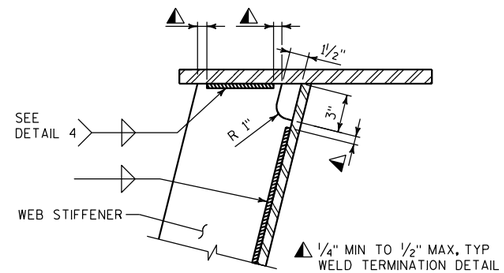
FOR LOCATION OF STRUTS S1, S2, AND S3
SEE GIRDER PLAN AND ELEVATION SHEETS

KEY TO K-FRAME AND STRUT IDENTIFIERS		
ID	NO. OF BOLTS REQ'D AT DETAIL 1	WEB STIFFENERS REQUIRED
K1	3	YES
K2	6	YES
S1	3	NO
S2	6	YES
S3	3	YES

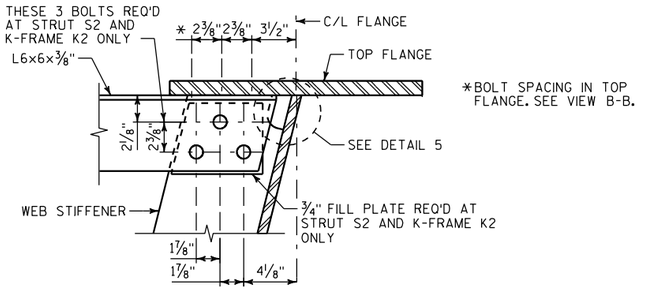


DETAIL 4

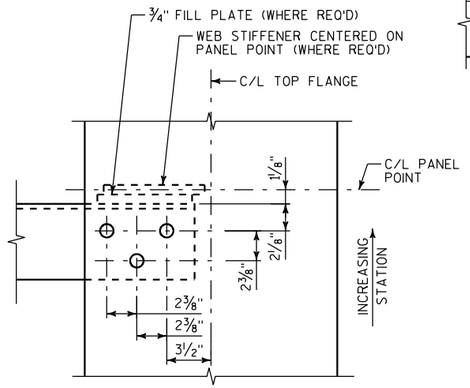
WEB STIFFENER DETAIL AT TENSION FLANGE



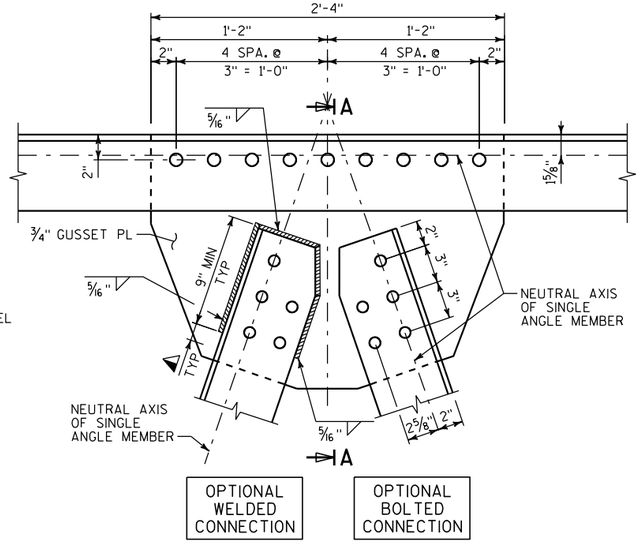
DETAIL 5



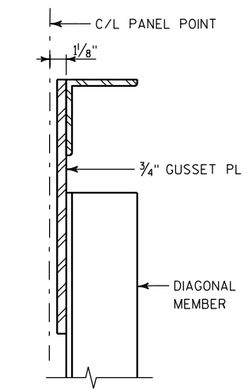
DETAIL 1



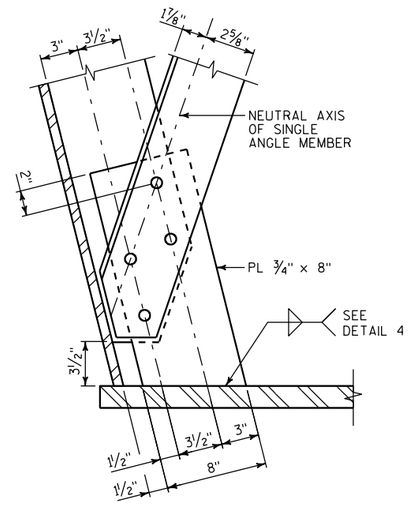
VIEW B-B



DETAIL 2



SECTION A-A



DETAIL 3

NOTES

1. ALL BOLTS IN K-FRAME OR STRUT CONNECTIONS ARE 7"8" DIAMETER ASTM A325 TYPE 1.
2. K-FRAMES AND STRUTS ARE ALIGNED NORMAL TO THE GIRDER BOTTOM FLANGE UNLESS NOTED OTHERWISE.
3. ALL DIAGONALS AT EACH SPECIFIC K-FRAME LOCATION SHALL USE THE SAME CONNECTION DETAIL, EITHER BOLTED OR WELDED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

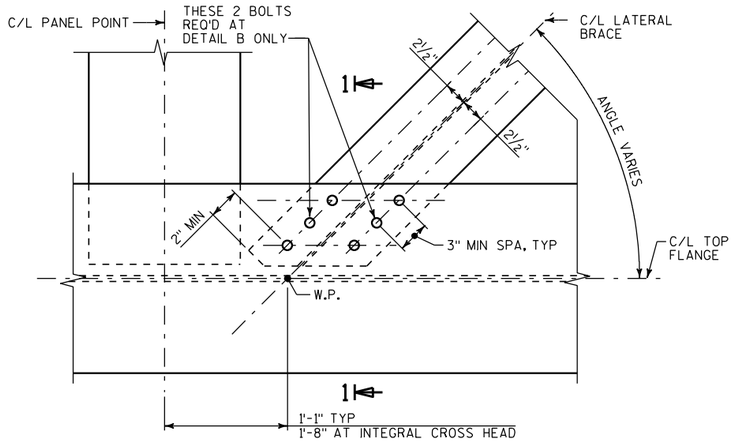
K-FRAMES AND STRUTS

SHEET 59 OF 119

8

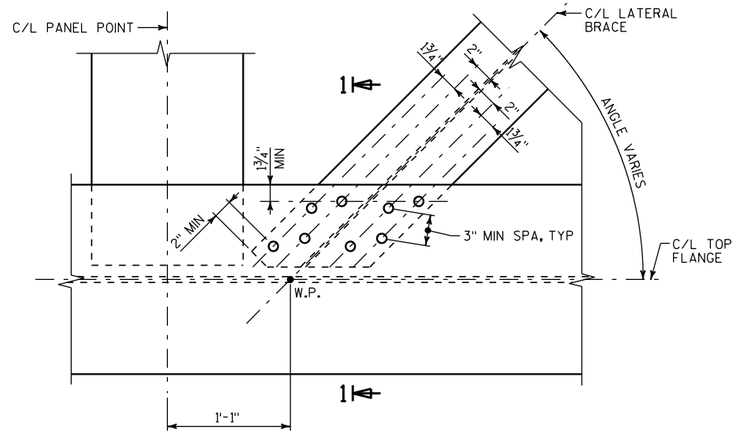
8

STATE PROJECT NUMBER
1060-33-81

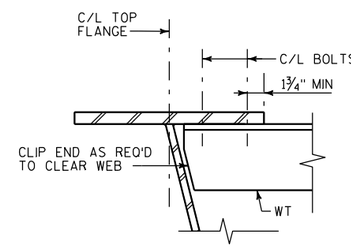


DETAIL A
4 BOLT CONNECTION

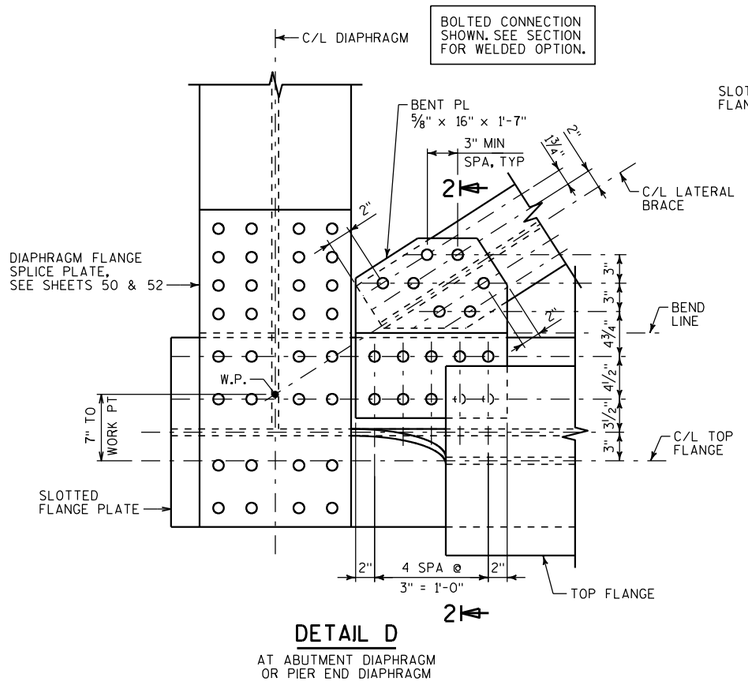
DETAIL B
6 BOLT CONNECTION



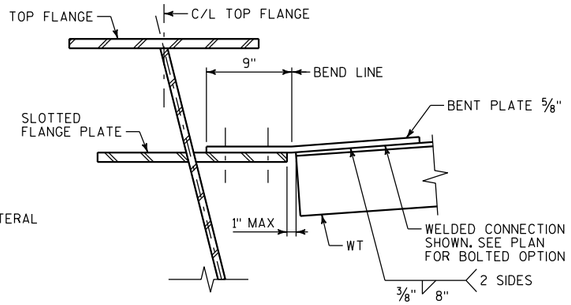
DETAIL C
8 BOLT CONNECTION



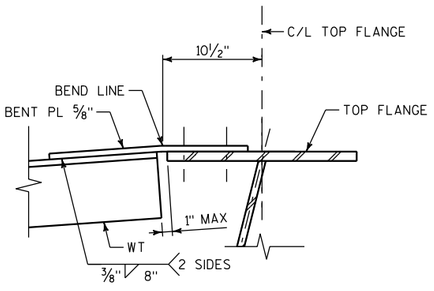
SECTION 1-1



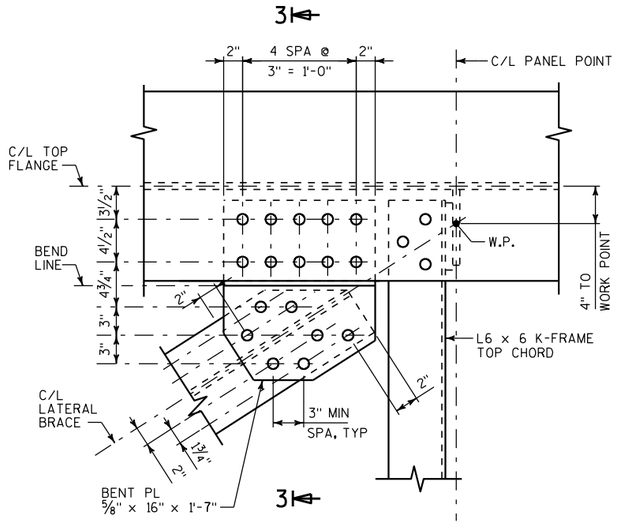
DETAIL D
AT ABUTMENT DIAPHRAGM OR PIER END DIAPHRAGM



SECTION 2-2



SECTION 3-3



DETAIL D
AT FIRST K-FRAME

SECTION MARKS

THE FIRST CHARACTER OF THE LATERAL BRACING IDENTIFIER SPECIFIES THE MEMBER SIZE AS FOLLOWS:

1 WT 7 x 30.5

2 WT 8 x 33.5

3 WT 8 x 38.5

THE SECOND CHARACTER OF THE LATERAL BRACING IDENTIFIER SPECIFIES THE END CONNECTION DETAIL AND RELATES DIRECTLY TO DETAILS A THRU D ON THIS SHEET.

NOTES:

1. ALL BOLTS CONNECTING LATERAL BRACING MEMBERS ARE 1" DIAMETER ASTM A325 TYPE 1.
2. ALL HOLES ARE STD. HOLES.
3. DETAILS ON THIS SHEET SHOW TYPICAL DIMENSIONS ONLY AND WILL HAVE TO BE MIRRORED OR REVERSED AS REQUIRED.
4. SEE GIRDER FRAMING PLANS FOR ORIENTATION OF EACH LATERAL BRACE.
5. SEE OTHER SHEETS IN THIS PLAN SET FOR DETAILS AND CONNECTIONS FOR THE ABUTMENT DIAPHRAGM, PIER DIAPRHAGM, INTERMEDIATE DIAPHRAGM, INTERMEDIATE K-FRAME AND STRUT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

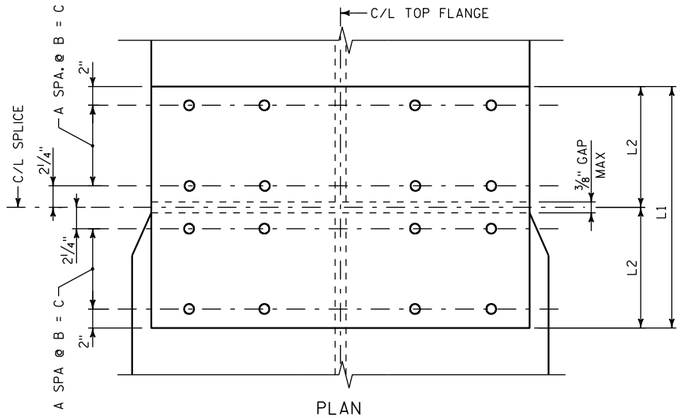
DRAWN BY	GLM	PLANS CK'D.	WRT

LATERAL BRACING DETAILS

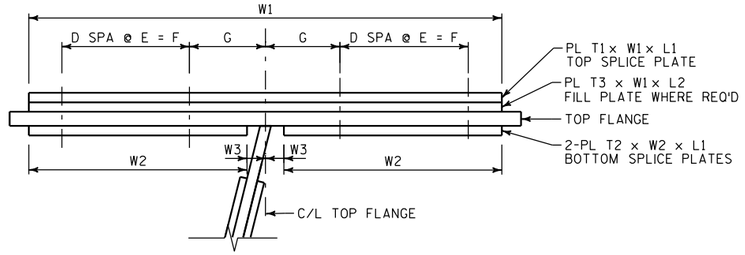
SHEET 60 OF 119

8

8

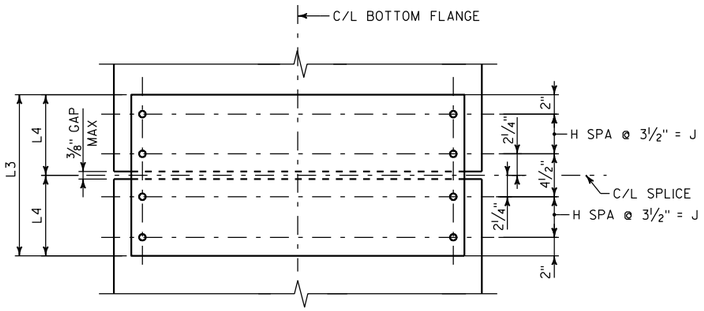


PLAN

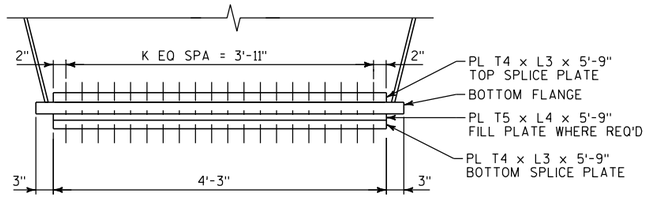


SECTION

TOP FLANGE SPLICE

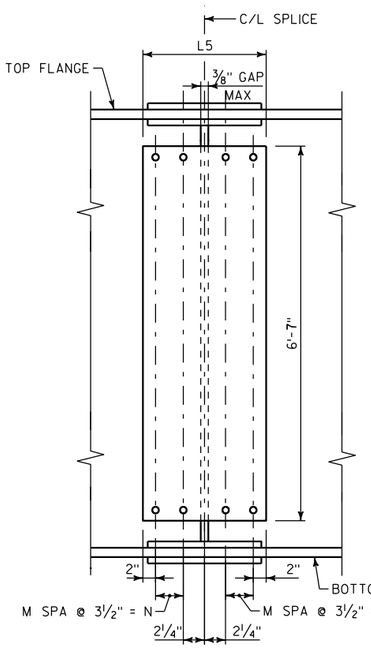


PLAN

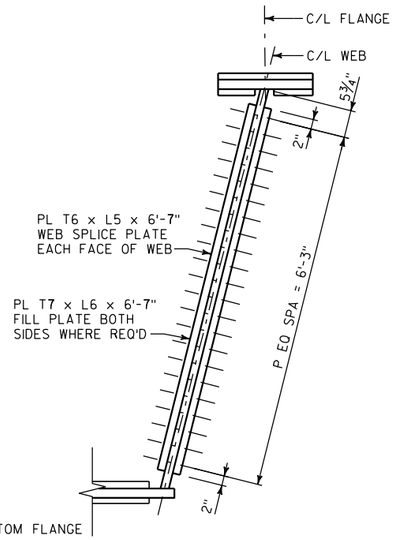


SECTION

BOTTOM FLANGE SPLICE



ELEVATION



SECTION

WEB SPLICE

FLANGE SPLICE TABLE

FIELD SPLICE NUMBER	GIRDER	TOP FLANGE SPLICE															BOTTOM FLANGE SPLICE							WEB SPLICE						
		T1	T2	T3	L1	L2	W1	W2	W3	A	B	C	D	E	F	G	T4	T5	L3	L4	H	J	K	T6	T7	L5	L6	M	N	P
1	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	½"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	¾"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
2	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	½"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	½"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
3	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	¾"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	¼"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	⅜"	¾"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
4	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	¾"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	¼"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	⅜"	¾"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
5	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	¾"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	¼"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	⅜"	½"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
6	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	¾"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	¼"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	⅜"	½"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
7	LT	½"	½"	¼"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	⅜"	¾"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	¼"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	⅜"	¾"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
8	LT	½"	½"	¼"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
	RT	⅝"	⅝"	-	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
9	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	½"	-	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	¼"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	¼"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
10	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	½"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	½"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
11	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	¼"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	¼"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
12	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	-	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	¼"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18

FIELD SPLICE NOTES

1. ALL BOLTS SHOWN FOR FIELD SPLICES ARE 1" DIAMETER ASTM A325 TYPE 1.
2. ALL HOLES SHALL BE STANDARD DIAMETER - NO OVERSIZE HOLES.
3. ALL CONNECTIONS SHALL BE FABRICATED AND ASSEMBLED AS SLIP-CRITICAL CONNECTIONS.
4. ALL SPLICE PLATES SHALL BE GRADE HPS 50W.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

FIELD SPLICE DETAILS UNIT 1

SHEET 61 OF 119

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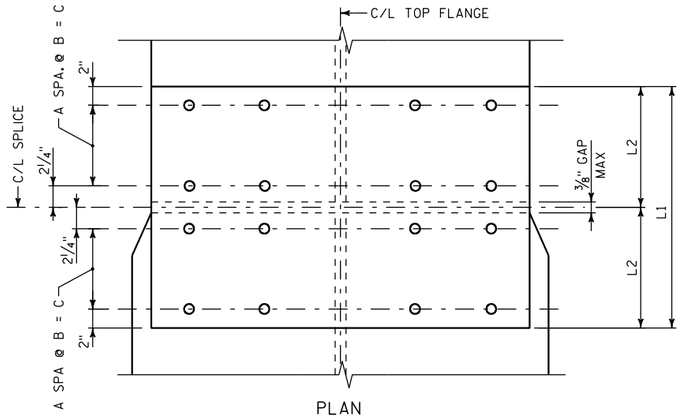
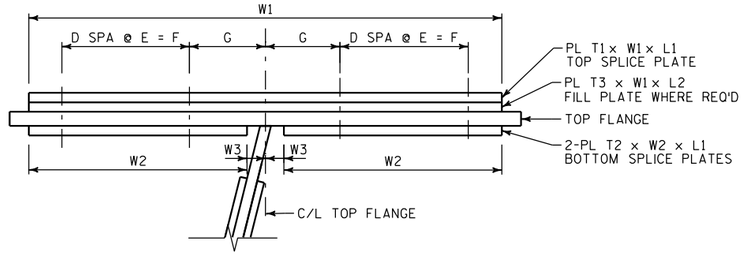
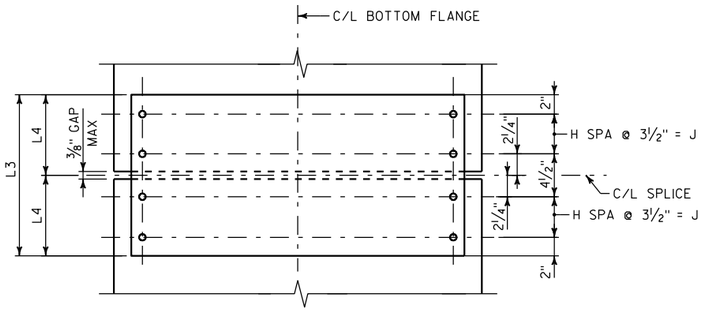


PLAN



SECTION

TOP FLANGE SPLICE



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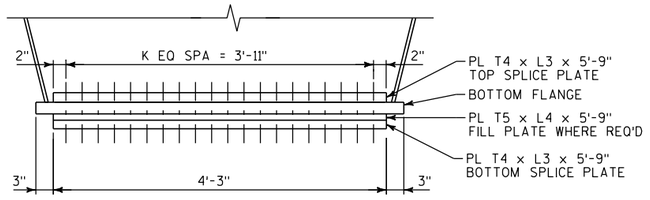
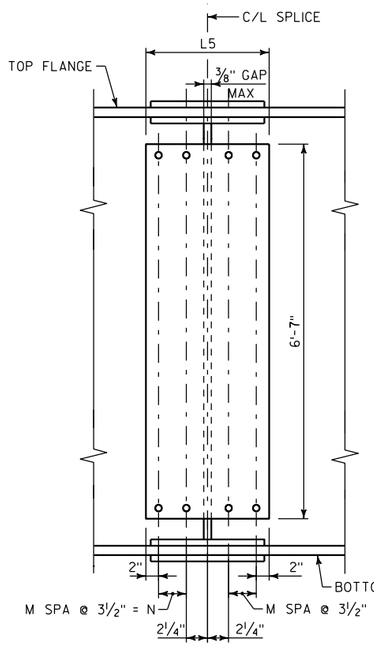
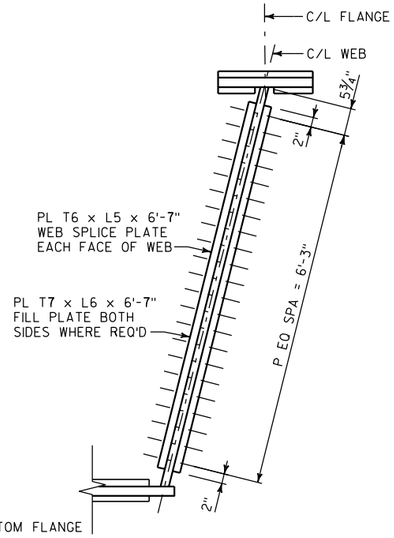


SECTION

BOTTOM FLANGE SPLICE



ELEVATION



SECTION

WEB SPLICE

FLANGE SPLICE TABLE

FIELD SPLICE NUMBER	GIRDER	TOP FLANGE SPLICE															BOTTOM FLANGE SPLICE							WEB SPLICE						
		T1	T2	T3	L1	L2	W1	W2	W3	A	B	C	D	E	F	G	T4	T5	L3	L4	H	J	K	T6	T7	L5	L6	M	N	P
13	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	¾"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
14	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
15	LT	½"	½"	¼"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	¾"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	½"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	¾"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
16	LT	½"	½"	¼"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	¾"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	½"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	¾"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
17	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	¼"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
18	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	¼"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
19	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	14	⅜"	-	1'-3½"	-	1	3½"	18
20	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	¾"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	¾"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
21	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	½"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	¾"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
22	LT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	½"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18
	RT	½"	½"	-	1'-10½"	11¼"	1'-8"	9"	1"	2	3½"	7"	1	4½"	4½"	3¼"	⅜"	½"	1'-10½"	11¼"	2	7"	11	⅜"	-	1'-3½"	-	1	3½"	18

FIELD SPLICE NOTES

1. ALL BOLTS SHOWN FOR FIELD SPLICES ARE 1" DIAMETER ASTM A325 TYPE 1.
2. ALL HOLES SHALL BE STANDARD DIAMETER - NO OVERSIZE HOLES.
3. ALL CONNECTIONS SHALL BE FABRICATED AND ASSEMBLED AS SLIP-CRITICAL CONNECTIONS.
4. ALL SPLICE PLATES SHALL BE GRADE HPS 50W.

STATE PROJECT NUMBER
1060-33-81

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

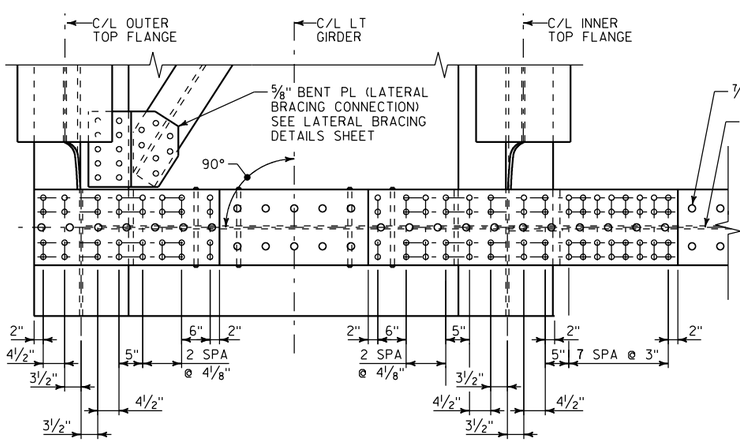
DRAWN BY GLM | PLANS CK'D. WRT

FIELD SPLICE DETAILS UNIT 2

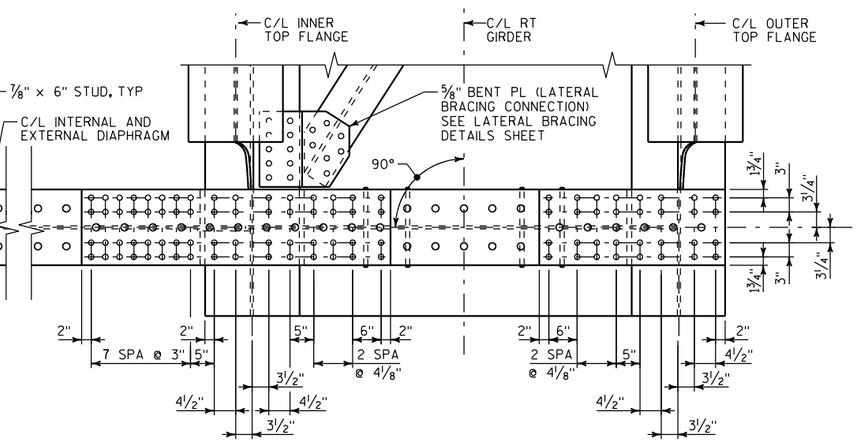
SHEET 62 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080526_ss.dgn PLOT DATE : 15-MAY-2015 13:53 PLOT BY : MSCWRT PLOT NAME : B856_080526_ss PLOT SCALE : 2.666667:1

STATE PROJECT NUMBER
1060-33-81



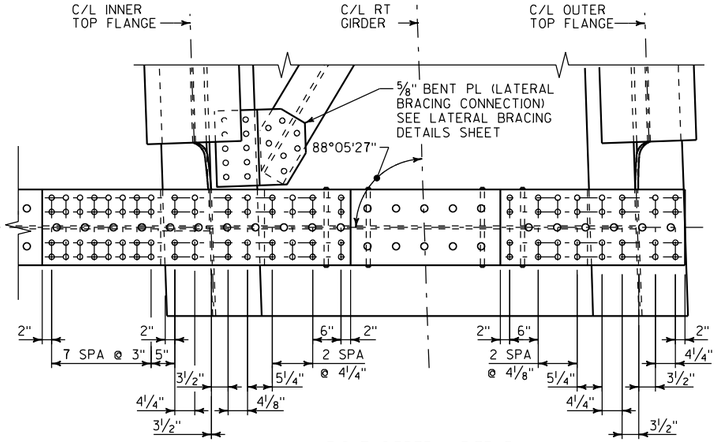
LEFT GIRDER - PIER 5 & N ABUT



RIGHT GIRDER - N ABUT

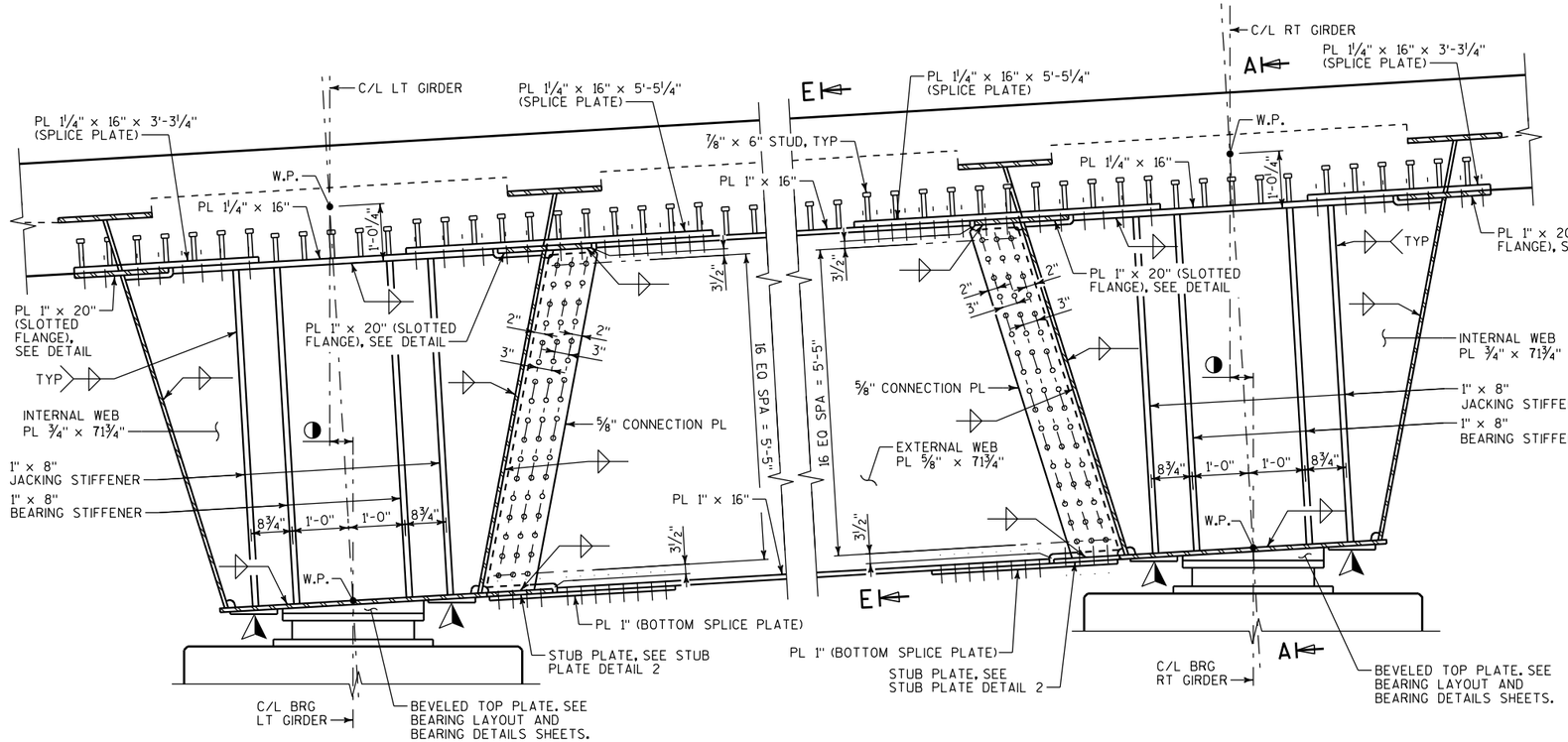
PLAN SHOWING TOP FLANGE

PIER 5 SHOWN, NORTH ABUTMENT SIMILAR
VIEWED NORMAL TO DECK SURFACE



RIGHT GIRDER - PIER 5

DIMENSIONS GIVEN ALONG C/L DIAPHRAGM



ELEVATION

LOOKING UPSTATION

NOTES

1. INTERNAL AND EXTERNAL DIAPHRAGMS AT NORTH ABUTMENT ARE ALIGNED NORMAL TO THE GIRDER. INTERNAL AND EXTERNAL DIAPHRAGMS AT PIER 5 ARE ALIGNED NORMAL TO LEFT GIRDER.
2. ALL BOLTS IN DIAPHRAGMS ARE 1" DIAMETER.
3. FOR DETAILS OF WELD TERMINATIONS AND STANDARD CLIPS, SEE DIAPHRAGM DETAILS (2 OF 2) SHEET.
4. SHEAR STUD CONNECTORS SHALL BE PROVIDED ON THE TOP FLANGE AND TOP FLANGE SPLICE PLATE AT ABOUT 6" CENTERS. PROVIDE TWO STUDS PER ROW ON THE TOP FLANGE AND ONE STUD PER ROW CENTERED ON THE TOP FLANGE SPLICE PLATES.
5. FOR SECTIONS, SEE DIAPHRAGM DETAILS (1 OF 2) SHEET.

LEGEND

▲ SUGGESTED JACKING PAD AND JACKING STIFFENER LOCATION FOR FUTURE BEARING REPLACEMENT. SEE JACKING PROVISIONS SHEET FOR DETAILS.

◐ 2 9/16" PIER 5
4 3/8" N ABUT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

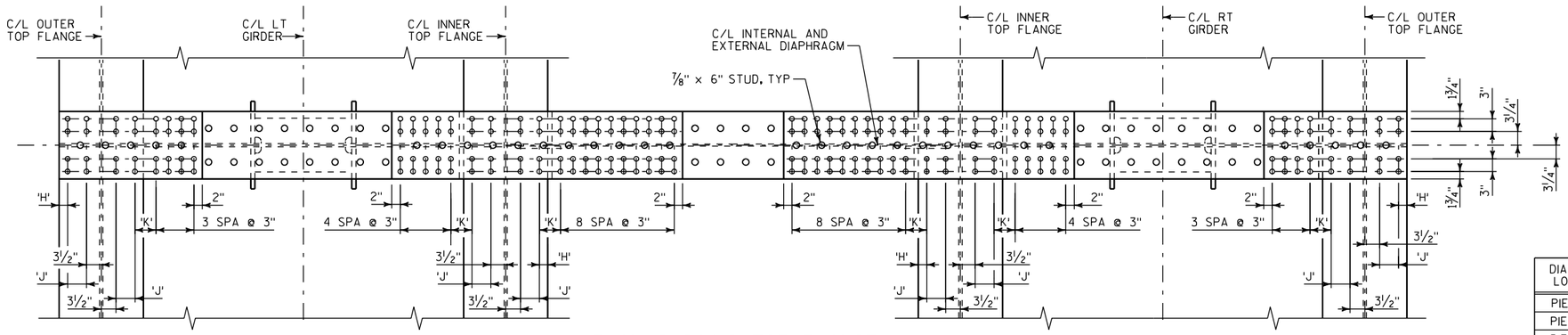
ABUTMENT DIAPHRAGM

SHEET 63 OF 119

8

8

STATE PROJECT NUMBER
1060-33-81



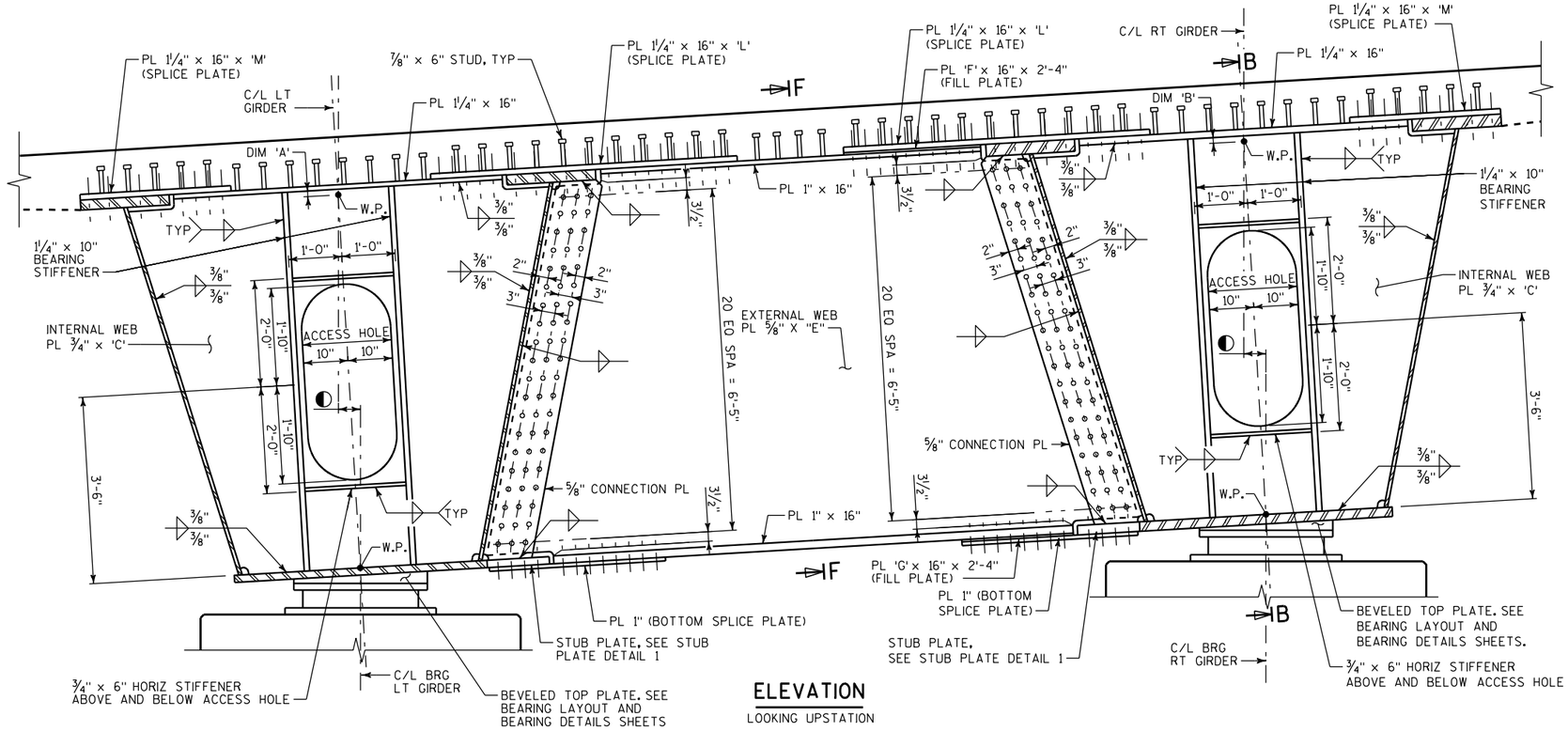
PLAN SHOWING TOP FLANGE

PIER WN02 DIAPHRAGM SHOWN, OTHER DIAPHRAGMS SIMILAR
VIEWED NORMAL TO DECK SURFACE

TUB GIRDER TOP FLANGE	DIMENSIONS				
	'H'	'J'	'K'	'L'	'M'
20" TF	2"	4 1/2"	5"	5'-6"	2'-10"
22" TF	2"	5 1/2"	5"	5'-8"	3'-0"
24" TF	2"	6 1/2"	5"	5'-10"	3'-2"
26" TF	2 1/2"	7"	5 1/2"	6'-0"	3'-4"

DIAPHRAGM LOCATION	DIMENSIONS						
	'A'*	'B'*	'C'	'D'	'E'	'F'	'G'
PIER WN01	3/4"	3/4"	84 3/4"	84 3/4"	85 3/4"	0"	0"
PIER WN02	3/4"	3/4"	84 3/4"	84 3/4"	85 3/4"	0"	1/4"
PIER WN03	3/4"	3/4"	84 3/4"	84 3/4"	85 3/4"	0"	1/4"
PIER WN04	1"	1"	85"	85"	86 1/4"	0"	0"
PIER WN05	1/4"	1/2"	84 1/4"	84 1/2"	85"	1/4"	0"
PIER WN06	-1/4"	-1/4"	83 3/4"	83 3/4"	84"	0"	1/4"
PIER WN08	1/2"	3/4"	84 1/2"	84 3/4"	85 1/2"	1/4"	0"
PIER WN09	1"	1"	85"	85"	86 1/2"	0"	0"
PIER WN10	3/4"	1"	84 3/4"	85"	86"	1/4"	0"
PIER WN11	1/2"	1/2"	84 1/2"	84 1/2"	85 3/4"	0"	0"
PIER WN12	1/2"	1/2"	84 1/2"	84 1/2"	85 1/2"	0"	0"

* A NEGATIVE DIMENSION IN DIMENSION 'A' OR 'B' REPRESENTS A DIMENSION TO THE TOP FLANGE WORKING POINT THAT FALLS WITHIN THE DIAPHRAGM TOP FLANGE.



ELEVATION

LOOKING UPSTATION

NOTES

1. INTERNAL AND EXTERNAL DIAPHRAGMS ARE ALIGNED NORMAL TO THE GIRDER.
2. ALL BOLTS IN DIAPHRAGMS ARE 1" DIAMETER.
3. FOR DETAILS OF WELD TERMINATIONS AND STANDARD CLIPS, SEE DIAPHRAGM DETAILS (2 OF 2) SHEET.
4. SHEAR STUD CONNECTORS SHALL BE PROVIDED ON THE TOP FLANGE AND TOP FLANGE SPLICE PLATE AT ABOUT 6" CENTERS. PROVIDE TWO STUDS PER ROW ON THE TOP FLANGE AND ONE STUD PER ROW CENTERED ON THE TOP FLANGE SPLICE PLATES.
5. FOR SECTIONS SEE DIAPHRAGM DETAILS (1 OF 2) SHEET.

LEGEND

◐ 2 9/16" PIER WN01
4 3/8" PIER WN02 THRU PIER WN06
4 3/8" PIER WN08 THRU PIER WN12

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

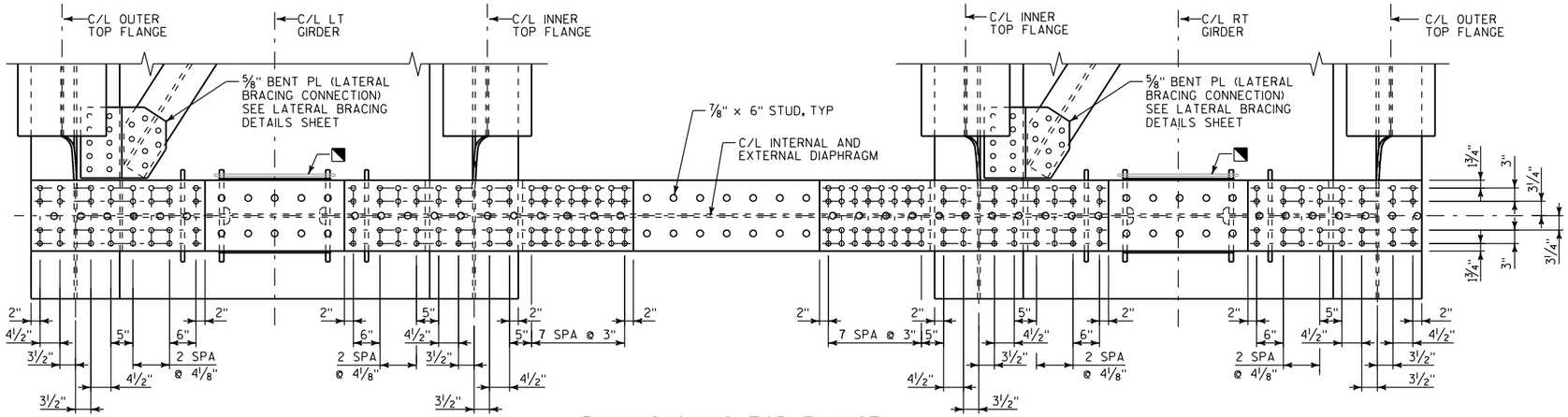
STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

TYPICAL PIER DIAPHRAGM

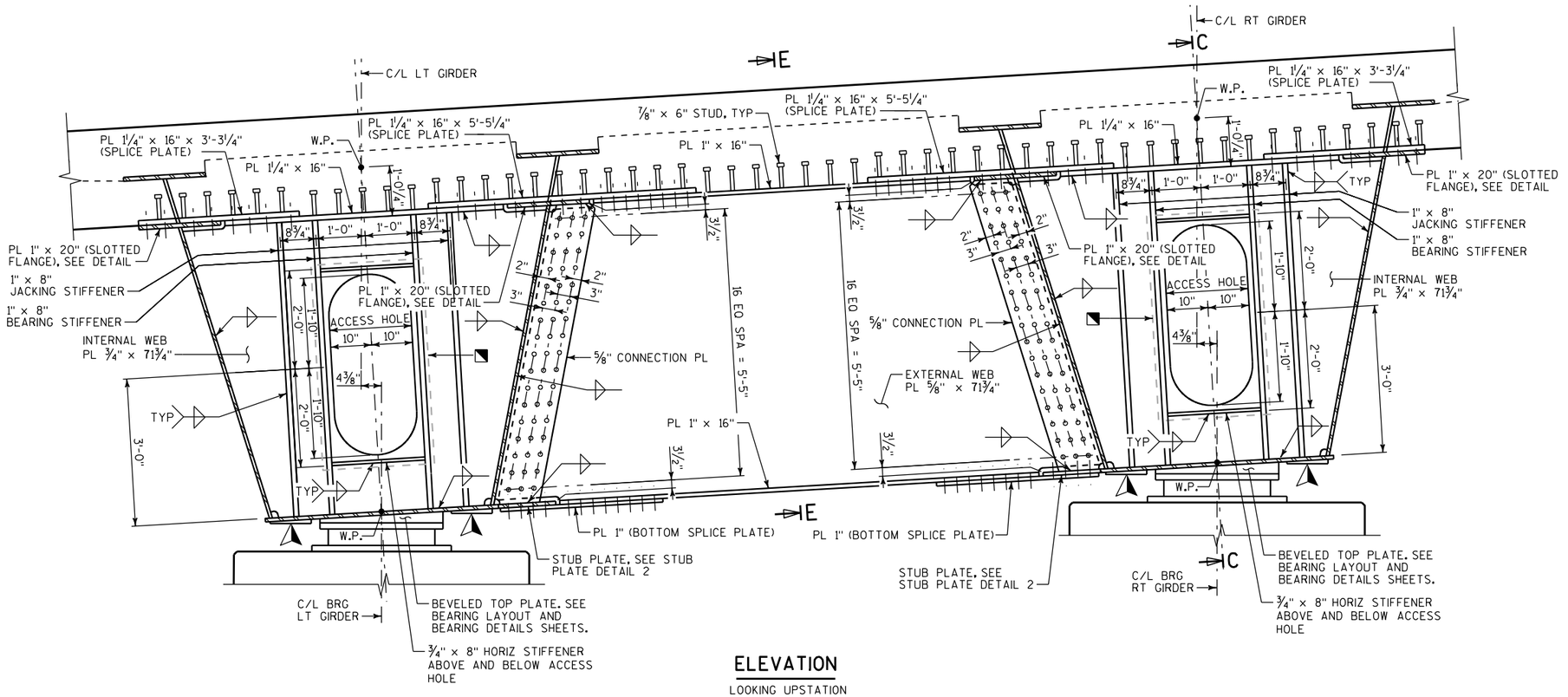
SHEET 64 OF 119

STATE PROJECT NUMBER
1060-33-81



PLAN SHOWING TOP FLANGE

UNIT 2 SHOWN, UNIT 1 SIMILAR
VIEWED NORMAL TO DECK SURFACE



ELEVATION

LOOKING UPSTATION

NOTES

1. INTERNAL AND EXTERNAL DIAPHRAGMS ARE ALIGNED NORMAL TO THE GIRDER.
2. ALL BOLTS IN DIAPHRAGMS ARE 1" DIAMETER.
3. FOR DETAILS OF WELD TERMINATIONS AND STANDARD CLIPS, SEE DIAPHRAGM DETAILS (2 OF 2) SHEET.
4. SHEAR STUD CONNECTORS SHALL BE PROVIDED ON THE TOP FLANGE AND TOP FLANGE SPLICE PLATE AT ABOUT 6" CENTERS. PROVIDE TWO STUDS PER ROW ON THE TOP FLANGE AND ONE STUD PER ROW CENTERED ON THE TOP FLANGE SPLICE PLATES.
5. FOR SECTIONS SEE DIAPHRAGM DETAILS (1 OF 2) SHEET.

LEGEND

SUGGESTED JACKING PAD AND JACKING STIFFENER LOCATION FOR FUTURE BEARING REPLACEMENT. SEE JACKING PROVISIONS SHEET FOR DETAILS.

OUTLINE OF ACCESS DOOR. SEE ACCESS DOOR DETAILS SHEET. PLACE ACCESS DOOR ON THE INTERIOR SIDE OF THE INTERNAL DIAPHRAGM.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

PIER END DIAPHRAGM

SHEET 65 OF 119

8

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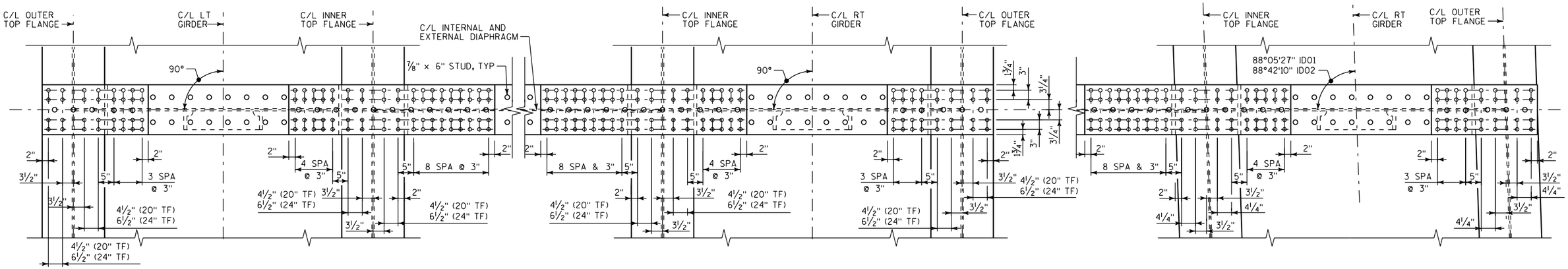
STATE PROJECT NUMBER
1060-33-81



LEFT GIRDER - ALL LOCATIONS

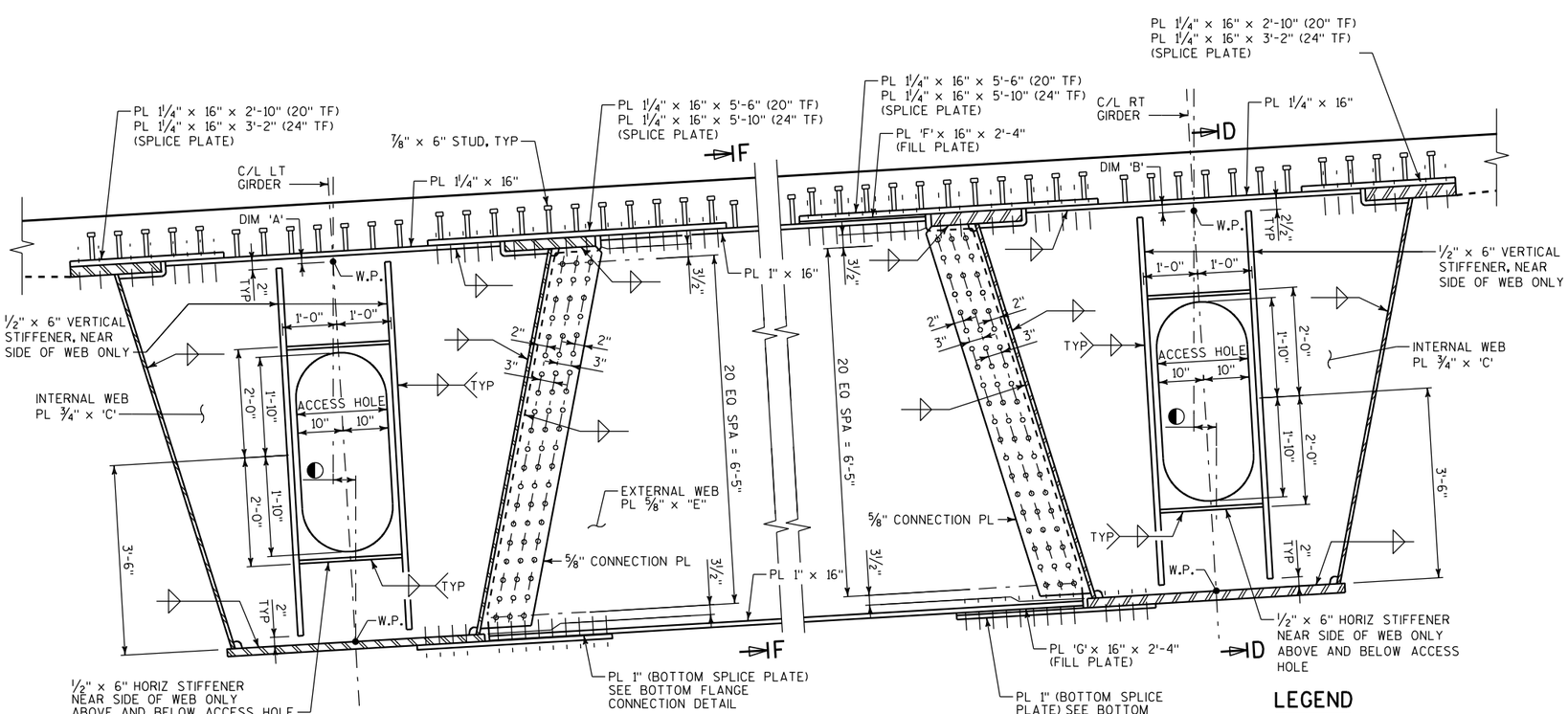
RIGHT GIRDER - ALL LOCATIONS EXCEPT ID01 & ID02

RIGHT GIRDER - ID01 & ID02

DIMENSIONS GIVEN ALONG C/L DIAPHRAGM

PLAN SHOWING TOP FLANGE

INTERMEDIATE DIAPHRAGM ID04 SHOWN, OTHER DIAPHRAGMS SIMILAR
VIEWED NORMAL TO DECK SURFACE



ELEVATION

LOOKING UPSTATION

DIAPHRAGM LOCATION	DIMENSIONS						
	'A'*	'B'*	'C'	'D'	'E'	'F'	'G'
ID01, ID03, ID04, ID07 ID08, ID14, ID15, ID23 ID24, ID26	-¼"	-¼"	83¾"	83¾"	83¾"	0"	0"
ID02, ID25	-¼"	-¼"	83¾"	83¾"	84¼"	0"	¼"
ID05, ID06, ID13	-¼"	-¼"	83¾"	83¾"	83¾"	0"	¼"
ID09, ID10	-¼"	0"	83¾"	84"	84"	¼"	0"
ID11	-¼"	-¼"	83¾"	83¾"	84¼"	0"	0"
ID12, ID17, ID18, ID19 ID20, ID21, ID22	-¼"	-¼"	83¾"	83¾"	84"	0"	0"
ID16	-¼"	-¼"	83¾"	83¾"	84½"	0"	0"

* A NEGATIVE DIMENSION IN DIMENSION 'A' OR 'B' REPRESENTS A DIMENSION TO THE TOP FLANGE WORKING POINT THAT FALLS WITHIN THE DIAPHRAGM TOP FLANGE.

NOTES

1. INTERNAL AND EXTERNAL DIAPHRAGMS ARE ALIGNED NORMAL TO THE GIRDER EXCEPT AS NOTED FOR RIGHT GIRDER OF DIAPHRAGM ID01 & ID02.
2. ALL BOLTS IN DIAPHRAGMS ARE 1" DIAMETER.
3. FOR DETAILS OF WELD TERMINATIONS AND STANDARD CLIPS, SEE DIAPHRAGM DETAILS (2 OF 2) SHEET.
4. SHEAR STUD CONNECTORS SHALL BE PROVIDED ON THE TOP FLANGE AND TOP FLANGE SPLICE PLATE AT ABOUT 6" CENTERS. PROVIDE TWO STUDS PER ROW ON THE TOP FLANGE AND ONE STUD PER ROW CENTERED ON THE TOP FLANGE SPLICE PLATES.
5. FOR SECTIONS, SEE DIAPHRAGM DETAILS (1 OF 2) SHEET.

LEGEND

◐ 2 9/16" ID01 & ID02
2 5/8" ID03
4 3/8" ALL OTHER DIAPHRAGM LOCATIONS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

INTERMEDIATE DIAPHRAGM

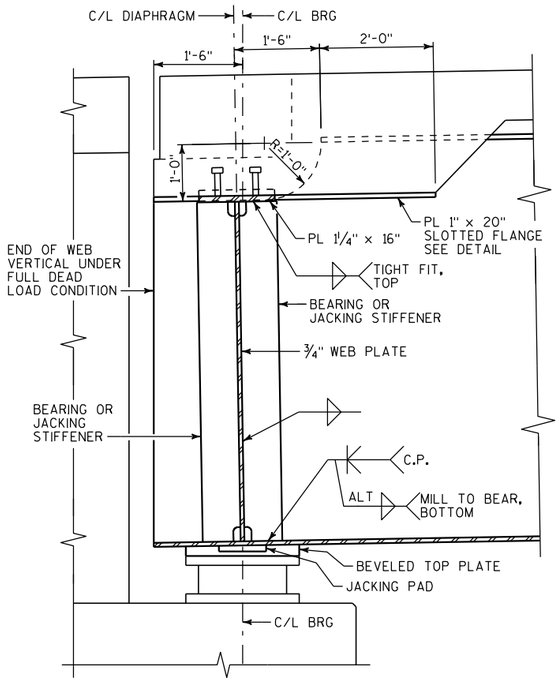
SHEET 66 OF 119

8

8

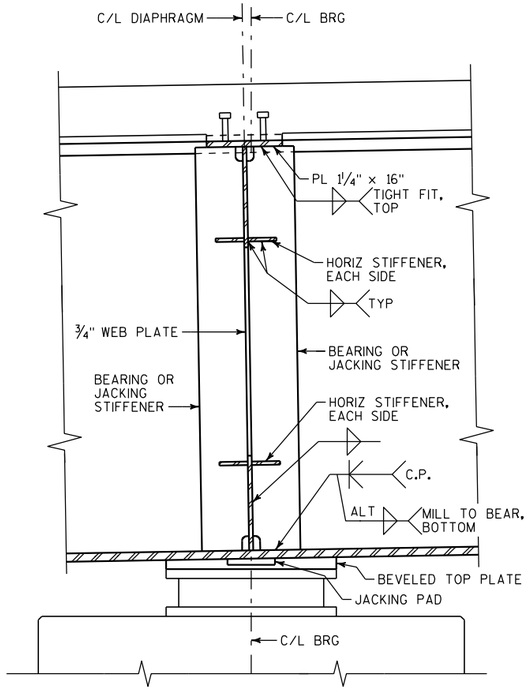
STATE PROJECT NUMBER

1060-33-81



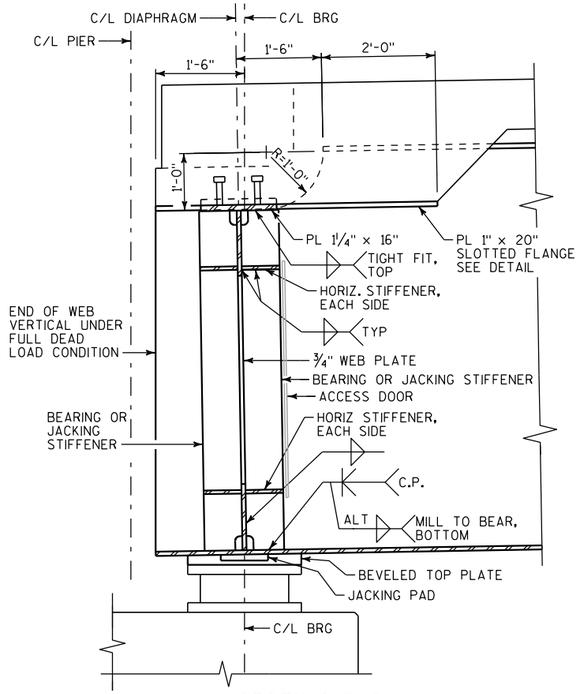
SECTION A-A

INTERNAL DIAPHRAGM AT ABUTMENT DIAPHRAGM



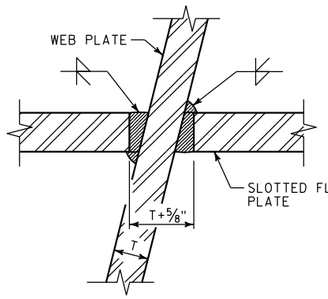
SECTION B-B

INTERNAL DIAPHRAGM AT TYPICAL PIER DIAPHRAGM

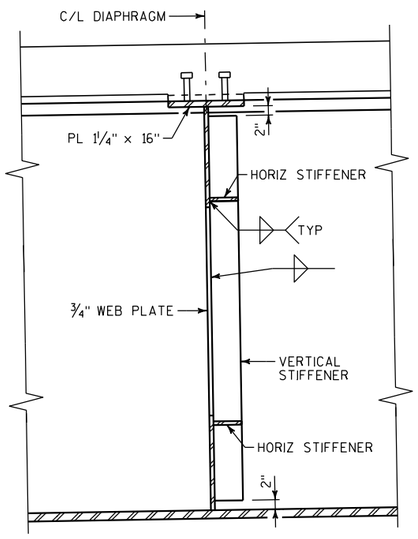


SECTION C-C

INTERNAL DIAPHRAGM AT PIER END DIAPHRAGM

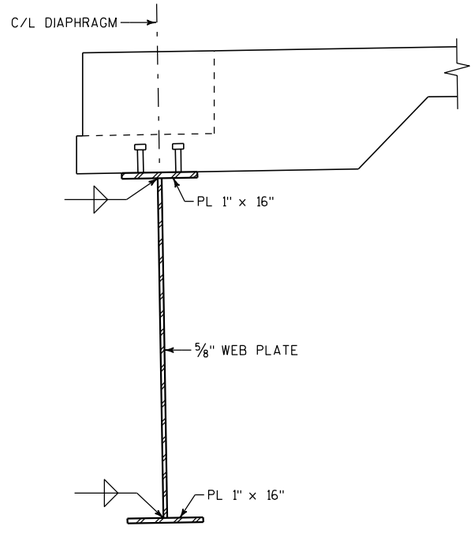


SLOTTED FLANGE DETAIL



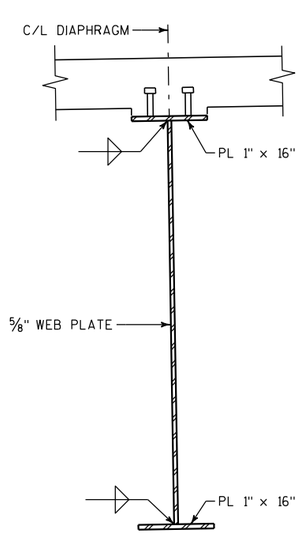
SECTION D-D

INTERNAL DIAPHRAGM AT INTERMEDIATE DIAPHRAGM



SECTION E-E

EXTERNAL DIAPHRAGM AT ABUTMENT DIAPHRAGM AND PIER END DIAPHRAGM



SECTION F-F

EXTERNAL DIAPHRAGM AT TYPICAL PIER DIAPHRAGM AND INTERMEDIATE DIAPHRAGM

NOTES

1. INTERNAL AND EXTERNAL DIAPHRAGMS ARE ALIGNED NORMAL TO THE GIRDER BOTTOM FLANGE.
2. ALL BOLTS IN DIAPHRAGMS ARE 1" DIAMETER.
3. FOR DETAILS OF WELD TERMINATIONS AND STANDARD CLIPS, SEE DIAPHRAGM DETAILS (2 OF 2) SHEET.
4. SHEAR STUD CONNECTORS SHALL BE PROVIDED ON THE TOP FLANGE AND TOP FLANGE SPLICE PLATE AT ABOUT 6" CENTERS. PROVIDE TWO STUDS PER ROW ON THE TOP FLANGE AND ONE STUD PER ROW CENTERED ON THE TOP FLANGE SPLICE PLATES.
5. LATERAL BRACING CONNECTIONS ARE NOT SHOWN FOR CLARITY. SEE LATERAL BRACING DETAILS SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

DIAPHRAGM DETAILS (1 OF 2)

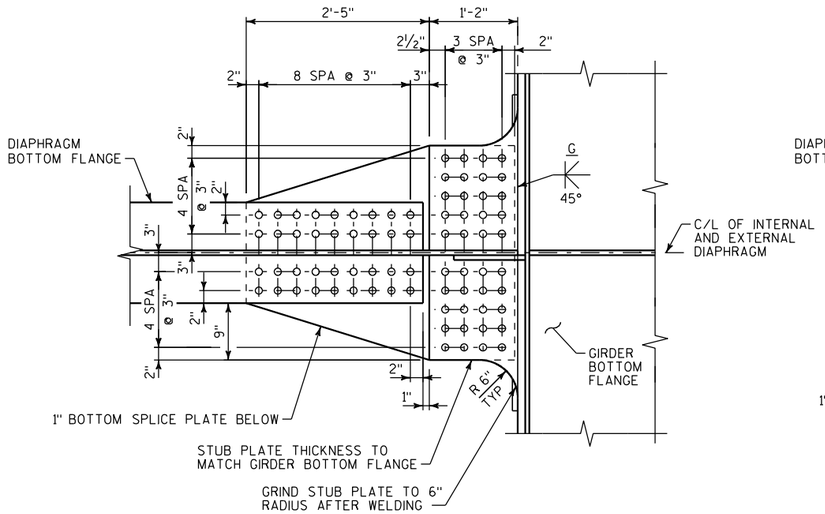
SHEET 67 OF 119

8

8

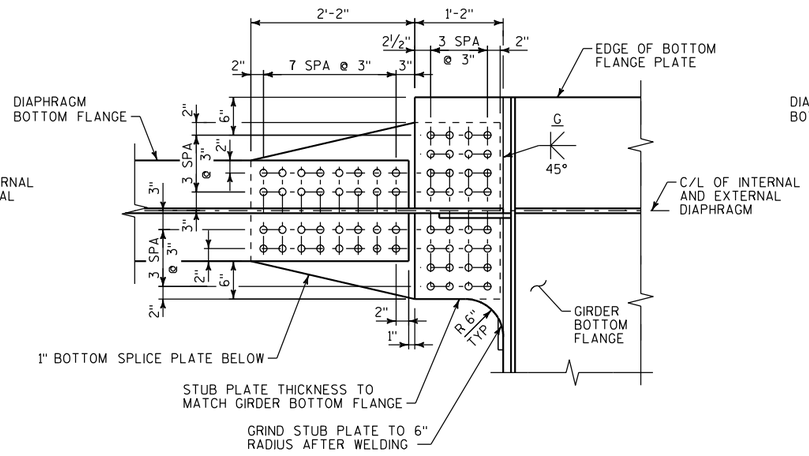
STATE PROJECT NUMBER

1060-33-81



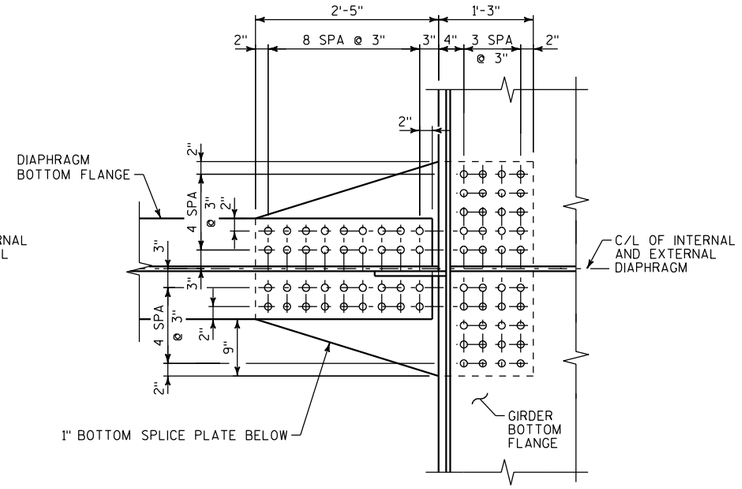
STUB PLATE DETAIL 1

TYPICAL PIER DIAPHRAGM



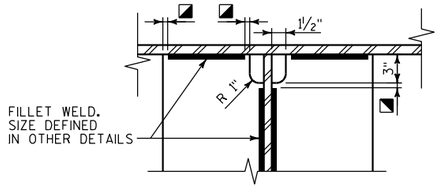
STUB PLATE DETAIL 2

ABUTMENT DIAPHRAGM AND PIER END DIAPHRAGM



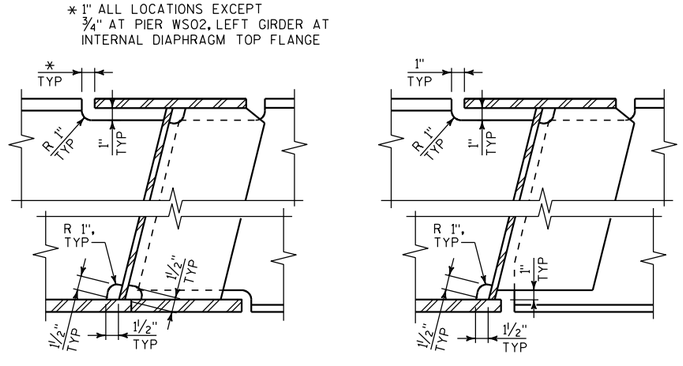
BOTTOM FLANGE CONNECTION DETAIL

INTERMEDIATE DIAPHRAGM ONLY



STANDARD CLIP & WELD TERMINATION DETAIL

◪ ¼" MIN TO ½" MAX. TYP



ABUTMENT & PIER DIAPHRAGMS

INTERMEDIATE DIAPHRAGM

DIAPHRAGM CLIP DETAIL

NOTES:

1. INTERNAL AND EXTERNAL DIAPHRAGMS ARE ALIGNED NORMAL TO THE GIRDER BOTTOM FLANGE.
2. ALL BOLTS IN DIAPHRAGMS ARE 1" DIAMETER.

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

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DIAPHRAGM DETAILS (2 OF 2)

SHEET 68 OF 119

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8

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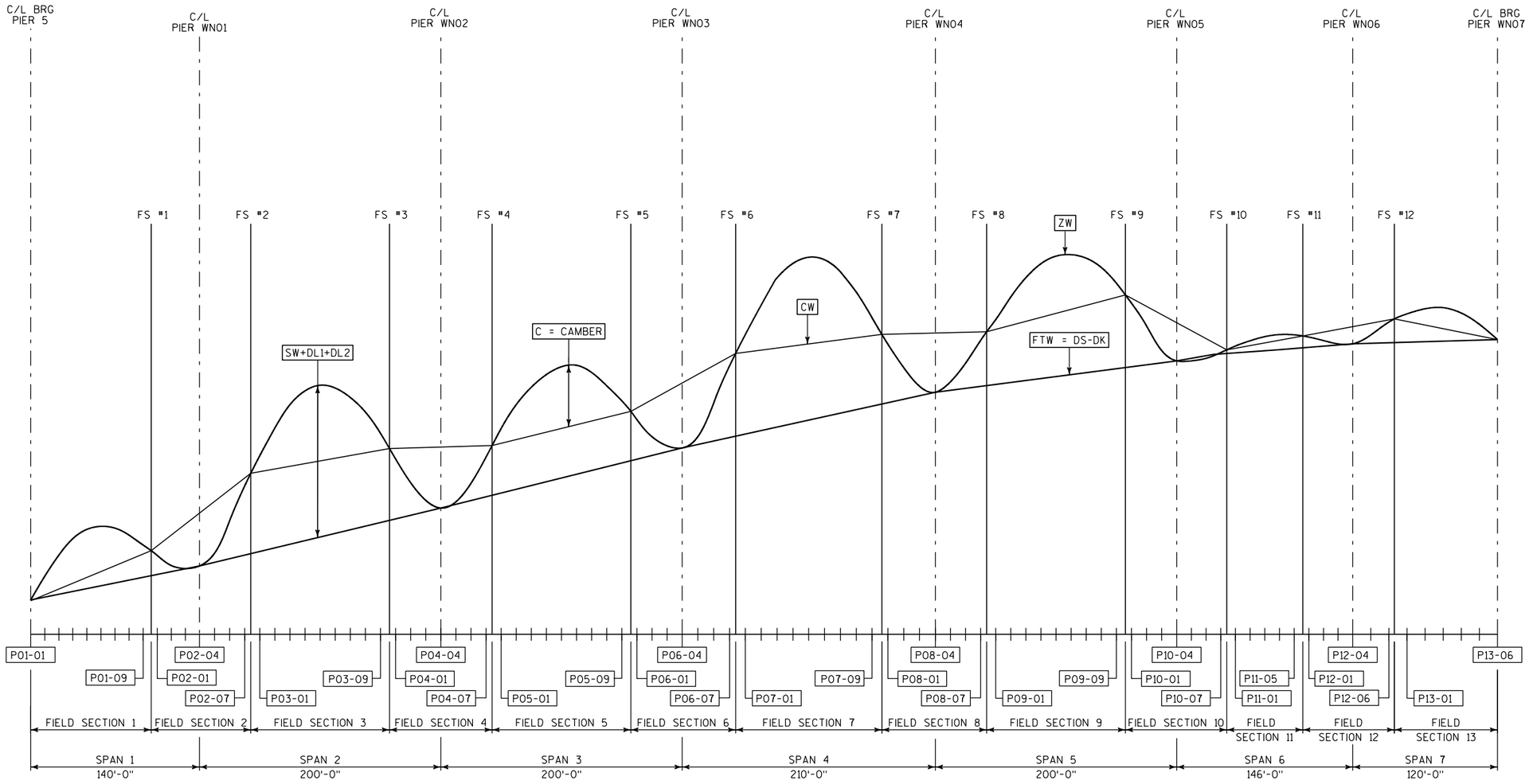

CAMBER DIAGRAM - UNIT 1

VERTICAL PROFILE AND DEFLECTIONS ARE EXAGGERATED TO DIFFERENT DEGREES. THE CAMBERS SHOWN ON THIS DIAGRAM ARE SCHEMATIC ONLY. DIMENSIONS SHOWN ARE ALONG R/L WN

LEGEND

P1-4 — INTERMEDIATE ELEVATION POINT (PANEL POINT).

IN THIS EXAMPLE, '1' IS THE FIELD SECTION NUMBER AND '4' IS THE PANEL POINT WITHIN THIS FIELD SECTION.

NOTES

1. ALL TABULATED VALUES ARE IN DECIMALS OF A FOOT.
2. POSITIVE DEFLECTIONS ARE DOWNWARD.
3. POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS.
4. CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING THAT ALL SLAB WEIGHT, INCLUDING ALLOWANCE FOR PERMANENT STAY-IN-PLACE FORMS, IS APPLIED TO A NON-COMPOSITE STRUCTURE. VERIFY THE VALIDITY OF THIS ASSUMPTION BASED ON THE SELECTED POUR SEQUENCE. ADJUST CAMBER TABLES AS NECESSARY FOR ANY EXPECTED VARIATIONS EXCEEDING .04' (1/2").
5. CAMBER GIRDERS TO THE VALUES SHOWN, AFTER INCORPORATING ANY REQUIRED ADJUSTMENTS FOR THE SELECTED POUR SEQUENCE.
6. TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE CHECKED AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

   IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.087 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

TABULATED ELEVATIONS

FTW FINISHED ELEVATION AT TOP OF WEB.

DS FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION.

= ZW + PL - SW

ZW TOP OF WEB ELEVATION NEGLECTING ALL DEFLECTIONS.

= DS + SW + DL1 + DL2 - DK

CW ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION AT 'ZW' AT FIELD SPLICES AND END SUPPORTS.

BLK BLOCKING HEIGHT TO UNDEFLECTED SHAPE. BLOCKING HEIGHT IS MEASURED TO BOTTOM OF WEB AND DOES NOT TAKE INTO ACCOUNT BOTTOM FLANGE THICKNESS, SPLICE PLATES, ETC.

TABULATED DEFLECTIONS

SW SELF-WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS AND BRACING.

DL1 CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION INCLUDING PERMANENT STAY-IN-PLACE FORMS.

DL2 PARAPETS APPLIED TO COMPOSITE SECTION.

CALCULATED VALUES

PL = THICKNESS OF TOP FLANGE PLUS ANY FILLER AND SPLICE PLATES

DK = DECK ASSEMBLY THICKNESS FROM TOP OF WEB TO FINISHED GRADE

= 4" HAUNCH + 9" SLAB = 13" = 1.08 FT

C = CAMBER = ZW - CW

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

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CAMBER DIAGRAM UNIT 1

SHEET 69 OF 119

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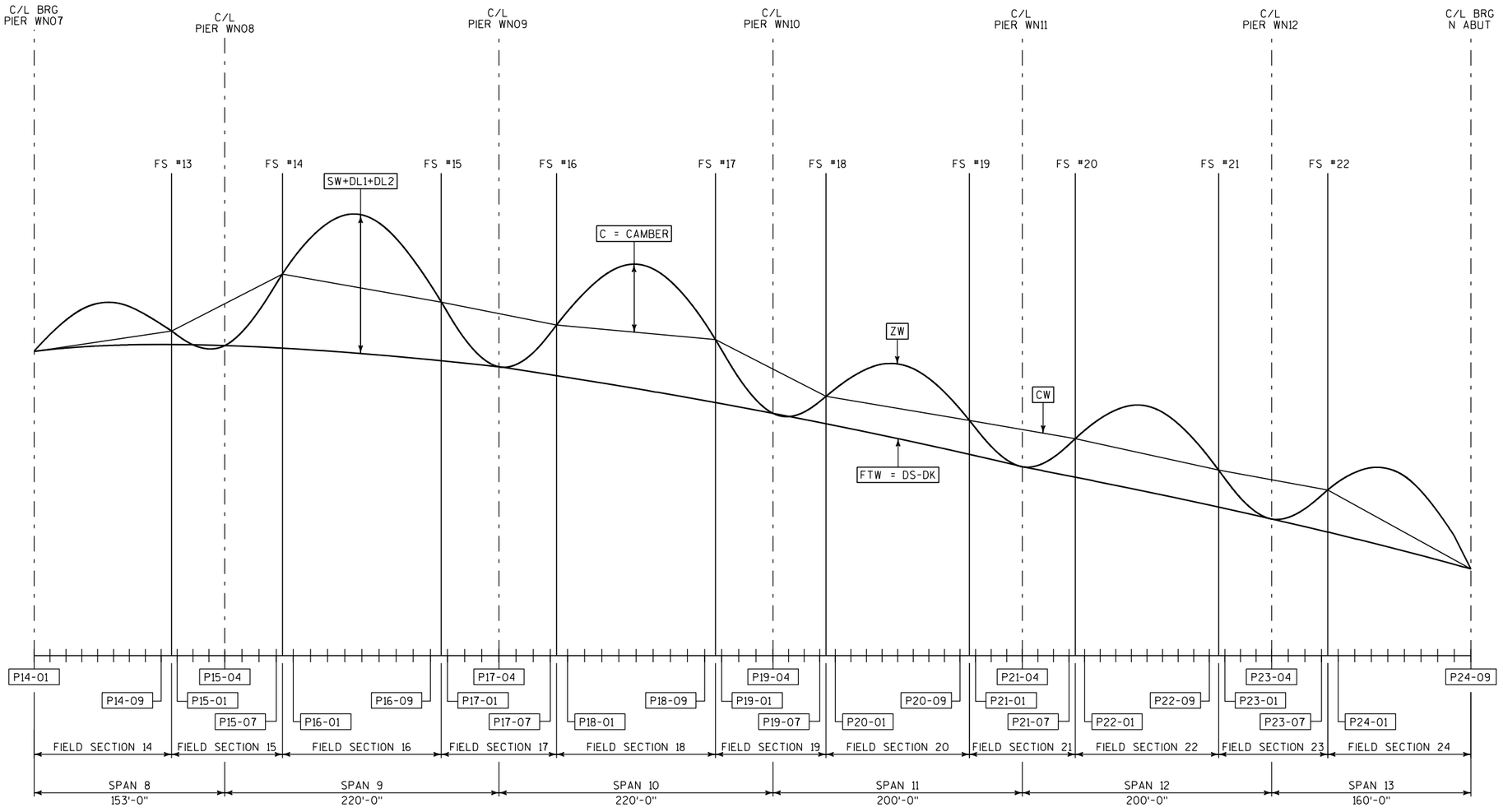
1060-33-81



CAMBER DIAGRAM - UNIT 2

VERTICAL PROFILE AND DEFLECTIONS ARE EXAGGERATED TO DIFFERENT DEGREES. THE CAMBERS SHOWN ON THIS DIAGRAM ARE SCHEMATIC ONLY. DIMENSIONS SHOWN ARE ALONG R/L WN

LEGEND

P1-4 INTERMEDIATE ELEVATION POINT (PANEL POINT).

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DS FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION.

= ZW + PL - SW

ZW TOP OF WEB ELEVATION NEGLECTING ALL DEFLECTIONS.

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CW ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION AT 'ZW' AT FIELD SPLICES AND END SUPPORTS.

BLK BLOCKING HEIGHT TO UNDEFLECTED SHAPE. BLOCKING HEIGHT IS MEASURED TO BOTTOM OF WEB AND DOES NOT TAKE INTO ACCOUNT BOTTOM FLANGE THICKNESS, SPLICE PLATES, ETC.

TABULATED DEFLECTIONS

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DL2 PARAPETS APPLIED TO COMPOSITE SECTION.

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= 4" HAUNCH + 9" SLAB = 13" = 1.08 FT

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

CAMBER DIAGRAM UNIT 2

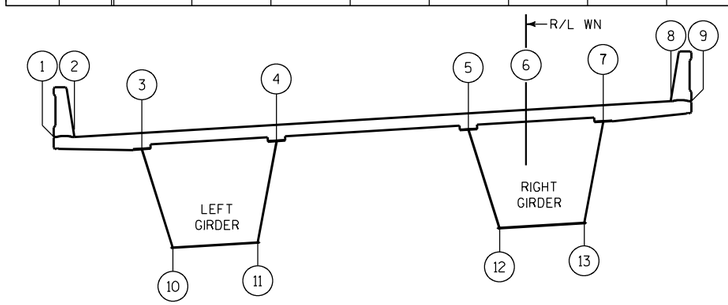
SHEET 70 OF 119

FIELD SECTION #1

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		PIER 5	P01-02	P01-03	P01-04	P01-05	P01-06	P01-07	P01-08	FS #1
		574+45.42	574+57.09	574+68.75	574+80.42	574+92.09	575+03.75	575+15.42	575+27.09	575+45.42
FINISHED ELEVATION - TOP OF DECK										
1	DS	801.52	801.90	802.29	802.69	803.11	803.55	804.00	804.46	805.22
2		801.56	801.94	802.33	802.74	803.16	803.59	804.04	804.50	805.26
6		802.27	802.65	803.04	803.45	803.87	804.30	804.75	805.21	805.97
8		802.60	802.97	803.35	803.74	804.15	804.57	805.01	805.46	806.20
9		802.65	803.01	803.39	803.79	804.20	804.62	805.05	805.51	806.25
CAMBER DATA										
3	DS	801.65	802.03	802.42	802.83	803.25	803.69	804.13	804.60	805.35
	TES	800.76	801.07	801.49	802.03	802.36	802.79	803.23	803.68	804.44
LEFT	ZW	800.57	801.00	801.43	801.87	802.30	802.74	803.18	803.62	804.33
GIRDER	CW	800.57	801.01	801.45	801.89	802.33	802.76	803.20	803.64	804.33
	SW	0.00	0.01	0.02	0.03	0.03	0.03	0.03	0.02	0.01
LEFT	DL1	0.00	0.03	0.06	0.08	0.09	0.09	0.08	0.07	0.04
WEB	DL2	0.00	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01
	C	0.00	-0.01	-0.02	-0.02	-0.02	-0.02	-0.03	-0.02	0.00
4	DS	801.90	802.28	802.67	803.08	803.50	803.93	804.38	804.84	805.60
	TES	801.01	801.32	801.74	802.28	802.60	803.04	803.48	803.93	804.69
LEFT	ZW	800.82	801.24	801.68	802.11	802.55	802.99	803.43	803.87	804.58
GIRDER	CW	800.82	801.26	801.70	802.13	802.57	803.01	803.45	803.89	804.58
	SW	0.00	0.01	0.02	0.03	0.03	0.03	0.03	0.02	0.01
RIGHT	DL1	0.00	0.03	0.06	0.08	0.09	0.09	0.09	0.07	0.04
WEB	DL2	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01
	C	0.00	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	0.00
5	DS	802.29	802.66	803.04	803.43	803.84	804.27	804.70	805.15	805.89
	TES	801.40	801.70	802.12	802.64	802.95	803.38	803.80	804.24	804.99
RIGHT	ZW	801.21	801.63	802.05	802.48	802.90	803.32	803.75	804.18	804.87
GIRDER	CW	801.21	801.64	802.07	802.49	802.92	803.35	803.78	804.20	804.87
	SW	0.00	0.01	0.02	0.03	0.03	0.03	0.03	0.02	0.01
LEFT	DL1	0.00	0.03	0.06	0.08	0.09	0.09	0.08	0.07	0.04
WEB	DL2	0.00	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01
	C	0.00	-0.01	-0.02	-0.02	-0.02	-0.02	-0.03	-0.03	0.00
7	DS	802.54	802.91	803.29	803.68	804.09	804.51	804.95	805.40	806.14
	TES	801.65	801.95	802.36	802.89	803.21	803.64	804.06	804.49	805.24
RIGHT	ZW	801.46	801.88	802.30	802.73	803.16	803.58	804.01	804.43	805.12
GIRDER	CW	801.46	801.89	802.32	802.74	803.17	803.60	804.03	804.45	805.12
	SW	0.00	0.01	0.02	0.03	0.03	0.03	0.03	0.02	0.01
RIGHT	DL1	0.00	0.03	0.06	0.08	0.09	0.09	0.09	0.07	0.04
WEB	DL2	0.00	0.01	0.02	0.03	0.03	0.03	0.03	0.03	0.02
	C	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02	0.00
BLOCKING HEIGHTS										
10	BLK	0.00								3.76
11		0.14								3.89
12		0.00								3.66
13		0.14								3.80

FIELD SECTION #2

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		FS#1	P02-01	P02-02	P02-03	PIER WN01	P02-05	P02-06	P02-07	FS #2
		575+45.42	575+50.42	575+62.09	575+73.75	575+85.42	575+97.92	576+10.42	576+22.92	576+27.92
FINISHED ELEVATION - TOP OF DECK										
1	DS	805.22	805.43	805.93	806.45	806.99	807.57	808.18	808.80	809.05
2		805.26	805.47	805.98	806.50	807.03	807.62	808.22	808.84	809.09
6		805.97	806.18	806.69	807.21	807.74	808.33	808.93	809.55	809.80
8		806.20	806.41	806.91	807.43	807.95	808.54	809.15	809.77	810.02
9		806.25	806.46	806.96	807.47	808.00	808.59	809.19	809.81	810.06
CAMBER DATA										
3	DS	805.35	805.56	806.07	806.59	807.12	807.71	808.31	808.93	809.18
	TES	804.44	804.70	805.08	805.67	806.31	806.82	807.38	808.05	808.37
LEFT	ZW	804.33	804.52	805.00	805.51	806.04	806.66	807.32	808.00	808.28
GIRDER	CW	804.33	804.57	805.13	805.69	806.25	806.84	807.44	808.04	808.28
	SW	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.03	0.04
LEFT	DL1	0.04	0.03	0.01	0.00	0.00	0.02	0.06	0.10	0.12
WEB	DL2	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.12	-0.18	-0.20	-0.18	-0.12	-0.04	0.00
4	DS	805.60	805.81	806.32	806.84	807.37	807.96	808.56	809.18	809.43
	TES	804.69	804.95	805.33	805.92	806.56	807.07	807.62	808.29	808.61
LEFT	ZW	804.58	804.77	805.25	805.76	806.29	806.91	807.56	808.24	808.53
GIRDER	CW	804.58	804.81	805.37	805.93	806.49	807.09	807.69	808.29	808.53
	SW	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.03	0.04
RIGHT	DL1	0.04	0.03	0.01	0.00	0.00	0.02	0.05	0.09	0.11
WEB	DL2	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.04	-0.12	-0.18	-0.20	-0.18	-0.13	-0.04	0.00
5	DS	805.89	806.10	806.60	807.12	807.65	808.23	808.84	809.46	809.71
	TES	804.99	805.25	805.62	806.20	806.84	807.35	807.91	808.58	808.90
RIGHT	ZW	804.87	805.07	805.54	806.04	806.57	807.19	807.84	808.53	808.81
GIRDER	CW	804.87	805.11	805.67	806.23	806.78	807.38	807.98	808.57	808.81
	SW	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.03	0.04
LEFT	DL1	0.04	0.03	0.01	0.00	0.00	0.02	0.06	0.10	0.12
WEB	DL2	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.03	0.03
	C	0.00	-0.04	-0.13	-0.19	-0.22	-0.19	-0.13	-0.04	0.00
7	DS	806.14	806.35	806.85	807.36	807.89	808.48	809.08	809.70	809.95
	TES	805.24	805.50	805.87	806.45	807.09	807.60	808.16	808.83	809.15
RIGHT	ZW	805.12	805.32	805.79	806.29	806.82	807.44	808.09	808.78	809.06
GIRDER	CW	805.12	805.36	805.92	806.48	807.03	807.63	808.23	808.82	809.06
	SW	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.03	0.04
RIGHT	DL1	0.04	0.03	0.01	0.00	0.00	0.02	0.05	0.09	0.11
WEB	DL2	0.02	0.01	0.01	0.00	0.00	0.01	0.02	0.03	0.04
	C	0.00	-0.05	-0.13	-0.19	-0.22	-0.19	-0.13	-0.05	0.00
BLOCKING HEIGHTS										
10	BLK	3.76								7.71
11		3.89								7.85
12		3.66								7.60
13		3.80								7.74



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

TABULATED ELEVATIONS

FTW FINISHED ELEVATION AT TOP OF WEB.

DS FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION.

= ZW + PL - SW

ZW TOP OF WEB ELEVATION NEGLECTING ALL DEFLECTIONS.

= DS + SW + DL1 + DL2 - DK

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TABULATED DEFLECTIONS

SW SELF-WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS AND BRACING.

DL1 CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION INCLUDING PERMANENT STAY-IN-PLACE FORMS.

DL2 PARAPETS APPLIED TO COMPOSITE SECTION.

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C = CAMBER = ZW - CW

STATE PROJECT NUMBER

1060-33-81

LEGEND

P1-4 INTERMEDIATE ELEVATION POINT (PANEL POINT).

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 1 & 2

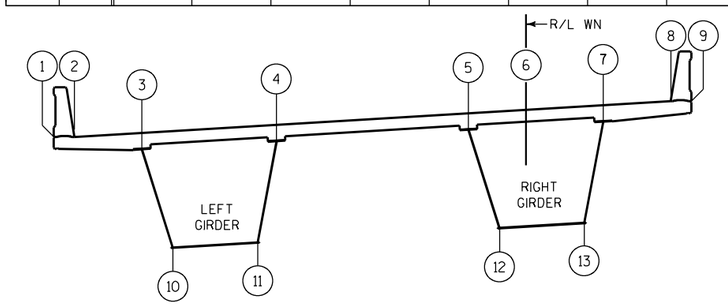
SHEET 71 OF 119

FIELD SECTION #3

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION										
		FS #2	P03-01	P03-02	P03-03	P03-04	P03-05	P03-06	P03-07	P03-08	P03-09	FS #3
		576+27.92	576+35.42	576+47.92	576+60.42	576+72.92	576+85.42	576+97.92	577+10.42	577+22.92	577+35.42	577+42.92
FINISHED ELEVATION - TOP OF DECK												
1	DS	809.05	809.42	810.03	810.52	811.02	811.52	812.03	812.65	813.27	813.90	814.27
2		809.09	809.47	810.07	810.58	811.08	811.59	812.10	812.73	813.35	813.97	814.35
6		809.80	810.17	810.80	811.42	812.05	812.67	813.30	813.92	814.55	815.17	815.54
8		810.02	810.39	811.02	811.68	812.34	813.00	813.66	814.29	814.91	815.53	815.91
9		810.06	810.43	811.07	811.73	812.40	813.07	813.74	814.36	814.98	815.61	815.98
CAMBER DATA												
3	DS	809.18	809.56	810.17	810.69	811.21	811.73	812.26	812.88	813.51	814.13	814.50
	TES	808.37	808.72	809.48	809.93	810.47	811.00	811.51	812.11	812.80	813.28	813.67
LEFT	ZW	808.28	808.69	809.35	809.92	810.46	810.99	811.51	812.10	812.67	813.24	813.58
GIRDER	CW	808.28	808.63	809.20	809.78	810.36	810.93	811.51	812.09	812.66	813.24	813.58
	SW	0.04	0.05	0.06	0.07	0.08	0.08	0.08	0.07	0.06	0.04	0.04
LEFT	DL1	0.12	0.14	0.18	0.20	0.22	0.22	0.22	0.20	0.17	0.13	0.11
WEB	DL2	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.02	0.02
	C	0.00	0.06	0.15	0.14	0.11	0.06	0.00	0.01	0.01	0.00	0.00
4	DS	809.43	809.80	810.42	810.98	811.54	812.11	812.67	813.30	813.92	814.55	814.92
	TES	808.61	808.97	809.74	810.23	810.82	811.39	811.94	812.54	813.22	813.69	814.08
LEFT	ZW	808.53	808.93	809.61	810.22	810.81	811.38	811.93	812.52	813.09	813.65	814.00
GIRDER	CW	808.53	808.88	809.48	810.07	810.67	811.26	811.86	812.45	813.04	813.64	814.00
	SW	0.04	0.05	0.06	0.07	0.08	0.08	0.08	0.07	0.06	0.04	0.04
RIGHT	DL1	0.11	0.13	0.17	0.21	0.23	0.23	0.22	0.20	0.16	0.12	0.10
WEB	DL2	0.03	0.03	0.04	0.04	0.05	0.05	0.05	0.04	0.03	0.03	0.02
	C	0.00	0.05	0.13	0.15	0.15	0.12	0.08	0.07	0.05	0.02	0.00
5	DS	809.71	810.08	810.70	811.31	811.92	812.53	813.14	813.77	814.39	815.01	815.39
	TES	808.90	809.26	810.03	810.57	811.20	811.81	812.41	813.01	813.70	814.17	814.58
RIGHT	ZW	808.81	809.22	809.90	810.56	811.19	811.80	812.40	812.99	813.57	814.13	814.47
GIRDER	CW	808.81	809.18	809.80	810.41	811.03	811.64	812.26	812.87	813.49	814.10	814.47
	SW	0.04	0.05	0.06	0.07	0.08	0.08	0.08	0.07	0.06	0.04	0.04
LEFT	DL1	0.12	0.14	0.17	0.20	0.22	0.22	0.21	0.19	0.16	0.13	0.11
WEB	DL2	0.03	0.04	0.05	0.05	0.06	0.06	0.06	0.05	0.04	0.03	0.03
	C	0.00	0.04	0.11	0.14	0.16	0.16	0.14	0.12	0.08	0.03	0.00
7	DS	809.95	810.33	810.96	811.61	812.26	812.91	813.56	814.18	814.81	815.43	815.80
	TES	809.15	809.51	810.29	810.88	811.56	812.21	812.85	813.44	814.12	814.59	815.00
RIGHT	ZW	809.06	809.47	810.16	810.87	811.55	812.21	812.84	813.43	813.99	814.55	814.89
GIRDER	CW	809.06	809.44	810.08	810.71	811.34	811.98	812.61	813.24	813.88	814.51	814.89
	SW	0.04	0.05	0.06	0.07	0.08	0.08	0.08	0.07	0.06	0.04	0.04
RIGHT	DL1	0.11	0.13	0.17	0.21	0.23	0.23	0.22	0.20	0.16	0.12	0.10
WEB	DL2	0.04	0.04	0.06	0.06	0.07	0.07	0.07	0.06	0.05	0.04	0.03
	C	0.00	0.03	0.09	0.16	0.21	0.23	0.23	0.18	0.11	0.04	0.00
BLOCKING HEIGHTS												
10	BLK	7.71										13.05
11		7.85										13.28
12		7.60										13.30
13		7.74										13.54

FIELD SECTION #4

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		FS #3	P04-01	P04-02	P04-03	PIER WN02	P04-05	P04-06	P04-07	FS #4
		577+42.92	577+47.92	577+60.42	577+72.92	577+85.42	577+97.92	578+10.42	578+22.92	578+27.92
FINISHED ELEVATION - TOP OF DECK										
1	DS	814.27	814.52	815.15	815.77	816.40	817.02	817.65	818.27	818.52
2		814.35	814.60	815.22	815.85	816.47	817.10	817.72	818.34	818.59
6		815.54	815.79	816.42	817.04	817.67	818.29	818.92	819.54	819.79
8		815.91	816.16	816.78	817.41	818.03	818.66	819.28	819.90	820.15
9		815.98	816.23	816.86	817.48	818.11	818.73	819.36	819.98	820.23
CAMBER DATA										
3	DS	814.50	814.75	815.38	816.00	816.63	817.25	817.88	818.50	818.75
	TES	813.67	813.86	814.44	815.11	815.82	816.35	816.91	817.58	817.89
LEFT	ZW	813.58	813.80	814.37	814.95	815.55	816.18	816.84	817.51	817.79
GIRDER	CW	813.58	813.83	814.45	815.07	815.69	816.30	816.92	817.54	817.79
	SW	0.04	0.03	0.02	0.01	0.00	0.00	0.01	0.02	0.03
LEFT	DL1	0.11	0.09	0.05	0.02	0.00	0.01	0.03	0.06	0.07
WEB	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.03	-0.08	-0.12	-0.14	-0.12	-0.08	-0.03	0.00
4	DS	814.92	815.17	815.79	816.42	817.04	817.67	818.29	818.92	819.17
	TES	814.08	814.27	814.85	815.52	816.23	816.76	817.32	817.98	818.30
LEFT	ZW	814.00	814.21	814.78	815.36	815.96	816.60	817.25	817.92	818.20
GIRDER	CW	814.00	814.24	814.86	815.48	816.10	816.71	817.33	817.95	818.20
	SW	0.04	0.03	0.02	0.01	0.00	0.00	0.01	0.02	0.02
RIGHT	DL1	0.10	0.08	0.04	0.02	0.00	0.01	0.02	0.05	0.07
WEB	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.03	-0.08	-0.12	-0.13	-0.12	-0.08	-0.03	0.00
5	DS	815.39	815.64	816.26	816.89	817.51	818.14	818.76	819.38	819.63
	TES	814.58	814.76	815.34	815.99	816.70	817.23	817.82	818.48	818.79
RIGHT	ZW	814.47	814.69	815.25	815.83	816.43	817.07	817.72	818.39	818.67
GIRDER	CW	814.47	814.72	815.34	815.95	816.57	817.19	817.81	818.42	818.67
	SW	0.04	0.03	0.02	0.01	0.00	0.00	0.01	0.02	0.02
LEFT	DL1	0.11	0.08	0.05	0.02	0.00	0.01	0.02	0.05	0.07
WEB	DL2	0.03	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.03
	C	0.00	-0.03	-0.08	-0.12	-0.14	-0.12	-0.08	-0.03	0.00
7	DS	815.80	816.05	816.68	817.30	817.93	818.55	819.18	819.80	820.05
	TES	815.00	815.18	815.76	816.41	817.12	817.65	818.23	818.90	819.21
RIGHT	ZW	814.89	815.11	815.67	816.25	816.85	817.48	818.14	818.81	819.08
GIRDER	CW	814.89	815.14	815.76	816.37	816.99	817.60	818.22	818.84	819.08
	SW	0.04	0.03	0.02	0.01	0.00	0.00	0.01	0.02	0.02
RIGHT	DL1	0.10	0.08	0.05	0.02	0.00	0.01	0.02	0.05	0.06
WEB	DL2	0.03	0.03	0.02	0.01	0.00	0.01	0.02	0.03	0.03
	C	0.00	-0.03	-0.08	-0.12	-0.14	-0.12	-0.08	-0.03	0.00
BLOCKING HEIGHTS										
10	BLK	13.05								17.26
11		13.28								17.49
12		13.30								17.50
13		13.54								17.73



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

TABULATED ELEVATIONS

FTW FINISHED ELEVATION AT TOP OF WEB.

DS FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION.

= ZW + PL - SW

ZW TOP OF WEB ELEVATION NEGLECTING ALL DEFLECTIONS.

= DS + SW + DL1 + DL2 - DK

CW ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION AT 'ZW' AT FIELD SPLICES AND END SUPPORTS.

BLK BLOCKING HEIGHT TO UNDEFLECTED SHAPE. BLOCKING HEIGHT IS MEASURED TO BOTTOM OF WEB AND DOES NOT TAKE INTO ACCOUNT BOTTOM FLANGE THICKNESS, SPLICE PLATES, ETC.

TABULATED DEFLECTIONS

SW SELF-WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS AND BRACING.

DL1 CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION INCLUDING PERMANENT STAY-IN-PLACE FORMS.

DL2 PARAPETS APPLIED TO COMPOSITE SECTION.

CALCULATED VALUES

PL = THICKNESS OF TOP FLANGE PLUS ANY FILLER AND SPLICE PLATES

DK = DECK ASSEMBLY THICKNESS FROM TOP OF WEB TO FINISHED GRADE

= 4" HAUNCH + 9" SLAB = 13" = 1.08 FT

C = CAMBER = ZW - CW

STATE PROJECT NUMBER

1060-33-81

LEGEND

P1-4 INTERMEDIATE ELEVATION POINT (PANEL POINT).

IN THIS EXAMPLE, '1' IS THE FIELD SECTION NUMBER AND '4' IS THE PANEL POINT WITHIN THIS FIELD SECTION.

NOTES

1. ALL TABULATED VALUES ARE IN DECIMALS OF A FOOT.
2. POSITIVE DEFLECTIONS ARE DOWNWARD.
3. POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS.
4. CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING THAT ALL SLAB WEIGHT, INCLUDING ALLOWANCE FOR PERMANENT STAY-IN-PLACE FORMS, IS APPLIED TO A NON-COMPOSITE STRUCTURE. VERIFY THE VALIDITY OF THIS ASSUMPTION BASED ON THE SELECTED POUR SEQUENCE. ADJUST CAMBER TABLES AS NECESSARY FOR ANY EXPECTED VARIATIONS EXCEEDING .04' (1/2").
5. CAMBER GIRDERS TO THE VALUES SHOWN, AFTER INCORPORATING ANY REQUIRED ADJUSTMENTS FOR THE SELECTED POUR SEQUENCE.
6. TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE CHECKED AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

   IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.083 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 3 & 4

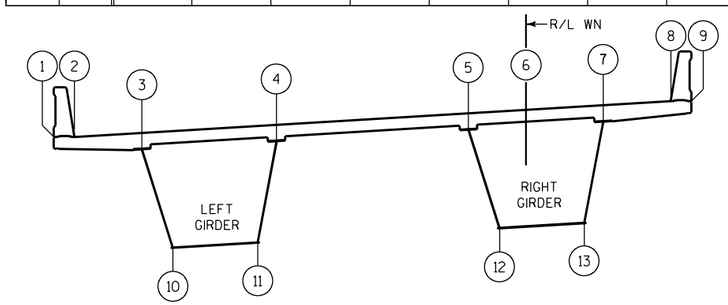
SHEET 72 OF 119

FIELD SECTION #5

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION										
		FS #4	P05-01	P05-02	P05-03	P05-04	P05-05	P05-06	P05-07	P05-08	P05-09	FS #5
		578+27.92	578+35.42	578+47.92	578+60.42	578+72.92	578+85.42	578+97.92	579+10.42	579+22.92	579+35.42	579+42.92
FINISHED ELEVATION - TOP OF DECK												
1	DS	818.52	818.89	819.52	820.14	820.77	821.39	822.02	822.64	823.26	823.89	824.26
2		818.59	818.97	819.59	820.22	820.84	821.47	822.09	822.72	823.34	823.96	824.34
6		819.79	820.17	820.79	821.41	822.04	822.66	823.29	823.91	824.54	825.16	825.54
8		820.15	820.53	821.15	821.78	822.40	823.03	823.65	824.28	824.90	825.52	825.90
9		820.23	820.60	821.23	821.85	822.48	823.10	823.73	824.35	824.98	825.60	825.97
CAMBER DATA												
3	DS	818.75	819.13	819.75	820.37	821.00	821.62	822.25	822.87	823.50	824.12	824.50
	TES	817.89	818.24	819.01	819.56	820.20	820.83	821.45	822.06	822.76	823.24	823.64
LEFT	ZW	817.79	818.19	818.86	819.53	820.18	820.81	821.43	822.03	822.61	823.19	823.54
GIRDER	CW	817.79	818.16	818.79	819.41	820.04	820.66	821.29	821.91	822.54	823.16	823.54
	SW	0.03	0.03	0.04	0.05	0.06	0.06	0.06	0.05	0.04	0.03	0.03
LEFT	DL1	0.07	0.09	0.12	0.14	0.16	0.17	0.16	0.14	0.12	0.09	0.07
WEB	DL2	0.02	0.02	0.03	0.04	0.04	0.05	0.05	0.04	0.04	0.03	0.03
	C	0.00	0.03	0.07	0.11	0.14	0.15	0.14	0.11	0.07	0.03	0.00
4	DS	819.17	819.54	820.17	820.79	821.41	822.04	822.66	823.29	823.91	824.54	824.91
	TES	818.30	818.65	819.42	819.98	820.62	821.26	821.87	822.48	823.17	823.65	824.05
LEFT	ZW	818.20	818.60	819.28	819.94	820.60	821.23	821.85	822.45	823.03	823.60	823.95
GIRDER	CW	818.20	818.57	819.20	819.82	820.45	821.07	821.70	822.32	822.95	823.57	823.95
	SW	0.02	0.03	0.04	0.05	0.06	0.06	0.06	0.05	0.04	0.03	0.02
RIGHT	DL1	0.07	0.08	0.12	0.14	0.16	0.17	0.16	0.14	0.11	0.08	0.06
WEB	DL2	0.02	0.03	0.04	0.04	0.05	0.05	0.05	0.05	0.04	0.03	0.03
	C	0.00	0.03	0.08	0.12	0.15	0.16	0.15	0.12	0.08	0.03	0.00
5	DS	819.63	820.01	820.63	821.26	821.88	822.51	823.13	823.76	824.38	825.00	825.38
	TES	818.79	819.12	819.89	820.44	821.09	821.72	822.34	822.95	823.64	824.12	824.54
RIGHT	ZW	818.67	819.07	819.75	820.41	821.06	821.69	822.31	822.91	823.50	824.07	824.42
GIRDER	CW	818.67	819.04	819.67	820.29	820.92	821.54	822.17	822.79	823.42	824.05	824.42
	SW	0.02	0.03	0.04	0.05	0.05	0.06	0.05	0.05	0.04	0.03	0.03
LEFT	DL1	0.07	0.08	0.11	0.13	0.15	0.15	0.15	0.13	0.11	0.08	0.06
WEB	DL2	0.03	0.03	0.05	0.05	0.06	0.06	0.06	0.06	0.05	0.04	0.03
	C	0.00	0.03	0.08	0.12	0.14	0.15	0.14	0.12	0.08	0.03	0.00
7	DS	820.05	820.43	821.05	821.67	822.30	822.92	823.55	824.17	824.80	825.42	825.80
	TES	819.21	819.54	820.31	820.87	821.52	822.16	822.77	823.37	824.06	824.54	824.96
RIGHT	ZW	819.08	819.49	820.16	820.84	821.49	822.13	822.74	823.34	823.92	824.49	824.84
GIRDER	CW	819.08	819.46	820.08	820.71	821.34	821.96	822.59	823.21	823.84	824.46	824.84
	SW	0.02	0.03	0.04	0.05	0.06	0.06	0.06	0.05	0.04	0.03	0.02
RIGHT	DL1	0.06	0.08	0.11	0.13	0.15	0.16	0.15	0.13	0.10	0.07	0.06
WEB	DL2	0.03	0.04	0.05	0.06	0.07	0.07	0.07	0.07	0.06	0.05	0.04
	C	0.00	0.03	0.08	0.13	0.16	0.17	0.16	0.13	0.08	0.03	0.00
BLOCKING HEIGHTS												
10	BLK	17.26										23.01
11		17.49										23.24
12		17.50										23.25
13		17.73										23.48

FIELD SECTION #6

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		FS #5	P06-01	P06-02	P06-03	PIER WN03	P06-05	P06-06	P06-07	FS #6
		579+42.92	579+47.92	579+60.42	579+72.92	579+85.42	579+98.55	580+11.67	580+24.80	580+29.80
FINISHED ELEVATION - TOP OF DECK										
1	DS	824.26	824.51	825.14	825.76	826.39	827.04	827.70	828.35	828.59
2		824.34	824.59	825.21	825.84	826.46	827.12	827.77	828.42	828.66
6		825.54	825.78	826.41	827.03	827.66	828.31	828.97	829.62	829.86
8		825.90	826.15	826.77	827.40	828.02	828.68	829.33	829.98	830.22
9		825.97	826.22	826.85	827.47	828.10	828.75	829.41	830.06	830.30
CAMBER DATA										
3	DS	824.50	824.74	825.37	825.99	826.62	827.27	827.93	828.58	828.82
	TES	823.64	823.82	824.41	825.09	825.81	826.38	826.99	827.68	827.99
LEFT	ZW	823.54	823.76	824.34	824.93	825.54	826.22	826.92	827.63	827.91
GIRDER	CW	823.54	823.79	824.42	825.05	825.68	826.34	827.00	827.66	827.91
	SW	0.03	0.02	0.01	0.00	0.00	0.01	0.02	0.03	0.04
LEFT	DL1	0.07	0.06	0.03	0.01	0.00	0.02	0.06	0.10	0.12
WEB	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.03	-0.08	-0.12	-0.14	-0.12	-0.07	-0.02	0.00
4	DS	824.91	825.16	825.79	826.41	827.03	827.69	828.35	828.99	829.24
	TES	824.05	824.23	824.82	825.50	826.22	826.79	827.39	828.09	828.40
LEFT	ZW	823.95	824.17	824.75	825.34	825.96	826.63	827.33	828.03	828.31
GIRDER	CW	823.95	824.20	824.83	825.45	826.08	826.74	827.40	828.06	828.31
	SW	0.02	0.02	0.01	0.00	0.00	0.01	0.02	0.03	0.04
RIGHT	DL1	0.06	0.05	0.02	0.01	0.00	0.02	0.05	0.09	0.11
WEB	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.03	-0.08	-0.11	-0.13	-0.11	-0.07	-0.03	0.00
5	DS	825.38	825.63	826.25	826.88	827.50	828.16	828.81	829.46	829.70
	TES	824.54	824.73	825.32	825.98	826.69	827.26	827.89	828.58	828.89
RIGHT	ZW	824.42	824.64	825.22	825.81	826.42	827.10	827.80	828.51	828.78
GIRDER	CW	824.42	824.67	825.30	825.93	826.56	827.21	827.87	828.53	828.78
	SW	0.03	0.02	0.01	0.00	0.00	0.01	0.02	0.03	0.04
LEFT	DL1	0.06	0.05	0.02	0.01	0.00	0.02	0.05	0.10	0.12
WEB	DL2	0.03	0.03	0.02	0.01	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.03	-0.08	-0.12	-0.13	-0.11	-0.07	-0.02	0.00
7	DS	825.80	826.04	826.67	827.29	827.92	828.57	829.23	829.88	830.12
	TES	824.96	825.15	825.73	826.39	827.11	827.68	828.30	828.99	829.30
RIGHT	ZW	824.84	825.06	825.64	826.23	826.84	827.52	828.21	828.92	829.20
GIRDER	CW	824.84	825.09	825.71	826.34	826.97	827.63	828.29	828.95	829.20
	SW	0.02	0.02	0.01	0.00	0.00	0.01	0.02	0.03	0.04
RIGHT	DL1	0.06	0.04	0.02	0.00	0.00	0.02	0.05	0.09	0.11
WEB	DL2	0.04	0.04	0.02	0.01	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.03	-0.08	-0.11	-0.13	-0.11	-0.07	-0.03	0.00
BLOCKING HEIGHTS										
10	BLK	23.01								27.37
11		23.24								27.60
12		23.25								27.61
13		23.48								27.85



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

TABULATED ELEVATIONS

FTW FINISHED ELEVATION AT TOP OF WEB.

DS FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION.

= ZW + PL - SW

ZW TOP OF WEB ELEVATION NEGLECTING ALL DEFLECTIONS.

= DS + SW + DL1 + DL2 - DK

CW ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION AT 'ZW' AT FIELD SPLICES AND END SUPPORTS.

BLK BLOCKING HEIGHT TO UNDEFLECTED SHAPE. BLOCKING HEIGHT IS MEASURED TO BOTTOM OF WEB AND DOES NOT TAKE INTO ACCOUNT BOTTOM FLANGE THICKNESS, SPLICE PLATES, ETC.

TABULATED DEFLECTIONS

SW SELF-WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS AND BRACING.

DL1 CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION INCLUDING PERMANENT STAY-IN-PLACE FORMS.

DL2 PARAPETS APPLIED TO COMPOSITE SECTION.

CALCULATED VALUES

PL = THICKNESS OF TOP FLANGE PLUS ANY FILLER AND SPLICE PLATES

DK = DECK ASSEMBLY THICKNESS FROM TOP OF WEB TO FINISHED GRADE

= 4" HAUNCH + 9" SLAB = 13" = 1.08 FT

C = CAMBER = ZW - CW

STATE PROJECT NUMBER

1060-33-81

LEGEND

P1-4 INTERMEDIATE ELEVATION POINT (PANEL POINT).

IN THIS EXAMPLE, '1' IS THE FIELD SECTION NUMBER AND '4' IS THE PANEL POINT WITHIN THIS FIELD SECTION.

