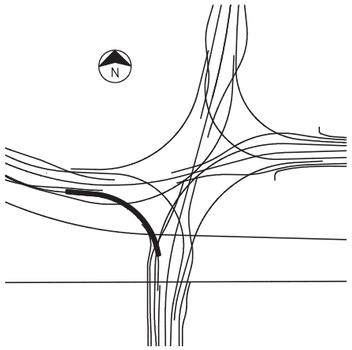
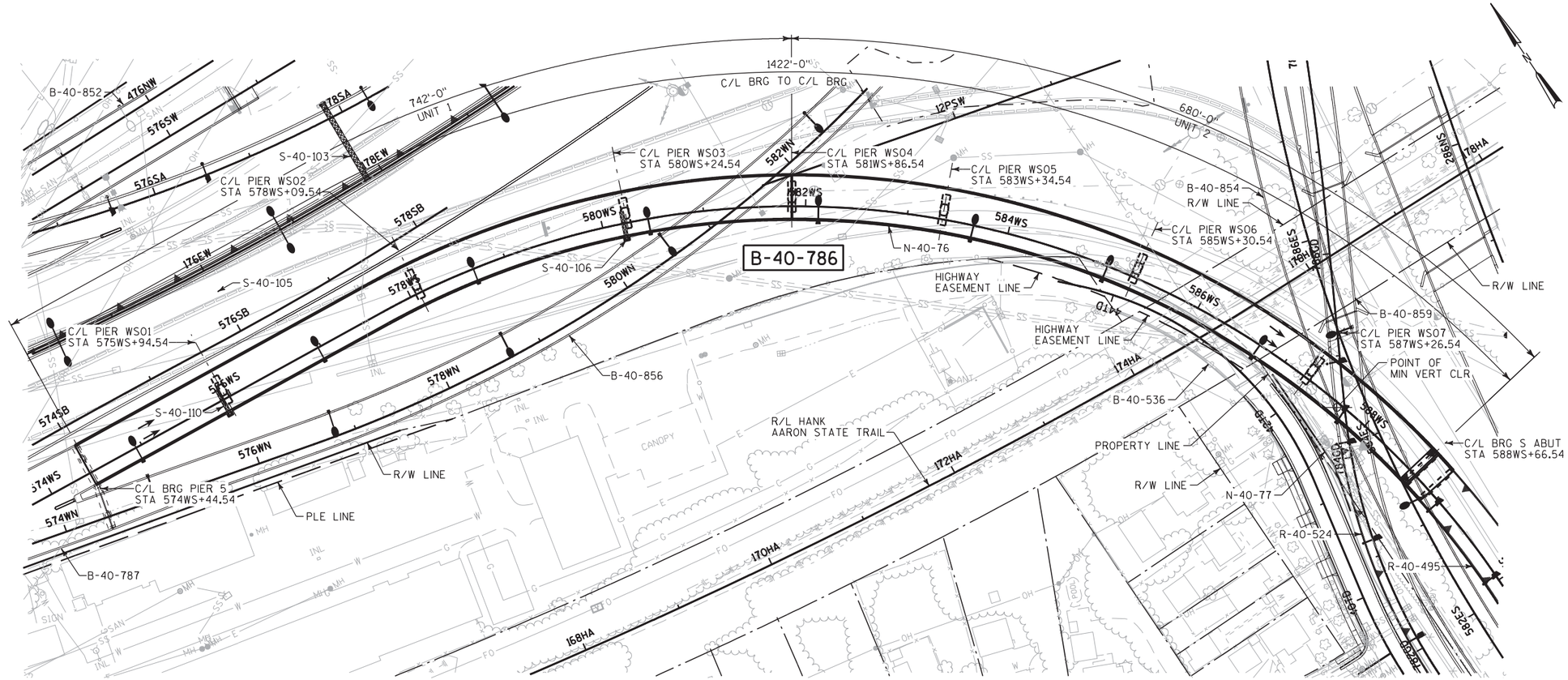
STATE PROJECT NUMBER
1060-33-81



LOCATION MAP

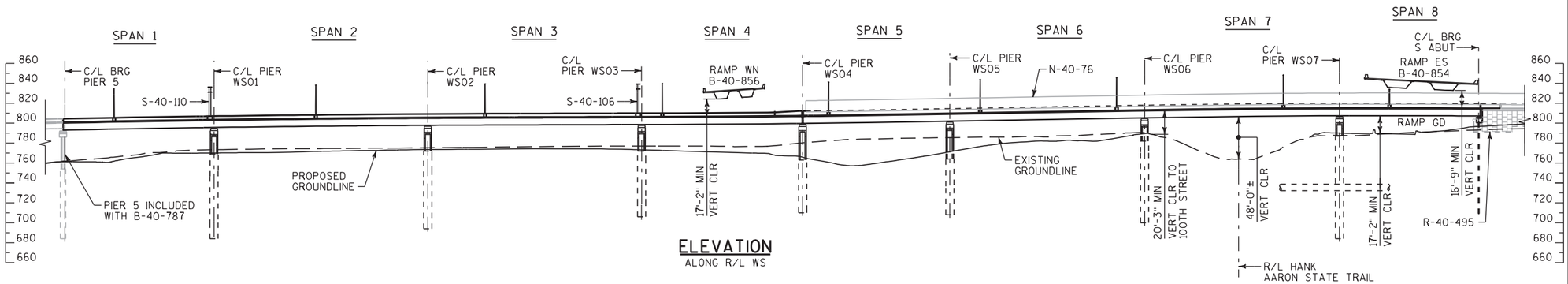


PLAN

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

LEGEND

← INDICATES LANE LOCATION AND DIRECTION OF TRAVEL



ELEVATION
ALONG R/L WS

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 _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-786

ZOO INTERCHANGE RAMP WS

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

DESIGN SPEC.
AASHTO LRFD BRIDGE SPECIFICATIONS

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

GENERAL PLAN & ELEVATION

SHEET 1 OF 97

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FILE NAME : \\WKE31FP1\w3zoo\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080101_gp.dgn PLOT DATE : 02-MAR-2015 10:32 PLOT BY : MSCGLM PLOT NAME : B786_080101_gp PLOT SCALE : 120:1

STATE PROJECT NUMBER
1060-33-81

DRAWING LIST

MANDATORY

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

MANDATORY CONT

51. INTERMEDIATE DIAPHRAGM
52. DIAPHRAGM DETAILS (1 OF 2)
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56. CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 1 & 2
57. CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 3 & 4
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70. EXPANSION JOINT LAYOUT - SOUTH ABUTMENT
71. EXPANSION JOINT LAYOUT - PIER WS04
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74. MODULAR EXPANSION JOINT COVER PLATES
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90. LIGHT SUPPORT - 56SS PARAPET (2 OF 2)
91. SIGN BRIDGE BASE (1 OF 2)
92. SIGN BRIDGE BASE (2 OF 2)
93. PARAPET REINFORCEMENT SCHEDULE
94. FLOOR DRAIN PIPING (1 OF 2)
95. FLOOR DRAIN PIPING (2 OF 2)
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PIERS-OPTION A

A1. OPTION A - QUANTITIES
A2. OPTION A - FOUNDATION LAYOUT (1 OF 3)
A3. OPTION A - FOUNDATION LAYOUT (2 OF 3)
A4. OPTION A - FOUNDATION LAYOUT (3 OF 3)
A5. OPTION A - EXCAVATION PLAN (1 OF 4)
A6. OPTION A - EXCAVATION PLAN (2 OF 4)
A7. OPTION A - EXCAVATION PLAN (3 OF 4)
A8. OPTION A - EXCAVATION PLAN (4 OF 4)
A9. OPTION A - 98.43" DRILLED SHAFT DETAILS (1 OF 2)
A10. OPTION A - 98.43" DRILLED SHAFT DETAILS (2 OF 2)
A11. OPTION A - DRILLED SHAFT REINFORCEMENT SCHEDULE
A12. OPTION A - TYPICAL PIER LAYOUT
A13. OPTION A - TYPICAL PIER CAP REINFORCEMENT
A14. OPTION A - PIER WS01 DETAILS
A15. OPTION A - PIER WS02 DETAILS
A16. OPTION A - PIER WS03 DETAILS
A17. OPTION A - PIER WS04 DETAILS
A18. OPTION A - PIER WS05 DETAILS
A19. OPTION A - PIER WS06 DETAILS
A20. OPTION A - PIER WS07 DETAILS
A21. OPTION A - TYPICAL PEDESTAL REINFORCEMENT
A22. OPTION A - PIER REINFORCEMENT SCHEDULE (1 OF 2)
A23. OPTION A - PIER REINFORCEMENT SCHEDULE (2 OF 2)

PIERS-OPTION B

B1. OPTION B - QUANTITIES
B2. OPTION B - FOUNDATION LAYOUT (1 OF 3)
B3. OPTION B - FOUNDATION LAYOUT (2 OF 3)
B4. OPTION B - FOUNDATION LAYOUT (3 OF 3)
B5. OPTION B - EXCAVATION PLAN (1 OF 4)
B6. OPTION B - EXCAVATION PLAN (2 OF 4)
B7. OPTION B - EXCAVATION PLAN (3 OF 4)
B8. OPTION B - EXCAVATION PLAN (4 OF 4)
B9. OPTION B - 98.43" DRILLED SHAFT DETAILS (1 OF 2)
B10. OPTION B - 98.43" DRILLED SHAFT DETAILS (2 OF 2)
B11. OPTION B - DRILLED SHAFT REINFORCEMENT SCHEDULE
B12. OPTION B - TYPICAL PIER LAYOUT
B13. OPTION B - TYPICAL PIER CAP REINFORCEMENT
B14. OPTION B - PIER WS01 DETAILS
B15. OPTION B - PIER WS02 DETAILS
B16. OPTION B - PIER WS03 DETAILS
B17. OPTION B - PIER WS04 DETAILS
B18. OPTION B - PIER WS04 FOOTING
B19. OPTION B - PIER WS05 DETAILS
B20. OPTION B - PIER WS05 FOOTING
B21. OPTION B - PIER WS06 DETAILS
B22. OPTION B - PIER WS07 DETAILS
B23. OPTION B - PIER WS07 FOOTING
B24. OPTION B - TYPICAL PEDESTAL REINFORCEMENT
B25. OPTION B - PIER REINFORCEMENT SCHEDULE (1 OF 2)
B26. 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 A23

PIERS - OPTION B
DRIVEN PILE FOUNDATION AT PIERS WS04, WS05, WS07
DRILLED SHAFT FOUNDATION AT ALL OTHER LOCATIONS
SHEETS B1 THRU B26

WISCONSIN
W. RANDALL THOMAS
E-37361
MILWAUKEE
WI
PROFESSIONAL ENGINEER
03/02/2015

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

DRAWING LIST

SHEET 2 OF 97

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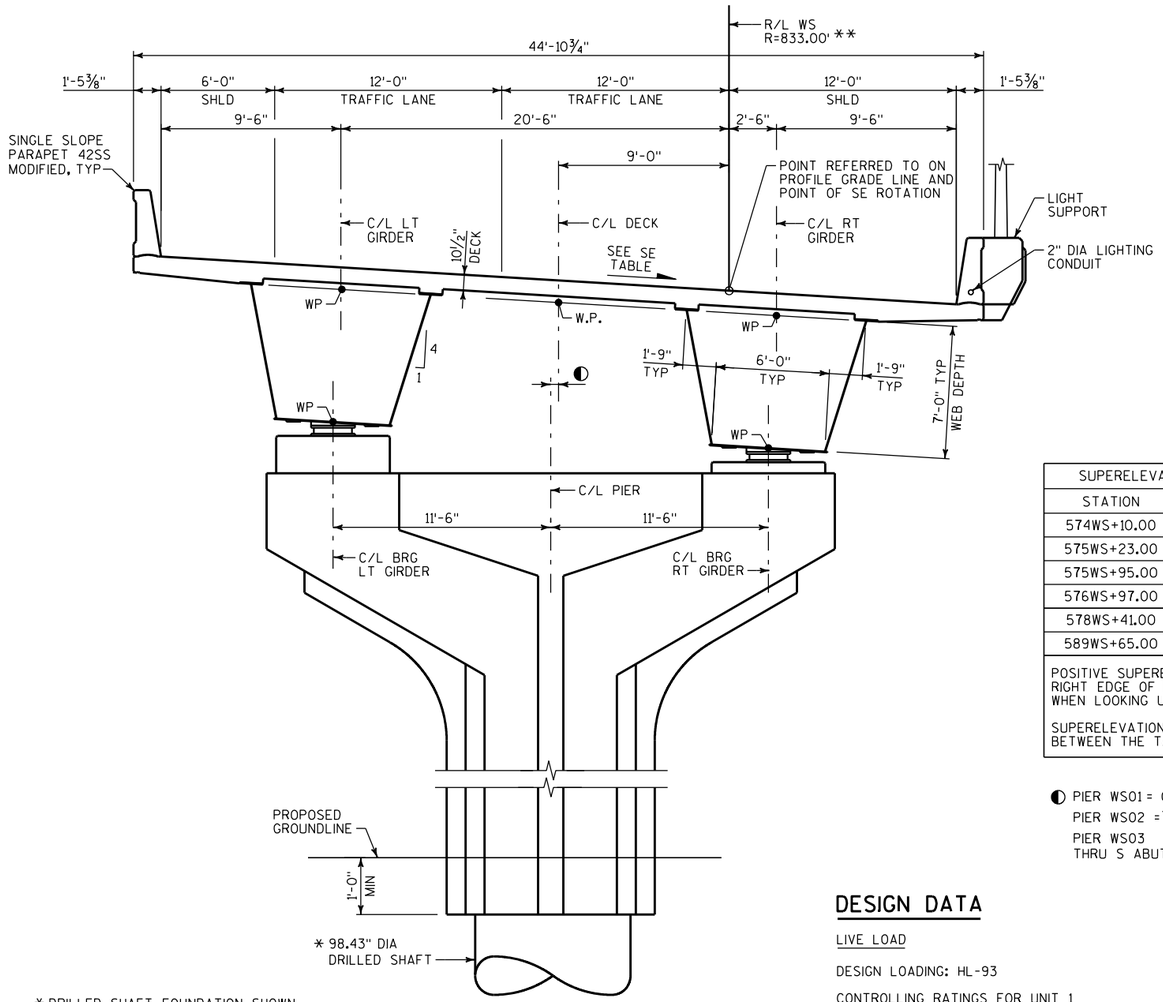
FILE NAME : \\WKE31FP1\w3zoo\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080102_gn.dgn
PLOT DATE : 02-MAR-2015 10:05
PLOT BY : MSCGLM
PLOT NAME : B786_080102_gn
PLOT SCALE : 2:1

STATE PROJECT NUMBER
1060-33-81

** STA 577WS+69.26 TO STA 588WS+90.68



* DRILLED SHAFT FOUNDATION SHOWN. IF OPTION B IS BID, CONSTRUCT DRIVEN PILE FOUNDATION AT PIERS WS04, WS05, AND WS07 SEE NOTES ON SHEET 2.

TYPICAL SECTION - UNIT 1

LOOKING UPSTATION

SUPERELEVATION (SE) TABLE	
STATION	SE (%)
574WS+10.00	+2.00
575WS+23.00	+2.00
575WS+95.00	0.00
576WS+97.00	-2.00
578WS+41.00	-6.00
589WS+65.00	-6.00

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

SUPERELEVATION VARIES LINEARLY BETWEEN THE TABULATED VALUES.

◐ PIER WS01 = 0"
PIER WS02 = $^{+}4\frac{5}{16}$"
PIER WS03 THRU S ABUT = $^{+}5$"

DESIGN DATA

LIVE LOAD

DESIGN LOADING: HL-93

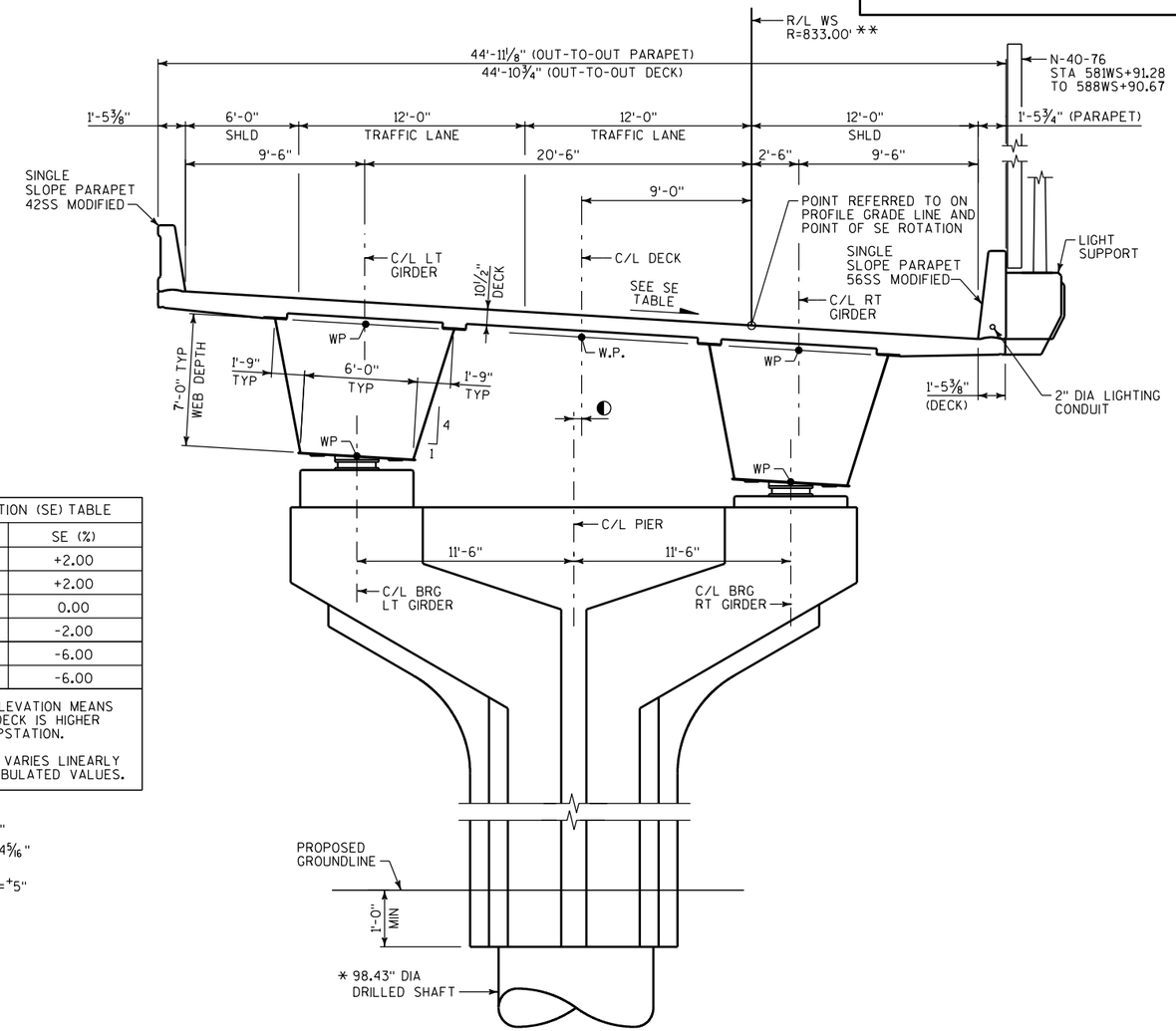
CONTROLLING RATINGS FOR UNIT 1
INVENTORY RATING FACTOR: RF = 1.07
OPERATING RATING FACTOR: RF = 1.38
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

CONTROLLING RATINGS FOR UNIT 2
INVENTORY RATING FACTOR: RF = 1.07
OPERATING RATING FACTOR: RF = 1.38
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

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

ULTIMATE DESIGN STRESSES

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



TYPICAL SECTION - UNIT 2

LOOKING UPSTATION

TRAFFIC DATA		
ROUTE	RAMP WS	RAMP GD
A.A.D.T.	29,900	5,600
YEAR	2035	2035
R.D.S. (MPH)	50	40

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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

TYPICAL SECTION & DESIGN DATA

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FILE NAME : \\WKE31FP1\w3zoo\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080103_ts.dgn PLOT DATE : 05-MAR-2015 07:55 PLOT BY : MSCGLM PLOT NAME : sht 3 PLOT SCALE : 8:1

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 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. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

G.7. EXISTING BRIDGE B-40-96 IS A THREE SPAN KINKED STEEL ROLLED BEAM STRUCTURES AND WILL BE REMOVED IN ITS ENTIRETY.

G.8. THE CONTRACTOR MUST COORDINATE THE REMOVAL OF EXISTING BRIDGE B-40-96 AND THE CONSTRUCTION OF BRIDGE B-40-786 WITH PROPOSED BRIDGES B-40-787, B-40-854, B-40-856, AND B-40-859; EXISTING BRIDGE B-40-536; PROPOSED WALL R-40-495; PROPOSED SIGN STRUCTURES S-40-106 AND S-40-110; AND PROPOSED NOISE BARRIERS N-40-76 AND N-40-77. 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-40-786" SHALL BE AS FOLLOWS:
PIERS: AS DEFINED ON THE EXCAVATION PLAN SHEETS
SOUTH ABUTMENT: EXISTING GROUNDLINE

EB.2. AT THE BACK FACE OF ABUTMENT, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW BRIDGE OR RETAINING WALL REINFORCED ZONE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

EB.3. THE SLOPE OF THE FILL IN FRONT OF THE SOUTH ABUTMENT SHALL BE COVERED WITH SLOPE PAVING SELECT CRUSHED MATERIAL. SEE PLANS FOR WALL R-40-495 FOR PAYMENT AND DETAILS.

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. FOR NOISE BARRIER N-40-76, DESIGN PANEL, ASSUMED 705 LB/FT WEIGHT AND HORIZONTAL WIND LOAD OF 40 PSF APPLIED MAX 15' ABOVE TOP OF DECK.

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 AT 60° F

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 STAINLESS BRIDGES".

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".

CONCRETE (CONT'D)

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".

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

C.6. 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 WS04: 246 TONS (BID OPTION B ONLY)
PIER WS05: 246 TONS (BID OPTION B ONLY)
PIER WS07: 246 TONS (BID OPTION B ONLY)
SOUTH 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 WS04: 70 FEET (BID OPTION B ONLY)
PIER WS05: 50 FEET (BID OPTION B ONLY)
PIER WS07: 90 FEET (BID OPTION B ONLY)
SOUTH ABUTMENT: 95 FEET

FD.4. MINIMUM PILE PENETRATION FOR UPLIFT RESISTANCE:
PIER WS04: EL = 697.0 (BID OPTION B ONLY)
PIER WS05: EL = 713.0 (BID OPTION B ONLY)
PIER WS07: EL = 754.0 (BID OPTION B ONLY)

FD.5. AT THE SOUTH ABUTMENT, IT IS ANTICIPATED THAT PILES WILL BE DRIVEN PRIOR TO CONSTRUCTION OF MSE WALL R-40-495. PILE DRIVING THROUGH MSE FILL WITHOUT SLEEVES IS PROHIBITED.

FD.6. PILE SPLICES SHALL BE MADE BY A CERTIFIED WELDER.

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 ITEM "DRILLED FOUNDATION SHAFT 96.43-INCH" FOR B-40-786.

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 WS01	98.43	5200	769.0	684.0	85.0
PIER WS02	98.43	5600	772.0	694.0	78.0
PIER WS03	98.43	5500	772.0	706.0	66.0
PIER WS04*	98.43	3800	763.0	710.0	53.0
PIER WS05*	98.43	5100	764.0	708.0	56.0
PIER WS06	98.43	5000	782.0	700.0	82.0
PIER WS07*	98.43	4800	787.0	684.0	103.0

* BID OPTION A ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

GENERAL NOTES

SHEET 4 OF 97

8

8

STATE PROJECT NUMBER
1060-33-81

TOTAL ESTIMATED QUANTITIES

ITEM CATEGORY	ITEM NO.	BID ITEMS	UNIT	PIER 5	PIER WS01	PIER WS02	PIER WS03	PIER WS04	PIER WS05	PIER WS06	PIER WS07	SOUTH ABUTMENT	S APPR SLAB	SUPER UNIT 1	SUPER UNIT 2	TOTAL
2000	203.0200	REMOVING OLD STRUCTURE STATION 175HA+52.38	LS	---	---	---	---	---	---	---	---	---	---	---	---	1 *
2000	203.0210.S.0008	ABATEMENT OF ASBESTOS CONTAINING MATERIAL STRUCTURE B-40-0096	LS	---	---	---	---	---	---	---	---	---	---	---	---	1
2000	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	---	---	---	---	---	---	---	---	---	138	---	---	138
2000	502.0100	CONCRETE MASONRY BRIDGES	CY	---	---	---	---	---	---	---	---	99.8	10.2	---	---	110
2000	502.3200	PROTECTIVE SURFACE TREATMENT	SY	---	---	---	---	---	---	---	---	20	120	4,235	3,900	8,275
2000	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	---	---	---	---	---	---	---	---	6,130	---	---	---	6,130
2000	505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	---	---	---	---	---	---	---	---	1,600	9,915	351,064	278,766	641,345
2000	506.0605	STRUCTURAL STEEL HS	LB	---	---	---	---	---	---	---	---	---	---	1,677,170	1,541,819	3,218,989
2000	506.3015	WELDED STUD SHEAR CONNECTORS 7/8X6-INCH	EACH	---	---	---	---	---	---	---	---	---	---	10,356	9,447	19,803
2000	514.2608	DOWNSPOUT 8-INCH	LF	15	98	46	46	65	55	39	---	---	---	---	---	364
2000	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	---	---	---	---	---	---	---	8	---	---	---	8
2000	517.0650.S.0001	PAINTING POLYSILOXANE SYSTEM B-40-786	LS	---	---	---	---	---	---	---	---	---	---	---	---	1
2000	517.1010.S.0001	CONCRETE STAINING B-40-786	SF	---	1,344	1,333	1,368	1,784	1,792	1,242	1,130	360	270	12,250	12,035	34,908
2000	550.2168	PILING CIP CONCRETE 16 X 0.50-INCH	LF	---	---	---	---	---	---	---	---	1,045	---	---	---	1,045
2000	604.0400	SLOPE PAVING CONCRETE	SY	---	---	---	---	---	---	---	---	12	---	---	---	12
2000	606.0200	RIPRAP MEDIUM	CY	---	1	1	1	1	1	1	---	---	---	---	---	6
2000	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	---	---	---	---	---	---	---	---	---	20	10	15	45
2000	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	---	---	---	---	---	---	---	---	---	---	762	713	1,475
2000	653.0220	JUNCTION BOXES 18X6X6-INCH	EACH	---	---	---	---	---	---	---	---	---	---	1	1	2
2000	653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	---	---	---	---	---	---	---	---	---	---	4	5	9
2000	657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	---	---	---	---	---	---	---	---	---	---	4	5	9
2000	SPV.0035.4000	HPC MASONRY STRUCTURES	CY	---	---	---	---	---	---	---	---	3.4	51.2	1,382.1	1,275.3	2,712
2000	SPV.0060.4100	ANCHOR ASSEMBLIES SIGN BRIDGE STRUCTURES	EACH	---	---	---	---	---	---	---	---	---	---	2	---	2
2000	SPV.0060.4105	ANCHOR ASSEMBLIES NOISE BARRIER STRUCTURES	EACH	---	---	---	---	---	---	---	---	---	---	---	48	48
2000	SPV.0060.4110	PILE DYNAMIC ANALYZER (PDA) TESTING	EACH	---	---	---	---	---	---	---	---	2	---	---	---	2
2000	SPV.0060.4115	PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH	---	---	---	---	---	---	---	---	2	---	---	---	2
2000	SPV.0060.4120	BEARINGS HIGH-LOAD MULTI-ROTATIONAL FIXED	EACH	---	---	2	---	---	---	2	---	---	---	---	---	4
2000	SPV.0060.4125	BEARINGS HIGH-LOAD MULTI-ROTATIONAL GUIDED	EACH	2	2	---	2	4	2	---	2	2	---	---	---	16
2000	SPV.0060.4130	FLOOR DRAIN SPECIAL	EACH	---	---	---	---	---	---	---	---	---	---	5	3	8
2000	SPV.0105.4530	EXPANSION DEVICE MODULAR LRFD B-40-786	LS	---	---	---	---	---	---	---	---	---	---	---	---	1
2000	SPV.0165.4700	LONGITUDINAL GROOVING BRIDGE DECK	SF	---	---	---	---	---	---	---	---	74	866	31,423	28,939	61,302
		NON-BID ITEMS														
		BRIDGE SEAT PROTECTION	EACH													
		PREFORMED JOINT FILLER	SIZE													
		NAME PLATE	LS													
		SIZE 2 COARSE AGGREGATE	SY													
		EXPANDED POLYSTYRENE	SIZE													

8

8

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.

* THE STATION GIVEN FOR REMOVING OLD STRUCTURE CORRESPONDS TO THE FOLLOWING EXISTING STRUCTURE NUMBER:
STA 175HA+52.38: B-40-96

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

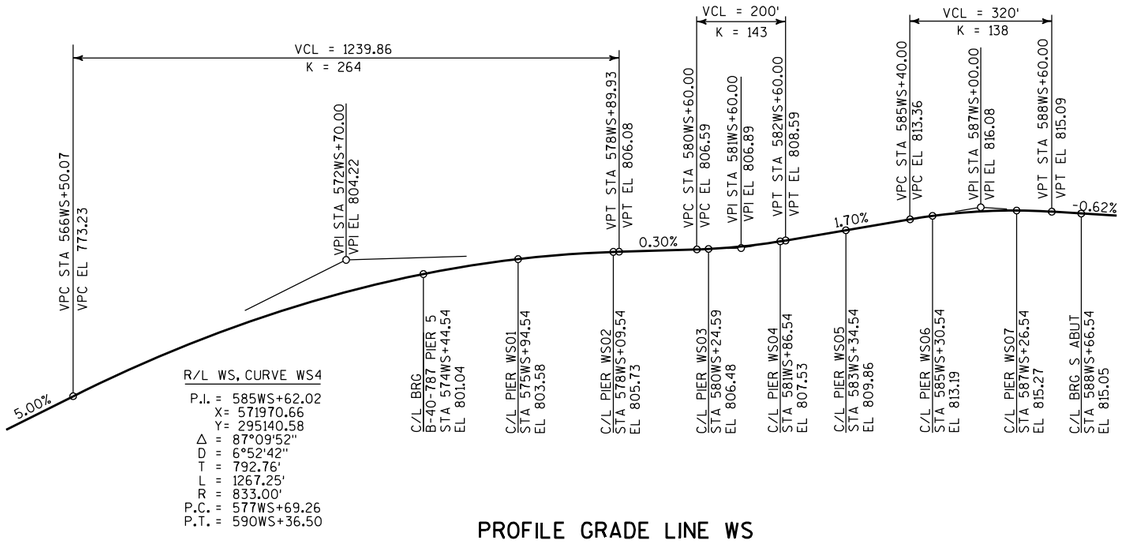
STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

QUANTITIES

SHEET 5 OF 97

STATE PROJECT NUMBER
1060-33-81

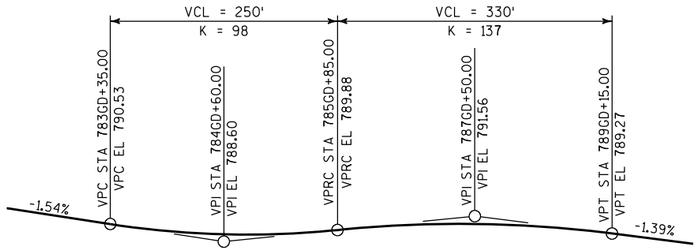


R/L WS, CURVE WS4

P.I. = 585WS+62.02
X= 571970.66
Y= 295140.58
Δ = 87°09'52"
D = 6°52'42"
T = 792.76'
L = 1267.25'
R = 833.00'
P.C. = 577WS+69.26
P.T. = 590WS+36.50

PROFILE GRADE LINE WS

RAMP WS



R/L GD, CURVE GD5

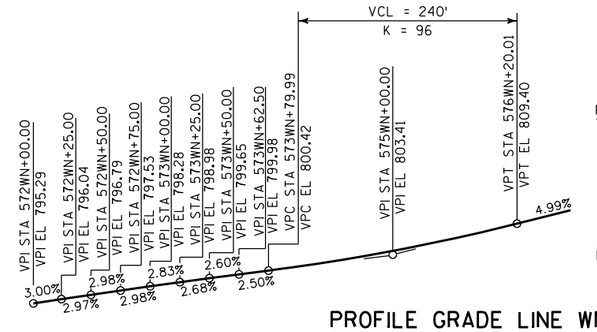
P.I. = 783GD+09.01
X= 571841.37
Y= 294479.81
Δ = 28°29'51"
D = 9°57'52"
T = 146.02'
L = 285.99'
R = 575.00'
P.C. = 781GD+62.99
P.T. = 784GD+48.99

R/L GD, CURVE GD6

P.I. = 789GD+70.98
X= 572156.84
Y= 295068.65
Δ = 13°05'48"
D = 2°01'54"
T = 323.71'
L = 644.59'
R = 2820.00'
P.C. = 786GD+47.28
P.T. = 792GD+91.87

PROFILE GRADE LINE GD

RAMP GD



R/L WN CURVE WN1

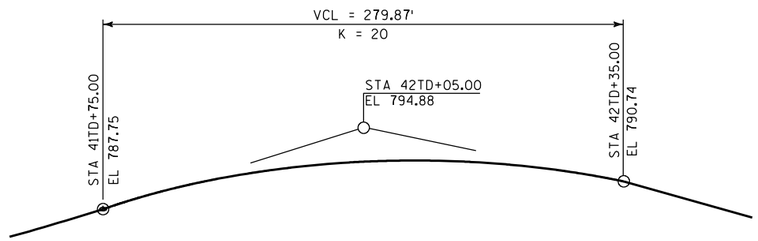
P.I. = 569WN+36.54
X= 570353.39
Y= 295317.76
Δ = 13°00'02"
D = 2°50'52"
T = 229.25'
L = 456.52'
R = 2012.00'
P.C. = 567WN+07.30
P.T. = 571WN+63.82

R/L WN CURVE WN2

P.I. = 593WN+87.45
X= 572730.07
Y= 294711.15
Δ = 101°45'17"
D = 4°03'59"
T = 1732.38'
L = 2502.32'
R = 1409.00'
P.C. = 576WN+55.07
P.T. = 601WN+57.39

PROFILE GRADE LINE WN

RAMP WN



R/L TD, CURVE TD3

P.I. = 42TD+92.80
X= 571877.55
Y= 294731.38
Δ = 55 ° 05'54"
D = 18 ° 00'00"
T = 166.05'
L = 306.10'
R = 318.31'
P.C. = 41TD+26.75
P.T. = 44TD+32.85

PROFILE GRADE LINE TD

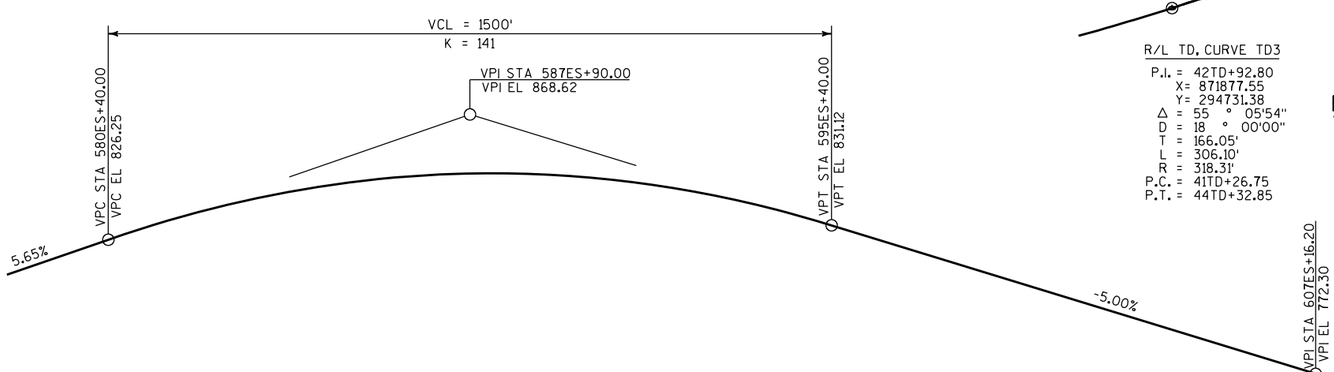
S 100TH STREET

R/L HA, CURVE HA1

P.I. = 165HA+07.60
X= 570829.86
Y= 294768.68
Δ = 25°10'43"
D = 1°10'53"
T = 1083.15'
L = 2131.33'
R = 4850.00'
P.C. = 154HA+24.45
P.T. = 175HA+55.78

PROFILE GRADE LINE HA

HANK AARON STATE TRAIL



R/L ES, CURVE ES3

P.I. = 596ES+89.51
X= 571931.07
Y= 295860.01
Δ = 90°54'49"
D = 3°50'15"
T = 1517.00'
L = 2369.01'
R = 1493.00'
P.C. = 581ES+72.50
P.T. = 605ES+41.51

PROFILE GRADE LINE ES

RAMP ES

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

ROADWAY GEOMETRY

SHEET 6 OF 97

8

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STATE PROJECT NUMBER
1060-33-81

CAUTION

* EXISTING ATC OVERHEAD TRANSMISSON LINES TO REMAIN

EXISTING WISDOT 12" STORM SEWER TO BE REMOVED

EXISTING WISDOT 84" STORM SEWER TO REMAIN

PROPOSED 24" WISDOT STORM SEWER

PROPOSED FTMS

PROPOSED WISDOT FTMS

R/L SB

S-40-105

24EWP 25EWP 26EWP 27EWP 28EWP

574SB 575SB 576SB 577SB 578SB

EXISTING WISDOT 12" STORM SEWER TO BE REMOVED

1'-5⅜"

C/L PIER WS01 STA 575WS+94.54

C/L PIER WS02 STA 578WS+09.54

B-40-786

C/L BRG PIER 5 STA 574WS+44.54

574WS 575WS 576WS 577WS 578WS

S85°02'18"E

42'-0"

B-40-787

NAME PLATE LOCATION

S-40-110

1'-5⅜"

PROPOSED WISDOT LIGHTING IN BRIDGE PARAPET

FLOOR DRAIN WITH DOWNSPOUT, TYP

PC STA 577WS+69.26

EXISTING WISDOT 24" STORM SEWER TO REMAIN

574WN 575WN 576WN 577WN 578WN

2'-0"

150'-0" SPAN 1

215'-0" SPAN 2

215'-0" SPAN 3

UNIT 1

B-40-787

R/W WN

B-40-856

PLE LINE

R/W LINE

EXISTING BUILDING TO REMAIN

EXISTING BUILDING TO REMAIN

MILWAUKEE COUNTY (ZOO)

* CONSTRUCTION OF BRIDGE B-40-786 MUST BE ACCOMPLISHED BENEATH ENERGIZED OVERHEAD TRANSMISSION LINES OWNED AND OPERATED BY THE AMERICAN TRANSMISSION COMPANY (ATC) AND WE ENERGIES. THE CONTRACTOR IS ADVISED THAT LOW OVERHEAD EQUIPMENT AND INSTALLATION TECHNIQUES MAY BE REQUIRED TO MAINTAIN SAFE CLEARANCE FROM THESE LINES.

LEGEND

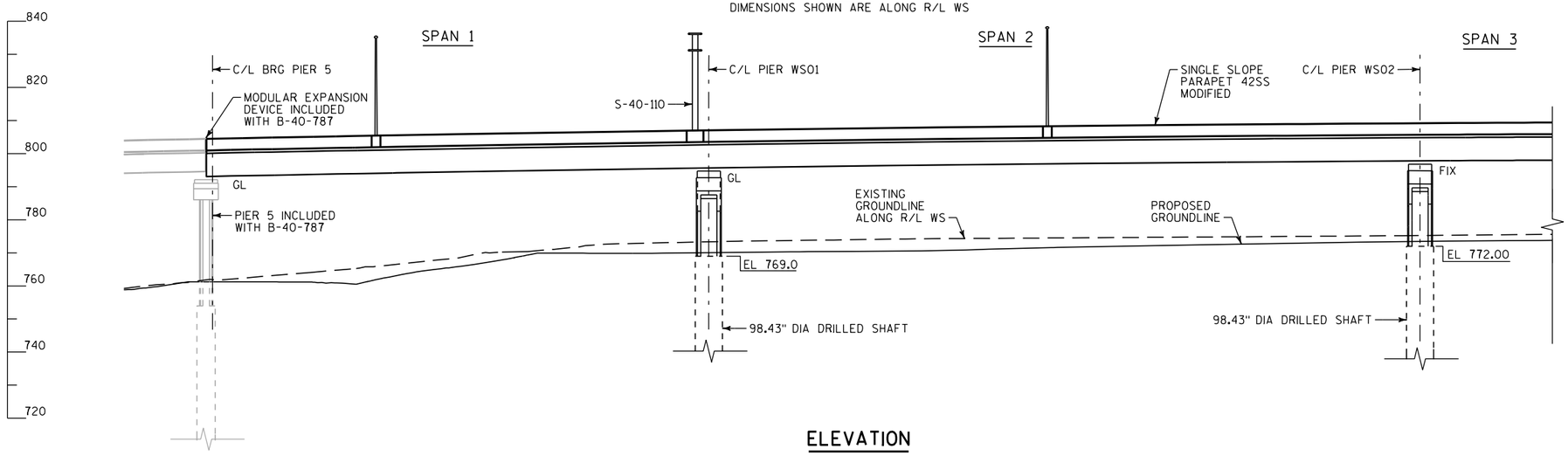
← INDICATES LANE LOCATION AND DIRECTION OF TRAVEL

FIX = FIXED BEARINGS

GL = UNIDIRECTIONAL BEARINGS

PLAN

DIMENSIONS SHOWN ARE ALONG R/L WS



ELEVATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

PLAN & ELEVATION SPANS 1 & 2

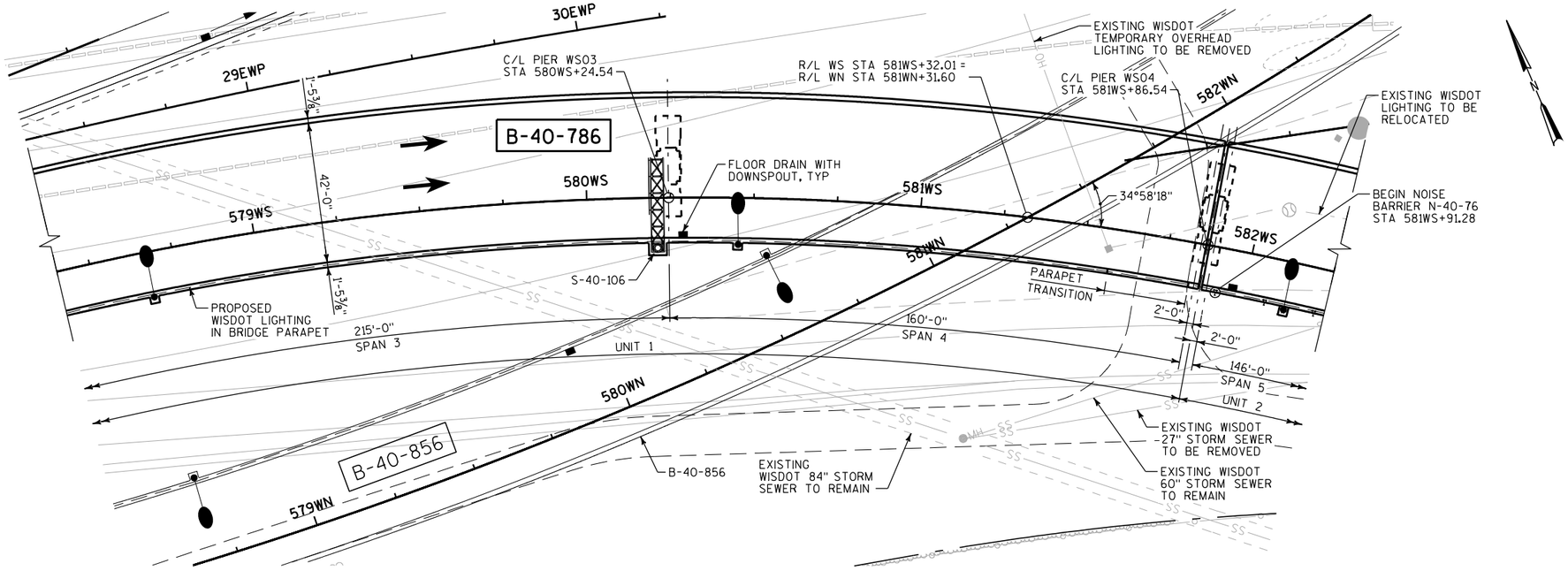
SHEET 7 OF 97

8

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080107_gp.dgn PLOT DATE : 02-MAR-2015 15:01 PLOT BY : MSCGLM PLOT NAME : B786_080107_gp PLOT SCALE : 40:1

STATE PROJECT NUMBER
1060-33-81



PLAN

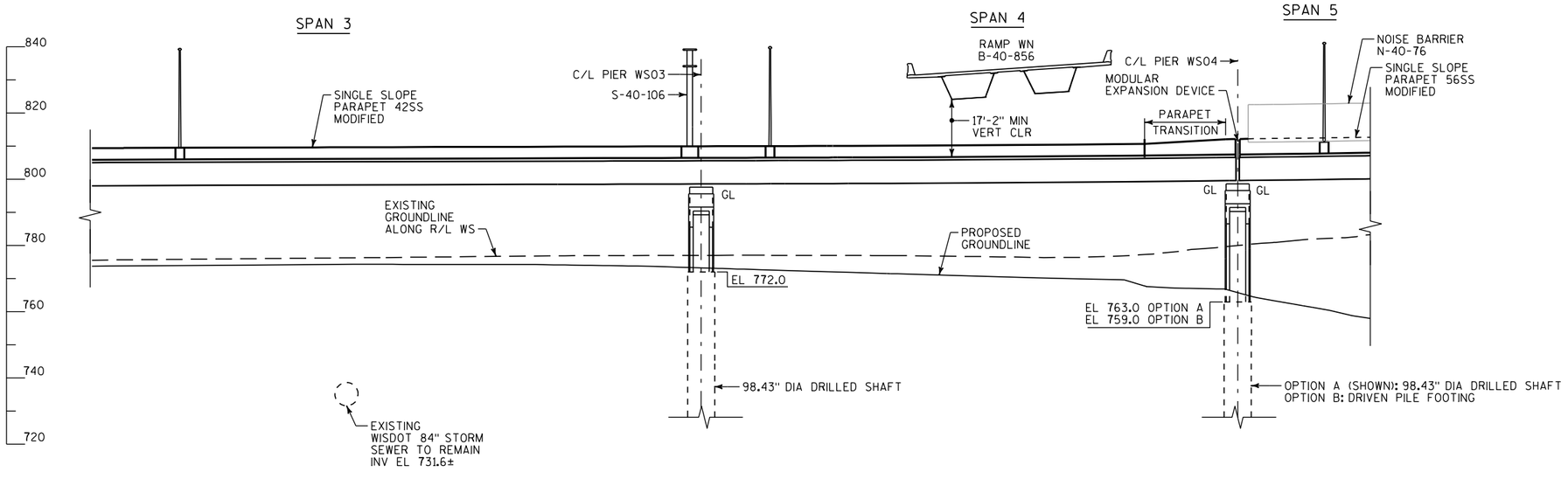
DIMENSIONS SHOWN ARE ALONG R/L WS

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-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

PLAN & ELEVATION SPANS 3 & 4

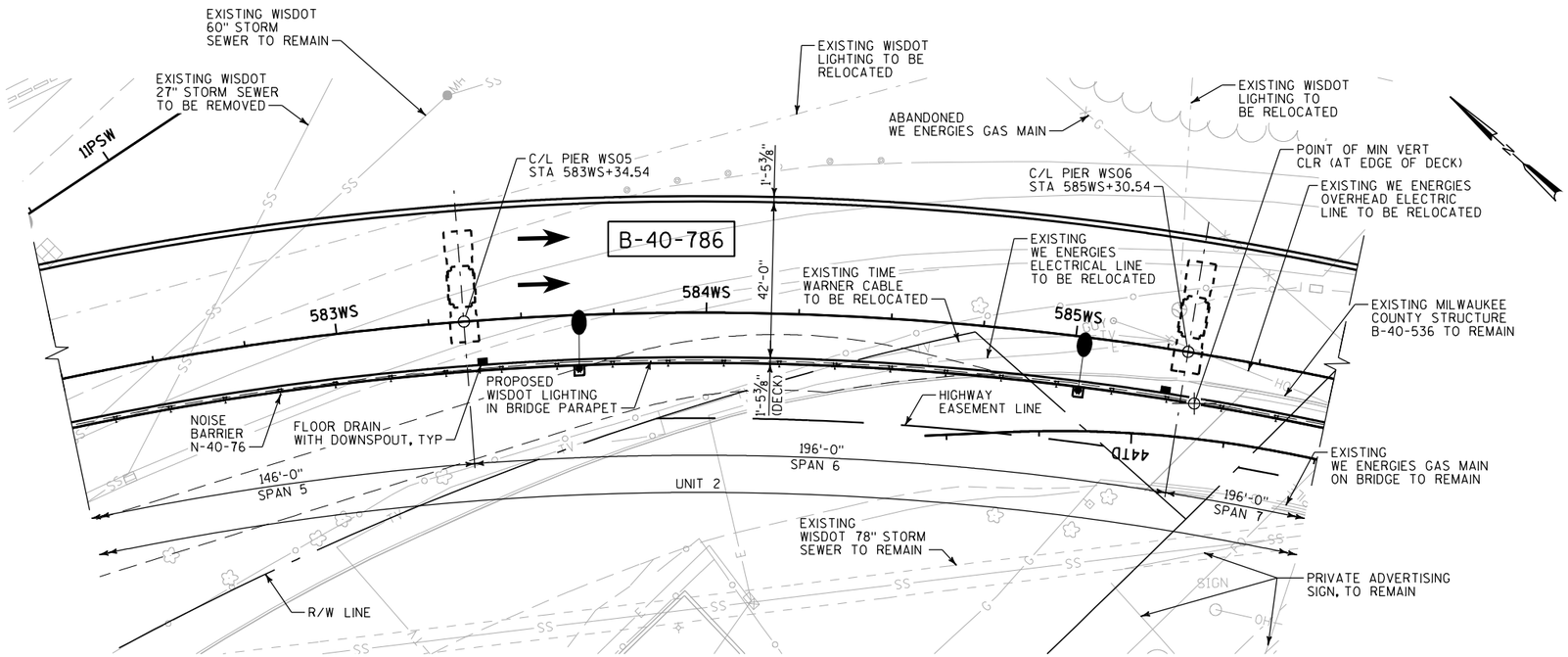
SHEET 8 OF 97

8

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080108_gp.dgn PLOT DATE : 02-MAR-2015 15:01 PLOT BY : MSCGLM PLOT NAME : B786_080108_gp PLOT SCALE : 40:1

STATE PROJECT NUMBER
1060-33-81



PLAN

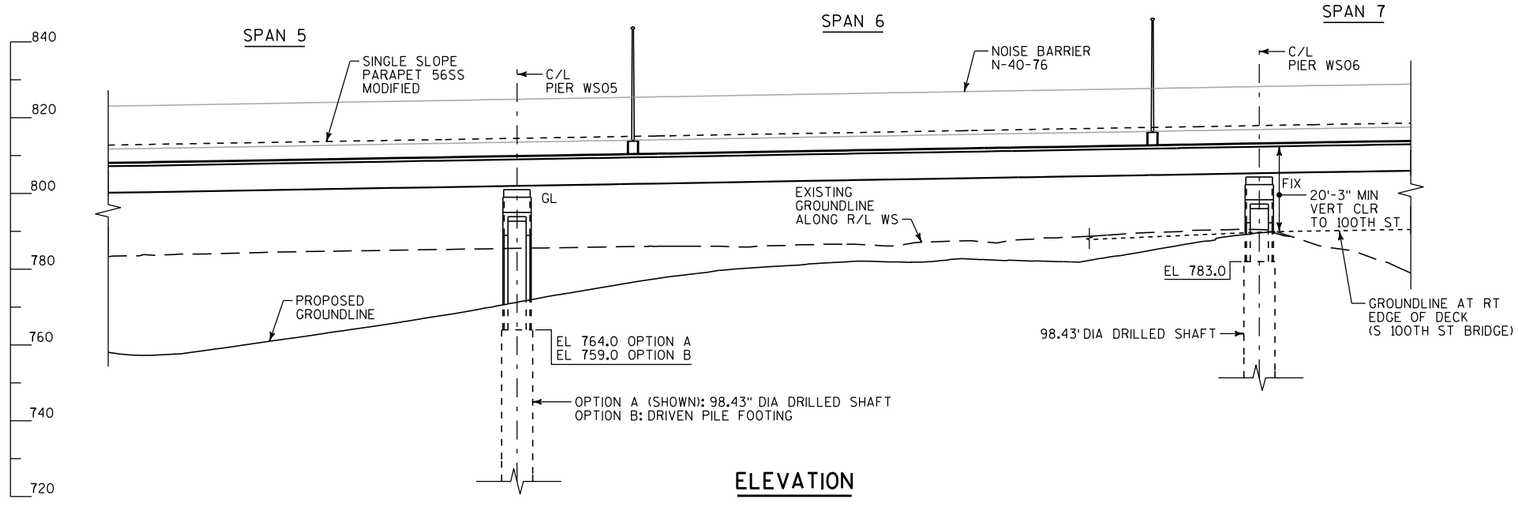
DIMENSIONS SHOWN ARE ALONG R/L WS

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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

PLAN & ELEVATION SPANS 5 & 6

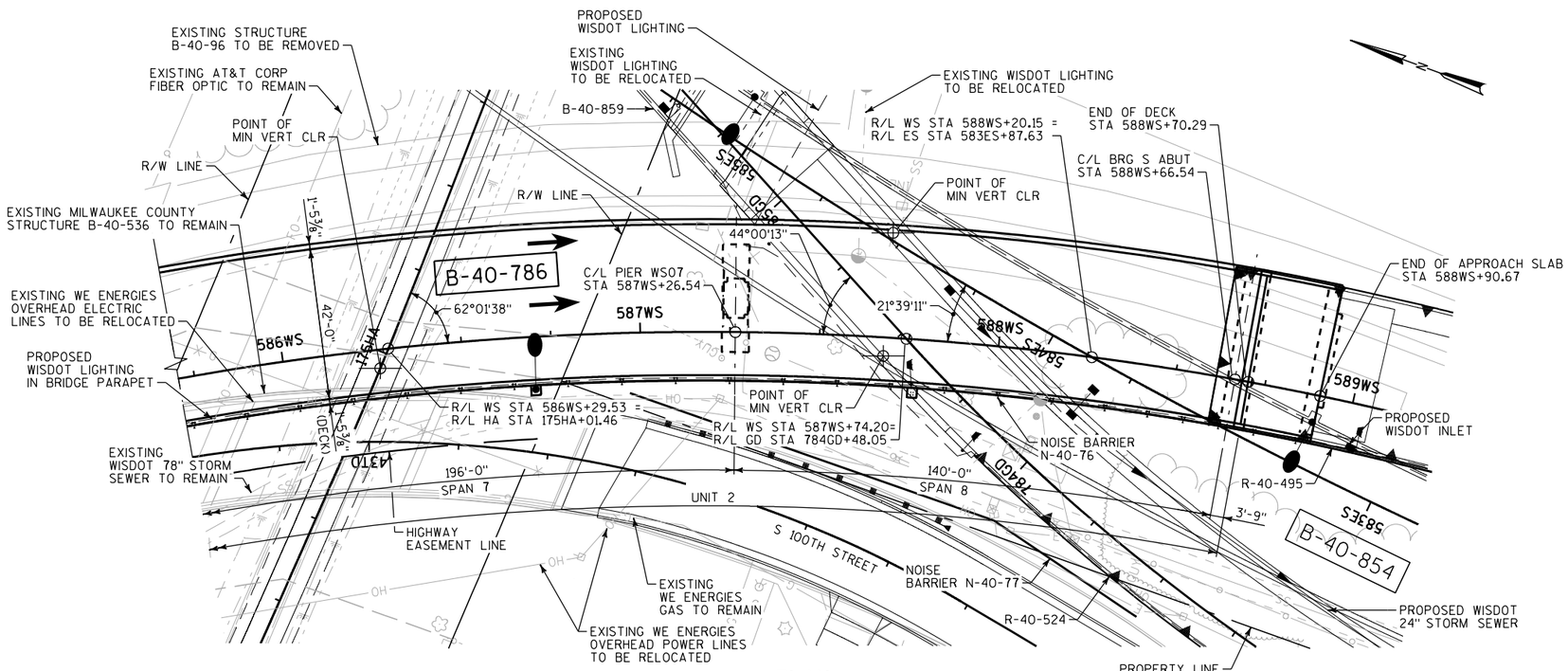
SHEET 9 OF 97

8

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080109_gp.dgn PLOT DATE : 02-MAR-2015 15:01 PLOT BY : MSCGLM PLOT NAME : B786_080109_gp PLOT SCALE : 40:1

STATE PROJECT NUMBER
1060-33-81



PLAN

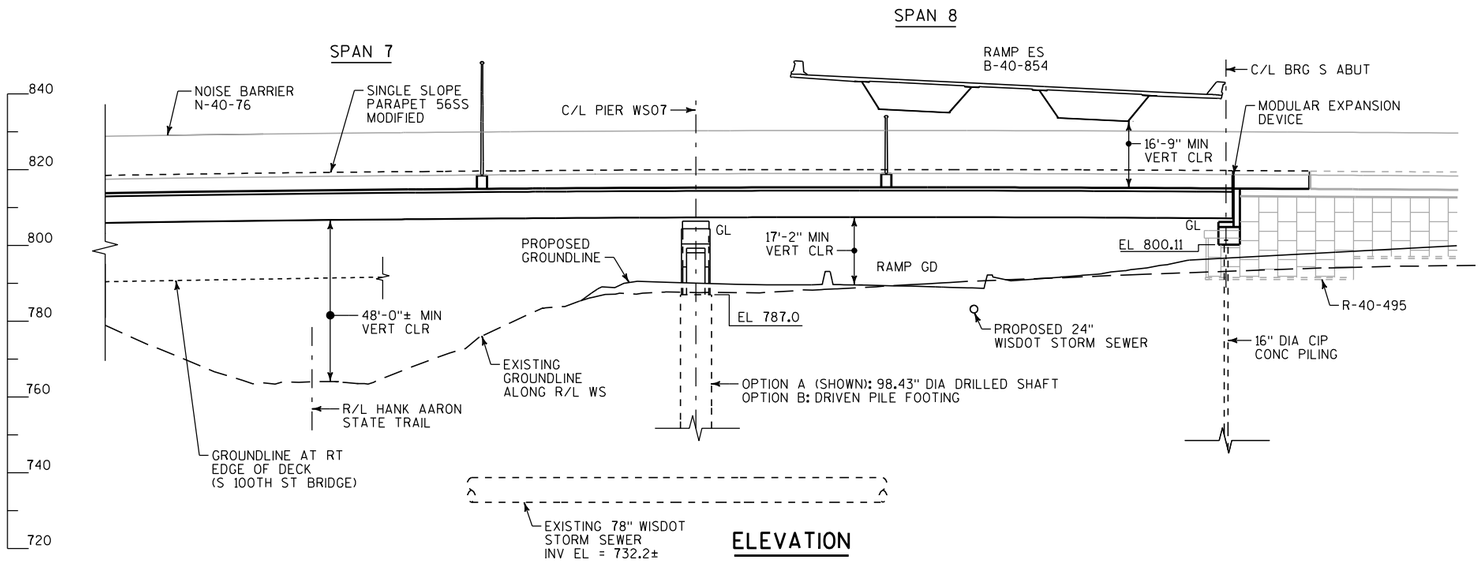
DIMENSIONS SHOWN ARE ALONG R/L WS

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-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

PLAN & ELEVATION SPANS 7 & 8

SHEET 10 OF 97

8

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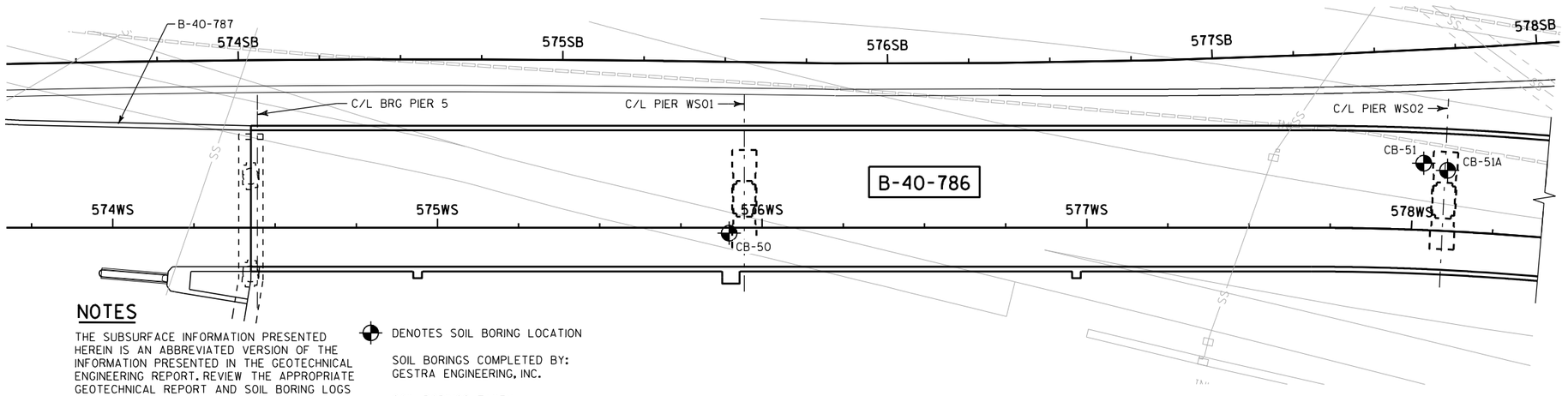


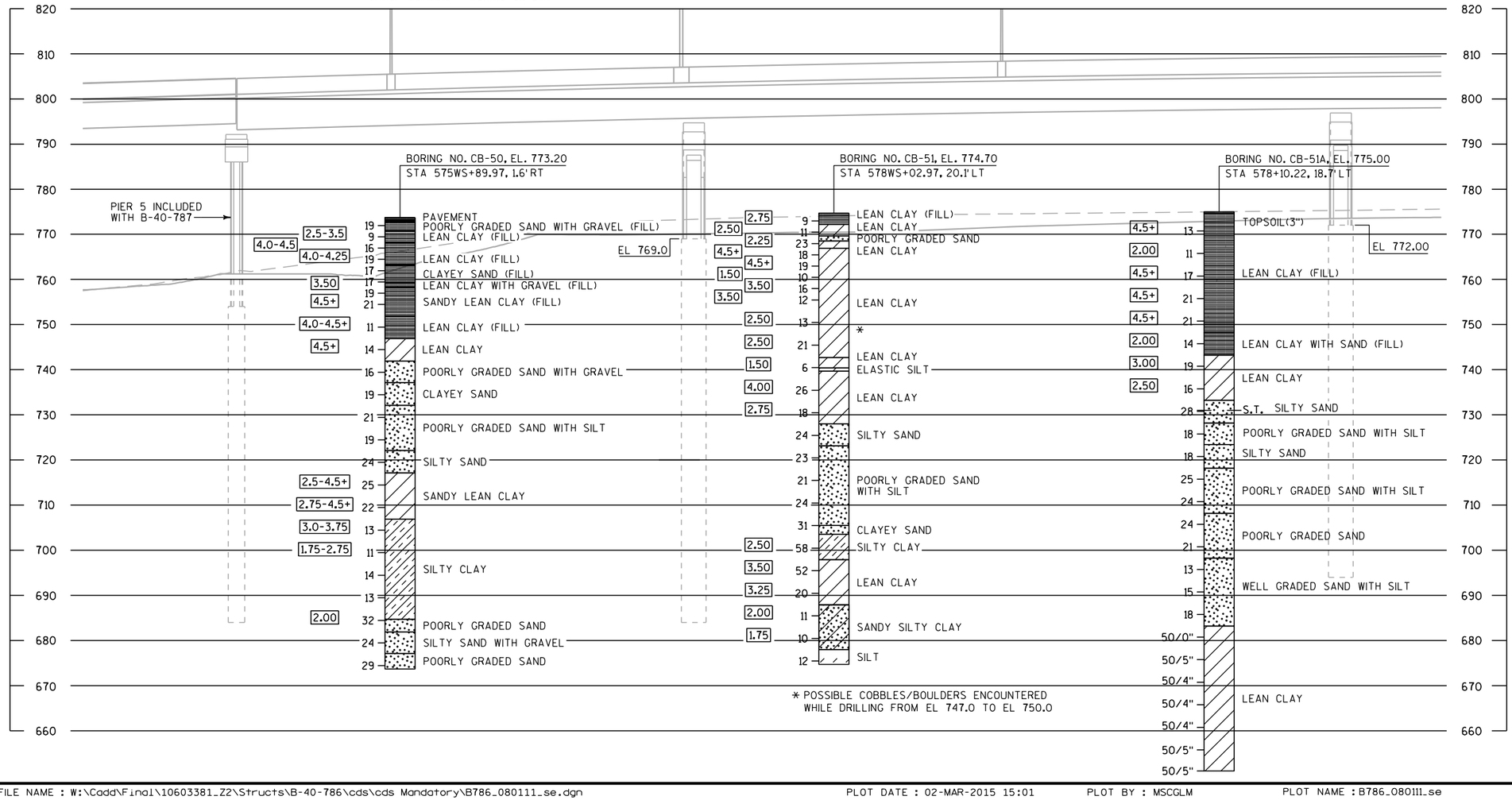
NOTES

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

⊕ DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING, INC.

SOIL BORINGS TAKEN:
OCTOBER 26, 2012 = BORING CB-50
JUNE 11, 2012 = BORING CB-51
MARCH 25, 2013 = BORING CB-51A



* POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING FROM EL 747.0 TO EL 750.0

STATE PROJECT NUMBER

1060-33-81

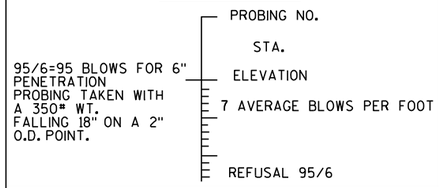
ABBREVIATIONS

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

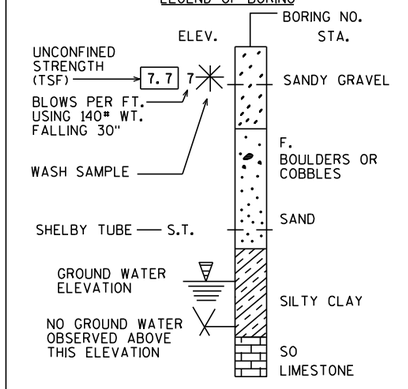
MATERIAL SYMBOLS

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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

SUBSURFACE EXPLORATION SPANS 1 & 2

SHEET 11 OF 97

8

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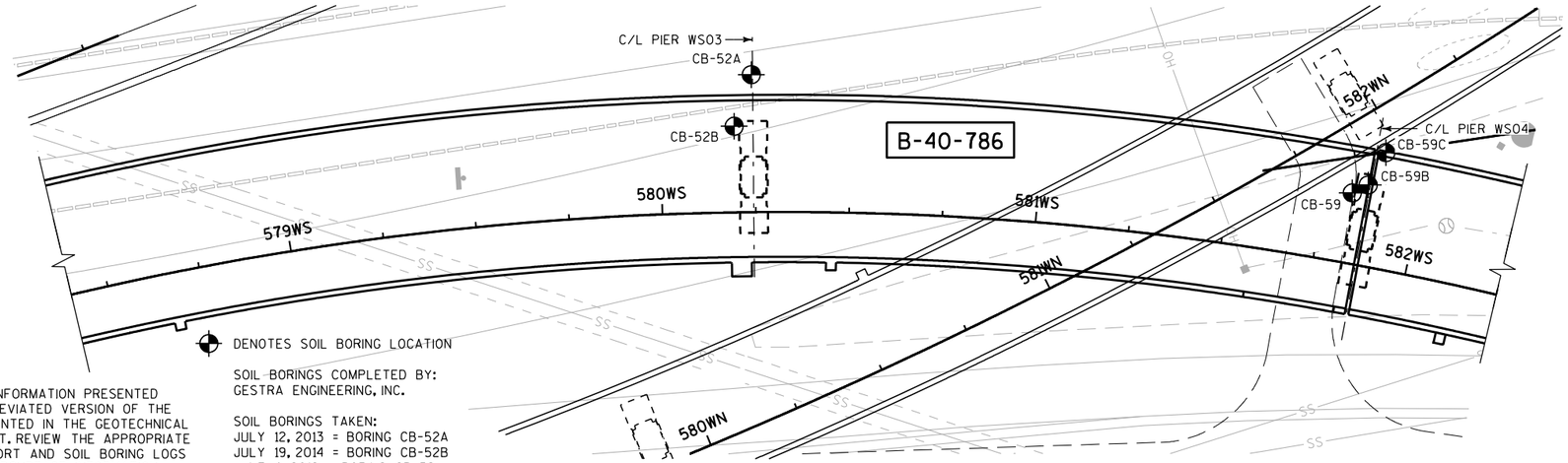

NOTES

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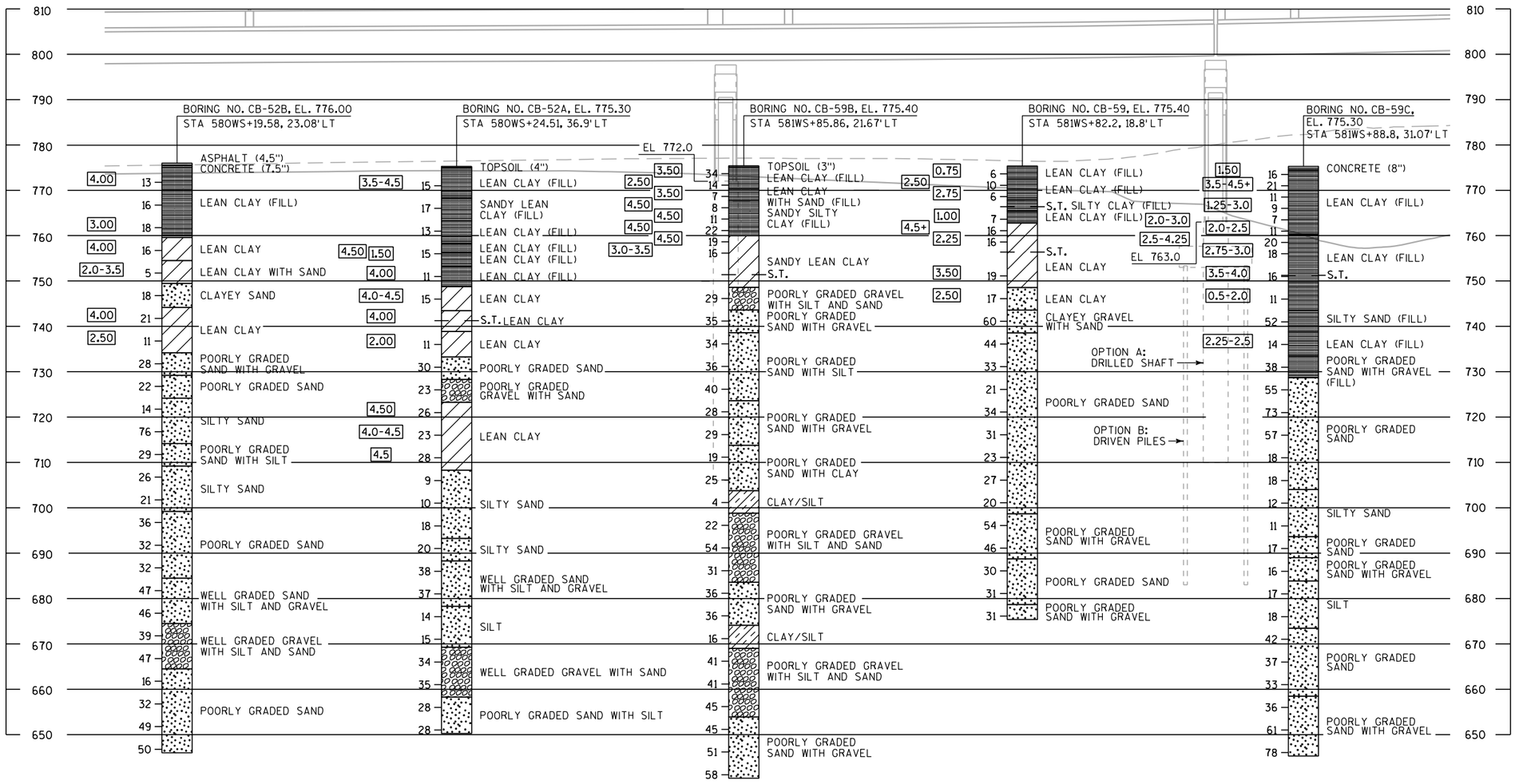
SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING, INC.

SOIL BORINGS TAKEN:
JULY 12, 2013 = BORING CB-52A
JULY 19, 2014 = BORING CB-52B
JUNE 4, 2012 = BORING CB-59
JUNE 11, 2011 = BORING CB-59B
NOVEMBER 11, 2013 = BORING CB-59C



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STATE PROJECT NUMBER

1060-33-81

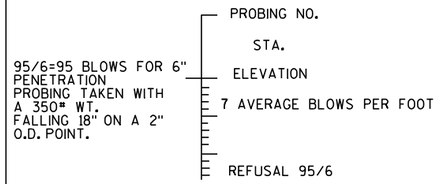
ABBREVIATIONS

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



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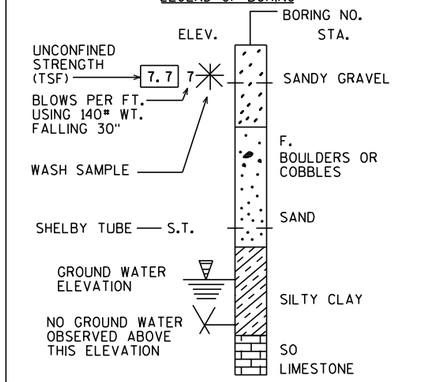

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SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

SUBSURFACE EXPLORATION SPANS 3 & 4

SHEET 12 OF 97

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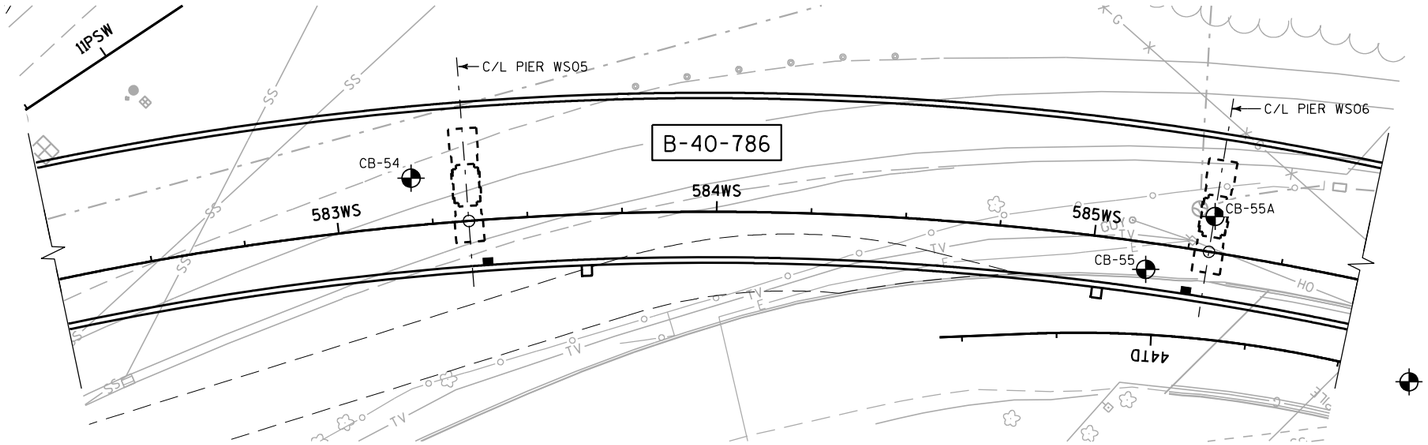

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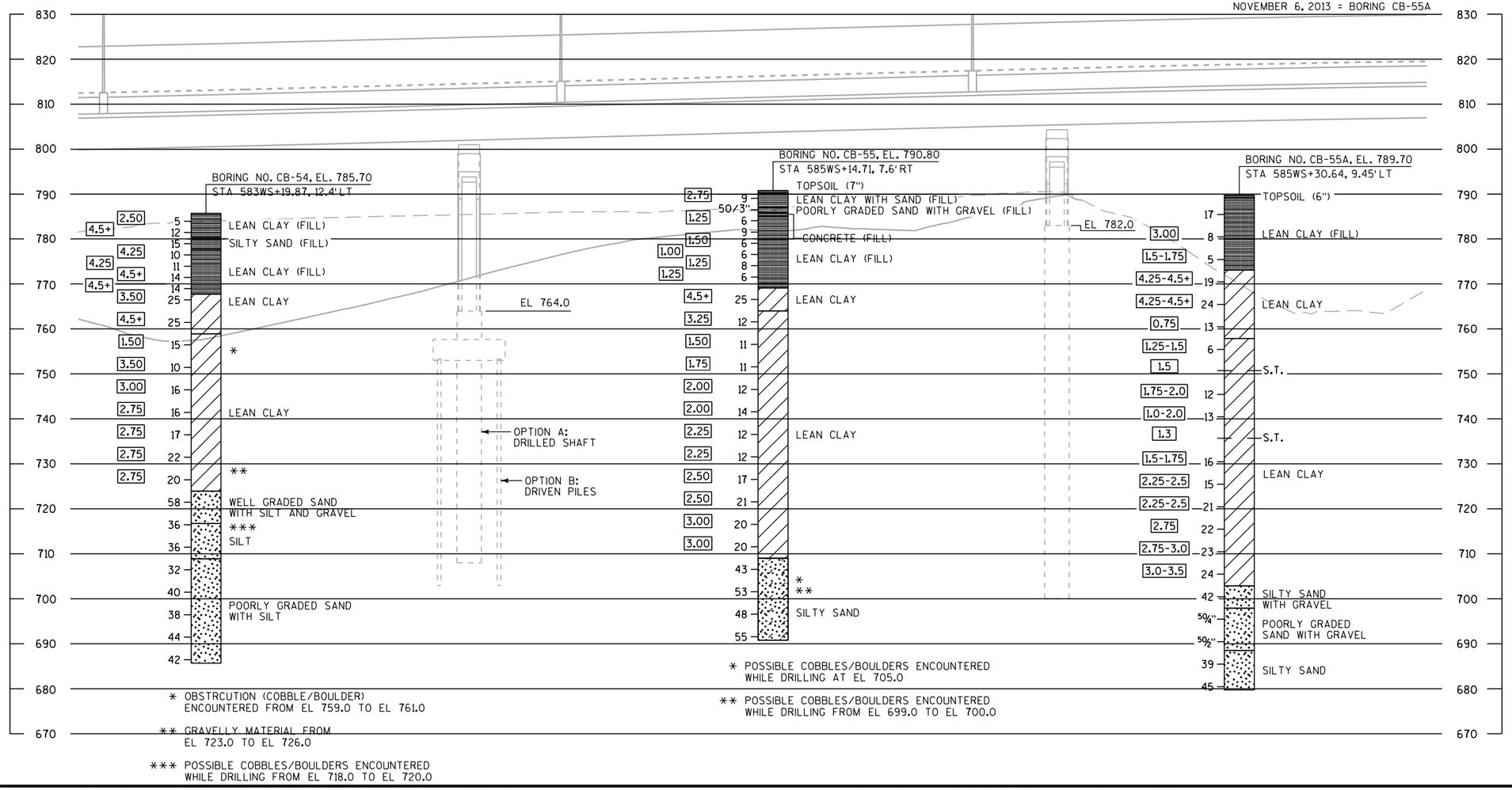
⊕ DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING, INC.

SOIL BORINGS TAKEN:
APRIL 26, 2012 = BORING CB-54
APRIL 27, 2012 = BORING CB-55
NOVEMBER 6, 2013 = BORING CB-55A



* OBSTRCUTION (COBBLE/BOULDER) ENCOUNTERED FROM EL 759.0 TO EL 761.0

** GRAVELLY MATERIAL FROM EL 723.0 TO EL 726.0

*** POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING FROM EL 718.0 TO EL 720.0

* POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING AT EL 705.0

** POSSIBLE COBBLES/BOULDERS ENCOUNTERED WHILE DRILLING FROM EL 699.0 TO EL 700.0

STATE PROJECT NUMBER

1060-33-81

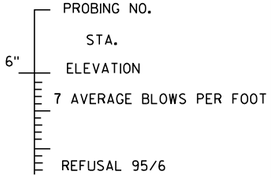
ABBREVIATIONS

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

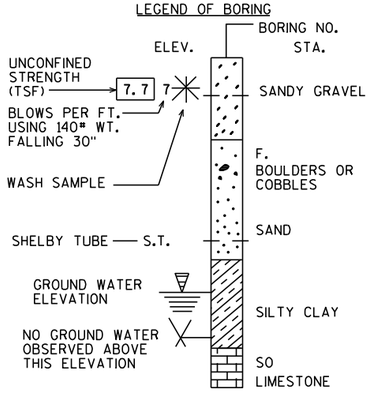
MATERIAL SYMBOLS

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

LEGEND OF PROBING



LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

SUBSURFACE EXPLORATION SPANS 5 & 6

SHEET 13 OF 97

8

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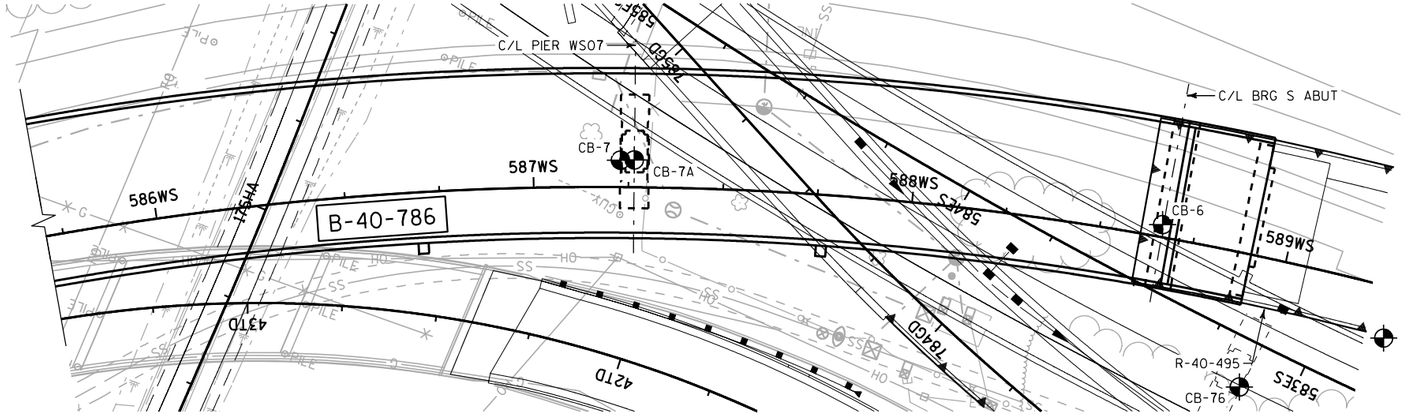
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080113_se.dgn PLOT DATE : 02-MAR-2015 15:02 PLOT BY : MSCGLM PLOT NAME : B786_080113_se PLOT SCALE : 40:1



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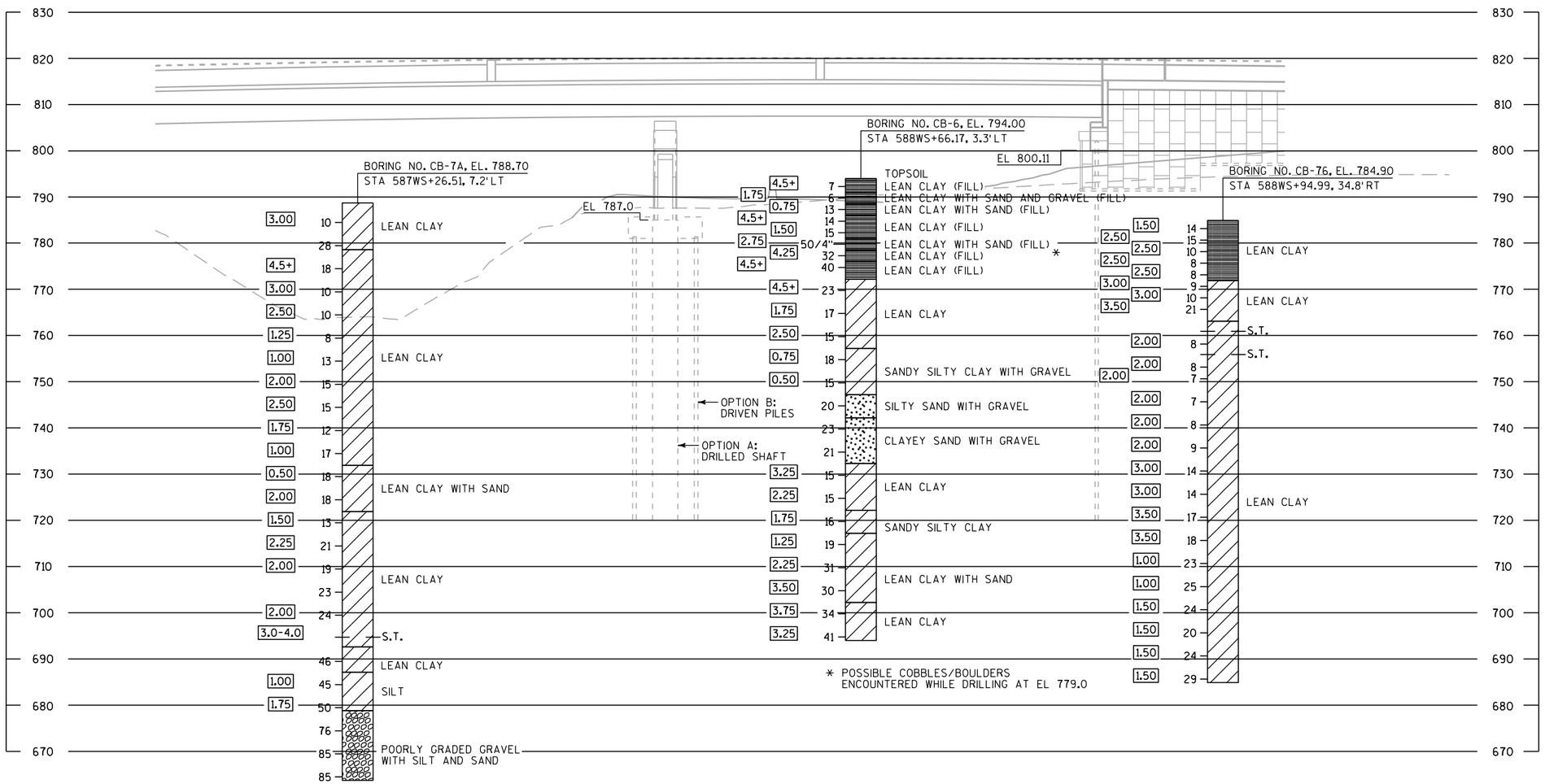
DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING, INC.

SOIL BORINGS TAKEN:
MAY 22, 2012 = BORING CB-6
APRIL 4, 2013 = BORING CB-7A
MAY 30, 2013 = BORING CB-76



STATE PROJECT NUMBER

1060-33-81

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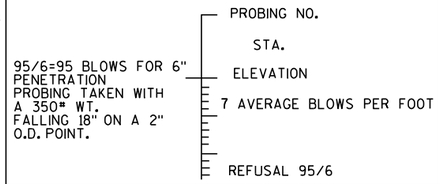
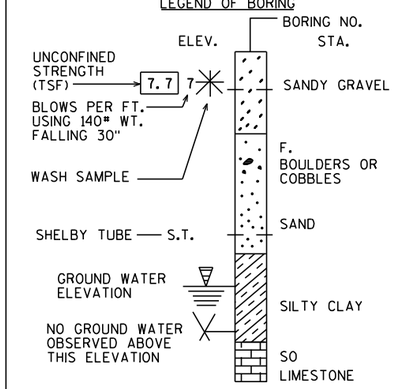


LEGEND OF BORING



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STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

SUBSURFACE EXPLORATION SPANS 7 & 8

SHEET 14 OF 97

8

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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 SHEET 17 FOR THE FOLLOWING STAGES:

1. BEGIN GRADING TO DRILLING PLATFORM (OPTION A) AND WORKING PLATFORM (OPTION B) FOR SUBSTRUCTURE 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 WS01, WS02, WS03, AND WS06. AT PIERS WS04, WS05, AND WS07, 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 WS04 WITH PIER WN04 OF STRUCTURE B-40-856. 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 SOUTH ABUTMENT. DRIVE PILE AND CONSTRUCT PILE CAP. COORDINATE WITH WALL R-40-495 AND PIER ES02 OF STRUCTURE B-40-854.

4. AFTER INSTALLATION OF THE DRILLED SHAFTS OR PILE FOUNDATION, BEGIN CONSTRUCTION OF THE HAMMERHEAD PIER COLUMN AND CAP AT PIERS WS01, WS02, WS03, WS04, WS05, WS06, & WS07. 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 WS04, WS05, AND WS06 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 PIERS WS04 AND WS05 PRIOR TO GIRDER ERECTION.

REFER TO SHEET 18 FOR THE FOLLOWING STAGES:

5. ERECT BOX GIRDERS FOR STRUCTURE B-40-856 AS INDICATED ON THE CONSTRUCTION STAGING PLANS FOR B-40-856.

6. ERECTION OF I-GIRDERS FOR STRUCTURE B-40-787 MAY OCCUR BEFORE OR AFTER THE ERECTION OF BOX GIRDERS FOR STRUCTURE B-40-786.

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

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

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

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

11. 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.

12. 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.

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

14. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WS01.

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

ASSUMED CONSTRUCTION SEQUENCE, CONT.

16. 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.

17. 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.

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

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

20. PROVIDE TEMPORARY LANE CLOSURE OF RAMP WS AND THE RIGHT LANE OF EB IH 94 NEAR FIELD SECTION 3.

21. 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.

22. 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.

23. REMOVE TEMPORARY LANE CLOSURE OF RAMP WS AND THE RIGHT LANE OF EB IH 94 NEAR FIELD SECTION 3.

24. REMOVE TEMPORARY SHORING TOWER T1.

25. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WS02.

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

27. 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.

28. 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 DIAPHRAGM FOR FIELD SECTION 4.

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

30. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WS03.

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

ASSUMED CONSTRUCTION SEQUENCE, CONT.

32. TRANSPORT AND GROUND ASSEMBLE LEFT GIRDERS OF FIELD SECTIONS 5 AND 6 AND MAKE READY FOR ERECTION USING HELPER CRANES OR CRANES AT POSITIONS L9 OR L10. INSTALL BOLTS AT FIELD SPLICE #5 AND INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. USING TWO CRANES LOCATED AT POSITIONS L9 AND L10, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTIONS 5 AND 6. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #4. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

33. TRANSPORT AND GROUND ASSEMBLE RIGHT GIRDERS OF FIELD SECTIONS 5 AND 6 AND MAKE READY FOR ERECTION USING HELPER CRANES OR CRANES AT POSITIONS L9 OR L10. INSTALL BOLTS AT FIELD SPLICE #5 AND INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. USING TWO CRANES LOCATED AT POSITIONS L9 AND L10, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTIONS 5 AND 6. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #4. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTIONS 5 AND 6.

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

35. REMOVE TEMPORARY SHORING TOWER T2.

REFER TO SHEET 19 FOR THE FOLLOWING STAGES:

36. INSTALL LEFT AND RIGHT SIDE BEARINGS ON THE UNIT 1 SIDE OF PIER WS04.

37. TRANSPORT LEFT GIRDER OF FIELD SECTION 7 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L11 AND L12, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 7. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #6. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

38. TRANSPORT RIGHT GIRDER OF FIELD SECTION 7 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L11 AND L12, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 7. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #6. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGM FOR FIELD SECTION 7.

39. ERECT BOX GIRDERS FOR STRUCTURE B-40-856 LOCATED ABOVE FIELD SECTION 7. SEE B-40-856 CONSTRUCTION STAGING PLANS.

40. INSTALL LEFT AND RIGHT SIDE BEARINGS ON THE UNIT 2 SIDE OF PIER WS04.

41. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WS05.

42. TRANSPORT AND GROUND ASSEMBLE RIGHT GIRDERS OF FIELD SECTIONS 8 AND 9 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 8 AND 9. TEMPORARILY BRACE GIRDER FOR STABILITY.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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CONSTRUCTION STAGING NOTES (1 OF 2)

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ASSUMED CONSTRUCTION SEQUENCE, CONT.

43. TRANSPORT AND GROUND ASSEMBLE LEFT GIRDERS OF FIELD SECTIONS 8 AND 9 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 8 AND 9. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTIONS 8 AND 9.

REFER TO SHEET 20 FOR THE FOLLOWING STAGES:

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

45. TRANSPORT RIGHT GIRDER OF FIELD SECTION 10 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L15 AND L16, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 10. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #8. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

46. TRANSPORT LEFT GIRDER OF FIELD SECTION 10 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L15 AND L16, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 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 SECTION 10.

47. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WS06.

48. TRANSPORT RIGHT GIRDER OF FIELD SECTION 11 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L17 AND L18, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 11. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #9. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

49. TRANSPORT LEFT GIRDER OF FIELD SECTION 11 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L17 AND L18, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 11. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #9. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGM FOR FIELD SECTION 11.

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

51. BEGIN DETOUR OF RAMP WS TRAFFIC.

52. TRANSPORT RIGHT GIRDER OF FIELD SECTION 12 AND MAKE READY FOR ERECTION. USING CRANES LOCATED ON THE NORTH AND SOUTH SIDE OF THE HANK AARON STATE TRAIL, LIFT GIRDER OFF TRANSPORT TRUCK AND WALK THE CRANES WEST. COORDINATE THE LIFT HEIGHT WITH THE CONSTRUCTION OF PIER ES03 OF BRIDGE B-40-854. USING TWO CRANES LOCATED AT POSITIONS L19 AND L20, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 12. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #10. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

53. TRANSPORT LEFT GIRDER OF FIELD SECTION 12 AND MAKE READY FOR ERECTION. USING CRANES LOCATED ON THE NORTH AND SOUTH SIDE OF THE HANK AARON STATE TRAIL, LIFT GIRDER OFF TRANSPORT TRUCK AND WALK THE CRANES WEST. COORDINATE THE LIFT HEIGHT WITH THE CONSTRUCTION OF PIER ES03 OF BRIDGE B-40-854. USING TWO CRANES LOCATED AT POSITIONS L19 AND L20, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 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 SECTION 12.

ASSUMED CONSTRUCTION SEQUENCE, CONT.

54. END DETOUR OF RAMP WS TRAFFIC.

55. REMOVE TEMPORARY SHORING TOWER T3.

56. INSTALL LEFT AND RIGHT SIDE BEARINGS AT PIER WS07.

57. TRANSPORT RIGHT GIRDER OF FIELD SECTION 13 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L21 AND L22, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 13. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #11. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

58. TRANSPORT LEFT GIRDER OF FIELD SECTION 13 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L21 AND L22, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 13. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #11. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGM FOR FIELD SECTION 13.

59. INSTALL LEFT AND RIGHT SIDE BEARINGS AT THE SOUTH ABUTMENT.

60. TRANSPORT RIGHT GIRDER OF FIELD SECTION 14 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L23 AND L24, ERECT THE ASSEMBLY FOR THE RIGHT GIRDER OF FIELD SECTION 14. INSTALL BOLTS IN RIGHT GIRDER AT FIELD SPLICE #12. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY.

61. TRANSPORT LEFT GIRDER OF FIELD SECTION 14 AND MAKE READY FOR ERECTION. USING TWO CRANES LOCATED AT POSITIONS L23 AND L24, ERECT THE ASSEMBLY FOR THE LEFT GIRDER OF FIELD SECTION 14. INSTALL BOLTS IN LEFT GIRDER AT FIELD SPLICE #12. INSTALL LATERAL BRACING MEMBER CROSSING THE SPLICE. TEMPORARILY BRACE GIRDER FOR STABILITY. INSTALL DIAPHRAGMS FOR FIELD SECTION 14.

62. REMOVE TEMPORARY SHORING TOWER T4.

63. ERECT BOX GIRDERS FOR STRUCTURE B-40-854 LOCATED ABOVE FIELD SECTIONS 13 AND 14. SEE B-40-854 CONSTRUCTION STAGING PLANS.