NOTES

1. ALL TABULATED VALUES ARE IN DECIMALS OF A FOOT.
2. POSITIVE DEFLECTIONS ARE DOWNWARD.
3. POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS.
4. CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING THAT ALL SLAB WEIGHT, INCLUDING ALLOWANCE FOR PERMANENT STAY-IN-PLACE FORMS, IS APPLIED TO A NON-COMPOSITE STRUCTURE. VERIFY THE VALIDITY OF THIS ASSUMPTION BASED ON THE SELECTED POUR SEQUENCE. ADJUST CAMBER TABLES AS NECESSARY FOR ANY EXPECTED VARIATIONS EXCEEDING .04' (1/2").
5. CAMBER GIRDERS TO THE VALUES SHOWN, AFTER INCORPORATING ANY REQUIRED ADJUSTMENTS FOR THE SELECTED POUR SEQUENCE.
6. TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE CHECKED AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

   IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.083 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 5 & 6

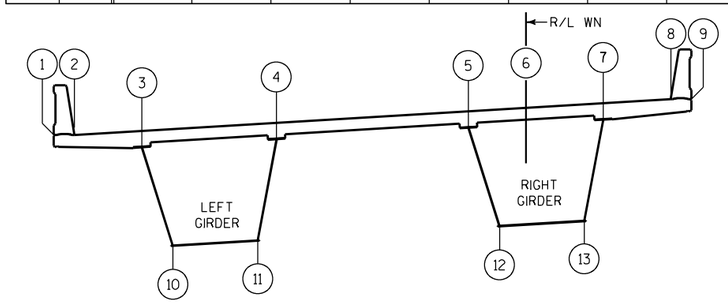
SHEET 73 OF 119

FIELD SECTION #7

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION										
		FS #6	P07-01	P07-02	P07-03	P07-04	P07-05	P07-06	P07-07	P07-08	P07-09	FS #7
		580+29.80	580+37.92	580+51.05	580+64.17	580+77.30	580+90.42	581+03.55	581+16.67	581+29.80	581+42.92	581+51.05
FINISHED ELEVATION - TOP OF DECK												
1	DS	828.59	828.98	829.60	830.21	830.81	831.40	831.97	832.53	833.08	833.61	833.93
2		828.66	829.06	829.68	830.29	830.89	831.47	832.04	832.60	833.15	833.68	834.01
6		829.86	830.25	830.87	831.48	832.08	832.67	833.24	833.80	834.35	834.88	835.21
8		830.22	830.62	831.24	831.85	832.45	833.03	833.60	834.16	834.71	835.24	835.57
9		830.30	830.69	831.31	831.92	832.52	833.11	833.68	834.24	834.79	835.32	835.64
CAMBER DATA												
3	DS	828.82	829.21	829.83	830.44	831.04	831.63	832.20	832.76	833.31	833.84	834.17
	TES	827.99	828.37	829.14	829.68	830.30	830.89	831.46	831.99	832.60	832.99	833.35
LEFT	ZW	827.91	828.33	829.01	829.67	830.29	830.89	831.45	831.97	832.47	832.95	833.24
GIRDER	CW	827.91	828.26	828.84	829.42	830.00	830.57	831.15	831.73	832.31	832.88	833.24
	SW	0.04	0.05	0.06	0.07	0.08	0.08	0.08	0.07	0.06	0.04	0.03
LEFT	DL1	0.12	0.14	0.18	0.22	0.23	0.24	0.23	0.21	0.17	0.13	0.11
WEB	DL2	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
	C	0.00	0.07	0.17	0.25	0.30	0.31	0.30	0.25	0.17	0.06	0.00
4	DS	829.24	829.63	830.25	830.86	831.46	832.04	832.62	833.18	833.72	834.26	834.58
	TES	828.40	828.77	829.55	830.10	830.72	831.31	831.87	832.41	833.02	833.40	833.76
LEFT	ZW	828.31	828.74	829.42	830.09	830.72	831.31	831.87	832.39	832.88	833.35	833.64
GIRDER	CW	828.31	828.67	829.25	829.82	830.40	830.98	831.55	832.13	832.71	833.29	833.64
	SW	0.04	0.05	0.06	0.07	0.08	0.08	0.08	0.07	0.06	0.04	0.03
RIGHT	DL1	0.11	0.14	0.18	0.22	0.24	0.25	0.23	0.21	0.17	0.13	0.10
WEB	DL2	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
	C	0.00	0.07	0.18	0.26	0.32	0.33	0.31	0.26	0.17	0.07	0.00
5	DS	829.70	830.10	830.72	831.33	831.93	832.51	833.08	833.64	834.19	834.72	835.05
	TES	828.89	829.24	830.02	830.56	831.18	831.77	832.33	832.87	833.48	833.87	834.23
RIGHT	ZW	828.78	829.21	829.89	830.55	831.17	831.76	832.32	832.85	833.35	833.82	834.12
GIRDER	CW	828.78	829.14	829.72	830.30	830.87	831.45	832.03	832.60	833.18	833.76	834.12
	SW	0.04	0.05	0.06	0.07	0.08	0.08	0.07	0.07	0.05	0.04	0.03
LEFT	DL1	0.12	0.14	0.18	0.21	0.23	0.23	0.22	0.20	0.17	0.13	0.11
WEB	DL2	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
	C	0.00	0.07	0.17	0.25	0.30	0.31	0.29	0.25	0.17	0.06	0.00
7	DS	830.12	830.51	831.13	831.74	832.34	832.93	833.50	834.06	834.61	835.14	835.47
	TES	829.30	829.66	830.43	830.98	831.61	832.20	832.76	833.29	833.90	834.28	834.64
RIGHT	ZW	829.20	829.62	830.31	830.97	831.60	832.20	832.75	833.27	833.76	834.23	834.53
GIRDER	CW	829.20	829.55	830.13	830.71	831.28	831.86	832.44	833.02	833.59	834.17	834.53
	SW	0.04	0.05	0.06	0.07	0.08	0.08	0.08	0.07	0.05	0.04	0.03
RIGHT	DL1	0.11	0.14	0.18	0.22	0.24	0.25	0.24	0.21	0.17	0.12	0.10
WEB	DL2	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.02	0.02	0.01	0.01
	C	0.00	0.07	0.18	0.26	0.32	0.34	0.32	0.26	0.17	0.06	0.00
BLOCKING HEIGHTS												
10	BLK	27.37										32.71
11		27.60										32.93
12		27.61										32.94
13		27.85										33.18

FIELD SECTION #8

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		FS #7	P08-01	P08-02	P08-03	PIER WN04	P08-05	P08-06	P08-07	FS #8
		581+51.05	581+56.05	581+69.17	581+82.30	581+95.42	582+07.92	582+20.42	582+32.92	582+37.92
FINISHED ELEVATION - TOP OF DECK										
1	DS	833.93	834.13	834.64	835.14	835.62	836.07	836.51	836.94	837.10
2		834.01	834.21	834.72	835.21	835.70	836.15	836.59	837.01	837.18
6		835.21	835.40	835.91	836.41	836.89	837.34	837.78	838.21	838.38
8		835.57	835.77	836.28	836.77	837.26	837.71	838.15	838.57	838.74
9		835.64	835.84	836.35	836.85	837.33	837.78	838.22	838.65	838.81
CAMBER DATA										
3	DS	834.17	834.36	834.87	835.37	835.85	836.30	836.74	837.17	837.34
	TES	833.35	833.48	833.95	834.49	835.07	835.42	835.81	836.28	836.51
LEFT	ZW	833.24	833.41	833.86	834.31	834.78	835.24	835.72	836.20	836.40
GIRDER	CW	833.24	833.42	833.90	834.38	834.85	835.31	835.76	836.22	836.40
	SW	0.03	0.03	0.01	0.01	0.00	0.01	0.02	0.03	0.04
LEFT	DL1	0.11	0.09	0.05	0.02	0.00	0.01	0.04	0.07	0.09
WEB	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.02	-0.04	-0.06	-0.08	-0.06	-0.04	-0.01	0.00
4	DS	834.58	834.78	835.29	835.79	836.27	836.72	837.16	837.58	837.75
	TES	833.76	833.89	834.35	834.90	835.48	835.84	836.22	836.68	836.92
LEFT	ZW	833.64	833.81	834.26	834.72	835.19	835.65	836.13	836.61	836.81
GIRDER	CW	833.64	833.83	834.30	834.78	835.26	835.71	836.17	836.62	836.81
	SW	0.03	0.02	0.01	0.00	0.00	0.01	0.02	0.03	0.04
RIGHT	DL1	0.10	0.08	0.04	0.01	0.00	0.01	0.03	0.06	0.08
WEB	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.02	-0.04	-0.06	-0.07	-0.06	-0.04	-0.02	0.00
5	DS	835.05	835.25	835.76	836.25	836.74	837.19	837.63	838.05	838.22
	TES	834.23	834.36	834.83	835.37	835.95	836.31	836.69	837.16	837.40
RIGHT	ZW	834.12	834.28	834.74	835.19	835.66	836.13	836.60	837.08	837.28
GIRDER	CW	834.12	834.30	834.78	835.25	835.73	836.19	836.64	837.10	837.28
	SW	0.03	0.03	0.01	0.00	0.00	0.01	0.02	0.03	0.04
LEFT	DL1	0.11	0.08	0.04	0.02	0.00	0.01	0.04	0.07	0.09
WEB	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.02	-0.04	-0.06	-0.07	-0.06	-0.04	-0.02	0.00
7	DS	835.47	835.66	836.17	836.67	837.15	837.60	838.04	838.47	838.64
	TES	834.64	834.77	835.24	835.79	836.37	836.72	837.11	837.57	837.81
RIGHT	ZW	834.53	834.69	835.15	835.61	836.08	836.54	837.02	837.50	837.70
GIRDER	CW	834.53	834.71	835.19	835.67	836.15	836.60	837.06	837.51	837.70
	SW	0.03	0.02	0.01	0.00	0.00	0.01	0.02	0.03	0.04
RIGHT	DL1	0.10	0.08	0.04	0.01	0.00	0.01	0.03	0.07	0.09
WEB	DL2	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.02	-0.04	-0.06	-0.07	-0.06	-0.04	-0.02	0.00
BLOCKING HEIGHTS										
10	BLK	32.71								35.87
11		32.93								36.10
12		32.94								36.11
13		33.18								36.35



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

TABULATED ELEVATIONS

FTW FINISHED ELEVATION AT TOP OF WEB.

DS FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION.

= ZW + PL - SW

ZW TOP OF WEB ELEVATION NEGLECTING ALL DEFLECTIONS.

= DS + SW + DL1 + DL2 - DK

CW ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION AT 'ZW' AT FIELD SPLICES AND END SUPPORTS.

BLK BLOCKING HEIGHT TO UNDEFLECTED SHAPE. BLOCKING HEIGHT IS MEASURED TO BOTTOM OF WEB AND DOES NOT TAKE INTO ACCOUNT BOTTOM FLANGE THICKNESS, SPLICE PLATES, ETC.

TABULATED DEFLECTIONS

SW SELF-WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS AND BRACING.

DL1 CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION INCLUDING PERMANENT STAY-IN-PLACE FORMS.

DL2 PARAPETS APPLIED TO COMPOSITE SECTION.

CALCULATED VALUES

PL = THICKNESS OF TOP FLANGE PLUS ANY FILLER AND SPLICE PLATES

DK = DECK ASSEMBLY THICKNESS FROM TOP OF WEB TO FINISHED GRADE

= 4" HAUNCH + 9" SLAB = 13" = 1.08 FT

C = CAMBER = ZW - CW

STATE PROJECT NUMBER

1060-33-81

LEGEND

P1-4 INTERMEDIATE ELEVATION POINT (PANEL POINT).

IN THIS EXAMPLE, '1' IS THE FIELD SECTION NUMBER AND '4' IS THE PANEL POINT WITHIN THIS FIELD SECTION.

NOTES

1. ALL TABULATED VALUES ARE IN DECIMALS OF A FOOT.
2. POSITIVE DEFLECTIONS ARE DOWNWARD.
3. POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS.
4. CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING THAT ALL SLAB WEIGHT, INCLUDING ALLOWANCE FOR PERMANENT STAY-IN-PLACE FORMS, IS APPLIED TO A NON-COMPOSITE STRUCTURE. VERIFY THE VALIDITY OF THIS ASSUMPTION BASED ON THE SELECTED POUR SEQUENCE. ADJUST CAMBER TABLES AS NECESSARY FOR ANY EXPECTED VARIATIONS EXCEEDING .04' (1/2").
5. CAMBER GIRDERS TO THE VALUES SHOWN, AFTER INCORPORATING ANY REQUIRED ADJUSTMENTS FOR THE SELECTED POUR SEQUENCE.
6. TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE CHECKED AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

   IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.083 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 7 & 8

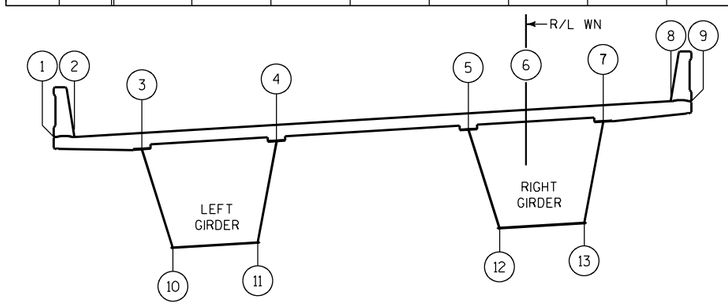
SHEET 74 OF 119

FIELD SECTION #9

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION										
		FS #8	P09-01	P09-02	P09-03	P09-04	P09-05	P09-06	P09-07	P09-08	P09-09	FS #9
		582+37.92	582+45.42	582+57.92	582+70.42	582+82.92	582+95.42	583+07.92	583+20.42	583+32.92	583+45.42	583+52.92
FINISHED ELEVATION - TOP OF DECK												
1	DS	837.10	837.35	837.76	838.15	838.53	838.90	839.26	839.60	839.94	840.26	840.45
2		837.18	837.43	837.83	838.22	838.60	838.97	839.33	839.68	840.02	840.34	840.53
6		838.38	838.62	839.03	839.42	839.80	840.17	840.53	840.88	841.21	841.54	841.72
8		838.74	838.99	839.39	839.78	840.16	840.53	840.89	841.24	841.58	841.90	842.09
9		838.81	839.06	839.47	839.86	840.24	840.61	840.97	841.32	841.65	841.97	842.16
CAMBER DATA												
3	DS	837.34	837.58	837.99	838.38	838.76	839.13	839.49	839.84	840.17	840.50	840.68
	TES	836.51	836.71	837.26	837.59	838.00	838.38	838.74	839.07	839.48	839.66	839.87
LEFT	ZW	836.40	836.67	837.13	837.58	837.99	838.38	838.74	839.06	839.36	839.64	839.80
GIRDER	CW	836.40	836.62	836.99	837.36	837.73	838.10	838.47	838.84	839.21	839.58	839.80
	SW	0.04	0.04	0.06	0.07	0.08	0.08	0.08	0.08	0.07	0.06	0.05
LEFT	DL1	0.09	0.11	0.14	0.17	0.20	0.21	0.21	0.20	0.17	0.14	0.12
WEB	DL2	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.06	0.15	0.22	0.26	0.28	0.27	0.23	0.16	0.06	0.00
4	DS	837.75	838.00	838.40	838.80	839.18	839.55	839.90	840.25	840.59	840.91	841.10
	TES	836.92	837.12	837.68	838.01	838.42	838.80	839.16	839.49	839.90	840.08	840.28
LEFT	ZW	836.81	837.08	837.55	838.00	838.42	838.81	839.16	839.49	839.78	840.05	840.21
GIRDER	CW	836.81	837.03	837.40	837.77	838.14	838.51	838.88	839.25	839.62	839.99	840.21
	SW	0.04	0.04	0.06	0.07	0.08	0.09	0.09	0.08	0.07	0.06	0.05
RIGHT	DL1	0.08	0.10	0.14	0.18	0.20	0.22	0.22	0.20	0.18	0.14	0.12
WEB	DL2	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.06	0.15	0.23	0.28	0.30	0.29	0.24	0.17	0.06	0.00
5	DS	838.22	838.47	838.87	839.26	839.64	840.01	840.37	840.72	841.06	841.38	841.57
	TES	837.40	837.62	838.17	838.49	838.90	839.28	839.64	839.98	840.39	840.57	840.80
RIGHT	ZW	837.28	837.56	838.02	838.46	838.88	839.26	839.62	839.96	840.26	840.53	840.69
GIRDER	CW	837.28	837.50	837.87	838.24	838.61	838.98	839.35	839.73	840.10	840.47	840.69
	SW	0.04	0.05	0.06	0.07	0.08	0.09	0.09	0.08	0.07	0.06	0.05
LEFT	DL1	0.09	0.11	0.14	0.17	0.20	0.21	0.21	0.20	0.18	0.15	0.13
WEB	DL2	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.06	0.15	0.22	0.26	0.28	0.27	0.23	0.16	0.06	0.00
7	DS	838.64	838.88	839.29	839.68	840.06	840.43	840.79	841.14	841.47	841.80	841.98
	TES	837.81	838.03	838.59	838.92	839.33	839.72	840.07	840.40	840.81	840.99	841.22
RIGHT	ZW	837.70	837.98	838.44	838.89	839.31	839.71	840.06	840.39	840.68	840.95	841.11
GIRDER	CW	837.70	837.92	838.29	838.66	839.03	839.40	839.77	840.14	840.51	840.88	841.11
	SW	0.04	0.05	0.06	0.08	0.09	0.09	0.09	0.09	0.08	0.06	0.05
RIGHT	DL1	0.09	0.11	0.14	0.18	0.21	0.22	0.22	0.21	0.18	0.15	0.13
WEB	DL2	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.06	0.15	0.23	0.28	0.30	0.29	0.24	0.17	0.07	0.00
BLOCKING HEIGHTS												
10	BLK	35.87										39.27
11		36.10										39.50
12		36.11										39.52
13		36.35										39.75

FIELD SECTION #10

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION									
		FS #9	P10-01	P10-02	P10-03	PIER WN05	P10-05	P10-06	P10-07	FS # 10	
		583+52.92	583+57.92	583+70.42	583+82.92	583+95.42	584+07.59	584+19.75	584+31.92	584+36.92	
FINISHED ELEVATION - TOP OF DECK											
1	DS	840.45	840.58	840.88	841.17	841.45	841.71	841.96	842.19	842.29	
2		840.53	840.65	840.95	841.24	841.52	841.78	842.03	842.27	842.36	
6		841.72	841.85	842.15	842.44	842.72	842.98	843.23	843.47	843.56	
8		842.09	842.21	842.51	842.80	843.08	843.34	843.59	843.83	843.92	
9		842.16	842.29	842.59	842.88	843.16	843.42	843.67	843.90	844.00	
CAMBER DATA											
3	DS	840.68	840.81	841.11	841.40	841.68	841.94	842.19	842.43	842.52	
	TES	839.87	839.93	840.19	840.48	840.83	840.98	841.19	841.54	841.58	
LEFT	ZW	839.80	839.89	840.13	840.36	840.60	840.85	841.10	841.35	841.46	
GIRDER	CW	839.80	839.90	840.14	840.39	840.64	840.88	841.12	841.36	841.46	
	SW	0.05	0.04	0.03	0.01	0.00	0.00	0.00	0.00	0.00	
LEFT	DL1	0.12	0.11	0.07	0.03	0.00	0.00	0.00	0.01	0.02	
WEB	DL2	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	
	C	0.00	0.00	-0.01	-0.03	-0.04	-0.03	-0.02	0.00	0.00	
4	DS	841.10	841.22	841.53	841.82	842.09	842.35	842.60	842.84	842.94	
	TES	840.28	840.34	840.60	840.89	841.24	841.39	841.60	841.95	841.99	
LEFT	ZW	840.21	840.30	840.54	840.77	841.01	841.26	841.51	841.76	841.87	
GIRDER	CW	840.21	840.31	840.55	840.80	841.05	841.29	841.53	841.77	841.87	
	SW	0.05	0.04	0.02	0.01	0.00	0.00	0.00	0.00	0.00	
RIGHT	DL1	0.12	0.10	0.06	0.03	0.00	-0.01	0.00	0.01	0.01	
WEB	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	
	C	0.00	-0.01	-0.02	-0.03	-0.03	-0.03	-0.02	0.00	0.00	
5	DS	841.57	841.69	841.99	842.28	842.56	842.82	843.07	843.31	843.40	
	TES	840.80	840.82	841.07	841.38	841.73	841.88	842.06	842.41	842.45	
RIGHT	ZW	840.69	840.78	841.02	841.25	841.48	841.73	841.98	842.22	842.33	
GIRDER	CW	840.69	840.79	841.03	841.27	841.52	841.75	841.99	842.23	842.33	
	SW	0.05	0.04	0.03	0.01	0.00	0.00	0.00	0.00	0.00	
LEFT	DL1	0.13	0.11	0.07	0.03	0.00	-0.01	-0.01	0.00	0.01	
WEB	DL2	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	
	C	0.00	0.00	-0.01	-0.02	-0.03	-0.03	-0.02	0.00	0.00	
7	DS	841.98	842.11	842.41	842.70	842.98	843.24	843.49	843.73	843.82	
	TES	841.22	841.24	841.49	841.80	842.15	842.29	842.48	842.83	842.87	
RIGHT	ZW	841.11	841.20	841.43	841.66	841.90	842.14	842.39	842.63	842.74	
GIRDER	CW	841.11	841.20	841.45	841.69	841.93	842.17	842.40	842.64	842.74	
	SW	0.05	0.04	0.03	0.01	0.00	0.00	-0.01	0.00	0.00	
RIGHT	DL1	0.13	0.11	0.07	0.03	0.00	-0.01	-0.01	0.00	0.00	
WEB	DL2	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	
	C	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	-0.02	-0.01	0.00	
BLOCKING HEIGHTS											
10	BLK	39.27								40.93	
11		39.50								41.16	
12		39.52								41.16	
13		39.75								41.39	



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

TABULATED ELEVATIONS

FTW FINISHED ELEVATION AT TOP OF WEB.

DS FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION.

= ZW + PL - SW

ZW TOP OF WEB ELEVATION NEGLECTING ALL DEFLECTIONS.

= DS + SW + DL1 + DL2 - DK

CW ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION AT 'ZW' AT FIELD SPLICES AND END SUPPORTS.

BLK BLOCKING HEIGHT TO UNDEFLECTED SHAPE. BLOCKING HEIGHT IS MEASURED TO BOTTOM OF WEB AND DOES NOT TAKE INTO ACCOUNT BOTTOM FLANGE THICKNESS, SPLICE PLATES, ETC.

TABULATED DEFLECTIONS

SW SELF-WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS AND BRACING.

DL1 CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION INCLUDING PERMANENT STAY-IN-PLACE FORMS.

DL2 PARAPETS APPLIED TO COMPOSITE SECTION.

CALCULATED VALUES

PL = THICKNESS OF TOP FLANGE PLUS ANY FILLER AND SPLICE PLATES

DK = DECK ASSEMBLY THICKNESS FROM TOP OF WEB TO FINISHED GRADE

= 4" HAUNCH + 9" SLAB = 13" = 1.08 FT

C = CAMBER = ZW - CW

STATE PROJECT NUMBER

1060-33-81

LEGEND

P1-4 INTERMEDIATE ELEVATION POINT (PANEL POINT).

IN THIS EXAMPLE, '1' IS THE FIELD SECTION NUMBER AND '4' IS THE PANEL POINT WITHIN THIS FIELD SECTION.

NOTES

1. ALL TABULATED VALUES ARE IN DECIMALS OF A FOOT.
2. POSITIVE DEFLECTIONS ARE DOWNWARD.
3. POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS.
4. CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING THAT ALL SLAB WEIGHT, INCLUDING ALLOWANCE FOR PERMANENT STAY-IN-PLACE FORMS, IS APPLIED TO A NON-COMPOSITE STRUCTURE. VERIFY THE VALIDITY OF THIS ASSUMPTION BASED ON THE SELECTED POUR SEQUENCE. ADJUST CAMBER TABLES AS NECESSARY FOR ANY EXPECTED VARIATIONS EXCEEDING .04' (1/2").
5. CAMBER GIRDERS TO THE VALUES SHOWN, AFTER INCORPORATING ANY REQUIRED ADJUSTMENTS FOR THE SELECTED POUR SEQUENCE.
6. TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE CHECKED AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

   IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.083 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 9 & 10

SHEET 75 OF 119

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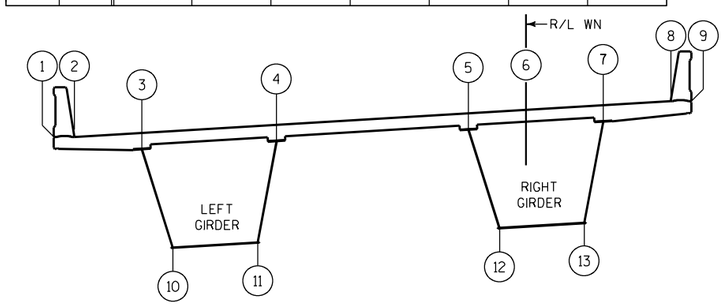
FIELD SECTION #11

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION						
		FS #10	P11-01	P11-02	P11-03	P11-04	P11-05	FS #11
		584+36.92	584+44.09	584+56.25	584+68.42	584+80.59	584+92.75	584+99.92
FINISHED ELEVATION - TOP OF DECK								
1	DS	842.29	842.42	842.64	842.84	843.04	843.22	843.33
2		842.36	842.50	842.71	842.92	843.12	843.30	843.40
6		843.56	843.69	843.91	844.12	844.31	844.50	844.60
8		843.92	844.06	844.27	844.48	844.68	844.86	844.96
9		844.00	844.13	844.35	844.56	844.75	844.94	845.04
CAMBER DATA								
3	DS	842.52	842.65	842.87	843.08	843.27	843.46	843.56
	TES	841.58	841.68	841.90	842.12	842.31	842.49	842.63
LEFT	ZW	841.46	841.60	841.83	842.04	842.24	842.42	842.52
GIRDER	CW	841.46	841.58	841.78	841.99	842.19	842.40	842.52
	SW	0.00	0.00	0.01	0.01	0.01	0.01	0.01
LEFT	DL1	0.02	0.02	0.03	0.04	0.04	0.03	0.03
WEB	DL2	0.00	0.00	0.00	0.01	0.01	0.00	0.00
	C	0.00	0.02	0.05	0.06	0.05	0.02	0.00
4	DS	842.94	843.07	843.29	843.49	843.69	843.87	843.98
	TES	841.99	842.09	842.31	842.53	842.72	842.90	843.04
LEFT	ZW	841.87	842.01	842.24	842.45	842.65	842.83	842.93
GIRDER	CW	841.87	841.99	842.19	842.40	842.60	842.81	842.93
	SW	0.00	0.00	0.01	0.01	0.01	0.01	0.01
RIGHT	DL1	0.01	0.02	0.03	0.03	0.03	0.03	0.02
WEB	DL2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	0.00	0.02	0.05	0.06	0.05	0.02	0.00
5	DS	843.40	843.54	843.75	843.96	844.16	844.34	844.44
	TES	842.45	842.55	842.77	842.99	843.18	843.37	843.51
RIGHT	ZW	842.33	842.47	842.69	842.91	843.11	843.29	843.39
GIRDER	CW	842.33	842.45	842.65	842.86	843.06	843.27	843.39
	SW	0.00	0.00	0.00	0.01	0.01	0.01	0.01
LEFT	DL1	0.01	0.01	0.02	0.02	0.02	0.02	0.02
WEB	DL2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	0.00	0.02	0.04	0.05	0.05	0.02	0.00
7	DS	843.82	843.95	844.17	844.38	844.57	844.76	844.86
	TES	842.87	842.96	843.19	843.41	843.60	843.78	843.92
RIGHT	ZW	842.74	842.88	843.11	843.33	843.52	843.70	843.80
GIRDER	CW	842.74	842.86	843.06	843.27	843.48	843.68	843.80
	SW	0.00	0.00	0.00	0.00	0.01	0.00	0.00
RIGHT	DL1	0.00	0.01	0.02	0.02	0.03	0.02	0.02
WEB	DL2	0.00	0.00	0.00	0.01	0.01	0.00	0.00
	C	0.00	0.02	0.05	0.06	0.05	0.02	0.00
BLOCKING HEIGHTS								
10	BLK	40.93						41.99
11		41.16						42.22
12		41.16						42.22
13		41.39						42.45

FIELD SECTION #12

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION							
		FS # 11	P12-01	P12-02	P12-03	PIER WN06	P12-05	P12-06	FS #12
		584+99.92	585+04.92	585+17.09	585+29.25	585+41.42	585+56.17	585+70.92	585+75.92
FINISHED ELEVATION - TOP OF DECK									
1	DS	843.33	843.40	843.56	843.71	843.85	844.01	844.15	844.20
2		843.40	843.47	843.64	843.79	843.93	844.09	844.23	844.27
6		844.60	844.67	844.83	844.98	845.13	845.28	845.42	845.47
8		844.96	845.03	845.20	845.35	845.49	845.65	845.79	845.83
9		845.04	845.11	845.27	845.42	845.57	845.72	845.86	845.91
CAMBER DATA									
3	DS	843.56	843.63	843.79	843.94	844.09	844.24	844.38	844.43
	TES	842.63	842.76	842.81	842.95	843.19	843.26	843.53	843.52
LEFT	ZW	842.52	842.58	842.73	842.87	843.01	843.19	843.36	843.42
GIRDER	CW	842.52	842.58	842.72	842.86	843.01	843.18	843.36	843.42
	SW	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02
LEFT	DL1	0.03	0.02	0.01	0.01	0.00	0.02	0.04	0.05
WEB	DL2	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00
4	DS	843.98	844.05	844.21	844.36	844.50	844.66	844.80	844.84
	TES	843.04	843.17	843.22	843.36	843.61	843.68	843.95	843.94
LEFT	ZW	842.93	842.99	843.14	843.28	843.42	843.60	843.78	843.83
GIRDER	CW	842.93	842.99	843.13	843.28	843.42	843.60	843.77	843.83
	SW	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02
RIGHT	DL1	0.02	0.02	0.01	0.00	0.00	0.02	0.04	0.05
WEB	DL2	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
5	DS	844.44	844.51	844.68	844.83	844.97	845.13	845.27	845.31
	TES	843.51	843.64	843.69	843.83	844.08	844.15	844.42	844.41
RIGHT	ZW	843.39	843.45	843.61	843.75	843.89	844.07	844.25	844.30
GIRDER	CW	843.39	843.45	843.60	843.74	843.89	844.07	844.24	844.30
	SW	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.02
LEFT	DL1	0.02	0.02	0.01	0.00	0.00	0.02	0.04	0.05
WEB	DL2	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.00
7	DS	844.86	844.93	845.09	845.24	845.39	845.54	845.68	845.73
	TES	843.92	844.05	844.10	844.25	844.49	844.56	844.84	844.83
RIGHT	ZW	843.80	843.87	844.02	844.16	844.31	844.49	844.66	844.73
GIRDER	CW	843.80	843.86	844.01	844.16	844.31	844.49	844.67	844.73
	SW	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02
RIGHT	DL1	0.02	0.01	0.01	0.00	0.00	0.02	0.04	0.05
WEB	DL2	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
BLOCKING HEIGHTS									
10	BLK	41.99							42.89
11		42.22							43.12
12		42.22							43.14
13		42.45							43.37



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

TABULATED ELEVATIONS

FTW FINISHED ELEVATION AT TOP OF WEB.

DS FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION.

= ZW + PL - SW

ZW TOP OF WEB ELEVATION NEGLECTING ALL DEFLECTIONS.

= DS + SW + DL1 + DL2 - DK

CW ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION AT 'ZW' AT FIELD SPLICES AND END SUPPORTS.

BLK BLOCKING HEIGHT TO UNDEFLECTED SHAPE. BLOCKING HEIGHT IS MEASURED TO BOTTOM OF WEB AND DOES NOT TAKE INTO ACCOUNT BOTTOM FLANGE THICKNESS, SPLICE PLATES, ETC.

TABULATED DEFLECTIONS

SW SELF-WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS AND BRACING.

DL1 CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION INCLUDING PERMANENT STAY-IN-PLACE FORMS.

DL2 PARAPETS APPLIED TO COMPOSITE SECTION.

CALCULATED VALUES

PL = THICKNESS OF TOP FLANGE PLUS ANY FILLER AND SPLICE PLATES

DK = DECK ASSEMBLY THICKNESS FROM TOP OF WEB TO FINISHED GRADE

= 4" HAUNCH + 9" SLAB = 13" = 1.08 FT

C = CAMBER = ZW - CW

STATE PROJECT NUMBER

1060-33-81

LEGEND

P1-4 INTERMEDIATE ELEVATION POINT (PANEL POINT).

IN THIS EXAMPLE, '1' IS THE FIELD SECTION NUMBER AND '4' IS THE PANEL POINT WITHIN THIS FIELD SECTION.

NOTES

1. ALL TABULATED VALUES ARE IN DECIMALS OF A FOOT.
2. POSITIVE DEFLECTIONS ARE DOWNWARD.
3. POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS.
4. CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING THAT ALL SLAB WEIGHT, INCLUDING ALLOWANCE FOR PERMANENT STAY-IN-PLACE FORMS, IS APPLIED TO A NON-COMPOSITE STRUCTURE. VERIFY THE VALIDITY OF THIS ASSUMPTION BASED ON THE SELECTED POUR SEQUENCE. ADJUST CAMBER TABLES AS NECESSARY FOR ANY EXPECTED VARIATIONS EXCEEDING .04' (1/2").
5. CAMBER GIRDERS TO THE VALUES SHOWN, AFTER INCORPORATING ANY REQUIRED ADJUSTMENTS FOR THE SELECTED POUR SEQUENCE.
6. TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE CHECKED AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

   IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.083 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 11 & 12

SHEET 76 OF 119

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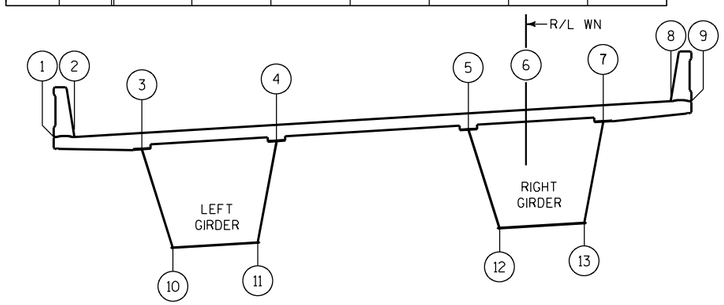
FIELD SECTION #13

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION						
		FS #12	P13-01	P13-02	P13-03	P13-04	P13-05	PIER WN07
		585+75.92	585+85.67	586+00.42	586+15.17	586+29.92	586+44.67	586+59.42
FINISHED ELEVATION - TOP OF DECK								
1	DS	844.20	844.28	844.39	844.48	844.56	844.62	844.66
2		844.27	844.35	844.46	844.55	844.63	844.69	844.74
6		845.47	845.55	845.66	845.75	845.83	845.89	845.94
8		845.83	845.91	846.02	846.11	846.19	846.25	846.30
9		845.91	845.99	846.10	846.19	846.27	846.33	846.37
CAMBER DATA								
3	DS	844.43	844.51	844.62	844.71	844.79	844.85	844.90
	TES	843.52	843.57	843.69	843.79	843.95	843.89	844.00
LEFT	ZW	843.42	843.51	843.63	843.73	843.79	843.81	843.81
GIRDER	CW	843.42	843.46	843.53	843.60	843.67	843.74	843.81
	SW	0.02	0.02	0.02	0.02	0.02	0.01	0.00
LEFT	DL1	0.05	0.06	0.07	0.07	0.05	0.03	0.00
WEB	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	C	0.00	0.05	0.10	0.13	0.11	0.07	0.00
4	DS	844.84	844.92	845.03	845.13	845.20	845.27	845.31
	TES	843.94	843.99	844.11	844.21	844.37	844.30	844.42
LEFT	ZW	843.83	843.93	844.06	844.15	844.21	844.23	844.23
GIRDER	CW	843.83	843.88	843.95	844.02	844.09	844.16	844.23
	SW	0.02	0.02	0.03	0.03	0.02	0.01	0.00
RIGHT	DL1	0.05	0.06	0.07	0.07	0.06	0.03	0.00
WEB	DL2	0.01	0.01	0.01	0.01	0.01	0.00	0.00
	C	0.00	0.05	0.11	0.13	0.12	0.07	0.00
5	DS	845.31	845.39	845.50	845.59	845.67	845.73	845.78
	TES	844.41	844.46	844.58	844.68	844.84	844.77	844.88
RIGHT	ZW	844.30	844.40	844.52	844.62	844.68	844.70	844.70
GIRDER	CW	844.30	844.35	844.42	844.49	844.56	844.63	844.70
	SW	0.02	0.02	0.03	0.03	0.02	0.01	0.00
LEFT	DL1	0.05	0.06	0.07	0.07	0.06	0.03	0.00
WEB	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	C	0.00	0.05	0.10	0.13	0.12	0.07	0.00
7	DS	845.73	845.81	845.92	846.01	846.09	846.15	846.20
	TES	844.83	844.88	845.01	845.10	845.26	845.19	845.30
RIGHT	ZW	844.73	844.82	844.96	845.05	845.10	845.12	845.11
GIRDER	CW	844.73	844.77	844.84	844.91	844.98	845.04	845.11
	SW	0.02	0.02	0.03	0.03	0.02	0.01	0.00
RIGHT	DL1	0.05	0.07	0.08	0.08	0.06	0.04	0.00
WEB	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	C	0.00	0.05	0.12	0.14	0.12	0.07	0.00
BLOCKING HEIGHTS								
10	BLK	42.89						43.28
11		43.12						43.52
12		43.14						43.53
13		43.37						43.76

FIELD SECTION #14

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION									
		PIER WN07	P14-02	P14-03	P14-04	P14-05	P14-06	P14-07	P14-08	P14-09	FS #13
		586+63.42	586+76.00	586+88.59	587+01.17	587+13.75	587+26.34	587+38.92	587+51.50	587+64.09	587+71.67
FINISHED ELEVATION - TOP OF DECK											
1	DS	844.67	844.70	844.71	844.71	844.69	844.67	844.64	844.59	844.53	844.49
2		844.75	844.77	844.78	844.78	844.77	844.75	844.71	844.66	844.61	844.57
6		845.94	845.97	845.98	845.98	845.97	845.94	845.91	845.86	845.80	845.76
8		846.31	846.33	846.34	846.34	846.33	846.31	846.27	846.22	846.17	846.13
9		846.38	846.41	846.42	846.42	846.41	846.38	846.35	846.30	846.24	846.20
CAMBER DATA											
3	DS	844.90	844.93	844.94	844.94	844.93	844.90	844.87	844.82	844.76	844.72
	TES	844.01	843.97	844.02	844.14	844.04	844.02	843.98	843.91	843.83	843.82
LEFT	ZW	843.82	843.90	843.96	843.99	843.99	843.97	843.92	843.85	843.76	843.70
GIRDER	CW	843.82	843.81	843.80	843.78	843.77	843.75	843.74	843.73	843.71	843.70
	SW	0.00	0.01	0.02	0.03	0.03	0.04	0.03	0.03	0.02	0.01
LEFT	DL1	0.00	0.04	0.07	0.09	0.10	0.10	0.09	0.08	0.06	0.04
WEB	DL2	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.01
	C	0.00	0.09	0.16	0.21	0.23	0.22	0.18	0.13	0.05	0.00
4	DS	845.32	845.34	845.35	845.35	845.34	845.32	845.28	845.24	845.18	845.14
	TES	844.43	844.38	844.43	844.56	844.46	844.44	844.39	844.33	844.24	844.23
LEFT	ZW	844.24	844.31	844.37	844.41	844.41	844.39	844.35	844.27	844.18	844.12
GIRDER	CW	844.24	844.22	844.21	844.20	844.18	844.17	844.15	844.14	844.13	844.12
	SW	0.00	0.01	0.02	0.03	0.04	0.04	0.03	0.03	0.02	0.01
RIGHT	DL1	0.00	0.04	0.07	0.09	0.10	0.10	0.10	0.08	0.05	0.04
WEB	DL2	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01
	C	0.00	0.09	0.16	0.21	0.23	0.22	0.19	0.13	0.05	0.00
5	DS	845.79	845.81	845.82	845.82	845.81	845.79	845.75	845.70	845.65	845.61
	TES	844.89	844.86	844.90	845.03	844.93	844.90	844.86	844.79	844.71	844.69
RIGHT	ZW	844.71	844.79	844.84	844.88	844.88	844.86	844.80	844.73	844.64	844.58
GIRDER	CW	844.71	844.69	844.68	844.66	844.65	844.64	844.62	844.61	844.59	844.58
	SW	0.00	0.01	0.03	0.03	0.04	0.04	0.03	0.03	0.02	0.01
LEFT	DL1	0.00	0.04	0.07	0.09	0.10	0.10	0.09	0.07	0.05	0.04
WEB	DL2	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01
	C	0.00	0.09	0.17	0.21	0.23	0.22	0.18	0.13	0.05	0.00
7	DS	846.20	846.23	846.24	846.24	846.23	846.20	846.17	846.12	846.06	846.02
	TES	845.31	845.27	845.32	845.45	845.35	845.33	845.28	845.21	845.13	845.11
RIGHT	ZW	845.12	845.20	845.26	845.30	845.31	845.29	845.24	845.16	845.06	845.00
GIRDER	CW	845.12	845.11	845.09	845.08	845.07	845.05	845.04	845.02	845.01	845.00
	SW	0.00	0.01	0.03	0.03	0.04	0.04	0.04	0.03	0.02	0.01
RIGHT	DL1	0.00	0.04	0.07	0.09	0.11	0.11	0.10	0.08	0.05	0.04
WEB	DL2	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.01
	C	0.00	0.09	0.17	0.22	0.24	0.23	0.20	0.13	0.05	0.00
BLOCKING HEIGHTS											
10	BLK	43.29									43.17
11		43.53									43.41
12		43.54									43.41
13		43.77									43.65



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

TABULATED ELEVATIONS

FTW FINISHED ELEVATION AT TOP OF WEB.

DS FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION.

= ZW + PL - SW

ZW TOP OF WEB ELEVATION NEGLECTING ALL DEFLECTIONS.

= DS + SW + DL1 + DL2 - DK

CW ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION AT 'ZW' AT FIELD SPLICES AND END SUPPORTS.

BLK BLOCKING HEIGHT TO UNDEFLECTED SHAPE. BLOCKING HEIGHT IS MEASURED TO BOTTOM OF WEB AND DOES NOT TAKE INTO ACCOUNT BOTTOM FLANGE THICKNESS, SPLICE PLATES, ETC.

TABULATED DEFLECTIONS

SW SELF-WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS AND BRACING.

DL1 CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION INCLUDING PERMANENT STAY-IN-PLACE FORMS.

DL2 PARAPETS APPLIED TO COMPOSITE SECTION.

CALCULATED VALUES

PL = THICKNESS OF TOP FLANGE PLUS ANY FILLER AND SPLICE PLATES

DK = DECK ASSEMBLY THICKNESS FROM TOP OF WEB TO FINISHED GRADE

= 4" HAUNCH + 9" SLAB = 13" = 1.08 FT

C = CAMBER = ZW - CW

STATE PROJECT NUMBER

1060-33-81

LEGEND

P1-4 INTERMEDIATE ELEVATION POINT (PANEL POINT).

IN THIS EXAMPLE, '1' IS THE FIELD SECTION NUMBER AND '4' IS THE PANEL POINT WITHIN THIS FIELD SECTION.

NOTES

1. ALL TABULATED VALUES ARE IN DECIMALS OF A FOOT.
2. POSITIVE DEFLECTIONS ARE DOWNWARD.
3. POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS.
4. CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING THAT ALL SLAB WEIGHT, INCLUDING ALLOWANCE FOR PERMANENT STAY-IN-PLACE FORMS, IS APPLIED TO A NON-COMPOSITE STRUCTURE. VERIFY THE VALIDITY OF THIS ASSUMPTION BASED ON THE SELECTED POUR SEQUENCE. ADJUST CAMBER TABLES AS NECESSARY FOR ANY EXPECTED VARIATIONS EXCEEDING .04' (1/2").
5. CAMBER GIRDERS TO THE VALUES SHOWN, AFTER INCORPORATING ANY REQUIRED ADJUSTMENTS FOR THE SELECTED POUR SEQUENCE.
6. TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE CHECKED AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

   IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.083 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 13 & 14

SHEET 77 OF 119

8

8

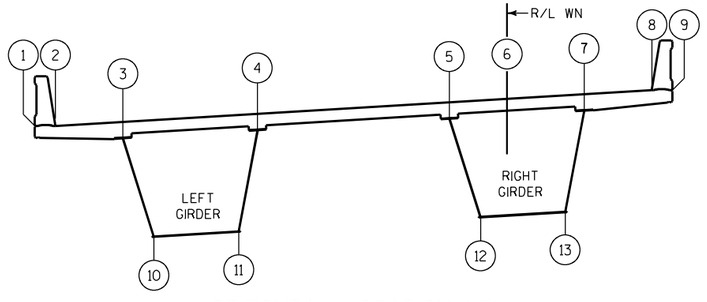
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080541_ss.dgn PLOT DATE : 21-JUL-2015 09:26 PLOT BY : MSCBKS PLOT NAME : B856_080541_ss PLOT SCALE : 10.666667:1

FIELD SECTION #15

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		FS #13	P15-01	P15-02	P15-03	PIER WN08	P15-05	P15-06	P15-07	FS #14
		587+71.67	587+76.67	587+89.25	588+01.84	588+01.84	588+28.17	588+41.92	588+55.67	588+60.67
FINISHED ELEVATION - TOP OF DECK										
1	DS	844.49	844.46	844.38	844.29	844.29	844.06	843.91	843.76	843.70
2		844.57	844.54	844.46	844.36	844.36	844.13	843.99	843.83	843.77
6		845.76	845.73	845.65	845.56	845.56	845.33	845.19	845.03	844.97
8		846.13	846.10	846.02	845.92	845.92	845.69	845.55	845.39	845.33
9		846.20	846.17	846.09	846.00	846.00	845.77	845.63	845.47	845.41
CAMBER DATA										
3	DS	844.72	844.69	844.61	844.52	844.52	844.29	844.15	843.99	843.93
	TES	843.82	843.83	843.63	843.58	843.58	843.39	843.23	843.13	843.14
LEFT	ZW	843.70	843.66	843.55	843.44	843.44	843.25	843.18	843.10	843.07
GIRDER	CW	843.70	843.67	843.58	843.49	843.49	843.30	843.21	843.11	843.07
	SW	0.01	0.01	0.00	0.00	0.00	0.01	0.03	0.05	0.06
LEFT	DL1	0.04	0.03	0.01	0.00	0.00	0.03	0.07	0.12	0.14
WEB	DL2	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.01	-0.03	-0.05	-0.05	-0.05	-0.03	-0.01	0.00
4	DS	845.14	845.11	845.03	844.93	844.93	844.70	844.56	844.41	844.35
	TES	844.23	844.25	844.04	844.00	844.00	843.80	843.64	843.54	843.55
LEFT	ZW	844.12	844.07	843.96	843.85	843.85	843.66	843.58	843.50	843.48
GIRDER	CW	844.12	844.08	843.99	843.90	843.90	843.71	843.62	843.52	843.48
	SW	0.01	0.01	0.00	0.00	0.00	0.01	0.03	0.05	0.06
RIGHT	DL1	0.04	0.03	0.01	0.00	0.00	0.03	0.06	0.11	0.14
WEB	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.01	-0.03	-0.05	-0.05	-0.05	-0.04	-0.02	0.00
5	DS	845.61	845.58	845.50	845.40	845.40	845.17	845.03	844.87	844.81
	TES	844.69	844.72	844.51	844.49	844.49	844.29	844.11	844.02	844.03
RIGHT	ZW	844.58	844.54	844.43	844.32	844.32	844.13	844.06	843.98	843.96
GIRDER	CW	844.58	844.55	844.46	844.37	844.37	844.19	844.09	844.00	843.96
	SW	0.01	0.01	0.00	0.00	0.00	0.01	0.03	0.05	0.06
LEFT	DL1	0.04	0.03	0.01	0.00	0.00	0.03	0.07	0.12	0.15
WEB	DL2	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.01	-0.03	-0.05	-0.05	-0.05	-0.03	-0.01	0.00
7	DS	846.02	845.99	845.91	845.82	845.82	845.59	845.45	845.29	845.23
	TES	845.11	845.13	844.92	844.90	844.90	844.70	844.53	844.43	844.44
RIGHT	ZW	845.00	844.95	844.84	844.73	844.73	844.55	844.47	844.39	844.38
GIRDER	CW	845.00	844.97	844.88	844.79	844.79	844.60	844.51	844.41	844.38
	SW	0.01	0.01	0.00	0.00	0.00	0.01	0.03	0.05	0.06
RIGHT	DL1	0.04	0.03	0.01	0.00	0.00	0.03	0.07	0.12	0.14
WEB	DL2	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.01	-0.04	-0.06	-0.06	-0.06	-0.04	-0.02	0.00
BLOCKING HEIGHTS										
10	BLK	43.17								42.54
11		43.41								42.77
12		43.41								42.79
13		43.65								43.02

FIELD SECTION #16

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION										
		FS #14	P16-01	P16-02	P16-03	P16-04	P16-05	P16-06	P16-07	P16-08	P16-09	FS #15
		588+60.67	588+69.42	588+83.17	588+96.92	589+10.67	589+24.42	589+38.17	589+51.92	589+65.67	589+79.42	589+88.17
FINISHED ELEVATION - TOP OF DECK												
1	DS	843.70	843.59	843.41	843.21	843.00	842.78	842.54	842.29	842.02	841.74	841.56
2		843.77	843.67	843.48	843.29	843.08	842.85	842.62	842.36	842.10	841.82	841.63
6		844.97	844.86	844.68	844.48	844.27	844.05	843.81	843.56	843.29	843.02	842.83
8		845.33	845.23	845.04	844.85	844.64	844.41	844.18	843.92	843.66	843.38	843.19
9		845.41	845.30	845.12	844.92	844.71	844.49	844.25	844.00	843.73	843.45	843.27
CAMBER DATA												
3	DS	843.93	843.82	843.64	843.44	843.23	843.01	842.77	842.52	842.25	841.98	841.79
	TES	843.14	843.02	842.99	842.73	842.54	842.32	842.07	841.78	841.58	841.14	840.99
LEFT	ZW	843.07	843.00	842.89	842.74	842.56	842.34	842.08	841.79	841.46	841.11	840.89
GIRDER	CW	843.07	842.92	842.69	842.45	842.22	841.98	841.75	841.51	841.28	841.04	840.89
	SW	0.06	0.07	0.08	0.10	0.10	0.10	0.10	0.09	0.07	0.06	0.05
LEFT	DL1	0.14	0.17	0.21	0.24	0.26	0.26	0.25	0.23	0.19	0.14	0.12
WEB	DL2	0.03	0.03	0.04	0.04	0.05	0.05	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.08	0.20	0.29	0.34	0.35	0.33	0.28	0.19	0.07	0.00
4	DS	844.35	844.24	844.06	843.86	843.65	843.43	843.19	842.94	842.67	842.39	842.21
	TES	843.55	843.43	843.41	843.15	842.96	842.75	842.49	842.20	841.99	841.55	841.40
LEFT	ZW	843.48	843.41	843.31	843.17	842.99	842.77	842.51	842.21	841.88	841.52	841.30
GIRDER	CW	843.48	843.33	843.10	842.86	842.63	842.39	842.15	841.92	841.68	841.45	841.30
	SW	0.06	0.07	0.08	0.10	0.11	0.11	0.10	0.09	0.07	0.05	0.04
RIGHT	DL1	0.14	0.16	0.21	0.25	0.27	0.28	0.26	0.23	0.19	0.14	0.11
WEB	DL2	0.02	0.03	0.04	0.04	0.05	0.05	0.04	0.04	0.03	0.02	0.02
	C	0.00	0.08	0.21	0.30	0.36	0.38	0.36	0.29	0.20	0.07	0.00
5	DS	844.81	844.71	844.52	844.33	844.12	843.89	843.66	843.40	843.14	842.86	842.67
	TES	844.03	843.91	843.88	843.62	843.43	843.20	842.95	842.67	842.46	842.02	841.89
RIGHT	ZW	843.96	843.89	843.78	843.63	843.45	843.22	842.97	842.68	842.35	842.00	841.78
GIRDER	CW	843.96	843.81	843.58	843.34	843.10	842.87	842.63	842.40	842.16	841.93	841.78
	SW	0.06	0.07	0.09	0.10	0.10	0.10	0.10	0.09	0.08	0.06	0.05
LEFT	DL1	0.15	0.17	0.22	0.25	0.26	0.26	0.25	0.23	0.19	0.14	0.12
WEB	DL2	0.03	0.03	0.04	0.04	0.05	0.05	0.04	0.04	0.03	0.02	0.02
	C	0.00	0.08	0.20	0.29	0.34	0.36	0.34	0.28	0.19	0.07	0.00
7	DS	845.23	845.12	844.94	844.74	844.53	844.31	844.07	843.82	843.55	843.28	843.09
	TES	844.44	844.32	844.30	844.04	843.86	843.64	843.39	843.10	842.88	842.44	842.31
RIGHT	ZW	844.38	844.31	844.20	844.06	843.89	843.67	843.41	843.11	842.77	842.41	842.19
GIRDER	CW	844.38	844.23	843.99	843.75	843.52	843.28	843.05	842.81	842.57	842.34	842.19
	SW	0.06	0.07	0.09	0.10	0.11	0.11	0.11	0.09	0.08	0.06	0.05
RIGHT	DL1	0.14	0.17	0.22	0.26	0.28	0.29	0.27	0.23	0.19	0.14	0.11
WEB	DL2	0.03	0.03	0.04	0.05	0.05	0.05	0.05	0.04	0.03	0.03	0.02
	C	0.00	0.08	0.21	0.31	0.37	0.39	0.36	0.30	0.20	0.07	0.00
BLOCKING HEIGHTS												
10	BLK	42.54										40.36
11		42.77										40.59
12		42.79										40.60
13		43.02										40.84



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

TABULATED ELEVATIONS

FTW FINISHED ELEVATION AT TOP OF WEB.

DS FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION.

= ZW + PL - SW

ZW TOP OF WEB ELEVATION NEGLECTING ALL DEFLECTIONS.

= DS + SW + DL1 + DL2 - DK

CW ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION AT 'ZW' AT FIELD SPLICES AND END SUPPORTS.

BLK BLOCKING HEIGHT TO UNDEFLECTED SHAPE. BLOCKING HEIGHT IS MEASURED TO BOTTOM OF WEB AND DOES NOT TAKE INTO ACCOUNT BOTTOM FLANGE THICKNESS, SPLICE PLATES, ETC.

TABULATED DEFLECTIONS

SW SELF-WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS AND BRACING.

DL1 CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION INCLUDING PERMANENT STAY-IN-PLACE FORMS.

DL2 PARAPETS APPLIED TO COMPOSITE SECTION.

CALCULATED VALUES

PL = THICKNESS OF TOP FLANGE PLUS ANY FILLER AND SPLICE PLATES

DK = DECK ASSEMBLY THICKNESS FROM TOP OF WEB TO FINISHED GRADE

= 4" HAUNCH + 9" SLAB = 13" = 1.08 FT

C = CAMBER = ZW - CW

STATE PROJECT NUMBER

1060-33-81

LEGEND

P1-4 INTERMEDIATE ELEVATION POINT (PANEL POINT).

IN THIS EXAMPLE, '1' IS THE FIELD SECTION NUMBER AND '4' IS THE PANEL POINT WITHIN THIS FIELD SECTION.

NOTES

1. ALL TABULATED VALUES ARE IN DECIMALS OF A FOOT.
2. POSITIVE DEFLECTIONS ARE DOWNWARD.
3. POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS.
4. CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING THAT ALL SLAB WEIGHT, INCLUDING ALLOWANCE FOR PERMANENT STAY-IN-PLACE FORMS, IS APPLIED TO A NON-COMPOSITE STRUCTURE. VERIFY THE VALIDITY OF THIS ASSUMPTION BASED ON THE SELECTED POUR SEQUENCE. ADJUST CAMBER TABLES AS NECESSARY FOR ANY EXPECTED VARIATIONS EXCEEDING .04' (1/2").
5. CAMBER GIRDERS TO THE VALUES SHOWN, AFTER INCORPORATING ANY REQUIRED ADJUSTMENTS FOR THE SELECTED POUR SEQUENCE.
6. TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE CHECKED AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.083 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 15 & 16

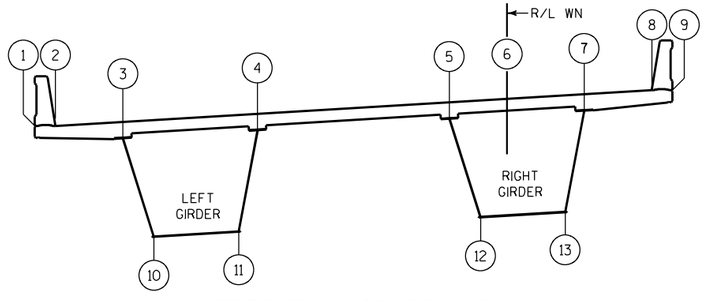
SHEET 78 OF 119

FIELD SECTION #17

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		FS #15	P17-01	P17-02	P17-03	PIER WN09	P17-05	P17-06	P17-07	FS #16
		589+88.17	589+93.17	590+06.92	590+20.67	590+34.42	590+48.17	590+61.92	590+75.67	590+80.67
FINISHED ELEVATION - TOP OF DECK										
1	DS	841.56	841.45	841.14	840.82	840.49	840.14	839.78	839.40	839.26
2		841.63	841.53	841.22	840.90	840.56	840.22	839.85	839.48	839.34
6		842.83	842.72	842.42	842.10	841.76	841.41	841.05	840.67	840.53
8		843.19	843.09	842.78	842.46	842.12	841.78	841.41	841.04	840.90
9		843.27	843.16	842.85	842.53	842.20	841.85	841.49	841.11	840.97
CAMBER DATA										
3	DS	841.79	841.68	841.38	841.06	840.72	840.37	840.01	839.63	839.49
	TES	840.99	840.81	840.46	840.18	839.93	839.50	839.09	838.76	838.68
LEFT	ZW	840.89	840.75	840.37	840.00	839.64	839.31	839.00	838.68	838.58
GIRDER	CW	840.89	840.77	840.42	840.08	839.74	839.39	839.05	838.70	838.58
	SW	0.05	0.04	0.02	0.01	0.00	0.01	0.02	0.03	0.04
LEFT	DL1	0.12	0.09	0.05	0.02	0.00	0.02	0.05	0.08	0.11
WEB	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.02	-0.05	-0.08	-0.09	-0.08	-0.05	-0.02	0.00
4	DS	842.21	842.10	841.79	841.47	841.14	840.79	840.43	840.05	839.91
	TES	841.40	841.22	840.86	840.59	840.35	839.91	839.49	839.16	839.09
LEFT	ZW	841.30	841.15	840.78	840.41	840.06	839.72	839.40	839.09	838.98
GIRDER	CW	841.30	841.17	840.83	840.48	840.14	839.80	839.45	839.11	838.98
	SW	0.04	0.04	0.02	0.01	0.00	0.00	0.01	0.03	0.04
RIGHT	DL1	0.11	0.09	0.04	0.01	0.00	0.01	0.04	0.07	0.10
WEB	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.02	-0.05	-0.07	-0.08	-0.07	-0.05	-0.02	0.00
5	DS	842.67	842.57	842.26	841.94	841.60	841.26	840.89	840.52	840.38
	TES	841.89	841.72	841.36	841.06	840.82	840.38	839.99	839.66	839.58
RIGHT	ZW	841.78	841.63	841.26	840.89	840.53	840.20	839.88	839.56	839.46
GIRDER	CW	841.78	841.65	841.31	840.96	840.62	840.27	839.93	839.58	839.46
	SW	0.05	0.04	0.02	0.01	0.00	0.01	0.02	0.03	0.04
LEFT	DL1	0.12	0.09	0.05	0.02	0.00	0.01	0.04	0.08	0.10
WEB	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.02	-0.05	-0.08	-0.09	-0.08	-0.05	-0.02	0.00
7	DS	843.09	842.98	842.68	842.36	842.02	841.67	841.31	840.93	840.79
	TES	842.31	842.13	841.77	841.48	841.23	840.79	840.40	840.07	840.00
RIGHT	ZW	842.19	842.04	841.67	841.30	840.94	840.61	840.29	839.97	839.87
GIRDER	CW	842.19	842.06	841.72	841.37	841.03	840.68	840.34	839.99	839.87
	SW	0.05	0.04	0.02	0.01	0.00	0.00	0.01	0.03	0.04
RIGHT	DL1	0.11	0.09	0.05	0.02	0.00	0.01	0.04	0.08	0.10
WEB	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.02	-0.05	-0.07	-0.09	-0.07	-0.05	-0.02	0.00
BLOCKING HEIGHTS										
10	BLK	40.36								38.05
11		40.59								38.27
12		40.60								38.29
13		40.84								38.52

FIELD SECTION #18

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION										
		FS #16	P18-01	P18-02	P18-03	P18-04	P18-05	P18-06	P18-07	P18-08	P18-09	FS #17
		590+80.67	590+89.42	591+03.17	591+16.92	591+30.67	591+44.42	591+58.17	591+71.92	591+85.67	591+99.42	592+08.17
FINISHED ELEVATION - TOP OF DECK												
1	DS	839.26	839.01	838.61	838.19	837.76	837.32	836.86	836.39	835.90	835.40	835.08
2		839.34	839.09	838.69	838.27	837.84	837.39	836.93	836.46	835.98	835.48	835.15
6		840.53	840.29	839.88	839.46	839.03	838.59	838.13	837.66	837.17	836.67	836.35
8		840.90	840.65	840.25	839.83	839.40	838.95	838.49	838.02	837.54	837.04	836.71
9		840.97	840.72	840.32	839.90	839.47	839.03	838.57	838.10	837.61	837.11	836.79
CAMBER DATA												
3	DS	839.49	839.25	838.84	838.42	837.99	837.55	837.09	836.62	836.13	835.63	835.31
	TES	838.68	838.40	838.15	837.67	837.27	836.84	836.37	835.88	835.46	834.81	834.50
LEFT	ZW	838.58	838.36	838.03	837.67	837.27	836.84	836.38	835.88	835.35	834.79	834.42
GIRDER	CW	838.58	838.29	837.85	837.40	836.95	836.50	836.05	835.61	835.16	834.71	834.42
	SW	0.04	0.05	0.07	0.08	0.09	0.09	0.09	0.08	0.07	0.06	0.05
LEFT	DL1	0.11	0.13	0.17	0.21	0.23	0.24	0.24	0.22	0.19	0.15	0.13
WEB	DL2	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.07	0.18	0.27	0.32	0.34	0.33	0.28	0.19	0.08	0.00
4	DS	839.91	839.66	839.26	838.84	838.41	837.97	837.51	837.03	836.55	836.05	835.72
	TES	839.09	838.81	838.56	838.09	837.69	837.26	836.80	836.30	835.88	835.22	834.91
LEFT	ZW	838.98	838.77	838.44	838.09	837.70	837.28	836.81	836.30	835.76	835.19	834.83
GIRDER	CW	838.98	838.70	838.25	837.80	837.35	836.91	836.46	836.01	835.56	835.12	834.83
	SW	0.04	0.05	0.07	0.08	0.09	0.10	0.10	0.09	0.07	0.06	0.05
RIGHT	DL1	0.10	0.12	0.17	0.21	0.24	0.25	0.25	0.23	0.19	0.15	0.12
WEB	DL2	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.07	0.19	0.28	0.34	0.37	0.35	0.29	0.20	0.08	0.00
5	DS	840.38	840.13	839.73	839.31	838.88	838.43	837.97	837.50	837.02	836.52	836.19
	TES	839.58	839.28	839.03	838.55	838.15	837.72	837.26	836.76	836.35	835.69	835.40
RIGHT	ZW	839.46	839.24	838.91	838.55	838.15	837.72	837.26	836.77	836.23	835.67	835.31
GIRDER	CW	839.46	839.17	838.72	838.28	837.83	837.38	836.93	836.49	836.04	835.59	835.31
	SW	0.04	0.05	0.07	0.08	0.09	0.09	0.09	0.09	0.07	0.06	0.05
LEFT	DL1	0.10	0.13	0.17	0.21	0.23	0.24	0.24	0.22	0.19	0.15	0.13
WEB	DL2	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.07	0.18	0.27	0.32	0.34	0.33	0.28	0.19	0.08	0.00
7	DS	840.79	840.55	840.14	839.72	839.29	838.85	838.39	837.92	837.43	836.93	836.61
	TES	840.00	839.69	839.45	838.97	838.58	838.15	837.69	837.19	836.76	836.11	835.82
RIGHT	ZW	839.87	839.65	839.32	838.97	838.59	838.17	837.70	837.19	836.65	836.08	835.72
GIRDER	CW	839.87	839.58	839.14	838.69	838.24	837.79	837.35	836.90	836.45	836.00	835.72
	SW	0.04	0.05	0.07	0.08	0.09	0.10	0.10	0.09	0.07	0.06	0.05
RIGHT	DL1	0.10	0.12	0.17	0.21	0.24	0.26	0.25	0.23	0.19	0.15	0.13
WEB	DL2	0.02	0.02	0.03	0.04	0.04	0.05	0.04	0.04	0.04	0.03	0.02
	C	0.00	0.07	0.19	0.28	0.35	0.37	0.35	0.29	0.20	0.08	0.00
BLOCKING HEIGHTS												
10	BLK	38.05										33.89
11		38.27										34.12
12		38.29										34.14
13		38.52										34.37



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

TABULATED ELEVATIONS

FTW FINISHED ELEVATION AT TOP OF WEB.

DS FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION.

= ZW + PL - SW

ZW TOP OF WEB ELEVATION NEGLECTING ALL DEFLECTIONS.

= DS + SW + DL1 + DL2 - DK

CW ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION AT 'ZW' AT FIELD SPLICES AND END SUPPORTS.

BLK BLOCKING HEIGHT TO UNDEFLECTED SHAPE. BLOCKING HEIGHT IS MEASURED TO BOTTOM OF WEB AND DOES NOT TAKE INTO ACCOUNT BOTTOM FLANGE THICKNESS, SPLICE PLATES, ETC.

TABULATED DEFLECTIONS

SW SELF-WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS AND BRACING.

DL1 CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION INCLUDING PERMANENT STAY-IN-PLACE FORMS.

DL2 PARAPETS APPLIED TO COMPOSITE SECTION.

CALCULATED VALUES

PL = THICKNESS OF TOP FLANGE PLUS ANY FILLER AND SPLICE PLATES

DK = DECK ASSEMBLY THICKNESS FROM TOP OF WEB TO FINISHED GRADE

= 4" HAUNCH + 9" SLAB = 13" = 1.08 FT

C = CAMBER = ZW - CW

STATE PROJECT NUMBER

1060-33-81

LEGEND

P1-4 INTERMEDIATE ELEVATION POINT (PANEL POINT).

IN THIS EXAMPLE, '1' IS THE FIELD SECTION NUMBER AND '4' IS THE PANEL POINT WITHIN THIS FIELD SECTION.

NOTES

1. ALL TABULATED VALUES ARE IN DECIMALS OF A FOOT.
2. POSITIVE DEFLECTIONS ARE DOWNWARD.
3. POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS.
4. CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING THAT ALL SLAB WEIGHT, INCLUDING ALLOWANCE FOR PERMANENT STAY-IN-PLACE FORMS, IS APPLIED TO A NON-COMPOSITE STRUCTURE. VERIFY THE VALIDITY OF THIS ASSUMPTION BASED ON THE SELECTED POUR SEQUENCE. ADJUST CAMBER TABLES AS NECESSARY FOR ANY EXPECTED VARIATIONS EXCEEDING .04' (1/2").
5. CAMBER GIRDERS TO THE VALUES SHOWN, AFTER INCORPORATING ANY REQUIRED ADJUSTMENTS FOR THE SELECTED POUR SEQUENCE.
6. TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE CHECKED AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.083 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 17 & 18

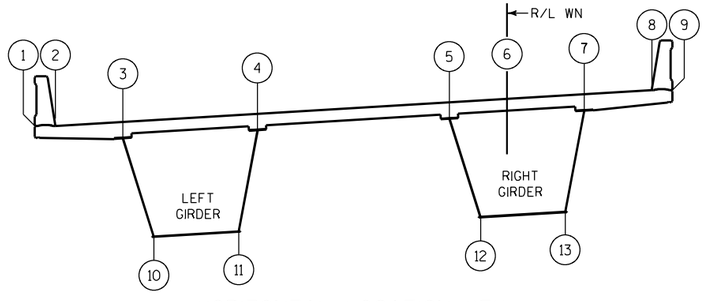
SHEET 79 OF 119

FIELD SECTION #19

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		FS #17	P19-01	P19-02	P19-03	PIER WN10	P19-05	P19-06	P19-07	FS #18
		592+08.17	592+13.17	592+26.92	592+40.67	592+54.42	592+66.92	592+79.42	592+91.92	592+96.92
FINISHED ELEVATION - TOP OF DECK										
1	DS	835.08	834.89	834.36	833.82	833.26	832.75	832.22	831.70	831.49
2		835.15	834.96	834.43	833.89	833.34	832.82	832.30	831.77	831.56
6		836.35	836.16	835.63	835.09	834.53	834.02	833.49	832.97	832.76
8		836.71	836.52	835.99	835.45	834.90	834.38	833.86	833.33	833.12
9		836.79	836.60	836.07	835.53	834.97	834.46	833.93	833.41	833.20
CAMBER DATA										
3	DS	835.31	835.12	834.59	834.05	833.49	832.98	832.45	831.93	831.72
	TES	834.50	834.24	833.66	833.16	832.69	832.07	831.48	830.98	830.83
LEFT	ZW	834.42	834.20	833.60	833.01	832.42	831.91	831.41	830.92	830.73
GIRDER	CW	834.42	834.22	833.64	833.07	832.50	831.98	831.46	830.94	830.73
	SW	0.05	0.04	0.02	0.01	0.00	0.00	0.01	0.02	0.03
LEFT	DL1	0.13	0.11	0.06	0.03	0.00	0.01	0.02	0.05	0.06
WEB	DL2	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.02	-0.04	-0.07	-0.08	-0.07	-0.05	-0.02	0.00
4	DS	835.72	835.53	835.01	834.47	833.91	833.39	832.87	832.34	832.13
	TES	834.91	834.65	834.07	833.57	833.10	832.48	831.89	831.39	831.24
LEFT	ZW	834.83	834.60	834.01	833.41	832.83	832.32	831.81	831.32	831.14
GIRDER	CW	834.83	834.62	834.05	833.48	832.91	832.38	831.86	831.34	831.14
	SW	0.05	0.04	0.02	0.01	0.00	0.00	0.01	0.02	0.02
RIGHT	DL1	0.12	0.10	0.05	0.02	0.00	0.00	0.01	0.04	0.05
WEB	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.02	-0.04	-0.06	-0.07	-0.07	-0.05	-0.02	0.00
5	DS	836.19	836.00	835.47	834.93	834.38	833.86	833.34	832.81	832.60
	TES	835.40	835.15	834.57	834.07	833.59	832.97	832.38	831.88	831.73
RIGHT	ZW	835.31	835.08	834.49	833.89	833.30	832.79	832.28	831.79	831.61
GIRDER	CW	835.31	835.10	834.53	833.95	833.38	832.86	832.34	831.81	831.61
	SW	0.05	0.04	0.02	0.01	0.00	0.00	0.01	0.02	0.02
LEFT	DL1	0.13	0.10	0.06	0.02	0.00	0.00	0.02	0.04	0.05
WEB	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.02	-0.04	-0.06	-0.08	-0.07	-0.05	-0.02	0.00
7	DS	836.61	836.42	835.89	835.35	834.79	834.28	833.75	833.23	833.02
	TES	835.82	835.56	834.98	834.48	834.01	833.39	832.79	832.29	832.14
RIGHT	ZW	835.72	835.49	834.90	834.30	833.72	833.20	832.69	832.20	832.02
GIRDER	CW	835.72	835.51	834.94	834.36	833.79	833.27	832.75	832.23	832.02
	SW	0.05	0.04	0.02	0.01	0.00	0.00	0.01	0.02	0.02
RIGHT	DL1	0.13	0.10	0.06	0.02	0.00	0.00	0.01	0.04	0.05
WEB	DL2	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.02	-0.04	-0.06	-0.07	-0.07	-0.05	-0.02	0.00
BLOCKING HEIGHTS										
10	BLK	33.89								30.20
11		34.12								30.43
12		34.14								30.44
13		34.37								30.67

FIELD SECTION #20

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION										
		FS #18	P20-01	P20-02	P20-03	P20-04	P20-05	P20-06	P20-07	P20-08	P20-09	FS #19
		592+96.92	593+04.42	593+16.92	593+29.42	593+41.92	593+54.42	593+66.92	593+79.42	593+91.92	594+04.42	594+11.92
FINISHED ELEVATION - TOP OF DECK												
1	DS	831.49	831.17	830.65	830.12	829.60	829.07	828.55	828.02	827.50	826.97	826.66
2		831.56	831.25	830.72	830.20	829.67	829.15	828.62	828.10	827.57	827.05	826.73
6		832.76	832.44	831.92	831.39	830.87	830.34	829.82	829.29	828.77	828.24	827.93
8		833.12	832.81	832.28	831.76	831.23	830.71	830.18	829.66	829.13	828.61	828.29
9		833.20	832.88	832.36	831.83	831.31	830.78	830.26	829.73	829.21	828.68	828.37
CAMBER DATA												
3	DS	831.72	831.40	830.88	830.35	829.83	829.30	828.78	828.25	827.73	827.20	826.89
	TES	830.83	830.49	830.10	829.50	828.99	828.47	827.94	827.40	826.96	826.30	826.01
LEFT	ZW	830.73	830.44	829.96	829.47	828.96	828.45	827.92	827.37	826.82	826.25	825.91
GIRDER	CW	830.73	830.42	829.89	829.37	828.85	828.32	827.80	827.28	826.75	826.23	825.91
	SW	0.03	0.03	0.04	0.05	0.06	0.06	0.06	0.05	0.05	0.04	0.03
LEFT	DL1	0.06	0.08	0.10	0.12	0.14	0.15	0.14	0.13	0.11	0.08	0.07
WEB	DL2	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
	C	0.00	0.02	0.06	0.10	0.12	0.13	0.12	0.10	0.06	0.02	0.00
4	DS	832.13	831.82	831.29	830.77	830.24	829.72	829.19	828.67	828.14	827.62	827.30
	TES	831.24	830.90	830.51	829.91	829.41	828.89	828.36	827.82	827.37	826.71	826.42
LEFT	ZW	831.14	830.84	830.37	829.88	829.38	828.87	828.34	827.79	827.23	826.66	826.32
GIRDER	CW	831.14	830.82	830.30	829.77	829.25	828.73	828.20	827.68	827.16	826.63	826.32
	SW	0.02	0.03	0.04	0.05	0.06	0.06	0.06	0.05	0.05	0.03	0.03
RIGHT	DL1	0.05	0.07	0.10	0.12	0.14	0.15	0.14	0.13	0.11	0.08	0.06
WEB	DL2	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
	C	0.00	0.02	0.07	0.10	0.13	0.14	0.13	0.11	0.07	0.02	0.00
5	DS	832.60	832.29	831.76	831.24	830.71	830.19	829.66	829.14	828.61	828.09	827.77
	TES	831.73	831.37	830.98	830.37	829.87	829.35	828.82	828.28	827.84	827.18	826.89
RIGHT	ZW	831.61	831.31	830.83	830.34	829.84	829.32	828.79	828.25	827.70	827.13	826.79
GIRDER	CW	831.61	831.29	830.77	830.25	829.72	829.20	828.68	828.15	827.63	827.11	826.79
	SW	0.02	0.03	0.04	0.05	0.06	0.06	0.06	0.05	0.04	0.03	0.03
LEFT	DL1	0.05	0.07	0.10	0.12	0.13	0.14	0.13	0.12	0.10	0.08	0.07
WEB	DL2	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
	C	0.00	0.02	0.06	0.09	0.11	0.12	0.12	0.10	0.07	0.02	0.00
7	DS	833.02	832.70	832.18	831.65	831.13	830.60	830.08	829.55	829.03	828.50	828.19
	TES	832.14	831.78	831.39	830.79	830.29	829.77	829.24	828.70	828.25	827.59	827.30
RIGHT	ZW	832.02	831.72	831.24	830.76	830.26	829.75	829.22	828.67	828.11	827.54	827.20
GIRDER	CW	832.02	831.70	831.18	830.66	830.13	829.61	829.09	828.56	828.04	827.52	827.20
	SW	0.02	0.03	0.04	0.05	0.06	0.06	0.06	0.05	0.04	0.03	0.03
RIGHT	DL1	0.05	0.06	0.09	0.12	0.14	0.15	0.14	0.13	0.10	0.08	0.06
WEB	DL2	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.01	0.01
	C	0.00	0.02	0.06	0.10	0.13	0.14	0.13	0.11	0.07	0.02	0.00
BLOCKING HEIGHTS												
10	BLK	30.20										25.38
11		30.43										25.61
12		30.44										25.62
13		30.67										25.85



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

TABULATED ELEVATIONS

FTW FINISHED ELEVATION AT TOP OF WEB.

DS FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION.

= ZW + PL - SW

ZW TOP OF WEB ELEVATION NEGLECTING ALL DEFLECTIONS.

= DS + SW + DL1 + DL2 - DK

CW ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION AT 'ZW' AT FIELD SPLICES AND END SUPPORTS.

BLK BLOCKING HEIGHT TO UNDEFLECTED SHAPE. BLOCKING HEIGHT IS MEASURED TO BOTTOM OF WEB AND DOES NOT TAKE INTO ACCOUNT BOTTOM FLANGE THICKNESS, SPLICE PLATES, ETC.

TABULATED DEFLECTIONS

SW SELF-WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS AND BRACING.

DL1 CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION INCLUDING PERMANENT STAY-IN-PLACE FORMS.

DL2 PARAPETS APPLIED TO COMPOSITE SECTION.

CALCULATED VALUES

PL = THICKNESS OF TOP FLANGE PLUS ANY FILLER AND SPLICE PLATES

DK = DECK ASSEMBLY THICKNESS FROM TOP OF WEB TO FINISHED GRADE

= 4" HAUNCH + 9" SLAB = 13" = 1.08 FT

C = CAMBER = ZW - CW

STATE PROJECT NUMBER

1060-33-81

LEGEND

P1-4 INTERMEDIATE ELEVATION POINT (PANEL POINT).

IN THIS EXAMPLE, '1' IS THE FIELD SECTION NUMBER AND '4' IS THE PANEL POINT WITHIN THIS FIELD SECTION.

NOTES

1. ALL TABULATED VALUES ARE IN DECIMALS OF A FOOT.
2. POSITIVE DEFLECTIONS ARE DOWNWARD.
3. POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS.
4. CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING THAT ALL SLAB WEIGHT, INCLUDING ALLOWANCE FOR PERMANENT STAY-IN-PLACE FORMS, IS APPLIED TO A NON-COMPOSITE STRUCTURE. VERIFY THE VALIDITY OF THIS ASSUMPTION BASED ON THE SELECTED POUR SEQUENCE. ADJUST CAMBER TABLES AS NECESSARY FOR ANY EXPECTED VARIATIONS EXCEEDING .04' (1/2").
5. CAMBER GIRDERS TO THE VALUES SHOWN, AFTER INCORPORATING ANY REQUIRED ADJUSTMENTS FOR THE SELECTED POUR SEQUENCE.
6. TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE CHECKED AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.083 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 19 & 20

SHEET 80 OF 119

8

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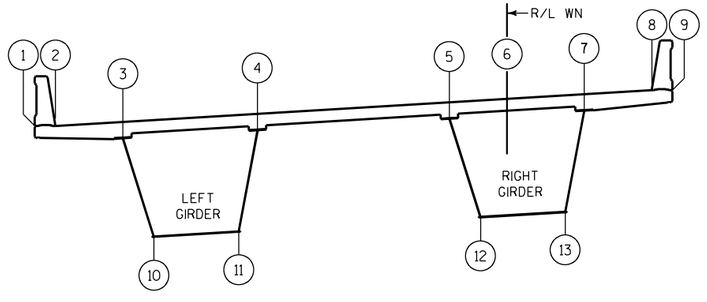
FIELD SECTION #21

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		FS #19	P21-01	P21-02	P21-03	PIER WN11	P21-05	P21-06	P21-07	FS #20
		594+11.92	594+16.92	594+29.42	594+41.92	594+54.42	594+66.92	594+79.42	594+91.92	594+96.92
FINISHED ELEVATION - TOP OF DECK										
1	DS	826.66	826.45	825.92	825.39	824.87	824.34	823.82	823.29	823.08
2		826.73	826.52	826.00	825.47	824.94	824.42	823.89	823.37	823.16
6		827.93	827.72	827.19	826.67	826.14	825.62	825.09	824.57	824.36
8		828.29	828.08	827.56	827.03	826.50	825.98	825.45	824.93	824.72
9		828.37	828.16	827.63	827.11	826.58	826.06	825.53	825.00	824.79
CAMBER DATA										
3	DS	826.89	826.68	826.15	825.63	825.10	824.58	824.05	823.53	823.32
	TES	826.01	825.74	825.19	824.70	824.27	823.66	823.10	822.62	822.47
LEFT	ZW	825.91	825.68	825.12	824.56	824.02	823.52	823.03	822.56	822.37
GIRDER	CW	825.91	825.71	825.19	824.66	824.14	823.62	823.10	822.58	822.37
	SW	0.03	0.02	0.01	0.00	0.00	0.01	0.01	0.03	0.03
LEFT	DL1	0.07	0.06	0.03	0.01	0.00	0.02	0.04	0.08	0.09
WEB	DL2	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.02	-0.07	-0.10	-0.12	-0.10	-0.07	-0.02	0.00
4	DS	827.30	827.09	826.57	826.04	825.52	824.99	824.47	823.94	823.73
	TES	826.42	826.15	825.59	825.11	824.69	824.07	823.51	823.02	822.88
LEFT	ZW	826.32	826.09	825.52	824.97	824.44	823.93	823.44	822.96	822.78
GIRDER	CW	826.32	826.11	825.59	825.07	824.55	824.03	823.51	822.99	822.78
	SW	0.03	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.03
RIGHT	DL1	0.06	0.05	0.02	0.01	0.00	0.01	0.04	0.07	0.09
WEB	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.03	-0.07	-0.10	-0.11	-0.10	-0.07	-0.03	0.00
5	DS	827.77	827.56	827.04	826.51	825.98	825.46	824.93	824.41	824.20
	TES	826.89	826.62	826.07	825.58	825.15	824.54	823.98	823.50	823.35
RIGHT	ZW	826.79	826.56	826.00	825.44	824.91	824.40	823.91	823.44	823.26
GIRDER	CW	826.79	826.58	826.06	825.54	825.02	824.50	823.98	823.46	823.26
	SW	0.03	0.02	0.01	0.00	0.00	0.01	0.01	0.03	0.03
LEFT	DL1	0.07	0.05	0.03	0.01	0.00	0.02	0.04	0.07	0.09
WEB	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.02	-0.07	-0.10	-0.12	-0.10	-0.07	-0.02	0.00
7	DS	828.19	827.98	827.45	826.93	826.40	825.88	825.35	824.83	824.62
	TES	827.30	827.03	826.48	826.00	825.57	824.96	824.40	823.91	823.76
RIGHT	ZW	827.20	826.97	826.41	825.86	825.32	824.82	824.33	823.85	823.67
GIRDER	CW	827.20	827.00	826.48	825.96	825.44	824.92	824.40	823.88	823.67
	SW	0.03	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.03
RIGHT	DL1	0.06	0.05	0.02	0.01	0.00	0.01	0.04	0.07	0.09
WEB	DL2	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.02	-0.07	-0.10	-0.11	-0.10	-0.07	-0.03	0.00
BLOCKING HEIGHTS										
10	BLK	25.38								21.84
11		25.61								22.07
12		25.62								22.09
13		25.85								22.32

FIELD SECTION #22

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION										
		FS #20	P22-01	P22-02	P22-03	P22-04	P22-05	P22-06	P22-07	P22-08	P22-09	FS #21
		594+96.92	595+04.42	595+16.92	595+29.42	595+41.92	595+54.42	595+66.92	595+79.42	595+91.92	596+04.42	596+11.92
FINISHED ELEVATION - TOP OF DECK												
1	DS	823.08	822.77	822.24	821.72	821.19	820.67	820.14	819.62	819.09	818.57	818.25
2		823.16	822.84	822.32	821.79	821.27	820.74	820.22	819.69	819.17	818.64	818.33
6		824.36	824.04	823.52	822.99	822.46	821.94	821.41	820.89	820.36	819.84	819.52
8		824.72	824.40	823.88	823.35	822.83	822.30	821.78	821.25	820.73	820.20	819.89
9		824.79	824.48	823.95	823.43	822.90	822.38	821.85	821.33	820.80	820.28	819.96
CAMBER DATA												
3	DS	823.32	823.00	822.48	821.95	821.42	820.90	820.37	819.85	819.32	818.80	818.48
	TES	822.47	822.13	821.75	821.15	820.64	820.12	819.59	819.04	818.59	817.92	817.63
LEFT	ZW	822.37	822.09	821.61	821.12	820.62	820.10	819.57	819.02	818.45	817.88	817.54
GIRDER	CW	822.37	822.06	821.53	821.01	820.48	819.96	819.43	818.90	818.38	817.85	817.54
	SW	0.03	0.04	0.05	0.06	0.06	0.07	0.06	0.06	0.05	0.04	0.03
LEFT	DL1	0.09	0.11	0.14	0.17	0.18	0.19	0.18	0.17	0.14	0.11	0.09
WEB	DL2	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02
	C	0.00	0.03	0.08	0.12	0.14	0.15	0.14	0.12	0.07	0.03	0.00
4	DS	823.73	823.42	822.89	822.37	821.84	821.32	820.79	820.27	819.74	819.22	818.90
	TES	822.88	822.54	822.16	821.56	821.06	820.54	820.01	819.46	819.01	818.33	818.04
LEFT	ZW	822.78	822.49	822.02	821.54	821.04	820.53	819.99	819.44	818.87	818.29	817.94
GIRDER	CW	822.78	822.47	821.94	821.41	820.89	820.36	819.84	819.31	818.78	818.26	817.94
	SW	0.03	0.04	0.05	0.06	0.07	0.07	0.07	0.06	0.05	0.04	0.03
RIGHT	DL1	0.09	0.11	0.14	0.17	0.19	0.19	0.19	0.17	0.14	0.10	0.08
WEB	DL2	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.01
	C	0.00	0.03	0.08	0.13	0.16	0.17	0.15	0.13	0.08	0.03	0.00
5	DS	824.20	823.88	823.36	822.83	822.31	821.78	821.26	820.73	820.21	819.68	819.37
	TES	823.35	823.01	822.63	822.03	821.52	821.00	820.47	819.92	819.47	818.80	818.51
RIGHT	ZW	823.26	822.97	822.49	822.00	821.50	820.98	820.45	819.90	819.33	818.76	818.42
GIRDER	CW	823.26	822.94	822.41	821.89	821.36	820.84	820.31	819.78	819.26	818.73	818.42
	SW	0.03	0.04	0.05	0.06	0.06	0.07	0.06	0.06	0.05	0.04	0.03
LEFT	DL1	0.09	0.11	0.14	0.17	0.18	0.18	0.18	0.16	0.14	0.10	0.09
WEB	DL2	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02
	C	0.00	0.03	0.08	0.12	0.14	0.15	0.14	0.12	0.08	0.03	0.00
7	DS	824.62	824.30	823.78	823.25	822.72	822.20	821.67	821.15	820.62	820.10	819.78
	TES	823.76	823.43	823.05	822.45	821.95	821.43	820.90	820.35	819.89	819.22	818.92
RIGHT	ZW	823.67	823.38	822.91	822.43	821.93	821.42	820.88	820.32	819.75	819.17	818.83
GIRDER	CW	823.67	823.35	822.83	822.30	821.77	821.25	820.72	820.20	819.67	819.14	818.83
	SW	0.03	0.04	0.05	0.06	0.07	0.07	0.07	0.06	0.05	0.04	0.03
RIGHT	DL1	0.09	0.11	0.14	0.17	0.19	0.20	0.19	0.17	0.14	0.10	0.08
WEB	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02
	C	0.00	0.03	0.08	0.13	0.16	0.17	0.16	0.13	0.08	0.03	0.00
BLOCKING HEIGHTS												
10	BLK	21.84										17.00
11		22.07										17.23
12		22.09										17.25
13		22.32										17.48



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

TABULATED ELEVATIONS

FTW FINISHED ELEVATION AT TOP OF WEB.

DS FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION.

= ZW + PL - SW

ZW TOP OF WEB ELEVATION NEGLECTING ALL DEFLECTIONS.

= DS + SW + DL1 + DL2 - DK

CW ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION AT 'ZW' AT FIELD SPLICES AND END SUPPORTS.

BLK BLOCKING HEIGHT TO UNDEFLECTED SHAPE. BLOCKING HEIGHT IS MEASURED TO BOTTOM OF WEB AND DOES NOT TAKE INTO ACCOUNT BOTTOM FLANGE THICKNESS, SPLICE PLATES, ETC.

TABULATED DEFLECTIONS

SW SELF-WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS AND BRACING.

DL1 CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION INCLUDING PERMANENT STAY-IN-PLACE FORMS.

DL2 PARAPETS APPLIED TO COMPOSITE SECTION.

CALCULATED VALUES

PL = THICKNESS OF TOP FLANGE PLUS ANY FILLER AND SPLICE PLATES

DK = DECK ASSEMBLY THICKNESS FROM TOP OF WEB TO FINISHED GRADE

= 4" HAUNCH + 9" SLAB = 13" = 1.08 FT

C = CAMBER = ZW - CW

STATE PROJECT NUMBER

1060-33-81

LEGEND

P1-4 INTERMEDIATE ELEVATION POINT (PANEL POINT).

IN THIS EXAMPLE, '1' IS THE FIELD SECTION NUMBER AND '4' IS THE PANEL POINT WITHIN THIS FIELD SECTION.

NOTES

1. ALL TABULATED VALUES ARE IN DECIMALS OF A FOOT.
2. POSITIVE DEFLECTIONS ARE DOWNWARD.
3. POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS.
4. CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING THAT ALL SLAB WEIGHT, INCLUDING ALLOWANCE FOR PERMANENT STAY-IN-PLACE FORMS, IS APPLIED TO A NON-COMPOSITE STRUCTURE. VERIFY THE VALIDITY OF THIS ASSUMPTION BASED ON THE SELECTED POUR SEQUENCE. ADJUST CAMBER TABLES AS NECESSARY FOR ANY EXPECTED VARIATIONS EXCEEDING .04' (1/2").
5. CAMBER GIRDERS TO THE VALUES SHOWN, AFTER INCORPORATING ANY REQUIRED ADJUSTMENTS FOR THE SELECTED POUR SEQUENCE.
6. TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE CHECKED AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.083 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 21 & 22

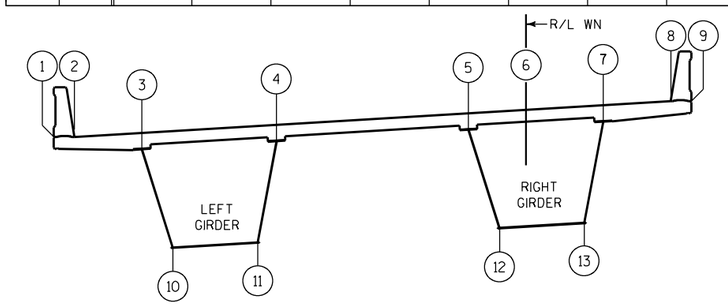
SHEET 81 OF 119

FIELD SECTION #23

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		FS #21	P23-01	P23-02	P23-03	PIER WN12	P23-05	P23-06	P23-07	FS #22
		596+11.92	596+16.92	596+29.42	596+41.92	596+54.42	596+67.75	596+81.09	596+94.42	596+99.42
FINISHED ELEVATION - TOP OF DECK										
1	DS	818.25	818.04	817.52	816.99	816.47	815.91	815.35	814.79	814.58
2		818.33	818.12	817.59	817.07	816.54	815.98	815.42	814.86	814.65
6		819.52	819.31	818.79	818.26	817.74	817.18	816.62	816.06	815.85
8		819.89	819.68	819.15	818.63	818.10	817.54	816.98	816.42	816.21
9		819.96	819.75	819.23	818.70	818.18	817.62	817.06	816.50	816.29
CAMBER DATA										
3	DS	818.48	818.27	817.75	817.22	816.70	816.14	815.58	815.02	814.81
	TES	817.63	817.36	816.80	816.30	815.87	815.22	814.63	814.21	813.96
LEFT	ZW	817.54	817.30	816.73	816.16	815.62	815.08	814.56	814.05	813.86
GIRDER	CW	817.54	817.33	816.80	816.28	815.75	815.19	814.63	814.07	813.86
	SW	0.03	0.02	0.01	0.00	0.00	0.01	0.02	0.03	0.03
LEFT	DL1	0.09	0.07	0.04	0.01	0.00	0.01	0.04	0.07	0.09
WEB	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.03	-0.08	-0.11	-0.13	-0.11	-0.08	-0.03	0.00
4	DS	818.90	818.69	818.16	817.64	817.11	816.55	815.99	815.43	815.22
	TES	818.04	817.77	817.20	816.71	816.28	815.63	815.04	814.62	814.37
LEFT	ZW	817.94	817.70	817.13	816.57	816.04	815.49	814.97	814.47	814.28
GIRDER	CW	817.94	817.73	817.21	816.69	816.17	815.61	815.05	814.49	814.28
	SW	0.03	0.02	0.01	0.00	0.00	0.01	0.02	0.03	0.03
RIGHT	DL1	0.08	0.06	0.03	0.01	0.00	0.01	0.04	0.07	0.09
WEB	DL2	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.03	-0.08	-0.12	-0.13	-0.12	-0.08	-0.03	0.00
5	DS	819.37	819.16	818.63	818.11	817.58	817.02	816.46	815.90	815.69
	TES	818.51	818.24	817.68	817.19	816.75	816.10	815.51	815.09	814.84
RIGHT	ZW	818.42	818.18	817.61	817.04	816.50	815.96	815.44	814.94	814.75
GIRDER	CW	818.42	818.21	817.68	817.16	816.64	816.08	815.52	814.96	814.75
	SW	0.03	0.02	0.01	0.00	0.00	0.01	0.02	0.03	0.04
LEFT	DL1	0.09	0.07	0.04	0.01	0.00	0.01	0.04	0.08	0.09
WEB	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.03	-0.08	-0.12	-0.13	-0.12	-0.08	-0.03	0.00
7	DS	819.78	819.57	819.05	818.52	818.00	817.44	816.88	816.32	816.11
	TES	818.92	818.65	818.09	817.60	817.17	816.52	815.93	815.51	815.26
RIGHT	ZW	818.83	818.59	818.02	817.46	816.92	816.38	815.86	815.35	815.18
GIRDER	CW	818.83	818.62	818.10	817.58	817.05	816.50	815.94	815.38	815.18
	SW	0.03	0.02	0.01	0.00	0.00	0.01	0.02	0.03	0.04
RIGHT	DL1	0.08	0.06	0.03	0.01	0.00	0.01	0.04	0.08	0.10
WEB	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.03	-0.08	-0.12	-0.13	-0.12	-0.08	-0.03	0.00
BLOCKING HEIGHTS										
10	BLK	17.00								13.33
11		17.23								13.57
12		17.25								13.58
13		17.48								13.82

FIELD SECTION #24

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION									
		FS #22	P24-01	P24-02	P24-03	P24-04	P24-05	P24-06	P24-07	P24-08	NORTH ABUT
		596+99.42	597+07.75	597+21.09	597+34.42	597+47.75	597+61.09	597+74.42	597+87.75	598+01.09	598+14.42
FINISHED ELEVATION - TOP OF DECK											
1	DS	814.58	814.23	813.67	813.11	812.55	811.99	811.43	810.87	810.31	809.75
2		814.65	814.30	813.74	813.18	812.62	812.06	811.50	810.94	810.38	809.82
6		815.85	815.50	814.94	814.38	813.82	813.26	812.70	812.14	811.58	811.02
8		816.21	815.86	815.30	814.74	814.18	813.62	813.06	812.50	811.94	811.38
9		816.29	815.94	815.38	814.82	814.26	813.70	813.14	812.58	812.02	811.46
CAMBER DATA											
3	DS	814.81	814.46	813.90	813.34	812.78	812.22	811.66	811.10	810.54	809.98
	TES	813.96	813.58	813.06	812.52	811.97	811.40	810.92	810.21	809.60	809.08
LEFT	ZW	813.86	813.54	813.02	812.49	811.95	811.37	810.78	810.17	809.54	808.89
GIRDER	CW	813.86	813.50	812.93	812.35	811.78	811.20	810.62	810.05	809.47	808.89
	SW	0.03	0.04	0.05	0.06	0.06	0.06	0.05	0.04	0.02	0.00
LEFT	DL1	0.09	0.11	0.14	0.16	0.16	0.16	0.13	0.10	0.05	0.00
WEB	DL2	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.01	0.00
	C	0.00	0.04	0.10	0.14	0.17	0.18	0.16	0.12	0.07	0.00
4	DS	815.22	814.87	814.31	813.75	813.19	812.63	812.07	811.51	810.95	810.39
	TES	814.37	814.00	813.48	812.95	812.39	811.82	811.34	810.63	810.02	809.50
LEFT	ZW	814.28	813.96	813.45	812.92	812.38	811.80	811.21	810.59	809.95	809.31
GIRDER	CW	814.28	813.92	813.35	812.77	812.19	811.62	811.04	810.46	809.89	809.31
	SW	0.03	0.04	0.05	0.06	0.06	0.06	0.05	0.04	0.02	0.00
RIGHT	DL1	0.09	0.11	0.14	0.17	0.17	0.16	0.14	0.10	0.05	0.00
WEB	DL2	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.01	0.00
	C	0.00	0.04	0.10	0.15	0.18	0.19	0.17	0.12	0.07	0.00
5	DS	815.69	815.34	814.78	814.22	813.66	813.10	812.54	811.98	811.42	810.86
	TES	814.84	814.47	813.95	813.41	812.86	812.30	811.82	811.11	810.49	809.97
RIGHT	ZW	814.75	814.43	813.92	813.39	812.84	812.28	811.68	811.06	810.43	809.78
GIRDER	CW	814.75	814.39	813.82	813.24	812.66	812.09	811.51	810.93	810.36	809.78
	SW	0.04	0.04	0.05	0.06	0.06	0.06	0.05	0.04	0.02	0.00
LEFT	DL1	0.09	0.11	0.14	0.16	0.17	0.17	0.15	0.11	0.06	0.00
WEB	DL2	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.01	0.00
	C	0.00	0.04	0.10	0.15	0.18	0.19	0.17	0.13	0.07	0.00
7	DS	816.11	815.76	815.20	814.64	814.08	813.52	812.96	812.40	811.84	811.28
	TES	815.26	814.90	814.38	813.85	813.30	812.73	812.24	811.53	810.91	810.38
RIGHT	ZW	815.18	814.86	814.35	813.83	813.28	812.71	812.11	811.49	810.85	810.20
GIRDER	CW	815.18	814.81	814.24	813.66	813.08	812.50	811.93	811.35	810.77	810.20
	SW	0.04	0.04	0.06	0.07	0.07	0.07	0.06	0.04	0.02	0.00
RIGHT	DL1	0.10	0.12	0.15	0.18	0.19	0.18	0.15	0.11	0.06	0.00
WEB	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.01	0.00
	C	0.00	0.04	0.11	0.17	0.20	0.21	0.18	0.14	0.07	0.00
BLOCKING HEIGHTS											
10	BLK	13.33									8.37
11		13.57									8.60
12		13.58									8.61
13		13.82									8.84



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

TABULATED ELEVATIONS

FTW FINISHED ELEVATION AT TOP OF WEB.

DS FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION.

= ZW + PL - SW

ZW TOP OF WEB ELEVATION NEGLECTING ALL DEFLECTIONS.

= DS + SW + DL1 + DL2 - DK

CW ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION AT 'ZW' AT FIELD SPLICES AND END SUPPORTS.

BLK BLOCKING HEIGHT TO UNDEFLECTED SHAPE. BLOCKING HEIGHT IS MEASURED TO BOTTOM OF WEB AND DOES NOT TAKE INTO ACCOUNT BOTTOM FLANGE THICKNESS, SPLICE PLATES, ETC.

TABULATED DEFLECTIONS

SW SELF-WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS AND BRACING.

DL1 CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION INCLUDING PERMANENT STAY-IN-PLACE FORMS.

DL2 PARAPETS APPLIED TO COMPOSITE SECTION.

CALCULATED VALUES

PL = THICKNESS OF TOP FLANGE PLUS ANY FILLER AND SPLICE PLATES

DK = DECK ASSEMBLY THICKNESS FROM TOP OF WEB TO FINISHED GRADE

= 4" HAUNCH + 9" SLAB = 13" = 1.08 FT

C = CAMBER = ZW - CW

STATE PROJECT NUMBER

1060-33-81

LEGEND

P1-4 INTERMEDIATE ELEVATION POINT (PANEL POINT).

IN THIS EXAMPLE, '1' IS THE FIELD SECTION NUMBER AND '4' IS THE PANEL POINT WITHIN THIS FIELD SECTION.

NOTES

1. ALL TABULATED VALUES ARE IN DECIMALS OF A FOOT.
2. POSITIVE DEFLECTIONS ARE DOWNWARD.
3. POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS.
4. CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING THAT ALL SLAB WEIGHT, INCLUDING ALLOWANCE FOR PERMANENT STAY-IN-PLACE FORMS, IS APPLIED TO A NON-COMPOSITE STRUCTURE. VERIFY THE VALIDITY OF THIS ASSUMPTION BASED ON THE SELECTED POUR SEQUENCE. ADJUST CAMBER TABLES AS NECESSARY FOR ANY EXPECTED VARIATIONS EXCEEDING .04' (1/2").
5. CAMBER GIRDERS TO THE VALUES SHOWN, AFTER INCORPORATING ANY REQUIRED ADJUSTMENTS FOR THE SELECTED POUR SEQUENCE.
6. TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE CHECKED AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

   IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.083 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

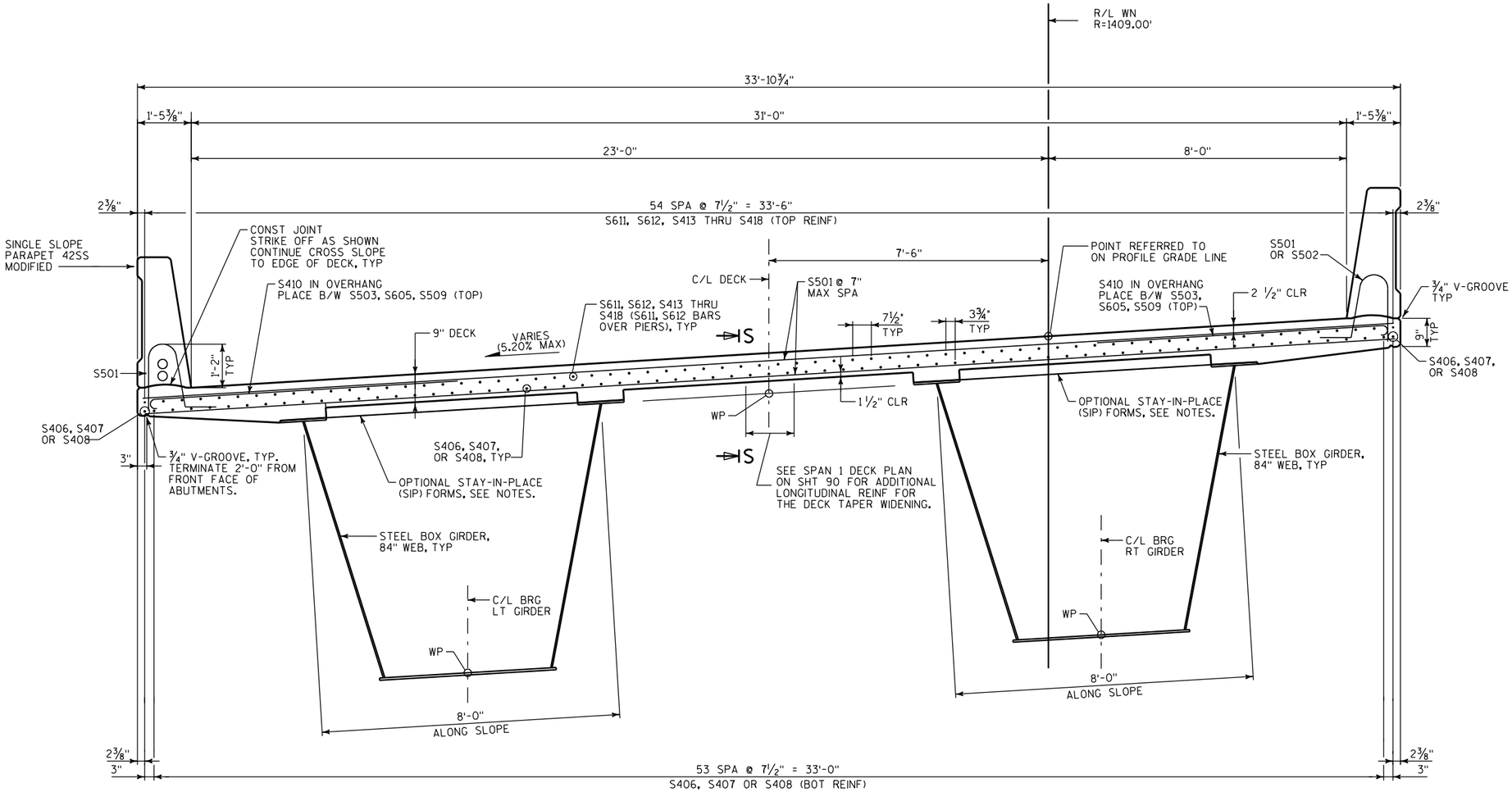
STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 23 & 24

SHEET 82 OF 119

STATE PROJECT NUMBER
1060-33-81



NOTES

1. STAY-IN-PLACE METAL FORMS WILL ONLY BE PERMITTED INSIDE THE BOX GIRDERS. THE OVERHANGS AND THE ZONE BETWEEN THE GIRDERS SHALL USE CONVENTIONAL TEMPORARY FORMS.

   THE USE OF STAY-IN-PLACE METAL FORMS IS OPTIONAL, CONVENTIONAL FORMWORK MAY BE USED INSIDE THE BOXES BUT MUST BE COMPLETELY REMOVED.

   DESIGN CONNECTION BETWEEN STAY-IN-PLACE METAL FORMS AND GIRDER FLANGES TO PROVIDE ADJUSTMENT OF VERTICAL POSITION BASED ON THE ACTUAL HAUNCH HEIGHT REQUIRED.

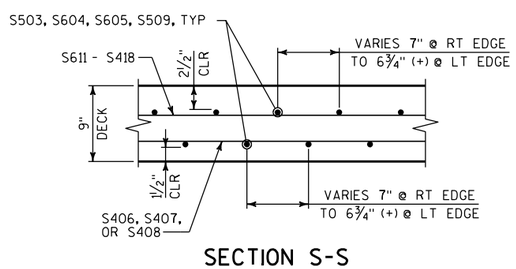
   TOP OF STAY-IN-PLACE METAL FORMS SHALL BE ALIGNED WITH THE UNDERSIDE OF THE DECK SLAB.

   COST OF PERMANENT STAY-IN-PLACE METAL FORMS IS INCIDENTAL TO THE PAY ITEM "HPC MASONRY STRUCTURES". THE SUPERSTRUCTURE CONCRETE QUANTITY DOES NOT INCLUDE THE CONCRETE WITHIN THE STAY-IN-PLACE METAL FORM FLUTES. SUCH CONCRETE IS CONSIDERED INCIDENTAL AND WILL NOT BE PAID FOR SEPARATELY.

2. TO AVOID OVERSTRESSING THE EXTERIOR GIRDER WEBS DURING DECK PLACEMENT, DECK OVERHANG FORMWORK BRACKETS MUST CONTACT THE GIRDER WEB WITHIN 8" OF THE TOP OF THE BOTTOM FLANGE.

CROSS SECTION THRU SUPERSTRUCTURE

(LOOKING UPSTATION - DIMENSIONS ARE NORMAL TO R/L WN)



SECTION S-S

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

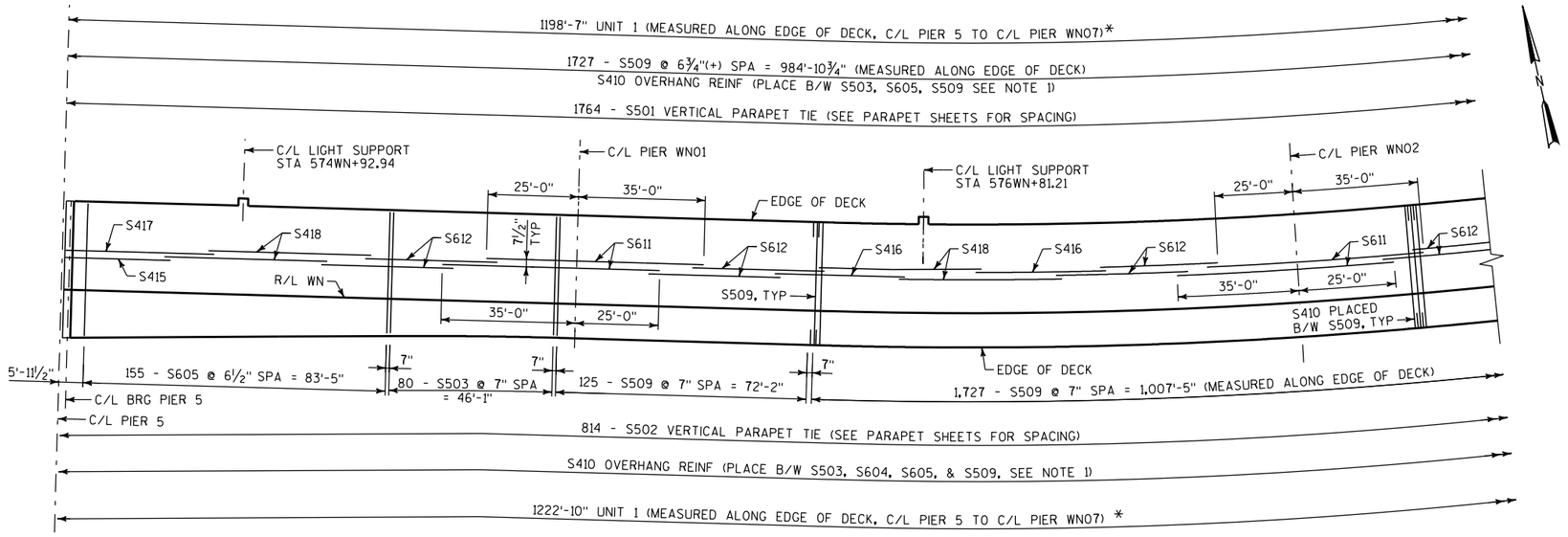
STRUCTURE B-40-856

DRAWN BY JTE | PLANS CK'D. WRT

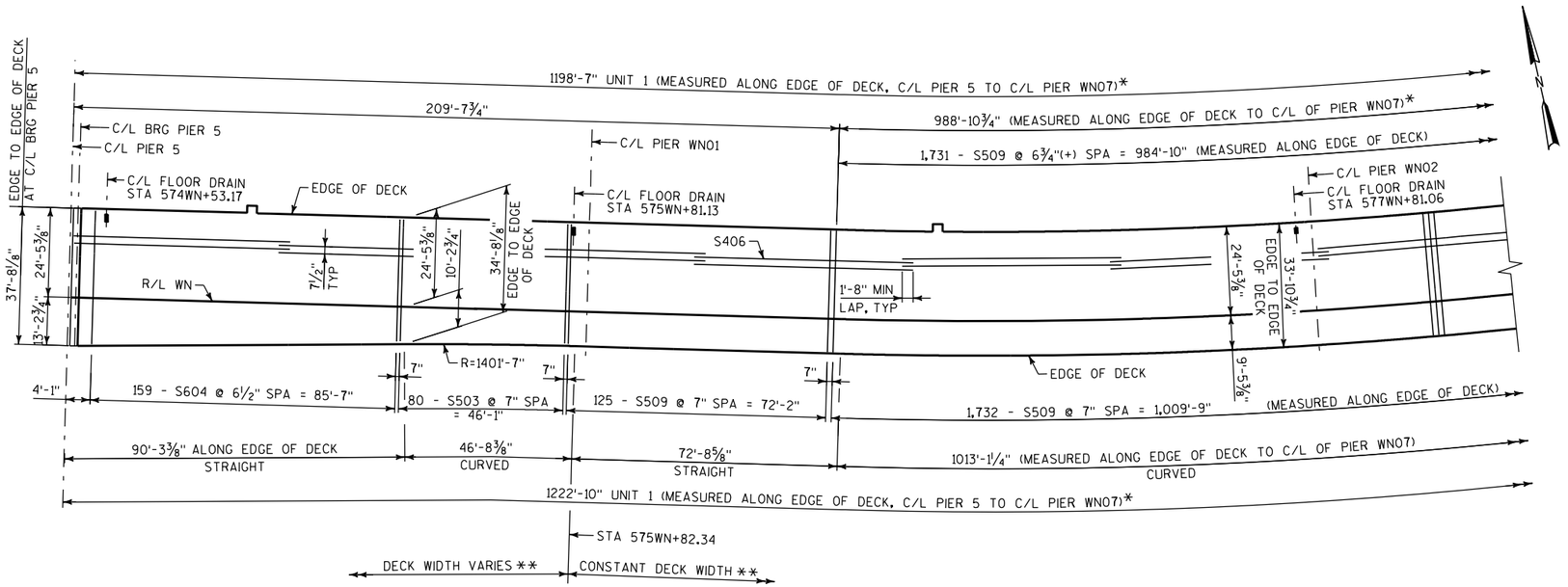
SUPERSTRUCTURE CROSS SECTION

SHEET 83 OF 119

STATE PROJECT NUMBER
1060-33-81



DECK PLAN - TOP REINFORCEMENT



DECK PLAN - BOTTOM REINFORCEMENT

DECK BAR LAP LENGTH

BAR SIZE	MIN LAP LENGTH
#4	1'-8"
#6	3'-1"

SMALLER BAR DETERMINES LAP LENGTH.

LEGEND

*MEASURED AT 60 DEG F

**RIGHT EDGE OF DECK IS CONSTANT 8'-5⅜" FROM C/L RIGHT GIRDER. SEE DETAIL 1 ON SHEET 42.

NOTES

1. AT EACH LIGHT SUPPORT, 6-S410 BARS ARE NOT REQUIRED. THE S410 BARS ARE REPLACED BY THE R617 BARS AS INDICATED ON LIGHT SUPPORT DETAIL SHEETS. R520 SHALL BE PLACED IN LIEU OF S501.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY JTE | PLANS CK'D. WRT

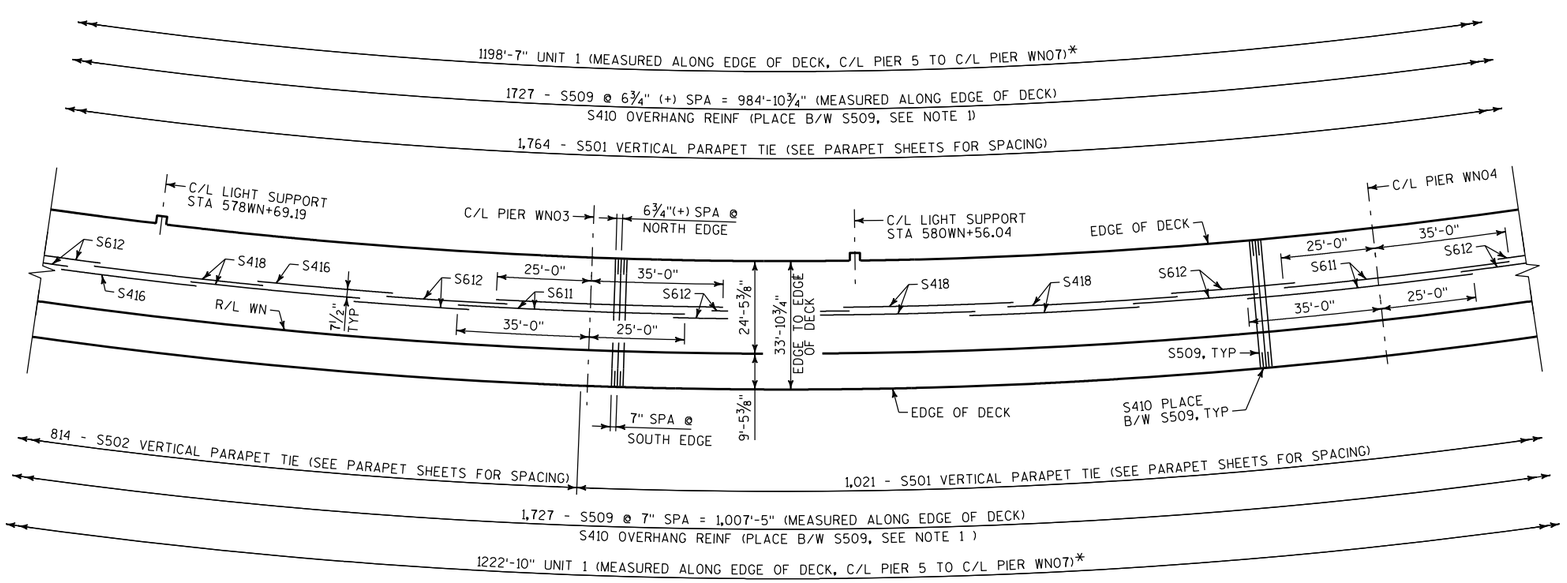
DECK REINFORCEMENT (1 OF 6)

SHEET 84 OF 119

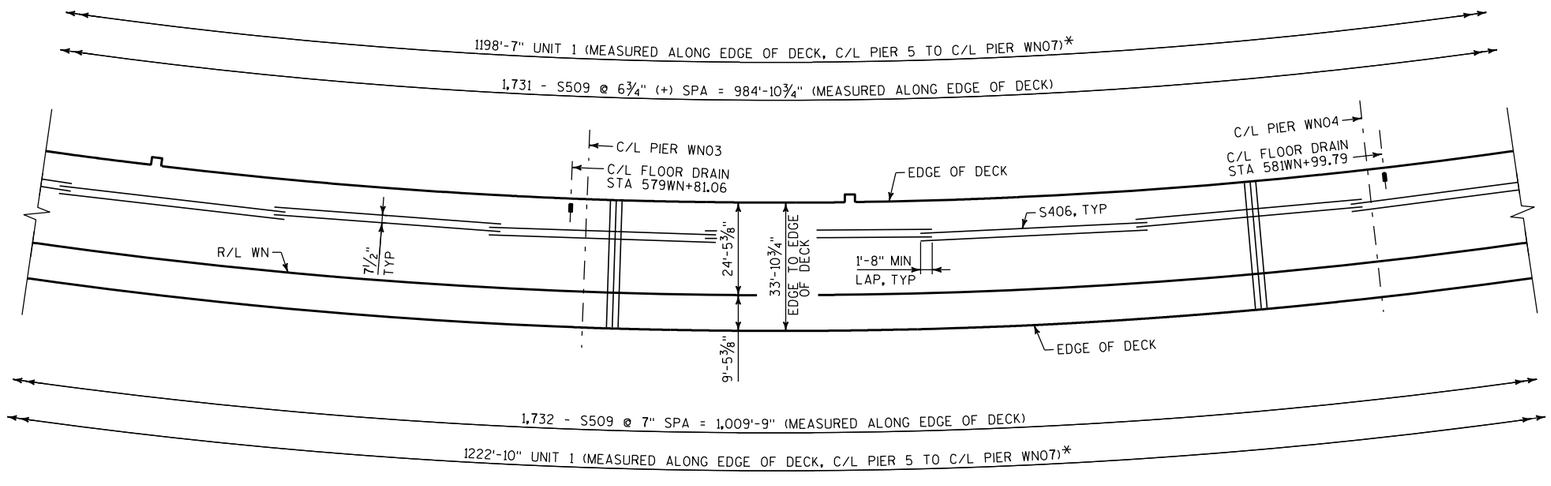
8

8

STATE PROJECT NUMBER
1060-33-81



DECK PLAN - TOP REINFORCEMENT



DECK PLAN - BOTTOM REINFORCEMENT

DECK BAR LAP LENGTH

BAR SIZE	MIN LAP LENGTH
#4	1'-8"
#6	3'-1"

SMALLER BAR DETERMINES LAP LENGTH.

LEGEND

* MEASURED AT 60 DEG F

NOTES

1. AT EACH LIGHT SUPPORT, 6-S410 BARS ARE NOT REQUIRED. THE S410 BARS ARE REPLACED BY THE R617 BARS AS INDICATED ON LIGHT SUPPORT DETAIL SHEETS. R520 SHALL BE PLACED IN LIEU OF S501.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY JTE | PLANS CK'D. WRT

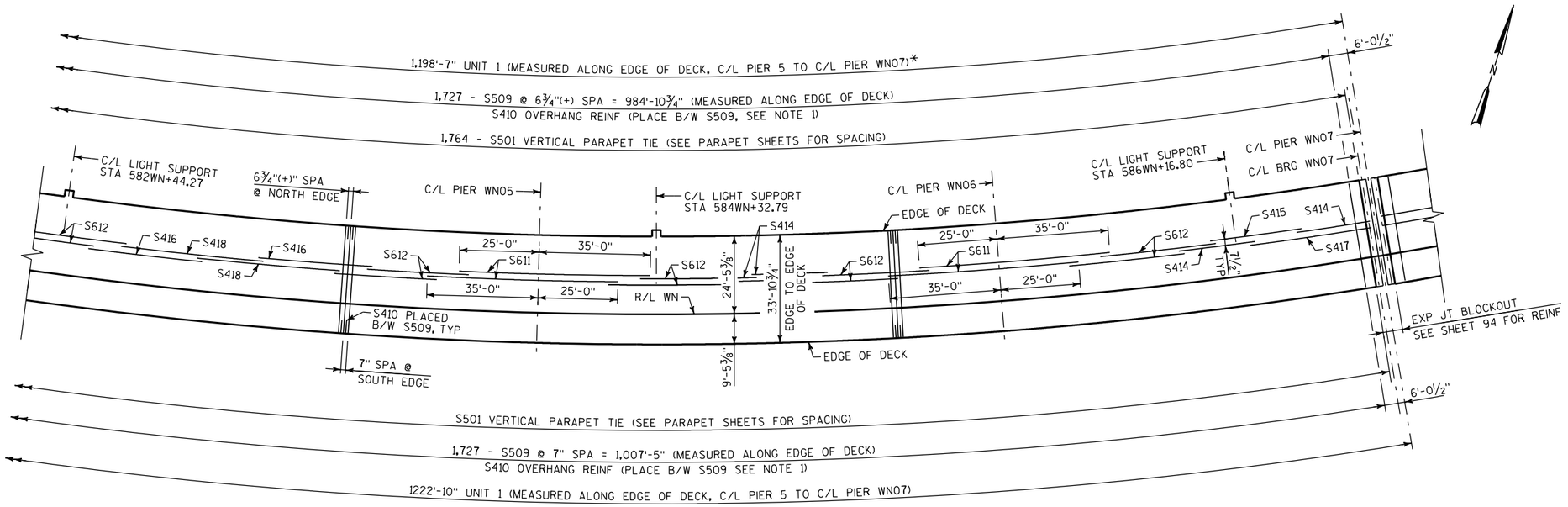
DECK REINFORCEMENT (2 OF 6)

SHEET 85 OF 119

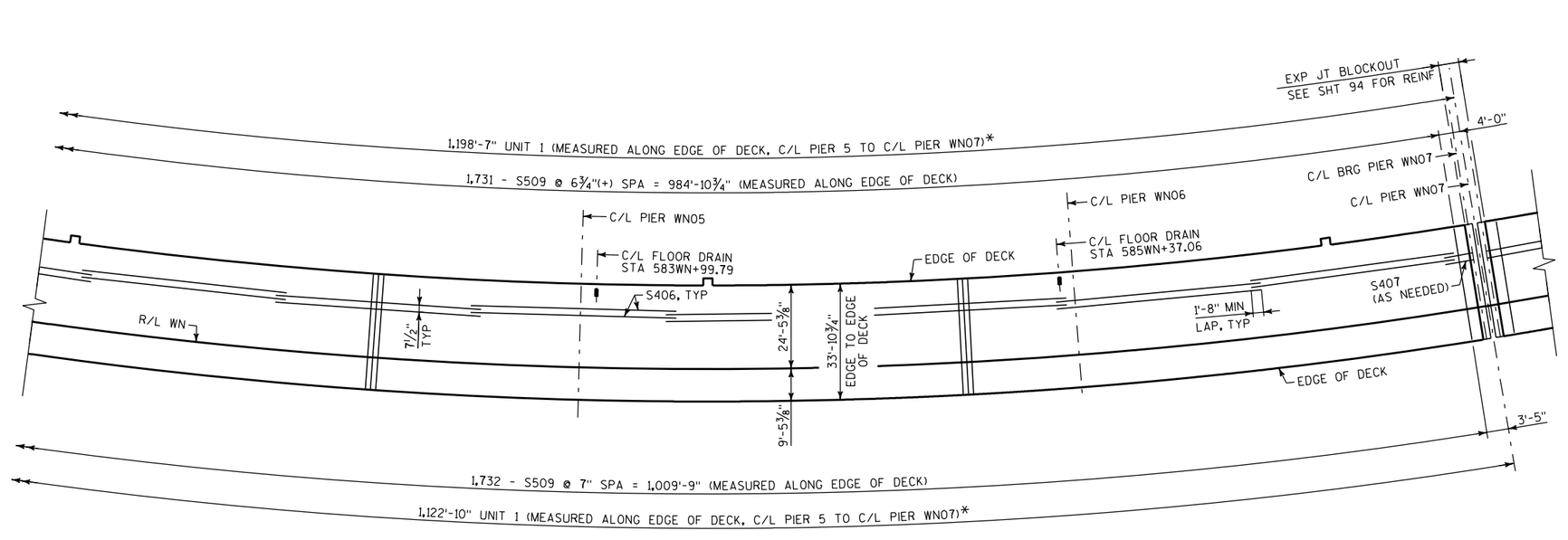
8

8

STATE PROJECT NUMBER
1060-33-81



DECK PLAN - TOP REINFORCEMENT



DECK PLAN - BOTTOM REINFORCEMENT

DECK BAR LAP LENGTH

BAR SIZE	MIN LAP LENGTH
#4	1'-8"
#6	3'-1"

SMALLER BAR DETERMINES LAP LENGTH.

LEGEND

*MEASURED AT 60 DEG F

NOTES

1. AT EACH LIGHT SUPPORT, 6-S410 BARS ARE NOT REQUIRED. THE S410 BARS ARE REPLACED BY THE R617 BARS AS INDICATED ON LIGHT SUPPORT DETAIL SHEETS. R520 SHALL BE PLACED IN LIEU OF S501.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

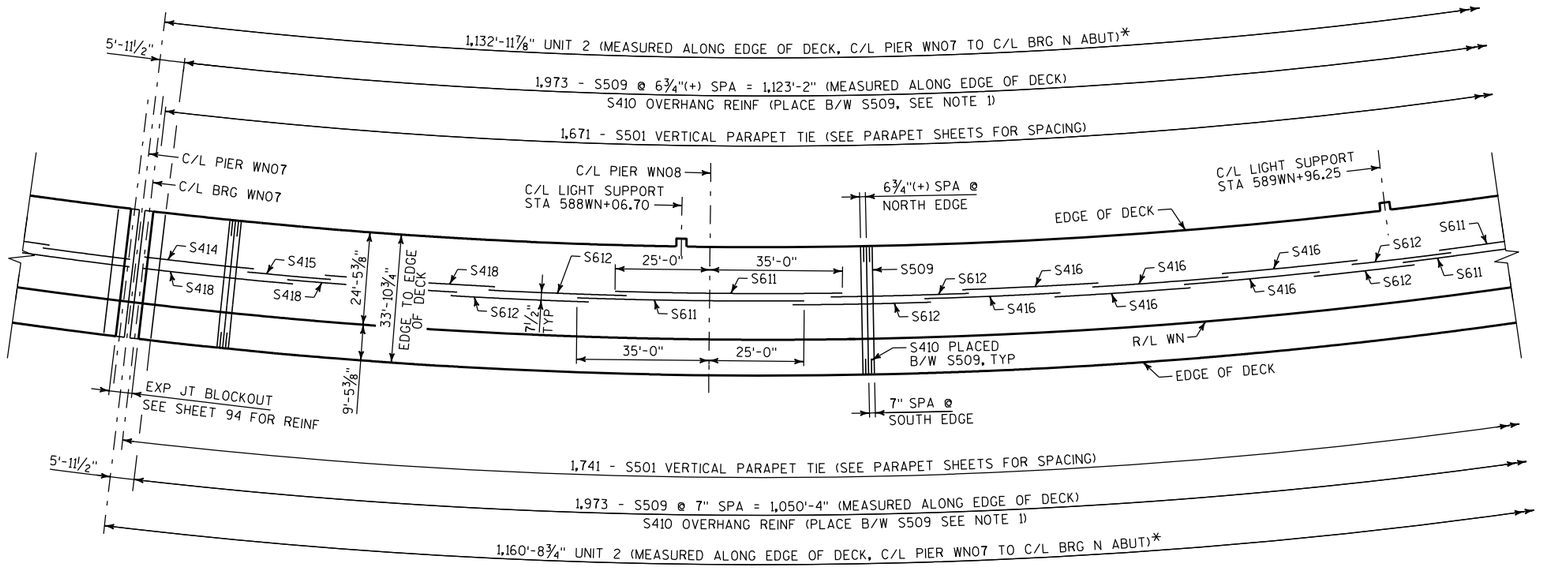
DRAWN BY JTE | PLANS CK'D. WRT

DECK REINFORCEMENT (3 OF 6)

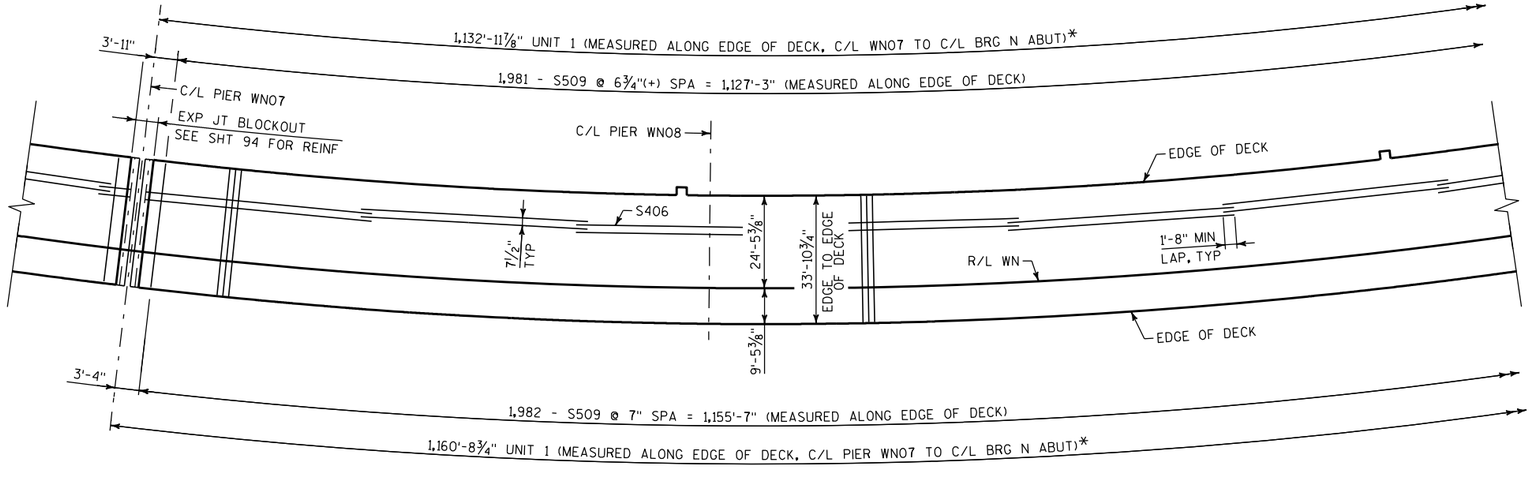
SHEET 86 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080550_ss.dgn PLOT DATE : 13-MAY-2015 16:09 PLOT BY : MSCBKS PLOT NAME : B856_080550_ss PLOT SCALE : 40:1

STATE PROJECT NUMBER
1060-33-81



DECK PLAN - TOP REINFORCEMENT



DECK PLAN - BOTTOM REINFORCEMENT

DECK BAR LAP LENGTH

BAR SIZE	MIN LAP LENGTH
#4	1'-8"
#6	3'-1"

SMALLER BAR DETERMINES LAP LENGTH.

LEGEND

*MEASURED AT 60 DEG F

NOTES

1. AT EACH LIGHT SUPPORT, 6-S410 BARS ARE NOT REQUIRED. THE S410 BARS ARE REPLACED BY THE R617 BARS AS INDICATED ON LIGHT SUPPORT DETAIL SHEETS. R520 SHALL BE PLACED IN LIEU OF S501.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY JTE | PLANS CK'D. WRT

DECK REINFORCEMENT (4 OF 6)

SHEET 87 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080551_ss.dgn PLOT DATE : 13-MAY-2015 16:09 PLOT BY : MSCBKS PLOT NAME : B856_080551_ss PLOT SCALE : 40:1

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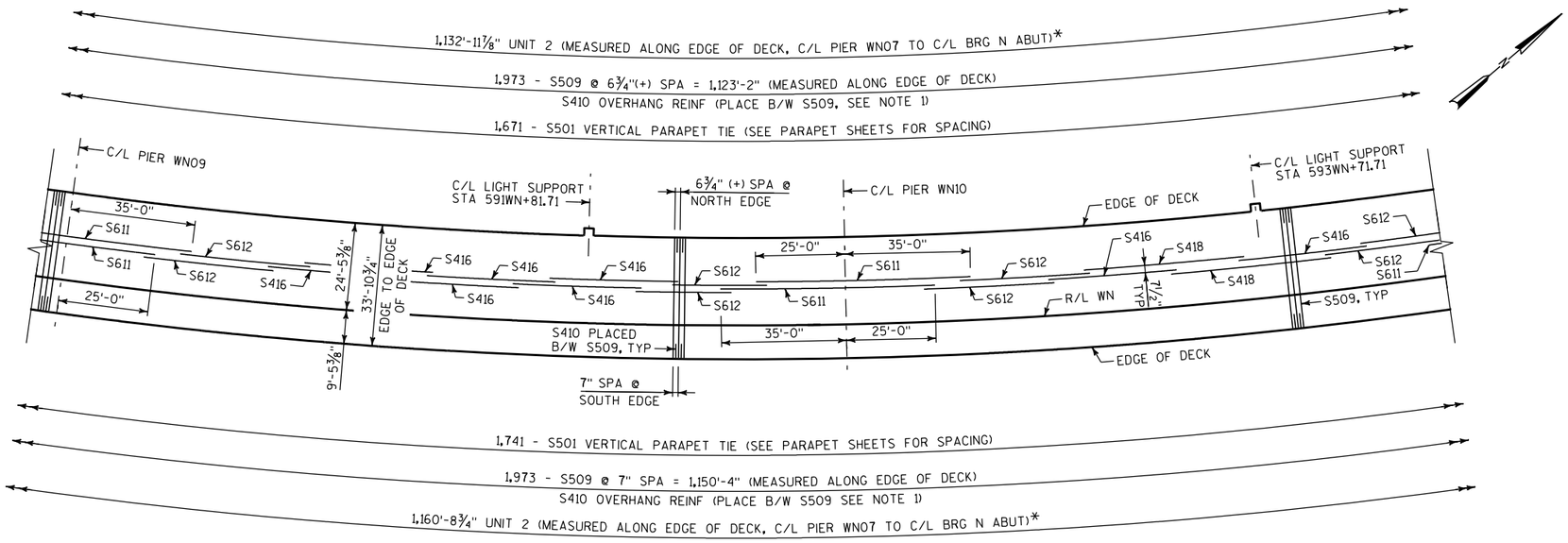
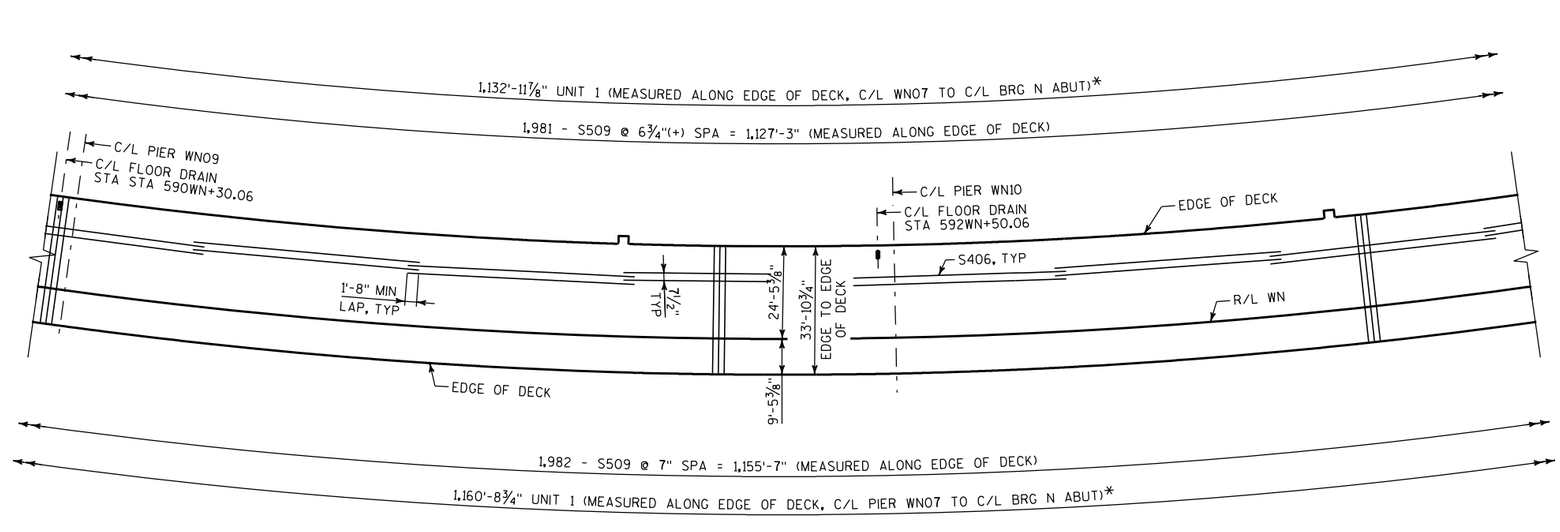
1060-33-81



DECK PLAN - TOP REINFORCEMENT



DECK PLAN - BOTTOM REINFORCEMENT

DECK BAR LAP LENGTH

BAR SIZE	MIN LAP LENGTH
#4	1'-8"
#6	3'-1"

SMALLER BAR DETERMINES LAP LENGTH.

LEGEND

*MEASURED AT 60 DEG F

NOTES

1. AT EACH LIGHT SUPPORT, 6-S410 BARS ARE NOT REQUIRED. THE S410 BARS ARE REPLACED BY THE R617 BARS AS INDICATED ON LIGHT SUPPORT DETAIL SHEETS. R520 SHALL BE PLACED IN LIEU OF S501.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY JTE | PLANS CK'D. WRT

DECK REINFORCEMENT (5 OF 6)

SHEET 88 OF 119

8

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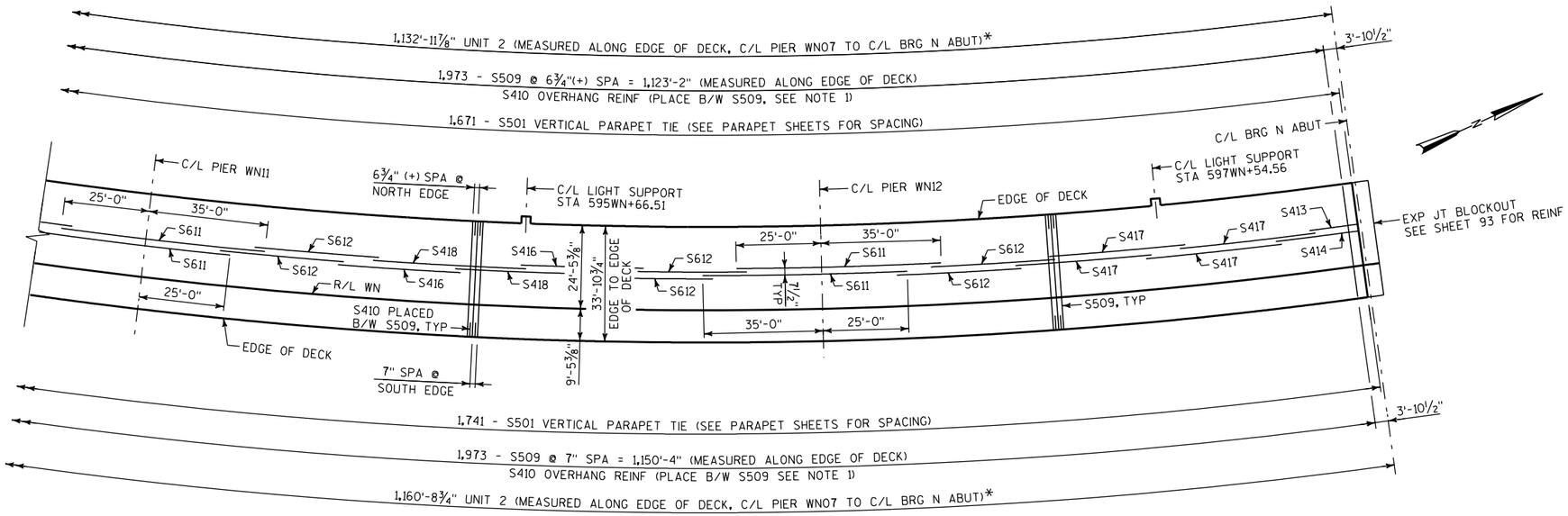
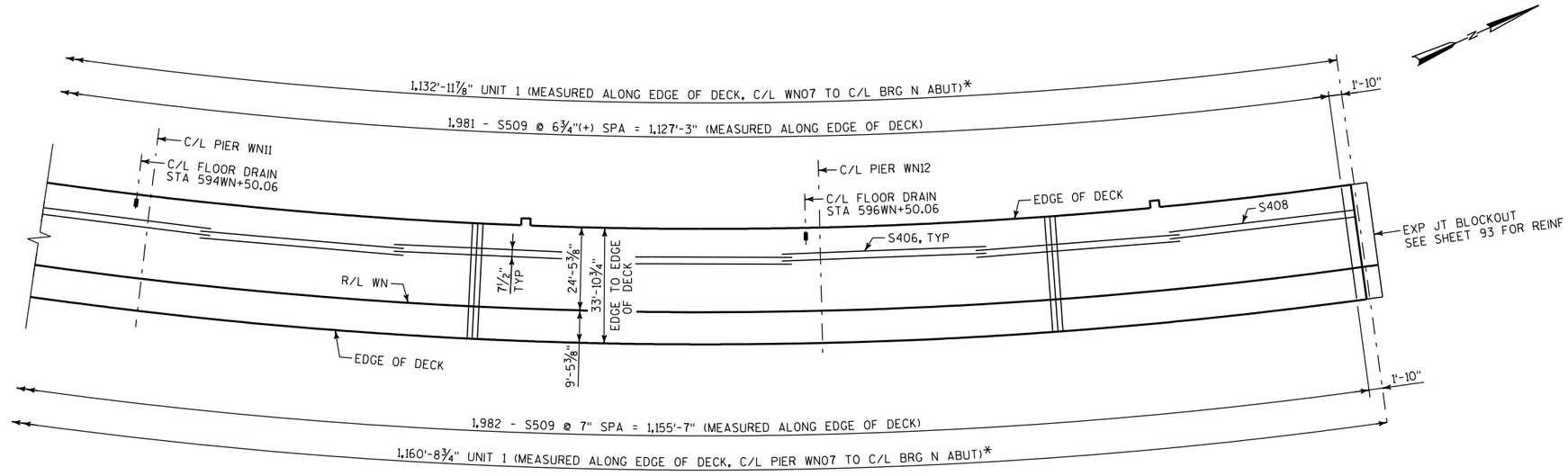
STATE PROJECT NUMBER
1060-33-81



DECK PLAN - TOP REINFORCEMENT



DECK PLAN - BOTTOM REINFORCEMENT

DECK BAR LAP LENGTH

BAR SIZE	MIN LAP LENGTH
#4	1'-8"
#6	3'-1"

SMALLER BAR DETERMINES LAP LENGTH.

LEGEND

* MEASURED AT 60 DEG F

NOTES

1. AT EACH LIGHT SUPPORT, 6-S410 BARS ARE NOT REQUIRED. THE S410 BARS ARE REPLACED BY THE R617 BARS AS INDICATED ON LIGHT SUPPORT DETAIL SHEETS. R520 SHALL BE PLACED IN LIEU OF S501.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

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DECK REINFORCEMENT (6 OF 6)

SHEET 89 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080553_ss.dgn PLOT DATE : 13-MAY-2015 16:10 PLOT BY : MSCBKS PLOT NAME : B856_080553_ss PLOT SCALE : 40:1

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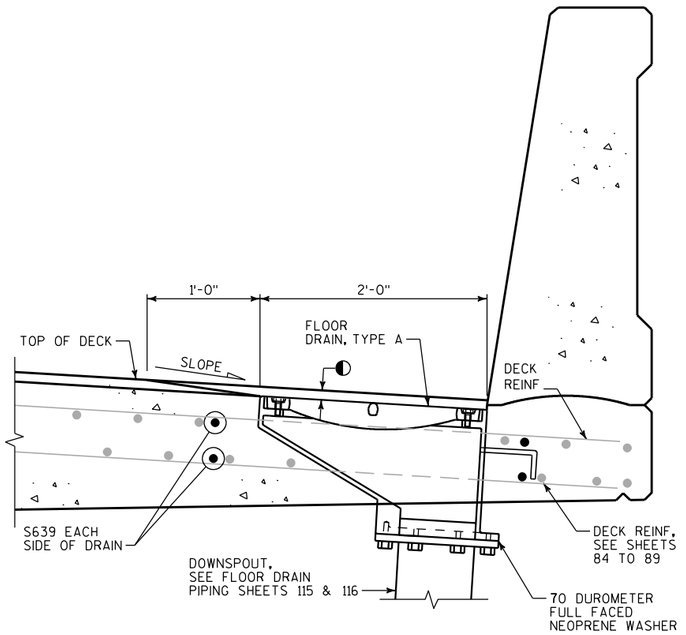
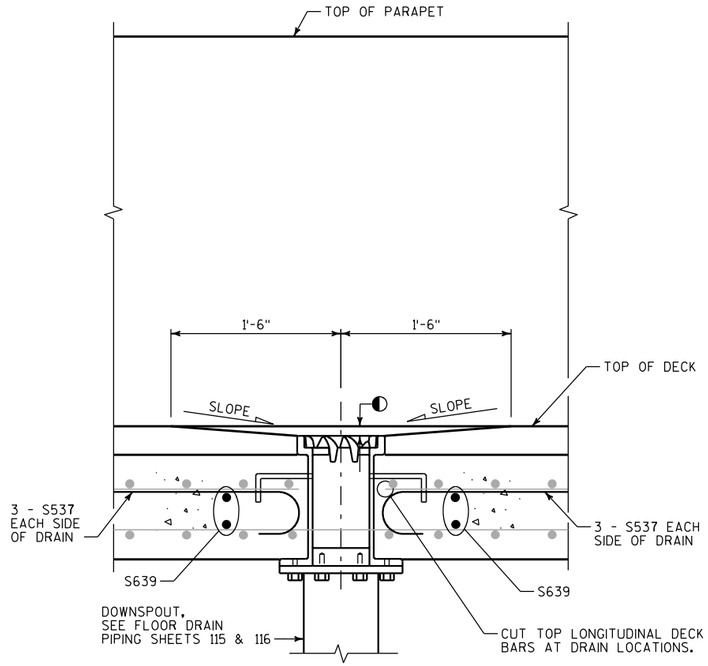
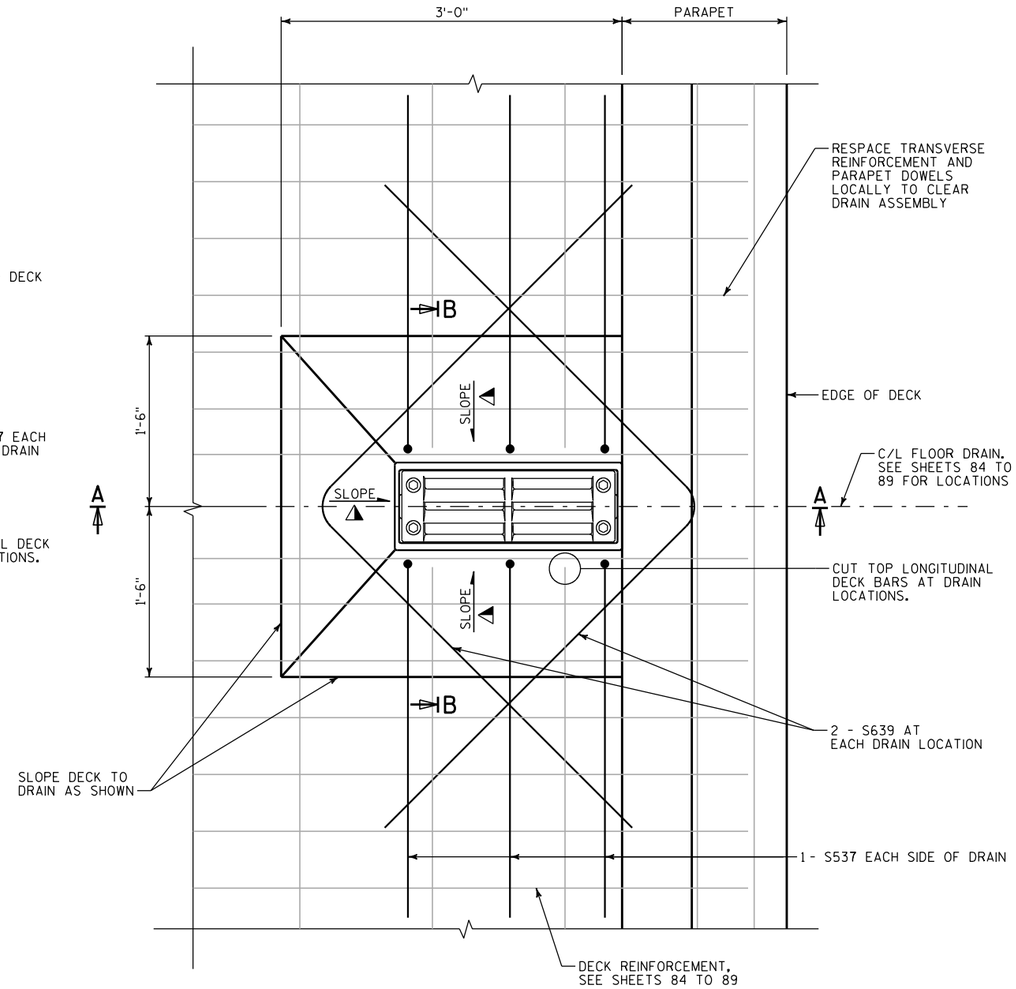
1060-33-81



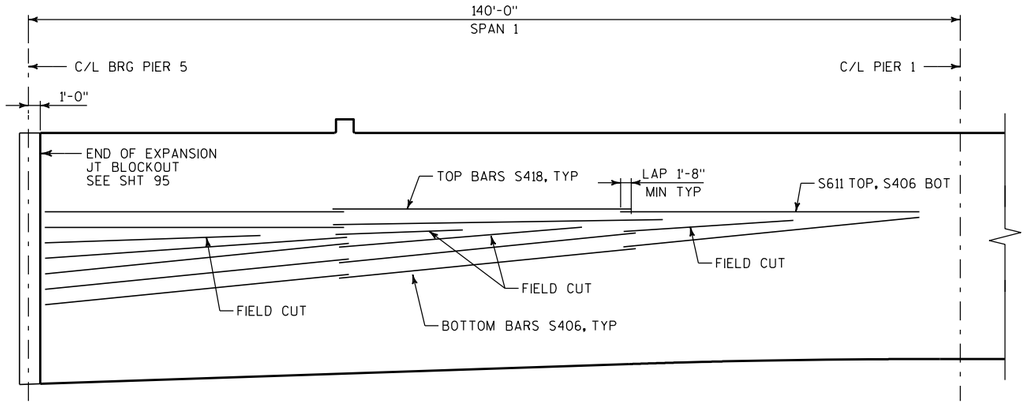
SECTION A-A



SECTION B-B



PART PLAN AT FLOOR DRAIN



SPAN 1 DECK PLAN

SHOWING ADDITIONAL LONGITUDINAL REINF REQ'D FOR SPAN 1 TAPER. FOR TYPICAL REINF SEE CROSS SECTION ON SHEET 83.

NOTES

1. PLACE ADDITIONAL LONGITUDINAL REINF TO HOLD MAX BAR SPACING AT 7½".
2. PLACE THE ADDITIONAL LONGITUDINAL REINF BETWEEN THE TUB GIRDERS.
3. THE TYPICAL LONGITUDINAL REINF (NOT SHOWN) SHALL BE PLACED PARALLEL TO THE GIRDER TOP FLANGES.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRCUTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

DECK DETAILS

SHEET 90 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080554_ss.dgn
PLOT DATE : 13-MAY-2015 16:10
PLOT BY : MSCBKS
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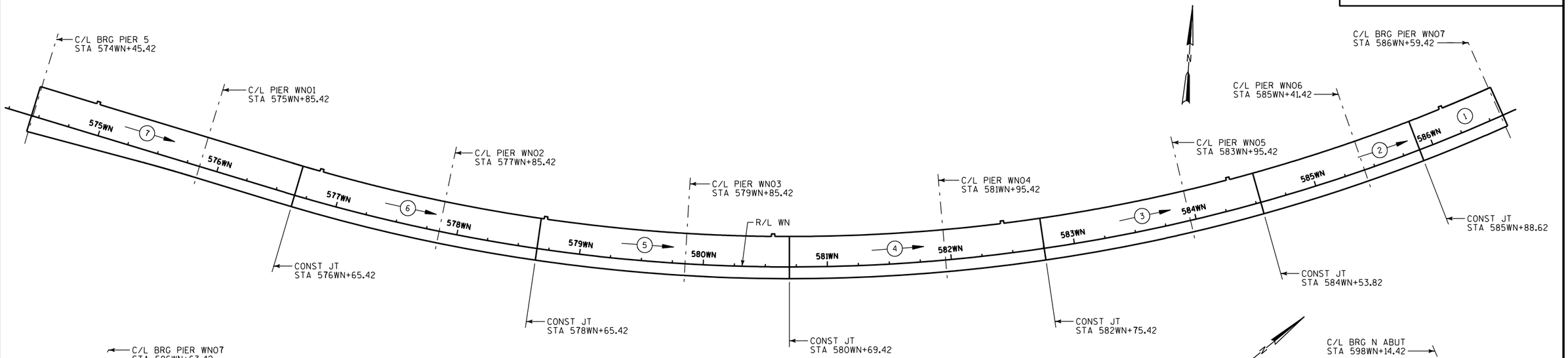
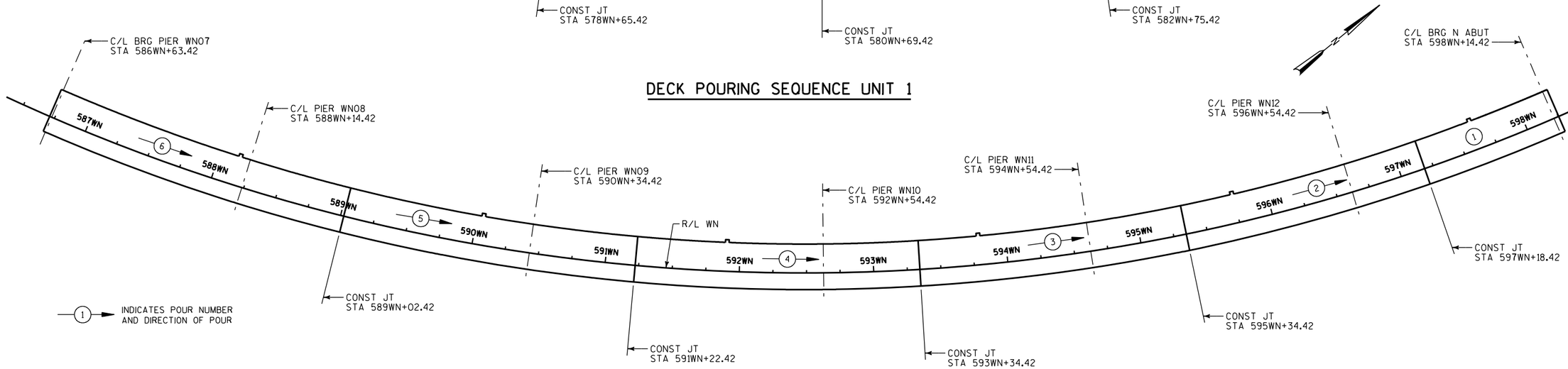
PLOT SCALE : 16:1

STATE PROJECT NUMBER
1060-33-81



DECK POURING SEQUENCE UNIT 1



DECK POURING SEQUENCE UNIT 2

DECK POURING SEQUENCE NOTES

THE RATE OF PLACING CONCRETE SHALL EQUAL OR EXCEED $\frac{1}{2}$ SPAN LENGTH PER HOUR BUT NEED NOT EXCEED 100 CU. YDS. PER HOUR.

THE CONTRACTOR MAY SUBMIT AN ALTERNATE POURING SEQUENCE SUBJECT TO THE APPROVAL OF THE ENGINEER.

THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND COORDINATING DECK POURS TO BEST SUIT THE MEANS AND METHODS AVAILABLE TO HIM.

CONTRACTOR MAY PLACE THE DECK CONTINUOUSLY FROM EITHER END OF THE STRUCTURE PROVIDED THAT ALL OTHER REQUIREMENTS ARE MET. IF MORE THAN ONE POUR IS REQUIRED, BULKHEAD LOCATIONS MUST BE APPROVED BY THE ENGINEER.

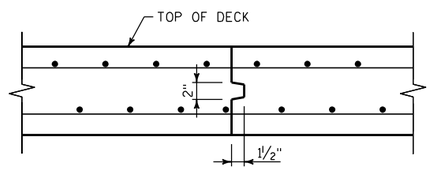
CONTROL POUR SEQUENCE AND PLACEMENT RATE TO ENSURE THAT BEFORE THE CONCRETE IN ANY PIER AREA REACHES THE INITIAL SET CONDITION, THE CONCRETE IN BOTH ADJACENT 'SPAN' AREAS IS ALREADY IN PLACE.

DEPOSIT FRESH CONCRETE FIRST IN THE AREA BETWEEN THE GIRDERS FOLLOWED BY THE OVERHANG AREA TO INSIDE OF THE CURVE AND THEN BY THE OVERHANG AREA TO THE OUTSIDE OF THE CURVE.

CONTROL THE PLACEMENT TO ENSURE THAT THE FURTHEST PROGRESS OF FRESH CONCRETE VARIES BY NO MORE THAN 10 FEET ACROSS THE WIDTH OF THE DECK.

FOLLOW PROCEDURES OUTLINED IN THE STANDARD SPECIFICATIONS.

SOME POUR SEQUENCES COULD TEND TO CAUSE UPLIFT AT ENDS OF UNITS. THEREFORE, TEMPORARY HOLD DOWN DEVICES ARE REQUIRED AT ALL ABUTMENT DIAPHRAGMS AND AT ALL PIER END DIAPHRAGMS.



TRANSVERSE CONSTRUCTION JOINT DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

DECK POURING SEQUENCE AND NOTES

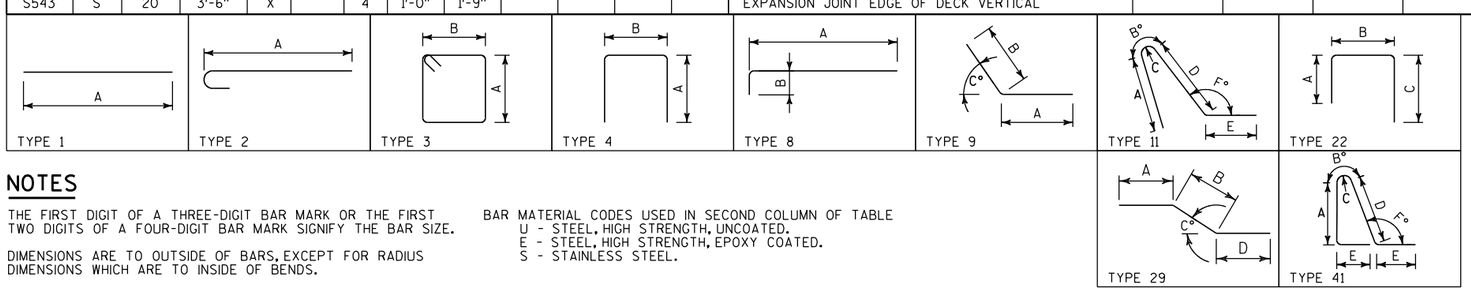
SHEET 91 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080555_ss.dgn PLOT DATE : 13-MAY-2015 16:10 PLOT BY : MSCBKS PLOT NAME : B856_080555_ss PLOT SCALE : 80:1

STATE PROJECT NUMBER
1060-33-81

BAR INFORMATION							BAR DIMENSIONS						LOCATION	BAR SERIES INFORMATION				
BAR MARK	MATL	NO. REQ'D	LENGTH	BENT	BAR SERIES	BEND TYPE	A	B	C	D	E	F		DIM	MIN	MAX	NO REQ'D	LENGTH
S501	S	6197	4'-7"	X		11	1'-3"	172	0'-4½"	1'-4"	0'-10"	98	PARAPET TIE					
S502	S	814	5'-5"	X		41	1'-3"	172	0'-4½"	1'-4"	0'-10"	98	PARAPET TIE					
S503	S	160	34'-0"		X	1	34'-0"						DECK TRANSVERSE SPAN 1	A	33'-7"	34'-4"	2 SERIES OF 81	33'-7" TO 34'-4"
S604	S	159	35'-10"		X	1	35'-10"						DECK TRANSVERSE BOT SPAN 1	A	34'-4"	37'-3"	1 SERIES OF 159	34'-4" TO 37'-3"
S605	S	155	35'-9"		X	1	35'-9"						DECK TRANSVERSE TOP SPAN 1	A	34'-4"	37'-2"	1 SERIES OF 155	34'-4" TO 37'-2"
S406	S	3037	45'-0"			1	45'-0"						DECK LONGITUDINAL BOTTOM					
S407	S	56	5'-0"			1	5'-0"						DECK LONG BOT UNIT 1					
S408	S	56	29'-0"			1	29'-0"						DECK LONG BOT UNIT 2					
S509	S	7664	33'-7"			1	33'-7"						DECK TRANSVERSE					
S410	S	8152	8'-10"	X		2	8'-4"						DECK TRANSVERSE AT OVERHANG					
S611	S	606	60'-0"			1	60'-0"						DECK LONG TOP OVER PIERS					
S612	S	1210	36'-6"			1	36'-6"						DECK LONG TOP OVER PIERS					
S413	S	28	17'-0"			1	17'-0"						DECK LONG TOP					
S414	S	165	24'-0"			1	24'-0"						DECK LONG TOP					
S415	S	83	29'-0"			1	29'-0"						DECK LONG TOP					
S416	S	605	36'-0"			1	36'-0"						DECK LONG TOP					
S417	S	165	40'-0"			1	40'-0"						DECK LONG TOP					
S418	S	635	45'-0"			1	45'-0"						DECK LONG TOP					
S519	S	10	7'-6"	X	X	3	1'-1½"	2'-4"					EXPANSION JOINT STIRRUPS	A	6"	1'-9"	6 SERIES OF 5	6'-3 " TO 8'-9"
S520	S	112	8'-9"	X		3	1'-9"	2'-4"					EXPANSION JOINT STIRRUPS					
S421	S	104	4'-10"	X		9	2'-5"	2'-5"	32				EXPANSION JOINT BOT OF SLAB TRANSVERSE					
S622	S	21	33'-7"			1	33'-7"						EXPANSION JOINT TRANSVERSE TOP					
S623	S	56	7'-2"			1	7'-2"						EXPANSION JOINT TRANSVERSE BOT					
S424	S	240	1'-11"			1	1'-11"						EXPANSION JOINT BLOCKOUT BOT					
S425	S	480	2'-5"	X		22	0'-4½"	0'-8½"	1'-4"				EXPANSION JOINT BLOCKOUT BOT					
S426	S	32	28'-8"			1	28'-8"						EXPANSION JOINT BOT OF SLAB TRANSVERSE					
S527	S	240	8'-2"	X		4	4'-0"	0'-5"					EXPANSION JOINT BOT OF SLAB LONG					
S528	S	240	2'-8"	X		4	0'-6"	1'-11"					EXPANSION JOINT BLOCKOUT TOP					
S529	S	206	5'-5"	X		29	1'-9"	1'-11"	45	1'-9"			EXPANSION JOINT SLAB THICKNESS TRANSITION					
S530	S	48	4'-8"	X	X	29	1'-9"	1'-2"	45	1'-9"			EXPANSION JOINT SLAB THICKNESS TRANSITION	B	5½"	1'-10½"	6 SERIES OF 4	3'-10" TO 5'-3"
S431	S	8	33'-7"			1	33'-7"						EXPANSION JOINT BLOCKOUT TOP					
S632	S	24	4'-0"			1	4'-0"						EXPANSION JOINT BOT OF SLAB TRANSVERSE					
S633	S	21	8'-9"			1	8'-9"						EXPANSION JOINT BOT OF SLAB TRANSVERSE					
S534	S	206	5'-3"	X	X	8	4'-6"	0'-10"					EXPANSION JOINT BLOCKOUT TOP					
S635	S	42	1'-9"			1	1'-9"						EXPANSION JOINT BOT OF SLAB TRANSVERSE					
S636	S	7	12'-7"			1	12'-7"						EXPANSION JOINT BOT OF SLAB TRANSVERSE					
S537	S	60	4'-7"	X		2	4'-0"						FLOOR DRAIN					
S638	S	7	37'-5"			1	37'-5"						EXPANSION JOINT BOT OF SLAB TRANSVERSE					
S639	S	40	7'-10"	X		8	4'-0"	4'-0"					FLOOR DRAIN					
S540	S	94	8'-3"	X		3	1'-9"	2'-1"					EXPANSION JOINT STIRRUPS					
S541	S	20	7'-0"	X	X	3	1'-1½"	2'-1"					EXPANSION JOINT STIRRUPS	A	6	1'-9"	4 SERIES OF 5	5'-9" TO 8'-3"
S542	S	2	5'-6"			1	5'-6"						EXPANSION JOINT EDGE OF DECK HORIZONTAL					
S543	S	20	3'-6"	X		4	1'-0"	1'-9"					EXPANSION JOINT EDGE OF DECK VERTICAL					

BAR MARK BREAKDOWN				
BAR MARK	UNIT 1	UNIT 2	TOTAL NO	WEIGHT
S501	2785	3412	6197	29624
S502	814	0	814	4599
S503	160	0	160	5674
S604	159	0	159	8558
S605	155	0	155	8323
S406	1581	1456	3037	91292
S407	56	0	56	187
S408	0	56	56	1085
S509	3709	3955	7664	268450
S410	4190	3962	8152	48102
S611	331	275	606	54613
S612	660	550	1210	66336
S413	0	28	28	318
S414	110	55	165	2645
S415	55	28	83	1608
S416	165	440	605	14549
S417	55	110	165	4409
S418	442	193	635	19088
S519	10	0	10	78
S520	55	57	112	1022
S421	72	32	104	336
S622	7	14	21	1059
S623	28	28	56	603
S424	124	116	240	307
S425	248	232	480	775
S426	16	16	32	613
S527	124	116	240	2044
S528	124	116	240	668
S529	102	104	206	1164
S530	32	16	48	234
S431	4	4	8	179
S632	0	24	24	144
S633	7	14	21	276
S534	102	104	206	1128
S635	28	14	42	110
S636	7	0	7	132
S537	36	24	60	287
S638	7	0	7	393
S639	24	16	40	471
S540	47	47	94	809
S541	10	10	20	146
S542	0	2	2	11
S543	0	20	20	73
TOT WEIGHT	337122	305400	32287	642523



NOTES

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

DIMENSIONS ARE TO OUTSIDE OF BARS, EXCEPT FOR RADIUS DIMENSIONS WHICH ARE TO INSIDE OF BENDS.

FOR A BAR SERIES, LENGTH SHOWN IN THE FOURTH COLUMN OF TABLE IS THE AVERAGE BAR LENGTH USED TO COMPUTE BAR WEIGHT.

BAR MATERIAL CODES USED IN SECOND COLUMN OF TABLE
U - STEEL, HIGH STRENGTH, UNCOATED.
E - STEEL, HIGH STRENGTH, EPOXY COATED.
S - STAINLESS STEEL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

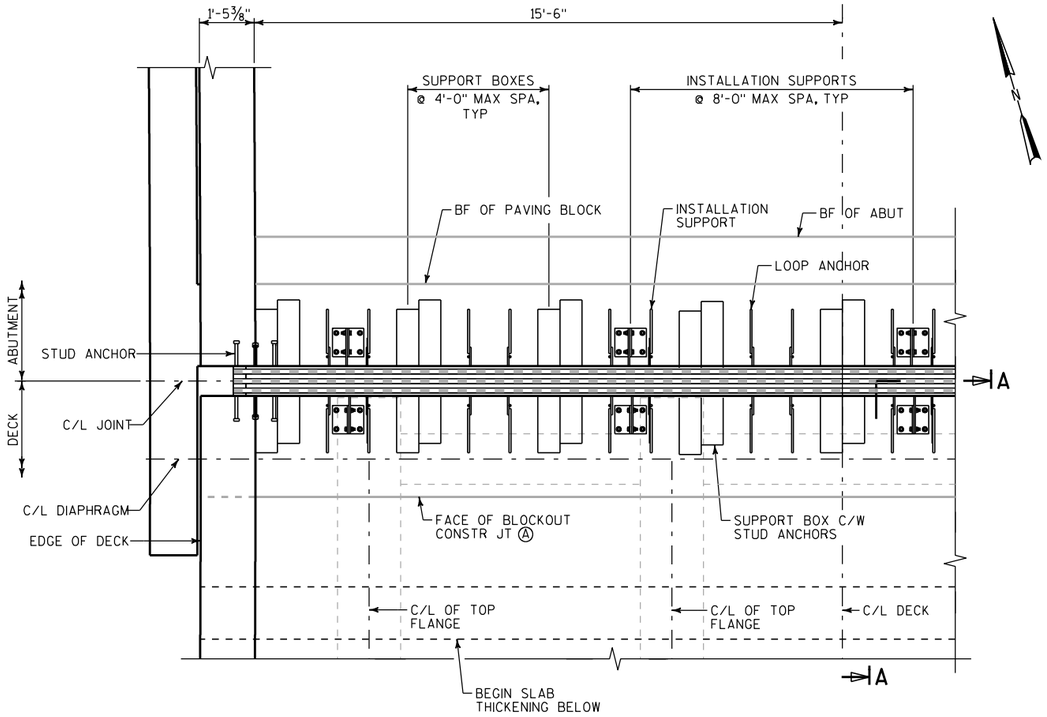
STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

DECK REINFORCEMENT SCHEDULE

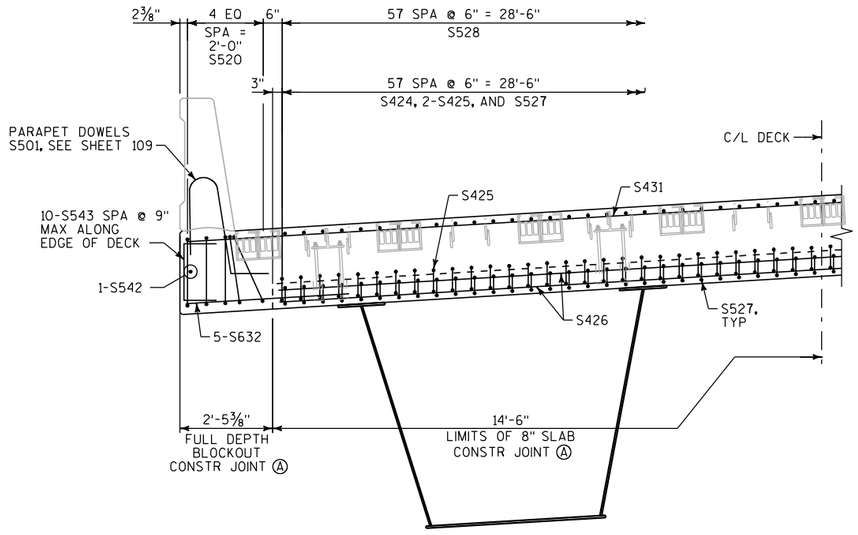
SHEET 92 OF 119

STATE PROJECT NUMBER
1060-33-81



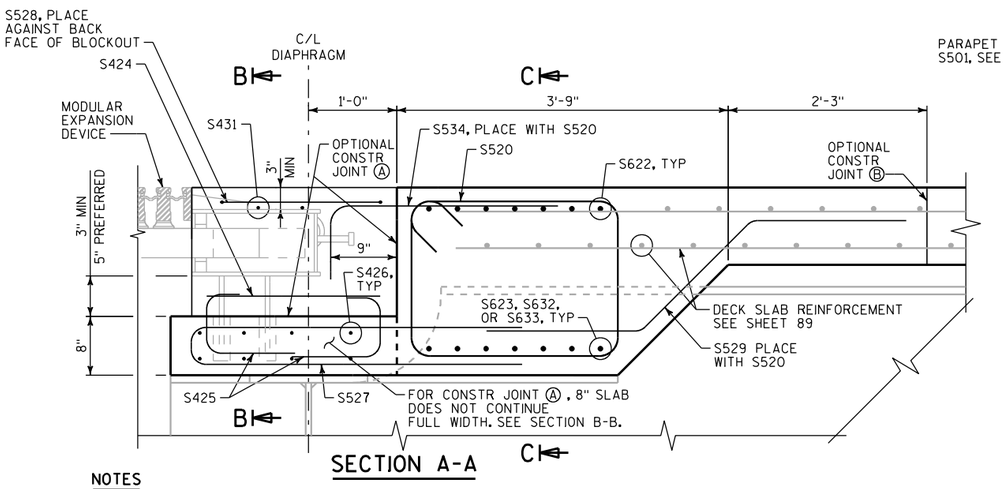
PLAN - JOINT AT NORTH ABUTMENT

JOINT SYMMETRICAL ABOUT C/L DECK, EXCEPT AS NOTED



SECTION B-B

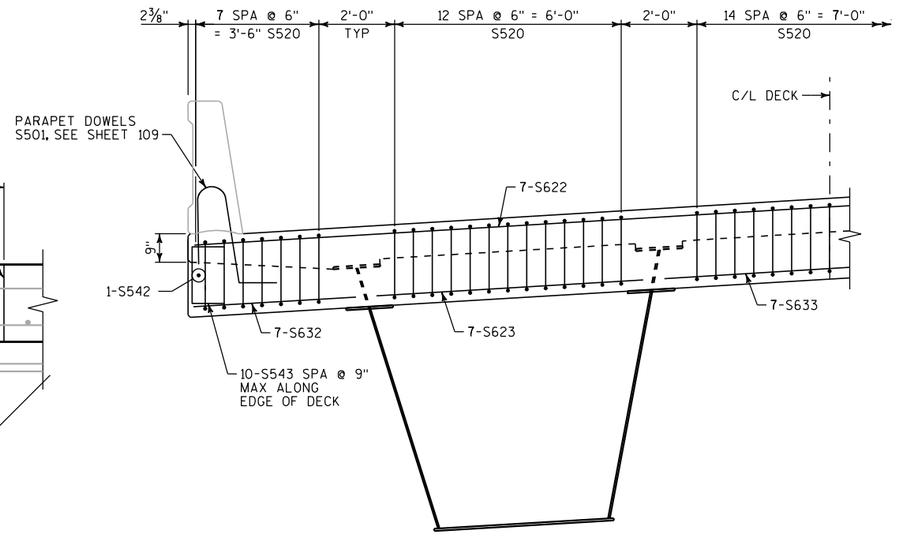
DECK REINFORCEMENT NOT SHOWN FOR CLARITY



SECTION A-A

NOTES

1. THE MODULAR EXPANSION DEVICE SHALL NOT BE POSITIONED IN ITS FINAL LOCATION UNTIL AFTER THE ADJACENT SPANS OF THE DECK HAVE BEEN POURED.
2. THE CONTRACTOR MAY INSTALL EITHER CONSTRUCTION JOINT Ⓐ OR CONSTRUCTION JOINT Ⓑ TO FACILITATE THE POSITIONING AND INSTALLATION OF THE MODULAR EXPANSION DEVICE.
3. IF CONSTRUCTION JOINT Ⓑ IS CHOSEN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FABRICATION AND INSTALLATION OF A SUITABLE SUPPORT SYSTEM FOR THE MODULAR EXPANSION DEVICE THAT PROPERLY LOCATES AND SECURES THE DEVICE IN POSITION, AND PROVIDES SUPPORT POINTS IN ACCORDANCE WITH THE SPECIFICATIONS. PAYMENT FOR ANY SUPPORT SYSTEM SHALL BE INCIDENTAL TO THE BID ITEM "EXPANSION DEVICE MODULAR LRFD B-40-856".



SECTION C-C

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

NOTES

1. SEE SHEET 63 FOR ABUTMENT DIAPHRAGM DETAILS.
2. SEE SHEET 96 FOR SECTIONS THROUGH EXPANSION JOINT REGIONS.
3. SEE SHEET 98 FOR DETAILS OF THE MODULAR EXPANSION DEVICES INCLUDING REQUIRED MOVEMENT CAPACITY, NUMBER OF SEALS, ANCHORAGES AND TEMPORARY SUPPORTS.
4. SEE SHEET 97 FOR DETAILS OF THE PARAPET COVER PLATES.

   COVER PLATES ARE REQUIRED AT ALL PARAPETS BUT FOR CLARITY ARE NOT SHOWN ON THIS DRAWING.
5. SUPPORT BOX SIZE AS SHOWN IS APPROXIMATE ONLY AND IS BASED ON A 3-CELL EXPANSION DEVICE. DIMENSIONS WILL VARY FOR DIFFERENT JOINT SIZES AND MANUFACTURERS.
6. EXPANSION DEVICE DETAILS SHOWN ON THIS DRAWING (INCLUDING SIZE AND SPACING OF SUPPORT BOXES, LOOP ANCHORS AND INSTALLATION SUPPORTS) ARE PICTORIAL ONLY.
7. ALL CONSTRUCTION SHALL BE CARRIED OUT USING THE APPROVED EXPANSION JOINT SHOP DRAWINGS ONLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

EXPANSION JOINT LAYOUT NORTH ABUTMENT

SHEET 93 OF 119

8

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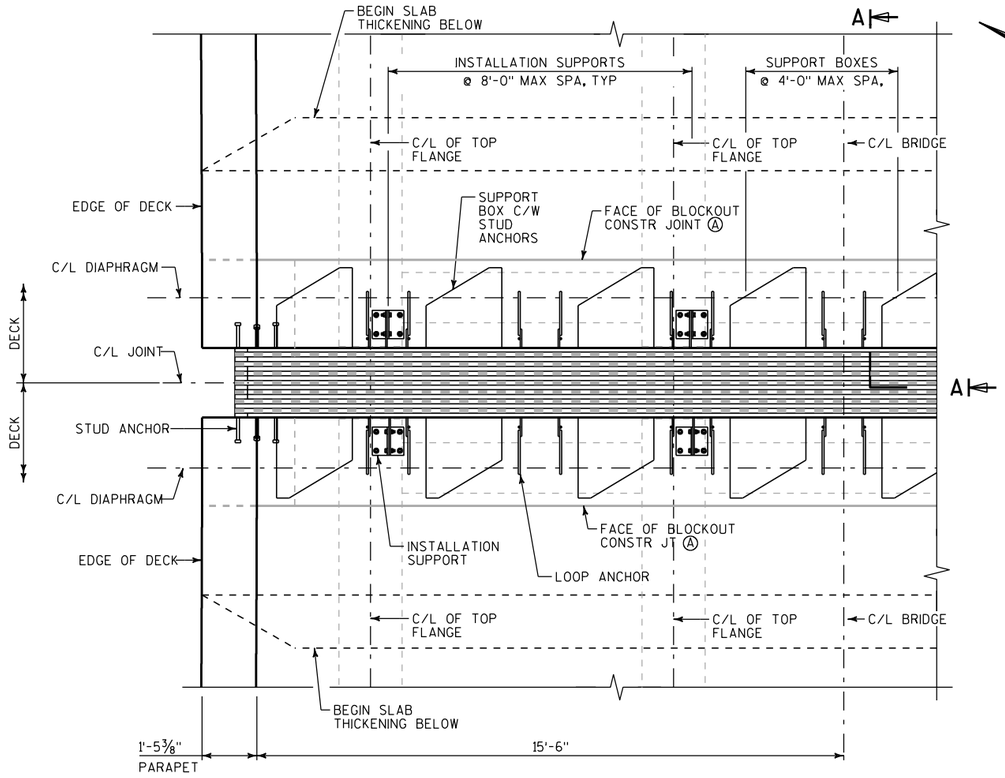
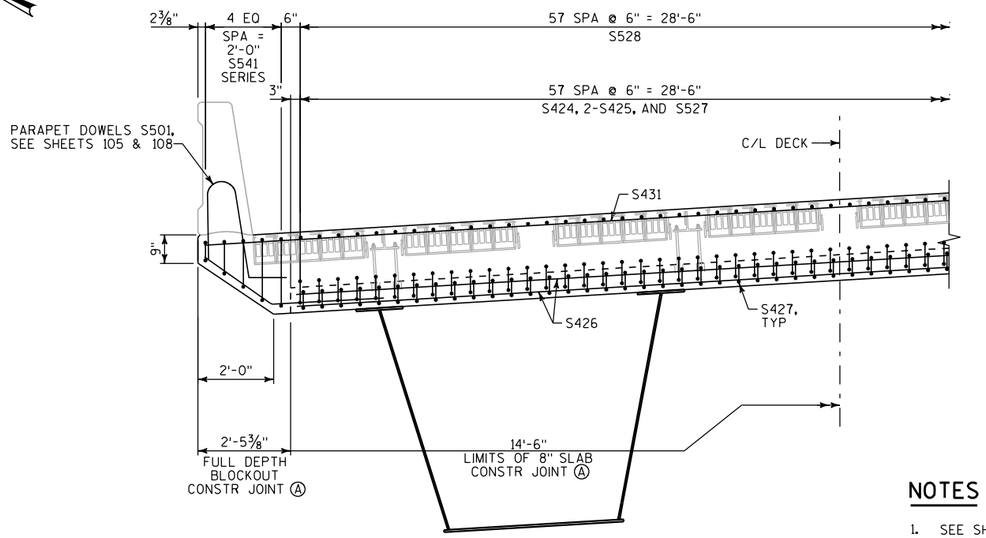
STATE PROJECT NUMBER
1060-33-81



PLAN - JOINT AT PIER WN07

JOINT SYMMETRICAL ABOUT C/L OF DECK UNLESS NOTED



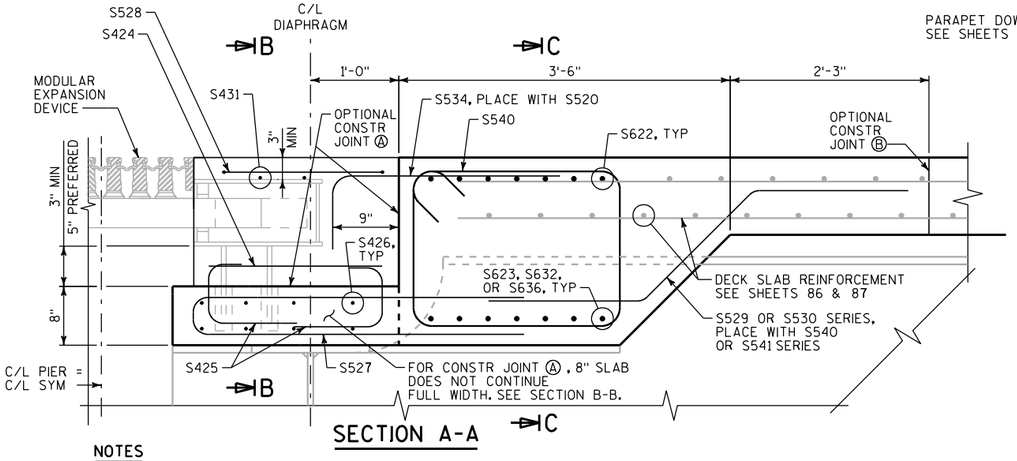
SECTION B-B

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

NOTES

1. SEE SHEET 65 FOR PIER WN07 DIAPHRAGM DETAILS.
2. SEE SHEET 96 FOR SECTIONS THROUGH EXPANSION JOINT REGIONS.
3. SEE SHEET 98 FOR DETAILS OF THE MODULAR EXPANSION DEVICES INCLUDING REQUIRED MOVEMENT CAPACITY, NUMBER OF SEALS, ANCHORAGES AND TEMPORARY SUPPORTS.
4. SEE SHEET 97 FOR DETAILS OF THE PARAPET COVER PLATES.

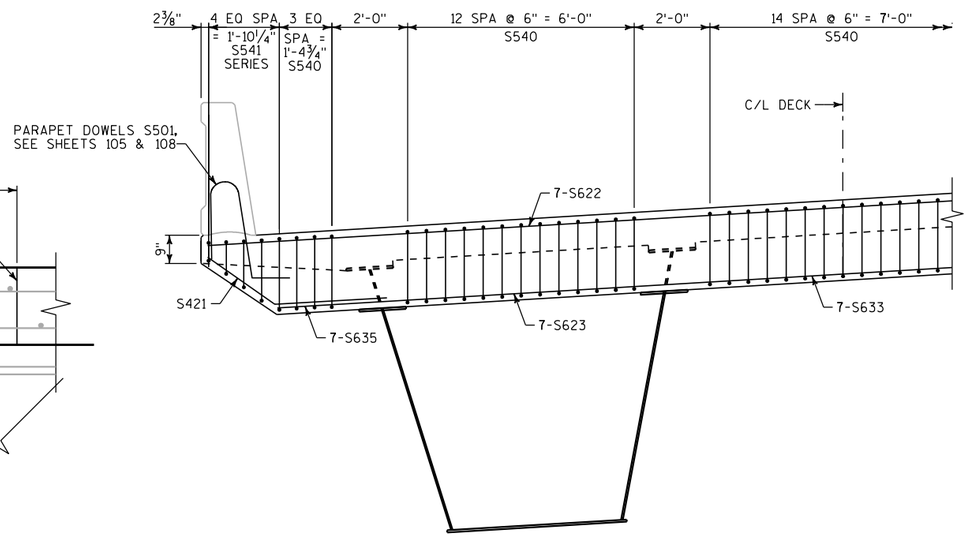
   COVER PLATES ARE REQUIRED AT ALL PARAPETS BUT FOR CLARITY ARE NOT SHOWN ON THIS DRAWING.
5. SUPPORT BOX SIZE AS SHOWN IS APPROXIMATE ONLY AND IS BASED ON A 7-CELL EXPANSION DEVICE. DIMENSIONS WILL VARY FOR DIFFERENT JOINT SIZES AND MANUFACTURERS.
6. EXPANSION DEVICE DETAILS SHOWN ON THIS DRAWING (INCLUDING SIZE AND SPACING OF SUPPORT BOXES, LOOP ANCHORS AND INSTALLATION SUPPORTS) ARE PICTORIAL ONLY.
7. ALL CONSTRUCTION SHALL BE CARRIED OUT USING THE APPROVED EXPANSION JOINT SHOP DRAWINGS ONLY.



SECTION A-A

NOTES

1. THE MODULAR EXPANSION DEVICE SHALL NOT BE POSITIONED IN ITS FINAL LOCATION UNTIL AFTER THE ADJACENT SPANS OF THE DECK HAVE BEEN POURED.
2. THE CONTRACTOR MAY INSTALL EITHER CONSTRUCTION JOINT Ⓐ OR CONSTRUCTION JOINT Ⓑ TO FACILITATE THE POSITIONING AND INSTALLATION OF THE MODULAR EXPANSION DEVICE.
3. IF CONSTRUCTION JOINT Ⓑ IS CHOSEN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FABRICATION AND INSTALLATION OF A SUITABLE SUPPORT SYSTEM FOR THE MODULAR EXPANSION DEVICE THAT PROPERLY LOCATES AND SECURES THE DEVICE IN POSITION, AND PROVIDES SUPPORTS POINTS IN ACCORDANCE WITH THE SPECIFICATIONS. PAYMENT FOR ANY SUPPORT SYSTEM SHALL BE INCIDENTAL TO THE BID ITEM "EXPANSION DEVICE MODULAR LRFD B-40-856".



SECTION C-C

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

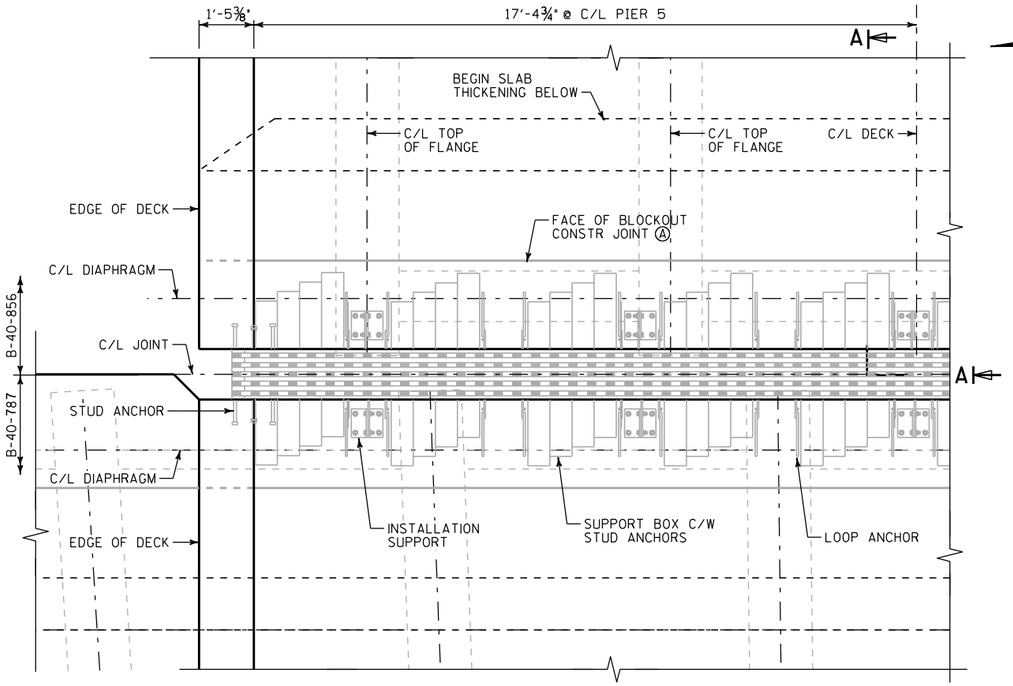
DRAWN BY GLM | PLANS CK'D. WRT

EXPANSION JOINT LAYOUT PIER WN07

SHEET 94 OF 119

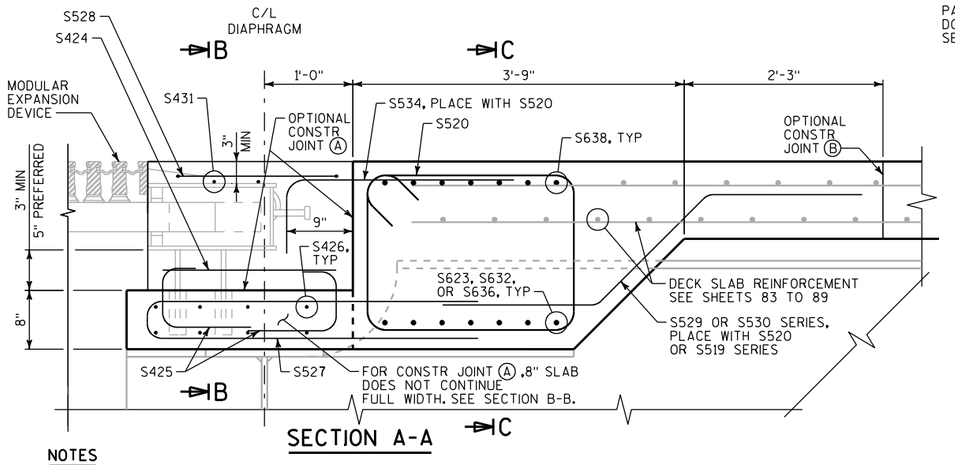
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080558_ss.dgn
PLOT DATE : 14-MAY-2015 14:11
PLOT BY : MSCWRT
PLOT NAME : B856_080558_ss
PLOT SCALE : 4:1

STATE PROJECT NUMBER
1060-33-81



PLAN - JOINT AT PIER 5

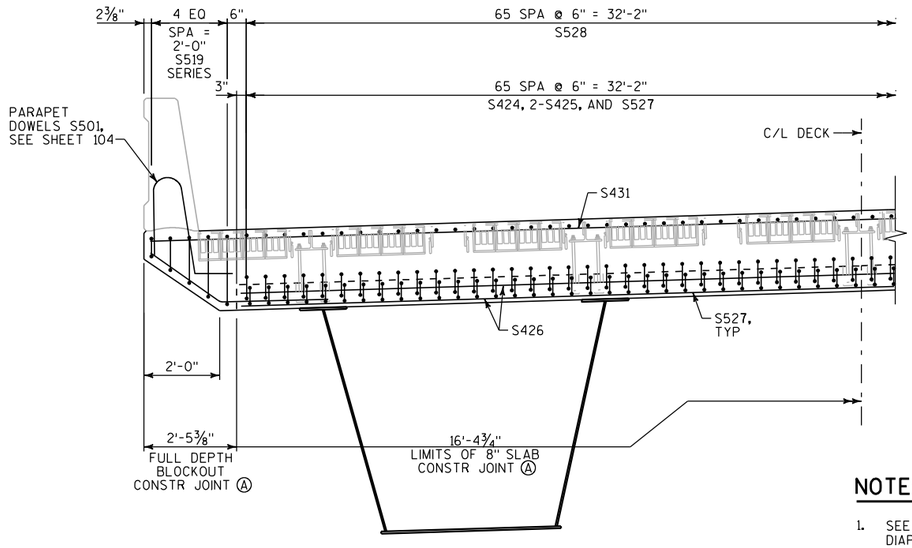
JOINT SYMMETRICAL ABOUT C/L



SECTION A-A

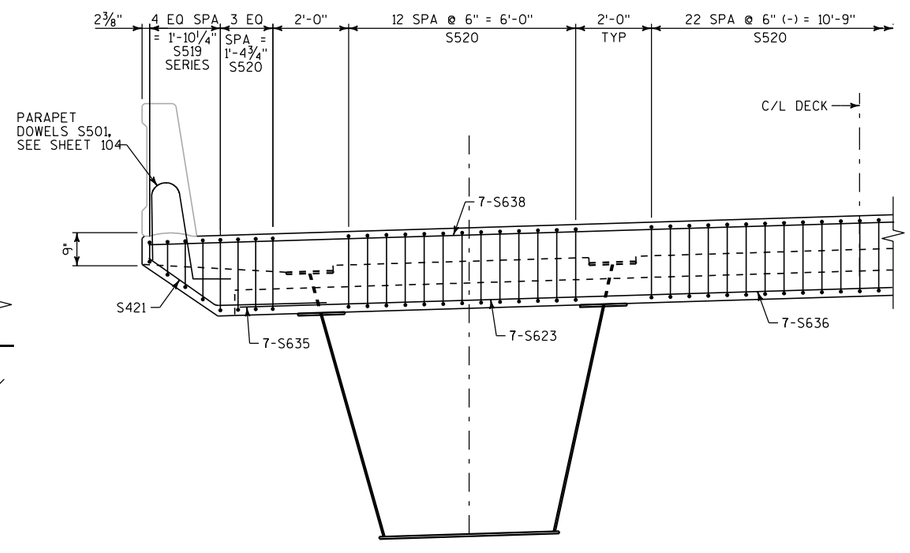
NOTES

1. THE MODULAR EXPANSION DEVICE SHALL NOT BE POSITIONED IN ITS FINAL LOCATION UNTIL AFTER THE ADJACENT SPANS OF THE DECK HAVE BEEN POURED.
2. THE CONTRACTOR MAY INSTALL EITHER CONSTRUCTION JOINT A OR CONSTRUCTION JOINT B TO FACILITATE THE POSITIONING AND INSTALLATION OF THE MODULAR EXPANSION DEVICE.
3. IF CONSTRUCTION JOINT B IS CHOSEN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FABRICATION AND INSTALLATION OF A SUITABLE SUPPORT SYSTEM FOR THE MODULAR EXPANSION DEVICE THAT PROPERLY LOCATES AND SECURES THE DEVICE IN POSITION, AND PROVIDES SUPPORT POINTS IN ACCORDANCE WITH THE SPECIFICATIONS. PAYMENT FOR ANY SUPPORT SYSTEM SHALL BE INCIDENTAL TO THE BID ITEM "EXPANSION DEVICE MODULAR LRFD B-40-787".



SECTION B-B

DECK REINFORCEMENT NOT SHOWN FOR CLARITY



SECTION C-C

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

NOTES

1. SEE SHEET 65 FOR PIER 5 DIAPHRAGM DETAILS.
2. SEE SHEET 96 FOR SECTIONS THROUGH EXPANSION JOINT REGIONS.
3. SEE SHEET 98 FOR DETAILS OF THE MODULAR EXPANSION DEVICES INCLUDING REQUIRED MOVEMENT CAPACITY, NUMBER OF SEALS, ANCHORAGES AND TEMPORARY SUPPORTS.
4. SEE SHEET 97 FOR DETAILS OF THE PARAPET COVER PLATES.

   COVER PLATES ARE REQUIRED AT ALL PARAPETS BUT FOR CLARITY ARE NOT SHOWN ON THIS DRAWING.
5. SUPPORT BOX SIZE AS SHOWN IS APPROXIMATE ONLY AND IS BASED ON A 5-CELL EXPANSION DEVICE. DIMENSIONS WILL VARY FOR DIFFERENT JOINT SIZES AND MANUFACTURERS.
6. EXPANSION DEVICE DETAILS SHOWN ON THIS DRAWING (INCLUDING SIZE AND SPACING OF SUPPORT BOXES, LOOP ANCHORS AND INSTALLATION SUPPORTS) ARE PICTORIAL ONLY.
7. ALL CONSTRUCTION SHALL BE CARRIED OUT USING THE APPROVED EXPANSION JOINT SHOP DRAWINGS ONLY.
8. THIS EXPANSION DEVICE PAID UNDER BID ITEM "EXPANSION DEVICE MODULAR LRFD B-40-787". SEE BRIDGE B-40-787 PLANS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

EXPANSION JOINT LAYOUT PIER 5

SHEET 95 OF 119

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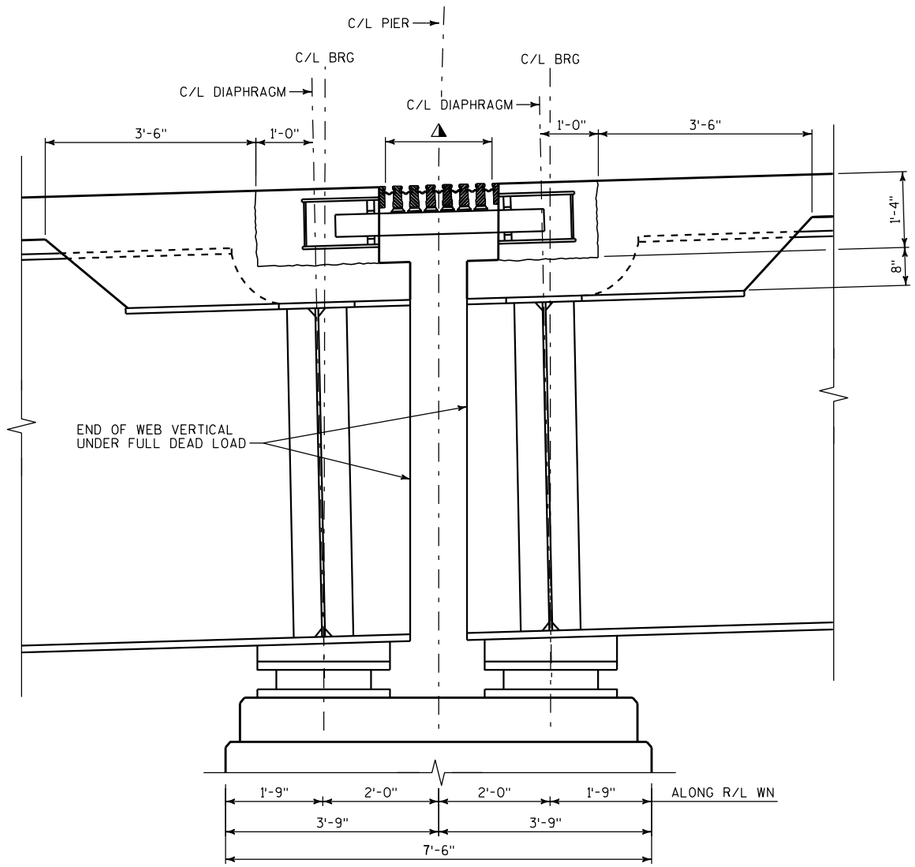
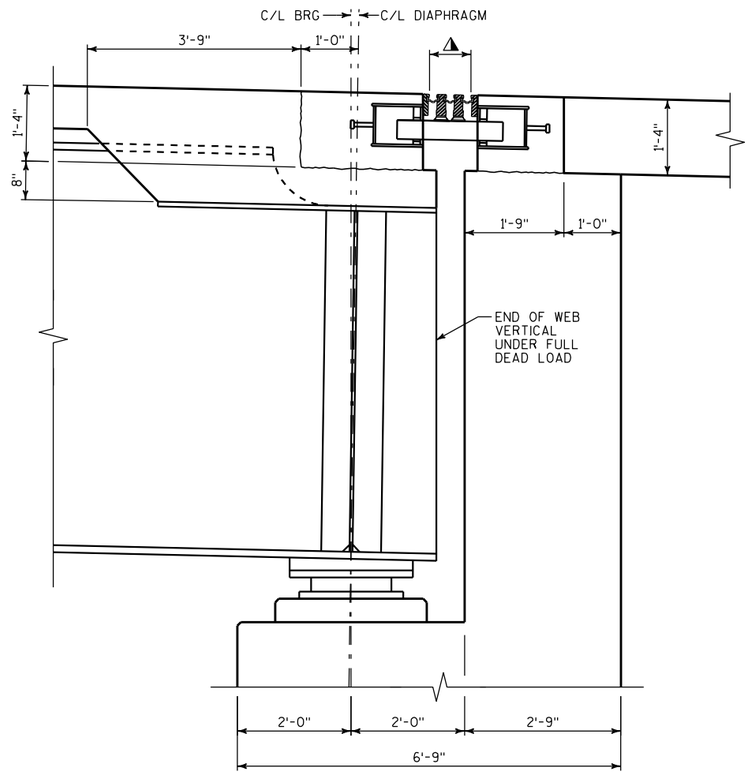
PLOT SCALE : 4:1



SECTION AT PIER WN07

⚠ SEE TEMPERATURE SETTING TABLE



SECTION AT NORTH ABUT

⚠ SEE TEMPERATURE SETTING TABLE

TEMPERATURE SETTING TABLE

PREPARE AND SUBMIT A TABLE FOR SETTING EACH JOINT OPENING BASED ON THE FOLLOWING CRITERIA:

1. JOINT OPENING SHALL BE AT THE MEDIAN VALUE FOR A TEMPERATURE OF 45°F.
2. ESTIMATED MOVEMENT PER 10°F CHANGE IN TEMPERATURE AS FOLLOWS:

   PIER WN07 = $1\frac{3}{16}$"
   N ABUT = $\frac{7}{16}$"
3. THESE VALUES RELATE TO THE NET OPENING OF THE JOINT AND INCLUDE CONTRIBUTIONS FROM BOTH SIDES.
4. INCLUDE VALUES IN THE TABLE FOR AMBIENT TEMPERATURES FROM -5°F TO 95°F.

NOTES

FOR SECTION AT PIER 5
SEE B-40-787 PLANS.

8

8

NO.	DATE	REVISION	BY

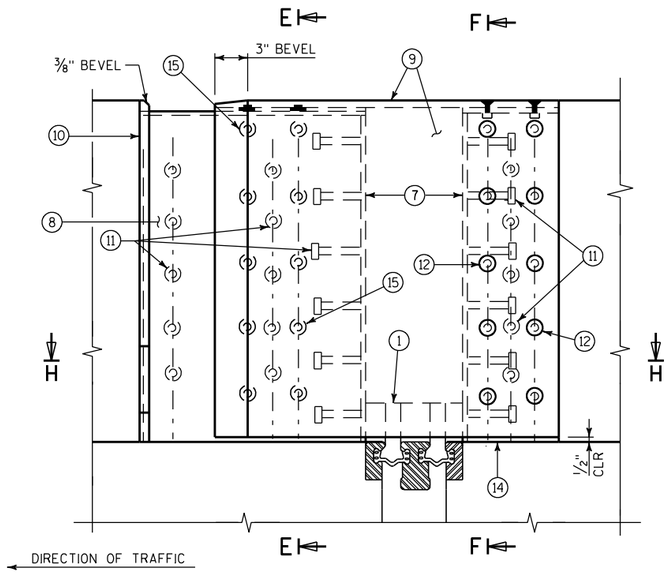
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

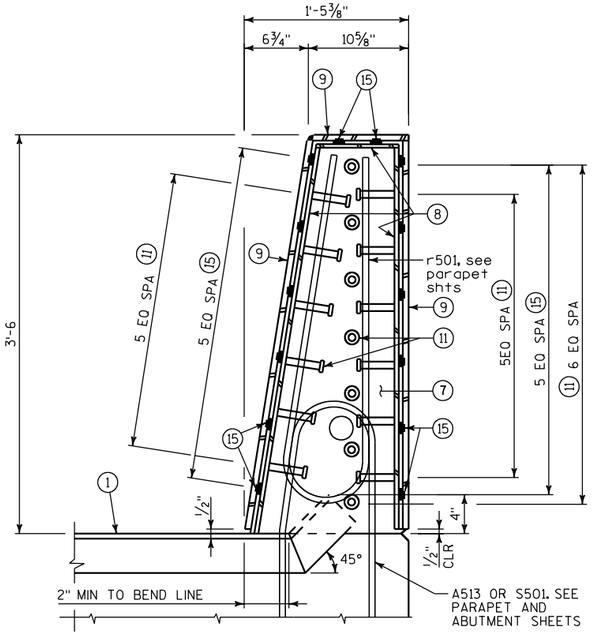
DRAWN BY GLM | PLANS CK'D. WRT

EXPANSION JOINT SECTIONS

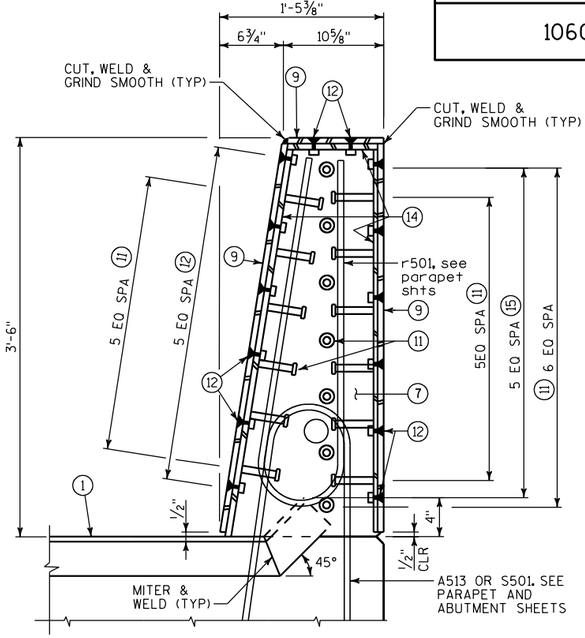
SHEET 96 OF 119



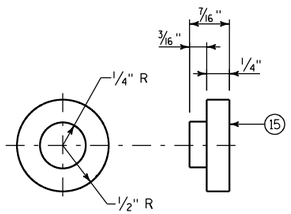
ELEVATION OF SINGLE SLOPE PARAPET



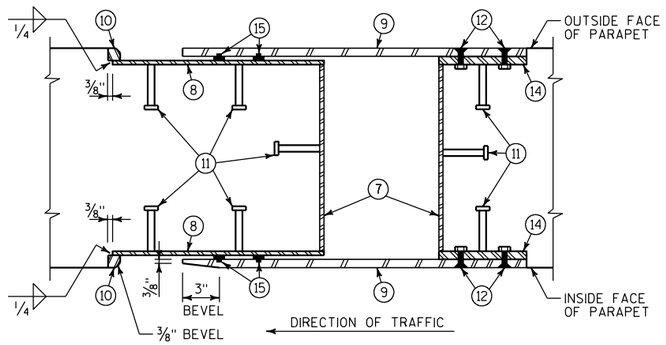
SECTION F-F



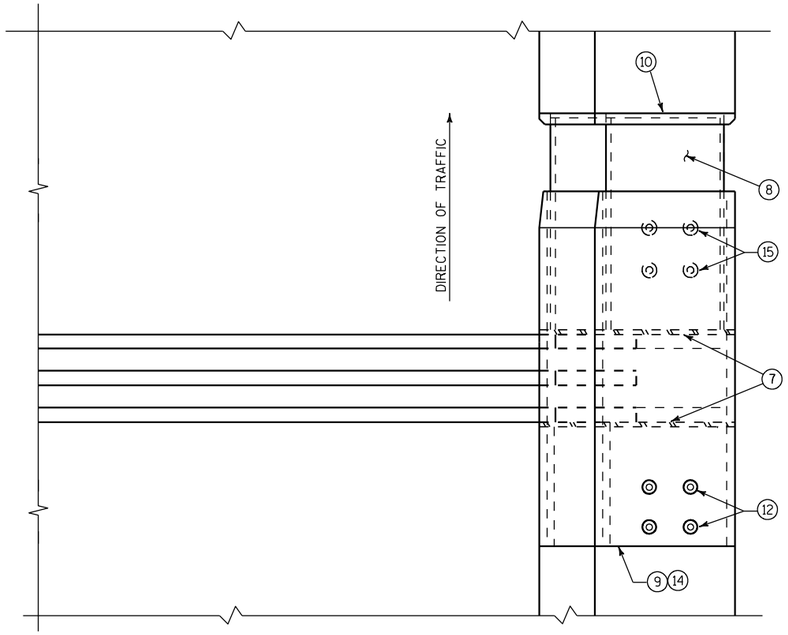
SECTION E-E



ADIPRENE BUTTON DETAIL



SECTION H-H



PLAN OF SINGLE SLOPE PARAPET

NO.	DATE	REVISION	BY

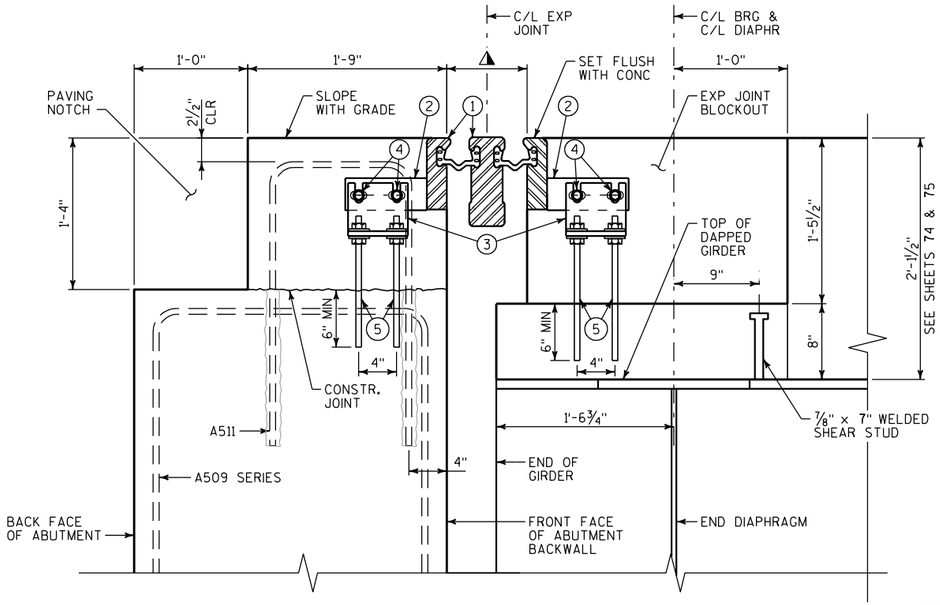
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

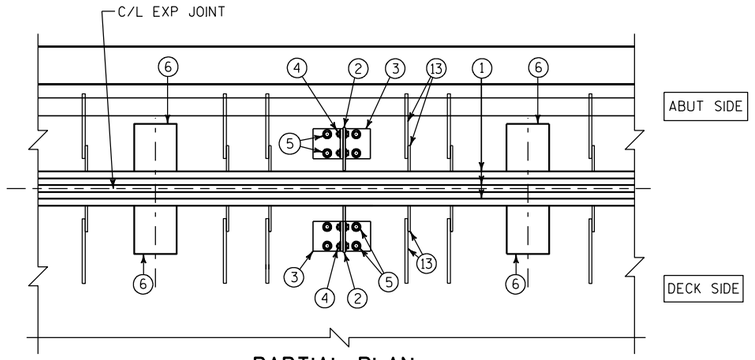
MODULAR EXPANSION JOINT COVER PLATES

SHEET 97 OF 119



SECTION THRU JOINT @ ABUTMENT

NORMAL TO C/L SUBSTRUCTURE



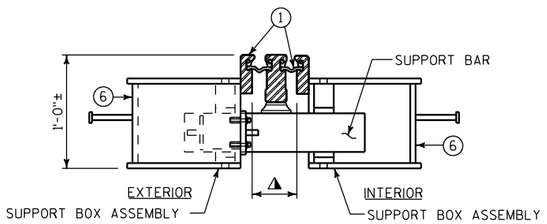
PARTIAL PLAN

NOTE:
MODULAR EXPANSION DEVICE DESIGN AND DETAILS ARE SPECIFIC TO THE MANUFACTURER SELECTED FROM THOSE LISTED IN THE SPECIAL PROVISIONS. FABRICATION DRAWING IS SUBJECT TO THE APPROVAL OF THE BUREAU OF STRUCTURES.

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN. SPACE SUPPORT BOXES NOT TO EXCEED MAXIMUM SPACING PER SPECIAL PROVISIONS.

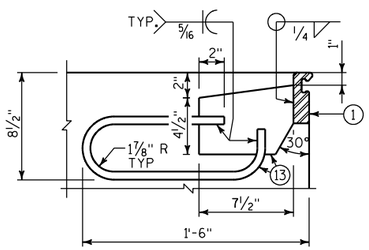
LEGEND

1. MODULAR EXPANSION JOINT DEVICE.
2. ½" PLATE, 8'-0" SPA MAX. PROVIDE 2 - 1" X 2" MIN. SLOTTED HOLES PLACED HORIZONTALLY FOR NO. 4.
3. WT 6 X 29 (OR EQUIVALENT BUILT UP T-SECTION). SPA AT 8'-0" MAX. PROVIDE 2 - 1" X 3" MIN. SLOTTED HOLES PLACED VERTICALLY IN WEB OF WT FOR BOLTS NO. 4.
4. ¾" Φ HIGH STRENGTH BOLTS WITH NUTS & WASHERS. (A325 GALV.)
5. ¾" Φ THREADED ROD WITH 2 NUTS & WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES. (GALV.)
6. SUPPORT BOX ASSEMBLY FOR SUPPORT BAR (SPA. PER MANUFACTURER). FABRICATE BOX FROM ½" PLATES.
7. ⅜" BULKHEAD PLATE. WELD TO NO. 1, NO. 8 AND NO. 14. WHEN CONDUIT IS PRESENT IN PARAPET, ACCOMMODATE FOR BY PROVIDING OPENING IN NO. 7.
8. INSIDE PLATE. FABRICATE FROM ⅜" PLATE.
9. OUTSIDE PLATE. FABRICATE FROM ⅝" PLATE.
10. ⅞" SQUARE BAR. WELD TO NO. 8 AS SHOWN.
11. ¾" Φ X 4" LONG STUDS. WELD TO NO. 8 , NO. 7 & NO. 14 AS SHOWN.
12. ¾" Φ X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS WITH ANTI-SEIZE LUBRICANT. RECESS 1/16" BELOW PLATE SURFACE.
13. ½" PLATE WITH ⅝" Φ LOOP ANCHOR FABRICATED AS SHOWN. SPACED AT MANUFACTURER'S SPEC.
14. INSIDE PLATE. FABRICATE FROM ⅝" PLATE.
15. ADIPRENE BUTTON. SEE DETAIL. SET IN OUTSIDE PLATE.



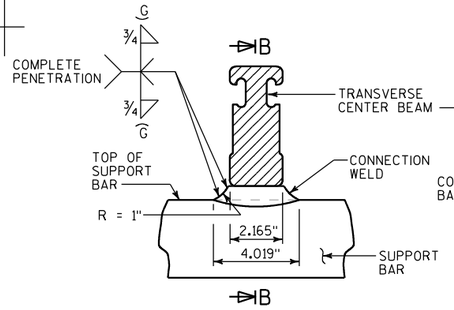
JOINT DETAIL

AT SUPPORT BAR & SUPPORT BOX ASSEMBLY

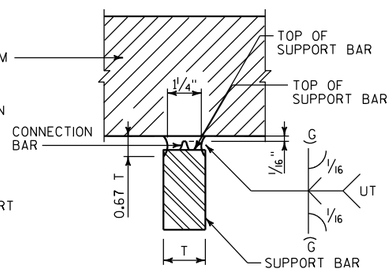


ANCHORAGE DETAIL

PLACE ADJACENT TO SUPPORT BOXES IN PAVING BLOCK @ ABUT. & IN DECK @ CONC. DIAPH.



MODULAR EXPANSION JOINT CONNECTION DETAIL AND WELD SPECIFICATION



SECTION B-B

* POUR CONC. ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONC. IS IN PLACE. STRIKE OFF & LEAVE ROUGH.

⚠ MANUFACTURER'S RECOMMENDED JOINT OPENING BASED ON THE TEMPERATURE ON THE DAY OF PLACEMENT PER TEMPERATURE TABLE. THE MODULAR EXPANSION DEVICE SHALL HAVE THE NUMBER OF CELLS AS INDICATED BELOW: EACH CELL IS ASSUMED TO PROVIDE 3" MOVEMENT RANGE.

PIER WNO7	7 CELLS
NORTH ABUTMENT	3 CELLS

◑ DIMENSION IS PARALLEL TO C/L GIRDER.

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE GLAND.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

NO EXPANSION JOINT PROTRUSIONS PERMITTED ABOVE ROADWAY SURFACE OR ON PARAPET ROADWAY FACE.

THE EXPANSION JOINT SEALS SHALL BE PLACED, BONDED & SEALED AS RECOMMENDED BY THE MANUFACTURER. FORM WORK SHALL BE PLACED BETWEEN THE SUPPORT BOXES TO PREVENT CONCRETE INTRUSION INTO THE SUPPORT BOX. A TECHNICAL REPRESENTATIVE OF THE MANUFACTURER SHALL BE PRESENT DURING INSTALLATION. PRIOR TO SETTING THE JOINT ASSEMBLY INTO POSITION, THE PROJECT ENGINEER SHALL DETERMINE THE PROPER JOINT OPENING.

EXPANSION JOINT EXTRUSIONS SHALL BE FABRICATED TO CONFORM TO ROADWAY CROWN & GRADE. FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST BARS, PLATES, WT-SECTION, ANCHORAGE LOOP, & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERICAL BLAST CLEANING". AFTER BLAST CLEANING, THIS ASSEMBLY SHALL BE HOT DIPPED GALVANIZED.

COST OF FURNISHING & PLACING OF THE EXPANSION JOINTS COMPLETE WITH PARAPET PLATES SHALL BE PAID FOR UNDER THE PRICE BID FOR "EXPANSION DEVICE MODULAR B-40-856".

BAR STEEL REINF. IN DECK AND CONC. DIAPHRAGM SHALL BE RESPACED AS NECESSARY TO ALLOW PLACEMENT OF JOINT ASSEMBLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

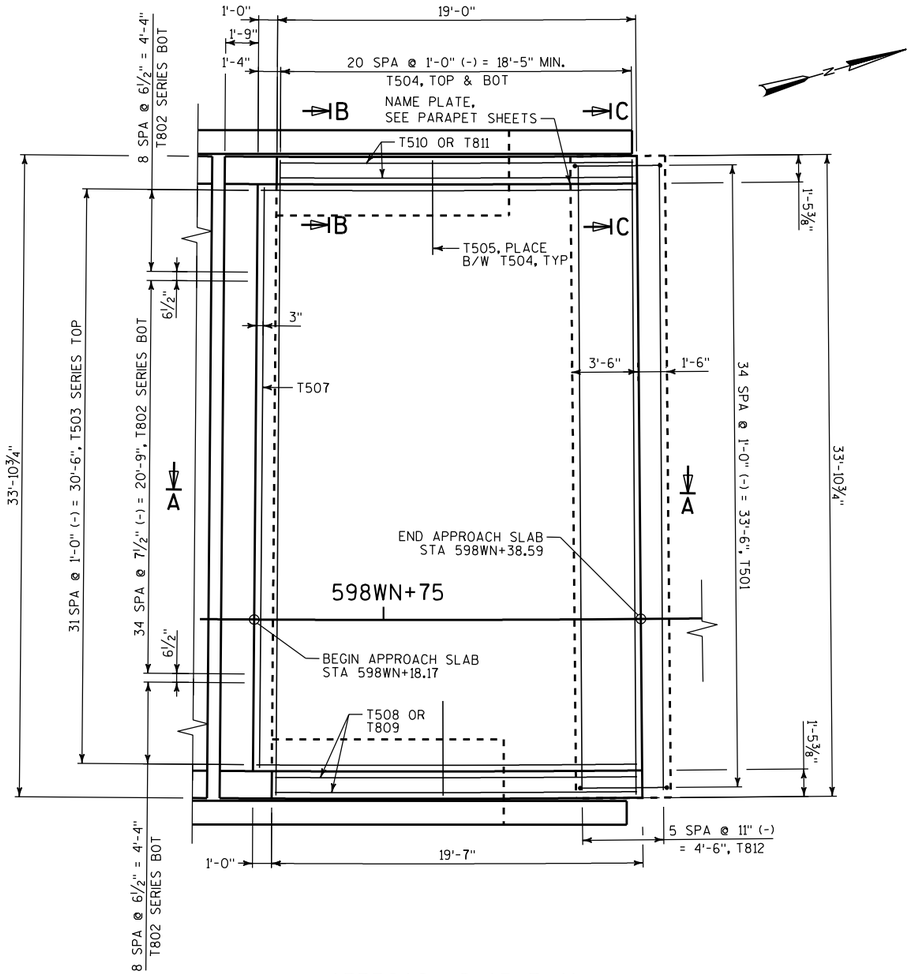
STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

MODULAR EXPANSION JOINT DETAILS

SHEET 98 OF 119

STATE PROJECT NUMBER
1060-33-81



APPROACH SLAB PLAN

TABLE OF ELEVATIONS

FEATURE	STA. 598WN+18.17	STA. 598WN+38.59
LT. EDGE OF SLAB	809.59	808.73
LT. TOE OF BARRIER	809.66	808.81
R/L WN	810.86	810.00
RT. TOE OF BARRIER	811.28	810.42
RT. EDGE OF SLAB	811.35	810.49

NOTES

FOR SECTIONS A-A, B-B, AND C-C, SEE STRUCTURAL APPROACH SLAB DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

STRUCTURAL APPROACH SLAB

SHEET 99 OF 119

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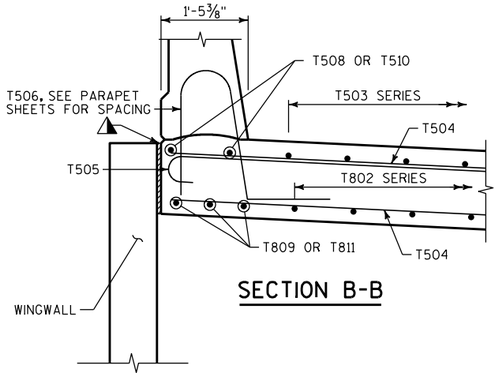
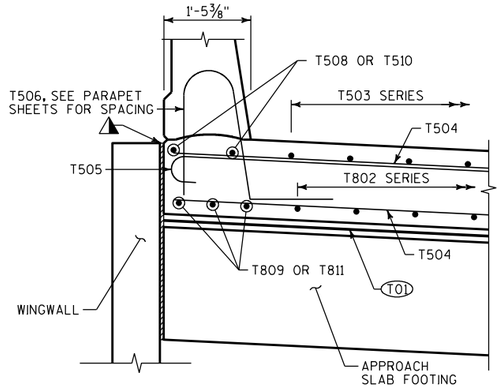
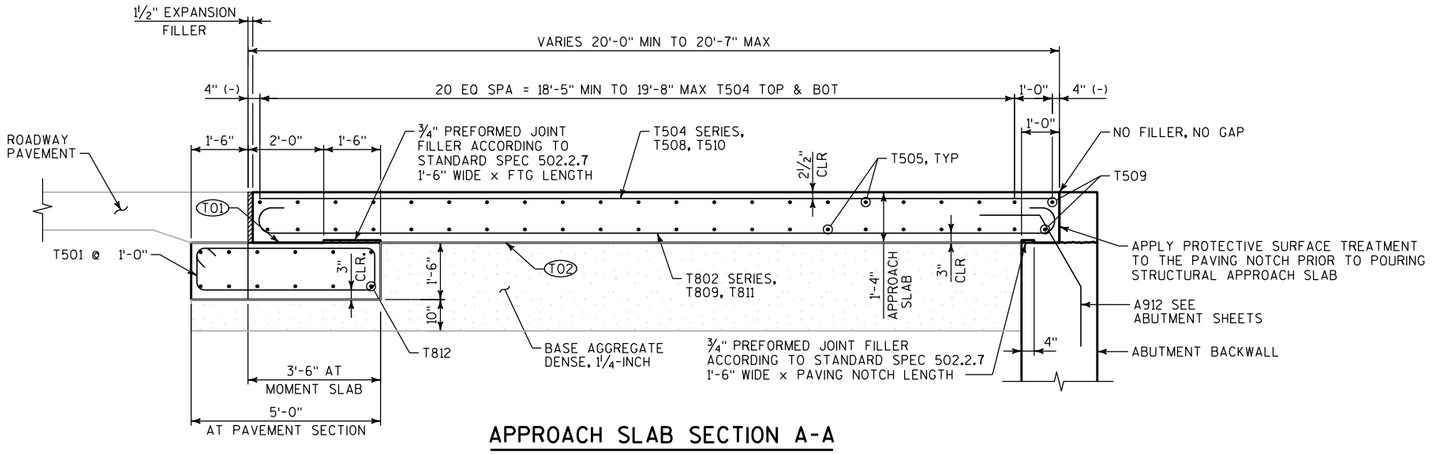
STATE PROJECT NUMBER
1060-33-81



SECTION B-B



SECTION C-C



APPROACH SLAB SECTION A-A

LEGEND

(T01) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.

(T02) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE. POLYETHYLENE SHEETS SHALL BE CONSIDERED INCIDENTAL TO "CONCRETE MASONRY BRIDGES".

▲ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

APPROACH SLAB NOTES

PROVIDE LONGITUDINAL GROOVING ON APPROACH SLABS.

SEE PARAPET SHEETS FOR PARAPET REINFORCING TIE PLACEMENT REQUIRED IN APPROACH SLABS.