REFER TO SHEET 21 FOR THE FOLLOWING STAGES:

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

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

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

67. CONSTRUCT APPROACH SLAB AT SOUTH ABUTMENT.

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

69. COORDINATE CONSTRUCTION OF NOISE BARRIER PANELS WITH NOISE BARRIER N-40-76.

CRANE LOCATION AND LIFT SUMMARY

LOC'N ID	LIFT DESC'N	SEQ. NO.	WEIGHT (TONS)	RADIUS (FEET)	HEIGHT (FEET)
L1	FS#1R	11	30	55	35
L1	FS#1L	12	30	55	35
L2	FS#1R	11	30	55	35
L2	FS#1L	12	30	55	35
L3	FS#2R	16	30	55	35
L3	FS#2L	17	30	55	35
L4	FS#2R	16	30	55	35
L4	FS#2L	17	30	55	35
L5	FS#3R	21	35	55	40
L5	FS#3L	22	35	55	40
L6	FS#3R	21	35	55	40
L6	FS#3L	22	35	55	40
L7	FS#4R	27	30	55	40
L7	FS#4L	28	30	55	40
L8	FS#4R	27	30	50	40
L8	FS#4L	28	30	50	40
L9	FS#5R + FS#6R	33	60	50	35
L9	FS#5L + FS#6L	32	60	50	35
L10	FS#5R + FS#6R	33	60	50	35
L10	FS#5L + FS#6L	32	60	50	35
L11	FS#7R	38	30	55	40
L11	FS#7L	37	30	55	40
L12	FS#7R	38	30	55	40
L12	FS#7L	37	30	55	40
L13	FS#8R + FS#9R	42	55	55	40
L13	FS#8L + FS#9L	43	55	55	40
L14	FS#8R + FS#9R	42	55	50	40
L14	FS#8L + FS#9L	43	55	50	40
L15	FS#10R	45	30	55	35
L15	FS#10L	46	30	55	35
L16	FS#10R	45	30	55	20
L16	FS#10L	46	30	55	20
L17	FS#11R	48	25	55	20
L17	FS#11L	49	30	55	20
L18	FS#11R	48	25	55	20
L18	FS#11L	49	30	55	20
L19	FS#12R	52	30	65	20
L19	FS#12L	53	30	65	20
L20	FS#12R	52	30	70	55
L20	FS#12L	53	30	70	55
L21	FS#13R	57	25	65	20
L21	FS#13L	58	30	65	20
L22	FS#13R	57	25	60	20
L22	FS#13L	58	30	60	20
L23	FS#14R	60	25	60	20
L23	FS#14L	61	30	60	20
L24	FS#14R	60	25	60	20
L24	FS#14L	61	30	60	20

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STRUCTURE B-40-786

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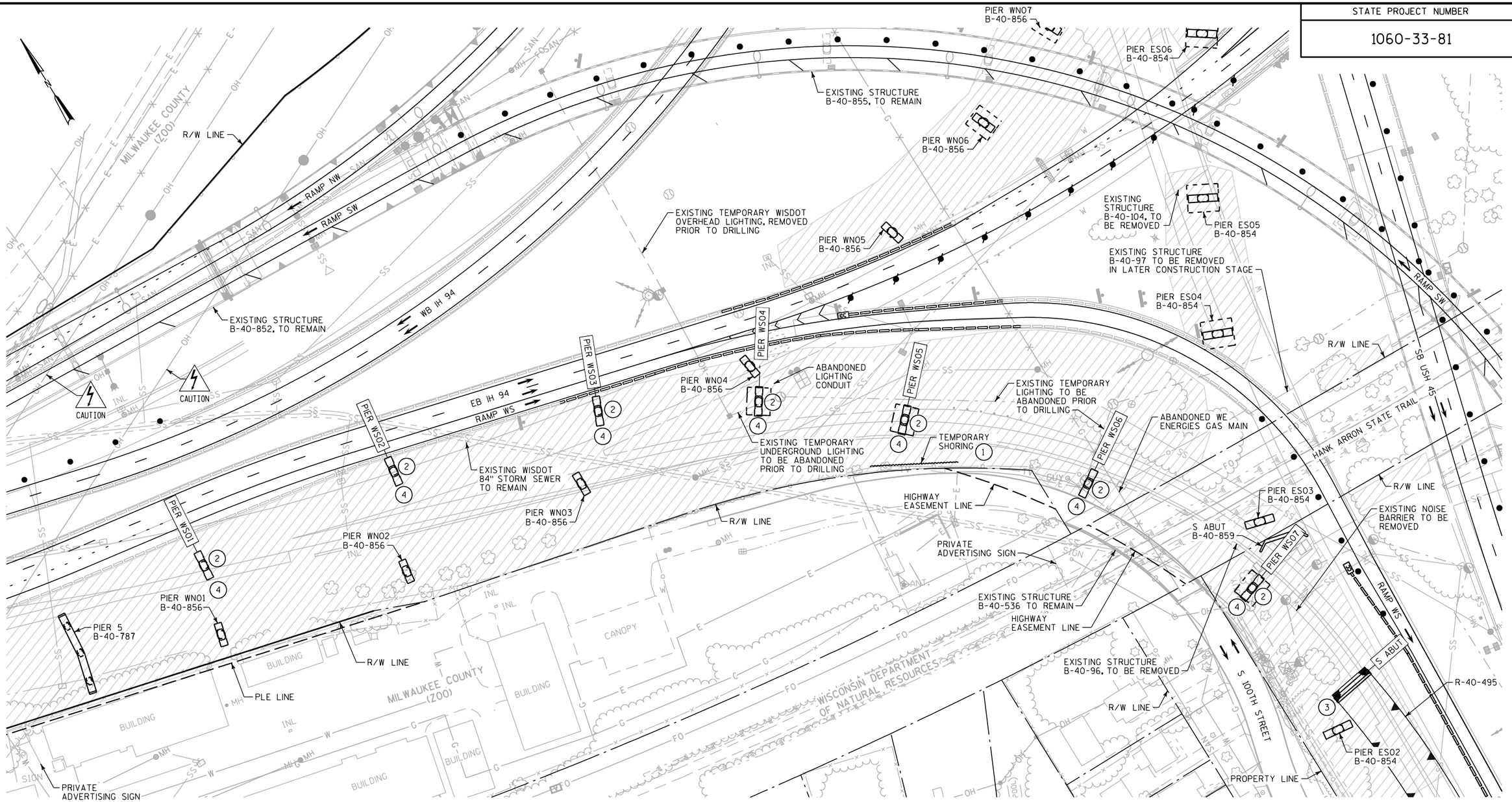
CONSTRUCTION STAGING NOTES (2 OF 2)

SHEET 16 OF 97

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080116_st.dgn PLOT DATE : 02-MAR-2015 15:02 PLOT BY : MSCGLM PLOT NAME : B786_080116_st PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



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LEGEND

(3) CONSTRUCTION SEQUENCE NUMBER

TEMPORARY SHORING, SEE EXCAVATION PLAN FOR DETAILS

PROPOSED GRADING, PAVEMENT OR STRUCTURE WORK IN CONSTRUCTION STAGE 1, 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 - SUBSTRUCTURE

CONSTRUCTION STAGE 1 TRAFFIC SHOWN,
CONSTRUCTION STAGE 2 TRAFFIC SIMILAR

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CONSTRUCTION STAGING (1 OF 5)

SHEET 17 OF 97

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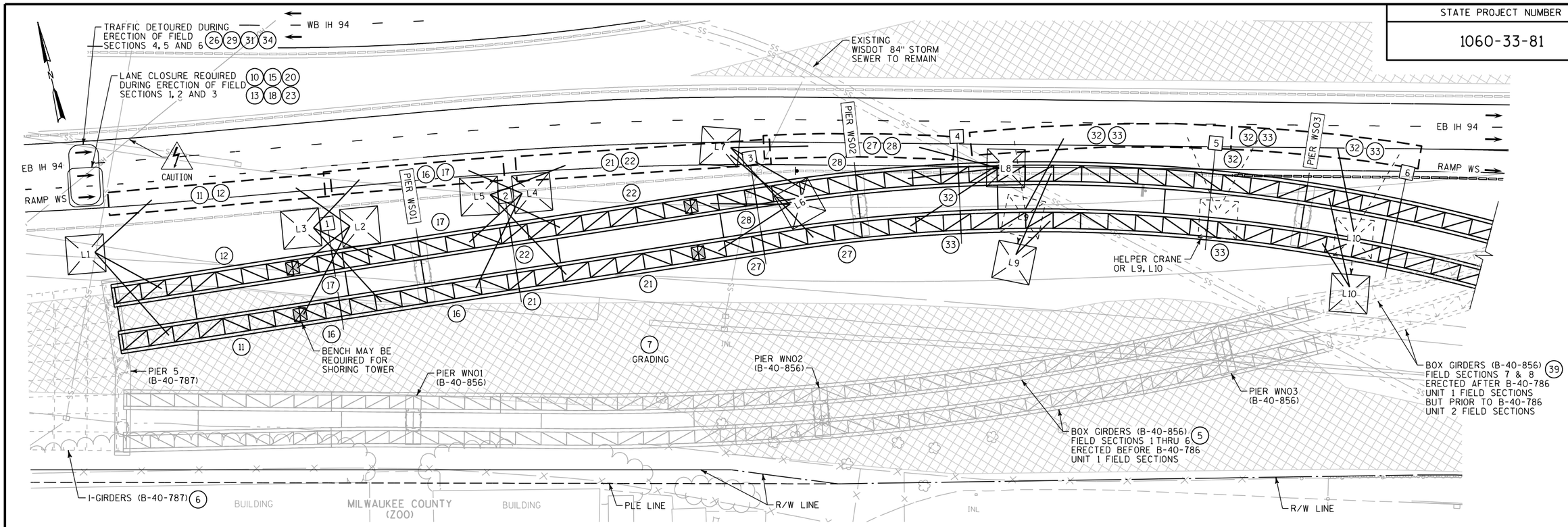
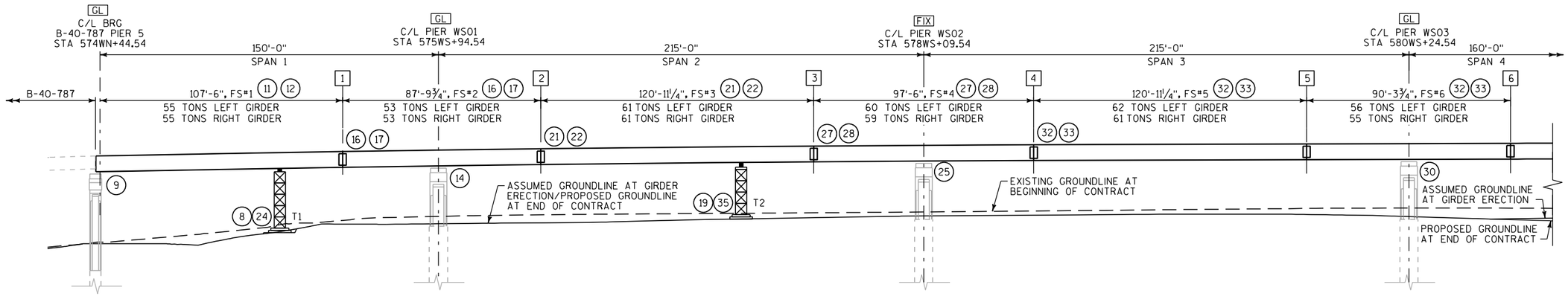


GIRDER PLAN - SPAN 1, SPAN 2 & SPAN 3

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.

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CONSTRUCTION STAGING (2 OF 5)

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FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080118_st.dgn PLOT DATE : 02-MAR-2015 15:04 PLOT BY : MSCGLM PLOT NAME : B786_080118_st PLOT SCALE : 50:1

STATE PROJECT NUMBER
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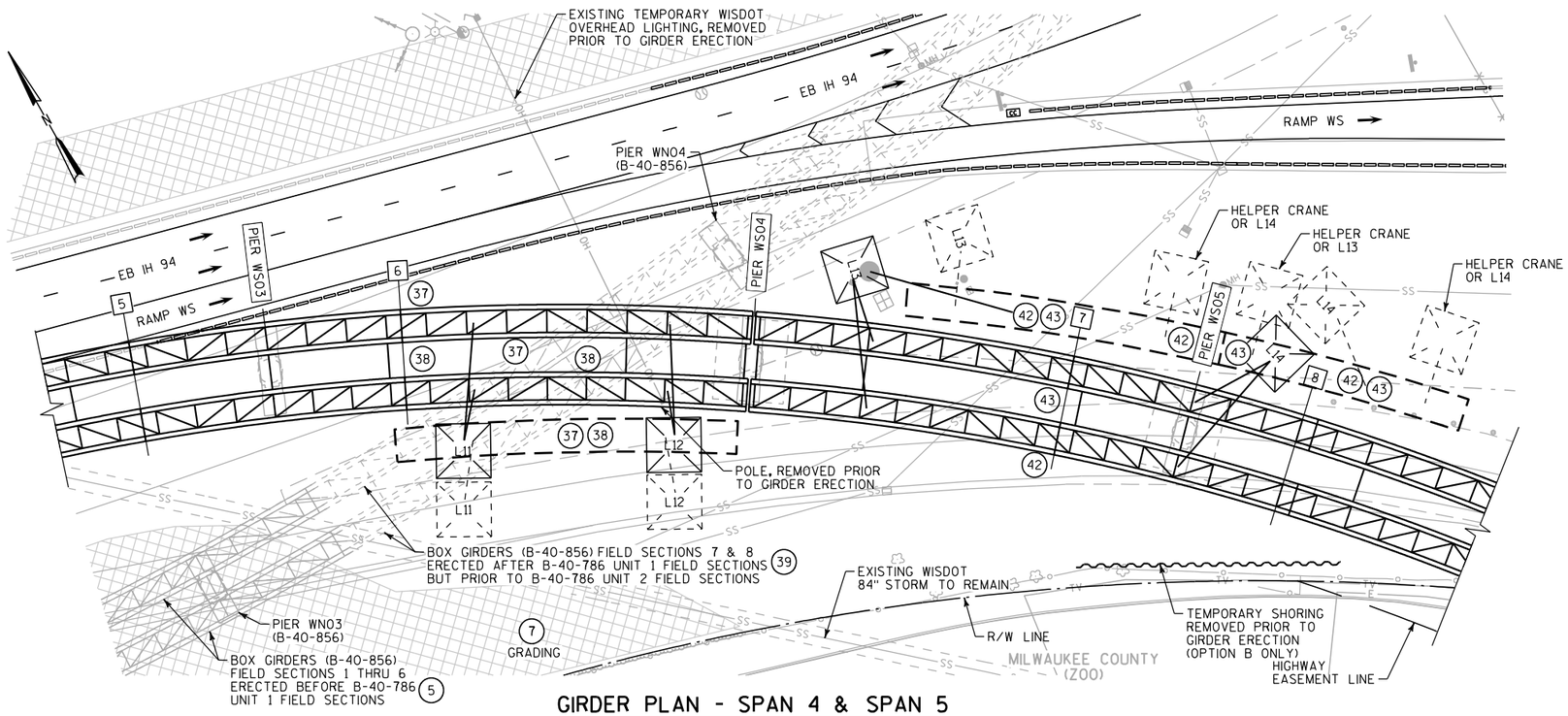
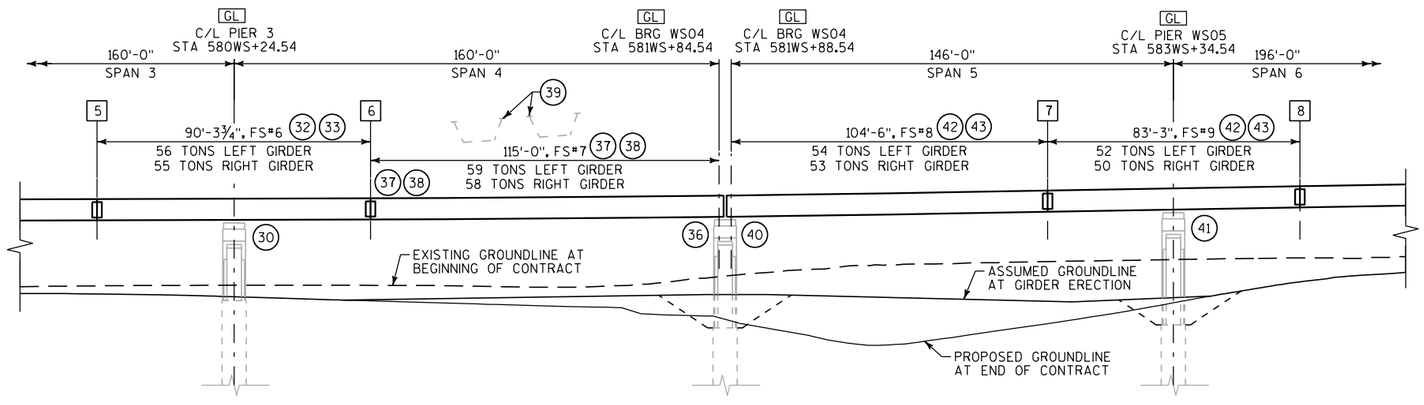


GIRDER PLAN - SPAN 4 & SPAN 5

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



GIRDER ELEVATION - SPAN 4 & SPAN 5

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.

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CONSTRUCTION STAGING (3 OF 5)

SHEET 19 OF 97

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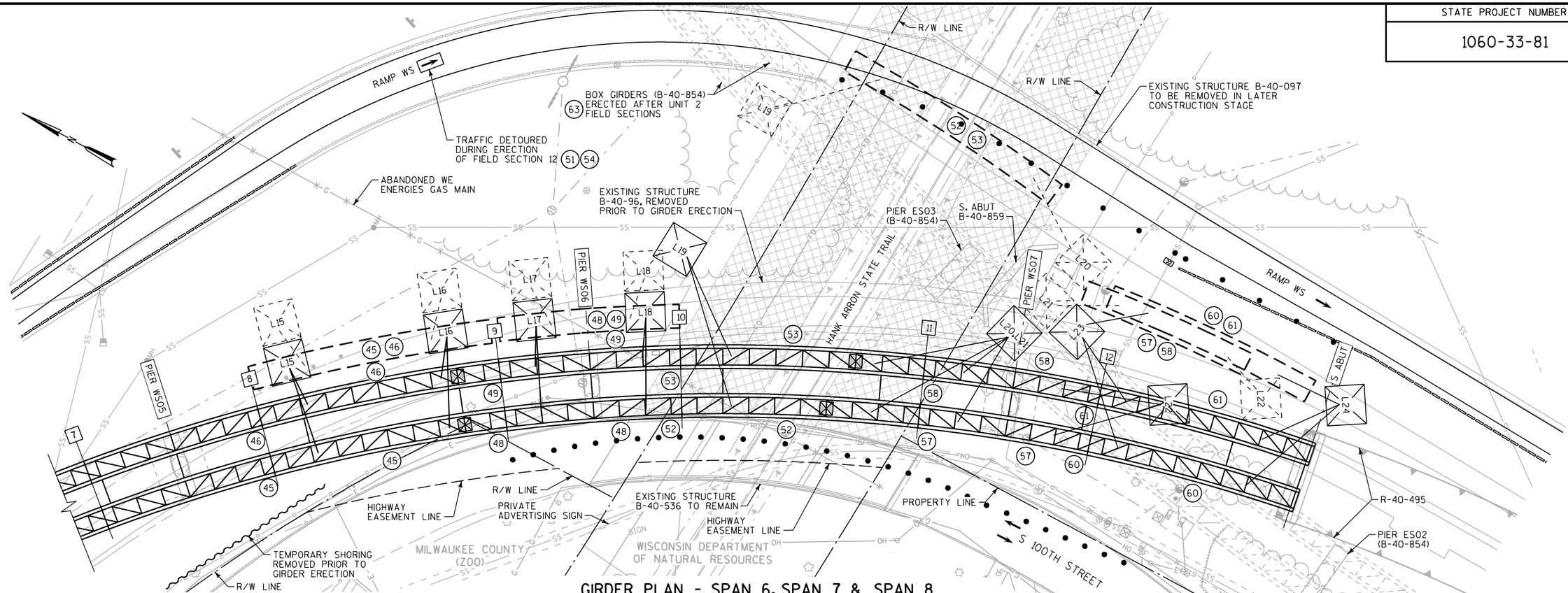
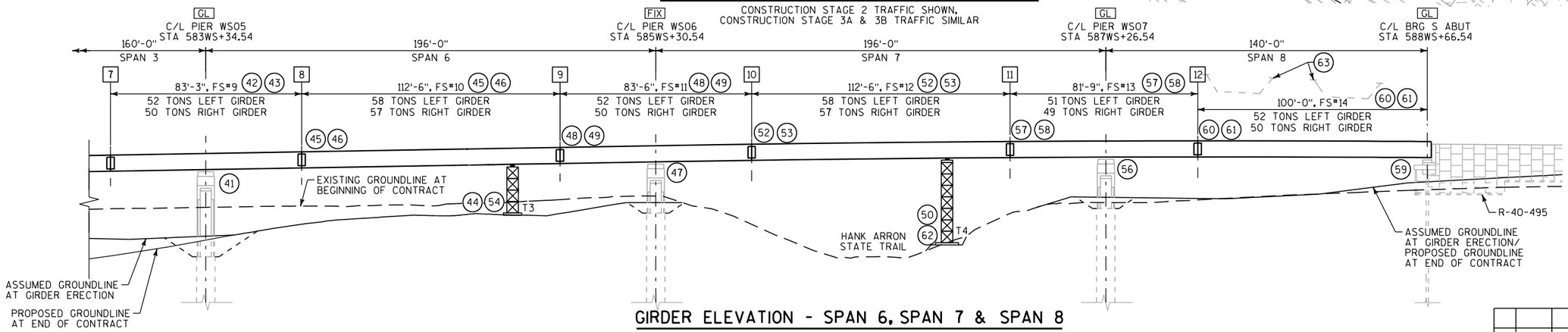
STATE PROJECT NUMBER
1060-33-81



GIRDER PLAN - SPAN 6, SPAN 7 & SPAN 8



GIRDER ELEVATION - SPAN 6, SPAN 7 & SPAN 8

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.

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STRUCTURE B-40-786

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CONSTRUCTION STAGING (4 OF 5)

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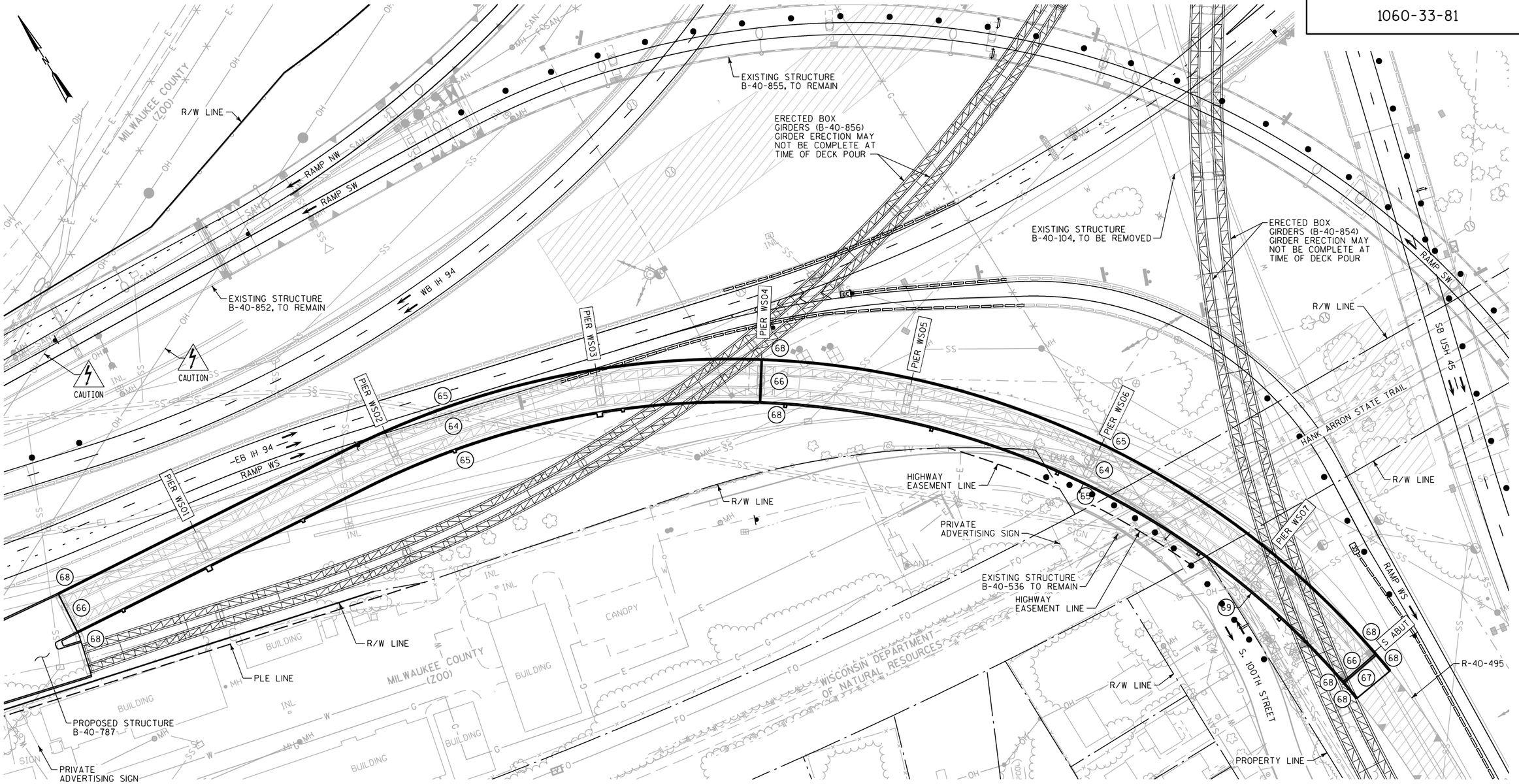

LEGEND

(3) CONSTRUCTION SEQUENCE NUMBER

PROPOSED GRADING, PAVEMENT OR STRUCTURE WORK IN CONSTRUCTION STAGE 3A AND 3B, SEE ROADWAY PLANS

NOTES

SEE CONSTRUCTION STAGING NOTES SHEETS FOR GENERAL CONSTRUCTION STAGING NOTES.

PLAN - SUPERSTRUCTURE

CONSTRUCTION STAGE 3A TRAFFIC SHOWN, CONSTRUCTION STAGE 3B TRAFFIC SIMILAR

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CONSTRUCTION STAGING (5 OF 5)

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FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080121_st.dgn PLOT DATE : 02-MAR-2015 15:04 PLOT BY : MSCGLM PLOT NAME : B786_080121_st PLOT SCALE : 100:1

STATE PROJECT NUMBER
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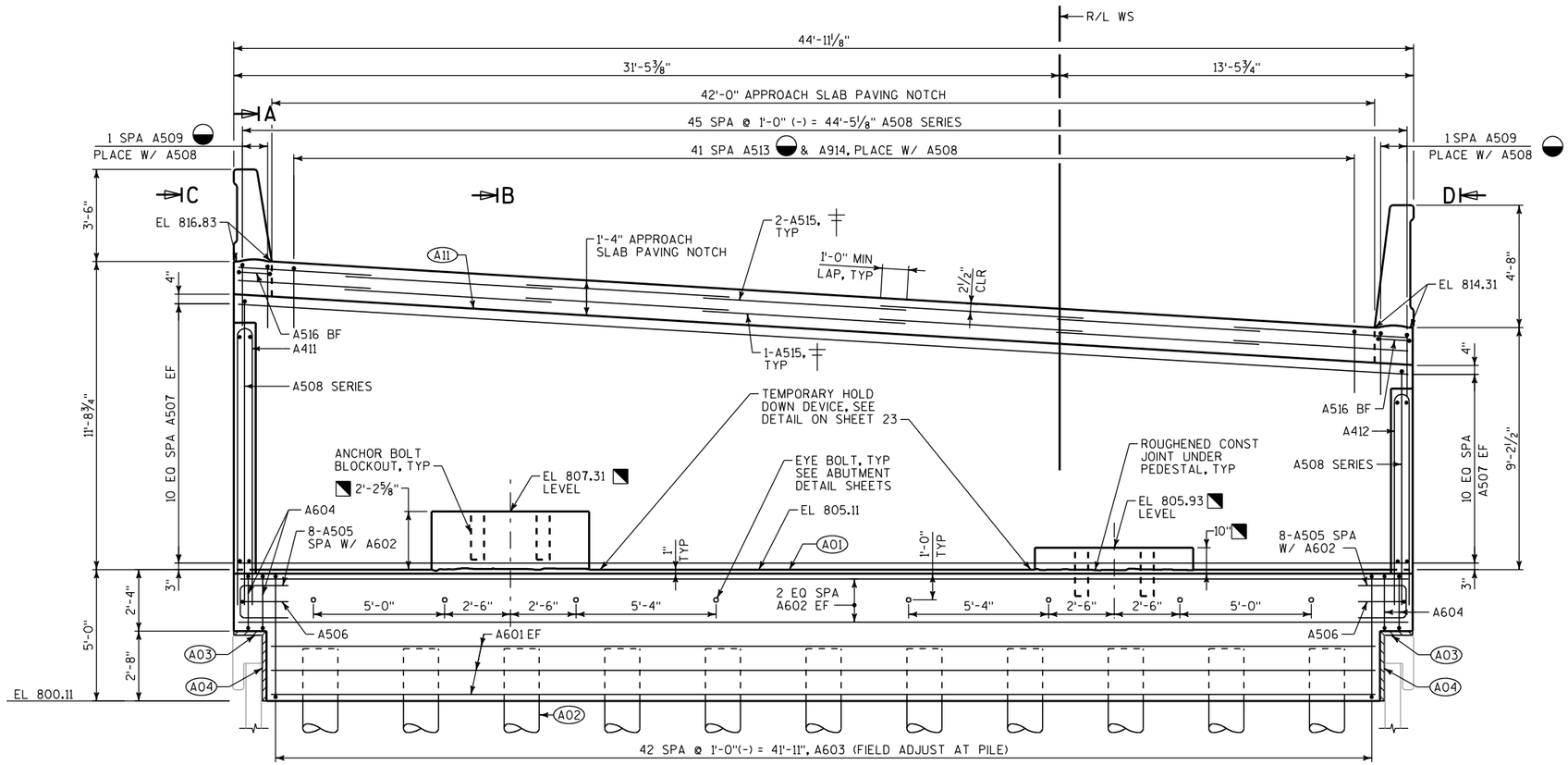
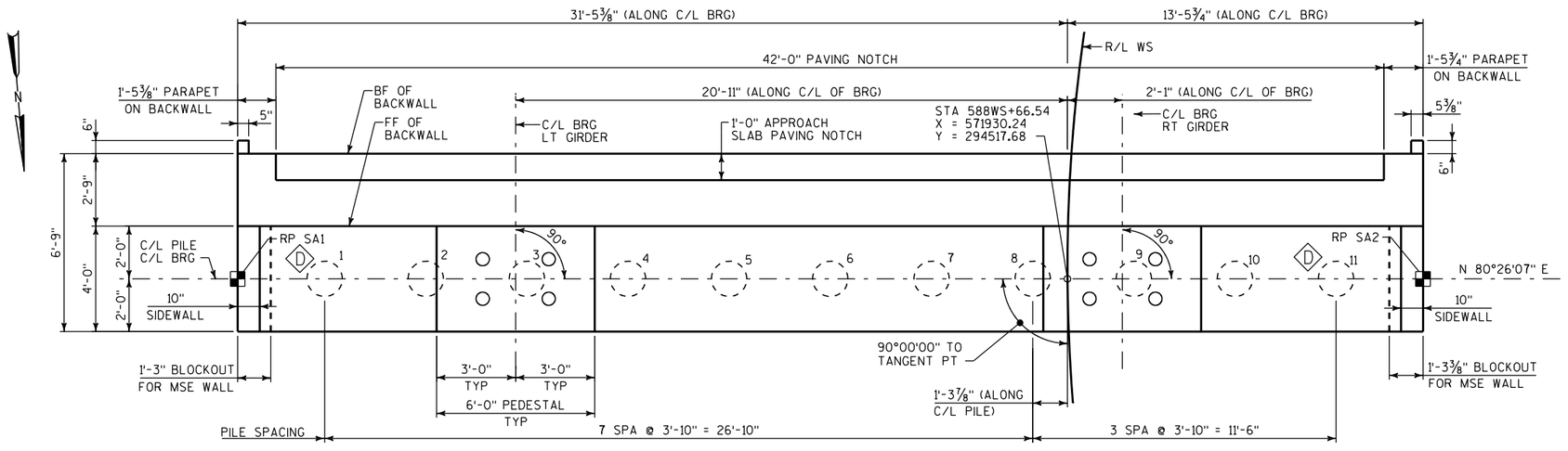


ELEVATION

LOOKING UPSTATION
ALL DIMENSIONS AND ELEVATIONS ARE GIVEN ALONG FRONT FACE OF BACKWALL



PLAN

LEGEND

- (A01) KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2"x6" KEYWAY AT BASE OF BACKWALL.
- (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.

  ESTIMATED PILE LENGTH = 95'.
- (A03) 2" PREFORMED JOINT FILLER ABOVE COPING WITH NON-BITUMINUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN.
- (A04) PREFORMED JOINT FILLER (1½" BASED ON A 7½" MSE WALL PANEL THICKNESS) WITH NON-BITUMINUS JOINT SEALER PLACED BETWEEN COPING/PRECAST PANEL AND EDGE OF BEAM SEAT. COLOR TO MATCH CONCRETE STAIN.
- (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 A4 OR B4.
- 8'-0" LONG BAR WITH 1'-0" MIN LAP, CUT IN FIELD TO CLEAR JOINT SUPPORT SYSTEM AS REQUIRED.

NOTES

FOR SECTIONS A-A & B-B, SEE SOUTH ABUTMENT DETAILS (1 OF 2).

FOR SECTIONS C-C & D-D, SEE SOUTH ABUTMENT DETAILS (2 OF 2).

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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

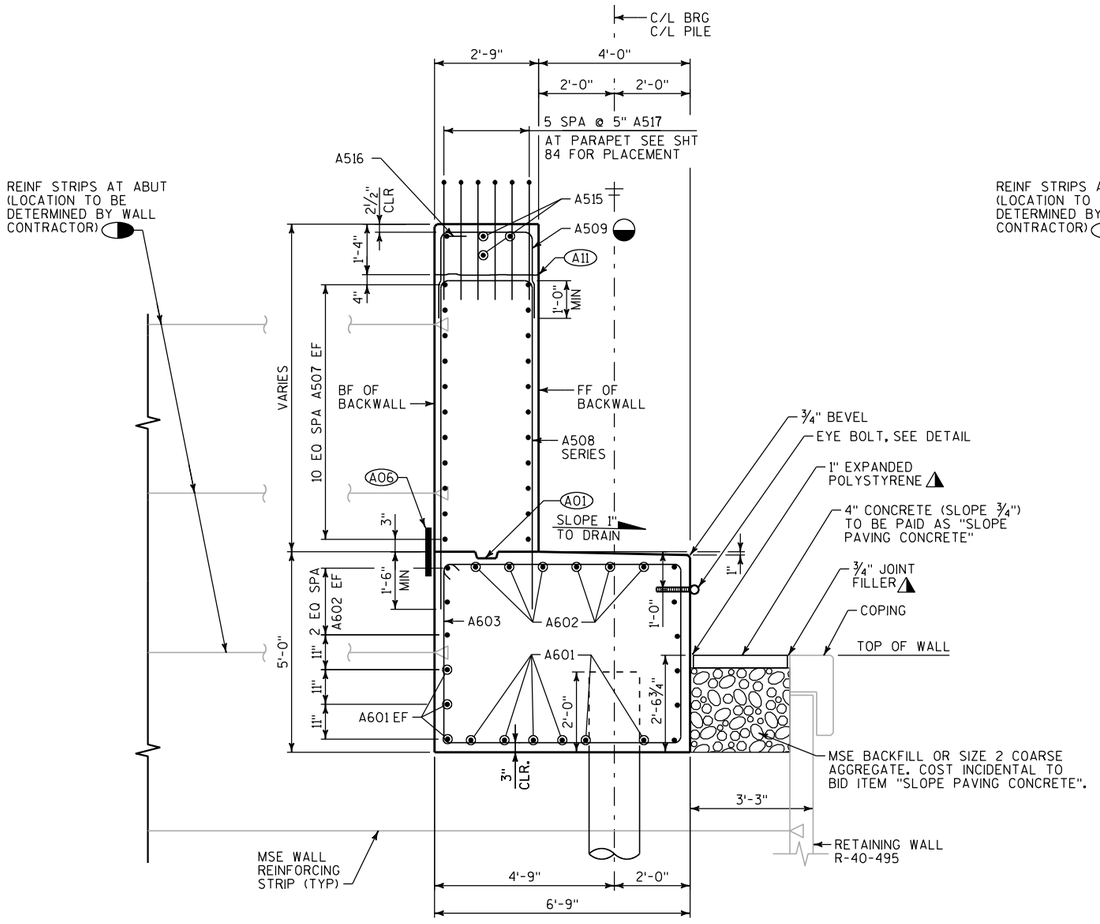
SOUTH ABUTMENT PLAN & ELEVATION

SHEET 22 OF 97

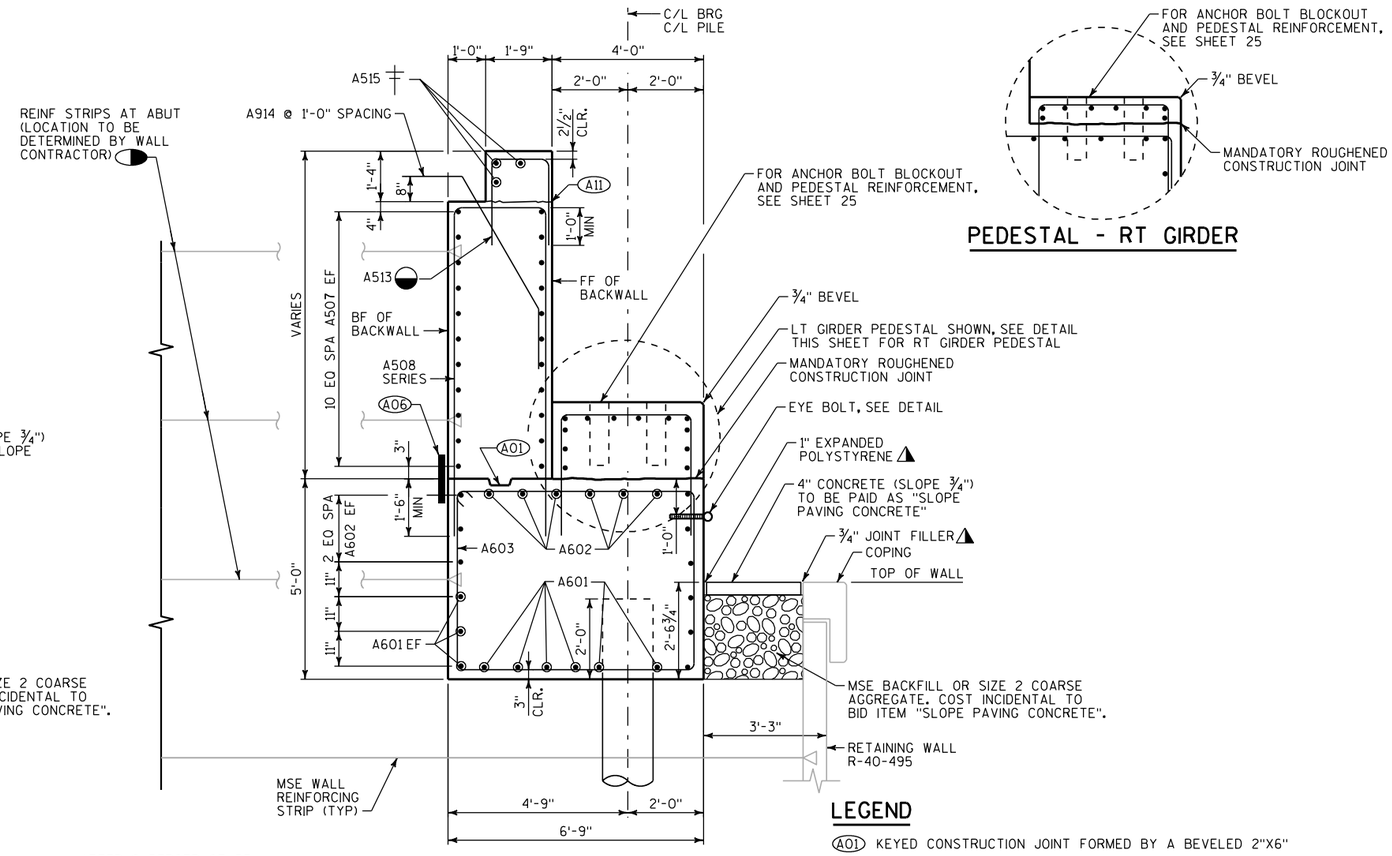
8

8

STATE PROJECT NUMBER
1060-33-81

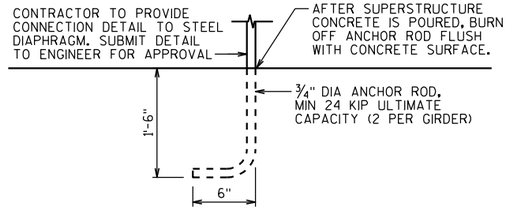


SECTION A-A



SECTION B-B

PEDESTAL - RT GIRDER

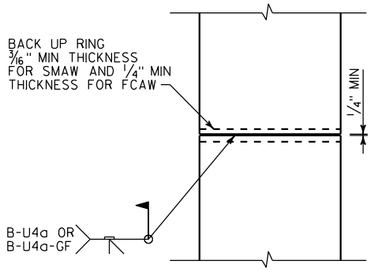


TEMPORARY HOLD DOWN DEVICE

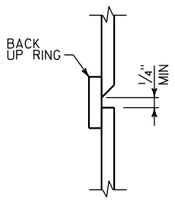
LOCATE WITHIN 1'-6" OF GIRDER BOTTOM FLANGE.
PAYMENT IS INCIDENTAL TO "CONCRETE MASONRY BRIDGES"

LEGEND

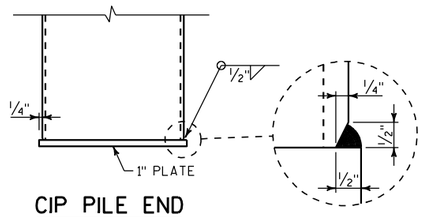
- (A01) KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2"X6"
- (A06) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENTS.
- (A11) CONST JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.
- REINFORCING STRIPS SHALL BE DESIGNED TO RESIST AN UNFACTORED SUPERSTRUCTURE LATERAL LINE LOAD OF 2.4 K/LF OF ABUTMENT LENGTH. THE LINE LOAD IS A SUMMATION OF AASHTO LOADS BR, WS, WL, AND TU.
- SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSTYRENE WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).
- 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.



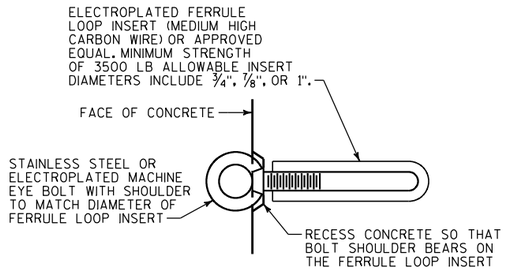
CIP PILE SPLICE DETAIL



CIP PILE WELD DETAIL



CIP PILE END PLATE DETAIL



EYE BOLT DETAIL

COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

SOUTH ABUTMENT DETAILS (1 OF 2)

SHEET 23 OF 97

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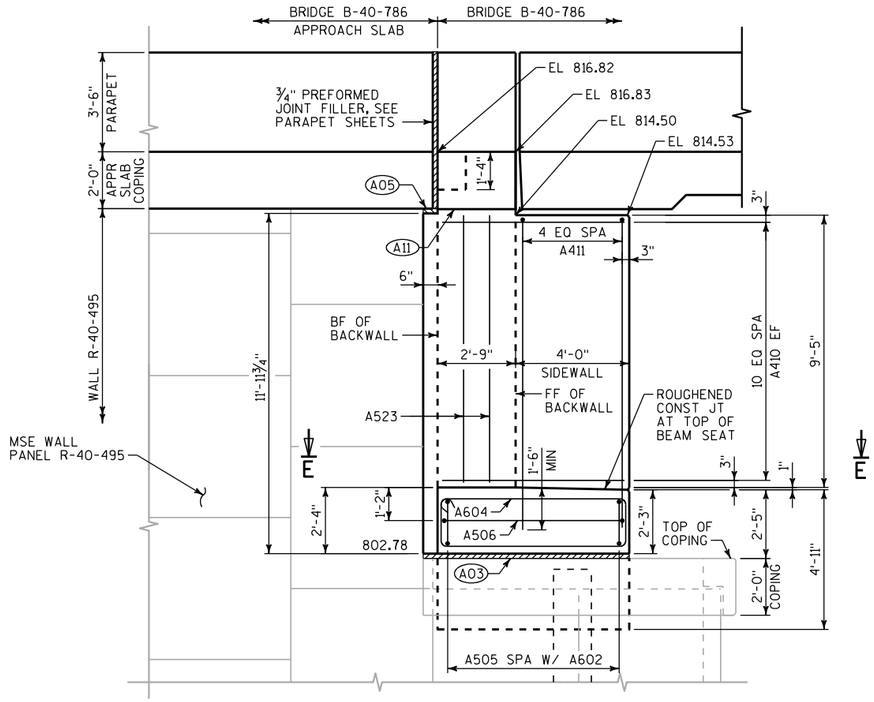
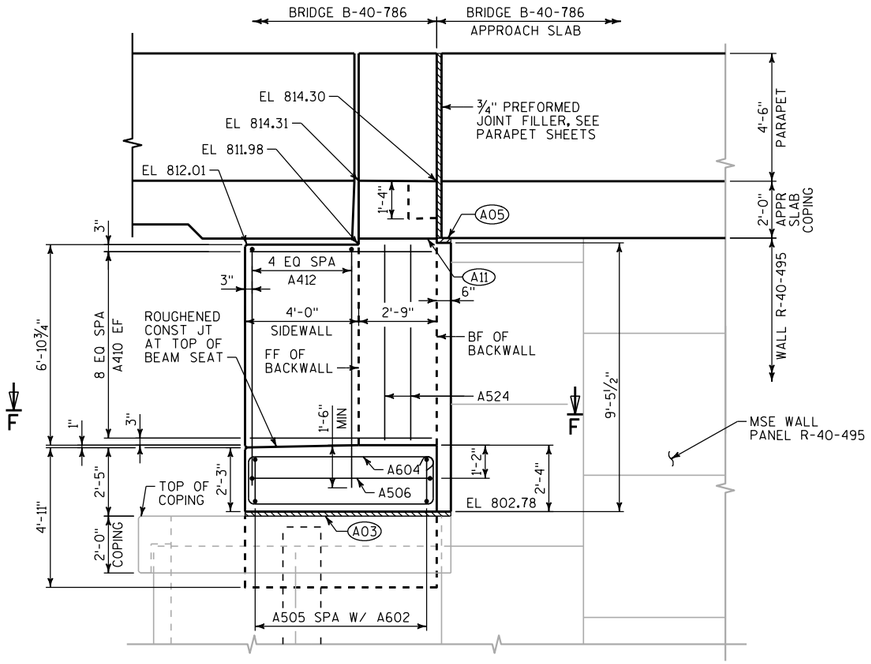


SECTION C-C

(LOOKING WEST)



SECTION D-D

(LOOKING EAST)

LEGEND

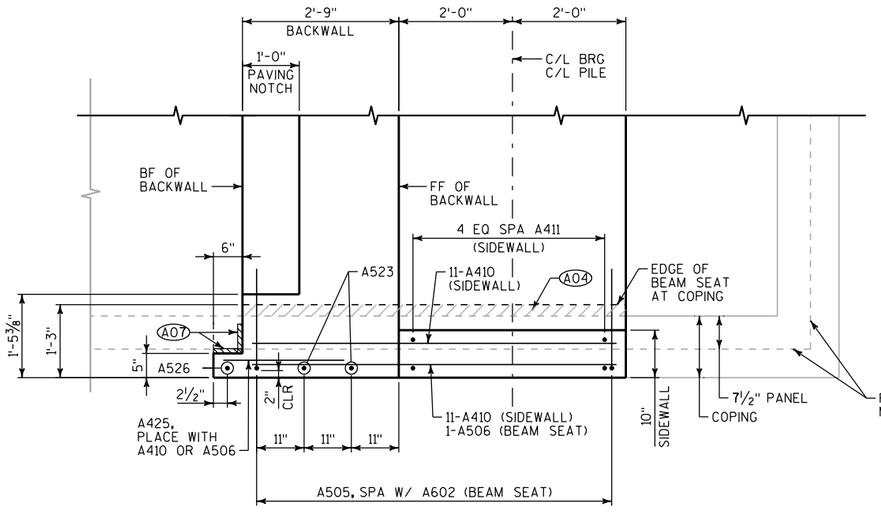
(A03) 2" PREFORMED JOINT FILLER ABOVE COPING WITH NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN.

(A04) PREFORMED JOINT FILLER (1½"± BASED ON A 7½" MSE WALL PANEL THICKNESS) WITH NON-BITUMINOUS JOINT SEALER PLACED BETWEEN COPING/PRECAST PANEL AND EDGE OF BEAM SEAT. COLOR TO MATCH CONCRETE STAIN.

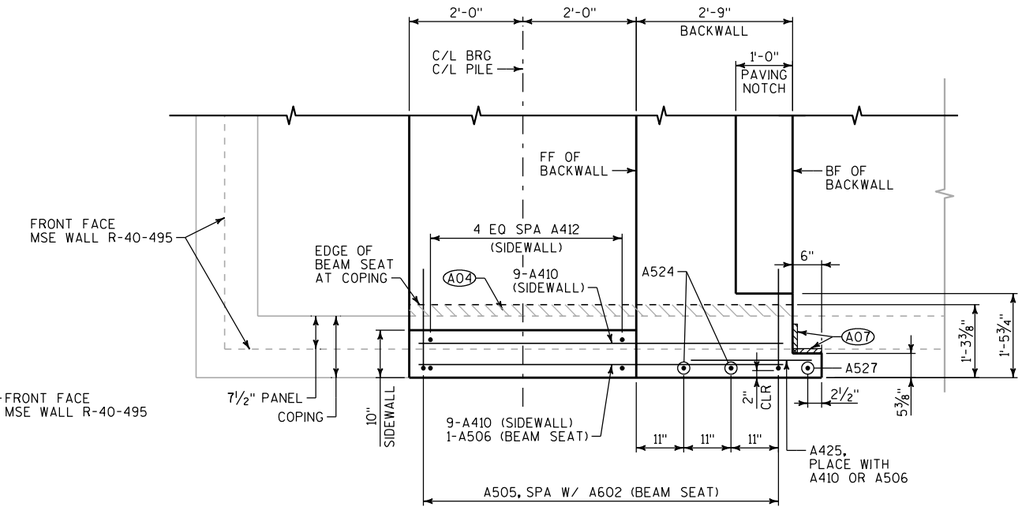
(A05) ¾" PREFORMED JOINT FILLER WITH A NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN.

(A07) 1" EXPANDED POLYSTYRENE (NOT A BRIDGE ITEM)

(A11) CONST JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.



SECTION E-E



SECTION F-F

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

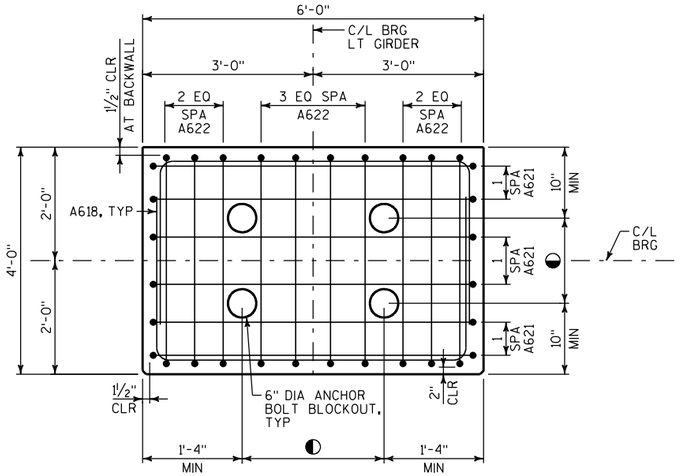
SOUTH ABUTMENT DETAILS (2 OF 2)

SHEET 24 OF 97

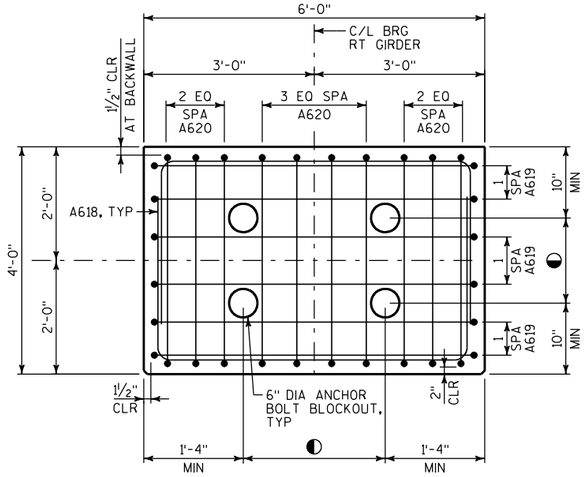
8

8

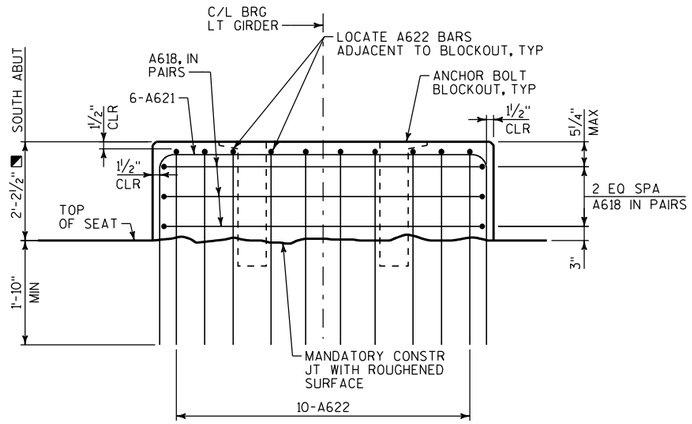
STATE PROJECT NUMBER
1060-33-81



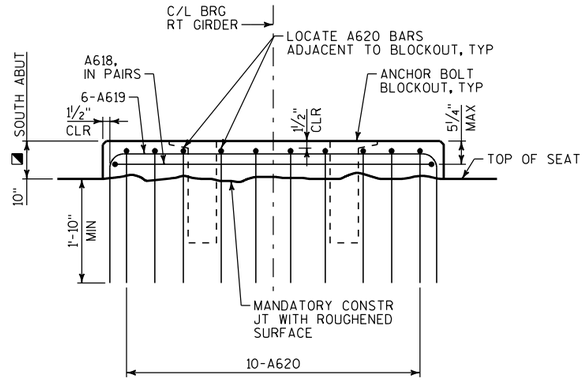
PEDESTAL PLAN - LEFT GIRDER



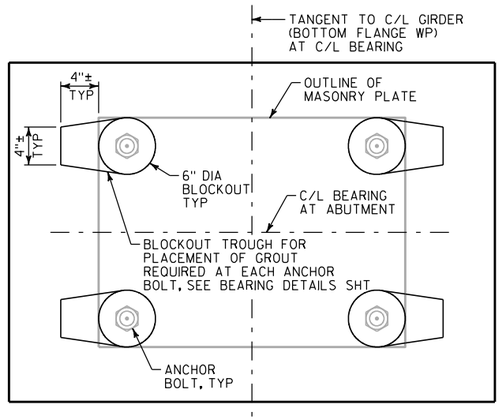
PEDESTAL PLAN - RIGHT GIRDER



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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

ABUTMENT PEDESTAL REINFORCEMENT

SHEET 25 OF 97

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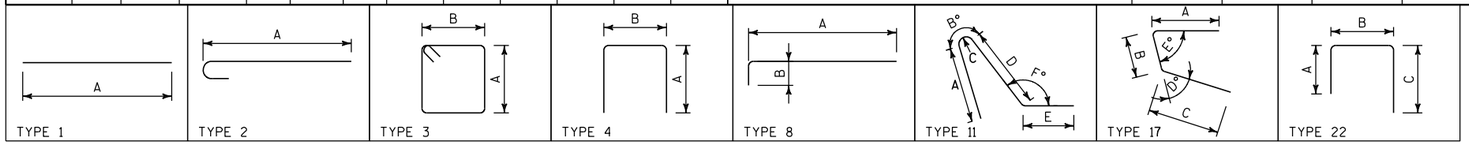
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080304_ab.dgn
PLOT DATE : 02-MAR-2015 15:04
PLOT BY : MSCGLM
PLOT NAME : B786_080304_ab
PLOT SCALE : 2.666667:1

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	MIN	MAX	NO REQ'D	LENGTH
A601	E	12	42'-0"			1	42'-0"						BODY HORIZONTAL					
A602	E	12	44'-6"			1	44'-6"						BODY HORIZONTAL					
A603	E	43	22'-8"	X		3	4'-6"	6'-5"					BODY STIRRUP					
A604	E	4	17'-4"	X		3	1'-10"	6'-5"					BODY STIRRUP					
A505	E	16	4'-11"	X		4	1'-9"	1'-8"					BODY HORIZONTAL					
A506	E	2	9'-6"	X		4	1'-9"	6'-3"					BODY HORIZONTAL					
A507	E	22	44'-6"			1	44'-6"						BACKWALL HORIZONTAL					
A508	E	46	23'-2"	X	X	4	10'-6"	2'-5"					BACKWALL VERTICAL	A	9'-3"	11'-9"	1 SERIES OF 46	20'-8" TO 25'-8"
A509	S	4	7'-2"	X		4	2'-6"	2'-5"					BACKWALL VERTICAL					
A410	E	40	6'-5"			1	6'-5"						SIDEWALL HORIZONTAL					
A411	E	5	22'-0"	X		4	10'-10"	0'-6"					SIDEWALL VERTICAL					
A412	E	5	17'-0"	X		4	8'-4"	0'-6"					SIDEWALL VERTICAL					
A513	S	42	6'-2"	X		4	2'-6"	1'-5"					BACKWALL VERTICAL					
A914	S	42	7'-3"	X		17	1'-7"	4'-1"	1'-7"	60	150		BACKWALL APPROACH TIE					
A515	S	21	8'-0"			1	8'-0"						BACKWALL HORIZONTAL					
A516	S	2	2'-2"	X		4	0'-8"	1'-1"					BACKWALL HORIZONTAL					
A517	S	12	6'-10"	X		11	2'-10"	172	0'-4½"	0'-10"	2'-0"	188	PARAPET TIE					
A618	E	8	11'-1"	X		4	2'-11"	5'-7"					RIGHT AND LEFT PEDESTAL					
A619	E	6	10'-11"	X		4	2'-9"	5'-9"					RIGHT PEDESTAL					
A620	E	10	9'-0"	X		4	2'-10"	3'-8"					RIGHT PEDESTAL					
A621	E	6	13'-9"	X		4	4'-2"	5'-9"					LEFT PEDESTAL					
A622	E	10	11'-10"	X		4	4'-3"	3'-8"					LEFT PEDESTAL					
A523	E	2	9'-4"			1	9'-4"						SIDEWALL VERTICAL					
A524	E	2	6'-10"			1	6'-10"						SIDEWALL VERTICAL					
A425	E	26	2'-5"			1	2'-5"						BACKWALL HORIZONTAL					
A526	E	1	11'-5"			1	11'-5"						BACKWALL VERTICAL					
A527	E	1	8'-11"			1	8'-11"						BACKWALL VERTICAL					



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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BAR MARK BREAKDOWN			
BAR MARK	SOUTH ABUTMENT	TOTAL NO	WEIGHT
A601	12	12	757
A602	12	12	802
A603	43	43	1464
A604	4	4	104
A505	16	16	82
A506	2	2	20
A507	22	22	1021
A508	46	46	1111
A509	4	4	30
A410	40	40	171
A411	5	5	73
A412	5	5	57
A513	42	42	270
A914	42	42	1035
A515	21	21	175
A516	2	2	5
A517	12	12	86
A618	8	8	133
A619	6	6	98
A620	10	10	135
A621	6	6	0
A622	10	10	0
A523	2	2	19
A524	2	2	14
A425	26	26	42
A526	1	1	12
A527	1	1	9
TOT WEIGHT	7728	402	7728

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

ABUTMENT REINFORCEMENT SCHEDULE

SHEET 26 OF 97

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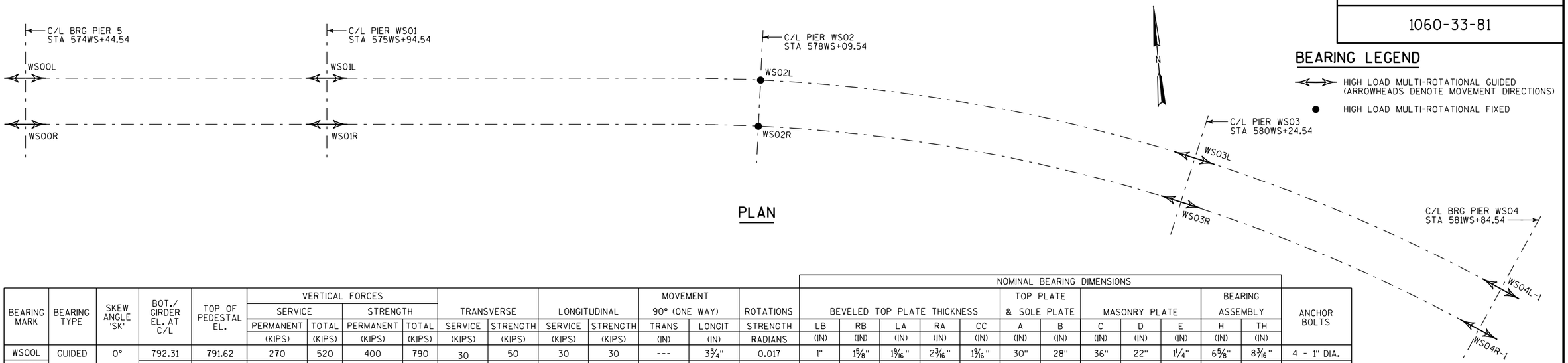


PLAN

BEARING LEGEND

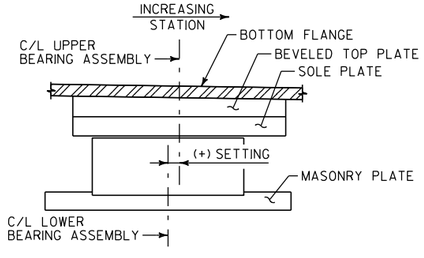
HIGH LOAD MULTI-ROTATIONAL GUIDED (ARROWHEADS DENOTE MOVEMENT DIRECTIONS)

HIGH LOAD MULTI-ROTATIONAL FIXED

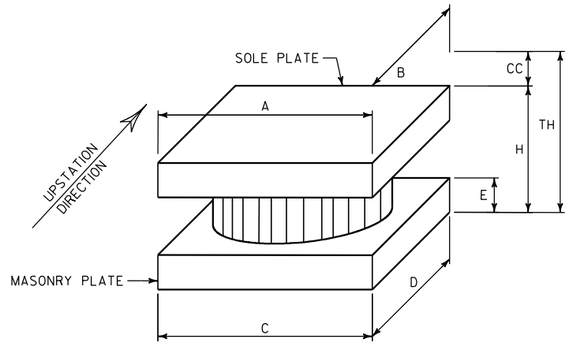
BEARING MARK	BEARING TYPE	SKEW ANGLE 'SK'	BOT./ GIRDER EL. AT C/L	TOP OF PEDESTAL EL.	VERTICAL FORCES				TRANSVERSE		LONGITUDINAL		MOVEMENT 90° (ONE WAY)		ROTATIONS	NOMINAL BEARING DIMENSIONS													ANCHOR BOLTS
					SERVICE		STRENGTH									BEVELED TOP PLATE THICKNESS					TOP PLATE & SOLE PLATE		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)	
WS00L	GUIDED	0°	792.31	791.62	270	520	400	790	30	50	30	30	---	3¾"	0.017	1"	1⅝"	1⅞"	2⅜"	1⅞"	30"	28"	36"	22"	1¼"	6⅝"	8⅜"	4 - 1" DIA.
WS00R			792.77	792.08	290	550	440	830	30	50	30	30	---	3¾"	0.017	1"	1⅝"	1⅞"	2⅜"	1⅞"	30"	28"	36"	22"	1¼"	6⅝"	8⅜"	4 - 1" DIA.
WS01L	GUIDED	0°	795.16	794.31	1120	1640	1670	2330	40	70	120	120	---	2⅝"	0.013	1"	1"	1½"	1½"	1¼"	42"	36"	48"	32"	1¼"	9"	10¼"	6 - 1 1/2" DIA.
WS01R			795.17	794.31	1120	1650	1680	2350	40	70	120	120	---	2⅝"	0.013	1"	1"	1½"	1½"	1¼"	42"	36"	48"	32"	1¼"	9"	10¼"	6 - 1 1/2" DIA.
WS02L	FIXED	N/A	798.39	797.42	1190	1740	1780	2470	70	130	50	60	---	---	0.015	3/16"	1"	3¼"	1¾6"	2⅛"	40"	34"	46"	36"	1¼"	9½"	11⅝"	6 - 1 1/2" DIA.
WS02R			797.21	796.24	1310	1880	1960	2670	70	130	50	60	---	---	0.014	3/16"	1"	3¼"	1¾6"	2⅛"	40"	34"	46"	36"	1¼"	9½"	11⅝"	6 - 1 1/2" DIA.
WS03L	GUIDED	0°	799.37	798.39	1180	1710	1770	2430	70	120	120	120	---	2½"	0.015	3½"	1"	3⅝"	1⅛"	2⅝6"	42"	36"	48"	32"	1¼"	9⅜"	11¹¹⁄16"	6 - 1 1/2" DIA.
WS03R			797.99	797.01	1170	1710	1760	2420	70	120	120	120	---	2½"	0.013	3½"	1"	3⅝"	1⅛"	2⅝6"	42"	36"	48"	32"	1¼"	9⅜"	11¹¹⁄16"	6 - 1 1/2" DIA.
WS04L-1	GUIDED	0°	800.49	799.77	330	590	490	870	80	130	40	40	---	3¼"	0.022	2¹³⁄16"	1"	3⅛"	1⅝6"	2¹⁄16"	30"	28"	36"	22"	1¼"	6⅝"	8¹¹⁄16"	4 - 1" DIA.
WS04R-1			799.11	798.39	290	530	430	780	80	130	40	40	---	3¼"	0.02	2¹³⁄16"	1"	3⅛"	1⅝6"	2¹⁄16"	30"	28"	36"	22"	1¼"	6⅝"	8¹¹⁄16"	4 - 1" DIA.

BEARING TEMPERATURE SETTING DATA

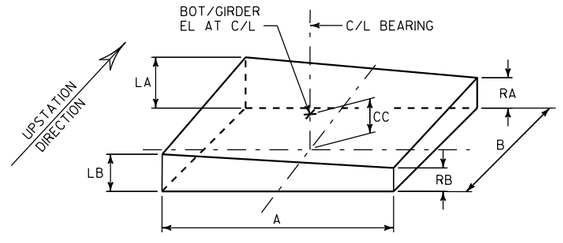
TEMP (°F)	PIER 5 (IN)	WS01 (IN)	WS03 (IN)	WS04-1 (IN)
120°	-2.21	-1.36	2.13	-2.15
110°	-1.84	-1.13	1.77	-1.80
100°	-1.47	-0.91	1.42	-1.44
90°	-1.11	-0.68	1.06	-1.08
80°	-0.74	-0.45	0.71	-0.72
70°	-0.37	-0.23	0.35	-0.36
60°	0.00	0.00	0.00	0.00
50°	0.37	0.23	-0.35	0.36
40°	0.74	0.45	-0.71	0.72
30°	1.11	0.68	-1.06	1.08
20°	1.47	0.91	-1.42	1.44
10°	1.84	1.13	-1.77	1.80
0°	2.21	1.36	-2.13	2.15
-10°	2.58	1.59	-2.48	2.51
-20°	2.95	1.81	-2.84	2.87
-30°	3.32	2.04	-3.19	3.23



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.



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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

BEARING LAYOUT UNIT 1

SHEET 27 OF 97

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080501_ss.dgn
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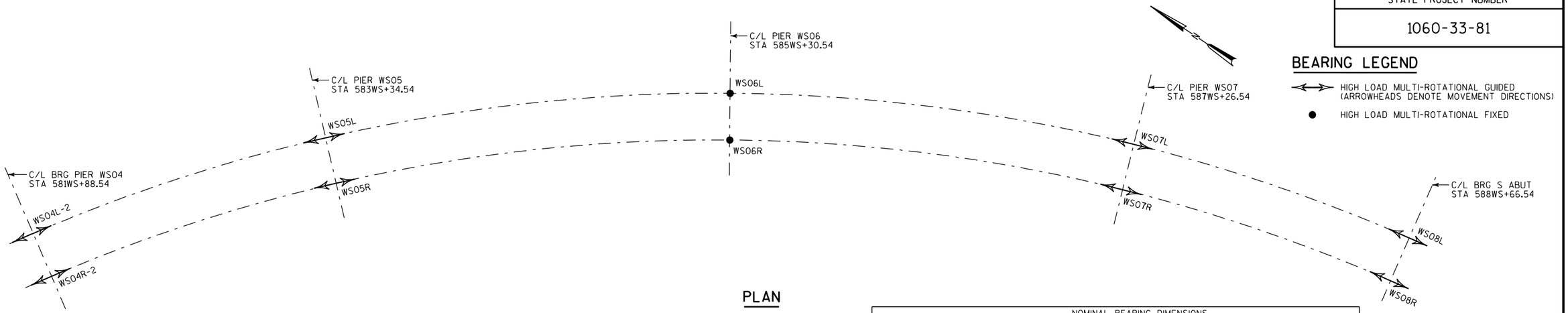
PLOT BY : MSCGLM
PLOT NAME : B786_080501_ss
PLOT SCALE : 50:1

STATE PROJECT NUMBER
1060-33-81



BEARING LEGEND

HIGH LOAD MULTI-ROTATIONAL GUIDED (ARROWHEADS DENOTE MOVEMENT DIRECTIONS)

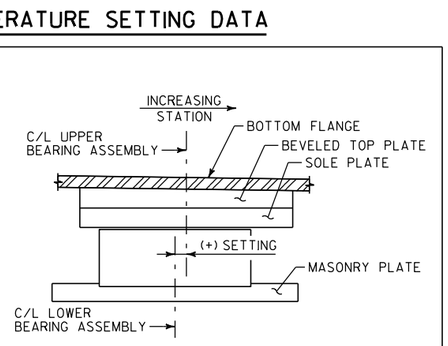
HIGH LOAD MULTI-ROTATIONAL FIXED

PLAN

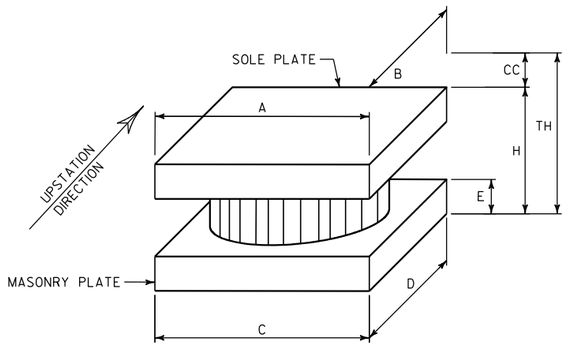
BEARING MARK	BEARING TYPE	SKEW ANGLE 'SK'	BOT./ GIRDER EL. AT C/L	TOP OF PEDESTAL EL.	VERTICAL FORCES				TRANSVERSE		LONGITUDINAL		MOVEMENT 90° (ONE WAY)		ROTATIONS	NOMINAL BEARING DIMENSIONS												ANCHOR BOLTS
					SERVICE		STRENGTH									BEVELED TOP PLATE THICKNESS					TOP PLATE & SOLE PLATE		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)	
WS04L-2	GUIDED	0°	800.54	799.82	230	460	400	700	110	200	40	40	---	3 7/8"	0.021	2 13/16 "	1"	3 1/8"	1 5/16 "	2 1/16 "	30"	28"	36"	22"	1 1/4"	6 3/8"	8 11/16 "	4 - 1" DIA.
WS04R-2			799.16	798.44	260	500	420	750	110	200	40	40	---	3 7/8"	0.02	2 13/16 "	1"	3 1/8"	1 5/16 "	2 1/16 "	30"	28"	36"	22"	1 1/4"	6 3/8"	8 11/16 "	4 - 1" DIA.
WS05L	GUIDED	0°	802.74	801.84	820	1300	1380	1880	110	200	120	120	---	2.5	0.014	3 3/8"	1"	3 15/16 "	1 9/16 "	2 1/2"	40"	32"	48"	32"	1 1/4"	8 3/8"	10 7/8"	4 - 1 1/2" DIA.
WS05R			801.36	800.46	820	1300	1380	1880	110	200	120	120	---	2.5	0.013	3 3/8"	1"	3 15/16 "	1 9/16 "	2 1/2"	40"	32"	48"	32"	1 1/4"	8 3/8"	10 7/8"	4 - 1 1/2" DIA.
WS06L	FIXED	N/A	806.08	805.03	1160	2030	2190	3000	110	180	130	150	---	---	0.015	3 1/2"	1"	4 1/8"	1 5/8"	2 9/16 "	42"	36"	46"	36"	1 1/4"	9 3/4"	1'-5/16 "	6 - 1 1/2" DIA.
WS06R			804.70	803.65	1220	2080	2220	3040	110	180	130	150	---	---	0.014	3 1/2"	1"	4 1/8"	1 5/8"	2 9/16 "	42"	36"	46"	36"	1 1/4"	9 3/4"	1'-5/16 "	6 - 1 1/2" DIA.
WS07L	GUIDED	0°	808.15	807.17	1200	1750	1820	2480	40	60	110	110	---	2.25	0.013	3 1/2"	1"	3 5/8"	1 1/8"	2 5/16 "	42"	36"	48"	32"	1 1/4"	9 3/8"	11 11/16 "	6 - 1 1/2" DIA.
WS07R			806.77	805.79	1220	1750	1820	2480	40	60	110	110	---	2.25	0.013	3 1/2"	1"	3 5/8"	1 1/8"	2 5/16 "	42"	36"	48"	32"	1 1/4"	9 3/8"	11 11/16 "	6 - 1 1/2" DIA.
WS08L	GUIDED	0°	808.03	807.31	270	500	400	740	40	60	30	30	---	3 5/8"	0.017	3"	1 3/16 "	2 13/16 "	1"	2"	30"	28"	36"	22"	1 1/4"	6 5/8"	8 5/8"	4 - 1" DIA.
WS08R			806.65	805.93	270	510	410	770	40	60	30	30	---	3 5/8"	0.016	3"	1 3/16 "	2 13/16 "	1"	2"	30"	28"	36"	22"	1 1/4"	6 5/8"	8 5/8"	4 - 1" DIA.

BEARING TEMPERATURE SETTING DATA

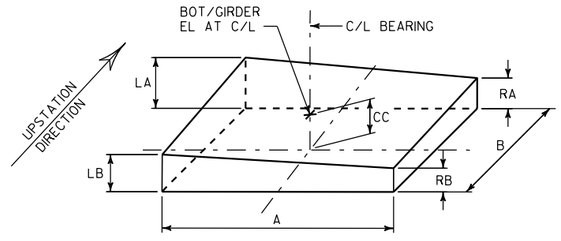
TEMP (°F)	WS04-2 (IN)	WS05 (IN)	WS07 (IN)	SOUTH ABUT (IN)
120°	-2.15	-1.36	1.13	1.92
110°	-1.80	-1.13	0.94	1.60
100°	-1.44	-0.91	0.75	1.28
90°	-1.08	-0.68	0.56	0.96
80°	-0.72	-0.45	0.38	0.64
70°	-0.36	-0.23	0.19	0.32
60°	0.00	0.00	0.00	0.00
50°	0.36	0.23	-0.19	-0.32
40°	0.72	0.45	-0.38	-0.64
30°	1.08	0.68	-0.56	-0.96
20°	1.44	0.91	-0.75	-1.28
10°	1.80	1.13	-0.94	-1.60
0°	2.15	1.36	-1.13	-1.92
-10°	2.51	1.58	-1.31	-2.24
-20°	2.87	1.81	-1.50	-2.56
-30°	3.23	2.04	-1.69	-2.88



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.



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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

BEARING LAYOUT UNIT 2

SHEET 28 OF 97

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080502_ss.dgn
PLOT DATE : 05-MAR-2015 11:58
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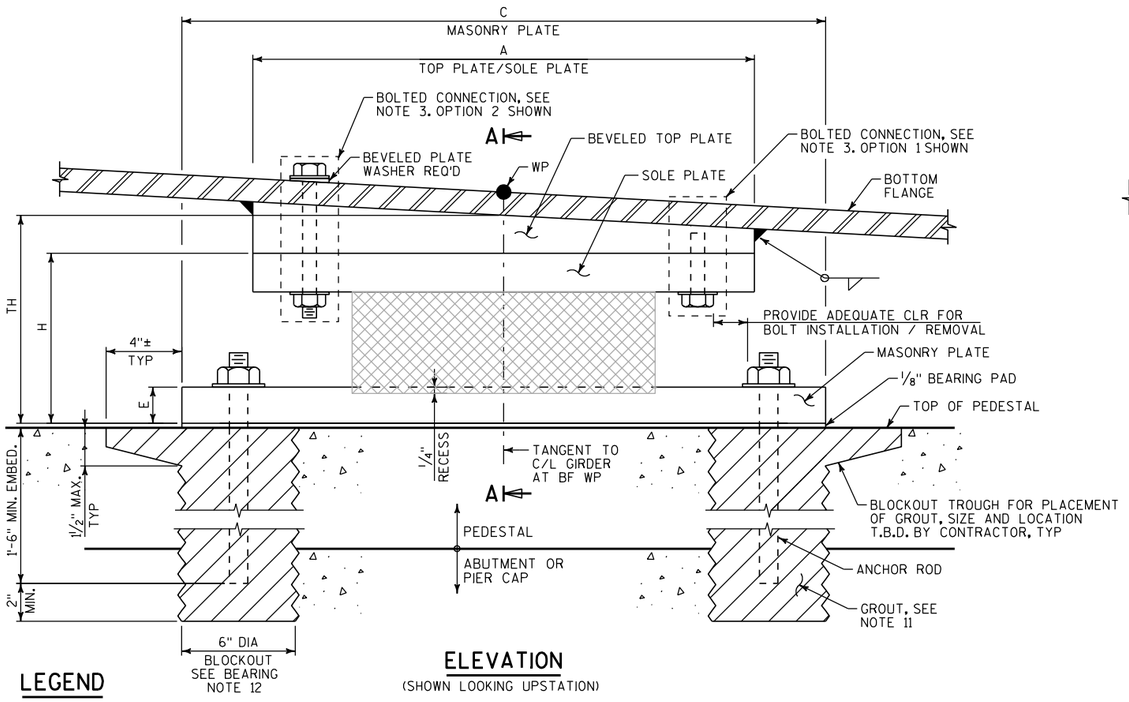
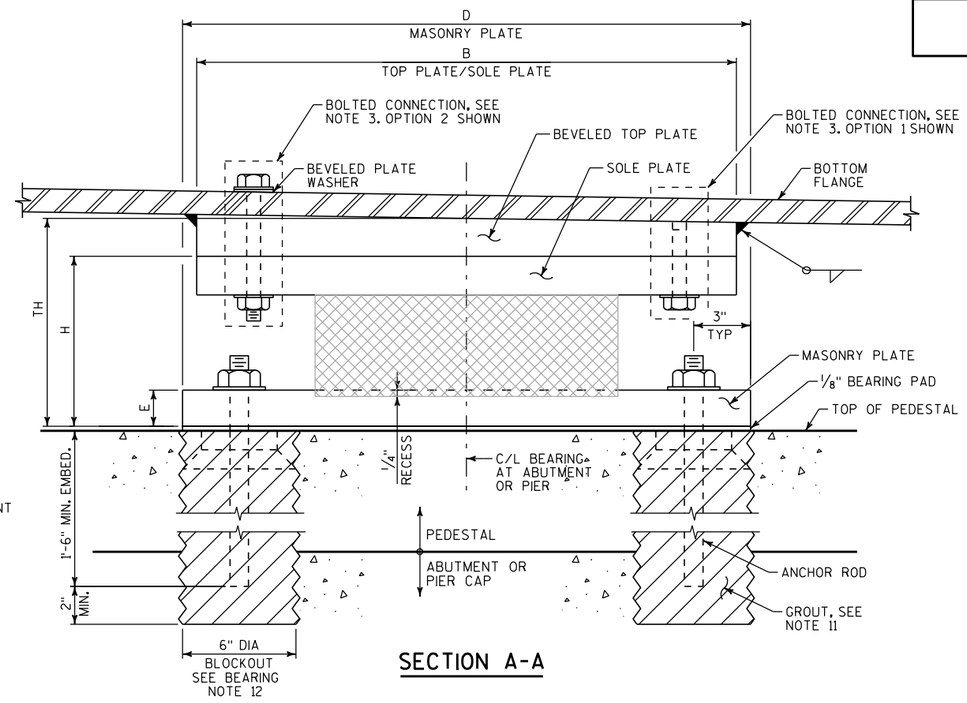
PLOT NAME : B786_080502_ss
PLOT SCALE : 50:1

STATE PROJECT NUMBER
1060-33-81



ELEVATION

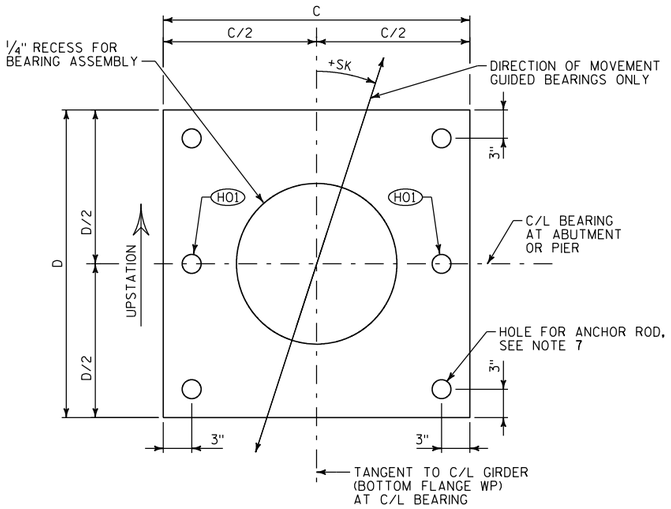
(SHOWN LOOKING UPSTATION)



SECTION A-A

LEGEND

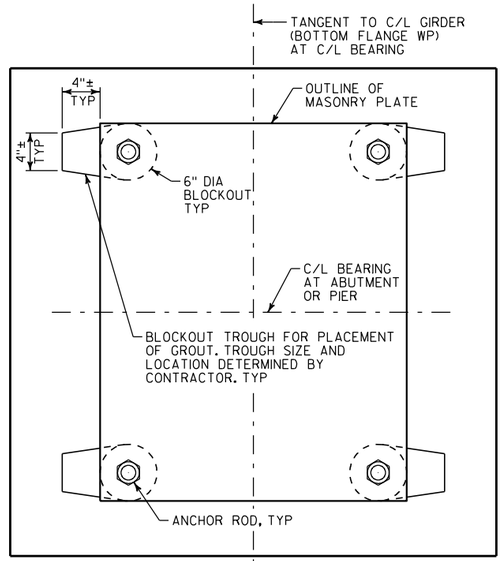
CROSSHATCHING INDICATES PART OF THE BEARING ASSEMBLY THAT IS TO BE SUPPLIED AND DESIGNED BY THE BEARING MANUFACTURER. THE MASONRY PLATE AND SOLE PLATE ARE TO BE PROVIDED BY THE BEARING MANUFACTURER AND SIZED ACCORDING TO BEARING NOTES 4 & 6. THE BEVELED TOP PLATE DIMENSIONS SHOULD BE COORDINATED BETWEEN 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

(HO1) HOLE REQ'D AT PIERS WSO?, WSO? & WSO? ONLY



PLAN - TOP OF PEDESTAL

BEARING NOTES

1. SEE BEARING LAYOUT SHEETS FOR BEARING LAYOUT AND LOCATION SPECIFIC DIMENSIONS.
2. SEE JACKING PROVISIONS 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-40-786

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BEARING DETAILS

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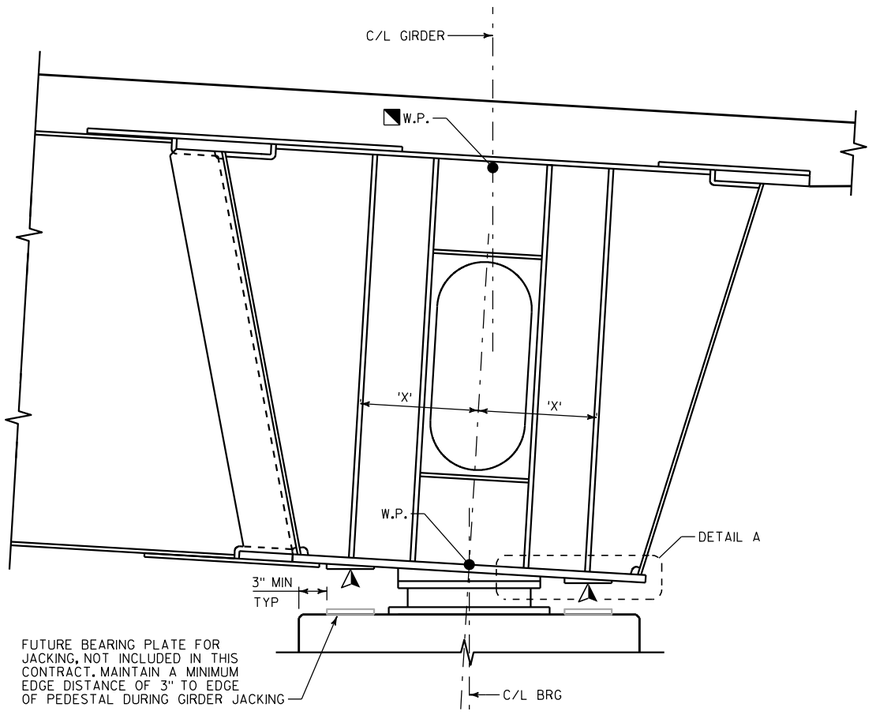
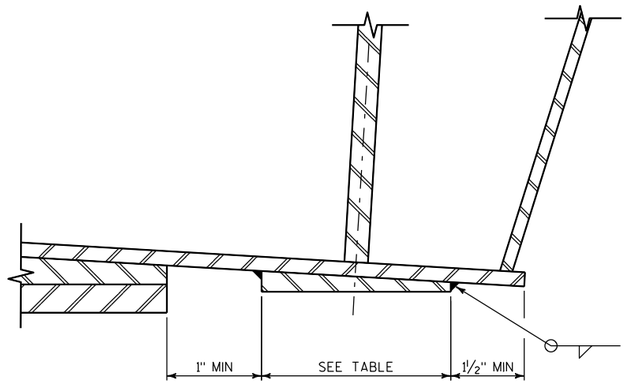


SECTION AT C/L OF PIER

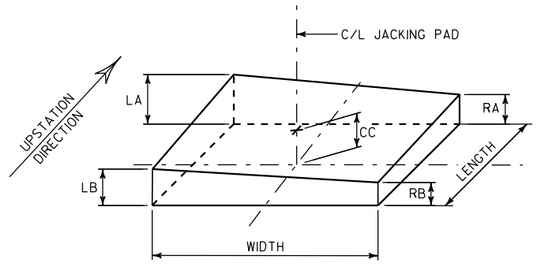
(ABUTMENT SIMILAR)



DETAIL A

LOCATION	UNIT	NUMBER OF PADS PER GIRDER	JACKING PAD DIMENSIONS							OFFSET 'X' *	MIN. JACK FORCE (KIPS) **
			WIDTH (IN) *	LENGTH (IN) *	LB (IN)	RB (IN)	LA (IN)	RA (IN)	CC (IN)		
PIER 5	UNIT 1	2	8"	1'-6"	½"	11/16"	13/16"	1"	¾"	2'-1"	145
PIER WS01	UNIT 1	2	8"	2'-0"	½"	½"	1 1/16"	13/16"	11/16"	2'-4"	560
PIER WS02	UNIT 1	2	8"	2'-0"	15/16"	½"	1 1/16"	⅝"	¾"	2'-4"	655
PIER WS03	UNIT 1	2	8"	2'-0"	1"	½"	1 3/16"	9/16"	¾"	2'-4"	590
PIER WS04	UNIT 1	2	8"	1'-6"	1"	½"	1 3/16"	11/16"	⅞"	2'-1"	165
PIER WS04	UNIT 2	2	8"	1'-6"	1"	½"	1 3/16"	11/16"	⅞"	2'-1"	165
PIER WS05	UNIT 2	2	8"	2'-0"	1"	½"	1 3/8"	15/16"	15/16"	2'-4"	590
PIER WS06	UNIT 2	2	8"	2'-0"	1"	½"	1 3/8"	15/16"	15/16"	2'-4"	655
PIER WS07	UNIT 2	2	8"	2'-0"	1"	½"	1 3/8"	15/16"	15/16"	2'-4"	560
SOUTH ABUT	UNIT 2	2	8"	1'-6"	1"	½"	1 5/16"	13/16"	⅞"	2'-1"	145

* SEE NOTE 2
** SEE NOTE 4, FORCE SHOWN IS PER PAD



JACKING PAD DIMENSION KEY

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

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.

   TAKE MEASURES 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 GIVEN AT EACH PAD AND IS BASED ON UNFACTORED DEAD LOAD REACTIONS ONLY - NO LIVE LOAD IS INCLUDED AND NO ADDITIONAL ALLOWANCES HAVE BEEN MADE. MULTIPLE JACKS ARE ANTICIPATED AT EACH PAD.

   THESE FORCES MUST BE INCREASED TO ALLOW FOR JACK FRICTION AND OTHER FACTORS. RECOMMENDED MINIMUM JACK CAPACITY IS 2 TIMES THE TABULATED VALUES.
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.