IN ADDITION TO THE AREAS OUTLINED IN THE STANDARD SPECIFICATIONS, APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF APPROACH SLAB SURFACE, TOPS OF PARAPETS, INSIDE FACES OF PARAPETS, AND AREAS SHOWN IN THE APPROACH SLAB SECTION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

STRUCTURAL APPROACH SLAB DETAILS

SHEET 100 OF 119

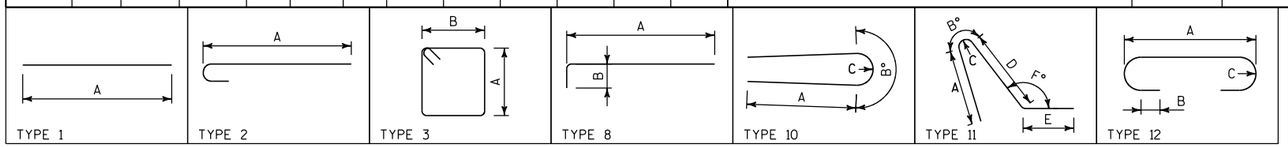
8

8

STATE PROJECT NUMBER

1060-33-81

BAR INFORMATION							BAR DIMENSIONS						LOCATION	BAR SERIES INFORMATION				
BAR MARK	MATL	NO. REQ'D	LENGTH	BENT	BAR SERIES	BEND TYPE	A	B	C	D	E	F		DIM	MIN	MAX	NO REQ'D	LENGTH
T501	E	35	12'-1"	X		3	1'-1"	4'-8"					FTG STIRRUP					
T802	S	53	21'-10"	X	X	12	20'-0"	0'-4"	0'-3"				LONG BOT APPR. SLAB	A	19'-8"	20'-3"	1 SERIES OF 53	21'-6" TO 22'-1"
T503	S	32	20'-0"		X	1	20'-0"						LONG TOP APPR. SLAB	A	19'-8"	20'-3"	1 SERIES OF 32	19'-8" TO 20'-3"
T504	S	40	33'-6"			1	33'-6"						TRANSVERSE, TOP & BOT					
T505	S	40	5'-7"	X		2	5'-0"						TRANS TOP EDGES					
T506	S	59	5'-7"	X		11	1'-8"	172	0'-4½"	1'-9"	1'-0"	98	PARAPET TIE					
T507	S	2	30'-4"			1	30'-4"						TRANSVERSE TOP & BOT AT ABUT					
T508	S	2	19'-3"			1	19'-3"						LONG TOP AT PARAPET					
T809	S	3	21'-1"	X		12	19'-3"	0'-4"	0'-3"				LONG BOT AT PARAPET					
T510	S	2	18'-8"			1	18'-8"						LONG TOP AT PARAPET					
T811	S	3	20'-6"	X		12	18'-8"	0'-4"	0'-3"				LONG BOT AT PARAPET					
T812	E	12	33'-6"			1	33'-6"						FTG HORZ					



BAR MARK BREAKDOWN			
BAR MARK	SOUTH APPROACH SLAB	TOTAL NO	WEIGHT
T501	35	35	441
T802	53	53	3090
T503	32	32	668
T504	40	40	1398
T505	40	40	233
T506	59	59	344
T507	2	2	63
T508	2	2	40
T809	3	3	169
T510	2	2	39
T811	3	3	164
T812	12	12	1073
TOT WEIGHT	7721	283	7721

NOTES

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

DIMENSIONS ARE TO OUTSIDE OF BARS, EXCEPT FOR RADIUS DIMENSIONS WHICH ARE TO INSIDE OF BENDS.

FOR A BAR SERIES, LENGTH SHOWN IN THE FOURTH COLUMN OF TABLE IS THE AVERAGE BAR LENGTH USED TO COMPUTE BAR WEIGHT.

BAR MATERIAL CODES USED IN SECOND COLUMN OF TABLE
- U - STEEL, HIGH STRENGTH, UNCOATED.
- E - STEEL, HIGH STRENGTH, EPOXY COATED.
- S - STAINLESS STEEL.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

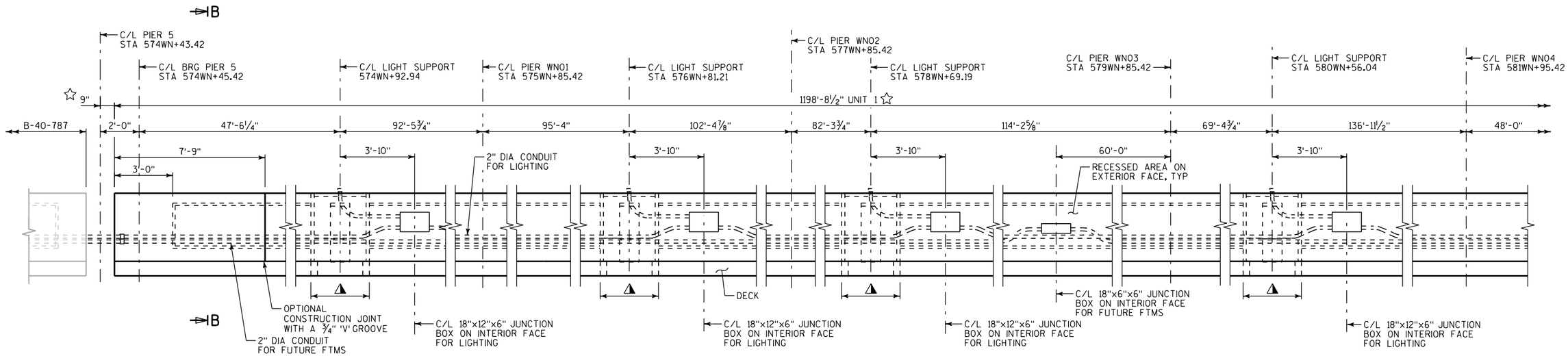
DRAWN BY GLM | PLANS CK'D. WRT

APPROACH SLAB REINFORCEMENT SCHEDULE

SHEET 101 OF 119

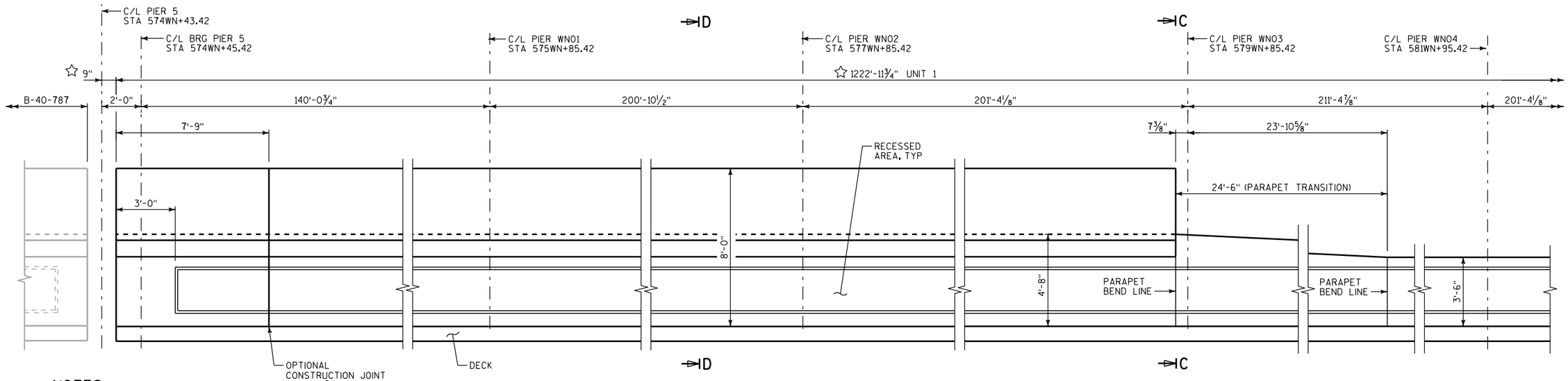
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080565_ss.dgn
PLOT DATE : 13-MAY-2015 16:10
PLOT BY : MSCBKS
PLOT NAME : B856_080565_ss
PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



LEFT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALONG EDGE OF DECK
(LOOKING AT INTERIOR FACE)



RIGHT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALONG EDGE OF DECK
(LOOKING AT EXTERIOR FACE)

NOTES

FOR SECTIONS A-A, B-B, C-C & D-D,
SEE PARAPET SECTIONS & DETAILS SHEET.

LEGEND

☆ PARAPET DIMENSIONS SHOWN ARE BASED ON A 1'-6" CONCRETE OPENING (1'-4" JOINT OPENING) AT PIER 5, A 2'-2" OPENING (2'-0" JOINT OPENING) AT PIER WN07, AND A 11" CONCRETE OPENING (9" JOINT OPENING) AT THE N ABUT AS SHOWN ON SHEET 96.

◭ SEE LIGHT SUPPORT SHEETS FOR DIMENSIONS AND REINFORCEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

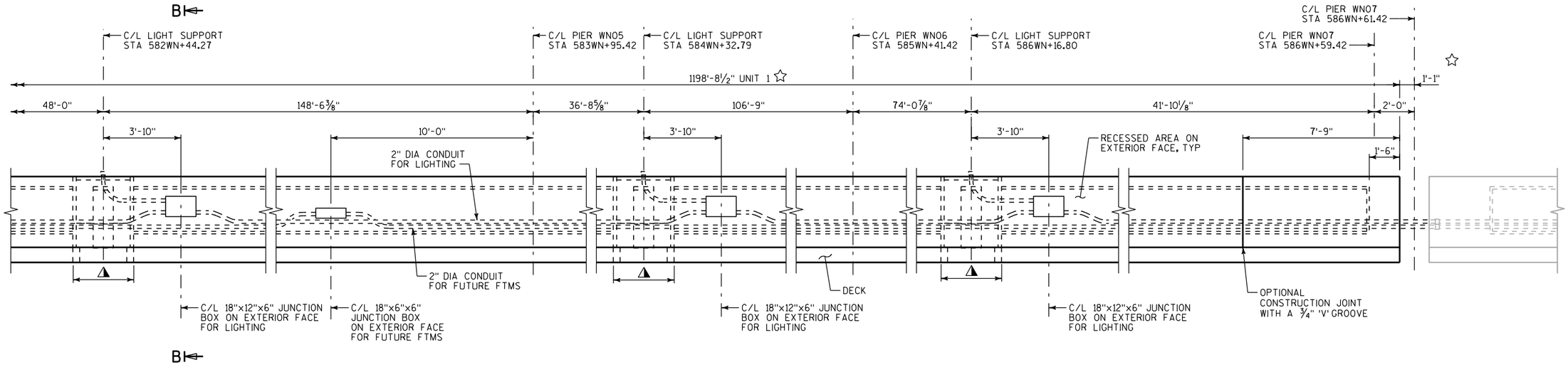
STRUCTURE B-40-856

DRAWN BY JTE | PLANS CK'D. WRT

PARAPET
EMBEDDED WORK
UNIT 1 (1 OF 2)

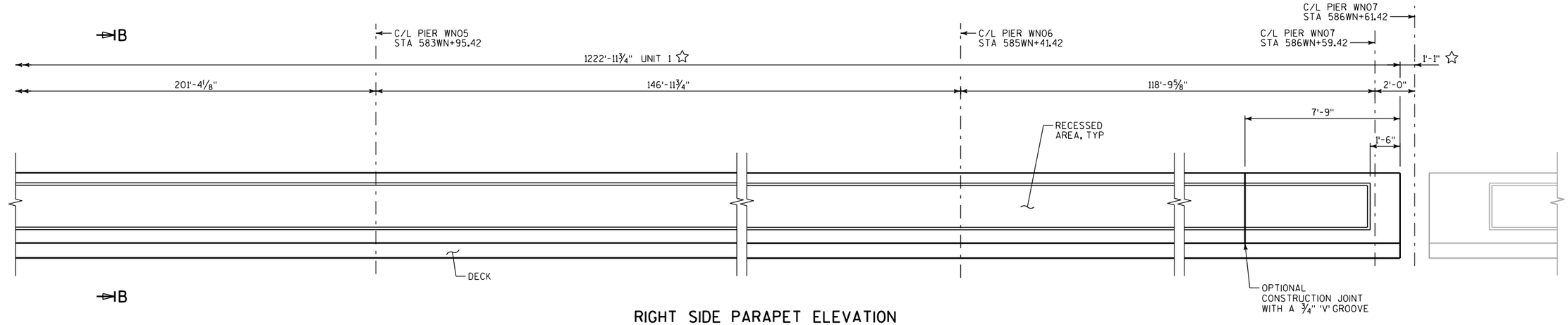
SHEET 102 OF 119

STATE PROJECT NUMBER
1060-33-81



LEFT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALONG EDGE OF DECK
(LOOKING AT INTERIOR FACE)



RIGHT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALONG EDGE OF DECK
(LOOKING AT EXTERIOR FACE)

NOTES

FOR SECTION B-B,
SEE PARAPET SECTIONS & DETAILS SHEET.

LEGEND

☆ PARAPET DIMENSIONS SHOWN ARE BASED ON A 1'-6" CONCRETE OPENING (1'-4" JOINT OPENING) AT PIER 5, A 2'-2" OPENING (2'-0" JOINT OPENING) AT PIER WN07, AND A 11" CONCRETE OPENING (9" JOINT OPENING) AT THE N ABUT AS SHOWN ON SHEET 96.

⚠ SEE LIGHT SUPPORT SHEETS FOR DIMENSIONS AND REINFORCEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

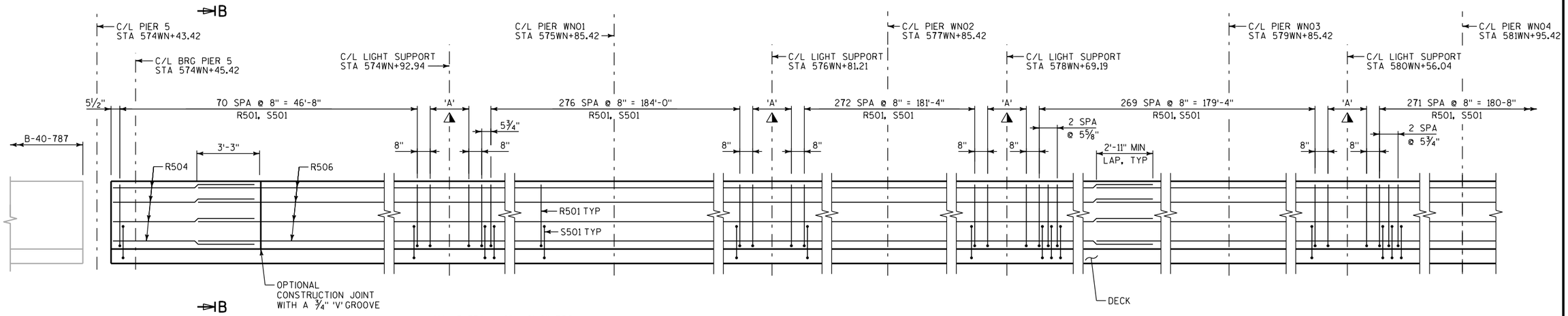
STRUCTURE B-40-856

DRAWN BY JTE | PLANS CK'D. WRT

PARAPET EMBEDDED WORK UNIT 1 (2 OF 2)

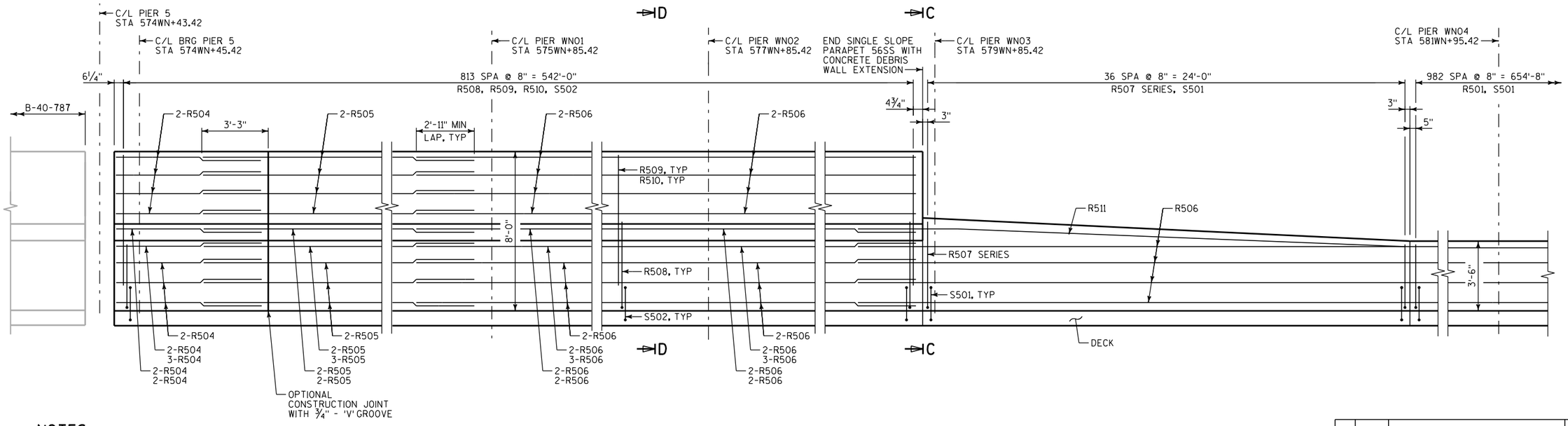
SHEET 103 OF 119

STATE PROJECT NUMBER
1060-33-81



LEFT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALONG EDGE OF DECK
(LOOKING AT INTERIOR FACE)



RIGHT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALONG EDGE OF DECK
(LOOKING AT EXTERIOR FACE)

NOTES

FOR SECTION B-B, C-C & D-D,
SEE PARAPET DETAILS AND SECTIONS SHEET.

LEGEND

⚠ SEE LIGHT SUPPORT SHEETS FOR DIMENSIONS AND REINFORCEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

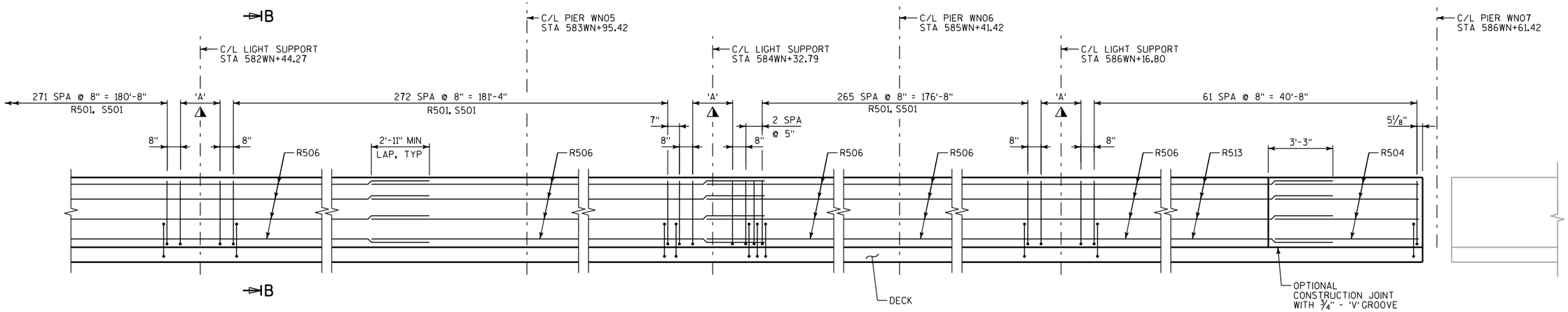
STRUCTURE B-40-856

DRAWN BY JTE | PLANS CK'D. WRT

PARAPET ELEVATIONS UNIT 1 (1 OF 2)

SHEET 104 OF 119

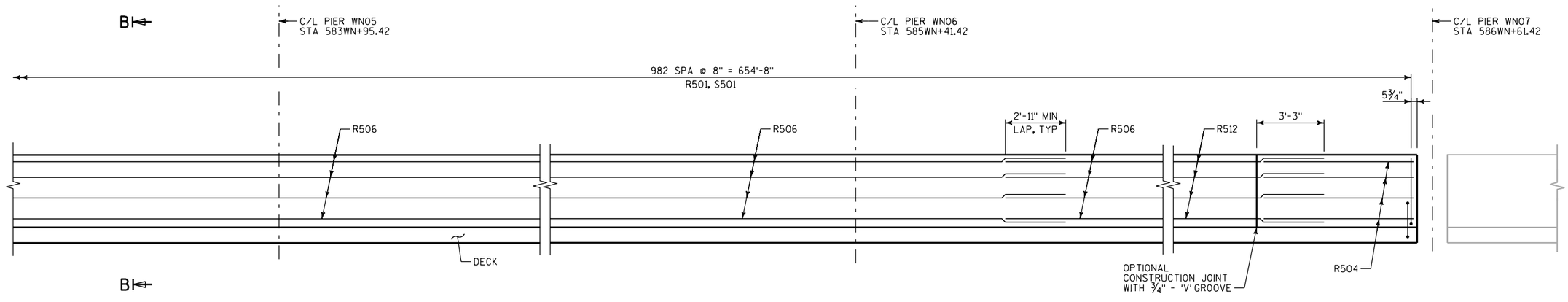
STATE PROJECT NUMBER
1060-33-81



'A' = 3 SPA @ 8" = 2'-0", R501

LEFT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALONG EDGE OF DECK
(LOOKING AT INTERIOR FACE)



RIGHT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALONG EDGE OF DECK
(LOOKING AT EXTERIOR FACE)

NOTES

FOR SECTION B-B
SEE PARAPET DETAILS AND SECTIONS SHEET.

LEGEND

⚠ SEE LIGHT SUPPORT SHEETS FOR DIMENSIONS AND REINFORCEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

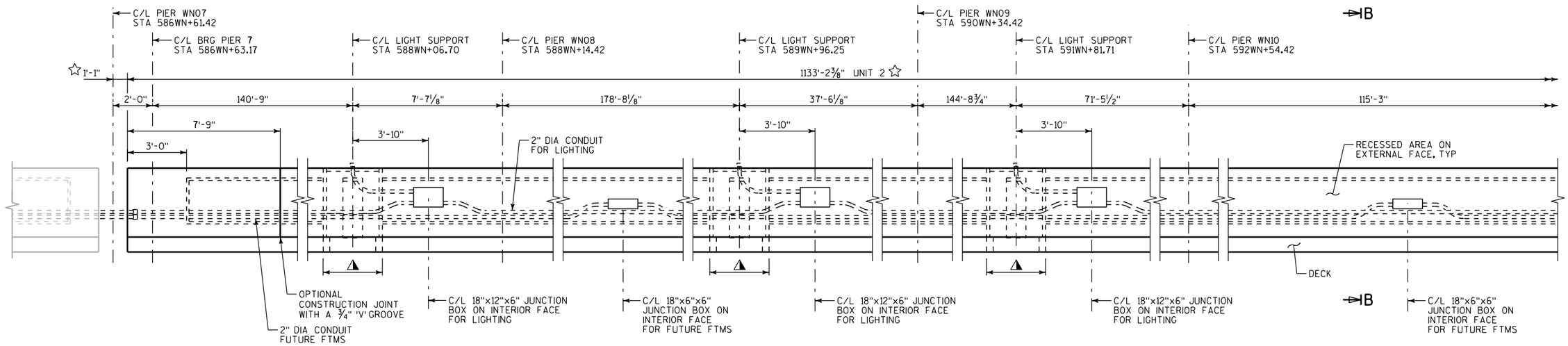
STRUCTURE B-40-856

DRAWN BY JTE | PLANS CK'D. WRT

PARAPET
EMBEDDED WORK
UNIT 1 (2 OF 2)

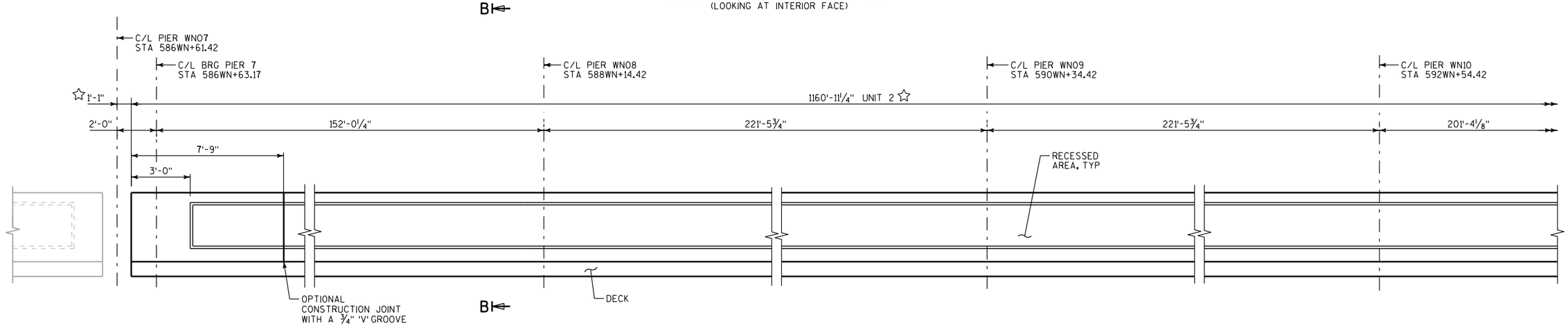
SHEET 105 OF 119

STATE PROJECT NUMBER
1060-33-81



LEFT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALONG EDGE OF DECK
(LOOKING AT INTERIOR FACE)



RIGHT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALONG EDGE OF DECK
(LOOKING AT EXTERIOR FACE)

NOTES

FOR SECTION B-B,
SEE PARAPET SECTIONS & DETAILS SHEET.

LEGEND

☆ PARAPET DIMENSIONS SHOWN ARE BASED ON A 1'-6" CONCRETE OPENING (1'-4" JOINT OPENING) AT PIER 5, A 2'-2" OPENING (2'-0" JOINT OPENING) AT PIER WN07, AND A 11" CONCRETE OPENING (9" JOINT OPENING) AT THE N ABUT AS SHOWN ON SHEET 96.

⚠ SEE LIGHT SUPPORT SHEETS FOR DIMENSIONS AND REINFORCEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	JTE	PLANS CK'D.	WRT

PARAPET
EMBEDDED WORK
UNIT 2 (1 OF 2)

SHEET 106 OF 119

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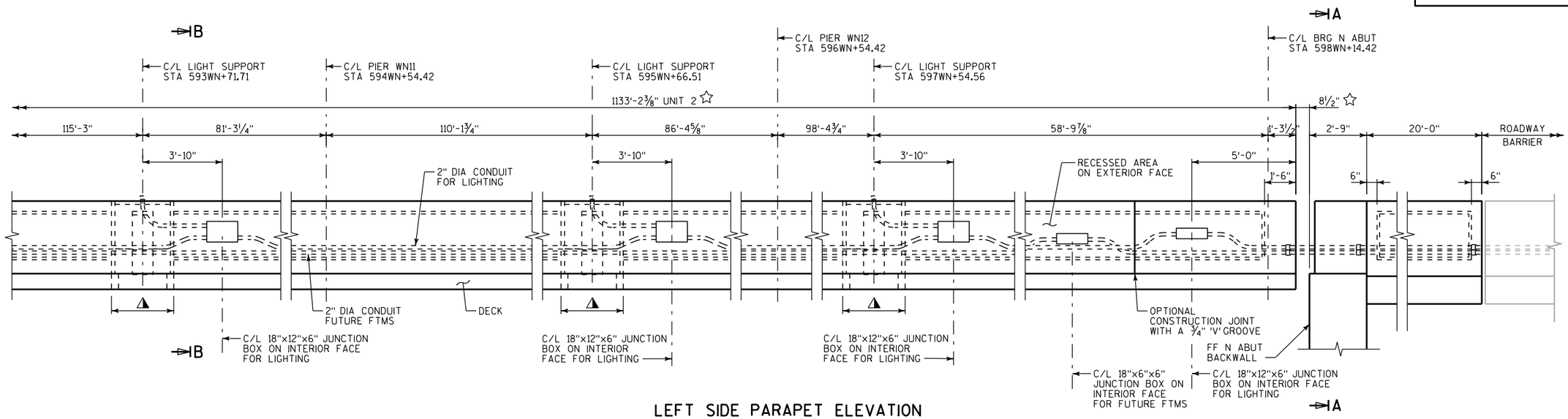
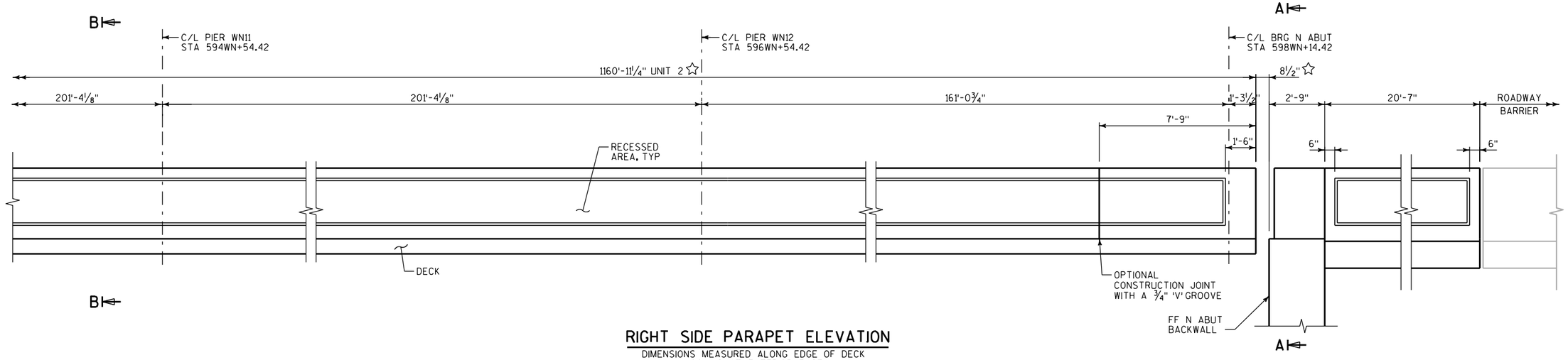
PLOT BY : MSCTEK
PLOT NAME : B856_080570_rp
PLOT SCALE : 5.333333:1

STATE PROJECT NUMBER
1060-33-81



LEFT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALON EDGE OF DECK
(LOOKING AT INTERIOR FACE)



RIGHT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALONG EDGE OF DECK
(LOOKING AT EXTERIOR FACE)

NOTES

FOR SECTION A-A & B-B
SEE PARAPET SECTIONS & DETAILS SHEET.

LEGEND

☆ PARAPET DIMENSIONS SHOWN ARE BASED ON A 1'-6" CONCRETE OPENING (1'-4" JOINT OPENING) AT PIER 5, A 2'-2" OPENING (2'-0" JOINT OPENING) AT PIER WN07, AND A 11" CONCRETE OPENING (9" JOINT OPENING) AT THE N ABUT AS SHOWN ON SHEET 96.

⚠ SEE LIGHT SUPPORT SHEETS FOR DIMENSIONS AND REINFORCEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

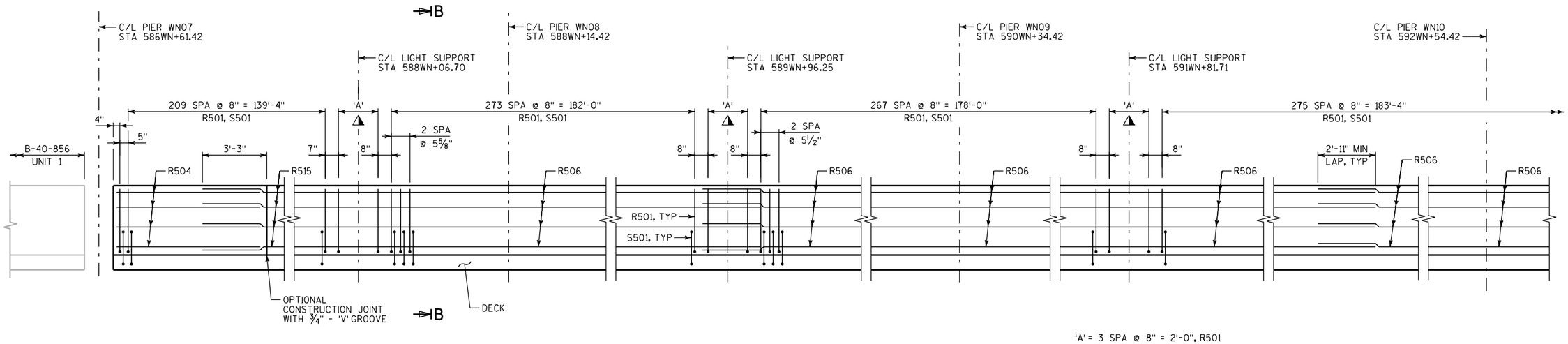
STRUCTURE B-40-856

DRAWN BY	JTE	PLANS CK'D.	WRT

PARAPET EMBEDDED WORK UNIT 2 (2 OF 2)

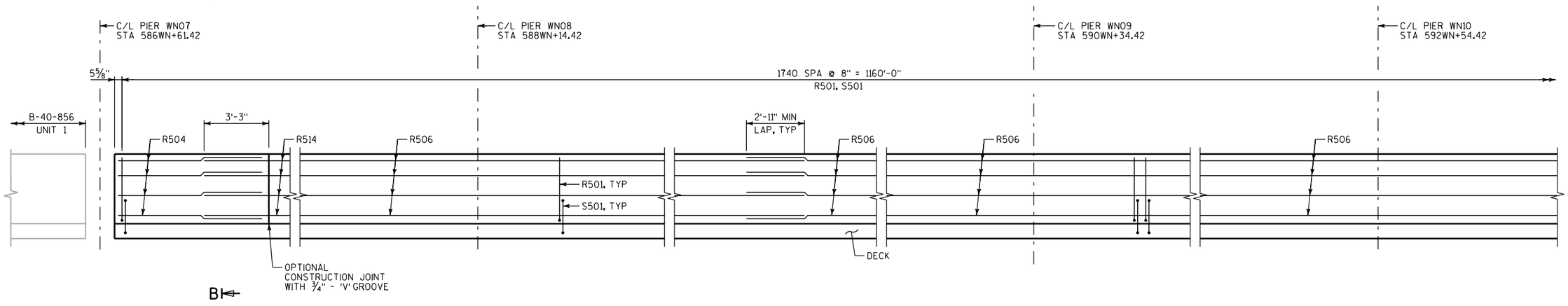
SHEET 107 OF 119

STATE PROJECT NUMBER
1060-33-81



LEFT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALONG EDGE OF DECK
(LOOKING AT INTERIOR FACE)



RIGHT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALONG EDGE OF DECK
(LOOKING AT EXTERIOR FACE)

NOTES

FOR SECTION B-B
SEE PARAPET DETAILS AND SECTIONS SHEET.

LEGEND

⚠ SEE LIGHT SUPPORT SHEETS FOR DIMENSIONS AND REINFORCEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

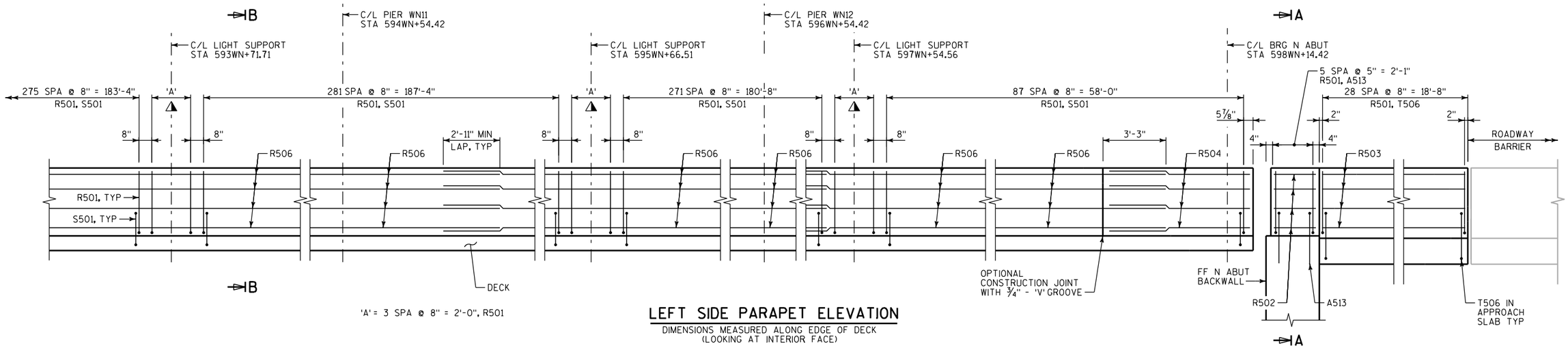
STRUCTURE B-40-856

DRAWN BY	JTE	PLANS CK'D.	WRT

PARAPET ELEVATIONS UNIT 2 (1 OF 2)

SHEET 108 OF 119

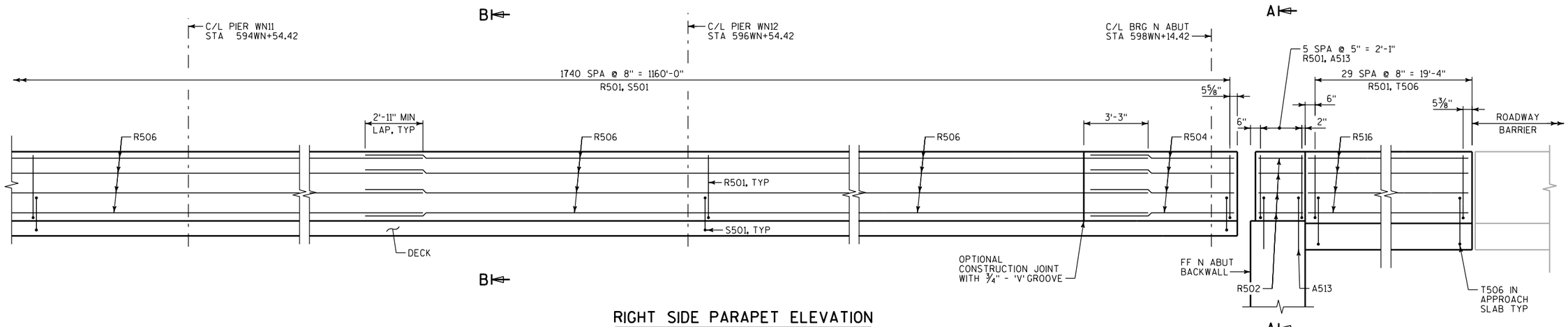
STATE PROJECT NUMBER
1060-33-81



'A' = 3 SPA @ 8" = 2'-0", R501

LEFT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALONG EDGE OF DECK
(LOOKING AT INTERIOR FACE)



RIGHT SIDE PARAPET ELEVATION

DIMENSIONS MEASURED ALONG EDGE OF DECK
(LOOKING AT EXTERIOR FACE)

NOTES

FOR SECTION B-B
SEE PARAPET DETAILS AND SECTIONS SHEET.

LEGEND

⚠ SEE LIGHT SUPPORT SHEETS FOR DIMENSIONS AND REINFORCEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	JTE	PLANS CK'D.	WRT

PARAPET ELEVATIONS UNIT 2 (2 OF 2)

SHEET 109 OF 119

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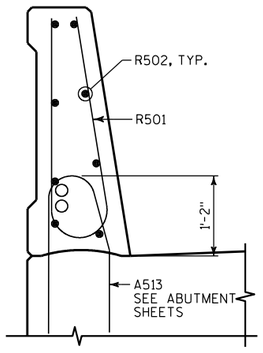
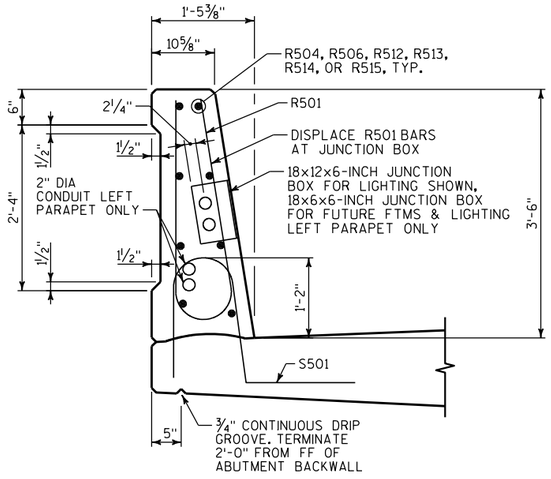
PLOT NAME : B856_080573_rp
PLOT SCALE : 5.333333:1

STATE PROJECT NUMBER
1060-33-81



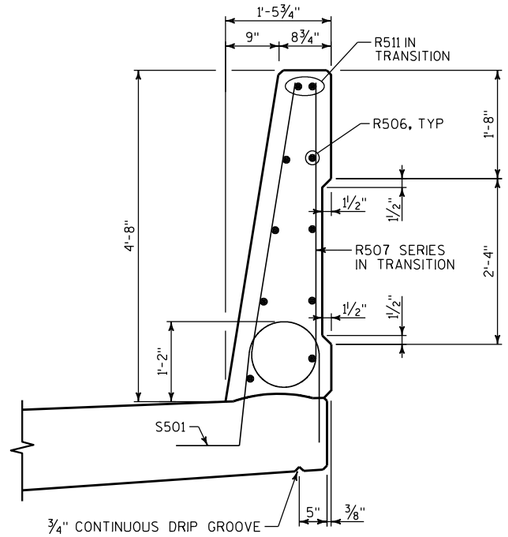
SECTION A-A

TYPICAL 42SS THRU ABUTMENT BACKWALL

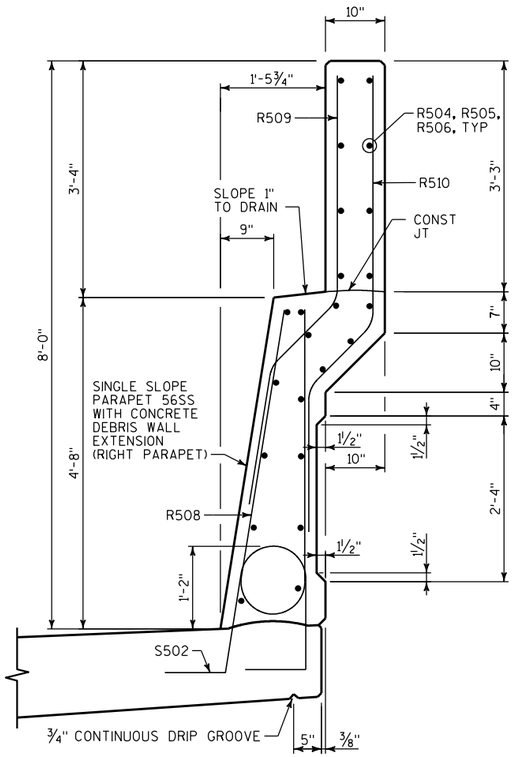


SECTION B-B

THRU 42SS PARAPET



SECTION C-C



SECTION D-D

TYPICAL 56SS PARAPET MODIFIED WITH
CONCRETE DEBRIS WALL EXTENSION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

PARAPET
SECTIONS & DETAILS
(1 OF 2)

SHEET 110 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080574_rp.dgn
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STATE PROJECT NUMBER
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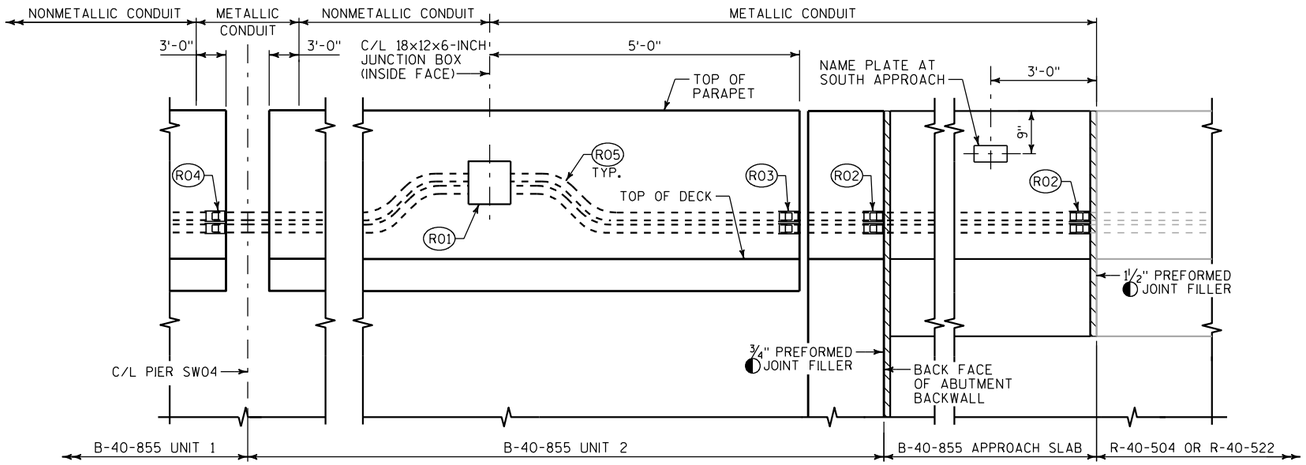


LEFT SIDE PARAPET INTERIOR ELEVATION AT ABUTMENT SHOWING CONDUITS

SOUTH ABUTMENT SHOWN, WEST ABUTMENT SIMILAR

LEGEND

(R01) CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE

(R02) EXPANSION FITTING WITH 4" TOTAL CONDUIT MOVEMENT, O-Z/GEDNEY TYPE AX-200 OR EQUIVALENT SUBJECT TO DEPARTMENT APPROVAL

(R03) EXPANSION FITTING WITH 8" TOTAL CONDUIT MOVEMENT, O-Z/GEDNEY TYPE AX-8-200 OR EQUIVALENT SUBJECT TO DEPARTMENT APPROVAL

(R04) EXPANSION FITTING WITH 10" TOTAL CONDUIT MOVEMENT, O-Z/GEDNEY TYPE EX-200 WITH PBS-200-12S OR EQUIVALENT SUBJECT TO DEPARTMENT APPROVAL

(R05) 45° BEND IN CONDUIT. USE MINIMUM BENDING RADIUS PER WISCONSIN ELECTRIC CODE.

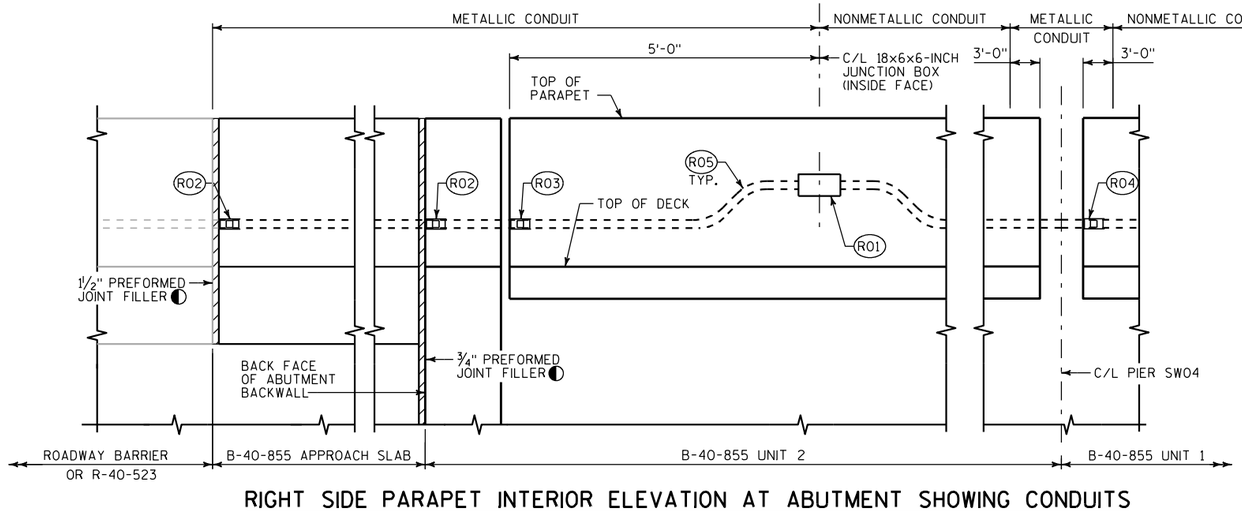
◐ PREFORMED JOINT FILLER WITH NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN.

NOTES

EXPANSION FITTINGS, SPONGE RUBBER WRAP, ANGLES, AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

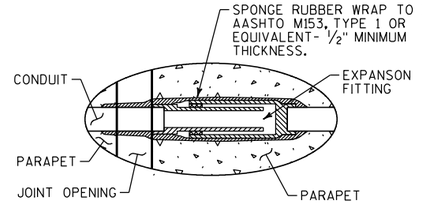
WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, USE ADAPTER FITTINGS LISTED BY UL OR NRTL FOR ELECTRICAL USE.

FOR APPROVED MANUFACTURERS OF JUNCTION BOXES, SEE APPROVED MATERIAL LIST.



RIGHT SIDE PARAPET INTERIOR ELEVATION AT ABUTMENT SHOWING CONDUITS

SOUTH ABUTMENT SHOWN, WEST ABUTMENT SIMILAR



EXPANSION FITTING DETAIL

POSITION MOVABLE END OF CONDUIT INSIDE EXPANSION FITTING, SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT (EXPANSION/CONTRACTION) AS THE EXPANSION DEVICE SET IN PLACE IN THE DECK BELOW IT. TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

PARAPET SECTIONS & DETAILS (2 OF 2)

SHEET 111 OF 119

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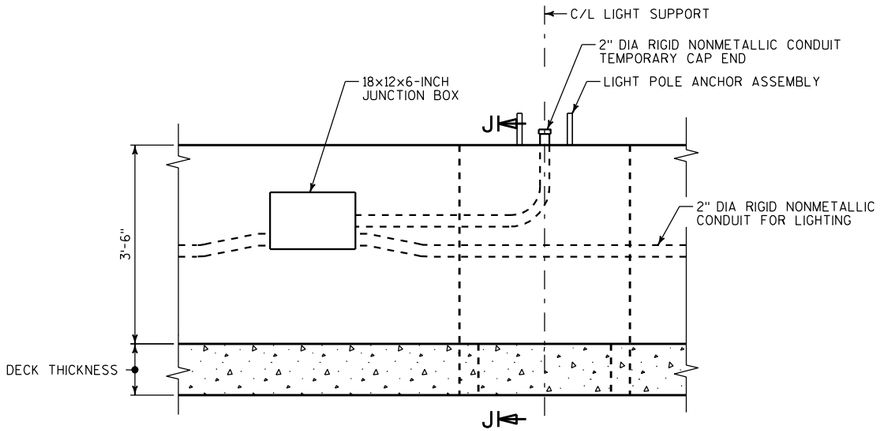
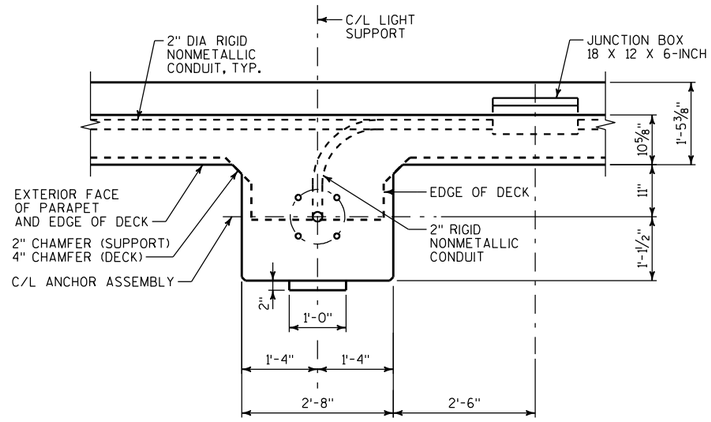
STATE PROJECT NUMBER

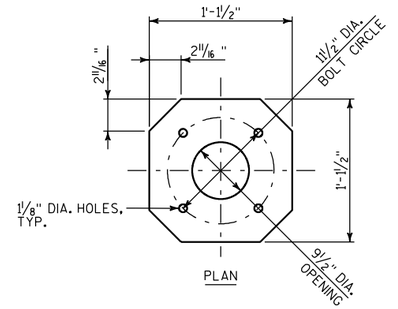
1060-33-81



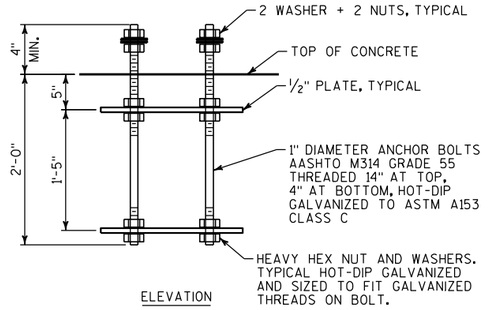
INTERIOR ELEVATION



PLAN

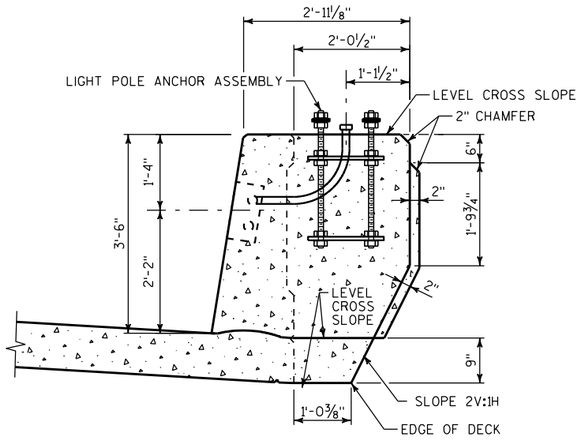


PLAN

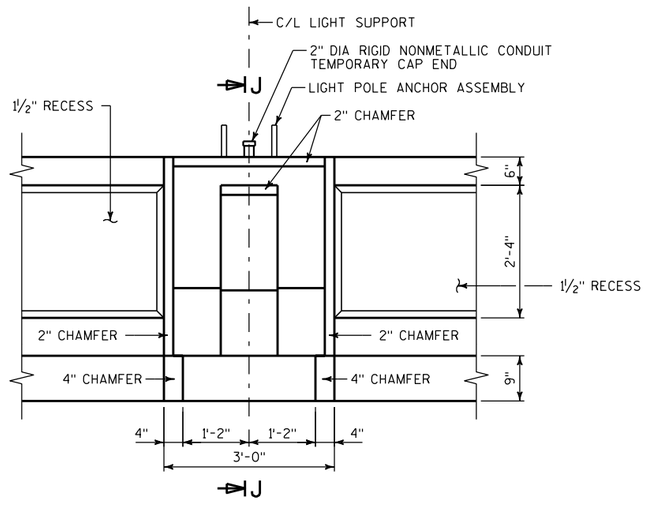


ELEVATION

ANCHOR ASSEMBLY LIGHT POLE STRUCTURES



SECTION J-J



EXTERIOR ELEVATION

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STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

LIGHT SUPPORT DETAILS (1 OF 2)

SHEET 112 OF 119

8

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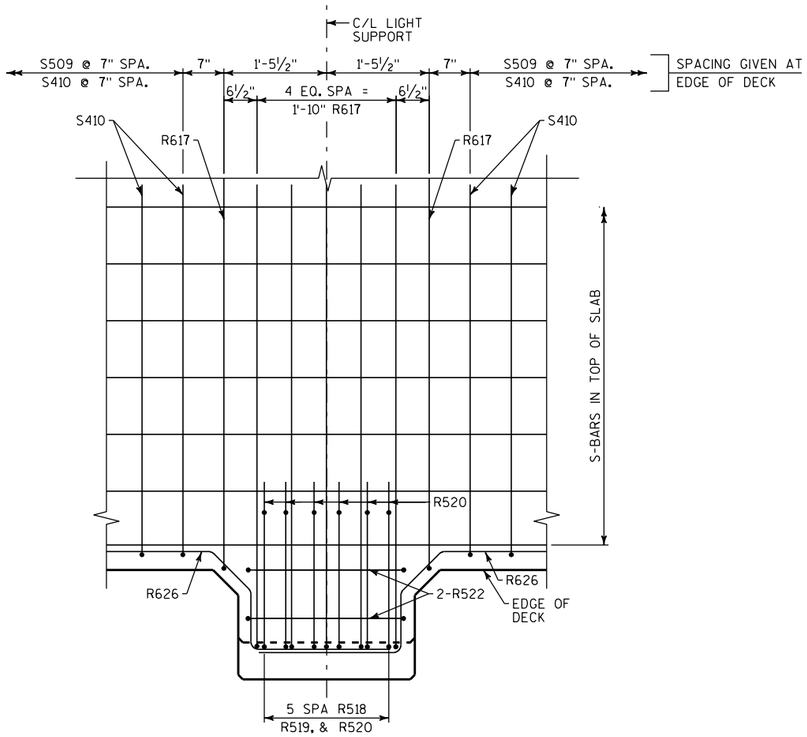
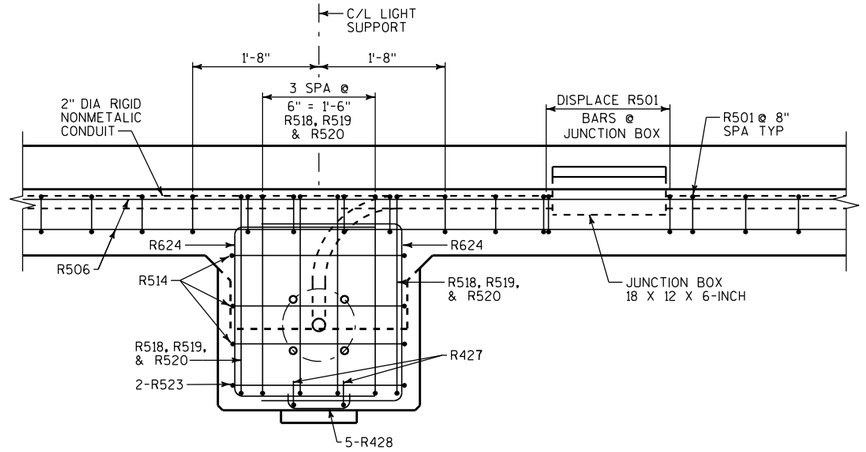
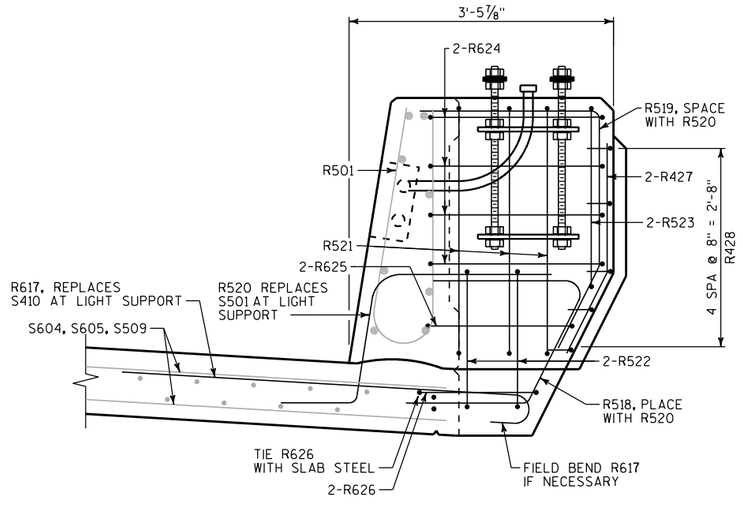


PLAN SHOWING REINFORCEMENT IN DECK

(S501, S605, S509 NOT SHOWN FOR CLARITY)

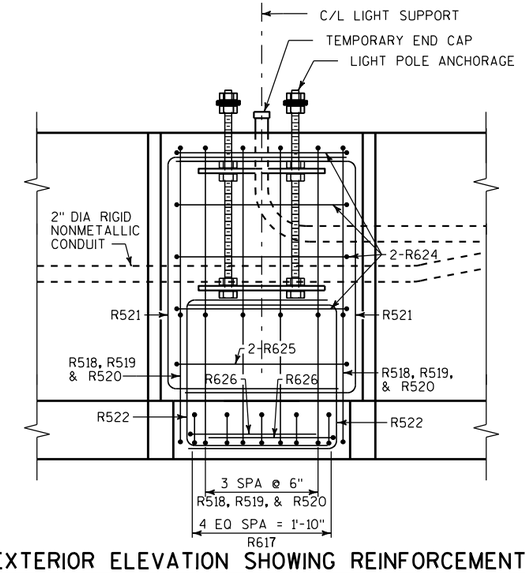


PLAN SHOWING REINFORCEMENT



SIDE VIEW SHOWING REINFORCEMENT

CROSS SECTION AT LIGHT SUPPORT



EXTERIOR ELEVATION SHOWING REINFORCEMENT

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DRAWN BY GLM | PLANS CK'D. WRT

LIGHT SUPPORT DETAILS (2 OF 2)

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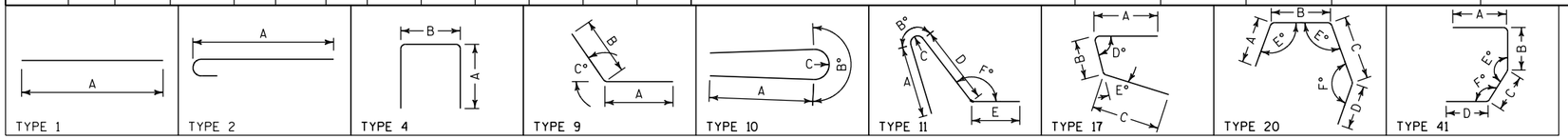
BAR INFORMATION							BAR DIMENSIONS						LOCATION	BAR SERIES INFORMATION				
BAR MARK	MATL	NO. REQ'D	LENGTH	BENT	BAR SERIES	BEND TYPE	A	B	C	D	E	F		DIM	MIN	MAX	NO REQ'D	LENGTH
R501	S	6296	8'-8"	X		10	2'-8"	189	0'-4½"				PARAPET - 42SS VERTICAL					
R502	S	16	2'-5"			1	2'-5"						PARAPET - ABUTMENT HORIZONTAL					
R503	S	8	18'-7"			1	18'-7"						PARAPET - APPROACH SLAB HORIZONTAL LT					
R504	S	79	7'-7"			1	7'-7"						PARAPET - CONSTR. JT. HORIZONTAL					
R505	S	23	24'-6"			1	24'-6"						PARAPET - 56SS & BARRIER HORIZONTAL					
R506	S	767	60'-0"			1	60'-0"						PARAPET - HORIZONTAL					
R507	S	37	9'-10"	X	X	10	3'-3"	189	0'-4½"				PARAPET - TRANSITION VERTICAL	A	2'-8"	3'-10"	1 SERIES OF 37	8'-8" TO 11'-0"
R508	S	814	11'-0"	X		10	3'-10"	189	0'-4½"				PARAPET - 56SS VERTICAL					
R509	S	814	6'-3"	X		17	3'-2"	1'-3½"	2'-0"	225	36		PARAPET - BARRIER VERTICAL					
R510	S	814	6'-8"	X		17	3'-6"	1'-4½"	2'-0"	225	45		PARAPET - BARRIER VERTICAL					
R511	S	2	28'-0"			1	28'-0"						PARAPET - TRANSITION HORIZONTAL					
R512	S	8	51'-9"			1	51'-9"						PARAPET - HORIZONTAL (END UNIT 1 RT)					
R513	S	8	48'-7"			1	48'-7"						PARAPET - HORIZONTAL (END UNIT 1 LT)					
R514	S	8	10'-10"			1	10'-10"						PARAPET - HORIZONTAL (BEGIN UNIT 2 RT)					
R515	S	8	40'-2"			1	40'-2"						PARAPET - HORIZONTAL (BEGIN UNIT 2 LT)					
R516	S	8	19'-10"			1	19'-10"						PARAPET - APPROACH SLAB HORIZONTAL RT					
R617	S	65	10'-2"	X		2	9'-6"						LIGHT SUPPORT - DECK OVERHANG					
R518	S	91	5'-2"	X		17	2'-0"	1'-10½"	1'-6"	67	67		LIGHT SUPPORT - VERTICAL					
R519	S	78	5'-2"	X		17	2'-4"	2'-0"	1'-1"	90	27		LIGHT SUPPORT - VERTICAL					
R520	S	78	4'-10"	X		11	2'-0"	81	0'-4½"	1'-3½"	1'-0"	99	LIGHT SUPPORT - VERTICAL					
R521	S	78	7'-5"	X		4	2'-3"	3'-2"					LIGHT SUPPORT - VERTICAL					
R522	S	52	5'-7"	X		4	2'-0"	1'-9½"					LIGHT SUPPORT - VERTICAL					
R523	S	26	6'-6"	X		4	2'-3"	2'-3"					LIGHT SUPPORT - VERTICAL					
R624	S	104	6'-5"	X		4	2'-3"	2'-3"					LIGHT SUPPORT - HORIZONTAL					
R625	S	26	6'-1"	X		4	2'-3"	1'-11"					LIGHT SUPPORT - HORIZONTAL					
R626	S	26	4'-9"	X		20	1'-9"	0'-10"	0'-10"	1'-8"	135	270	LIGHT SUPPORT - HORIZONTAL					
R427	S	26	3'-5"	X		9	1'-8"	1'-9"	19				LIGHT SUPPORT - OUTSIDE FACE					
R428	S	65	1'-1"	X		4	0'-4"	0'-7"					LIGHT SUPPORT - OUTSIDE FACE					

BAR MARK BREAKDOWN				
BAR MARK	UNIT 1	UNIT 2	TOTAL NO	WEIGHT
R501	2785	3511	6296	56912
R502	0	16	16	40
R503	0	8	8	155
R504	47	32	79	625
R505	23	0	23	588
R506	455	312	767	47999
R507	37	0	37	379
R508	814	0	814	9339
R509	814	0	814	5306
R510	814	0	814	5660
R511	2	0	2	58
R512	8	0	8	432
R513	8	0	8	405
R514	0	8	8	90
R515	0	8	8	335
R516	0	8	8	165
R617	35	30	65	993
R518	49	42	91	490
R519	42	36	78	420
R520	42	36	78	393
R521	42	36	78	603
R522	28	24	52	303
R523	14	12	26	176
R624	56	48	104	1002
R625	14	12	26	238
R626	14	12	26	185
R427	14	12	26	59
R428	35	30	65	47
TOT WEIGHT	78833	54568	10425	133401



NOTES

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

DIMENSIONS ARE TO OUTSIDE OF BARS, EXCEPT FOR RADIUS DIMENSIONS WHICH ARE TO INSIDE OF BENDS.

FOR A BAR SERIES, LENGTH SHOWN IN THE FOURTH COLUMN OF TABLE IS THE AVERAGE BAR LENGTH USED TO COMPUTE BAR WEIGHT.

BAR MATERIAL CODES USED IN SECOND COLUMN OF TABLE
- U - STEEL, HIGH STRENGTH, UNCOATED.
- E - STEEL, HIGH STRENGTH, EPOXY COATED.
- S - STAINLESS STEEL.

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DRAWN BY GLM | PLANS CK'D. WRT

PARAPET REINFORCEMENT SCHEDULE

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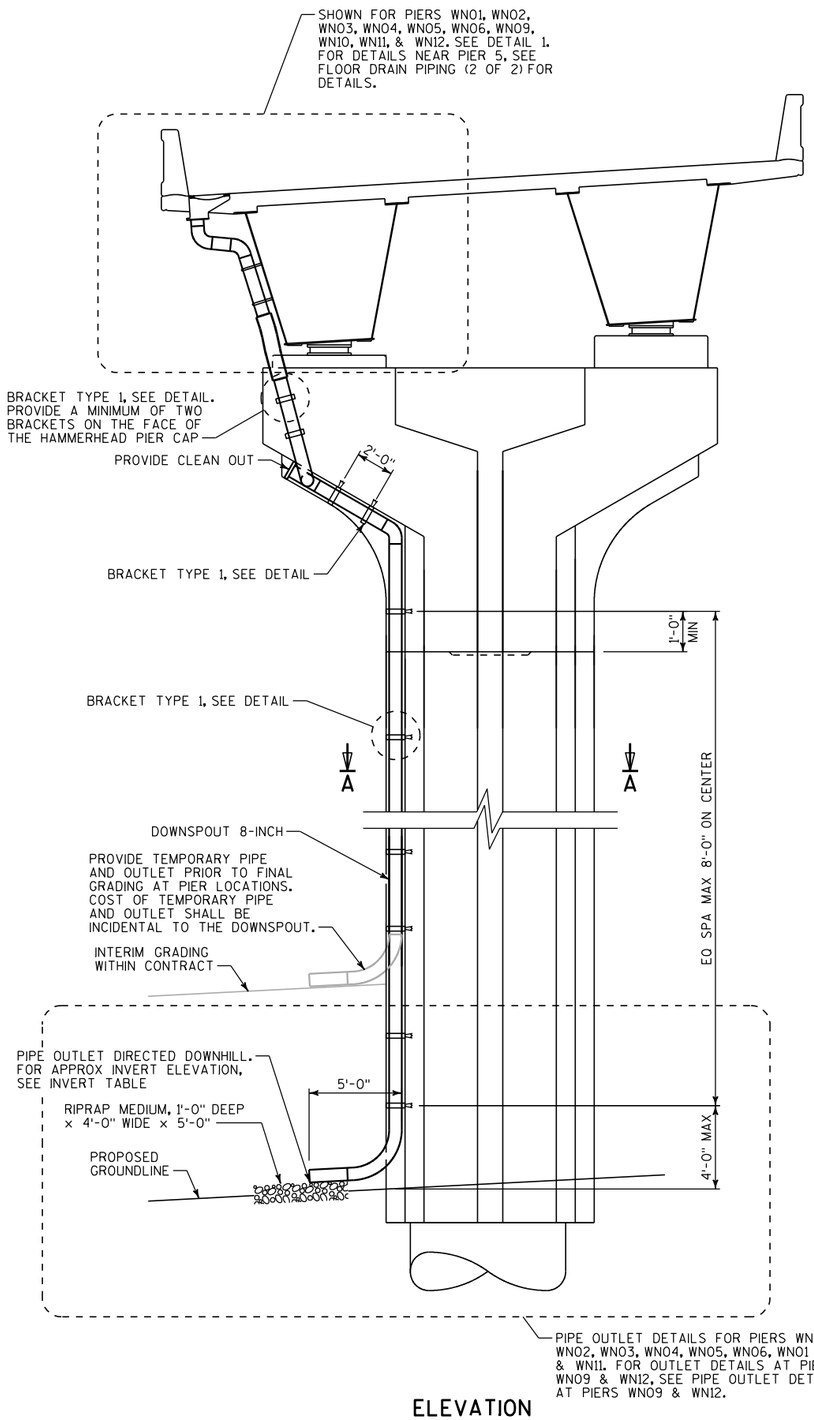
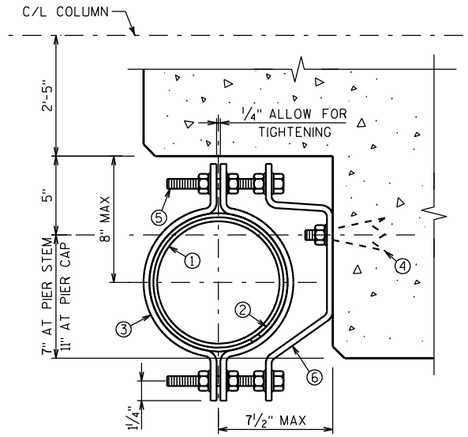


ELEVATION

LOOKING UPSTATION
TYPICAL PIER DETAILS SHOWN EXCEPT AS NOTED



BRACKET TYPE 1

LEGEND

1. 8" DIA DOWNSPOUT
2. 6" LONG SPLIT RTRP STRIP, BOND TO #1, PLACE AT ALL BRACKET LOCATIONS
3. 2½" X ⅜" BAR
4. ⅝" DIA TYPE S ANCHOR WITH 1 NUT & 1 WASHER LOCATED TO AVOID CONFLICT WITH REINFORCEMENT IN PIER
5. ⅝" DIA HEADED BOLT WITH 3 NUTS & 4 WASHERS
6. 2½" X ⅜" BAR WITH 11/16 " X 1 9/16" HORIZ SLOTTED HOLE AT MASONRY ANCHOR

NOTES

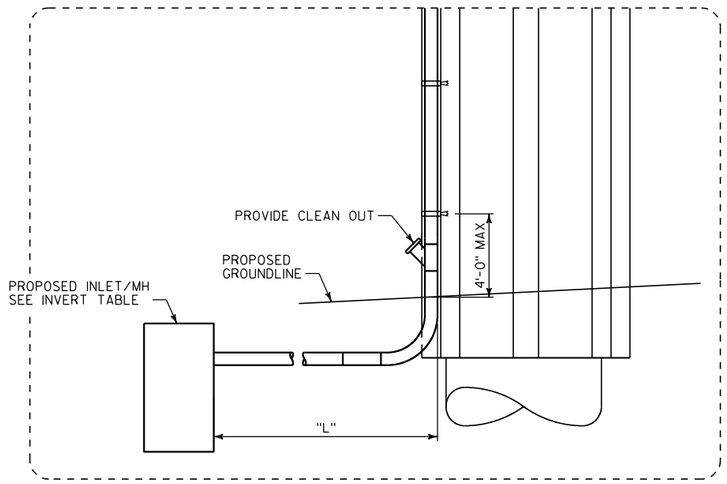
FOR FLOOR DRAIN LOCATIONS, SEE DECK REINFORCEMENT SHEETS.

INSTALL PIPING AT THE STEEPEST GRADE POSSIBLE, MINIMUM 2 PERCENT.

ALL FITTINGS, ELBOWS, CLEANOUTS, MASONRY ANCHORS, BOLTS, AND OTHER HARDWARE REQUIRED FOR MOUNTING THE DOWNSPOUT SHALL BE INCLUDED IN PAYMENT FOR "DOWNSPOUT 8-INCH".

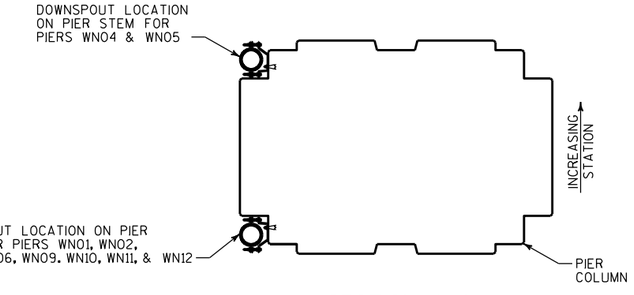
ALL DOWNSPOUT PIPE SHALL BE COLOR MATCHED TO THE OBJECT IT IS ATTACHED TO. FOR SECTIONS ATTACHED TO STEEL TUB GIRDER USE SHERWIN WILLIAMS COLOR WS6523. FOR SECTIONS ATTACHED TO CONCRETE PIER COLUMN USE FEDERAL COLOR 33564.

ALL FASTENERS, INCLUDING BOLTS, NUTS, WASHERS, AND MASONRY ANCHORS, SHALL BE STAINLESS STEEL MEETING THE MATERIAL REQUIREMENTS IN THE STANDARD SPECIFICATIONS. BARS SHALL BE STAINLESS STEEL MEETING ASTM A276, TYPE 304.



PIPE OUTLET DETAILS AT PIERS WN09 & WN12

INVERT TABLE			
LOCATION	INVERT ELEV	INLET NO	"L"
PIER WN01	754.00	-	-
PIER WN02	758.00	-	-
PIER WN03	771.50	-	-
PIER WN04	760.50	-	-
PIER WN05	748.00	-	-
PIER WN06	741.50	-	-
PIER WN09	-	Z3102	12'-0"
PIER WN10	765.50	-	-
PIER WN11	760.00	-	-
PIER WN12	-	Z2918	24'-0"



SECTION A-A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

FLOOR DRAIN PIPING (1 OF 2)

SHEET 115 OF 119

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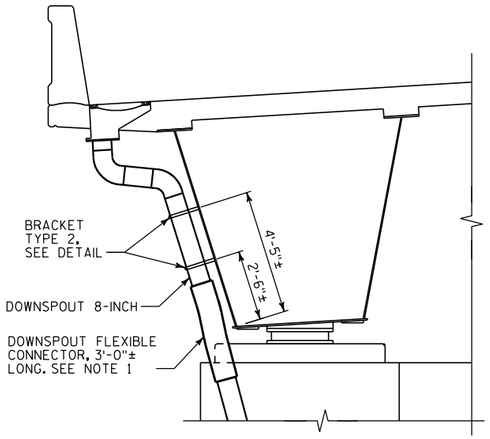
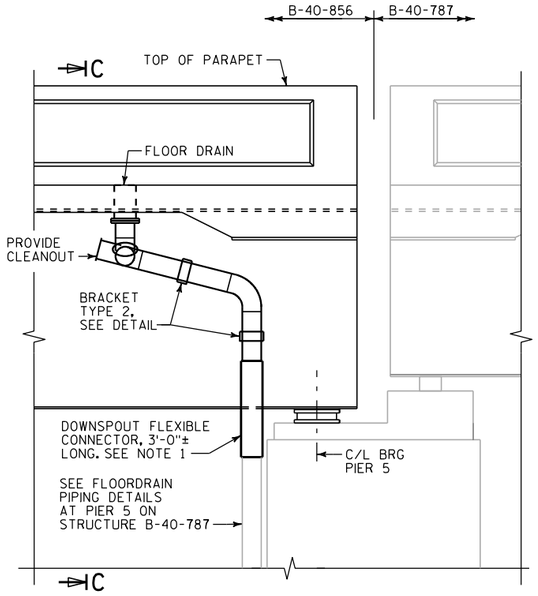
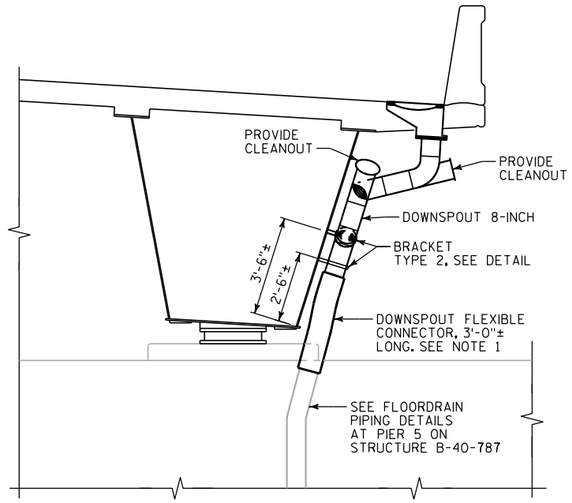


DETAIL 1



PARTIAL ELEVATION - NEAR PIER 5

LOOKING SOUTH

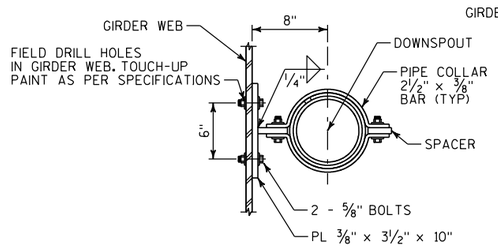


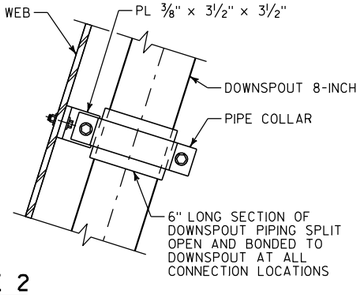
SECTION C-C

LOOKING WEST

NOTES

1. PROVIDE FLEXIBLE CONNECTOR THAT IS CAPABLE OF HANDLING THE MOVEMENT GIVEN ON THE BEARING LAYOUT SHEETS. THE MOVEMENT RANGE SHALL PROVIDE FOR TWO WAY MOVEMENT.





BRACKET TYPE 2

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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DRAWN BY GLM | PLANS CK'D. WRT

FLOOR DRAIN
PIPING
(2 OF 2)

SHEET 116 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080580_rp.dgn
PLOT DATE : 13-MAY-2015 16:10
PLOT BY : MSCBKS
PLOT NAME : B856_080580_rp
PLOT SCALE : 16:1

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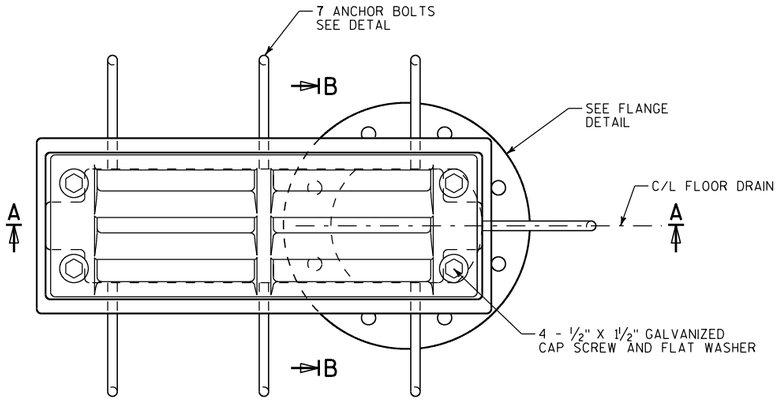
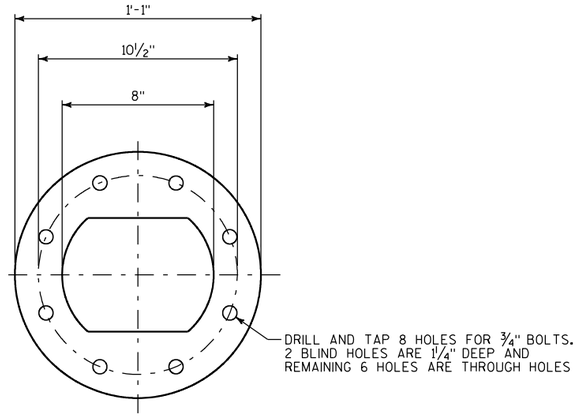
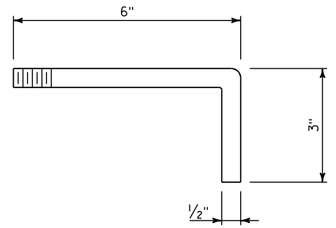


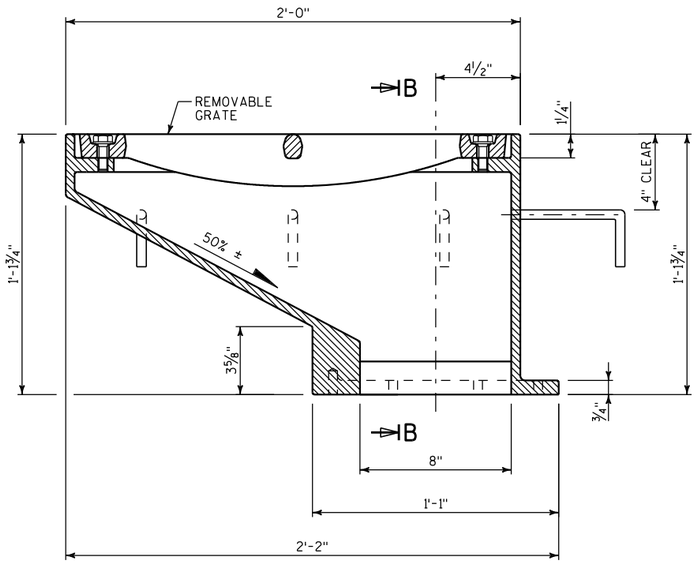
PLAN



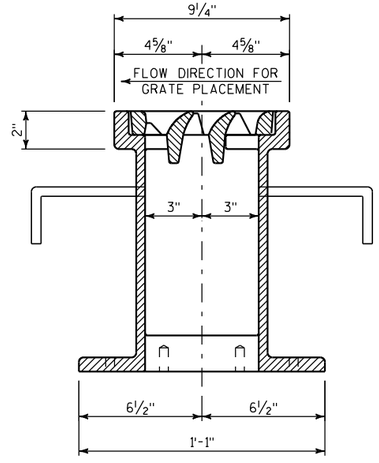
PLAN - FLANGE



ANCHOR BOLT DETAIL



SECTION A-A



SECTION B-B

NOTES

1. THE DRAIN CASTING SHOWN IS BASED ON PART NUMBER R-3921-V1 FROM THE NEENAH FOUNDRY COMPANY WITH MODIFICATIONS AS REQUIRED TO PERMIT AN 8" DOWNSPOUT TO BE USED.
2. A FABRICATED DRAIN ASSEMBLY MAY BE SUBSTITUTED IF THE HYDRAULIC PROPERTIES OF THE SPECIFIED CASTING CAN BE MAINTAINED. IF THE GEOMETRY OF THE PLACEMENT IS ACCEPTABLE AND IF APPROVED BY THE ENGINEER. FABRICATED DRAINS SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A153.

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STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

FLOOR DRAIN
SPECIAL

SHEET 117 OF 119

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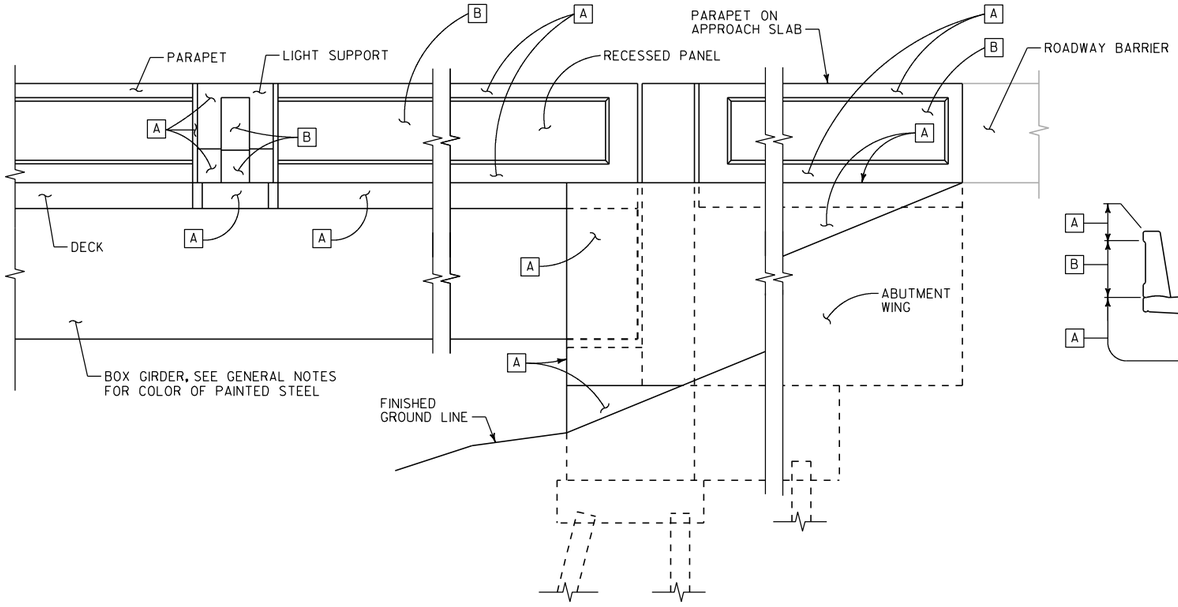


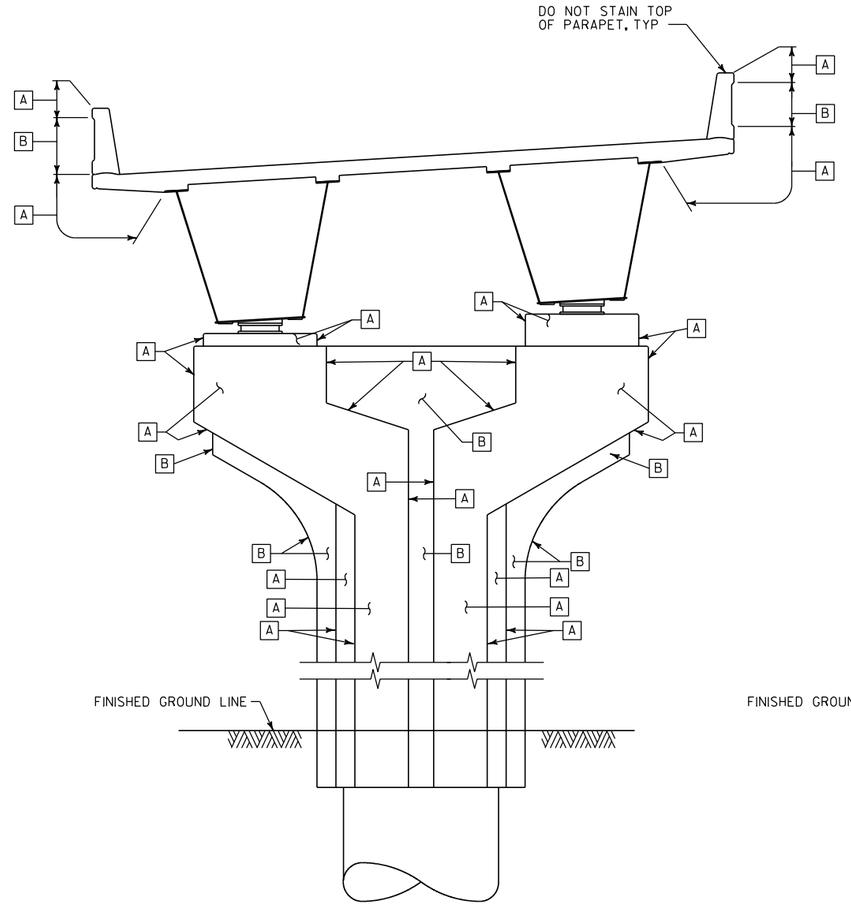
OUTSIDE ELEVATION OF RIGHT PARAPET

(LEFT PARAPET SIMILAR)

CONCRETE STAINING SCHEDULE

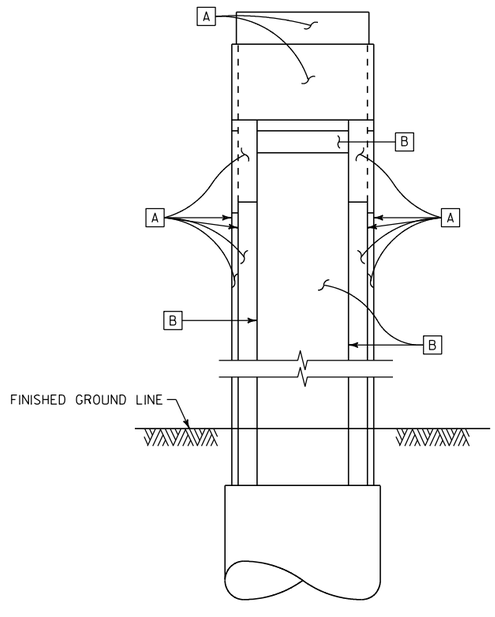
MARK	COLOR	LOCATION	NOTES
A	BASE COLOR	PARAPETS	EXTERIOR FACE, EXCEPT AS NOTED FOR ACCENT COLORS.
		DECK	FASCIA AND EXPOSED UNDERSIDE TO EXTERIOR GIRDER FLANGE.
		APPROACH SLAB	FASCIA AND UNDERSIDE OF COPING
		ABUTMENT	FRONT FACE OF BEAM SEAT FROM TOP OF ABUTMENT TO 1 FOOT BELOW FINISHED GRADE, EXTERIOR EXPOSED FACE OF ABUTMENT BEAM SEAT, FRONT FACE AND EXTERIOR EXPOSED FACE OF WING, AND EACH SIDE OF GIRDER PEDESTAL.
		PIER	SIDES OF GIRDER PEDESTALS, SIDES AND BOTTOM OF CAP BEAM AND STEM TO 1 FOOT BELOW FINISHED GROUND LINE, EXCEPT AS NOTED FOR ACCENT COLORS.
B	ACCENT COLOR #1	PARAPETS	RECESSED PANELS ON EXTERIOR FACE.
		PIERS	RECESS AREAS AND REVEALS ON PIERS.

THE FINAL COLOR OF THE CONCRTE FOLLOWING APPLICATION OF
THE STAIN SYSTEM SHALL MATCH THE COLORS LISTED BELOW:
BASE COLOR: FEDERAL COLOR - 33564
ACCENT COLOR #1: FEDERAL COLOR - 33448



ELEVATION OF PIER

(LOOKING UP STATION)



END VIEW OF PIER

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STRUCTURE B-40-856

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AESTHETIC DETAILS

SHEET 118 OF 119

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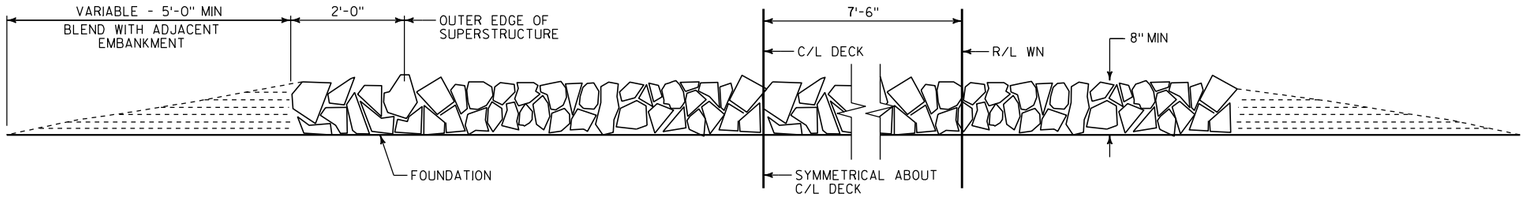
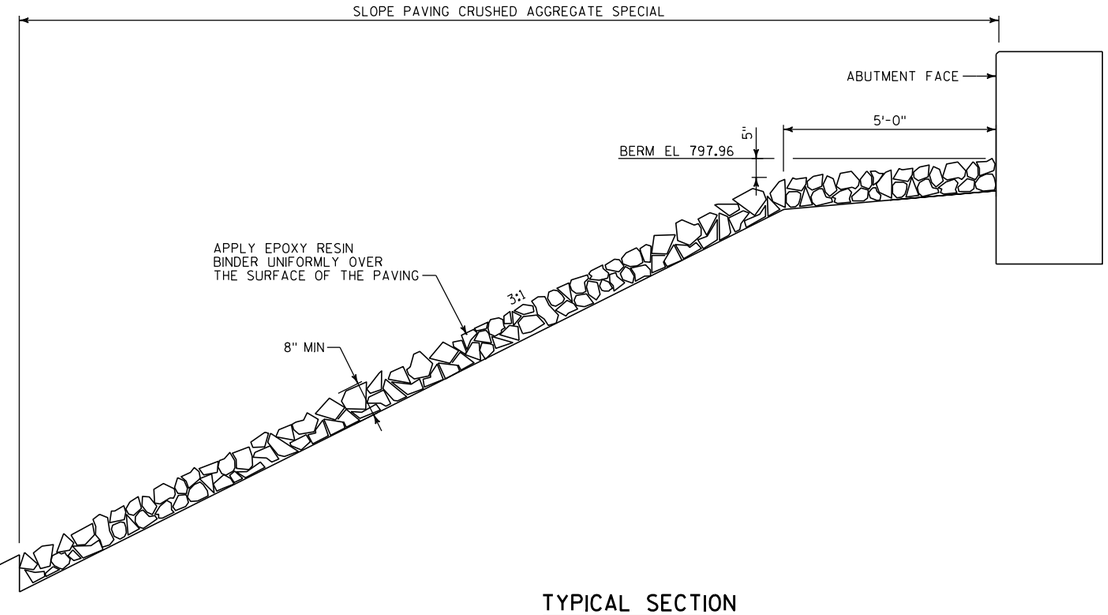
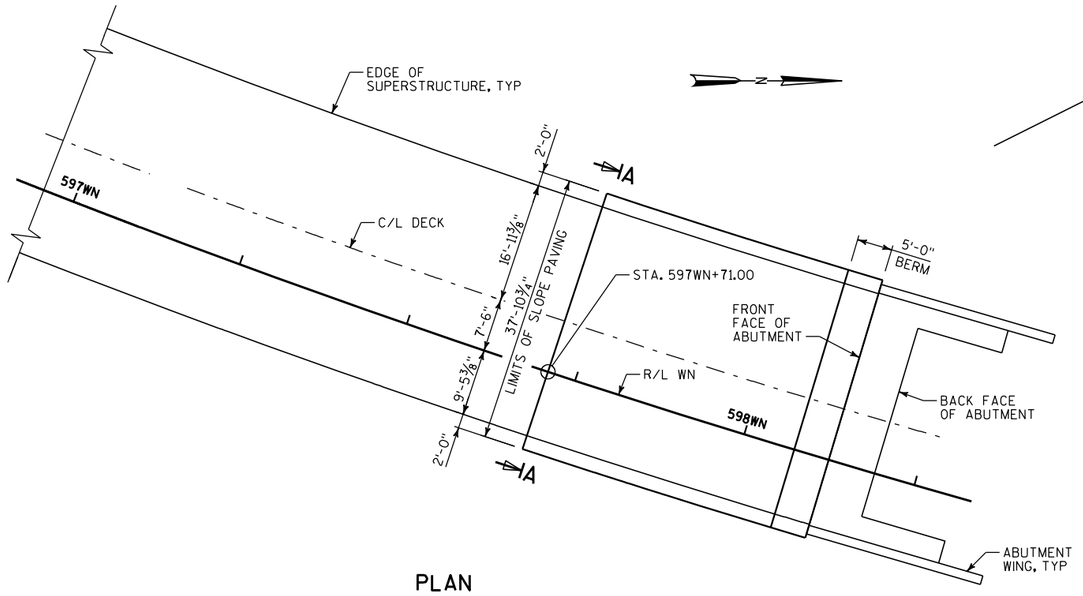
1060-33-81



SECTION A-A



TYPICAL SECTION



PLAN

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

SLOPE PAVING DETAILS

SHEET 119 OF 119

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Mandatory\B856_080583_rp.dgn
PLOT DATE : 13-MAY-2015 16:10
PLOT BY : MSCBKS
PLOT NAME : B856_080583_rp
PLOT SCALE : 10.666667:1

STATE PROJECT NUMBER
1060-33-81

ESTIMATED QUANTITIES - PIER OPTION A

ITEM CATEGORY	ITEM NO.	BID ITEMS	UNIT	PIER WN01	PIER WN02	PIER WN03	PIER WN04	PIER WN05	PIER WN06	PIER WN07	PIER WN08	PIER WN09	PIER WN10	PIER WN11	PIER WN12	TOTAL
2111	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-40-856	LS	---	---	---	---	---	---	---	---	---	---	---	---	1
2111	209.0100	BACKFILL GRANULAR	CY	---	---	---	19	22	22	10	---	---	---	---	---	73
2111	502.0100	CONCRETE MASONRY BRIDGES	CY	155.0	200.0	186.0	249.0	297.0	321.0	278.0	269.0	270.0	233.0	218.0	152.0	2,828
2111	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	34,340	21,840	33,240	28,010	21,840	32,800	24,030	27,540	21,840	28,410	21,840	29,480	325,210
2111	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	32,540	51,070	43,480	58,620	74,230	78,670	65,550	64,050	64,050	57,280	54,490	31,710	675,740
2111	511.1200.0003	TEMPORARY SHORING B-40-856	SF	---	---	---	555	1,270	---	---	---	---	620	---	---	2,445
2111	SPV.0060.4150	DRILLED FOUNDATION SHAFT BASE GROUTING	EACH	1	1	1	1	1	1	1	1	1	1	1	1	12
2111	SPV.0060.4160	THERMAL INTEGRITY PROFILER (TIP) TESTING DRILLED FOUNDATION SHAFT 98.43-INCH	EACH	1	---	---	---	---	---	---	---	---	---	---	1	2
2111	SPV.0060.4162	THERMAL INTEGRITY PROFILER (TIP) TESTING DRILLED FOUNDATION SHAFT 118.11-INCH	EACH	---	1	1	1	1	1	1	1	1	1	1	---	10
2111	SPV.0060.4181	BAR COUPLERS NO. 18	EACH	---	---	30	30	---	30	---	30	---	30	---	---	150
2111	SPV.0075.4200	OBSTRUCTIONS DRILLED FOUNDATION SHAFT	HRS	4	4	4	4	4	4	4	4	4	4	4	4	48
2111	SPV.0090.4435	DRILLED FOUNDATION SHAFT 98.43-INCH	LF	65	---	---	---	---	---	---	---	---	---	---	50	115
2111	SPV.0090.4440	DRILLED FOUNDATION SHAFT 118.11-INCH	LF	---	50	76	64	50	75	55	63	50	65	50	---	598

NOTES

THIS CONTRACT CONTAINS TWO OPTIONS FOR PIER CONSTRUCTION.
THE CONTRACTOR MUST BID EITHER OPTION A OR OPTION B.

ITEMS ON THIS SHEET ARE FOR PIER OPTION A ONLY. FOR ADDITIONAL ITEMS AND QUANTITIES, SEE SHEET 5.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

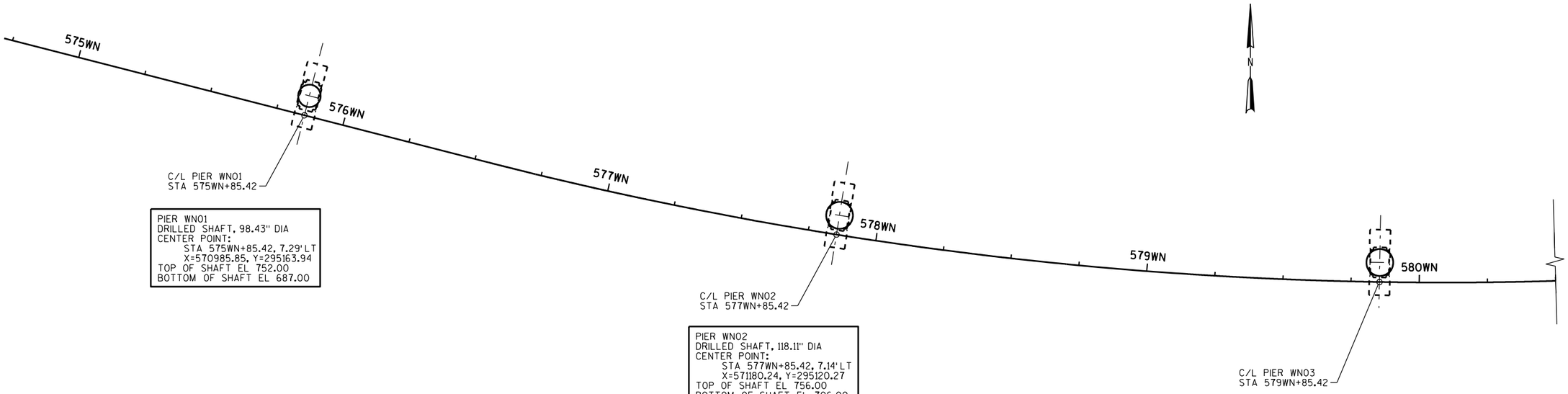
DRAWN BY GLM | PLANS CK'D. WRT

OPTION A QUANTITIES

SHEET A1 OF A35

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option A\B856_080101A_qu.dgn
PLOT DATE : 13-MAY-2015 13:58
PLOT BY : MSCBKS
PLOT NAME : B856_080101A_qu
PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

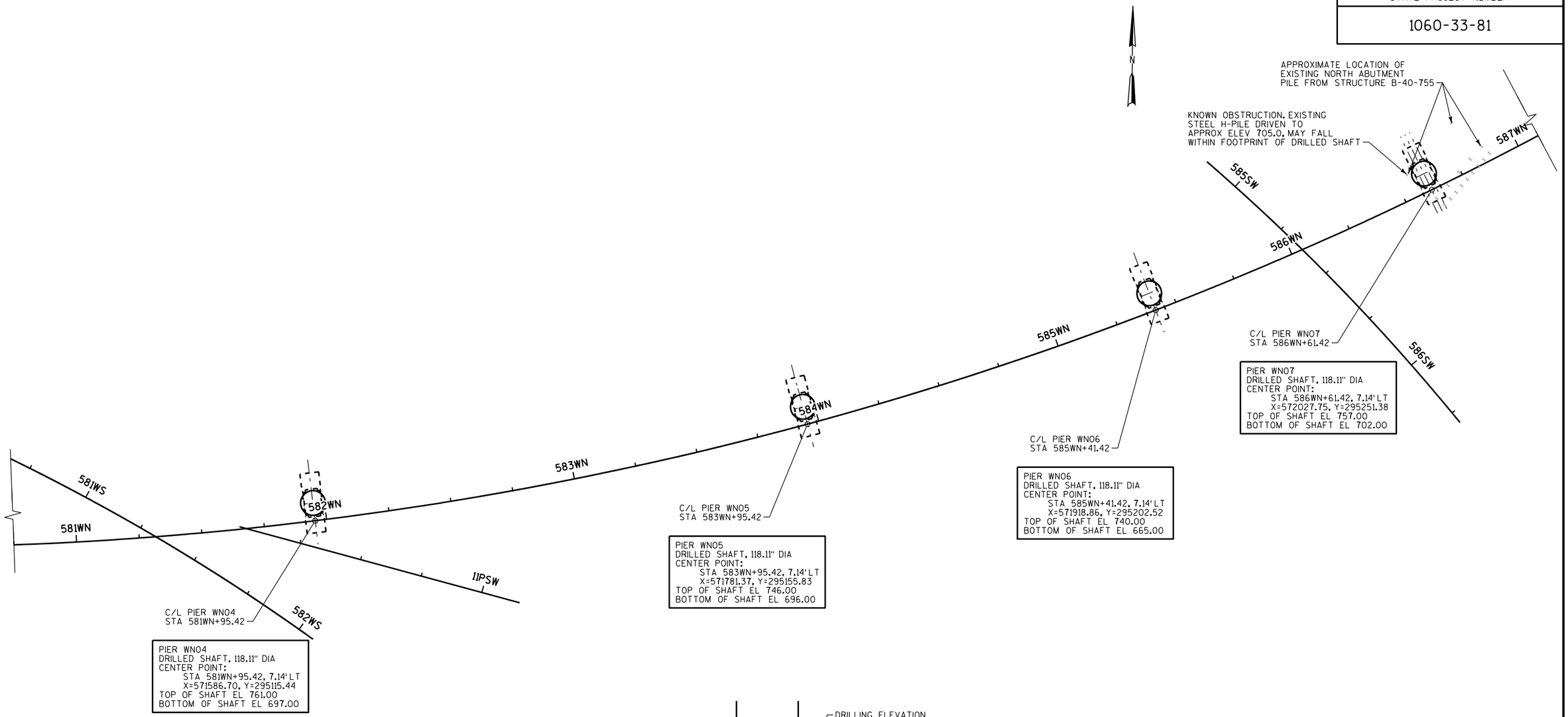
STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION A
FOUNDATION
LAYOUT (1 OF 4)

SHEET A2 OF A35

STATE PROJECT NUMBER
1060-33-81

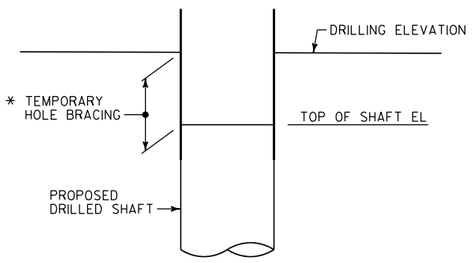


PIER WN07
DRILLED SHAFT, 118.11" DIA
CENTER POINT:
STA 586WN+61.42, 7.14' LT
X=572027.75, Y=295251.38
TOP OF SHAFT EL 757.00
BOTTOM OF SHAFT EL 702.00

PIER WN06
DRILLED SHAFT, 118.11" DIA
CENTER POINT:
STA 585WN+41.42, 7.14' LT
X=571918.86, Y=295202.52
TOP OF SHAFT EL 740.00
BOTTOM OF SHAFT EL 665.00

PIER WN05
DRILLED SHAFT, 118.11" DIA
CENTER POINT:
STA 583WN+95.42, 7.14' LT
X=571781.37, Y=295155.83
TOP OF SHAFT EL 746.00
BOTTOM OF SHAFT EL 696.00

PIER WN04
DRILLED SHAFT, 118.11" DIA
CENTER POINT:
STA 581WN+95.42, 7.14' LT
X=571586.70, Y=295115.44
TOP OF SHAFT EL 761.00
BOTTOM OF SHAFT EL 697.00



TEMPORARY HOLE BRACING

AT PIERS WN04 & WN05

* TEMPORARY HOLE BRACING MAY CONSIST OF SLIP-IN CASING OR OTHER APPROVED METHOD. COST OF TEMPORARY HOLE BRACING SHALL BE INCLUDED WITH COST OF "EXCAVATION FOR STRUCTURES BRIDGES B-40-856".

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

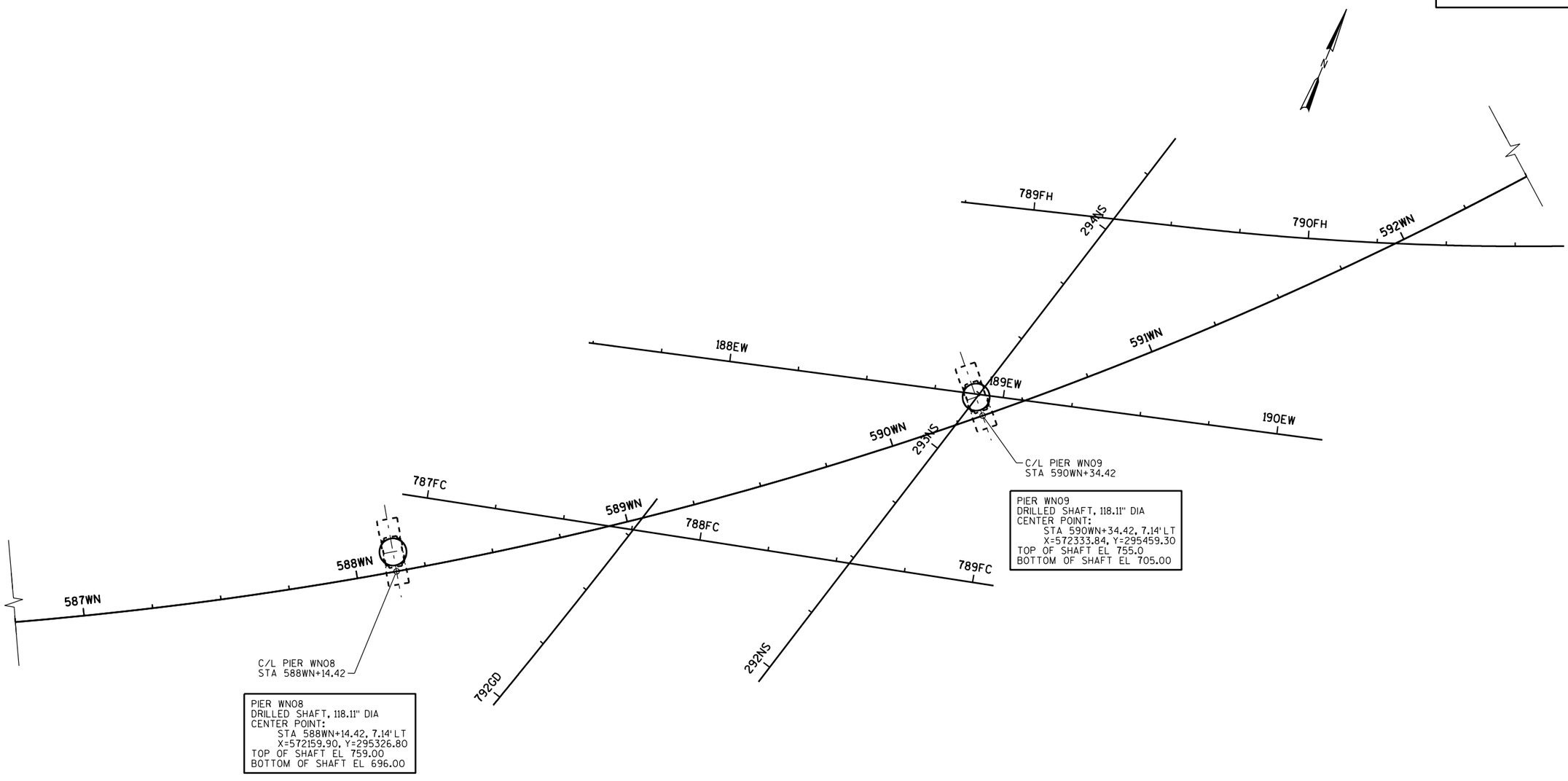
STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION A
FOUNDATION
LAYOUT (2 OF 4)

SHEET A3 OF A35

STATE PROJECT NUMBER
1060-33-81



PIER WN09
DRILLED SHAFT, 118.11" DIA
CENTER POINT:
STA 590WN+34.42, 7.14' LT
X=572333.84, Y=295459.30
TOP OF SHAFT EL 755.0
BOTTOM OF SHAFT EL 705.00

PIER WN08
DRILLED SHAFT, 118.11" DIA
CENTER POINT:
STA 588WN+14.42, 7.14' LT
X=572159.90, Y=295326.80
TOP OF SHAFT EL 759.00
BOTTOM OF SHAFT EL 696.00

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

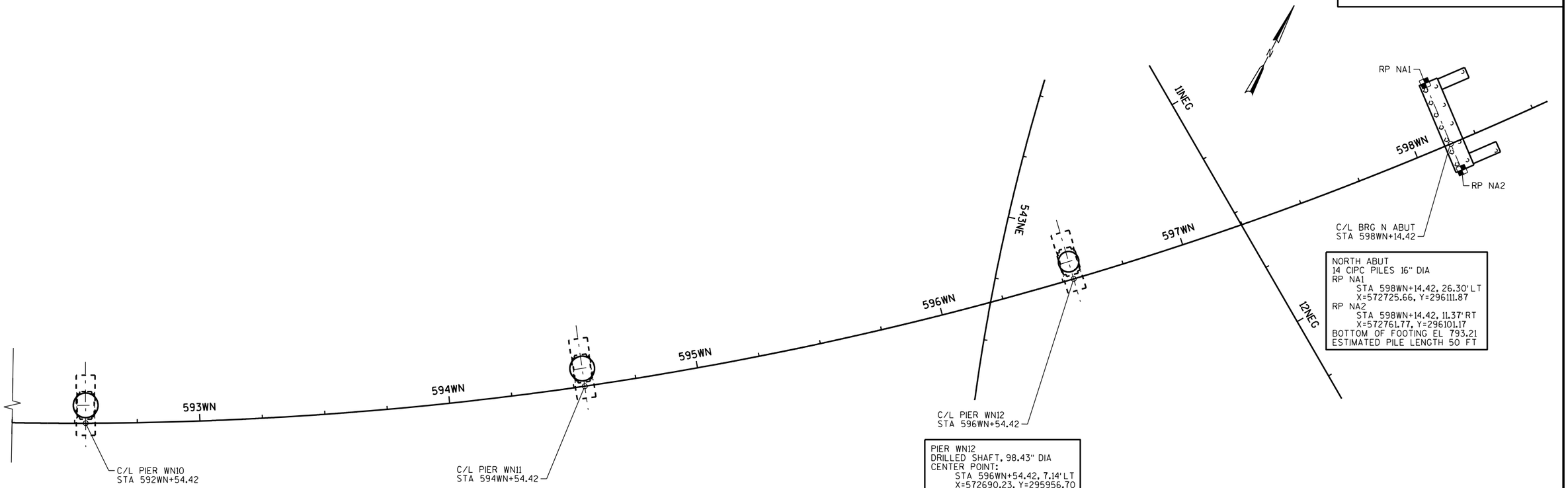
DRAWN BY GLM | PLANS CK'D. WRT

OPTION A
FOUNDATION
LAYOUT (3 OF 4)

SHEET A4 OF A35

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option A\B856_080104A_f1.dgn
PLOT DATE : 13-MAY-2015 13:58
PLOT BY : MSCBKS
PLOT NAME : B856_080104A_f1
PLOT SCALE : 40:1

STATE PROJECT NUMBER
1060-33-81



NORTH ABUT
14 CIPC PILES 16" DIA
RP NA1
STA 598WN+14.42, 26.30' LT
X=572725.66, Y=296111.87
RP NA2
STA 598WN+14.42, 11.37' RT
X=572761.77, Y=296101.17
BOTTOM OF FOOTING EL 793.21
ESTIMATED PILE LENGTH 50 FT

PIER WN10
DRILLED SHAFT, 118.11" DIA
CENTER POINT:
STA 592WN+54.42, 7.14' LT
X=572485.06, Y=295617.24
TOP OF SHAFT EL 761.00
BOTTOM OF SHAFT EL 696.00

PIER WN11
DRILLED SHAFT, 118.11" DIA
CENTER POINT:
STA 594WN+54.42, 7.14' LT
X=572599.71, Y=295779.68
TOP OF SHAFT EL 758.00
BOTTOM OF SHAFT EL 708.00

PIER WN12
DRILLED SHAFT, 98.43" DIA
CENTER POINT:
STA 596WN+54.42, 7.14' LT
X=572690.23, Y=295956.70
TOP OF SHAFT EL 763.00
BOTTOM OF SHAFT EL 713.00

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

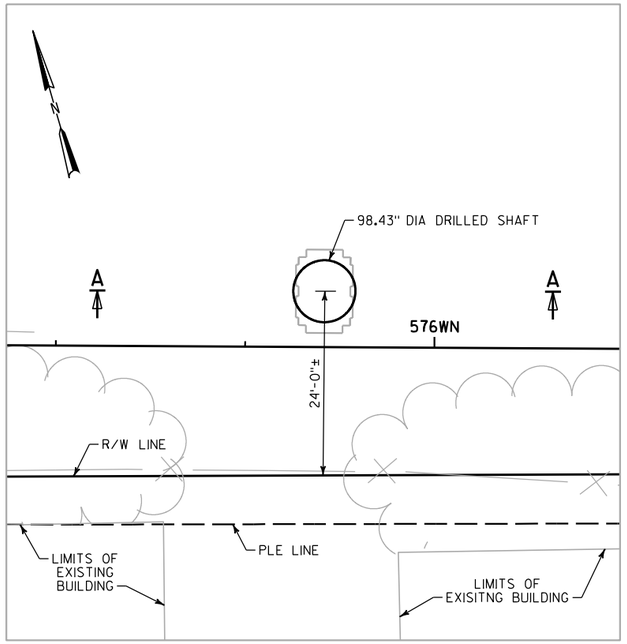
STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION A
FOUNDATION
LAYOUT (4 OF 4)

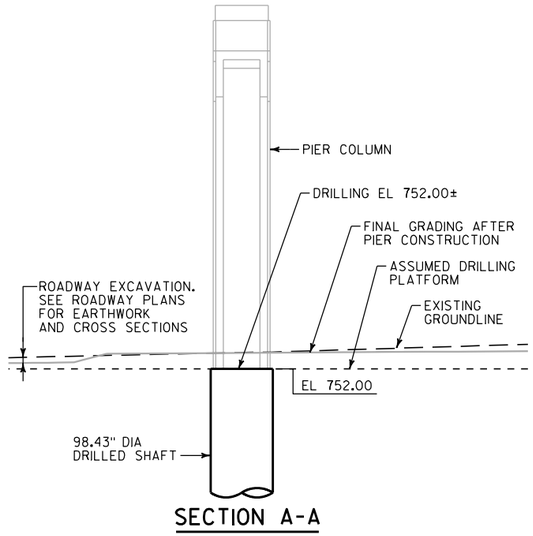
SHEET A5 OF A35

STATE PROJECT NUMBER
1060-33-81

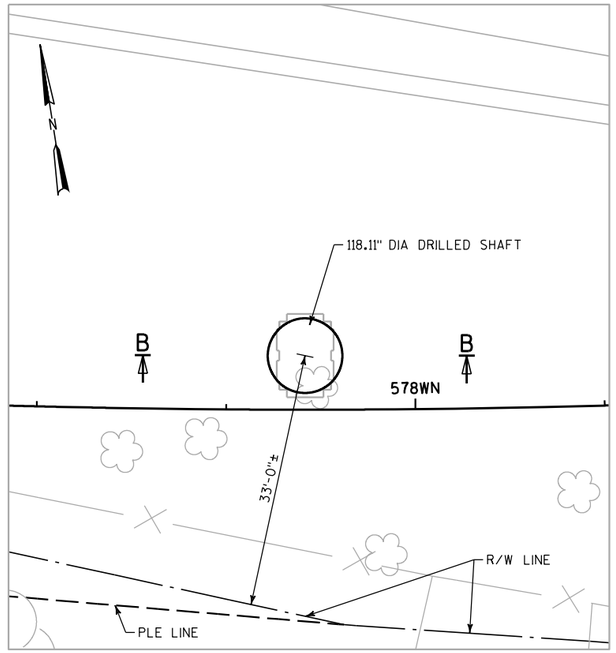


EXCAVATION PLAN - PIER WN01

STA 575WN+85.42

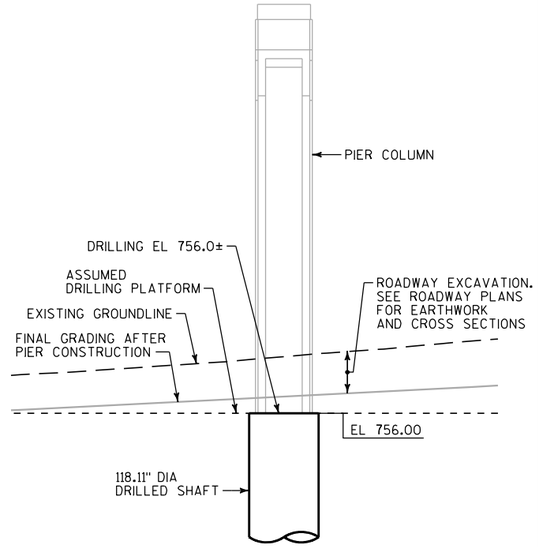


SECTION A-A

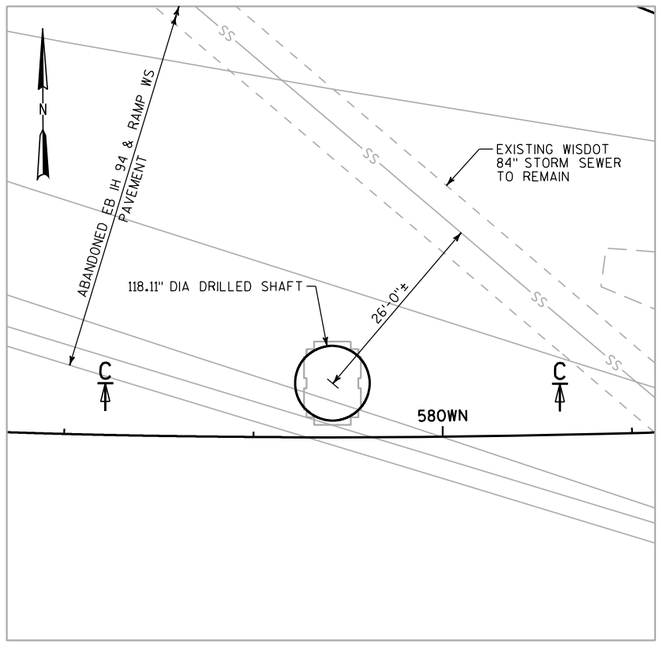


EXCAVATION PLAN - PIER WN02

STA 577WN+85.42

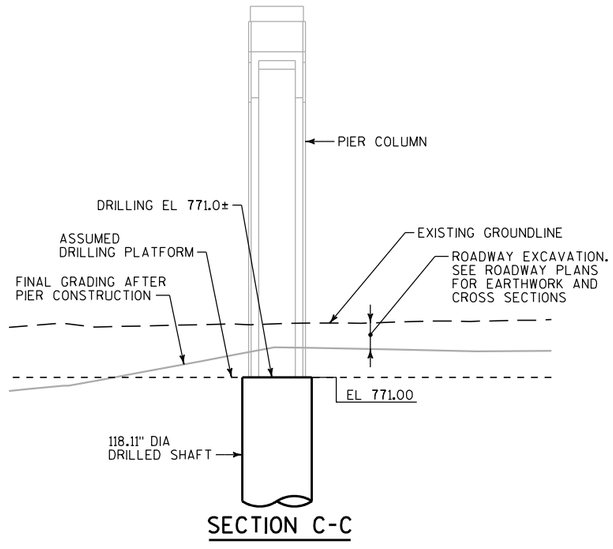


SECTION B-B



EXCAVATION PLAN - PIER WN03

STA 579WN+85.42



SECTION C-C

NOTES

THIS DRAWING IS INTENDED TO PROVIDE A REFERENCE FOR ASSUMED EXCAVATION LIMITS AND TEMPORARY SHORING REQUIREMENTS. THIS DRAWING IS NOT ALL-INCLUSIVE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	BKS

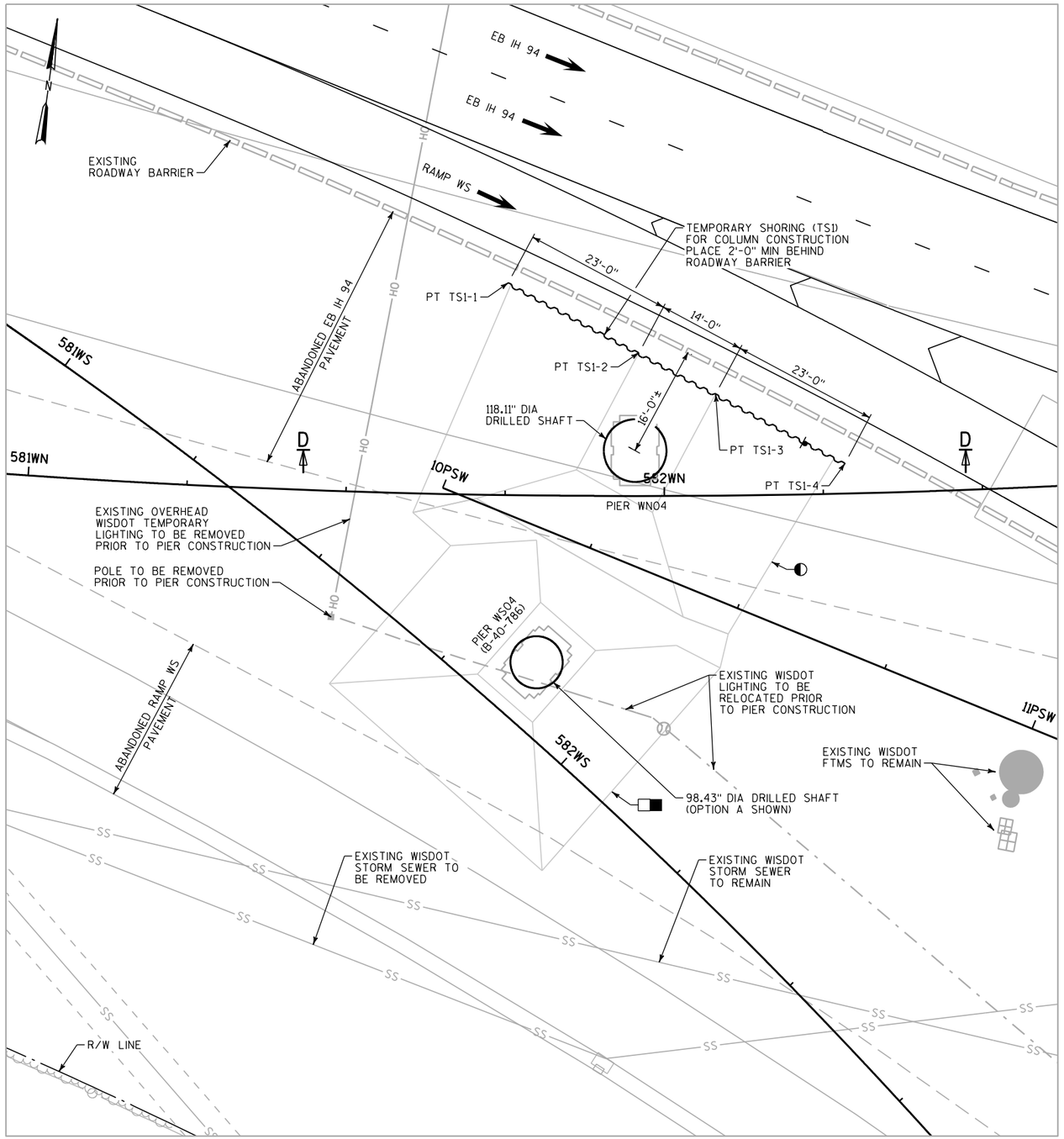
OPTION A
EXCAVATION PLAN
(1 OF 8)

SHEET A6 OF A35

8

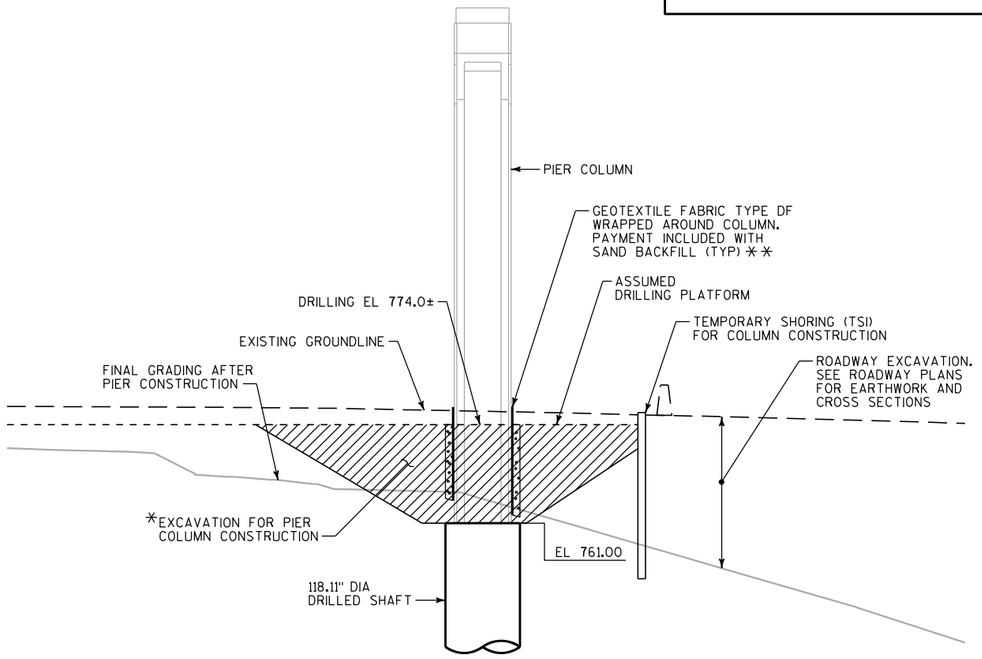
8

STATE PROJECT NUMBER
1060-33-81



EXCAVATION PLAN - PIER WN04

STA 581WN+95.42



SECTION D-D

* THE EXCAVATION PLAN ASSUMES THAT THE CONTRACTOR WILL BACKFILL THE EXCAVATION AFTER COLUMN CONSTRUCTION AND IN A LATER CONSTRUCTION STAGE EXCAVATE DOWN TO FINAL GRADING. A LEVEL WORKING PLATFORM NEAR THE PIER MAY BE NEEDED FOR GIRDER ERECTION. THE COST OF BACKFILLING THE EXCAVATION IS INCLUDED IN THE STRUCTURE EXCAVATION BID ITEM.

** REQUIRED ONLY IF THE CONTRACTOR BACKFILLS THE EXCAVATION AFTER COLUMN CONSTRUCTION.

POINT LOCATION	EXPOSED HEIGHT ◥
TS1-1	0'-0"
TS1-2	15'-0"
TS1-3	15'-0"
TS1-4	0'-0"

LEGEND

- EXCAVATION FOR STRUCTURES
- 1'-0" SAND BACKFILL AROUND COLUMN PAID FOR AS GRANULAR BACKFILL.
- APPROXIMATE EXCAVATION LIMITS. LIMITS WILL VARY BASED ON THE WORKING AREA REQUIRED AND THE MAXIMUM EXCAVATION SLOPE THAT CAN BE SAFELY MAINTAINED. EXCAVATION ON THESE SHEETS IS INCLUDED IN BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-40-856".
- APPROXIMATE EXCAVATION LIMITS SEE EXCAVATION PLAN FOR STRUCTURE B-40-786 FOR MORE DETAILS.
- APPROXIMATE EXPOSED TEMPORARY SHORING HEIGHTS. HEIGHTS ARE SHOWN FOR INFORMATION ONLY.

NOTES

THIS DRAWING IS INTENDED TO PROVIDE A REFERENCE FOR ASSUMED EXCAVATION LIMITS AND TEMPORARY SHORING REQUIREMENTS. THIS DRAWING IS NOT ALL-INCLUSIVE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. BKS

OPTION A
EXCAVATION PLAN
(2 OF 8)

SHEET A7 OF A35

8

8

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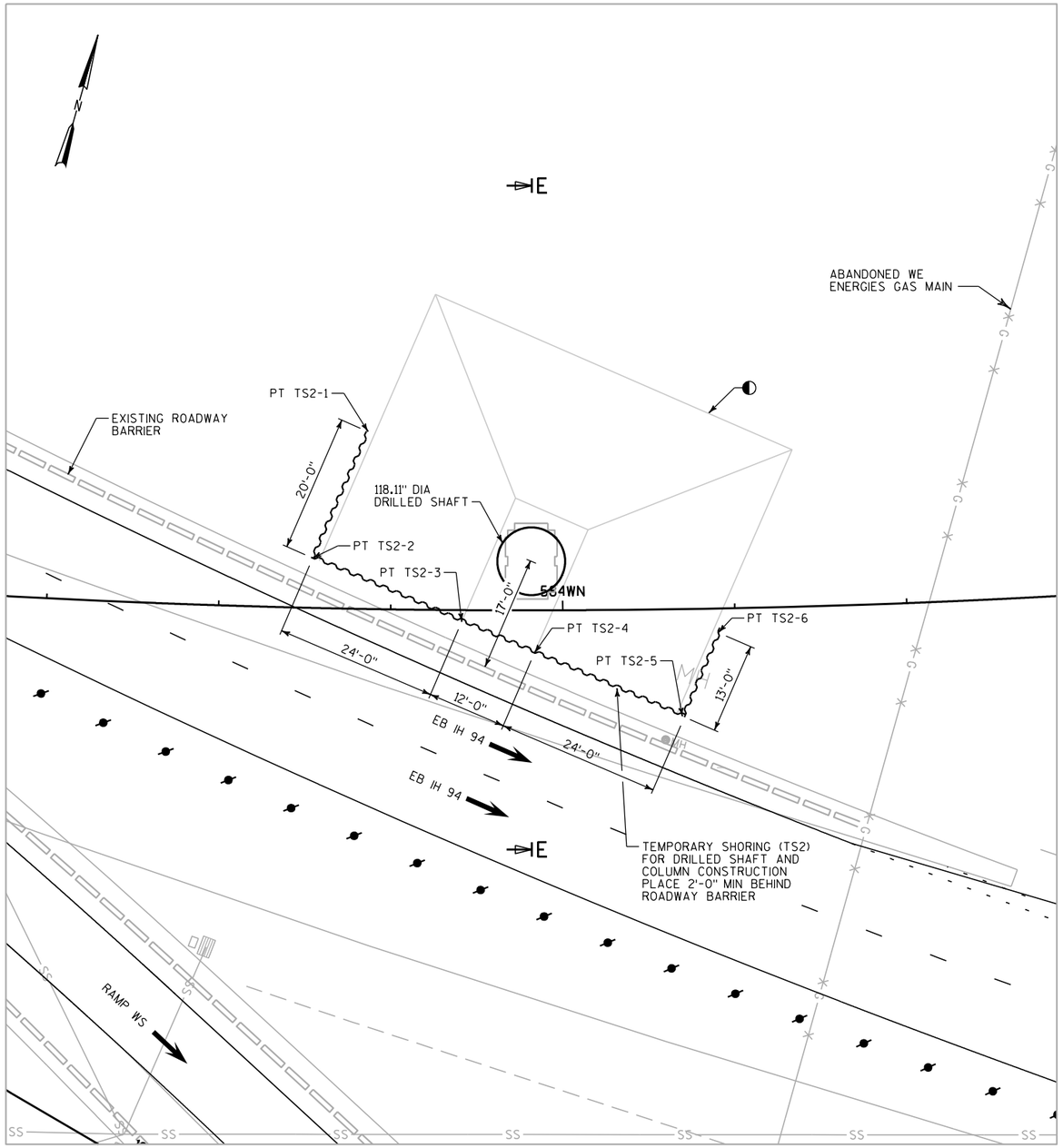
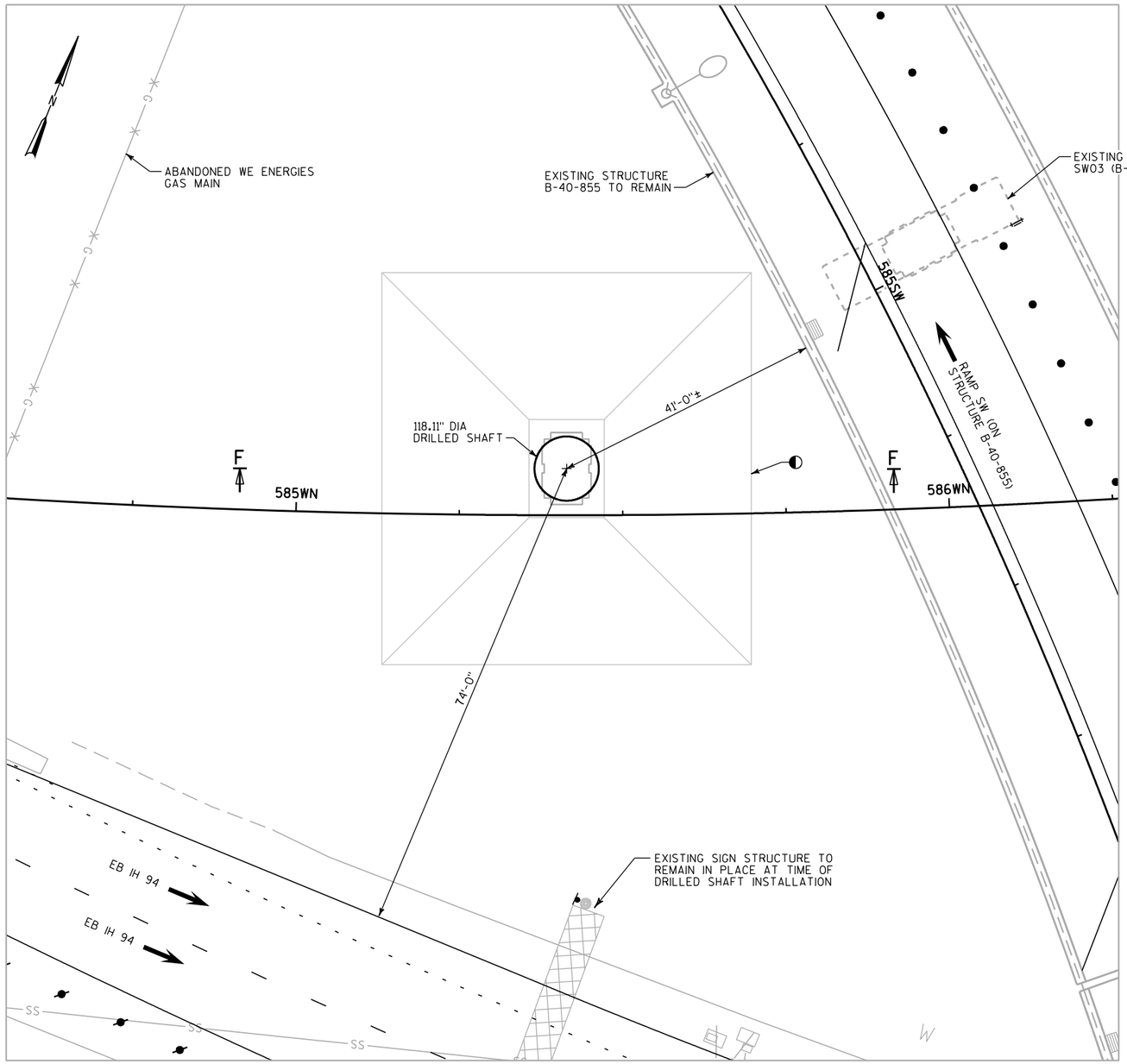
STATE PROJECT NUMBER
1060-33-81

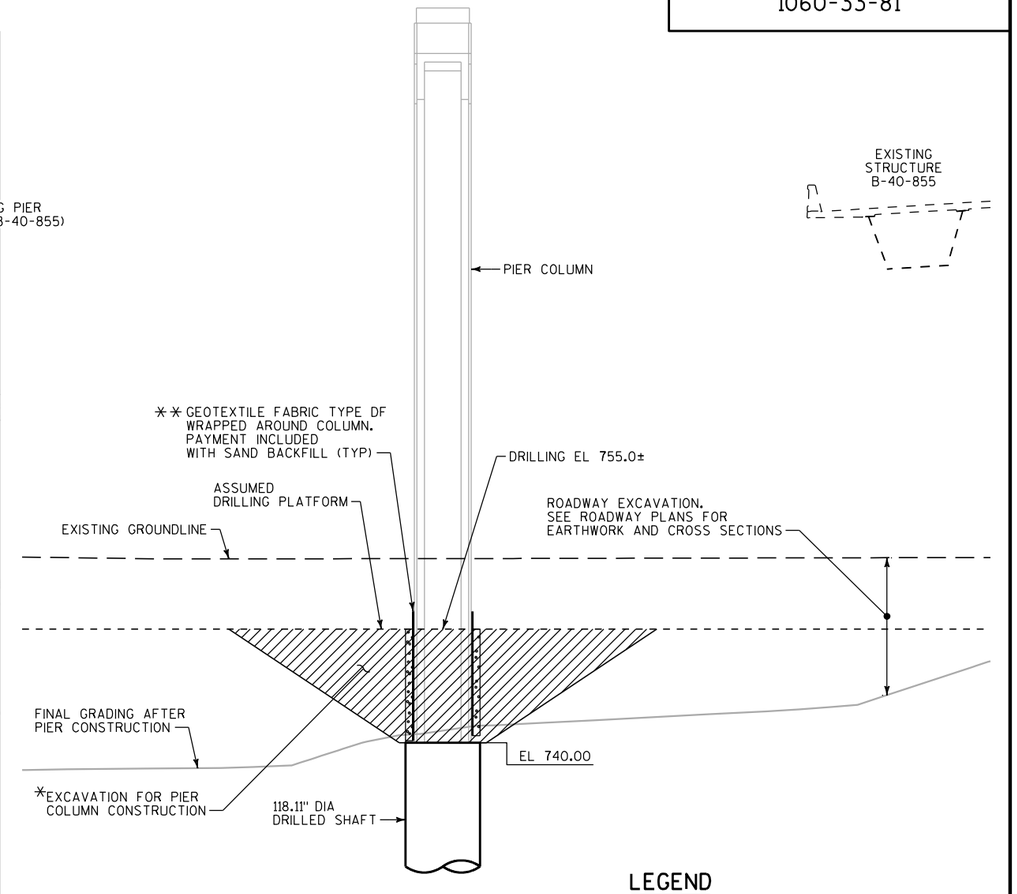

N
℄E
ABANDONED WE ENERGIES GAS MAIN
EXISTING ROADWAY BARRIER
PT TS2-1
20'-0"
118.11" DIA DRILLED SHAFT
PT TS2-2
PT TS2-3
17'-0"
583WN
PT TS2-4
PT TS2-5
PT TS2-6
13'-0"
24'-0"
12'-0"
24'-0"
EB IH 94
EB IH 94
℄E
TEMPORARY SHORING (TS2) FOR DRILLED SHAFT AND COLUMN CONSTRUCTION PLACE 2'-0" MIN BEHIND ROADWAY BARRIER
RAMP WS
SS
SS
S

STATE PROJECT NUMBER
1060-33-81



EXCAVATION PLAN - PIER WN06

STA 585WN+41.42



SECTION F-F

*THE EXCAVATION PLAN ASSUMES THAT THE CONTRACTOR WILL BACKFILL THE EXCAVATION AFTER COLUMN CONSTRUCTION AND IN A LATER CONSTRUCTION STAGE EXCAVATE DOWN TO FINAL GRADING. A LEVEL WORKING PLATFORM NEAR THE PIER MAY BE NEEDED FOR GIRDER ERECTION. THE COST OF BACKFILLING THE EXCAVATION IS INCLUDED IN THE STRUCTURE EXCAVATION BID ITEM.

**REQUIRED ONLY IF THE CONTRACTOR BACKFILLS THE EXCAVATION AFTER COLUMN CONSTRUCTION.

LEGEND

- EXCAVATION FOR STRUCTURES
- 1'-0" SAND BACKFILL AROUND COLUMN PAID FOR AS GRANULAR BACKFILL.
- APPROXIMATE EXCAVATION LIMITS. LIMITS WILL VARY BASED ON THE WORKING AREA REQUIRED AND THE MAXIMUM EXCAVATION SLOPE THAT CAN BE SAFELY MAINTAINED. EXCAVATION ON THESE SHEETS IS INCLUDED IN BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-40-856".

NOTES

THIS DRAWING IS INTENDED TO PROVIDE A REFERENCE FOR ASSUMED EXCAVATION LIMITS AND TEMPORARY SHORING REQUIREMENTS. THIS DRAWING IS NOT ALL-INCLUSIVE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. BKS

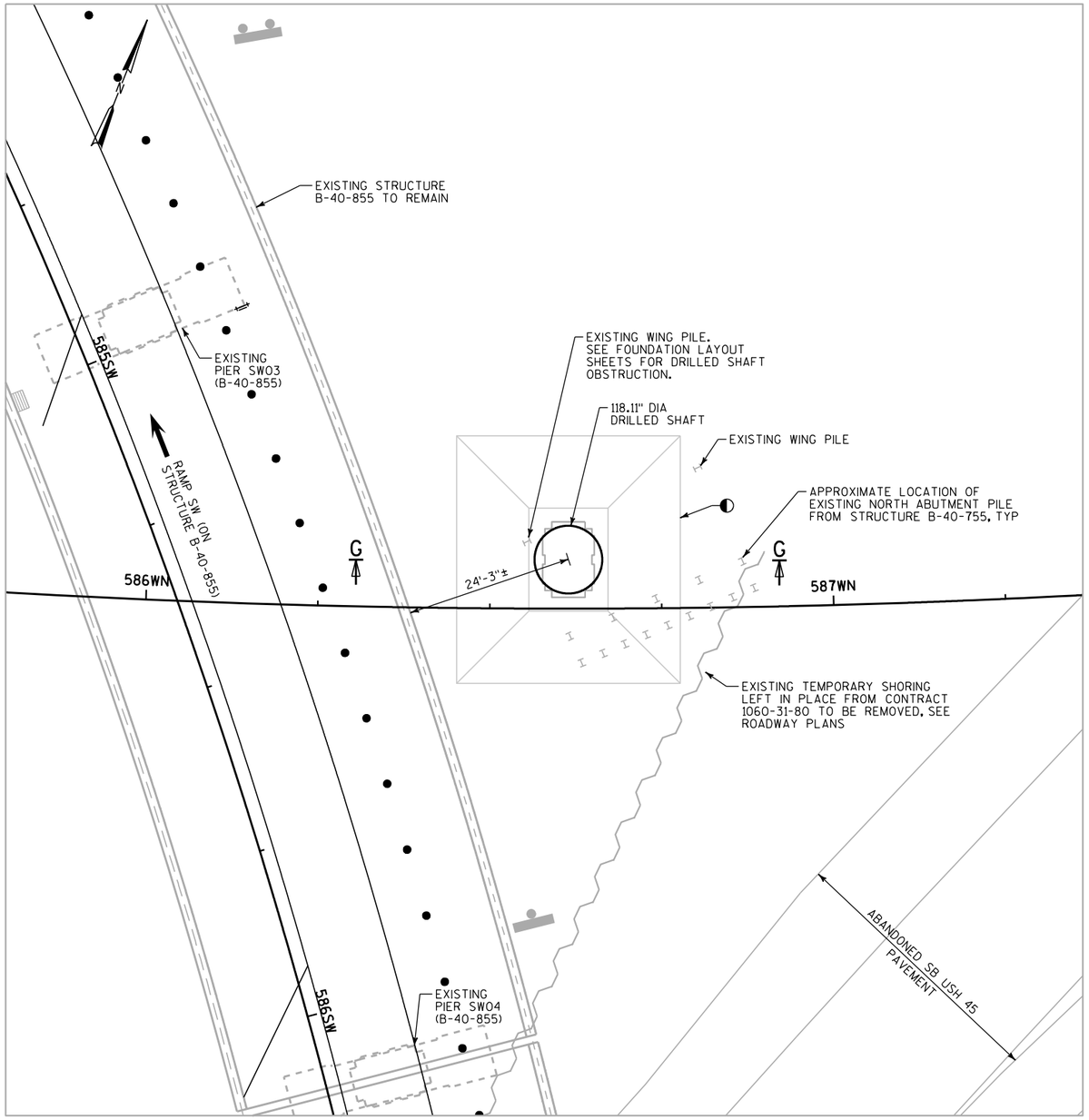
OPTION A
EXCAVATION PLAN
(4 OF 8)

SHEET A9 OF A35

8

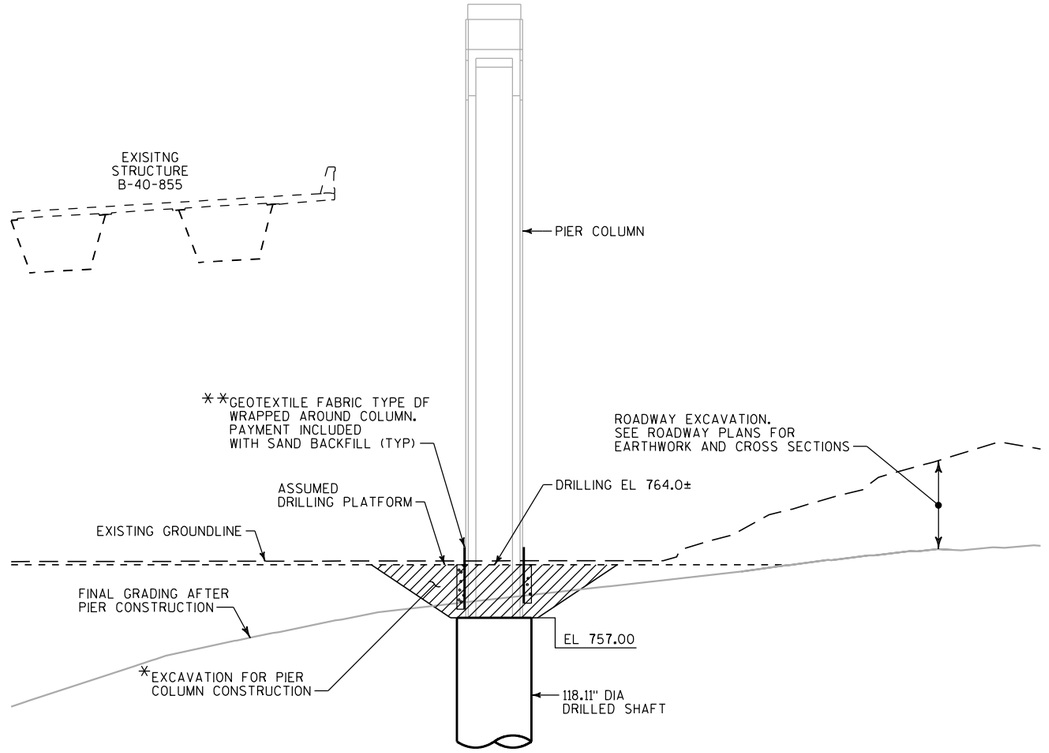
8

STATE PROJECT NUMBER
1060-33-81



EXCAVATION PLAN - PIER WN07

STA 586WN+61.42



SECTION G-G

*THE EXCAVATION PLAN ASSUMES THAT THE CONTRACTOR WILL BACKFILL THE EXCAVATION AFTER COLUMN CONSTRUCTION AND IN A LATER CONSTRUCTION STAGE EXCAVATE DOWN TO FINAL GRADING. A LEVEL WORKING PLATFORM NEAR THE PIER MAY BE NEEDED FOR GIRDER ERECTION. THE COST OF BACKFILLING THE EXCAVATION IS INCLUDED IN THE STRUCTURE EXCAVATION BID ITEM.

**REQUIRED ONLY IF THE CONTRACTOR BACKFILLS THE EXCAVATION AFTER COLUMN CONSTRUCTION.

LEGEND

EXCAVATION FOR STRUCTURES

1'-0" SAND BACKFILL AROUND COLUMN
PAID FOR AS GRANULAR BACKFILL.

APPROXIMATE EXCAVATION LIMITS. LIMITS WILL VARY BASED ON THE WORKING AREA REQUIRED AND THE MAXIMUM EXCAVATION SLOPE THAT CAN BE SAFELY MAINTAINED. EXCAVATION ON THESE SHEETS IS INCLUDED IN BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-40-856".

NOTES

THIS DRAWING IS INTENDED TO PROVIDE A REFERENCE FOR ASSUMED EXCAVATION LIMITS AND TEMPORARY SHORING REQUIREMENTS. THIS DRAWING IS NOT ALL-INCLUSIVE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	BKS

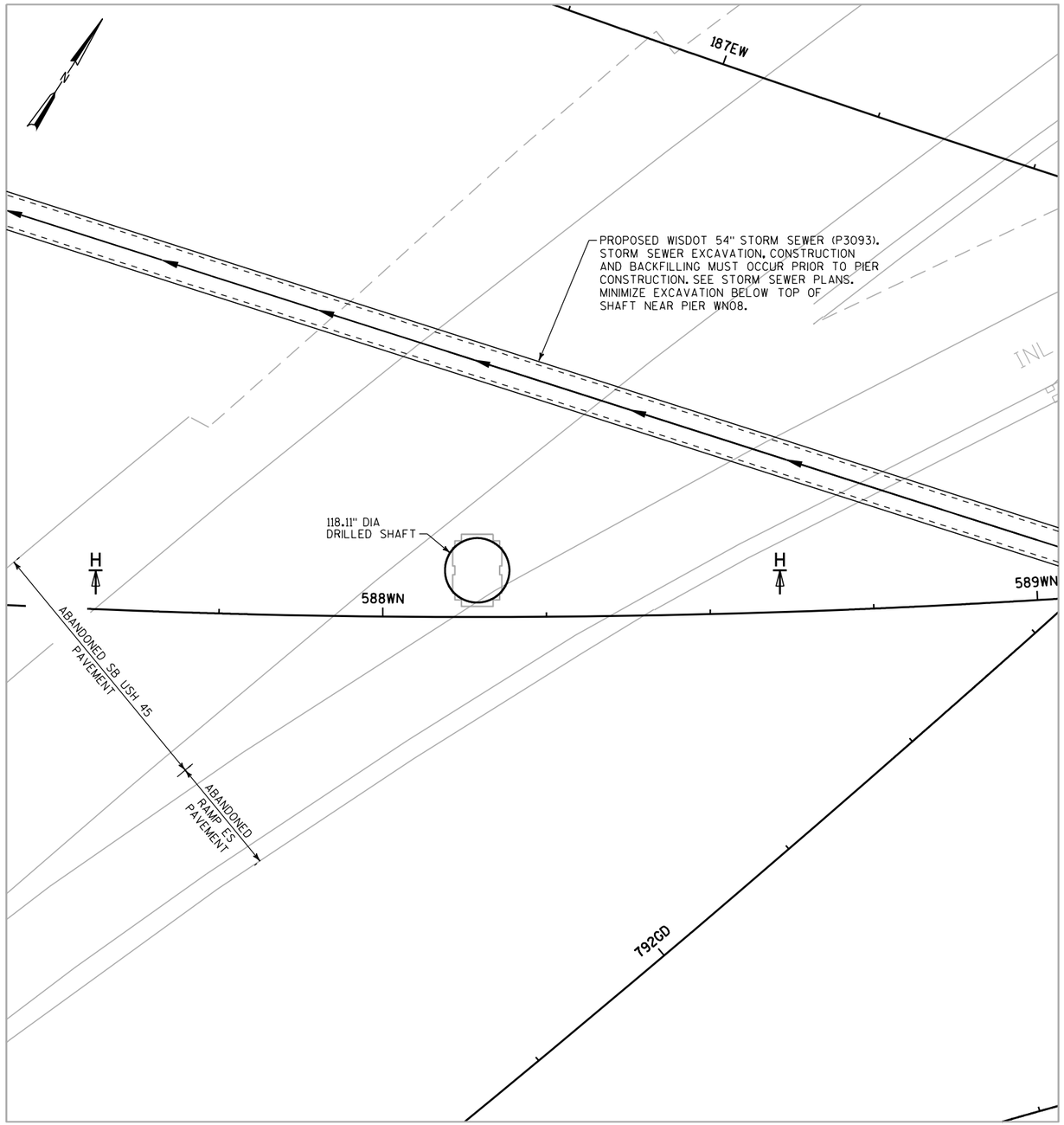
OPTION A
EXCAVATION PLAN
(5 OF 8)

SHEET A10 OF A35

8

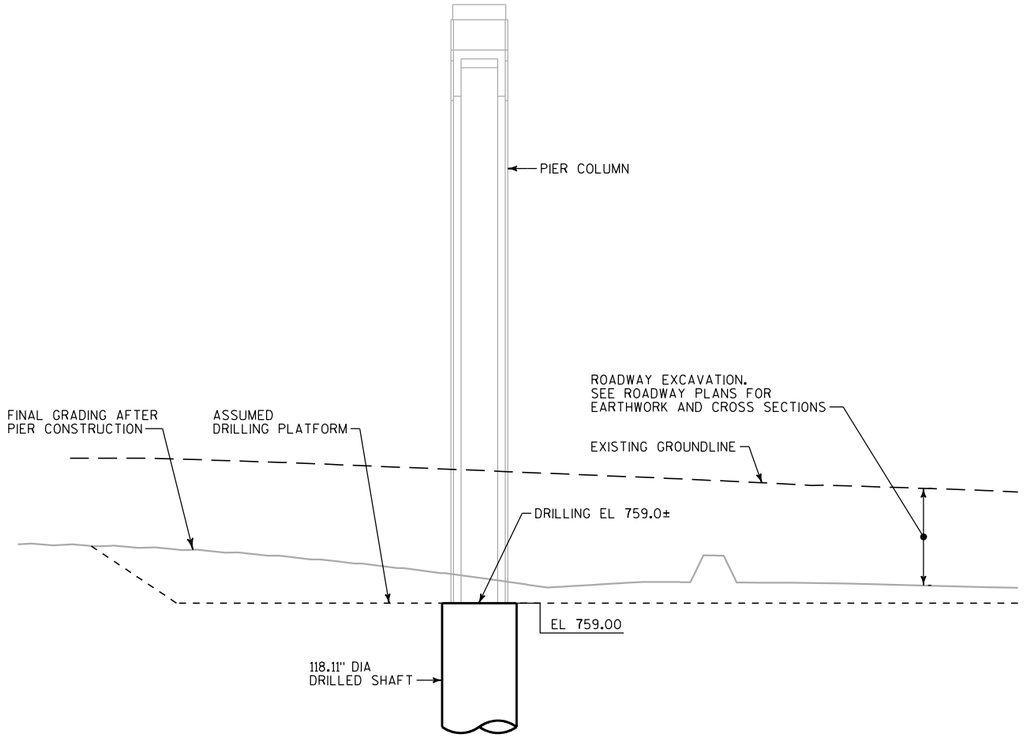
8

STATE PROJECT NUMBER
1060-33-81



EXCAVATION PLAN - PIER WN08

STA 588WN+14.42



SECTION H-H

NOTES

THIS DRAWING IS INTENDED TO PROVIDE A REFERENCE FOR ASSUMED EXCAVATION LIMITS AND TEMPORARY SHORING REQUIREMENTS. THIS DRAWING IS NOT ALL-INCLUSIVE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	BKS

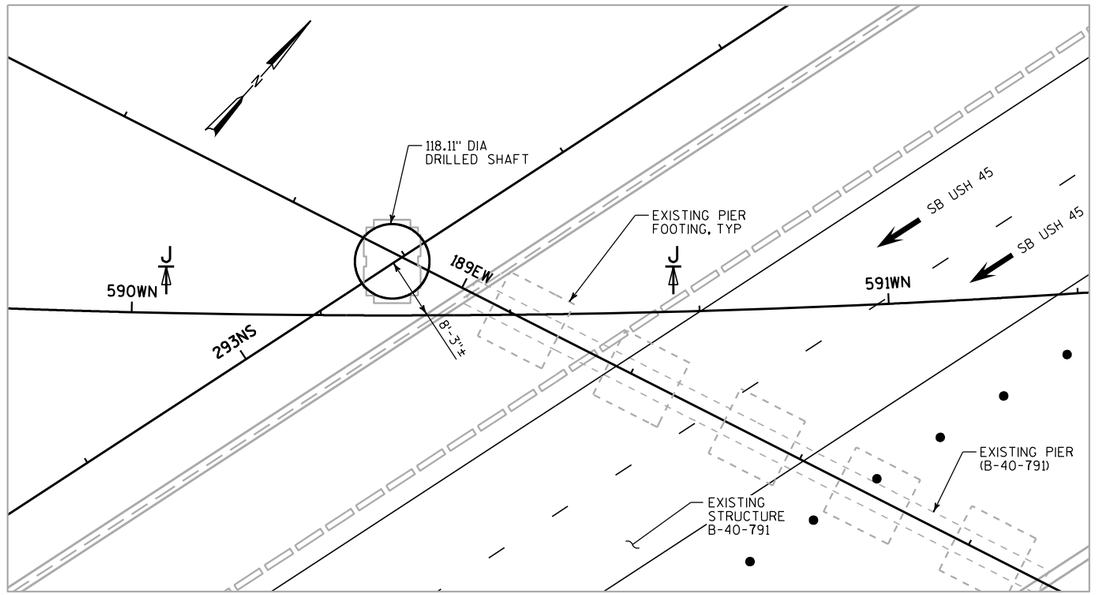
OPTION A
EXCAVATION PLAN
(6 OF 8)

SHEET A11 OF A35

8

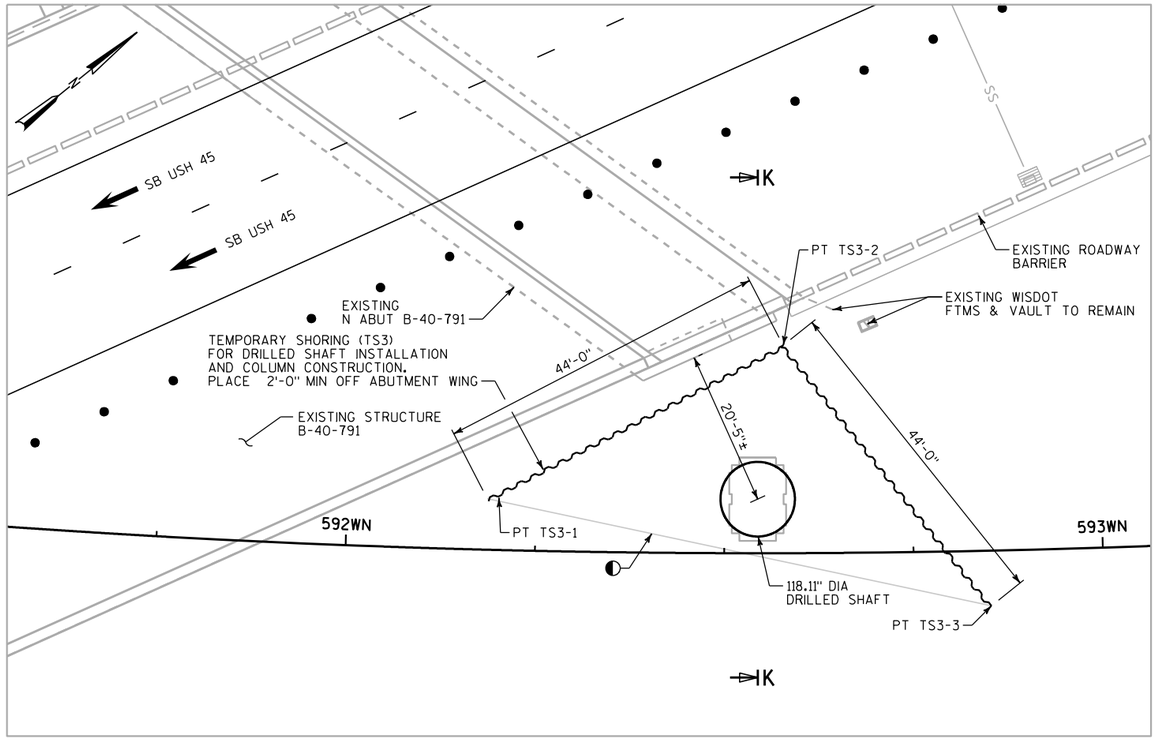
8

STATE PROJECT NUMBER
1060-33-81



EXCAVATION PLAN - PIER WN09

STA 590WN+34.42



EXCAVATION PLAN - PIER WN10

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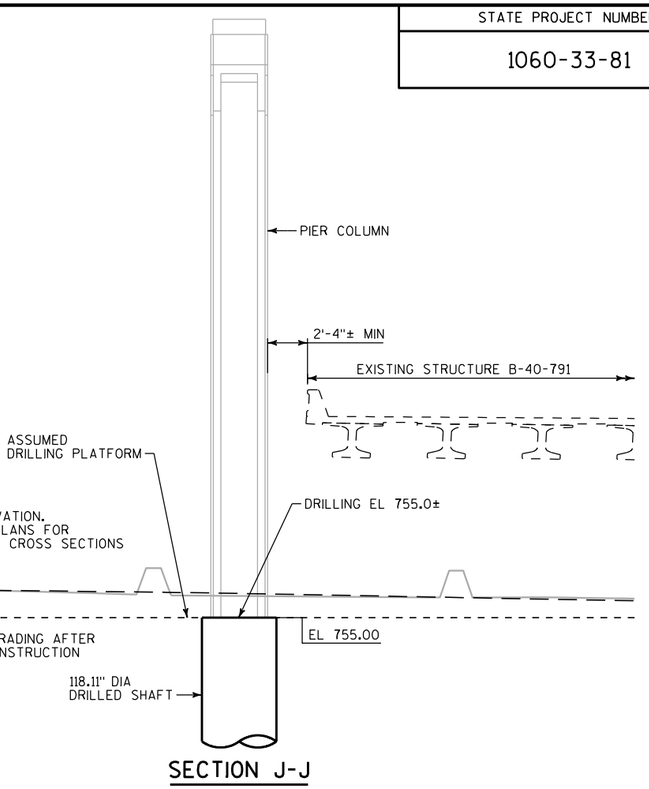
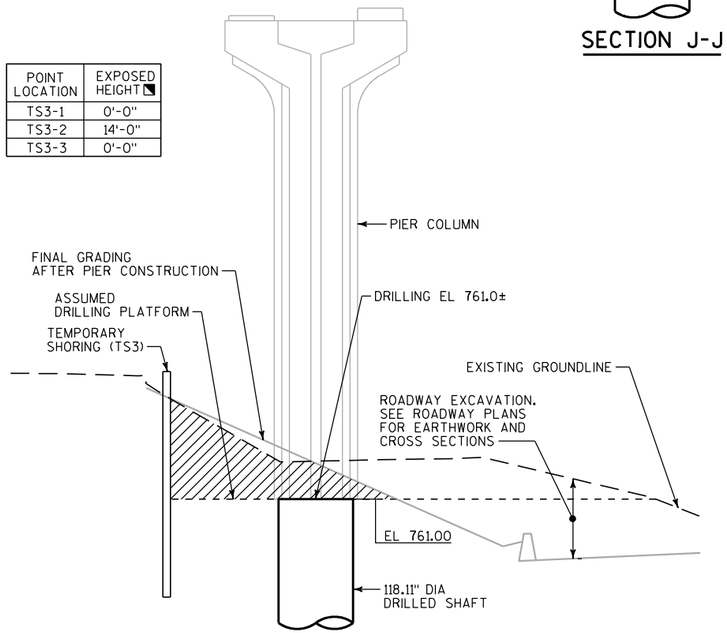


SECTION J-J

POINT LOCATION	EXPOSED HEIGHT ◥
TS3-1	0'-0"
TS3-2	14'-0"
TS3-3	0'-0"



SECTION K-K

LEGEND

- EXCAVATION FOR STRUCTURES
- ◐ APPROXIMATE EXCAVATION LIMITS. LIMITS WILL VARY BASED ON THE WORKING AREA REQUIRED AND THE MAXIMUM EXCAVATION SLOPE THAT CAN BE SAFELY MAINTAINED. EXCAVATION ON THESE SHEETS IS INCLUDED IN BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-40-856".
- ◥ APPROXIMATE EXPOSED TEMPORARY SHORING HEIGHTS. HEIGHTS ARE SHOWN FOR INFORMATION ONLY.

NOTES

THIS DRAWING IS INTENDED TO PROVIDE A REFERENCE FOR ASSUMED EXCAVATION LIMITS AND TEMPORARY SHORING REQUIREMENTS. THIS DRAWING IS NOT ALL-INCLUSIVE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. BKS

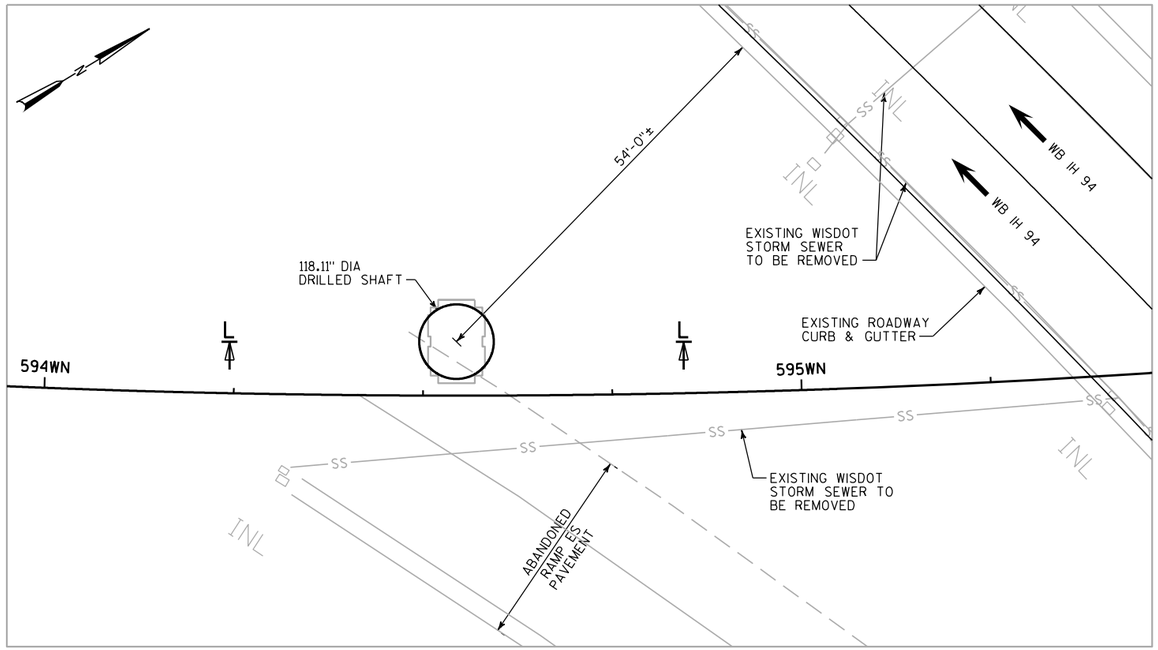
OPTION A
EXCAVATION PLAN
(7 OF 8)

SHEET A12 OF A35

8

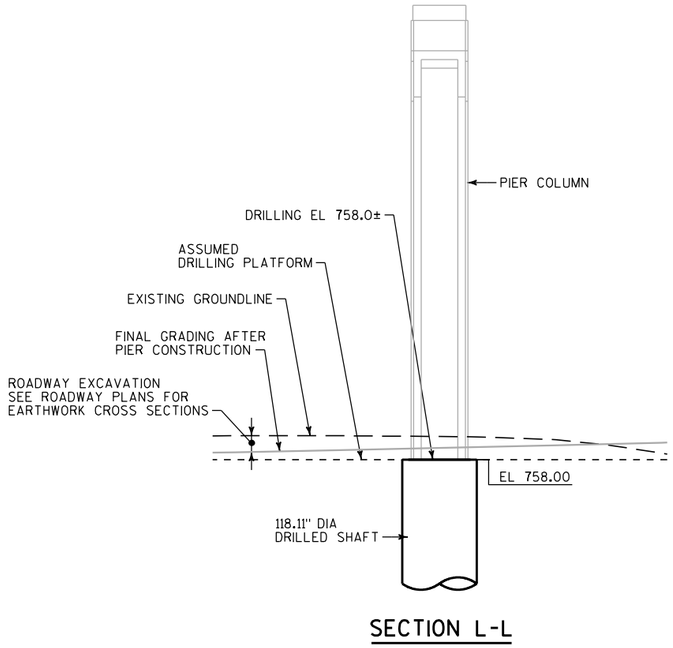
8

STATE PROJECT NUMBER
1060-33-81

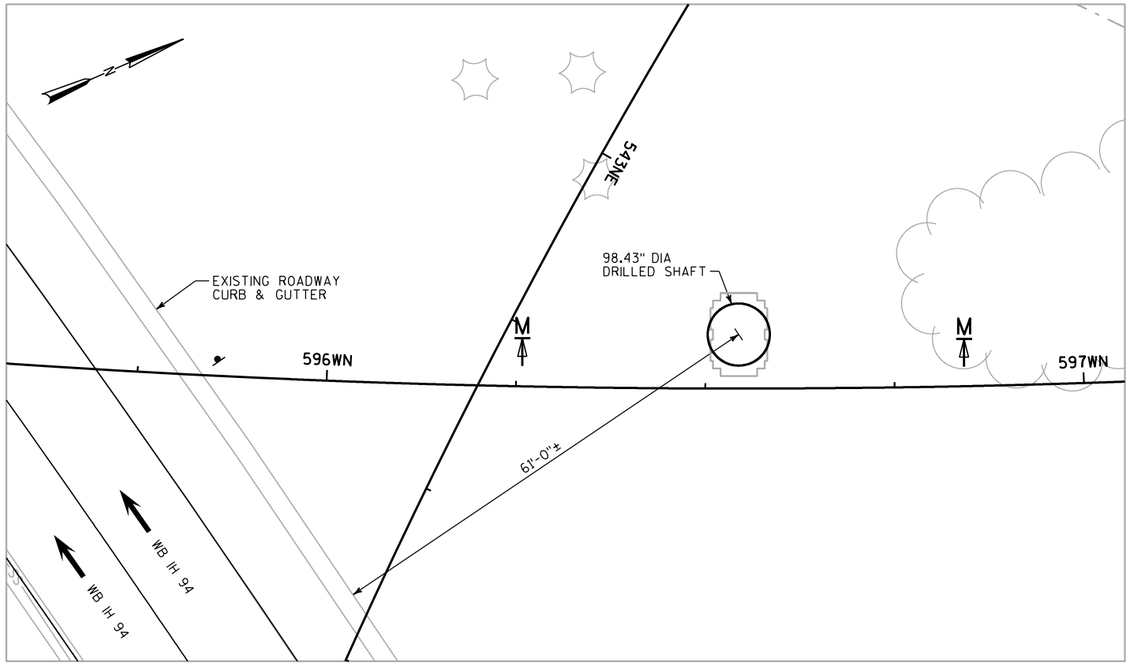


EXCAVATION PLAN - PIER WN11

STA 594WN+54.42

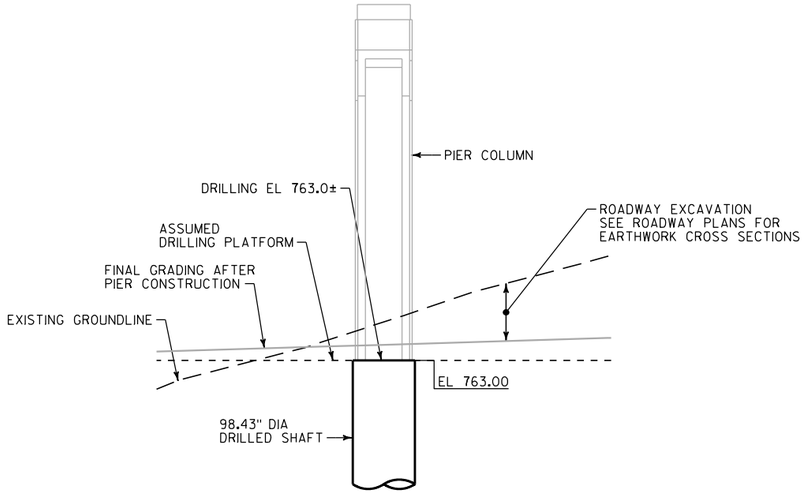


SECTION L-L



EXCAVATION PLAN - PIER WN12

STA 596WN+54.42



SECTION M-M

NOTES

THIS DRAWING IS INTENDED TO PROVIDE A REFERENCE FOR ASSUMED EXCAVATION LIMITS AND TEMPORARY SHORING REQUIREMENTS. THIS DRAWING IS NOT ALL-INCLUSIVE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY: WRT | PLANS CK'D.: BKS

OPTION A
EXCAVATION PLAN
(8 OF 8)

SHEET A13 OF A35

8

8

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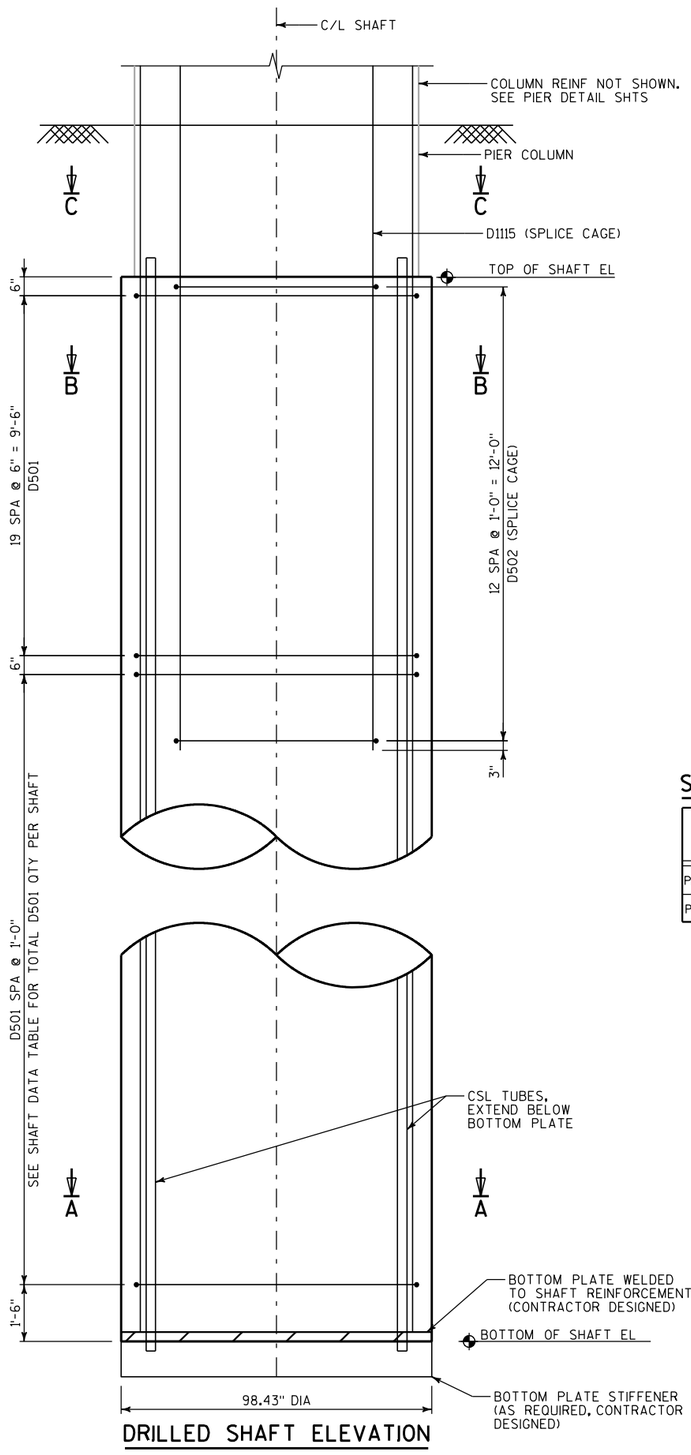
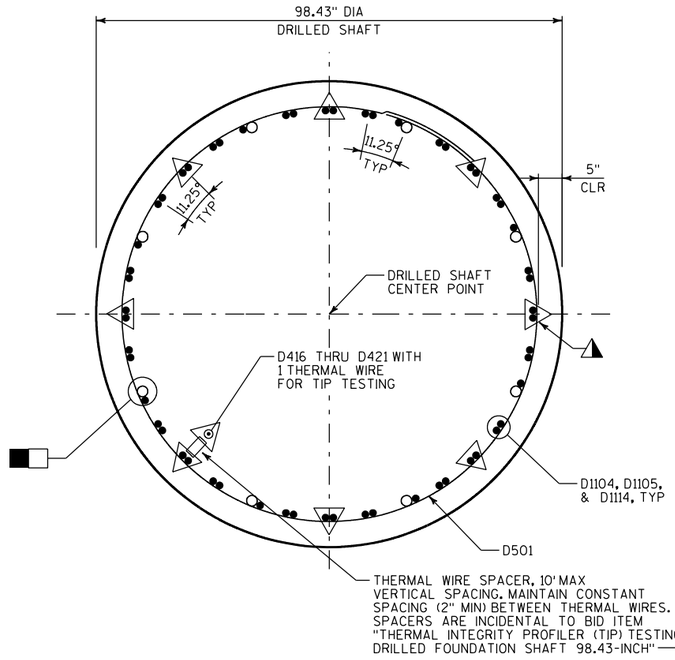
PLOT DATE : 13-MAY-2015 14:00
PLOT BY : MSCBKS
PLOT NAME : B856_080113A_ex
PLOT SCALE : 20:1

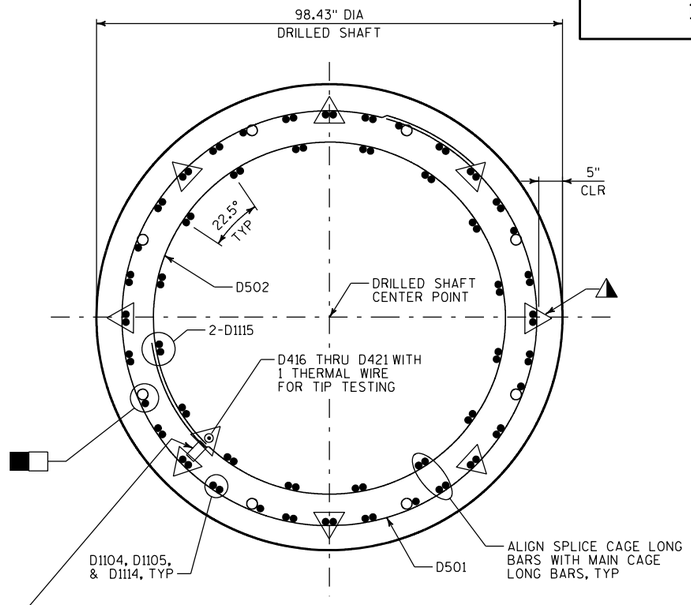
STATE PROJECT NUMBER
1060-33-81



DRILLED SHAFT ELEVATION



SECTION A-A



SECTION B-B

SHAFT DATA

SHAFT NO	SHAFT C/L "X"	SHAFT C/L "Y"	ASSUMED DRILLING EL	TOP OF SHAFT EL	BOTTOM OF SHAFT EL	SHAFT LENGTH (FT)	SHAFT VOLUME (CY)	TIE NO. REQ'D (EACH)	INSTRUMENTATION	MAXIMUM BASE GROUTING PRESSURE (PSI)
PIER WN01	570985.85	295163.94	752.0	752.0	687.0	65.0	127.2	74	CSL TUBES/TIP TESTING	325
PIER WN12	572690.23	295956.70	763.0	763.0	713.0	50.0	97.9	59	CSL TUBES/TIP TESTING	300

NOTE

FOR SECTION C-C, SEE SHT A15.

LEGEND

- 8 - 2" DIA CSL TUBES FULL LENGTH OF SHAFT TIED TO INSIDE AND SPACED AROUND THE PERIMETER OF REINFORCEMENT AS SHOWN. AFTER TESTING, USE CSL TUBES TO BASE-GROUT THE PIER DRILLED SHAFTS. PLACE WITH D1104, D1105 OR D1114
- 9 - THERMAL WIRES FOR TIP TESTING. DISTRIBUTE 8 THERMAL WIRES EVENLY AROUND THE PERIMETER OF REINFORCMENT TIED TO VERTICAL BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

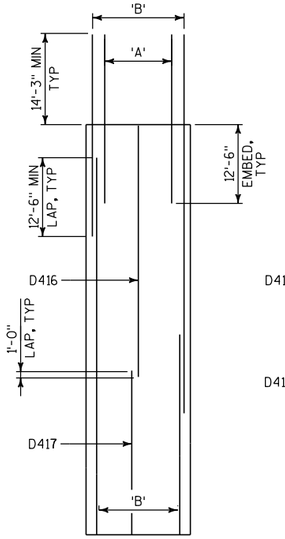
DRAWN BY	JTE	PLANS CK'D.	WRT

OPTION A
98.43" DRILLED SHAFT DETAILS
(1 OF 2)

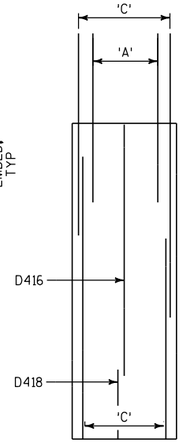
SHEET A14 OF A35

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option A\B856_080214A_fd.dgn
PLOT DATE : 13-MAY-2015 14:00
PLOT BY : MSCBKS
PLOT NAME : B856_080214A_fd
PLOT SCALE : 4:1

STATE PROJECT NUMBER
1060-33-81



WN01



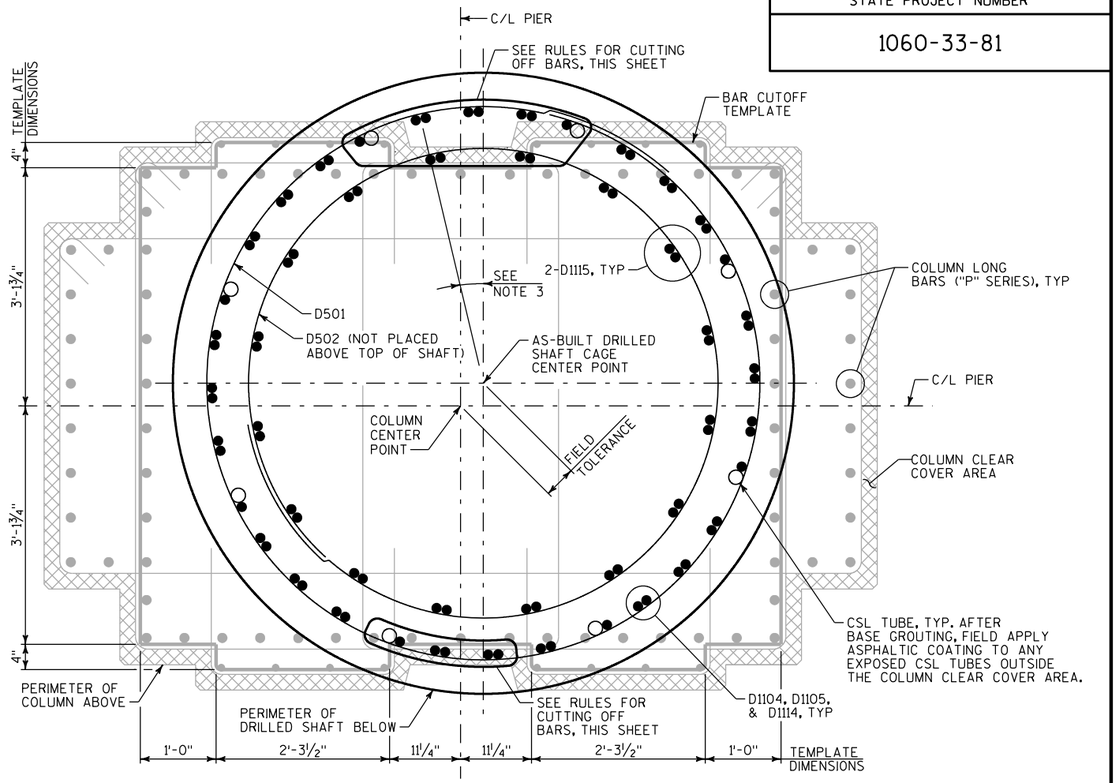
WN12

'A' = 32-D1115 BARS

'B' = 28-D1104 & 28-D1105 BARS

'C' = 28-D1104 & 28-D1114 BARS

DRILLED SHAFT MAIN REINFORCEMENT SCHEMATIC



SECTION C-C
DRILLED SHAFT CONNECTION DETAIL

DRILLED SHAFT SHOWN IN AS-BUILT CONDITION
TO ILLUSTRATE CONSTRUCTION TOLERANCE

RULES FOR CUTTING OFF BARS

1. SELECT AND CUT OFF PROTRUDING DRILLED SHAFT BARS IN ACCORDANCE WITH THE FOLLOWING RULES. VIOLATING THESE RULES MAY RESULT IN A DRILLED SHAFT WITH INADEQUATE CAPACITY.
2. SURVEY AND MARK CENTER POINT OF PIER COLUMN ON TOP OF DRILLED SHAFT.
3. MARK CENTER POINT OF AS-BUILT DRILLED SHAFT REBAR CAGE ON TOP OF DRILLED SHAFT.
4. IF C/L SHAFT CAGE IS MORE THAN 4" FROM C/L PIER COLUMN, THE CAGE IS OUT OF TOLERANCE. ALERT THE DESIGN ENGINEER FOR FURTHER INSTRUCTIONS. DO NOT CONTINUE WITH STEPS BELOW.
5. LOCATE AND MARK THE OUTLINE OF THE BAR CUTOFF TEMPLATE AS SHOWN. THE BAR CUTOFF TEMPLATE LIES 3¼" INSIDE THE COLUMN PERIMETER.
6. DO NOT ALTER BARS THAT FALL COMPLETELY INSIDE THE BAR CUTOFF TEMPLATE. BARS THAT FALL OUTSIDE THE BAR CUTOFF TEMPLATE CAN BE CUT OFF, SUBJECT TO THE LIMITATIONS BELOW.
7. CUT OFF NO MORE THAN 8 BARS PER SIDE IN THE OUTER RING.
8. CUT OFF NO MORE THAN 14 BARS TOTAL IN THE OUTER RING.
9. CUT OFF NO MORE THAN 4 BARS IN THE INNER RING.
10. CUT OFF BARS FLUSH WITH TOP OF DRILLED SHAFT AND APPLY ASPHALTIC COATING TO ALL EXPOSED AREAS OF CUT BARS.

NOTES:

1. STAGGER LAPS AS SHOWN SO AS TO LAP NO MORE THAN HALF OF THE BARS PER SECTION. STAGGER LAPS WITHIN BUNDLES.
2. WELDMENT OF BOTTOM PLATE AND REINFORCING BAR CAGE NOT SHOWN FOR CLARITY. SEE DRILLED SHAFT ELEVATION ON SHEET A14.
3. ORIENTATION OF DRILLED SHAFT CAGE IS ARBITRARY FOR DESIGN PURPOSES. CONTRACTOR MAY INSTALL CAGE ASSEMBLY IN ANY DESIRED ORIENTATION.
4. FOR SECTION CUT C-C, SEE SHT A14.
5. DRILLED SHAFT CONNECTION HAS BEEN DESIGNED TO ACCOMMODATE DRILLED SHAFT CAGE PLACED UP TO 4" OUT OF POSITION HORIZONTALLY IN ANY DIRECTION. IF THE AS-BUILT CONDITION EXCEEDS THIS TOLERANCE, ALERT THE DESIGN ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY JTE | PLANS CK'D. WRT

OPTION A
98.43" DRILLED SHAFT DETAILS
(2 OF 2)

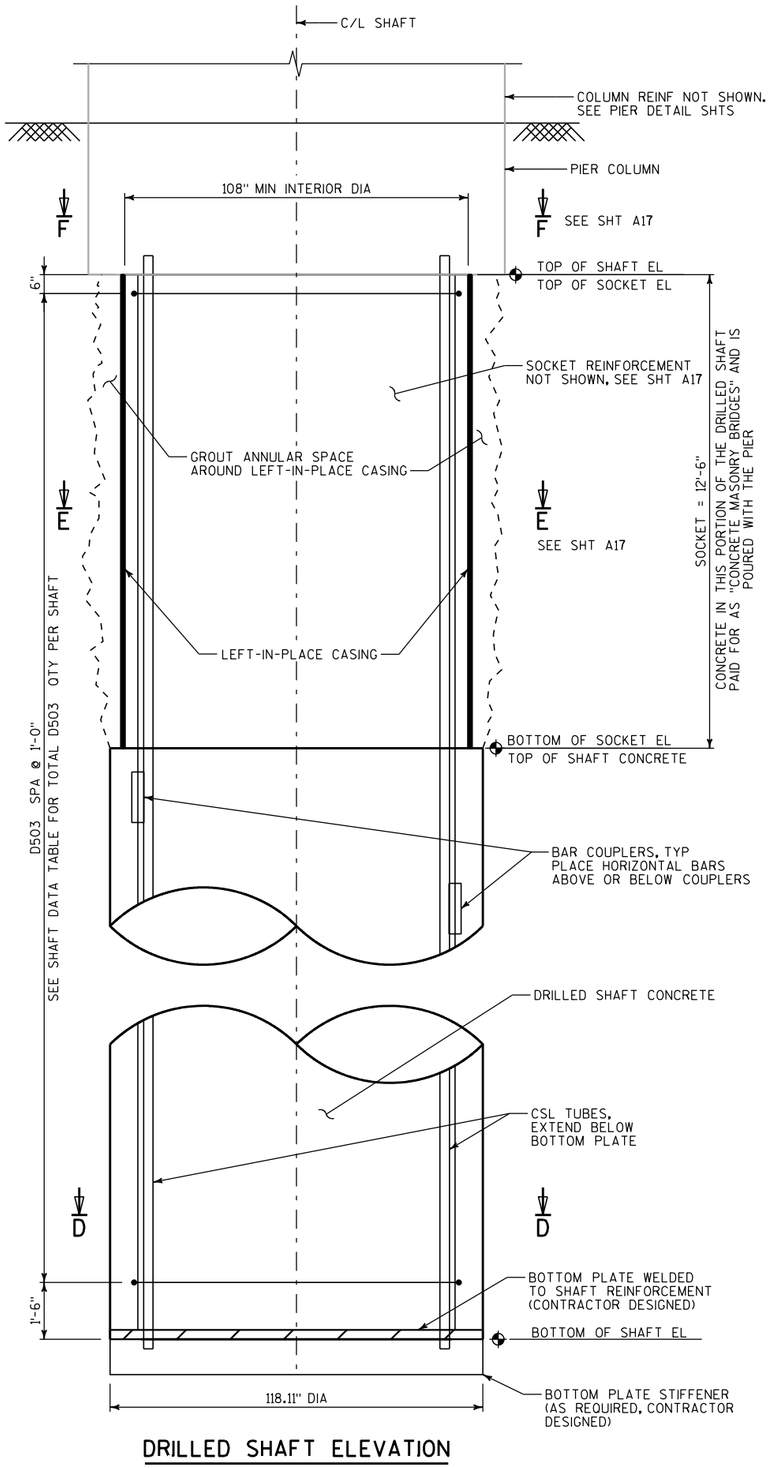
SHEET A15 OF A35

8

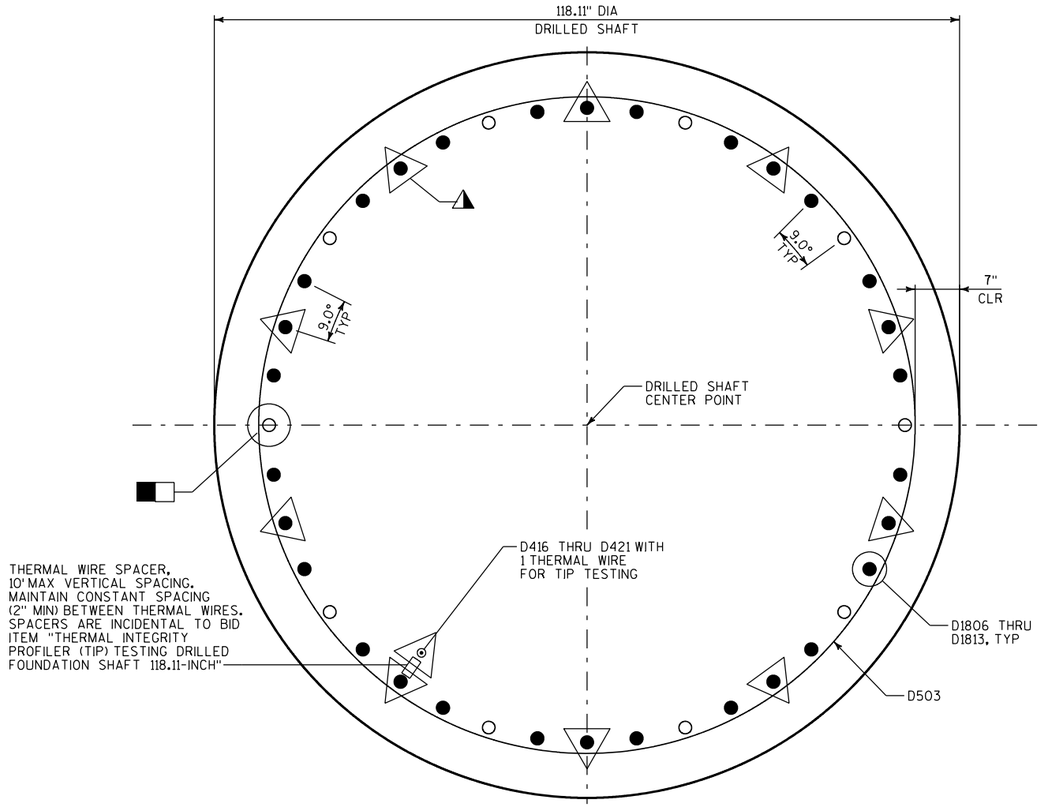
8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option A\B856_080215A_fd.dgn
PLOT DATE : 13-MAY-2015 14:00
PLOT BY : MSCBKS
PLOT NAME : B856_080215A_fd
PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



DRILLED SHAFT ELEVATION



SECTION D-D

SHAFT DATA

SHAFT NO	SHAFT C/L "X"	SHAFT C/L "Y"	ASSUMED DRILLING EL	TOP OF SHAFT EL	BOTTOM OF SOCKET EL	BOTTOM OF SHAFT EL	SHAFT LENGTH (FT)	SHAFT VOLUME (CY)	TIE NO. REQ'D (EACH)	INSTRUMENTATION	MAXIMUM BASE GROUTING PRESSURE (PSI)
WN02	571180.24	295120.27	756.0	756.0	743.5	706.0	50.0	140.9	49	CSL TUBES/TIP TESTING	325
WN03	571378.32	295103.11	771.0	771.0	758.5	695.0	76.0	214.2	75	CSL TUBES/TIP TESTING	400
WN04	571586.70	295115.44	774.0	761.0	748.5	697.0	65.0	183.2	64	CSL TUBES/TIP TESTING	425
WN05	571781.37	295155.83	761.0	746.0	733.5	696.0	50.0	140.9	49	CSL TUBES/TIP TESTING	175
WN06	571918.86	295202.52	755.0	740.0	727.5	665.0	75.0	211.3	74	CSL TUBES/TIP TESTING	425
WN07	572027.75	295251.38	764.0	757.0	744.5	702.0	55.0	155.0	54	CSL TUBES/TIP TESTING	225
WN08	572159.90	295326.80	759.0	759.0	746.5	696.0	63.0	177.5	62	CSL TUBES/TIP TESTING	225
WN09	572333.84	295459.30	755.0	755.0	742.5	705.0	50.0	140.9	49	CSL TUBES/TIP TESTING	250
WN10	572485.06	295617.24	761.0	761.0	748.5	696.0	65.0	183.2	64	CSL TUBES/TIP TESTING	400
WN11	572599.71	295779.68	758.0	758.0	745.5	708.0	50.0	140.9	49	CSL TUBES/TIP TESTING	300

LEGEND

10 - 2" DIA CSL TUBES FULL LENGTH OF SHAFT TIED TO INSIDE AND SPACED AROUND THE PERIMETER OF REINFORCEMENT AS SHOWN. AFTER TESTING, USE CSL TUBES TO BASE-GROUT THE PIER DRILLED SHAFTS.

11 - THERMAL WIRES FOR TIP TESTING. DISTRIBUTE 10 THERMAL WIRES EVENLY AROUND THE PERIMETER OF REINFORCMENT TIED TO VERTICAL BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY ASW | PLANS CK'D. WRT

OPTION A
118.11" DRILLED SHAFT DETAILS
(1 OF 2)

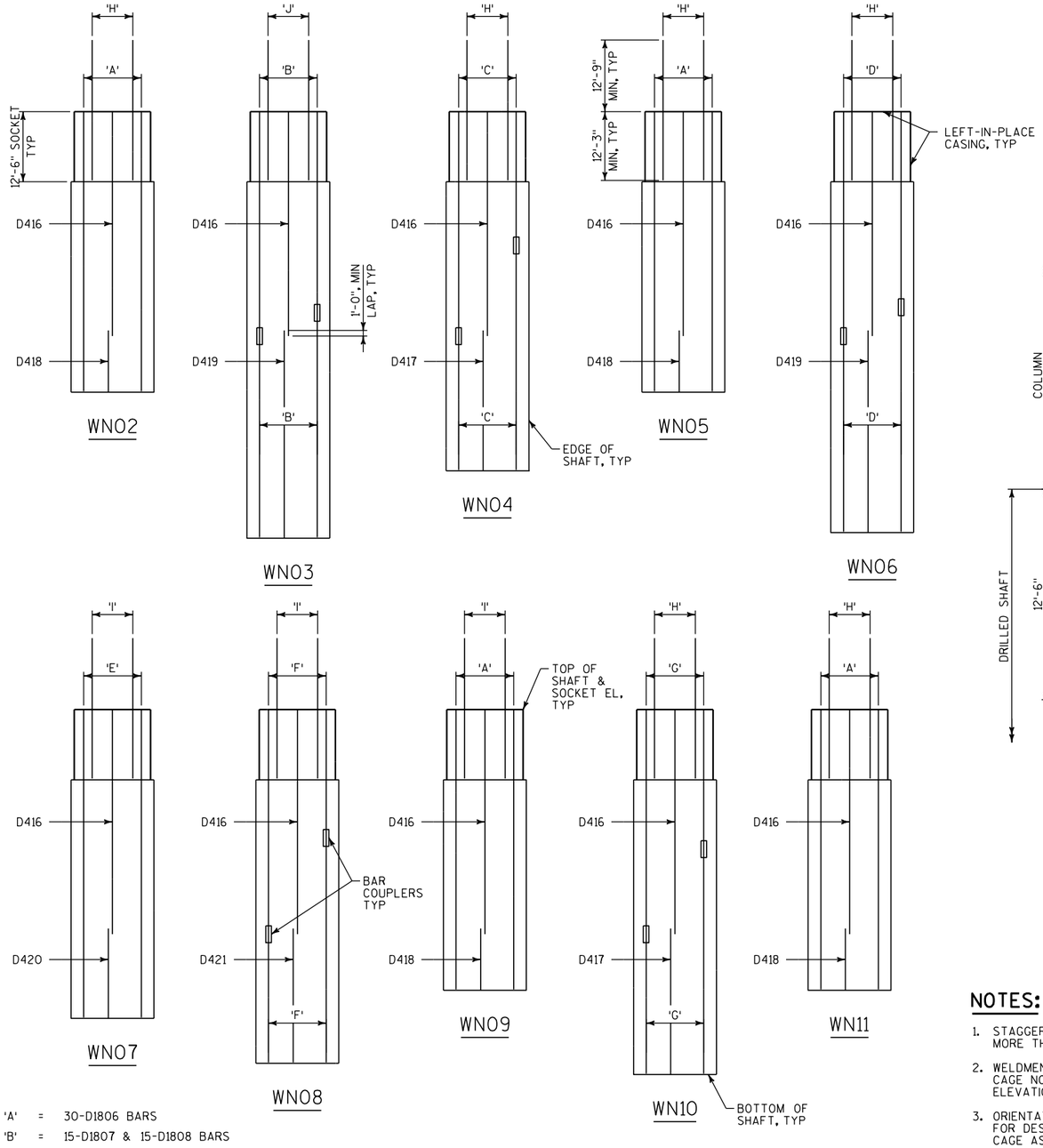
SHEET A16 OF A35

8

8

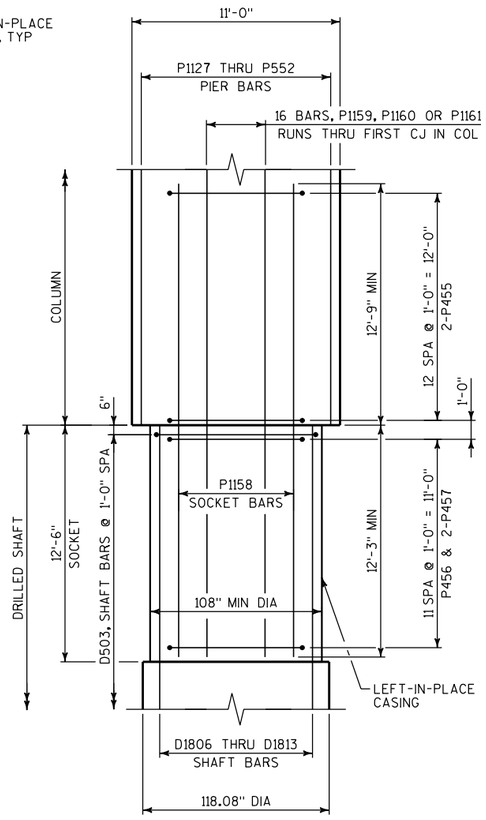
STATE PROJECT NUMBER

1060-33-81

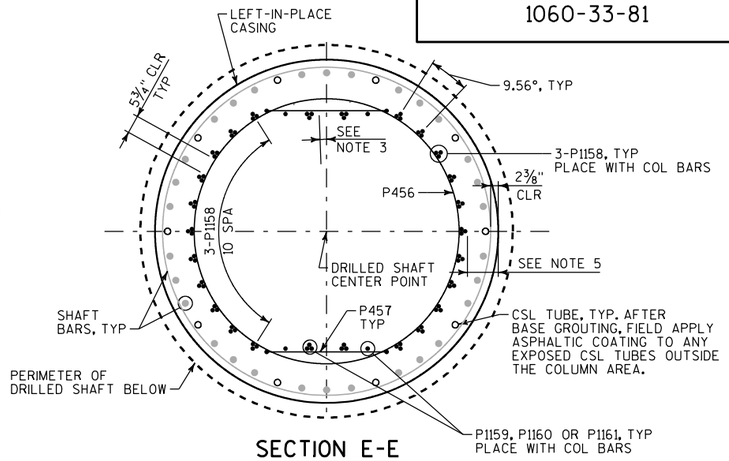


'A' = 30-D1806 BARS
'B' = 15-D1807 & 15-D1808 BARS
'C' = 15-D1807 & 15-D1809 BARS
'D' = 15-D1807 & 15-D1810 BARS
'E' = 30-D1811 BARS
'F' = 15-D1807 & 15-D1812 BARS
'G' = 15-D1807 & 15-D1813 BARS
'H' = 66-P1158 & 16-P1159
'I' = 66-P1158 & 16-P1160
'J' = 66-P1158 & 16-P1161

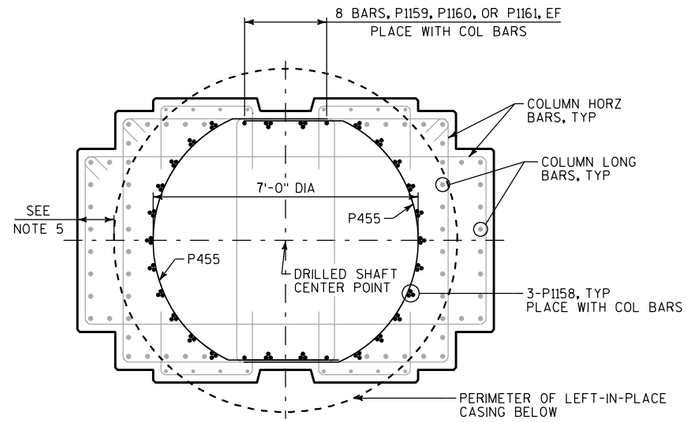
DRILLED SHAFT MAIN REINFORCEMENT SCHEMATIC



SOCKET ELEVATION



SECTION E-E
DRILLED SHAFT/SOCKET DETAIL



SECTION F-F
SOCKET/COLUMN DETAIL

NOTES:

1. STAGGER COUPLERS AS SHOWN SO AS TO COUPLE NO MORE THAN HALF OF THE BARS PER SECTION.
2. WELDMENT OF BOTTOM PLATE AND REINFORCING BAR CAGE NOT SHOWN FOR CLARITY. SEE DRILLED SHAFT ELEVATION ON SHEET A16.
3. ORIENTATION OF DRILLED SHAFT CAGE IS ARBITRARY FOR DESIGN PURPOSES. CONTRACTOR MAY INSTALL CAGE ASSEMBLY IN ANY DESIRED ORIENTATION.
4. FOR SECTION CUT E-E & F-F, SEE SHT A16.
5. THE SOCKET CONNECTION HAS BEEN DESIGNED TO ACCOMMODATE DRILLED SHAFT CAGE PLACED UP TO 4" OUT OF POSITION HORIZONTALLY IN ANY DIRECTION. IF THE AS-BUILT CONDITION EXCEEDS THIS TOLERANCE, ALERT THE DESIGN ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY ASW | PLANS CK'D. WRT

OPTION A
118.11" DRILLED SHAFT DETAILS
(2 OF 2)

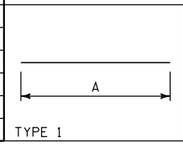
SHEET A17 OF A35

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option A\B856_080217A_fd.dgn
PLOT DATE : 13-MAY-2015 14:00
PLOT BY : MSCBKS
PLOT NAME : B856_080217A_fd
PLOT SCALE : 8:1

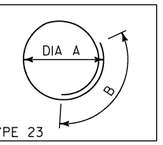
STATE PROJECT NUMBER

1060-33-81

BAR INFORMATION							BAR DIMENSIONS						LOCATION	BAR SERIES INFORMATION				
BAR MARK	MATL	NO. REQ'D	LENGTH	BENT	BAR SERIES	BEND TYPE	A	B	C	D	E	F		DIM	MIN	MAX	NO REQ'D	LENGTH
D501	U	133	24'-9"	X		23	7'-5"	1'-5"					SHAFT TIE BAR (8' SHAFTS)					
D502	U	26	21'-1"	X		23	6'-3"	1'-5"					SPLICE CAGE TIE BAR (8' SHAFTS)					
D503	U	589	28'-8"	X		23	8'-8"	1'-5"					SHAFT TIE BAR (10' SHAFTS)					
D1104	U	112	32'-0"			1	32'-0"						LONGITUDINAL BAR - PIERS WN-01 & WN-12					
D1105	U	56	60'-0"			1	60'-0"						LONGITUDINAL BAR - PIER WN-01					
D1806	U	120	49'-10"			1	49'-10"						LONGITUDINAL BAR - PIERS WN-02, WN-05, WN-09 & WN-11					
D1807	U	150	40'-0"			1	40'-0"						LONGITUDINAL BAR - PIERS WN-03, WN-04, WN-06, WN-08 & WN-10					
D1808	U	30	35'-10"			1	35'-10"						LONGITUDINAL BAR - PIER WN-03					
D1809	U	30	23'-10"			1	23'-10"						LONGITUDINAL BAR - PIER WN-04					
D1810	U	30	34'-10"			1	34'-10"						LONGITUDINAL BAR - PIER WN-06					
D1811	U	30	54'-10"			1	54'-10"						LONGITUDINAL BAR - PIER WN-07					
D1812	U	30	22'-10"			1	22'-10"						LONGITUDINAL BAR - PIER WN-08					
D1813	U	30	24'-10"			1	24'-10"						LONGITUDINAL BAR - PIER WN-10					
D1114	U	56	45'-0"			1	45'-0"						LONGITUDINAL BAR - PIER WN-12					
D1115	U	64	27'-9"			1	27'-9"						SPLICE CAGE LONGITUDINAL BAR (8' SHAFTS)					
D416	U	12	40'-0"			1	40'-0"						LONGITUDINAL THERMAL BAR					
D417	U	3	26'-0"			1	26'-0"						LONGITUDINAL THERMAL BAR					
D418	U	5	11'-0"			1	11'-0"						LONGITUDINAL THERMAL BAR					
D419	U	2	37'-0"			1	37'-0"						LONGITUDINAL THERMAL BAR					
D420	U	1	16'-0"			1	16'-0"						LONGITUDINAL THERMAL BAR					
D421	U	1	24'-0"			1	24'-0"						LONGITUDINAL THERMAL BAR					



TYPE 1



TYPE 23

BAR MARK BREAKDOWN

BAR MARK	PIER WN01	PIER WN02	PIER WN03	PIER WN04	PIER WN05	PIER WN06	PIER WN07	PIER WN08	PIER WN09	PIER WN10	PIER WN11	PIER WN12	TOTAL NO	WEIGHT
D501	74	0	0	0	0	0	0	0	0	0	0	59	133	3433
D502	13	0	0	0	0	0	0	0	0	0	0	13	26	572
D503	0	49	75	64	49	74	54	62	49	64	49	0	589	17611
D1104	56	0	0	0	0	0	0	0	0	0	0	56	112	19042
D1105	56	0	0	0	0	0	0	0	0	0	0	0	56	17852
D1806	0	30	0	0	30	0	0	0	30	0	30	0	120	81328
D1807	0	0	30	30	0	30	0	30	0	30	0	0	150	81600
D1808	0	0	30	0	0	0	0	0	0	0	0	0	30	14620
D1809	0	0	0	30	0	0	0	0	0	0	0	0	30	9724
D1810	0	0	0	0	0	30	0	0	0	0	0	0	30	14212
D1811	0	0	0	0	0	0	30	0	0	0	0	0	30	22372
D1812	0	0	0	0	0	0	0	30	0	0	0	0	30	9316
D1813	0	0	0	0	0	0	0	0	0	30	0	0	30	10132
D1114	0	0	0	0	0	0	0	0	0	0	0	56	56	13389
D1115	32	0	0	0	0	0	0	0	0	0	0	32	64	9436
D416	1	1	1	1	1	1	1	1	1	1	1	1	12	321
D417	1	0	0	1	0	0	0	0	0	1	0	0	3	52
D418	0	1	0	0	1	0	0	0	1	0	1	1	5	37
D419	0	0	1	0	0	1	0	0	0	0	0	0	2	49
D420	0	0	0	0	0	0	1	0	0	0	0	0	1	11
D421	0	0	0	0	0	0	0	1	0	0	0	0	1	16
TOT WEIGHT	34331	21831	33234	28002	21831	32796	24024	27533	21831	28410	21831	29471	1510	325123

NOTES

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

DIMENSIONS ARE TO OUTSIDE OF BARS, EXCEPT FOR RADIUS DIMENSIONS WHICH ARE TO INSIDE OF BENDS.

FOR A BAR SERIES, LENGTH SHOWN IN THE FOURTH COLUMN OF TABLE IS THE AVERAGE BAR LENGTH USED TO COMPUTE BAR WEIGHT.

BAR MATERIAL CODES USED IN SECOND COLUMN OF TABLE
U - STEEL, HIGH STRENGTH, UNCOATED.
E - STEEL, HIGH STRENGTH, EPOXY COATED.
S - STAINLESS STEEL.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

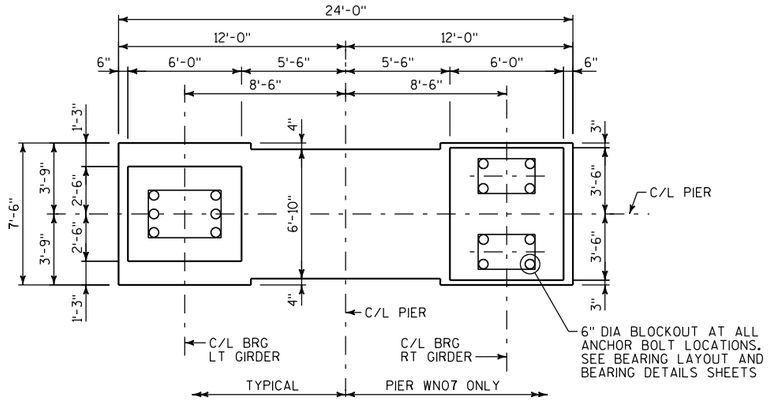
DRAWN BY JTE | PLANS CK'D. WRT

OPTION A
DRILLED SHAFT
REINFORCEMENT
SCHEDULE

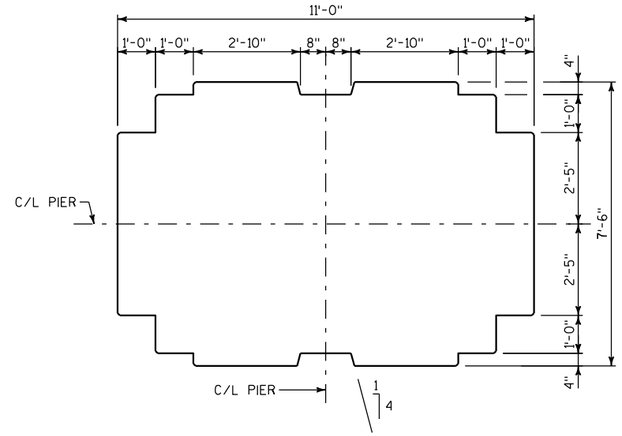
SHEET A18 OF A35

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option A\B856_080218A_fd.dgn PLOT DATE : 13-MAY-2015 14:00 PLOT BY : MSCBKS PLOT NAME : B856_080218A_fd PLOT SCALE : 8:1

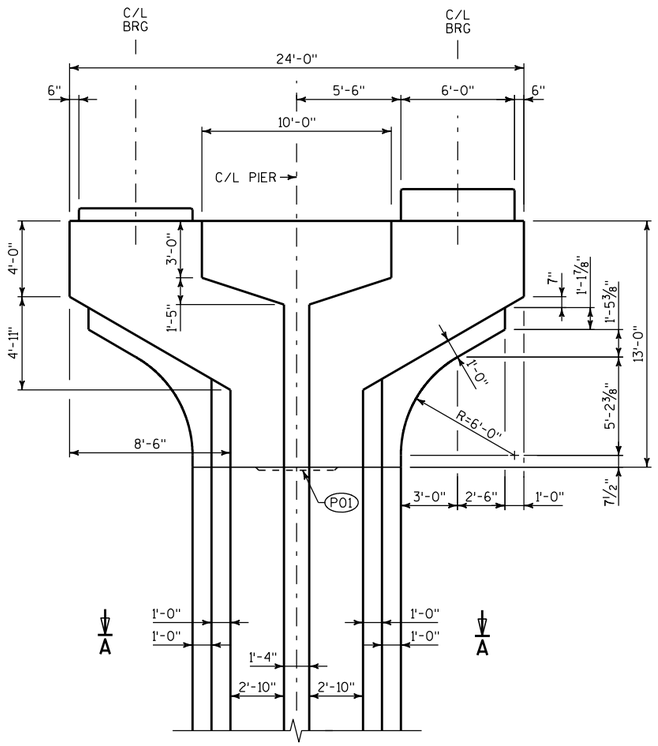
STATE PROJECT NUMBER
1060-33-81



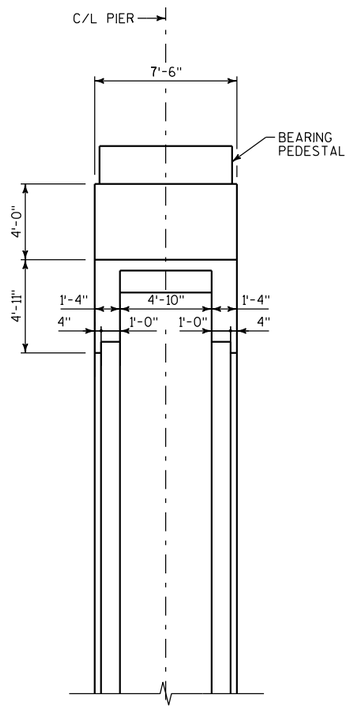
PLAN



SECTION A-A



FRONT ELEVATION
(LOOKING UPSTATION)



SIDE ELEVATION

LEGEND

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

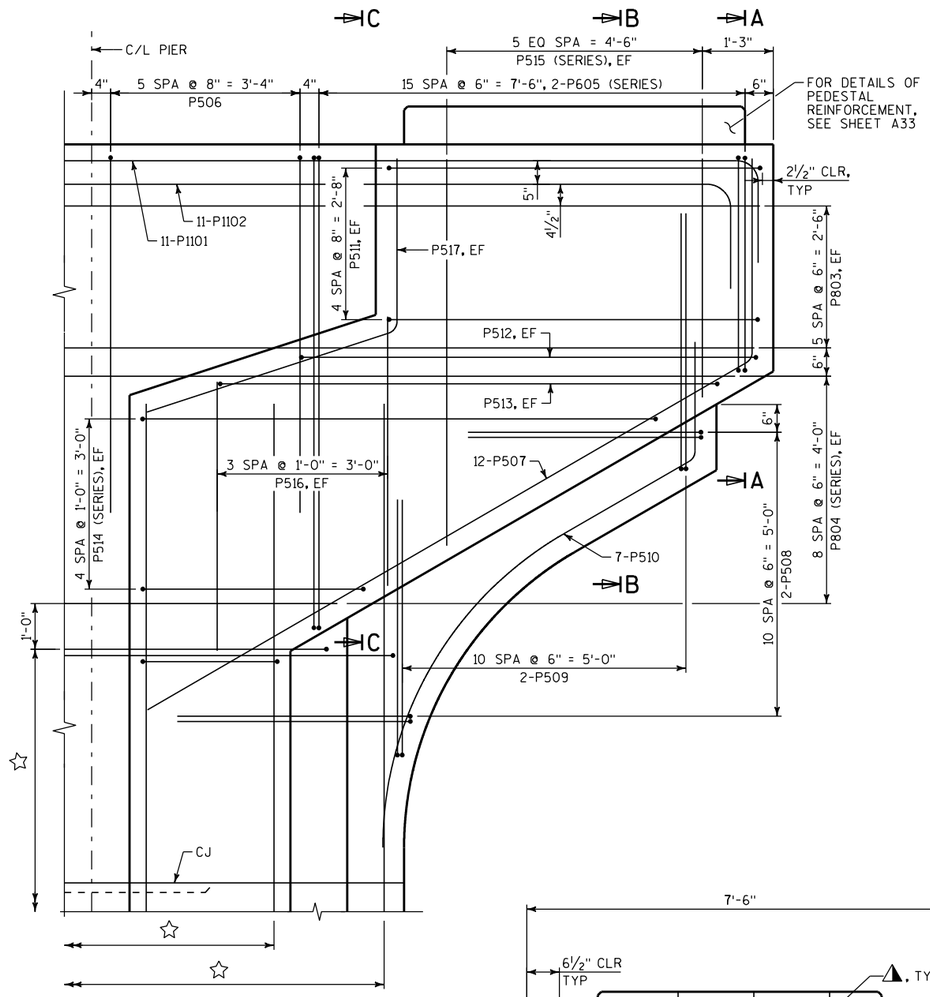
OPTION A
TYPICAL PIER
LAYOUT

SHEET A19 OF A35

8

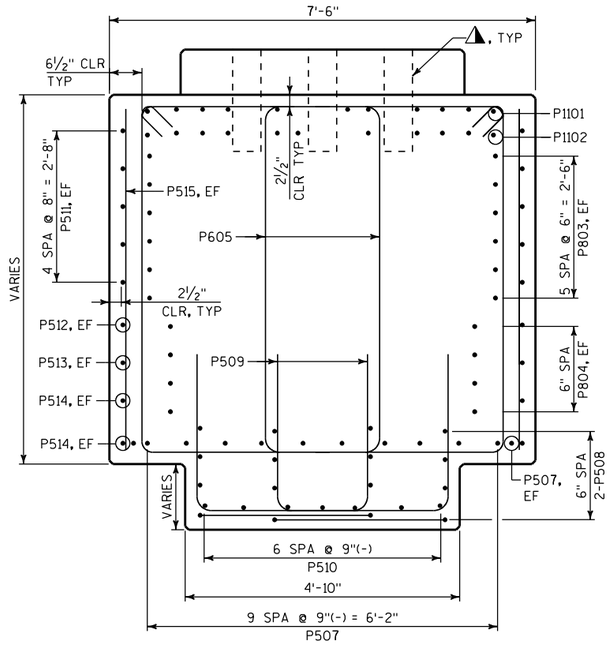
8

STATE PROJECT NUMBER
1060-33-81



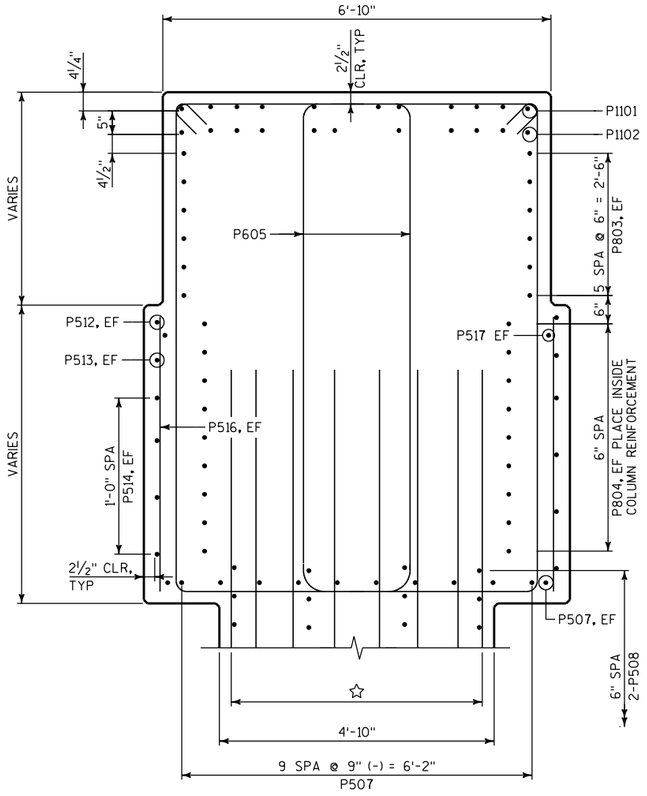
PARTIAL ELEVATION

(REINFORCEMENT IS SYMMETRICAL ABOUT C/L PIER)



SECTION B-B

(PEDESTAL REINFORCEMENT NOT SHOWN FOR CLARITY)

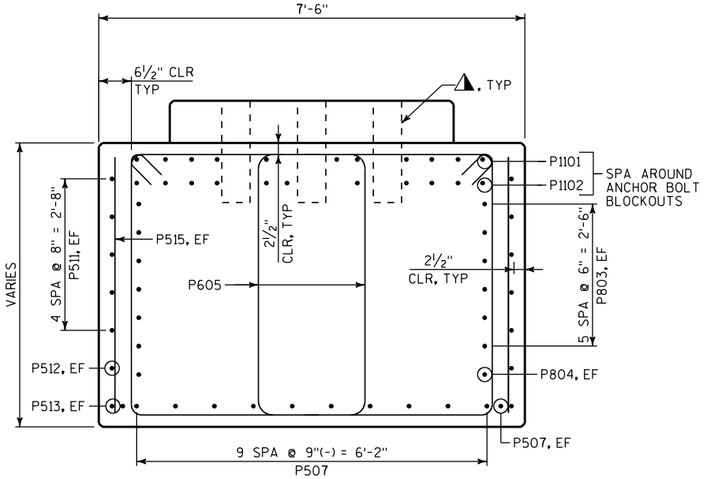


SECTION C-C

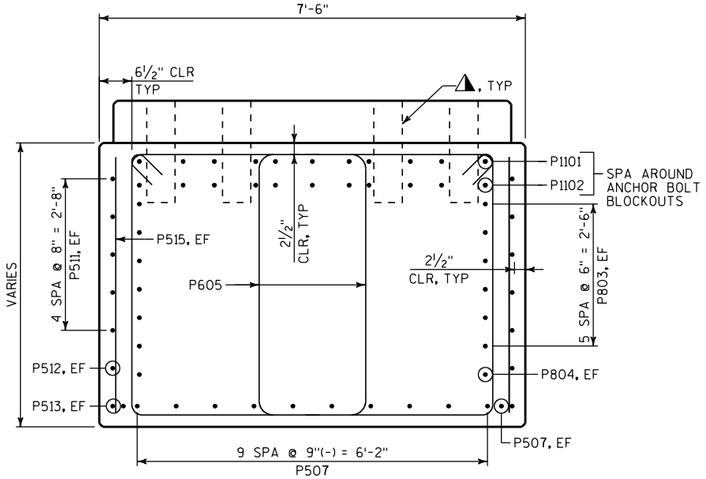
LEGEND

☆ COLUMN REINFORCEMENT VARIES BY PIER. SEE PIER DETAIL SHEETS.

◭ LOCATION OF MASONARY PLATE ANCHOR BOLT BLOCK-OUT VARIES BY PIER. SEE BERAING LAYOUT SHEETS.