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STRUCTURE B-40-786

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JACKING PROVISIONS

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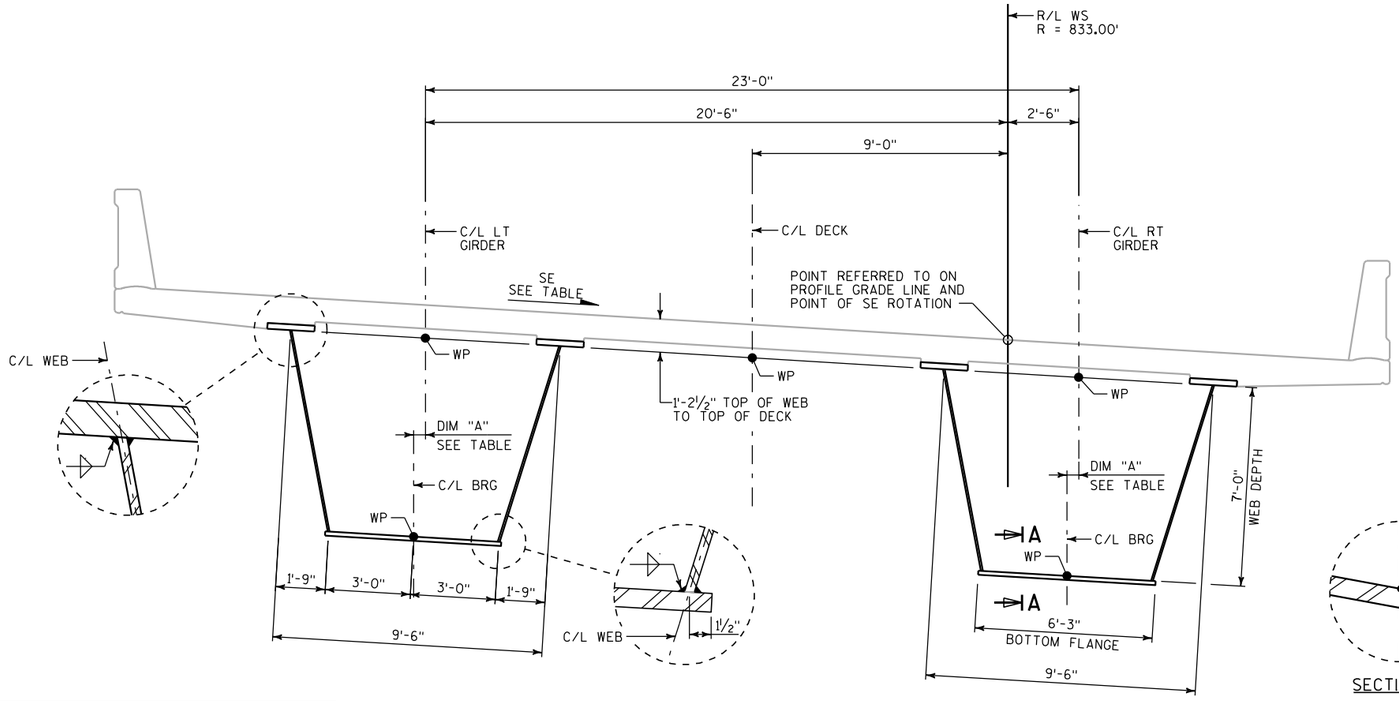
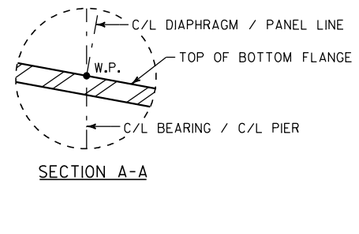


TYPICAL SECTION

LOOKING UPSTATION



SECTION A-A

SUPERELEVATION TABLE		
STATION	SE (%)	DIM. "A"
574WS+10.00	+2.00	-
574WS+44.54 C/L BRG PIER 5	+2.00	-1 11/16"
575WS+23.00	+2.00	-1 11/16"
575WS+94.54 C/L PIER WS01	+0.01	0"
575WS+95.00	0.00	0"
576WS+97.00	-2.00	+1 11/16"
578WS+09.54 C/L PIER WS02	-5.13	+4 5/16"
578WS+41.00	-6.00	+5"
580WS+24.54 C/L PIER WS03	-6.00	+5"
581WS+86.54 C/L PIER WS04	-6.00	+5"
583WS+34.54 C/L PIER WS05	-6.00	+5"
585WS+30.54 C/L PIER SW06	-6.00	+5"
587WS+26.54 C/L PIER WS07	-6.00	+5"
588WS+66.54 C/L BRG S ABUT	-6.00	+5"
589WS+65.00	-6.00	-

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 <= ½"	3/16"
½" < T <= ¾"	¼"
¾" < T <= 1½"	5/16"
T > 1½"	⅜"

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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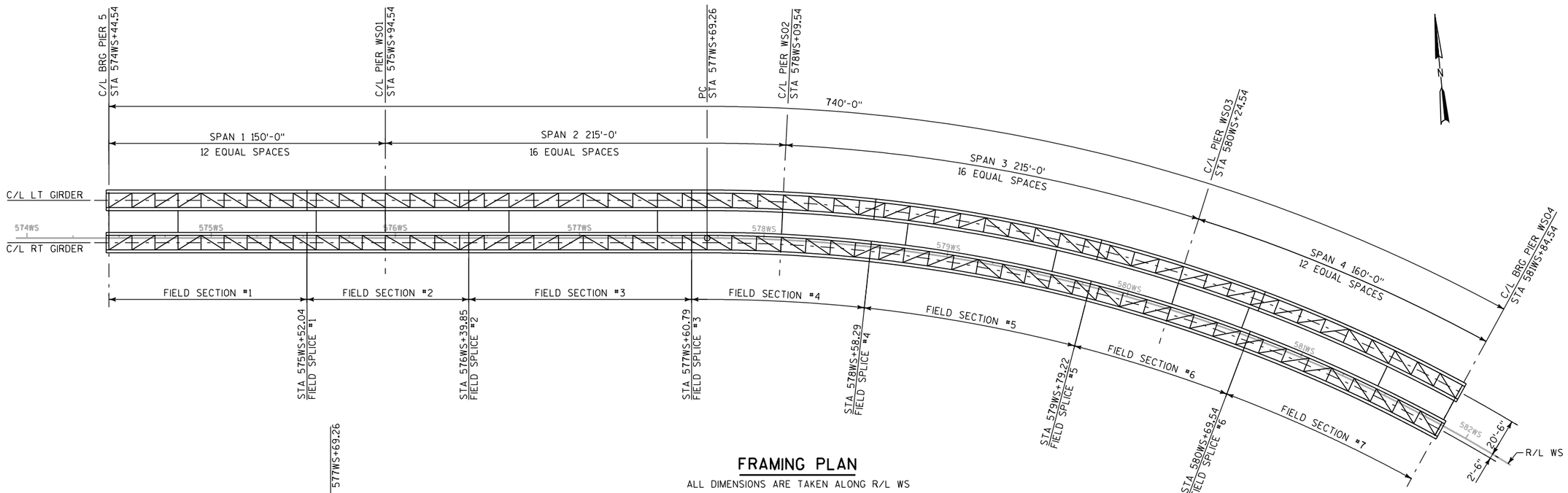
GIRDER SECTION

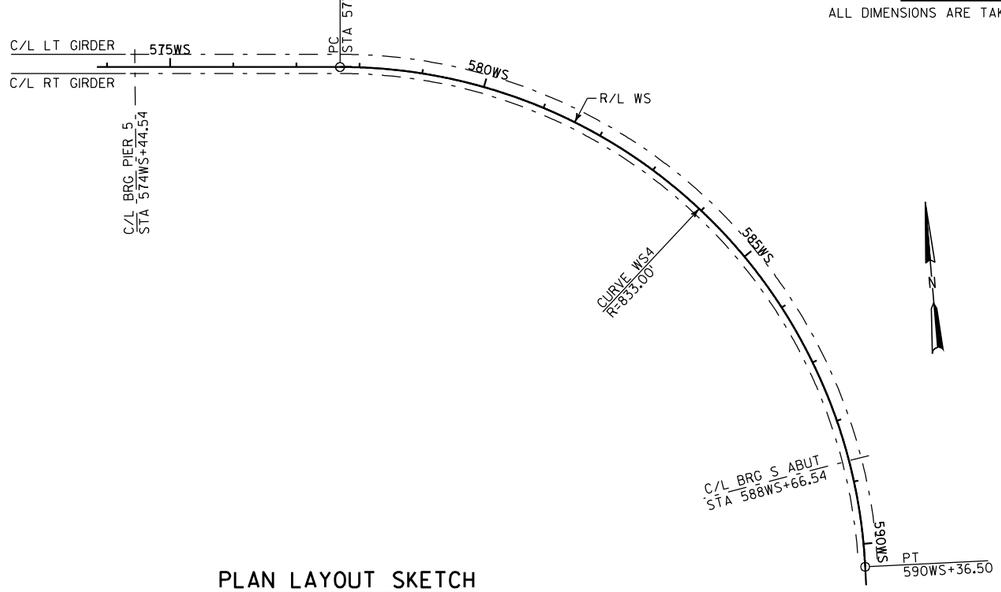
SHEET 31 OF 97

STATE PROJECT NUMBER
1060-33-81



FRAMING PLAN

ALL DIMENSIONS ARE TAKEN ALONG R/L WS



PLAN LAYOUT SKETCH

NOT TO SCALE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

FRAMING PLAN
UNIT 1

SHEET 32 OF 97

8

8

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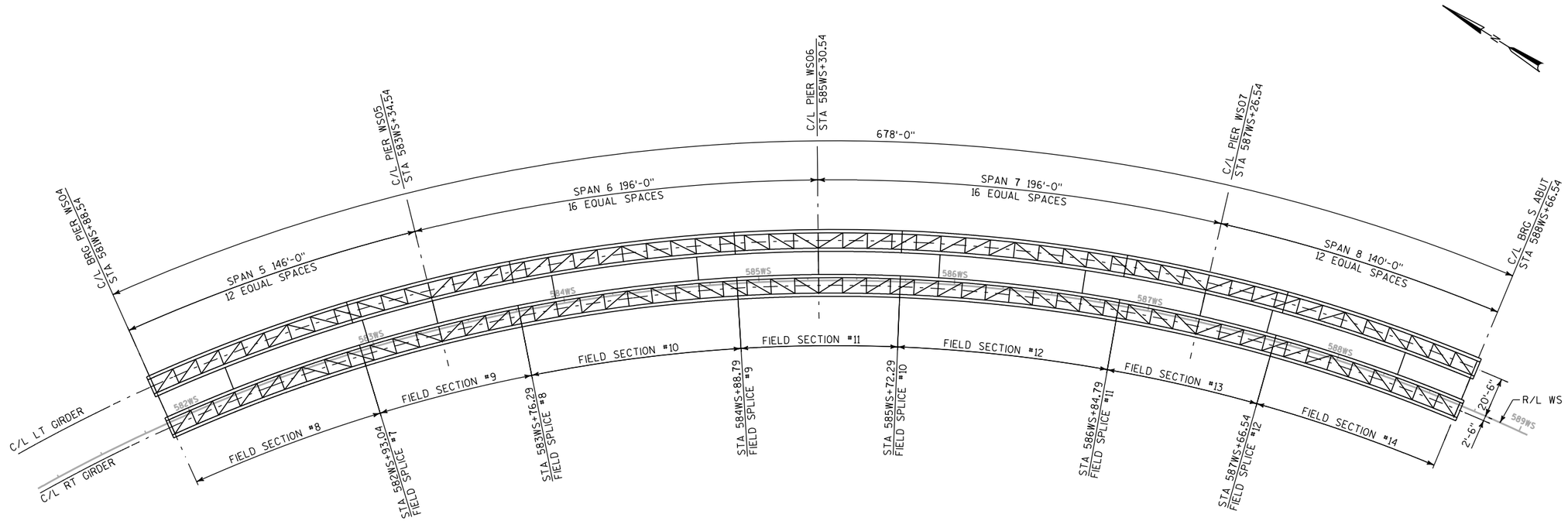
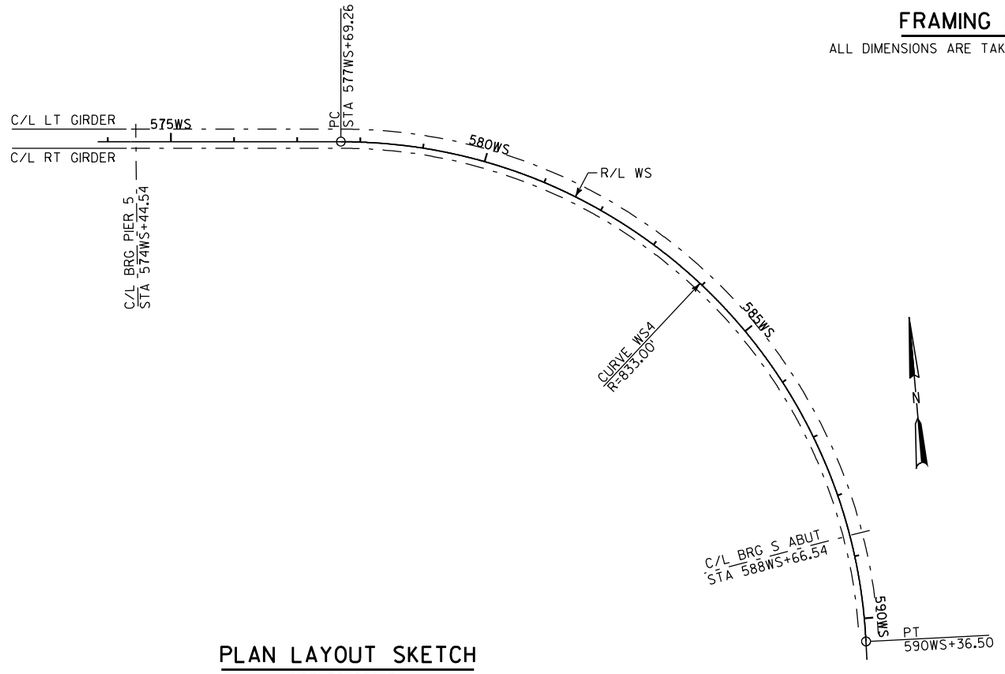
STATE PROJECT NUMBER
1060-33-81



FRAMING PLAN

ALL DIMENSIONS ARE TAKEN ALONG R/L WS



PLAN LAYOUT SKETCH

NOT TO SCALE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

FRAMING PLAN
UNIT 2

SHEET 33 OF 97

8

8

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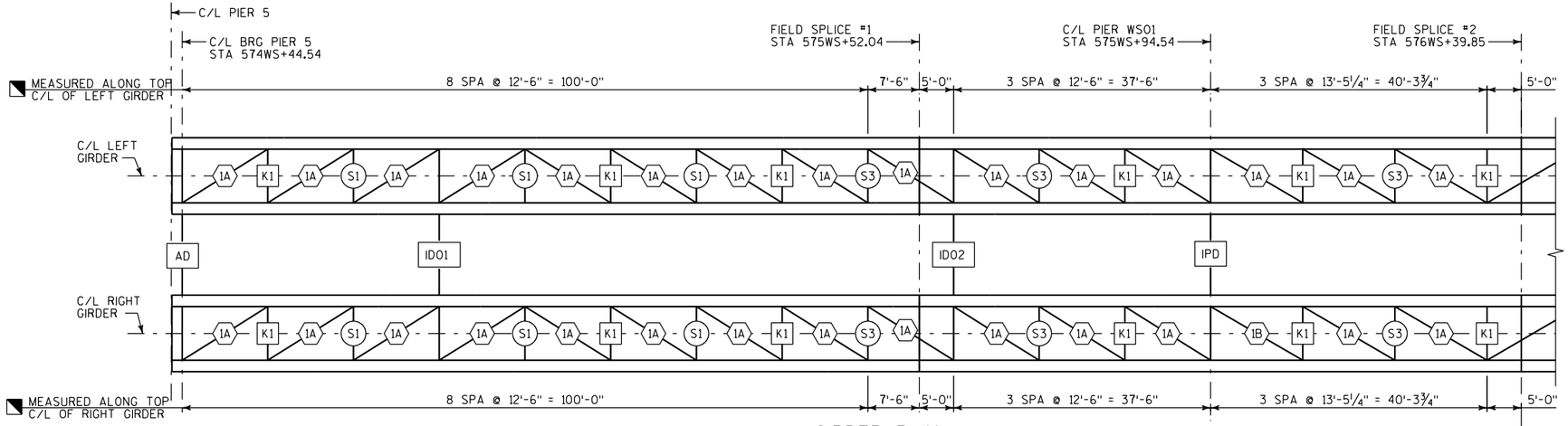
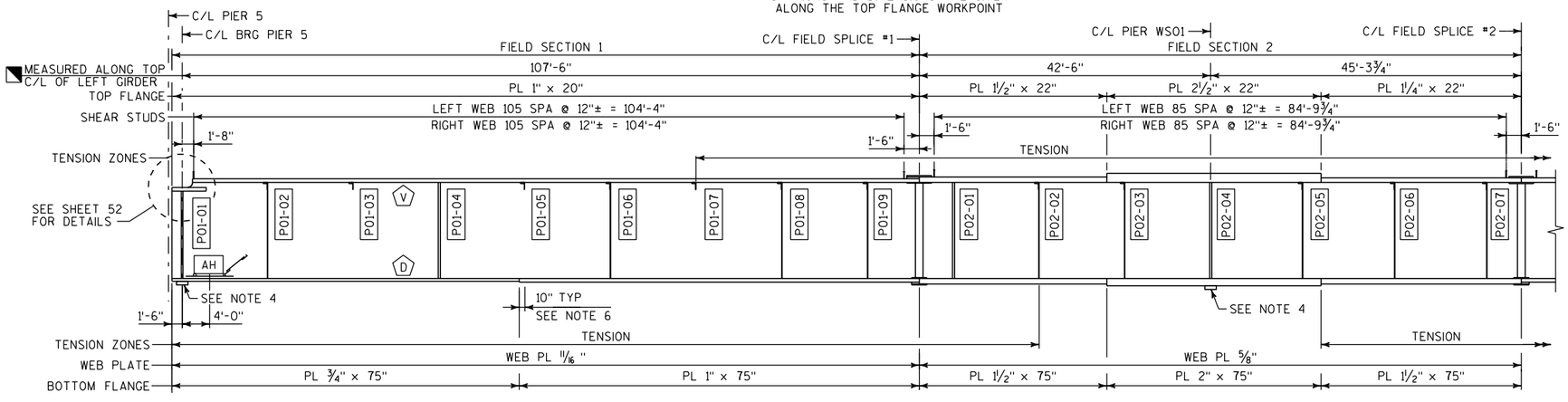
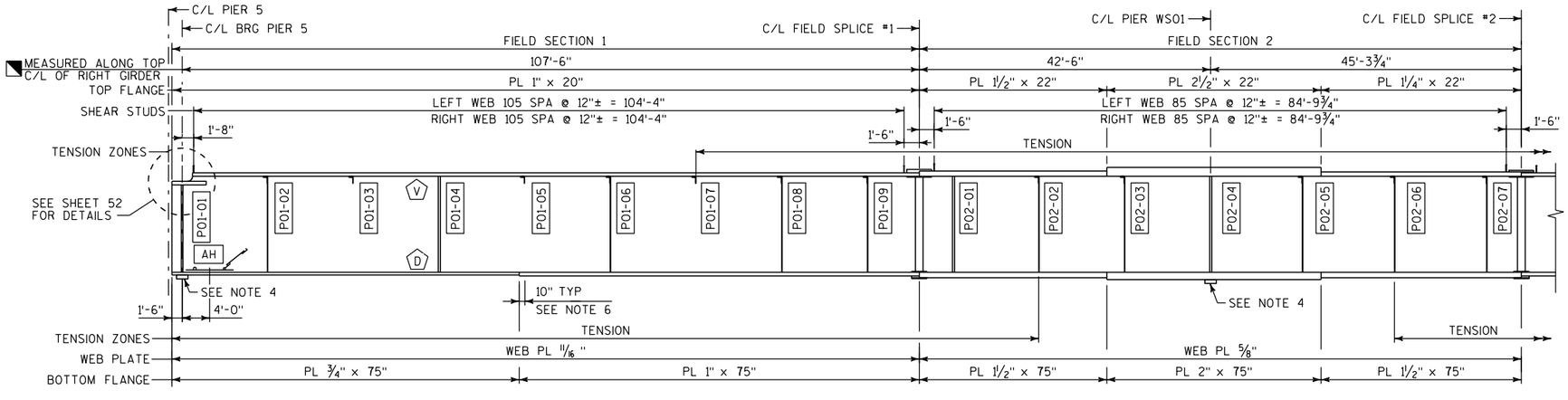


GIRDER PLAN

STATIONS AND DIMENSIONS ARE GIVEN ALONG THE TOP FLANGE WORKPOINT



LEFT GIRDER INTERIOR ELEVATION



RIGHT GIRDER INTERIOR ELEVATION

STATE PROJECT NUMBER
1060-33-81

N

LEGEND

K1	K-FRAME IDENTIFIER, SEE SHEET 45.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 45.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 48, 52 & 53.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 49, 52 & 53.
PED	PIER END DIAPHRAGM, SEE SHEETS 50, 52 & 53.
IDXX	INTERMEDIATE DIAPHRAGM, SEE SHEETS 51, 52 & 53. "XX" INDICATES DIAPHRAGM NUMBER.
1A	LATERAL BRACING IDENTIFIER, SEE SHEET 46 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 44.
V	WEB PLATE VENT HOLE, SEE SHEET 44.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 42.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 43.
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 44.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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

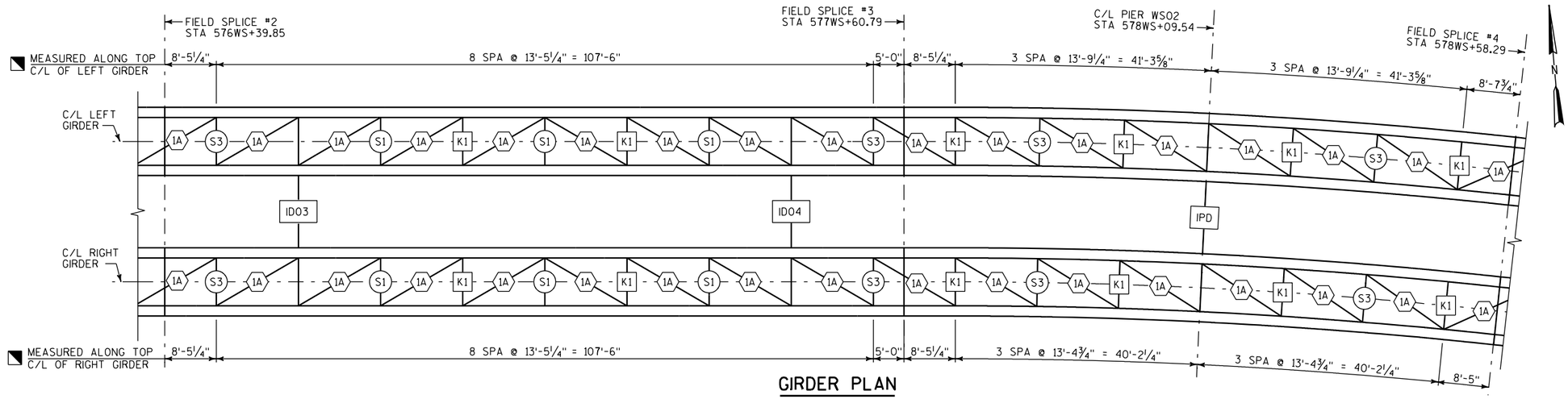
GIRDER PLAN AND ELEVATION: FIELD SECTIONS 1 & 2

SHEET 34 OF 96

8

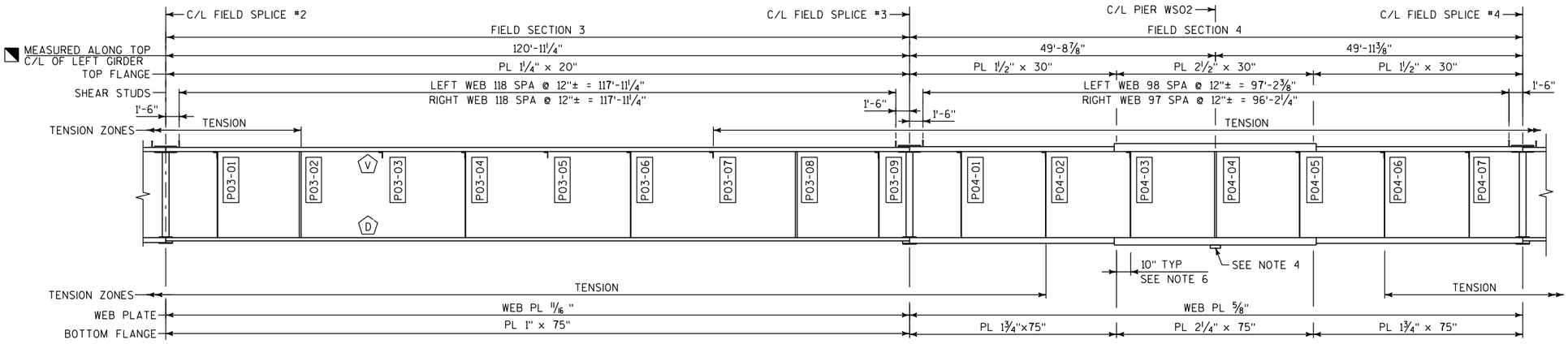
8

STATE PROJECT NUMBER
1060-33-81

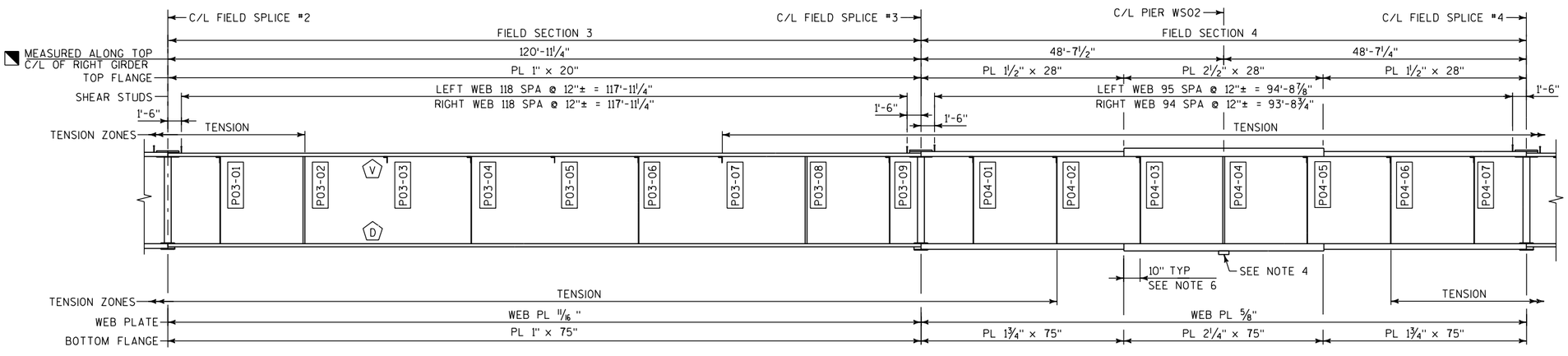


GIRDER PLAN

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 45.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 45.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 48, 52 & 53.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 49, 52 & 53.
PED	PIER END DIAPHRAGM, SEE SHEETS 50, 52 & 53.
IDXX	INTERMEDIATE DIAPHRAGM, SEE SHEETS 51, 52 & 53. "XX" INDICATES DIAPHRAGM NUMBER.
1A	LATERAL BRACING IDENTIFIER, SEE SHEET 46 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 44.
V	WEB PLATE VENT HOLE, SEE SHEET 44.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 42.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 43.
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 44.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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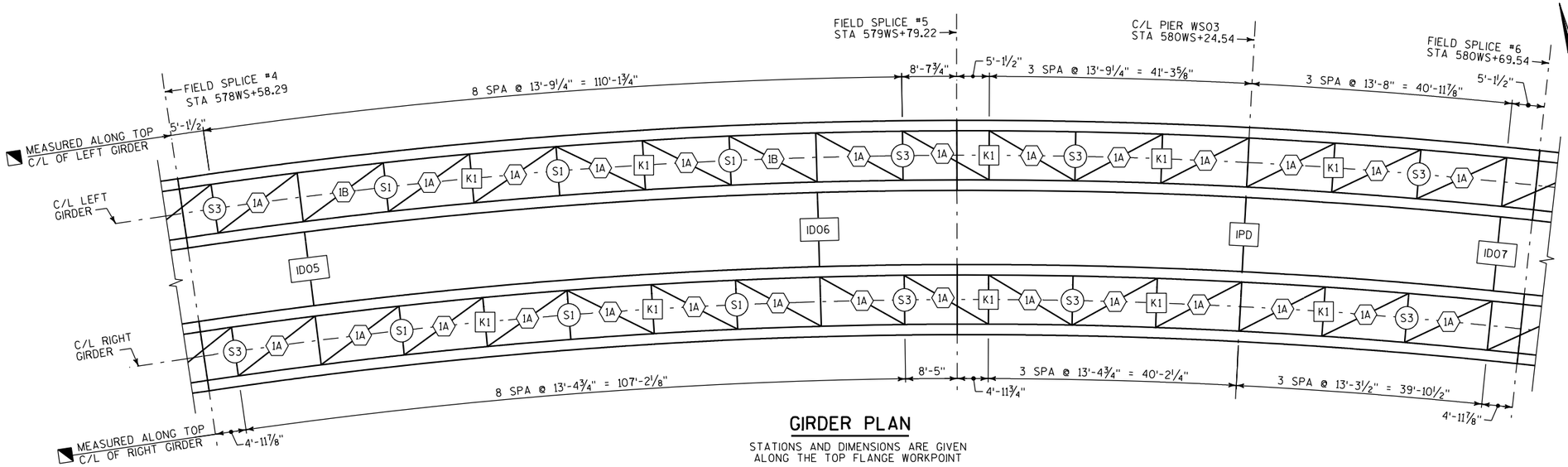
GIRDER PLAN AND ELEVATION: FIELD SECTIONS 3 & 4

SHEET 35 OF 96

8

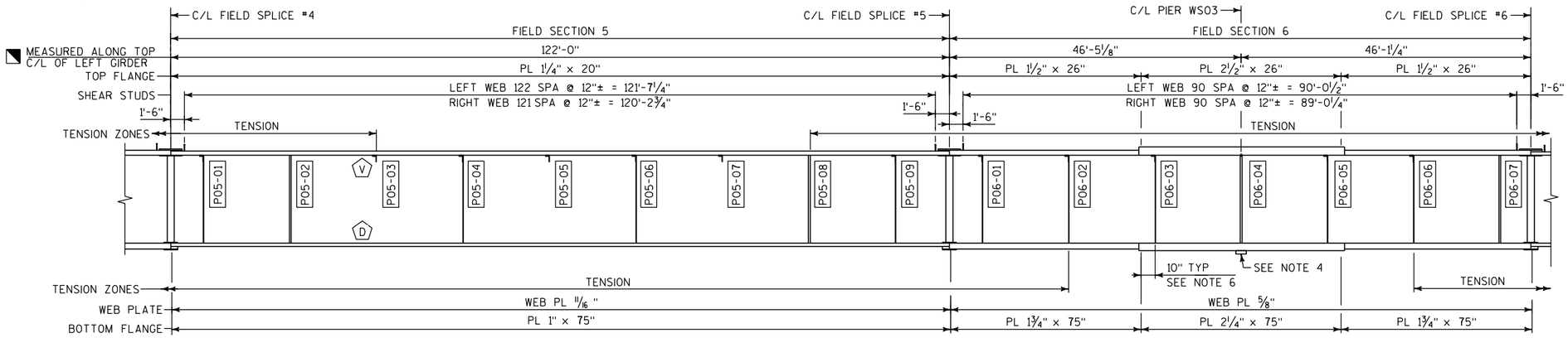
8

STATE PROJECT NUMBER
1060-33-81

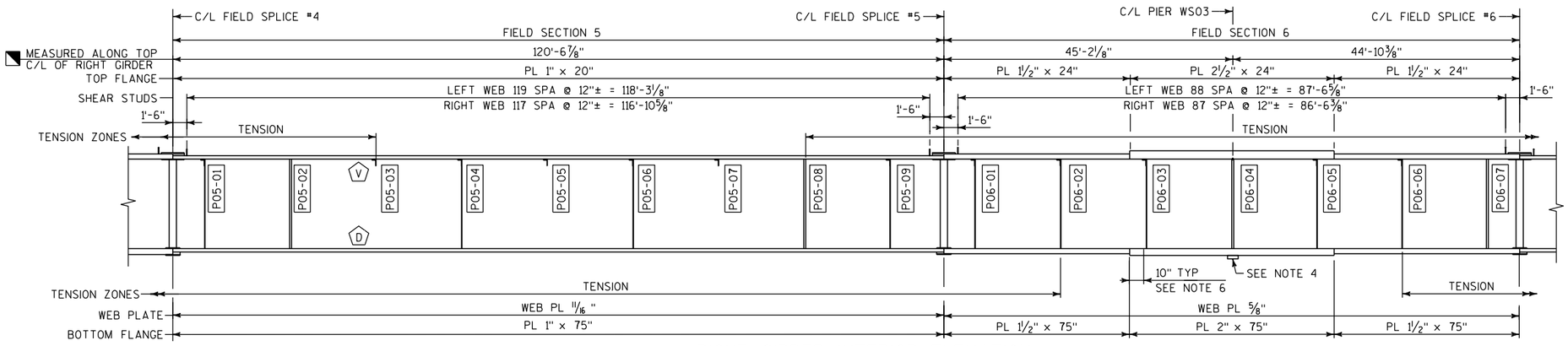


GIRDER PLAN

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 45.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 45.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 48, 52 & 53.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 49, 52 & 53.
PED	PIER END DIAPHRAGM, SEE SHEETS 50, 52 & 53.
IDXX	INTERMEDIATE DIAPHRAGM, SEE SHEETS 51, 52 & 53. "XX" INDICATES DIAPHRAGM NUMBER.
1A	LATERAL BRACING IDENTIFIER, SEE SHEET 46 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 44.
V	WEB PLATE VENT HOLE, SEE SHEET 44.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 42.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 43.
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 44.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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GIRDER PLAN AND ELEVATION: FIELD SECTIONS 5 & 6

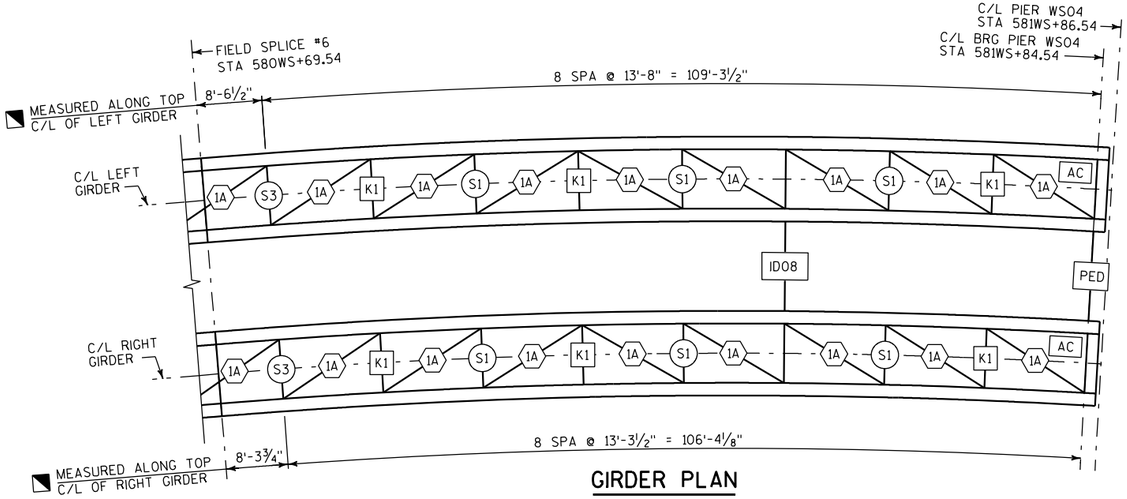
SHEET 36 OF 96

8

8

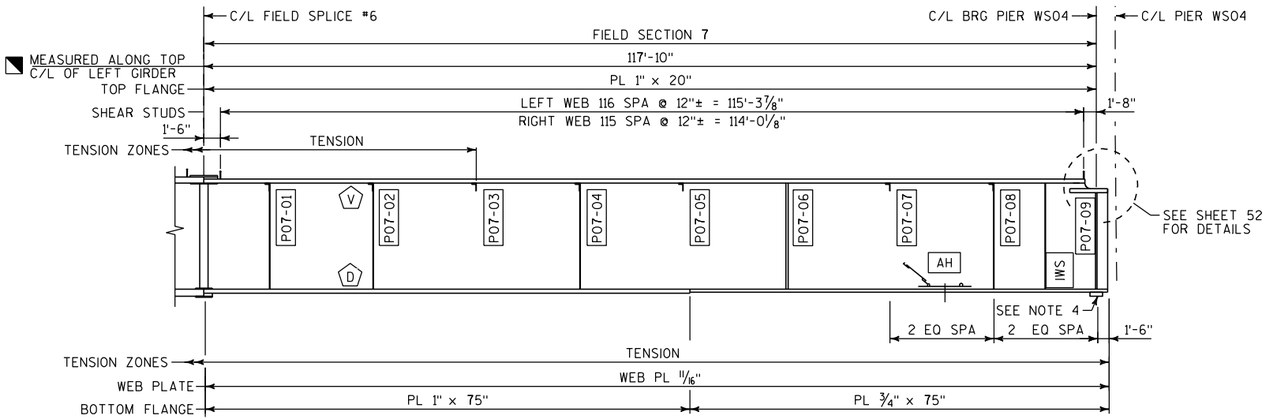
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080510_ss.dgn PLOT DATE : 02-MAR-2015 15:04 PLOT BY : MSCGLM PLOT NAME : B786_080510_ss PLOT SCALE : 20:1

STATE PROJECT NUMBER
1060-33-81

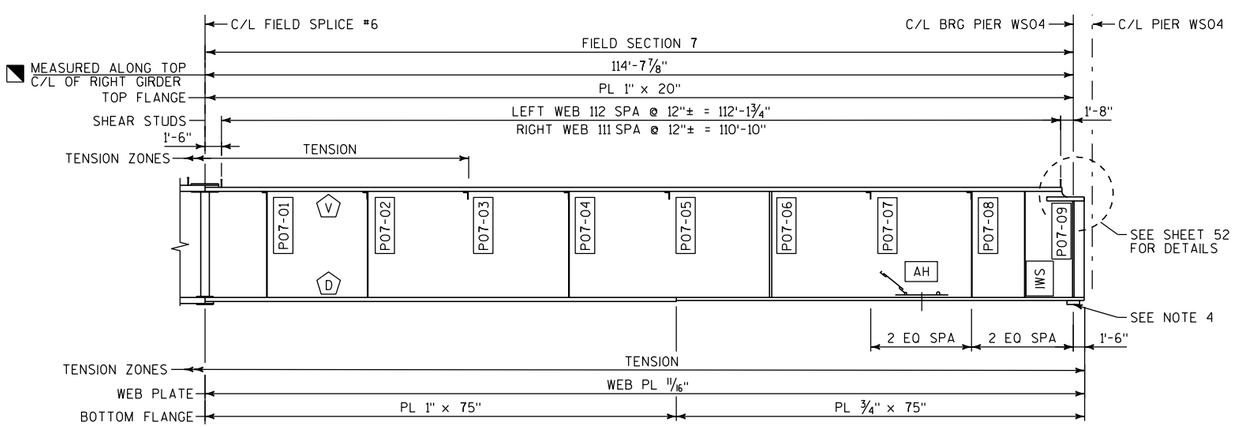


GIRDER PLAN

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 45.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 45.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 48, 52 & 53.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 49, 52 & 53.
PED	PIER END DIAPHRAGM, SEE SHEETS 50, 52 & 53.
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D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 44.
V	WEB PLATE VENT HOLE, SEE SHEET 44.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 42.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 43.
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.
IWS	INTERMEDIATE WEB STIFFENER PL ¾"×8".

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 44.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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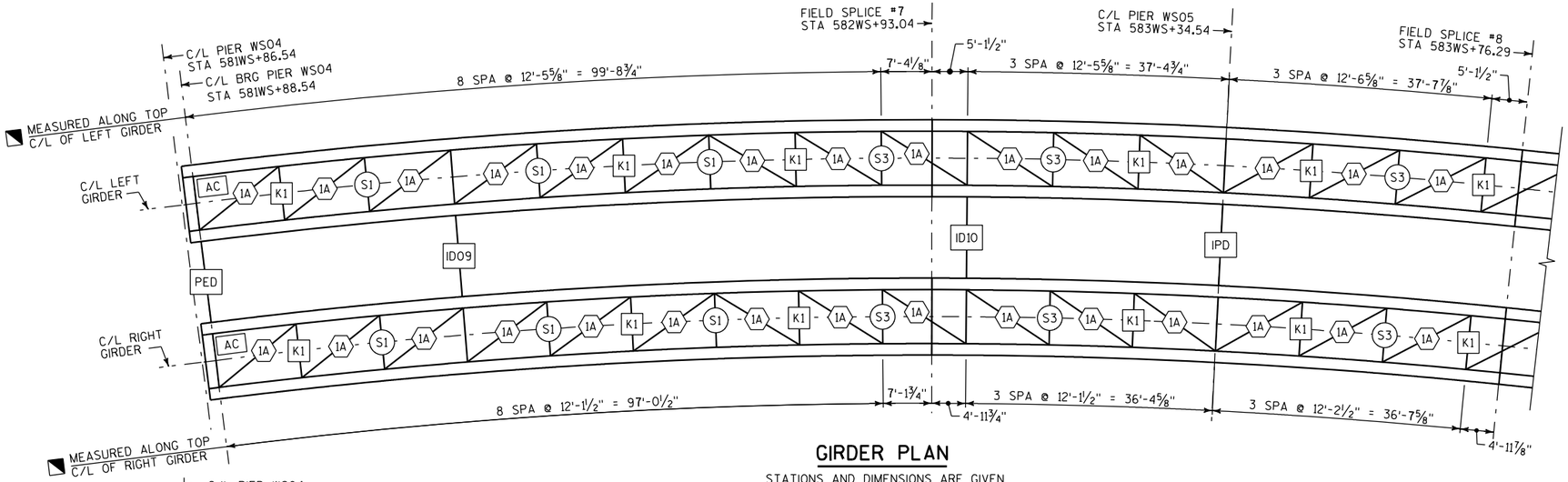
GIRDER PLAN AND ELEVATION: FIELD SECTION 7

SHEET 37 OF 96

8

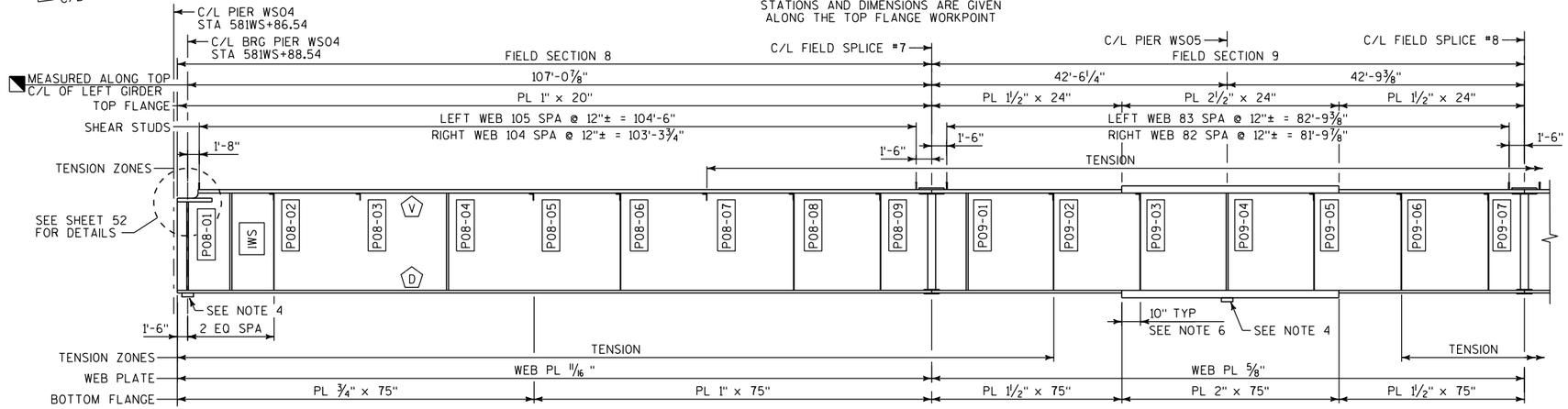
8

STATE PROJECT NUMBER
1060-33-81

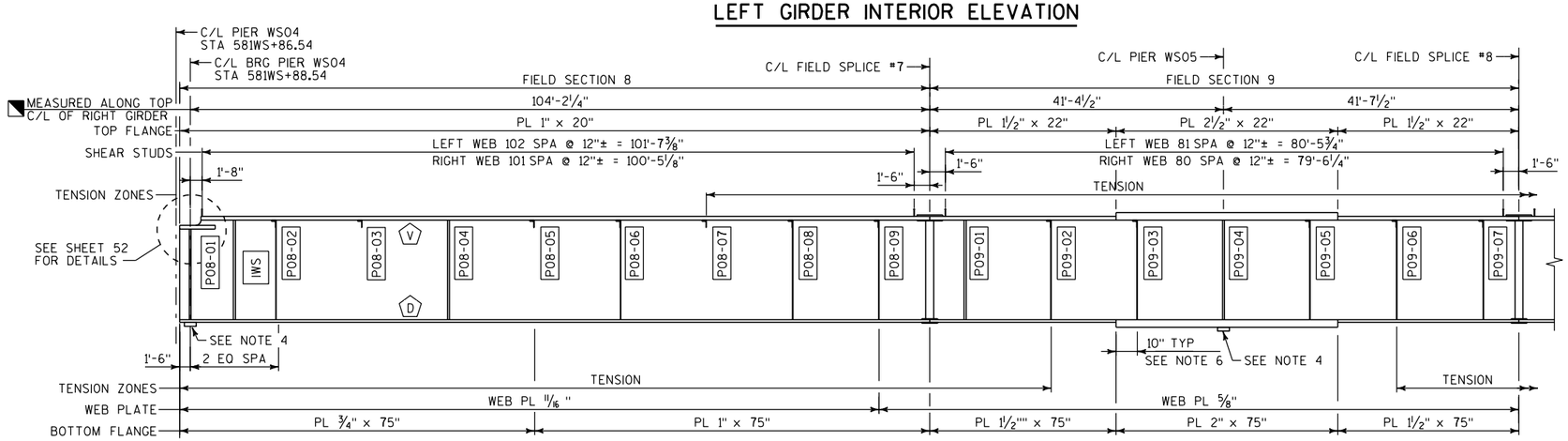


GIRDER PLAN

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 45.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 45.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 48, 52 & 53.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 49, 52 & 53.
PED	PIER END DIAPHRAGM, SEE SHEETS 50, 52 & 53.
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1A	LATERAL BRACING IDENTIFIER, SEE SHEET 46 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 44.
V	WEB PLATE VENT HOLE, SEE SHEET 44.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 42.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 43.
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.
IWS	INTERMEDIATE WEB STIFFENER PL ¾"x8".

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 44.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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GIRDER PLAN AND ELEVATION: FIELD SECTIONS 8 & 9

SHEET 38 OF 97

8

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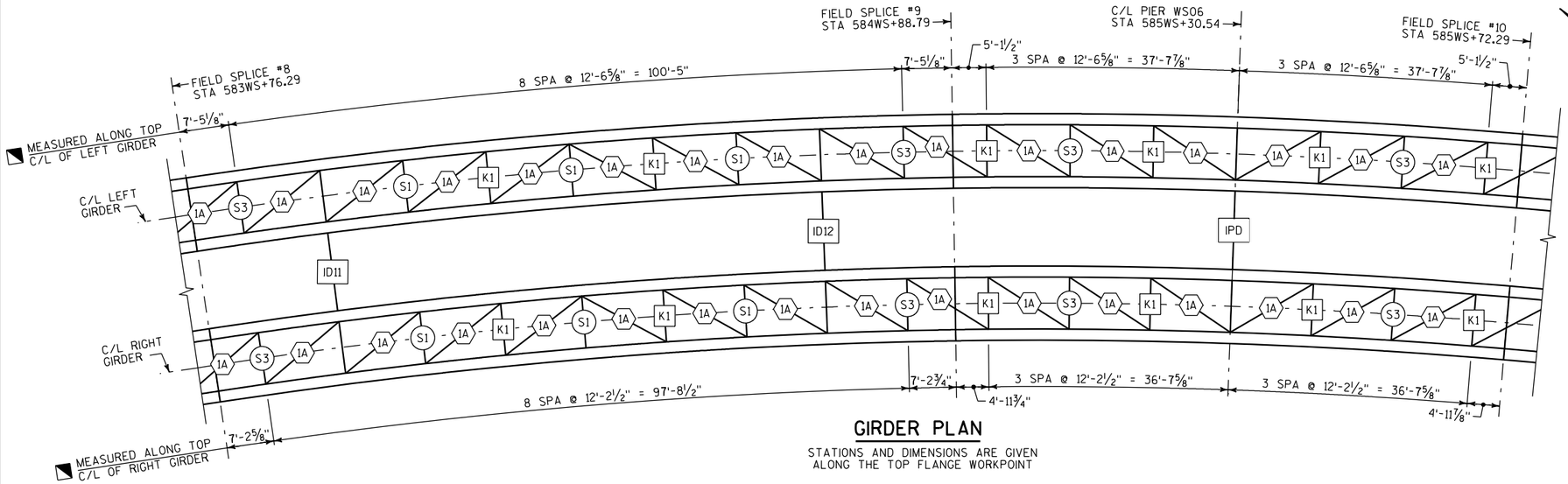
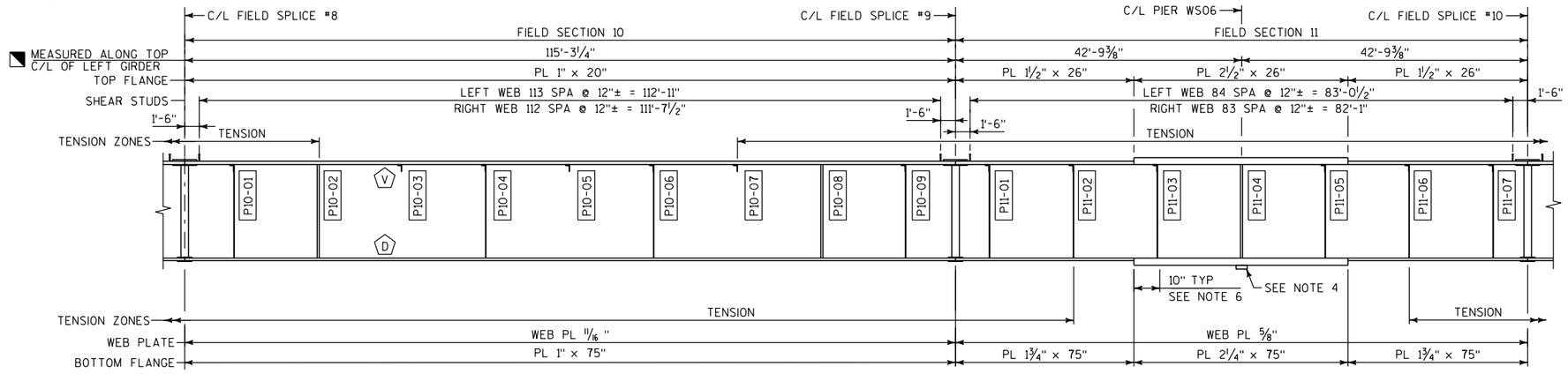
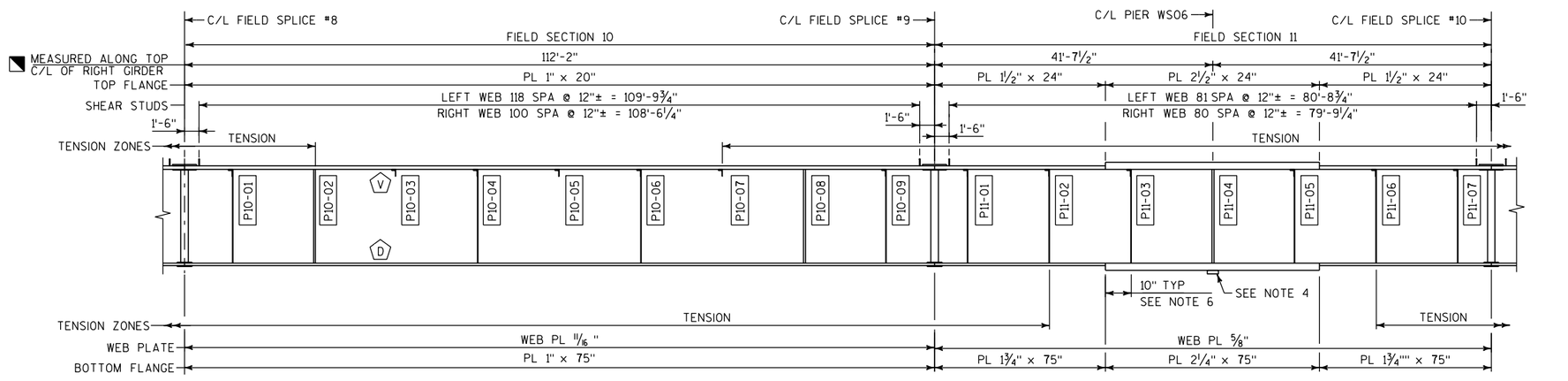


GIRDER PLAN

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 45.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 45.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 48, 52 & 53.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 49, 52 & 53.
PED	PIER END DIAPHRAGM, SEE SHEETS 50, 52 & 53.
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AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 42.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 43.
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.
IWS	INTERMEDIATE WEB STIFFENER PL ¾"×8".

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 44.

STATE PROJECT NUMBER
1060-33-81

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

GIRDER PLAN AND ELEVATION: FIELD SECTIONS 10 & 11

SHEET 39 OF 97

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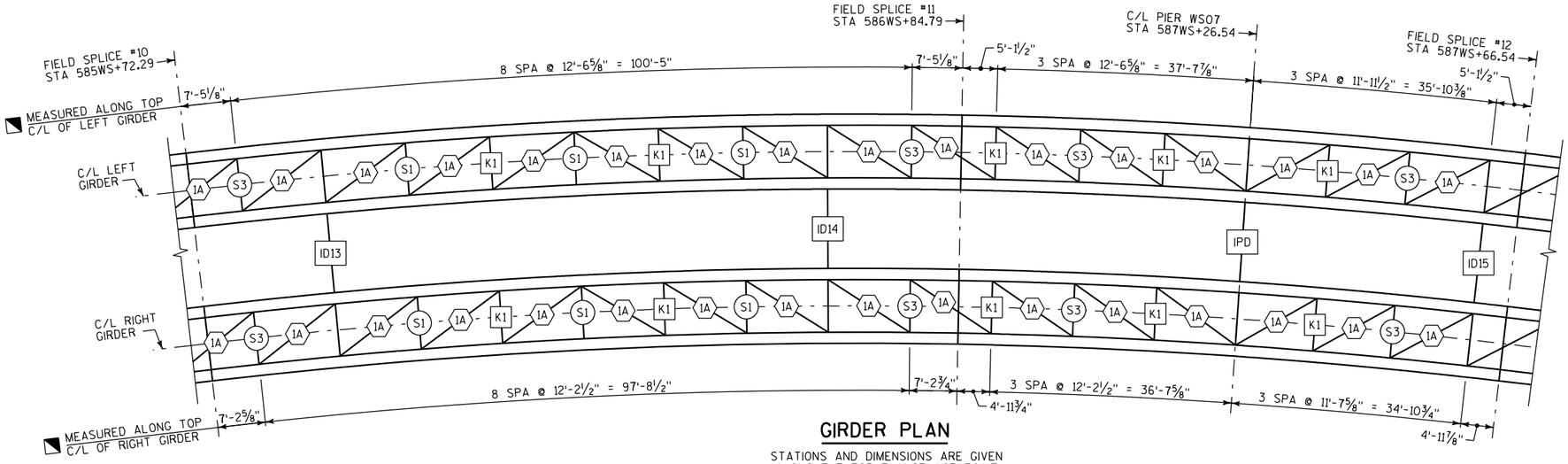
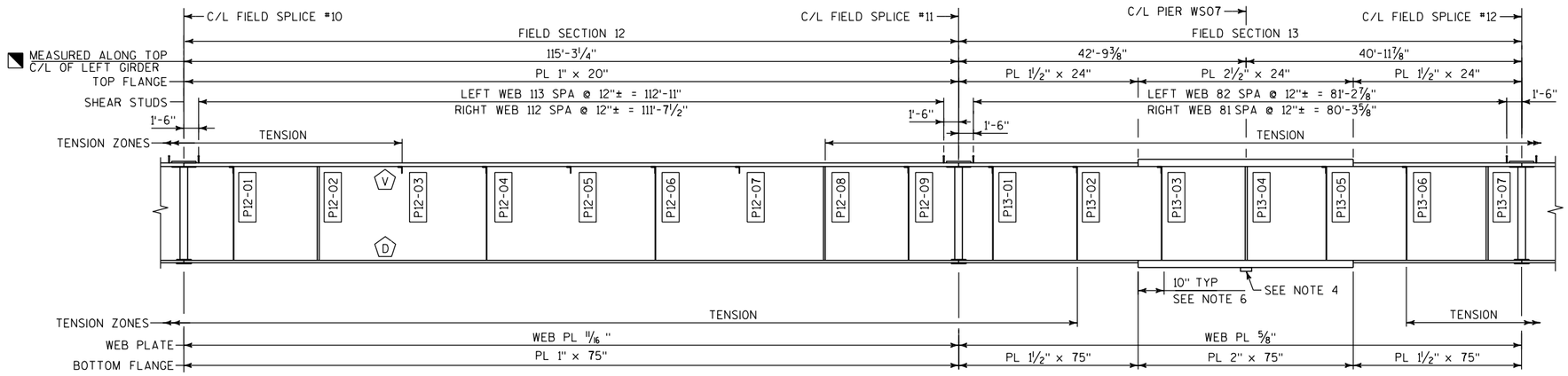
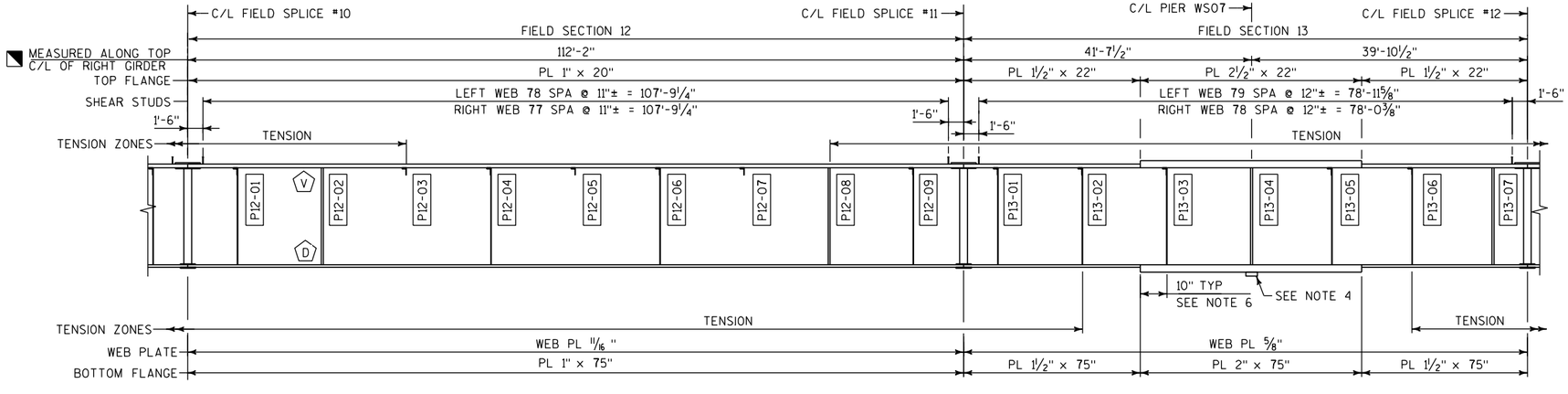


GIRDER PLAN

STATIONS AND DIMENSIONS ARE GIVEN ALONG THE TOP FLANGE WORKPOINT



LEFT GIRDER INTERIOR ELEVATION



RIGHT GIRDER INTERIOR ELEVATION

STATE PROJECT NUMBER
1060-33-81

LEGEND

K1	K-FRAME IDENTIFIER, SEE SHEET 45.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 45.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 48, 52 & 53.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 49, 52 & 53.
PED	PIER END DIAPHRAGM, SEE SHEETS 50, 52 & 53.
IDXX	INTERMEDIATE DIAPHRAGM, SEE SHEETS 51, 52 & 53. "XX" INDICATES DIAPHRAGM NUMBER.
1A	LATERAL BRACING IDENTIFIER, SEE SHEET 46 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 44.
V	WEB PLATE VENT HOLE, SEE SHEET 44.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 42.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 43.
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.
IWS	INTERMEDIATE WEB STIFFENER PL ¾"×8".

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 44.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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GIRDER PLAN AND ELEVATION: FIELD SECTIONS 12 & 13

SHEET 40 OF 97

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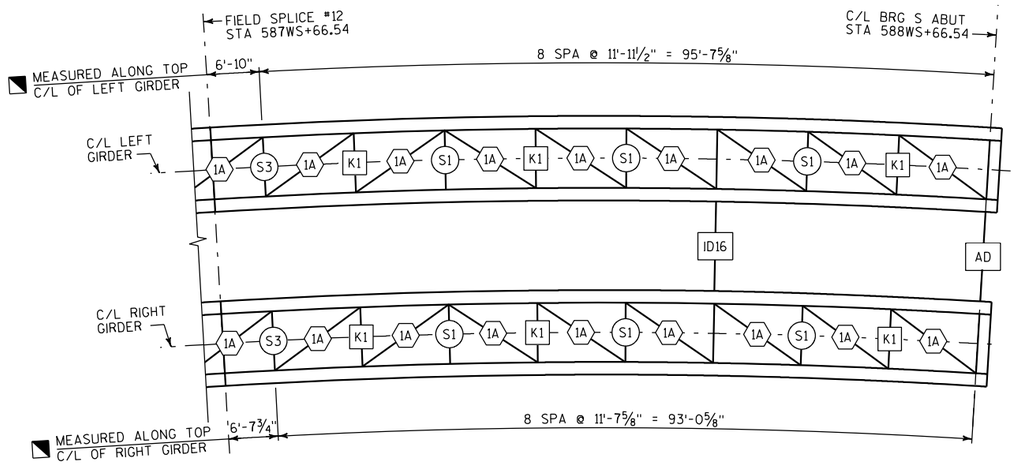
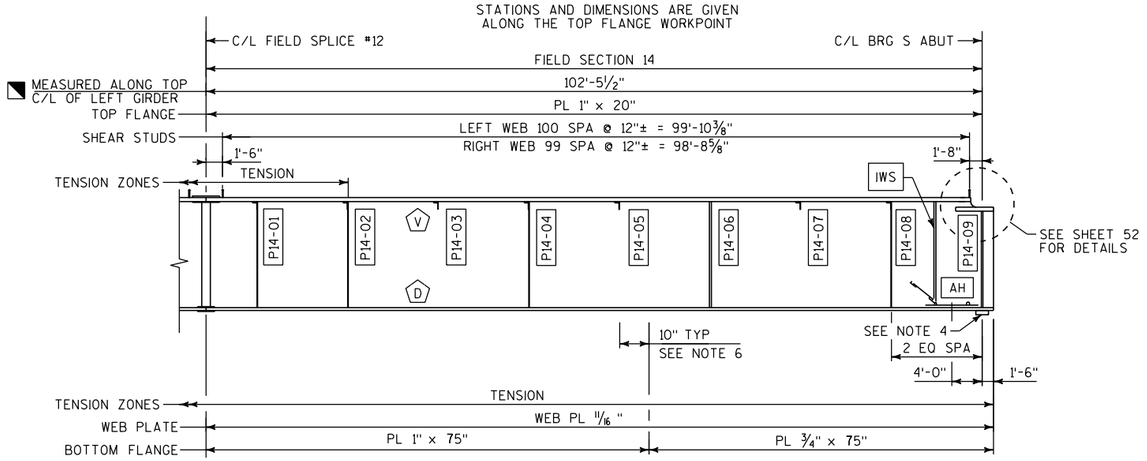
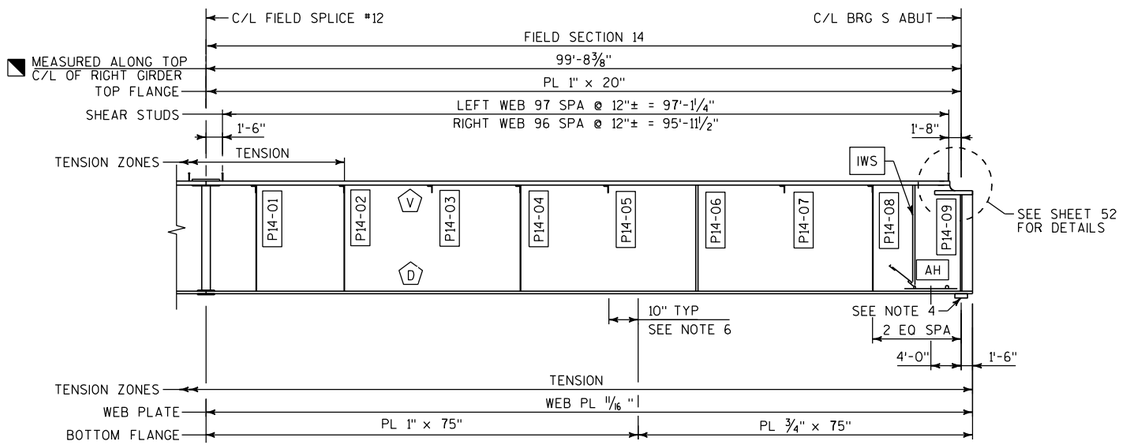


GIRDER PLAN



LEFT GIRDER INTERIOR ELEVATION



RIGHT GIRDER INTERIOR ELEVATION

STATE PROJECT NUMBER
1060-33-81

LEGEND

K1	K-FRAME IDENTIFIER, SEE SHEET 45.
S1	TRANSVERSE STRUT IDENTIFIER, SEE SHEET 45.
AD	ABUTMENT DIAPHRAGM, SEE SHEETS 48, 52 & 53.
IPD	INTERIOR PIER DIAPHRAGM, SEE SHEETS 49, 52 & 53.
PED	PIER END DIAPHRAGM, SEE SHEETS 50, 52 & 53.
IDXX	INTERMEDIATE DIAPHRAGM, SEE SHEETS 51, 52 & 53. "XX" INDICATES DIAPHRAGM NUMBER.
1A	LATERAL BRACING IDENTIFIER, SEE SHEET 46 FOR MEMBER SIZE AND CONNECTION DETAILS.
D	BOTTOM FLANGE DRAIN HOLE, SEE SHEET 44.
V	WEB PLATE VENT HOLE, SEE SHEET 44.
AH	BOTTOM FLANGE ACCESS HATCH, SEE SHEET 42.
AC	END DIAPHRAGM ACCESS DOOR, SEE SHEET 43.
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.
IWS	INTERMEDIATE WEB STIFFENER PL ¾"×8".

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 44.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

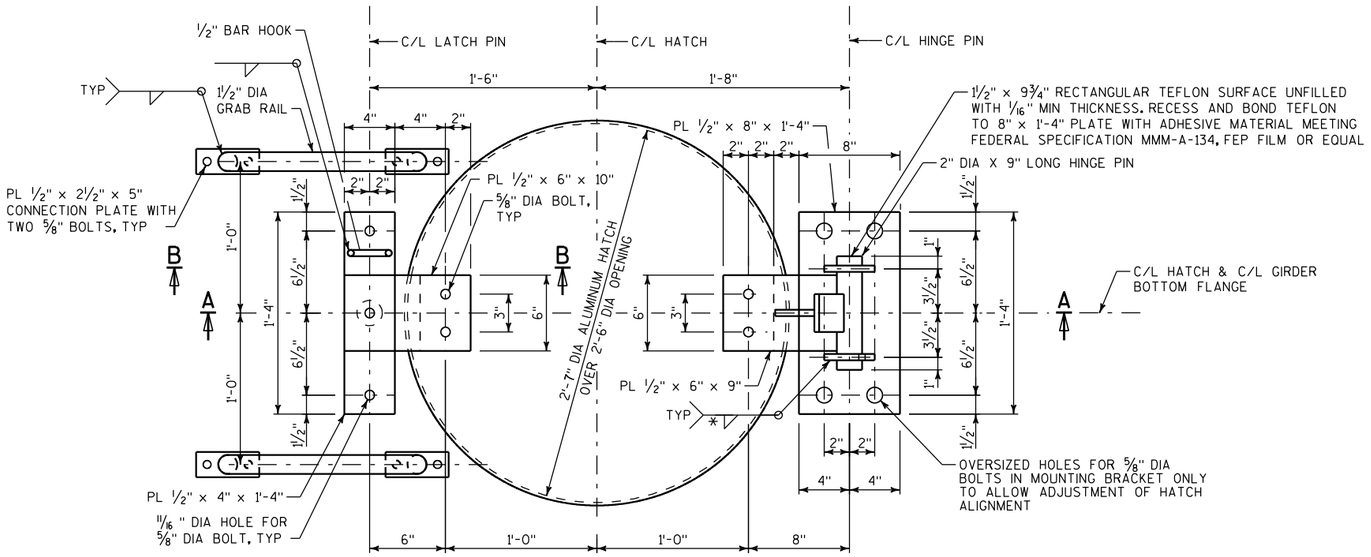
GIRDER PLAN AND ELEVATION: FIELD SECTIONS 14

SHEET 41 OF 97

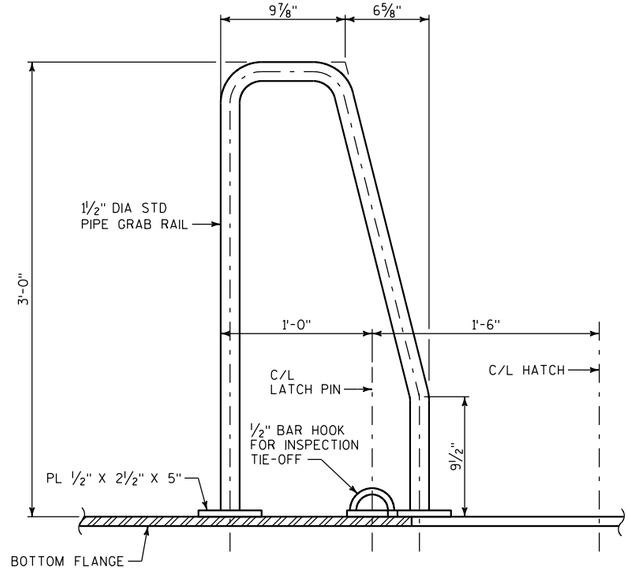
8

8

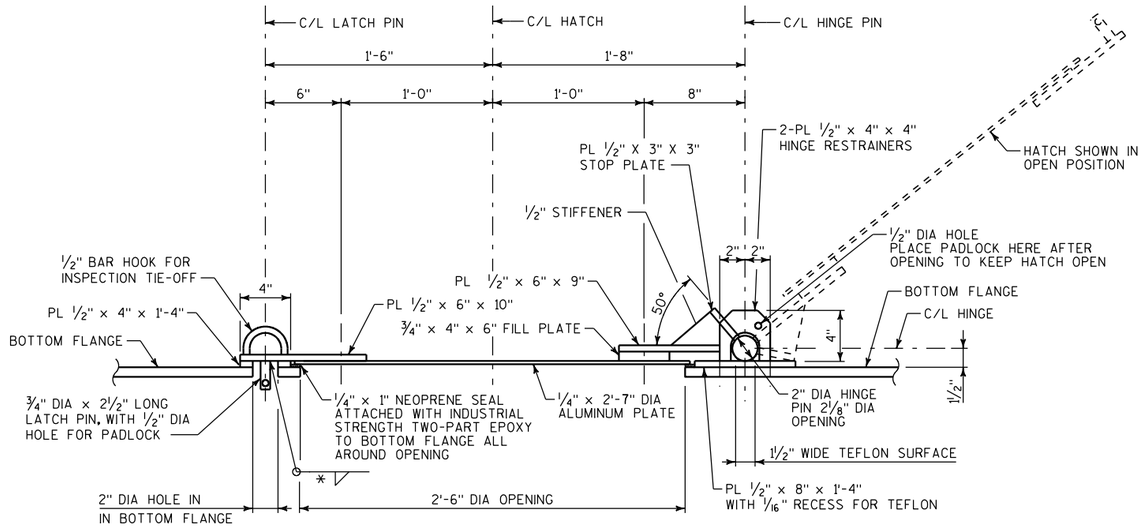
STATE PROJECT NUMBER
1060-33-81



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".

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DRAWN BY	GLM	PLANS CK'D.	WRT

ACCESS HATCH DETAILS

SHEET 42 OF 97

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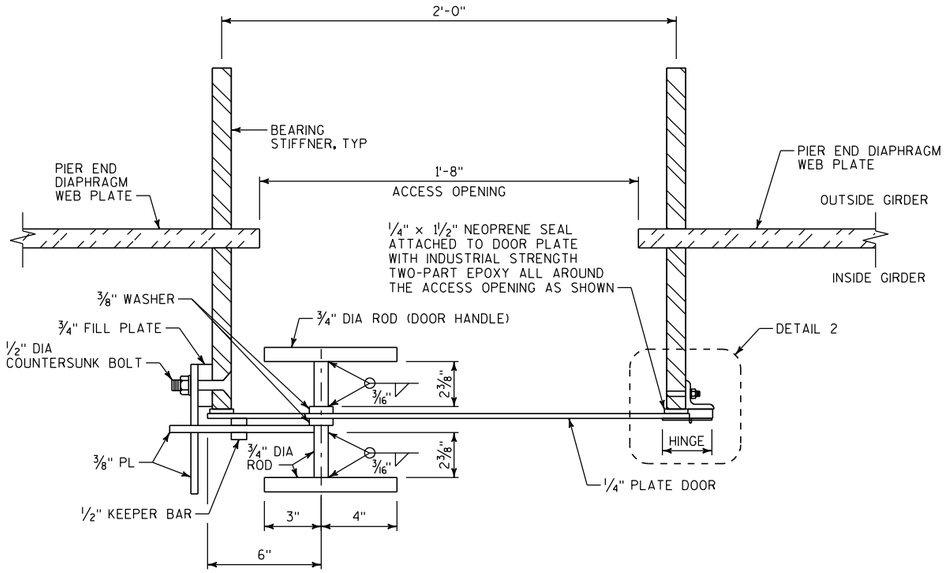
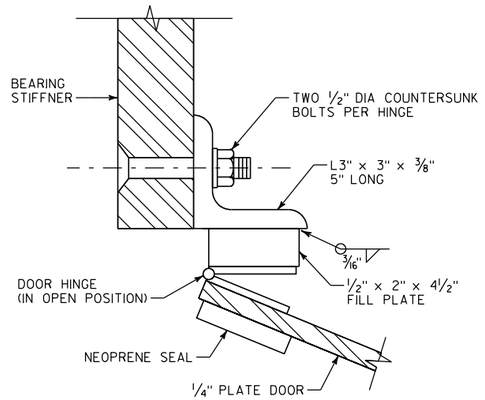
STATE PROJECT NUMBER
1060-33-81

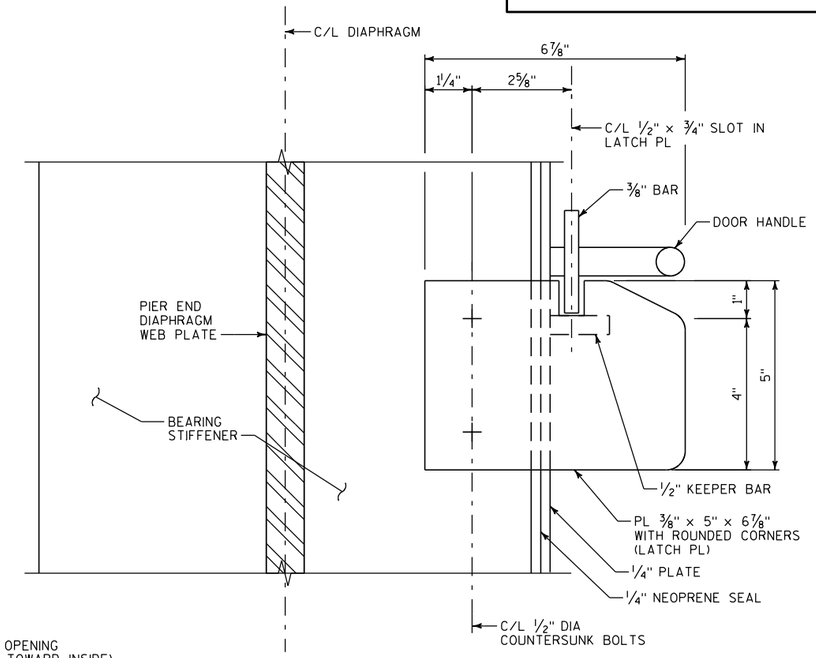


SECTION A-A

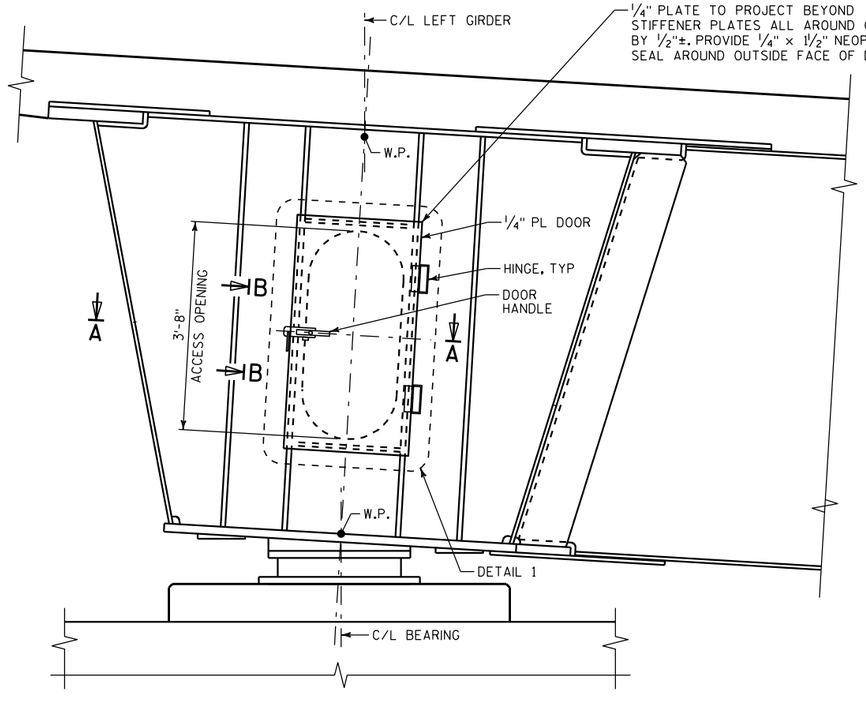


DETAIL 2

(WITH DOOR OPEN)

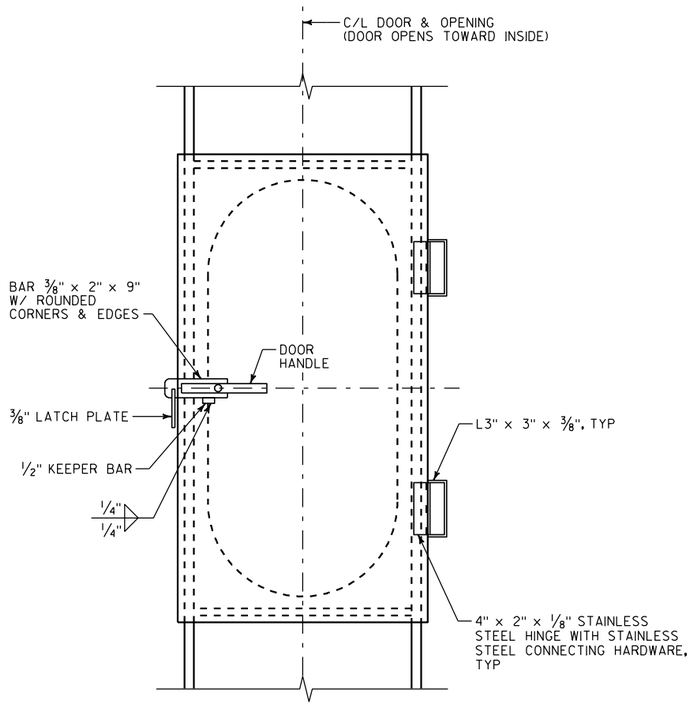


SECTION B-B



ELEVATION

LEFT GIRDER SHOWN, RIGHT GIRDER SIMILAR



DETAIL 1

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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ACCESS DOOR DETAILS

SHEET 43 OF 97

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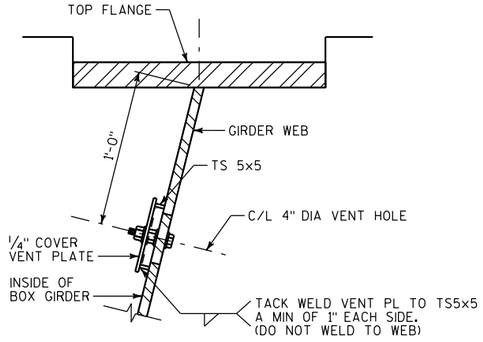
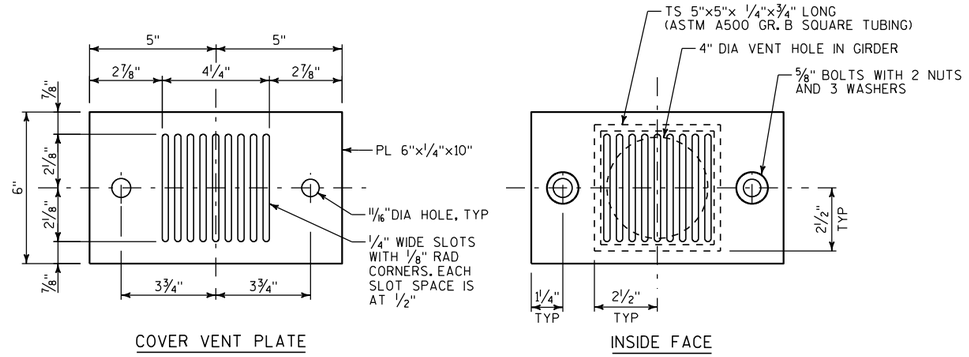


VENT HOLE LOCATION

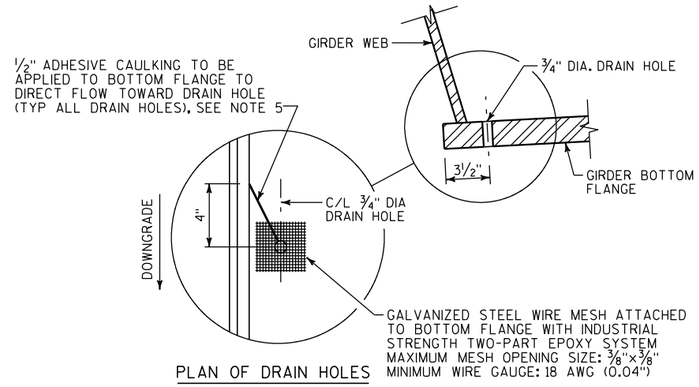


COVER VENT PLATE

INSIDE FACE

VENT HOLE COVER ASSEMBLY

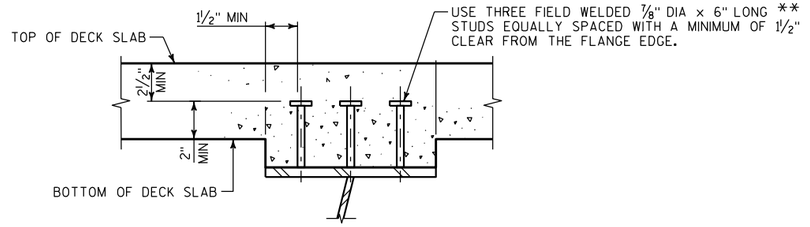
NOT TO SCALE



PLAN OF DRAIN HOLES

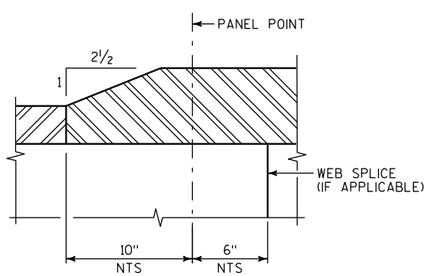
DRAIN HOLE DETAILS

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
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STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

MISCELLANEOUS GIRDER DETAILS

SHEET 44 OF 97

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STATE PROJECT NUMBER
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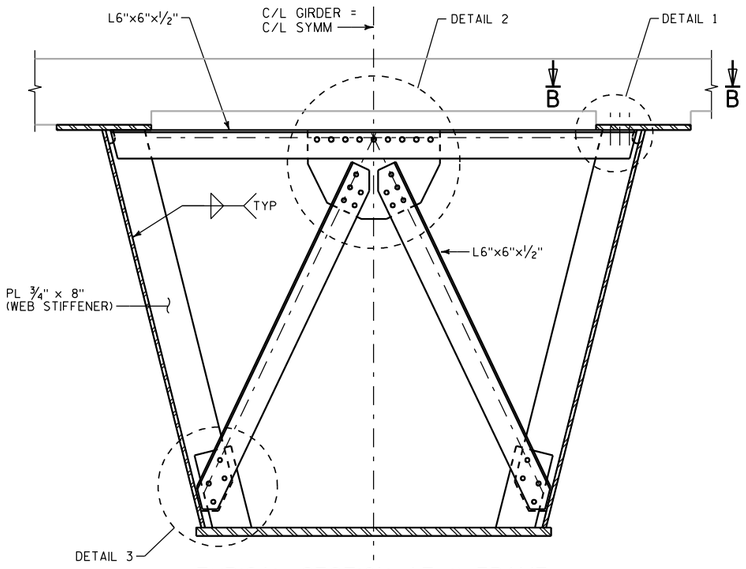
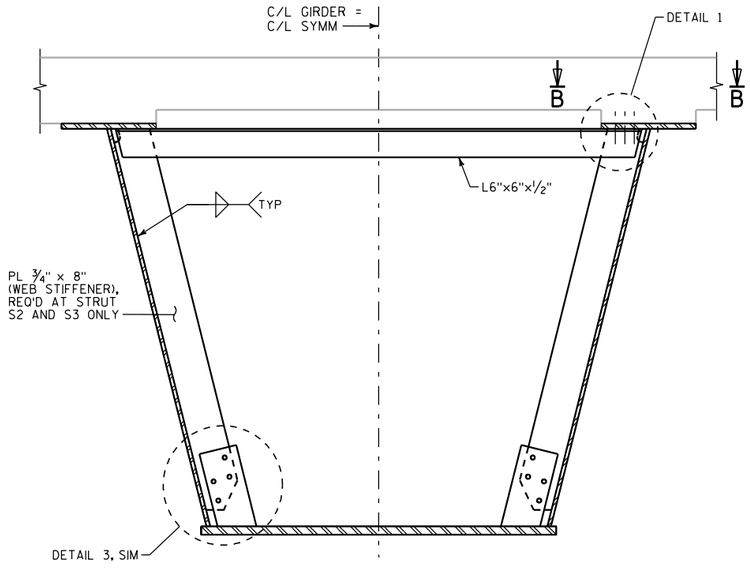


TYPICAL SECTION AT K-FRAME

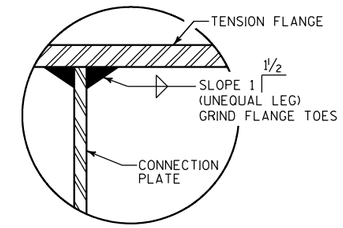
FOR LOCATION OF K-FRAMES K1 AND K2
SEE GIRDER PLAN AND ELEVATION SHEETS



TYPICAL SECTION AT STRUT

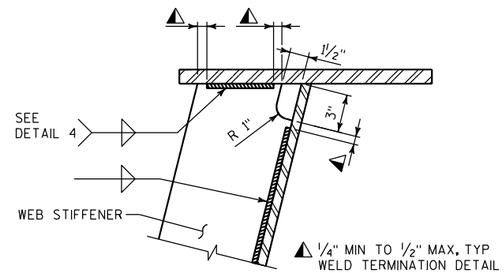
FOR LOCATION OF STRUTS S1, S2, AND S3
SEE GIRDER PLAN AND ELEVATION SHEETS

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

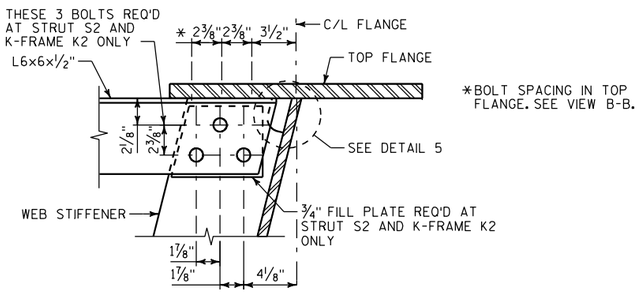


DETAIL 4

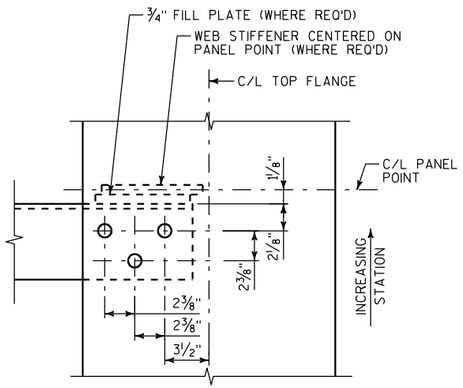
WEB STIFFENER DETAIL AT TENSION FLANGE



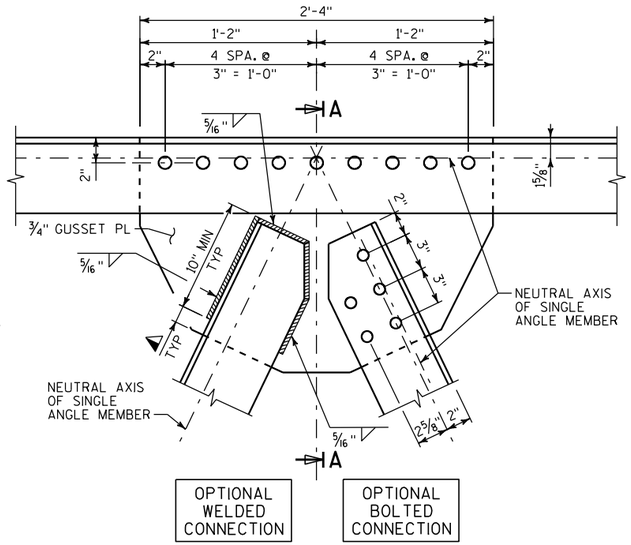
DETAIL 5



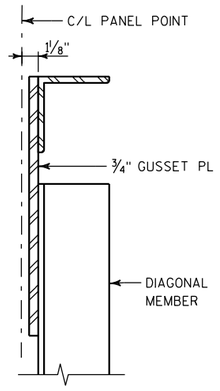
DETAIL 1



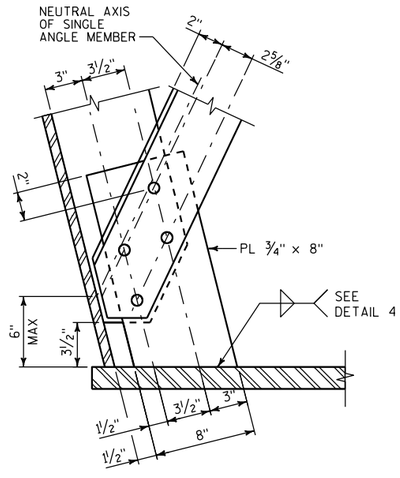
VIEW B-B



DETAIL 2



SECTION A-A



DETAIL 3

NOTES

1. ALL BOLTS IN K-FRAME OR STRUT CONNECTIONS ARE ⅞" 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-40-786

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K-FRAMES AND STRUTS

SHEET 45 OF 97

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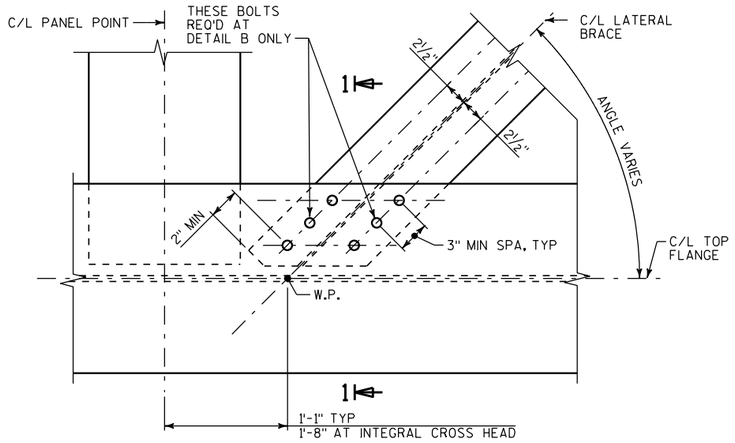
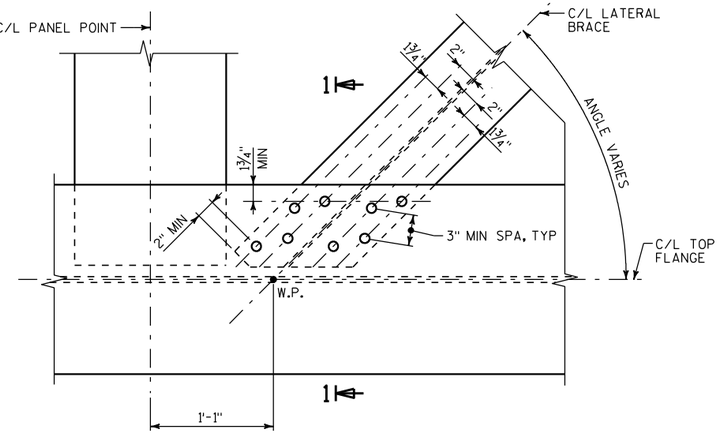
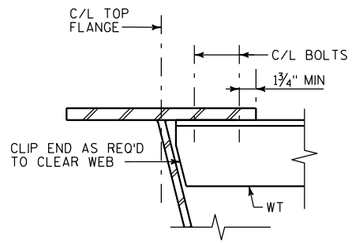


DETAIL A
4 BOLT CONNECTION

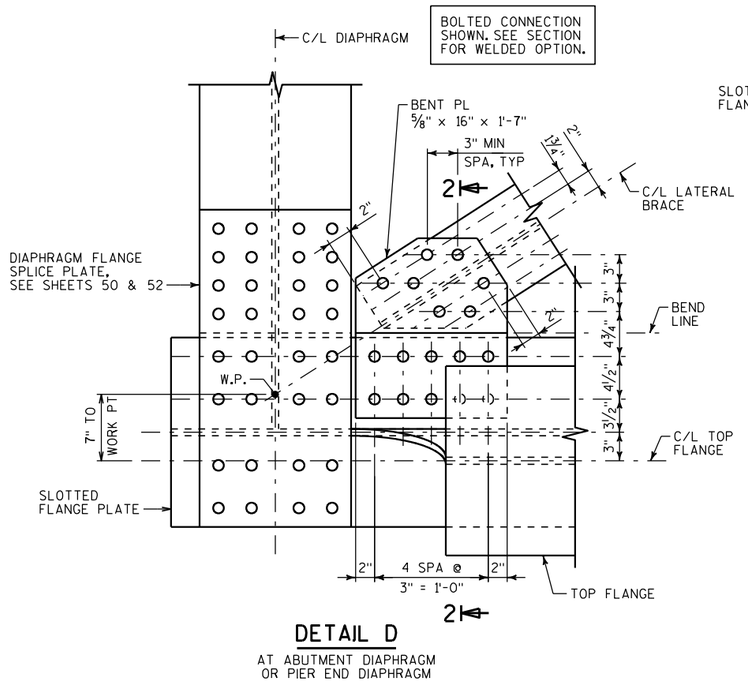
DETAIL B
6 BOLT CONNECTION



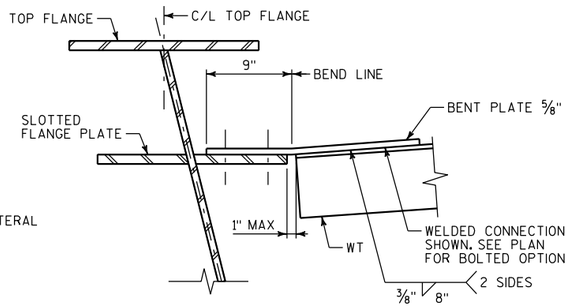
DETAIL C
8 BOLT CONNECTION



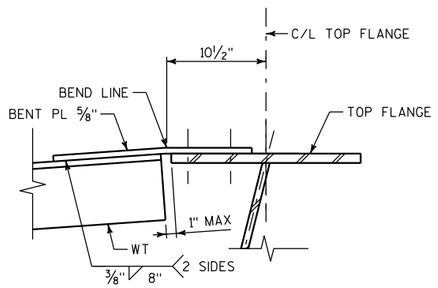
SECTION 1-1



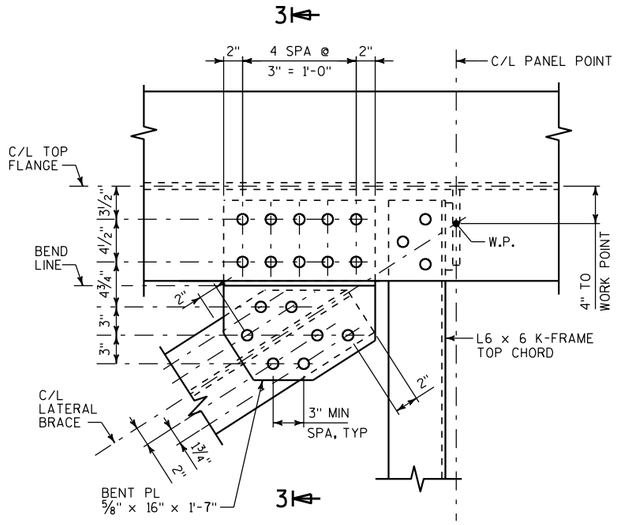
DETAIL D
AT ABUTMENT DIAPHRAGM OR PIER END DIAPHRAGM



SECTION 2-2



SECTION 3-3



DETAIL D
AT FIRST K-FRAME

SECTION MARKS

THE FIRST CHARACTER OF THE LATERAL BRACING INTENTIFIER 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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

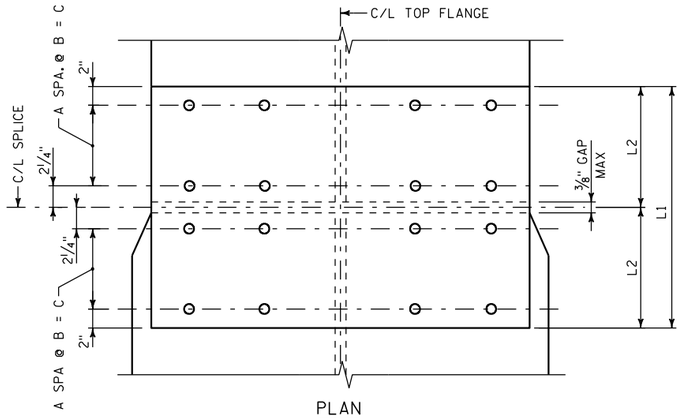
DRAWN BY	GLM	PLANS CK'D.	WRT

LATERAL BRACING DETAILS

SHEET 46 OF 97

8

8



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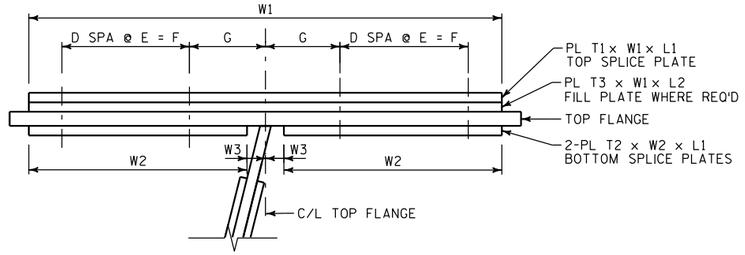
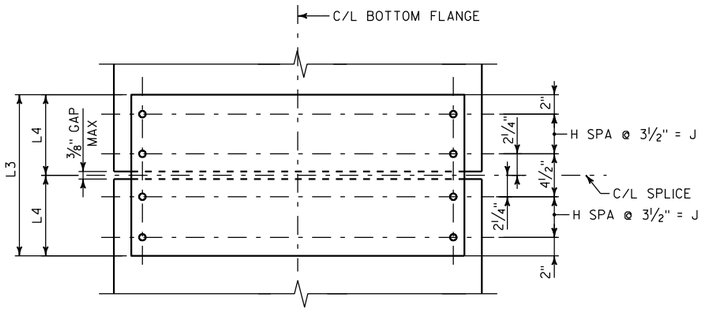


SECTION

TOP FLANGE SPLICE



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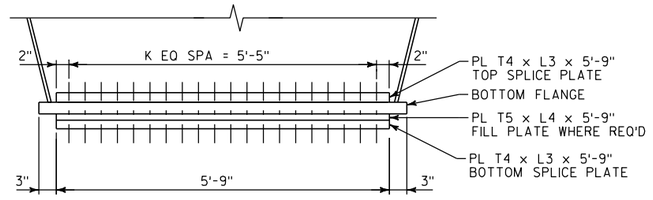

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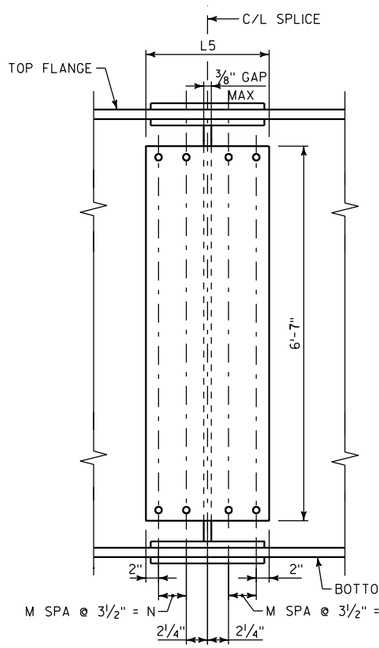
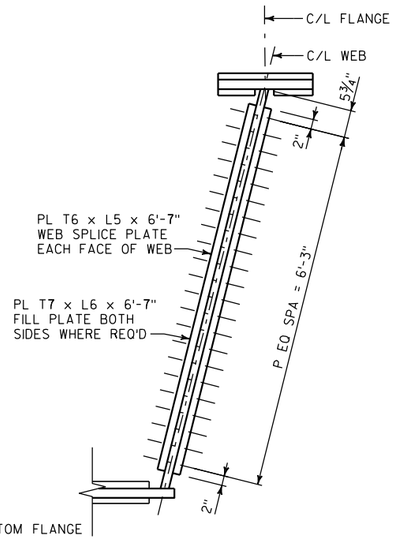
BOTTOM FLANGE SPLICE



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"	½"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	17	⅜"	-	1'-3½"	7¾"	1	3½"	18
	RT	½"	½"	½"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	17	⅜"	-	1'-3½"	7¾"	1	3½"	18
2	LT	⅝"	⅝"	-	3'-½"	1'-6¼"	1'-8"	9"	1"	4	3½"	1'-2"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	18	⅜"	-	1'-3½"	7¾"	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"	17	⅜"	-	1'-3½"	7¾"	1	3½"	18
3	LT	⅝"	⅝"	¼"	3'-½"	1'-6¼"	1'-8"	9"	1"	4	3½"	1'-2"	1	4½"	4½"	3¼"	½"	¾"	1'-10½"	11¼"	2	7"	18	⅜"	-	1'-3½"	7¾"	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"	18	⅜"	-	1'-3½"	7¾"	1	3½"	18
4	LT	⅝"	⅝"	¼"	3'-½"	1'-6¼"	1'-8"	9"	1"	4	3½"	1'-2"	1	4½"	4½"	3¼"	½"	¾"	1'-10½"	11¼"	2	7"	18	⅜"	-	1'-3½"	7¾"	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"	18	⅜"	-	1'-3½"	7¾"	1	3½"	18
5	LT	⅝"	⅝"	¼"	3'-½"	1'-6¼"	1'-8"	9"	1"	4	3½"	1'-2"	1	4½"	4½"	3¼"	½"	¾"	1'-10½"	11¼"	2	7"	18	⅜"	-	1'-3½"	7¾"	1	3½"	18
	RT	½"	½"	½"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	17	⅜"	-	1'-3½"	7¾"	1	3½"	18
6	LT	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"	18	⅜"	-	1'-3½"	7¾"	1	3½"	18
	RT	½"	½"	½"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	17	⅜"	-	1'-3½"	7¾"	1	3½"	18
7	LT	½"	½"	½"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	17	⅜"	-	1'-3½"	7¾"	1	3½"	18
	RT	½"	½"	½"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	17	⅜"	-	1'-3½"	7¾"	1	3½"	18
8	LT	⅝"	⅝"	½"	3'-½"	1'-6¼"	1'-8"	9"	1"	4	3½"	1'-2"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	18	⅜"	-	1'-3½"	7¾"	1	3½"	18
	RT	½"	½"	½"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	17	⅜"	-	1'-3½"	7¾"	1	3½"	18
9	LT	⅝"	⅝"	½"	3'-½"	1'-6¼"	1'-8"	9"	1"	4	3½"	1'-2"	1	4½"	4½"	3¼"	½"	¾"	1'-10½"	11¼"	2	7"	18	⅜"	-	1'-3½"	7¾"	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"	18	⅜"	-	1'-3½"	7¾"	1	3½"	18
10	LT	⅝"	⅝"	½"	3'-½"	1'-6¼"	1'-8"	9"	1"	4	3½"	1'-2"	1	4½"	4½"	3¼"	½"	¾"	1'-10½"	11¼"	2	7"	18	⅜"	-	1'-3½"	7¾"	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"	18	⅜"	-	1'-3½"	7¾"	1	3½"	18
11	LT	⅝"	⅝"	½"	3'-½"	1'-6¼"	1'-8"	9"	1"	4	3½"	1'-2"	1	4½"	4½"	3¼"	½"	¾"	1'-10½"	11¼"	2	7"	18	⅜"	-	1'-3½"	7¾"	1	3½"	18
	RT	½"	½"	½"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	17	⅜"	-	1'-3½"	7¾"	1	3½"	18
12	LT	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"	18	⅜"	-	1'-3½"	7¾"	1	3½"	18
	RT	½"	½"	½"	2'-5½"	1'-2¾"	1'-8"	9"	1"	3	3½"	10½"	1	4½"	4½"	3¼"	½"	½"	1'-10½"	11¼"	2	7"	17	⅜"	-	1'-3½"	7¾"	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

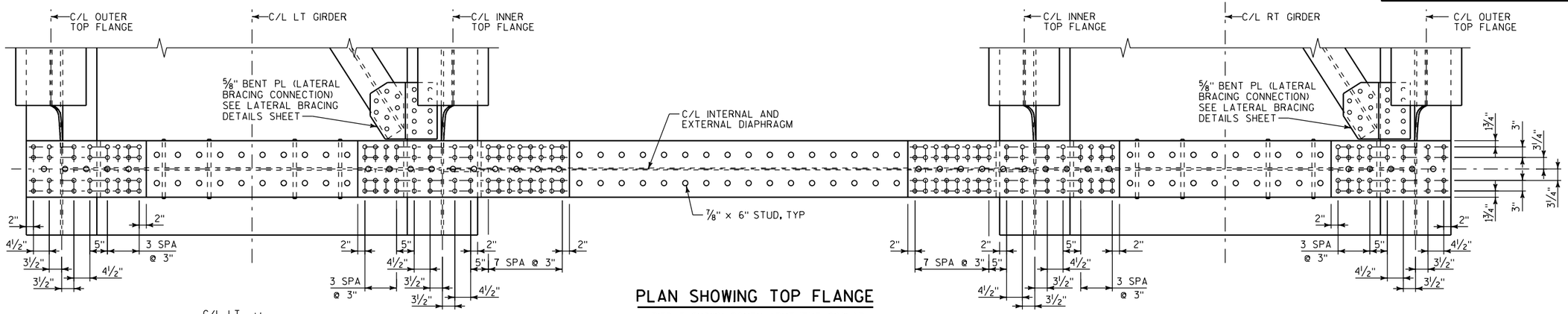
STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

FIELD SPLICE DETAILS

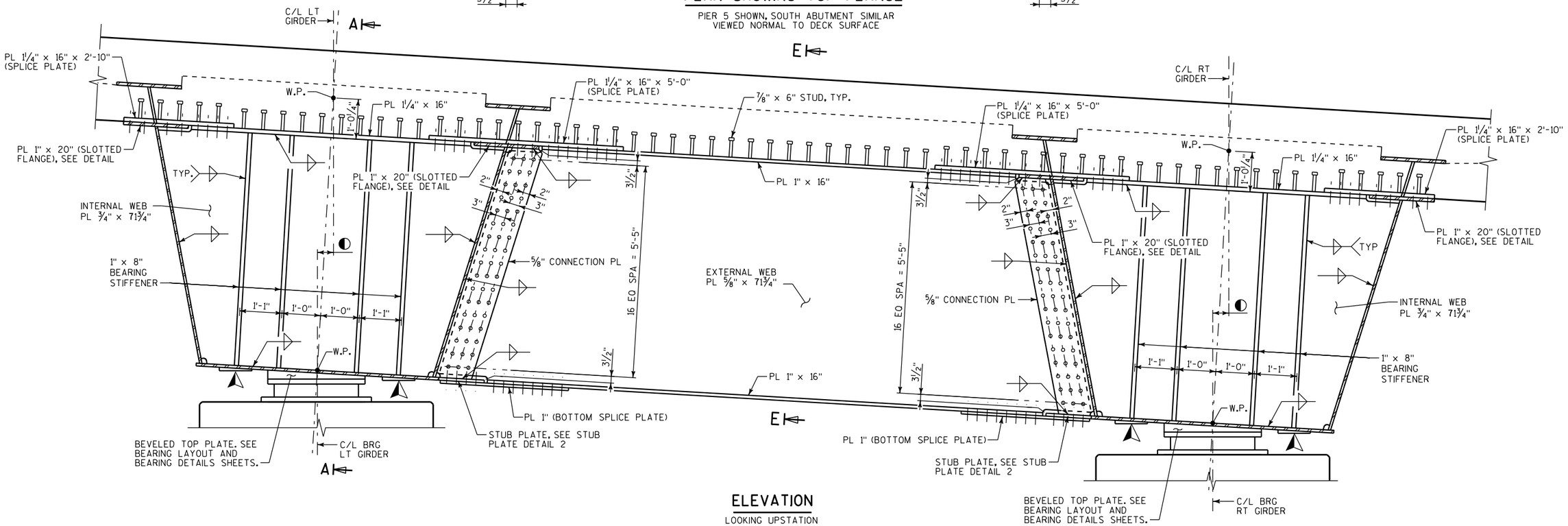
SHEET 47 OF 97

STATE PROJECT NUMBER
1060-33-81



PLAN SHOWING TOP FLANGE

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



ELEVATION

LOOKING UPSTATION

NOTES

1. DIAPHRAGM WEB IS ALIGNED NORMAL TO TUB 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. FOR SECTIONS, SEE DIAPHRAGM DETAILS (1 OF 2) SHEET.

LEGEND

- A SUGGESTED JACKING PAD AND STIFFENER LOCATION FOR FUTURE BEARING REPLACEMENT. SEE JACKING PROVISIONS SHEET FOR DETAILS.
- ◐ -1 11/16" PIER 5
  5" S. ABUT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

ABUTMENT DIAPHRAGM

SHEET 48 OF 97

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080522_ss.dgn
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PLOT BY : MSCBKS
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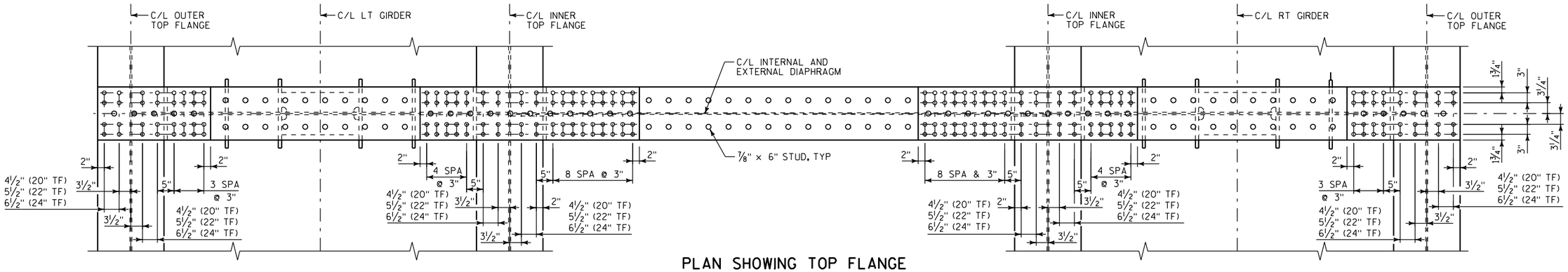
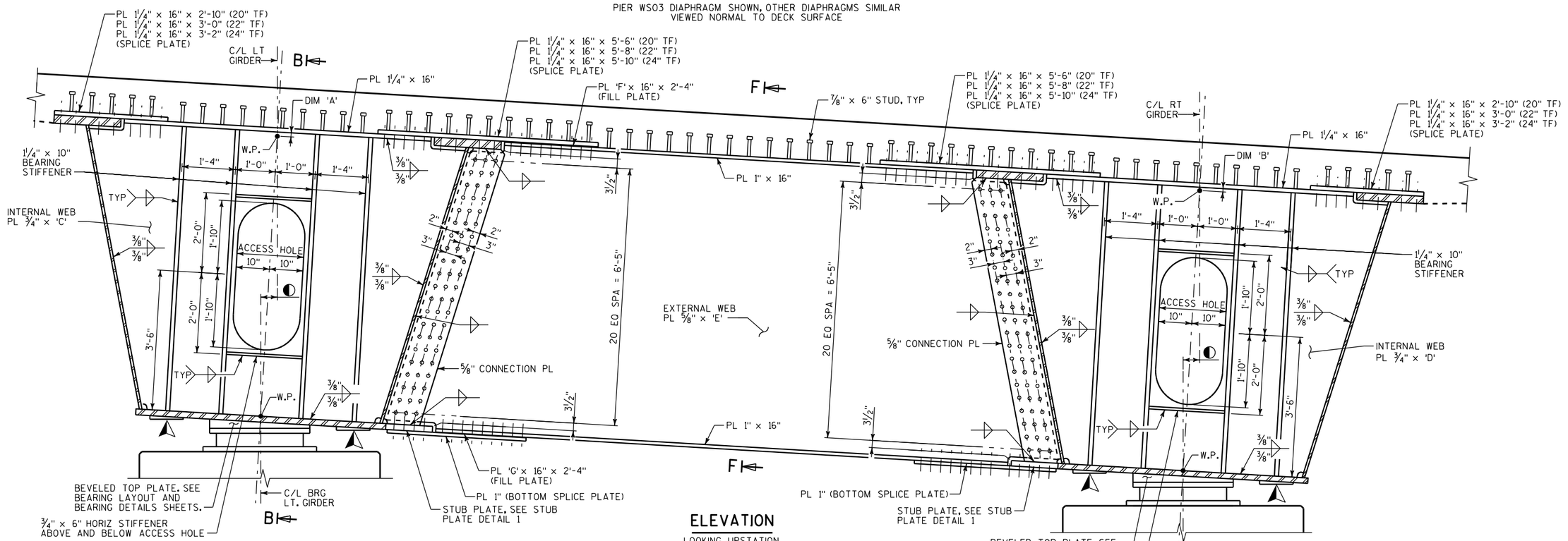
PLOT SCALE : 2.666667:1

STATE PROJECT NUMBER
1060-33-81



PLAN SHOWING TOP FLANGE

PIER WS03 DIAPHRAGM SHOWN, OTHER DIAPHRAGMS SIMILAR
VIEWED NORMAL TO DECK SURFACE



ELEVATION

LOOKING UPSTATION

NOTES

1. DIAPHRAGM WEB IS ALIGNED NORMAL TO TUB 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. FOR SECTIONS SEE DIAPHRAGM DETAILS (1 OF 2) SHEET.

LEGEND

- ◭ SUGGESTED JACKING PAD AND STIFFENER LOCATION FOR FUTURE BEARING REPLACEMENT. SEE JACKING PROVISIONS SHEET FOR DETAILS.
- ◐ 0" PIER WS01
  4 5/16" PIER WS02
  5" PIER WS03, PIER WS05 THRU PIER WS07

DIAPHRAGM LOCATION	DIMENSIONS						
	'A'*	'B'*	'C'	'D'	'E'	'F'	'G'
PIER WS01	1 1/4"	1 1/4"	85 1/4"	85 1/4"	86 1/2"	0"	0"
PIER WS02	1 1/4"	1 1/4"	85 1/4"	85 1/4"	86 3/4"	0"	0"
PIER WS03	1 1/4"	1 1/4"	85 1/4"	85 1/4"	86 1/2"	0"	1/4"
PIER WS05	1 1/4"	1 1/4"	85 1/4"	85 1/4"	86 1/2"	0"	0"
PIER WS06	1 1/4"	1 1/4"	85 1/4"	85 1/4"	86 3/4"	0"	0"
PIER WS07	1 1/4"	1 1/4"	85 1/4"	85 1/4"	86 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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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

TYPICAL PIER DIAPHRAGM

SHEET 49 OF 97

8

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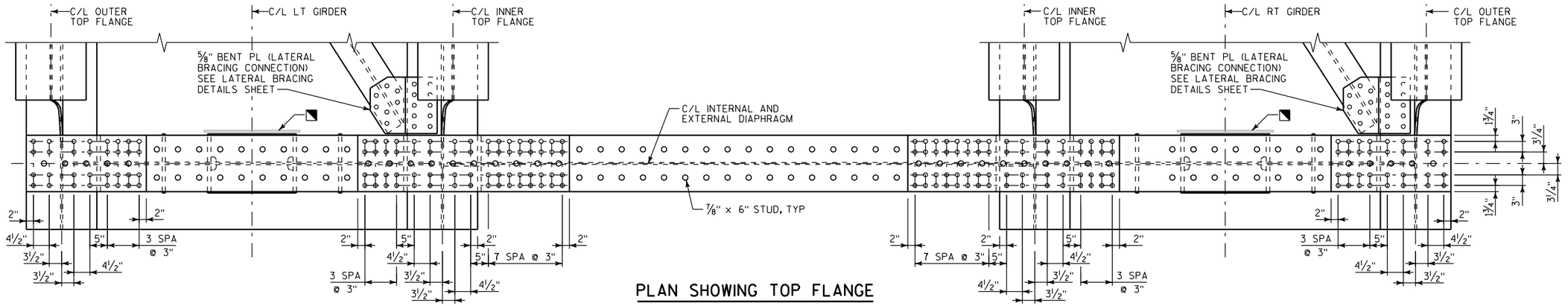
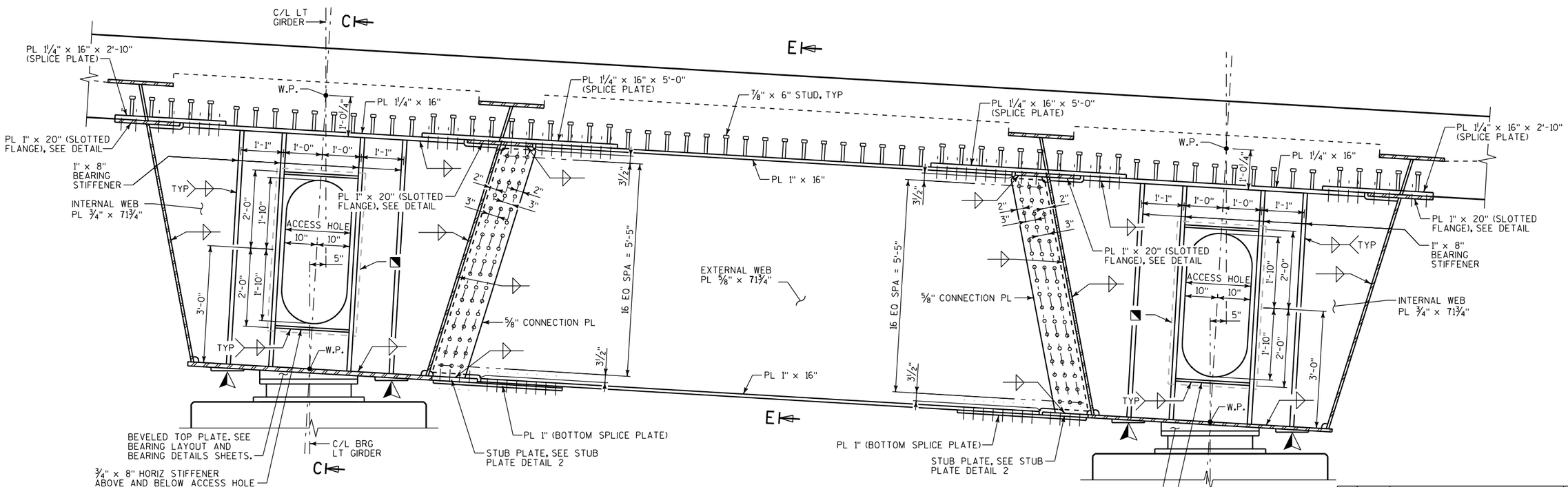
STATE PROJECT NUMBER
1060-33-81



PLAN SHOWING TOP FLANGE

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



ELEVATION

LOOKING UPSTATION

NOTES

1. DIAPHRAGM WEB IS ALIGNED NORMAL TO TUB 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. FOR SECTIONS, SEE DIAPHRAGM DETAILS (1 OF 2) SHEET.

LEGEND

- SUGGESTED JACKING PAD AND 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-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

PIER END DIAPHRAGM

SHEET 50 OF 97

8

8

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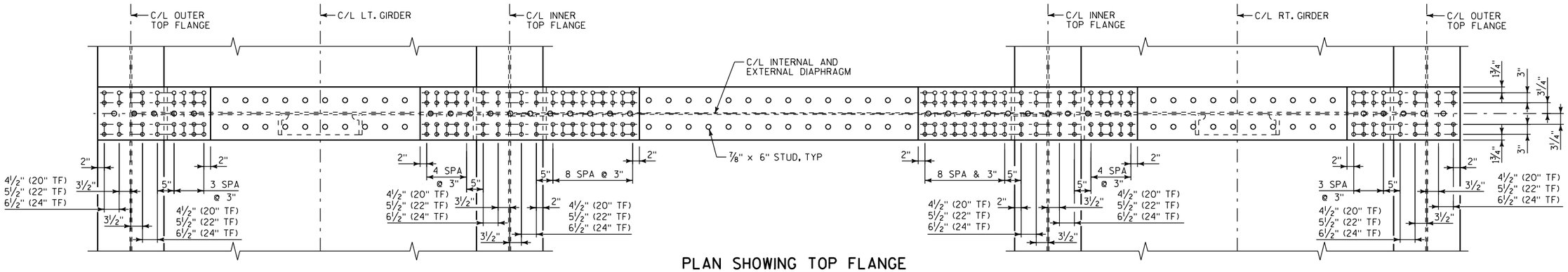
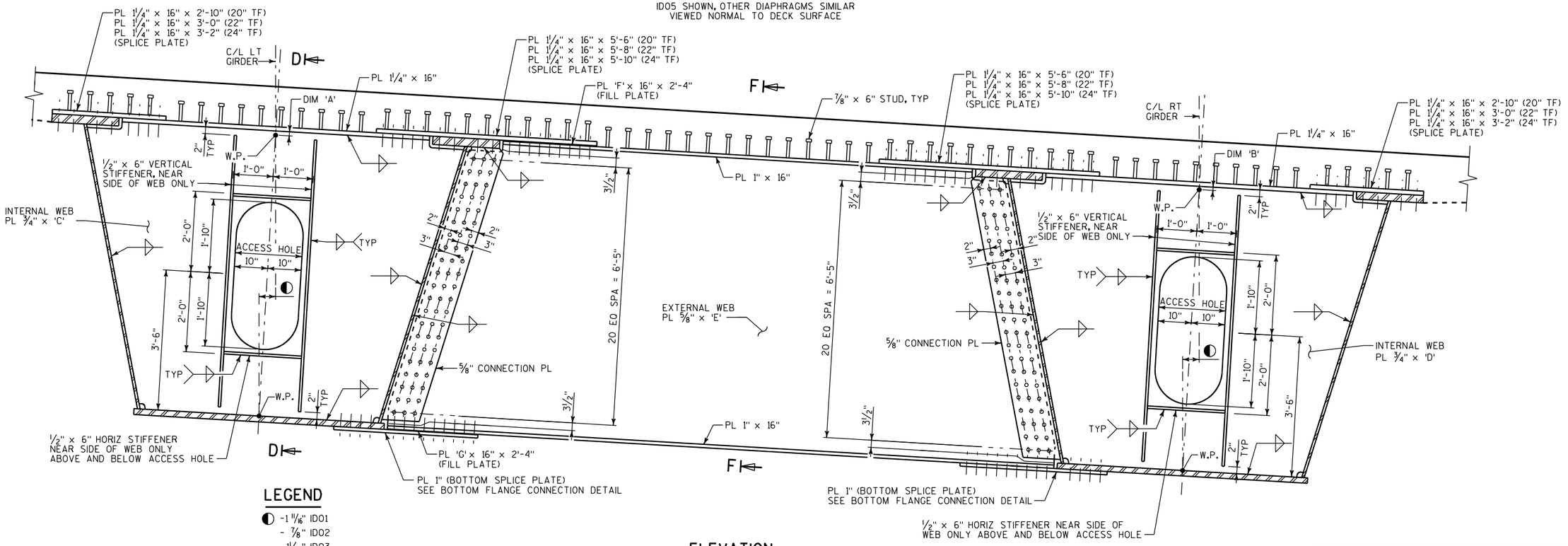
STATE PROJECT NUMBER
1060-33-81



PLAN SHOWING TOP FLANGE

ID05 SHOWN, OTHER DIAPHRAGMS SIMILAR
VIEWED NORMAL TO DECK SURFACE



LEGEND

◐ -1 11/16" ID01
- 7/8" ID02
1⅛" ID03
2¾" ID04
5 " OTHER INTERMEDIATE DIAPHRAGM LOCATIONS

NOTES

1. DIAPHRAGM WEB IS ALIGNED NORMAL TO TUB 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. FOR SECTIONS, SEE DIAPHRAGM DETAILS (1 OF 2) SHEET.

ELEVATION

LOOKING UPSTATION

DIAPHRAGM LOCATION	DIMENSIONS						
	'A'*	'B'*	'C'	'D'	'E'	'F'	'G'
ID01, ID04, ID08 ID09, ID16	-1/4"	-1/4"	83¾"	83¾"	83¾"	0"	0"
ID02, ID10, ID15	1/4"	1/4"	84¼"	84¼"	85"	0"	0"
ID03, ID05, ID06	0"	-1/4"	84"	83¾"	84"	0"	0"
ID07	1/4"	1/4"	84¼"	84¼"	85"	0"	1/4"
ID11, ID12 ID13, ID14	-1/4"	-1/4"	83¾"	83¾"	84"	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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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

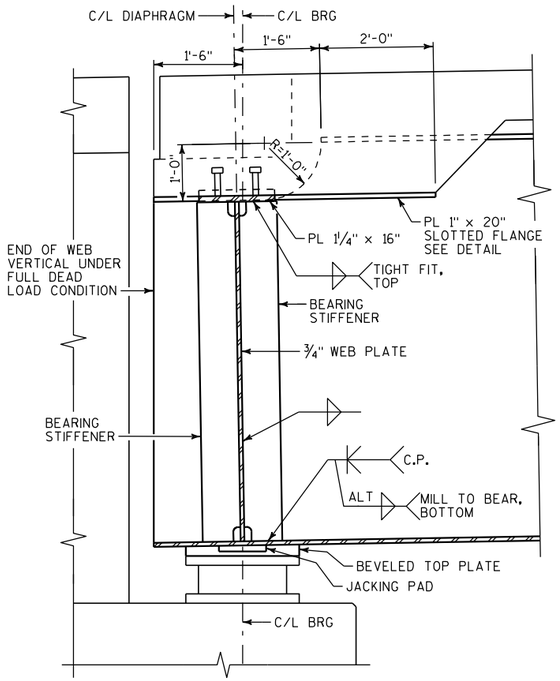
INTERMEDIATE DIAPHRAGM

SHEET 51 OF 97

8

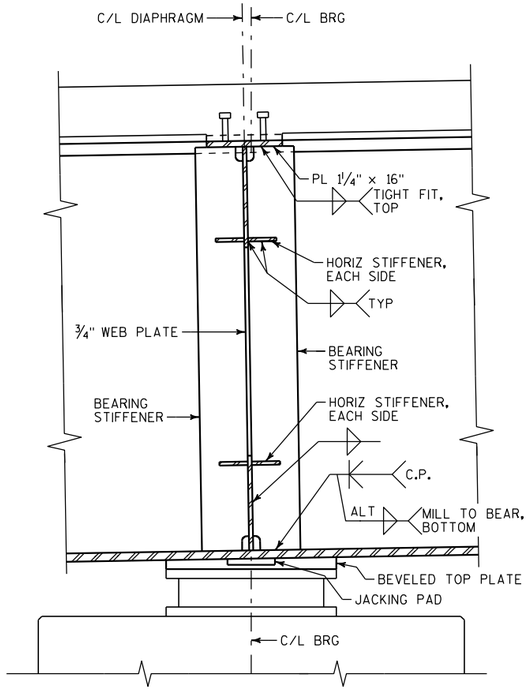
8

STATE PROJECT NUMBER
1060-33-81



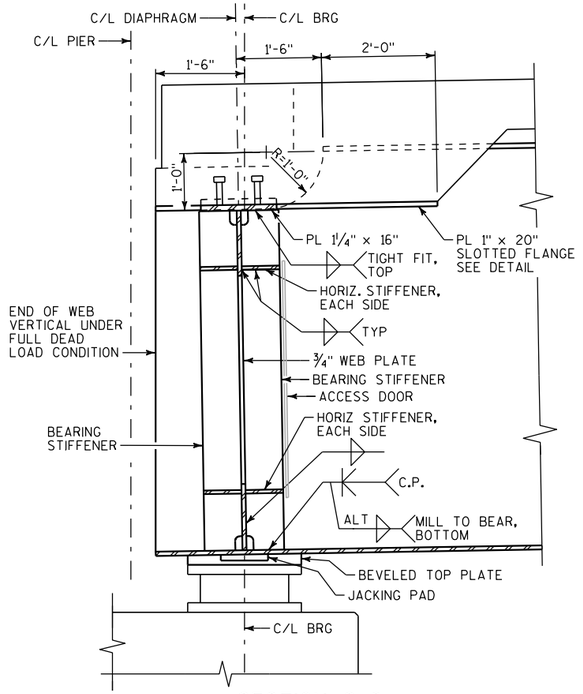
SECTION A-A

INTERNAL DIAPHRAGM AT ABUTMENT DIAPHRAGM



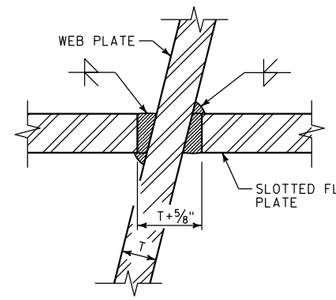
SECTION B-B

INTERNAL DIAPHRAGM AT TYPICAL PIER DIAPHRAGM

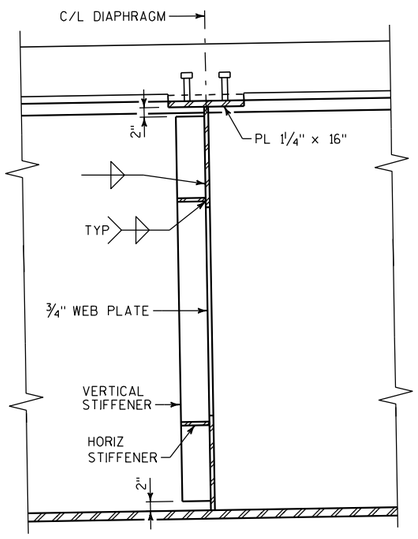


SECTION C-C

INTERNAL DIAPHRAGM AT PIER END DIAPHRAGM

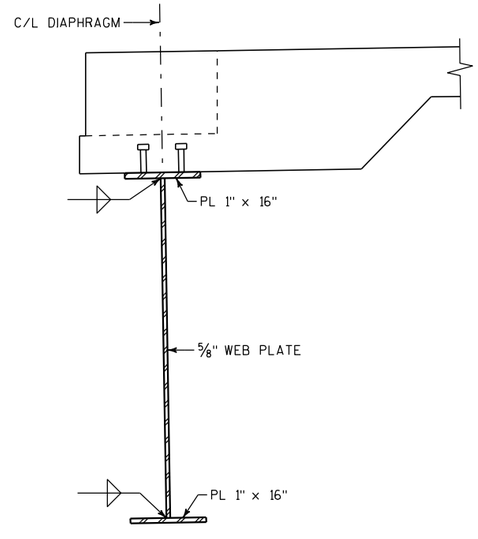


SLOTTED FLANGE DETAIL



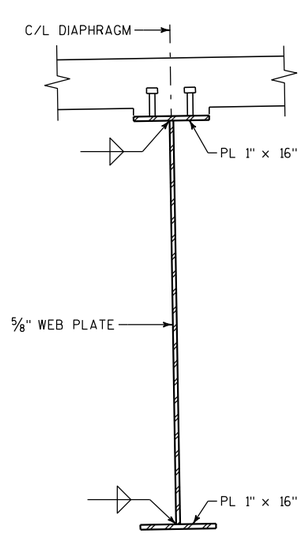
SECTION D-D

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. DIAPHRAGM WEB IS ALIGNED NORMAL TO TUB 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. 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-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

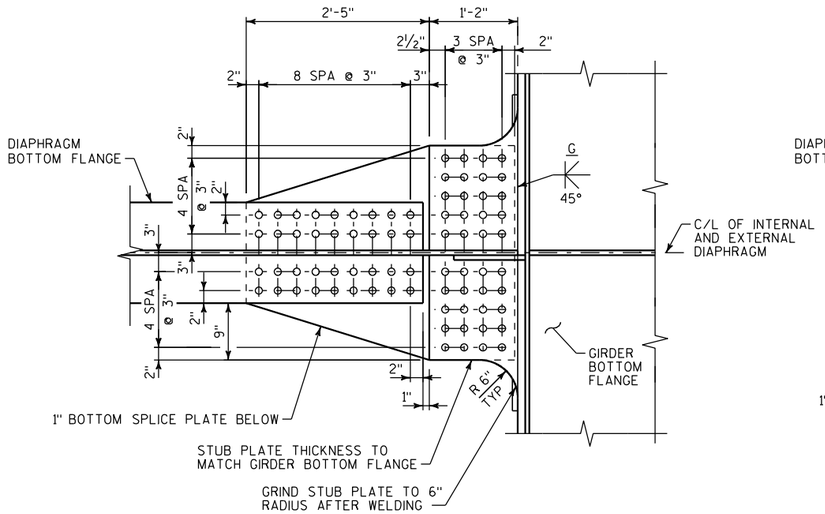
DIAPHRAGM DETAILS (1 OF 2)

SHEET 52 OF 97

8

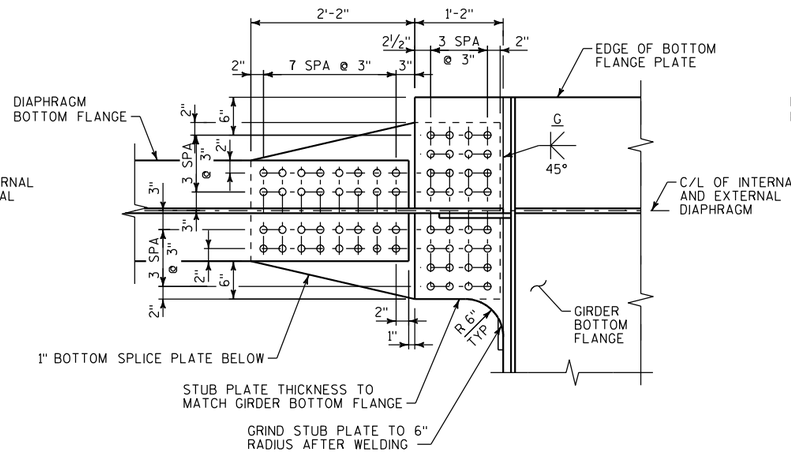
8

STATE PROJECT NUMBER
1060-33-81



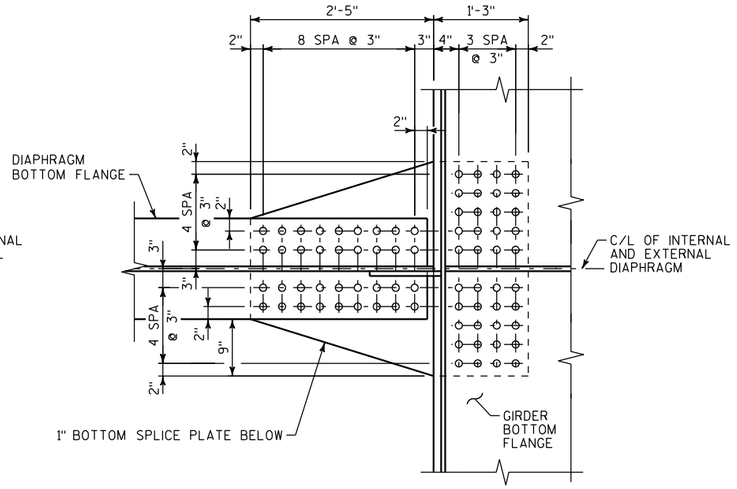
STUB PLATE DETAIL 1

TYPICAL PIER DIAPHRAGM



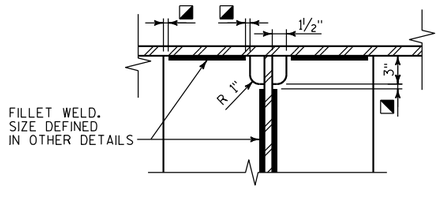
STUB PLATE DETAIL 2

ABUTMENT DIAPHRAGM AND PIER END DIAPHRAGM



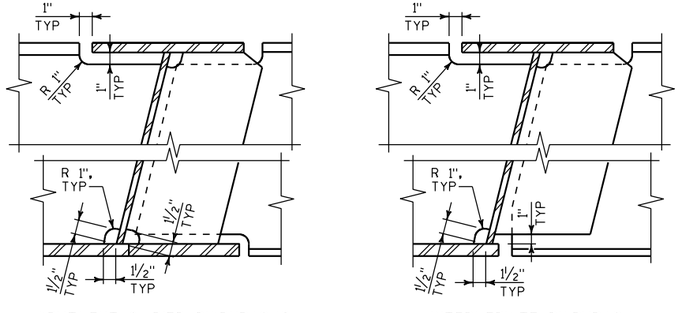
BOTTOM FLANGE CONNECTION DETAIL

INTERMEDIATE DIAPHRAGM ONLY



STANDARD CLIP & WELD TERMINATION DETAIL

◪ ¼" MIN TO ½" MAX, TYP



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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

DIAPHRAGM DETAILS (2 OF 2)

SHEET 53 OF 97

8

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STATE PROJECT NUMBER
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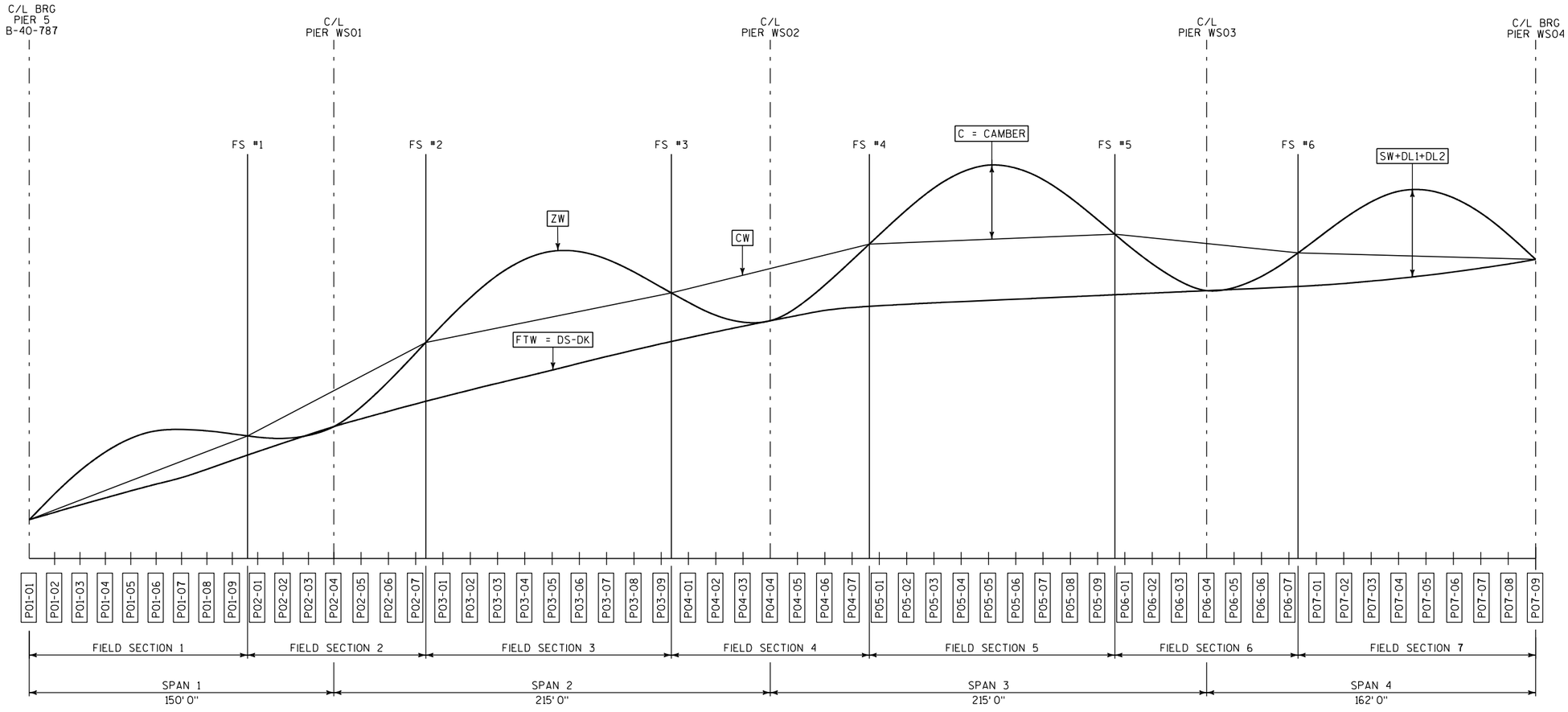


CAMBER DIAGRAM - UNIT 1

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

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 + 10 1/2" SLAB = 14 1/2" = 1.21 FT

C = CAMBER = ZW - CW

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

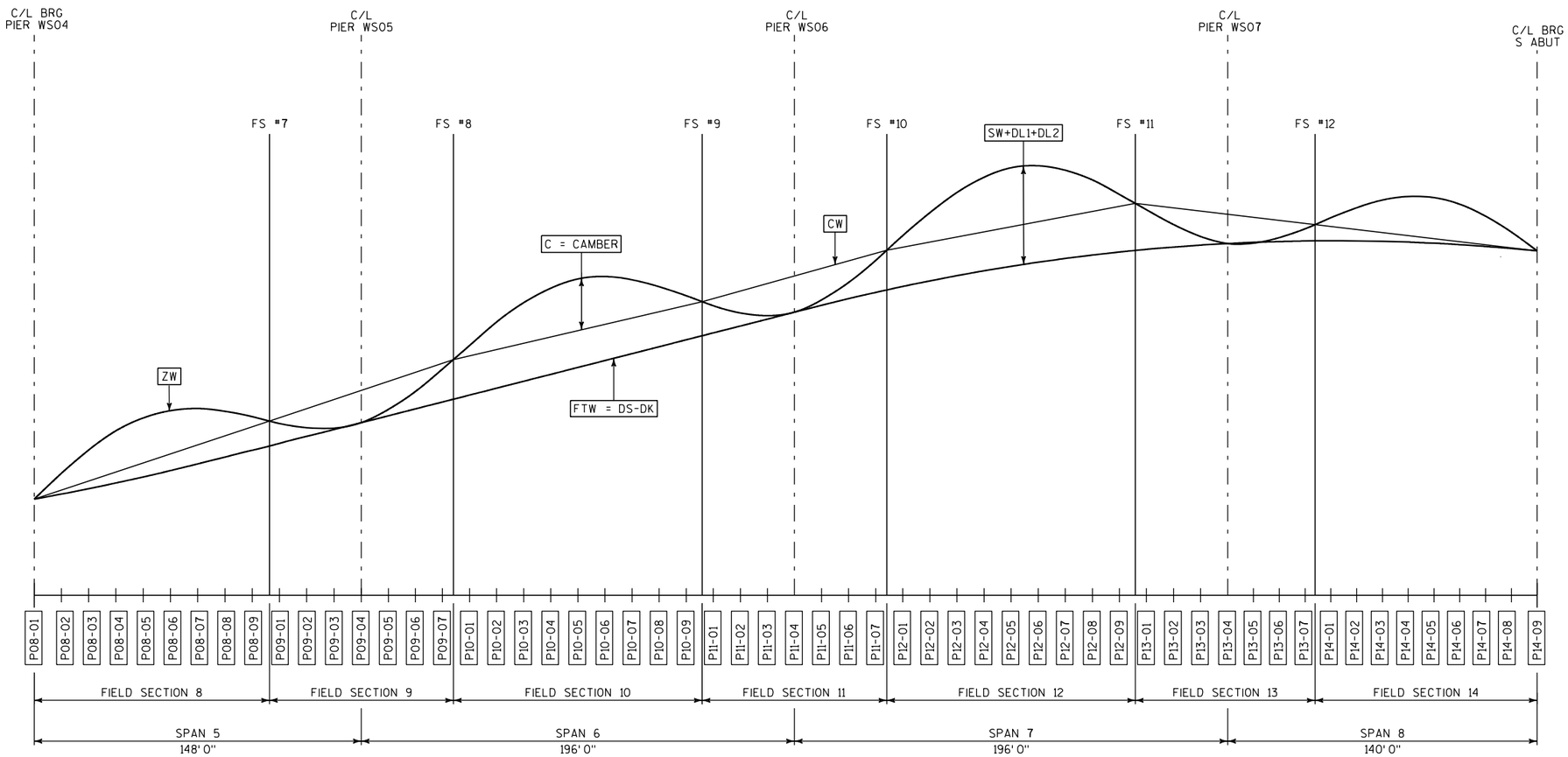
STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

CAMBER DIAGRAM UNIT 1

SHEET 54 OF 97

STATE PROJECT NUMBER
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 WS

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 + 10 1/2" SLAB = 14 1/2" = 1.21 FT

C = CAMBER = ZW - CW

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER DIAGRAM UNIT 2

SHEET 55 OF 97

8

8

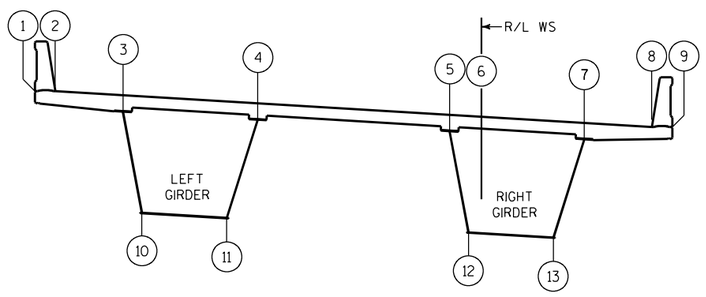
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080529_ss.dgn PLOT DATE : 02-MAR-2015 15:05 PLOT BY : MSCGLM PLOT NAME : B786_080529_ss PLOT SCALE : 60:1

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	P01-09	FS #1
		574+44.54	574+57.04	574+69.54	574+82.04	574+94.54	575+07.04	575+19.54	575+32.04	575+44.54	575+52.04
FINISHED ELEVATION - TOP OF DECK											
1	DS	800.36	800.60	800.84	801.08	801.30	801.53	801.74	802.03	802.34	802.53
2		800.39	800.63	800.87	801.11	801.33	801.56	801.77	802.06	802.36	802.55
6		800.99	801.23	801.47	801.71	801.93	802.16	802.37	802.58	802.79	802.90
8		801.23	801.47	801.71	801.95	802.17	802.40	802.61	802.79	802.95	803.05
9		801.26	801.50	801.74	801.97	802.20	802.42	802.64	802.82	802.97	803.07
CAMBER DATA											
3	DS	800.48	800.73	800.97	801.20	801.43	801.65	801.87	802.14	802.43	802.60
	TES	799.36	799.65	799.93	800.19	800.44	800.66	800.86	801.11	801.37	801.61
LEFT	ZW	799.27	799.58	799.87	800.14	800.39	800.62	800.82	801.06	801.31	801.46
GIRDER	CW	799.27	799.53	799.78	800.04	800.29	800.55	800.80	801.06	801.31	801.46
	SW	0.00	0.01	0.02	0.03	0.04	0.04	0.03	0.03	0.02	0.01
LEFT	DL1	0.00	0.04	0.08	0.11	0.12	0.12	0.11	0.09	0.06	0.05
WEB	DL2	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.05	0.09	0.11	0.10	0.07	0.01	0.00	0.00	0.00
4	DS	800.67	800.92	801.16	801.39	801.62	801.84	802.06	802.31	802.56	802.72
	TES	799.55	799.84	800.12	800.38	800.62	800.85	801.05	801.28	801.51	801.73
LEFT	ZW	799.46	799.77	800.06	800.33	800.58	800.80	801.00	801.22	801.45	801.58
GIRDER	CW	799.46	799.71	799.96	800.20	800.45	800.69	800.94	801.19	801.43	801.58
	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	0.08	0.11	0.12	0.12	0.11	0.09	0.06	0.05
WEB	DL2	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.06	0.11	0.13	0.13	0.10	0.06	0.04	0.01	0.00
5	DS	800.94	801.19	801.43	801.66	801.89	802.11	802.33	802.54	802.75	802.88
	TES	799.82	800.11	800.39	800.65	800.90	801.12	801.33	801.52	801.70	801.89
RIGHT	ZW	799.73	800.04	800.33	800.60	800.85	801.08	801.28	801.46	801.64	801.74
GIRDER	CW	799.73	799.97	800.20	800.43	800.67	800.90	801.14	801.37	801.60	801.74
	SW	0.00	0.01	0.02	0.03	0.04	0.04	0.03	0.03	0.02	0.02
LEFT	DL1	0.00	0.04	0.08	0.11	0.12	0.13	0.11	0.09	0.07	0.05
WEB	DL2	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.07	0.13	0.17	0.19	0.18	0.14	0.09	0.03	0.00
7	DS	801.13	801.38	801.62	801.85	802.08	802.30	802.52	802.71	802.89	802.99
	TES	800.01	800.30	800.58	800.85	801.09	801.31	801.52	801.69	801.84	802.01
RIGHT	ZW	799.92	800.23	800.52	800.79	801.04	801.27	801.47	801.63	801.78	801.86
GIRDER	CW	799.92	800.15	800.37	800.60	800.82	801.05	801.27	801.50	801.73	801.86
	SW	0.00	0.01	0.02	0.03	0.04	0.04	0.03	0.03	0.02	0.02
RIGHT	DL1	0.00	0.04	0.08	0.11	0.12	0.12	0.12	0.10	0.07	0.06
WEB	DL2	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.08	0.15	0.20	0.22	0.22	0.19	0.13	0.05	0.00
BLOCKING HEIGHTS											
10	BLK	0.00									2.18
11		0.12									2.25
12		0.00									2.00
13		0.12									2.07

FIELD SECTION #2

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		FS#1	P02-01	P02-02	P02-03	PIER WS01	P02-05	P02-06	P02-07	FS #2
		575+52.04	575+57.04	575+69.54	575+82.04	575+94.54	576+07.98	576+21.42	576+34.85	576+39.85
FINISHED ELEVATION - TOP OF DECK										
1	DS	802.53	802.65	802.95	803.25	803.54	803.81	804.07	804.33	804.42
2		802.55	802.67	802.96	803.25	803.54	803.81	804.07	804.32	804.41
6		802.90	802.98	803.18	803.36	803.54	803.73	803.91	804.08	804.15
8		803.05	803.11	803.26	803.41	803.54	803.70	803.85	803.99	804.04
9		803.07	803.13	803.27	803.41	803.54	803.70	803.84	803.98	804.03
CAMBER DATA										
3	DS	802.60	802.72	803.00	803.27	803.54	803.79	804.04	804.28	804.37
	TES	801.61	801.67	801.93	802.27	802.54	802.82	803.01	803.31	803.47
LEFT	ZW	801.46	801.56	801.80	802.06	802.33	802.62	802.93	803.24	803.36
GIRDER	CW	801.46	801.57	801.84	802.11	802.38	802.67	802.96	803.25	803.36
	SW	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.04	0.05
LEFT	DL1	0.05	0.03	0.01	0.00	0.00	0.03	0.07	0.11	0.14
WEB	DL2	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.01	-0.04	-0.05	-0.05	-0.05	-0.03	-0.02	0.00
4	DS	802.72	802.82	803.06	803.31	803.54	803.77	803.99	804.21	804.29
	TES	801.73	801.77	802.00	802.31	802.54	802.80	802.96	803.23	803.39
LEFT	ZW	801.58	801.66	801.88	802.10	802.33	802.60	802.87	803.16	803.28
GIRDER	CW	801.58	801.68	801.92	802.16	802.40	802.66	802.92	803.18	803.28
	SW	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.04	0.05
RIGHT	DL1	0.05	0.04	0.01	0.00	0.00	0.02	0.06	0.11	0.14
WEB	DL2	0.01	0.00	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	-0.07	-0.05	-0.02	0.00
5	DS	802.88	802.96	803.16	803.35	803.54	803.74	803.92	804.10	804.17
	TES	801.89	801.92	802.09	802.35	802.54	802.76	802.89	803.13	803.26
RIGHT	ZW	801.74	801.81	801.97	802.15	802.33	802.56	802.81	803.06	803.16
GIRDER	CW	801.74	801.82	802.03	802.23	802.43	802.65	802.86	803.08	803.16
	SW	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.04	0.05
LEFT	DL1	0.05	0.04	0.01	0.00	0.00	0.02	0.07	0.11	0.14
WEB	DL2	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.02	-0.06	-0.08	-0.10	-0.08	-0.06	-0.02	0.00
7	DS	802.99	803.06	803.23	803.39	803.54	803.71	803.87	804.03	804.08
	TES	802.01	802.02	802.16	802.39	802.54	802.74	802.84	803.06	803.18
RIGHT	ZW	801.86	801.91	802.04	802.18	802.33	802.54	802.76	802.99	803.08
GIRDER	CW	801.86	801.93	802.10	802.28	802.45	802.64	802.83	803.01	803.08
	SW	0.02	0.01	0.01	0.00	0.00	0.01	0.02	0.04	0.05
RIGHT	DL1	0.06	0.04	0.02	0.00	0.00	0.02	0.06	0.12	0.15
WEB	DL2	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.02	-0.06	-0.10	-0.12	-0.10	-0.07	-0.03	0.00
BLOCKING HEIGHTS										
10	BLK	2.18								
11		2.25								
12		2.00								
13		2.07								



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 + 10½" SLAB = 14½" = 1.21 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' (½").
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 (¼") 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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 1 & 2

SHEET 56 OF 97

8

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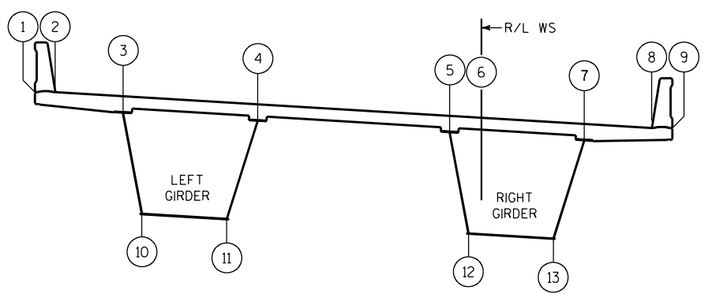
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080530_ss.dgn PLOT DATE : 02-MAR-2015 15:05 PLOT BY : MSCGLM PLOT NAME : B786_080530_ss PLOT SCALE : 10.666667:1

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+39.85	576+48.29	576+61.73	576+75.17	576+88.60	577+02.04	577+15.48	577+28.92	577+42.35	577+55.79	577+60.79
FINISHED ELEVATION - TOP OF DECK												
1	DS	804.42	804.58	804.82	805.06	805.29	805.52	805.77	806.02	806.25	806.48	806.57
2		804.41	804.56	804.80	805.04	805.26	805.49	805.74	805.97	806.20	806.43	806.51
6		804.15	804.25	804.41	804.56	804.71	804.85	804.98	805.11	805.23	805.34	805.38
8		804.04	804.13	804.25	804.38	804.49	804.59	804.68	804.76	804.84	804.90	804.93
9		804.03	804.11	804.23	804.35	804.46	804.56	804.64	804.72	804.79	804.85	804.87
CAMBER DATA												
3	DS	804.37	804.51	804.74	804.96	805.17	805.39	805.62	805.84	806.05	806.26	806.33
	TES	803.47	803.59	803.87	804.13	804.37	804.59	804.80	804.98	805.14	805.29	805.42
LEFT	ZW	803.36	803.54	803.84	804.11	804.35	804.57	804.78	804.95	805.10	805.23	805.27
GIRDER	CW	803.36	803.50	803.71	803.92	804.13	804.35	804.56	804.77	804.98	805.19	805.27
	SW	0.05	0.06	0.07	0.08	0.09	0.09	0.08	0.07	0.06	0.04	0.03
LEFT	DL1	0.14	0.16	0.21	0.24	0.26	0.27	0.25	0.22	0.17	0.12	0.10
WEB	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02
	C	0.00	0.05	0.13	0.19	0.22	0.23	0.22	0.18	0.12	0.04	0.00
4	DS	804.29	804.42	804.62	804.81	805.00	805.19	805.38	805.56	805.74	805.91	805.97
	TES	803.39	803.50	803.75	803.98	804.19	804.38	804.56	804.71	804.84	804.96	805.07
LEFT	ZW	803.28	803.45	803.72	803.96	804.17	804.36	804.53	804.68	804.80	804.91	804.93
GIRDER	CW	803.28	803.40	803.58	803.76	803.95	804.13	804.31	804.50	804.68	804.86	804.93
	SW	0.05	0.06	0.07	0.08	0.09	0.09	0.08	0.07	0.06	0.05	0.04
RIGHT	DL1	0.14	0.17	0.21	0.24	0.26	0.26	0.25	0.22	0.19	0.14	0.11
WEB	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.01
	C	0.00	0.05	0.14	0.20	0.23	0.23	0.22	0.18	0.12	0.04	0.00
5	DS	804.17	804.27	804.44	804.60	804.75	804.90	805.04	805.17	805.30	805.42	805.46
	TES	803.26	803.34	803.56	803.76	803.94	804.10	804.22	804.32	804.40	804.46	804.56
RIGHT	ZW	803.16	803.31	803.55	803.76	803.95	804.11	804.23	804.32	804.38	804.43	804.43
GIRDER	CW	803.16	803.25	803.39	803.53	803.67	803.81	803.95	804.10	804.24	804.38	804.43
	SW	0.05	0.05	0.07	0.08	0.09	0.09	0.09	0.08	0.06	0.05	0.04
LEFT	DL1	0.14	0.17	0.22	0.26	0.28	0.29	0.28	0.25	0.20	0.15	0.12
WEB	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.01
	C	0.00	0.06	0.15	0.23	0.28	0.29	0.27	0.22	0.15	0.05	0.00
7	DS	804.08	804.18	804.32	804.45	804.58	804.69	804.80	804.90	804.99	805.08	805.11
	TES	803.18	803.24	803.44	803.62	803.77	803.89	803.99	804.06	804.10	804.13	804.21
RIGHT	ZW	803.08	803.22	803.43	803.62	803.78	803.90	803.99	804.05	804.08	804.10	804.09
GIRDER	CW	803.08	803.15	803.27	803.38	803.49	803.60	803.71	803.83	803.94	804.05	804.09
	SW	0.05	0.05	0.07	0.08	0.09	0.09	0.09	0.08	0.07	0.05	0.04
RIGHT	DL1	0.15	0.17	0.22	0.26	0.29	0.29	0.28	0.25	0.21	0.16	0.14
WEB	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02
	C	0.00	0.06	0.16	0.24	0.29	0.30	0.28	0.23	0.15	0.05	0.00
BLOCKING HEIGHTS												
10	BLK	4.04										5.91
11		3.99										5.69
12		3.38										4.60
13		3.33										4.39

FIELD SECTION #4

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		FS #3	P04-01	P04-02	P04-03	PIER WS02	P04-05	P04-06	P04-07	FS #4
		577+60.79	577+69.23	577+82.67	577+96.10	578+09.54	578+22.98	578+36.42	578+49.85	578+58.29
FINISHED ELEVATION - TOP OF DECK										
1	DS	806.57	806.70	806.92	807.13	807.33	807.53	807.71	807.82	807.86
2		806.51	806.65	806.86	807.06	807.26	807.45	807.63	807.73	807.77
6		805.38	805.44	805.54	805.63	805.72	805.80	805.87	805.93	805.97
8		804.93	804.96	805.02	805.06	805.10	805.14	805.16	805.21	805.25
9		804.87	804.91	804.95	804.99	805.03	805.06	805.08	805.12	805.16
CAMBER DATA										
3	DS	806.33	806.46	806.65	806.83	807.01	807.19	807.35	807.45	807.48
	TES	805.42	805.46	805.61	805.84	806.01	806.21	806.33	806.48	806.60
LEFT	ZW	805.27	805.36	805.49	805.64	805.80	806.01	806.23	806.39	806.47
GIRDER	CW	805.27	805.38	805.54	805.71	805.87	806.04	806.20	806.37	806.47
	SW	0.03	0.03	0.01	0.00	0.00	0.01	0.02	0.04	0.05
LEFT	DL1	0.10	0.08	0.04	0.01	0.00	0.02	0.06	0.11	0.13
WEB	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01
	C	0.00	-0.01	-0.05	-0.07	-0.07	-0.03	0.02	0.03	0.00
4	DS	805.97	806.08	806.23	806.38	806.53	806.66	806.79	806.88	806.91
	TES	805.07	805.09	805.20	805.40	805.53	805.68	805.76	805.90	806.01
LEFT	ZW	804.93	805.00	805.09	805.20	805.32	805.48	805.65	805.80	805.88
GIRDER	CW	804.93	805.01	805.14	805.27	805.41	805.54	805.67	805.80	805.88
	SW	0.04	0.03	0.02	0.00	0.00	0.01	0.02	0.03	0.04
RIGHT	DL1	0.11	0.09	0.05	0.01	0.00	0.01	0.05	0.09	0.12
WEB	DL2	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01
	C	0.00	-0.01	-0.05	-0.08	-0.09	-0.06	-0.01	0.01	0.00
5	DS	805.46	805.53	805.64	805.74	805.83	805.92	806.00	806.07	806.10
	TES	804.56	804.56	804.61	804.76	804.83	804.93	804.96	805.07	805.18
RIGHT	ZW	804.43	804.46	804.50	804.55	804.63	804.73	804.85	804.97	805.04
GIRDER	CW	804.43	804.48	804.57	804.65	804.74	804.82	804.91	804.99	805.04
	SW	0.04	0.03	0.02	0.00	0.00	0.00	0.01	0.03	0.03
LEFT	DL1	0.12	0.09	0.05	0.01	0.00	0.01	0.04	0.08	0.10
WEB	DL2	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.02	-0.07	-0.10	-0.11	-0.09	-0.06	-0.02	0.00
7	DS	805.11	805.15	805.22	805.29	805.35	805.40	805.44	805.50	805.53
	TES	804.21	804.19	804.21	804.31	804.35	804.41	804.40	804.49	804.59
RIGHT	ZW	804.09	804.10	804.10	804.11	804.14	804.20	804.28	804.39	804.46
GIRDER	CW	804.09	804.12	804.17	804.22	804.27	804.32	804.38	804.43	804.46
	SW	0.04	0.03	0.02	0.01	0.00	0.00	0.01	0.02	0.03
RIGHT	DL1	0.14	0.11	0.06	0.02	0.00	0.01	0.03	0.07	0.09
WEB	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01
	C	0.00	-0.02	-0.07	-0.11	-0.14	-0.12	-0.09	-0.04	0.00
BLOCKING HEIGHTS										
10	BLK	5.91								7.06
11		5.69								6.69
12		4.60								5.18
13		4.39								4.81



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 + 10½" SLAB = 14½" = 1.21 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' (½").
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 (¼") 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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 3 & 4

SHEET 57 OF 97

8

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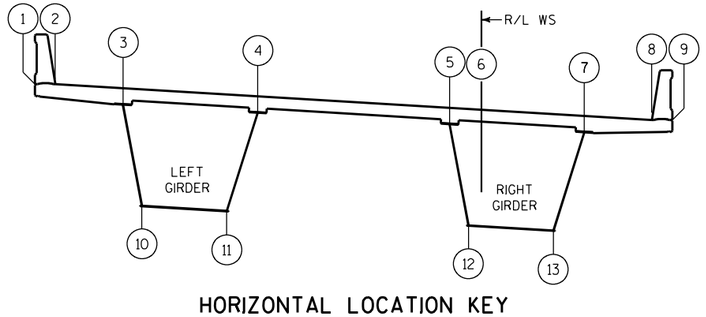
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080531_ss.dgn PLOT DATE : 02-MAR-2015 15:05 PLOT BY : MSCGLM PLOT NAME : B786_080531_ss PLOT SCALE : 10.666667:1

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+58.29	578+63.29	578+76.73	578+90.17	579+03.60	579+17.04	579+30.48	579+43.92	579+57.35	579+70.79	579+79.22
FINISHED ELEVATION - TOP OF DECK												
1	DS	807.86	807.88	807.93	807.97	808.01	808.05	808.09	808.13	808.17	808.21	808.24
2		807.77	807.79	807.84	807.88	807.92	807.96	808.00	808.04	808.08	808.12	808.15
6		805.97	805.99	806.04	806.08	806.12	806.16	806.20	806.24	806.28	806.32	806.35
8		805.25	805.27	805.32	805.36	805.40	805.44	805.48	805.52	805.56	805.60	805.63
9		805.16	805.18	805.23	805.28	805.32	805.36	805.40	805.44	805.48	805.52	805.54
CAMBER DATA												
3	DS	807.48	807.50	807.55	807.60	807.64	807.68	807.72	807.76	807.80	807.84	807.87
	TES	806.60	806.58	806.69	806.78	806.86	806.91	806.94	806.95	806.94	806.92	806.99
LEFT	ZW	806.47	806.53	806.66	806.77	806.85	806.91	806.94	806.94	806.92	806.88	806.87
GIRDER	CW	806.47	806.49	806.53	806.57	806.62	806.66	806.71	806.75	806.79	806.84	806.87
	SW	0.05	0.06	0.07	0.09	0.10	0.10	0.10	0.09	0.08	0.06	0.05
LEFT	DL1	0.13	0.16	0.21	0.26	0.29	0.31	0.30	0.27	0.22	0.17	0.14
WEB	DL2	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02
	C	0.00	0.04	0.13	0.19	0.24	0.25	0.23	0.19	0.12	0.04	0.00
4	DS	806.91	806.93	806.98	807.03	807.07	807.11	807.15	807.19	807.23	807.27	807.30
	TES	806.01	805.99	806.10	806.19	806.25	806.31	806.34	806.36	806.36	806.34	806.41
LEFT	ZW	805.88	805.94	806.06	806.16	806.24	806.29	806.33	806.34	806.32	806.29	806.28
GIRDER	CW	805.88	805.90	805.94	805.98	806.03	806.07	806.12	806.16	806.21	806.25	806.28
	SW	0.04	0.05	0.07	0.08	0.09	0.09	0.09	0.08	0.07	0.05	0.05
RIGHT	DL1	0.12	0.15	0.20	0.24	0.26	0.27	0.27	0.24	0.21	0.16	0.13
WEB	DL2	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02
	C	0.00	0.04	0.12	0.18	0.21	0.22	0.21	0.17	0.12	0.04	0.00
5	DS	806.10	806.12	806.17	806.22	806.26	806.30	806.34	806.38	806.42	806.46	806.49
	TES	805.18	805.14	805.24	805.33	805.40	805.46	805.49	805.50	805.50	805.49	805.57
RIGHT	ZW	805.04	805.10	805.22	805.32	805.40	805.46	805.49	805.49	805.48	805.46	805.45
GIRDER	CW	805.04	805.06	805.11	805.15	805.20	805.24	805.29	805.33	805.38	805.42	805.45
	SW	0.03	0.04	0.06	0.07	0.08	0.08	0.08	0.07	0.06	0.05	0.04
LEFT	DL1	0.10	0.12	0.17	0.21	0.24	0.25	0.25	0.22	0.19	0.14	0.12
WEB	DL2	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.01
	C	0.00	0.04	0.11	0.17	0.20	0.22	0.20	0.16	0.11	0.04	0.00
7	DS	805.53	805.55	805.60	805.65	805.69	805.73	805.77	805.81	805.85	805.89	805.92
	TES	804.59	804.56	804.65	804.74	804.81	804.86	804.89	804.91	804.92	804.91	805.00
RIGHT	ZW	804.46	804.51	804.62	804.72	804.79	804.85	804.88	804.90	804.89	804.87	804.87
GIRDER	CW	804.46	804.47	804.52	804.56	804.61	804.66	804.70	804.75	804.79	804.84	804.87
	SW	0.03	0.04	0.05	0.06	0.07	0.07	0.07	0.07	0.06	0.04	0.04
RIGHT	DL1	0.09	0.11	0.15	0.19	0.21	0.23	0.22	0.20	0.17	0.13	0.11
WEB	DL2	0.01	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	0.10	0.15	0.18	0.19	0.18	0.15	0.10	0.04	0.00
BLOCKING HEIGHTS												
10	BLK	7.06										7.46
11		6.69										7.09
12		5.18										5.58
13		4.81										5.22

FIELD SECTION #6

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		FS #5	P06-01	P06-02	P06-03	PIER WS03	P06-05	P06-06	P06-07	FS #6
		579+79.22	579+84.23	579+97.67	580+11.10	580+24.54	580+37.87	580+51.21	580+64.54	580+69.54
FINISHED ELEVATION - TOP OF DECK										
1	DS	808.24	808.25	808.29	808.33	808.37	808.41	808.45	808.49	808.51
2		808.15	808.17	808.21	808.25	808.29	808.33	808.37	808.41	808.42
6		806.35	806.37	806.41	806.45	806.49	806.53	806.57	806.61	806.62
8		805.63	805.65	805.69	805.73	805.77	805.81	805.85	805.89	805.90
9		805.54	805.56	805.60	805.64	805.68	805.72	805.76	805.80	805.82
CAMBER DATA										
3	DS	807.87	807.88	807.92	807.96	808.00	808.04	808.08	808.12	808.14
	TES	806.99	806.93	806.91	806.99	807.00	807.05	807.03	807.11	807.19
LEFT	ZW	806.87	806.84	806.81	806.79	806.79	806.84	806.91	807.00	807.05
GIRDER	CW	806.87	806.88	806.90	806.93	806.96	806.99	807.01	807.04	807.05
	SW	0.05	0.04	0.02	0.01	0.00	0.00	0.01	0.02	0.02
LEFT	DL1	0.14	0.12	0.06	0.02	0.00	0.00	0.03	0.06	0.09
WEB	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.03	-0.10	-0.14	-0.17	-0.15	-0.10	-0.04	0.00
4	DS	807.30	807.31	807.35	807.39	807.43	807.47	807.51	807.55	807.57
	TES	806.41	806.34	806.33	806.41	806.43	806.48	806.46	806.54	806.62
LEFT	ZW	806.28	806.26	806.22	806.21	806.22	806.27	806.35	806.44	806.48
GIRDER	CW	806.28	806.29	806.32	806.35	806.38	806.41	806.44	806.47	806.48
	SW	0.05	0.04	0.02	0.01	0.00	0.00	0.01	0.02	0.03
RIGHT	DL1	0.13	0.10	0.06	0.02	0.00	0.01	0.03	0.07	0.09
WEB	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.03	-0.10	-0.14	-0.16	-0.14	-0.09	-0.03	0.00
5	DS	806.49	806.50	806.54	806.58	806.62	806.66	806.70	806.74	806.76
	TES	805.57	805.52	805.51	805.60	805.62	805.67	805.65	805.74	805.82
RIGHT	ZW	805.45	805.43	805.41	805.40	805.41	805.46	805.54	805.63	805.68
GIRDER	CW	805.45	805.46	805.49	805.53	805.56	805.60	805.63	805.66	805.68
	SW	0.04	0.03	0.02	0.01	0.00	0.00	0.01	0.02	0.03
LEFT	DL1	0.12	0.09	0.05	0.02	0.00	0.01	0.03	0.07	0.09
WEB	DL2	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.03	-0.09	-0.13	-0.15	-0.13	-0.09	-0.03	0.00
7	DS	805.92	805.93	805.97	806.01	806.05	806.09	806.13	806.17	806.19
	TES	805.00	804.95	804.94	805.03	805.05	805.10	805.09	805.17	805.25
RIGHT	ZW	804.87	804.85	804.83	804.82	804.84	804.90	804.97	805.06	805.11
GIRDER	CW	804.87	804.88	804.91	804.95	804.99	805.02	805.06	805.09	805.11
	SW	0.04	0.03	0.01	0.00	0.00	0.00	0.01	0.02	0.03
RIGHT	DL1	0.11	0.09	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	0.00	0.01	0.01
	C	0.00	-0.03	-0.09	-0.13	-0.14	-0.12	-0.08	-0.03	0.00
BLOCKING HEIGHTS										
10	BLK	7.46								7.65
11		7.09								7.29
12		5.58								5.81
13		5.22								5.45



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 + 10½" SLAB = 14½" = 1.21 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' (½").
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 (¼") 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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 5 & 6

SHEET 58 OF 97

8

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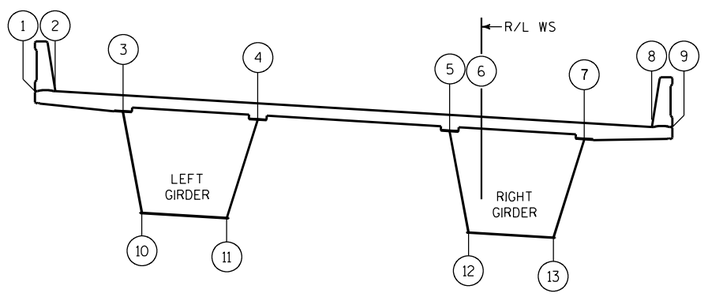
FIELD SECTION #7

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	PIER WS04
		580+69.54	580+77.87	580+91.21	581+04.54	581+17.87	581+31.21	581+44.54	581+57.87	581+71.21	588+66.54
FINISHED ELEVATION - TOP OF DECK											
1	DS	808.51	808.54	808.61	808.68	808.77	808.87	808.98	809.11	809.25	816.93
2		808.42	808.46	808.52	808.60	808.68	808.78	808.90	809.02	809.16	816.85
6		806.62	806.66	806.72	806.80	806.88	806.98	807.10	807.22	807.36	815.05
8		805.90	805.94	806.00	806.08	806.16	806.26	806.38	806.50	806.64	814.33
9		805.82	805.85	805.91	805.99	806.08	806.18	806.29	806.41	806.55	814.24
CAMBER DATA											
3	DS	808.14	808.17	808.24	808.31	808.40	808.50	808.61	808.74	808.87	816.56
	TES	807.19	807.17	807.28	807.39	807.50	807.59	807.68	807.75	807.83	815.44
LEFT	ZW	807.05	807.12	807.24	807.36	807.48	807.57	807.65	807.71	807.76	815.35
GIRDER	CW	807.05	807.11	807.20	807.28	807.37	807.46	807.55	807.64	807.73	815.35
	SW	0.02	0.03	0.04	0.05	0.06	0.06	0.05	0.04	0.02	0.00
LEFT	DL1	0.09	0.11	0.15	0.19	0.20	0.20	0.17	0.13	0.07	0.00
WEB	DL2	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.01	0.04	0.08	0.10	0.11	0.10	0.07	0.04	0.00
4	DS	807.57	807.60	807.67	807.74	807.83	807.93	808.04	808.17	808.30	815.99
	TES	806.62	806.60	806.70	806.80	806.91	807.01	807.10	807.18	807.25	814.87
LEFT	ZW	806.48	806.54	806.66	806.77	806.88	806.98	807.06	807.13	807.19	814.78
GIRDER	CW	806.48	806.54	806.63	806.71	806.80	806.89	806.98	807.07	807.16	814.78
	SW	0.03	0.03	0.04	0.05	0.05	0.05	0.05	0.04	0.02	0.00
RIGHT	DL1	0.09	0.11	0.14	0.17	0.18	0.18	0.17	0.12	0.07	0.00
WEB	DL2	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.01	0.03	0.06	0.07	0.09	0.08	0.06	0.03	0.00
5	DS	806.76	806.79	806.86	806.93	807.02	807.12	807.23	807.36	807.49	815.18
	TES	805.82	805.79	805.89	805.99	806.10	806.19	806.28	806.36	806.44	814.06
RIGHT	ZW	805.68	805.74	805.85	805.96	806.07	806.16	806.24	806.31	806.37	813.97
GIRDER	CW	805.68	805.73	805.82	805.91	806.00	806.08	806.17	806.26	806.35	813.97
	SW	0.03	0.03	0.04	0.05	0.06	0.05	0.05	0.03	0.02	0.00
LEFT	DL1	0.09	0.11	0.14	0.17	0.18	0.18	0.15	0.11	0.06	0.00
WEB	DL2	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.00	0.03	0.06	0.07	0.08	0.07	0.05	0.02	0.00
7	DS	806.19	806.22	806.29	806.36	806.45	806.55	806.66	806.79	806.92	814.61
	TES	805.25	805.22	805.32	805.42	805.51	805.61	805.70	805.78	805.86	813.49
RIGHT	ZW	805.11	805.17	805.27	805.38	805.48	805.57	805.66	805.73	805.80	813.40
GIRDER	CW	805.11	805.16	805.25	805.34	805.43	805.51	805.60	805.69	805.78	813.40
	SW	0.03	0.03	0.04	0.05	0.05	0.05	0.04	0.03	0.02	0.00
RIGHT	DL1	0.09	0.11	0.14	0.16	0.17	0.17	0.15	0.11	0.06	0.00
WEB	DL2	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.00	0.02	0.04	0.05	0.06	0.06	0.04	0.02	0.00
BLOCKING HEIGHTS											
10	BLK	7.65									15.95
11		7.29									15.59
12		5.81									14.11
13		5.45									13.75

FIELD SECTION #8

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION									
		PIER WS04	P08-02	P08-03	P08-04	P08-05	P08-06	P08-07	P08-08	P08-09	FS# 7
		581+88.54	582+00.71	582+12.87	582+25.04	582+37.21	582+49.37	582+61.54	582+73.71	582+85.87	582+93.04
FINISHED ELEVATION - TOP OF DECK											
1	DS	809.44	809.60	809.76	809.93	810.11	810.30	810.51	810.71	810.92	811.04
2		809.36	809.51	809.67	809.84	810.02	810.22	810.42	810.63	810.83	810.96
6		807.56	807.71	807.87	808.04	808.22	808.42	808.62	808.83	809.03	809.16
8		806.84	806.99	807.15	807.32	807.50	807.70	807.90	808.11	808.31	808.44
9		806.75	806.90	807.06	807.23	807.42	807.61	807.81	808.02	808.23	808.35
CAMBER DATA											
3	DS	809.07	809.22	809.38	809.56	809.74	809.93	810.13	810.34	810.55	810.67
	TES	807.95	808.15	808.35	808.56	808.76	808.95	809.14	809.33	809.51	809.69
LEFT	ZW	807.86	808.08	808.29	808.51	808.71	808.90	809.09	809.27	809.44	809.54
GIRDER	CW	807.86	808.06	808.25	808.45	808.65	808.84	809.04	809.23	809.43	809.54
	SW	0.00	0.01	0.02	0.03	0.03	0.04	0.03	0.03	0.02	0.02
LEFT	DL1	0.00	0.04	0.08	0.11	0.13	0.13	0.12	0.10	0.07	0.06
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	0.02	0.04	0.06	0.06	0.06	0.06	0.04	0.01	0.00
4	DS	808.50	808.65	808.81	808.99	809.17	809.36	809.56	809.77	809.98	810.10
	TES	807.38	807.58	807.78	807.99	808.19	808.38	808.57	808.76	808.94	809.12
LEFT	ZW	807.29	807.51	807.72	807.94	808.14	808.33	808.52	808.70	808.87	808.97
GIRDER	CW	807.29	807.49	807.68	807.88	808.08	808.27	808.47	808.66	808.86	808.97
	SW	0.00	0.01	0.02	0.03	0.03	0.04	0.03	0.03	0.02	0.02
RIGHT	DL1	0.00	0.04	0.08	0.11	0.13	0.13	0.12	0.10	0.07	0.06
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	0.02	0.04	0.06	0.06	0.06	0.06	0.04	0.01	0.00
5	DS	807.69	807.84	808.00	808.18	808.36	808.55	808.75	808.96	809.17	809.29
	TES	806.57	806.77	806.97	807.17	807.37	807.57	807.76	807.95	808.12	808.31
RIGHT	ZW	806.48	806.69	806.91	807.12	807.32	807.52	807.71	807.89	808.06	808.16
GIRDER	CW	806.48	806.68	806.87	807.07	807.27	807.46	807.66	807.85	808.05	808.16
	SW	0.00	0.01	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.01
LEFT	DL1	0.00	0.04	0.07	0.10	0.11	0.12	0.11	0.09	0.07	0.05
WEB	DL2	0.00	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
	C	0.00	0.01	0.03	0.05	0.05	0.06	0.05	0.04	0.01	0.00
7	DS	807.12	807.27	807.43	807.61	807.79	807.98	808.18	808.39	808.60	808.72
	TES	806.00	806.20	806.40	806.60	806.80	807.00	807.19	807.38	807.55	807.74
RIGHT	ZW	805.91	806.12	806.34	806.55	806.75	806.95	807.14	807.32	807.49	807.59
GIRDER	CW	805.91	806.11	806.30	806.50	806.70	806.89	807.09	807.28	807.48	807.59
	SW	0.00	0.01	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.01
RIGHT	DL1	0.00	0.04	0.07	0.10	0.11	0.12	0.11	0.09	0.07	0.05
WEB	DL2	0.00	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
	C	0.00	0.01	0.03	0.05	0.05	0.06	0.05	0.04	0.01	0.00
BLOCKING HEIGHTS											
10	BLK	8.46									10.14
11		8.10									9.78
12		6.62									8.30
13		6.26									7.94



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 + 10½" SLAB = 14½" = 1.21 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' (½").
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 (¼") 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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 7 & 8

SHEET 59 OF 97

8

8

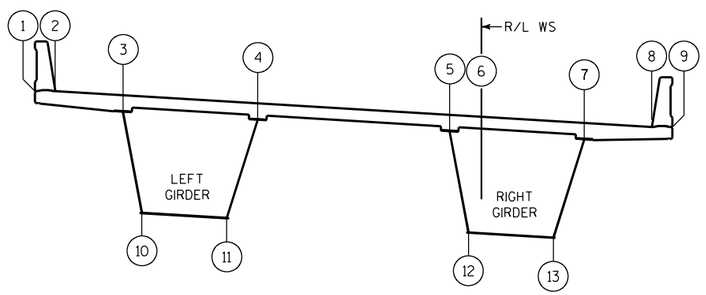
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080533_ss.dgn PLOT DATE : 02-MAR-2015 15:05 PLOT BY : MSCGLM PLOT NAME : B786_080533_ss PLOT SCALE : 10.666667:1

FIELD SECTION #9

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		FS #7	P09-01	P09-02	P09-03	PIER WS05	P09-05	P09-06	P09-07	FS #8
		582+93.04	582+98.04	583+10.21	583+22.37	583+34.54	583+46.79	583+59.04	583+71.29	583+76.29
FINISHED ELEVATION - TOP OF DECK										
1	DS	811.04	811.13	811.33	811.54	811.75	811.96	812.17	812.37	812.46
2		810.96	811.04	811.25	811.45	811.66	811.87	812.08	812.29	812.37
6		809.16	809.24	809.45	809.65	809.86	810.07	810.28	810.49	810.57
8		808.44	808.52	808.73	808.93	809.14	809.35	809.56	809.77	809.85
9		808.35	808.43	808.64	808.85	809.05	809.26	809.47	809.68	809.77
CAMBER DATA										
3	DS	810.67	810.76	810.96	811.17	811.38	811.59	811.79	812.00	812.09
	TES	809.69	809.72	809.90	810.17	810.38	810.60	810.75	811.00	811.15
LEFT	ZW	809.54	809.61	809.78	809.97	810.17	810.40	810.64	810.89	811.00
GIRDER	CW	809.54	809.63	809.84	810.06	810.27	810.49	810.70	810.92	811.00
	SW	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.03
LEFT	DL1	0.06	0.04	0.02	0.00	0.00	0.01	0.03	0.07	0.08
WEB	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
	C	0.00	-0.02	-0.06	-0.09	-0.10	-0.09	-0.06	-0.02	0.00
4	DS	810.10	810.19	810.39	810.60	810.81	811.02	811.22	811.43	811.52
	TES	809.12	809.15	809.33	809.60	809.81	810.03	810.18	810.43	810.58
LEFT	ZW	808.97	809.04	809.21	809.40	809.60	809.83	810.07	810.32	810.43
GIRDER	CW	808.97	809.06	809.27	809.49	809.70	809.92	810.13	810.35	810.43
	SW	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.03
RIGHT	DL1	0.06	0.04	0.02	0.00	0.00	0.01	0.03	0.07	0.08
WEB	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
	C	0.00	-0.02	-0.06	-0.09	-0.10	-0.09	-0.06	-0.02	0.00
5	DS	809.29	809.38	809.58	809.79	810.00	810.21	810.41	810.62	810.71
	TES	808.31	808.34	808.52	808.79	809.00	809.22	809.37	809.61	809.76
RIGHT	ZW	808.16	808.23	808.40	808.59	808.79	809.02	809.26	809.51	809.62
GIRDER	CW	808.16	808.25	808.46	808.68	808.89	809.10	809.32	809.53	809.62
	SW	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.03
LEFT	DL1	0.05	0.04	0.02	0.00	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	-0.06	-0.09	-0.10	-0.09	-0.06	-0.02	0.00
7	DS	808.72	808.81	809.01	809.22	809.43	809.64	809.84	810.05	810.14
	TES	807.74	807.77	807.95	808.22	808.43	808.65	808.80	809.04	809.19
RIGHT	ZW	807.59	807.66	807.83	808.02	808.22	808.45	808.69	808.94	809.05
GIRDER	CW	807.59	807.68	807.89	808.11	808.32	808.53	808.75	808.96	809.05
	SW	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.03
RIGHT	DL1	0.05	0.04	0.02	0.00	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	-0.06	-0.09	-0.10	-0.09	-0.06	-0.02	0.00
BLOCKING HEIGHTS										
10	BLK	10.14								11.60
11		9.78								11.24
12		8.30								9.76
13		7.94								9.40

FIELD SECTION #10

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION										
		FS #8	P10-01	P10-02	P10-03	P10-04	P10-05	P10-06	P10-07	P10-08	P10-09	FS #9
		583+76.29	583+83.54	583+95.79	584+08.04	584+20.29	584+32.54	584+44.79	584+57.04	584+69.29	584+81.54	584+88.79
FINISHED ELEVATION - TOP OF DECK												
1	DS	812.46	812.58	812.79	813.00	813.21	813.42	813.62	813.83	814.04	814.25	814.37
2		812.37	812.50	812.70	812.91	813.12	813.33	813.54	813.75	813.95	814.16	814.29
6		810.57	810.70	810.90	811.11	811.32	811.53	811.74	811.95	812.15	812.36	812.49
8		809.85	809.98	810.18	810.39	810.60	810.81	811.02	811.23	811.43	811.64	811.77
9		809.77	809.89	810.10	810.31	810.51	810.72	810.93	811.14	811.35	811.56	811.68
CAMBER DATA												
3	DS	812.09	812.21	812.42	812.63	812.84	813.04	813.25	813.46	813.67	813.88	814.00
	TES	811.15	811.20	811.45	811.69	811.91	812.13	812.33	812.51	812.69	812.86	813.05
LEFT	ZW	811.00	811.15	811.41	811.66	811.89	812.10	812.30	812.48	812.64	812.80	812.90
GIRDER	CW	811.00	811.13	811.33	811.54	811.74	811.95	812.16	812.36	812.57	812.78	812.90
	SW	0.03	0.03	0.04	0.05	0.06	0.06	0.05	0.05	0.04	0.03	0.02
LEFT	DL1	0.08	0.10	0.14	0.16	0.18	0.18	0.17	0.15	0.12	0.09	0.07
WEB	DL2	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.01	0.01
	C	0.00	0.03	0.08	0.12	0.14	0.15	0.14	0.11	0.07	0.02	0.00
4	DS	811.52	811.64	811.85	812.06	812.27	812.47	812.68	812.89	813.10	813.31	813.43
	TES	810.58	810.63	810.88	811.12	811.34	811.56	811.76	811.94	812.12	812.29	812.48
LEFT	ZW	810.43	810.58	810.84	811.09	811.32	811.53	811.73	811.91	812.07	812.23	812.33
GIRDER	CW	810.43	810.56	810.76	810.97	811.17	811.38	811.59	811.79	812.00	812.21	812.33
	SW	0.03	0.03	0.04	0.05	0.06	0.06	0.05	0.05	0.04	0.03	0.02
RIGHT	DL1	0.08	0.10	0.14	0.16	0.18	0.18	0.17	0.15	0.12	0.09	0.07
WEB	DL2	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.01	0.01
	C	0.00	0.03	0.08	0.12	0.14	0.15	0.14	0.11	0.07	0.02	0.00
5	DS	810.71	810.83	811.04	811.25	811.46	811.66	811.87	812.08	812.29	812.50	812.62
	TES	809.76	809.82	810.07	810.30	810.53	810.74	810.94	811.13	811.30	811.48	811.66
RIGHT	ZW	809.62	809.77	810.02	810.27	810.50	810.71	810.91	811.09	811.26	811.42	811.52
GIRDER	CW	809.62	809.74	809.95	810.16	810.36	810.57	810.78	810.98	811.19	811.39	811.52
	SW	0.03	0.03	0.04	0.05	0.05	0.05	0.05	0.04	0.04	0.03	0.02
LEFT	DL1	0.08	0.10	0.12	0.15	0.16	0.17	0.16	0.14	0.11	0.08	0.07
WEB	DL2	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.02	0.02
	C	0.00	0.03	0.07	0.11	0.14	0.14	0.13	0.11	0.07	0.02	0.00
7	DS	810.14	810.26	810.47	810.68	810.89	811.09	811.30	811.51	811.72	811.93	812.05
	TES	809.19	809.25	809.50	809.73	809.96	810.17	810.37	810.56	810.73	810.91	811.09
RIGHT	ZW	809.05	809.20	809.45	809.70	809.93	810.14	810.34	810.52	810.69	810.85	810.95
GIRDER	CW	809.05	809.17	809.38	809.59	809.79	810.00	810.21	810.41	810.62	810.82	810.95
	SW	0.03	0.03	0.04	0.05	0.05	0.05	0.05	0.04	0.04	0.03	0.02
RIGHT	DL1	0.08	0.10	0.12	0.15	0.16	0.17	0.16	0.14	0.11	0.08	0.07
WEB	DL2	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.02	0.02
	C	0.00	0.03	0.07	0.11	0.14	0.14	0.13	0.11	0.07	0.02	0.00
BLOCKING HEIGHTS												
10	BLK	11.60										13.50
11		11.24										13.14
12		9.76										11.66
13		9.40										11.30



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 + 10½" SLAB = 14½" = 1.21 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' (½").
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 (¼") 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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 9 & 10

SHEET 60 OF 97

8

8

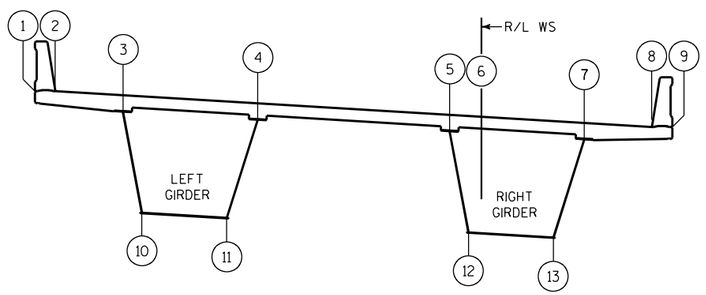
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080534_ss.dgn PLOT DATE : 02-MAR-2015 15:05 PLOT BY : MSCGLM PLOT NAME : B786_080534_ss PLOT SCALE : 10.666667:1

FIELD SECTION #11

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		FS #9	P11-01	P11-02	P11-03	PIER WS06	P11-05	P11-06	P11-07	FS #10
		584+88.79	584+93.79	585+06.04	585+18.29	585+30.54	585+42.79	585+55.04	585+67.29	585+72.29
FINISHED ELEVATION - TOP OF DECK										
1	DS	814.37	814.46	814.67	814.87	815.08	815.29	815.49	815.68	815.76
2		814.29	814.37	814.58	814.79	815.00	815.20	815.40	815.59	815.67
5		812.49	812.57	812.78	812.99	813.20	813.40	813.60	813.79	813.87
8		811.77	811.85	812.06	812.27	812.48	812.68	812.88	813.07	813.15
9		811.68	811.76	811.97	812.18	812.39	812.60	812.80	812.99	813.06
CAMBER DATA										
3	DS	814.00	814.09	814.29	814.50	814.71	814.92	815.12	815.31	815.38
	TES	813.05	813.07	813.24	813.51	813.71	813.93	814.07	814.30	814.45
LEFT	ZW	812.90	812.96	813.13	813.30	813.50	813.73	813.96	814.20	814.30
GIRDER	CW	812.90	812.98	813.19	813.39	813.60	813.81	814.01	814.22	814.30
	SW	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.03
LEFT	DL1	0.07	0.06	0.03	0.01	0.00	0.01	0.03	0.07	0.09
WEB	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
	C	0.00	-0.02	-0.06	-0.09	-0.10	-0.08	-0.05	-0.02	0.00
4	DS	813.43	813.52	813.72	813.93	814.14	814.35	814.55	814.74	814.81
	TES	812.48	812.50	812.67	812.94	813.14	813.36	813.50	813.73	813.88
LEFT	ZW	812.33	812.39	812.56	812.73	812.93	813.16	813.39	813.63	813.73
GIRDER	CW	812.33	812.41	812.62	812.82	813.03	813.24	813.44	813.65	813.73
	SW	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.03
RIGHT	DL1	0.07	0.06	0.03	0.01	0.00	0.01	0.03	0.07	0.09
WEB	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
	C	0.00	-0.02	-0.06	-0.09	-0.10	-0.08	-0.05	-0.02	0.00
6	DS	812.62	812.71	812.91	813.12	813.33	813.54	813.74	813.93	814.00
	TES	811.66	811.69	811.86	812.13	812.33	812.55	812.69	812.92	813.06
RIGHT	ZW	811.52	811.58	811.74	811.92	812.12	812.35	812.58	812.81	812.92
GIRDER	CW	811.52	811.60	811.81	812.01	812.22	812.42	812.63	812.83	812.92
	SW	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
LEFT	DL1	0.07	0.05	0.02	0.01	0.00	0.01	0.03	0.06	0.08
WEB	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.02	-0.06	-0.09	-0.09	-0.07	-0.05	-0.02	0.00
7	DS	812.05	812.14	812.34	812.55	812.76	812.97	813.17	813.36	813.43
	TES	811.09	811.12	811.29	811.56	811.76	811.98	812.12	812.35	812.49
RIGHT	ZW	810.95	811.01	811.17	811.35	811.55	811.78	812.01	812.24	812.35
GIRDER	CW	810.95	811.03	811.24	811.44	811.65	811.85	812.06	812.26	812.35
	SW	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
RIGHT	DL1	0.07	0.05	0.02	0.01	0.00	0.01	0.03	0.06	0.08
WEB	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.02	-0.06	-0.09	-0.09	-0.07	-0.05	-0.02	0.00
BLOCKING HEIGHTS										
10	BLK	13.50								14.90
11		13.14								14.54
12		11.66								13.05
13		11.30								12.69

FIELD SECTION #12

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION										
		FS * 10	P12-01	P12-02	P12-03	P12-04	P12-05	P12-06	P12-07	P12-08	P12-09	FS #11
		585+72.29	585+79.54	585+91.79	586+04.04	586+16.29	586+28.54	586+40.79	586+53.04	586+65.29	586+77.54	586+84.79
FINISHED ELEVATION - TOP OF DECK												
1	DS	815.76	815.86	816.03	816.18	816.33	816.47	816.59	816.70	816.81	816.90	816.95
2		815.67	815.77	815.94	816.10	816.24	816.38	816.50	816.62	816.72	816.81	816.86
5		813.87	813.97	814.14	814.30	814.44	814.58	814.70	814.82	814.92	815.01	815.06
8		813.15	813.25	813.42	813.58	813.72	813.86	813.98	814.10	814.20	814.29	814.34
9		813.06	813.17	813.33	813.49	813.64	813.77	813.90	814.01	814.11	814.20	814.25
CAMBER DATA												
3	DS	815.38	815.49	815.66	815.81	815.96	816.09	816.22	816.33	816.43	816.53	816.57
	TES	814.45	814.48	814.69	814.88	815.06	815.20	815.32	815.42	815.49	815.54	815.66
LEFT	ZW	814.30	814.43	814.65	814.86	815.03	815.18	815.30	815.39	815.45	815.49	815.51
GIRDER	CW	814.30	814.38	814.51	814.64	814.77	814.91	815.04	815.17	815.30	815.43	815.51
	SW	0.03	0.03	0.04	0.05	0.06	0.06	0.06	0.06	0.05	0.04	0.03
LEFT	DL1	0.09	0.11	0.14	0.17	0.19	0.20	0.20	0.18	0.15	0.12	0.10
WEB	DL2	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02
	C	0.00	0.05	0.14	0.21	0.26	0.28	0.26	0.22	0.15	0.06	0.00
4	DS	814.81	814.92	815.09	815.24	815.39	815.52	815.65	815.76	815.86	815.96	816.00
	TES	813.88	813.91	814.12	814.31	814.49	814.63	814.75	814.85	814.92	814.97	815.09
LEFT	ZW	813.73	813.86	814.08	814.29	814.46	814.61	814.73	814.82	814.88	814.92	814.94
GIRDER	CW	813.73	813.81	813.94	814.07	814.20	814.34	814.47	814.60	814.73	814.86	814.94
	SW	0.03	0.03	0.04	0.05	0.06	0.06	0.06	0.06	0.05	0.04	0.03
RIGHT	DL1	0.09	0.11	0.14	0.17	0.19	0.20	0.20	0.18	0.15	0.12	0.10
WEB	DL2	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02
	C	0.00	0.05	0.14	0.21	0.26	0.28	0.26	0.22	0.15	0.06	0.00
6	DS	814.00	814.11	814.28	814.43	814.58	814.71	814.84	814.95	815.05	815.15	815.19
	TES	813.06	813.10	813.31	813.50	813.67	813.82	813.93	814.03	814.10	814.15	814.26
RIGHT	ZW	812.92	813.05	813.26	813.46	813.64	813.79	813.91	814.00	814.06	814.10	814.13
GIRDER	CW	812.92	812.99	813.13	813.26	813.39	813.52	813.65	813.78	813.92	814.05	814.13
	SW	0.02	0.03	0.04	0.05	0.05	0.06	0.06	0.05	0.04	0.03	0.03
LEFT	DL1	0.08	0.10	0.13	0.16	0.18	0.19	0.18	0.17	0.14	0.11	0.09
WEB	DL2	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.02	0.02
	C	0.00	0.05	0.14	0.21	0.25	0.27	0.26	0.21	0.15	0.05	0.00
7	DS	813.43	813.54	813.71	813.86	814.01	814.14	814.27	814.38	814.48	814.58	814.62
	TES	812.49	812.53	812.74	812.93	813.10	813.25	813.36	813.46	813.53	813.58	813.69
RIGHT	ZW	812.35	812.48	812.69	812.89	813.07	813.22	813.34	813.43	813.49	813.53	813.56
GIRDER	CW	812.35	812.42	812.56	812.69	812.82	812.95	813.08	813.21	813.35	813.48	813.56
	SW	0.02	0.03	0.04	0.05	0.05	0.06	0.06	0.05	0.04	0.03	0.03
RIGHT	DL1	0.08	0.10	0.13	0.16	0.18	0.19	0.18	0.17	0.14	0.11	0.09
WEB	DL2	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.02	0.02
	C	0.00	0.05	0.14	0.21	0.25	0.27	0.26	0.21	0.15	0.05	0.00
BLOCKING HEIGHTS												
10	BLK	14.90										16.11
11		14.54										15.75
12		13.05										14.26
13		12.69										13.90



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 + 10½" SLAB = 14½" = 1.21 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' (½").
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 (¼") 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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 11 & 12

SHEET 61 OF 97

8

8

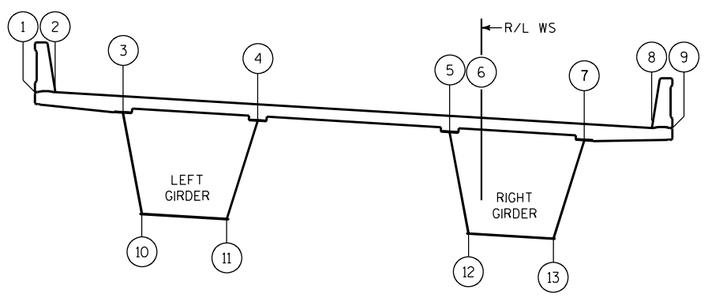
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080535_ss.dgn PLOT DATE : 02-MAR-2015 15:05 PLOT BY : MSCGLM PLOT NAME : B786_080535_ss PLOT SCALE : 10.666667:1

FIELD SECTION #13

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION								
		FS #11	P13-01	P13-02	P13-03	PIER WS07	P13-05	P13-06	P13-07	FS #12
		586+84.79	586+89.79	587+02.04	587+14.29	587+26.54	587+38.21	587+49.87	587+61.54	587+66.54
FINISHED ELEVATION - TOP OF DECK										
1	DS	816.95	816.98	817.05	817.11	817.15	817.19	817.22	817.23	817.24
2		816.86	816.89	816.96	817.02	817.07	817.10	817.13	817.15	817.15
6		815.06	815.09	815.16	815.22	815.27	815.30	815.33	815.35	815.35
8		814.34	814.37	814.44	814.50	814.55	814.58	814.61	814.63	814.63
9		814.25	814.28	814.35	814.41	814.46	814.50	814.52	814.54	814.54
CAMBER DATA										
3	DS	816.57	816.61	816.68	816.73	816.78	816.82	816.84	816.86	816.86
	TES	815.66	815.62	815.65	815.76	815.78	815.82	815.77	815.81	815.87
LEFT	ZW	815.51	815.52	815.54	815.55	815.57	815.61	815.65	815.69	815.71
GIRDER	CW	815.51	815.52	815.55	815.58	815.61	815.64	815.67	815.70	815.71
	SW	0.03	0.03	0.01	0.01	0.00	0.00	0.00	0.01	0.01
LEFT	DL1	0.10	0.08	0.05	0.02	0.00	0.00	0.01	0.03	0.04
WEB	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
	C	0.00	-0.01	-0.02	-0.03	-0.04	-0.03	-0.02	-0.01	0.00
4	DS	816.00	816.04	816.11	816.16	816.21	816.25	816.27	816.29	816.29
	TES	815.09	815.05	815.08	815.19	815.21	815.25	815.20	815.24	815.30
LEFT	ZW	814.94	814.95	814.97	814.98	815.00	815.04	815.08	815.12	815.14
GIRDER	CW	814.94	814.95	814.98	815.01	815.04	815.07	815.10	815.13	815.14
	SW	0.03	0.03	0.01	0.01	0.00	0.00	0.00	0.01	0.01
RIGHT	DL1	0.10	0.08	0.05	0.02	0.00	0.00	0.01	0.03	0.04
WEB	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
	C	0.00	-0.01	-0.02	-0.03	-0.04	-0.03	-0.02	-0.01	0.00
5	DS	815.19	815.23	815.30	815.35	815.40	815.44	815.46	815.48	815.48
	TES	814.26	814.23	814.26	814.37	814.40	814.44	814.39	814.43	814.49
RIGHT	ZW	814.13	814.13	814.15	814.17	814.19	814.23	814.27	814.31	814.33
GIRDER	CW	814.13	814.14	814.17	814.20	814.23	814.26	814.29	814.32	814.33
	SW	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01
LEFT	DL1	0.09	0.07	0.04	0.02	0.00	0.00	0.01	0.03	0.04
WEB	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.01	-0.02	-0.03	-0.04	-0.03	-0.02	-0.01	0.00
7	DS	814.62	814.66	814.73	814.78	814.83	814.87	814.89	814.91	814.91
	TES	813.69	813.66	813.69	813.80	813.83	813.87	813.82	813.86	813.92
RIGHT	ZW	813.56	813.56	813.58	813.60	813.62	813.66	813.70	813.74	813.76
GIRDER	CW	813.56	813.57	813.60	813.63	813.66	813.69	813.72	813.75	813.76
	SW	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01
RIGHT	DL1	0.09	0.07	0.04	0.02	0.00	0.00	0.01	0.03	0.04
WEB	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.01	-0.02	-0.03	-0.04	-0.03	-0.02	-0.01	0.00
BLOCKING HEIGHTS										
10	BLK	16.11								16.31
11		15.75								15.95
12		14.26								14.47
13		13.90								14.11

FIELD SECTION #14

POS'N NO.	VALUE	PANEL POINT POSITION AND STATION									
		FS #12	P14-01	P14-02	P14-03	P14-04	P14-05	P14-06	P14-07	P14-08	SOUTH ABUT
		587+66.54	587+73.21	587+84.87	587+96.54	588+08.21	588+19.87	588+31.54	588+43.21	588+54.87	588+66.54
FINISHED ELEVATION - TOP OF DECK											
1	DS	817.24	817.24	817.23	817.22	817.20	817.16	817.12	817.07	817.00	816.93
2		817.15	817.15	817.15	817.13	817.11	817.08	817.03	816.98	816.92	816.85
6		815.35	815.35	815.35	815.33	815.31	815.28	815.23	815.18	815.12	815.05
8		814.63	814.63	814.63	814.61	814.59	814.56	814.51	814.46	814.40	814.33
9		814.54	814.54	814.54	814.53	814.50	814.47	814.43	814.37	814.31	814.24
CAMBER DATA											
3	DS	816.86	816.87	816.86	816.85	816.83	816.79	816.75	816.70	816.63	816.56
	TES	815.87	815.80	815.82	815.82	815.81	815.78	815.72	815.64	815.55	815.44
LEFT	ZW	815.71	815.73	815.75	815.77	815.75	815.72	815.66	815.58	815.47	815.35
GIRDER	CW	815.71	815.69	815.64	815.60	815.56	815.52	815.48	815.44	815.39	815.35
	SW	0.01	0.01	0.02	0.02	0.03	0.03	0.02	0.02	0.01	0.00
LEFT	DL1	0.04	0.05	0.07	0.09	0.10	0.10	0.09	0.06	0.03	0.00
WEB	DL2	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
	C	0.00	0.04	0.11	0.16	0.19	0.20	0.19	0.14	0.08	0.00
4	DS	816.29	816.30	816.29	816.28	816.26	816.22	816.18	816.13	816.06	815.99
	TES	815.30	815.23	815.25	815.25	815.24	815.21	815.15	815.07	814.98	814.87
LEFT	ZW	815.14	815.16	815.18	815.20	815.18	815.15	815.09	815.01	814.90	814.78
GIRDER	CW	815.14	815.12	815.07	815.03	814.99	814.95	814.91	814.87	814.82	814.78
	SW	0.01	0.01	0.02	0.02	0.03	0.03	0.02	0.02	0.01	0.00
RIGHT	DL1	0.04	0.05	0.07	0.09	0.10	0.10	0.09	0.06	0.03	0.00
WEB	DL2	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
	C	0.00	0.04	0.11	0.16	0.19	0.20	0.19	0.14	0.08	0.00
5	DS	815.48	815.49	815.48	815.47	815.45	815.41	815.37	815.32	815.25	815.18
	TES	814.49	814.42	814.44	814.44	814.43	814.39	814.34	814.26	814.17	814.06
RIGHT	ZW	814.33	814.35	814.37	814.38	814.37	814.34	814.28	814.19	814.09	813.97
GIRDER	CW	814.33	814.31	814.26	814.22	814.18	814.14	814.10	814.06	814.01	813.97
	SW	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.00
LEFT	DL1	0.04	0.05	0.07	0.08	0.09	0.09	0.08	0.06	0.03	0.00
WEB	DL2	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.04	0.11	0.16	0.19	0.20	0.18	0.14	0.08	0.00
7	DS	814.91	814.92	814.91	814.90	814.88	814.84	814.80	814.75	814.68	814.61
	TES	813.92	813.85	813.87	813.87	813.86	813.82	813.77	813.69	813.60	813.49
RIGHT	ZW	813.76	813.78	813.80	813.81	813.80	813.77	813.71	813.62	813.52	813.40
GIRDER	CW	813.76	813.74	813.69	813.65	813.61	813.57	813.53	813.49	813.44	813.40
	SW	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.00
RIGHT	DL1	0.04	0.05	0.07	0.08	0.09	0.09	0.08	0.06	0.03	0.00
WEB	DL2	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.04	0.11	0.16	0.19	0.20	0.18	0.14	0.08	0.00
BLOCKING HEIGHTS											
10	BLK	16.31									15.95
11		15.95									15.59
12		14.47									14.11
13		14.11									13.75



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 + 10½" SLAB = 14½" = 1.21 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' (½").
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 (¼") 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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

CAMBER AND DECK ELEVATIONS: FIELD SECTIONS 13 & 14

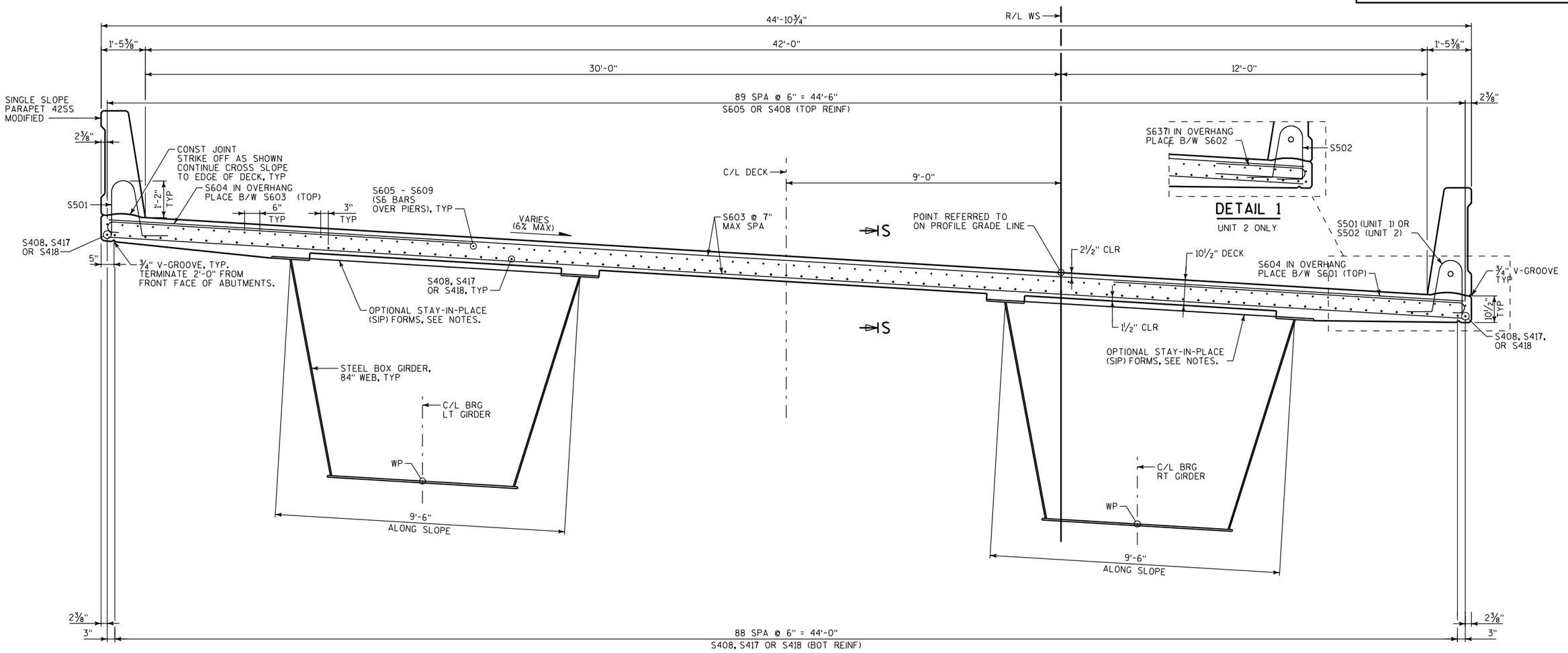
SHEET 62 OF 97

8

8

FILE NAME : \\WKE31FP1\w3zoo\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080536_ss.dgn PLOT DATE : 05-MAR-2015 08:47 PLOT BY : MSCGLM PLOT NAME : sht 36 PLOT SCALE : 10.666667:1

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.