TYPICAL



AT PIER WN07

SECTION A-A

(PEDESTAL REINFORCEMENT NOT SHOWN FOR CLARITY)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY ASW | PLANS CK'D. WRT

OPTION A
TYPICAL PIER
CAP REINFORCEMENT

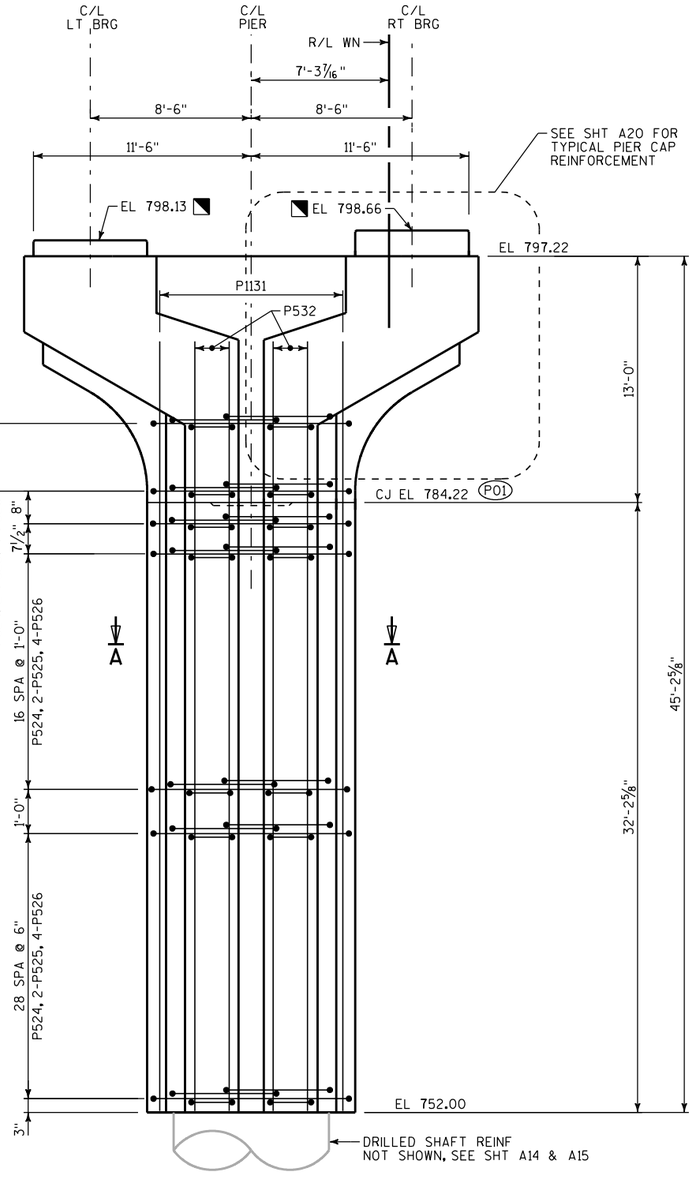
SHEET A20 OF A35

8

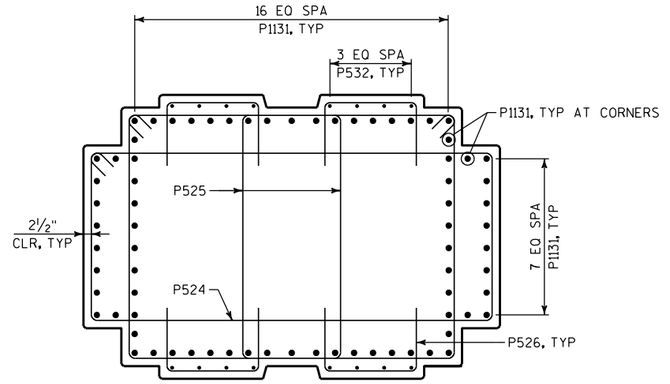
8

STATE PROJECT NUMBER

1060-33-81



ELEVATION



SECTION A-A

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

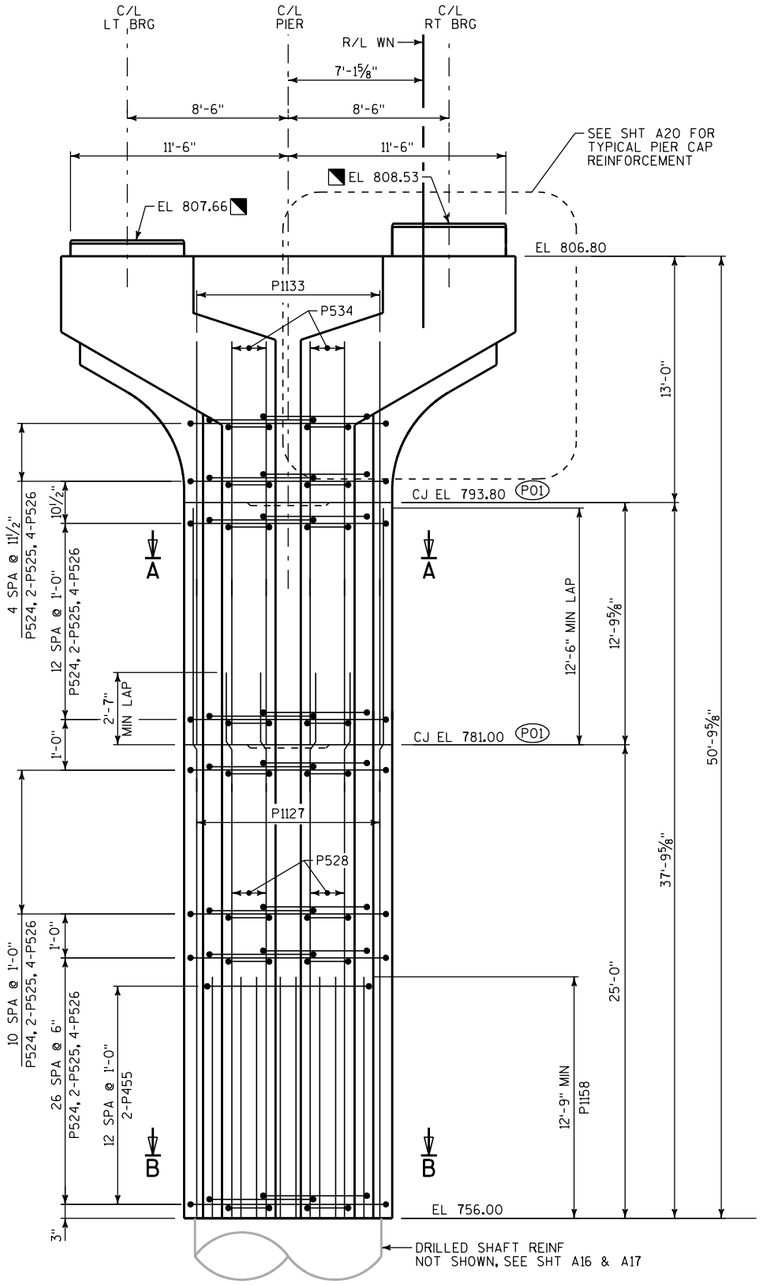
OPTION A
PIER WN01
DETAILS

SHEET A21 OF A35

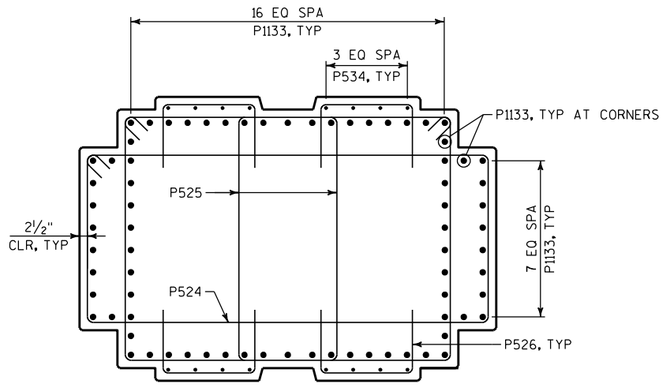
8

8

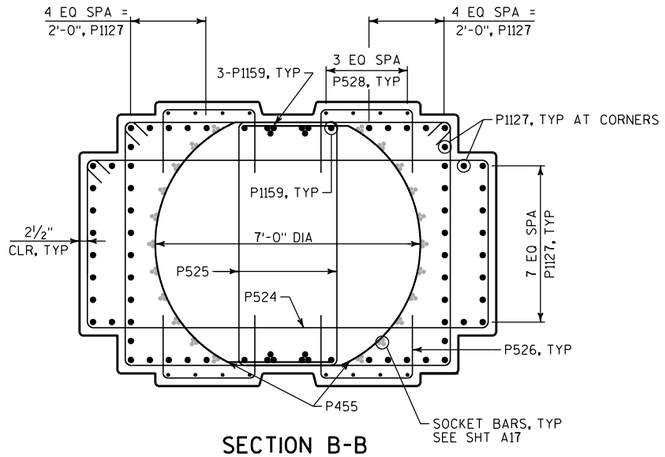
STATE PROJECT NUMBER
1060-33-81



ELEVATION



SECTION A-A



SECTION B-B

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

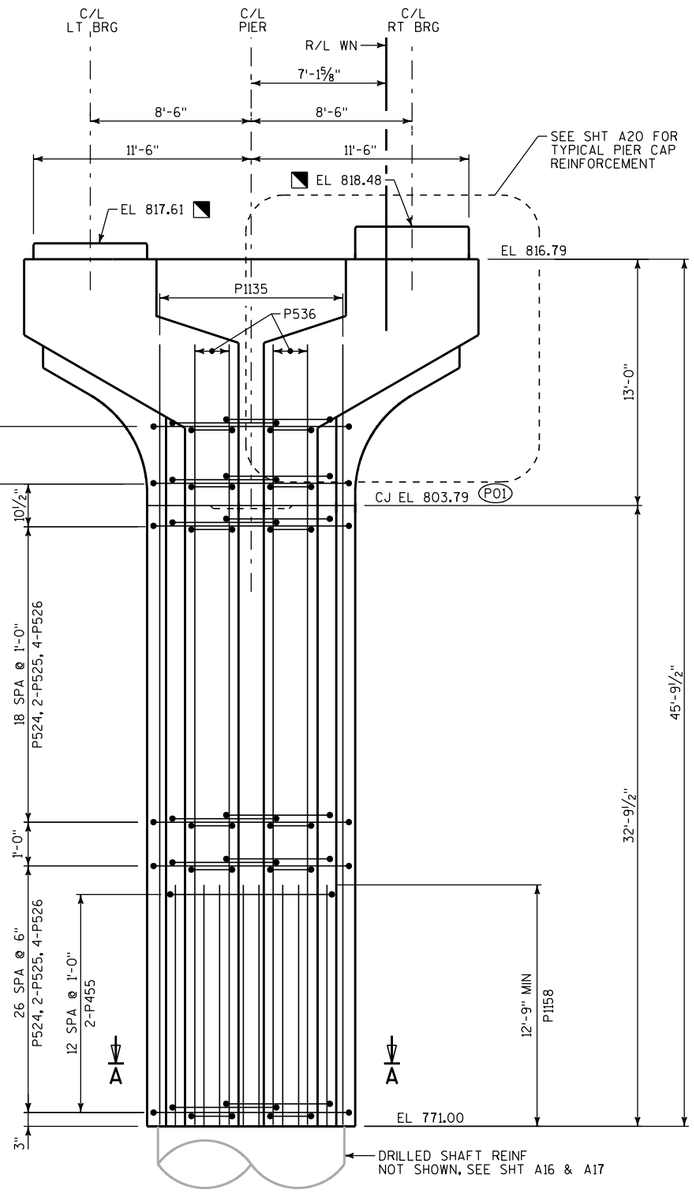
STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION A
PIER WN02
DETAILS

SHEET A22 OF A35

STATE PROJECT NUMBER
1060-33-81



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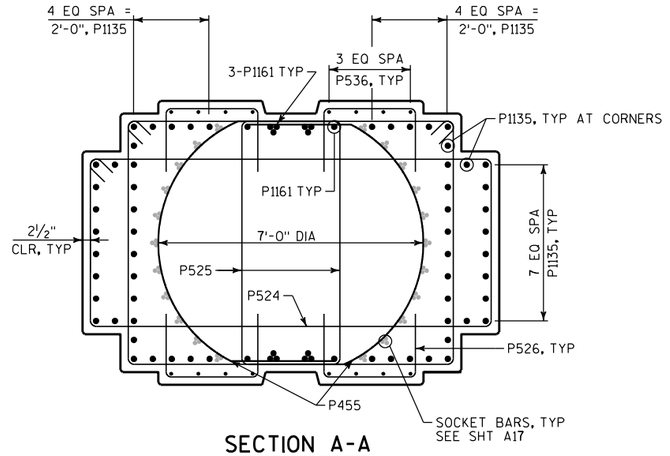


SECTION A-A

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

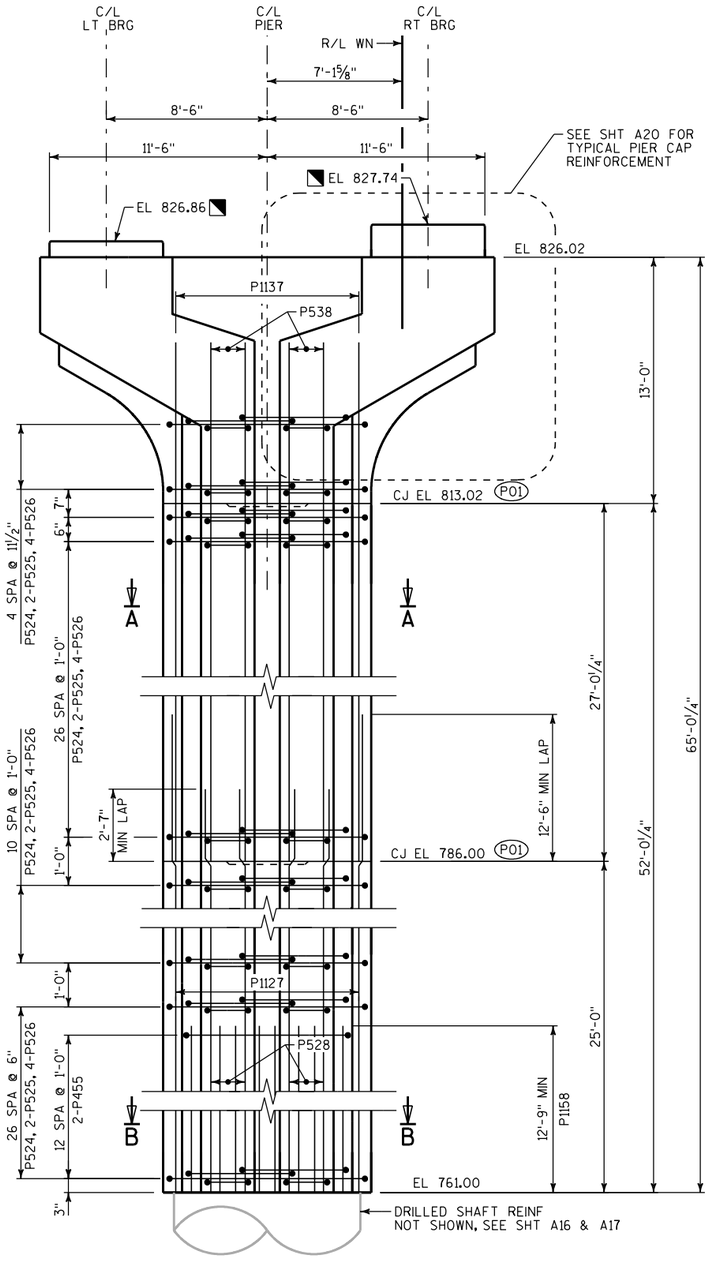
DRAWN BY GLM | PLANS CK'D. WRT

OPTION A
PIER WN03
DETAILS

SHEET A23 OF A35

8

STATE PROJECT NUMBER
1060-33-81



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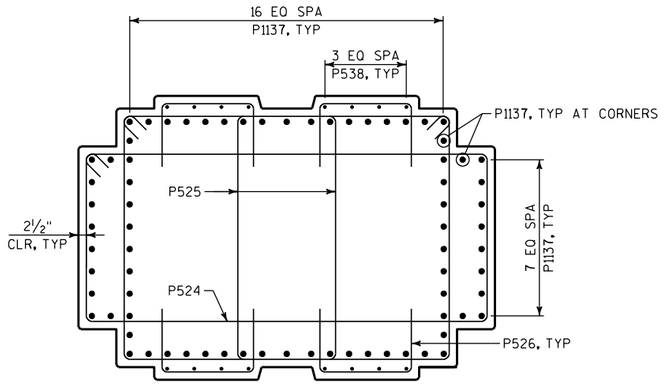
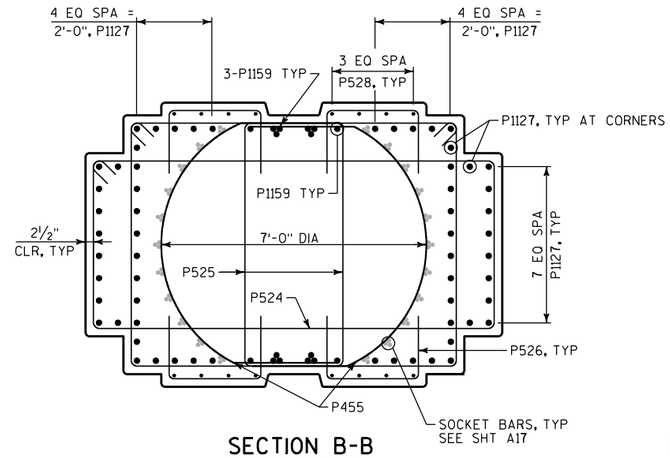


SECTION A-A



SECTION B-B

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

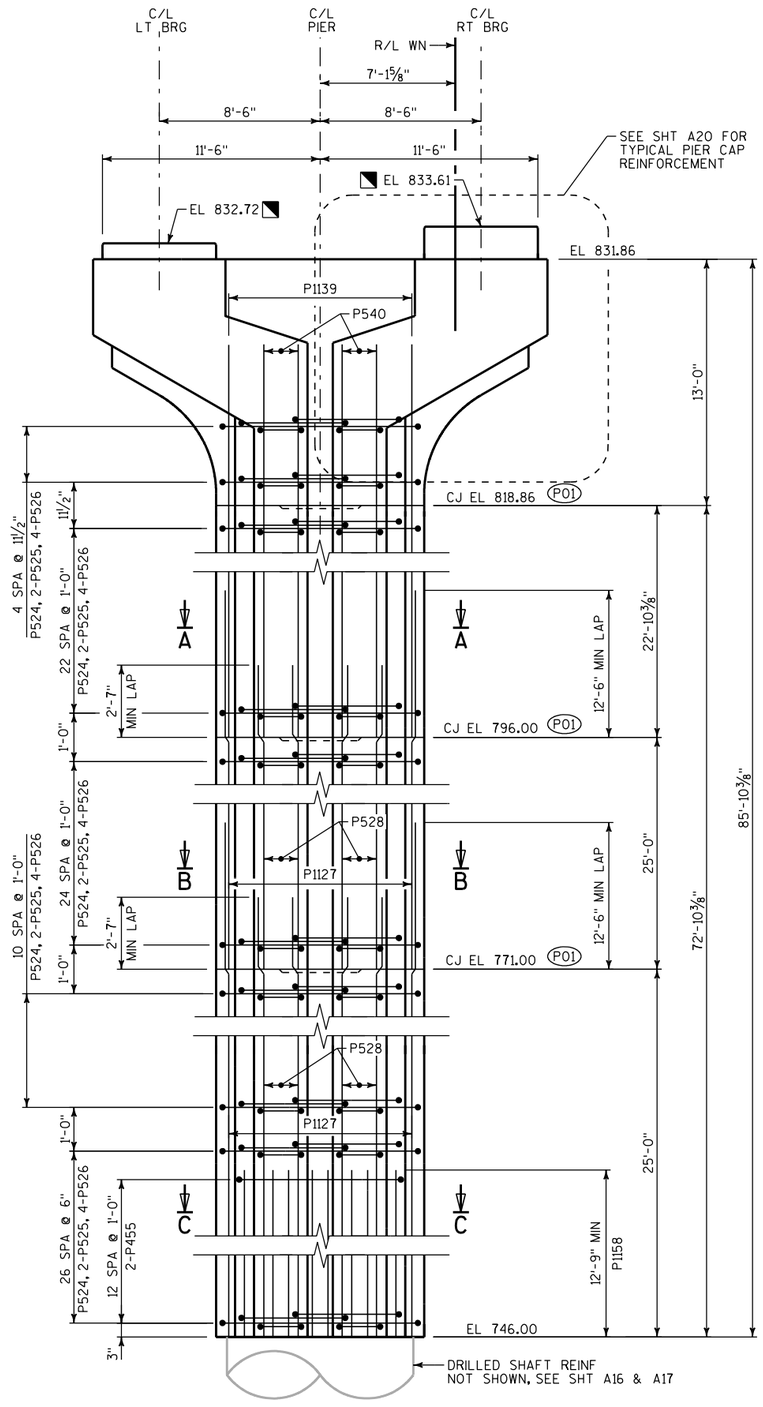
OPTION A
PIER WN04
DETAILS

SHEET A24 OF A35

8

8

STATE PROJECT NUMBER
1060-33-81



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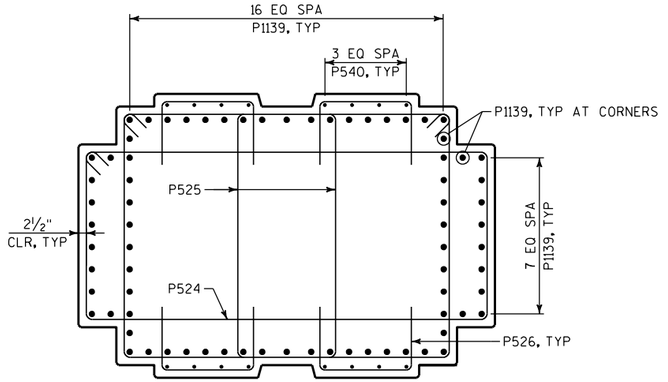
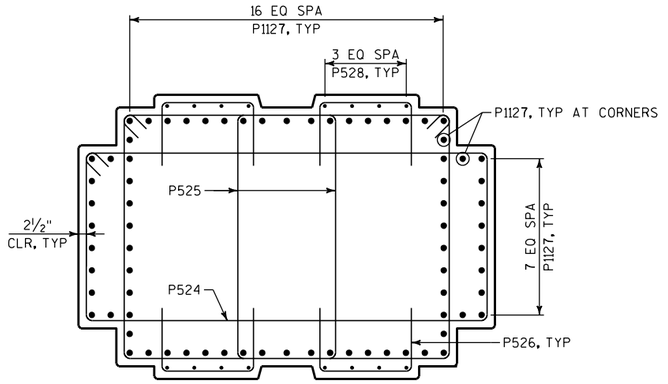
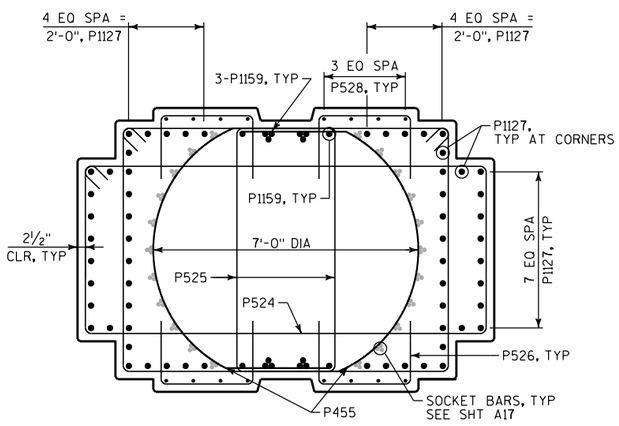


SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION A
PIER WN05
DETAILS

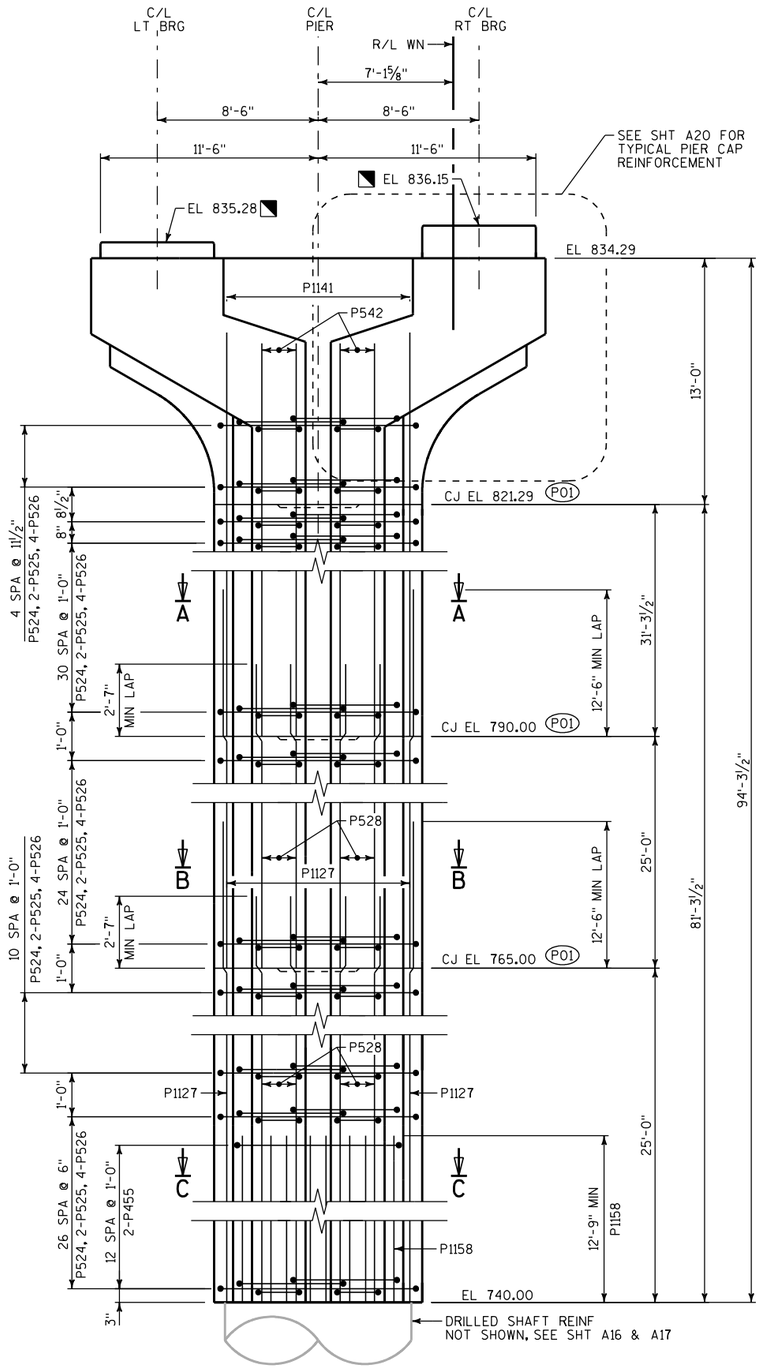
SHEET A25 OF A35

8

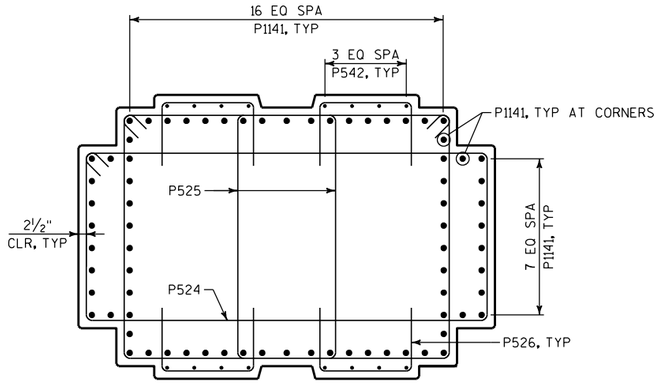
8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option A\B856_080325A_pi.dgn
PLOT DATE : 13-MAY-2015 14:01
PLOT BY : MSCBKS
PLOT NAME : B856_080325A_pi
PLOT SCALE : 8:1

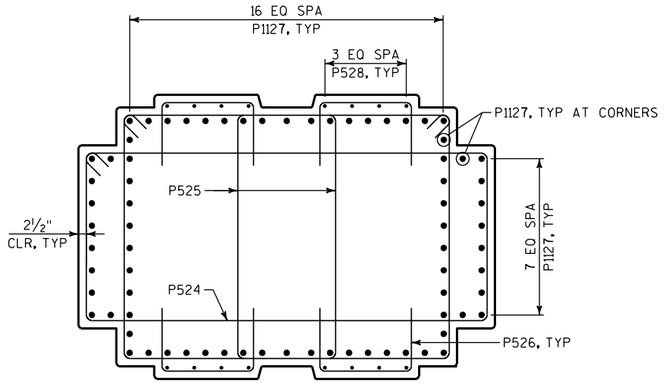
STATE PROJECT NUMBER
1060-33-81



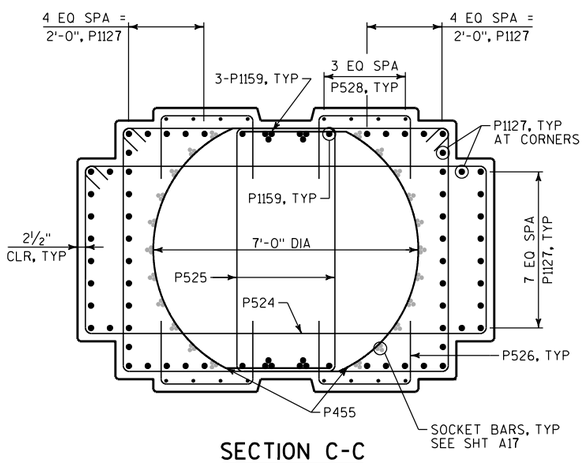
ELEVATION



SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

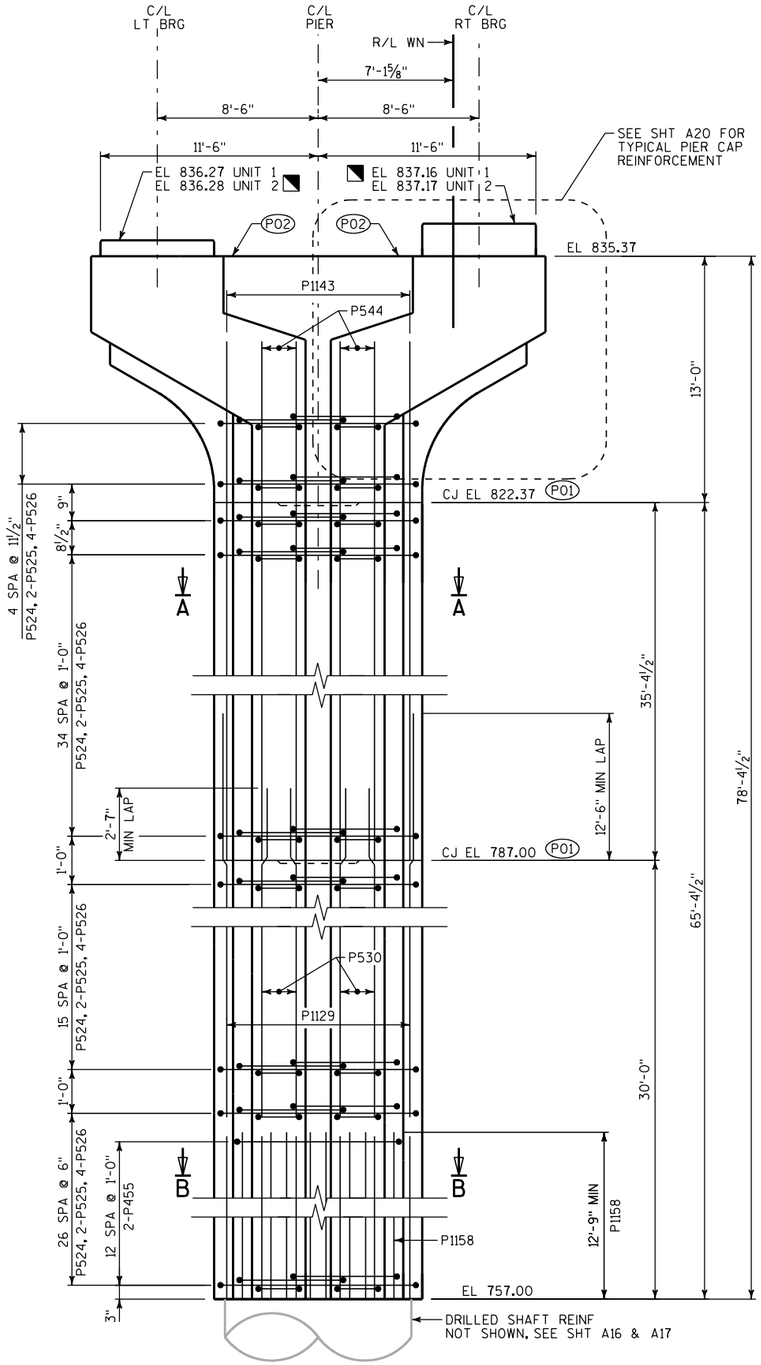
OPTION A
PIER WNO6
DETAILS

SHEET A26 OF A35

8

8

STATE PROJECT NUMBER
1060-33-81



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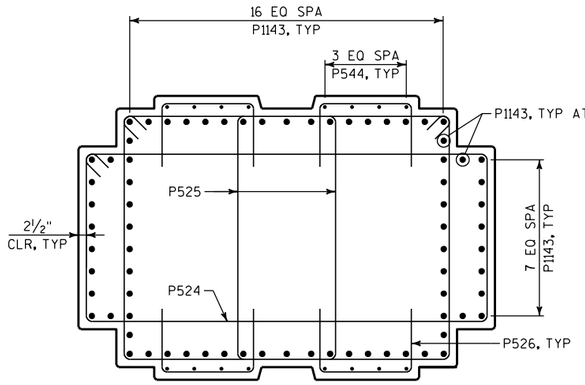
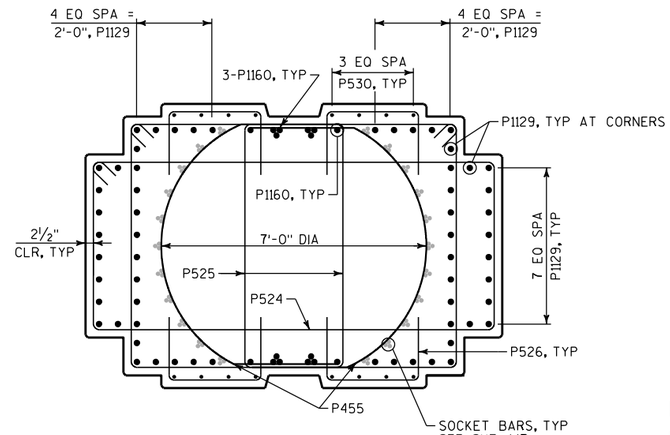
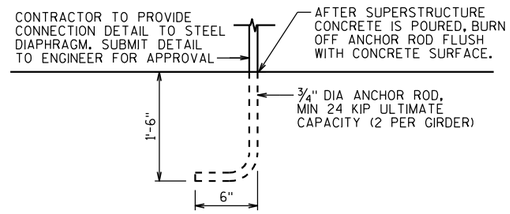


SECTION A-A



SECTION B-B



TEMPORARY HOLD DOWN DEVICE

LOCATE WITHIN 1'-6" OF GIRDER BOTTOM FLANGE.
PAYMENT IS INCIDENTAL TO "CONCRETE MASONRY BRIDGES"

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

(P02) TEMPORARY HOLD DOWN DEVICE, SEE DETAIL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION A
PIER WN07
DETAILS

SHEET A27 OF A35

8

8

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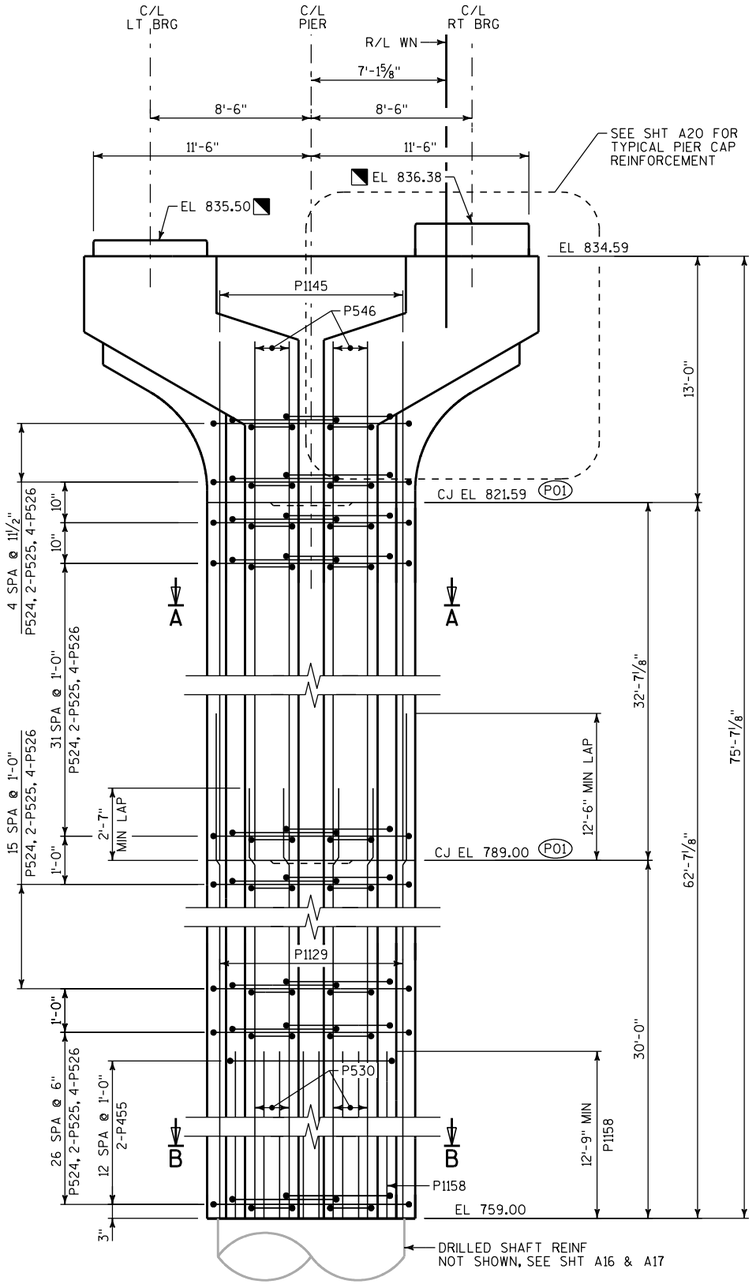
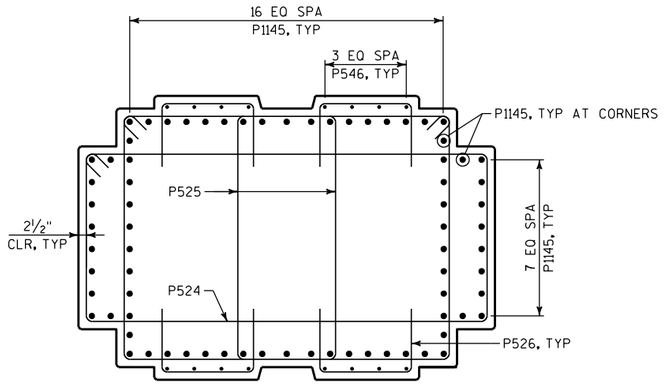
PLOT DATE : 13-MAY-2015 14:01
PLOT BY : MSCBKS
PLOT NAME : B856_080327A_pi
PLOT SCALE : 8:1

STATE PROJECT NUMBER

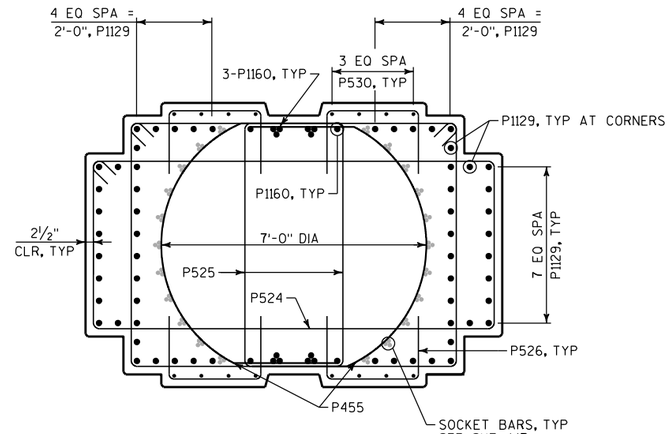
1060-33-81



ELEVATION



SECTION A-A



SECTION B-B

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION A
PIER WNO8
DETAILS

SHEET A28 OF A35

8

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option A\B856_080328A_pi.dgn
PLOT DATE : 13-MAY-2015 14:01
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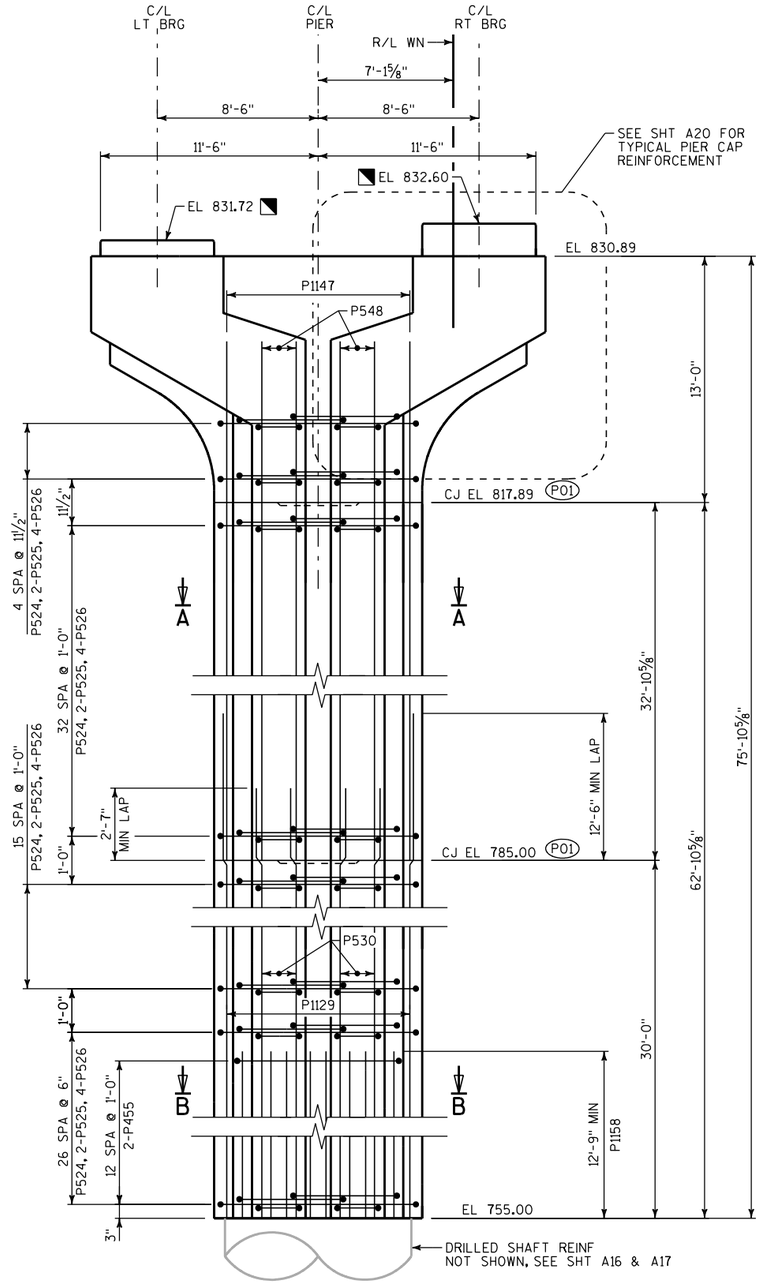
PLOT NAME : B856_080328A_pi
PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



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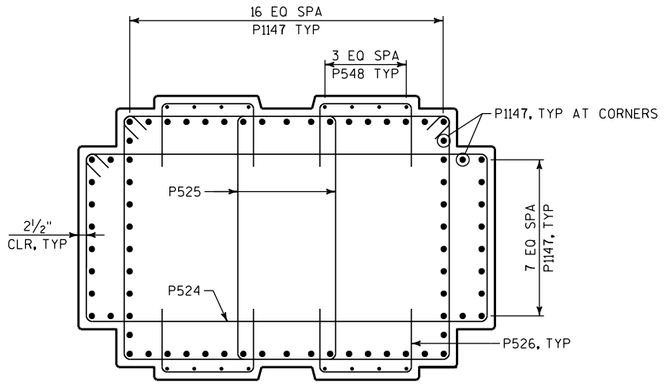
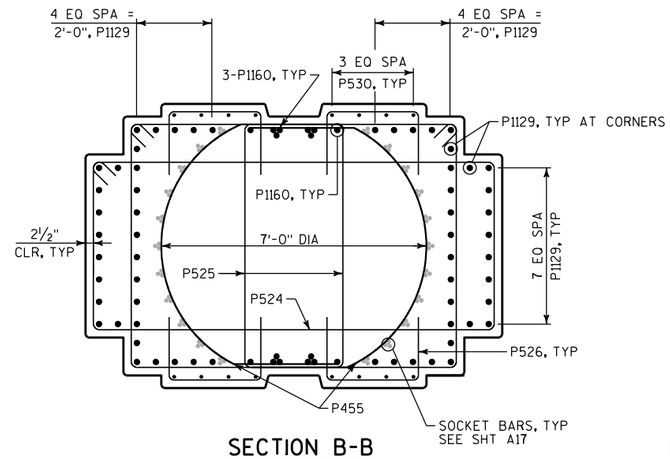


SECTION A-A



SECTION B-B

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

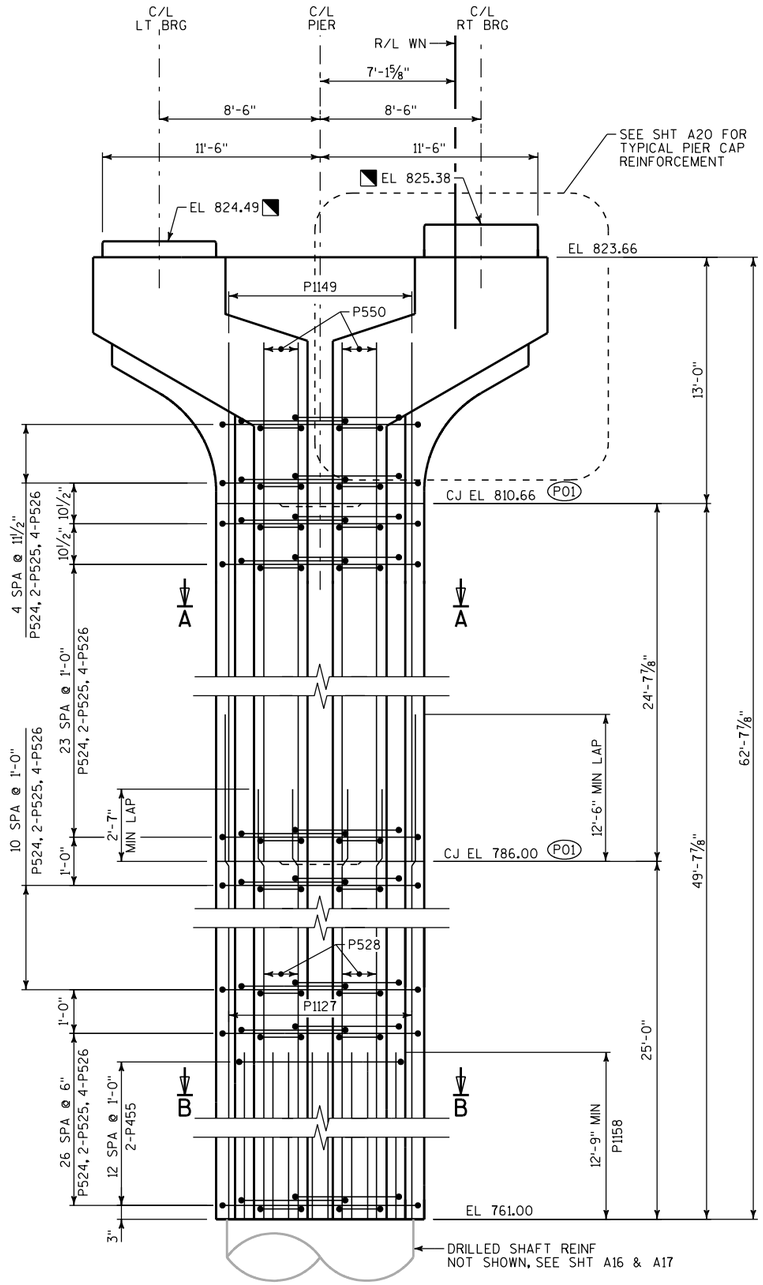
DRAWN BY GLM | PLANS CK'D. WRT

OPTION A
PIER WN09
DETAILS

SHEET A29 OF A35

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option A\B856_080329A_pi.dgn
PLOT DATE : 13-MAY-2015 14:01
PLOT BY : MSCBKS
PLOT NAME : B856_080329A_pi
PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



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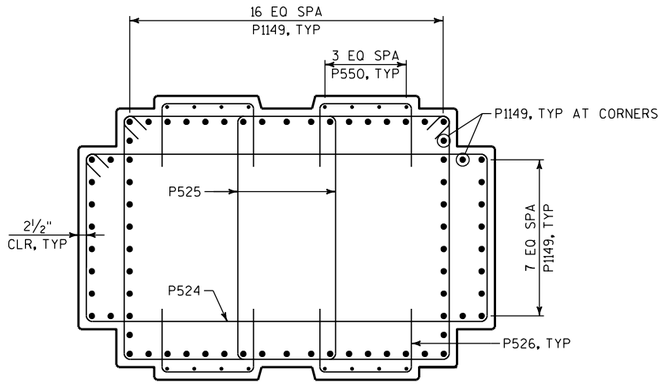
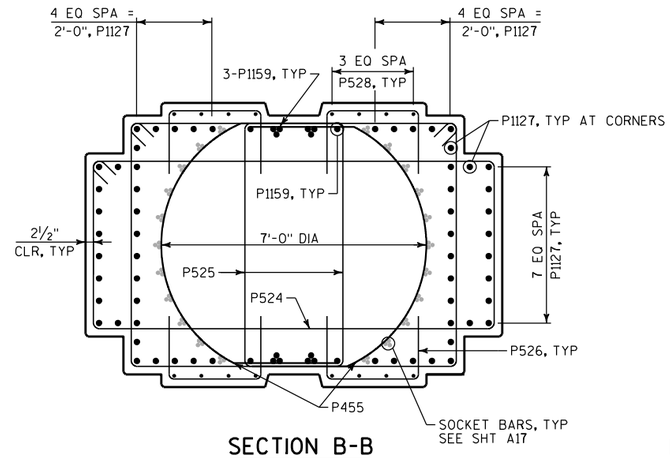


SECTION A-A



SECTION B-B

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

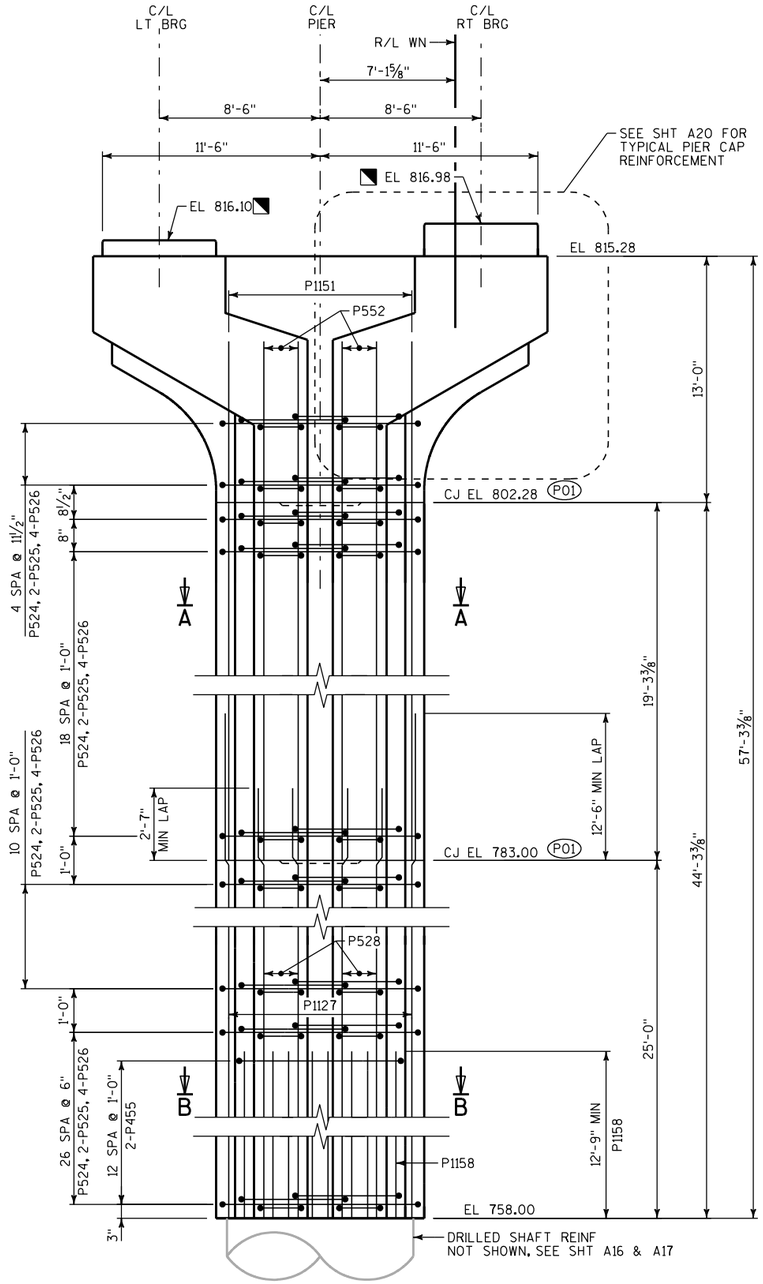
STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

OPTION A
PIER WN10
DETAILS

SHEET A30 OF A35

STATE PROJECT NUMBER
1060-33-81



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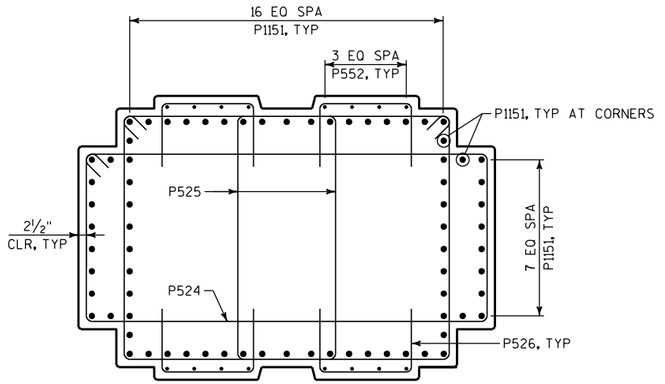
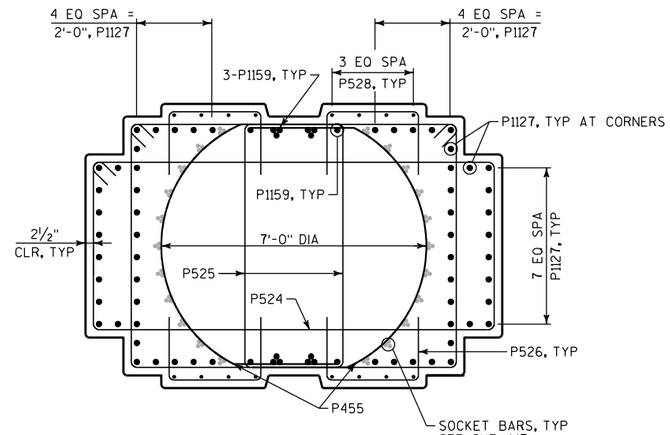


SECTION A-A



SECTION B-B

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

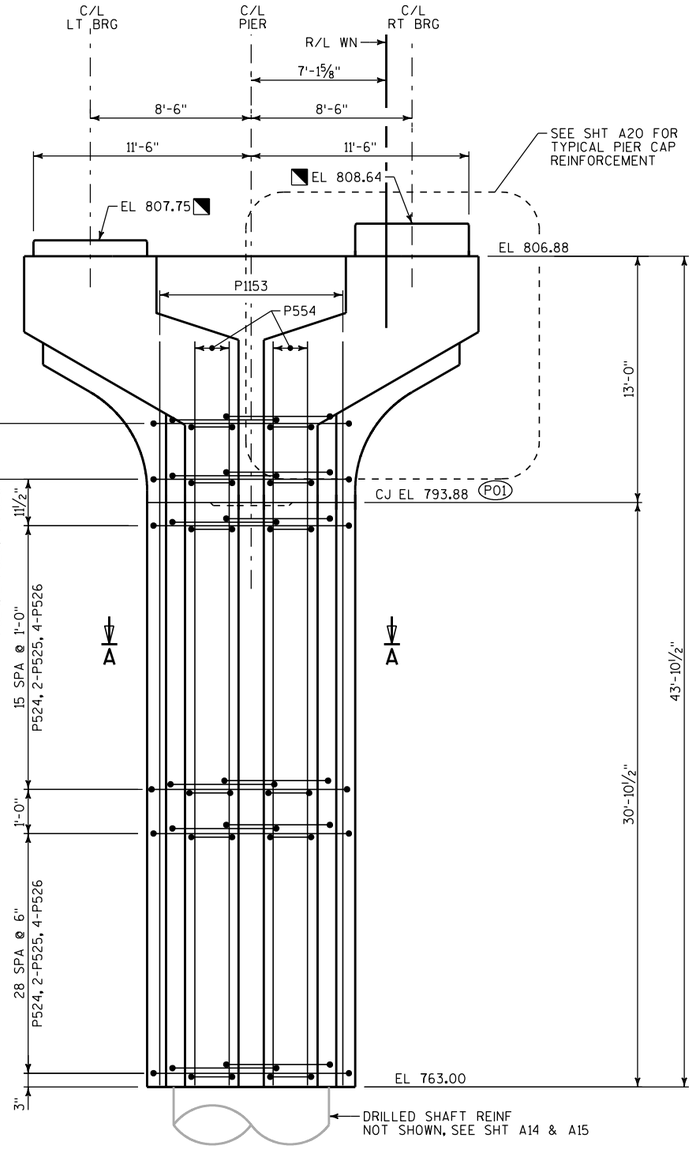
OPTION A
PIER WN11
DETAILS

SHEET A31 OF A35

8

8

STATE PROJECT NUMBER
1060-33-81



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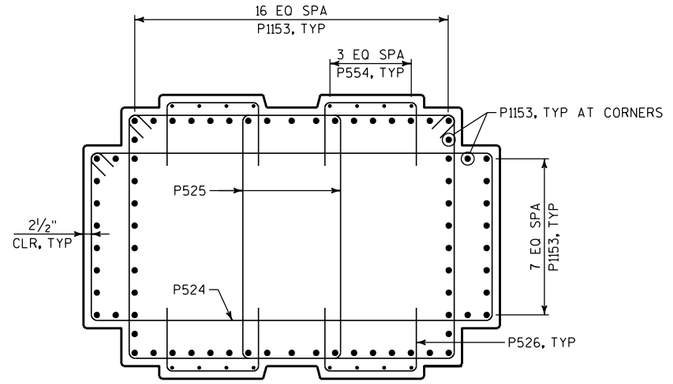


SECTION A-A

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

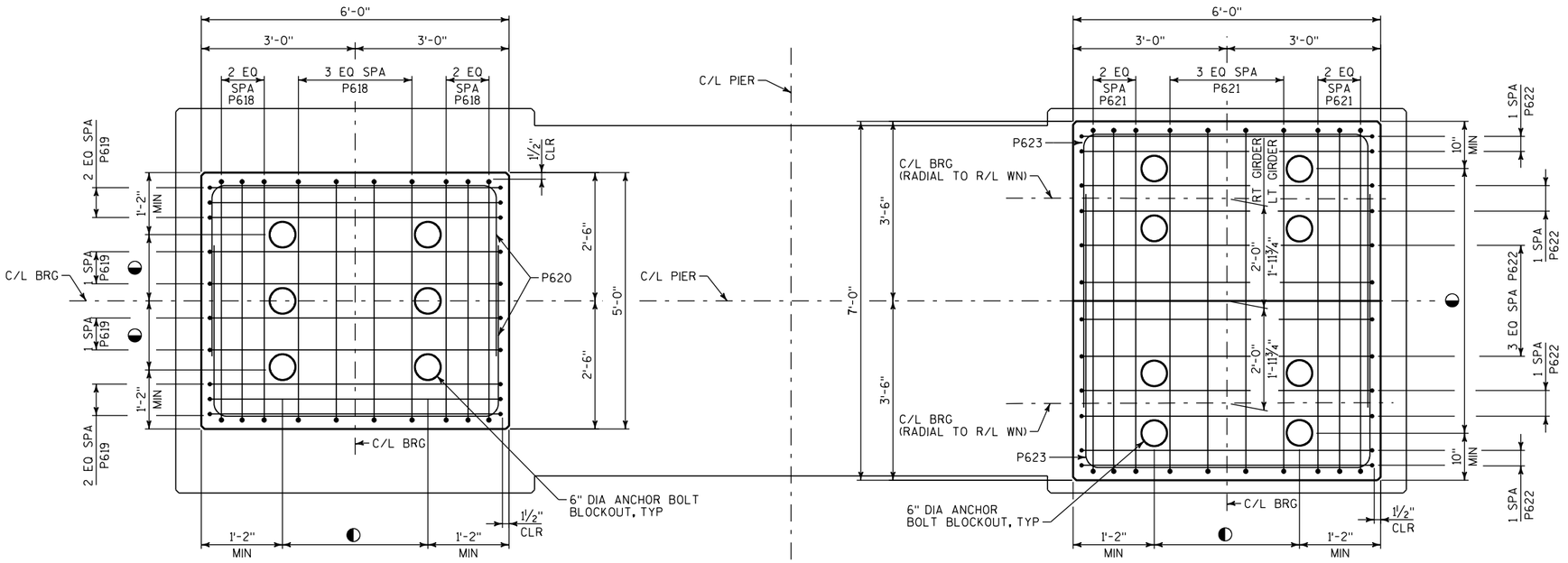
OPTION A
PIER WN12
DETAILS

SHEET A32 OF A35

8

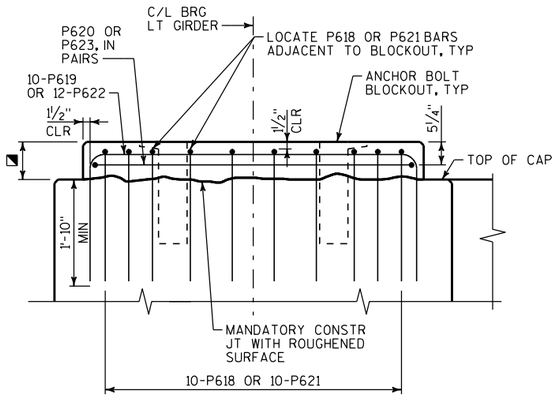
8

STATE PROJECT NUMBER
1060-33-81

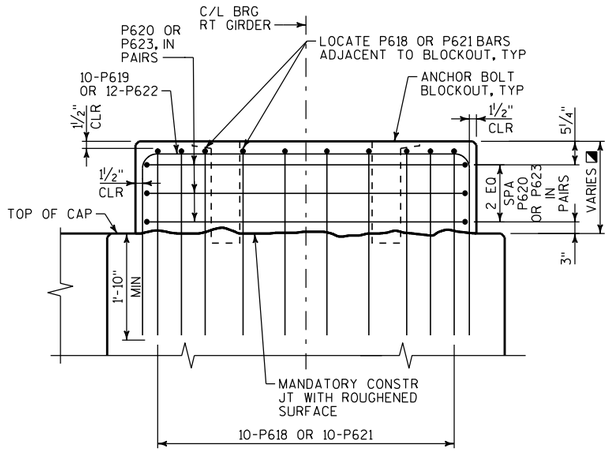


PEDESTAL PLAN
(TYPICAL PIER)

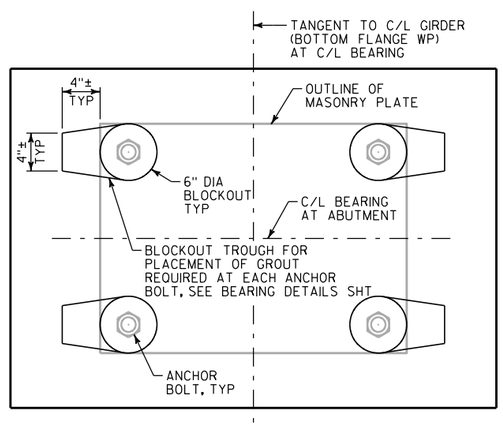
PEDESTAL PLAN
(PIER WN07 ONLY)



PEDESTAL ELEVATION - LEFT GIRDER



PEDESTAL ELEVATION - RIGHT GIRDER



PEDESTAL PLAN - GROUT TROUGHS
SEE BEARING DETAILS SHEET

NOTES

FOR DETAILS OF ANCHOR BOLT BLOCKOUTS, SEE BEARING DETAILS SHEET.

FOR DETAILS OF BEARINGS, SEE BEARING LAYOUT SHEETS AND BEARING DETAILS SHEET.

LEGEND

◥ DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

◐ SEE BEARING LAYOUT SHEETS FOR ANCHOR BOLT BLOCKOUT LOCATION. VERIFY LOCATIONS WITH BEARING MANUFACTURER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION A
TYPICAL PEDESTAL
REINFORCEMENT

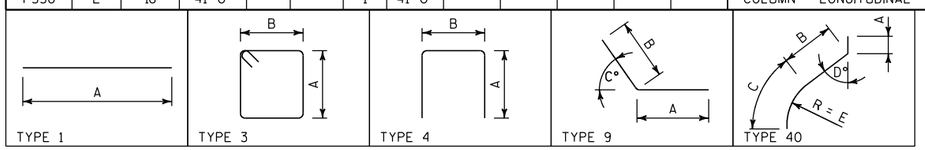
SHEET A33 OF A35

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option A\B856_080333A_pi.dgn
PLOT DATE : 13-MAY-2015 14:01
PLOT BY : MSCBKS
PLOT NAME : B856_080333A_pi
PLOT SCALE : 2.666667:1

STATE PROJECT NUMBER

1060-33-81

BAR INFORMATION							BAR DIMENSIONS						LOCATION	BAR SERIES INFORMATION				
BAR MARK	MATL	NO. REQ'D	LENGTH	BENT	BAR SERIES	BEND TYPE	A	B	C	D	E	F		DIM 1	MIN	MAX	NO REQ'D	LENGTH
P1101	E	132	26'-8"	X		4	2'-0"	23'-4"					TOP TIE BAR					
P1102	E	132	25'-10"	X		4	2'-0"	22'-6"					BOTTOM TIE BAR					
P803	E	144	23'-4"			1	23'-4"						SKIN STEEL - TOP OF CAP					
P804	E	216	15'-6"		X	1	15'-6"						SKIN STEEL - MIDDLE OF CAP (SERIES)	A	8'-4"	22'-8"	24 SERIES OF 9	8'-4" TO 22'-8"
P605	E	768	21'-2"	X	X	3	6'-0"	4'-2"					STIRRUPS - TOP EDGES OF CAP (SERIES)	A	3'-9"	8'-3"	48 SERIES OF 16	16'-8" TO 25'-8"
P506	E	144	18'-8"	X		4	6'-3"	6'-5"					TIE - TOP CENTER OF CAP					
P507	E	288	15'-9"	X		9	3'-6"	12'-3"	60				OUTSIDE FACE OF PIER CAP - TOP					
P508	E	528	11'-1"	X		4	4'-2"	3'-0"					HORIZONTAL TIE - BOTTOM OF CAP					
P509	E	528	11'-9"	X		4	4'-6"	3'-0"					VERTICAL TIE - BOTTOM OF CAP					
P510	E	168	12'-4"	X		40	3'-0"	2'-8"	6'-8"	60	6'-5"		OUTSIDE FACE OF PIER CAP - BOT					
P511	E	240	16'-5"	X		4	5'-1"	6'-6"					TIE - ARCHITECTURAL REVEAL - HORIZ - TOP					
P512	E	48	17'-11"	X		4	5'-1"	8'-0"					TIE - ARCHITECTURAL REVEAL - HORIZ - MID					
P513	E	48	18'-8"	X		4	5'-1"	8'-9"					TIE - ARCHITECTURAL REVEAL - HORIZ - MID					
P514	E	240	16'-4"	X	X	4	5'-1"	6'-5"					TIE - ARCHITECTURAL REVEAL - HORIZ - BOT (SERIES)	B	3'-10"	9'-0"	48 SERIES OF 5	13'-9" TO 18'-11"
P515	E	288	5'-6"		X	1	5'-5½"						ARCHITECTURAL REVEAL - VERT - TOP (SERIES)	A	4'-2"	6'-9"	48 SERIES OF 6	4'-2" TO 6'-9"
P516	E	192	4'-9"			1	4'-9"						ARCHITECTURAL REVEAL - VERT - MID					
P517	E	48	7'-7"	X		9	3'-0"	4'-7"	72				ARCHITECTURAL REVEAL - VERT - INSIDE FACE					
P618	E	220	10'-11"	X		4	3'-3"	4'-9"					PEDESTAL REINFORCEMENT - TYP - TOP FACE					
P619	E	220	11'-9"	X		4	3'-2"	5'-9"					PEDESTAL REINFORCEMENT - TYP - TOP FACE					
P620	E	88	12'-5"	X		4	3'-7"	5'-7"					PEDESTAL REINFORCEMENT - TYP - SIDE					
P621	E	20	12'-11"	X		4	3'-3"	6'-9"					PEDESTAL REINFORCEMENT - WN07 - TOP FACE					
P622	E	24	11'-9"	X		4	3'-2"	5'-9"					PEDESTAL REINFORCEMENT - WN07 - TOP FACE					
P623	E	8	14'-5"	X		4	4'-7"	5'-7"					PEDESTAL REINFORCEMENT - WN07 - SIDE					
P524	E	848	30'-7"	X		3	10'-7"	4'-5"					COLUMN - STIRRUP					
P525	E	1696	24'-7"	X		3	5'-7"	6'-5"					COLUMN - STIRRUP					
P526	E	3392	5'-9"	X		4	1'-10"	2'-4"					COLUMN - TIE					
P1127	E	508	37'-9"			1	37'-9"						COLUMN - LONGITUDINAL - MAIN- BOTTOM					
P528	E	128	27'-9"			1	27'-9"						COLUMN - LONGITUDINAL - REVEAL - BOTTOM					
P1129	E	180	42'-9"			1	42'-9"						COLUMN - LONGITUDINAL - MAIN- BOTTOM					
P530	E	48	32'-9"			1	32'-9"						COLUMN - LONGITUDINAL - REVEAL - BOTTOM					
P1131	E	74	40'-6"			1	40'-6"						COLUMN - LONGITUDINAL - MAIN - WN01					
P532	E	16	40'-6"			1	40'-6"						COLUMN - LONGITUDINAL - REVEAL - WN01					
P1133	E	74	21'-0"			1	21'-0"						COLUMN - LONGITUDINAL - MAIN - WN02					
P534	E	16	21'-0"			1	21'-0"						COLUMN - LONGITUDINAL - REVEAL - WN02					
P1135	E	60	41'-0"			1	41'-0"						COLUMN - LONGITUDINAL - MAIN - WN03					
P536	E	16	41'-0"			1	41'-0"						COLUMN - LONGITUDINAL - REVEAL - WN03					



NOTES

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

DIMENSIONS ARE TO OUTSIDE OF BARS, EXCEPT FOR RADIUS DIMENSIONS WHICH ARE TO INSIDE OF BENDS.

FOR A BAR SERIES, LENGTH SHOWN IN THE FOURTH COLUMN OF TABLE IS THE AVERAGE BAR LENGTH USED TO COMPUTE BAR WEIGHT.

BAR MATERIAL CODES USED IN SECOND COLUMN OF TABLE
- U - STEEL, HIGH STRENGTH, UNCOATED.
- E - STEEL, HIGH STRENGTH, EPOXY COATED.
- S - STAINLESS STEEL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY PAK | PLANS CK'D. WRT

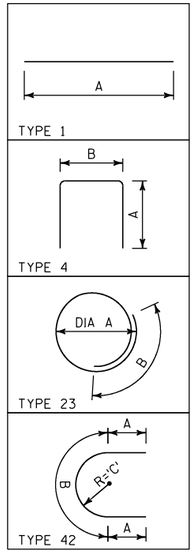
OPTION A
PIER REINFORCEMENT
SCHEDULE (1 OF 2)

SHEET A34 OF A35

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option A\B856_080334A_pi.dgn
PLOT DATE : 13-MAY-2015 14:01
PLOT BY : MSCBKS
PLOT NAME : B856_080334A_pi
PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81

BAR INFORMATION							BAR DIMENSIONS						LOCATION	BAR SERIES INFORMATION				
BAR MARK	MATL	NO. REQ'D	LENGTH	BENT	BAR SERIES	BEND TYPE	A	B	C	D	E	F		DIM 1	MIN	MAX	NO REQ'D	LENGTH
P1137	E	74	35'-6"			1	35'-6"						COLUMN - LONGITUDINAL - MAIN - WN04					
P538	E	16	35'-6"			1	35'-6"						COLUMN - LONGITUDINAL - REVEAL - WN04					
P1139	E	74	31'-0"			1	31'-0"						COLUMN - LONGITUDINAL - MAIN - WN05					
P540	E	16	31'-0"			1	31'-0"						COLUMN - LONGITUDINAL - REVEAL - WN05					
P1141	E	74	39'-6"			1	39'-6"						COLUMN - LONGITUDINAL - MAIN - WN06					
P542	E	16	39'-6"			1	39'-6"						COLUMN - LONGITUDINAL - REVEAL - WN06					
P1143	E	74	43'-6"			1	43'-6"						COLUMN - LONGITUDINAL - MAIN - WN07					
P544	E	16	43'-6"			1	43'-6"						COLUMN - LONGITUDINAL - REVEAL - WN07					
P1145	E	74	41'-0"			1	41'-0"						COLUMN - LONGITUDINAL - MAIN - WN08					
P546	E	16	41'-0"			1	41'-0"						COLUMN - LONGITUDINAL - REVEAL - WN08					
P1147	E	74	41'-0"			1	41'-0"						COLUMN - LONGITUDINAL - MAIN - WN09					
P548	E	16	41'-0"			1	41'-0"						COLUMN - LONGITUDINAL - REVEAL - WN09					
P1149	E	74	33'-0"			1	33'-0"						COLUMN - LONGITUDINAL - MAIN - WN10					
P550	E	16	33'-0"			1	33'-0"						COLUMN - LONGITUDINAL - REVEAL - WN10					
P1151	E	74	27'-6"			1	27'-6"						COLUMN - LONGITUDINAL - MAIN - WN11					
P552	E	16	27'-6"			1	27'-6"						COLUMN - LONGITUDINAL - REVEAL - WN11					
P1153	E	74	39'-0"			1	39'-0"						COLUMN - LONGITUDINAL - MAIN - WN12					
P554	E	16	39'-0"			1	39'-0"						COLUMN - LONGITUDINAL - REVEAL - WN12					
P455	E	260	13'-1"	X		42	2'-6"	8'-1"	3'-5"				SOCKET CONNECTION HORIZONTAL (COLUMN)					
P456	E	120	23'-0"	X		23	7'-0"	1'-0"					SOCKET CONNECTION HORIZONTAL (SHAFT)					
P457	E	240	5'-0"	X		4	1'-0"	3'-2"					SOCKET CONNECTION HORIZONTAL (SHAFT)					
P1158	E	660	25'-3"			1	25'-3"						SOCKET CONNECTION VERTICAL					
P1159	E	96	50'-0"			1	50'-0"						SOCKET CONNECTION VERTICAL (25'CJ)					
P1160	E	48	55'-0"			1	55'-0"						SOCKET CONNECTION VERTICAL (30'CJ)					
P1161	E	16	53'-6"			1	53'-6"						SOCKET CONNECTION VERTICAL WN03					



BAR MARK BREAKDOWN

MARK	PIER WN01	PIER WN02	PIER WN03	PIER WN04	PIER WN05	PIER WN06	PIER WN07	PIER WN08	PIER WN09	PIER WN10	PIER WN11	PIER WN12	TOTAL NO	WEIGHT
P1101	11	11	11	11	11	11	11	11	11	11	11	11	132	18702
P1102	11	11	11	11	11	11	11	11	11	11	11	11	132	18117
P803	12	12	12	12	12	12	12	12	12	12	12	12	144	8971
P804	18	18	18	18	18	18	18	18	18	18	18	18	216	8939
P605	64	64	64	64	64	64	64	64	64	64	64	64	768	24417
P506	12	12	12	12	12	12	12	12	12	12	12	12	144	2804
P507	24	24	24	24	24	24	24	24	24	24	24	24	288	4731
P508	44	44	44	44	44	44	44	44	44	44	44	44	528	6104
P509	44	44	44	44	44	44	44	44	44	44	44	44	528	6471
P510	14	14	14	14	14	14	14	14	14	14	14	14	168	2161
P511	20	20	20	20	20	20	20	20	20	20	20	20	240	4109
P512	4	4	4	4	4	4	4	4	4	4	4	4	48	897
P513	4	4	4	4	4	4	4	4	4	4	4	4	48	935
P514	20	20	20	20	20	20	20	20	20	20	20	20	240	4089
P515	24	24	24	24	24	24	24	24	24	24	24	24	288	1652
P516	16	16	16	16	16	16	16	16	16	16	16	16	192	951
P517	4	4	4	4	4	4	4	4	4	4	4	4	48	380
P618	20	20	20	20	20	20	0	20	20	20	20	20	220	3607
P619	20	20	20	20	20	20	0	20	20	20	20	20	220	3883
P620	8	8	8	8	8	8	0	8	8	8	8	8	88	1641
P621	0	0	0	0	0	0	20	0	0	0	0	0	20	388
P622	0	0	0	0	0	0	24	0	0	0	0	0	24	424
P623	0	0	0	0	0	0	8	0	0	0	0	0	8	173
P524	52	56	51	71	91	100	84	81	81	68	63	50	848	27050
P525	104	112	102	142	182	200	168	162	162	136	126	100	1696	43486
P526	208	224	204	284	364	400	336	324	324	272	252	200	3392	20343
P1127	0	60	0	60	134	134	0	0	0	60	60	0	508	101887
P528	0	16	0	16	32	32	0	0	0	16	16	0	128	3705
P1129	0	0	0	0	0	0	60	60	60	0	0	0	180	40884
P530	0	0	0	0	0	0	16	16	16	0	0	0	48	1640
P1131	74	0	0	0	0	0	0	0	0	0	0	0	74	15923

BAR MARK BREAKDOWN

MARK	PIER WN01	PIER WN02	PIER WN03	PIER WN04	PIER WN05	PIER WN06	PIER WN07	PIER WN08	PIER WN09	PIER WN10	PIER WN11	PIER WN12	TOTAL NO	WEIGHT
P532	16	0	0	0	0	0	0	0	0	0	0	0	16	676
P1133	0	74	0	0	0	0	0	0	0	0	0	0	74	8256
P534	0	16	0	0	0	0	0	0	0	0	0	0	16	350
P1135	0	0	60	0	0	0	0	0	0	0	0	0	60	13070
P536	0	0	16	0	0	0	0	0	0	0	0	0	16	684
P1137	0	0	0	74	0	0	0	0	0	0	0	0	74	13957
P538	0	0	0	16	0	0	0	0	0	0	0	0	16	592
P1139	0	0	0	0	74	0	0	0	0	0	0	0	74	12188
P540	0	0	0	0	16	0	0	0	0	0	0	0	16	517
P1141	0	0	0	0	0	74	0	0	0	0	0	0	74	15530
P542	0	0	0	0	0	16	0	0	0	0	0	0	16	659
P1143	0	0	0	0	0	0	74	0	0	0	0	0	74	17103
P544	0	0	0	0	0	0	16	0	0	0	0	0	16	726
P1145	0	0	0	0	0	0	0	74	0	0	0	0	74	16120
P546	0	0	0	0	0	0	0	16	0	0	0	0	16	684
P1147	0	0	0	0	0	0	0	0	74	0	0	0	74	16120
P548	0	0	0	0	0	0	0	0	16	0	0	0	16	684
P1149	0	0	0	0	0	0	0	0	0	74	0	0	74	12974
P550	0	0	0	0	0	0	0	0	0	16	0	0	16	551
P1151	0	0	0	0	0	0	0	0	0	0	74	0	74	10812
P552	0	0	0	0	0	0	0	0	0	0	16	0	16	459
P1153	0	0	0	0	0	0	0	0	0	0	0	74	74	15333
P554	0	0	0	0	0	0	0	0	0	0	0	16	16	651
P455	0	26	26	26	26	26	26	26	26	26	26	0	260	2272
P456	0	12	12	12	12	12	12	12	12	12	12	0	120	1844
P457	0	24	24	24	24	24	24	24	24	24	24	0	240	802
P1158	0	66	66	66	66	66	66	66	66	66	66	0	660	88541
P1159	0	16	0	16	16	16	0	0	0	16	16	0	96	25502
P1160	0	0	0	0	0	0	16	16	16	0	0	0	48	14026
P1161	0	0	16	0	0	0	0	0	0	0	0	0	16	4548

NOTES

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

DIMENSIONS ARE TO OUTSIDE OF BARS, EXCEPT FOR RADIUS DIMENSIONS WHICH ARE TO INSIDE OF BENDS.

FOR A BAR SERIES, LENGTH SHOWN IN THE FOURTH COLUMN OF TABLE IS THE AVERAGE BAR LENGTH USED TO COMPUTE BAR WEIGHT.

BAR MATERIAL CODES USED IN SECOND COLUMN OF TABLE
U - STEEL, HIGH STRENGTH, UNCOATED.
E - STEEL, HIGH STRENGTH, EPOXY COATED.
S - STAINLESS STEEL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION A
PIER REINFORCEMENT
SCHEDULE (2 OF 2)

SHEET A35 OF A35

8

8

STATE PROJECT NUMBER
1060-33-81

ESTIMATED QUANTITIES - PIER OPTION B

ITEM CATEGORY	ITEM NO.	BID ITEMS	UNIT	PIER WN01	PIER WN02	PIER WN03	PIER WN04	PIER WN05	PIER WN06	PIER WN07	PIER WN08	PIER WN09	PIER WN10	PIER WN11	PIER WN12	TOTAL
2112	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-40-856	LS	---	---	---	---	---	---	---	---	---	---	---	---	1
2112	209.0100	BACKFILL GRANULAR	CY	---	---	---	19	22	22	10	60	---	---	---	---	133
2112	502.0100	CONCRETE MASONRY BRIDGES	CY	155.0	200.0	186.0	249.0	297.0	463.0	373.0	439.0	270.0	233.0	361.0	276.0	3,502
2112	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	34,340	21,840	33,240	28,010	21,840	26,940	23,200	29,260	21,840	28,410	26,940	23,520	319,380
2112	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	32,560	51,090	43,500	58,640	74,240	67,630	56,460	54,530	64,060	57,290	57,060	32,640	649,700
2112	511.1200.0003	TEMPORARY SHORING B-40-856	SF	---	---	---	555	1,270	---	---	---	---	620	---	---	2,445
2112	550.2168	PILING CIP CONCRETE 16 X 0.50-INCH	LF	---	---	---	---	---	2,240	1,300	1,700	---	---	1,440	1,300	7,980
2112	SPV.0060.4110	PILE DYNAMIC ANALYZER (PDA) TESTING	EACH	---	---	---	---	---	2	2	2	---	---	2	2	10
2112	SPV.0060.4115	PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH	---	---	---	---	---	2	2	2	---	---	2	2	10
2112	SPV.0060.4116	CASE PILE WAVE ANALYSIS PROGRAM (CAP/WAP) EVALUATION	EACH	---	---	---	---	---	1	1	1	---	---	1	1	5
2112	SPV.0060.4150	DRILLED FOUNDATION SHAFT BASE GROUTING	EACH	1	1	1	1	1	---	---	---	1	1	---	---	7
2112	SPV.0060.4160	THERMAL INTEGRITY PROFILER (TIP) TESTING DRILLED FOUNDATION SHAFT 98.43-INCH	EACH	1	---	---	---	---	---	---	---	---	---	---	---	1
2112	SPV.0060.4162	THERMAL INTEGRITY PROFILER (TIP) TESTING DRILLED FOUNDATION SHAFT 118.11-INCH	EACH	---	1	1	1	1	---	---	---	1	1	---	---	6
2112	SPV.0060.4181	BAR COUPLERS NO. 18	EACH	---	---	30	30	---	---	---	---	---	30	---	---	90
2112	SPV.0075.4200	OBSTRUCTIONS DRILLED FOUNDATION SHAFT	HRS	4	4	4	4	4	---	---	---	4	4	---	---	28
2112	SPV.0090.4435	DRILLED FOUNDATION SHAFT 98.43-INCH	LF	65	---	---	---	---	---	---	---	---	---	---	---	65
2112	SPV.0090.4440	DRILLED FOUNDATION SHAFT 118.11-INCH	LF	---	50	76	64	50	---	---	---	50	65	---	---	355

NOTES

THIS CONTRACT CONTAINS TWO OPTIONS FOR PIER CONSTRUCTION.
THE CONTRACTOR MUST BID EITHER OPTION A OR OPTION B.

ITEMS ON THIS SHEET ARE FOR PIER OPTION B ONLY. FOR ADDITIONAL ITEMS AND QUANTITIES, SEE SHEET 5.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

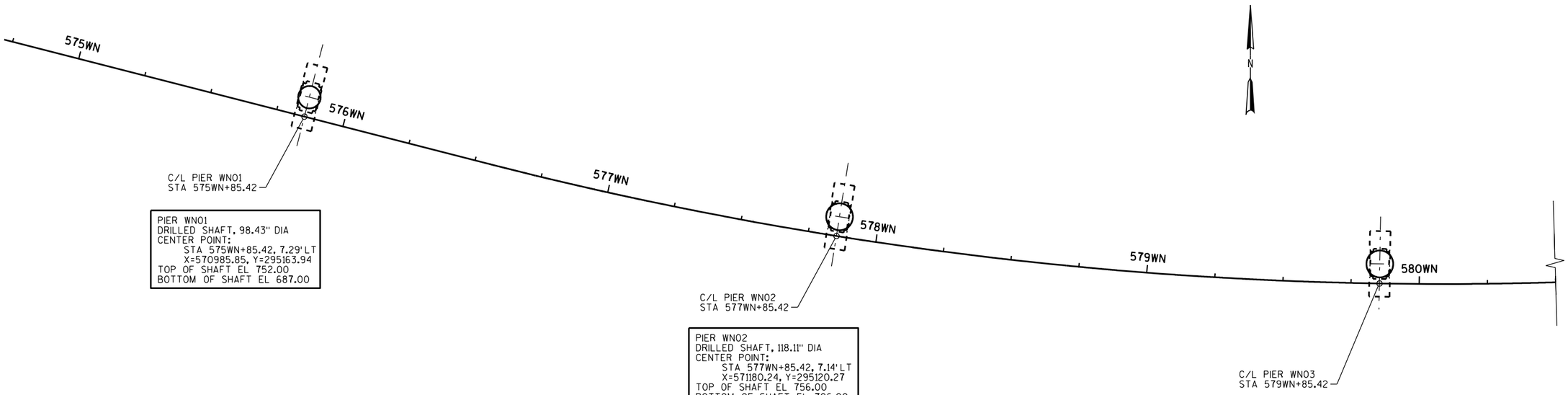
DRAWN BY GLM | PLANS CK'D. WRT

OPTION B QUANTITIES

SHEET B1 OF B40

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080101B_qu.dgn
PLOT DATE : 13-MAY-2015 14:14
PLOT BY : MSCBKS
PLOT NAME : B856_080101B_qu
PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



PIER WN01
DRILLED SHAFT, 98.43" DIA
CENTER POINT:
STA 575WN+85.42, 7.29' LT
X=570985.85, Y=295163.94
TOP OF SHAFT EL 752.00
BOTTOM OF SHAFT EL 687.00

PIER WN02
DRILLED SHAFT, 118.11" DIA
CENTER POINT:
STA 577WN+85.42, 7.14' LT
X=571180.24, Y=295120.27
TOP OF SHAFT EL 756.00
BOTTOM OF SHAFT EL 706.00

PIER WN03
DRILLED SHAFT, 118.11" DIA
CENTER POINT:
STA 579WN+85.42, 7.14' LT
X=571378.32, Y=295103.11
TOP OF SHAFT EL 771.00
BOTTOM OF SHAFT EL 695.00

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

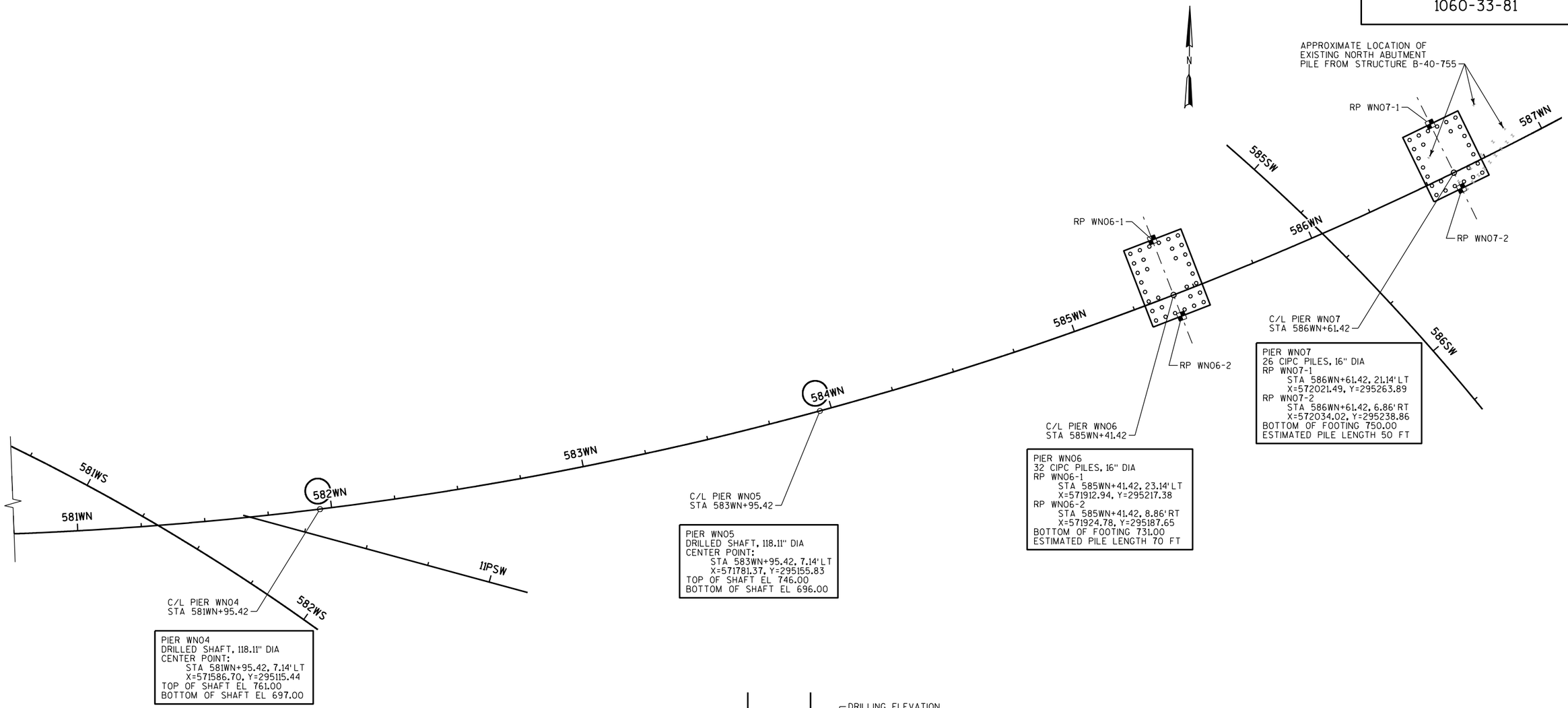
STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

OPTION B
FOUNDATION
LAYOUT (1 OF 4)

SHEET B2 OF B40

STATE PROJECT NUMBER
1060-33-81

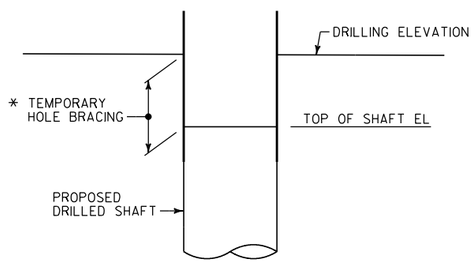


PIER WN07
26 CIPC PILES, 16" DIA
RP WN07-1
STA 586WN+61.42, 21.14' LT
X=572021.49, Y=295263.89
RP WN07-2
STA 586WN+61.42, 6.86' RT
X=572034.02, Y=295238.86
BOTTOM OF FOOTING 750.00
ESTIMATED PILE LENGTH 50 FT

PIER WN06
32 CIPC PILES, 16" DIA
RP WN06-1
STA 585WN+41.42, 23.14' LT
X=571912.94, Y=295217.38
RP WN06-2
STA 585WN+41.42, 8.86' RT
X=571924.78, Y=295187.65
BOTTOM OF FOOTING 731.00
ESTIMATED PILE LENGTH 70 FT

PIER WN05
DRILLED SHAFT, 118.11" DIA
CENTER POINT:
STA 583WN+95.42, 7.14' LT
X=571781.37, Y=295155.83
TOP OF SHAFT EL 746.00
BOTTOM OF SHAFT EL 696.00

PIER WN04
DRILLED SHAFT, 118.11" DIA
CENTER POINT:
STA 581WN+95.42, 7.14' LT
X=571586.70, Y=295115.44
TOP OF SHAFT EL 761.00
BOTTOM OF SHAFT EL 697.00



TEMPORARY HOLE BRACING

AT PIERS WN04 & WN05

* TEMPORARY HOLE BRACING MAY CONSIST OF SLIP-IN CASING OR OTHER APPROVED METHOD. COST OF TEMPORARY HOLE BRACING SHALL BE INCLUDED WITH COST OF "EXCAVATION FOR STRUCTURES BRIDGES B-40-856".

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

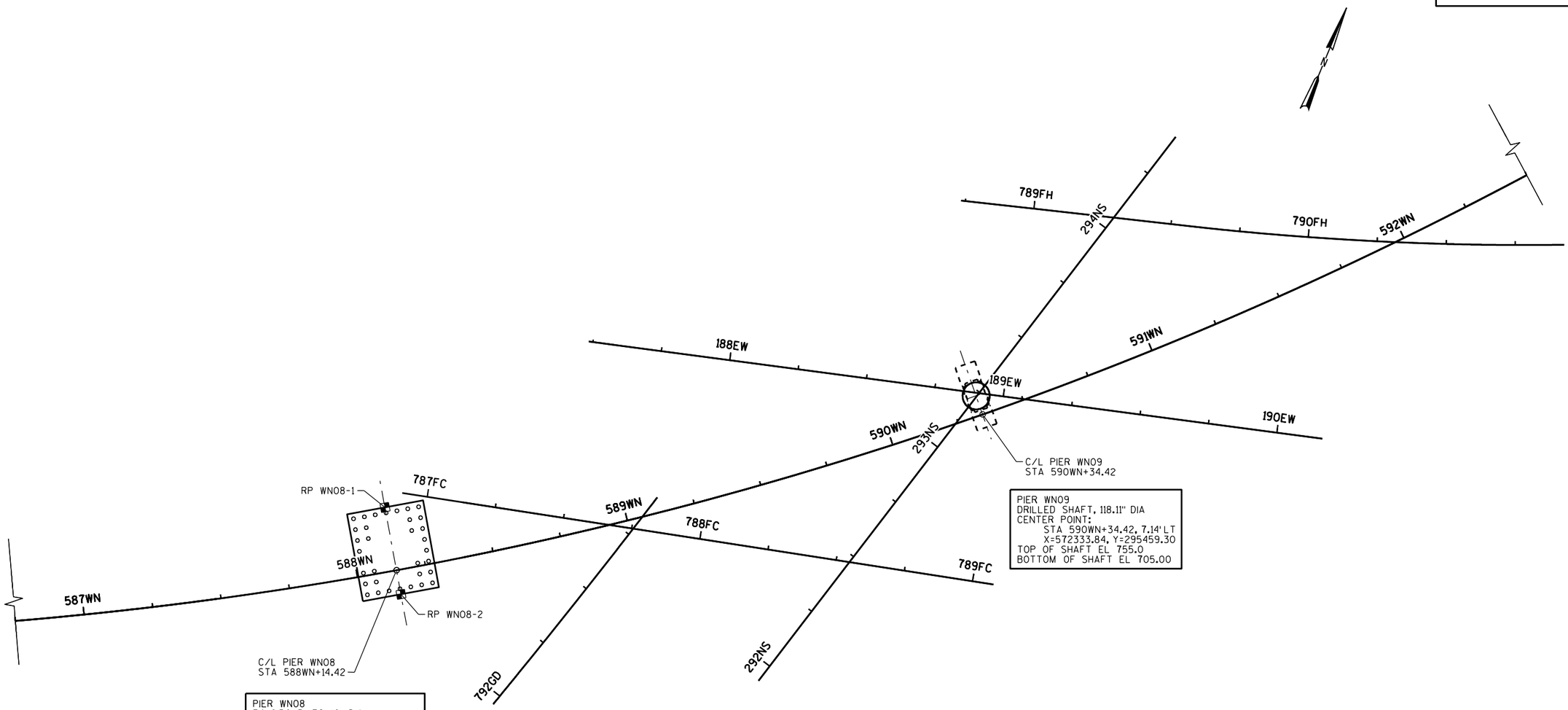
STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

OPTION B
FOUNDATION
LAYOUT (2 OF 4)

SHEET B3 OF B40

STATE PROJECT NUMBER
1060-33-81



PIER WN09
DRILLED SHAFT, 118.11" DIA
CENTER POINT:
STA 590WN+34.42, 7.14' LT
X=572333.84, Y=295459.30
TOP OF SHAFT EL 755.0
BOTTOM OF SHAFT EL 705.00

PIER WN08
34 CIPC PILES, 16" DIA
RP WN08-1
STA 588WN+14.42, 23.14' LT
X=572151.22, Y=295340.24
RP WN08-2
STA 588WN+14.42, 8.86' RT
X=572168.57, Y=295313.35
BOTTOM OF FOOTING 753.00
ESTIMATED PILE LENGTH 50 FT

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
FOUNDATION
LAYOUT (3 OF 4)

SHEET B4 OF B40

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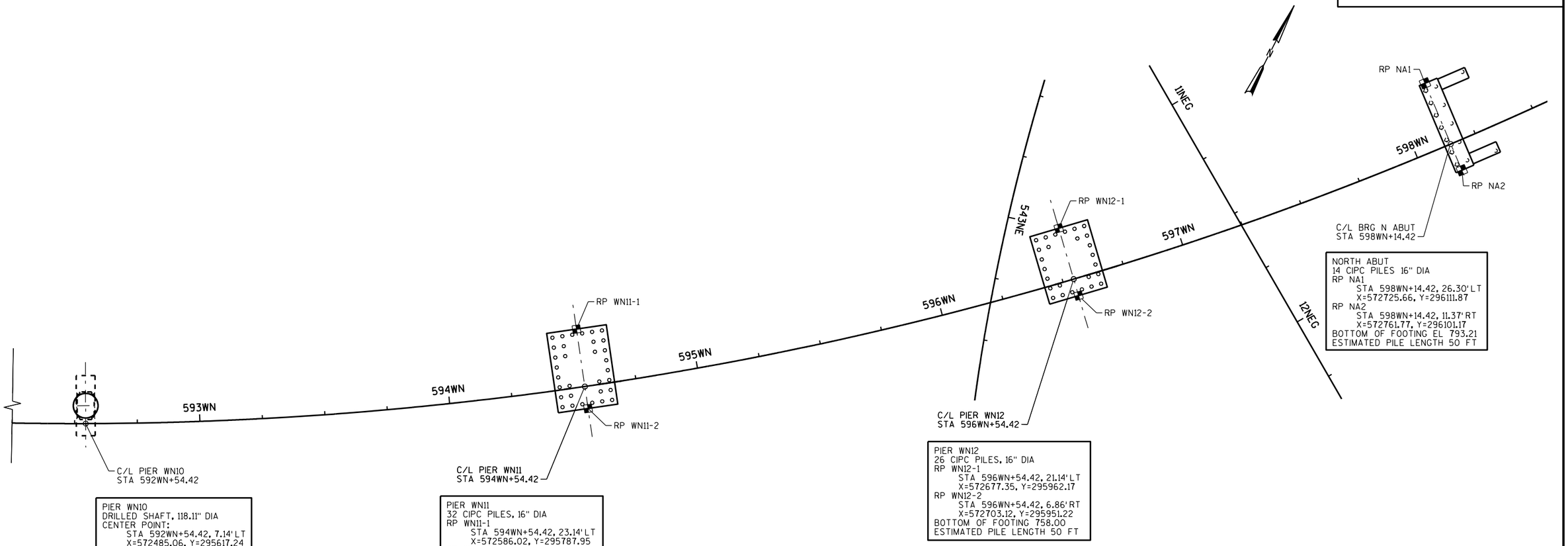
PLOT BY : MSCBKS
PLOT NAME : B856_080104B_f1
PLOT SCALE : 40:1

STATE PROJECT NUMBER

1060-33-81



PIER WN10
DRILLED SHAFT, 118.11" DIA
CENTER POINT:
STA 592WN+54.42, 7.14' LT
X=572485.06, Y=295617.24
TOP OF SHAFT EL 761.00
BOTTOM OF SHAFT EL 696.00

PIER WN11
32 CIPC PILES, 16" DIA
RP WN11-1
STA 594WN+54.42, 23.14' LT
X=572586.02, Y=295787.95
RP WN11-2
STA 594WN+54.42, 8.86' RT
X=572613.41, Y=295771.40
BOTTOM OF FOOTING 752.00
ESTIMATED PILE LENGTH 45 FT

PIER WN12
26 CIPC PILES, 16" DIA
RP WN12-1
STA 596WN+54.42, 21.14' LT
X=572677.35, Y=295962.17
RP WN12-2
STA 596WN+54.42, 6.86' RT
X=572703.12, Y=295951.22
BOTTOM OF FOOTING 758.00
ESTIMATED PILE LENGTH 50 FT

NORTH ABUT
14 CIPC PILES 16" DIA
RP NA1
STA 598WN+14.42, 26.30' LT
X=572725.66, Y=296111.87
RP NA2
STA 598WN+14.42, 11.37' RT
X=572761.77, Y=296101.17
BOTTOM OF FOOTING EL 793.21
ESTIMATED PILE LENGTH 50 FT

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

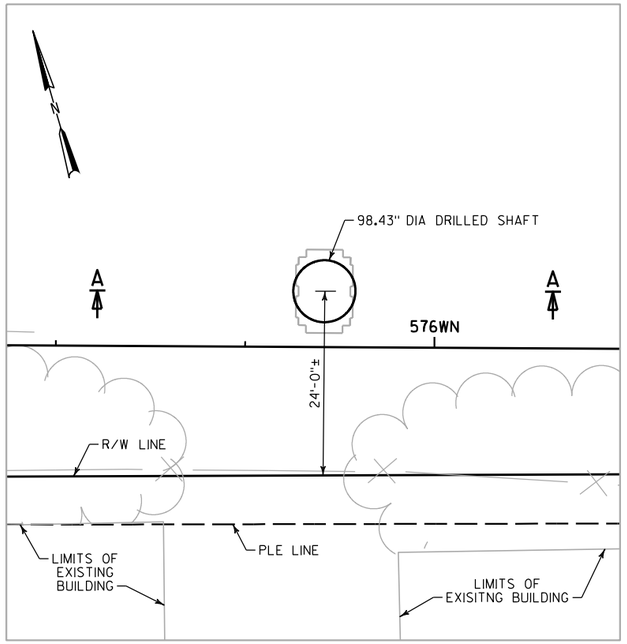
STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
FOUNDATION
LAYOUT (4 OF 4)

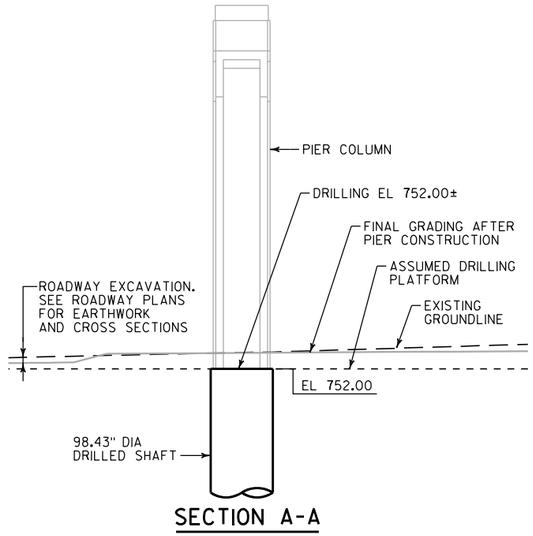
SHEET B5 OF B40

STATE PROJECT NUMBER
1060-33-81

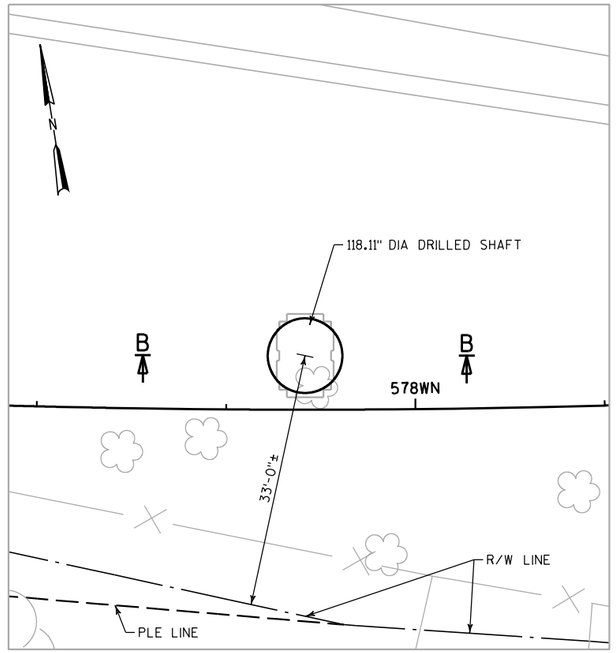


EXCAVATION PLAN - PIER WN01

STA 575WN+85.42

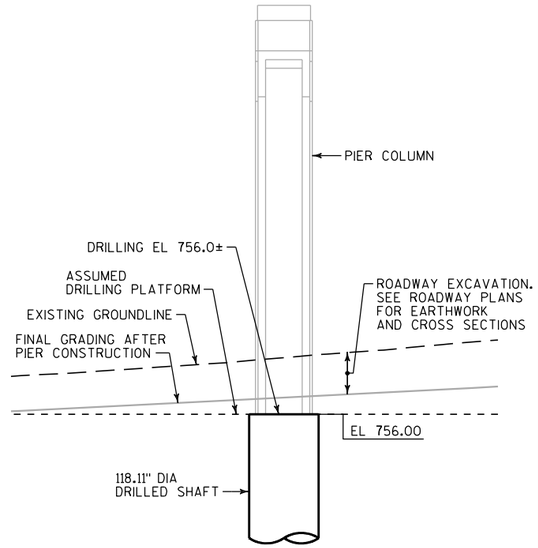


SECTION A-A

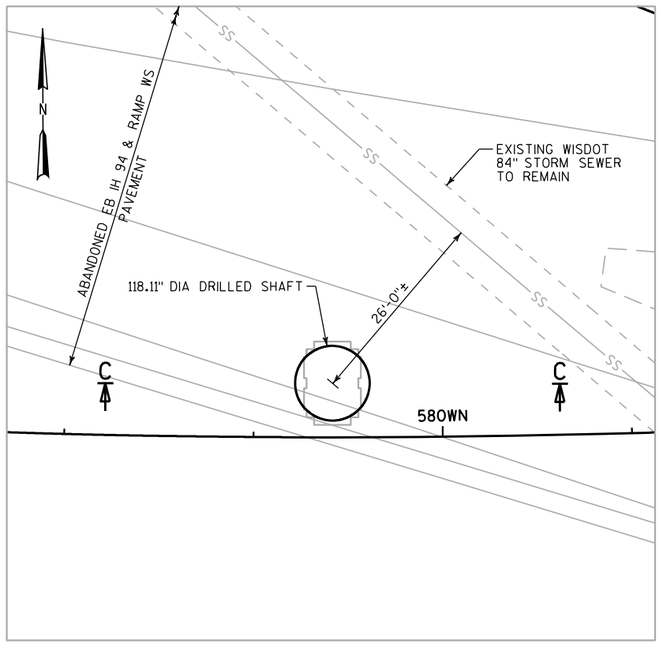


EXCAVATION PLAN - PIER WN02

STA 577WN+85.42

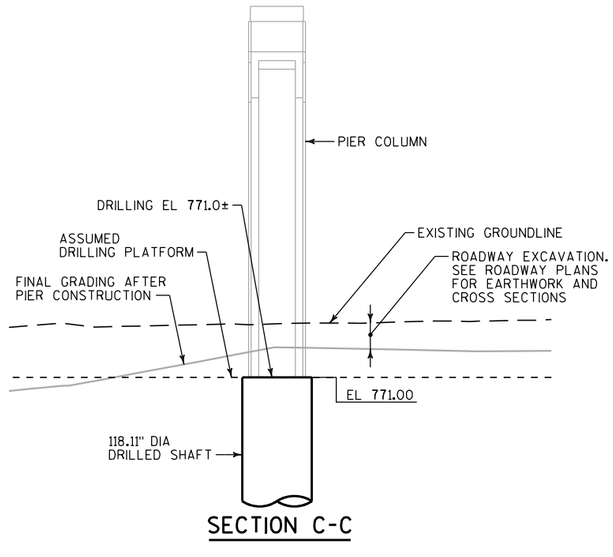


SECTION B-B



EXCAVATION PLAN - PIER WN03

STA 579WN+85.42



SECTION C-C

NOTES

THIS DRAWING IS INTENDED TO PROVIDE A REFERENCE FOR ASSUMED EXCAVATION LIMITS AND TEMPORARY SHORING REQUIREMENTS. THIS DRAWING IS NOT ALL-INCLUSIVE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	BKS

OPTION B
EXCAVATION PLAN
(1 OF 8)

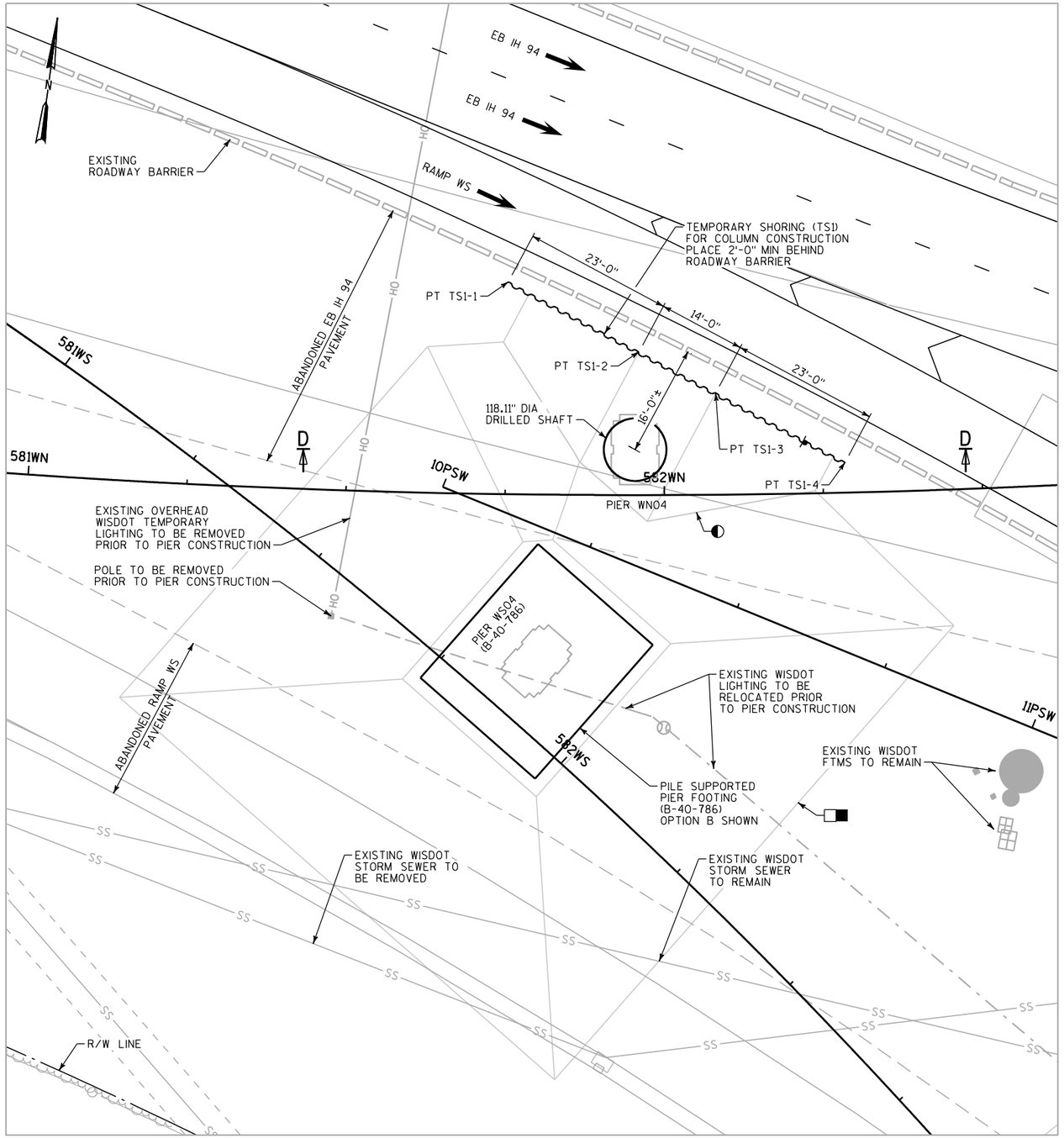
SHEET B6 OF B40

8

8

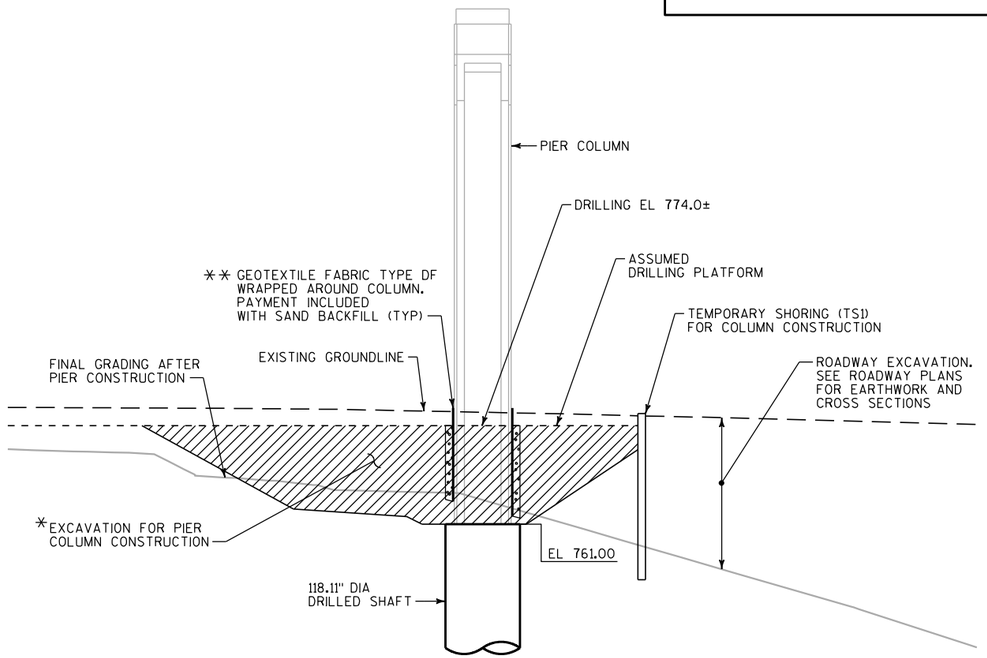
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080106B_ex.dgn
PLOT DATE : 13-MAY-2015 14:15
PLOT BY : MSCBKS
PLOT NAME : B856_080106B_ex
PLOT SCALE : 20:1

STATE PROJECT NUMBER
1060-33-81



EXCAVATION PLAN - PIER WN04

STA 581WN+95.42



SECTION D-D

* THE EXCAVATION PLAN ASSUMES THAT THE CONTRACTOR WILL BACKFILL THE EXCAVATION AFTER COLUMN CONSTRUCTION AND IN A LATER CONSTRUCTION STAGE EXCAVATE DOWN TO FINAL GRADING. A LEVEL WORKING PLATFORM NEAR THE PIER MAY BE NEEDED FOR GIRDER ERECTION. THE COST OF BACKFILLING THE EXCAVATION IS INCLUDED IN THE STRUCTURE EXCAVATION BID ITEM.

** REQUIRED ONLY IF THE CONTRACTOR BACKFILLS THE EXCAVATION AFTER COLUMN CONSTRUCTION.

POINT LOCATION	EXPOSED HEIGHT ◥
TS1-1	0'-0"
TS1-2	15'-0"
TS1-3	15'-0"
TS1-4	0'-0"

LEGEND

- EXCAVATION FOR STRUCTURES
- 1'-0" SAND BACKFILL AROUND COLUMN PAID FOR AS GRANULAR BACKFILL.
- APPROXIMATE EXCAVATION LIMITS. LIMITS WILL VARY BASED ON THE WORKING AREA REQUIRED AND THE MAXIMUM EXCAVATION SLOPE THAT CAN BE SAFELY MAINTAINED. EXCAVATION ON THESE SHEETS IS INCLUDED IN BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-40-856".
- APPROXIMATE EXCAVATION LIMITS SEE EXCAVATION PLAN FOR STRUCTURE B-40-786 FOR MORE DETAILS.
- ◥ APPROXIMATE EXPOSED TEMPORARY SHORING HEIGHTS. HEIGHTS ARE SHOWN FOR INFORMATION ONLY.

NOTES

THIS DRAWING IS INTENDED TO PROVIDE A REFERENCE FOR ASSUMED EXCAVATION LIMITS AND TEMPORARY SHORING REQUIREMENTS. THIS DRAWING IS NOT ALL-INCLUSIVE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. BKS

OPTION B
EXCAVATION PLAN
(2 OF 8)

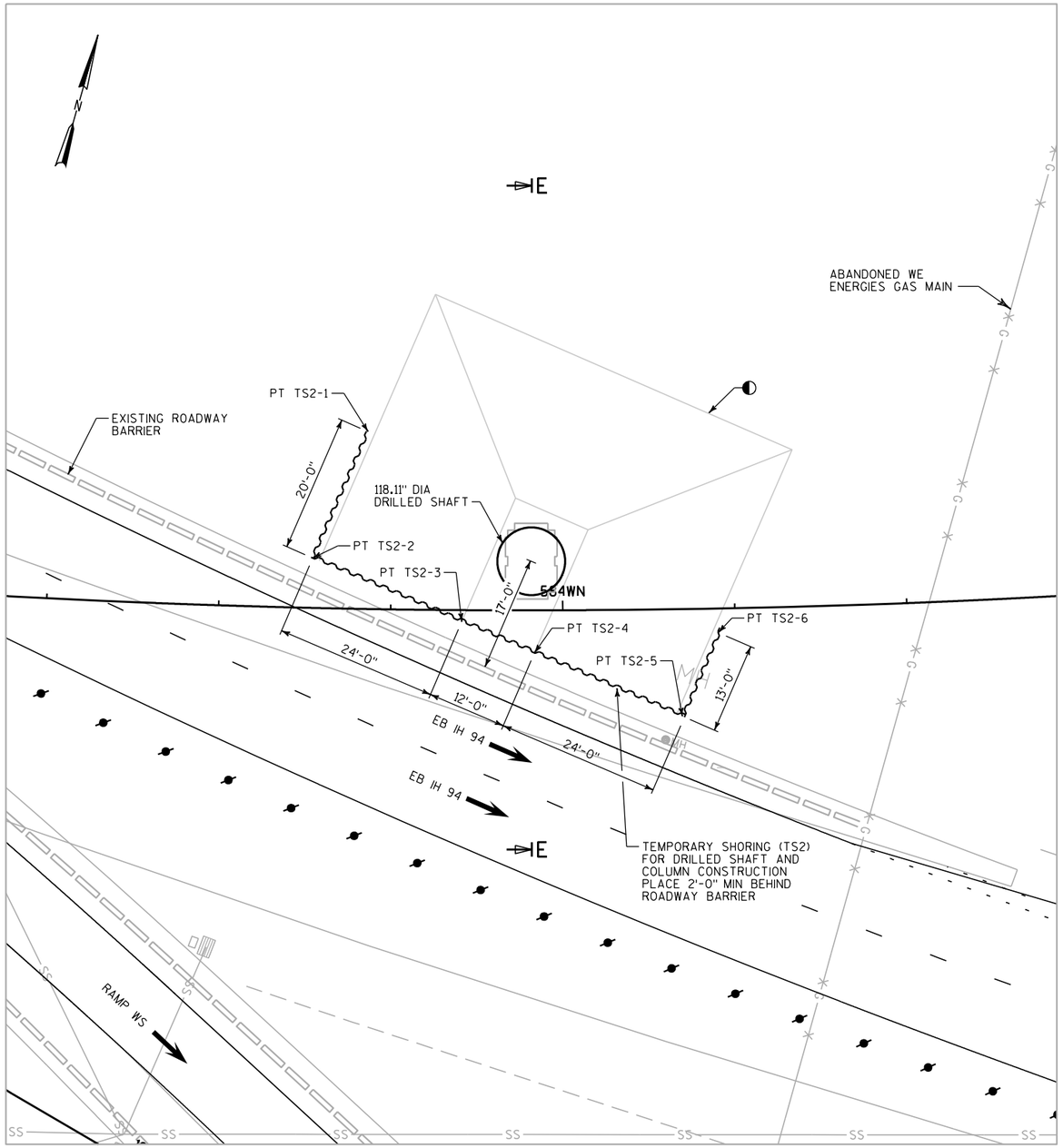
SHEET B7 OF B40

8

8

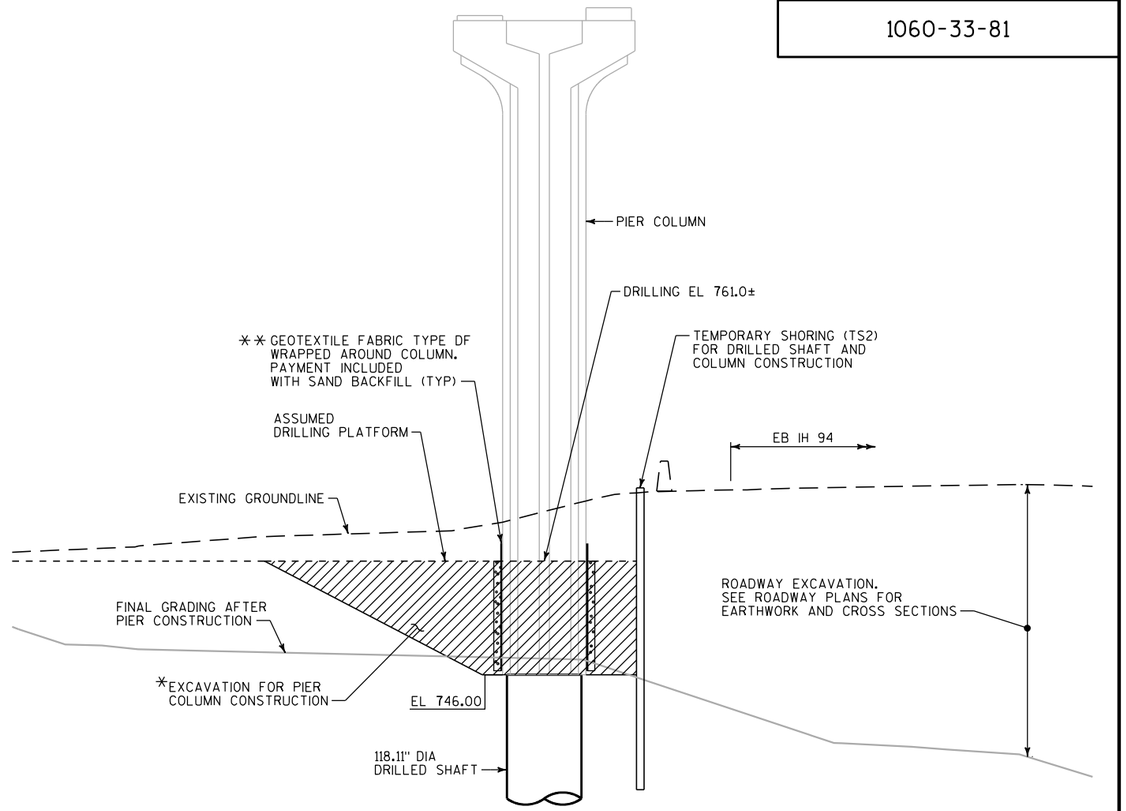
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080107B_ex.dgn PLOT DATE : 13-MAY-2015 14:15 PLOT BY : MSCBKS PLOT NAME : B856_080107B_ex PLOT SCALE : 20:1

STATE PROJECT NUMBER
1060-33-81



EXCAVATION PLAN - PIER WN05

STA 583WN+95.42



SECTION E-E

*THE EXCAVATION PLAN ASSUMES THAT THE CONTRACTOR WILL BACKFILL THE EXCAVATION AFTER COLUMN CONSTRUCTION AND IN A LATER CONSTRUCTION STAGE EXCAVATE DOWN TO FINAL GRADING. A LEVEL WORKING PLATFORM NEAR THE PIER MAY BE NEEDED FOR GIRDER ERECTION. THE COST OF BACKFILLING THE EXCAVATION IS INCLUDED IN THE STRUCTURE EXCAVATION BID ITEM.

**REQUIRED ONLY IF THE CONTRACTOR BACKFILLS THE EXCAVATION AFTER COLUMN CONSTRUCTION.

POINT LOCATION	EXPOSED HEIGHT ◥
TS2-1	0'-0"
TS2-2	10'-0"
TS2-3	24'-0"
TS2-4	24'-0"
TS2-5	10'-0"
TS2-6	0'-0"

LEGEND

- EXCAVATION FOR STRUCTURES
- 1'-0" SAND BACKFILL AROUND COLUMN PAID FOR AS GRANULAR BACKFILL.
- APPROXIMATE EXCAVATION LIMITS. LIMITS WILL VARY BASED ON THE WORKING AREA REQUIRED AND THE MAXIMUM EXCAVATION SLOPE THAT CAN BE SAFELY MAINTAINED. EXCAVATION ON THESE SHEETS IS INCLUDED IN BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-40-856".
- APPROXIMATE EXPOSED TEMPORARY SHORING HEIGHTS. HEIGHTS ARE SHOWN FOR INFORMATION ONLY.

NOTES

THIS DRAWING IS INTENDED TO PROVIDE A REFERENCE FOR ASSUMED EXCAVATION LIMITS AND TEMPORARY SHORING REQUIREMENTS. THIS DRAWING IS NOT ALL-INCLUSIVE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. BKS

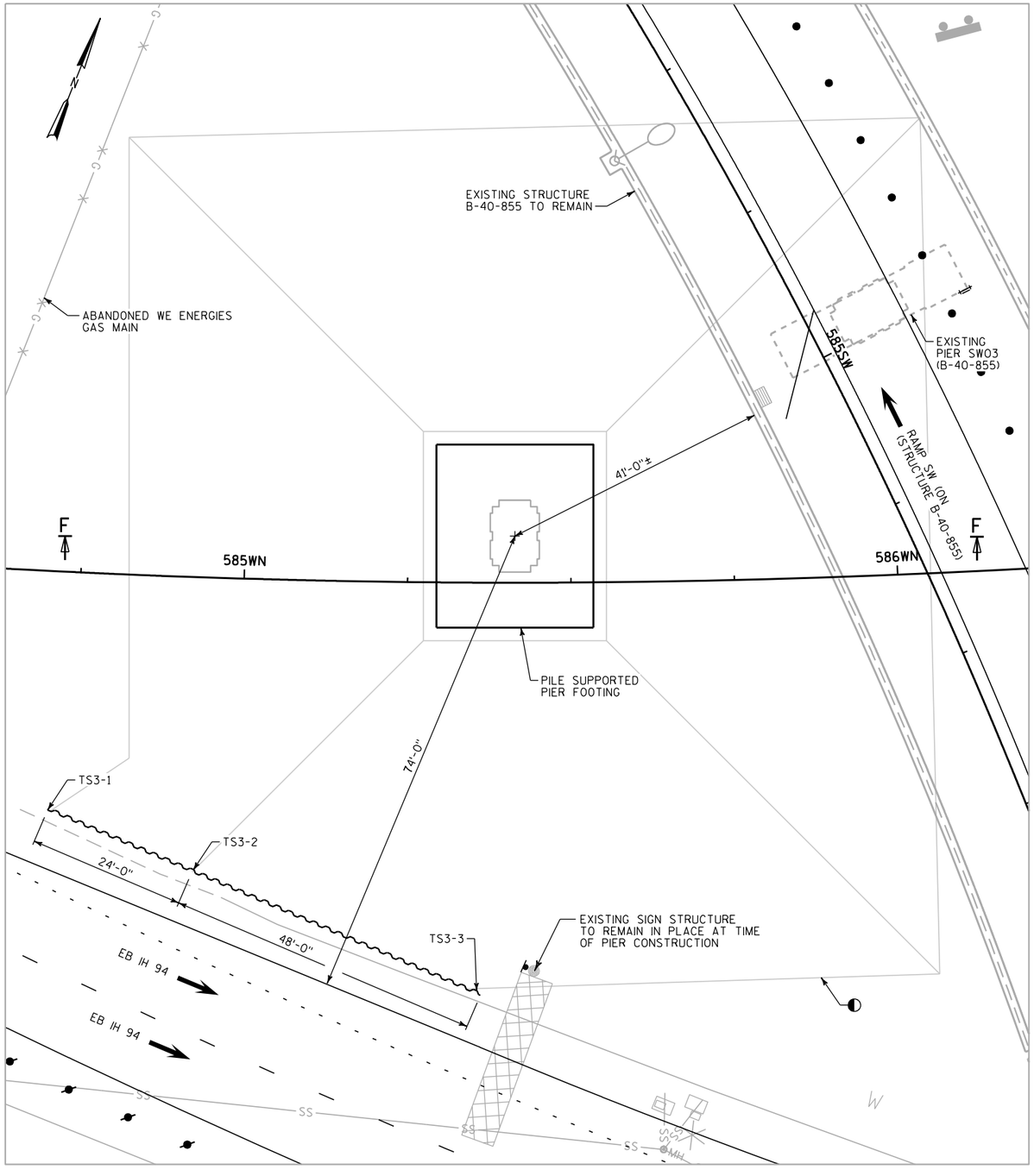
OPTION B
EXCAVATION PLAN
(3 OF 8)

SHEET B8 OF B40

8

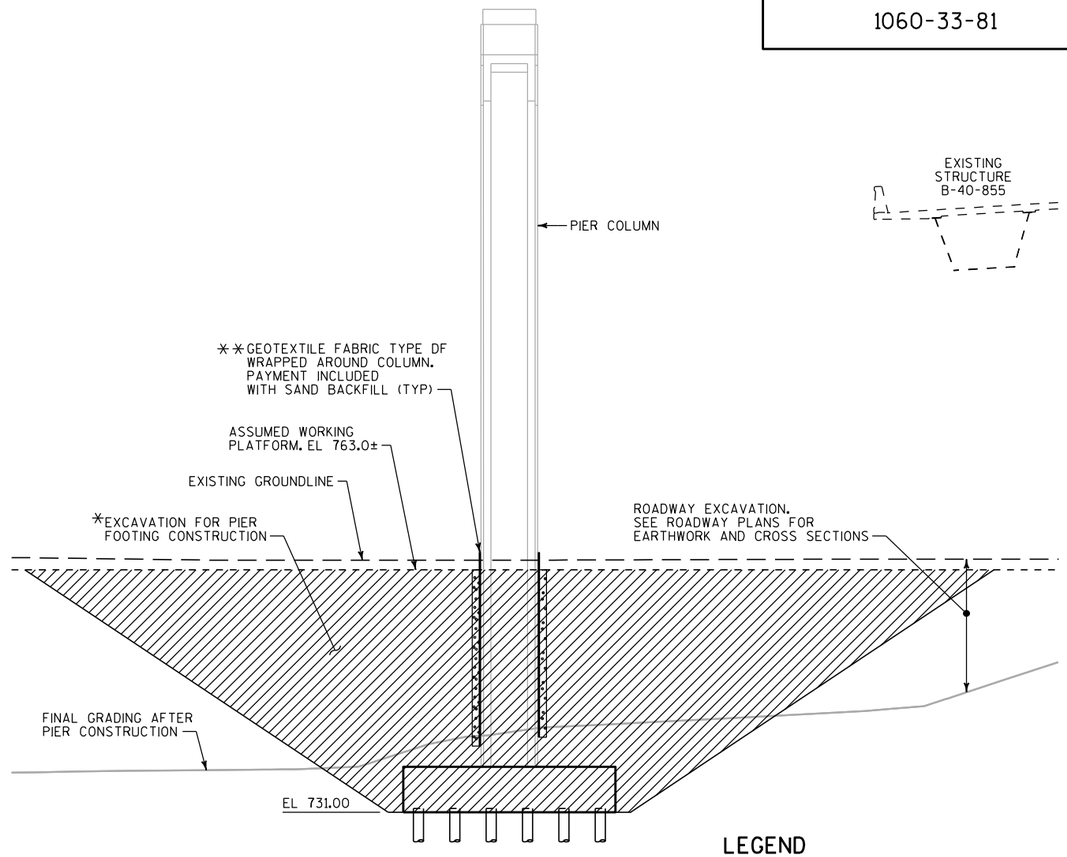
8

STATE PROJECT NUMBER
1060-33-81



EXCAVATION PLAN - PIER WN06

STA 585WN+41.42



SECTION F-F

* THE EXCAVATION PLAN ASSUMES THAT THE CONTRACTOR WILL BACKFILL THE EXCAVATION AFTER COLUMN CONSTRUCTION AND IN A LATER CONSTRUCTION STAGE EXCAVATE DOWN TO FINAL GRADING. A LEVEL WORKING PLATFORM NEAR THE PIER MAY BE NEEDED FOR GIRDER ERECTION. THE COST OF BACKFILLING THE EXCAVATION IS INCLUDED IN THE STRUCTURE EXCAVATION BID ITEM.

** REQUIRED ONLY IF THE CONTRACTOR BACKFILLS THE EXCAVATION AFTER COLUMN CONSTRUCTION.

POINT LOCATION	EXPOSED HEIGHT ◥
TS3-1	0'-0"
TS3-2	14'-0"
TS3-3	0'-0"

LEGEND

- EXCAVATION FOR STRUCTURES
- 1'-0" SAND BACKFILL AROUND COLUMN PAID FOR AS GRANULAR BACKFILL.
- ◐ APPROXIMATE EXCAVATION LIMITS. LIMITS WILL VARY BASED ON THE WORKING AREA REQUIRED AND THE MAXIMUM EXCAVATION SLOPE THAT CAN BE SAFELY MAINTAINED. EXCAVATION ON THESE SHEETS IS INCLUDED IN BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-40-856".
- ◥ APPROXIMATE EXPOSED TEMPORARY SHORING HEIGHTS. HEIGHTS ARE SHOWN FOR INFORMATION ONLY.

NOTES

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. BKS

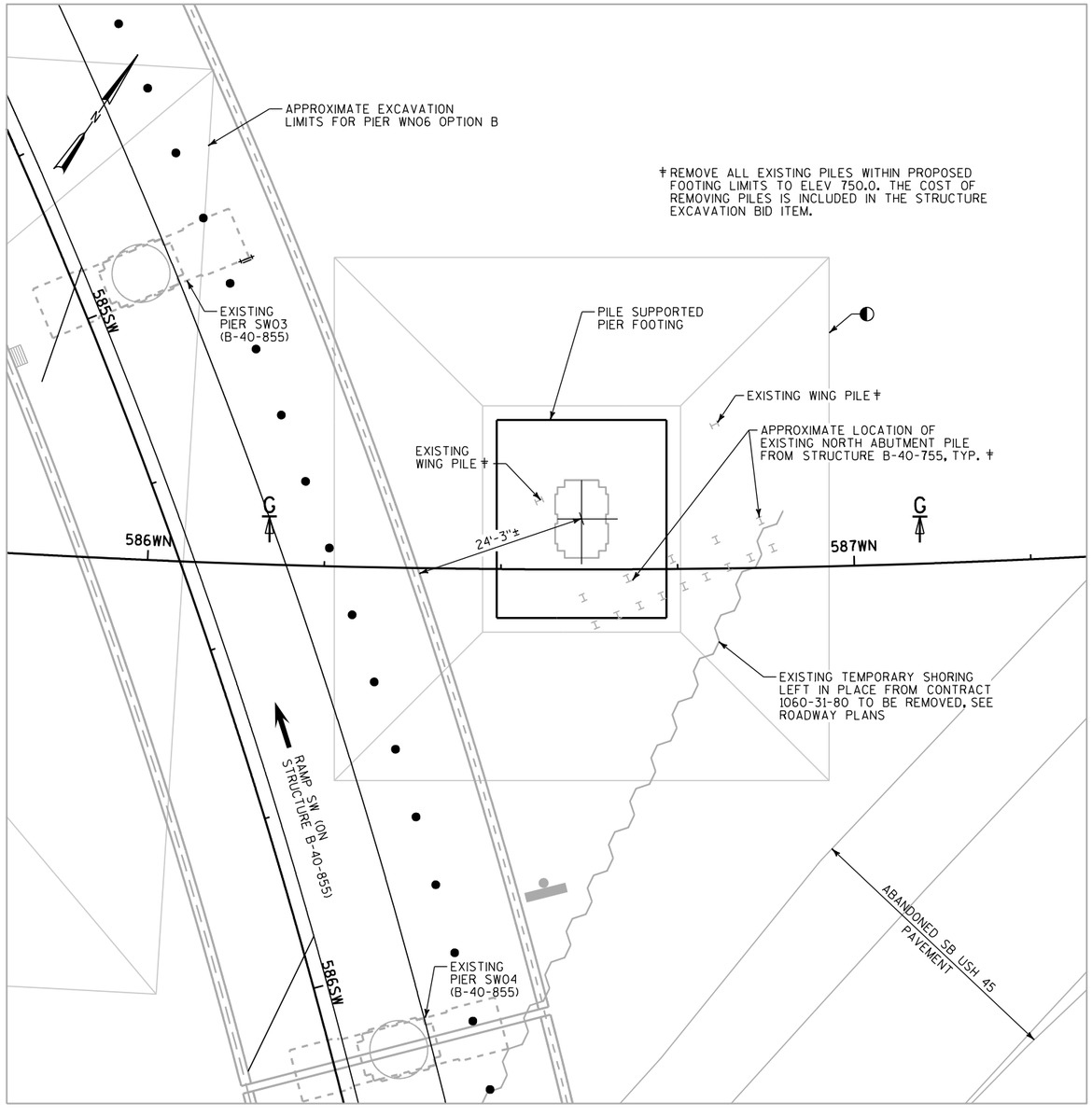
OPTION B
EXCAVATION PLAN
(4 OF 8)

SHEET B9 OF B40

8

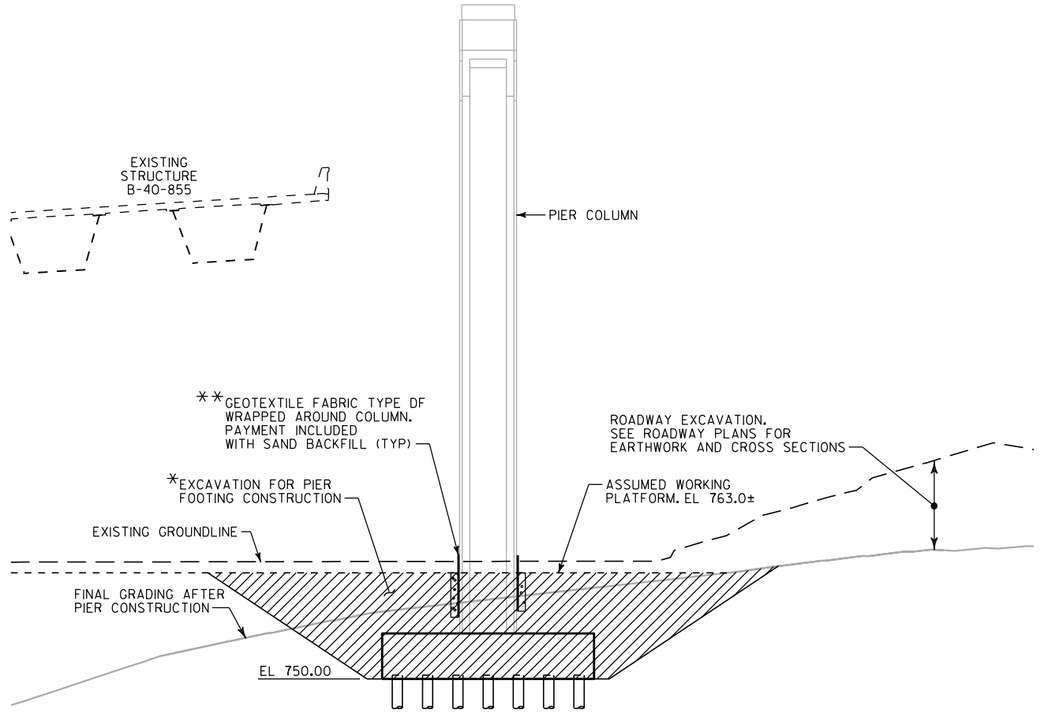
8

STATE PROJECT NUMBER
1060-33-81



EXCAVATION PLAN - PIER WN07

STA 588WN+14.42



SECTION G-G

* THE EXCAVATION PLAN ASSUMES THAT THE CONTRACTOR WILL BACKFILL THE EXCAVATION AFTER COLUMN CONSTRUCTION AND IN A LATER CONSTRUCTION STAGE EXCAVATE DOWN TO FINAL GRADING. A LEVEL WORKING PLATFORM NEAR THE PIER MAY BE NEEDED FOR GIRDER ERECTION. THE COST OF BACKFILLING THE EXCAVATION IS INCLUDED IN THE STRUCTURE EXCAVATION BID ITEM.

** REQUIRED ONLY IF THE CONTRACTOR BACKFILLS THE EXCAVATION AFTER COLUMN CONSTRUCTION.

LEGEND

- EXCAVATION FOR STRUCTURES
- 1'-0" SAND BACKFILL AROUND COLUMN PAID FOR AS GRANULAR BACKFILL.
- APPROXIMATE EXCAVATION LIMITS. LIMITS WILL VARY BASED ON THE WORKING AREA REQUIRED AND THE MAXIMUM EXCAVATION SLOPE THAT CAN BE SAFELY MAINTAINED. EXCAVATION ON THESE SHEETS IS INCLUDED IN BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-40-856".
- APPROXIMATE EXPOSED TEMPORARY SHORING HEIGHTS. HEIGHTS ARE SHOWN FOR INFORMATION ONLY.

NOTES

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	BKS

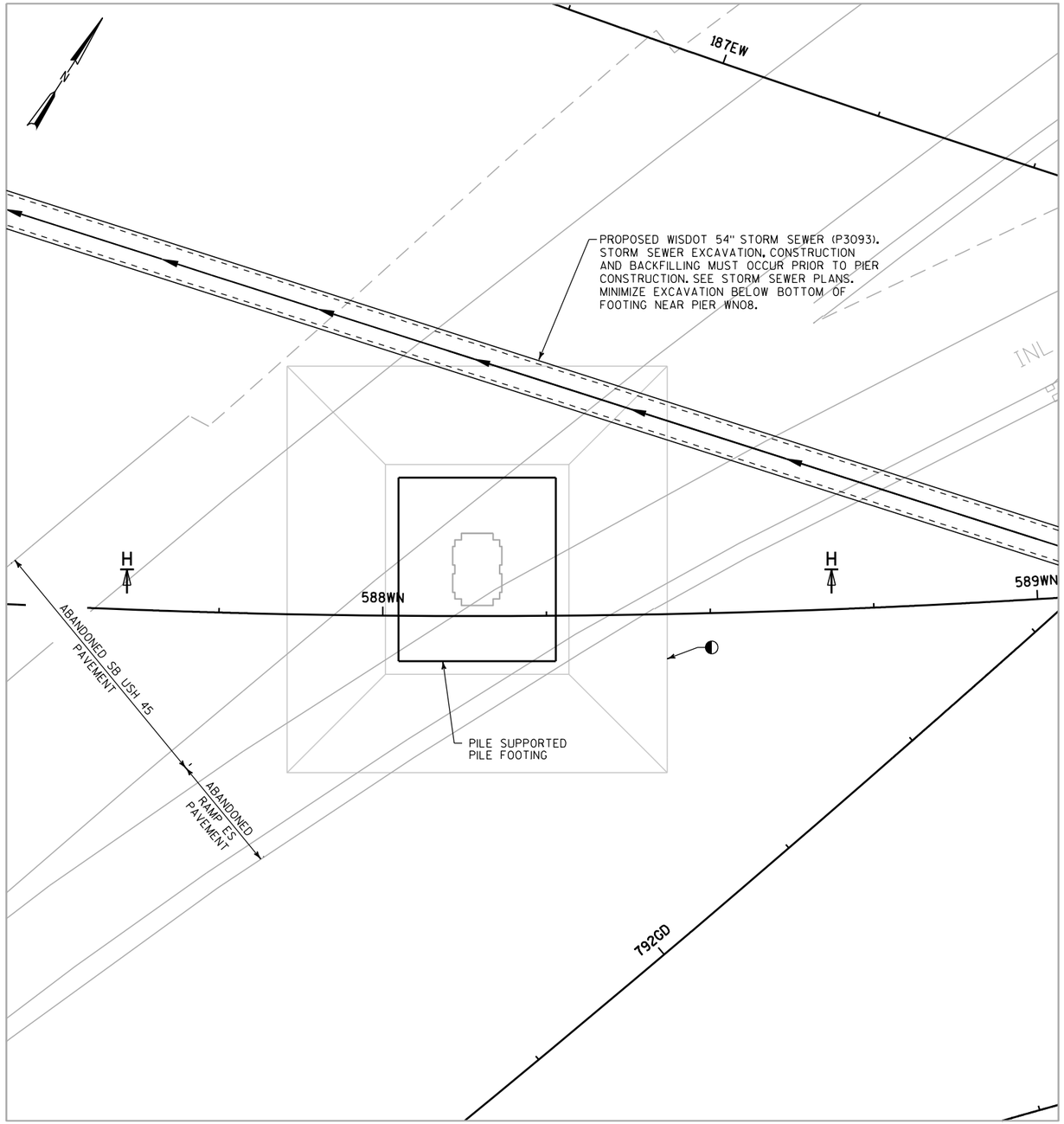
OPTION B
EXCAVATION PLAN
(5 OF 8)

SHEET B10 OF B40

8

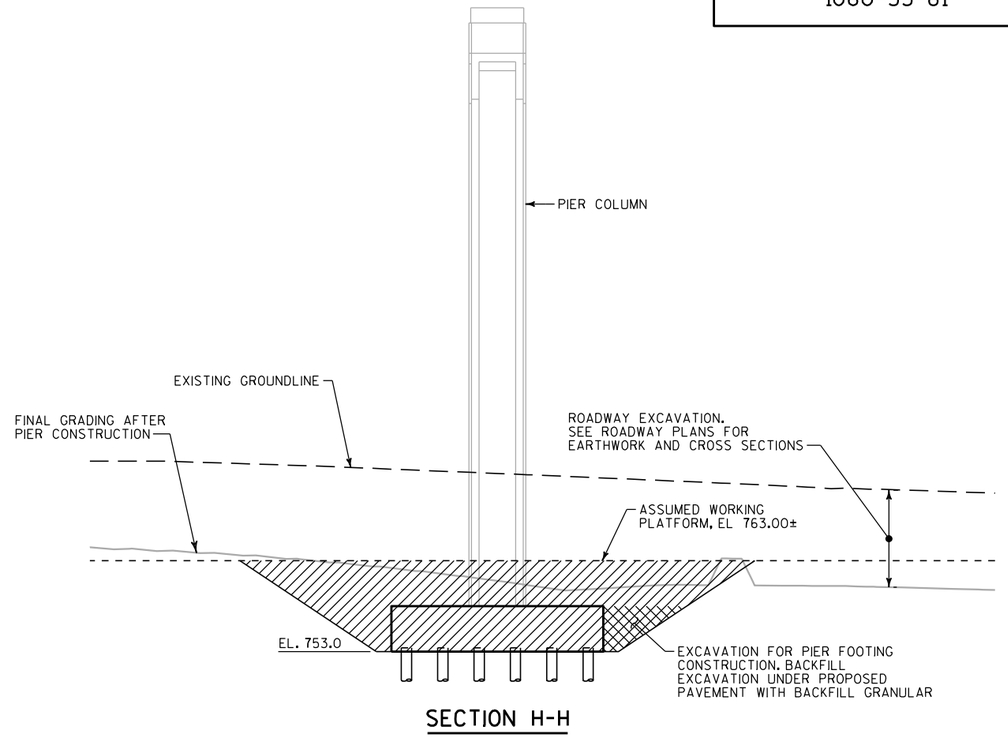
8

STATE PROJECT NUMBER
1060-33-81



EXCAVATION PLAN - PIER WN08

STA 588WN+14.42



SECTION H-H

LEGEND

- EXCAVATION FOR STRUCTURES
- BACKFILL GRANULAR
- APPROXIMATE EXCAVATION LIMITS. LIMITS WILL VARY BASED ON THE WORKING AREA REQUIRED AND THE MAXIMUM EXCAVATION SLOPE THAT CAN BE SAFELY MAINTAINED. EXCAVATION ON THESE SHEETS IS INCLUDED IN BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-40-856".

NOTES

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	BKS

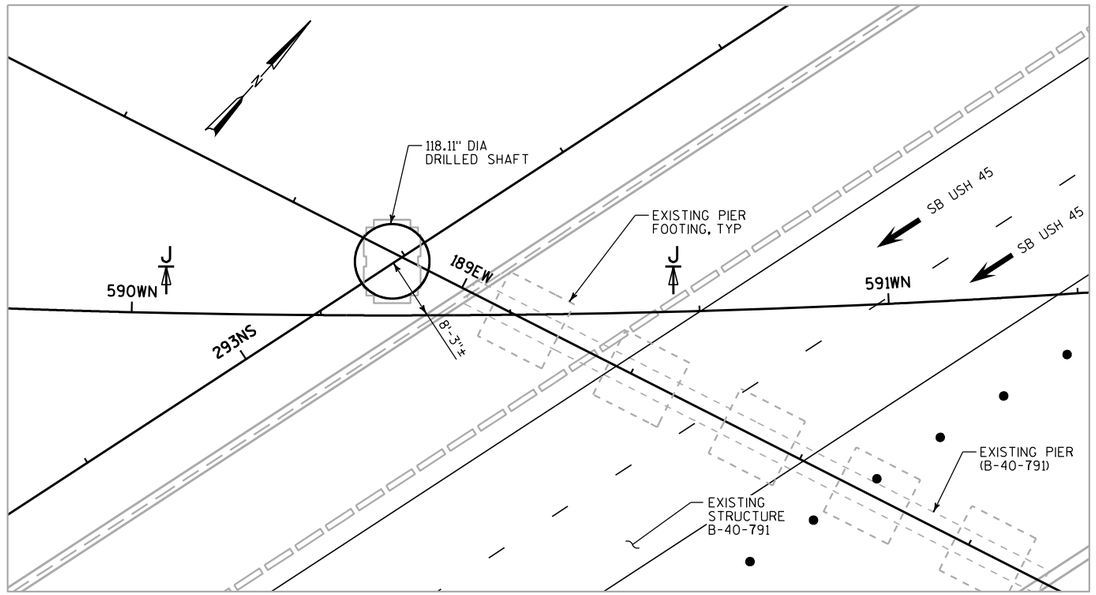
OPTION B
EXCAVATION PLAN
(6 OF 8)

SHEET B11 OF B40

8

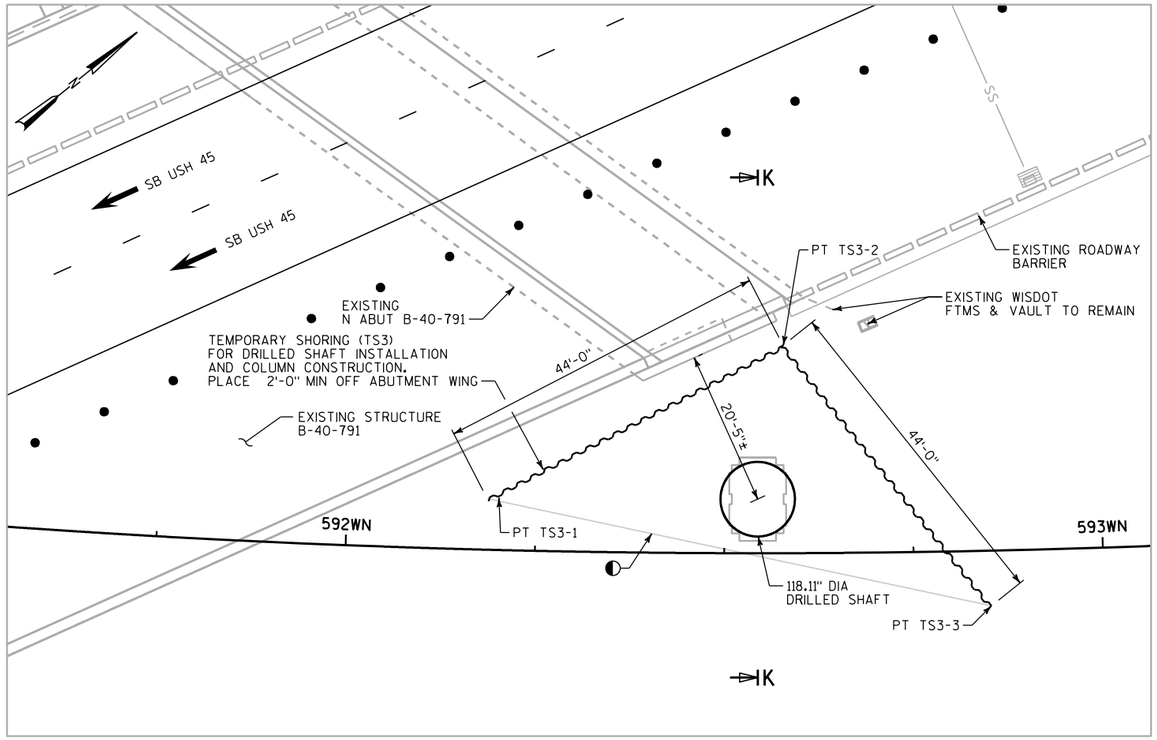
8

STATE PROJECT NUMBER
1060-33-81



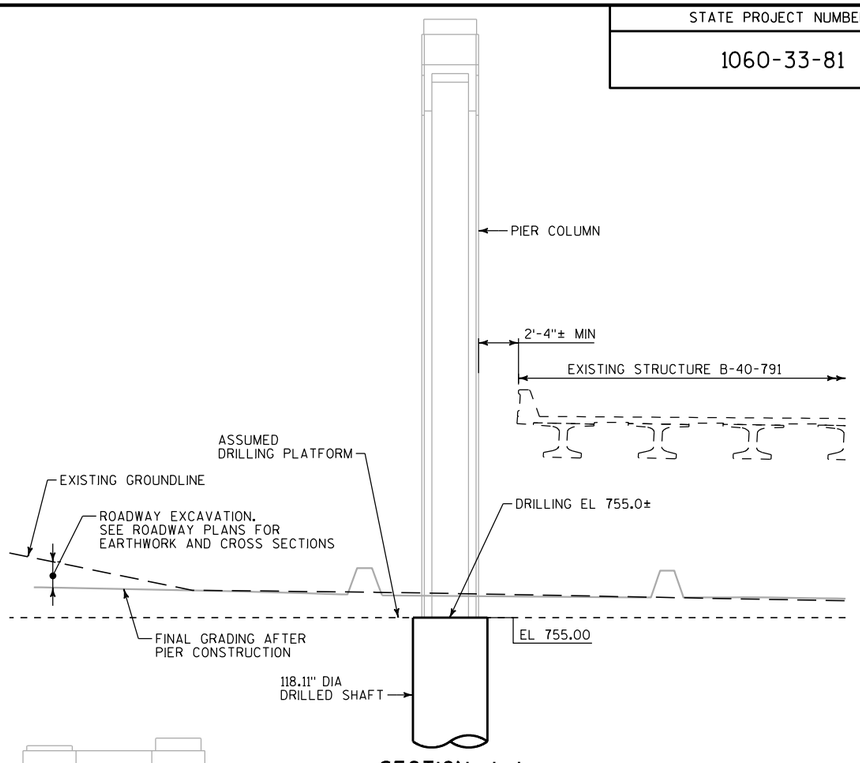
EXCAVATION PLAN - PIER WN09

STA 590WN+34.42



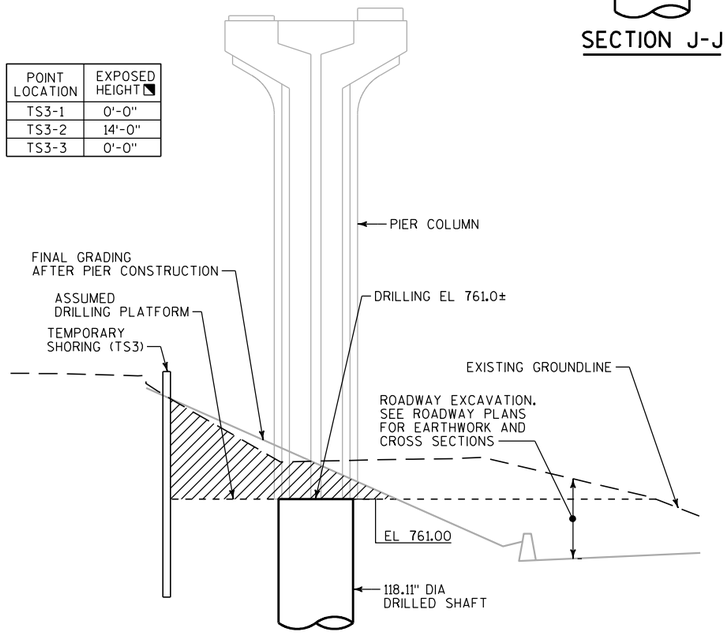
EXCAVATION PLAN - PIER WN10

STA 592WN+54.42



SECTION J-J

POINT LOCATION	EXPOSED HEIGHT ◥
TS3-1	0'-0"
TS3-2	14'-0"
TS3-3	0'-0"



SECTION K-K

LEGEND

- EXCAVATION FOR STRUCTURES
- ◐ APPROXIMATE EXCAVATION LIMITS. LIMITS WILL VARY BASED ON THE WORKING AREA REQUIRED AND THE MAXIMUM EXCAVATION SLOPE THAT CAN BE SAFELY MAINTAINED. EXCAVATION ON THESE SHEETS IS INCLUDED IN BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-40-856".
- ◥ APPROXIMATE EXPOSED TEMPORARY SHORING HEIGHTS. HEIGHTS ARE SHOWN FOR INFORMATION ONLY.

NOTES

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. BKS

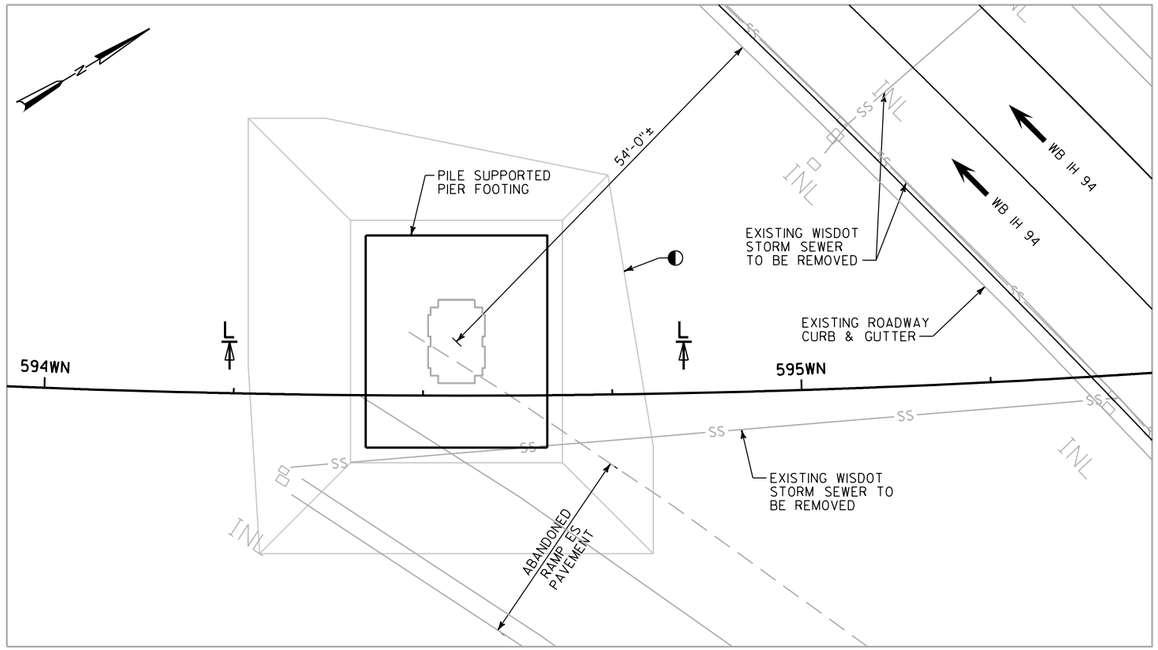
OPTION B
EXCAVATION PLAN
(7 OF 8)

SHEET B12 OF B40

8

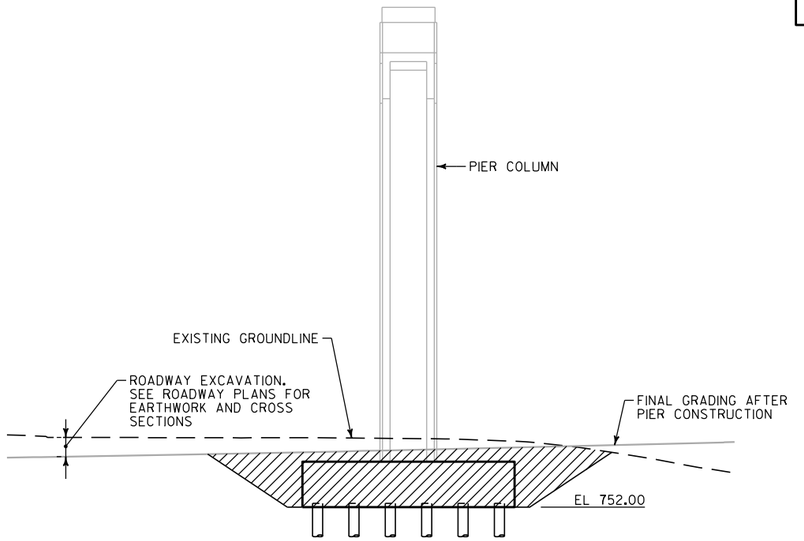
8

STATE PROJECT NUMBER
1060-33-81

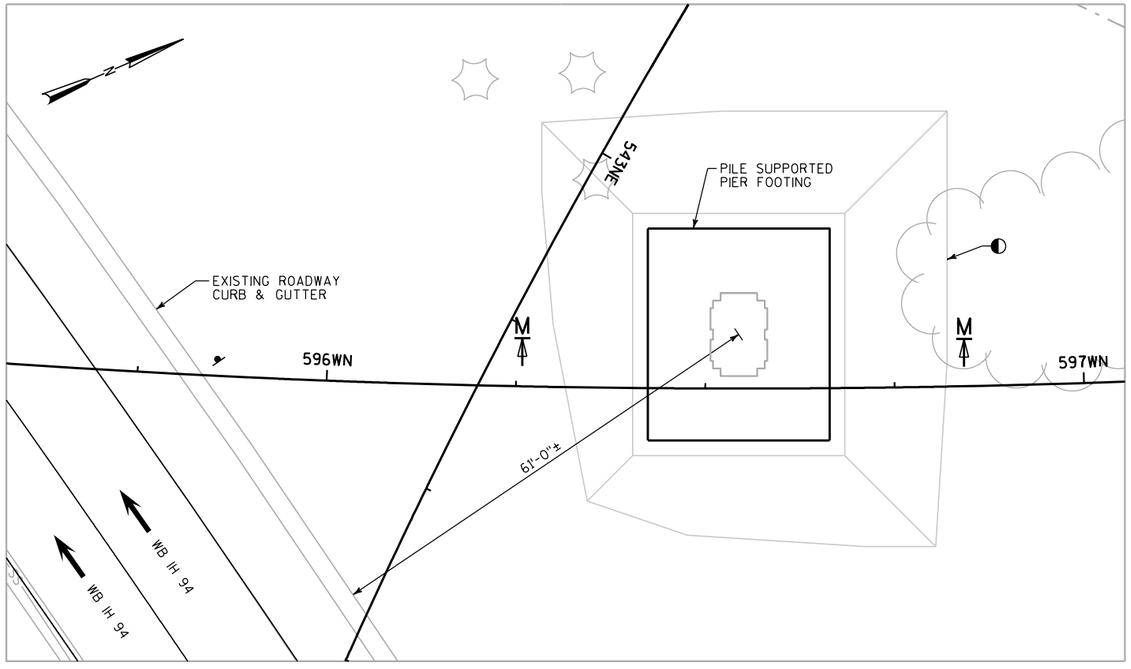


EXCAVATION PLAN - PIER WN11

STA 594WN+54.42

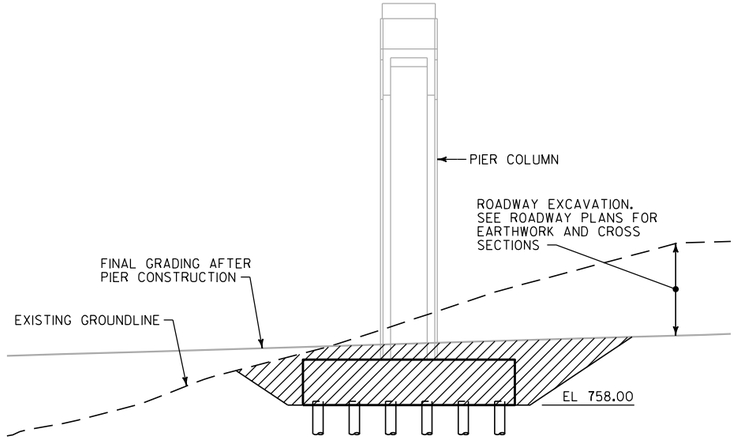


SECTION L-L



EXCAVATION PLAN - PIER WN12

STA 596WN+54.42



SECTION M-M

LEGEND

- EXCAVATION FOR STRUCTURES
- APPROXIMATE EXCAVATION LIMITS. LIMITS WILL VARY BASED ON THE WORKING AREA REQUIRED AND THE MAXIMUM EXCAVATION SLOPE THAT CAN BE SAFELY MAINTAINED. EXCAVATION ON THESE SHEETS IS INCLUDED IN BID ITEM "EXCAVATIONFOR STRUCTURES BRIDGES B-40-856".
- APPROXIMATE EXPOSED TEMPORARY SHORING HEIGHTS. HEIGHTS ARE SHOWN FOR INFORMATION ONLY.

NOTES

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. BKS

OPTION B
EXCAVATION PLAN
(8 OF 8)

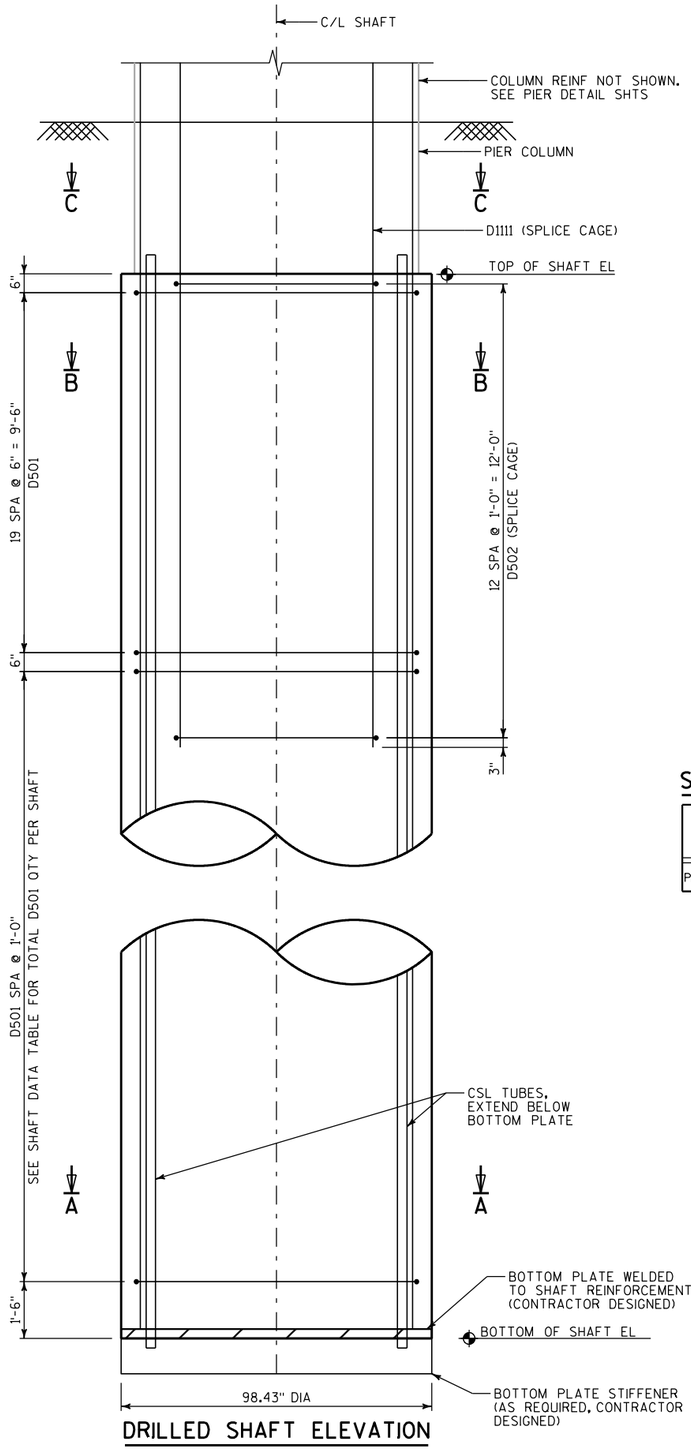
SHEET B13 OF B40

8

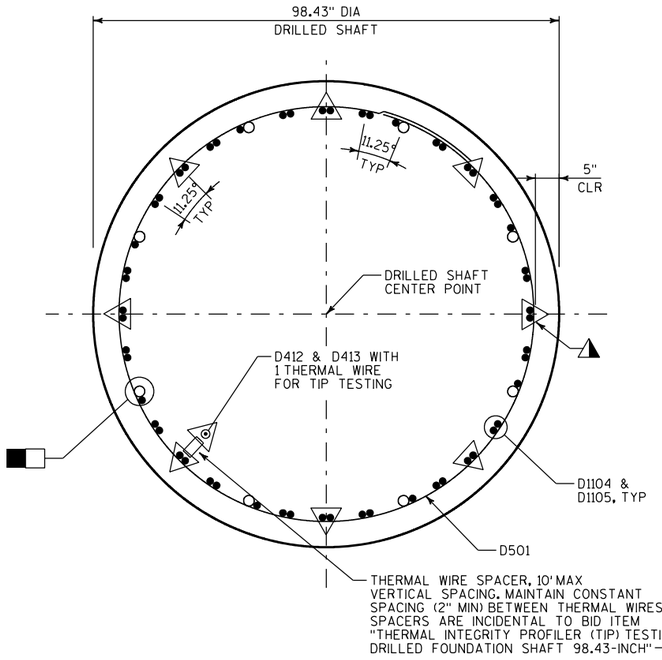
8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080113B_ex.dgn
PLOT DATE : 13-MAY-2015 14:17
PLOT BY : MSCBKS
PLOT NAME : B856_080113B_ex
PLOT SCALE : 20:1

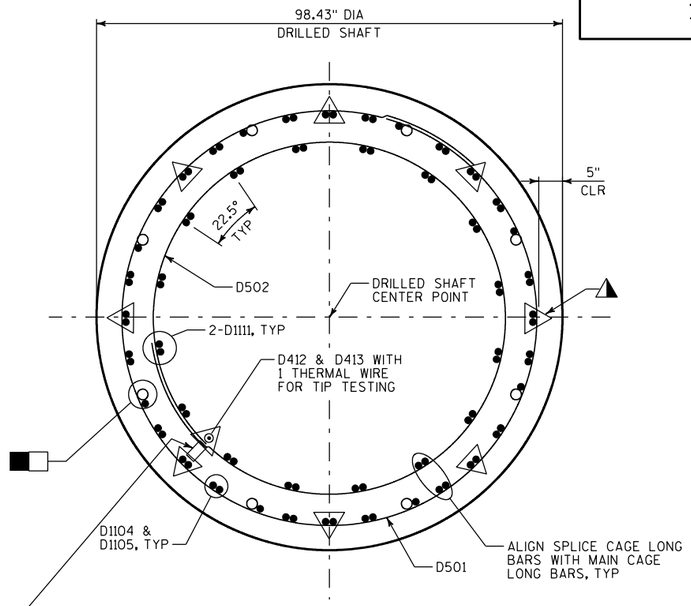
STATE PROJECT NUMBER
1060-33-81



DRILLED SHAFT ELEVATION



SECTION A-A



SECTION B-B

SHAFT DATA

SHAFT NO	SHAFT C/L "X"	SHAFT C/L "Y"	ASSUMED DRILLING EL	TOP OF SHAFT EL	BOTTOM OF SHAFT EL	SHAFT LENGTH (FT)	SHAFT VOLUME (CY)	TIE NO. REQ'D (EACH)	INSTRUMENTATION	MAXIMUM BASE GROUTING PRESSURE (PSI)
PIER WN01	570985.85	295163.94	752.0	752.0	687.0	65.0	127.2	74	CSL TUBES/TIP TESTING	325

LEGEND

- 8 - 2" DIA CSL TUBES FULL LENGTH OF SHAFT TIED TO INSIDE AND SPACED AROUND THE PERIMETER OF REINFORCEMENT AS SHOWN. AFTER TESTING, USE CSL TUBES TO BASE-GROUT THE PIER DRILLED SHAFTS. PLACE WITH D1104 OR D1105.
- 9 - THERMAL WIRES FOR TIP TESTING. DISTRIBUTE 8 THERMAL WIRES EVENLY AROUND THE PERIMETER OF REINFORCMENT TIED TO VERTICAL BARS.

NOTE

FOR SECTION C-C, SEE SHT B15.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

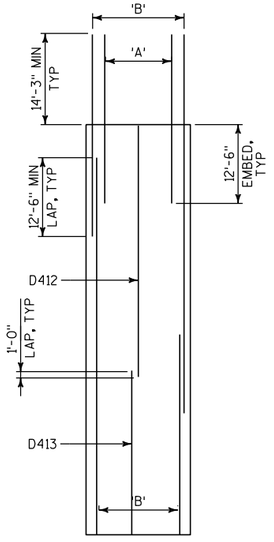
DRAWN BY JTE | PLANS CK'D. WRT

OPTION B
98.43" DRILLED SHAFT DETAILS
(1 OF 2)

SHEET B14 OF B40

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080214B_fd.dgn
PLOT DATE : 13-MAY-2015 14:17
PLOT BY : MSCBKS
PLOT NAME : B856_080214B_fd
PLOT SCALE : 4:1

STATE PROJECT NUMBER
1060-33-81

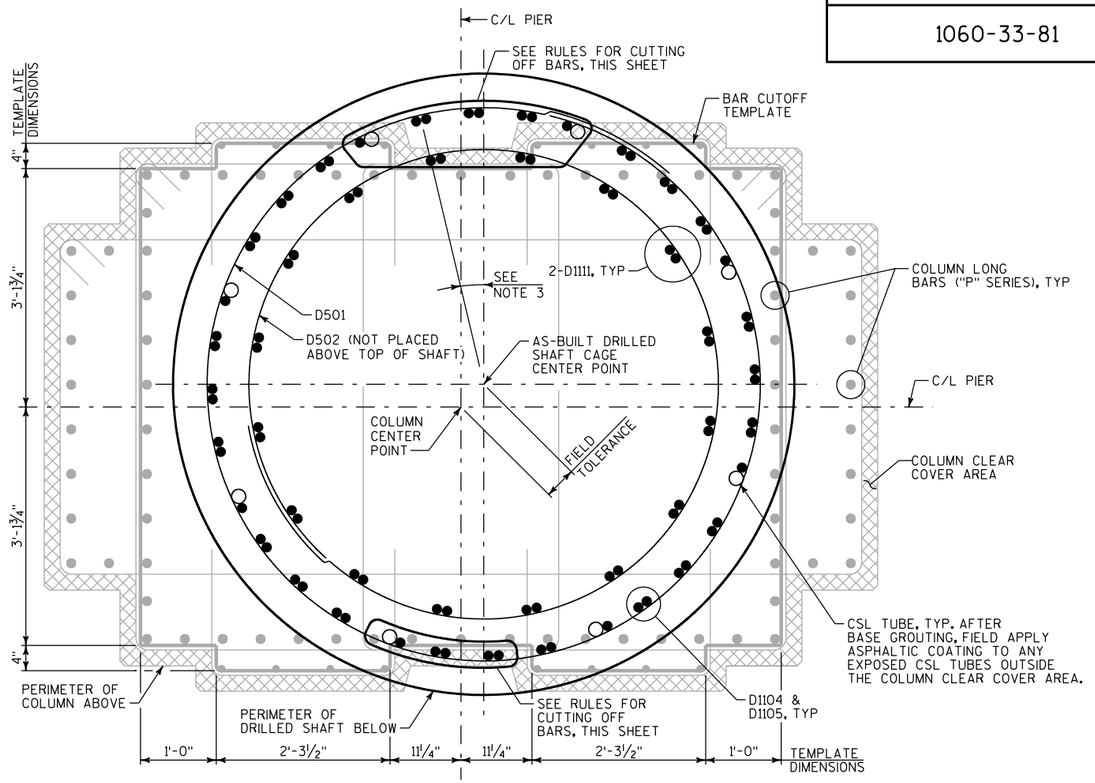


WN01

'A' = 32-D1111 BARS

'B' = 28-D1104 & 28-D1105 BARS

DRILLED SHAFT MAIN REINFORCEMENT SCHEMATIC



SECTION C-C
DRILLED SHAFT CONNECTION DETAIL

DRILLED SHAFT SHOWN IN AS-BUILT CONDITION
TO ILLUSTRATE CONSTRUCTION TOLERANCE

RULES FOR CUTTING OFF BARS

1. SELECT AND CUT OFF PROTRUDING DRILLED SHAFT BARS IN ACCORDANCE WITH THE FOLLOWING RULES. VIOLATING THESE RULES MAY RESULT IN A DRILLED SHAFT WITH INADEQUATE CAPACITY.
2. SURVEY AND MARK CENTER POINT OF PIER COLUMN ON TOP OF DRILLED SHAFT.
3. MARK CENTER POINT OF AS-BUILT DRILLED SHAFT REBAR CAGE ON TOP OF DRILLED SHAFT.
4. IF C/L SHAFT CAGE IS MORE THAN 4" FROM C/L PIER COLUMN, THE CAGE IS OUT OF TOLERANCE. ALERT THE DESIGN ENGINEER FOR FURTHER INSTRUCTIONS. DO NOT CONTINUE WITH STEPS BELOW.
5. LOCATE AND MARK THE OUTLINE OF THE BAR CUTOFF TEMPLATE AS SHOWN. THE BAR CUTOFF TEMPLATE LIES 3¼" INSIDE THE COLUMN PERIMETER.
6. DO NOT ALTER BARS THAT FALL COMPLETELY INSIDE THE BAR CUTOFF TEMPLATE. BARS THAT FALL OUTSIDE THE BAR CUTOFF TEMPLATE CAN BE CUT OFF, SUBJECT TO THE LIMITATIONS BELOW.
7. CUT OFF NO MORE THAN 8 BARS PER SIDE IN THE OUTER RING.
8. CUT OFF NO MORE THAN 14 BARS TOTAL IN THE OUTER RING.
9. CUT OFF NO MORE THAN 4 BARS IN THE INNER RING.
10. CUT OFF BARS FLUSH WITH TOP OF DRILLED SHAFT AND APPLY ASPHALTIC COATING TO ALL EXPOSED AREAS OF CUT BARS.

NOTES:

1. STAGGER LAPS AS SHOWN SO AS TO LAP NO MORE THAN HALF OF THE BARS PER SECTION. STAGGER LAPS WITHIN BUNDLES.
2. WELDMENT OF BOTTOM PLATE AND REINFORCING BAR CAGE NOT SHOWN FOR CLARITY. SEE DRILLED SHAFT ELEVATION ON SHEET B14.
3. ORIENTATION OF DRILLED SHAFT CAGE IS ARBITRARY FOR DESIGN PURPOSES. CONTRACTOR MAY INSTALL CAGE ASSEMBLY IN ANY DESIRED ORIENTATION.
4. FOR SECTION CUT C-C, SEE SHT B14.
5. DRILLED SHAFT CONNECTION HAS BEEN DESIGNED TO ACCOMMODATE DRILLED SHAFT CAGE PLACED UP TO 4" OUT OF POSITION HORIZONTALLY IN ANY DIRECTION. IF THE AS-BUILT CONDITION EXCEEDS THIS TOLERANCE, ALERT THE DESIGN ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY JTE | PLANS CK'D. WRT

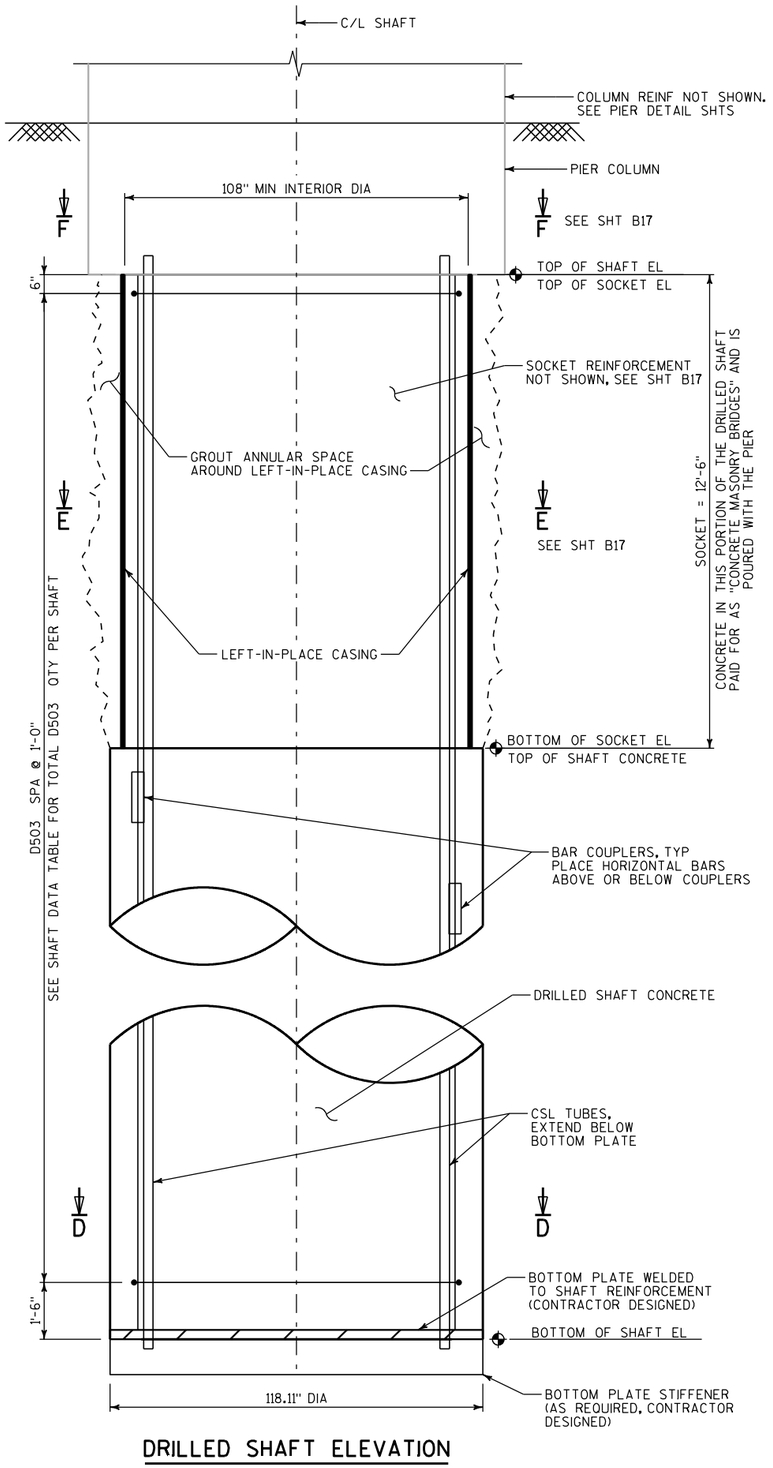
OPTION B
98.43" DRILLED SHAFT DETAILS
(2 OF 2)

SHEET B15 OF B40

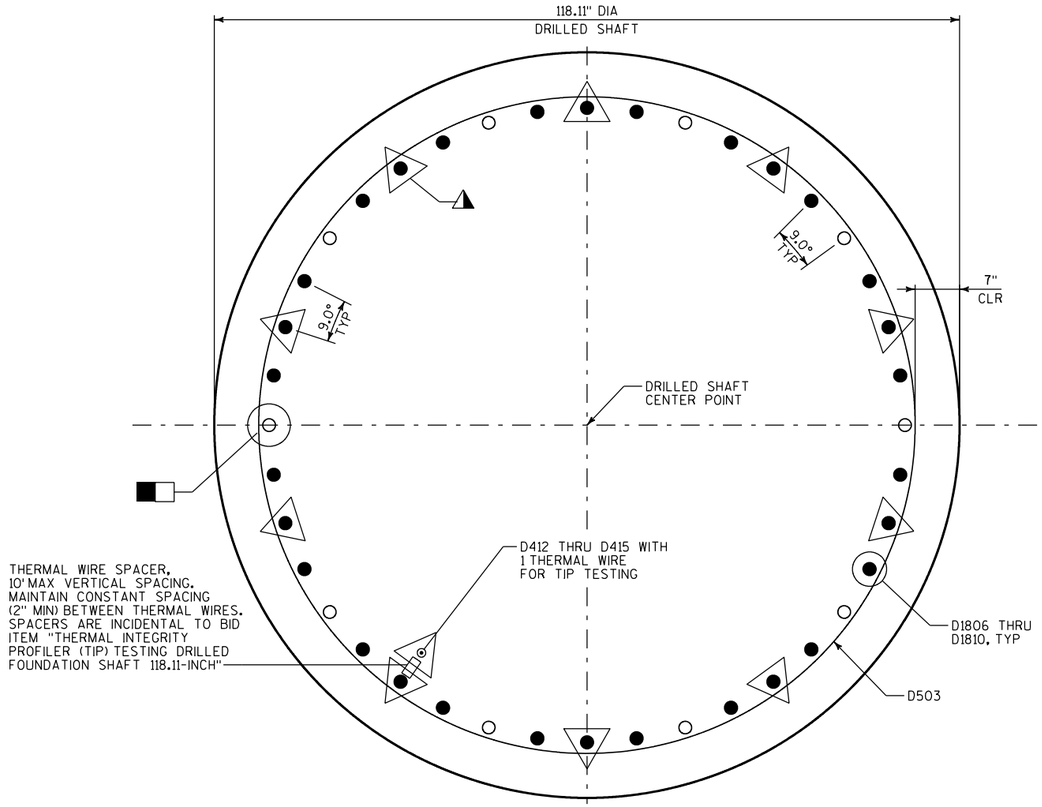
8

8

STATE PROJECT NUMBER
1060-33-81



DRILLED SHAFT ELEVATION



SECTION D-D

SHAFT DATA

SHAFT NO	SHAFT C/L "X"	SHAFT C/L "Y"	ASSUMED DRILLING EL	TOP OF SHAFT EL	BOTTOM OF SOCKET EL	BOTTOM OF SHAFT EL	SHAFT LENGTH (FT)	SHAFT VOLUME (CY)	TIE NO. REQ'D (EACH)	INSTRUMENTATION	MAXIMUM BASE GROUTING PRESSURE (PSI)
WN02	571180.24	295120.27	756.0	756.0	743.5	706.0	50.0	140.9	49	CSL TUBES/TIP TESTING	325
WN03	571378.32	295103.11	771.0	771.0	758.5	695.0	76.0	214.2	75	CSL TUBES/TIP TESTING	400
WN04	571586.70	295115.44	774.0	761.0	748.5	697.0	65.0	183.2	64	CSL TUBES/TIP TESTING	425
WN05	571781.37	295155.83	761.0	746.0	733.5	696.0	50.0	140.9	49	CSL TUBES/TIP TESTING	175
WN09	572333.84	295459.30	755.0	755.0	742.5	705.0	50.0	140.9	49	CSL TUBES/TIP TESTING	250
WN10	572485.06	295617.24	761.0	761.0	748.5	696.0	65.0	183.2	64	CSL TUBES/TIP TESTING	400

LEGEND

- 10 - 2" DIA CSL TUBES FULL LENGTH OF SHAFT TIED TO INSIDE AND SPACED AROUND THE PERIMETER OF REINFORCEMENT AS SHOWN. AFTER TESTING, USE CSL TUBES TO BASE-GROUT THE PIER DRILLED SHAFTS.
- 11 - THERMAL WIRES FOR TIP TESTING. DISTRIBUTE 10 THERMAL WIRES EVENLY AROUND THE PERIMETER OF REINFORCMENT TIED TO VERTICAL BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY ASW | PLANS CK'D. WRT

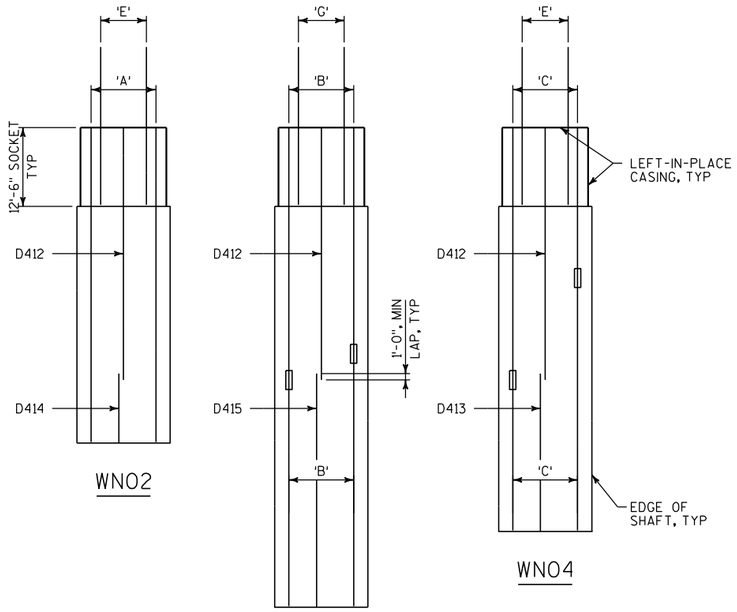
OPTION B
118.11" DRILLED SHAFT DETAILS
(1 OF 2)

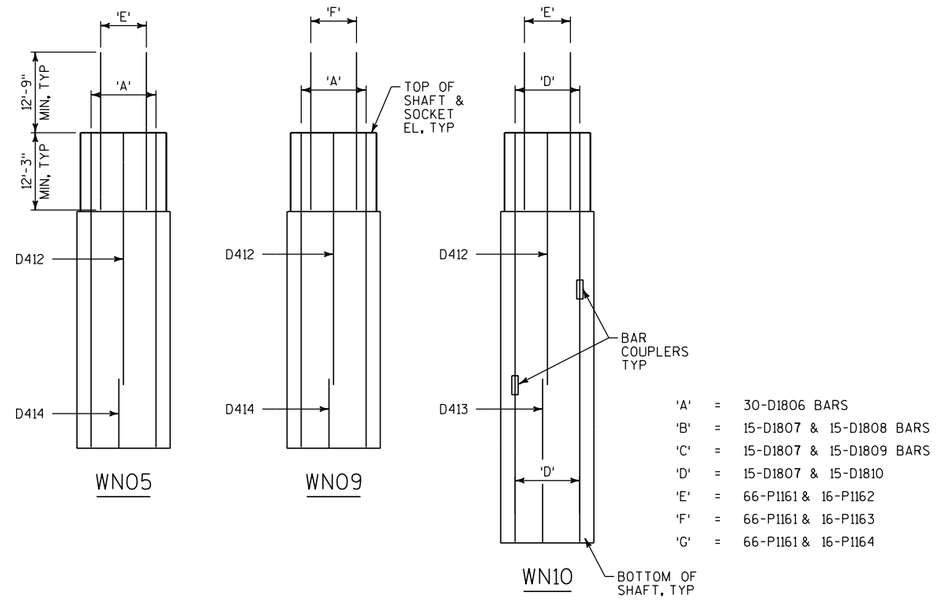
SHEET B16 OF B40

8

8

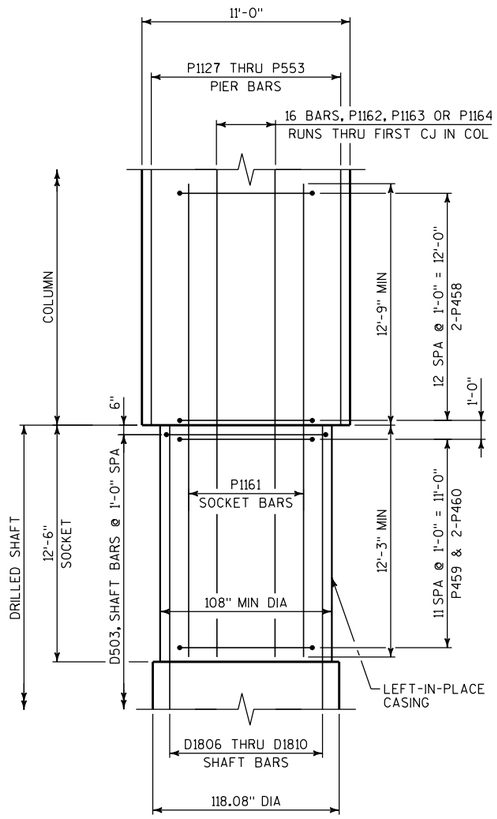
STATE PROJECT NUMBER
1060-33-81



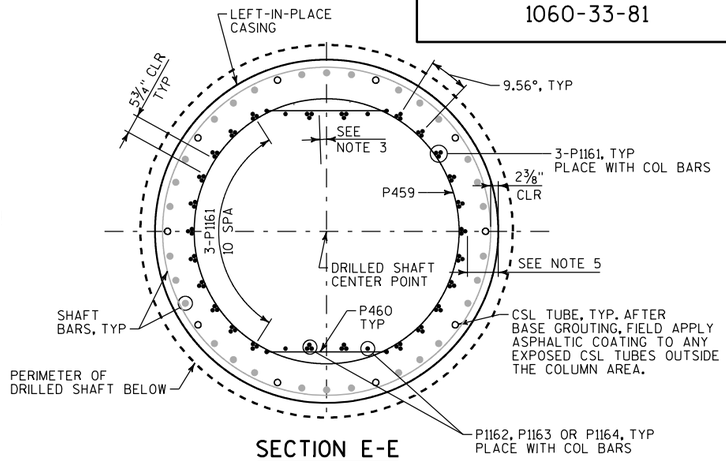


'A' = 30-D1806 BARS
'B' = 15-D1807 & 15-D1808 BARS
'C' = 15-D1807 & 15-D1809 BARS
'D' = 15-D1807 & 15-D1810
'E' = 66-P1161 & 16-P1162
'F' = 66-P1161 & 16-P1163
'G' = 66-P1161 & 16-P1164

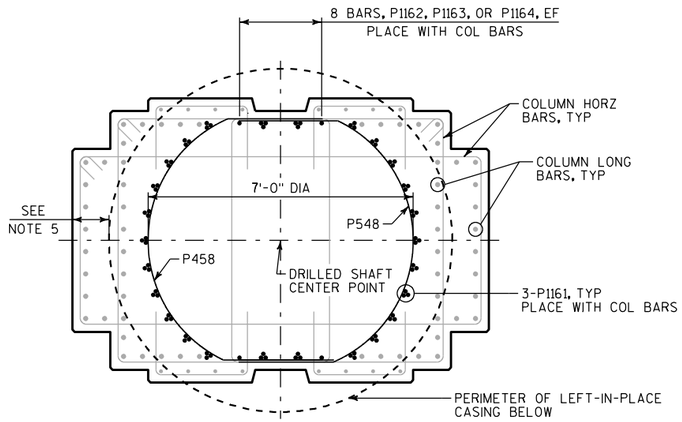
DRILLED SHAFT MAIN REINFORCEMENT SCHEMATIC



SOCKET ELEVATION



SECTION E-E
DRILLED SHAFT/SOCKET DETAIL



SECTION F-F
SOCKET/COLUMN DETAIL

NOTES:

1. STAGGER COUPLERS AS SHOWN SO AS TO COUPLE NO MORE THAN HALF OF THE BARS PER SECTION.
2. WELDMENT OF BOTTOM PLATE AND REINFORCING BAR CAGE NOT SHOWN FOR CLARITY. SEE DRILLED SHAFT ELEVATION ON SHEET B16.
3. ORIENTATION OF DRILLED SHAFT CAGE IS ARBITRARY FOR DESIGN PURPOSES. CONTRACTOR MAY INSTALL CAGE ASSEMBLY IN ANY DESIRED ORIENTATION.
4. FOR SECTION CUT E-E & F-F, SEE SHT B16.
5. THE SOCKET CONNECTION HAS BEEN DESIGNED TO ACCOMMODATE DRILLED SHAFT CAGE PLACED UP TO 4" OUT OF POSITION HORIZONTALLY IN ANY DIRECTION. IF THE AS-BUILT CONDITION EXCEEDS THIS TOLERANCE, ALERT THE DESIGN ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY ASW | PLANS CK'D. WRT

OPTION B
118.11" DRILLED SHAFT DETAILS (2 OF 2)

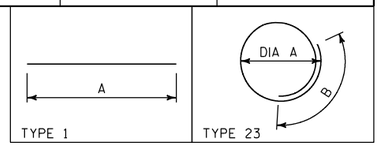
SHEET B17 OF B40

8

STATE PROJECT NUMBER

1060-33-81

BAR INFORMATION							BAR DIMENSIONS						LOCATION	BAR SERIES INFORMATION				
BAR MARK	MATL	NO. REQ'D	LENGTH	BENT	BAR SERIES	BEND TYPE	A	B	C	D	E	F		DIM	MIN	MAX	NO REQ'D	LENGTH
D501	U	74	24'-9"	X		23	7'-5"	1'-5"					SHAFT TIE BAR (8' SHAFTS)					
D502	U	13	21'-1"	X		23	6'-3"	1'-5"					SPLICE CAGE TIE BAR (8' SHAFTS)					
D503	U	350	28'-8"	X		23	8'-8"	1'-5"					SHAFT TIE BAR (10' SHAFTS)					
D1104	U	56	32'-0"			1	32'-0"						LONGITUDINAL BAR - PIER WN01					
D1105	U	56	60'-0"			1	60'-0"						LONGITUDINAL BAR - PIER WN01					
D1806	U	90	49'-10"			1	49'-10"						LONGITUDINAL BAR - PIERS WN02, WN05 & WN09					
D1807	U	90	40'-0"			1	40'-0"						LONGITUDINAL BAR - PIERS WN03, WN04 & WN10					
D1808	U	30	35'-10"			1	35'-10"						LONGITUDINAL BAR - PIER WN03					
D1809	U	30	23'-10"			1	23'-10"						LONGITUDINAL BAR - PIER WN04					
D1810	U	30	24'-10"			1	24'-10"						LONGITUDINAL BAR - PIER WN10					
D1111	U	32	27'-9"			1	27'-9"						SPLICE CAGE LONGITUDINAL BAR (8' SHAFTS)					
D412	U	7	40'-0"			1	40'-0"						LONGITUDINAL THERMAL BAR					
D413	U	3	26'-0"			1	26'-0"						LONGITUDINAL THERMAL BAR					
D414	U	3	11'-0"			1	11'-0"						LONGITUDINAL THERMAL BAR					
D415	U	1	37'-0"			1	37'-0"						LONGITUDINAL THERMAL BAR					



BAR MARK BREAKDOWN									
BAR MARK	PIER WN01	PIER WN02	PIER WN03	PIER WN04	PIER WN05	PIER WN09	PIER WN10	TOTAL NO	WEIGHT
D501	74	0	0	0	0	0	0	74	1910
D502	13	0	0	0	0	0	0	13	286
D503	0	49	75	64	49	0	0	350	10465
D1104	56	0	0	0	0	0	0	56	9521
D1105	56	0	0	0	0	0	0	56	17852
D1806	0	30	0	0	30	0	0	90	60996
D1807	0	0	30	30	0	0	0	90	48960
D1808	0	0	30	0	0	0	0	30	14620
D1809	0	0	0	30	0	0	0	30	9724
D1810	0	0	0	0	0	0	0	30	10132
D1111	32	0	0	0	0	0	0	32	4718
D412	1	1	1	1	1	0	0	7	187
D413	1	0	0	1	0	0	0	3	52
D414	0	1	0	0	1	0	0	3	22
D415	0	0	1	0	0	0	0	1	25
TOT WEIGHT	34331	21831	33234	28002	21831	0	0	865	189469

NOTES

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

DIMENSIONS ARE TO OUTSIDE OF BARS, EXCEPT FOR RADIUS DIMENSIONS WHICH ARE TO INSIDE OF BENDS.

FOR A BAR SERIES, LENGTH SHOWN IN THE FOURTH COLUMN OF TABLE IS THE AVERAGE BAR LENGTH USED TO COMPUTE BAR WEIGHT.

BAR MATERIAL CODES USED IN SECOND COLUMN OF TABLE
U - STEEL, HIGH STRENGTH, UNCOATED.
E - STEEL, HIGH STRENGTH, EPOXY COATED.
S - STAINLESS STEEL.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

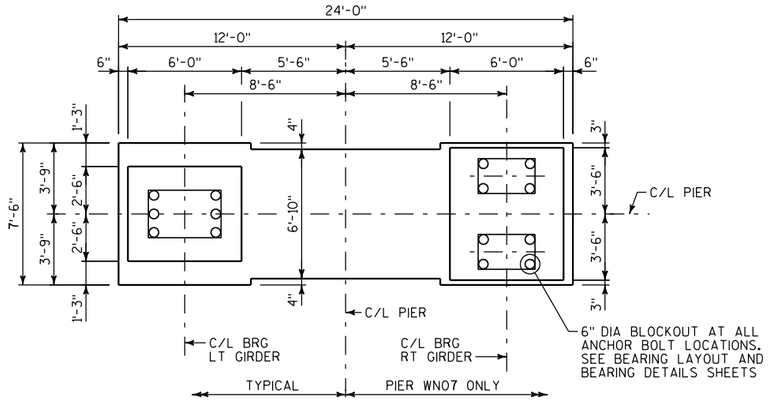
DRAWN BY JTE | PLANS CK'D. WRT

OPTION B
DRILLED SHAFT
REINFORCEMENT
SCHEDULE

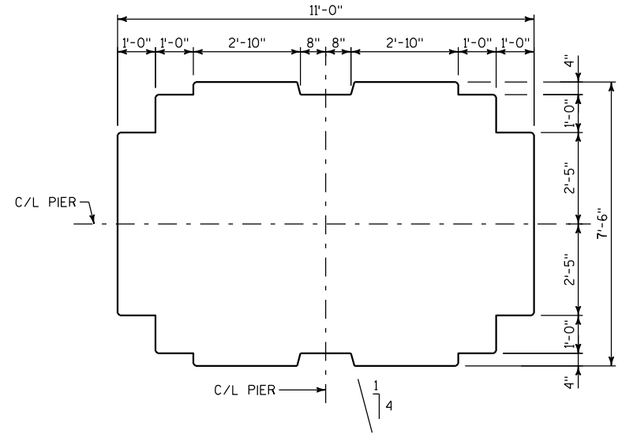
SHEET B18 OF B40

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080218B_fd.dgn PLOT DATE : 13-MAY-2015 14:17 PLOT BY : MSCBKS PLOT NAME : B856_080218B_fd PLOT SCALE : 8:1

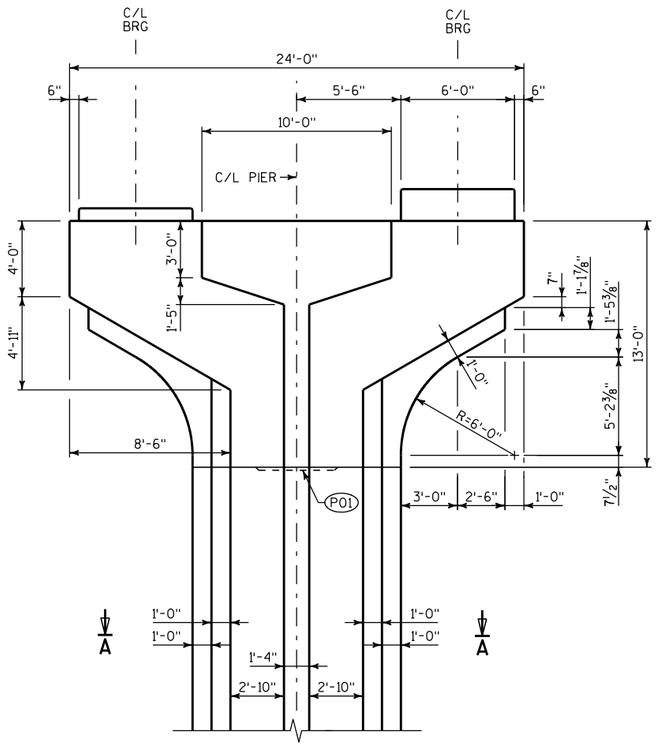
STATE PROJECT NUMBER
1060-33-81



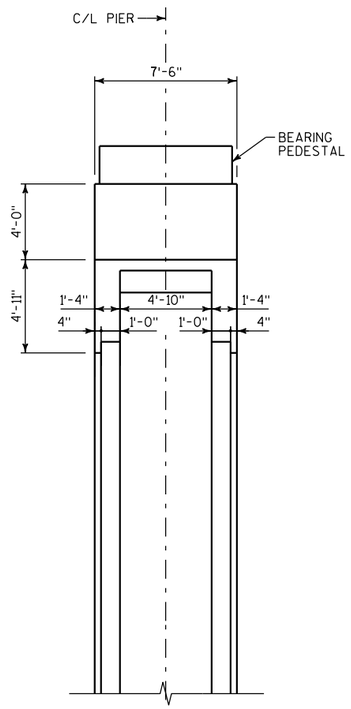
PLAN



SECTION A-A



FRONT ELEVATION



SIDE ELEVATION

LEGEND

P01 KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
TYPICAL PIER
LAYOUT

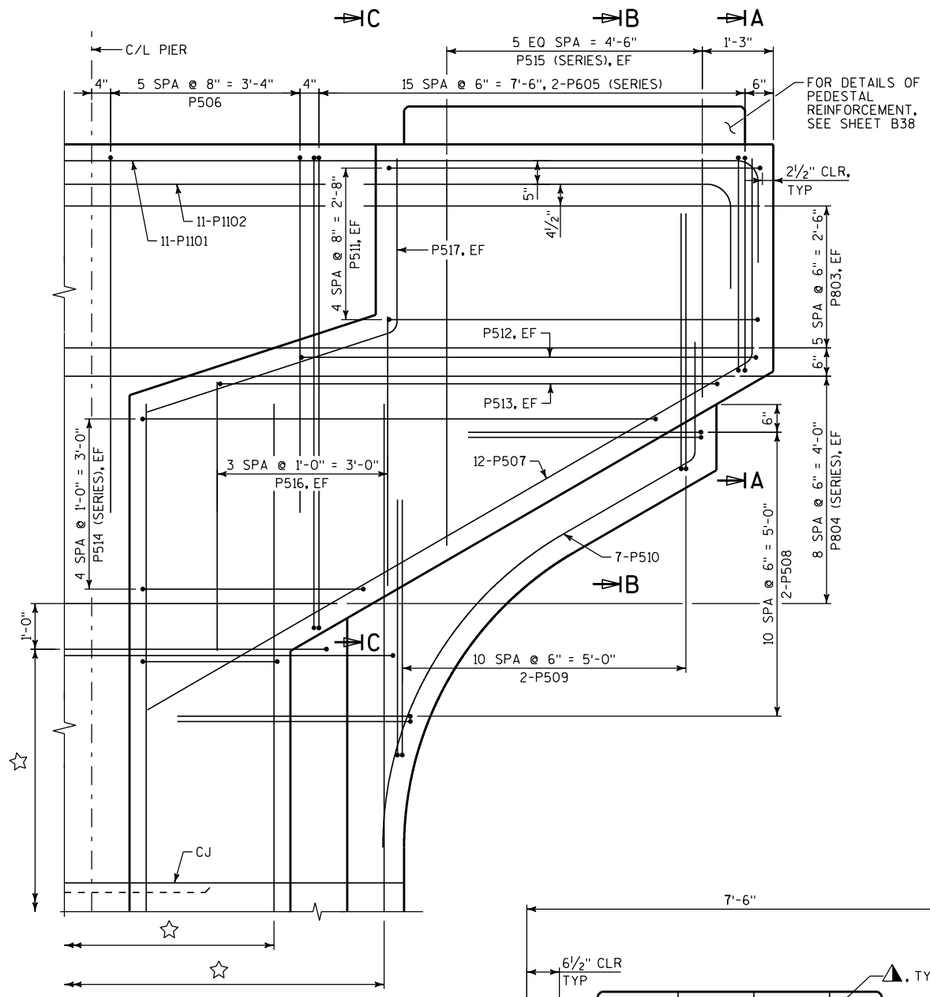
SHEET B19 OF B40

8

8

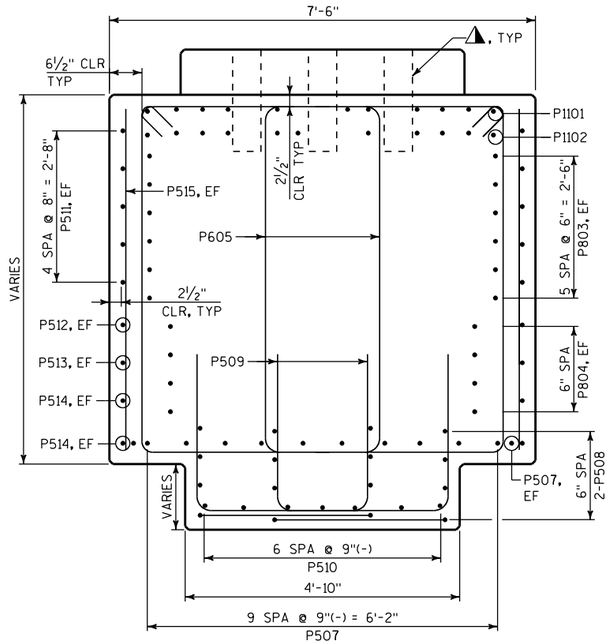
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080319B_pi.dgn PLOT DATE : 13-MAY-2015 14:17 PLOT BY : MSCBKS PLOT NAME : B856_080319B_pi PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



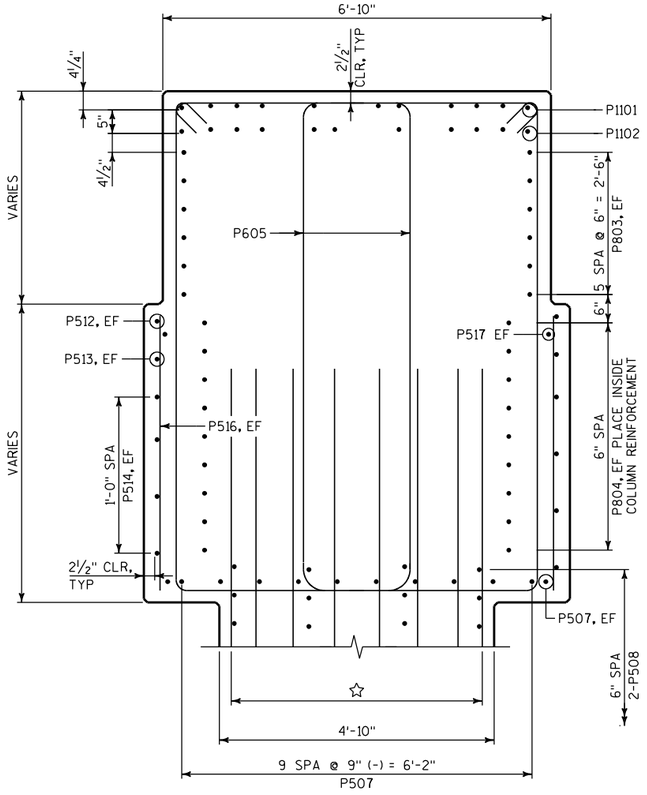
PARTIAL ELEVATION

(REINFORCEMENT IS SYMMETRICAL ABOUT C/L PIER)



SECTION B-B

(PEDESTAL REINFORCEMENT NOT SHOWN FOR CLARITY)

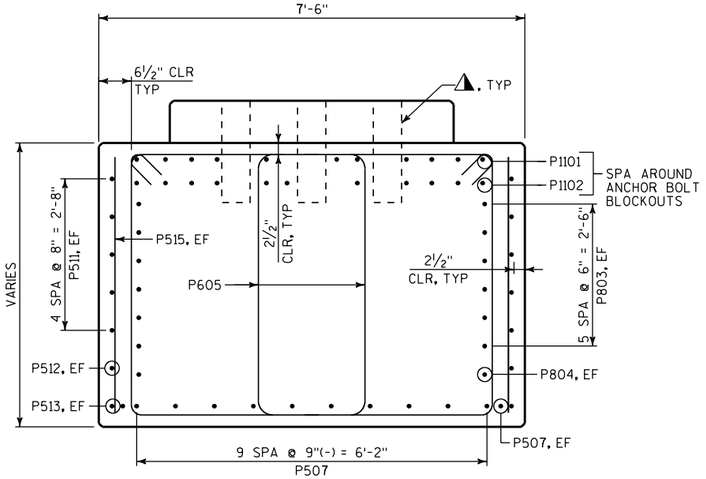


SECTION C-C

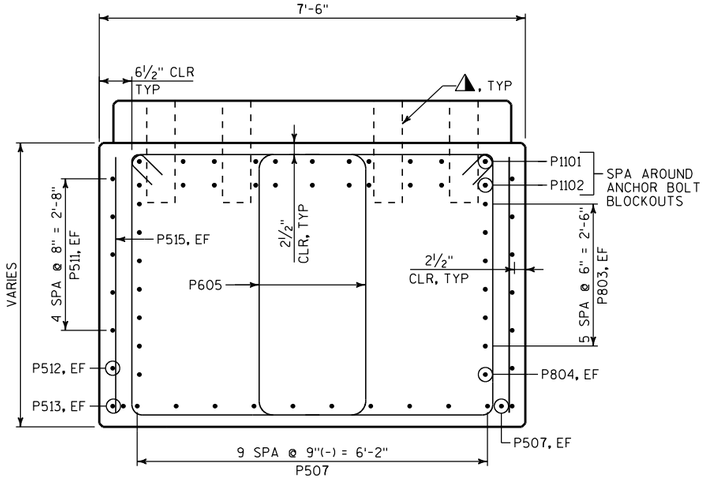
LEGEND

☆ COLUMN REINFORCEMENT VARIES BY PIER. SEE PIER DETAIL SHEETS.

◭ LOCATION OF MASONARY PLATE ANCHOR BOLT BLOCK-OUT VARIES BY PIER. SEE BERAING LAYOUT SHEETS.