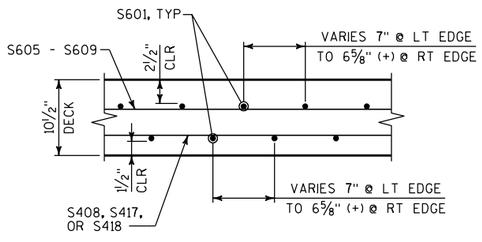
   TOP OF STAY-IN-PLACE METAL FORMS SHALL BE ALIGNED WITH THE UNDERSIDE OF THE DECK SLAB.

   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 WS)



SECTION S-S

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

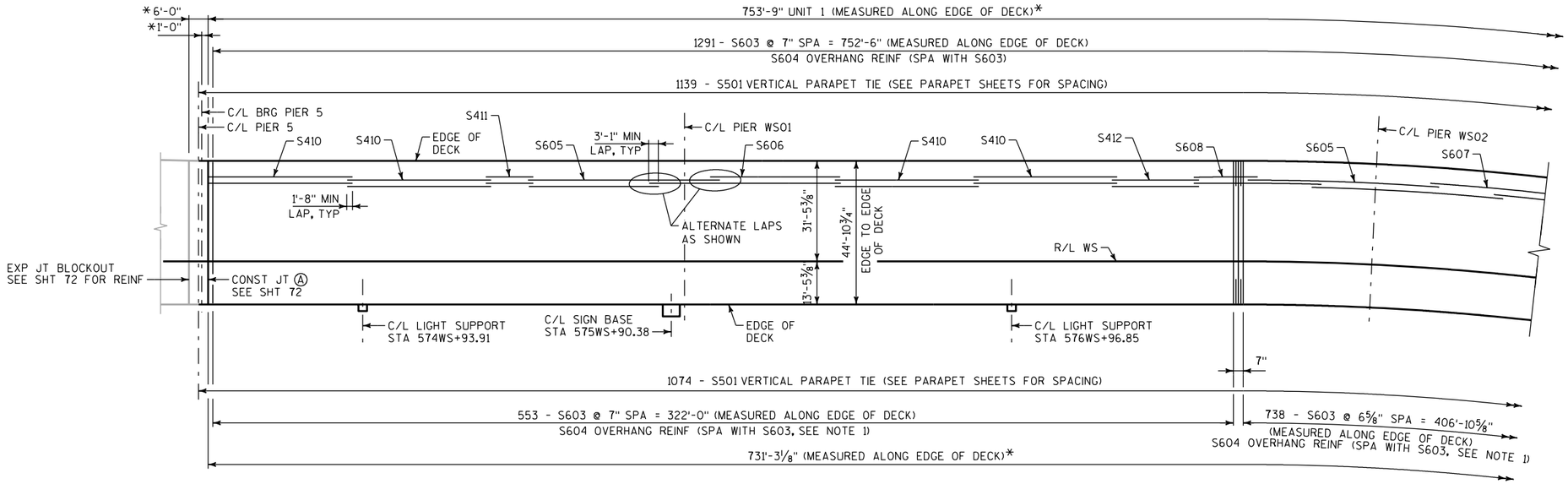
SUPERSTRUCTURE CROSS SECTION

SHEET 63 OF 97

8

FILE NAME : \\WKE31FP1\w3zoo\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080537_ss.dgn
PLOT DATE : 05-MAR-2015 08:49
PLOT BY : MSCGLM
PLOT NAME : sht 63
PLOT SCALE : 3.333333:1

STATE PROJECT NUMBER
1060-33-81



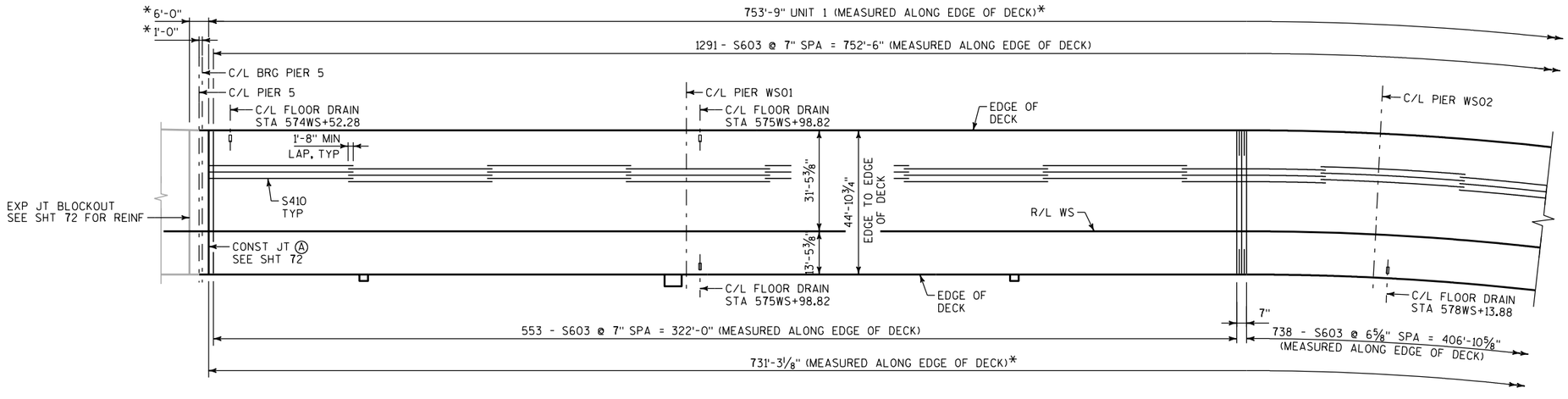
DECK PLAN - TOP REINFORCEMENT

LEGEND

*MEASURED AT 60 DEG F

NOTES

1. AT EACH LIGHT SUPPORT, 6-S604 BARS ARE NOT REQUIRED. THE S604 BARS ARE REPLACED BY THE R610 BARS AS INDICATED ON LIGHT SUPPORT DETAIL SHEETS. R513 SHALL BE PLACED IN LIEU OF S501.



DECK PLAN - BOTTOM REINFORCEMENT

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

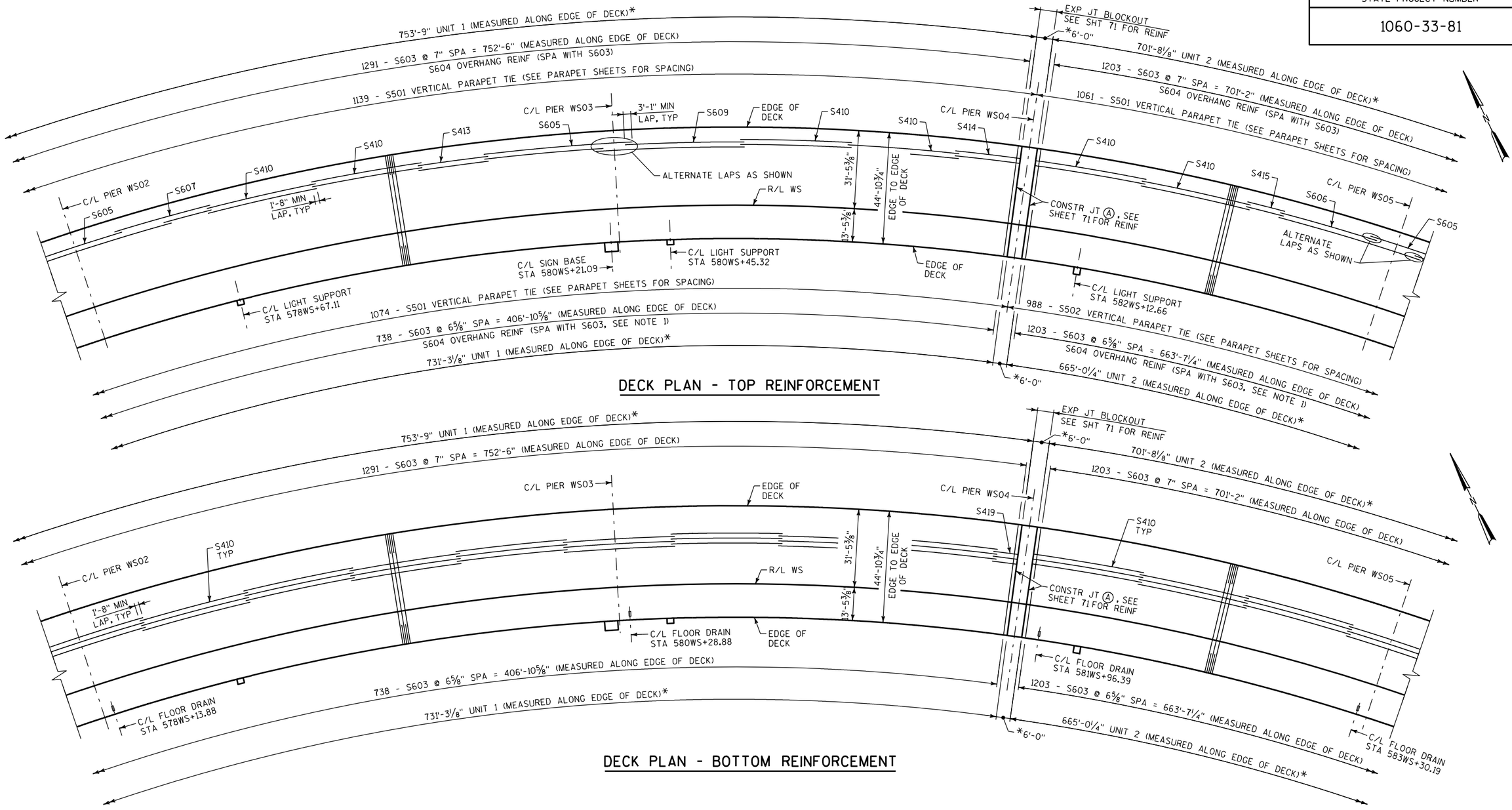
STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

DECK REINFORCEMENT (1 OF 3)

SHEET 64 OF 97

STATE PROJECT NUMBER
1060-33-81



DECK PLAN - TOP REINFORCEMENT

DECK PLAN - BOTTOM REINFORCEMENT

LEGEND

*MEASURED AT 60 DEG F

NOTES

1. AT EACH LIGHT SUPPORT, 6-S604 BARS ARE NOT REQUIRED, THE S604 BARS ARE REPLACED BY THE R610 BARS AS INDICATED ON LIGHT SUPPORT DETAIL SHEETS. R513 SHALL BE PLACED IN LIEU OF S501.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

DECK REINFORCEMENT (2 OF 3)

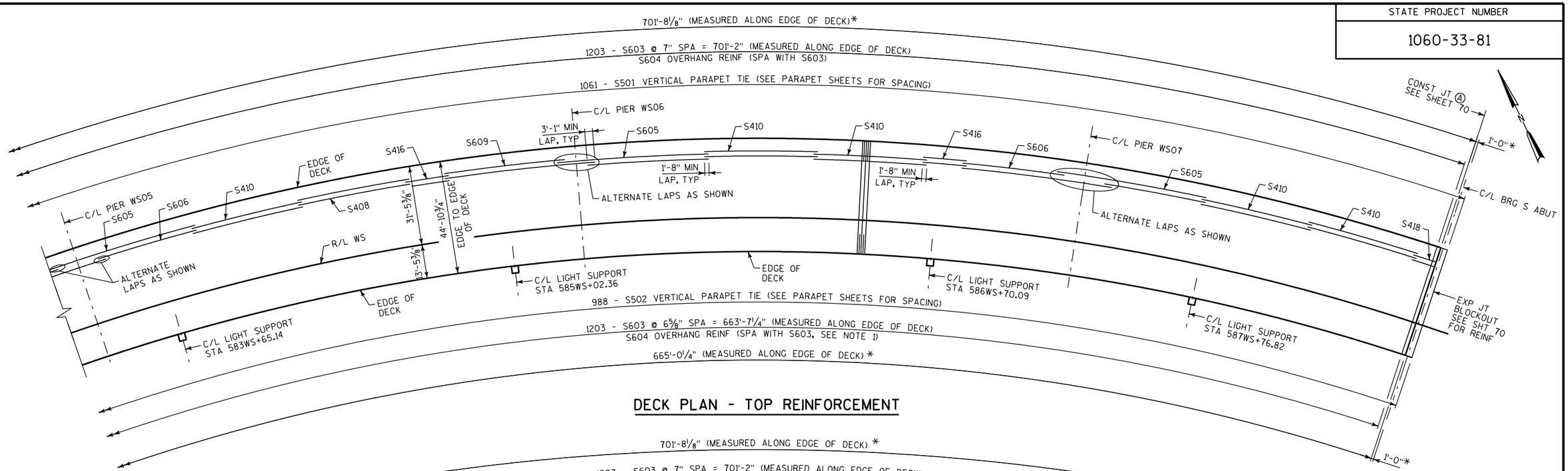
SHEET 65 OF 97

8

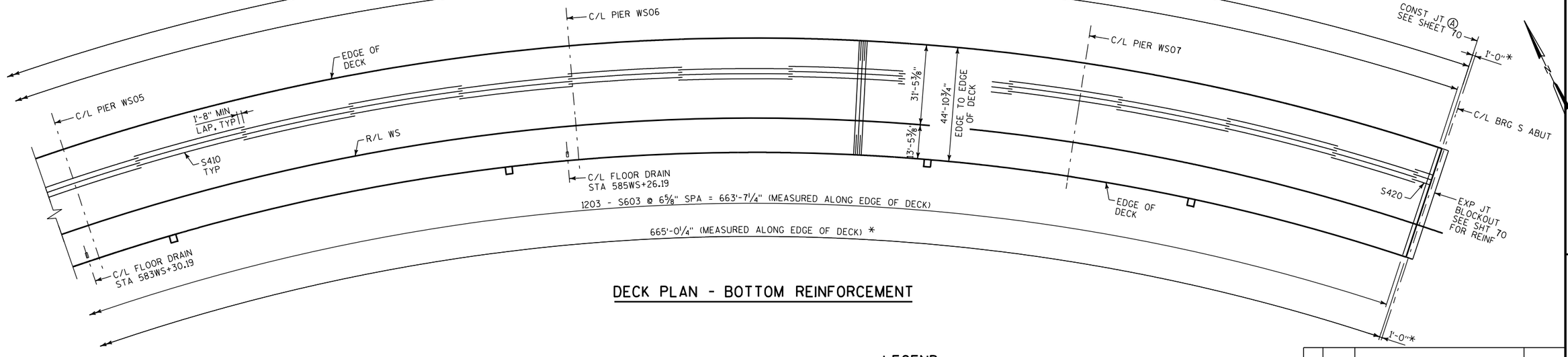
8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080539_ss.dgn PLOT DATE : 05-MAR-2015 11:59 PLOT BY : MSCGLM PLOT NAME : B786_080539_ss PLOT SCALE : 40:1

STATE PROJECT NUMBER
1060-33-81



DECK PLAN - TOP REINFORCEMENT



DECK PLAN - BOTTOM REINFORCEMENT

LEGEND

* MEASURED AT 60 DEG F

NOTES

1. AT EACH LIGHT SUPPORT, 6-S604 BARS ARE NOT REQUIRED, THE S604 BARS ARE REPLACED BY THE R610 BARS AS INDICATED ON LIGHT SUPPORT DETAIL SHEETS. R513 SHALL BE PLACED IN LIEU OF S501.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

DECK REINFORCEMENT (3 OF 3)

SHEET 66 OF 97

8

8

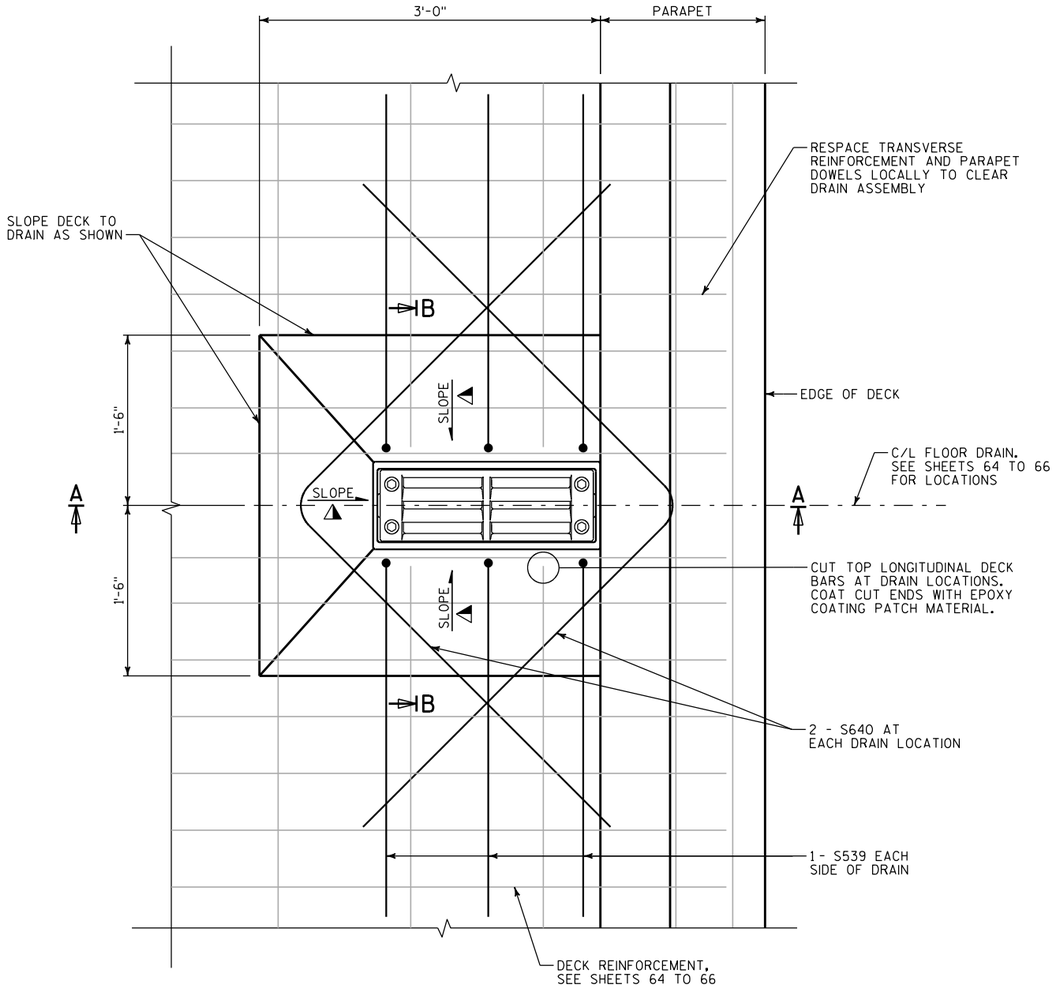
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080540_ss.dgn PLOT DATE : 05-MAR-2015 11:59 PLOT BY : MSCGLM PLOT NAME : B786_080540_ss PLOT SCALE : 40:1

STATE PROJECT NUMBER
1060-33-81

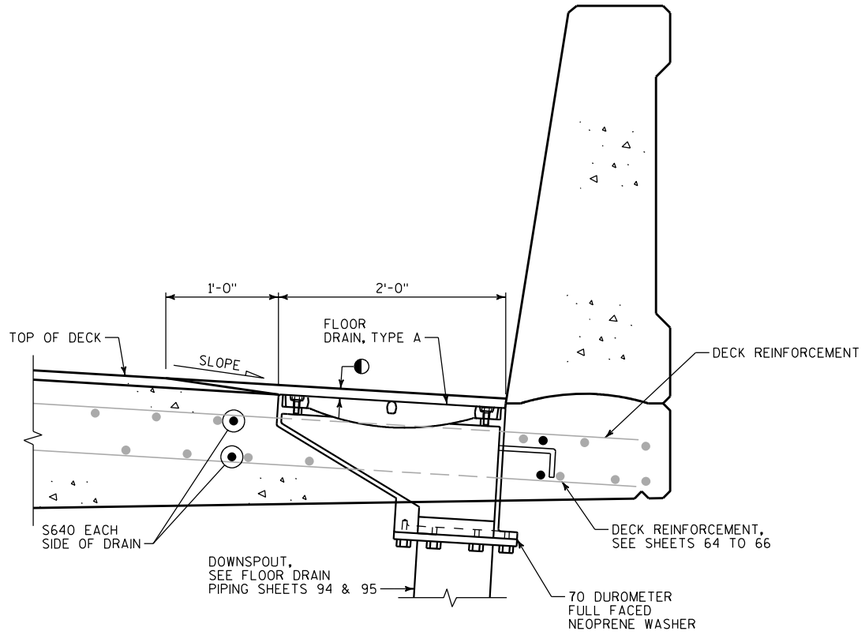
LEGEND

◐ SET TOP OF FLOOR DRAIN 1/2" BELOW TOP OF DECK

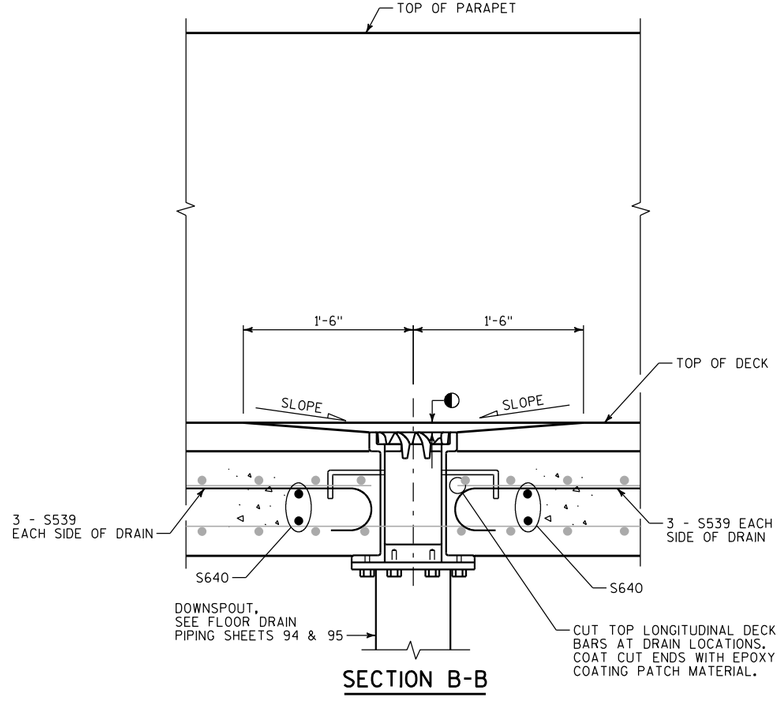
◭ HAND-FINISH SLAB WITHIN THE SLOPED AREA.



PART PLAN AT FLOOR DRAIN



SECTION A-A



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRCUTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

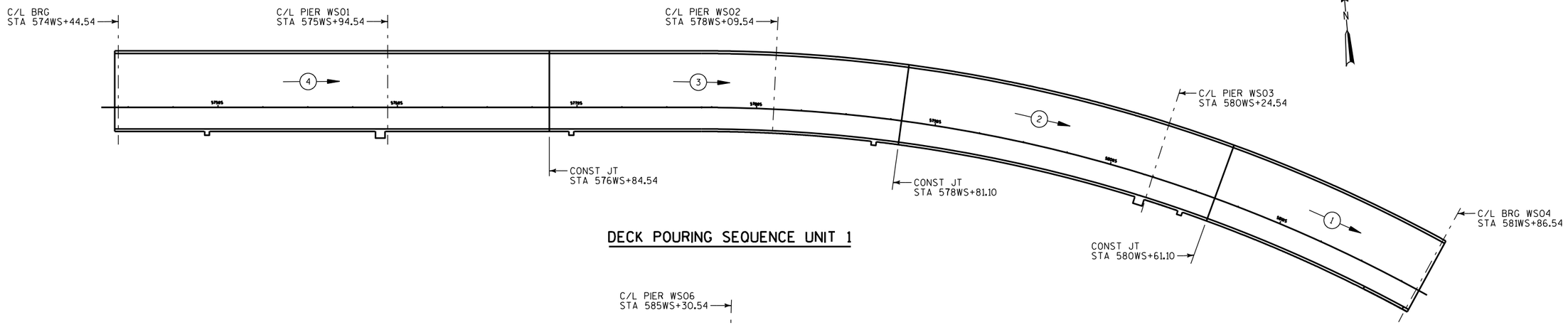
DECK DETAILS

SHEET 67 OF 97

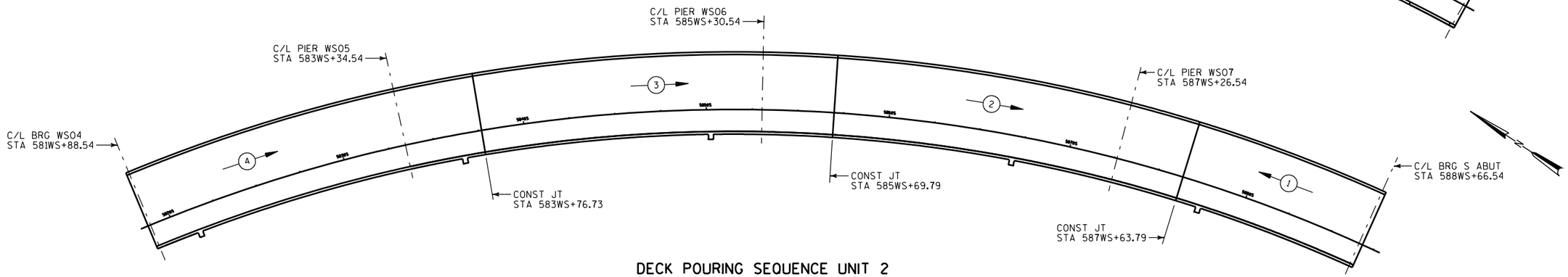
8

8

STATE PROJECT NUMBER
1060-33-81



DECK POURING SEQUENCE UNIT 1



DECK POURING SEQUENCE UNIT 2

(1)→ INDICATES POUR NUMBER AND DIRECTION OF POUR

DECK POURING SEQUENCE NOTES

THE RATE OF PLACING CONCRETE SHALL EQUAL OR EXCEED ½ 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.

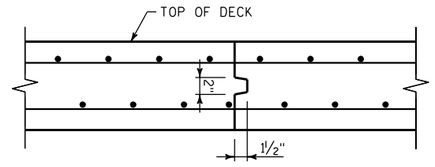
CONTROL POUR SEQUENCE AND PLACEMENT RATE TO ENSURE THAT BEFORE THE CONCRETE IN ANY PIER AREA REACHES THE INITIAL SET CONDITION, THE CONCRETE IN BOTH ADJACENT 'SPAN' AREAS IS ALREADY IN PLACE.

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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

DECK POURING SEQUENCE AND NOTES

SHEET 68 OF 97

8

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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	3274	4'-9"	X		11	1'-4"	172	0'-4½"	1'-5"	0'-10"	98	PARAPET TIE					
S502	S	988	5'-7"	X		41	1'-4"	172	0'-4½"	1'-5"	0'-10"	98	PARAPET TIE NOISE BARRIER					
S603	S	2494	44'-7"			1	44'-7"						DECK TRANSVERSE					
S604	S	4934	13'-7"	X		2	12'-11"						DECK TRANSVERSE AT OVERHANG					
S605	S	540	60'-0"			1	60'-0"						DECK LONG. TOP OVER PIER					
S606	S	270	40'-8"			1	40'-8"						DECK LONG. TOP OVER PIER					
S607	S	90	40'-0"			1	40'-0"						DECK LONG. TOP OVER PIER					
S608	S	90	20'-0"			1	20'-0"						DECK LONG. TOP OVER PIER					
S609	S	180	48'-6"			1	48'-6"						DECK LONG. TOP OVER PIER					
S410	S	4410	45'-0"			1	45'-0"						DECK LONG. TOP & BOT.					
S411	S	90	12'-0"			1	12'-0"						DECK LONG. TOP SPAN 1					
S412	S	90	34'-0"			1	34'-0"						DECK LONG. TOP SPAN 2					
S413	S	90	36'-0"			1	36'-0"						DECK LONG. TOP SPAN 3					
S414	S	90	25'-0"			1	25'-0"						DECK LONG. TOP SPAN 4					
S415	S	90	14'-0"			1	14'-0"						DECK LONG. TOP SPAN 5					
S416	S	180	23'-0"			1	23'-0"						DECK LONG. TOP SPAN 6 & 7					
S517													NOT USED					
S418	S	90	8'-0"			1	8'-0"						DECK LONG. TOP SPAN 8					
S419	S	91	16'-0"			1	16'-0"						DECK LONG. BOT. SPAN 4					
S420	S	91	7'-2"			1	7'-2"						DECK LONG. BOT. SPAN 8					
S521	S	30	7'-6"	X	X	3	1'-1½"	2'-4"					EXPANSION JOINT STIRRUPS	A	6"	1'-9"	4 SERIES OF 5	6'-3" TO 8'-9"
S522	S	292	8'-9"	X		3	1'-9"	2'-4"					EXPANSION JOINT STIRRUPS					
S423	S	54	4'-10"	X		9	2'-5"	2'-5"	32				EXPANSION JOINT BOT. OF SLAB TRANSVERSE					
S624	S	28	44'-7"			1	44'-7"						EXPANSION JOINT TOP OF SLAB TRANSVERSE					
S625	S	56	8'-8"			1	8'-8"						EXPANSION JOINT BOT. OF SLAB TRANSVERSE					
S426	S	320	1'-11"			1	1'-11"						EXPANSION JOINT BLOCKOUT BOT.					
S427	S	640	2'-5"	X		22	0'-4½"	0'-8½"	1'-4"				EXPANSION JOINT BLOCKOUT BOT.					
S428	S	32	39'-8"			1	39'-8"						EXPANSION JOINT BOT. OF SLAB TRANSVERSE					
S529	S	320	8'-2"	X		4	4'-0"	0'-5"					EXPANSION JOINT BOT. OF SLAB LONG.					
S530	S	320	2'-8"	X		4	0'-6"	1'-11"					EXPANSION JOINT BLOCKOUT TOP					
S531	S	322	5'-5"	X		29	1'-9"	1'-11"	45'-0"	1'-9"			EXPANSION JOINT SLAB THICKNESS TRANSITION					
S532	S	32	4'-8"	X	X	29	1'-9"	1'-2"	45'-0"	1'-9"			EXPANSION JOINT SLAB THICKNESS TRANSITION	B	5½"	1'-10½"	8 SERIES OF 4	3'-10" TO 5'-3"
S433	S	8	44'-7"			1	44'-7"						EXPANSION JOINT BLOCKOUT TOP					
S634	S	42	4'-0"			1	4'-0"						EXPANSION JOINT BOT. OF SLAB TRANSVERSE					
S635	S	21	13'-3"			1	13'-3"						EXPANSION JOINT BOT. OF SLAB TRANSVERSE					
S536	S	292	5'-3"	X		8	4'-6"	0'-10"					EXPANSION JOINT BLOCKOUT TOP					
S637	S	1202	9'-2"	X		5	4'-6"	0'-6"					DECK TRANSVERSE AT OVERHANG UNIT 2					
S638	S	14	6'-0"			1	6'-0"						EXPANSION JOINT BOT. OF SLAB TRANSVERSE					
S539	S	54	4'-7"	X		2	4'-0"						FLOOR DRAIN					
S640	S	36	7'-10"	X		8	4'-0"	4'-0"					FLOOR DRAIN					

BAR MARK BREAKDOWN				
BAR MARK	UNIT 1	UNIT 2	TOTAL NO	WEIGHT
S501	2213	1061	3274	16220
S502	0	988	988	5754
S603	1291	1203	2494	167009
S604	2558	2376	4934	100664
S605	270	270	540	48665
S606	90	180	270	16492
S607	90	0	90	5407
S608	90	0	90	2704
S609	90	90	180	13112
S410	2250	2160	4410	132565
S411	90	0	90	721
S412	90	0	90	2044
S413	90	0	90	2164
S414	90	0	90	1503
S415	0	90	90	842
S416	0	180	180	2766
S517	0	0	0	0
S418	0	90	90	481
S419	91	0	91	973
S420	0	91	91	436
S521	20	10	30	235
S522	136	156	292	2665
S423	36	18	54	174
S624	14	14	28	1875
S625	28	28	56	729
S426	160	160	320	410
S427	320	320	640	1033
S428	16	16	32	848
S529	160	160	320	2726
S530	160	160	320	890
S531	156	166	322	1819
S532	16	16	32	156
S433	4	4	8	238
S634	28	14	42	252
S635	14	7	21	418
S536	136	156	292	1599
S637	0	1202	1202	16550
S638	0	14	14	126
S539	27	27	54	258
S640	20	16	36	424
TOT WEIGHT	277544	276401	22287	553945

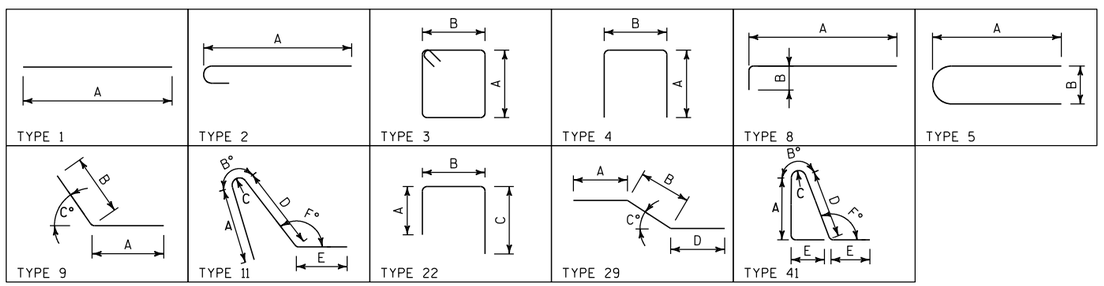
NOTES

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

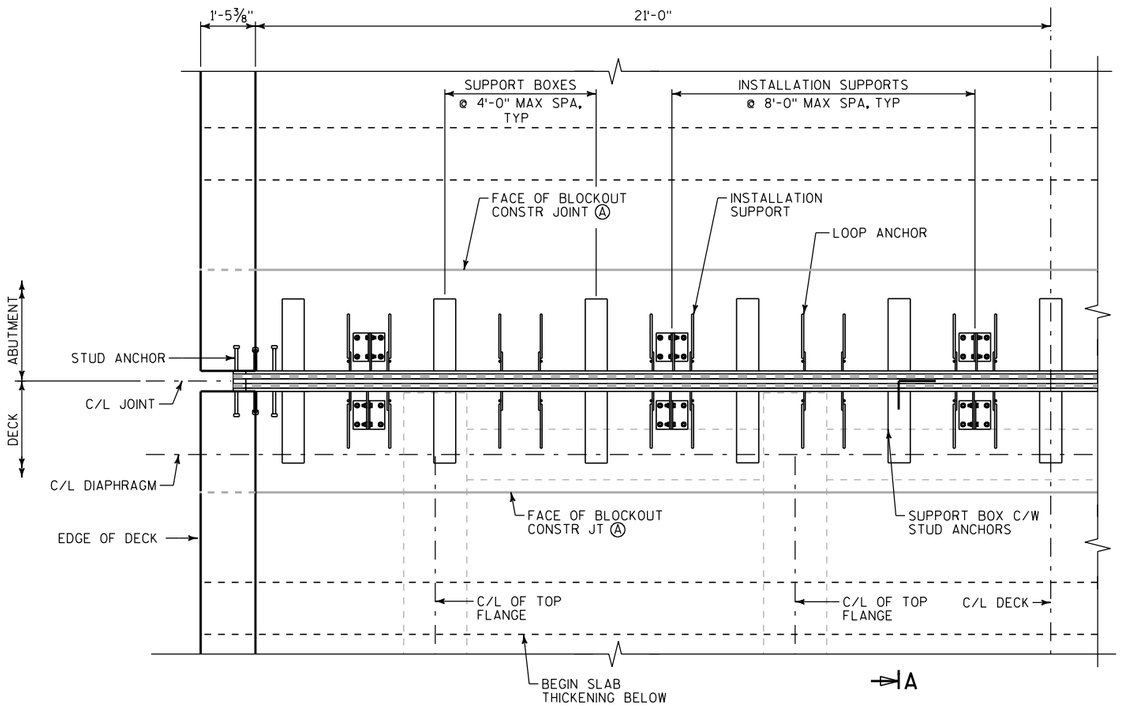
STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

DECK REINFORCEMENT SCHEDULE

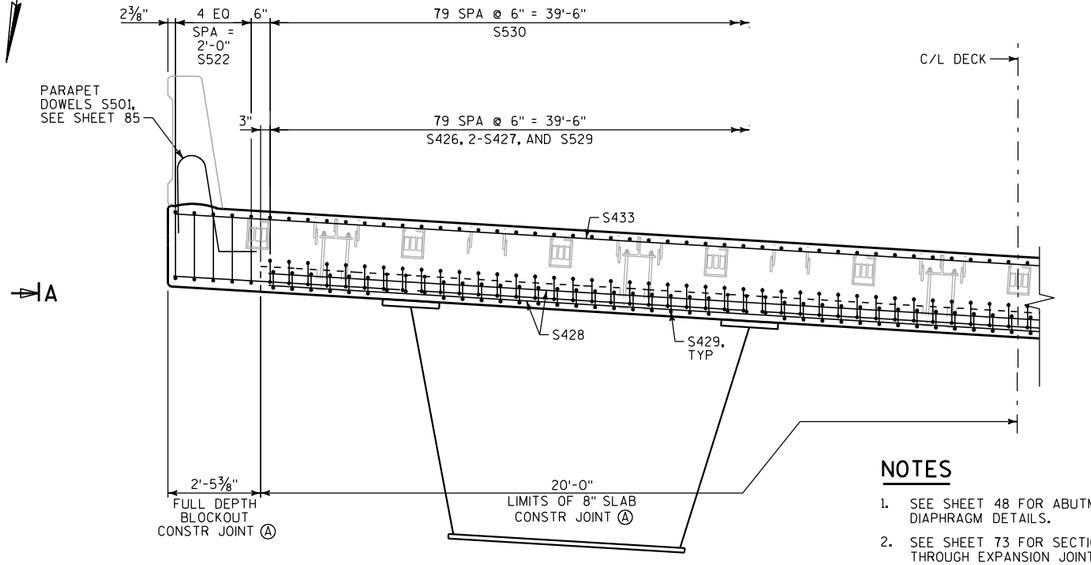
SHEET 69 OF 97

STATE PROJECT NUMBER
1060-33-81



PLAN - JOINT AT SOUTH ABUTMENT

JOINT SYMMETRICAL ABOUT C/L DECK, EXCEPT AS NOTED



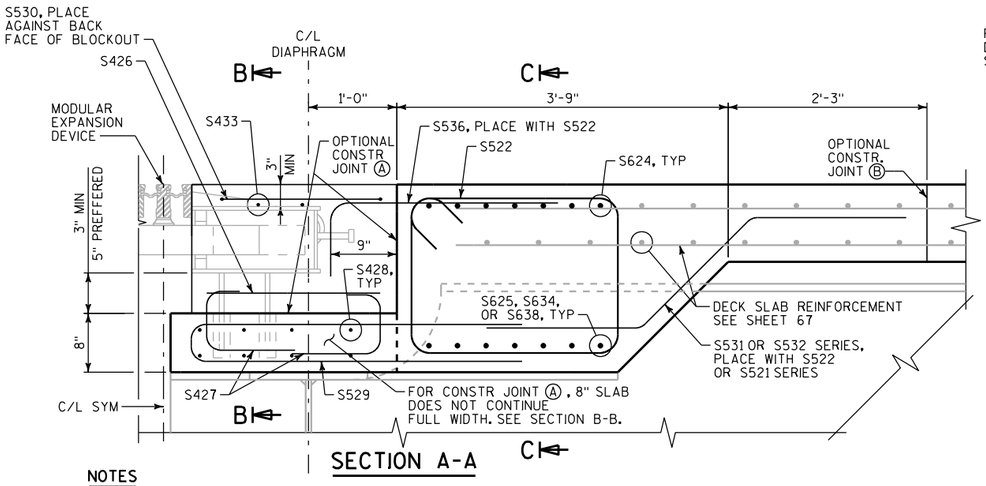
SECTION B-B

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

NOTES

1. SEE SHEET 48 FOR ABUTMENT DIAPHRAGM DETAILS.
2. SEE SHEET 73 FOR SECTIONS THROUGH EXPANSION JOINT REGIONS.
3. SEE SHEET 75 FOR DETAILS OF THE MODULAR EXPANSION DEVICES INCLUDING REQUIRED MOVEMENT CAPACITY, NUMBER OF SEALS, ANCHORAGES AND TEMPORARY SUPPORTS.
4. SEE SHEET 74 FOR DETAILS OF THE PARAPET COVER PLATES.

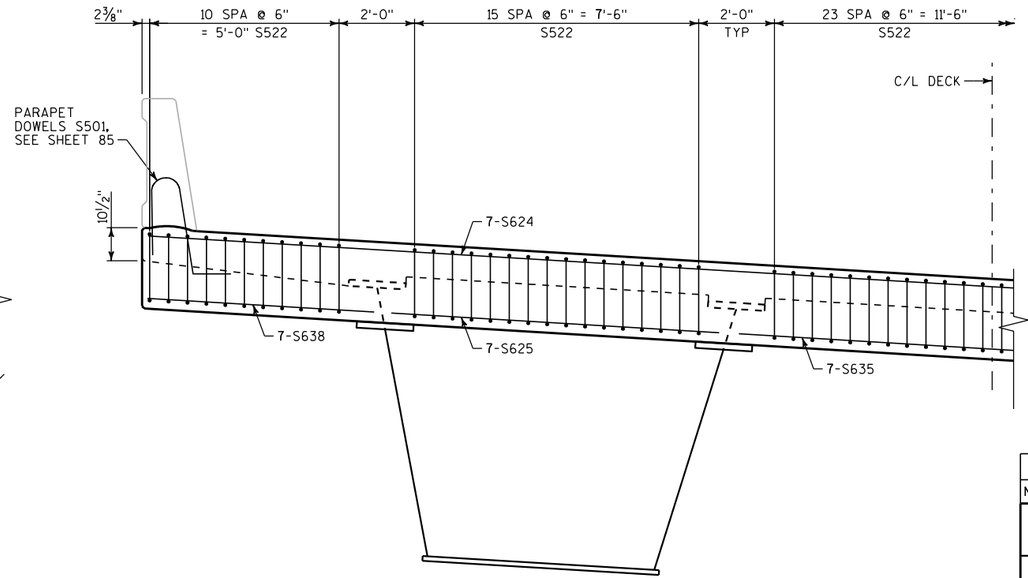
   COVER PLATES ARE REQUIRED AT ALL PARAPETS BUT FOR CLARITY ARE NOT SHOWN ON THIS DRAWING.
5. SUPPORT BOX SIZE AS SHOWN IS APPROXIMATE ONLY AND IS BASED ON A 2-CELL EXPANSION DEVICE. DIMENSIONS WILL VARY FOR DIFFERENT JOINT SIZES AND MANUFACTURERS.
6. EXPANSION DEVICE DETAILS SHOWN ON THIS DRAWING (INCLUDING 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-40-786".



SECTION C-C

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

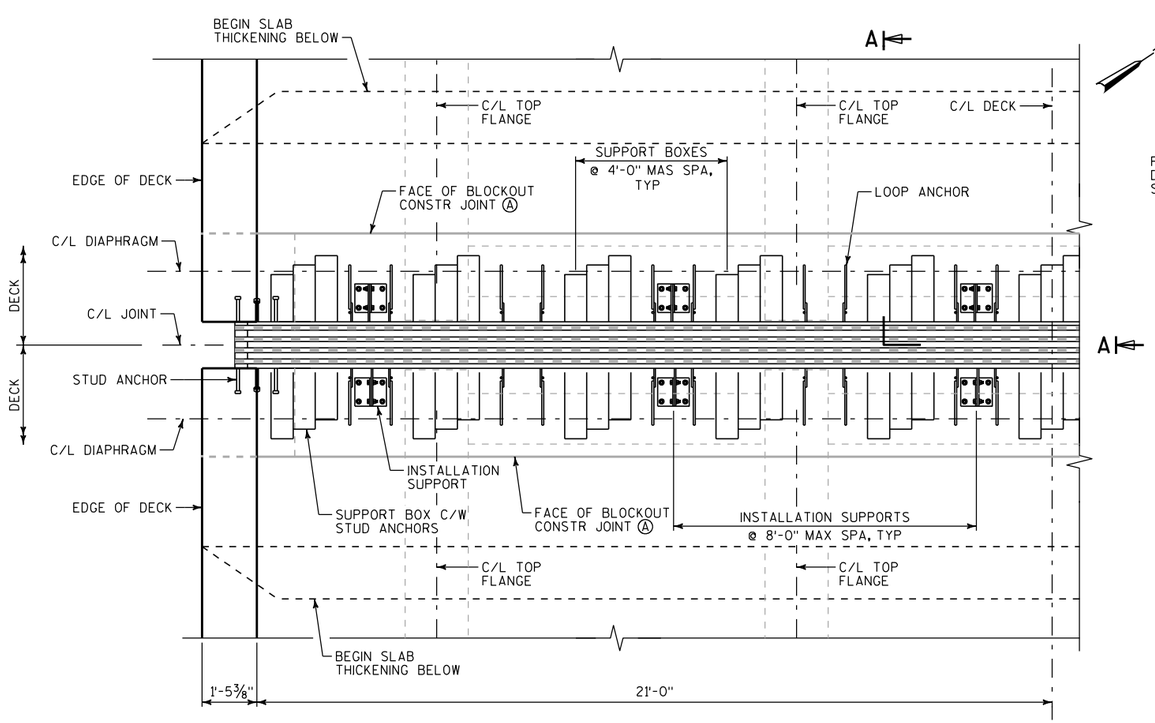
EXPANSION JOINT LAYOUT SOUTH ABUTMENT

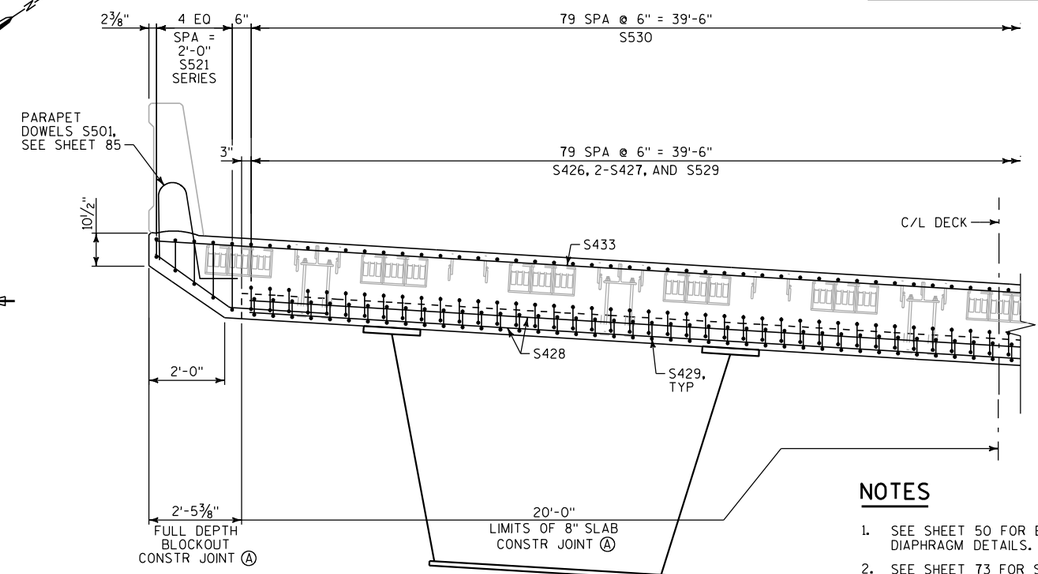
SHEET 70 OF 97

8

8

STATE PROJECT NUMBER
1060-33-81





SECTION B-B

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

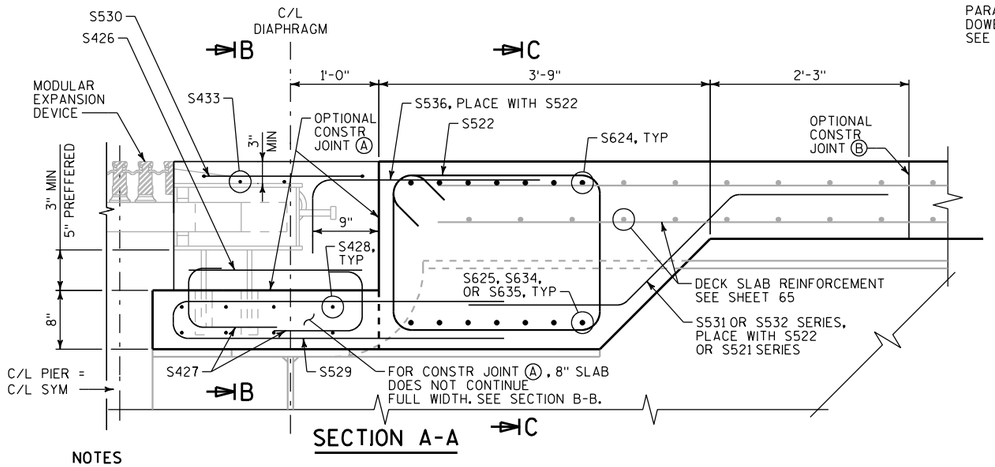
NOTES

1. SEE SHEET 50 FOR END PIER DIAPHRAGM DETAILS.
2. SEE SHEET 73 FOR SECTIONS THROUGH EXPANSION JOINT REGIONS.
3. SEE SHEET 75 FOR DETAILS OF THE MODULAR EXPANSION DEVICES INCLUDING REQUIRED MOVEMENT CAPACITY, NUMBER OF SEALS, ANCHORAGES AND TEMPORARY SUPPORTS.
4. SEE SHEET 74 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 4-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.

PLAN - JOINT AT PIER WS04

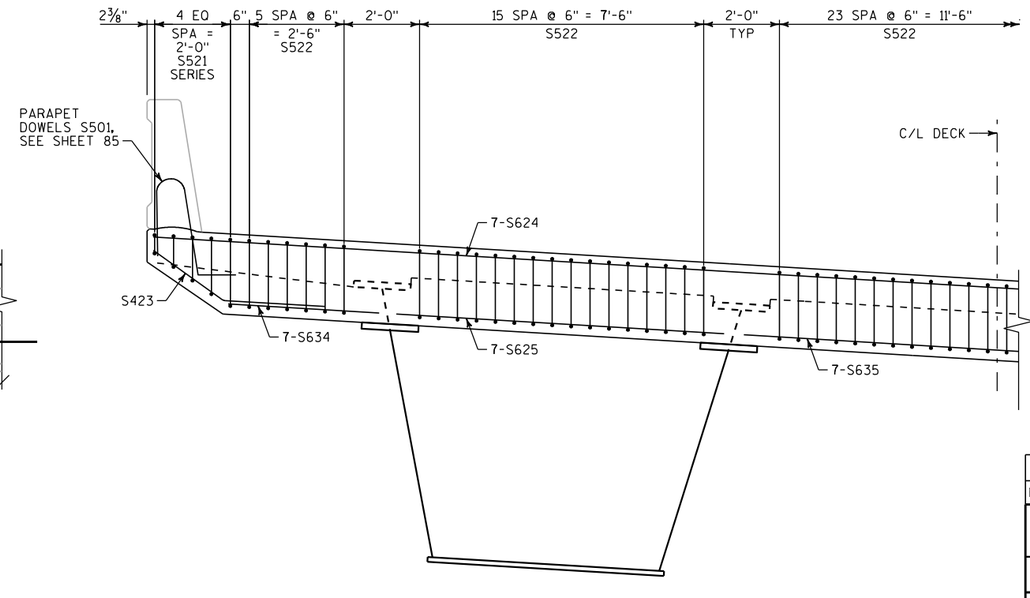
JOINT SYMMETRICAL ABOUT C/L



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 SUPPORTS POINTS IN ACCORDANCE WITH THE SPECIFICATIONS. PAYMENT FOR ANY SUPPORT SYSTEM SHALL BE INCIDENTAL TO THE BID ITEM "EXPANSION DEVICE MODULAR LRFD B-40-786".



SECTION C-C

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

EXPANSION JOINT LAYOUT PIER WS04

SHEET 71 OF 97

8

8

FILE NAME : \\WKE31FP1\w3zoo\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080545_ss.dgn

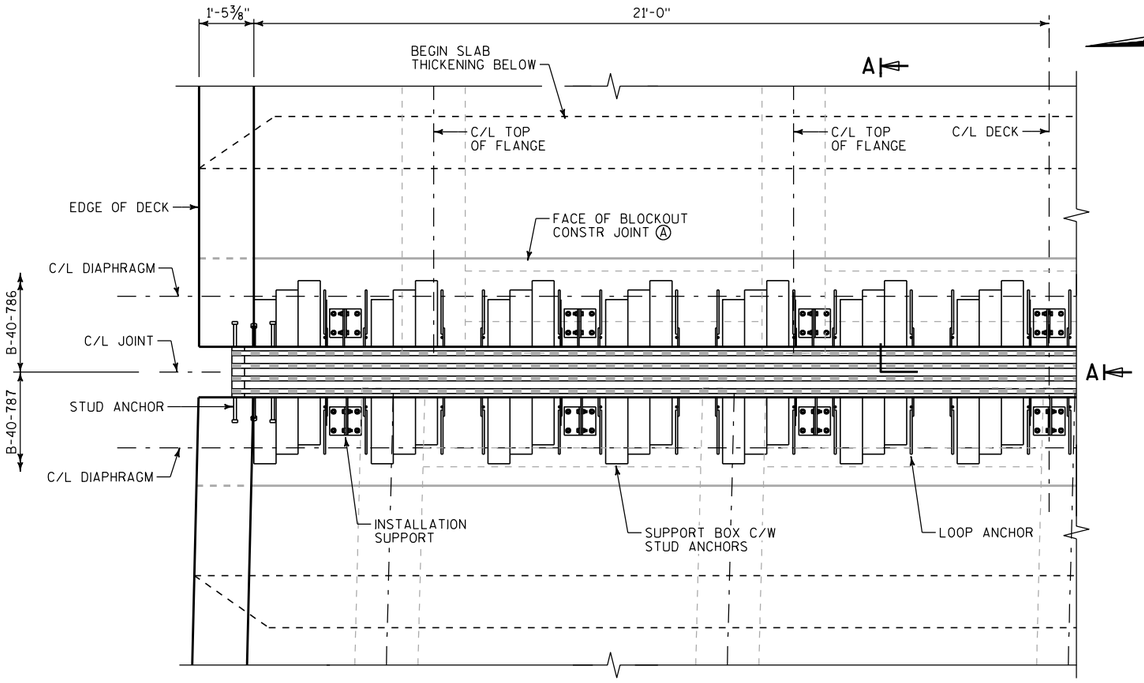
PLOT DATE : 04-MAR-2015 11:14

PLOT BY : MSCGLM

PLOT NAME : sht 45

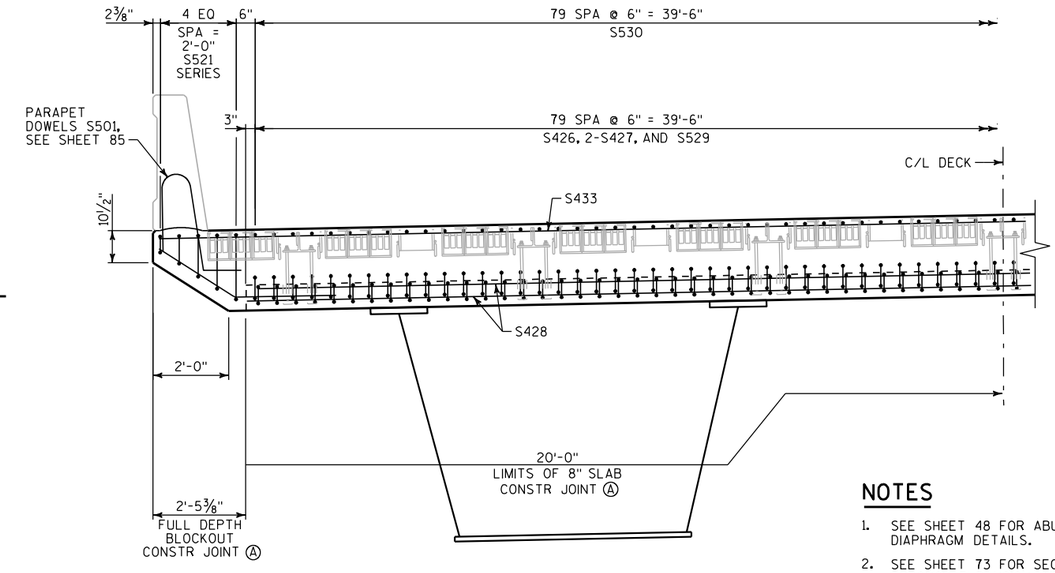
PLOT SCALE : 4:1

STATE PROJECT NUMBER
1060-33-81



PLAN - JOINT AT PIER 5

JOINT SYMMETRICAL ABOUT C/L



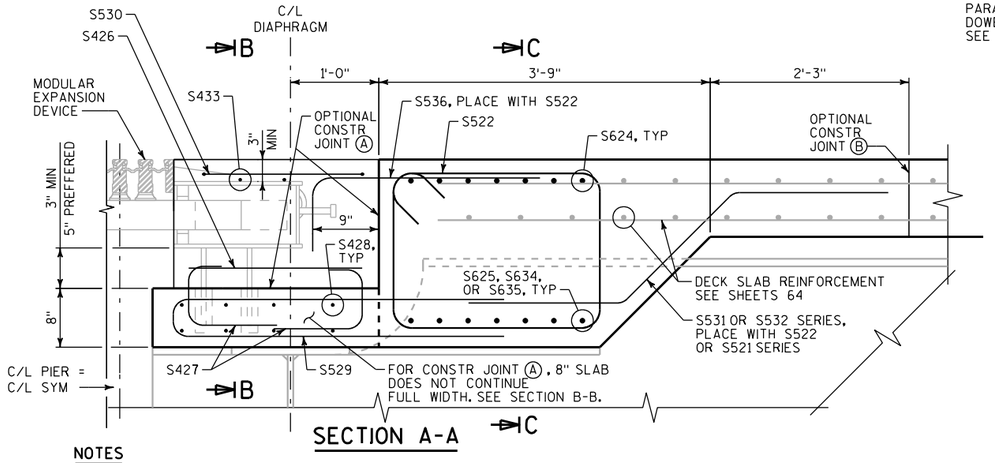
SECTION B-B

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

NOTES

1. SEE SHEET 48 FOR ABUTMENT DIAPHRAGM DETAILS.
2. SEE SHEET 73 FOR SECTIONS THROUGH EXPANSION JOINT REGIONS.
3. SEE SHEET 75 FOR DETAILS OF THE MODULAR EXPANSION DEVICES INCLUDING REQUIRED MOVEMENT CAPACITY, NUMBER OF SEALS, ANCHORAGES AND TEMPORARY SUPPORTS.
4. SEE SHEET 74 FOR DETAILS OF THE PARAPET COVER PLATES.

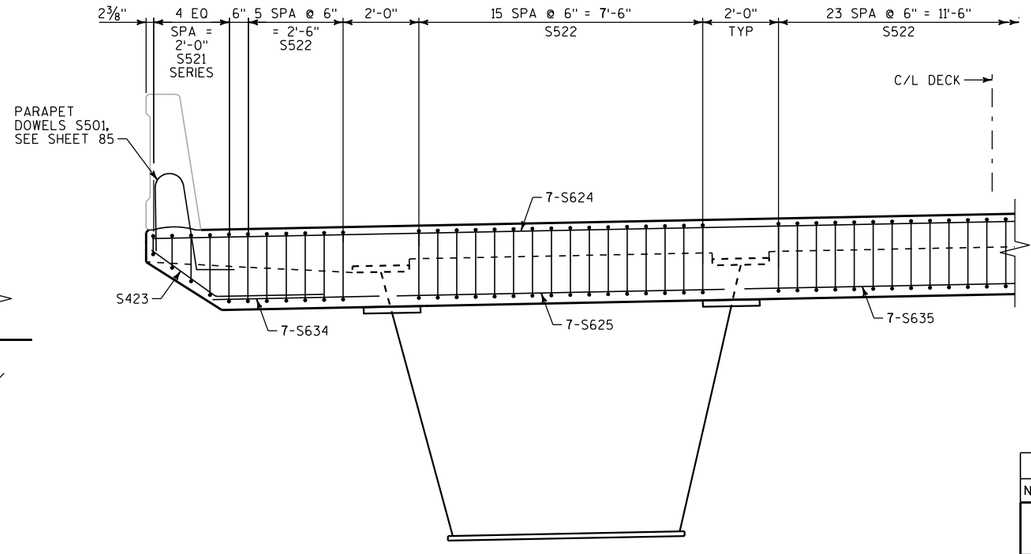
   COVER PLATES ARE REQUIRED AT ALL PARAPETS BUT FOR CLARITY ARE NOT SHOWN ON THIS DRAWING.
5. SUPPORT BOX SIZE AS SHOWN IS APPROXIMATE ONLY AND IS BASED ON A 4-CELL EXPANSION DEVICE. DIMENSIONS WILL VARY FOR DIFFERENT JOINT SIZES AND MANUFACTURERS.
6. EXPANSION DEVICE DETAILS SHOWN ON THIS DRAWING (INCLUDING 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 (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 SUPPORTS POINTS IN ACCORDANCE WITH THE SPECIFICATIONS. PAYMENT FOR ANY SUPPORT SYSTEM SHALL BE INCIDENTAL TO THE BID ITEM "EXPANSION DEVICE MODULAR LRFD B-40-786".



SECTION C-C

DECK REINFORCEMENT NOT SHOWN FOR CLARITY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

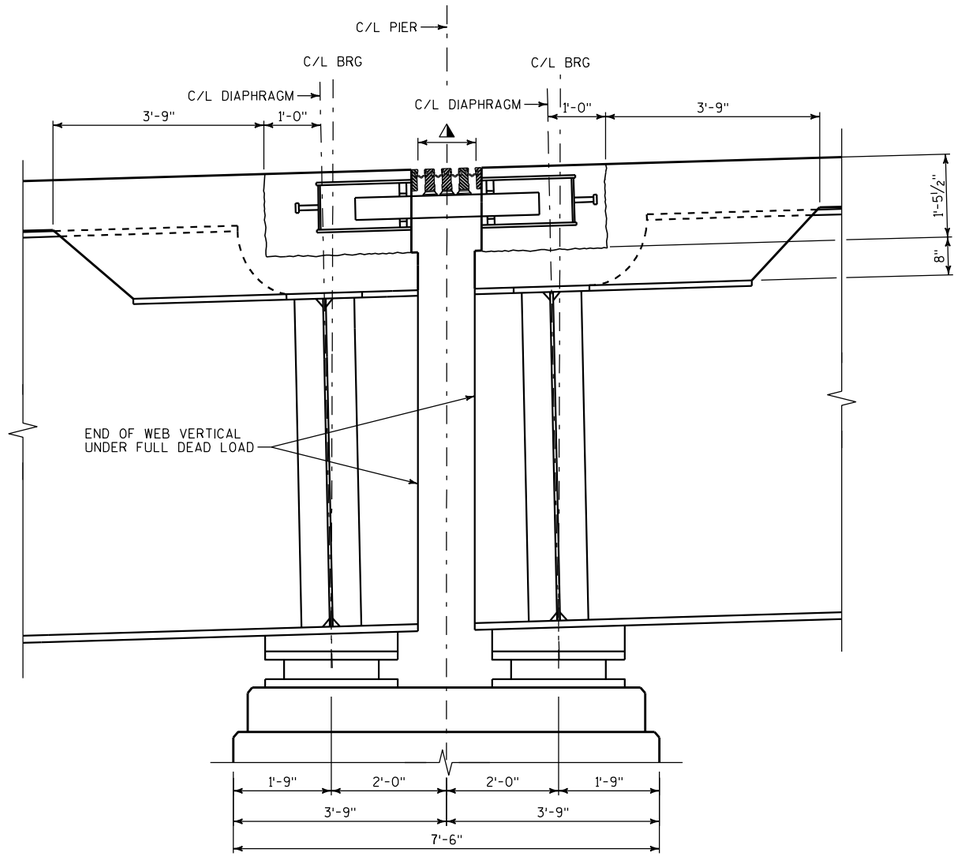
EXPANSION JOINT LAYOUT PIER 5

SHEET 72 OF 97

8

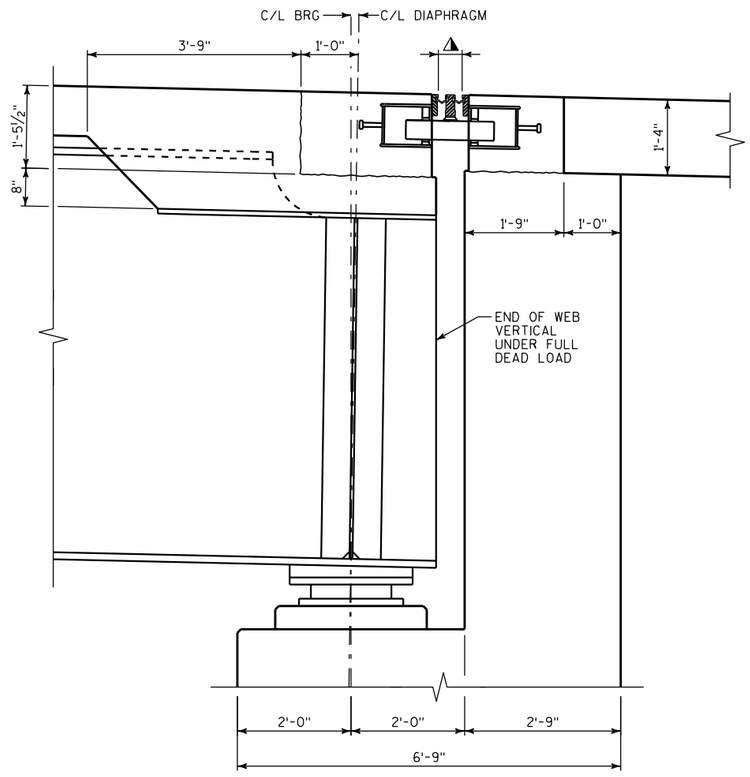
8

STATE PROJECT NUMBER
1060-33-81



SECTION AT PIER WS04

▲ SEE TEMPERATURE SETTING TABLE



SECTION AT SOUTH 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 WS04 = $\frac{11}{16}$"
   S ABUT = $\frac{5}{16}$"

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.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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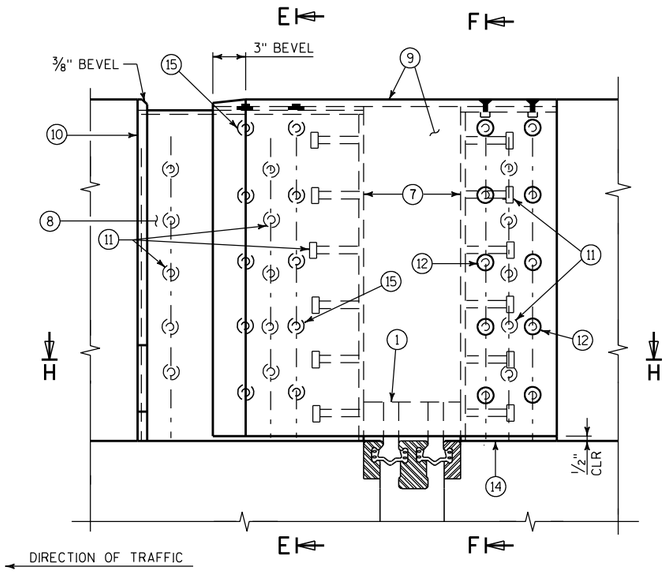
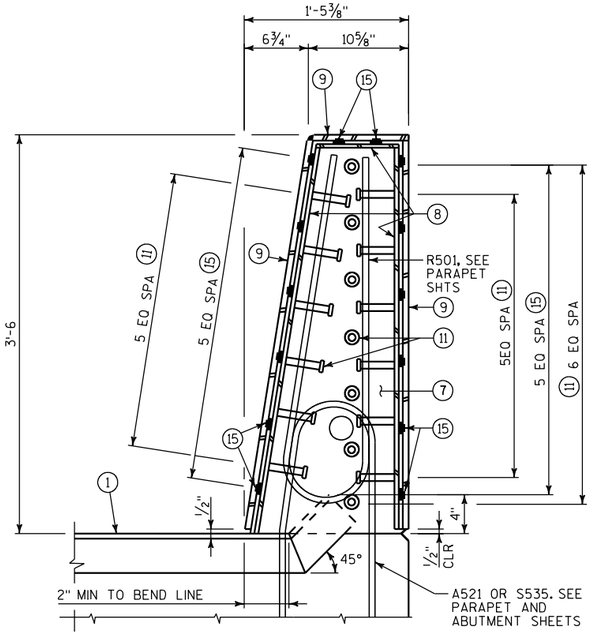
EXPANSION JOINT SECTIONS

SHEET 73 OF 97

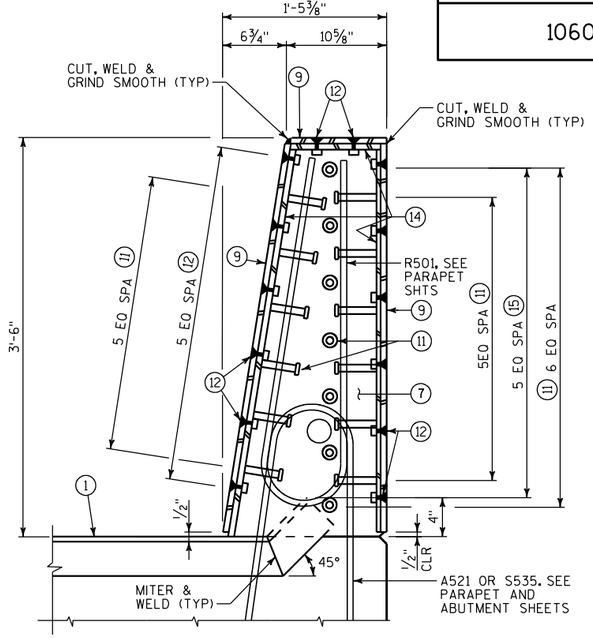
STATE PROJECT NUMBER
1060-33-81



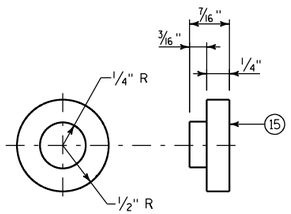
ELEVATION OF SINGLE SLOPE PARAPET



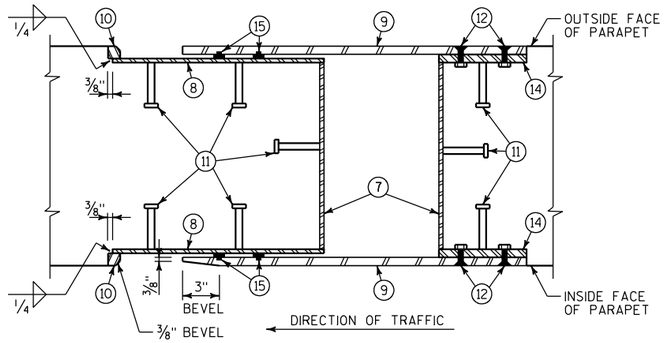
SECTION F-F



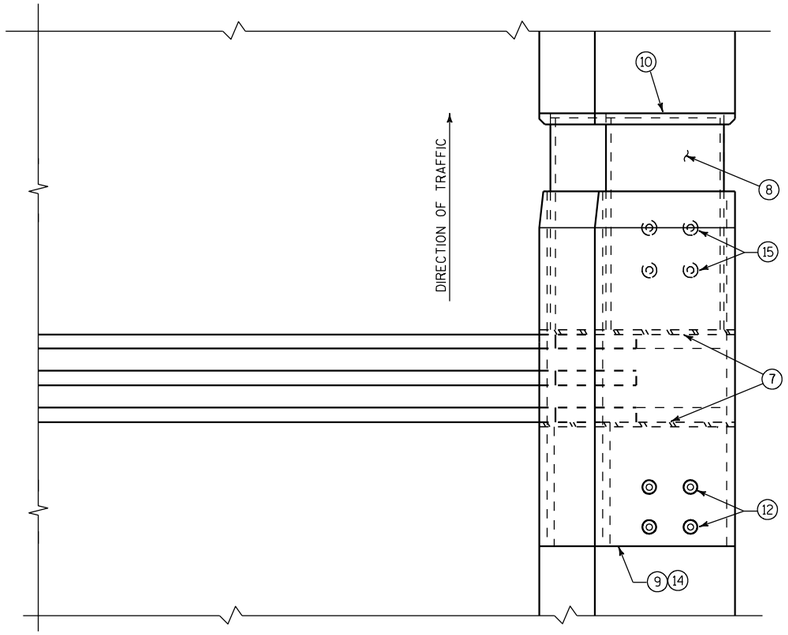
SECTION E-E



ADIPRENE BUTTON DETAIL



SECTION H-H



PLAN OF SINGLE SLOPE PARAPET

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

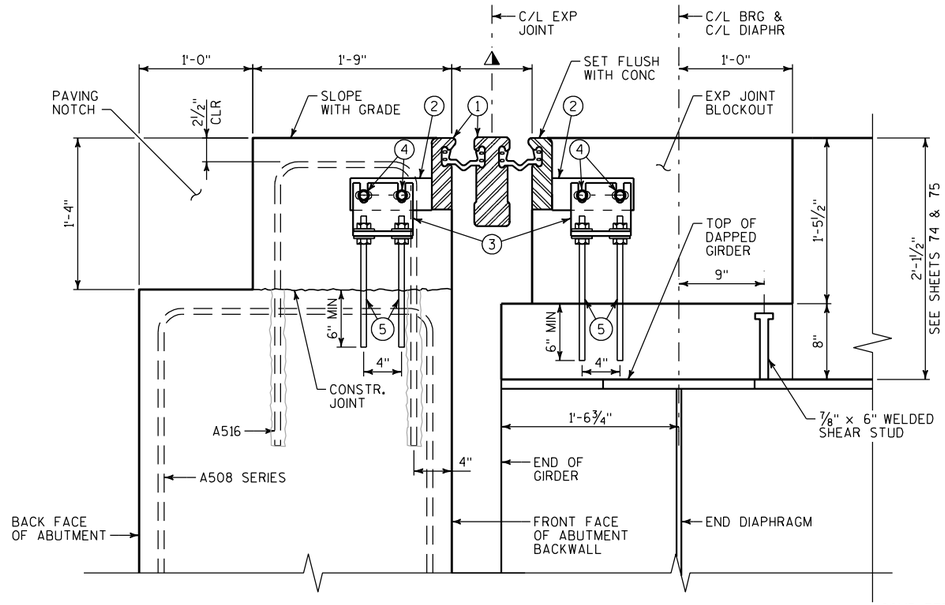
DRAWN BY	GLM	PLANS CK'D.	WRT

MODULAR EXPANSION JOINT COVER PLATES

SHEET 74 OF 97

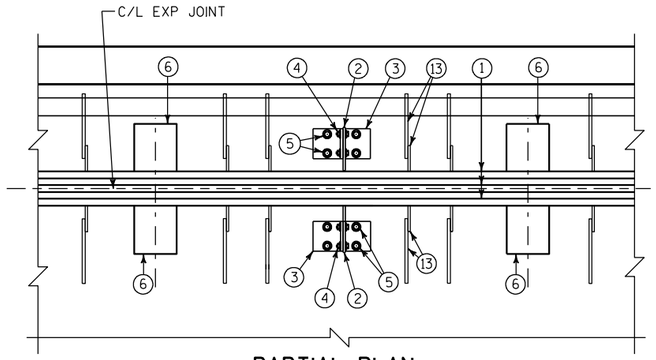
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080548_ss.dgn PLOT DATE : 02-MAR-2015 15:05 PLOT BY : MSCGLM PLOT NAME : B786_080548_ss PLOT SCALE : 1.333333:1

STATE PROJECT NUMBER
1060-33-81



SECTION THRU JOINT @ ABUTMENT

NORMAL TO C/L SUBSTRUCTURE



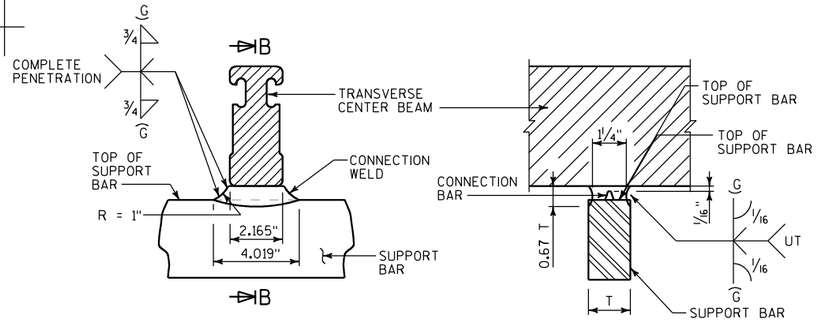
PARTIAL PLAN

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.

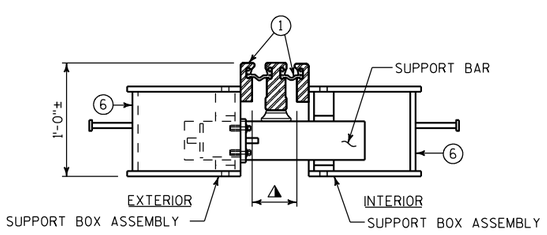
LEGEND

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.



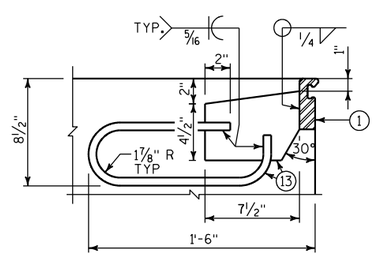
MODULAR EXPANSION JOINT CONNECTION DETAIL AND WELD SPECIFICATION

SECTION B-B



JOINT DETAIL

AT SUPPORT BAR & SUPPORT BOX ASSEMBLY



ANCHORAGE DETAIL

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

* 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 INCHES OF MOVEMENT RANGE.

PIER WS04	4 CELLS
SOUTH ABUTMENT	2 CELLS

◑ DIMENSION IS PARALLEL TO ℄ 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-40-786".

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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

MODULAR EXPANSION JOINT DETAILS

SHEET 75 OF 97

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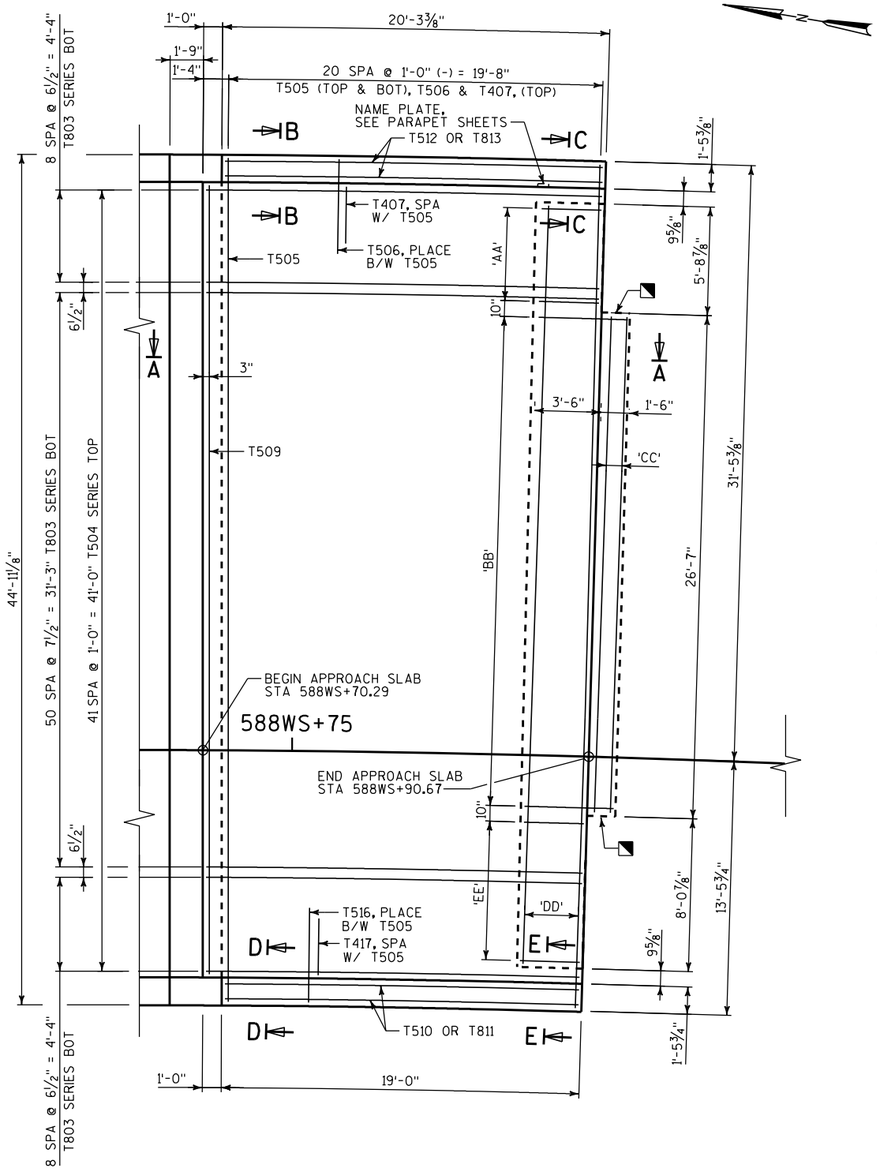
STATE PROJECT NUMBER
1060-33-81



APPROACH SLAB PLAN

'AA' = 6 SPA @ 10"(-) = 4'-11", T502
'BB' = 26 SPA @ 1'-0" = 26'-0", T501
'CC' = 1 SPA. @ 9", T814
'DD' = 3 SPA. @ 1'-0" = 3'-0", T815
'EE' = 9 SPA @ 10"(-) = 7'-2", T502

TABLE OF ELEVATIONS

FEATURE	STA. 588WS+70.29	STA. 588WS+90.67
LT. EDGE OF SLAB	816.91	816.79
LT. TOE OF BARRIER	816.83	816.70
R/L WS	815.03	814.90
RT. TOE OF BARRIER	814.31	814.18
RT. EDGE OF SLAB	814.22	814.09

LEGEND

PROVIDE ½" PREFORMED JOINT FILLER BETWEEN EDGE OF APPROACH SLAB FOOTING AND RETAINING WALL MOMENT SLAB.

NOTES

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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STRUCTURAL APPROACH SLAB

SHEET 76 OF 97

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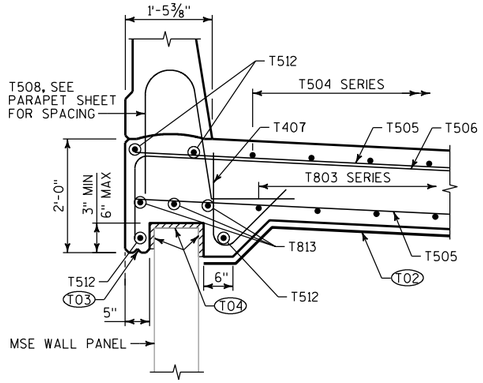
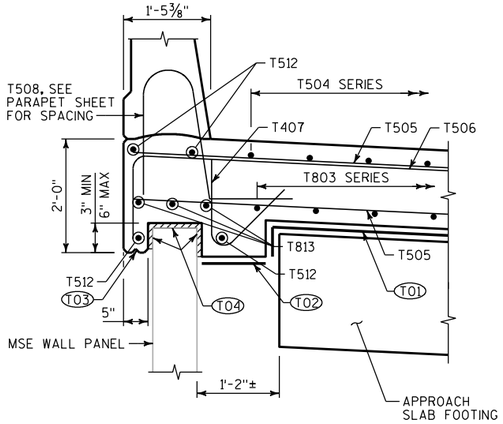
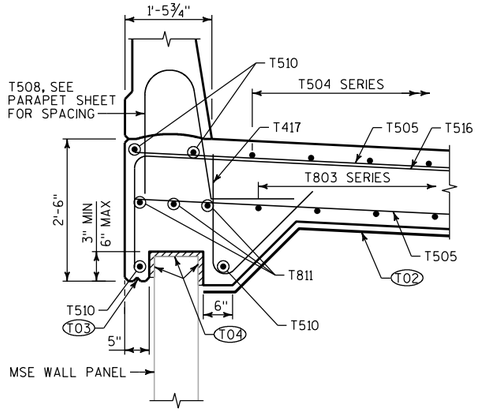


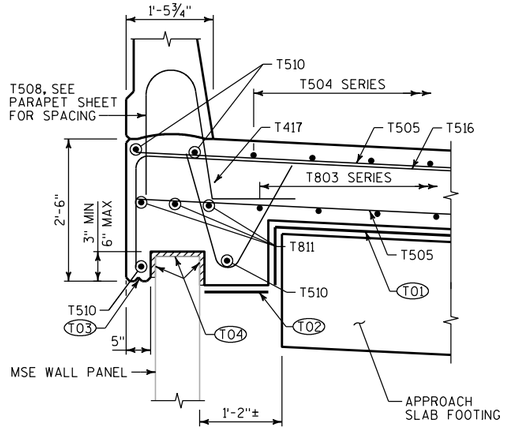
SECTION B-B



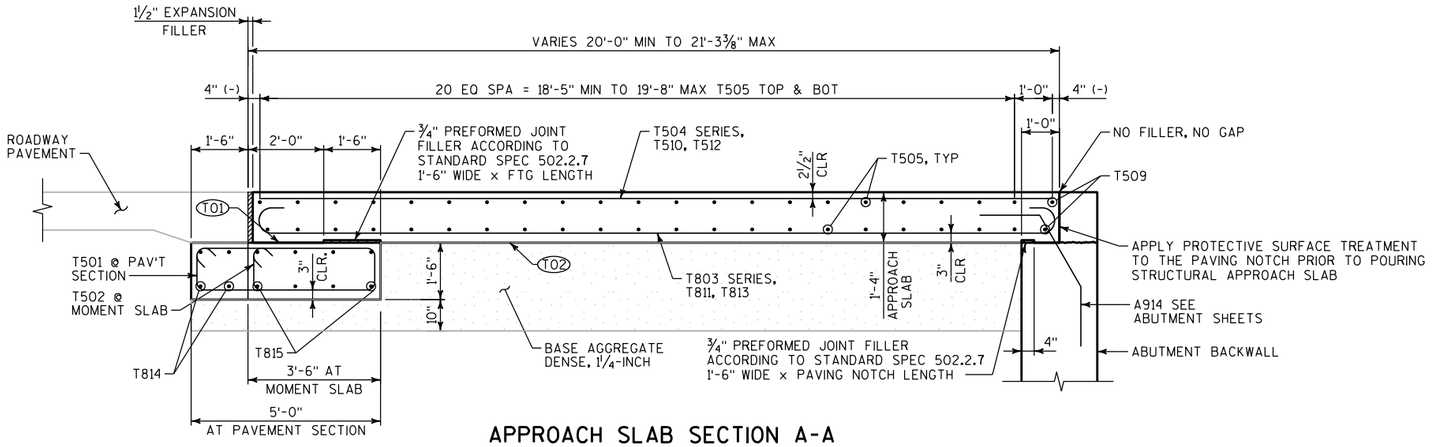
SECTION C-C



SECTION D-D



SECTION E-E



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".

(T03) ¾" CONT. DRIP GROOVE. TERMINATE 2'-0" FROM ABUTMENT BACKWALL.

(T04) 1" EXPANDED POLYSTYRENE

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-40-786

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STRUCTURAL APPROACH SLAB DETAILS

SHEET 77 OF 97

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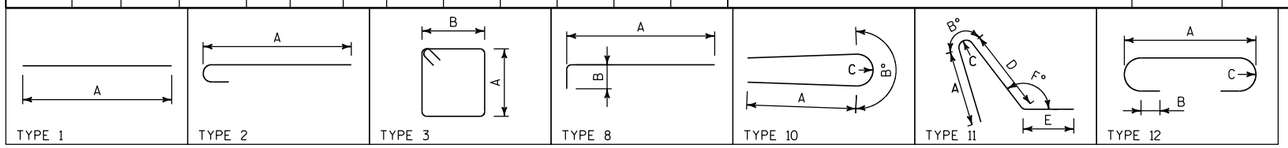
STATE PROJECT NUMBER

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	S	27	12'-1"	X		3	1'-1"	4'-8"					FTG TIE AT PAV'T SECTION					
T502	S	17	9'-1"	X		3	1'-1"	3'-2"					FTG TIE AT MOMENT SLAB					
T803	S	69	22'-1"	X	X	12	20'-3"	0'-4"	0'-3"				LONG BOT S APPR. SLAB	A	19'-8"	20'-11"	1 SERIES OF 69	21'-6" TO 22'-9"
T504	S	42	20'-4"		X	1	20'-4"						LONG TOP S APPR. SLAB	A	19'-8"	20'-11"	1 SERIES OF 42	19'-8" TO 20'-11"
T505	S	42	44'-6"			1	44'-6"						TRANSVERSE, TOP & BOT					
T506	S	21	6'-3"	X		8	5'-0"	1'-4"					TRANS TOP EDGES AT MSE WALL					
T407	S	21	4'-10"	X		10	1'-3"	135	0'-3"				TRANS AT BF MSE WALL					
T508	S	60	5'-7"	X		11	1'-8"	172	0'-4½"	1'-9"	1'-0"	99	PARAPET TIE					
T509	S	2	41'-8"			1	41'-8"						TRANSVERSE TOP & BOT AT ABUT					
T510	S	4	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					
T512	S	4	19'-11"			1	19'-11"						LONG TOP AT PARAPET					
T813	S	3	21'-9"	X		12	19'-11"	0'-4"	0'-3"				LONG BOT AT PARAPET					
T814	S	4	26'-2"			1	26'-2"						FTG TRANS AT PAV'T SECTION					
T815	S	8	40'-0"			1	40'-0"						FTG TRANS AT MOMENT SLAB					
T516	S	21	6'-9"	X		8	5'-0"	1'-10"					TRANS TOP EDGES AT MSE WALL					
T417	S	21	5'-10"	X		10	1'-9"	135	0'-3"				TRANS AT BF MSE WALL					

BAR MARK BREAKDOWN			
BAR MARK	SOUTH APPROACH SLAB	TOTAL NO	WEIGHT
T501	27	27	340
T502	17	17	161
T803	69	69	4068
T504	42	42	891
T505	42	42	1949
T506	21	21	137
T407	21	21	68
T508	60	60	349
T509	2	2	87
T510	4	4	78
T811	3	3	164
T512	4	4	83
T813	3	3	174
T814	4	4	279
T815	8	8	854
T516	21	21	148
T417	21	21	82



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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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

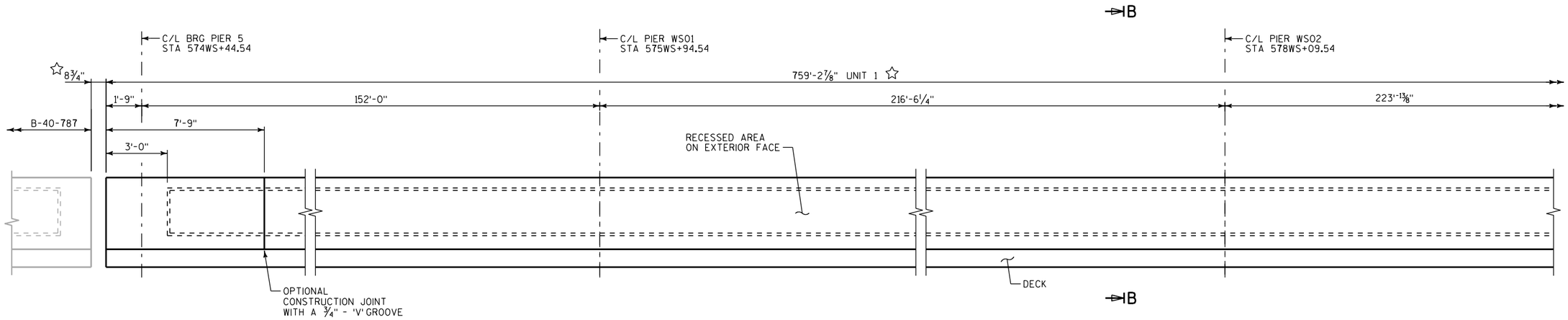
STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

APPROACH SLAB REINFORCEMENT SCHEDULE

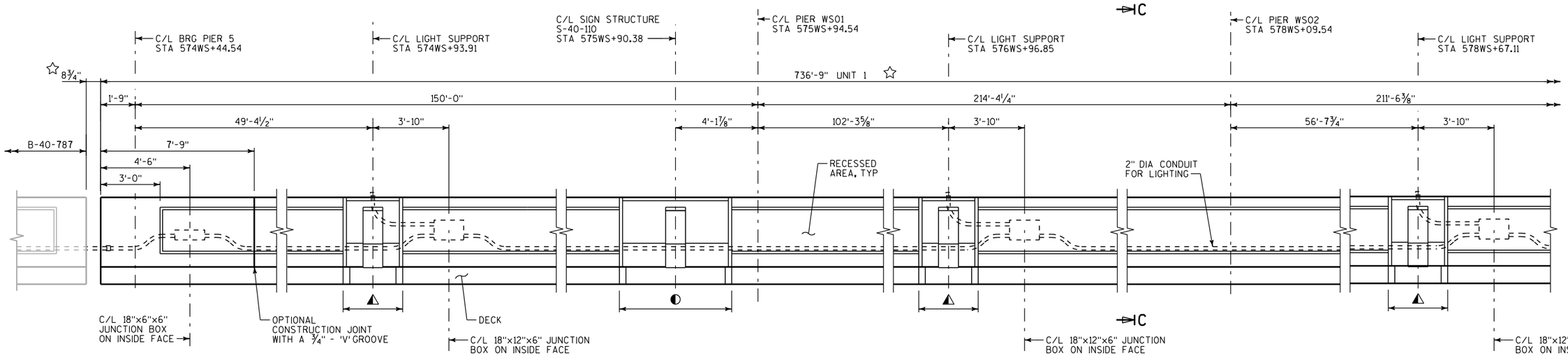
SHEET 78 OF 97

STATE PROJECT NUMBER
1060-33-81



LEFT SIDE PARAPET ELEVATION

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



NOTES

FOR SECTION B-B, C-C
SEE PARAPET DETAILS AND SECTIONS

LEGEND

☆ PARAPET DIMENSIONS SHOWN ARE BASED ON A 8¾" CONCRETE OPENING (6¾" JOINT OPENING) AT THE ABUTMENT AND AN 1'-1½" OPENING (11½" JOINT OPENING) AT PIER WS04 SHOWN IN THE "TYPICAL SECTION THRU JOINT AT STEEL GIRDER" ON EXPANSION JOINT SHEETS

◭ SEE LIGHT SUPPORT SHEETS FOR DINMENSIONS AND REINFORCEMENT

◐ SEE SIGN BASE SHEETS FOR DIMENSIONS AND REINFORCEMENT

RIGHT SIDE PARAPET ELEVATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

PARAPET
EMBEDED WORK
UNIT 1 (1 OF 2)

SHEET 79 OF 97

8

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FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080553_rp.dgn
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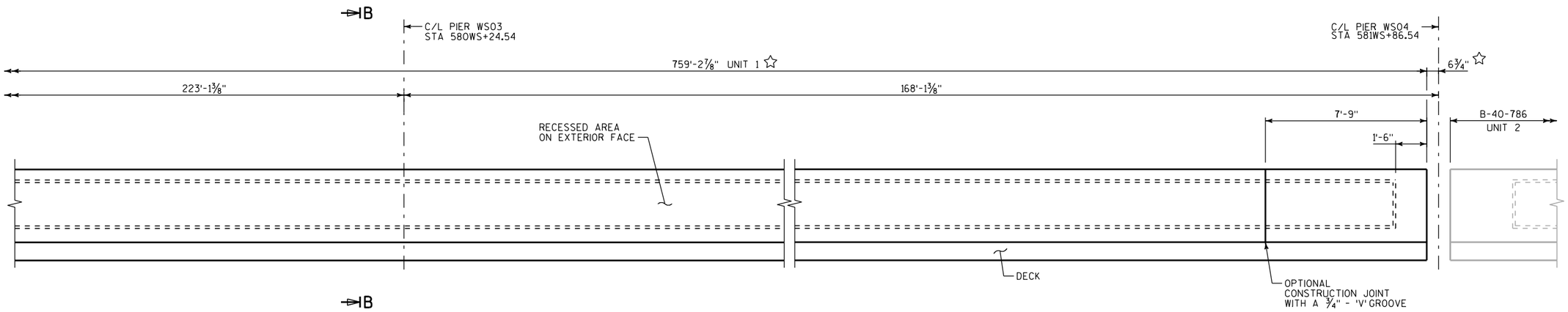
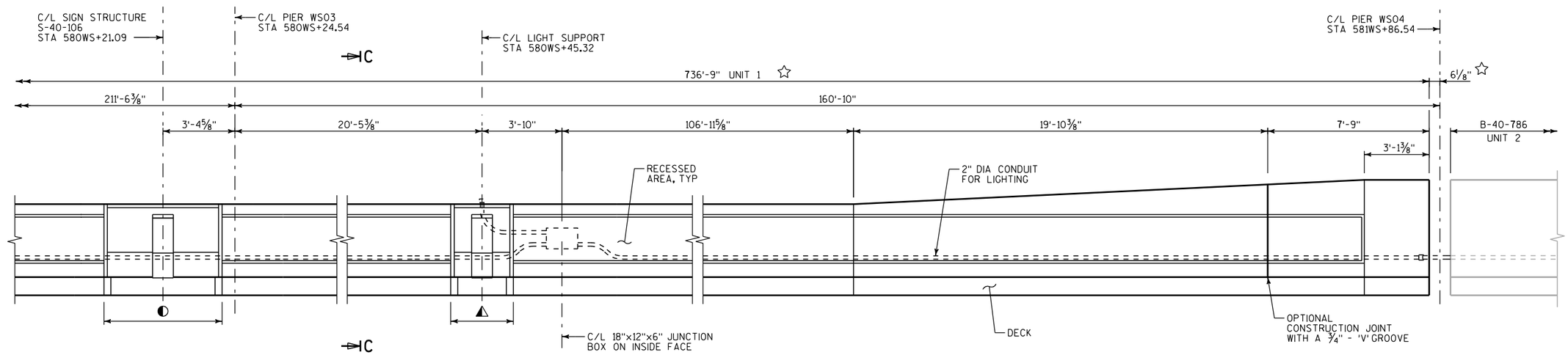


LEFT SIDE PARAPET ELEVATION

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
SEE PARAPET DETAILS AND SECTIONS

LEGEND

☆ PARAPET DIMENSIONS SHOWN ARE BASED ON A 8¾" CONCRETE OPENING (6¾" JOINT OPENING) AT THE ABUTMENT AND AN 1'-1½" OPENING (11½" JOINT OPENING) AT PIER WS04 SHOWN IN THE "TYPICAL SECTION THRU JOINT AT STEEL GIRDER" ON EXPANSION JOINT SHEETS

◭ SEE LIGHT SUPPORT SHEETS FOR DINMENSIONS AND REINFORCEMENT

◐ SEE SIGN BASE SHEETS FOR DIMENSIONS AND REINFORCEMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

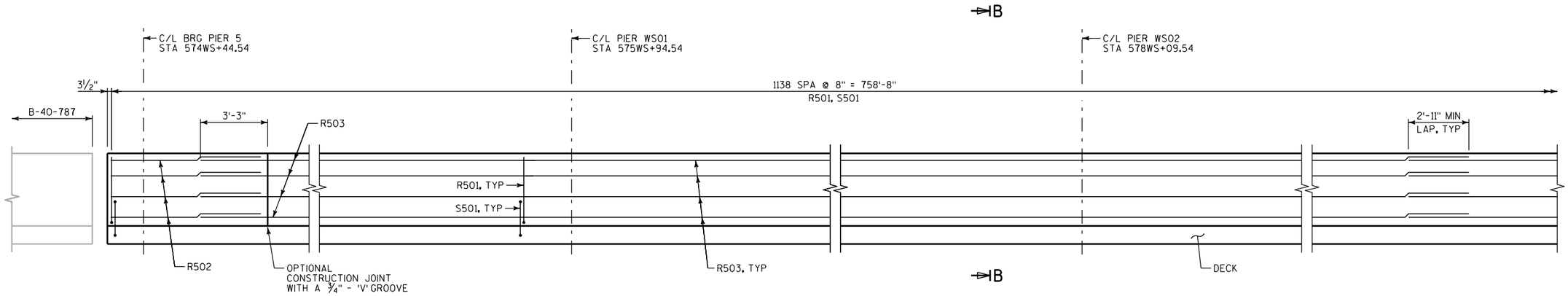
PARAPET
EMBEDED WORK
UNIT 1 (2 OF 2)

SHEET 80 OF 97

8

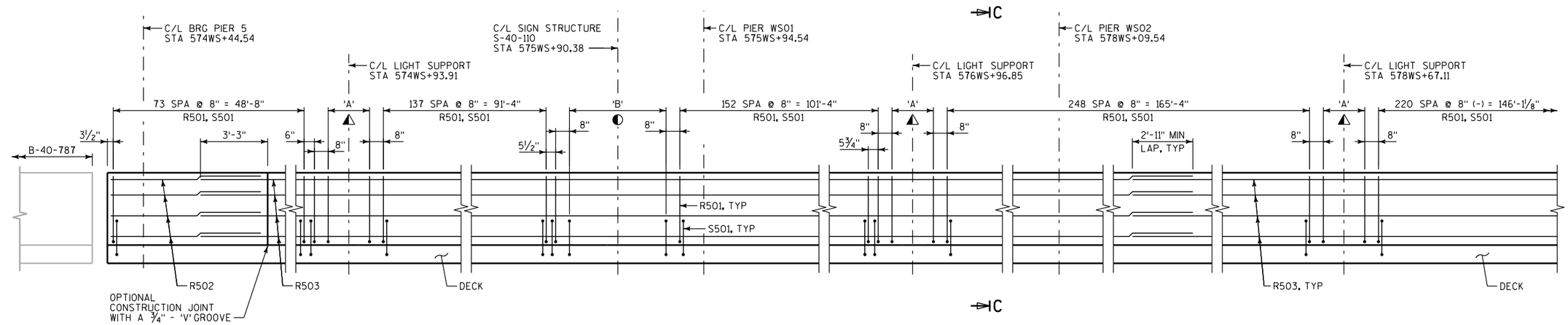
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080554_rp.dgn
PLOT DATE : 02-MAR-2015 15:05
PLOT BY : MSCGLM
PLOT NAME : B786_080554_rp
PLOT SCALE : 5.333333:1

STATE PROJECT NUMBER
1060-33-81



LEFT SIDE PARAPET ELEVATION

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



'A' = 3 SPA @ 8" = 2'-0", R501, R519
'B' = 9 SPA = 4'-8", R644, S501

RIGHT SIDE PARAPET ELEVATION

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

NOTES

FOR SECTION B-B & C-C
SEE PARAPET DETAILS AND SECTIONS

LEGEND

- ⚠ SEE LIGHT SUPPORT SHEETS FOR DINMENSIONS AND REINFORCEMENT
- ◐ SEE SIGN BASE SHEETS FOR DIMENSIONS AND REINFORCEMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

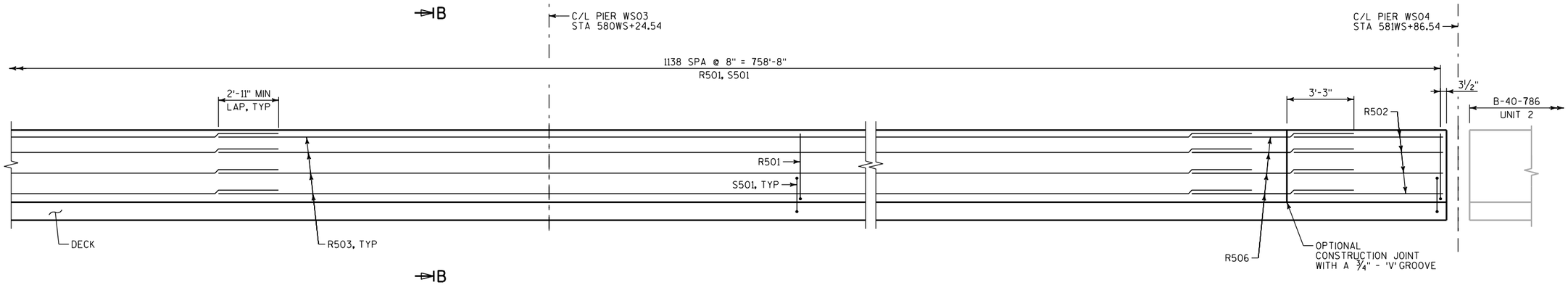
PARAPET ELEVATIONS UNIT 1 (1 OF 2)

SHEET 81 OF 97

8

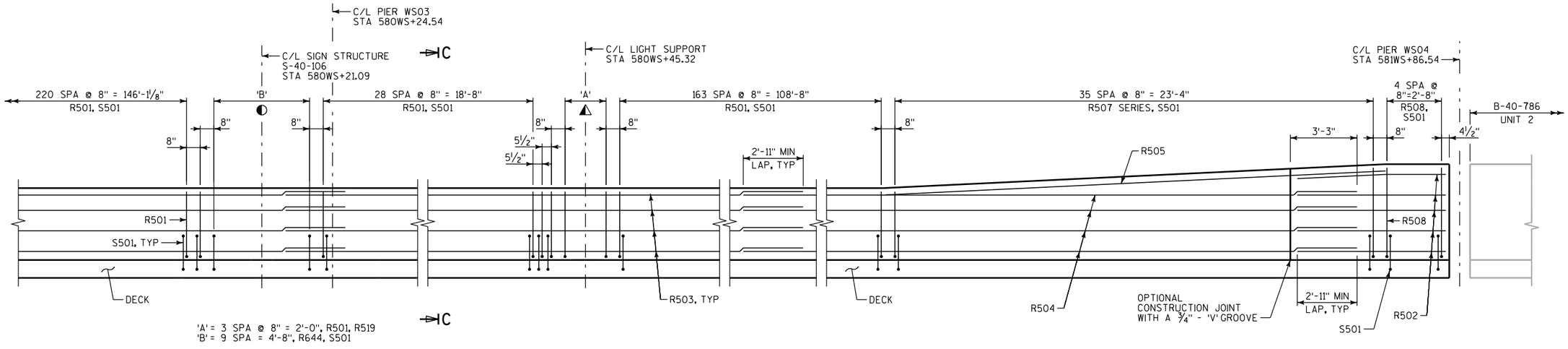
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080555_rp.dgn
PLOT DATE : 05-MAR-2015 12:00
PLOT BY : MSCGLM
PLOT NAME : B786_080555_rp
PLOT SCALE : 5.333333:1

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 SECTION B-B & C-C,
SEE PARAPET DETAILS AND SECTIONS

LEGEND

- ⚠ SEE LIGHT SUPPORT SHEETS FOR DINMENSIONS AND REINFORCEMENT
- ◐ SEE SIGN BASE SHEETS FOR DIMENSIONS AND REINFORCEMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

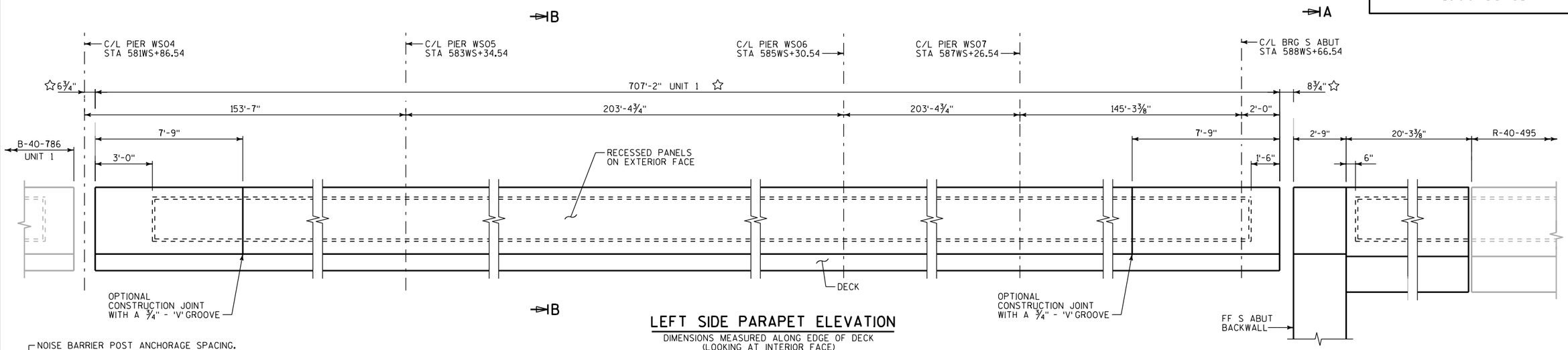
PARAPET ELEVATIONS UNIT 1 (2 OF 2)

SHEET 82 OF 97

8

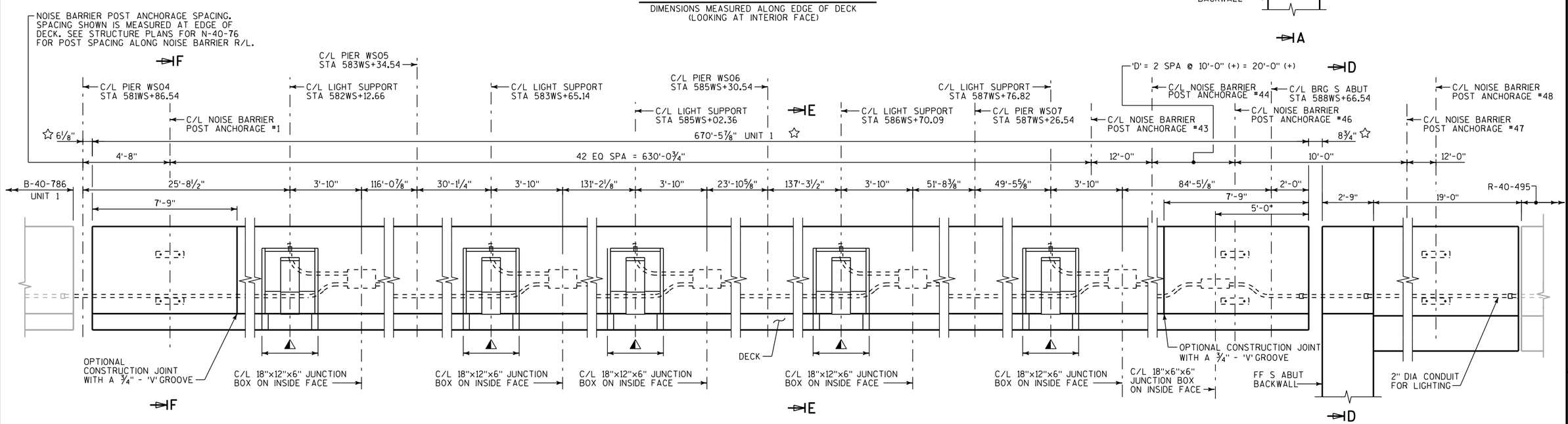
8

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, D-D, E-E, & F-F
SEE PARAPET DETAILS AND SECTIONS

LEGEND

☆ PARAPET DIMENSIONS SHOWN ARE BASED ON A 8¾" CONCRETE OPENING (6¾" JOINT OPENING) AT THE ABUTMENT AND AN 1'-1½" OPENING (11½" JOINT OPENING) AT PIER WS04 SHOWN IN THE "TYPICAL SECTION THRU JOINT AT STEEL GIRDER" ON EXPANSION JOINT SHEETS

◭ SEE LIGHT SUPPORT SHEETS FOR DIMENSIONS AND REINFORCEMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

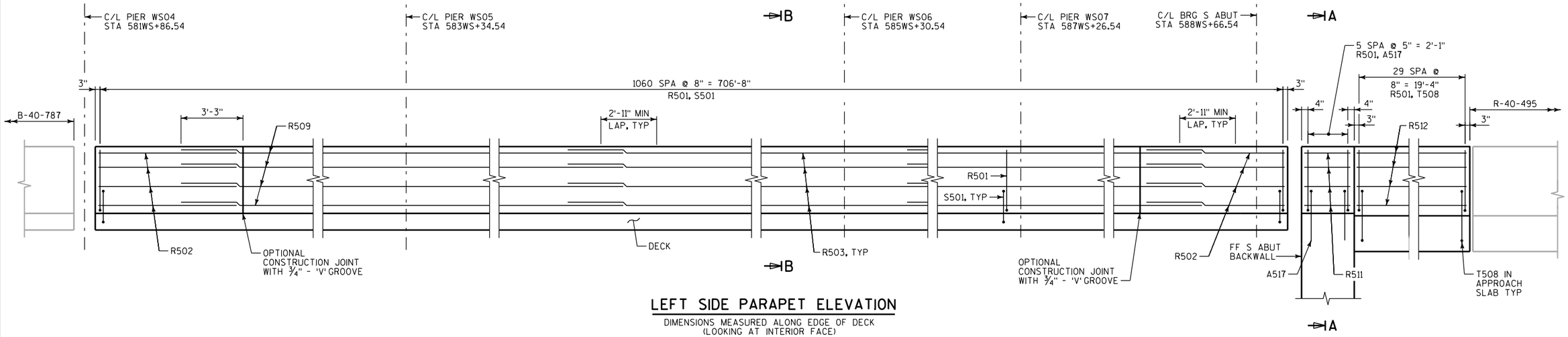
PARAPET
EMBEDDED WORK
UNIT 2

SHEET 83 OF 97

8

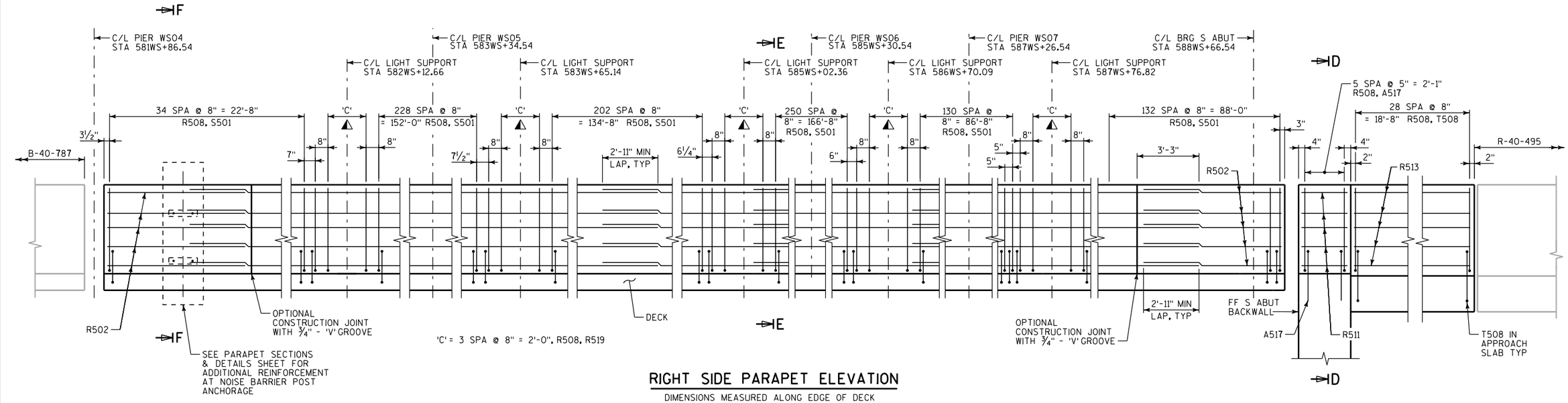
8

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)

8

8

NOTES

FOR SECTIONS A-A, B-B, D-D, E-E, & F-F
SEE PARAPET DETAILS AND SECTIONS

LEGEND

⚠ SEE LIGHT SUPPORT SHEETS FOR DINMENSIONS AND REINFORCEMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

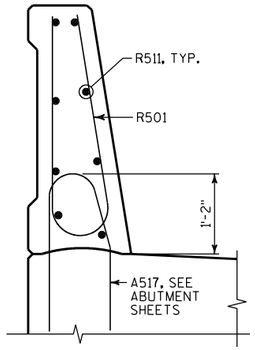
PARAPET ELEVATIONS UNIT 2

SHEET 84 OF 97

FILE NAME : \\WKE31FP1\w3zoo\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080558_rp.dgn PLOT DATE : 05-MAR-2015 12:00 PLOT BY : MSCGLM PLOT NAME : sht 84 PLOT SCALE : 5.333333:1

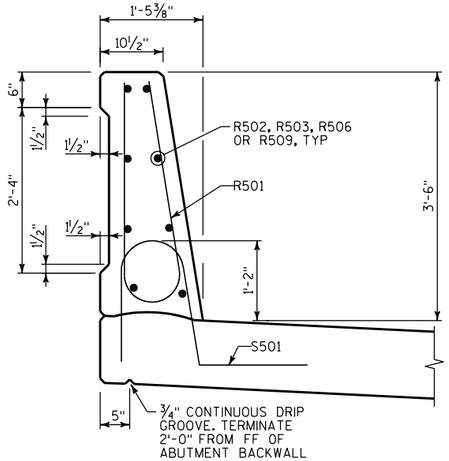
STATE PROJECT NUMBER

1060-33-81



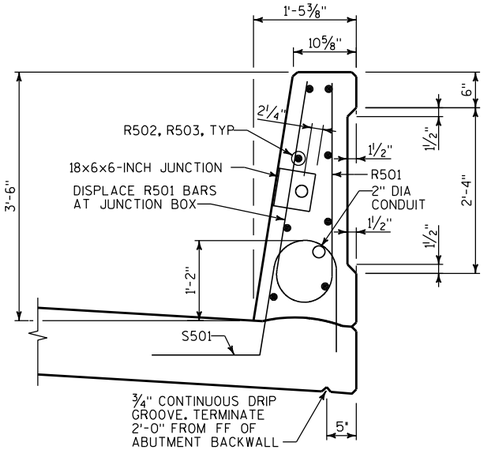
SECTION A-A

THRU 42SS PARAPET AT ABUTMENT BACKWALL



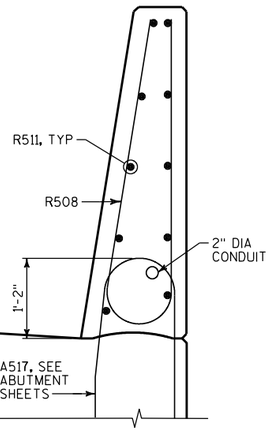
SECTION B-B

THRU 42SS PARAPET



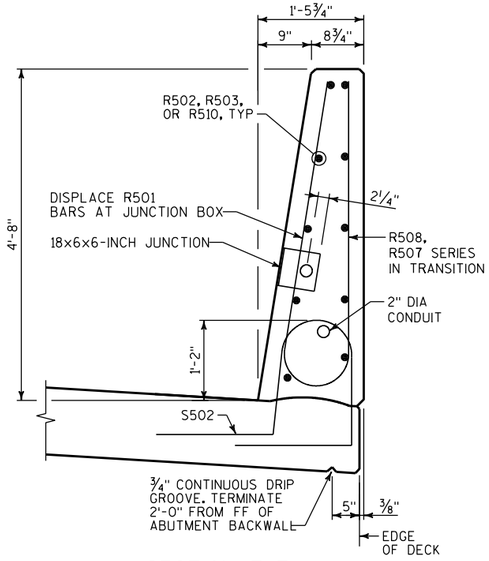
SECTION C-C

THRU 42SS PARAPET



SECTION D-D

THRU 56SS PARAPET AT ABUTMENT



SECTION E-E

THRU 56SS PARAPET

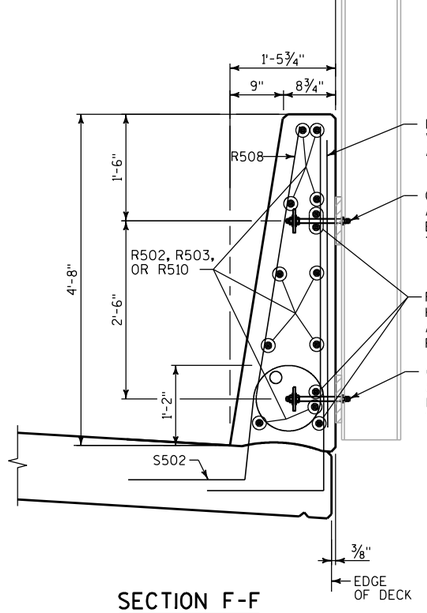
NOISE BARRIER ANCHOR ASSEMBLY LOCATION TABLES ⚠

ANCHOR NO.	STATION	OFFSET*
1	581WS+91.28	13'-5⅜" RT.
2	582WS+06.53	13'-5⅜" RT.
3	582WS+21.78	13'-5⅜" RT.
4	582WS+37.03	13'-5⅜" RT.
5	582WS+52.28	13'-5⅜" RT.
6	582WS+67.52	13'-5⅜" RT.
7	582WS+82.77	13'-5⅜" RT.
8	582WS+98.02	13'-5⅜" RT.
9	583WS+13.27	13'-5⅜" RT.
10	583WS+28.52	13'-5⅜" RT.
11	583WS+43.77	13'-5⅜" RT.
12	583WS+59.01	13'-5⅜" RT.
13	583WS+74.26	13'-5⅜" RT.
14	583WS+89.51	13'-5⅜" RT.
15	584WS+04.76	13'-5⅜" RT.
16	584WS+20.01	13'-5⅜" RT.

ANCHOR NO.	STATION	OFFSET*
17	584WS+35.25	13'-5⅜" RT.
18	584WS+50.50	13'-5⅜" RT.
19	584WS+65.75	13'-5⅜" RT.
20	584WS+81.00	13'-5⅜" RT.
21	584WS+96.25	13'-5⅜" RT.
22	585WS+11.50	13'-5⅜" RT.
23	585WS+26.74	13'-5⅜" RT.
24	585WS+41.99	13'-5⅜" RT.
25	585WS+57.24	13'-5⅜" RT.
26	585WS+72.49	13'-5⅜" RT.
27	585WS+87.74	13'-5⅜" RT.
28	586WS+02.99	13'-5⅜" RT.
29	586WS+18.23	13'-5⅜" RT.
30	586WS+33.48	13'-5⅜" RT.
31	586WS+48.73	13'-5⅜" RT.
32	586WS+63.98	13'-5⅜" RT.

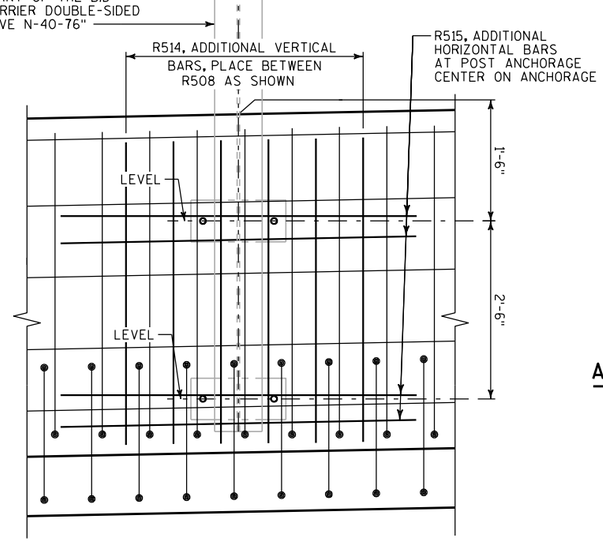
ANCHOR NO.	STATION	OFFSET*
33	586WS+79.23	13'-5⅜" RT.
34	586WS+94.48	13'-5⅜" RT.
35	587WS+09.72	13'-5⅜" RT.
36	587WS+24.97	13'-5⅜" RT.
37	587WS+40.22	13'-5⅜" RT.
38	587WS+55.47	13'-5⅜" RT.
39	587WS+70.72	13'-5⅜" RT.
40	587WS+85.96	13'-5⅜" RT.
41	588WS+01.21	13'-5⅜" RT.
42	588WS+16.46	13'-5⅜" RT.
43	588WS+31.71	13'-5⅜" RT.
44	588WS+43.91	13'-5⅜" RT.
45	588WS+54.07	13'-5⅜" RT.
46	588WS+64.24	13'-5⅜" RT.
47	588WS+74.40	13'-5⅜" RT.
48	588WS+86.60	13'-5⅜" RT.

* OFFSET SHOWN IS TO EDGE OF DECK AND THE BASIS FOR THE POST SPACING SHOWN ON THE PARAPET DETAILS SHEETS. THE NOISE BARRIER R/L IS LOCATED AT 13'-6¾" RT. SEE STRUCTURE PLANS FOR N-40-76 FOR POST SPACING ALONG NOISE BARRIER R/L.



SECTION F-F

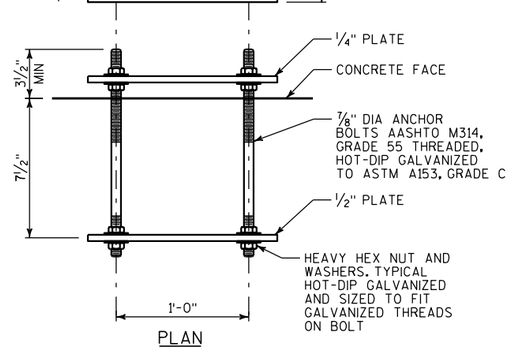
AT POST ANCHORAGE ON BRIDGE DECK SHOWN, APPROACH SLAB IS SIMILAR



EXTERIOR ELEVATION AT POST ANCHORAGE

LEGEND

⚠ EXACT LOCATION AND SPACING OF EMBEDDED ANCHOR ASSEMBLY NOISE BARRIER TO BE COORDINATED AND COINCIDE WITH NOISE BARRIER POST SPACING AND MOUNTING DETAILS SHOWN ON APPROVED NOISE BARRIER SHOP DRAWINGS.



PLAN

ANCHOR ASSEMBLY NOISE BARRIER STRUCTURES

AN INDIVIDUAL ANCHOR ASSEMBLY INCLUDES ALL ITEMS SHOWN IN PLAN ABOVE AND OUTLINED IN THE SPECIAL PROVISION
TWO ANCHOR ASSEMBLIES ARE REQUIRED PER POST LOCATION
FACTORED DESIGN PULLOUT LOADING PER ANCHOR ASSEMBLY = 35 KIPS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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PARAPET SECTIONS & DETAILS (1 OF 2)

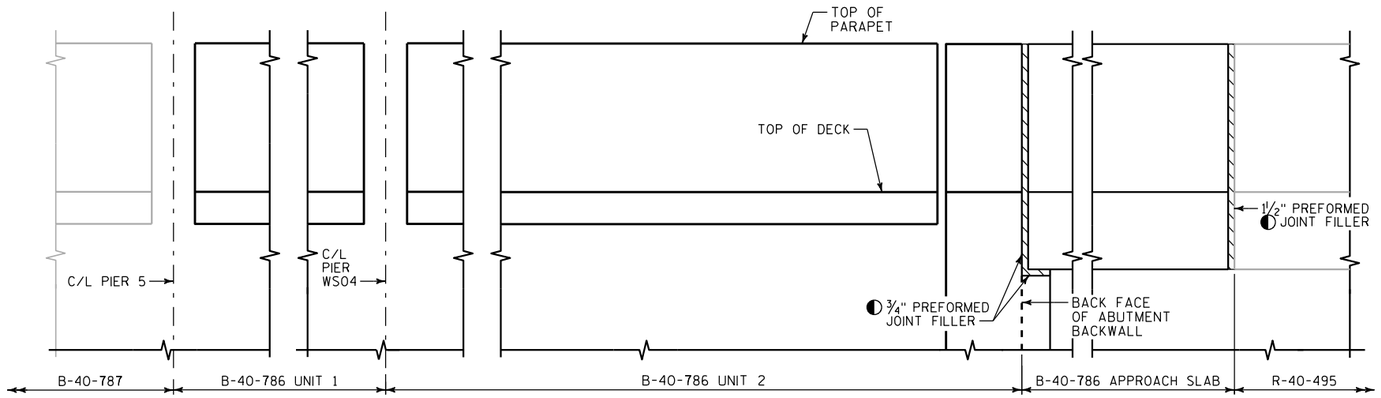
SHEET 85 OF 97

8

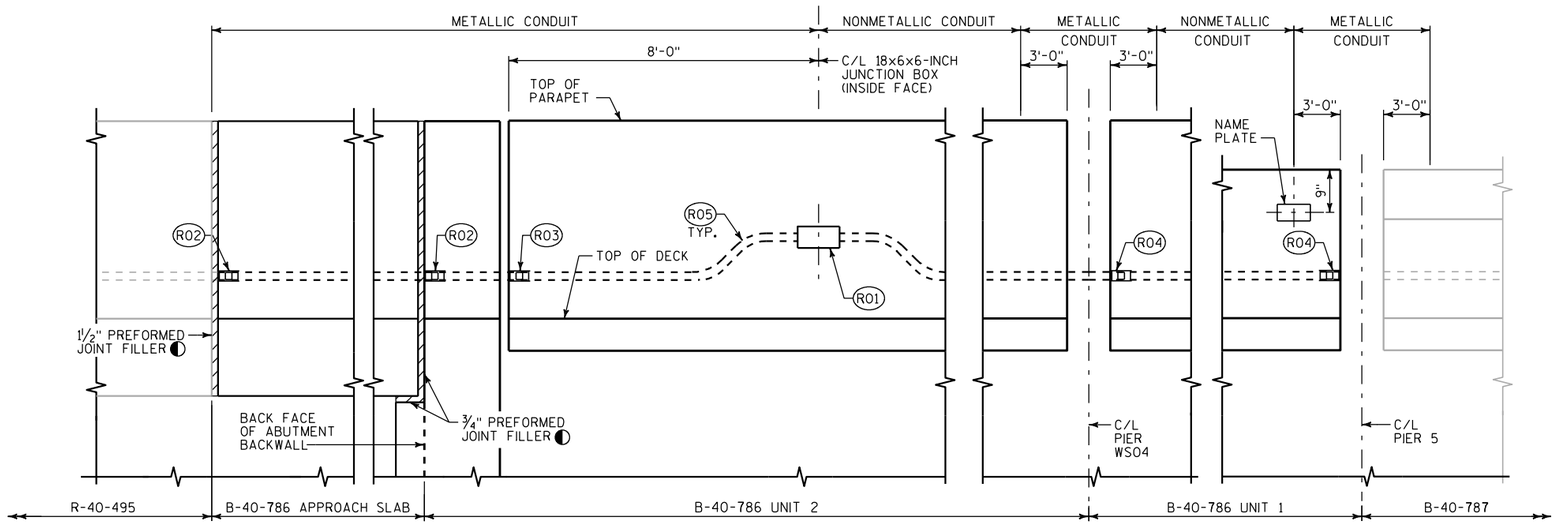
8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080559_rp.dgn PLOT DATE : 02-MAR-2015 15:06 PLOT BY : MSCGLM PLOT NAME : B786_080559_rp PLOT SCALE : 5.333333:1

STATE PROJECT NUMBER
1060-33-81



LEFT SIDE PARAPET INTERIOR ELEVATION SHOWING CONDUITS



RIGHT SIDE PARAPET INTERIOR ELEVATION SHOWING CONDUITS

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.

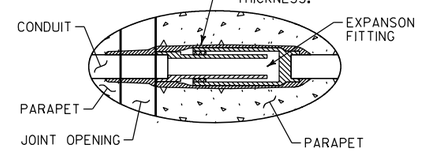
NOTES

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.

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.



EXPANSION FITTING DETAIL

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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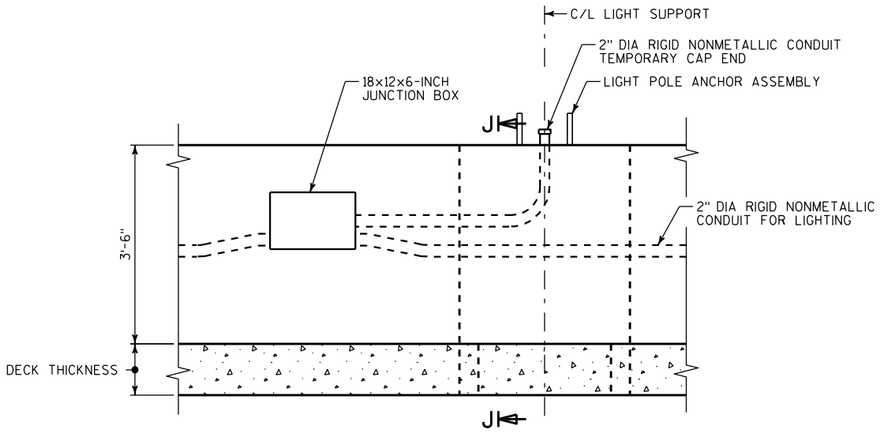
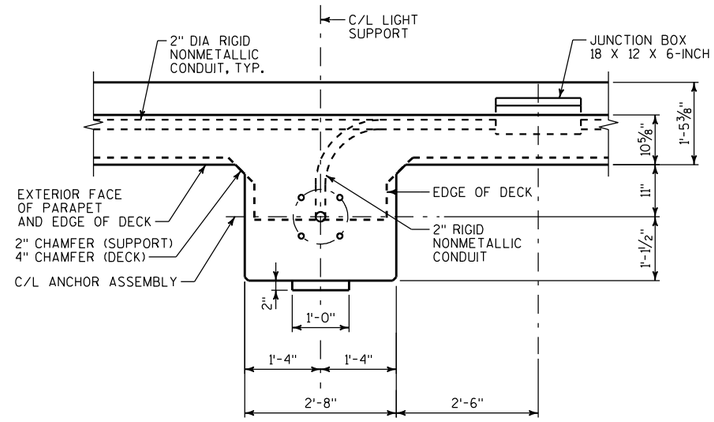
PARAPET SECTIONS & DETAILS (2 OF 2)

SHEET 86 OF 97

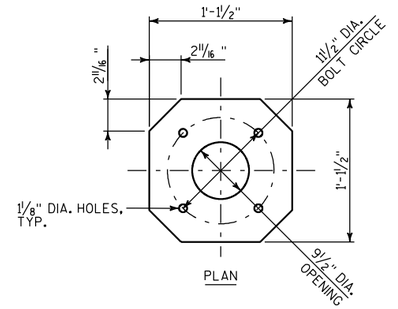
STATE PROJECT NUMBER
1060-33-81



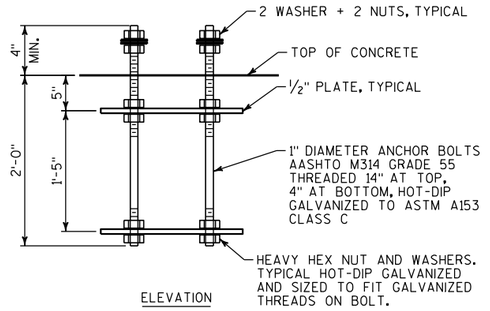
INTERIOR ELEVATION



PLAN

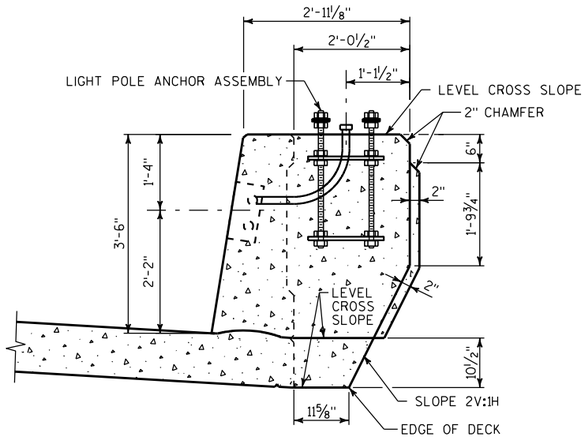


PLAN

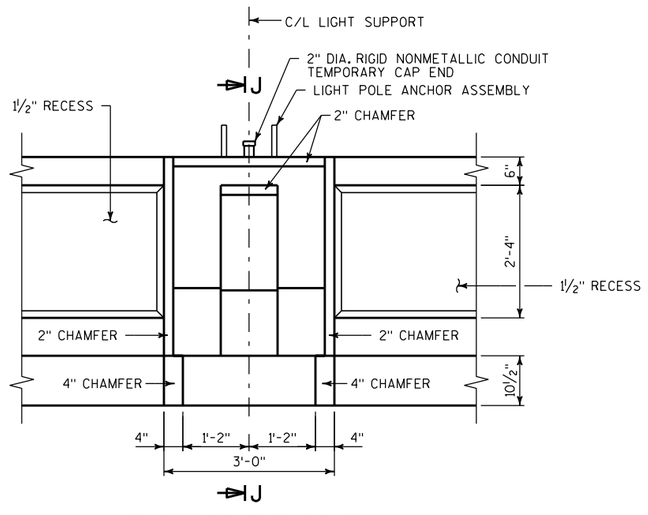


ELEVATION

ANCHOR ASSEMBLY LIGHT POLE STRUCTURES



SECTION J-J



EXTERIOR ELEVATION

42SS LIGHT SUPPORT DETAILS

DETAILS ON THIS SHEET APPLY TO LIGHT SUPPORTS AT THE FOLLOWING STATIONS:
STA 574WS+93.91, STA 576WS+96.85, STA 578WS+67.11, & STA 580WS+45.32

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

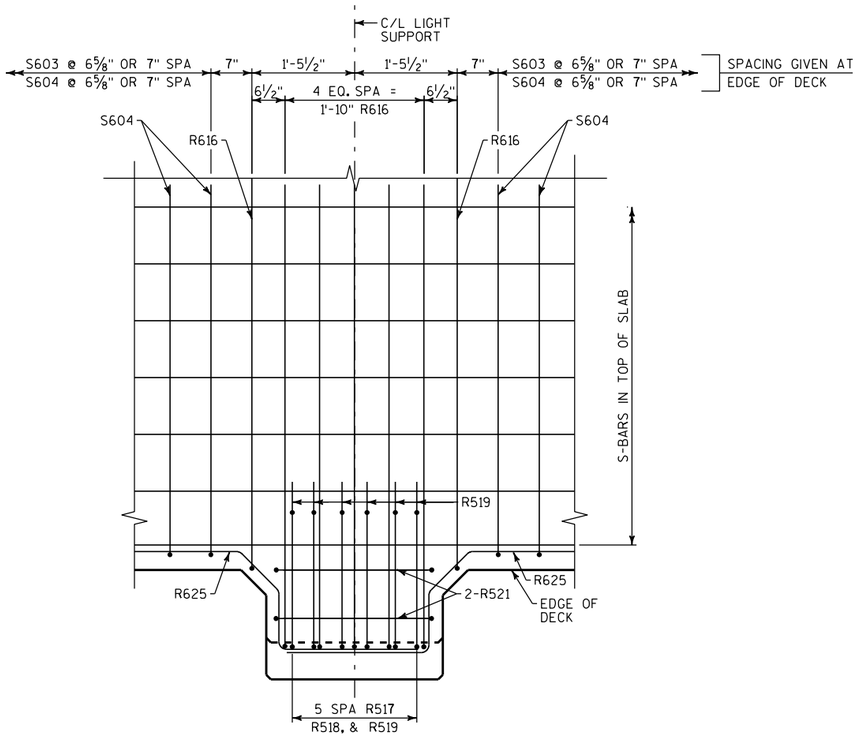
LIGHT SUPPORT
42SS PARAPET
(1 OF 2)

SHEET 87 OF 97

8

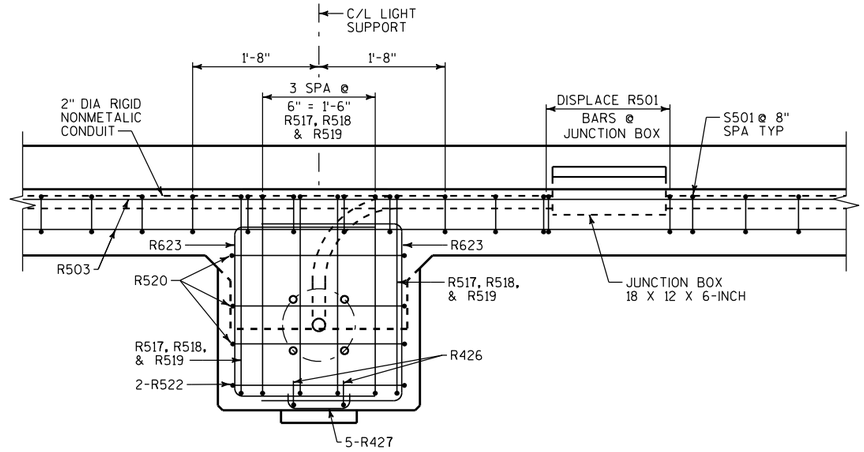
8

STATE PROJECT NUMBER
1060-33-81

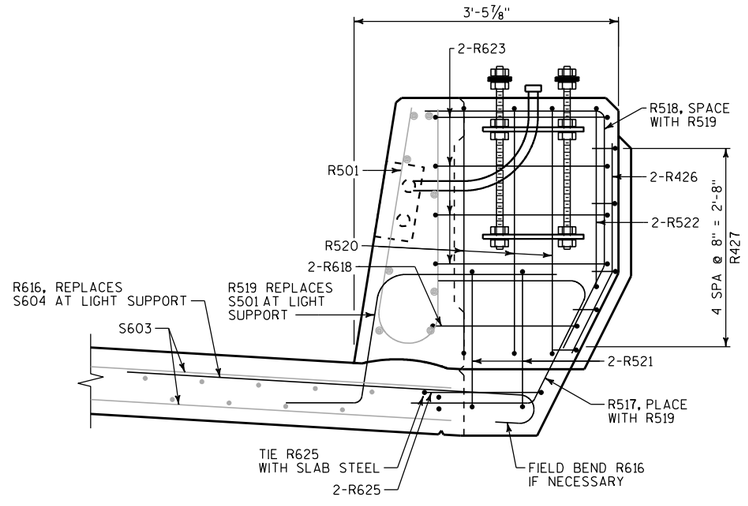


PLAN SHOWING REINFORCEMENT IN DECK

(S501 PARAPET TIES NOT SHOWN FOR CLARITY)

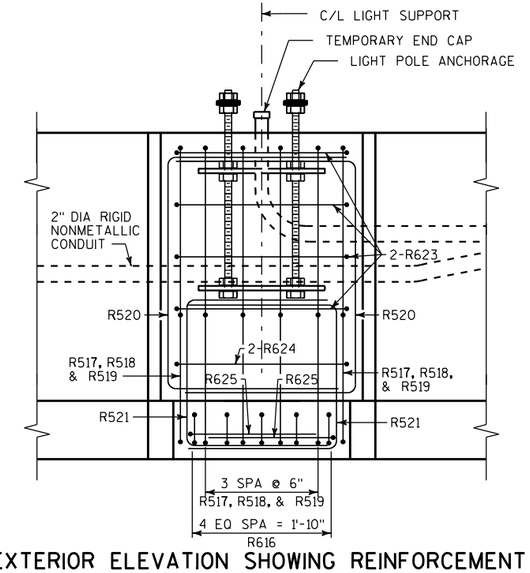


PLAN SHOWING REINFORCEMENT



SIDE VIEW SHOWING REINFORCEMENT

CROSS SECTION AT LIGHT SUPPORT



EXTERIOR ELEVATION SHOWING REINFORCEMENT

42SS LIGHT SUPPORT DETAILS

DETAILS ON THIS SHEET APPLY TO LIGHT SUPPORTS AT THE FOLLOWING STATIONS:
STA 574WS+93.91, STA 576WS+96.85, STA 578WS+67.11, & STA 580WS+45.32

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

LIGHT SUPPORT 42SS PARAPET (2 OF 2)

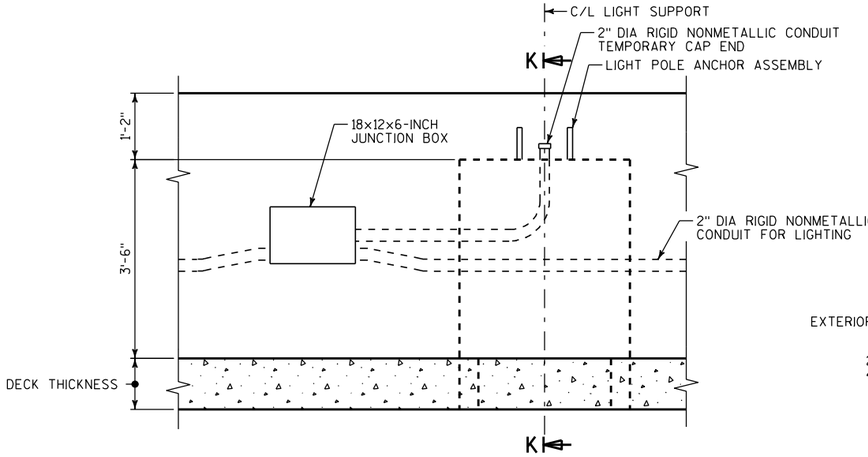
SHEET 88 OF 97

8

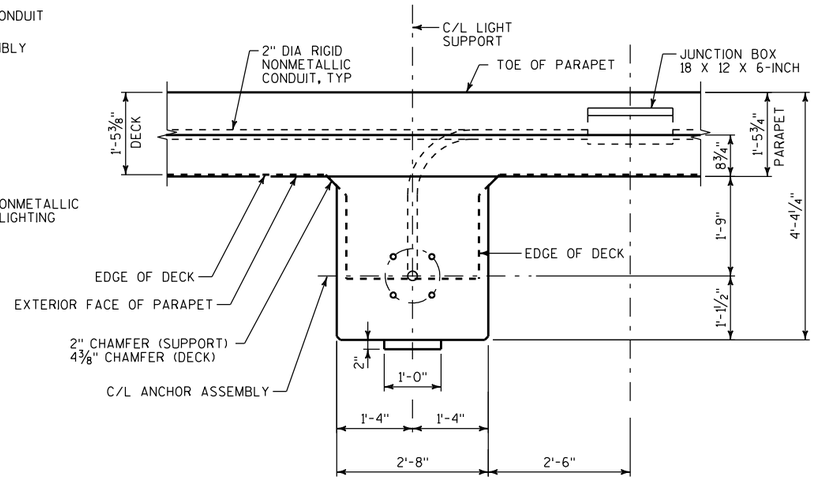
8

FILE NAME : \\WKE31FP1\w3zoo\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080562_rp.dgn PLOT DATE : 04-MAR-2015 12:46 PLOT BY : MSCGLM PLOT NAME : sht 88 PLOT SCALE : 2:1

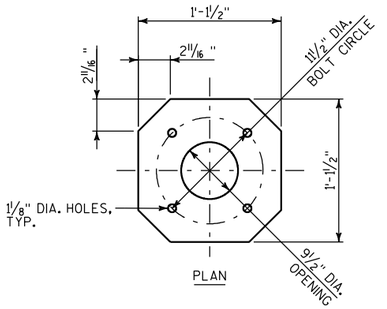
STATE PROJECT NUMBER
1060-33-81



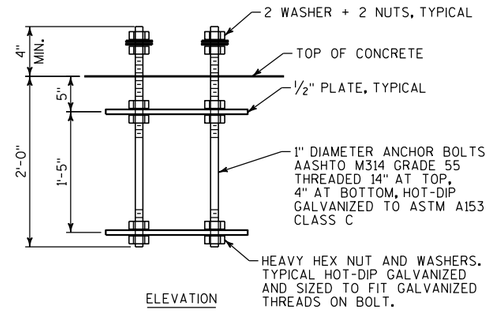
INTERIOR ELEVATION



PLAN

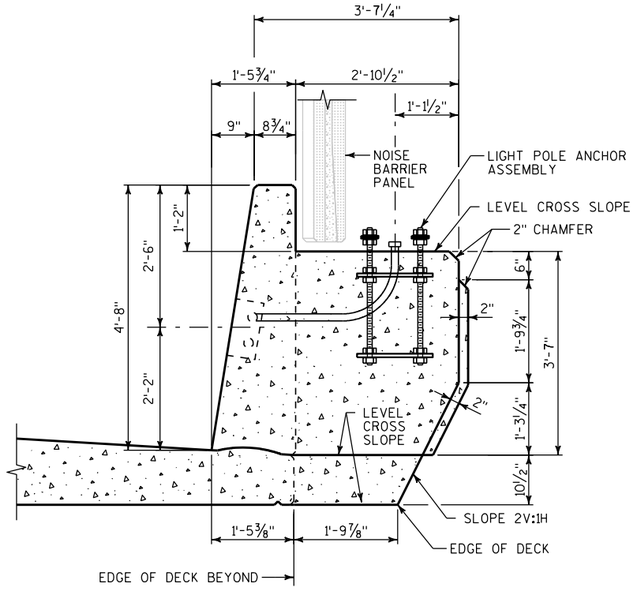


PLAN

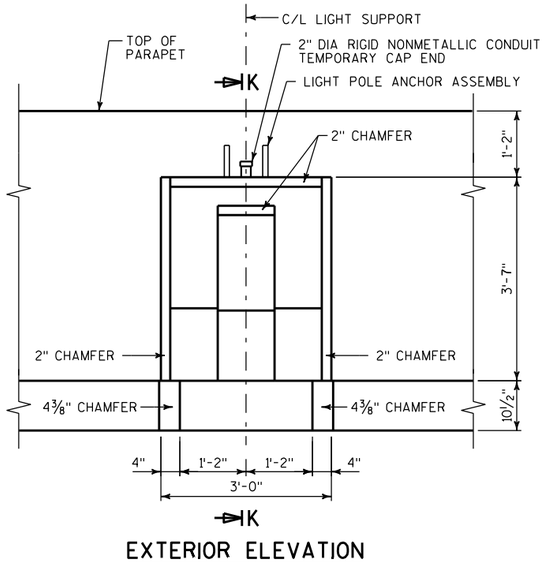


ELEVATION

ANCHOR ASSEMBLY LIGHT POLE STRUCTURES



SECTION K-K



EXTERIOR ELEVATION

56SS LIGHT SUPPORT DETAILS

DETAILS ON THIS SHEET APPLY TO LIGHT SUPPORTS AT THE FOLLOWING STATIONS:
STA 582WS+12.66, STA 583WS+65.14, STA 585WS+02.36, STA 586WS+70.09, STA 587WS+76.82

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

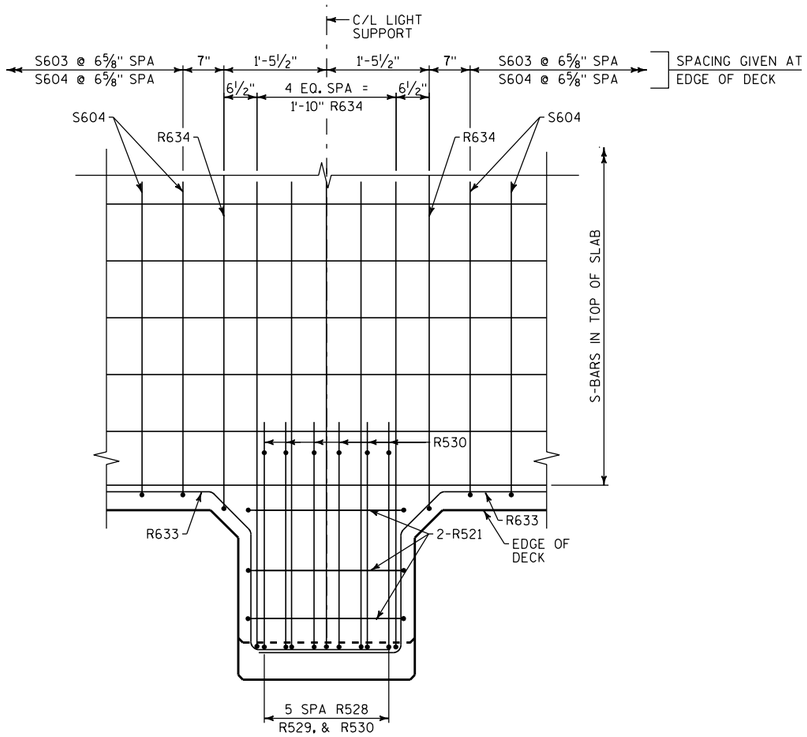
LIGHT SUPPORT
56SS PARAPET
(1 OF 2)

SHEET 89 OF 97

8

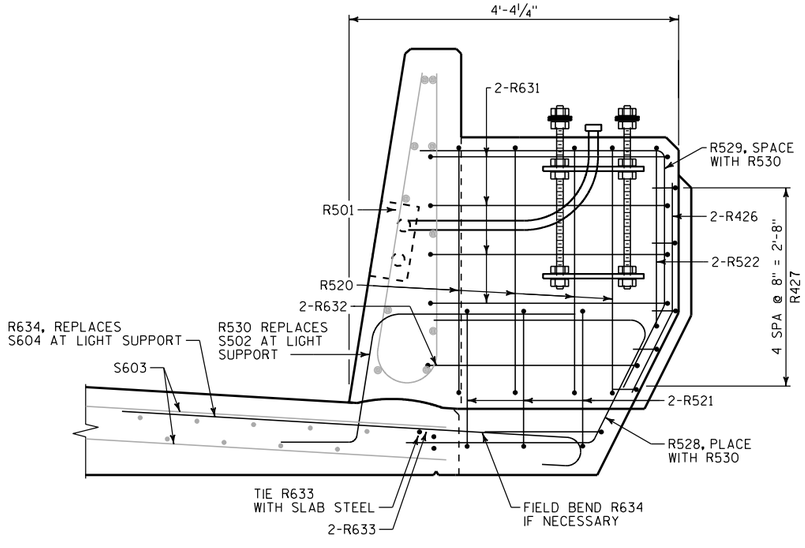
8

STATE PROJECT NUMBER
1060-33-81



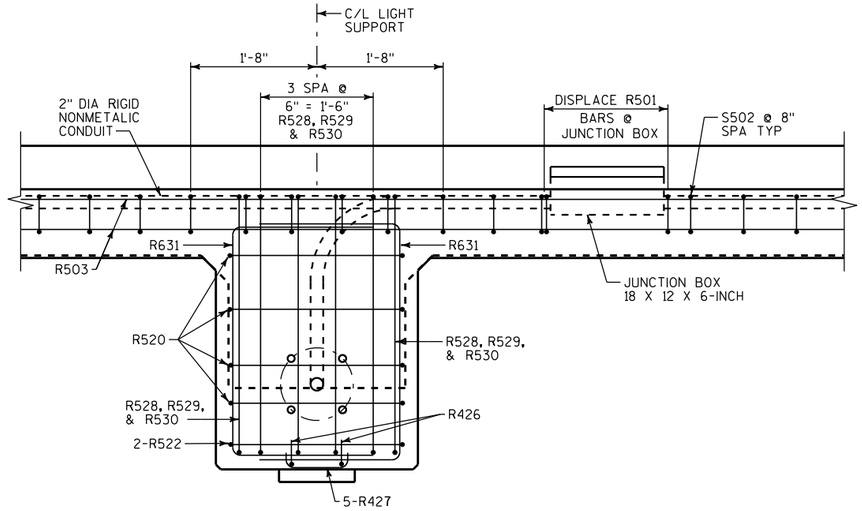
PLAN SHOWING REINFORCEMENT IN DECK

(S502 PARAPET TIES NOT SHOWN FOR CLARITY)

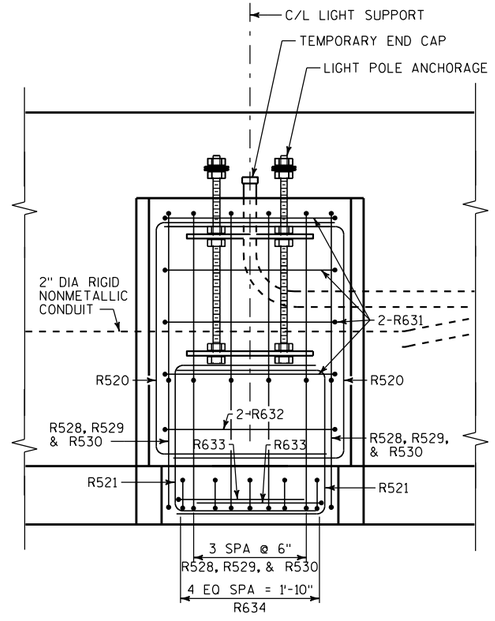


SIDE VIEW SHOWING REINFORCEMENT

CROSS SECTION AT LIGHT SUPPORT



PLAN SHOWING REINFORCEMENT



EXTERIOR ELEVATION SHOWING REINFORCEMENT

56SS LIGHT SUPPORT DETAILS

DETAILS ON THIS SHEET APPLY TO LIGHT SUPPORTS AT THE FOLLOWING STATIONS:
STA 582WS+12.66, STA 583WS+65.14, STA 585WS+02.36, STA 586WS+20.09, STA 587WS+76.82

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

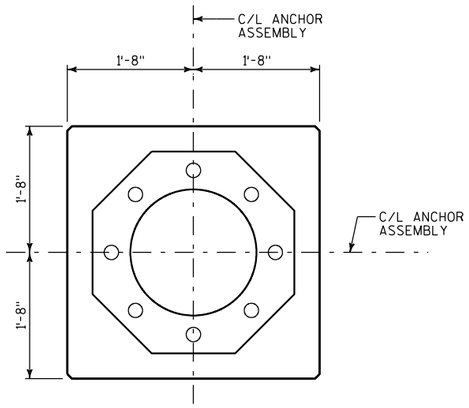
DRAWN BY: GLM | PLANS CK'D.: WRT

LIGHT SUPPORT 56SS PARAPET (2 OF 2)

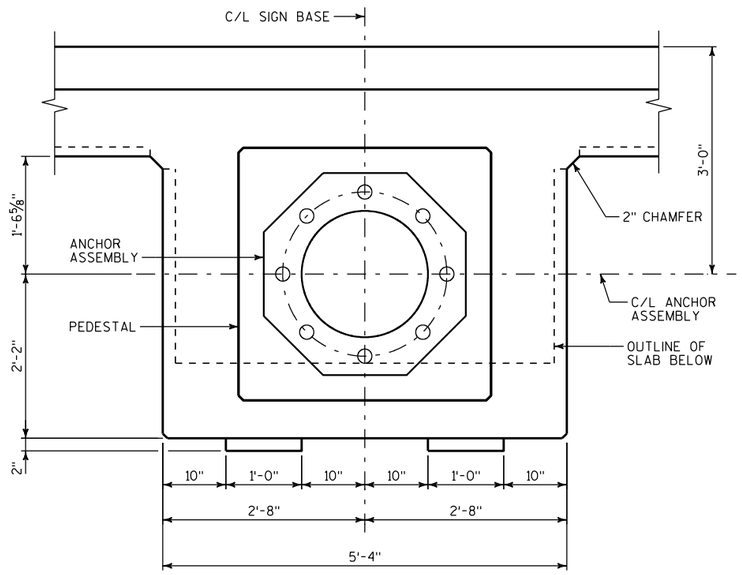
SHEET 90 OF 97

FILE NAME : \\WKE31FP1\w3zoo\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080564_rp.dgn PLOT DATE : 04-MAR-2015 12:45 PLOT BY : MSCGLM PLOT NAME : sht 88 PLOT SCALE : 2:1

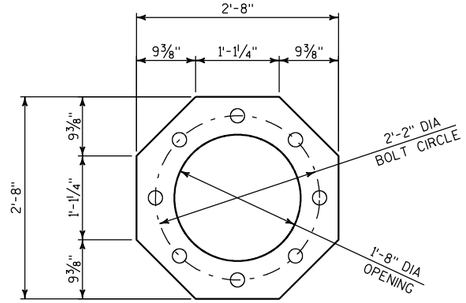
STATE PROJECT NUMBER
1060-33-81



PEDESTAL PLAN



PLAN



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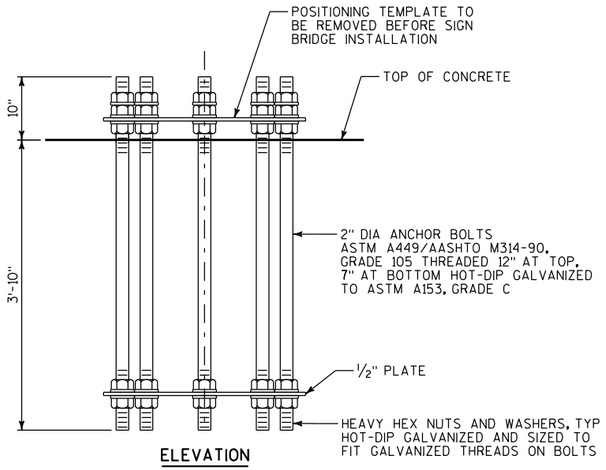
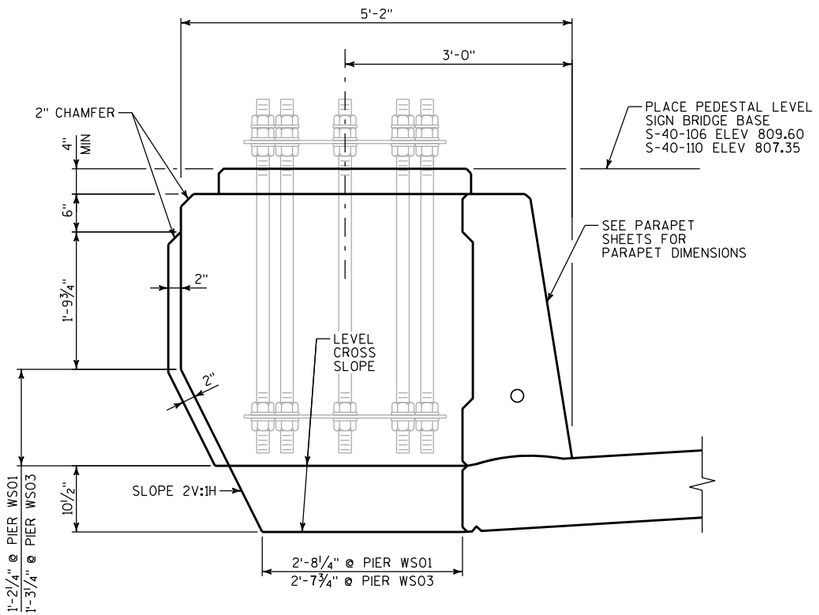


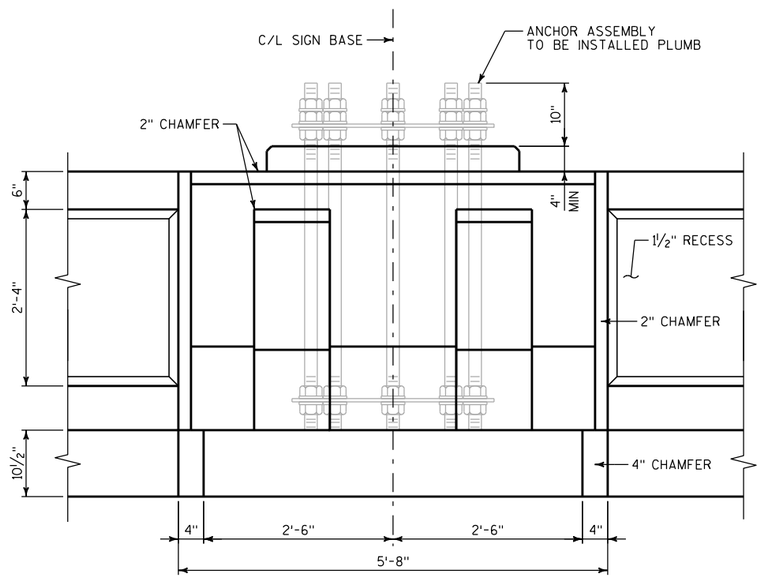
ELEVATION

ANCHOR ASSEMBLY SIGN BRIDGE STRUCTURES

NOTE:
AN ALTERNATIVE ANCHOR ASSEMBLY MAY BE SUBMITTED FOR REVIEW AND POSSIBLE ACCEPTANCE BY THE ENGINEER. UPON ACCEPTANCE, THE SIGN BRIDGE FABRICATION DRAWINGS MUST MATCH THE EXACT SIZE, NUMBER, AND ORIENTATION OF THE ALTERNATIVE ANCHORAGE ASSEMBLY.



SIDE VIEW



EXTERIOR ELEVATION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

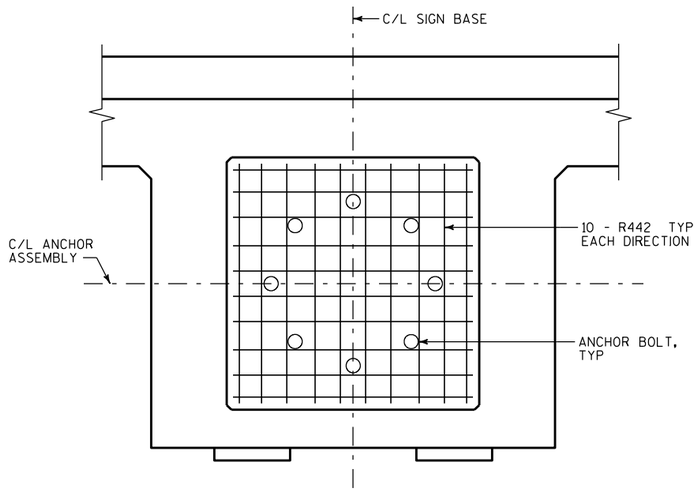
DRAWN BY TGL | PLANS CK'D. WRT

SIGN BRIDGE BASE (1 OF 2)

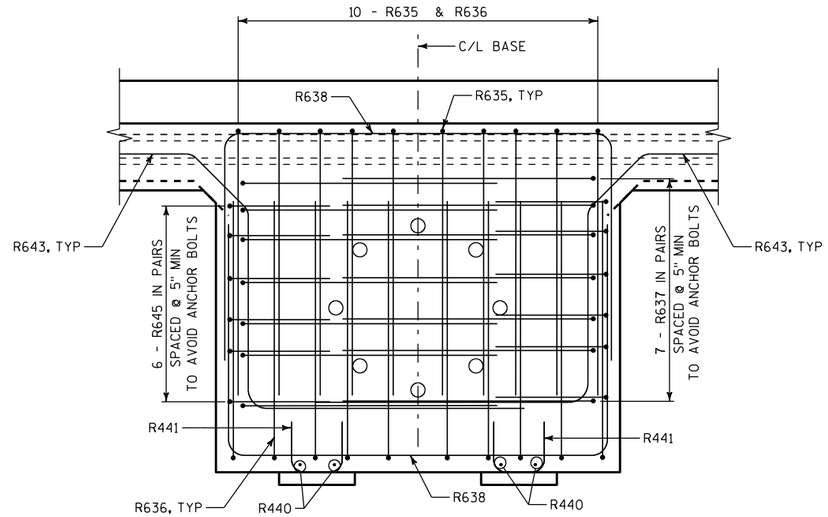
SHEET 91 OF 97

STATE PROJECT NUMBER

1060-33-81

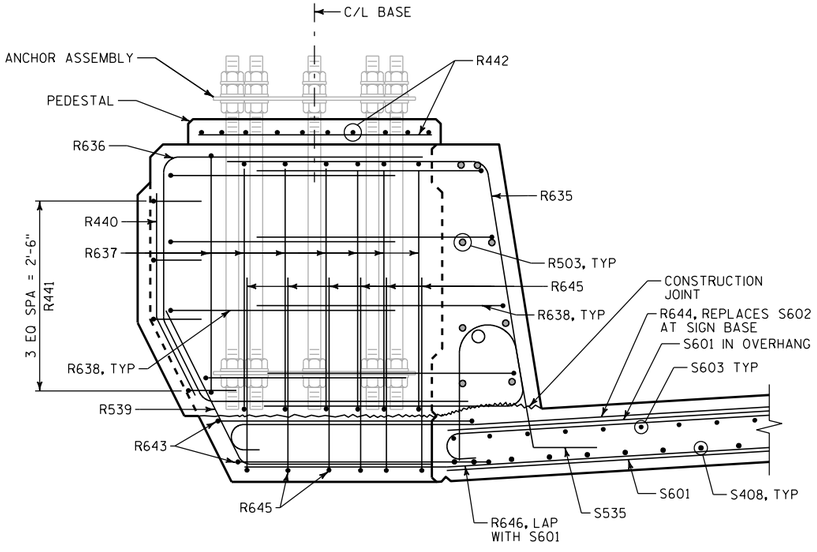


PEDESTAL PLAN SHOWING REINFORCEMENT

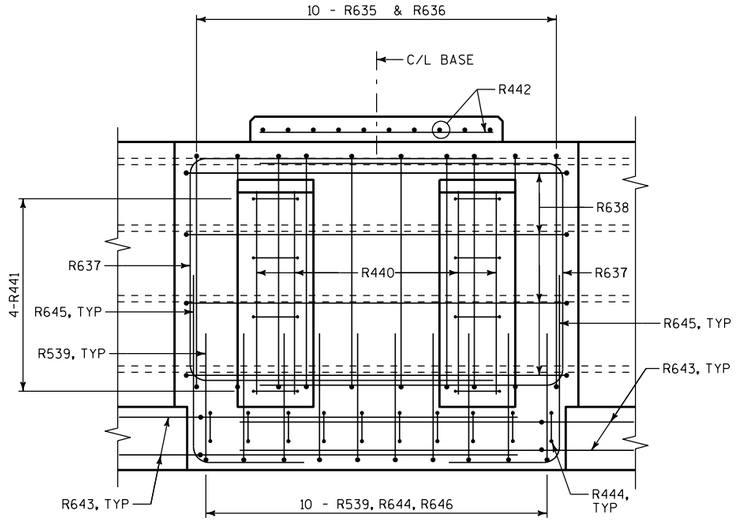


PLAN SHOWING REINFORCEMENT

PEDESTAL REINFORCEMENT NOT SHOWN - SEE PEDESTAL PLAN



SIDE VIEW SHOWING REINFORCEMENT



EXTERIOR ELEVATION SHOWING REINFORCEMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY TGL | PLANS CK'D. WRT

SIGN BRIDGE BASE (2 OF 2)

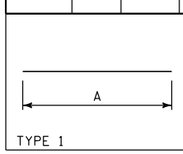
SHEET 92 OF 97

8

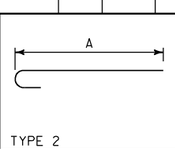
8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080566_rp.dgn PLOT DATE : 02-MAR-2015 15:06 PLOT BY : MSCGLM PLOT NAME : B786_080566_rp PLOT SCALE : 2:1

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	MIN	MAX	NO REQ'D	LENGTH
R501	S	3287	8'-8"	X		10	2'-8"	189	0'-4½"				PARAPET - 42SS VERTICAL					
R502	S	70	7'-4"			1	7'-4"						PARAPET - HORIZONTAL AT CONST. JOINT					
R503	S	406	60'-0"			1	60'-0"						PARAPET - HORIZONTAL					
R504	S	8	42'-6"			1	42'-5½"						PARAPET - HORIZONTAL (END UNIT 1 RT)					
R505	S	2	24'-6"			1	24'-6"						PARAPET - TRANSITION HORIZONTAL					
R506	S	8	12'-9"			1	12'-9"						PARAPET - HORIZONTAL (END UNIT 1 LT)					
R507	S	36	9'-10"	X	X	10	3'-3"	189	0'-4½"				PARAPET - TRANSITION VERTICAL	A	2'-8"	3'-10"	1 SERIES OF 36	8'-8" TO 11'-0"
R508	S	1046	11'-0"	X		10	3'-10"	189	0'-4½"				PARAPET - 56SS VERTICAL					
R509	S	8	12'-9"			1	12'-9"						PARAPET - HORIZONTAL (BEGIN UNIT 2 LT)					
R510	S	10	33'-3"			1	33'-2½"						PARAPET - HORIZONTAL (BEGIN UNIT 2 RT)					
R511	S	18	2'-5"			1	2'-5"						PARAPET - ABUTMENT HORIZONTAL					
R512	S	8	19'-10"			1	19'-10"						PARAPET - APPROACH SLAB LT					
R513	S	10	18'-7"			1	18'-7"						PARAPET - APPROACH SLAB RT					
R514	S	6	4'-3"			1	4'-3"						PARAPET - NOISE BARRIER ANCHORAGE VERTICAL					
R515	S	4	5'-0"			1	5'-0"						PARAPET - NOISE BARRIER ANCHORAGE HORIZONTAL					
R616	S	20	13'-8"	X		2	13'-0"						LIGHT SUPPORT - DECK OVERHANG 42SS					
R517	S	24	5'-3"	X		17	2'-0"	2'-0"	1'-6"	67	67		LIGHT SUPPORT - VERTICAL					
R518	S	24	5'-2"	X		17	2'-4"	2'-0"	1'-1"	90	27		LIGHT SUPPORT - VERTICAL					
R519	S	24	4'-11"	X		11	2'-0"	81	0'-4½"	1'-5"	1'-0"	99	LIGHT SUPPORT - VERTICAL					
R520	S	64	7'-5"	X		4	2'-3"	3'-2"					LIGHT SUPPORT - VERTICAL					
R521	S	46	5'-8"	X		4	2'-0"	1'-11"					LIGHT SUPPORT - VERTICAL					
R522	S	18	6'-6"	X		4	2'-3"	2'-3"					LIGHT SUPPORT - VERTICAL					
R623	S	32	6'-5"	X		4	2'-3"	2'-3"					LIGHT SUPPORT - HORIZONTAL					
R624	S	8	6'-1"	X		4	2'-3"	1'-11"					LIGHT SUPPORT - HORIZONTAL					
R625	S	8	4'-9"	X		20	1'-9"	0'-10"	0'-10"	1'-8"	135	270	LIGHT SUPPORT - HORIZONTAL					
R426	S	18	3'-5"	X		9	1'-8"	1'-9"	19				LIGHT SUPPORT - OUTSIDE FACE					
R427	S	45	1'-1"	X		4	0'-4"	0'-7"					LIGHT SUPPORT - OUTSIDE FACE					
R528	S	30	7'-0"	X		17	2'-10½"	2'-0"	2'-4½"	67	67		LIGHT SUPPORT - VERTICAL					
R529	S	30	6'-1"	X		17	3'-2½"	2'-0"	1'-1"	90	27		LIGHT SUPPORT - VERTICAL					
R530	S	30	5'-10"	X		11	2'-10½"	81	0'-4½"	1'-5"	1'-0"	99	LIGHT SUPPORT - VERTICAL					
R631	S	40	7'-4"	X		4	2'-3"	3'-1½"					LIGHT SUPPORT - HORIZONTAL					
R632	S	10	7'-0"	X		4	2'-3"	2'-9½"					LIGHT SUPPORT - HORIZONTAL					
R633	S	10	5'-8"	X		20	1'-9"	0'-10"	1'-8½"	1'-8"	135	270	LIGHT SUPPORT - HORIZONTAL					
R634	S	25	14'-6"	X		2	13'-10"						LIGHT SUPPORT - DECK OVERHANG 56SS					
R635	S	20	10'-1"	X		17	3'-8"	3'-1"	3'-8"	99	99		SIGN SUPPORT - VERTICAL TIE					
R636	S	20	10'-2"	X		41	3'-8"	2'-1"	1'-1"	3'-8"	153	117	SIGN SUPPORT - VERTICAL TIE					
R637	S	28	10'-7"	X		4	4'-0"	2'-11"					SIGN SUPPORT - VERTICAL TIE					
R638	S	16	12'-0"	X		4	3'-8"	5'-0"					SIGN SUPPORT - HORIZONTAL TIE					
R539	S	20	4'-7"	X		9	2'-5"	2'-2"	116				SIGN SUPPORT - VERTICAL TIE					
R440	S	8	2'-10"	X		9	1'-8"	1'-2"	27				SIGN SUPPORT - VERTICAL					
R441	S	16	1'-10"	X		4	0'-8"	0'-8"					SIGN SUPPORT - HORIZONTAL					
R442	S	40	3'-0"			1	3'-0"						SIGN SUPPORT - PEDESTAL					
R643	S	8	8'-10"	X		20	1'-10"	0'-10"	2'-8"	3'-10"	135	270	SIGN SUPPORT - HORIZONTAL DECK					
R644	S	20	15'-6"	X		11	0'-6"	1'-0"	0'-6"	3'-0"	12'-0"	177	SIGN SUPPORT - TRANSVERSE DECK					
R645	S	24	3'-11"	X		9	2'-5"	1'-6"	90				SIGN SUPPORT - VERTICAL TIE					
R646	S	20	7'-0"	X		9	4'-0"	3'-0"	3				SIGN SUPPORT - TRANSVERSE DECK					



TYPE 1



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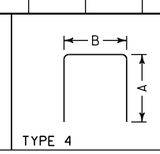
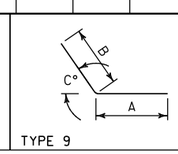
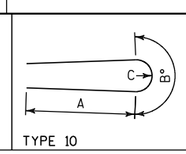


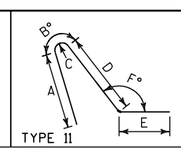
TYPE 4



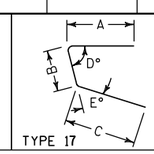
TYPE 9



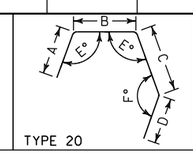
TYPE 10



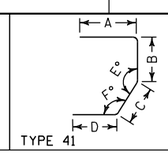
TYPE 11



TYPE 17



TYPE 20



TYPE 41

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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

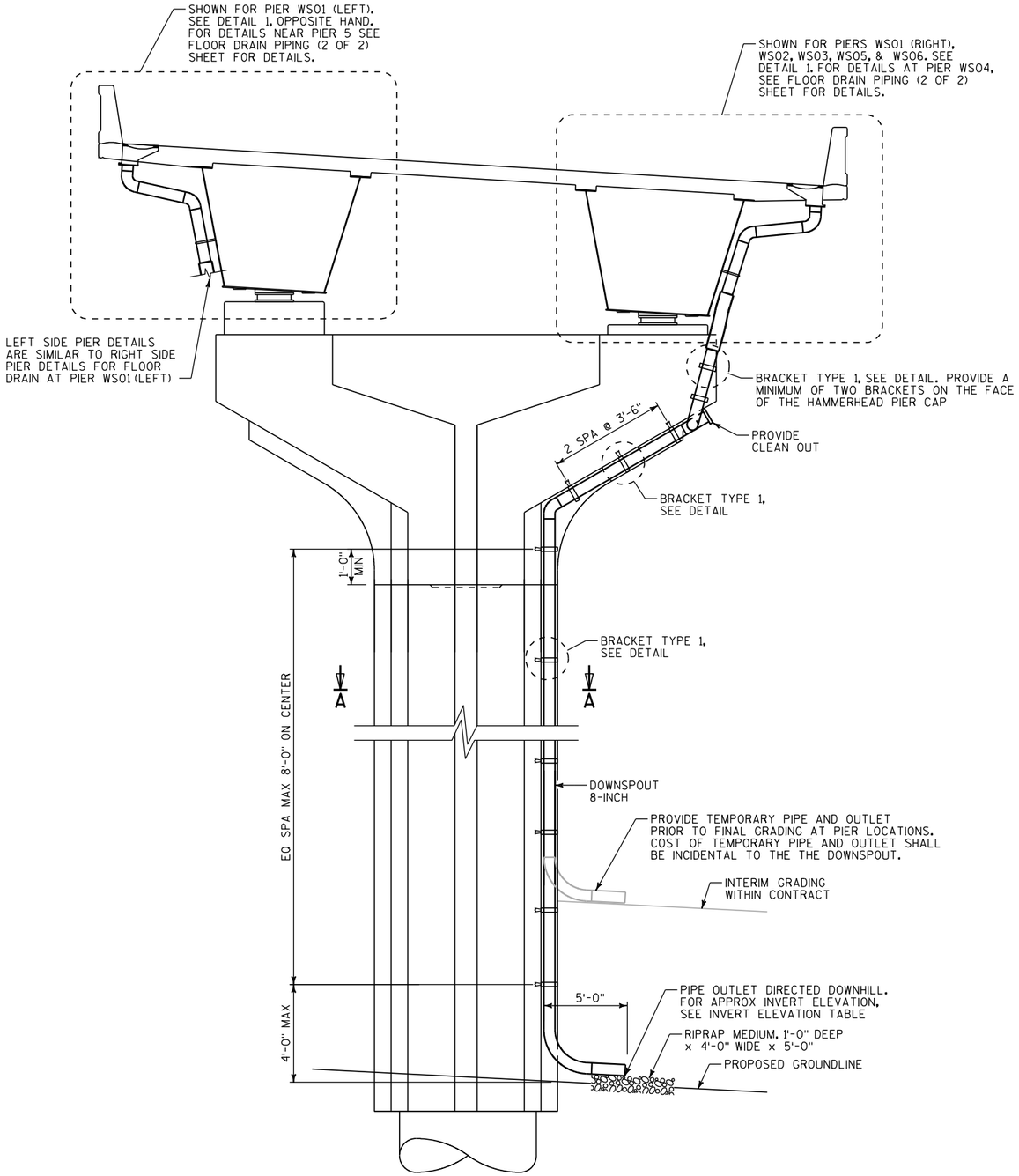
PARAPET REINFORCEMENT SCHEDULE

SHEET 93 OF 97

8

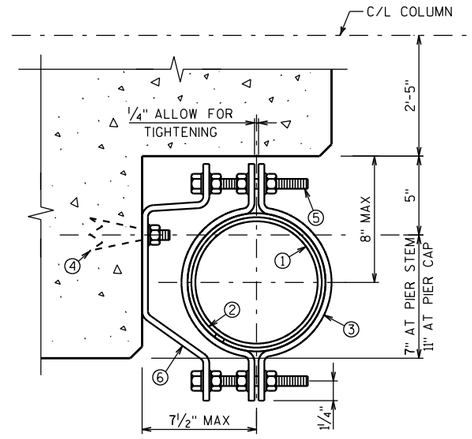
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080567_rp.dgn PLOT DATE : 02-MAR-2015 15:06 PLOT BY : MSCGLM PLOT NAME : B786_080567_rp PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



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 3/16 " HORIZ SLOTTED HOLE AT MASONRY ANCHOR

NOTES

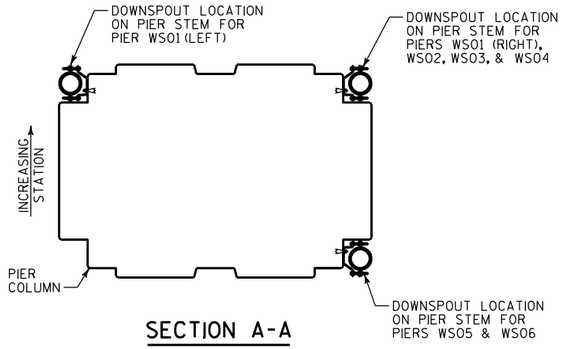
FOR FLOOR DRAIN LOCATIONS, SEE DECK REINFORCEMENT SHEETS.