TYPICAL



AT PIER WN07

SECTION A-A

(PEDESTAL REINFORCEMENT NOT SHOWN FOR CLARITY)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY ASW | PLANS CK'D. WRT

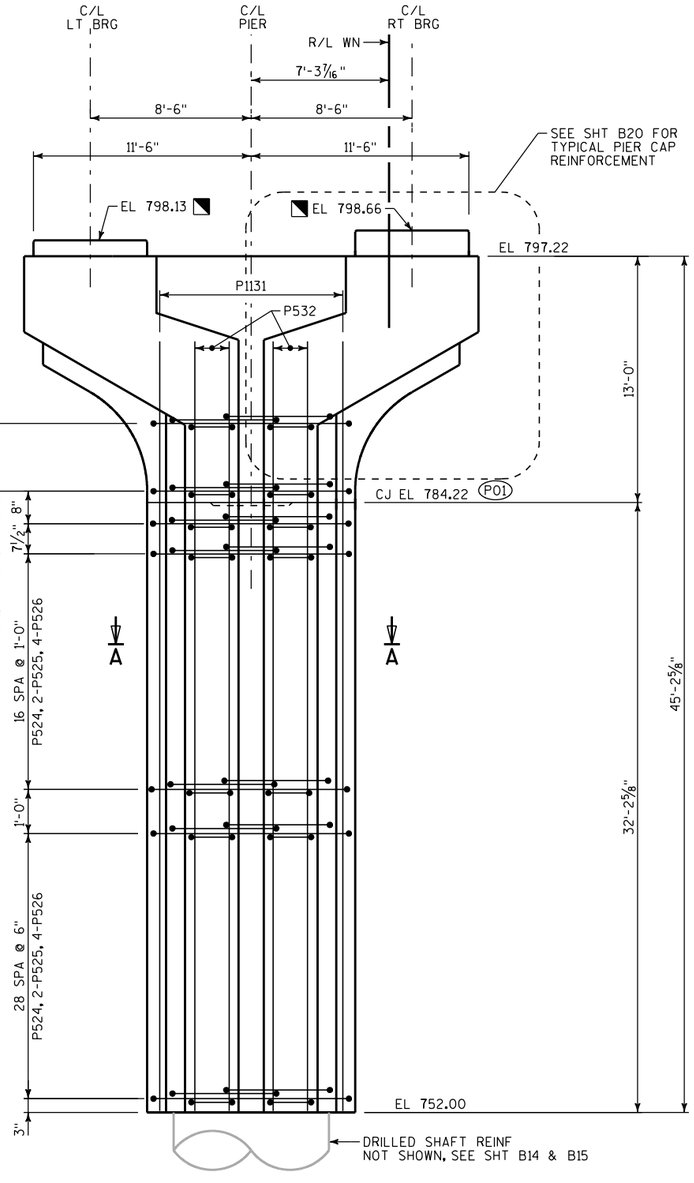
OPTION B
TYPICAL PIER
CAP REINFORCEMENT

SHEET B20 OF B40

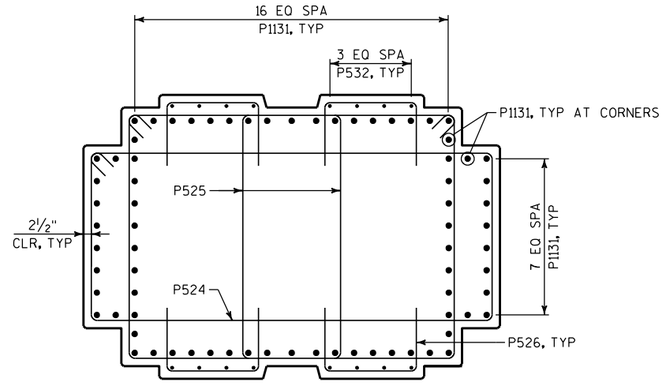
8

8

STATE PROJECT NUMBER
1060-33-81



ELEVATION



SECTION A-A

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
PIER WN01
DETAILS

SHEET B21 OF B40

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PLOT BY : MSCBKS
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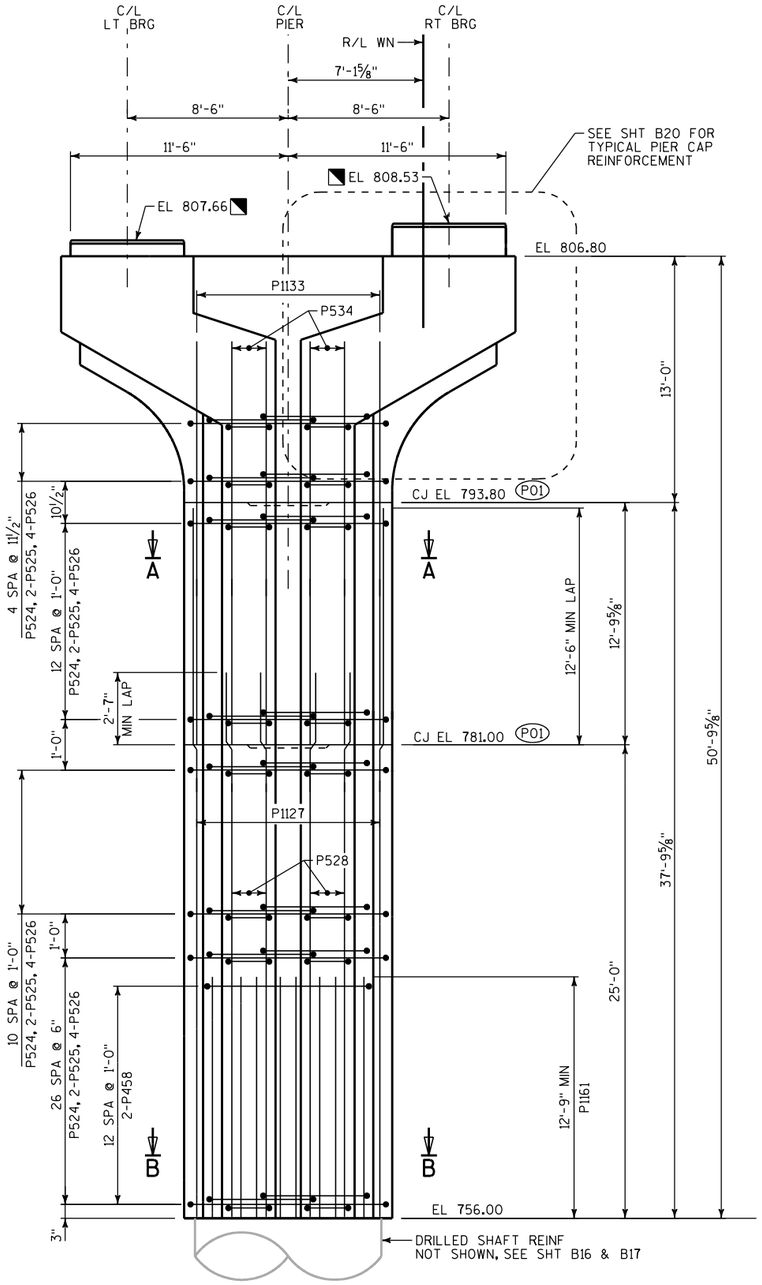
PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



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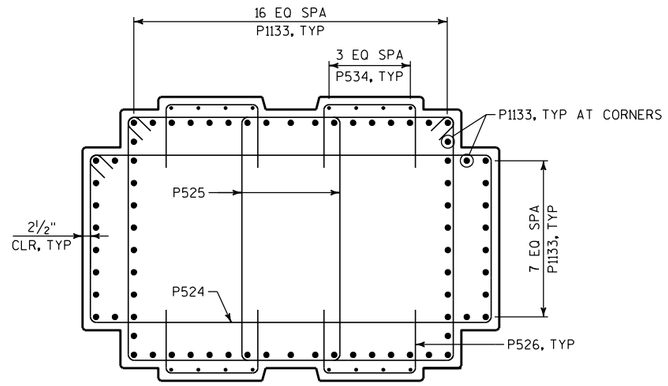
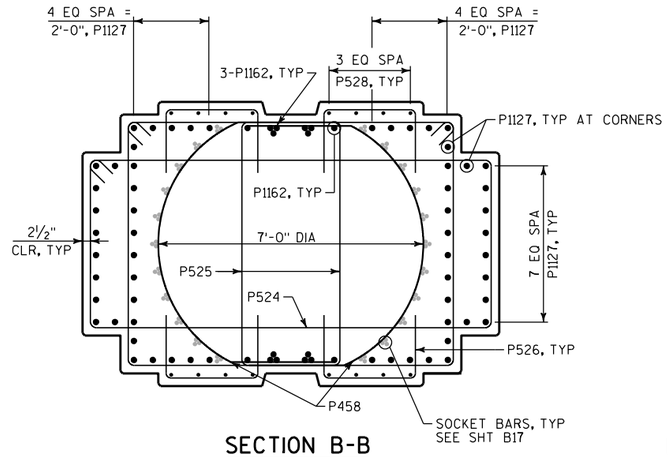


SECTION A-A



SECTION B-B

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

OPTION B
PIER WN02
DETAILS

SHEET B22 OF B40

8

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080322B_pi.dgn
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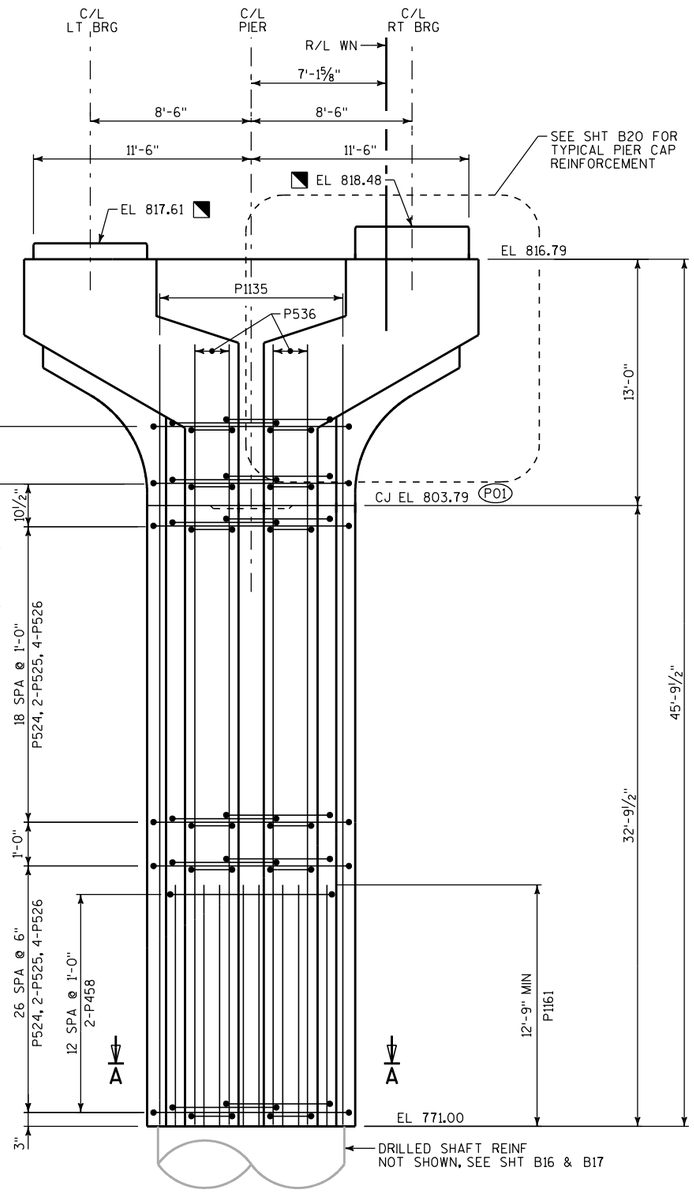
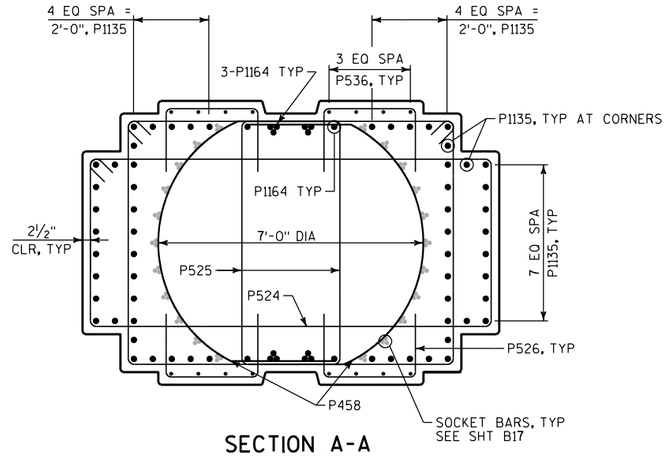
PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



ELEVATION



SECTION A-A

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

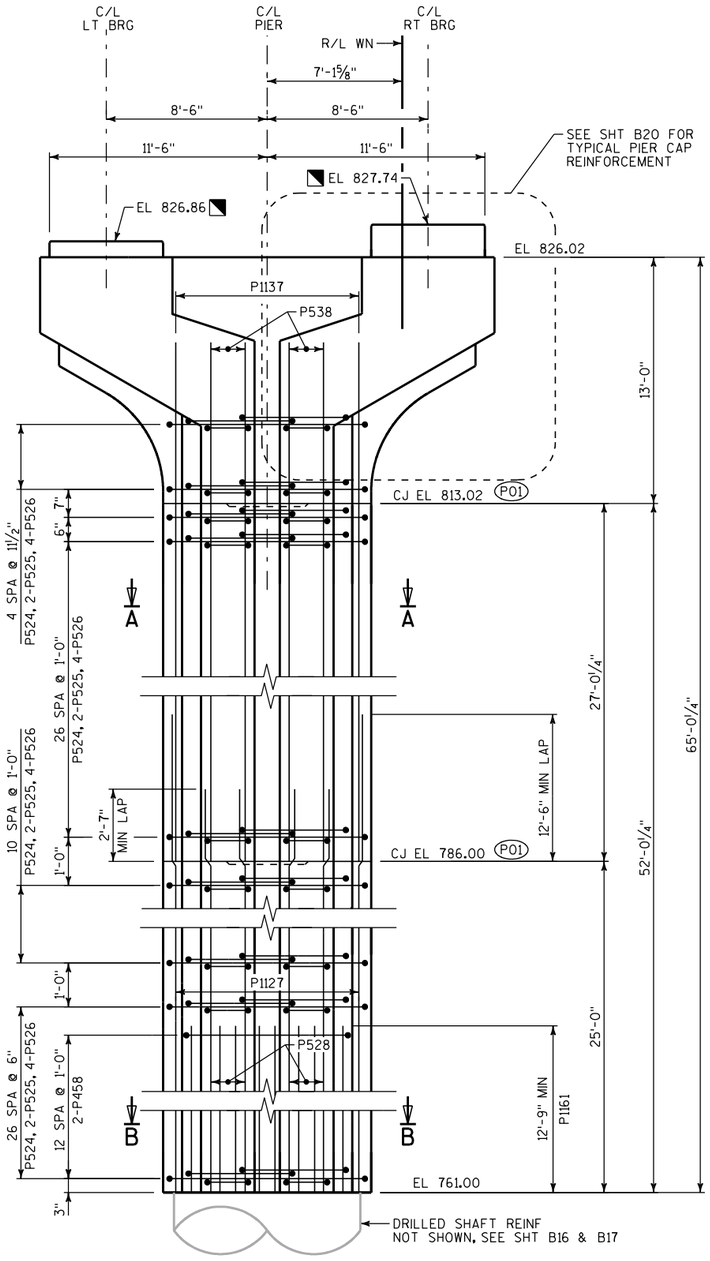
DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
PIER WN03
DETAILS

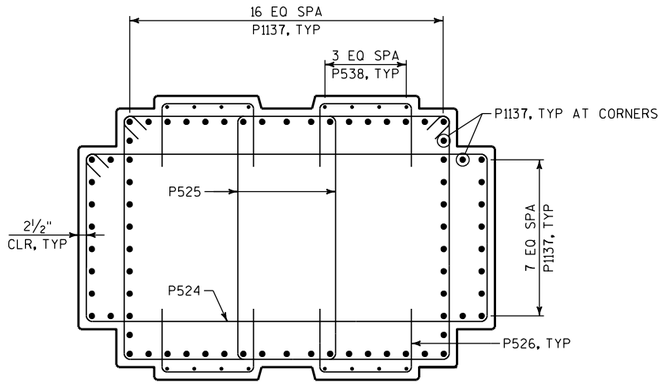
SHEET B23 OF B40

8

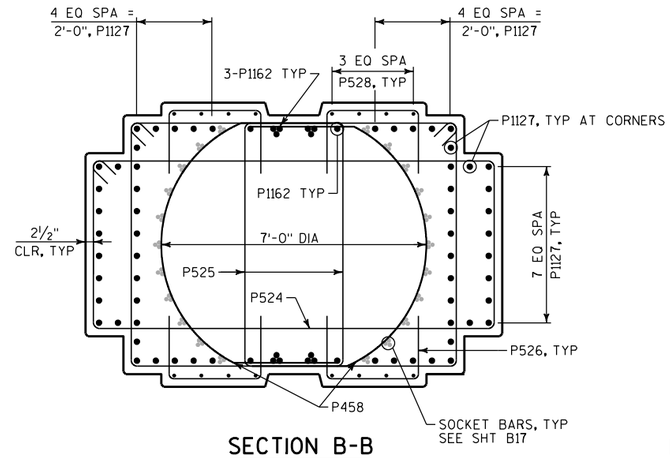
STATE PROJECT NUMBER
1060-33-81



ELEVATION



SECTION A-A



SECTION B-B

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

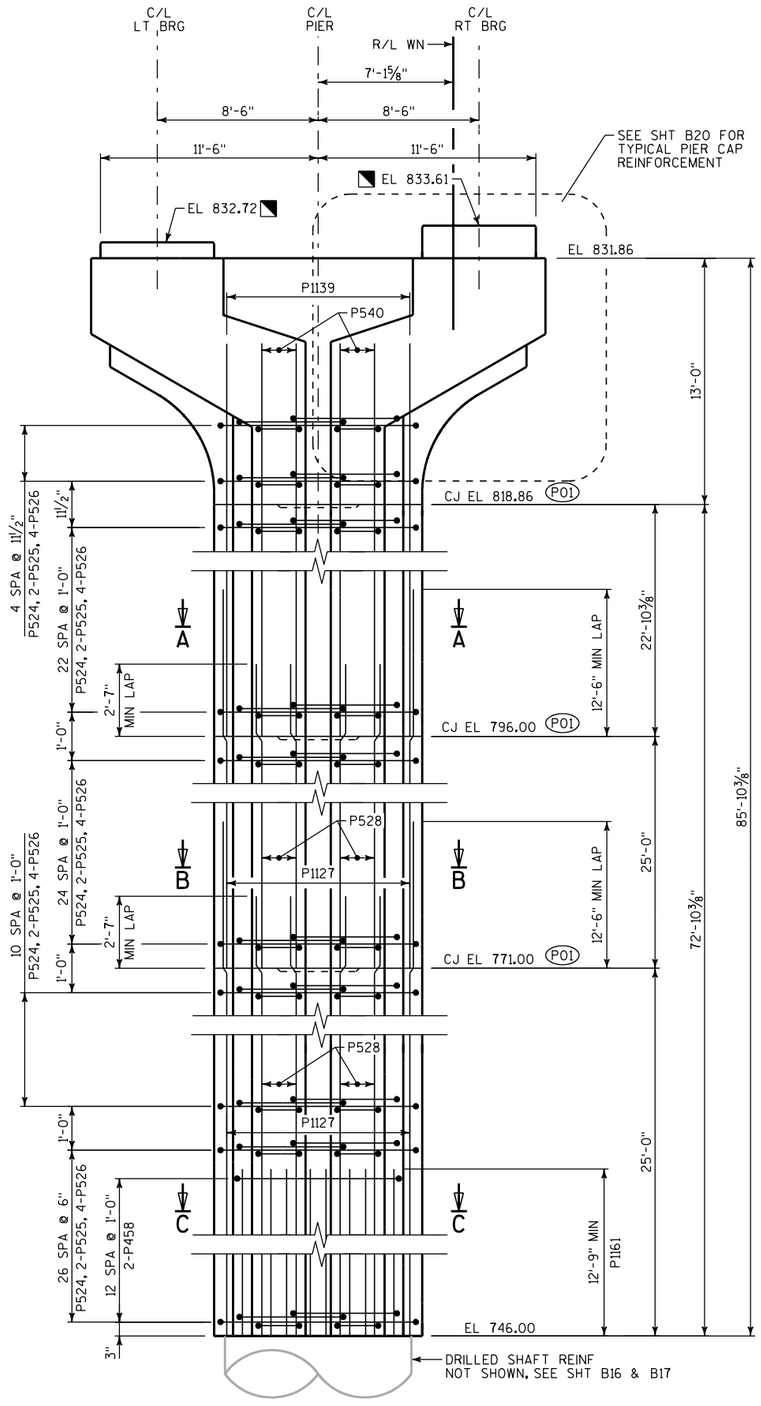
OPTION B
PIER WN04
DETAILS

SHEET B24 OF B40

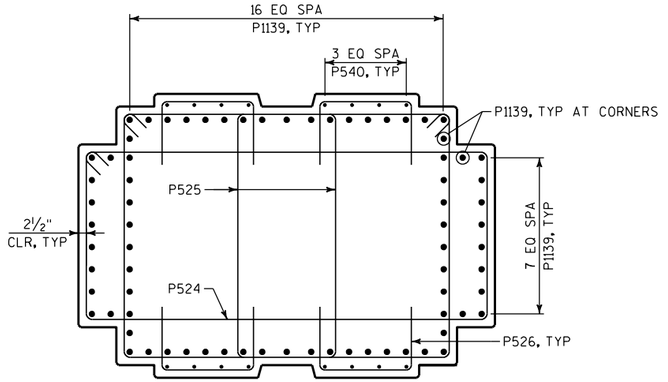
8

8

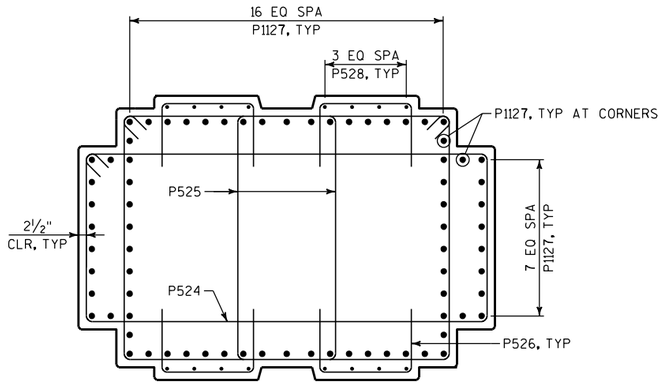
STATE PROJECT NUMBER
1060-33-81



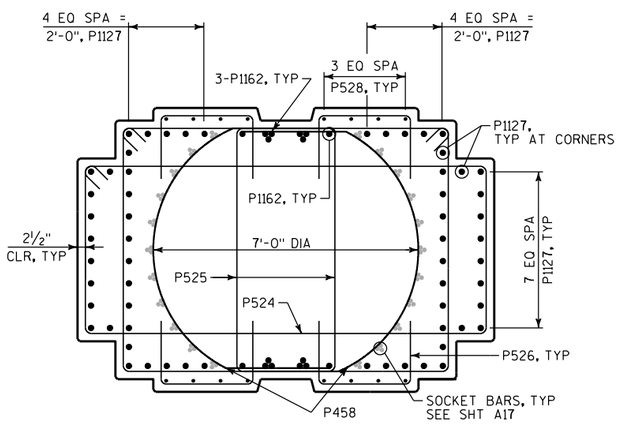
ELEVATION



SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
PIER WN05
DETAILS

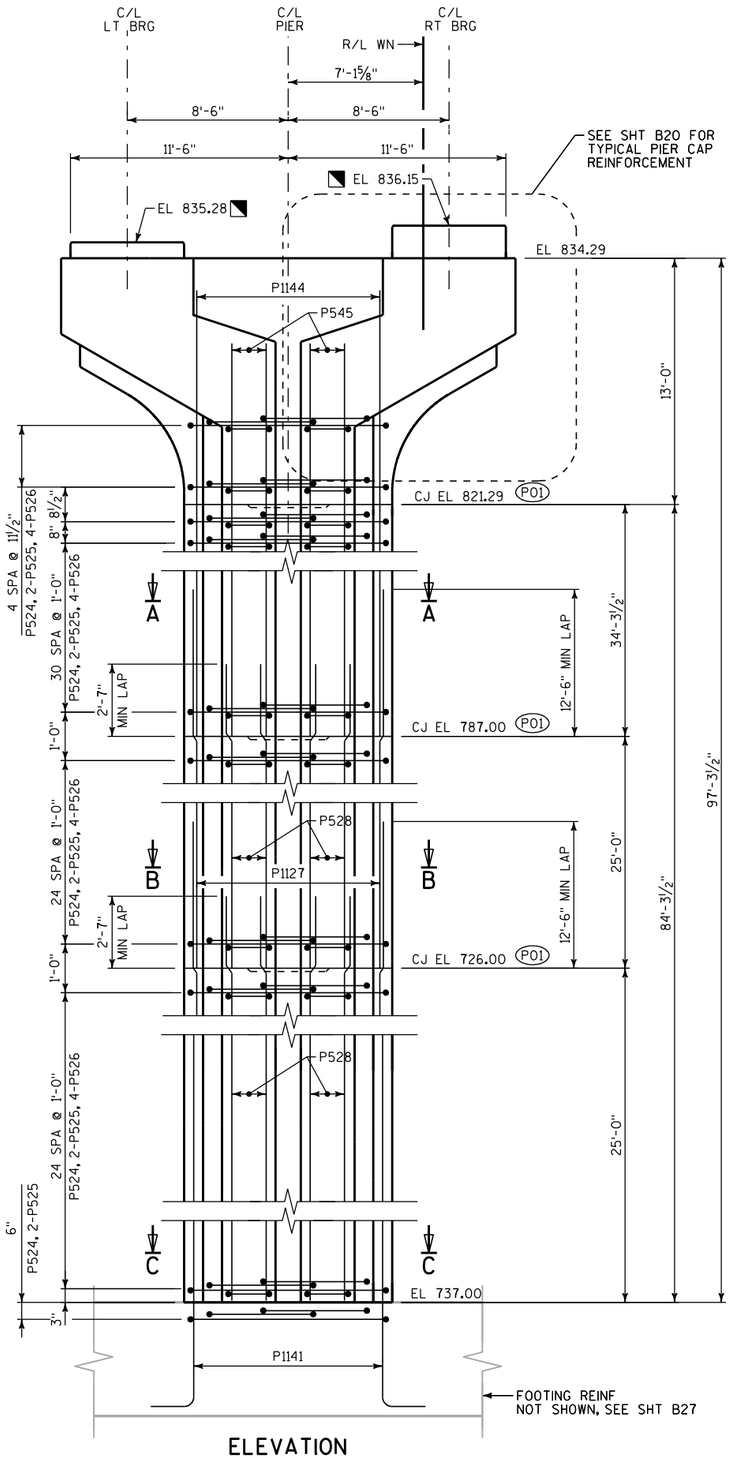
SHEET B25 OF B40

8

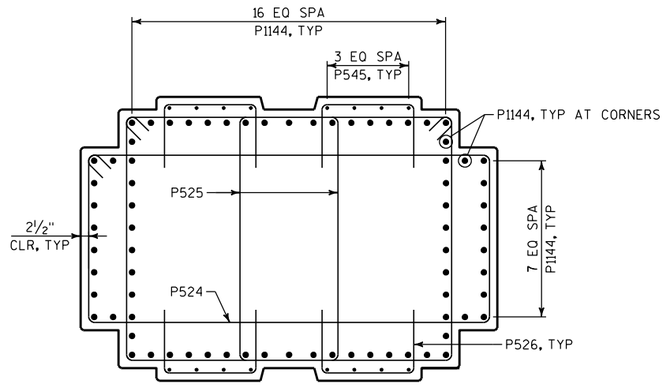
8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080325B_pi.dgn
PLOT DATE : 13-MAY-2015 14:18
PLOT BY : MSCBKS
PLOT NAME : B856_080325B_pi
PLOT SCALE : 8:1

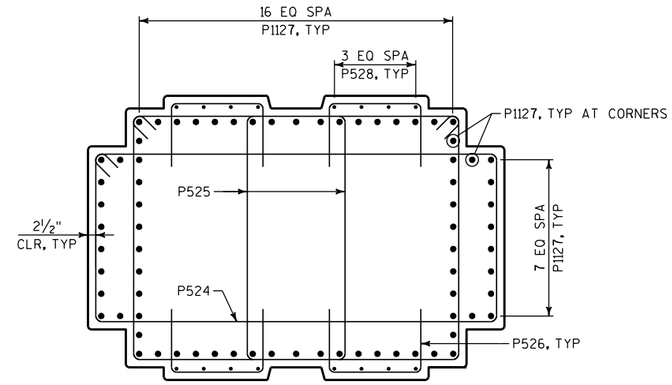
STATE PROJECT NUMBER
1060-33-81



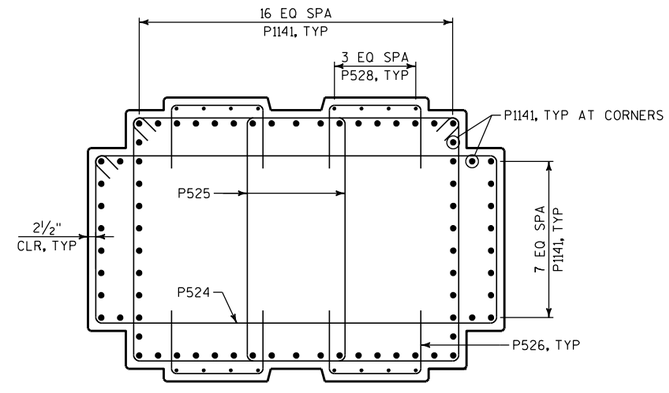
ELEVATION



SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

OPTION B
PIER WN06
DETAILS

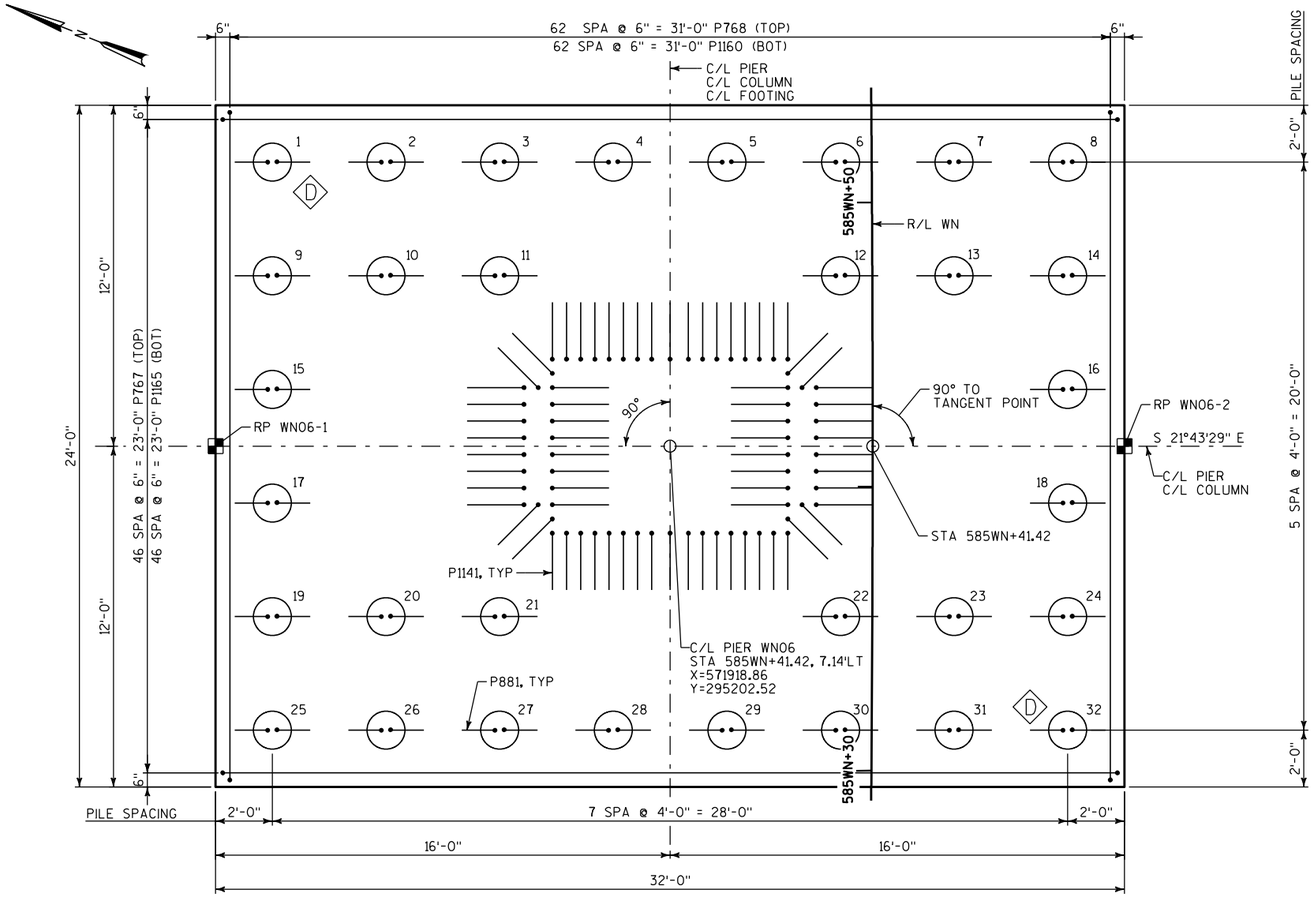
SHEET B26 OF B40

8

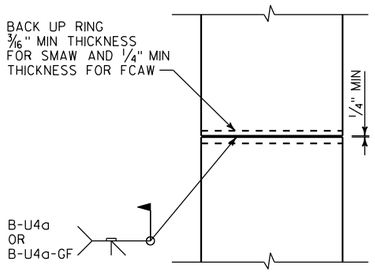
8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080326B_pi.dgn
PLOT DATE : 13-MAY-2015 14:57
PLOT BY : MSCBKS
PLOT NAME : 26B
PLOT SCALE : 8:1

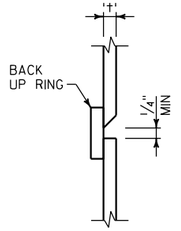
STATE PROJECT NUMBER
1060-33-81



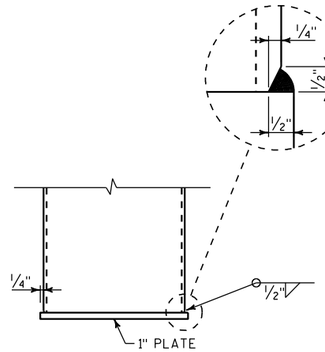
PLAN



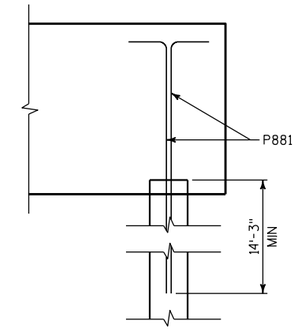
CIP PILE SPLICE DETAIL



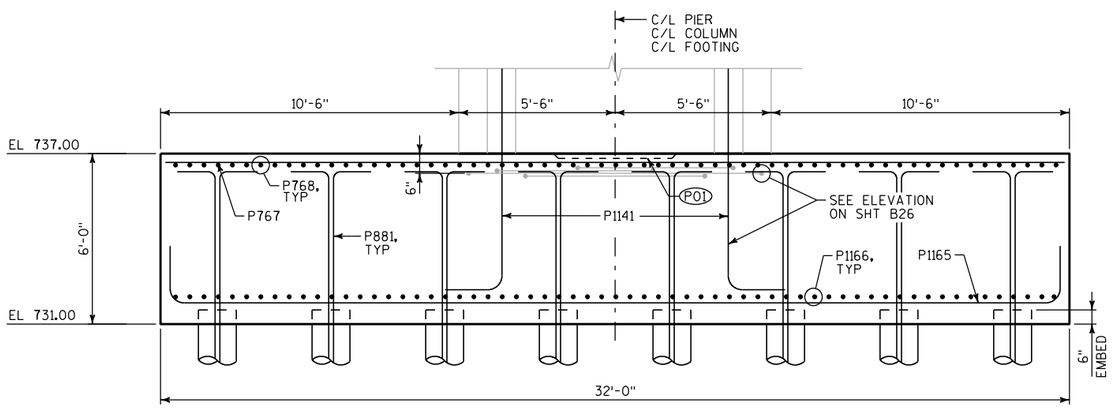
CIP PILE WELD DETAIL



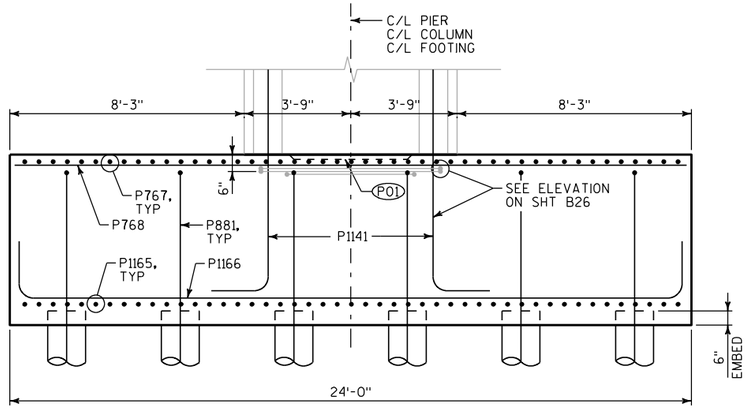
CIP PILE END PLATE DETAIL



PILE REINFORCEMENT ELEVATION



ELEVATION



END VIEW

LEGEND

P01 KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

D DYNAMIC PILE LOAD TESTING.

PIER SUPPORTED ON 16" DIA CIP CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 246 TONS PER PILE AS DETERMINED BY THE PDA/ CAPWAP ACCEPTANCE METHOD.

ESTIMATED PILE LENGTH = 70 FT.

MINIMUM PILE PENETRATION FOR UPLIFT= EL 666.0.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

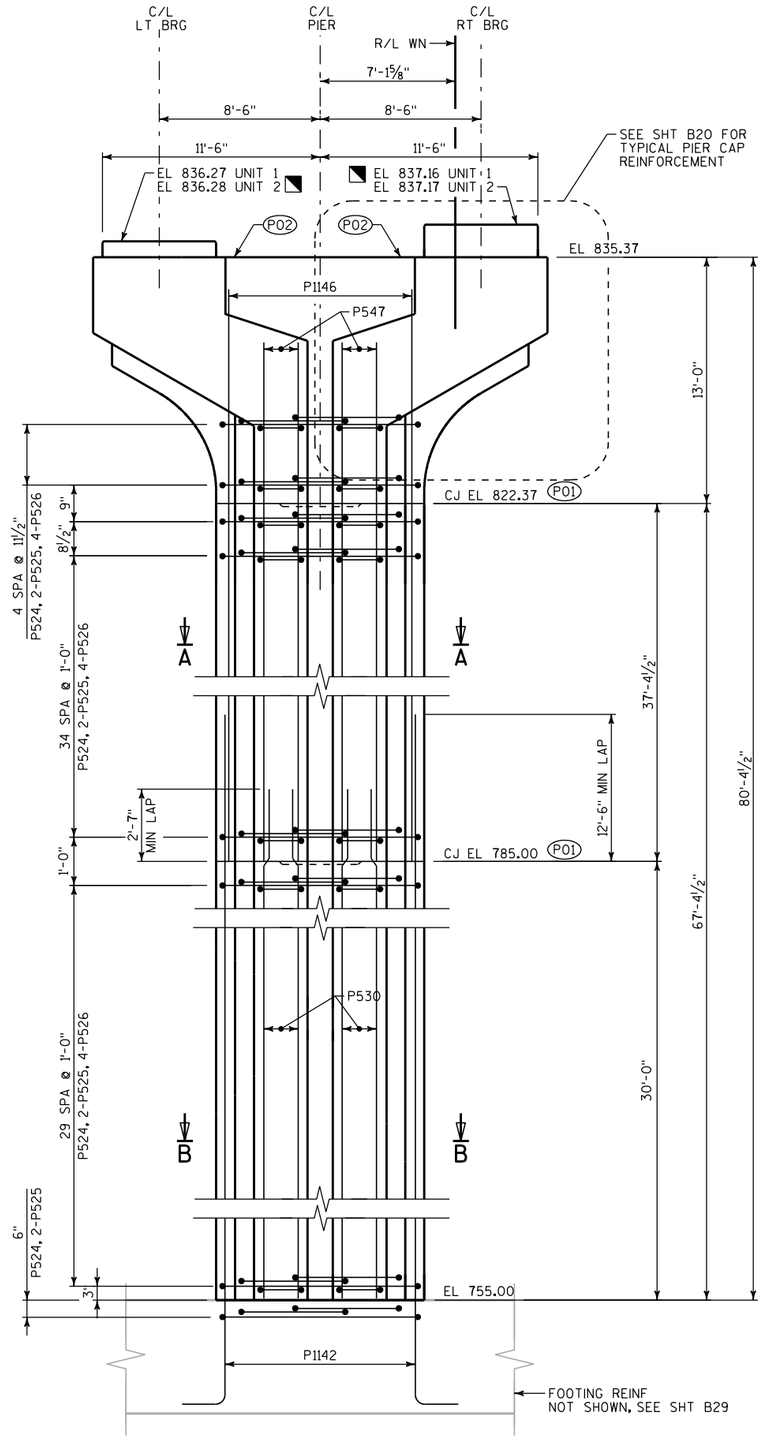
OPTION B
PIER WN06
FOOTING

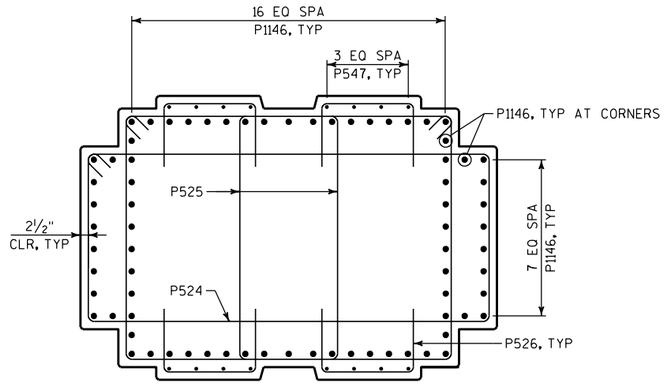
SHEET B27 OF B40

8

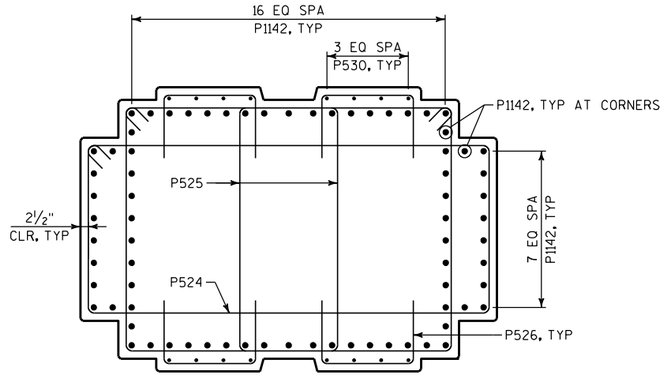
8

STATE PROJECT NUMBER
1060-33-81





SECTION A-A



SECTION B-B

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

(P02) TEMPORARY HOLD DOWN DEVICE, SEE DETAIL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

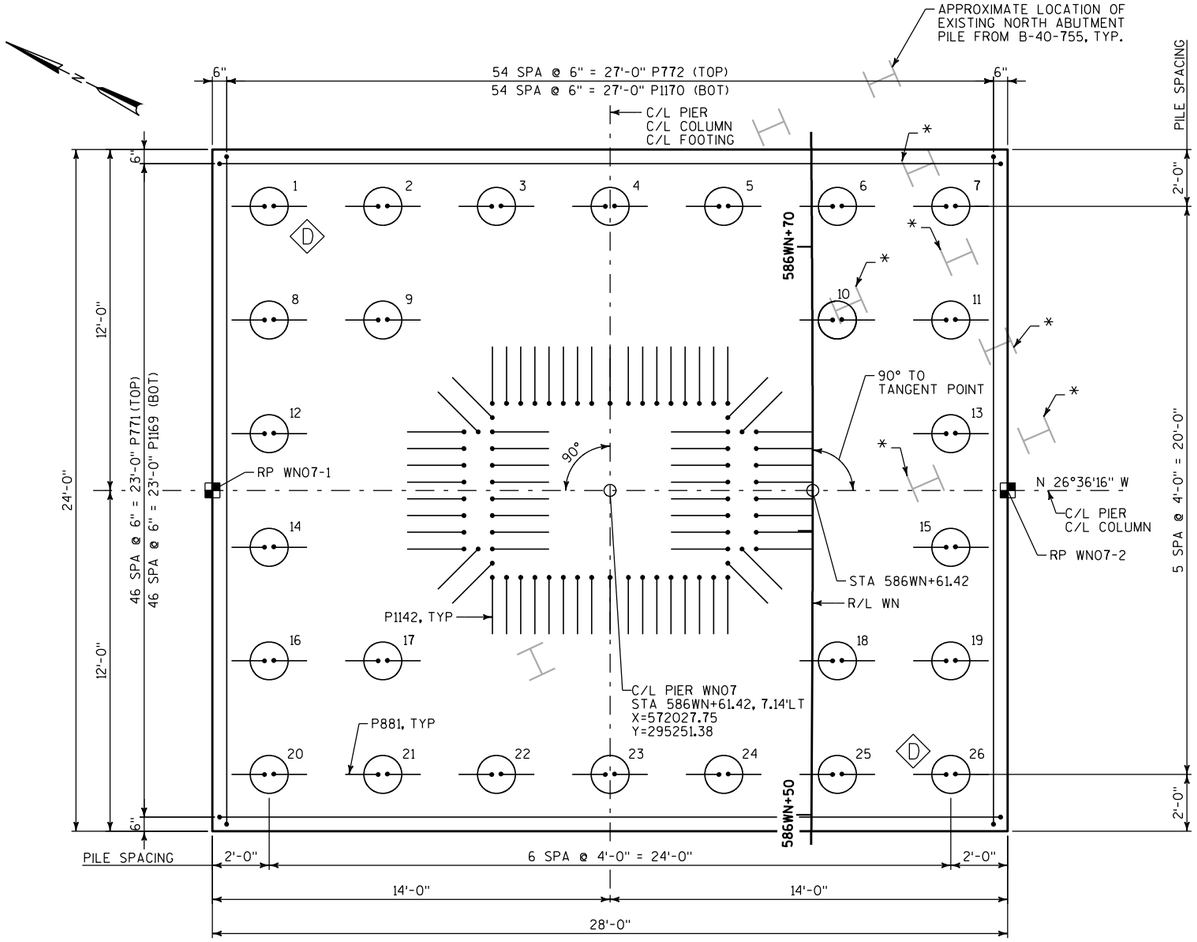
OPTION B
PIER WN07
DETAILS

SHEET B28 OF B40

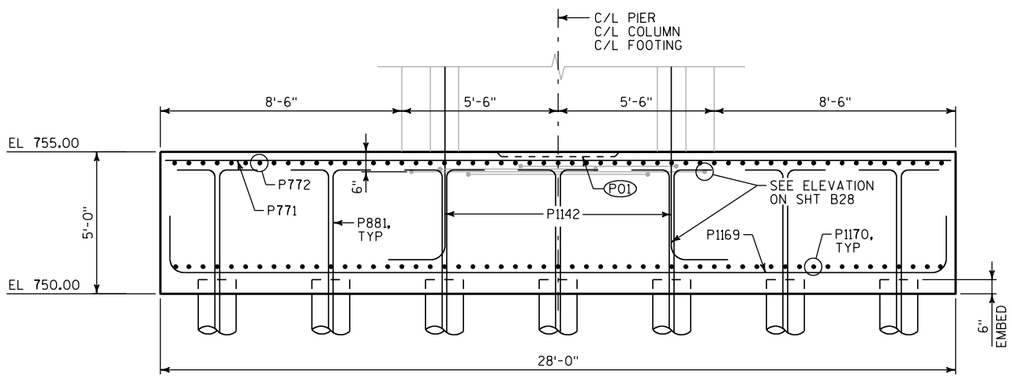
8

8

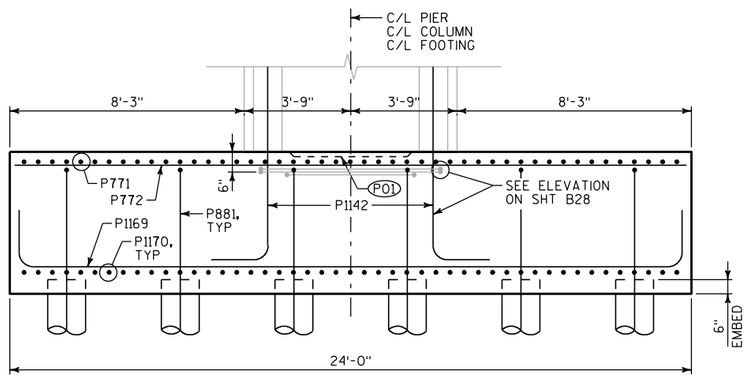
STATE PROJECT NUMBER
1060-33-81



PLAN

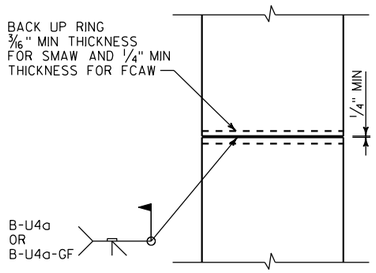


ELEVATION

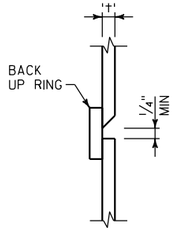


END VIEW

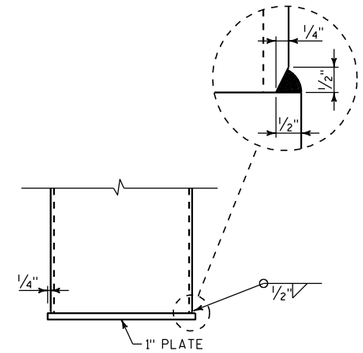
* PROPOSED PILES MAY BE ADJUSTED UP TO 6" EACH WAY TO AVOID CONFLICTS WITH EXISTING PILES. CONTACT THE ENGINEER IF GREATER ADJUSTMENT IS NEEDED



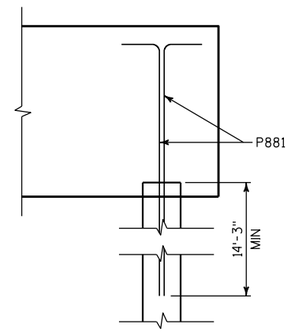
CIP PILE SPLICE DETAIL



CIP PILE WELD DETAIL



CIP PILE END PLATE DETAIL



PILE REINFORCEMENT ELEVATION

LEGEND

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

(D) DYNAMIC PILE LOAD TESTING.

PIER SUPPORTED ON 16" DIA CIP CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 246 TONS PER PILE AS DETERMINED BY THE PDA/ CAPWAP ACCEPTANCE METHOD.

ESTIMATED PILE LENGTH = 50 FT.

MINIMUM PILE PENETRATION FOR UPLIFT= EL 702.0.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

OPTION B
PIER WN07
FOOTING

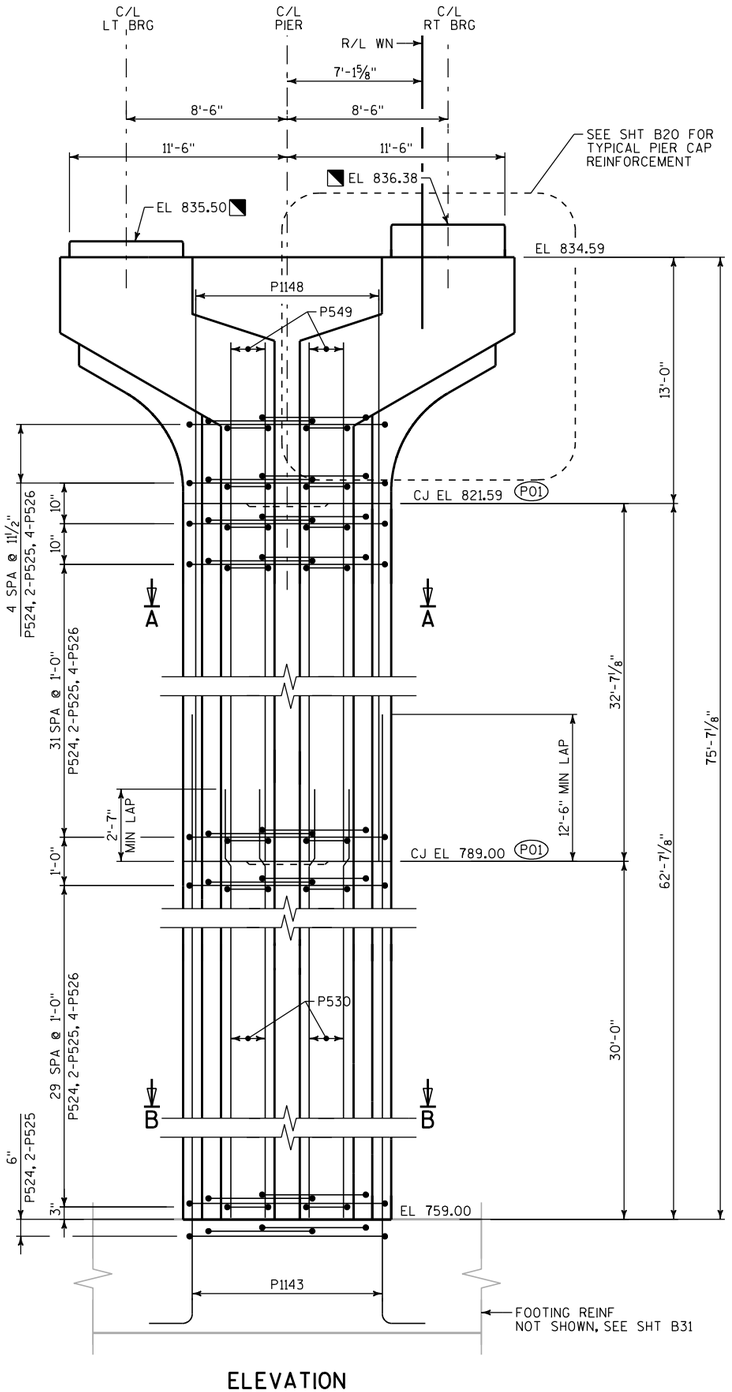
SHEET B29 OF B40

8

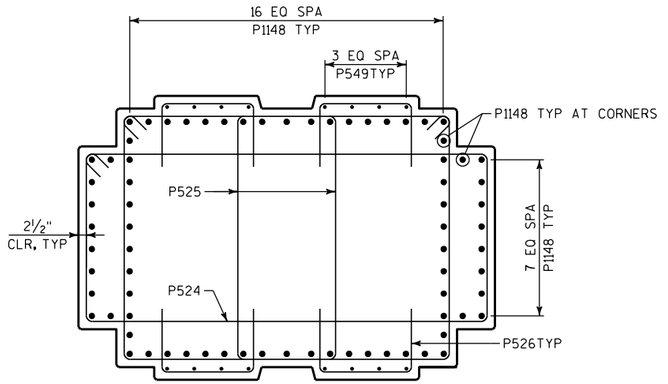
8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080329B_pi.dgn PLOT DATE : 13-MAY-2015 14:18 PLOT BY : MSCBKS PLOT NAME : B856_080329B_pi PLOT SCALE : 5.333333:1

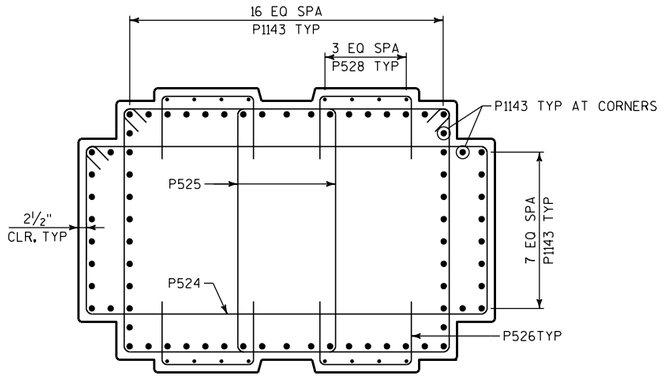
STATE PROJECT NUMBER
1060-33-81



ELEVATION



SECTION A-A



SECTION B-B

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

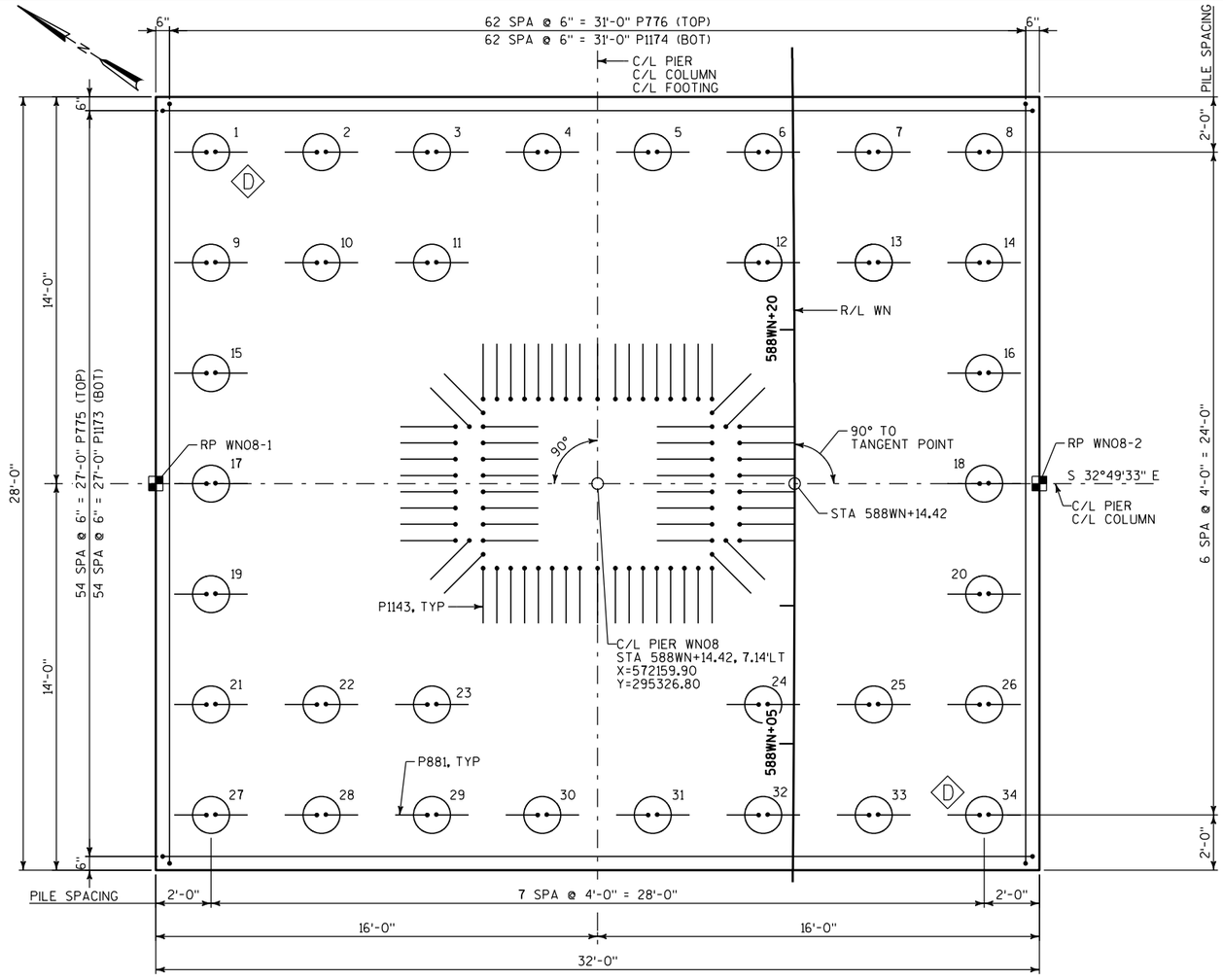
OPTION B
PIER WN08
DETAILS

SHEET B30 OF B40

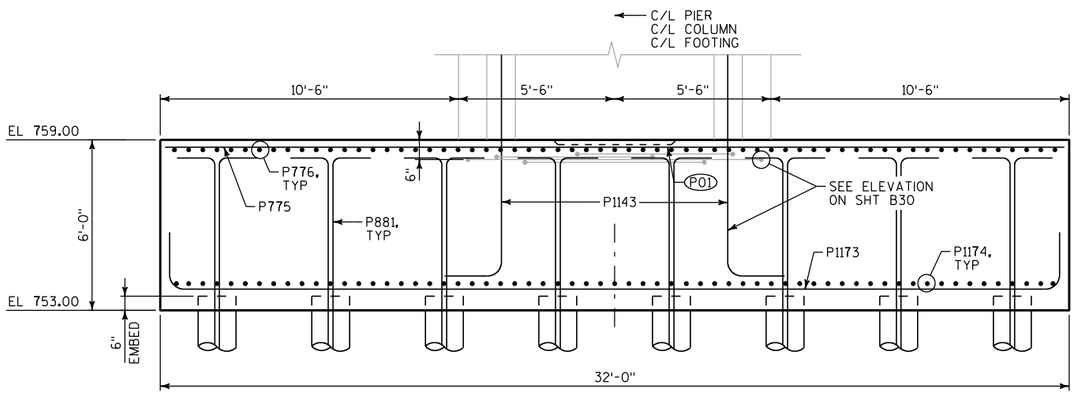
8

8

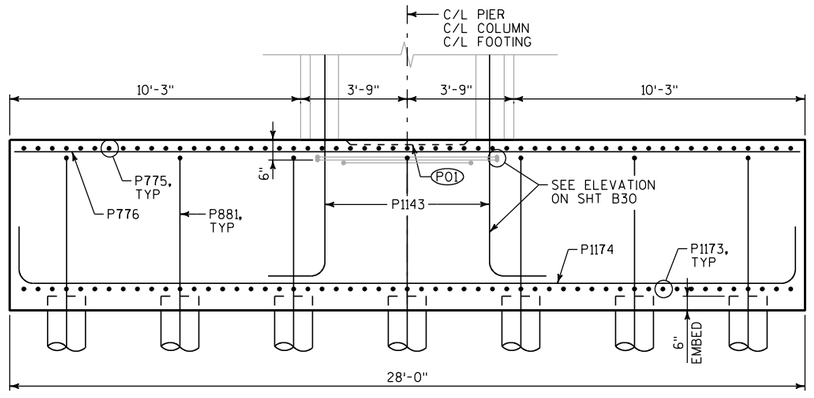
STATE PROJECT NUMBER
1060-33-81



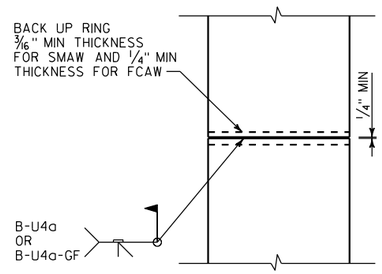
PLAN



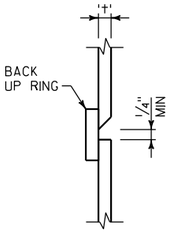
ELEVATION



END VIEW



CIP PILE SPLICE DETAIL



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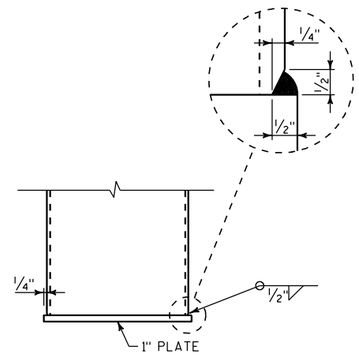
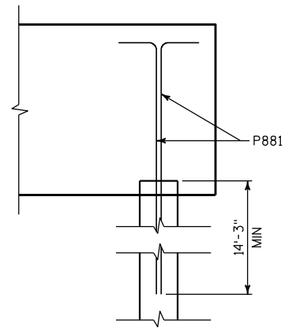


CIP PILE END PLATE DETAIL



PILE REINFORCEMENT ELEVATION

LEGEND

P01	KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".
D	DYNAMIC PILE LOAD TESTING.
○	PIER SUPPORTED ON 16" DIA CIP CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 246 TONS PER PILE AS DETERMINED BY THE PDA/ CAPWAP ACCEPTANCE METHOD.
	ESTIMATED PILE LENGTH = 50 FT.
	MINIMUM PILE PENETRATION FOR UPLIFT= EL 709.0.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

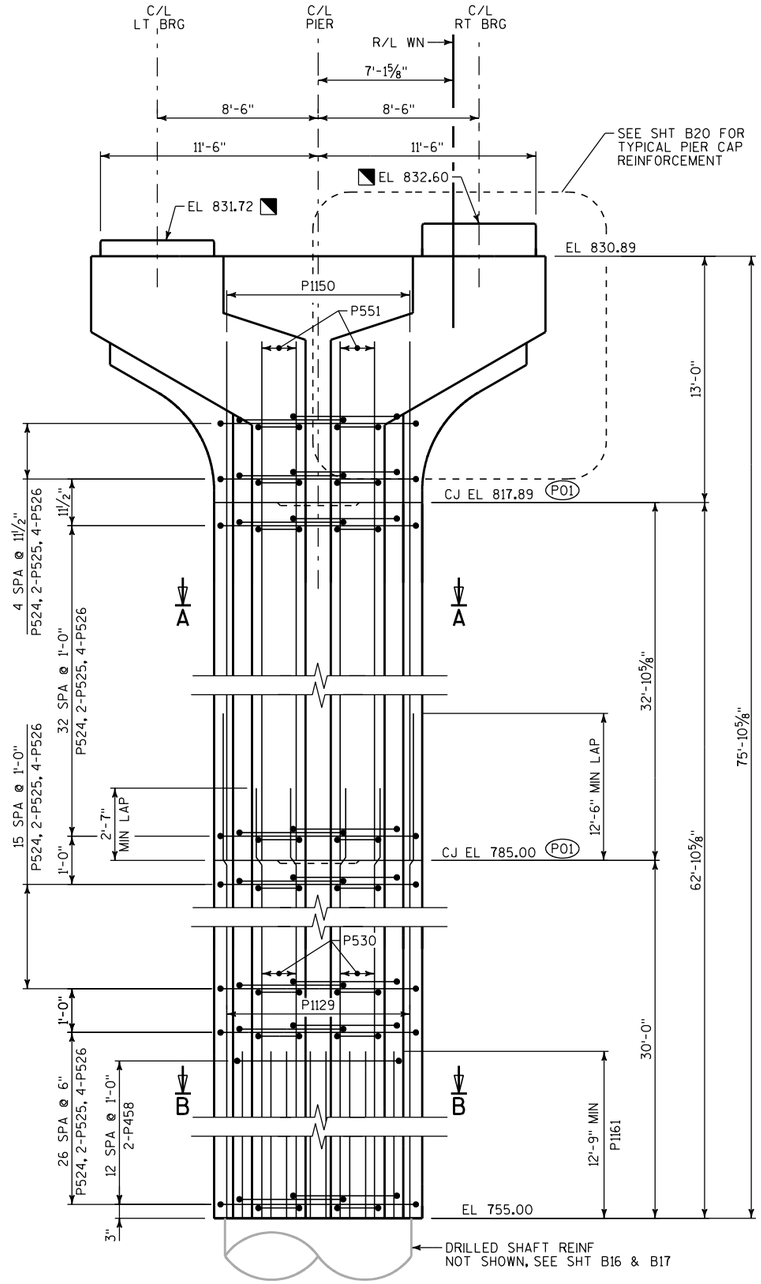
OPTION B
PIER WN08
FOOTING

SHEET B31 OF B40

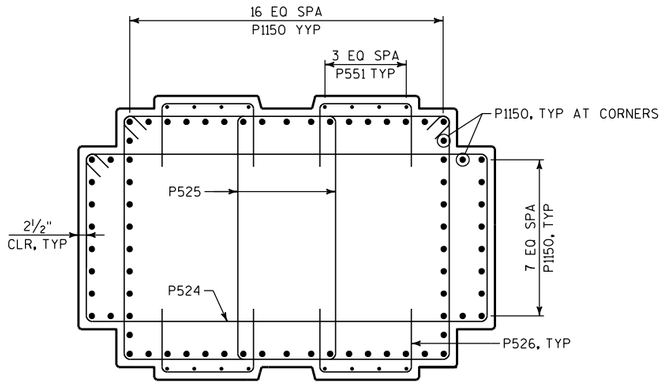
8

8

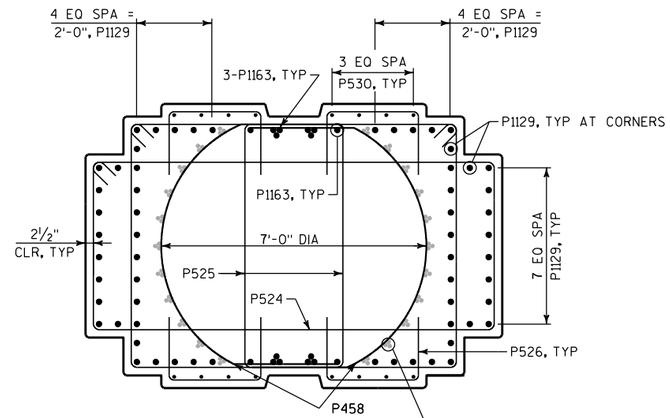
STATE PROJECT NUMBER
1060-33-81



ELEVATION



SECTION A-A



SECTION B-B

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

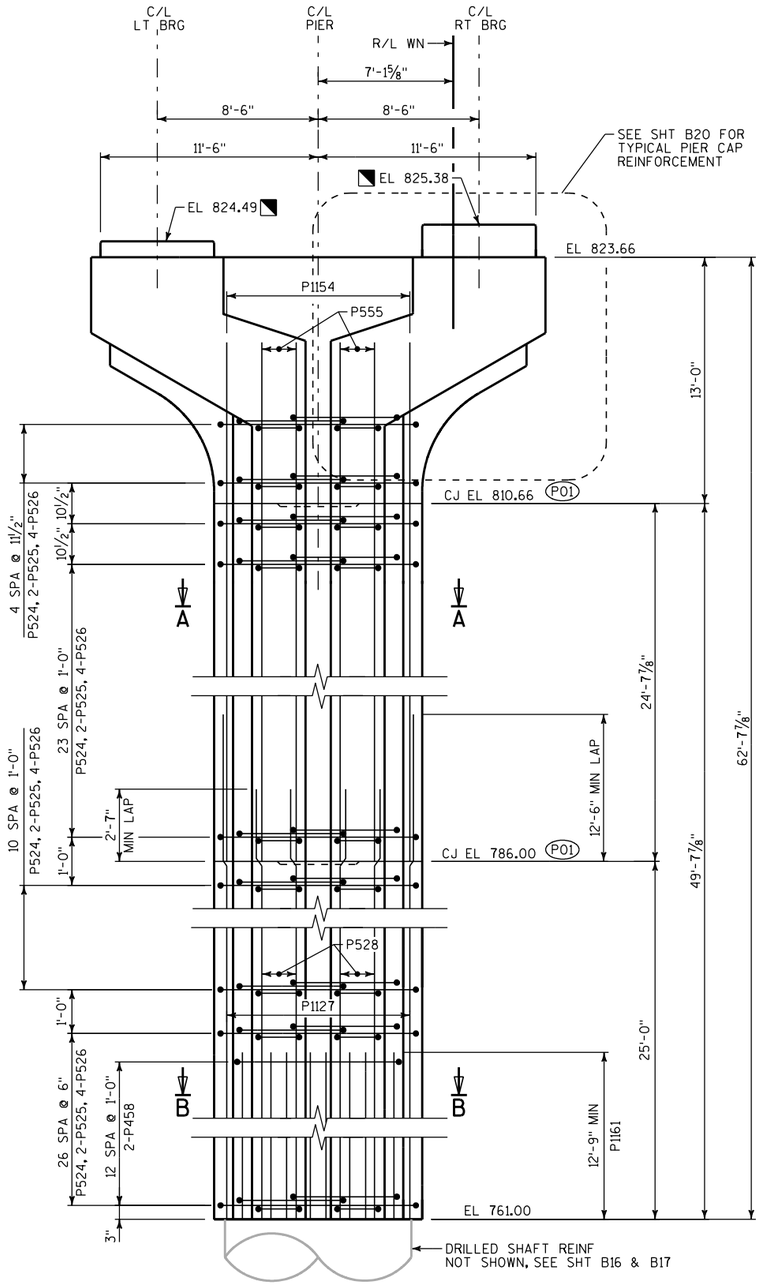
OPTION B
PIER WN09
DETAILS

SHEET B32 OF B40

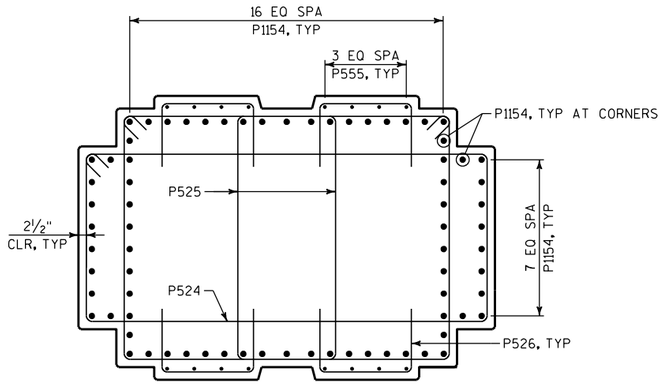
8

8

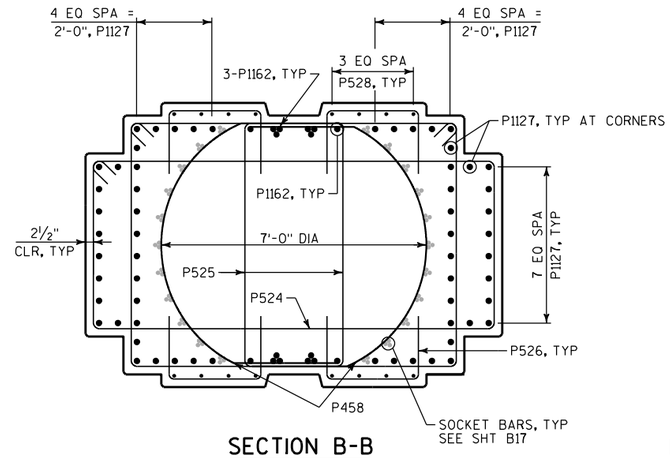
STATE PROJECT NUMBER
1060-33-81



ELEVATION



SECTION A-A



SECTION B-B

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

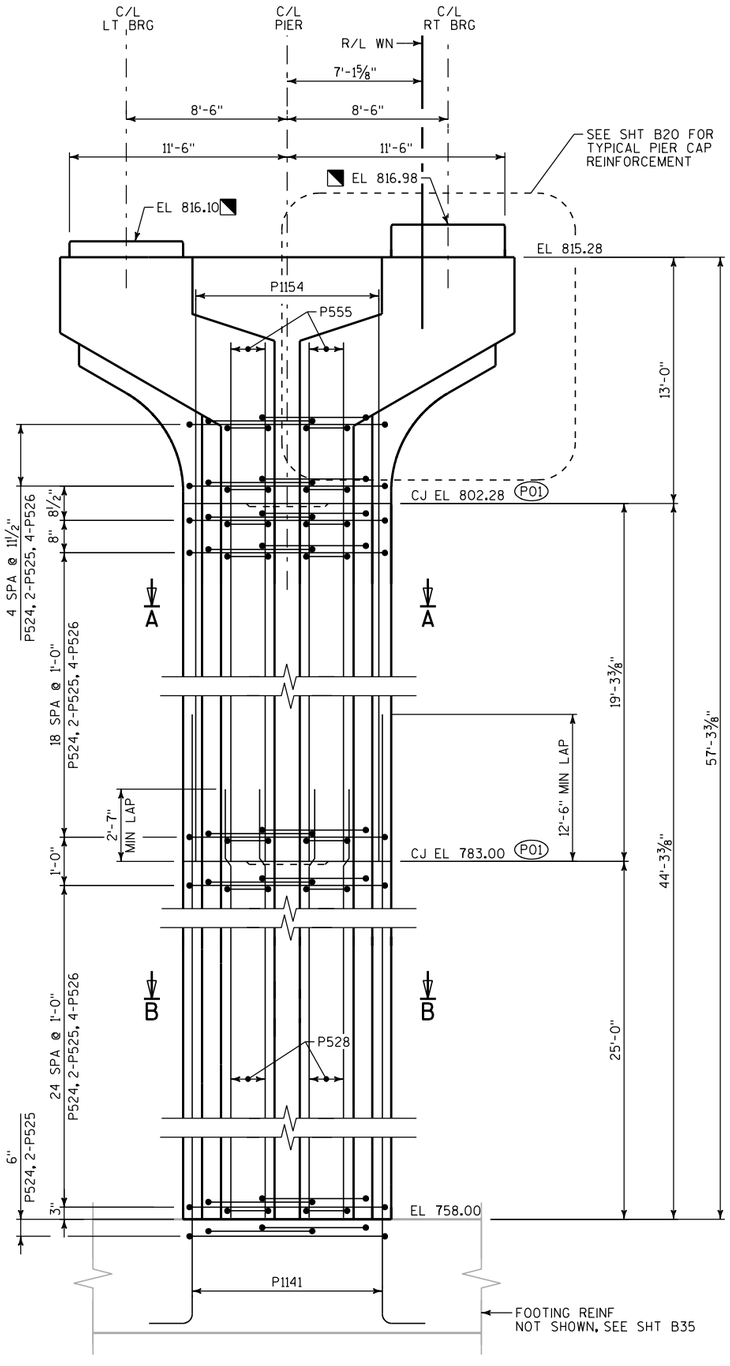
OPTION B
PIER WN10
DETAILS

SHEET B33 OF B40

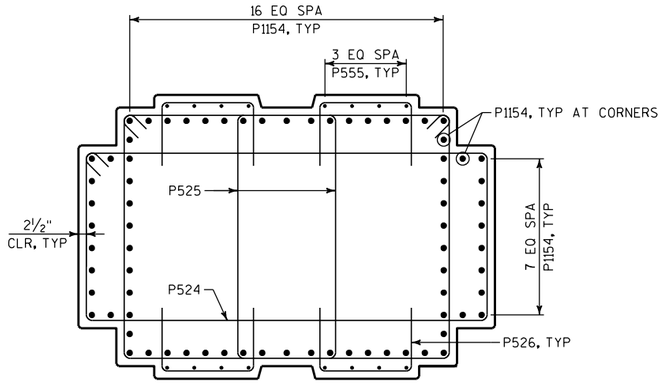
8

8

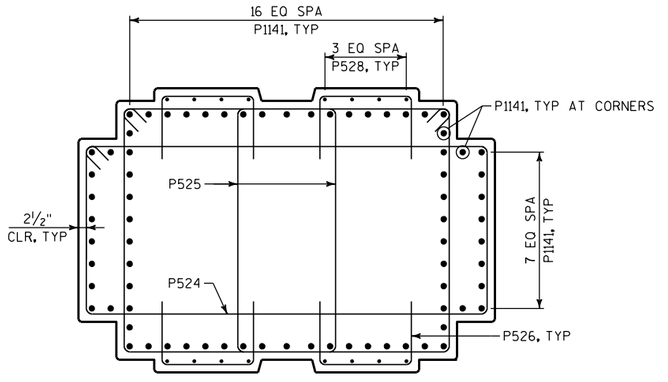
STATE PROJECT NUMBER
1060-33-81



ELEVATION



SECTION A-A



SECTION B-B

LEGEND

◥ ELEVATIONS AND DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
PIER WN11
DETAILS

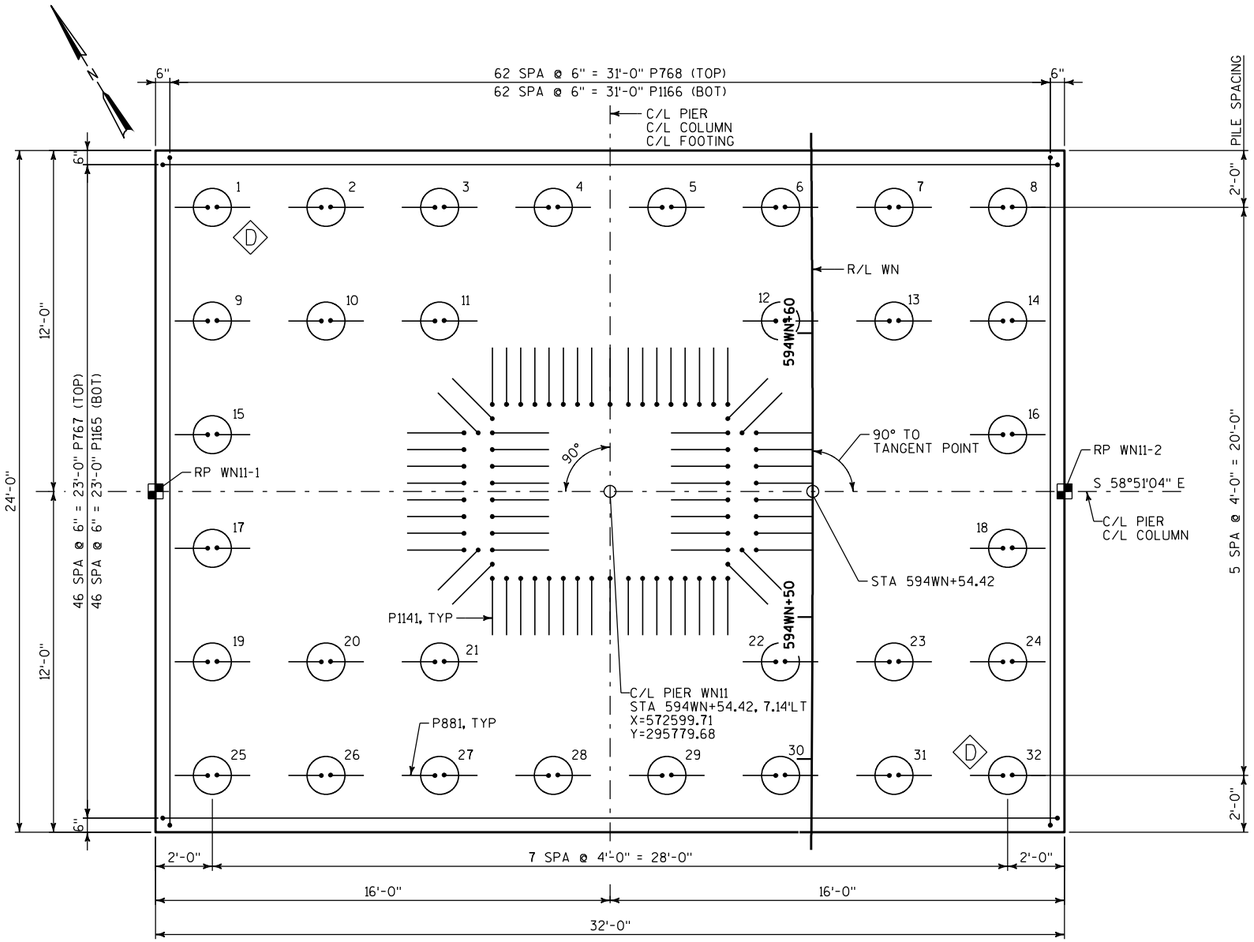
SHEET B34 OF B40

8

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080334B_pi.dgn
PLOT DATE : 13-MAY-2015 15:10
PLOT BY : MSCBKS
PLOT NAME : B856_080334B_pi
PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



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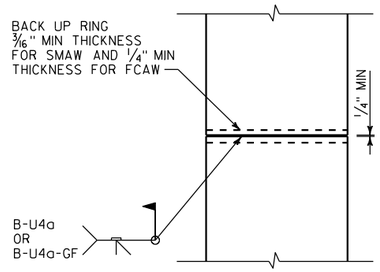
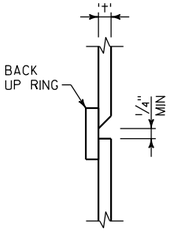


CIP PILE SPLICE DETAIL



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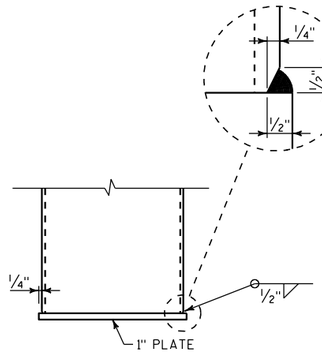
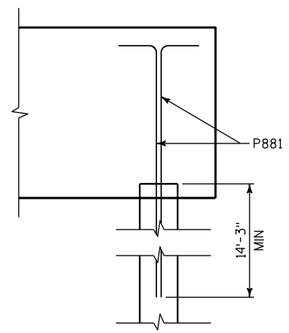
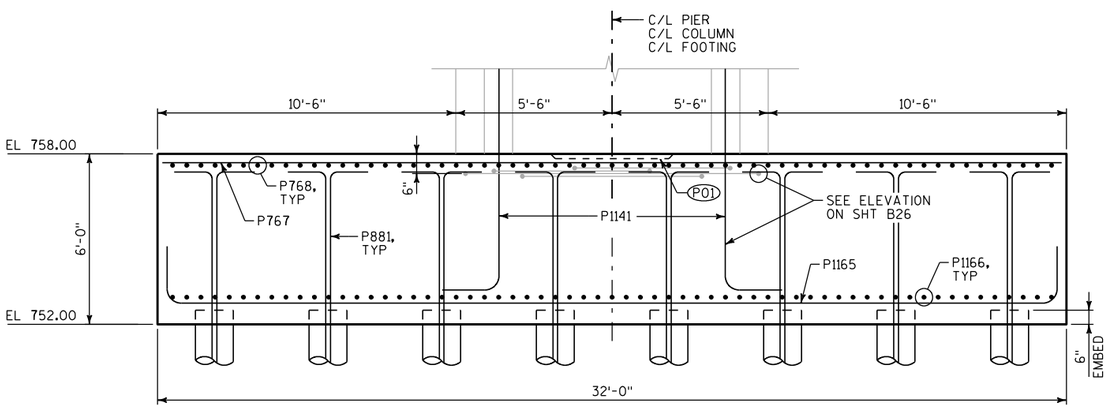


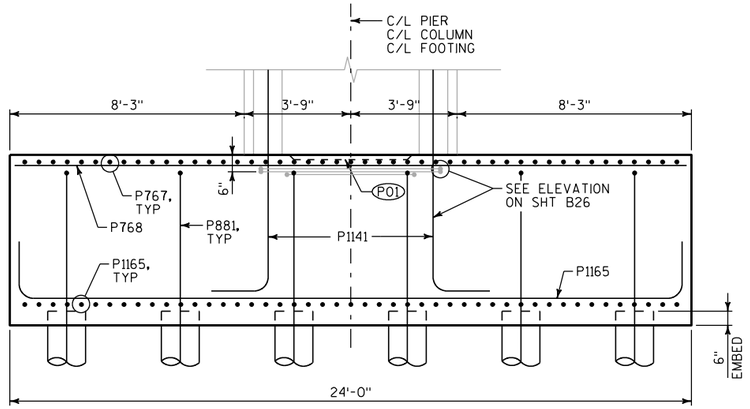
CIP PILE END
PLATE DETAIL



PILE REINFORCEMENT ELEVATION



ELEVATION



END VIEW

LEGEND

- (P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".
- (D) DYNAMIC PILE LOAD TESTING.
- ○ PIER SUPPORTED ON 16" DIA CIP CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 246 TONS PER PILE AS DETERMINED BY THE PDA/ CAPWAP ACCEPTANCE METHOD.

ESTIMATED PILE LENGTH = 45 FT.

MINIMUM PILE PENETRATION FOR UPLIFT= EL 712.0.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

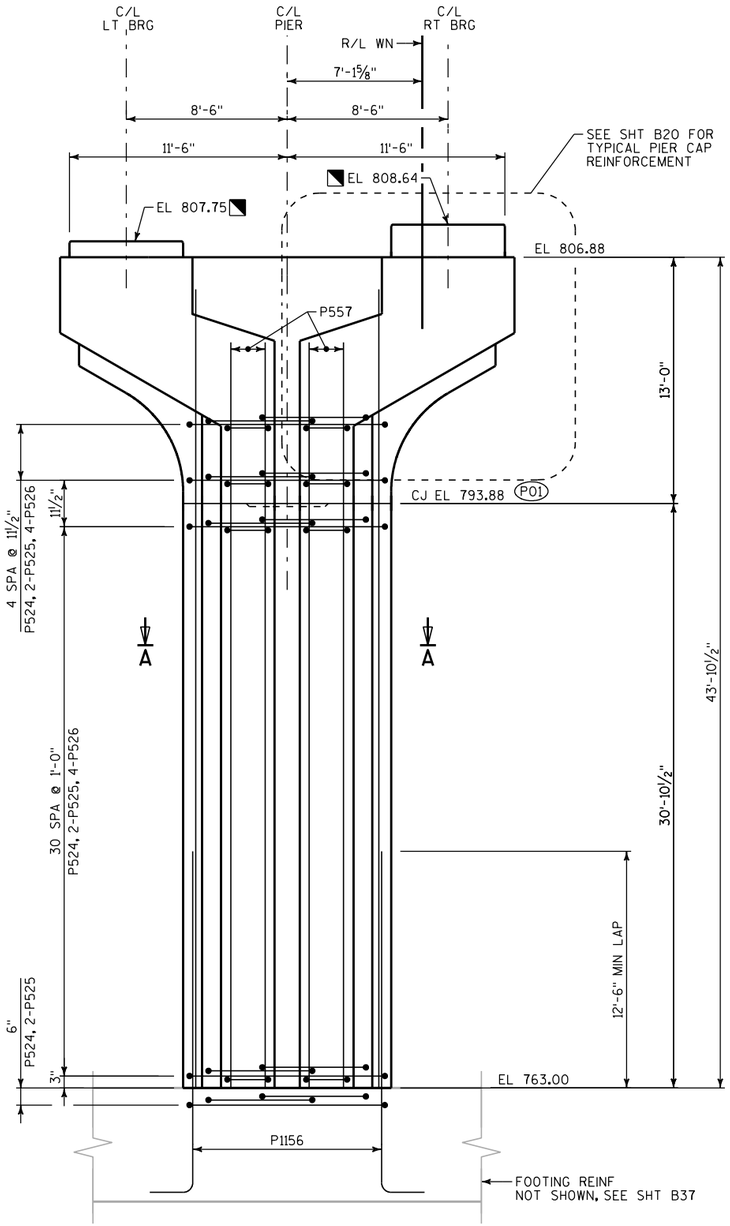
OPTION B
PIER WN11
FOOTING

SHEET B35 OF B40

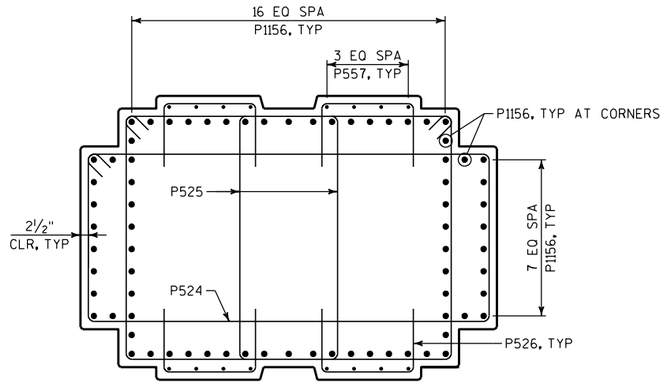
8

8

STATE PROJECT NUMBER
1060-33-81



ELEVATION



SECTION A-A

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY	GLM	PLANS CK'D.	WRT

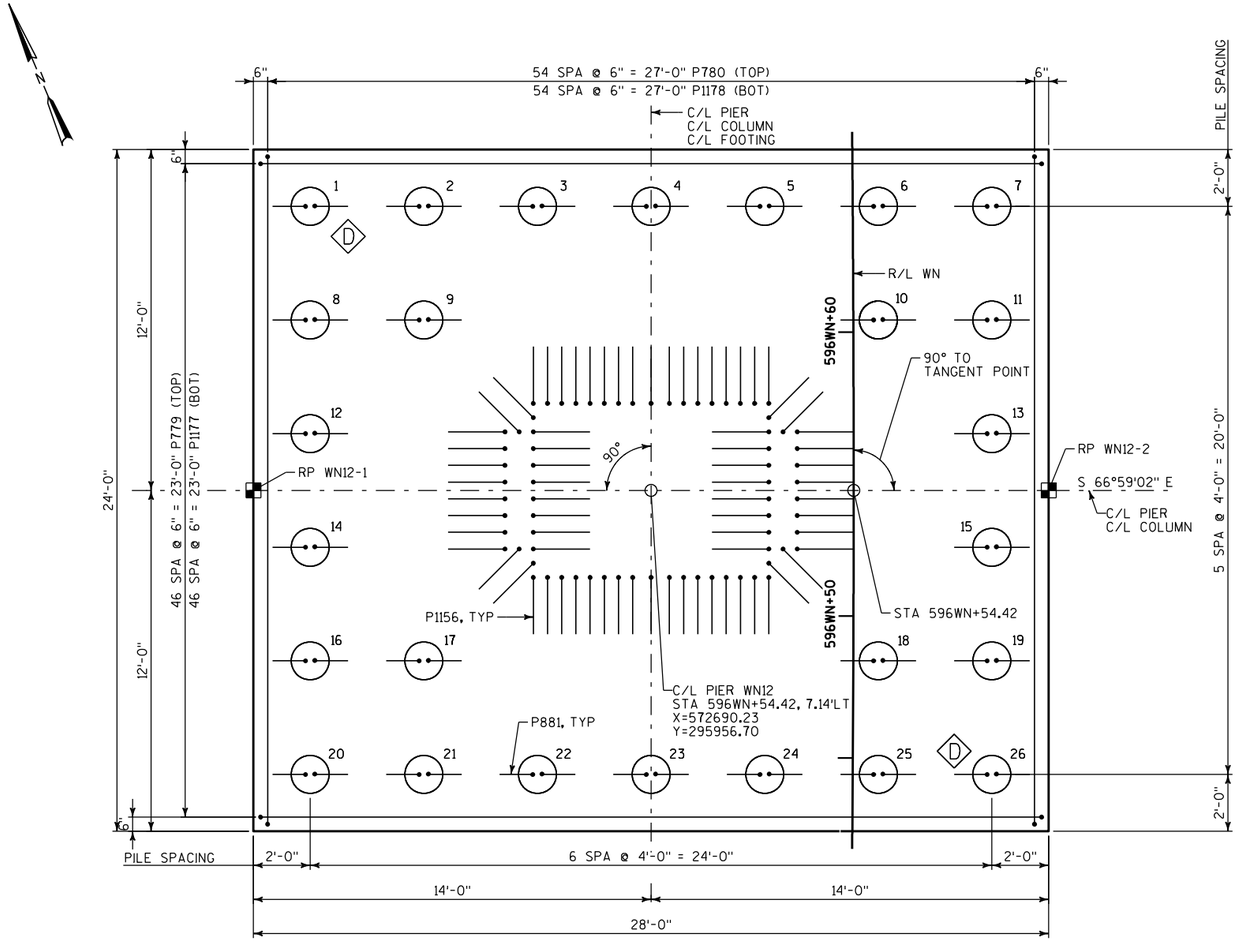
OPTION B
PIER WN12
DETAILS

SHEET B36 OF B40

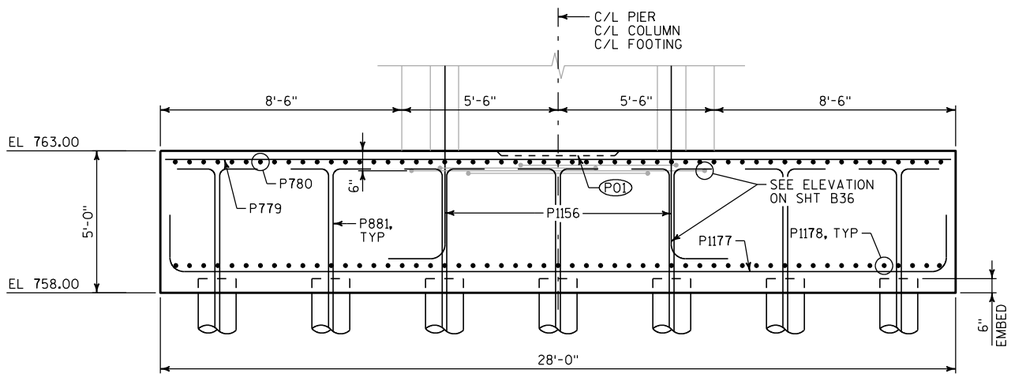
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080336B_pi.dgn
PLOT DATE : 13-MAY-2015 14:18
PLOT BY : MSCBKS
PLOT NAME : B856_080336B_pi
PLOT SCALE : 8:1

STATE PROJECT NUMBER

1060-33-81



PLAN



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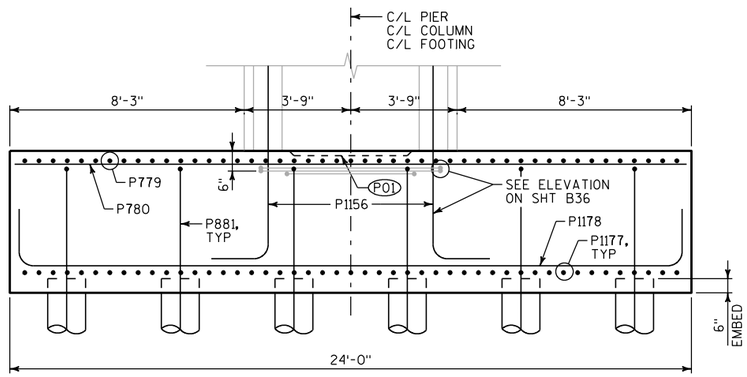
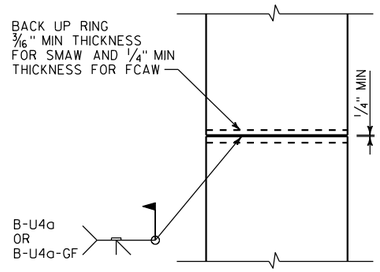
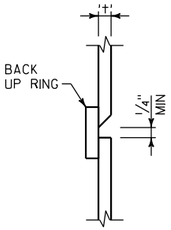


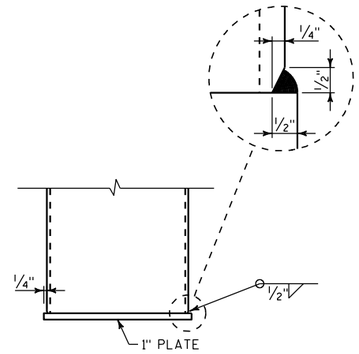
END VIEW



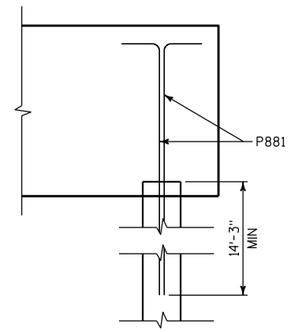
CIP PILE SPLICE DETAIL



CIP PILE WELD DETAIL



CIP PILE END PLATE DETAIL



PILE REINFORCEMENT ELEVATION

LEGEND

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 4"x1'-4"x6'-0".

(D) DYNAMIC PILE LOAD TESTING.

PIER SUPPORTED ON 16" DIA CIP CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 246 TONS PER PILE AS DETERMINED BY THE PDA/ CAPWAP ACCEPTANCE METHOD.

ESTIMATED PILE LENGTH = 50 FT.

MINIMUM PILE PENETRATION FOR UPLIFT= EL 709.0.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

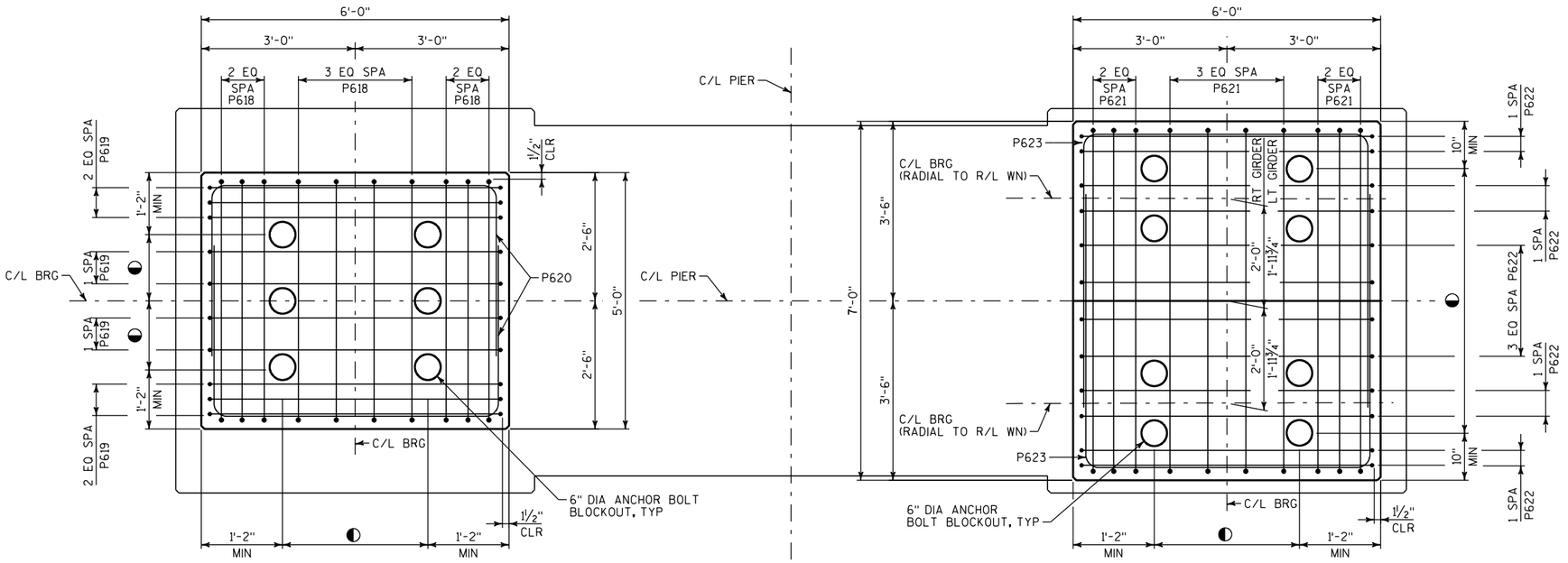
OPTION B
PIER WN12
FOOTING

SHEET B37 OF B40

8

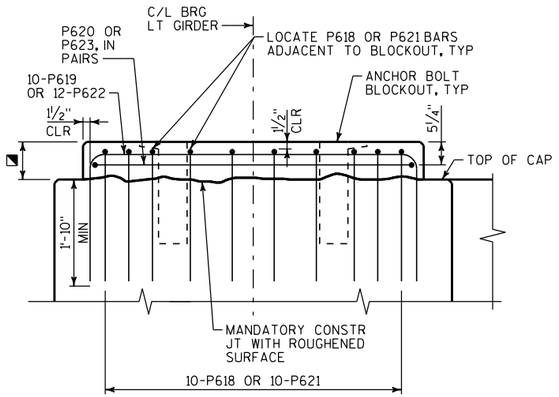
8

STATE PROJECT NUMBER
1060-33-81

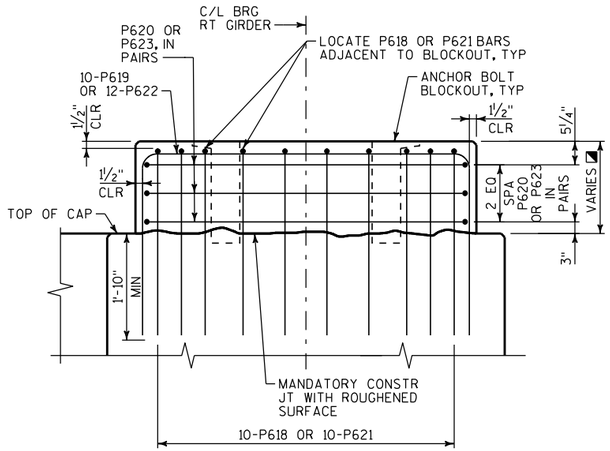


PEDESTAL PLAN
(TYPICAL PIER)

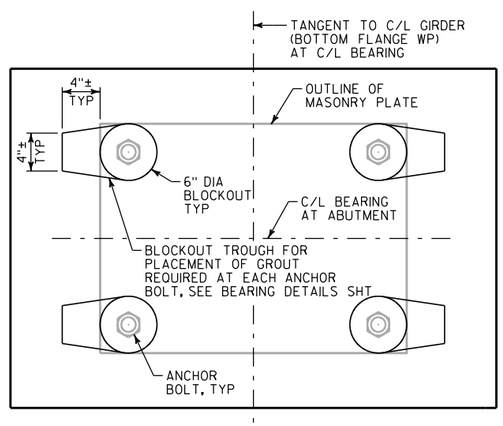
PEDESTAL PLAN
(PIER WN07 ONLY)



PEDESTAL ELEVATION - LEFT GIRDER



PEDESTAL ELEVATION - RIGHT GIRDER



PEDESTAL PLAN - GROUT TROUGHS
SEE BEARING DETAILS SHEET

NOTES

FOR DETAILS OF ANCHOR BOLT BLOCKOUTS, SEE BEARING DETAILS SHEET.

FOR DETAILS OF BEARINGS, SEE BEARING LAYOUT SHEETS AND BEARING DETAILS SHEET.

LEGEND

◥ DIMENSIONS DEPEND ON THE ASSUMED BEARING DIMENSIONS SHOWN ON BEARING LAYOUT SHEET. ADJUST AS REQUIRED TO SUIT THE ACTUAL SELECTED BEARING DIMENSIONS.
MINIMUM PEDESTAL HEIGHT = 8".
MAXIMUM PEDESTAL HEIGHT INCREASE = 3"

◐ SEE BEARING LAYOUT SHEETS FOR ANCHOR BOLT BLOCKOUT LOCATION. VERIFY LOCATIONS WITH BEARING MANUFACTURER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
TYPICAL PEDESTAL REINFORCEMENT

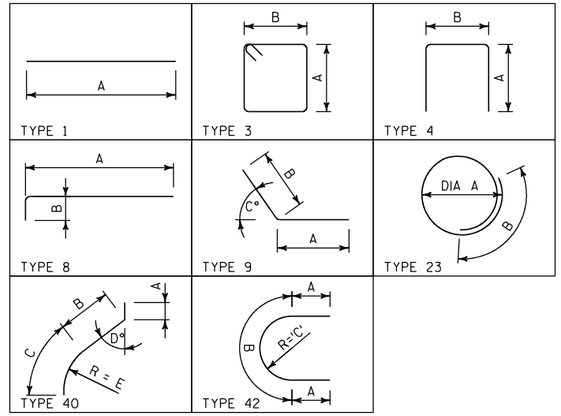
SHEET B38 OF B40

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080338B_pi.dgn
PLOT DATE : 13-MAY-2015 14:18
PLOT BY : MSCBKS
PLOT NAME : B856_080338B_pi
PLOT SCALE : 2.666667:1

BAR INFORMATION							BAR DIMENSIONS						LOCATION	BAR SERIES INFORMATION				
BAR MARK	MATL	NO. REQ'D	LENGTH	BENT	BAR SERIES	BEND TYPE	A	B	C	D	E	F		DIM 1	MIN	MAX	NO REQ'D	LENGTH
P1101	E	132	26'-8"	X		4	2'-0"	23'-4"					TOP TIE BAR					
P1102	E	132	25'-10"	X		4	2'-0"	22'-6"					BOTTOM TIE BAR					
P803	E	144	23'-4"			1	23'-4"						SKIN STEEL - TOP OF CAP					
P804	E	216	15'-6"		X	1	15'-6"						SKIN STEEL - MIDDLE OF CAP (SERIES)	A	8'-4"	22'-8"	24 SERIES OF 9	8'-4" TO 22'-8"
P605	E	768	21'-2"	X	X	3	6'-0"	4'-2"					STIRRUPS - TOP EDGES OF CAP (SERIES)	A	3'-9"	8'-3"	48 SERIES OF 16	16'-8" TO 25'-8"
P506	E	144	18'-8"	X		4	6'-3"	6'-5"					TIE - TOP CENTER OF CAP					
P507	E	288	15'-9"	X		9	3'-6"	12'-3"	60				OUTSIDE FACE OF PIER CAP - TOP					
P508	E	528	11'-1"	X		4	4'-2"	3'-0"					HORIZONTAL TIE - BOTTOM OF CAP					
P509	E	528	11'-9"	X		4	4'-6"	3'-0"					VERTICAL TIE - BOTTOM OF CAP					
P510	E	168	12'-4"	X		40	3'-0"	2'-8"	6'-8"	60	6'-5"		OUTSIDE FACE OF PIER CAP - BOT					
P511	E	240	16'-5"	X		4	5'-1"	6'-6"					TIE - ARCHITECTURAL REVEAL - HORIZ - TOP					
P512	E	48	17'-11"	X		4	5'-1"	8'-0"					TIE - ARCHITECTURAL REVEAL - HORIZ - MID					
P513	E	48	18'-8"	X		4	5'-1"	8'-9"					TIE - ARCHITECTURAL REVEAL - HORIZ - MID					
P514	E	240	16'-4"	X	X	4	5'-1"	6'-5"					TIE - ARCHITECTURAL REVEAL - HORIZ - BOT (SERIES)	B	3'-10"	9'-0"	48 SERIES OF 5	13'-9" TO 18'-11"
P515	E	288	5'-6"		X	1	5'-5½"						ARCHITECTURAL REVEAL - VERT - TOP (SERIES)	A	4'-2"	6'-9"	48 SERIES OF 6	4'-2" TO 6'-9"
P516	E	192	4'-9"			1	4'-9"						ARCHITECTURAL REVEAL - VERT - MID					
P617	E	48	7'-7"	X		9	3'-0"	4'-7"	72				ARCHITECTURAL REVEAL - VERT - INSIDE FACE					
P618	E	220	10'-11"	X		4	3'-3"	4'-9"					PEDESTAL REINFORCEMENT - TYP - TOP FACE					
P619	E	220	11'-9"	X		4	3'-2"	5'-9"					PEDESTAL REINFORCEMENT - TYP - TOP FACE					
P620	E	88	12'-5"	X		4	3'-7"	5'-7"					PEDESTAL REINFORCEMENT - TYP - SIDE					
P621	E	20	12'-11"	X		4	3'-3"	6'-9"					PEDESTAL REINFORCEMENT - WN07 - TOP FACE					
P622	E	24	11'-9"	X		4	3'-2"	5'-9"					PEDESTAL REINFORCEMENT - WN07 - TOP FACE					
P623	E	8	14'-5"	X		4	4'-7"	5'-7"					PEDESTAL REINFORCEMENT - WN07 - SIDE					
P524	E	787	30'-7"	X		3	10'-7"	4'-5"					COLUMN - STIRRUP					
P525	E	1574	24'-7"	X		3	5'-7"	6'-5"					COLUMN - STIRRUP					
P526	E	3128	5'-9"	X		4	1'-10"	2'-4"					COLUMN - TIE					
P1127	E	434	37'-9"			1	37'-9"						COLUMN - LONGITUDINAL - MAIN- BOTTOM					
P528	E	128	27'-9"			1	27'-9"						COLUMN - LONGITUDINAL - REVEAL - BOTTOM					
P1129	E	60	42'-9"			1	42'-9"						COLUMN - LONGITUDINAL - MAIN- BOTTOM					
P530	E	48	32'-9"			1	32'-9"						COLUMN - LONGITUDINAL - REVEAL - BOTTOM					
P1131	E	74	40'-6"			1	40'-6"						COLUMN - LONGITUDINAL - MAIN - WN01					
P532	E	16	40'-6"			1	40'-6"						COLUMN - LONGITUDINAL - REVEAL - WN01					
P1133	E	74	21'-0"			1	21'-0"						COLUMN - LONGITUDINAL - MAIN - WN02					
P534	E	16	21'-0"			1	21'-0"						COLUMN - LONGITUDINAL - REVEAL - WN02					
P1135	E	60	41'-0"			1	41'-0"						COLUMN - LONGITUDINAL - MAIN - WN03					
P536	E	16	41'-0"			1	41'-0"						COLUMN - LONGITUDINAL - REVEAL - WN03					
P1137	E	74	35'-6"			1	35'-6"						COLUMN - LONGITUDINAL - MAIN - WN04					
P538	E	16	35'-6"			1	35'-6"						COLUMN - LONGITUDINAL - REVEAL - WN04					
P1139	E	74	31'-0"			1	31'-0"						COLUMN - LONGITUDINAL - MAIN - WN05					
P540	E	16	31'-0"			1	31'-0"						COLUMN - LONGITUDINAL - REVEAL - WN05					
P1141	E	148	44'-5"	X		8	42'-9"	2'-0"					COLUMN - LONGITUDINAL - MAIN - BOTTOM - FOOTING					
P1142	E	74	48'-5"	X		8	46'-9"	2'-0"					COLUMN - LONGITUDINAL - MAIN - BOTTOM - FOOTING					
P1143	E	74	49'-5"	X		8	47'-9"	2'-0"					COLUMN - LONGITUDINAL - MAIN - BOTTOM - FOOTING					
P1144	E	74	42'-6"			1	42'-6"						COLUMN - LONGITUDINAL - MAIN - WN06					
P545	E	16	42'-6"			1	42'-6"						COLUMN - LONGITUDINAL - REVEAL - WN06					
P1146	E	74	45'-6"			1	45'-6"						COLUMN - LONGITUDINAL - MAIN - WN07					
P547	E	16	45'-6"			1	45'-6"						COLUMN - LONGITUDINAL - REVEAL - WN07					
P1148	E	74	41'-0"			1	41'-0"						COLUMN - LONGITUDINAL - MAIN - WN08					
P549	E	16	41'-0"			1	41'-0"						COLUMN - LONGITUDINAL - REVEAL - WN08					
P1150	E	74	41'-0"			1	41'-0"						COLUMN - LONGITUDINAL - MAIN - WN09					
P551	E	16	41'-0"			1	41'-0"						COLUMN - LONGITUDINAL - REVEAL - WN09					
P1152	E	74	33'-0"			1	33'-0"						COLUMN - LONGITUDINAL - MAIN - WN10					
P553	E	16	33'-0"			1	33'-0"						COLUMN - LONGITUDINAL - REVEAL - WN10					
P1154	E	74	27'-6"			1	27'-6"						COLUMN - LONGITUDINAL - MAIN - WN11					
P555	E	16	27'-6"			1	27'-6"						COLUMN - LONGITUDINAL - REVEAL - WN11					
P1156	E	74	44'-11"	X		8	43'-3"	2'-0"					COLUMN - LONGITUDINAL - MAIN - WN12					
P557	E	16	39'-0"			1	39'-0"						COLUMN - LONGITUDINAL - REVEAL - WN12					
P458	E	156	13'-1"	X		42	2'-6"	8'-1"	3'-5"				SOCKET CONNECTION HORIZONTAL (COLUMN)					
P459	E	72	23'-0"	X		23	7'-0"	1'-0"					SOCKET CONNECTION HORIZONTAL (SHAFT)					
P460	E	144	5'-0"	X		4	1'-0"	3'-2"					SOCKET CONNECTION HORIZONTAL (SHAFT)					
P1161	E	396	25'-3"			1	25'-3"						SOCKET CONNECTION VERTICAL					
P1162	E	64	50'-0"			1	50'-0"						SOCKET CONNECTION VERTICAL (25'CJ)					
P1163	E	16	55'-0"			1	55'-0"						SOCKET CONNECTION VERTICAL (30'CJ)					

STATE PROJECT NUMBER

1060-33-81



NOTES

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

DIMENSIONS ARE TO OUTSIDE OF BARS, EXCEPT FOR RADIUS DIMENSIONS WHICH ARE TO INSIDE OF BENDS.

FOR A BAR SERIES, LENGTH SHOWN IN THE FOURTH COLUMN OF TABLE IS THE AVERAGE BAR LENGTH USED TO COMPUTE BAR WEIGHT.

BAR MATERIAL CODES USED IN SECOND COLUMN OF TABLE
U - STEEL, HIGH STRENGTH, UNCOATED.
E - STEEL, HIGH STRENGTH, EPOXY COATED.
S - STAINLESS STEEL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-856

DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
PIER REINFORCEMENT
SCHEDULE (1 OF 2)

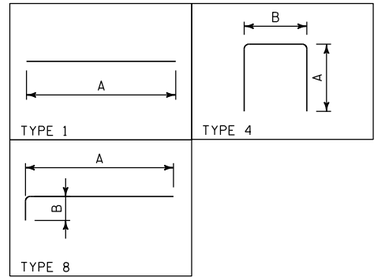
SHEET B39 OF B40

8

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080339B_pi.dgn PLOT DATE : 13-MAY-2015 14:18 PLOT BY : MSCBKS PLOT NAME : B856_080339B_pi PLOT SCALE : 8:1

BAR INFORMATION							BAR DIMENSIONS						LOCATION	BAR SERIES INFORMATION				
BAR MARK	MATL	NO. REQ'D	LENGTH	BENT	BAR SERIES	BEND TYPE	A	B	C	D	E	F		DIM 1	MIN	MAX	NO REQ'D	LENGTH
P1164	E	16	53'-6"			1	53'-6"						SOCKET CONNECTION VERTICAL WN03					
P1165	U	94	34'-10"	X		4	2'-0"	31'-6"					FOOTING - BOTTOM - WN06 & WN11					
P1166	U	126	26'-6"	X		4	1'-10"	23'-6"					FOOTING - BOTTOM - WN06 & WN11					
P767	U	94	31'-6"			1	31'-6"						FOOTING - TOP - WN06 & WN11					
P768	U	126	23'-6"			1	23'-6"						FOOTING - TOP - WN06 & WN11					
P1169	U	47	30'-6"	X		4	1'-10"	27'-6"					FOOTING - BOTTOM - WN07					
P1170	U	55	26'-0"	X		4	1'-7"	23'-6"					FOOTING - BOTTOM - WN07					
P771	U	47	27'-6"			1	27'-6"						FOOTING - TOP - WN07					
P772	U	55	23'-6"			1	23'-6"						FOOTING - TOP - WN07					
P1173	U	55	34'-10"	X		4	2'-0"	31'-6"					FOOTING - BOTTOM - WN08					
P1174	U	63	26'-10"	X		4	2'-0"	23'-6"					FOOTING - BOTTOM - WN08					
P775	U	55	31'-6"			1	31'-6"						FOOTING - TOP - WN08					
P776	U	63	23'-6"			1	23'-6"						FOOTING - TOP - WN08					
P1177	U	47	30'-10"	X		4	2'-0"	27'-6"					FOOTING - BOTTOM - WN12					
P1178	U	55	26'-10"	X		4	2'-0"	23'-6"					FOOTING - BOTTOM - WN12					
P779	U	47	27'-6"			1	27'-6"						FOOTING - TOP - WN12					
P780	U	55	23'-6"			1	23'-6"						FOOTING - TOP - WN12					
P881	U	300	19'-5"	X		8	18'-3"	1'-4"					PILE DOWEL BAR					



STATE PROJECT NUMBER

1060-33-81

BAR MARK BREAKDOWN

MARK	PIER WN01	PIER WN02	PIER WN03	PIER WN04	PIER WN05	PIER WN06	PIER WN07	PIER WN08	PIER WN09	PIER WN10	PIER WN11	PIER WN12	TOTAL NO	WEIGHT
P1101	11	11	11	11	11	11	11	11	11	11	11	11	132	18702
P1102	11	11	11	11	11	11	11	11	11	11	11	11	132	18117
P803	12	12	12	12	12	12	12	12	12	12	12	12	144	8971
P804	18	18	18	18	18	18	18	18	18	18	18	18	216	8939
P605	64	64	64	64	64	64	64	64	64	64	64	64	768	24417
P506	12	12	12	12	12	12	12	12	12	12	12	12	144	2804
P507	24	24	24	24	24	24	24	24	24	24	24	24	288	4731
P508	44	44	44	44	44	44	44	44	44	44	44	44	528	6104
P509	44	44	44	44	44	44	44	44	44	44	44	44	528	6471
P510	14	14	14	14	14	14	14	14	14	14	14	14	168	2161
P511	20	20	20	20	20	20	20	20	20	20	20	20	240	4109
P512	4	4	4	4	4	4	4	4	4	4	4	4	48	897
P513	4	4	4	4	4	4	4	4	4	4	4	4	48	935
P514	20	20	20	20	20	20	20	20	20	20	20	20	240	4089
P515	24	24	24	24	24	24	24	24	24	24	24	24	288	1652
P516	16	16	16	16	16	16	16	16	16	16	16	16	192	951
P617	4	4	4	4	4	4	4	4	4	4	4	4	48	547
P618	20	20	20	20	20	20	0	20	20	20	20	20	220	3607
P619	20	20	20	20	20	20	0	20	20	20	20	20	220	3883
P620	8	8	8	8	8	8	0	8	8	8	8	8	88	1641
P621	0	0	0	0	0	0	20	0	0	0	0	0	20	388
P622	0	0	0	0	0	0	24	0	0	0	0	0	24	424
P623	0	0	0	0	0	0	8	0	0	0	0	0	8	173
P524	52	56	51	71	91	88	72	69	81	68	51	37	787	25104
P525	104	112	102	142	182	176	144	138	162	136	102	74	1574	40358
P526	208	224	204	284	364	348	284	272	324	272	200	144	3128	18759
P1127	0	60	0	60	134	60	0	0	0	60	60	0	434	87046
P528	0	16	0	16	32	32	0	0	0	16	16	0	128	3705
P1129	0	0	0	0	0	0	0	0	60	0	0	0	60	13628
P530	0	0	0	0	0	0	16	16	16	0	0	0	48	1640
P1131	74	0	0	0	0	0	0	0	0	0	0	0	74	15923
P532	16	0	0	0	0	0	0	0	0	0	0	0	16	676
P1133	0	74	0	0	0	0	0	0	0	0	0	0	74	8256
P534	0	16	0	0	0	0	0	0	0	0	0	0	16	350
P1135	0	0	60	0	0	0	0	0	0	0	0	0	60	13070
P536	0	0	16	0	0	0	0	0	0	0	0	0	16	684
P1137	0	0	0	74	0	0	0	0	0	0	0	0	74	13957
P538	0	0	0	16	0	0	0	0	0	0	0	0	16	592
P1139	0	0	0	0	74	0	0	0	0	0	0	0	74	12188
P540	0	0	0	0	16	0	0	0	0	0	0	0	16	517
P1141	0	0	0	0	0	74	0	0	0	0	74	0	148	34926

BAR MARK BREAKDOWN

MARK	PIER WN01	PIER WN02	PIER WN03	PIER WN04	PIER WN05	PIER WN06	PIER WN07	PIER WN08	PIER WN09	PIER WN10	PIER WN11	PIER WN12	TOTAL NO	WEIGHT
P1142	0	0	0	0	0	0	74	0	0	0	0	0	74	19036
P1143	0	0	0	0	0	0	0	74	0	0	0	0	74	19429
P1144	0	0	0	0	0	74	0	0	0	0	0	0	74	16709
P545	0	0	0	0	0	16	0	0	0	0	0	0	16	709
P1146	0	0	0	0	0	0	74	0	0	0	0	0	74	17889
P547	0	0	0	0	0	0	16	0	0	0	0	0	16	759
P1148	0	0	0	0	0	0	0	74	0	0	0	0	74	16120
P549	0	0	0	0	0	0	0	16	0	0	0	0	16	684
P1150	0	0	0	0	0	0	0	0	74	0	0	0	74	16120
P551	0	0	0	0	0	0	0	0	16	0	0	0	16	684
P1152	0	0	0	0	0	0	0	0	0	74	0	0	74	12974
P553	0	0	0	0	0	0	0	0	0	16	0	0	16	551
P1154	0	0	0	0	0	0	0	0	0	0	74	0	74	10812
P555	0	0	0	0	0	0	0	0	0	0	16	0	16	459
P1156	0	0	0	0	0	0	0	0	0	0	0	74	74	17660
P557	0	0	0	0	0	0	0	0	0	0	0	16	16	651
P458	0	26	26	26	26	0	0	0	26	26	0	0	156	1363
P459	0	12	12	12	12	0	0	0	12	12	0	0	72	1106
P460	0	24	24	24	24	0	0	0	24	24	0	0	144	481
P1161	0	66	66	66	66	0	0	0	66	66	0	0	396	53125
P1162	0	16	0	16	16	0	0	0	0	16	0	0	64	17002
P1163	0	0	0	0	0	0	0	0	16	0	0	0	16	4675
P1164	0	0	16	0	0	0	0	0	0	0	0	0	16	4548
P1165	0	0	0	0	0	47	0	0	0	0	47	0	94	17397
P1166	0	0	0	0	0	63	0	0	0	0	63	0	126	17740
P767	0	0	0	0	0	47	0	0	0	0	47	0	94	6052
P768	0	0	0	0	0	63	0	0	0	0	63	0	126	6052
P1169	0	0	0	0	0	0	47	0	0	0	0	0	47	7616
P1170	0	0	0	0	0	0	55	0	0	0	0	0	55	7598
P771	0	0	0	0	0	0	47	0	0	0	0	0	47	2642
P772	0	0	0	0	0	0	55	0	0	0	0	0	55	2642
P1173	0	0	0	0	0	0	0	55	0	0	0	0	55	10179
P1174	0	0	0	0	0	0	0	63	0	0	0	0	63	8982
P775	0	0	0	0	0	0	0	55	0	0	0	0	55	3541
P776	0	0	0	0	0	0	0	63	0	0	0	0	63	3026
P1177	0	0	0	0	0	0	0	0	0	0	0	47	47	7699
P1178	0	0	0	0	0	0	0	0	0	0	0	55	55	7841
P779	0	0	0	0	0	0	0	0	0	0	0	47	47	2642
P780	0	0	0	0	0	0	0	0	0	0	0	55	55	2642
P881	0	0	0	0	0	64	52	68	0	0	64	52	300	15553

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DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
PIER REINFORCEMENT
SCHEDULE (2 OF 2)

SHEET B40 OF B40

8

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-856\cds\cds Option B\B856_080340B_pi.dgn
PLOT DATE : 13-MAY-2015 14:18
PLOT BY : MSCBKS
PLOT NAME : B856_080340B_pi
PLOT SCALE : 8:1