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.



SECTION A-A

INVERT ELEVATION TABLE	
LOCATION	INVERT ELEV
PIER WS01 (LEFT)	770.00
PIER WS01 (RIGHT)	769.00
PIER WS02	773.50
PIER WS03	773.00
PIER WS04	762.50
PIER WS05	768.00
PIER WS06	787.00

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

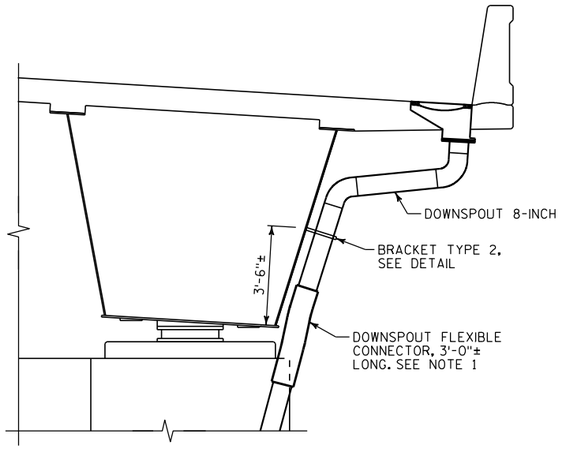
FLOOR DRAIN PIPING (1 OF 2)

SHEET 94 OF 97

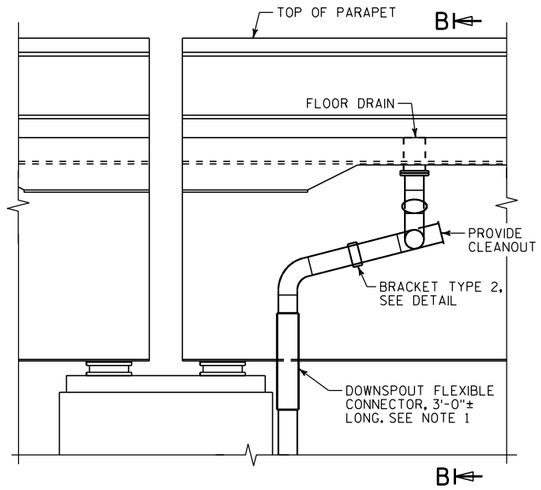
8

8

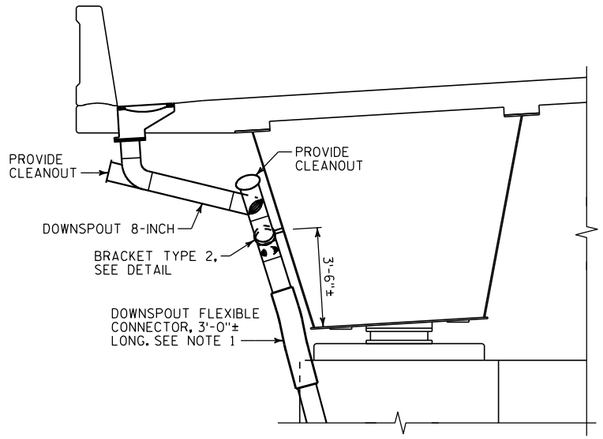
STATE PROJECT NUMBER
1060-33-81



DETAIL 1



PARTIAL ELEVATION - PIER WS04

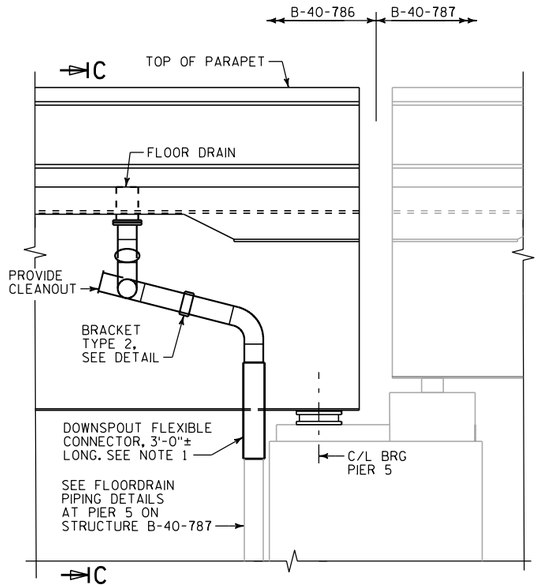


SECTION B-B

LOOKING NORTHWEST

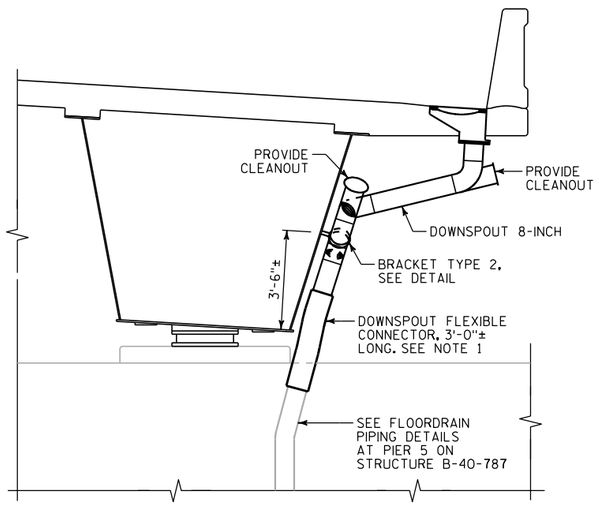
NOTES

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.



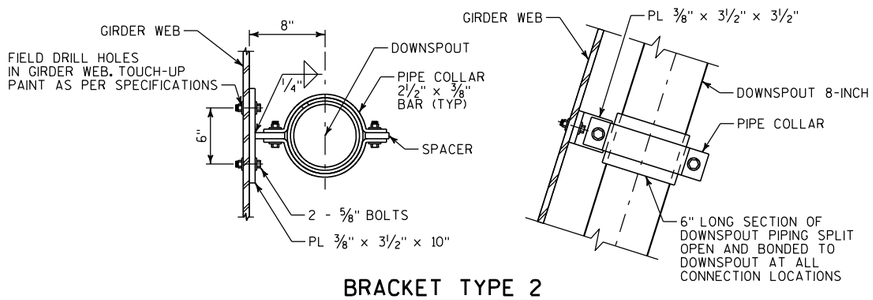
PARTIAL ELEVATION - NEAR PIER 5

LOOKING SOUTH



SECTION C-C

LOOKING WEST



BRACKET TYPE 2

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

FLOOR DRAIN PIPING (2 OF 2)

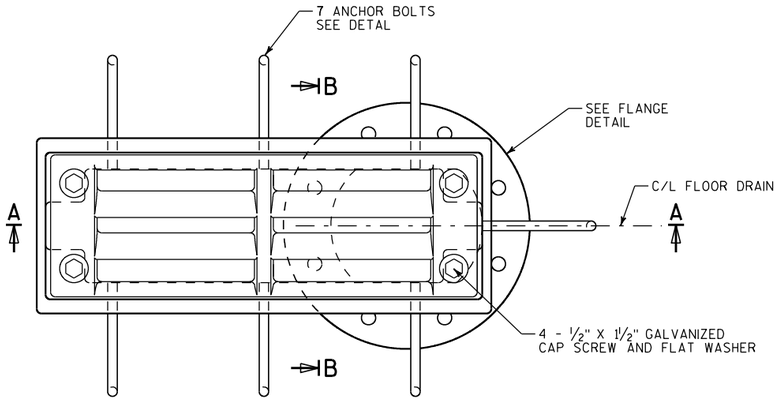
SHEET 95 OF 97

8

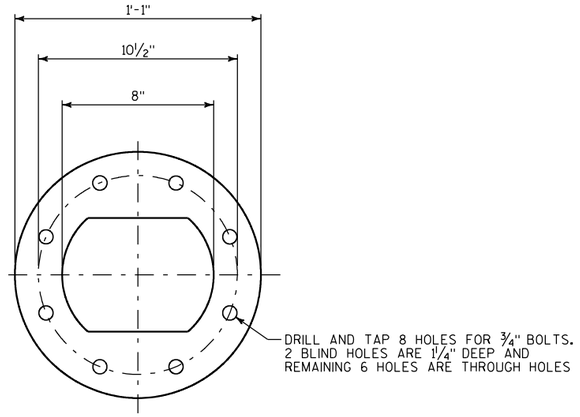
8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Mandatory\B786_080569_rp.dgn PLOT DATE : 02-MAR-2015 15:06 PLOT BY : MSCGLM PLOT NAME : B786_080569_rp PLOT SCALE : 16:1

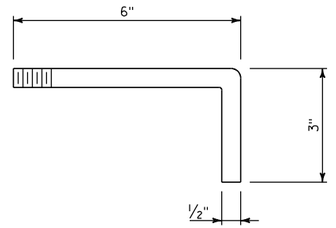
STATE PROJECT NUMBER
1060-33-81



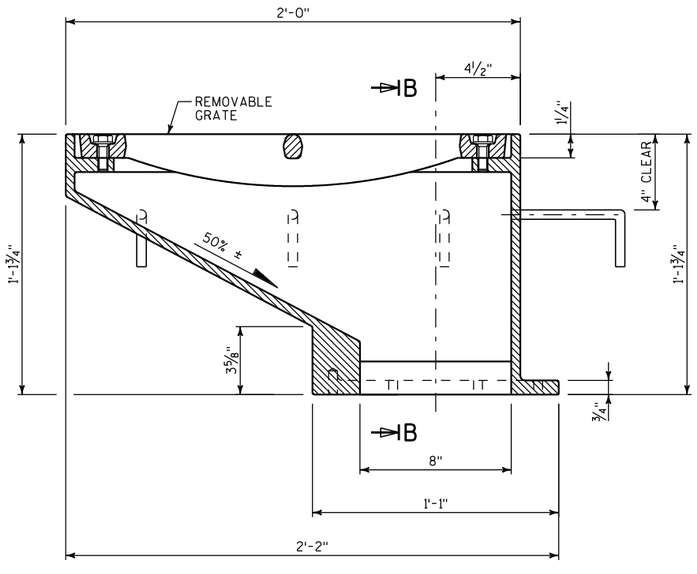
PLAN



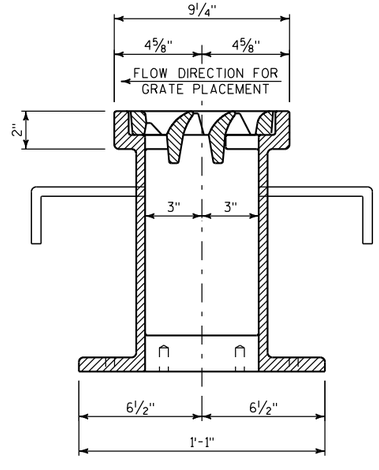
PLAN - FLANGE



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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

FLOOR DRAIN
SPECIAL

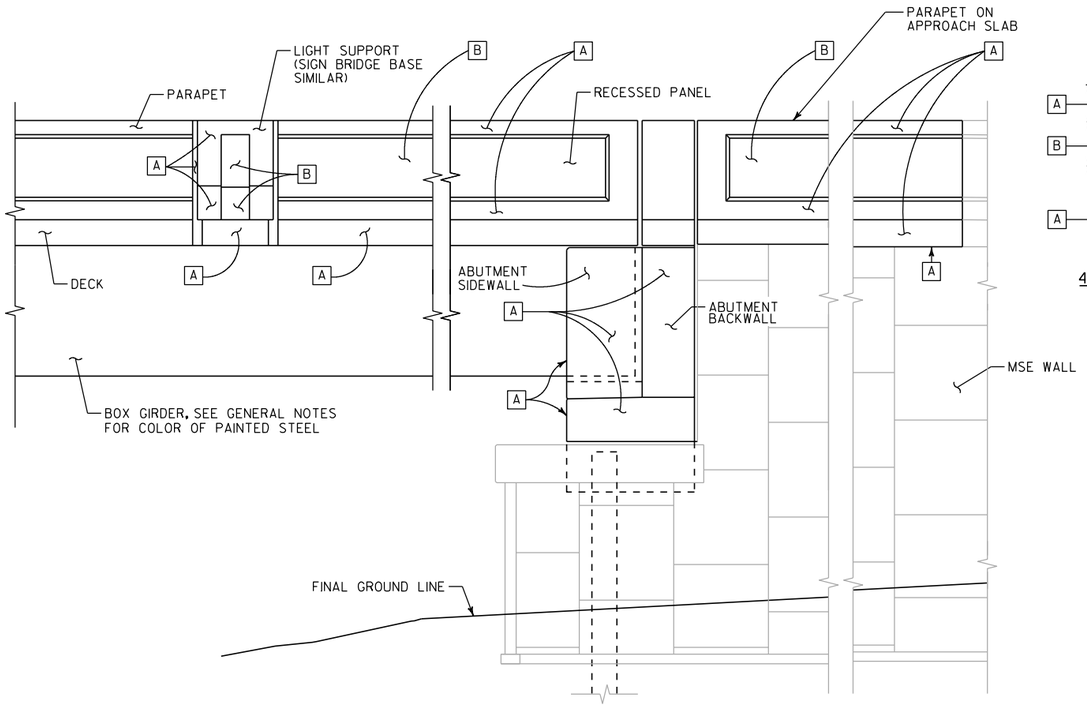
SHEET 96 OF 97

8

8

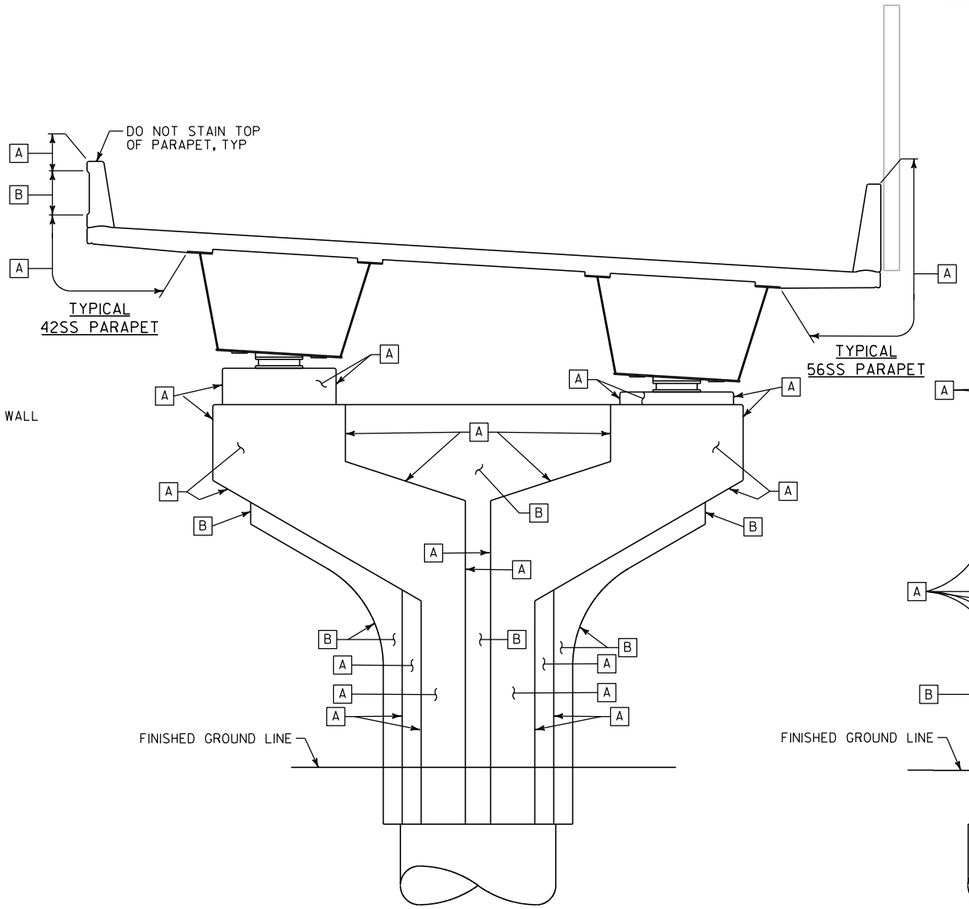
STATE PROJECT NUMBER

1060-33-81



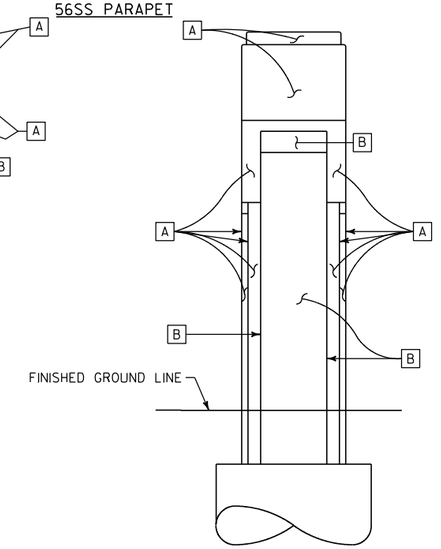
OUTSIDE ELEVATION OF RIGHT PARAPET

(LEFT PARAPET SIMILAR)



ELEVATION OF PIER

(LOOKING UP STATION)



END VIEW OF PIER

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 TOP OF CONCRETE SLOPE PAVING, EXTERIOR EXPOSED FACE OF ABUTMENT BEAM SEAT, EXTERIOR EXPOSED FACE OF BACKWALL, FRONT FACE AND EXTERIOR EXPOSED FACE OF SIDEWALL, AND EACH SIDE OF GIRDER PEDESTAL.
		PIER	SIDES OF GIRDER PEDESTALS, SIDES AND BOTTOM OF CAP BEAM AND STEM TO 1FOOT 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

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

AESTHETIC DETAILS

SHEET 97 OF 97

STATE PROJECT NUMBER
1060-33-81

ESTIMATED QUANTITIES - PIER OPTION A

ITEM CATEGORY	ITEM NO.	BID ITEMS	UNIT	PIER WS01	PIER WS02	PIER WS03	PIER WS04	PIER WS05	PIER WS06	PIER WS07	TOTAL
2001	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-40-786	LS	---	---	---	---	---	---	---	1
2001	209.0100	BACKFILL GRANULAR	CY	---	---	---	10	10	10	---	30
2001	502.0100	CONCRETE MASONRY BRIDGES	CY	110.0	109.0	111.0	142.0	143.0	102.0	95.0	812
2001	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	39,005	37,035	30,470	26,810	27,655	38,160	44,200	243,335
2001	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	25,075	24,345	24,660	30,500	30,755	22,690	22,525	180,550
2001	SPV.0060.4150	DRILLED FOUNDATION SHAFT BASE GROUTING	EACH	1	1	1	1	1	1	1	7
2001	SPV.0060.4160	THERMAL INTEGRITY PROFILER (TIP) TESTING DRILLED FOUNDATION SHAFT 98.43-INCH	EACH	1	1	1	1	1	1	1	7
2001	SPV.0075.4200	OBSTRUCTIONS DRILLED FOUNDATION SHAFT	HRS	4	4	4	4	4	4	4	28
2001	SPV.0090.4435	DRILLED FOUNDATION SHAFT 98.43-INCH	LF	85	78	66	53	56	82	103	523

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-40-786

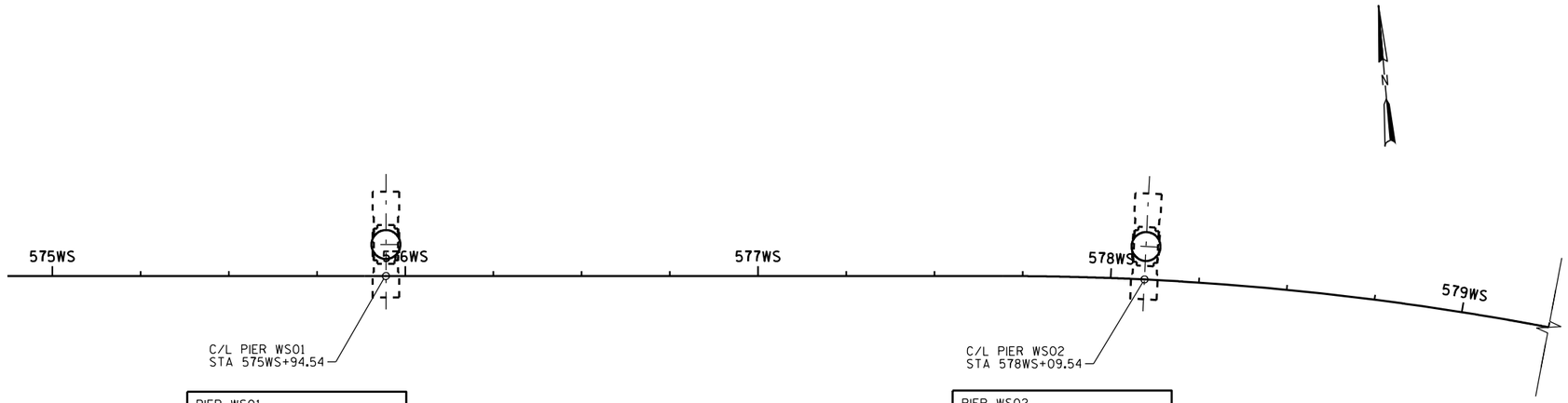
DRAWN BY GLM | PLANS CK'D. WRT

OPTION A QUANTITIES

SHEET A1 OF A23

FILE NAME : \\WKE31FP1\w3zoo\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option A\B786_080101A_qu.dgn PLOT DATE : 05-MAR-2015 07:59 PLOT BY : MSCGLM PLOT NAME : sht A1 PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



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8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

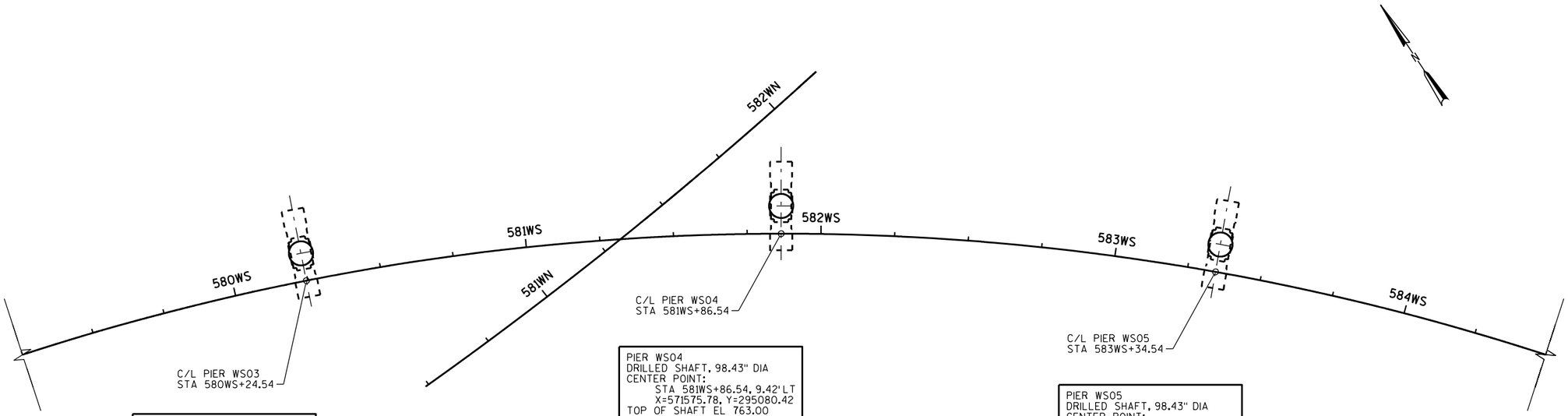
DRAWN BY GLM | PLANS CK'D. WRT

OPTION A
FOUNDATION
LAYOUT (1 OF 3)

SHEET A2 OF A23

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option A\B786_080102A_f1.dgn
PLOT DATE : 02-MAR-2015 15:16
PLOT BY : MSCGLM
PLOT NAME : B786_080102A_f1
PLOT SCALE : 40:1

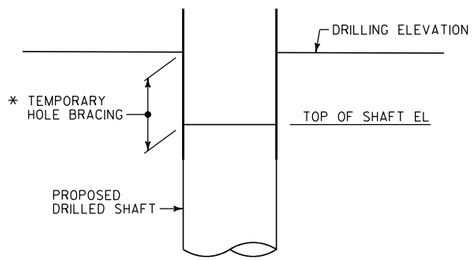
STATE PROJECT NUMBER
1060-33-81



PIER WS03
DRILLED SHAFT, 98.43" DIA
CENTER POINT:
STA 580WS+24.54, 9.42' LT
X=571431.48, Y=295157.45
TOP OF SHAFT EL 772.00
BOTTOM OF SHAFT EL 706.00

PIER WS04
DRILLED SHAFT, 98.43" DIA
CENTER POINT:
STA 581WS+86.54, 9.42' LT
X=571575.78, Y=295080.42
TOP OF SHAFT EL 763.00
BOTTOM OF SHAFT EL 710.00

PIER WS05
DRILLED SHAFT, 98.43" DIA
CENTER POINT:
STA 583WS+34.54, 9.42' LT
X=571692.35, Y=294986.85
TOP OF SHAFT EL 764.00
BOTTOM OF SHAFT EL 708.00



TEMPORARY HOLE BRACING

AT PIERS WS04 & WS05

* 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-40-786".

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

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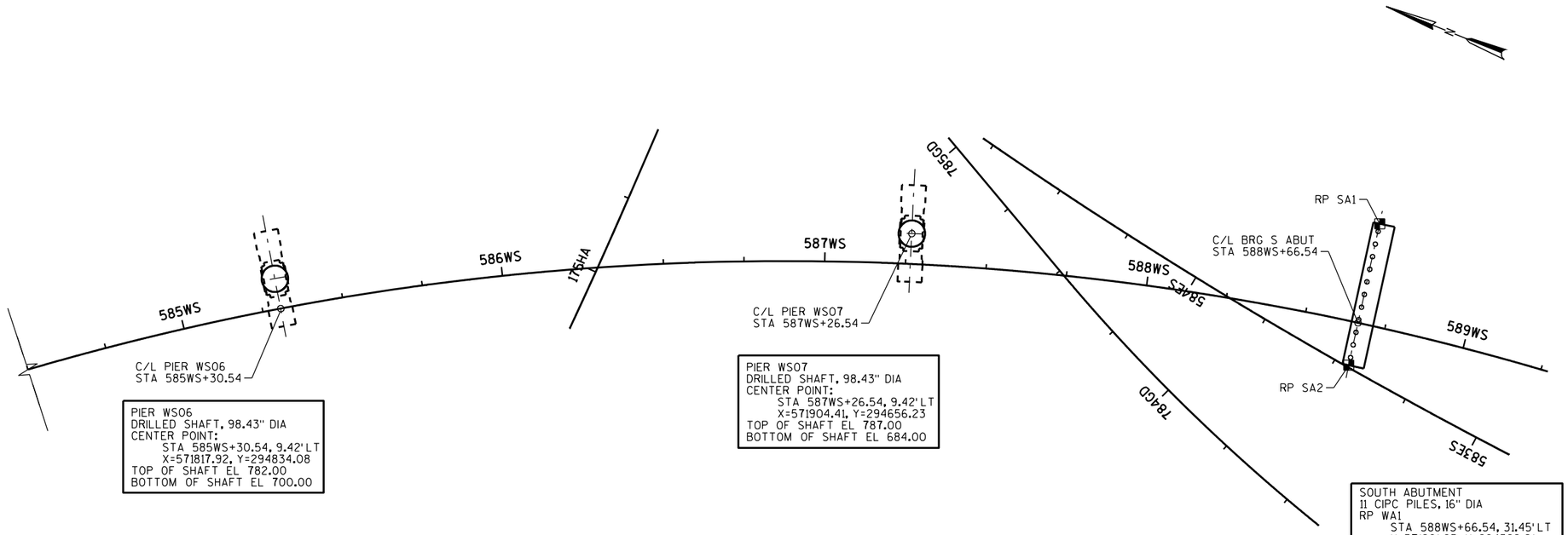
OPTION A
FOUNDATION
LAYOUT (2 OF 3)

SHEET A3 OF A23

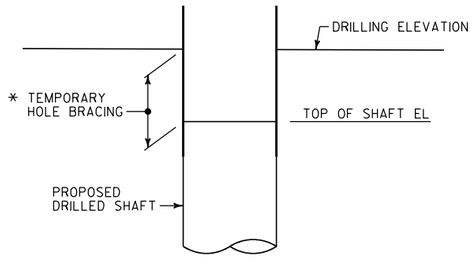
STATE PROJECT NUMBER
1060-33-81



PIER WS06
DRILLED SHAFT, 98.43" DIA
CENTER POINT:
STA 585WS+30.54, 9.42'LT
X=571817.92, Y=294834.08
TOP OF SHAFT EL 782.00
BOTTOM OF SHAFT EL 700.00

PIER WS07
DRILLED SHAFT, 98.43" DIA
CENTER POINT:
STA 587WS+26.54, 9.42'LT
X=571904.41, Y=294656.23
TOP OF SHAFT EL 787.00
BOTTOM OF SHAFT EL 684.00

SOUTH ABUTMENT
11 CIPC PILES, 16" DIA
RP WA1
STA 588WS+66.54, 31.45'LT
X=571961.25, Y=294522.91
RP WA2
STA 588WS+66.54, 13.45'RT
X=571916.98, Y=294515.45
BOTTOM OF FOOTING EL 800.11
ESTIMATED PILE LENGTH 95 FT



TEMPORARY HOLE BRACING

AT PIER WS06

* 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-40-786".

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

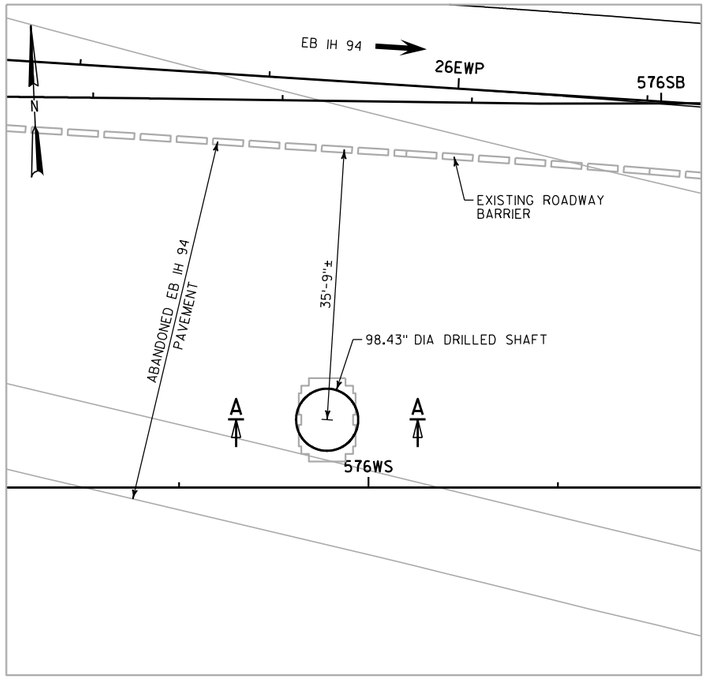
DRAWN BY GLM | PLANS CK'D. WRT

OPTION A
FOUNDATION
LAYOUT (3 OF 3)

SHEET A4 OF A23

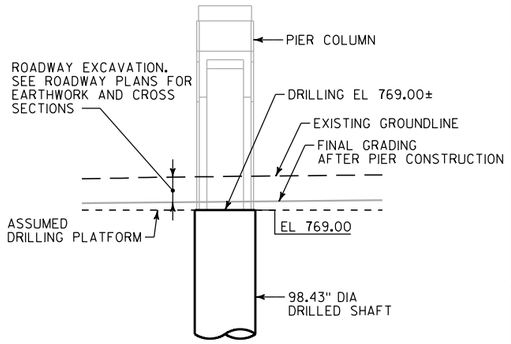
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option A\B786_080104A_f1.dgn PLOT DATE : 02-MAR-2015 15:16 PLOT BY : MSCGLM PLOT NAME : B786_080104A_f1 PLOT SCALE : 40:1

STATE PROJECT NUMBER
1060-33-81

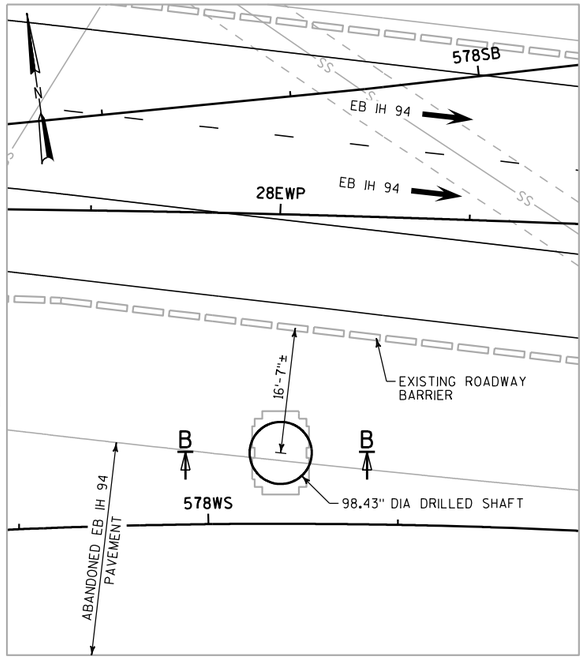


EXCAVATION PLAN - PIER WS01

STA 575WS+94.54

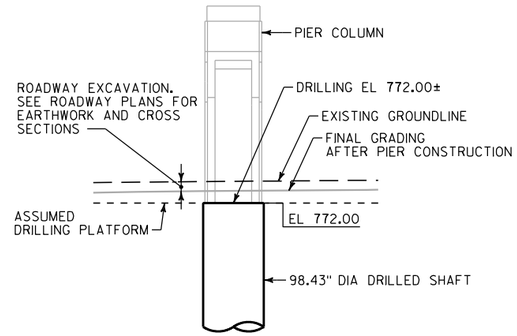


SECTION A-A

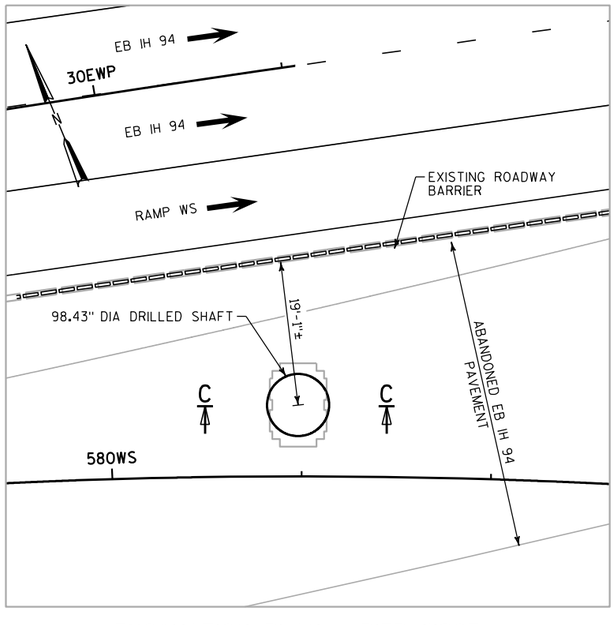


EXCAVATION PLAN - PIER WS02

STA 578WS+09.54

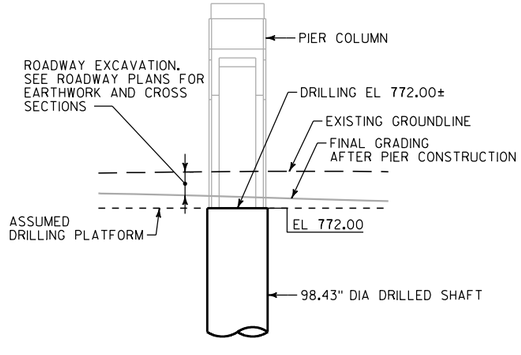


SECTION B-B



EXCAVATION PLAN - PIER WS03

STA 580WS+24.54



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-40-786

DRAWN BY GLM | PLANS CK'D. BKS

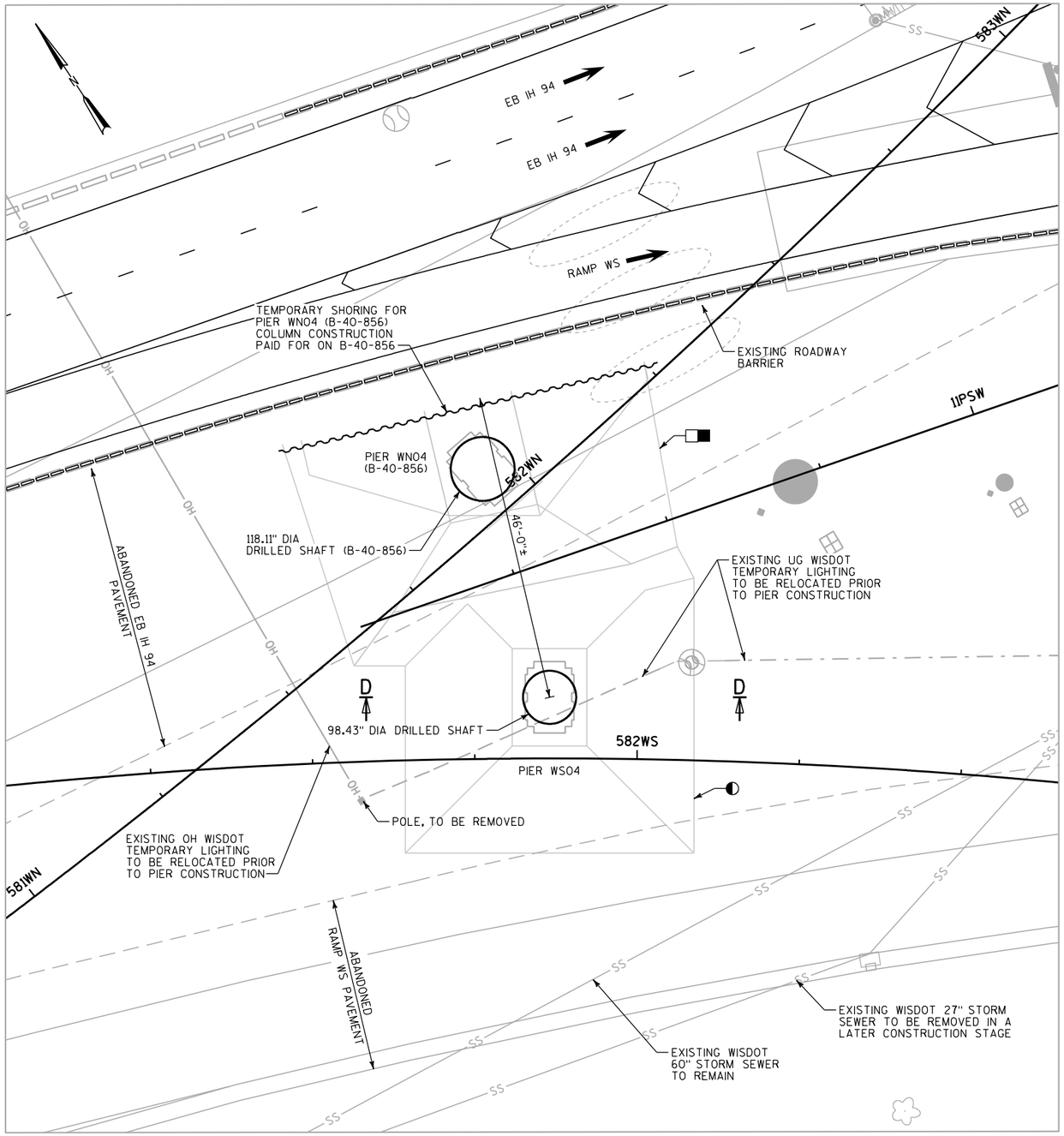
OPTION A
EXCAVATION PLAN
(1 OF 4)

SHEET A5 OF A23

8

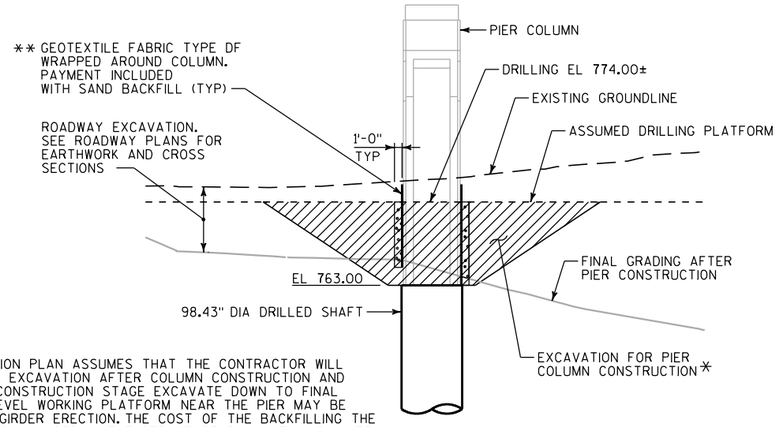
8

STATE PROJECT NUMBER
1060-33-81



EXCAVATION PLAN - PIER WS04

STA 581WS+86.54



* 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 THE BACKFILLING THE EXCAVATION IS INCLUDED IN THE STRUCTURE EXCAVATION PAY ITEM.

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

SECTION D-D

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 "EXCAVATION FOR STRUCTURES BRIDGES B-40-786".
- APPROXIMATE EXCAVATION LIMITS SEE EXCAVATION PLAN FOR STRUCTURE B-40-856 FOR MORE DETAILS.

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-40-786

DRAWN BY	GLM	PLANS CK'D.	BKS

OPTION A
EXCAVATION PLAN
(2 OF 4)

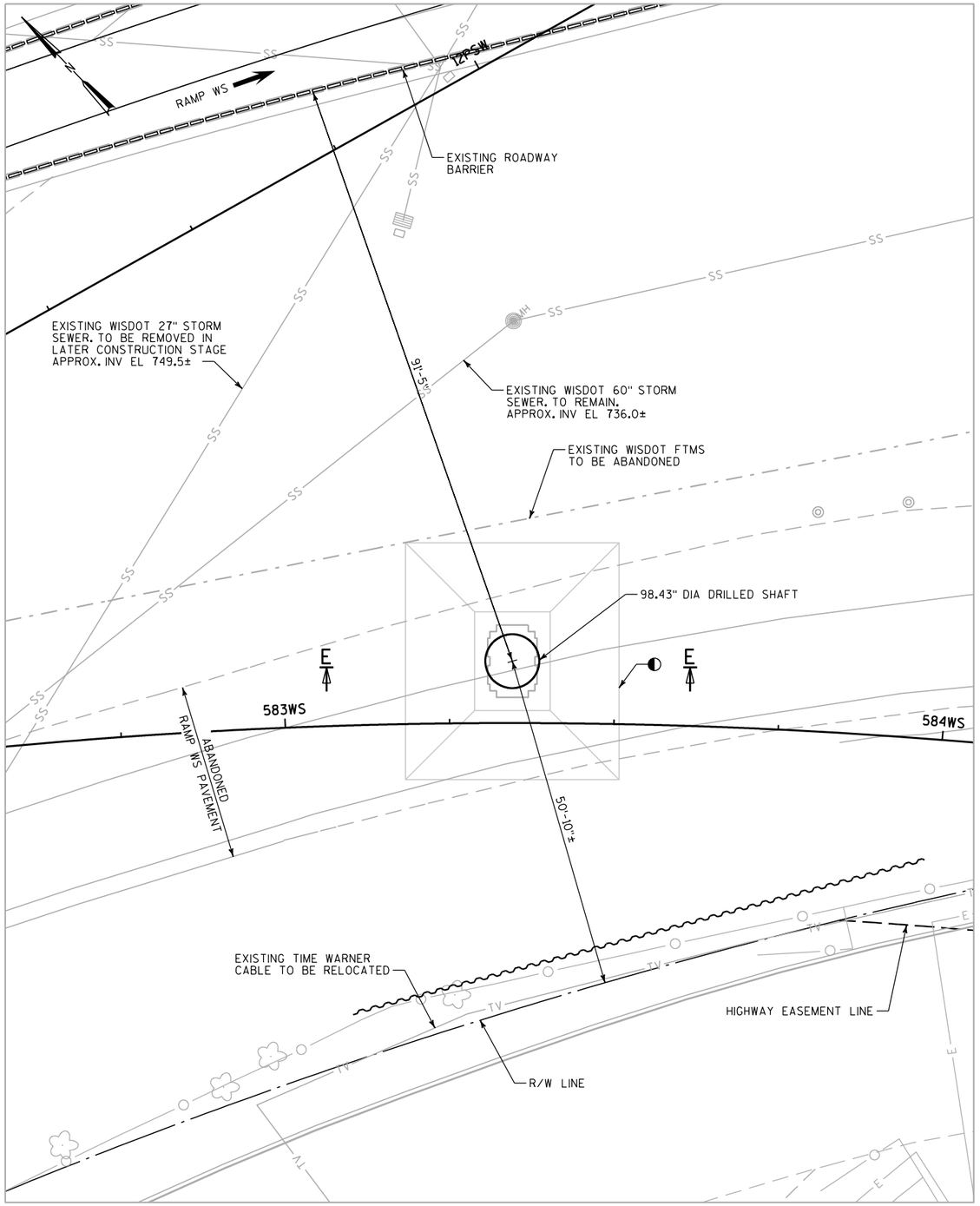
SHEET A6 OF A23

8

8

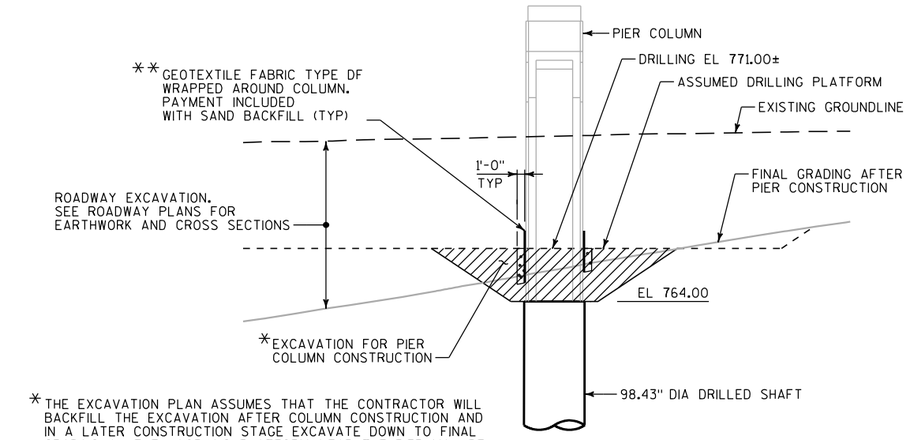
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option A\B786_080106A_ex.dgn PLOT DATE : 02-MAR-2015 15:18 PLOT BY : MSCGLM PLOT NAME : B786_080106A_ex PLOT SCALE : 20:1

STATE PROJECT NUMBER
1060-33-81



EXCAVATION PLAN - PIER WS05

STA 583WS+34.54



* 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 THE BACKFILLING THE EXCAVATION IS INCLUDED IN THE STRUCTURE EXCAVATION PAY ITEM.

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

SECTION E-E

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 "EXCAVATION FOR STRUCTURES BRIDGES B-40-786".

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-40-786

DRAWN BY GLM | PLANS CK'D. BKS

OPTION A
EXCAVATION PLAN
(3 OF 4)

SHEET A7 OF A23

8

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option A\B786_080107A_ex.dgn

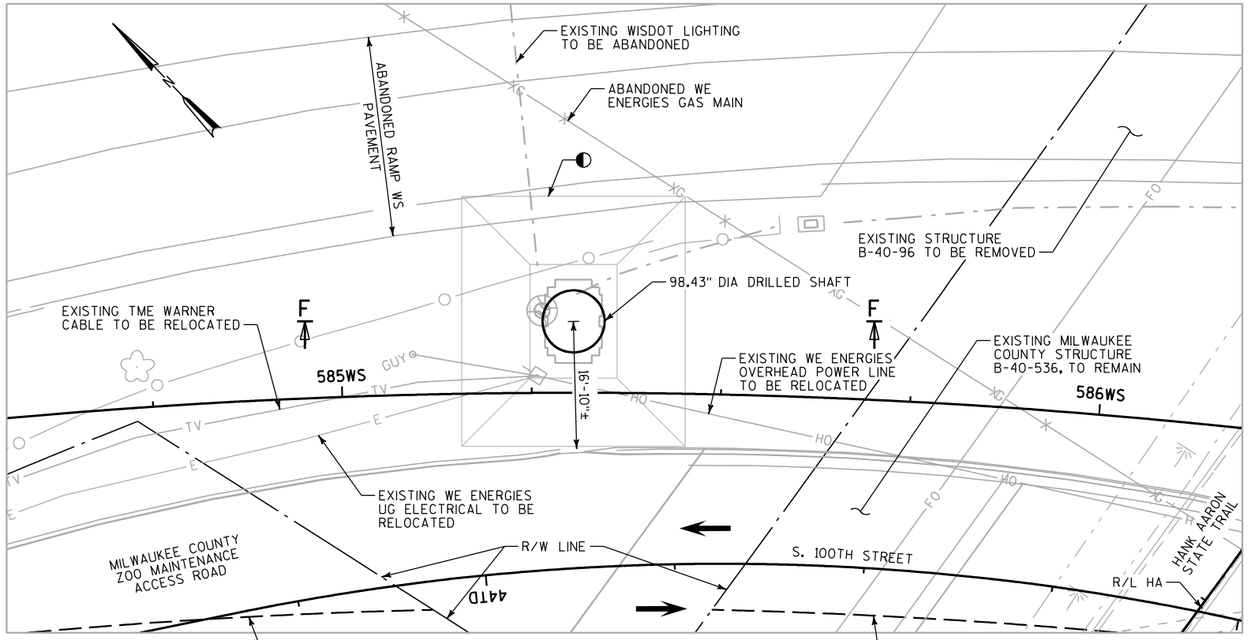
PLOT DATE : 02-MAR-2015 15:18

PLOT BY : MSCGLM

PLOT NAME : B786_080107A_ex

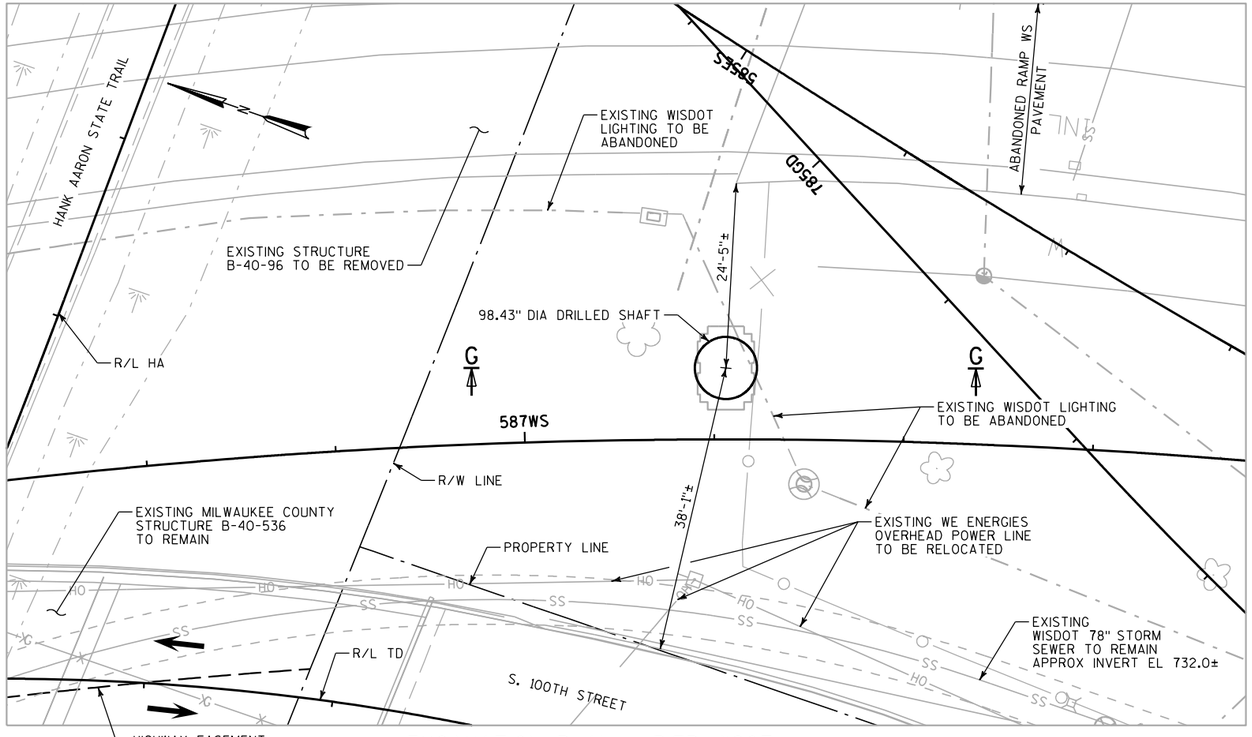
PLOT SCALE : 20:1

STATE PROJECT NUMBER
1060-33-81



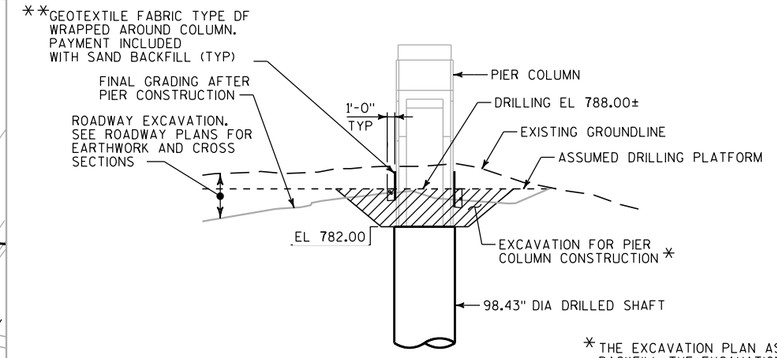
EXCAVATION PLAN - PIER WS06

STA 585WS+30.54

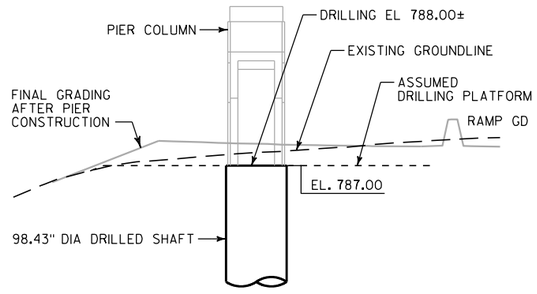


EXCAVATION PLAN - PIER WS07

STA 587WS+26.54



SECTION F-F



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 THE BACKFILLING THE EXCAVATION IS INCLUDED IN THE STRUCTURE EXCAVATION PAY 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 "EXCAVATION FOR STRUCTURES BRIDGES B-40-786".

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-40-786

DRAWN BY	GLM	PLANS CK'D.	BKS

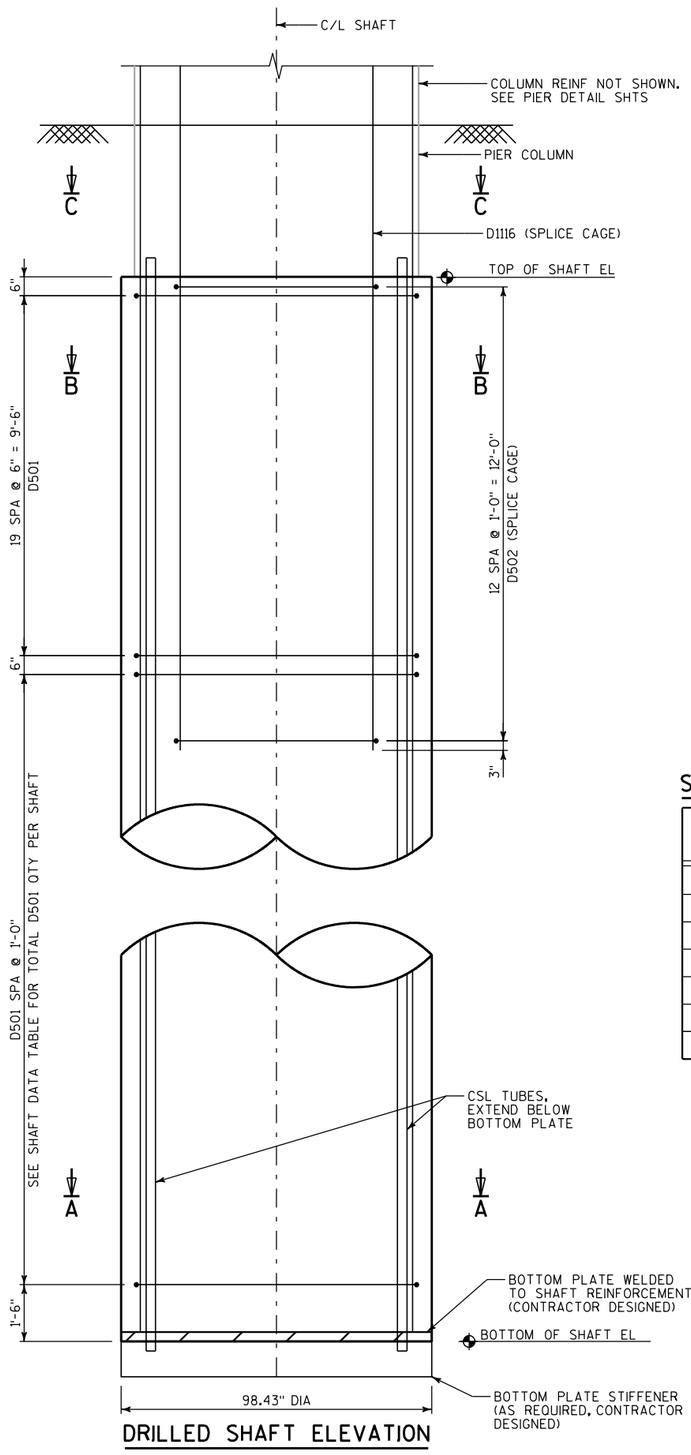
OPTION A
EXCAVATION PLAN
(4 OF 4)

SHEET A8 OF A23

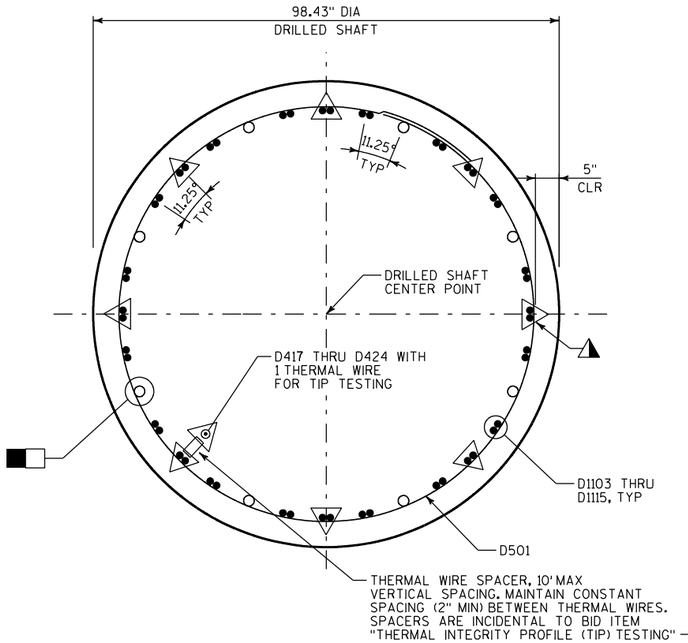
8

8

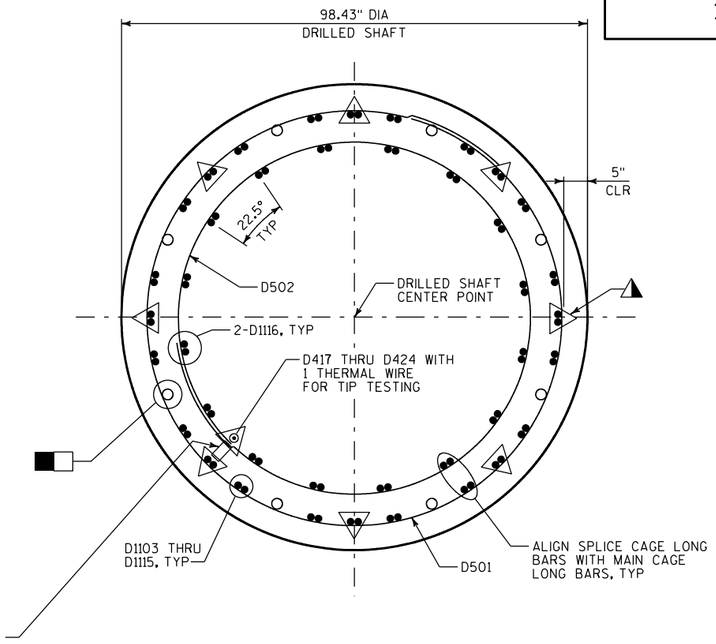
STATE PROJECT NUMBER
1060-33-81



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)
WS01	571007.58	295233.16	769.00	769.00	684.00	85	166.4	94	CSL TUBES/TIP TESTING	500
WS02	571222.15	295213.97	772.00	772.00	694.00	78	152.7	87	CSL TUBES/TIP TESTING	500
WS03	571431.48	295157.45	772.00	772.00	706.00	66	129.2	75	CSL TUBES/TIP TESTING	425
WS04	571575.78	295080.42	774.00	763.00	710.00	53	103.7	62	CSL TUBES/TIP TESTING	325
WS05	571692.35	294986.85	771.00	764.00	708.00	56	109.6	65	CSL TUBES/TIP TESTING	350
WS06	571817.92	294834.08	788.00	782.00	700.00	82	160.5	91	CSL TUBES/TIP TESTING	300
WS07	571904.41	294656.23	787.00	787.00	684.00	103	201.6	112	CSL TUBES/TIP TESTING	375

NOTE

FOR SECTION C-C, SEE SHT A10.

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.

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-40-786

DRAWN BY	JTE	PLANS CK'D.	WRT

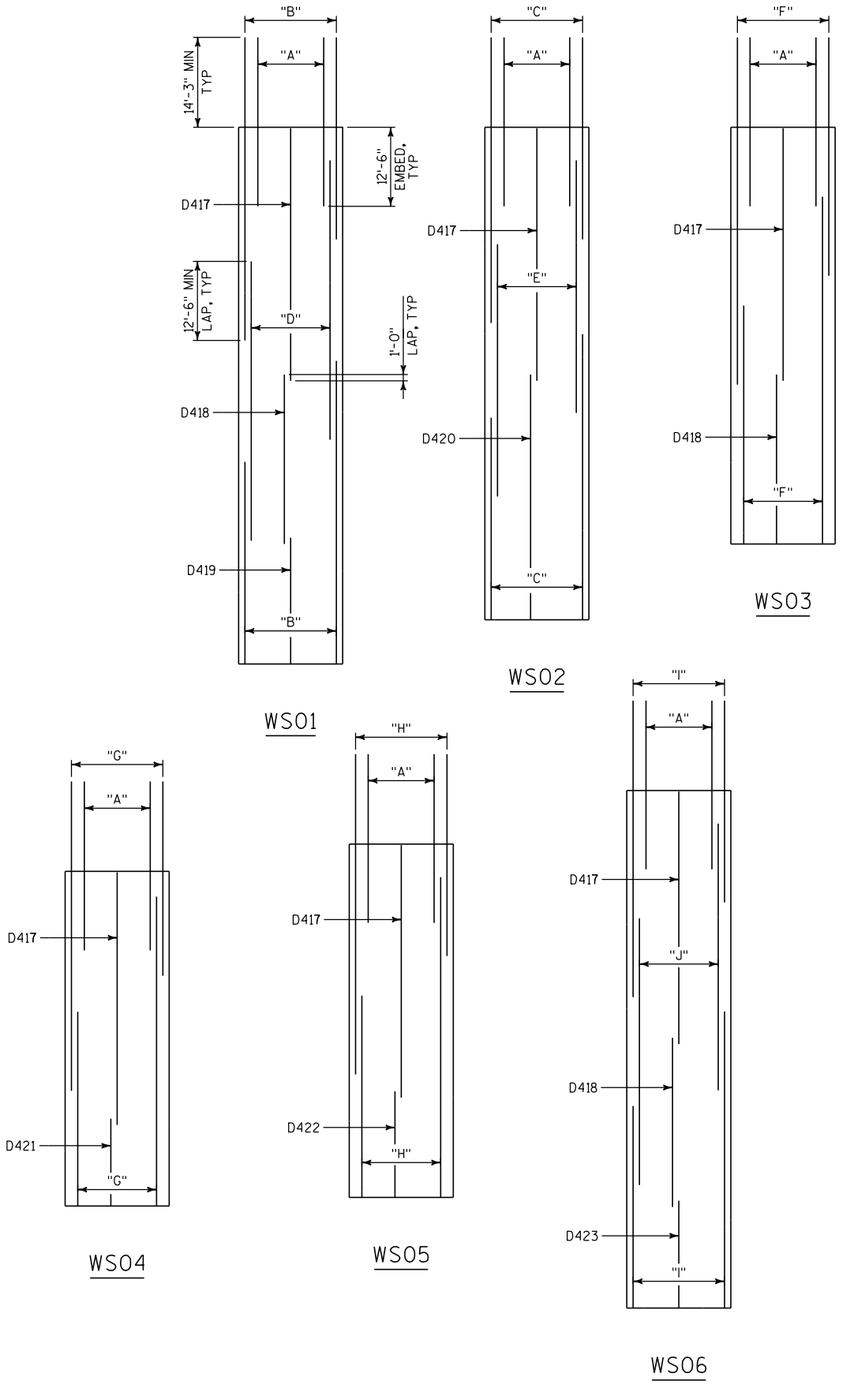
OPTION A
98.43" DRILLED SHAFT DETAILS
(1 OF 2)

SHEET A9 OF A23

8

8

STATE PROJECT NUMBER
1060-33-81



WS01

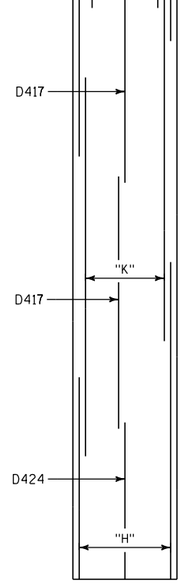
WS02

WS03

WS04

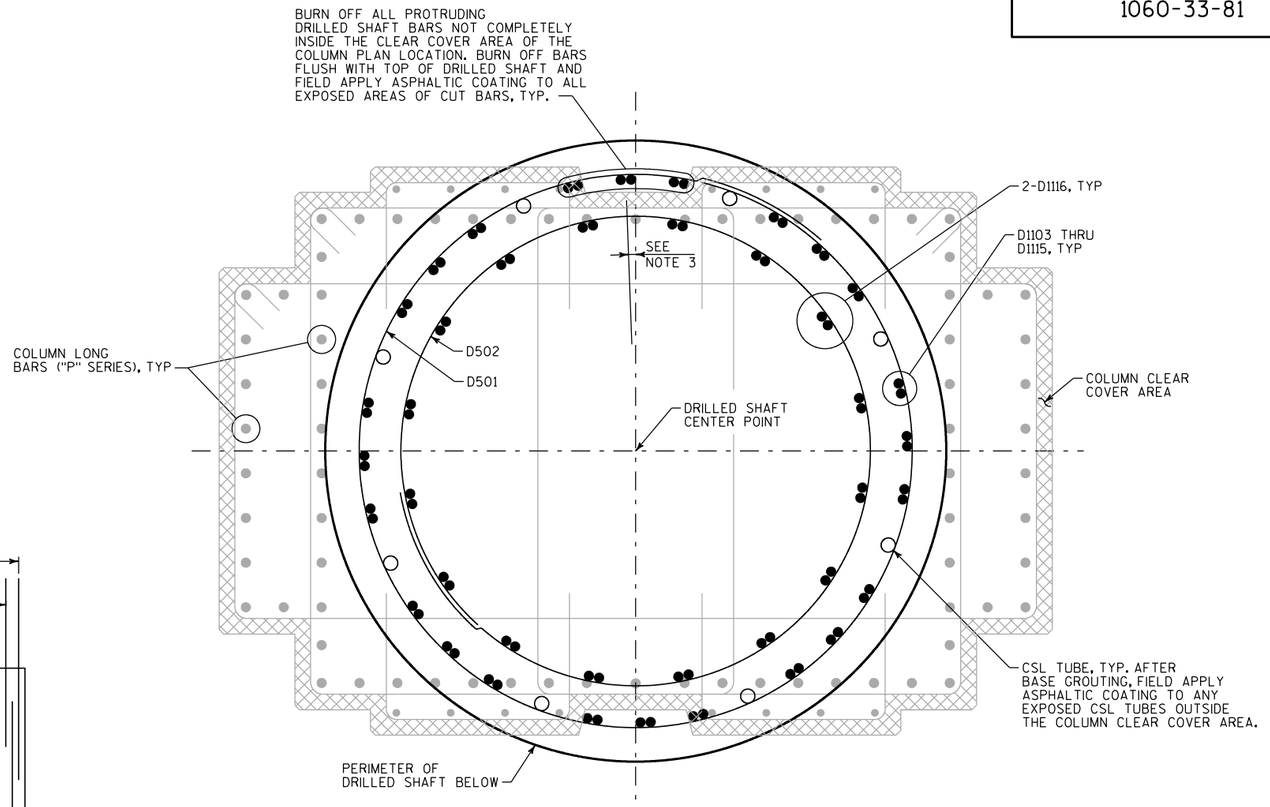
WS05

WS06



WS07

DRILLED SHAFT MAIN REINFORCEMENT SCHEMATIC



SECTION C-C
DRILLED SHAFT CONNECTION DETAIL

"A" = 32-D1116 BARS
"B" = 24-D1103 & 24-D1105 BARS
"C" = 24-D1105 & 24-D1106 BARS
"D" = 48-D1104 BARS
"E" = 48-D1107 BARS
"F" = 24-D1108 & 24-D1109 BARS
"G" = 24-D1110 & 24-D1111 BARS
"H" = 24-D1105 & 24-D1112 BARS
"I" = 24-D1105 & 24-D1113 BARS
"J" = 48-D1114 BARS
"K" = 48-D1115 BARS

NOTES:

1. STAGGER LAPS AS SHOWN SO AS TO LAP NO MORE THAN HALF OF THE BARS PER SECTION.
2. WELDMENT OF BOTTOM PLATE AND REINFORCING BAR CAGE NOT SHOWN FOR CLARITY. SEE DETAIL ON SHEET A9.
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 A9.
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-40-786

DRAWN BY JTE | PLANS CK'D. WRT

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

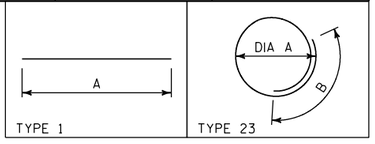
SHEET A10 OF A23

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
D501	U	586	24'-9"	X		23	7'-5"	1'-5"					SHAFT TIE BAR					
D502	U	91	21'-1"	X		23	6'-3"	1'-5"					SPLICE CAGE TIE BAR					
D1103	U	48	48'-0"			1	48'-0"						LONGITUDINAL BAR					
D1104	U	48	44'-3"			1	44'-3"						LONGITUDINAL BAR					
D1105	U	240	32'-0"			1	32'-0"						LONGITUDINAL BAR					
D1106	U	48	45'-3"			1	45'-3"						LONGITUDINAL BAR					
D1107	U	48	40'-0"			1	40'-0"						LONGITUDINAL BAR					
D1108	U	48	55'-0"			1	55'-0"						LONGITUDINAL BAR					
D1109	U	48	37'-9"			1	37'-9"						LONGITUDINAL BAR					
D1110	U	48	49'-0"			1	49'-0"						LONGITUDINAL BAR					
D1111	U	48	30'-9"			1	30'-9"						LONGITUDINAL BAR					
D1112	U	96	50'-9"			1	50'-9"						LONGITUDINAL BAR					
D1113	U	48	47'-0"			1	47'-0"						LONGITUDINAL BAR					
D1114	U	48	42'-3"			1	42'-3"						LONGITUDINAL BAR					
D1115	U	48	60'-0"			1	60'-0"						LONGITUDINAL BAR					
D1116	U	224	26'-9"			1	26'-9"						SPLICE CAGE LONGITUDINAL BAR					
D417	U	8	40'-0"			1	40'-0"						LONGITUDINAL THERMAL BAR					
D418	U	3	26'-10"			1	26'-10"						LONGITUDINAL THERMAL BAR					
D419	U	1	20'-0"			1	20'-0"						LONGITUDINAL THERMAL BAR					
D420	U	1	38'-10"			1	38'-10"						LONGITUDINAL THERMAL BAR					
D421	U	1	13'-10"			1	13'-10"						LONGITUDINAL THERMAL BAR					
D422	U	1	16'-10"			1	16'-10"						LONGITUDINAL THERMAL BAR					
D423	U	1	17'-0"			1	17'-0"						LONGITUDINAL THERMAL BAR					
D424	U	1	24'-10"			1	24'-10"						LONGITUDINAL THERMAL BAR					



BAR MARK BREAKDOWN									
BAR MARK	PIER WS01	PIER WS02	PIER WS03	PIER WS04	PIER WS05	PIER WS06	PIER WS07	TOTAL NO	WEIGHT
D501	94	87	75	62	65	91	112	586	15127
D502	13	13	13	13	13	13	13	91	2001
D1103	48	0	0	0	0	0	0	48	12241
D1104	48	0	0	0	0	0	0	48	11285
D1105	48	48	0	0	48	48	48	240	40804
D1106	0	48	0	0	0	0	0	48	11540
D1107	0	48	0	0	0	0	0	48	10201
D1108	0	0	48	0	0	0	0	48	14026
D1109	0	0	48	0	0	0	0	48	9627
D1110	0	0	0	48	0	0	0	48	12496
D1111	0	0	0	48	0	0	0	48	7842
D1112	0	0	0	0	48	0	48	96	25885
D1113	0	0	0	0	0	48	0	48	11986
D1114	0	0	0	0	0	48	0	48	10775
D1115	0	0	0	0	0	0	48	48	15301
D1116	32	32	32	32	32	32	32	224	31835
D417	1	1	1	1	1	1	2	8	214
D418	1	0	1	0	0	1	0	3	54
D419	1	0	0	0	0	0	0	1	13
D420	0	1	0	0	0	0	0	1	26
D421	0	0	0	1	0	0	0	1	9
D422	0	0	0	0	1	0	0	1	11
D423	0	0	0	0	0	1	0	1	11
D424	0	0	0	0	0	0	1	1	17
TOT WEIGHT	39005	37034	30468	26808	27653	38161	44200	1782	243329

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-40-786

DRAWN BY JTE | PLANS CK'D. WRT

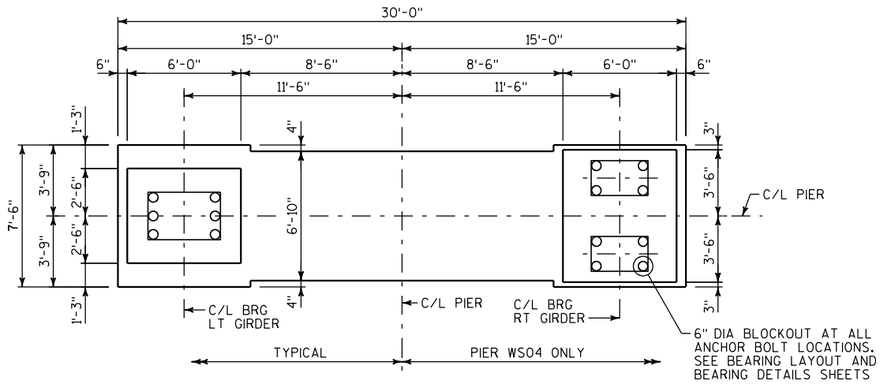
OPTION A
DRILLED SHAFT
REINFORCEMENT
SCHEDULE

SHEET A11 OF A23

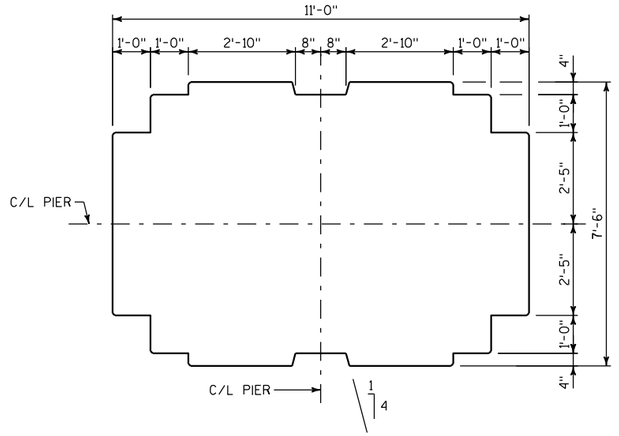
8

8

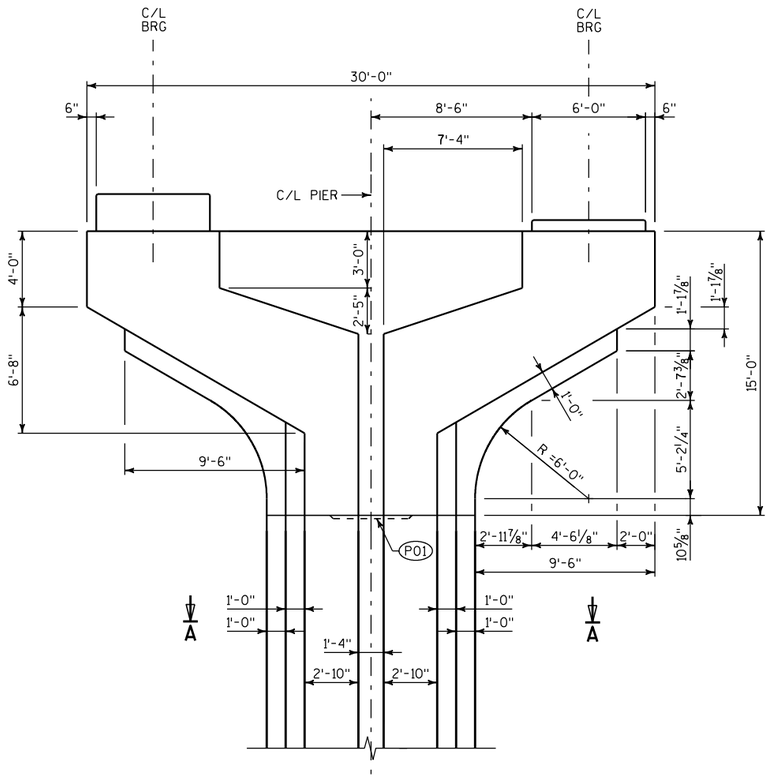
STATE PROJECT NUMBER
1060-33-81



PLAN

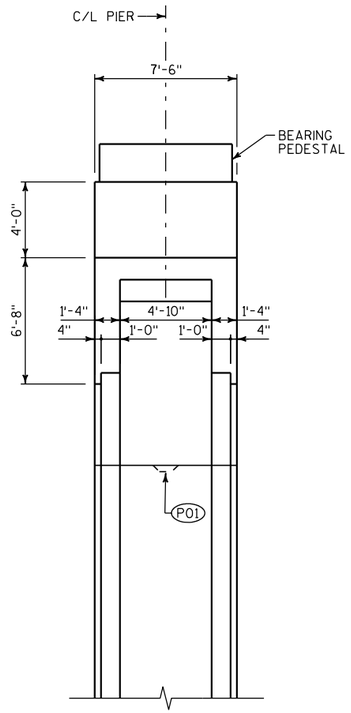


SECTION A-A



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-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

OPTION A
TYPICAL PIER
LAYOUT

SHEET A12 OF A23

8

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option A\B786_080312A_pi.dgn

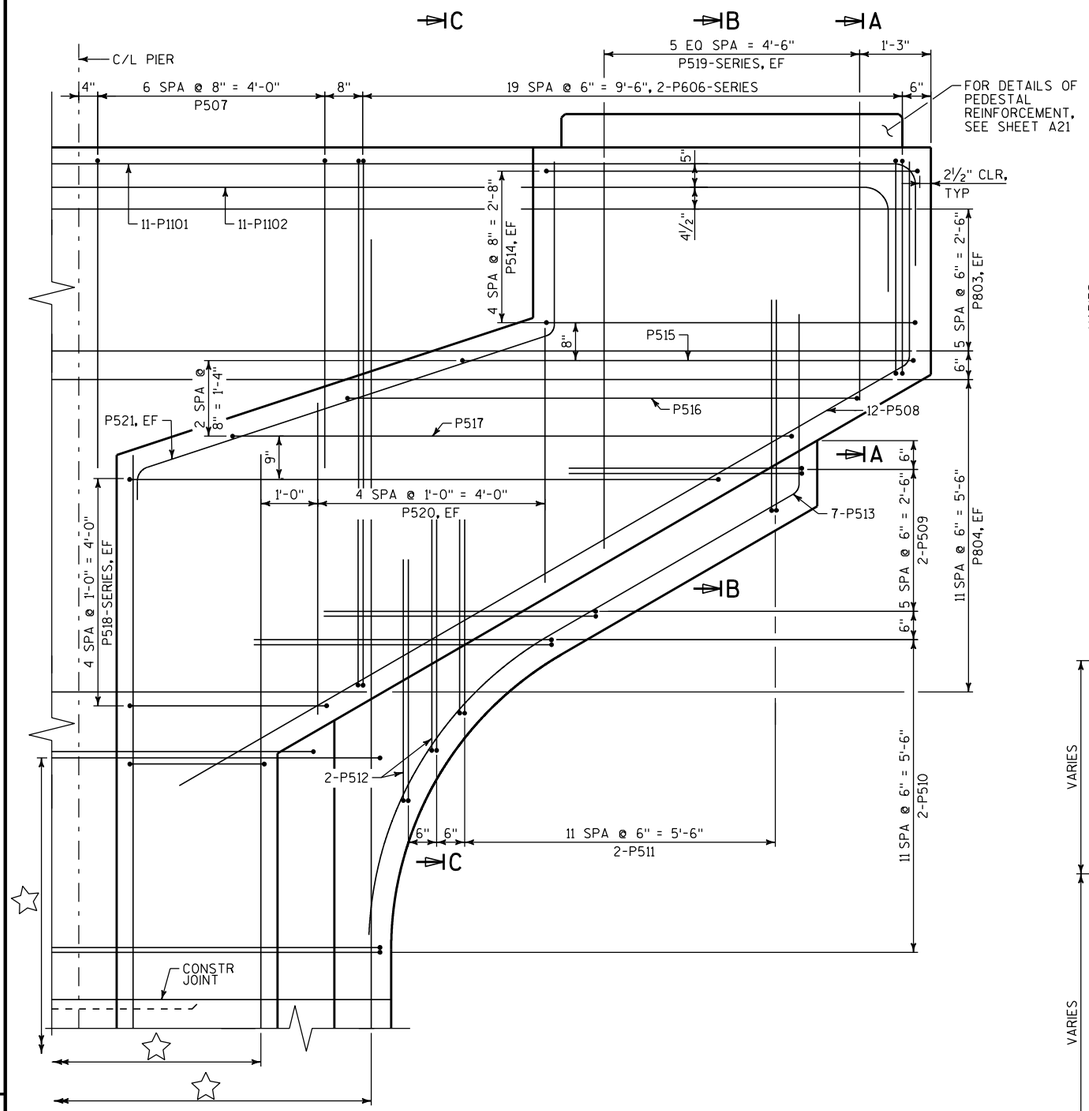
PLOT DATE : 02-MAR-2015 15:18

PLOT BY : MSCGLM

PLOT NAME : B786_080312A_pi

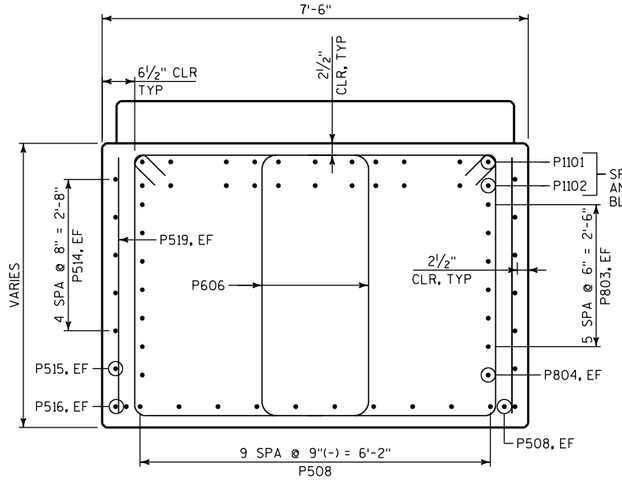
PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



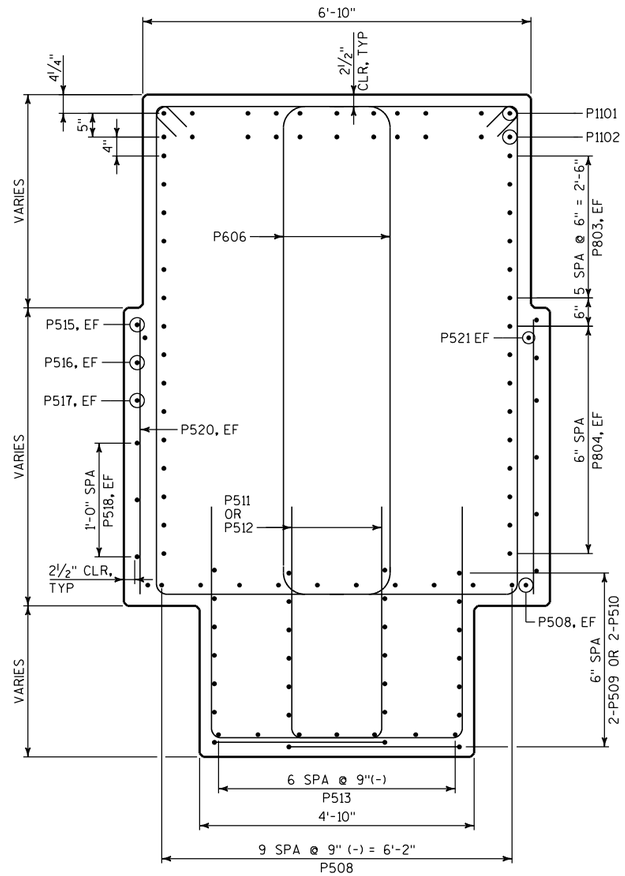
PARTIAL ELEVATION

(REINFORCEMENT IS SYMMETRICAL ABOUT C/L PIER)

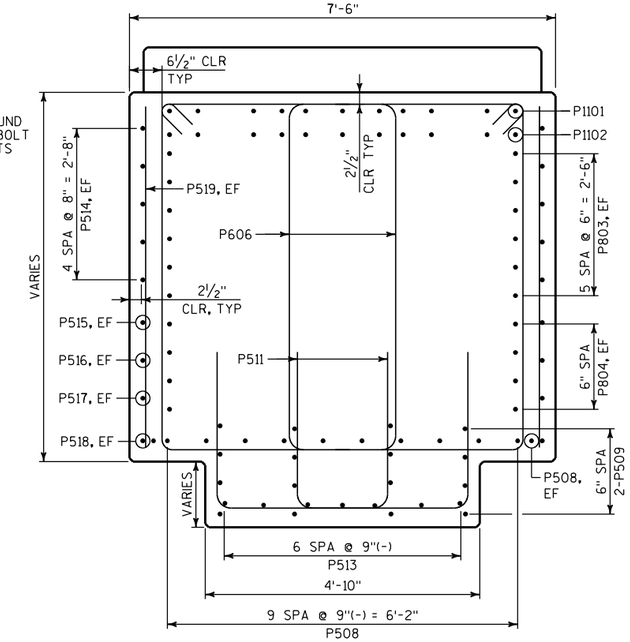


SECTION A-A

(PEDESTAL REINFORCEMENT NOT SHOWN FOR CLARITY)



SECTION C-C



SECTION B-B

(PEDESTAL REINFORCEMENT NOT SHOWN FOR CLARITY)

LEGEND

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY ASW | PLANS CK'D. WRT

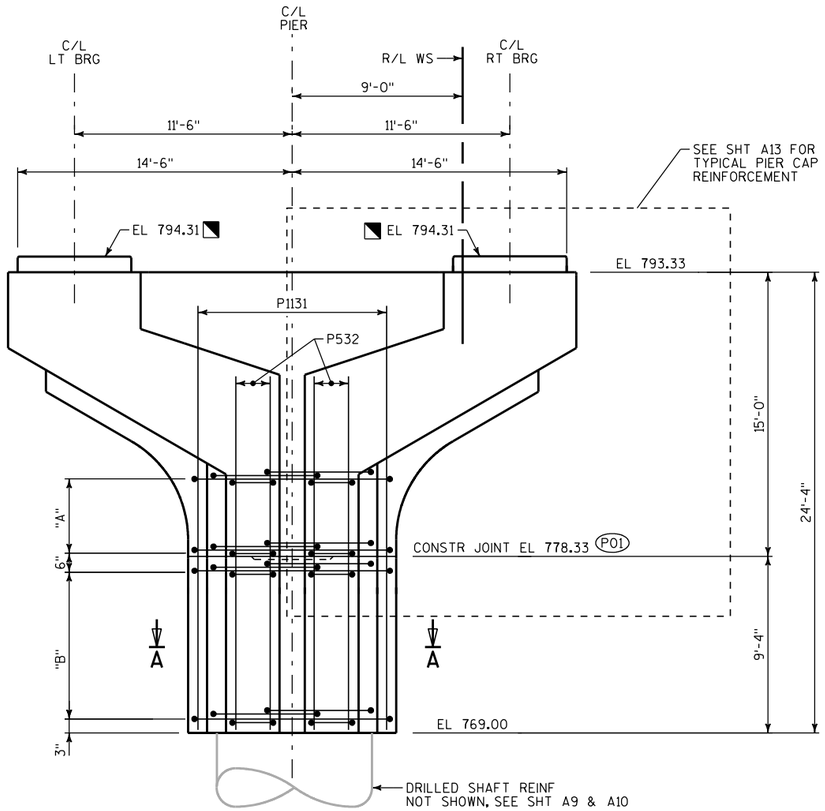
OPTION A
TYPICAL PIER
CAP REINFORCEMENT

SHEET A13 OF A23

8

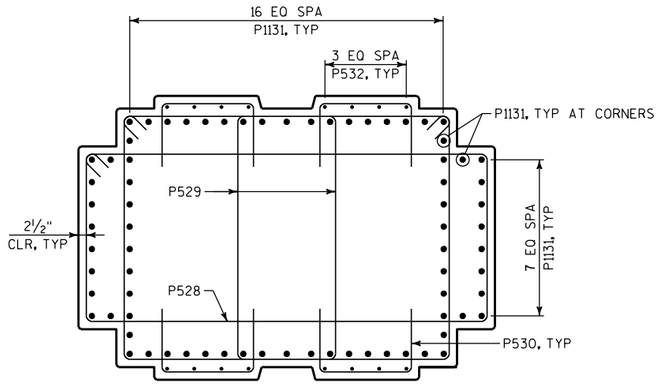
8

STATE PROJECT NUMBER
1060-33-81



ELEVATION

"A" = 9 SPA @ 6", P528, 2-P529, 4-P530
"B" = 18 SPA @ 6", P528, 2-P529, 4-P530



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-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

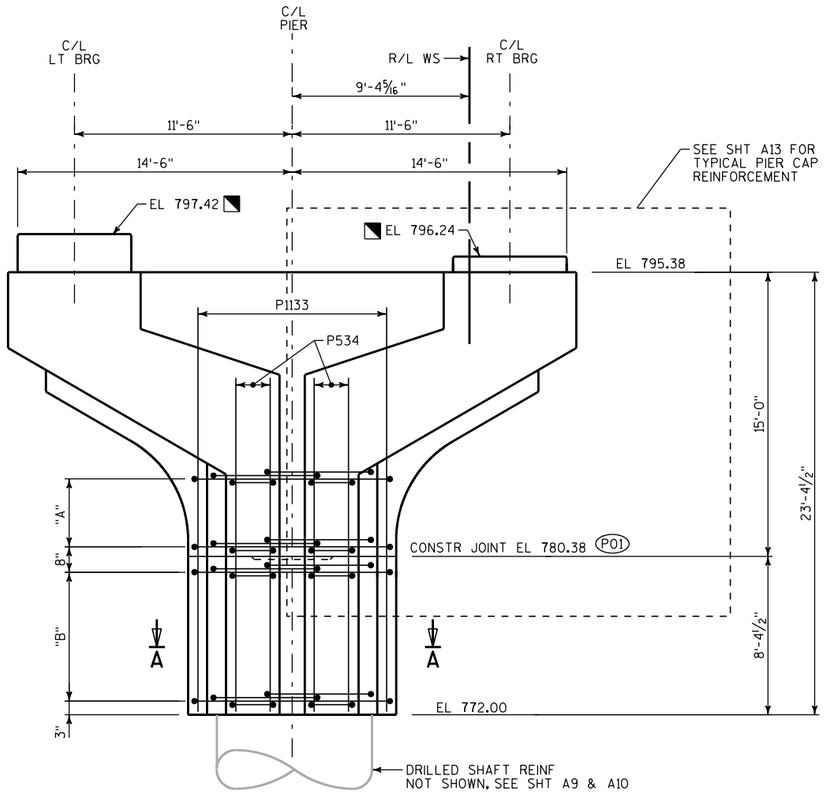
OPTION A
PIER WS01
DETAILS

SHEET A14 OF A23

8

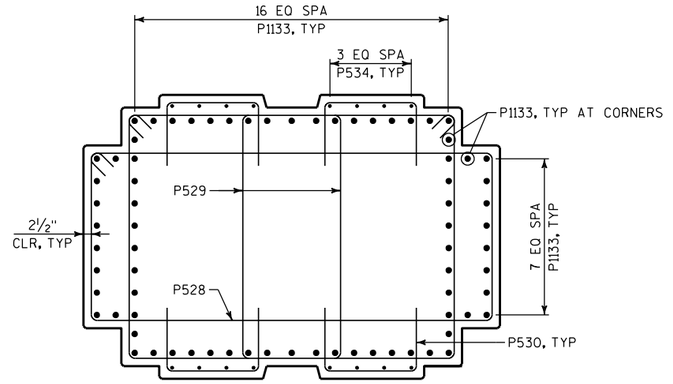
8

STATE PROJECT NUMBER
1060-33-81



ELEVATION

"A" = 8 SPA @ 6", P528, 2-P529, 4-P530
"B" = 16 SPA @ 6", P528, 2-P529, 4-P530



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-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

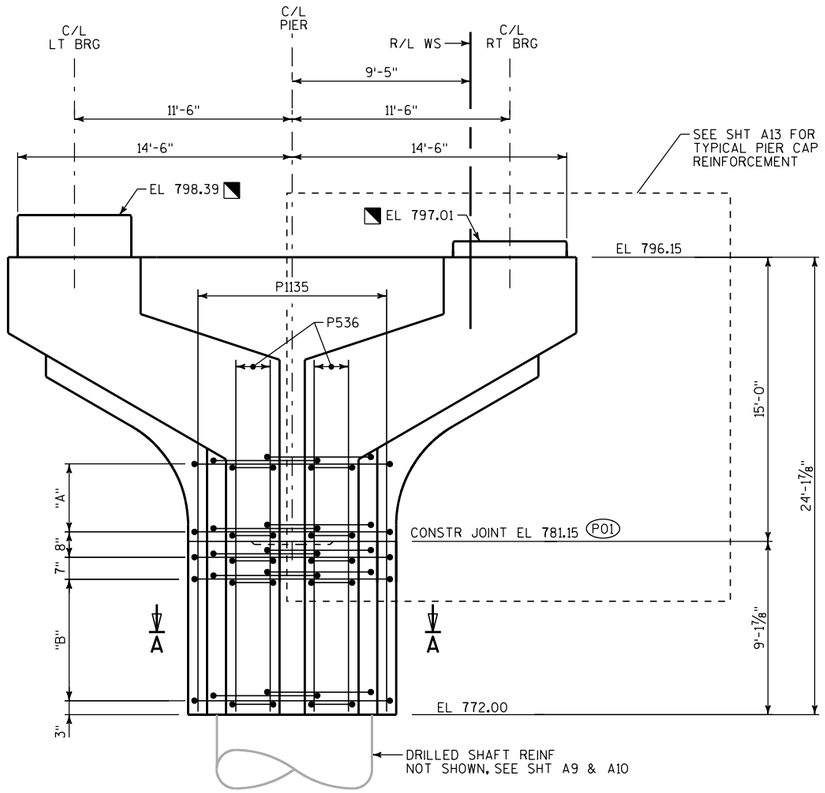
OPTION A
PIER WS02
DETAILS

SHEET A15 OF A23

8

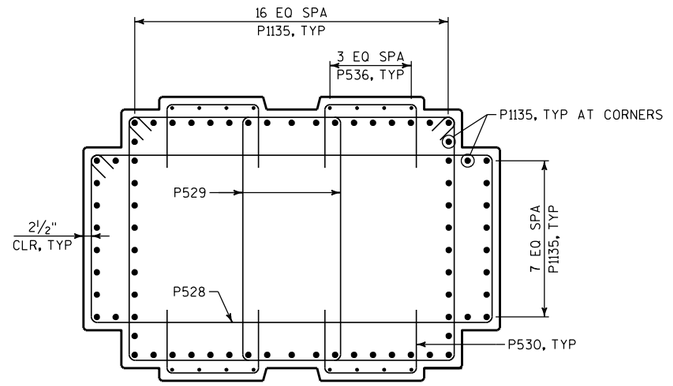
8

STATE PROJECT NUMBER
1060-33-81



ELEVATION

"A" = 8 SPA @ 6", P528, 2-P529, 4-P530
"B" = 16 SPA @ 6", P528, 2-P529, 4-P530



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-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

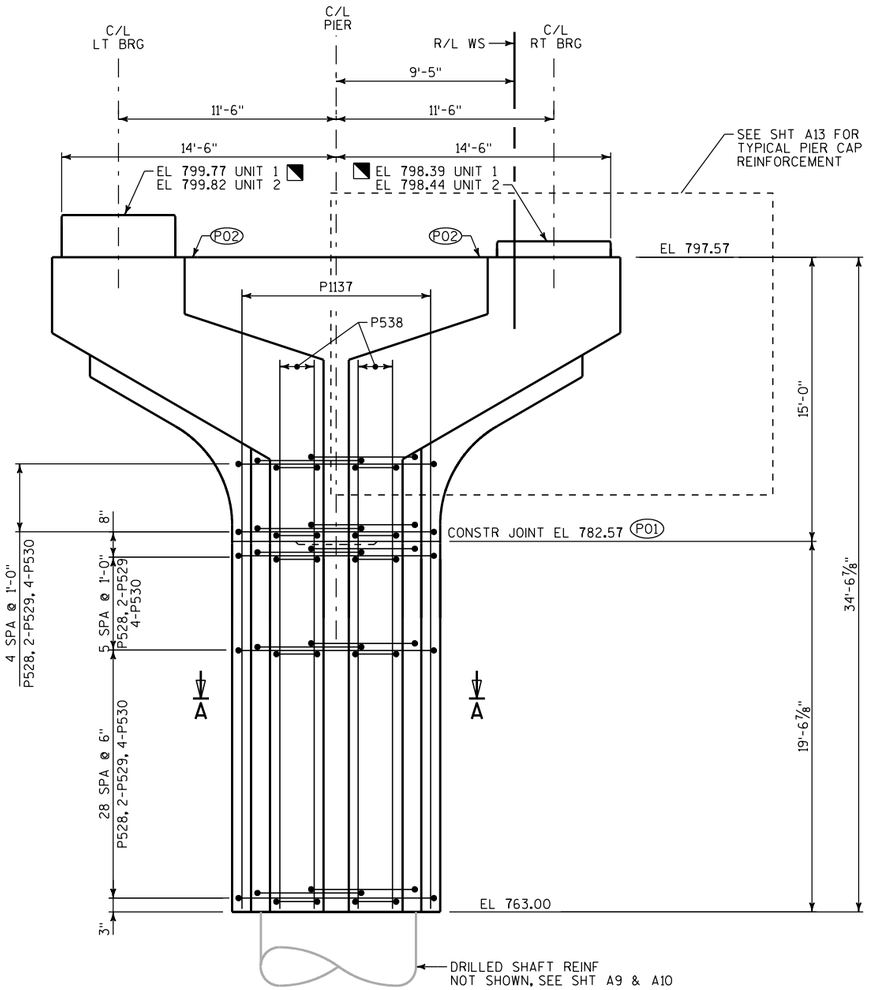
OPTION A
PIER WS03
DETAILS

SHEET A16 OF A23

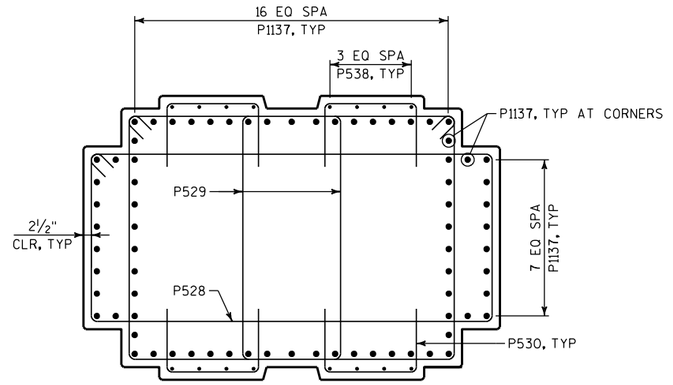
8

8

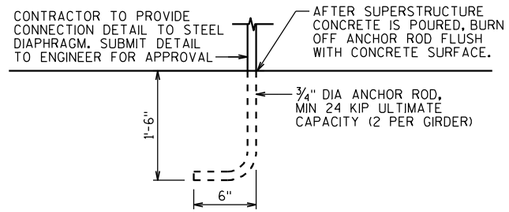
STATE PROJECT NUMBER
1060-33-81



ELEVATION



SECTION A-A



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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

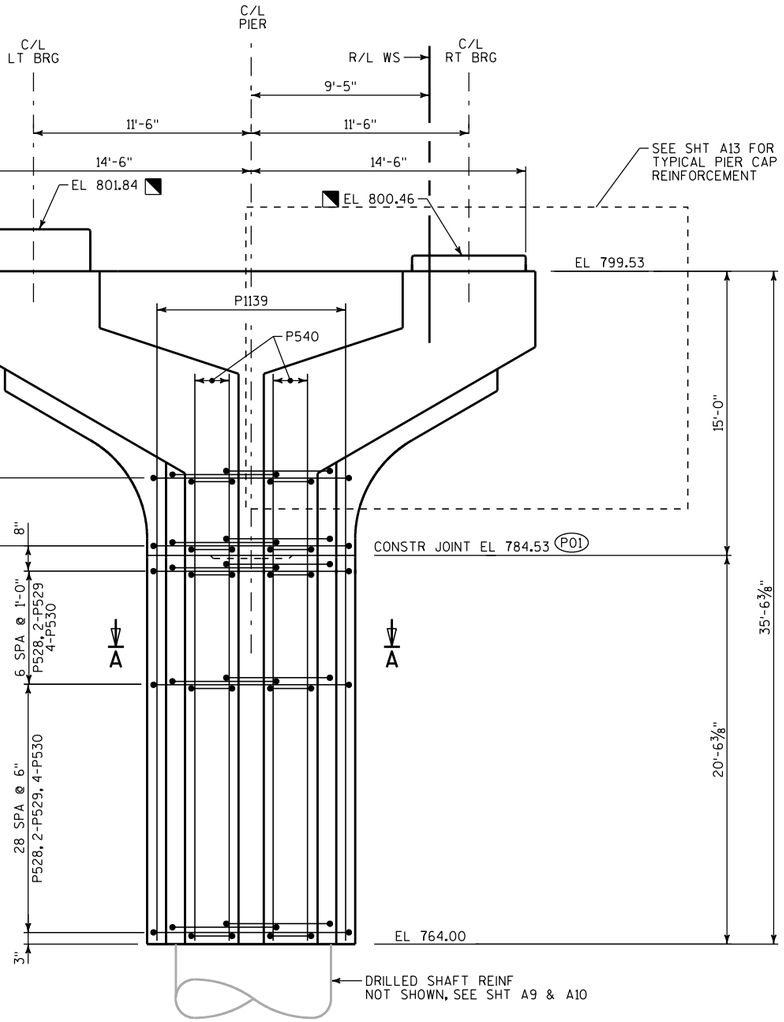
OPTION A
PIER WS04
DETAILS

SHEET A17 OF A23

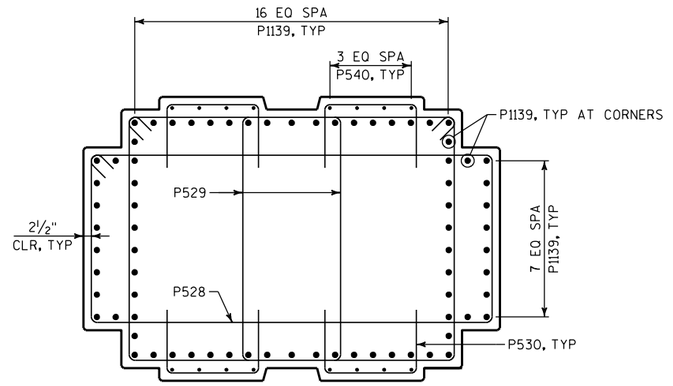
8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option A\B786_080317A_pi.dgn
PLOT DATE : 05-MAR-2015 11:19
PLOT BY : MSCGLM
PLOT NAME : B786_080317A_pi
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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

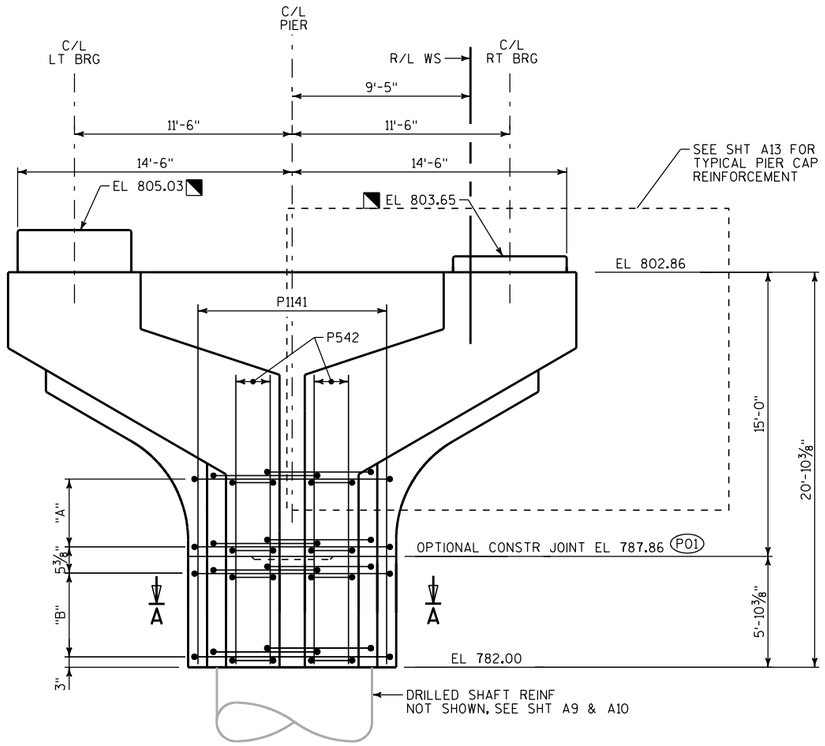
OPTION A
PIER WS05
DETAILS

SHEET A18 OF A23

8

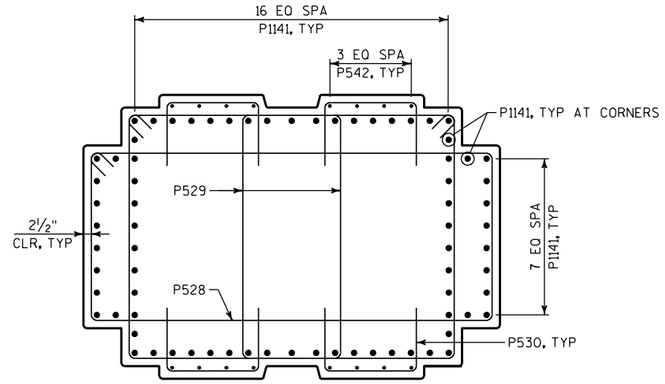
8

STATE PROJECT NUMBER
1060-33-81



ELEVATION

"A" = 8 SPA @ 6", P528, 2-P529, 4-P530
"B" = 11 SPA @ 6", P528, 2-P529, 4-P530



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

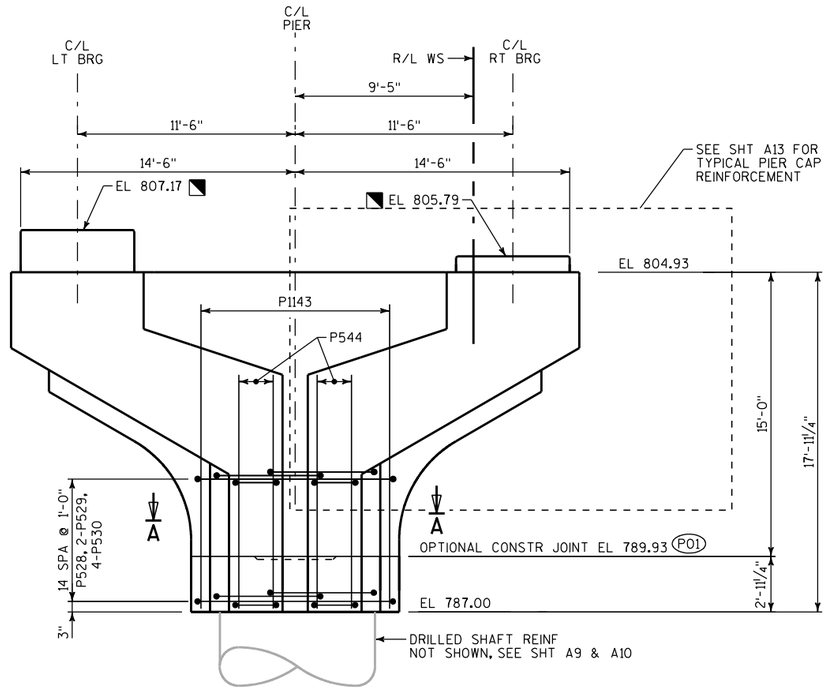
STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

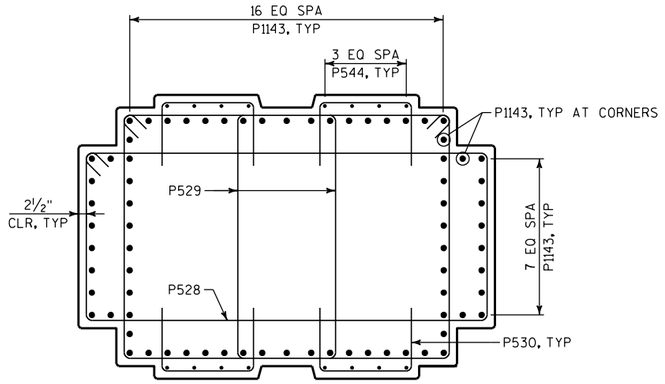
OPTION A
PIER WS06
DETAILS

SHEET A19 OF A23

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-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

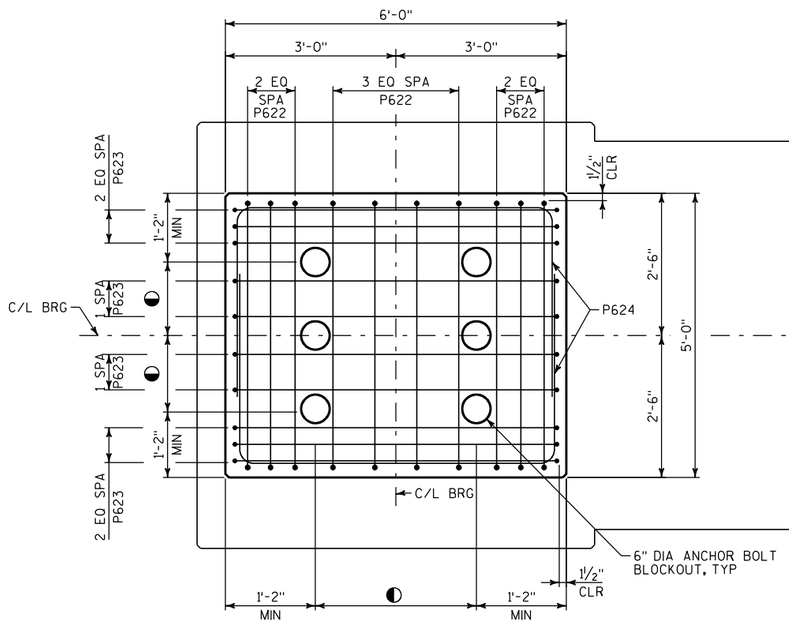
OPTION A
PIER WS07
DETAILS

SHEET A20 OF A23

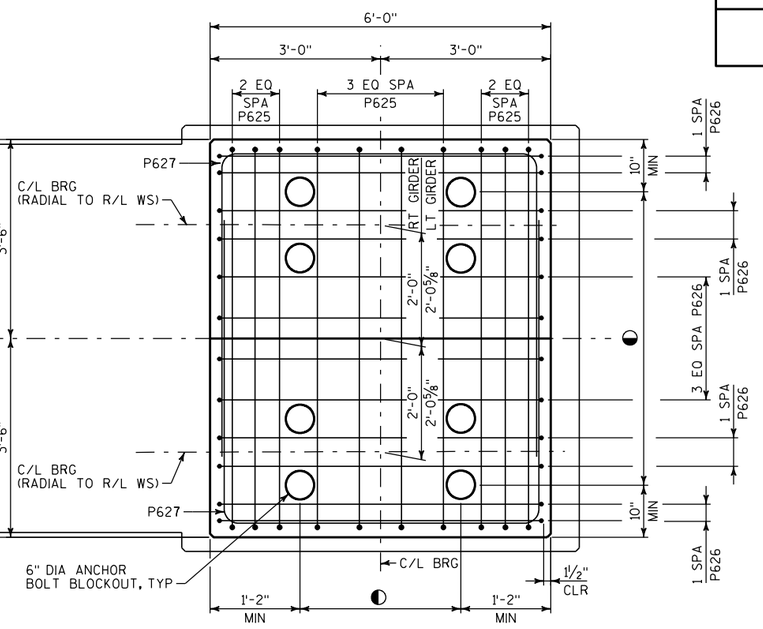
8

8

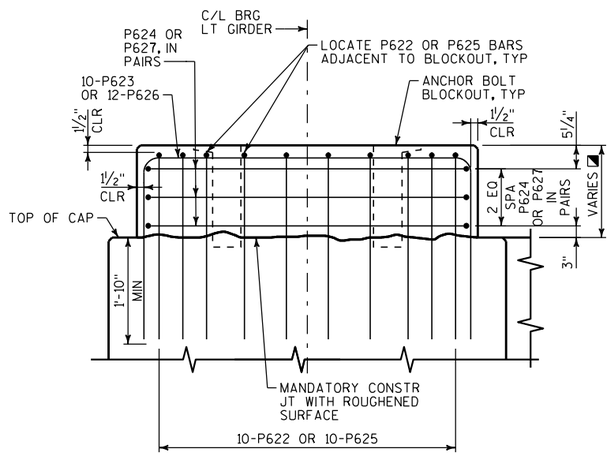
STATE PROJECT NUMBER
1060-33-81



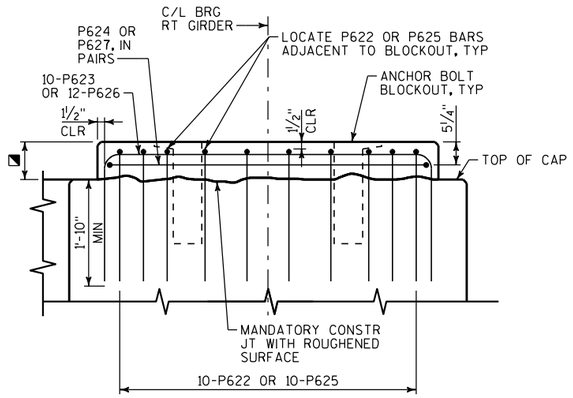
PEDESTAL PLAN
(TYPICAL PIER)



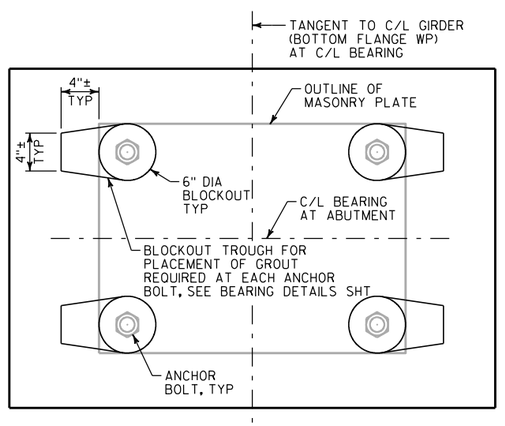
PEDESTAL PLAN
(PIER WS04 ONLY)



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-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

OPTION A
TYPICAL PEDESTAL REINFORCEMENT

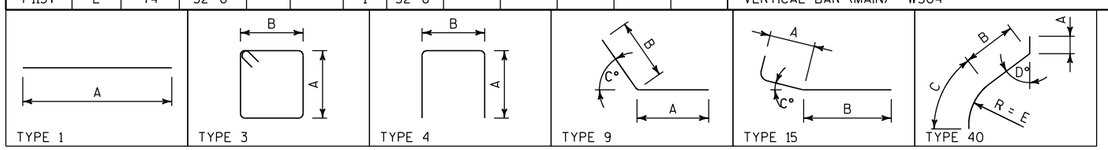
SHEET A21 OF A23

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option A\B786_080321A_pi.dgn
PLOT DATE : 02-MAR-2015 15:18
PLOT BY : MSCGLM
PLOT NAME : B786_080321A_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	77	32'-8"	X		4	2'-0"	29'-4"					TOP TIE BAR					
P1102	E	77	31'-10"	X		4	2'-0"	28'-6"					BOTTOM TIE BAR					
P803	E	84	29'-4"			1	29'-4"						SKIN STEEL - TOP OF CAP					
P804	E	168	19'-5"		X	1	19'-5"						SKIN STEEL - MIDDLE OF CAP (SERIES)					
P606	E	560	21'-11"	X	X	3	4'-2"	6'-4½"					STIRRUPS - TOP EDGES OF CAP (SERIES)					
P507	E	98	17'-11"	X		4	6'-4"	5'-6"					TIE - TOP CENTER OF CAP					
P508	E	168	18'-9"	X		9	3'-6"	15'-3"	60				OUTSIDE FACE OF PIER CAP - TOP					
P509	E	168	11'-3"	X		4	4'-3"	3'-0"					HORIZONTAL TIE - BOTTOM OF CAP (TOP SEC)					
P510	E	308	13'-3"	X		4	5'-3"	3'-0"					HORIZONTAL TIE - BOTTOM OF CAP (BOT SEC)					
P511	E	336	10'-3"	X		4	3'-9"	3'-0"					VERTICAL TIE - BOTTOM OF CAP (TOP SEC)					
P512	E	56	11'-3"	X		4	4'-3"	3'-0"					VERTICAL TIE - BOTTOM OF CAP (BOT SEC)					
P513	E	98	14'-5"	X		40	3'-0"	5'-0"	6'-5"	60	6'-5"		OUTSIDE FACE OF PIER CAP - BOT					
P514	E	140	16'-5"	X		4	5'-1"	6'-6"					TIE - ARCHITECTURAL REVEAL - HORIZ - TOP					
P515	E	28	18'-1"	X		4	5'-1"	8'-2"					TIE - ARCHITECTURAL REVEAL - HORIZ - MID					
P516	E	28	18'-10"	X		4	5'-1"	8'-11"					TIE - ARCHITECTURAL REVEAL - HORIZ - MID					
P517	E	28	19'-9"	X		4	5'-1"	9'-10"					TIE - ARCHITECTURAL REVEAL - HORIZ - MID					
P518	E	140	11'-4"	X	X	4	2'-4"	6'-10½"					TIE - ARCHITECTURAL REVEAL - HORIZ - BOT (SERIES)					
P519	E	168	5'-0"		X	1	5'-0"						ARCHITECTURAL REVEAL - VERT - TOP (SERIES)					
P520	E	140	4'-11"		X	1	4'-11"						ARCHITECTURAL REVEAL - VERT - MID (SERIES)					
P521	E	28	11'-6"	X		15	7'-9"	3'-0"	72				ARCHITECTURAL REVEAL - VERT - INSIDE FACE					
P622	E	120	10'-11"	X		4	3'-3"	4'-9"					PEDESTAL REINFORCEMENT - TYP - TOP FACE					
P623	E	108	11'-9"	X		4	3'-2"	5'-9"					PEDESTAL REINFORCEMENT - TYP - TOP FACE					
P624	E	24	12'-5"	X		4	3'-7"	5'-7"					PEDESTAL REINFORCEMENT - TYP - SIDE					
P625	E	20	12'-11"	X		4	3'-3"	6'-9"					PEDESTAL REINFORCEMENT - WS04 - TOP FACE					
P626	E	24	11'-9"	X		4	3'-2"	5'-9"					PEDESTAL REINFORCEMENT - WS04 - TOP FACE					
P627	E	8	14'-5"	X		4	4'-7"	5'-7"					PEDESTAL REINFORCEMENT - WS04 - SIDE					
P528	E	213	30'-7"	X		3	10'-7"	4'-5"					COLUMN TRANSVERSE (MAIN)					
P529	E	426	24'-7"	X		3	6'-5"	5'-7"					COLUMN TRANSVERSE (MAIN)					
P530	E	852	5'-6"	X		4	1'-8"	2'-5"					COLUMN TRANSVERSE (SECONDARY)					
P1131	E	74	22'-6"			1	22'-6"						VERTICAL BAR (MAIN) - WS01					
P532	E	16	18'-9"			1	18'-9"						VERTICAL BAR (SECONDARY) - WS01					
P1133	E	74	21'-6"			1	21'-6"						VERTICAL BAR (MAIN) - WS02					
P534	E	16	17'-9"			1	17'-9"						VERTICAL BAR (SECONDARY) - WS02					
P1135	E	74	22'-0"			1	22'-0"						VERTICAL BAR (MAIN) - WS03					
P536	E	16	18'-6"			1	18'-6"						VERTICAL BAR (SECONDARY) - WS03					
P1137	E	74	32'-6"			1	32'-6"						VERTICAL BAR (MAIN) - WS04					



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-40-786

DRAWN BY PAK | PLANS CK'D. WRT

OPTION A
PIER REINFORCEMENT
SCHEDULE (1 OF 2)

SHEET A22 OF A23

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
P538	E	16	29'-0"			1	29'-0"						VERTICAL BAR (SECONDARY) - WSO4					
P1139	E	74	33'-6"			1	33'-6"						VERTICAL BAR (MAIN) - WSO5					
P540	E	16	30'-0"			1	30'-0"						VERTICAL BAR (SECONDARY) - WSO5					
P1141	E	74	18'-9"			1	18'-9"						VERTICAL BAR (MAIN) - WSO6					
P542	E	16	15'-3"			1	15'-3"						VERTICAL BAR (SECONDARY) - WSO6					
P1143	E	74	15'-9"			1	15'-9"						VERTICAL BAR (MAIN) - WSO7					
P544	E	16	12'-3"			1	12'-3"						VERTICAL BAR (SECONDARY) - WSO7					

BAR MARK BREAKDOWN

MARK	PIER WSO1	PIER WSO2	PIER WSO3	PIER WSO4	PIER WSO5	PIER WSO6	PIER WSO7	TOTAL NO	WEIGHT
P1101	11	11	11	11	11	11	11	77	13364
P1102	11	11	11	11	11	11	11	77	13023
P803	12	12	12	12	12	12	12	84	6579
P804	24	24	24	24	24	24	24	168	8710
P606	80	80	80	80	80	80	80	560	18435
P507	14	14	14	14	14	14	14	98	1831
P508	24	24	24	24	24	24	24	168	3285
P509	24	24	24	24	24	24	24	168	1971
P510	44	44	44	44	44	44	44	308	4256
P511	48	48	48	48	48	48	48	336	3592
P512	8	8	8	8	8	8	8	56	657
P513	14	14	14	14	14	14	14	98	1474
P514	20	20	20	20	20	20	20	140	2397
P515	4	4	4	4	4	4	4	28	528
P516	4	4	4	4	4	4	4	28	550
P517	4	4	4	4	4	4	4	28	577
P518	20	20	20	20	20	20	20	140	1655
P519	24	24	24	24	24	24	24	168	876
P520	20	20	20	20	20	20	20	140	718
P521	4	4	4	4	4	4	4	28	336
P622	20	20	20	0	20	20	20	120	1968
P623	18	18	18	0	18	18	18	108	1906
P624	4	4	4	0	4	4	4	24	448
P625	0	0	0	20	0	0	0	20	388
P626	0	0	0	24	0	0	0	24	424
P627	0	0	0	8	0	0	0	8	173
P528	29	26	27	39	40	21	31	213	6794
P529	58	52	54	78	80	42	62	426	10923
P530	116	104	108	156	160	84	124	852	4887
P1131	74	0	0	0	0	0	0	74	8846

BAR MARK BREAKDOWN

MARK	PIER WSO1	PIER WSO2	PIER WSO3	PIER WSO4	PIER WSO5	PIER WSO6	PIER WSO7	TOTAL NO	WEIGHT
P532	16	0	0	0	0	0	0	16	313
P1133	0	74	0	0	0	0	0	74	8453
P534	0	16	0	0	0	0	0	16	296
P1135	0	0	74	0	0	0	0	74	8650
P536	0	0	16	0	0	0	0	16	309
P1137	0	0	0	74	0	0	0	74	12778
P538	0	0	0	16	0	0	0	16	484
P1139	0	0	0	0	74	0	0	74	13171
P540	0	0	0	0	16	0	0	16	501
P1141	0	0	0	0	0	74	0	74	7372
P542	0	0	0	0	0	16	0	16	254
P1143	0	0	0	0	0	0	74	74	6192
P544	0	0	0	0	0	0	16	16	204
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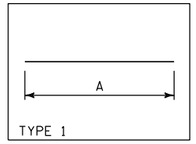
STATE PROJECT NUMBER

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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

OPTION A
PIER REINFORCEMENT
SCHEDULE (2 OF 2)

SHEET A23 OF A23

8

8

STATE PROJECT NUMBER
1060-33-81

ESTIMATED QUANTITIES - PIER OPTION B

ITEM CATEGORY	ITEM NO.	BID ITEMS	UNIT	PIER WS01	PIER WS02	PIER WS03	PIER WS04	PIER WS05	PIER WS06	PIER WS07	TOTAL
2002	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-40-786	LS	---	---	---	---	---	---	---	1
2002	209.0100	BACKFILL GRANULAR	CY	---	---	---	10	10	10	30	60
2002	502.0100	CONCRETE MASONRY BRIDGES	CY	110.0	109.0	111.0	278.0	282.0	102.0	219.0	1,211
2002	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	39,005	37,035	30,470	14,000	14,820	38,160	14,402	187,892
2002	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	25,073	24,345	24,660	38,525	31,955	22,690	24,849	192,097
2002	511.1200.0001	TEMPORARY SHORING B-40-786	SF	---	---	---	---	675	---	---	675
2002	550.2168	PILING CIP CONCRETE 16 X 0.50-INCH	LF	---	---	---	1,540	1,350	---	2,340	5,230
2002	SPV.0060.4110	PILE DYNAMIC ANALYZER (PDA) TESTING	EACH	---	---	---	2	2	2	2	8
2002	SPV.0060.4115	PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH	---	---	---	2	2	2	2	8
2002	SPV.0060.4150	DRILLED FOUNDATION SHAFT BASE GROUTING	EACH	1	1	1	---	---	1	---	4
2002	SPV.0060.4160	THERMAL INTEGRITY PROFILER (TIP) TESTING DRILLED FOUNDATION SHAFT 98.43-INCH	EACH	1	1	1	---	---	1	---	4
2002	SPV.0075.4200	OBSTRUCTIONS DRILLED FOUNDATION SHAFT	HRS	4	4	4	---	---	4	---	16
2002	SPV.0090.4435	DRILLED FOUNDATION SHAFT 98.43-INCH	LF	85	78	66	---	---	82	---	311

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

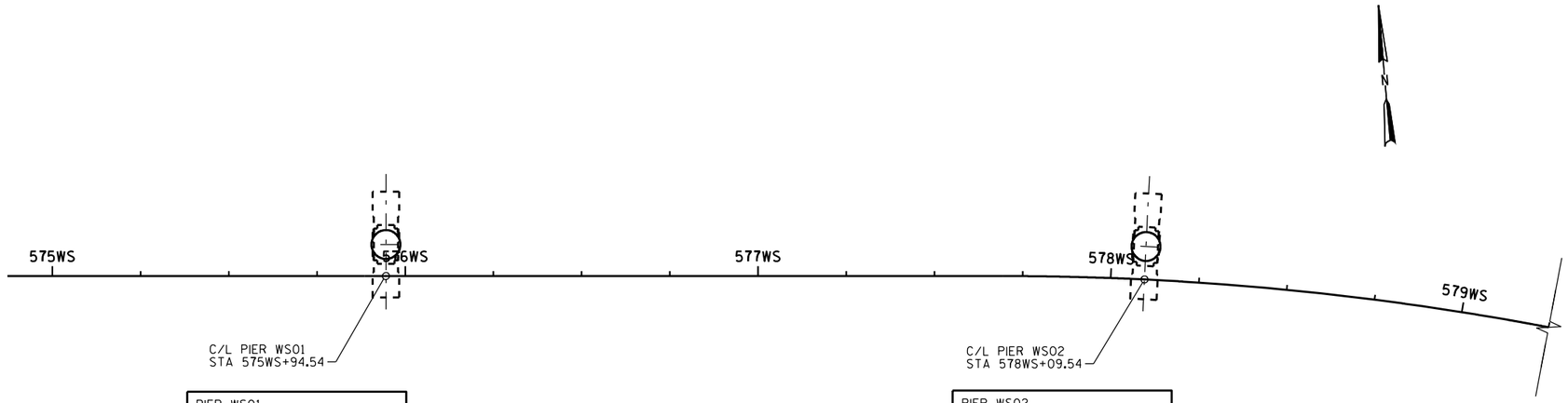
STRUCTURE B-40-786

DRAWN BY GLM | PLANS CK'D. WRT

OPTION B QUANTITIES

SHEET B1 OF B26

STATE PROJECT NUMBER
1060-33-81



8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

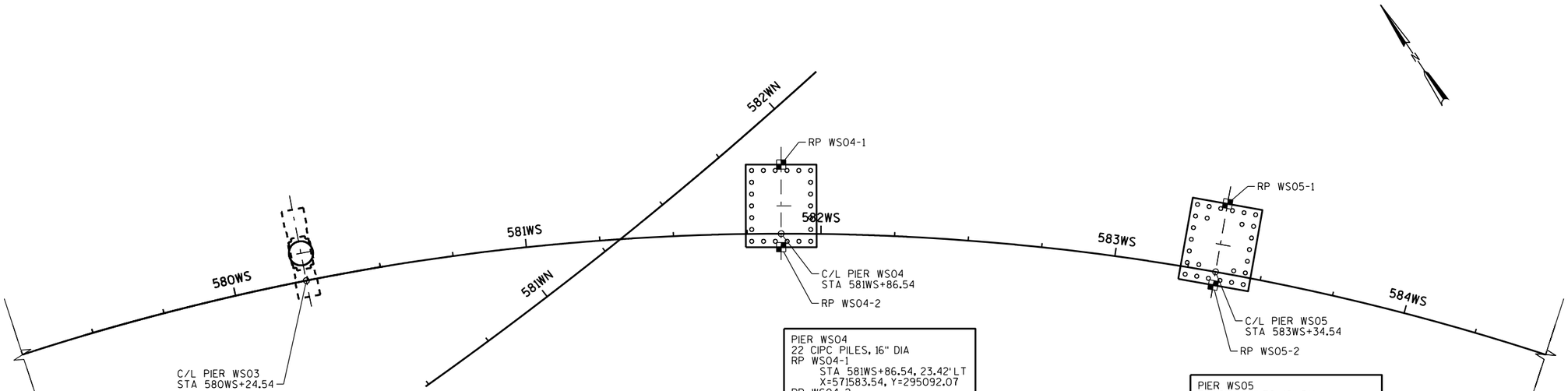
DRAWN BY	GLM	PLANS CK'D.	WRT

OPTION B
FOUNDATION
LAYOUT (1 OF 3)

SHEET B2 OF B26

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option B\B786_080102B_f1.dgn
PLOT DATE : 02-MAR-2015 15:20
PLOT BY : MSCGLM
PLOT NAME : B786_080102B_f1
PLOT SCALE : 40:1

STATE PROJECT NUMBER
1060-33-81



PIER WS03
DRILLED SHAFT, 98.43" DIA
CENTER POINT:
STA 580WS+24.54, 9.42'LT
X=571431.48, Y=295157.45
TOP OF SHAFT EL 772.00
BOTTOM OF SHAFT EL 706.00

PIER WS04
22 CIPC PILES, 16" DIA
RP WS04-1
STA 581WS+86.54, 23.42'LT
X=571583.54, Y=295092.07
RP WS04-2
STA 581WS+86.54, 4.58'RT
X=571568.02, Y=295068.77
BOTTOM OF FOOTING 754.00
ESTIMATED PILE LENGTH 70 FT

PIER WS05
30 CIPC PILES, 16" DIA
RP WS05-1
STA 583WS+34.54, 23.42'LT
X=571702.05, Y=294996.95
RP WS05-2
STA 583WS+34.54, 4.58'RT
X=571682.65, Y=294976.76
BOTTOM OF FOOTING 754.00
ESTIMATED PILE LENGTH 45 FT

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

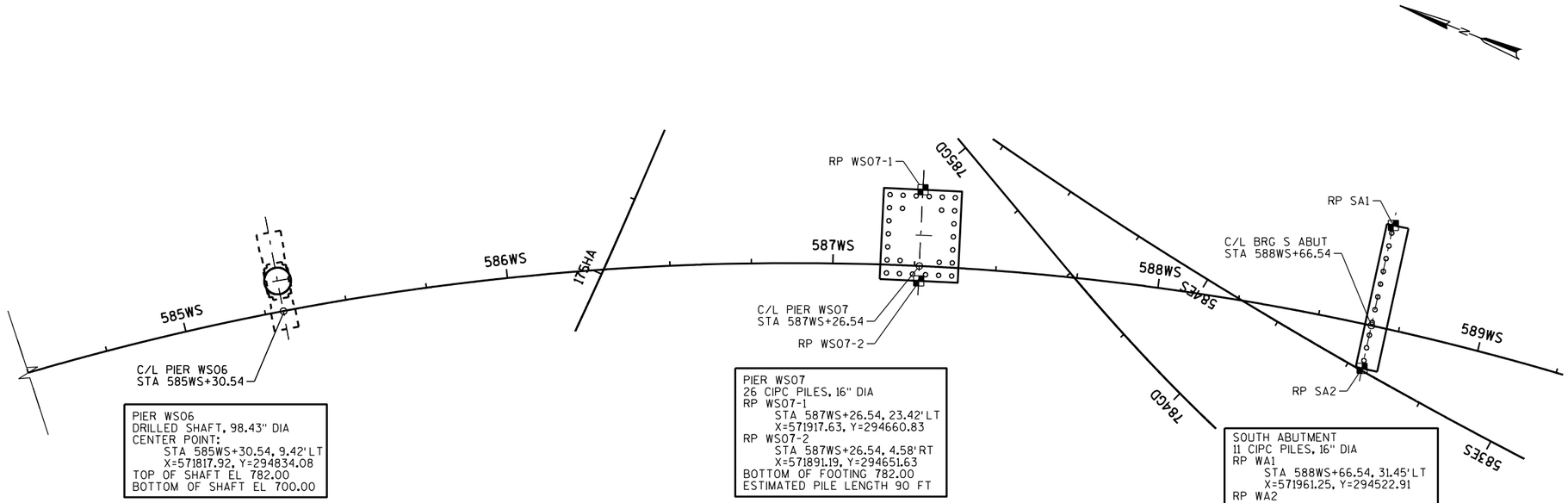
STRUCTURE B-40-786

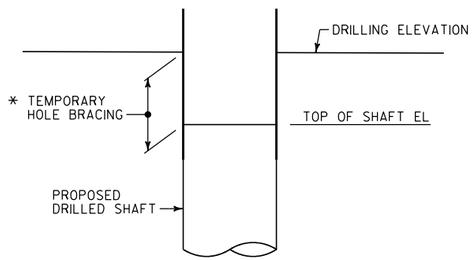
DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
FOUNDATION
LAYOUT (2 OF 3)

SHEET B3 OF B26

STATE PROJECT NUMBER
1060-33-81





TEMPORARY HOLE BRACING

AT PIER WS06

* 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-40-786".

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

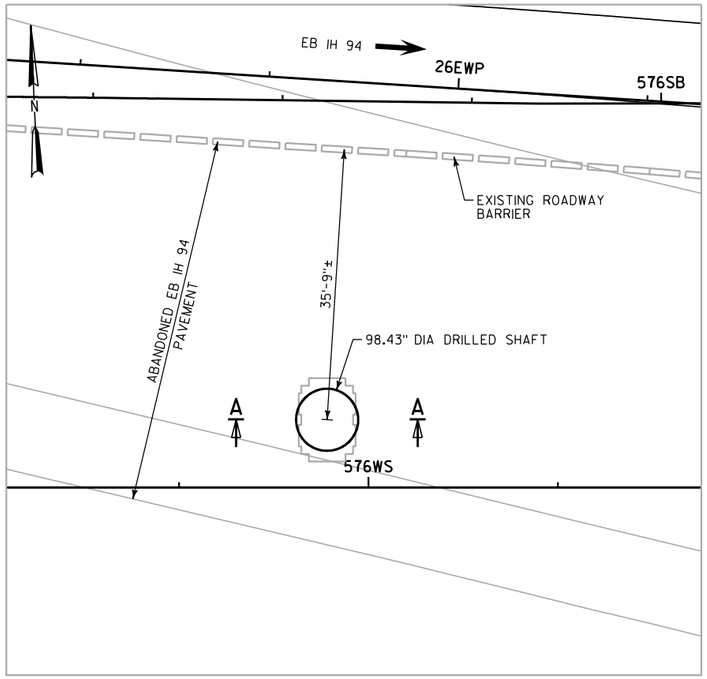
DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
FOUNDATION
LAYOUT (3 OF 3)

SHEET B4 OF B26

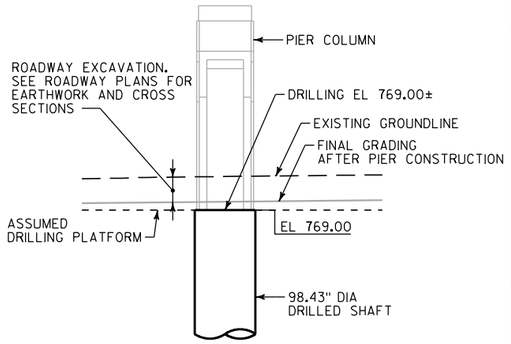
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option B\B786_080104B_f1.dgn PLOT DATE : 02-MAR-2015 15:20 PLOT BY : MSCGLM PLOT NAME : B786_080104B_f1 PLOT SCALE : 40:1

STATE PROJECT NUMBER
1060-33-81

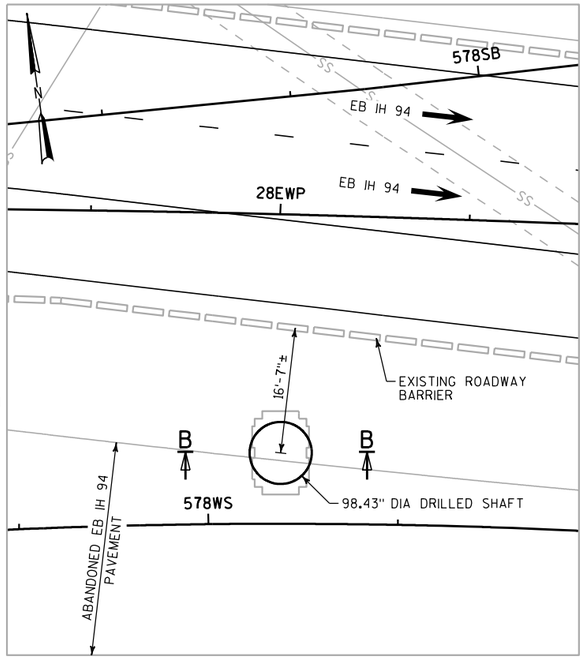


EXCAVATION PLAN - PIER WS01

STA 575WS+94.54

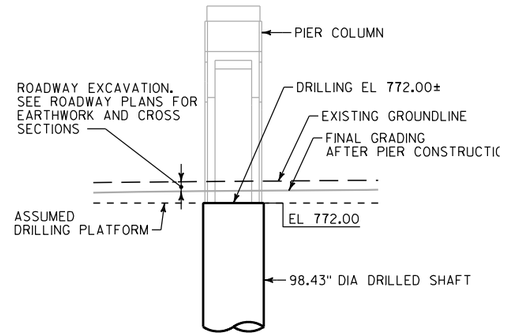


SECTION A-A

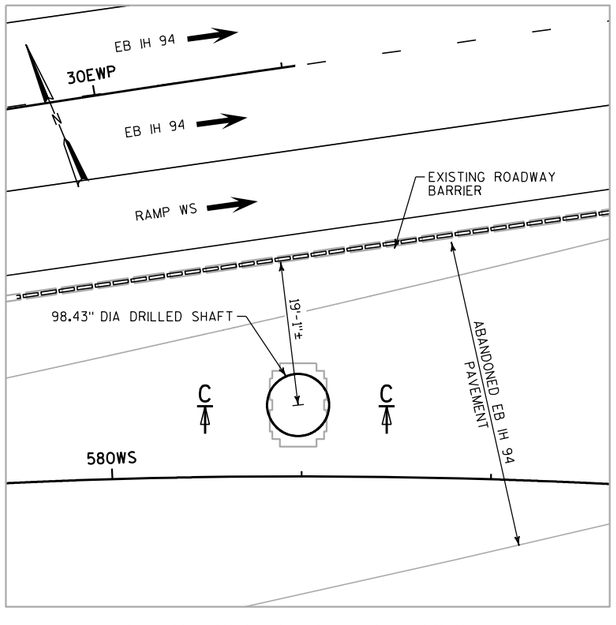


EXCAVATION PLAN - PIER WS02

STA 578WS+09.54

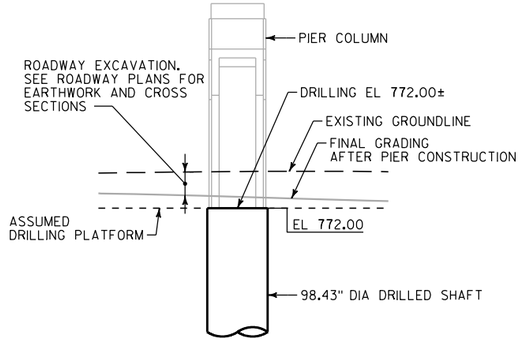


SECTION B-B



EXCAVATION PLAN - PIER WS03

STA 580WS+24.54



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-40-786

DRAWN BY GLM | PLANS CK'D. BKS

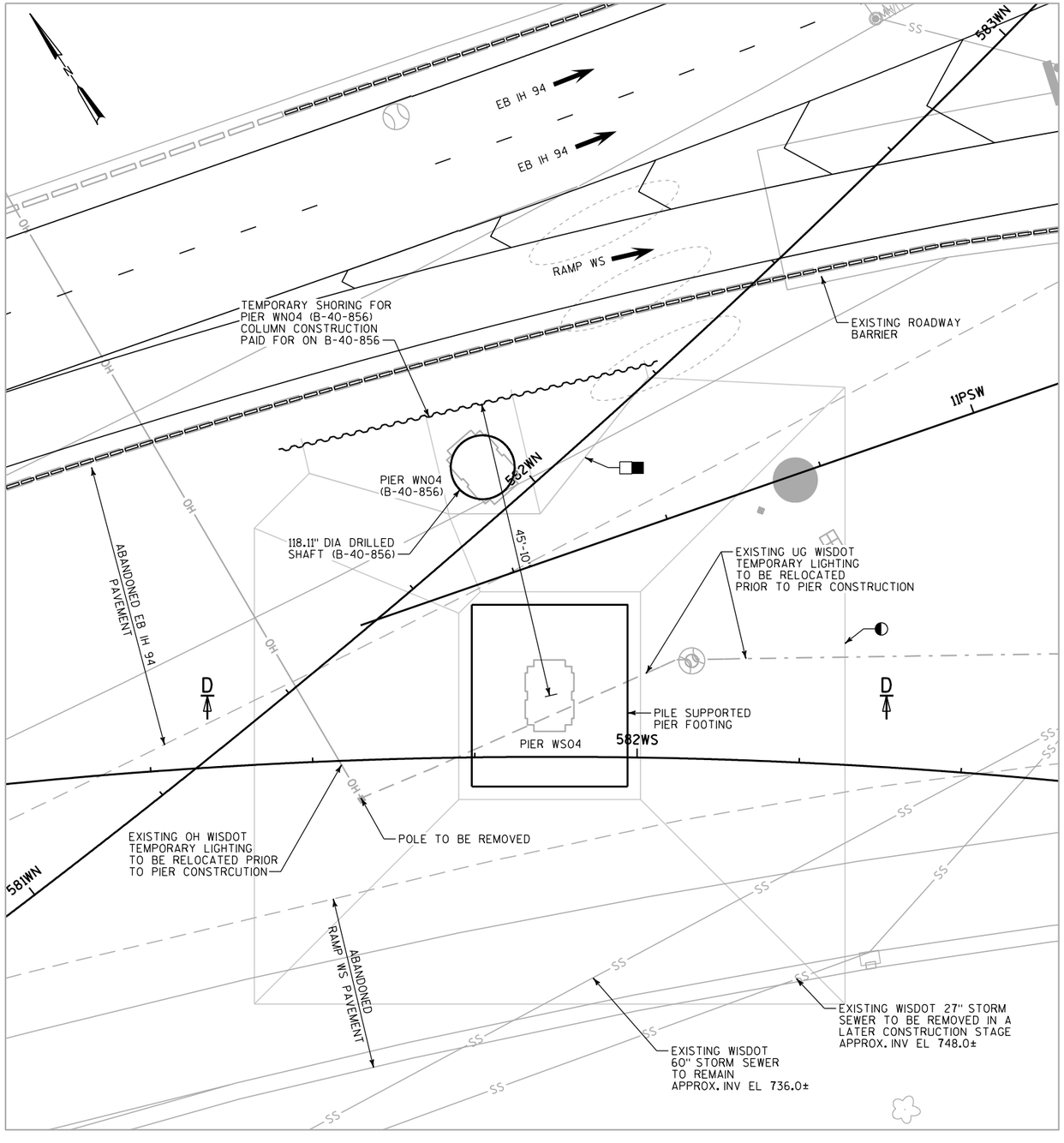
OPTION B
EXCAVATION PLAN
(1 OF 4)

SHEET B5 OF B26

8

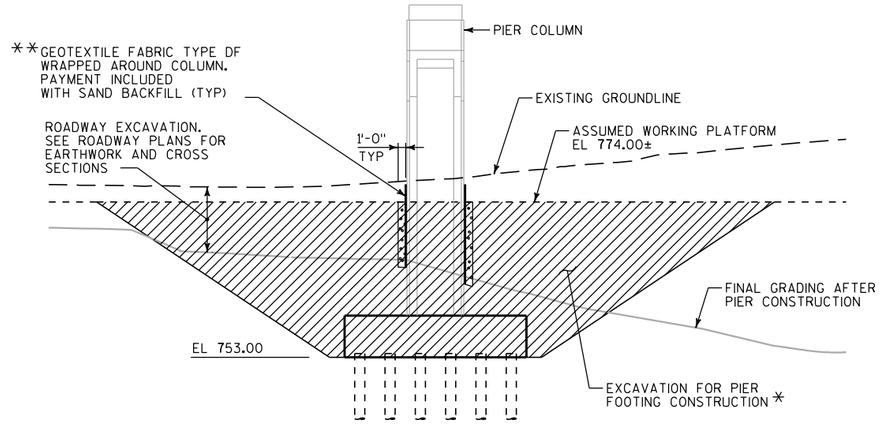
8

STATE PROJECT NUMBER
1060-33-81



EXCAVATION PLAN - PIER WS04

STA 581WS+86.54



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 THE BACKFILLING THE EXCAVATION IS INCLUDED IN THE STRUCTURE EXCAVATION PAY 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 "EXCAVATION FOR STRUCTURES BRIDGES B-40-786".
- APPROXIMATE EXCAVATION LIMITS SEE EXCAVATION PLAN FOR STRUCTURE B-40-856 FOR MORE DETAILS.

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-40-786

DRAWN BY GLM | PLANS CK'D. BKS

OPTION B
EXCAVATION PLAN
(2 OF 4)

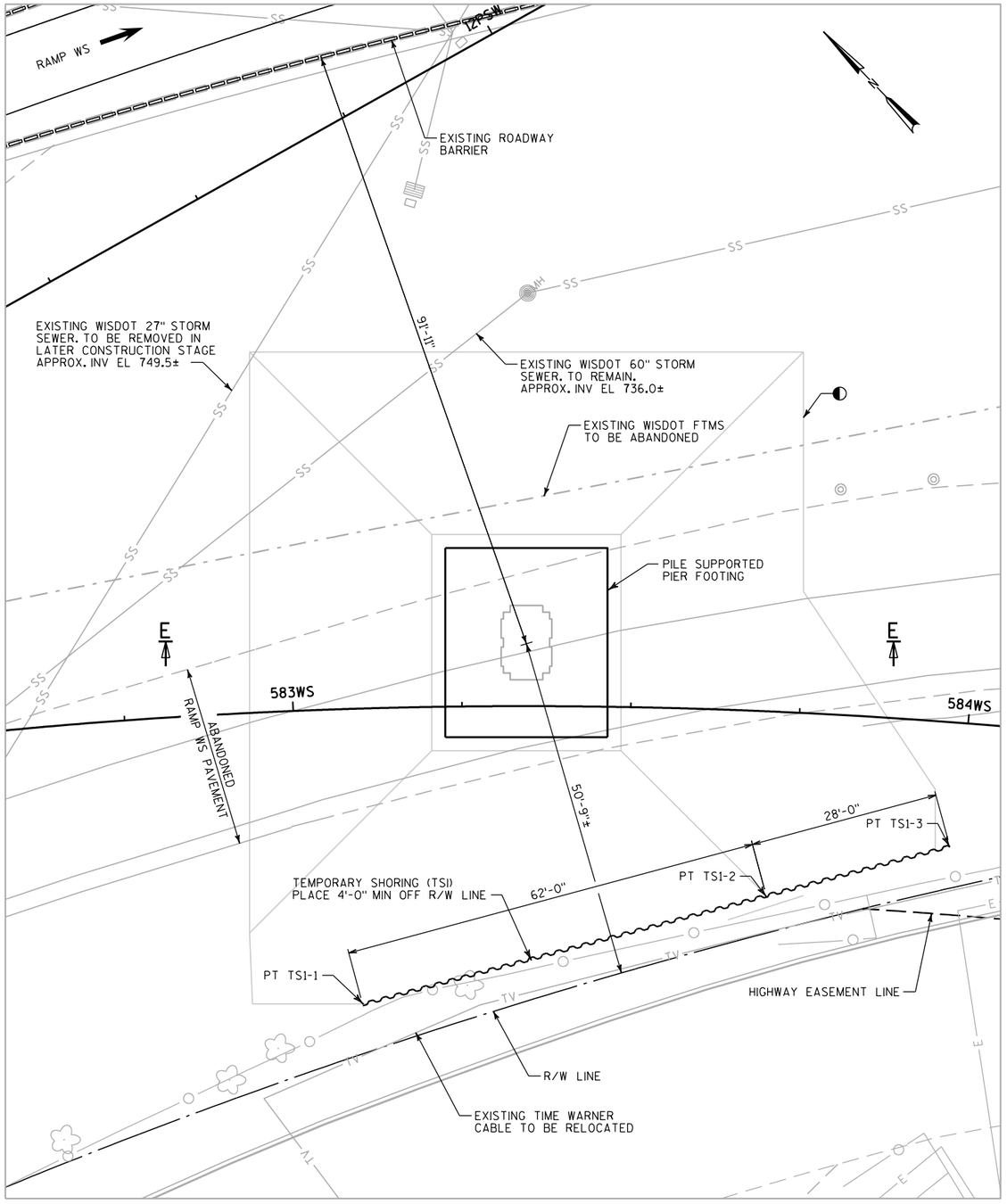
SHEET B6 OF B26

8

8

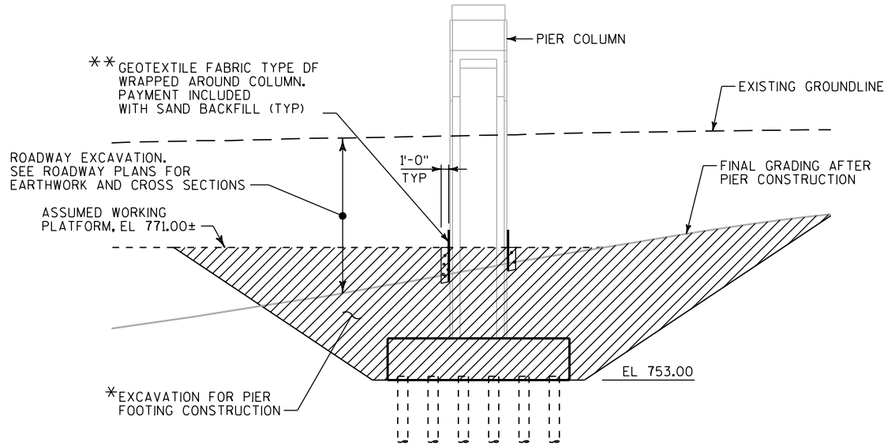
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option B\B786_080106B_ex.dgn PLOT DATE : 02-MAR-2015 15:22 PLOT BY : MSCGLM PLOT NAME : B786_080106B_ex PLOT SCALE : 20:1

STATE PROJECT NUMBER
1060-33-81



EXCAVATION PLAN - PIER WS05

STA 583WS+35.54



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 THE BACKFILLING THE EXCAVATION IS INCLUDED IN THE STRUCTURE EXCAVATION PAY 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	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 "EXCAVATION FOR STRUCTURES BRIDGES B-40-786".
- 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-40-786

DRAWN BY	GLM	PLANS CK'D.	BKS

OPTION B
EXCAVATION PLAN
(3 OF 4)

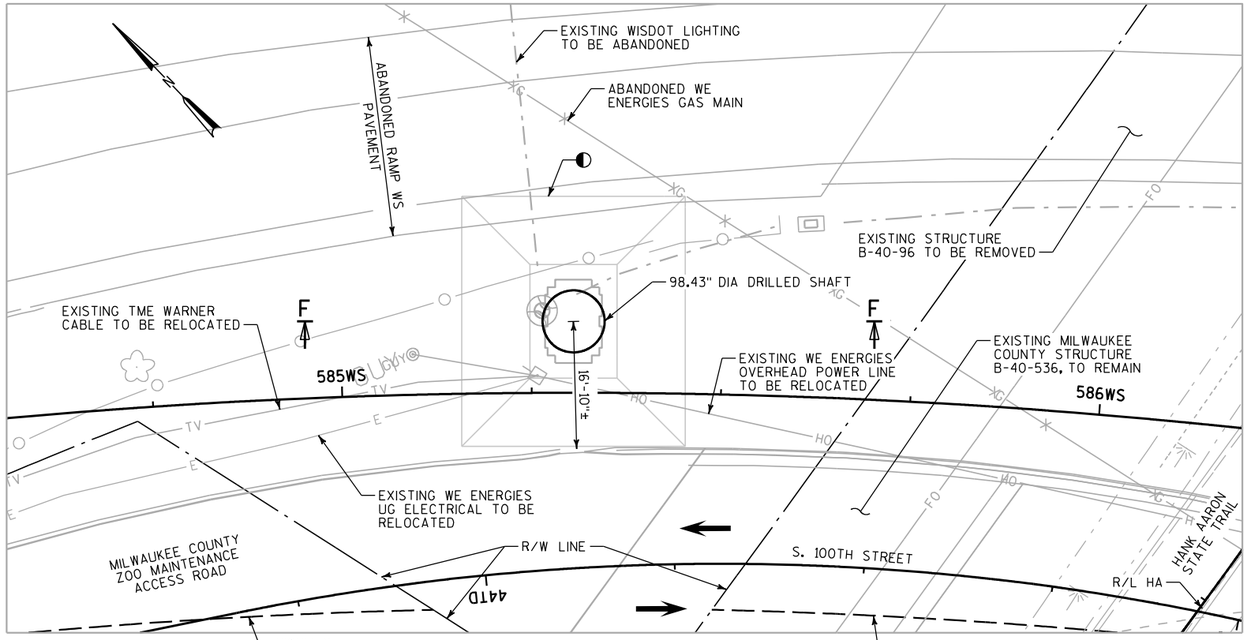
SHEET B7 OF B26

8

8

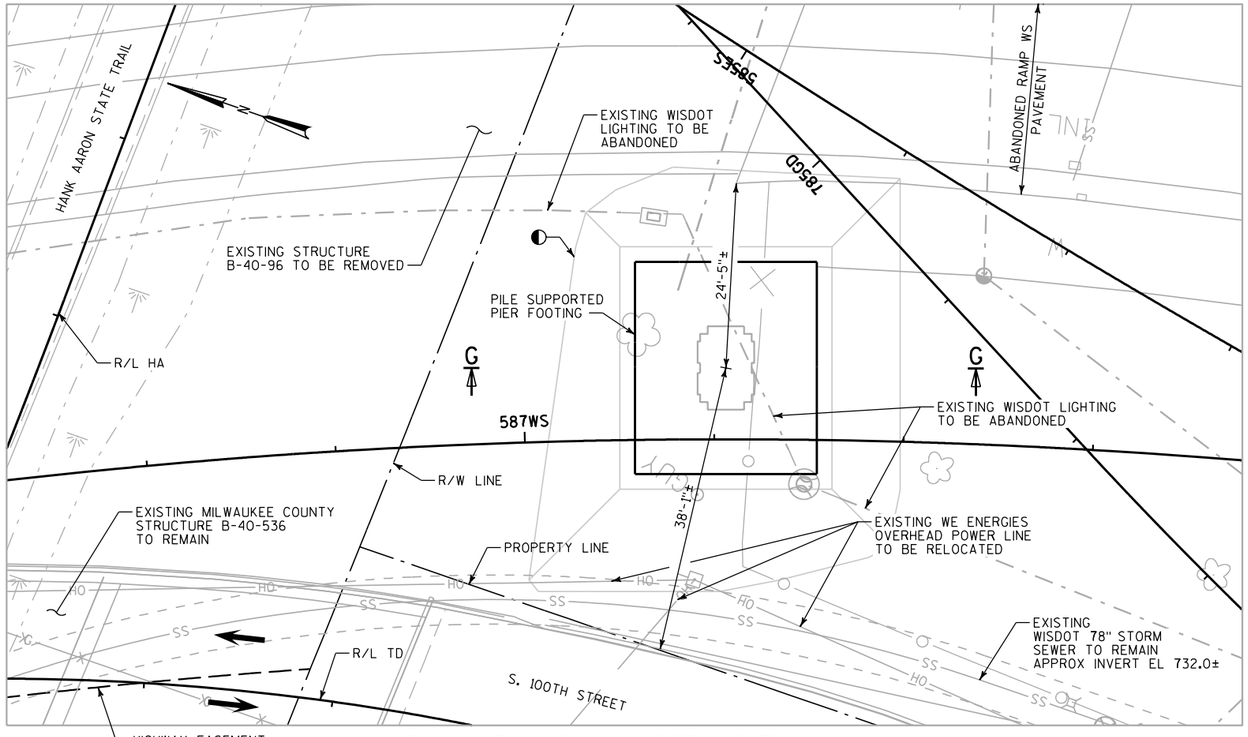
FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option B\B786_080107B_ex.dgn PLOT DATE : 02-MAR-2015 15:22 PLOT BY : MSCGLM PLOT NAME : B786_080107B_ex PLOT SCALE : 20:1

STATE PROJECT NUMBER
1060-33-81



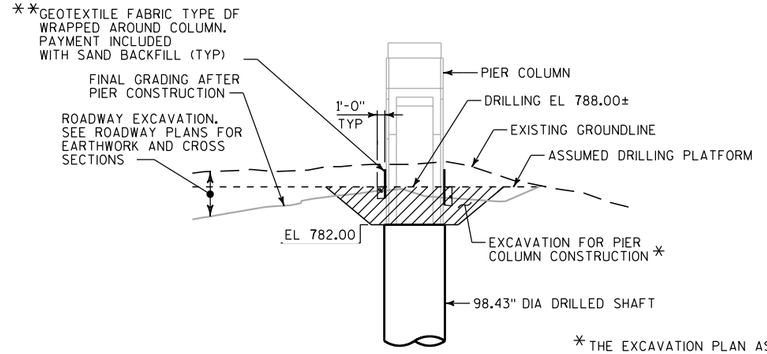
EXCAVATION PLAN - PIER WS06

STA 585WS+30.54

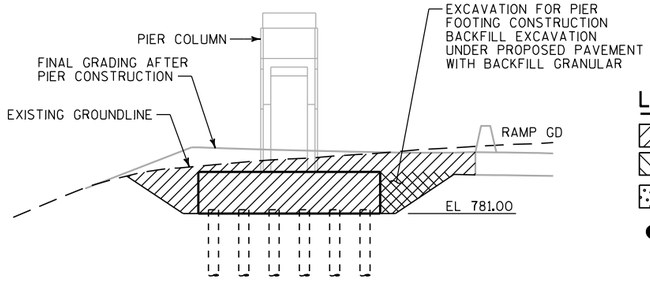


EXCAVATION PLAN - PIER WS07

STA 587WS+26.54



SECTION F-F



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 THE BACKFILLING THE EXCAVATION IS INCLUDED IN THE STRUCTURE EXCAVATION PAY ITEM

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

LEGEND

- EXCAVATION FOR STRUCTURES
- BACKFILL GRANULAR
- 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 "EXCAVATION FOR STRUCTURES BRIDGES B-40-786".

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-40-786

DRAWN BY	GLM	PLANS CK'D.	BKS

OPTION B
EXCAVATION PLAN
(4 OF 4)

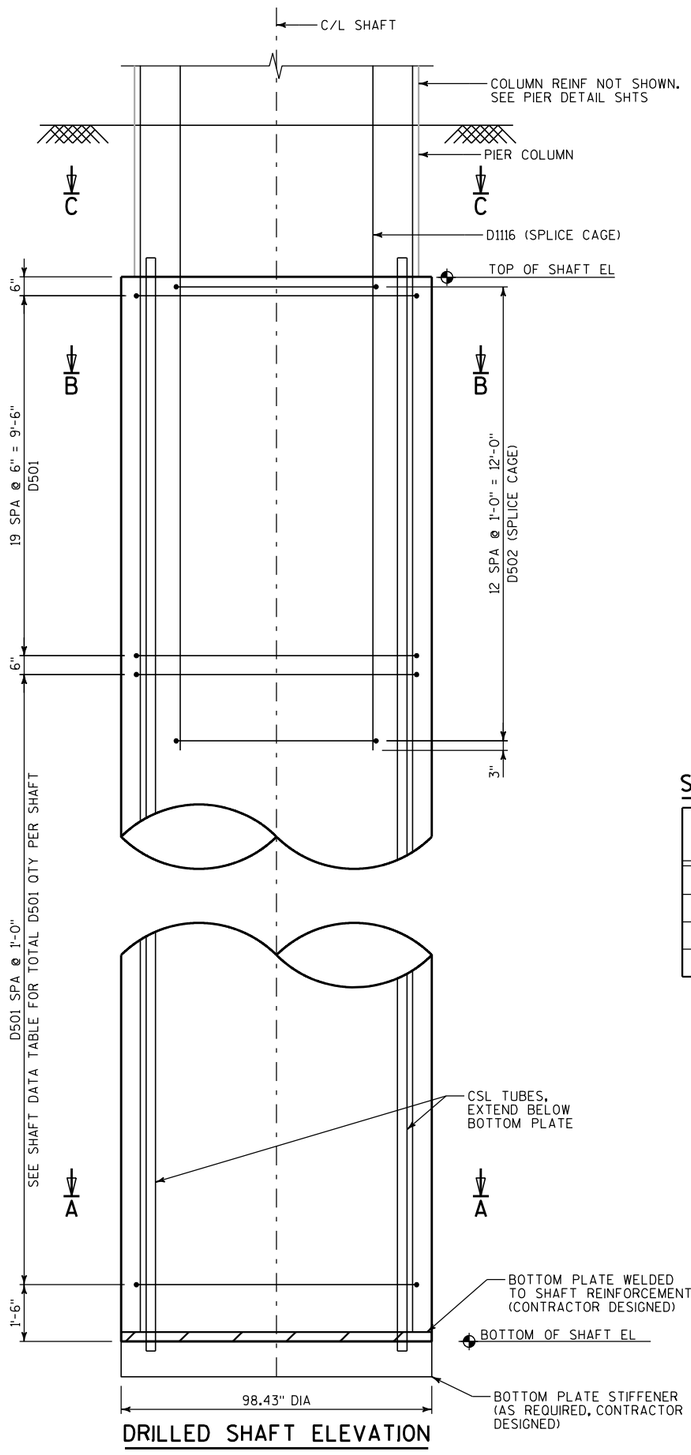
SHEET B8 OF B26

8

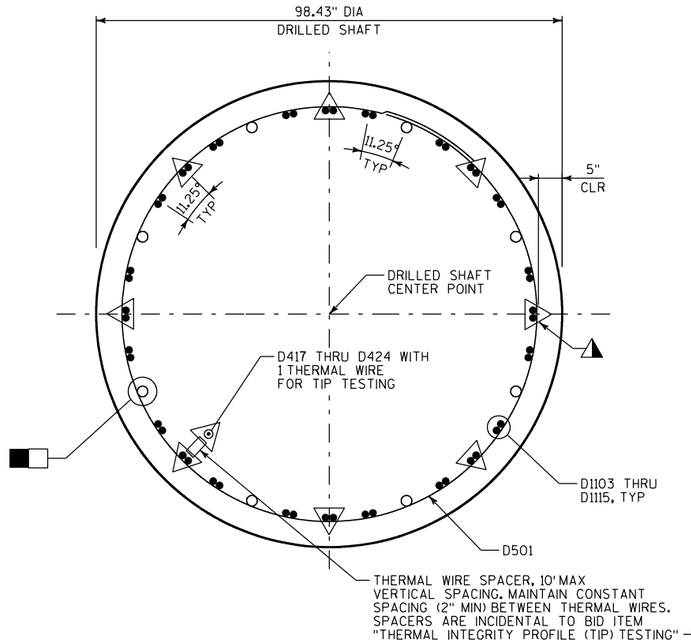
8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option B\B786_080108B_ex.dgn PLOT DATE : 02-MAR-2015 15:22 PLOT BY : MSCGLM PLOT NAME : B786_080108B_ex PLOT SCALE : 20:1

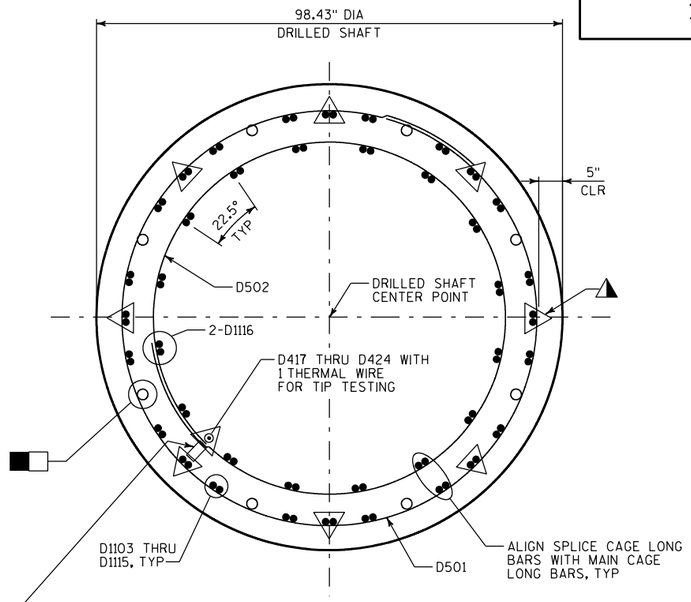
STATE PROJECT NUMBER
1060-33-81



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)
WS01	571007.58	295233.16	769.00	769.00	684.00	85	166.4	94	CSL TUBES/TIP TESTING	500
WS02	571222.15	295213.97	772.00	772.00	694.00	78	152.7	87	CSL TUBES/TIP TESTING	500
WS03	571431.48	295157.45	772.00	772.00	706.00	66	129.2	75	CSL TUBES/TIP TESTING	425
WS06	571817.92	294834.08	788.00	782.00	700.00	82	160.5	91	CSL TUBES/TIP TESTING	300

NOTE

FOR SECTION C-C, SEE SHT B10.

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.

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-40-786

DRAWN BY	JTE	PLANS CK'D.	WRT

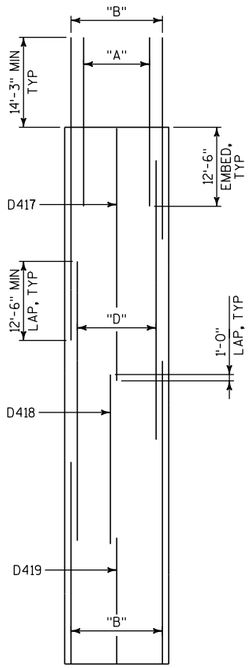
OPTION B
98.43" DIA DRILLED SHAFT DETAILS
(1 OF 2)

SHEET B9 OF B26

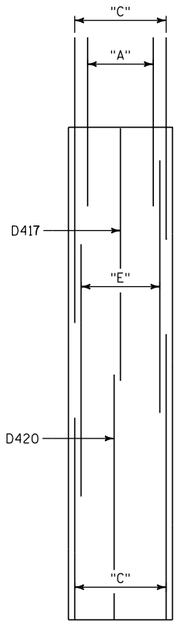
8

8

STATE PROJECT NUMBER
1060-33-81



WS01



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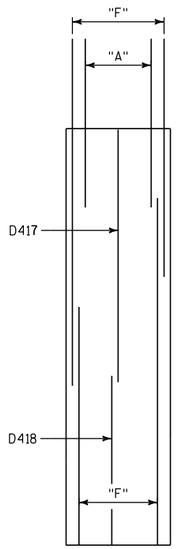
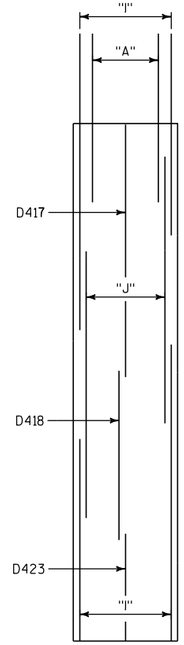


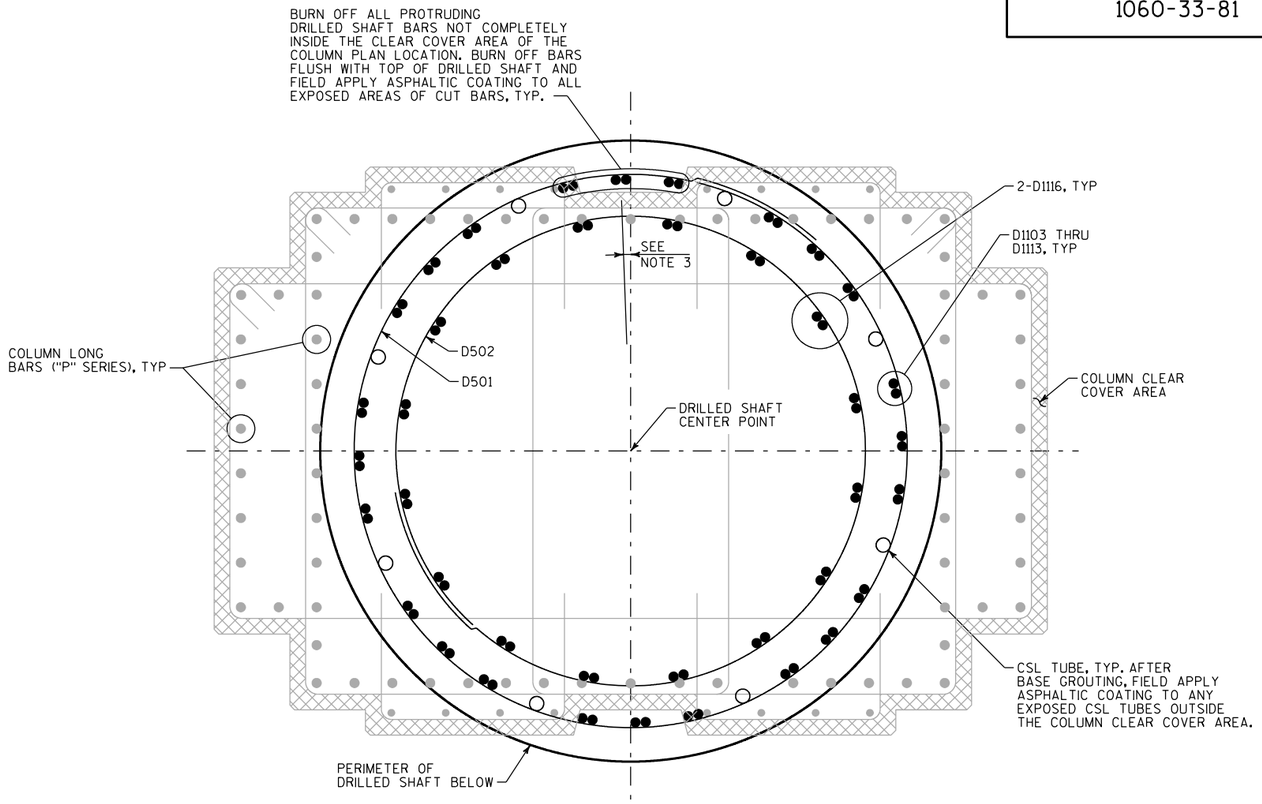
WS03



WS06

"A" = 32-D1116 BARS
"B" = 24-D1103 & 24-D1105 BARS
"C" = 24-D1105 & 24-D1106 BARS
"D" = 48-D1104 BARS
"E" = 48-D1107 BARS
"F" = 24-D1108 & 24-D1109 BARS
"I" = 24-D1105 & 24-D1113 BARS
"J" = 48-D1114 BARS

DRILLED SHAFT MAIN REINFORCEMENT SCHEMATIC



SECTION C-C
DRILLED SHAFT CONNECTION DETAIL

NOTES:

1. STAGGER LAPS AS SHOWN SO AS TO LAP NO MORE THAN HALF OF THE BARS PER SECTION.
2. WELDMENT OF BOTTOM PLATE AND REINFORCING BAR CAGE NOT SHOWN FOR CLARITY. SEE DETAIL ON SHEET B9.
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 B9.
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-40-786

DRAWN BY JTE | PLANS CK'D. WRT

OPTION B
98.43" DIA DRILLED SHAFT DETAILS
(2 OF 2)

SHEET B10 OF B26

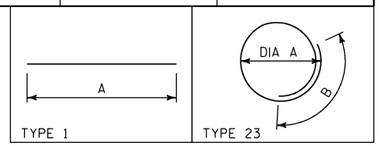
8

8

FILE NAME : \\WKE31FP1\w3zoo\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option B\B786_080210B_fd.dgn PLOT DATE : 03-MAR-2015 16:44 PLOT BY : MSCGLM PLOT NAME : B786_080210B_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	347	24'-9"	X		23	7'-5"	1'-5"					SHAFT TIE BAR					
D502	U	52	21'-1"	X		23	6'-3"	1'-5"					SPLICE CAGE TIE BAR					
D1103	U	48	48'-0"			1	48'-0"						LONGITUDINAL BAR					
D1104	U	48	44'-3"			1	44'-3"						LONGITUDINAL BAR					
D1105	U	144	32'-0"			1	32'-0"						LONGITUDINAL BAR					
D1106	U	48	45'-3"			1	45'-3"						LONGITUDINAL BAR					
D1107	U	48	40'-0"			1	40'-0"						LONGITUDINAL BAR					
D1108	U	48	55'-0"			1	55'-0"						LONGITUDINAL BAR					
D1109	U	48	37'-9"			1	37'-9"						LONGITUDINAL BAR					
D1113	U	48	47'-0"			1	47'-0"						LONGITUDINAL BAR					
D1114	U	48	42'-3"			1	42'-3"						LONGITUDINAL BAR					
D1116	U	128	26'-9"			1	26'-9"						SPLICE CAGE LONGITUDINAL BAR					
D417	U	4	40'-0"			1	40'-0"						LONGITUDINAL THERMAL BAR					
D418	U	3	26'-10"			1	26'-10"						LONGITUDINAL THERMAL BAR					
D419	U	1	20'-0"			1	20'-0"						LONGITUDINAL THERMAL BAR					
D420	U	1	38'-10"			1	38'-10"						LONGITUDINAL THERMAL BAR					
D423	U	1	17'-0"			1	17'-0"						LONGITUDINAL THERMAL BAR					



BAR MARK BREAKDOWN						
BAR MARK	PIER WS01	PIER WS02	PIER WS03	PIER WS06	TOTAL NO	WEIGHT
D501	94	87	75	91	347	8958
D502	13	13	13	13	52	1143
D1103	48	0	0	0	48	12241
D1104	48	0	0	0	48	11285
D1105	48	48	0	48	144	24482
D1106	0	48	0	0	48	11540
D1107	0	48	0	0	48	10201
D1108	0	0	48	0	48	14026
D1109	0	0	48	0	48	9627
D1113	0	0	0	48	48	11986
D1114	0	0	0	48	48	10775
D1116	32	32	32	32	128	18192
D417	1	1	1	1	4	107
D418	1	0	1	1	3	54
D419	1	0	0	0	1	13
D420	0	1	0	0	1	26
D423	0	0	0	1	1	11
TOT WEIGHT	39005	37034	30468	38161	1065	144667

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-40-786

DRAWN BY JTE | PLANS CK'D. WRT

OPTION B
DRILLED SHAFT
REINFORCEMENT
SCHEDULE

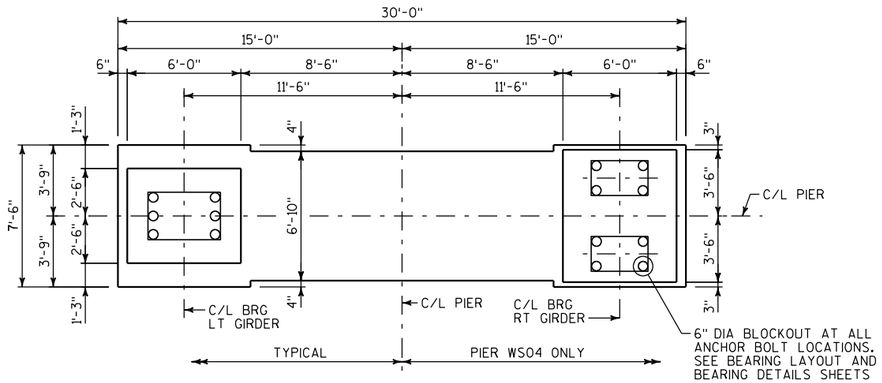
SHEET B11 OF B26

8

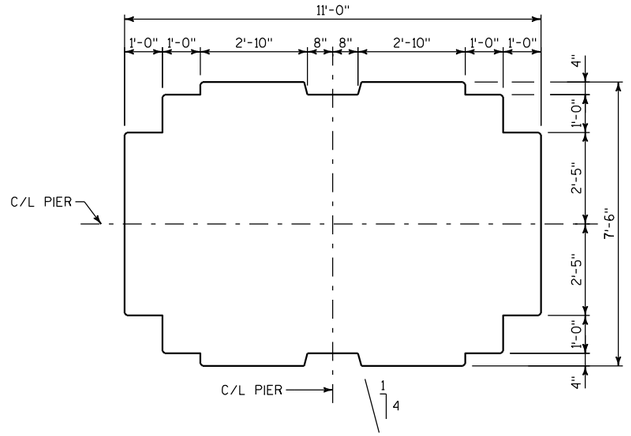
8

STATE PROJECT NUMBER

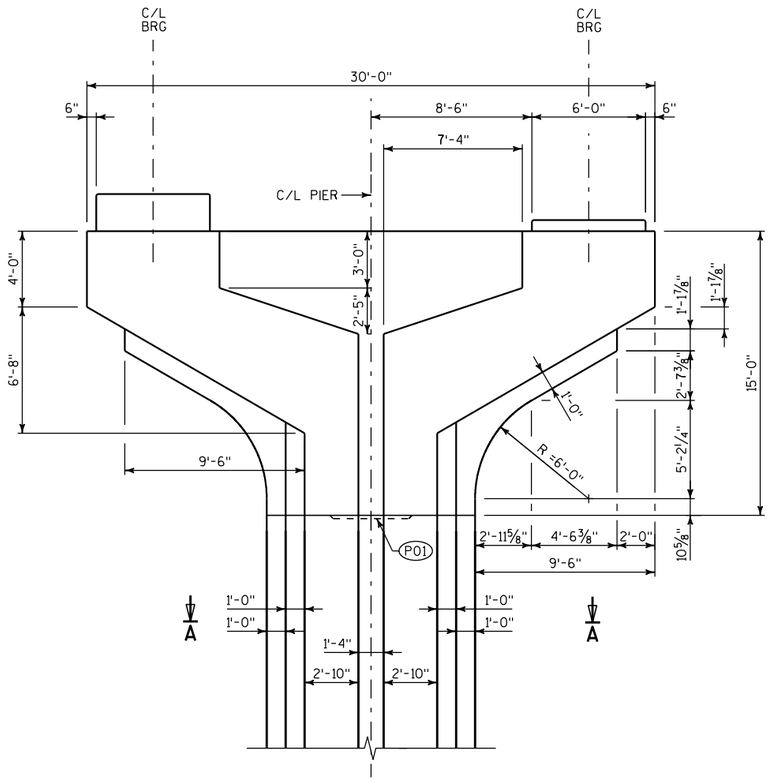
1060-33-81



PLAN

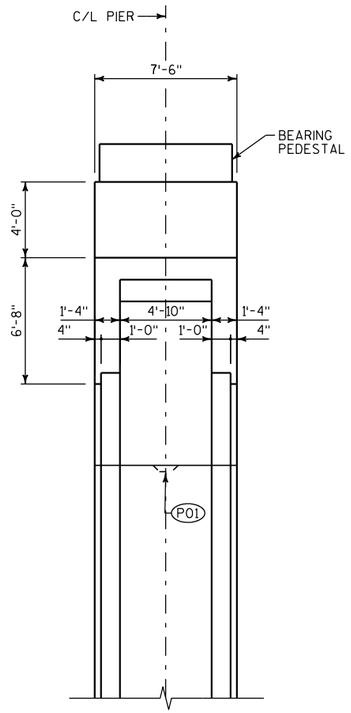


SECTION A-A



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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
TYPICAL PIER
LAYOUT

SHEET B12 OF B26

8

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option B\B786_080312B_pi.dgn

PLOT DATE : 02-MAR-2015 15:22

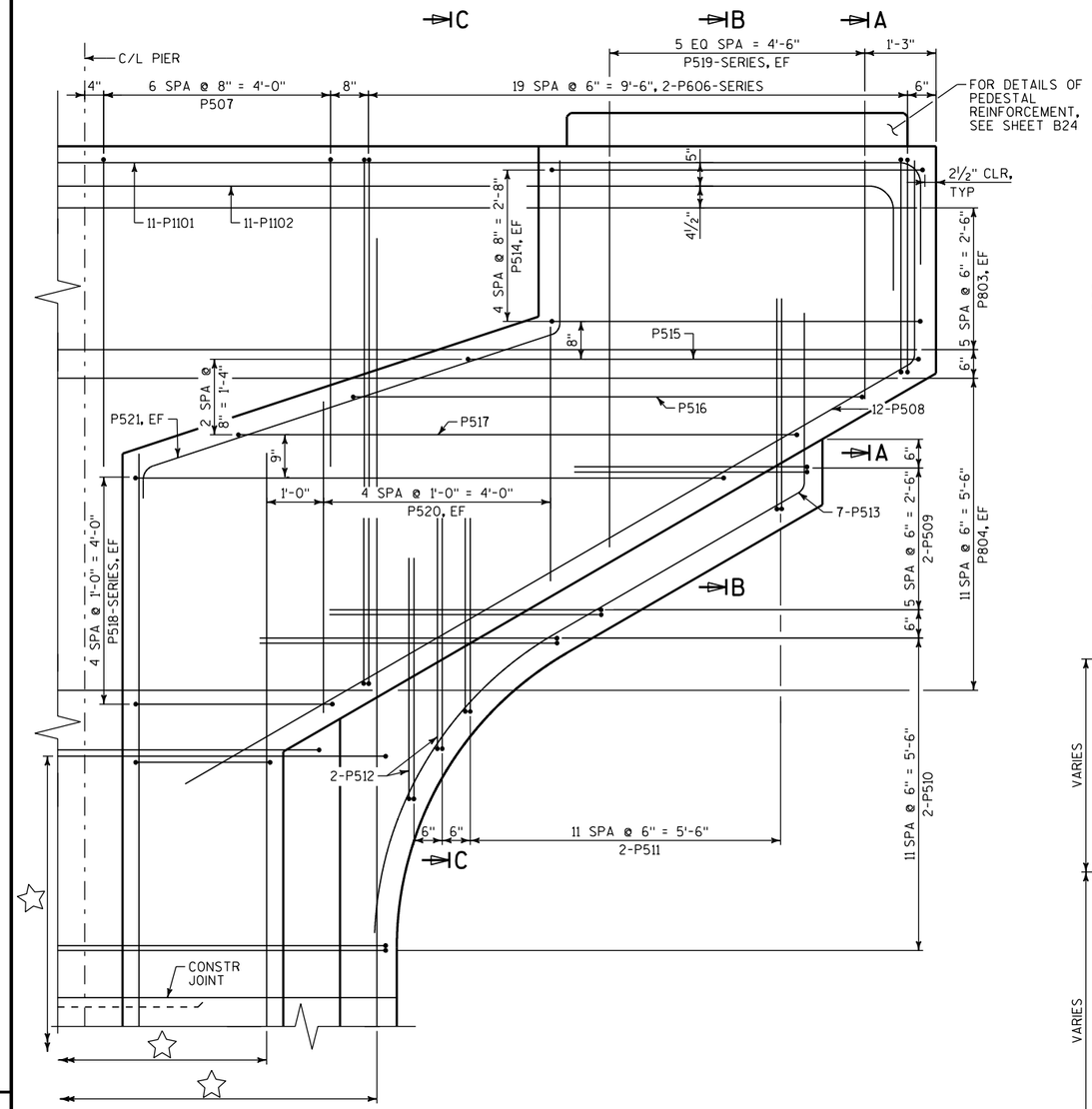
PLOT BY : MSCGLM

PLOT NAME : B786_080312B_pi

PLOT SCALE : 8:1

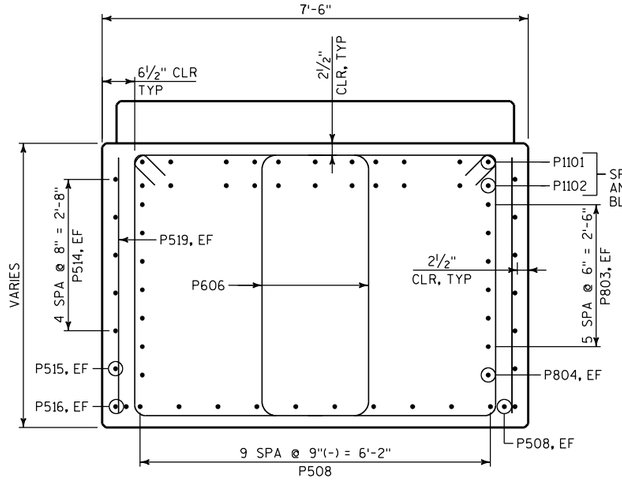
STATE PROJECT NUMBER

1060-33-81



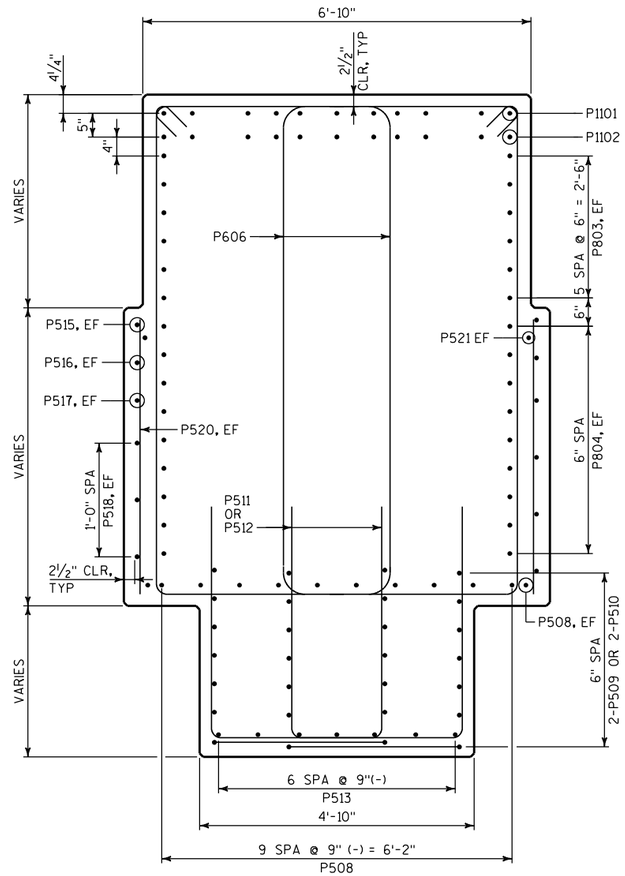
PARTIAL ELEVATION

(REINFORCEMENT IS SYMMETRICAL ABOUT C/L PIER)

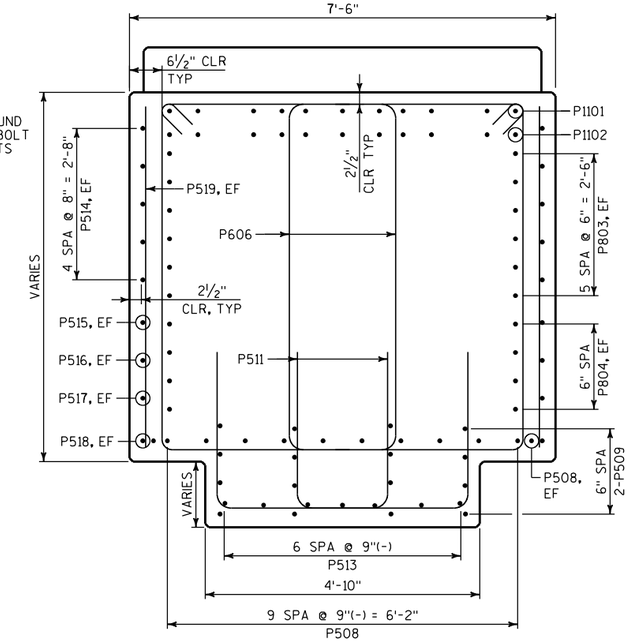


SECTION A-A

(PEDESTAL REINFORCEMENT NOT SHOWN FOR CLARITY)



SECTION C-C



SECTION B-B

(PEDESTAL REINFORCEMENT NOT SHOWN FOR CLARITY)

LEGEND

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY ASW | PLANS CK'D. WRT

OPTION B
TYPICAL PIER
CAP REINFORCEMENT

SHEET B13 OF B26

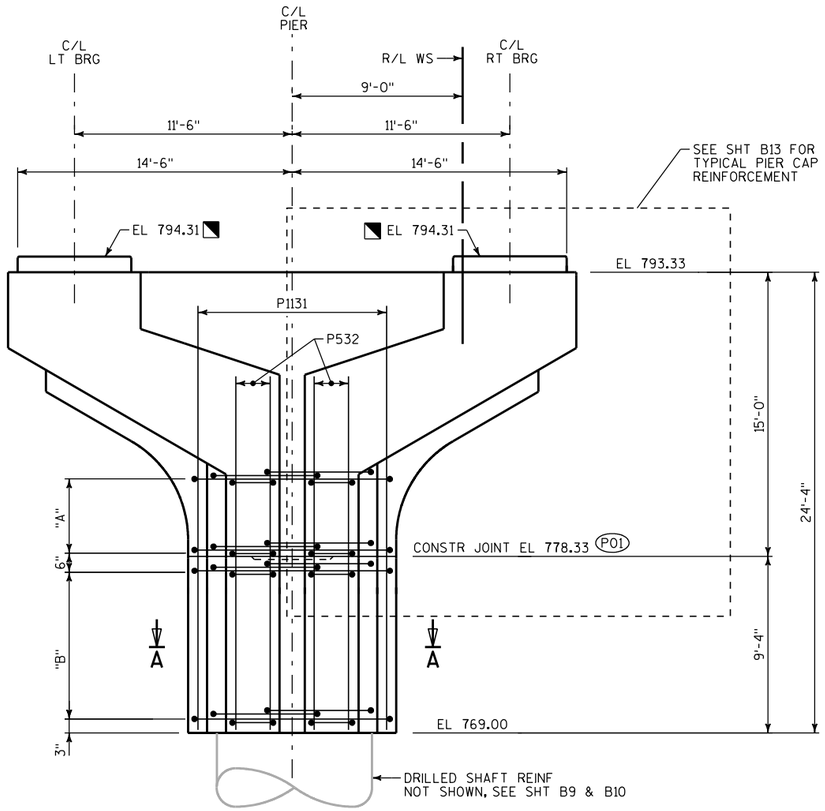
8

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option B\B786_080313B_pi.dgn

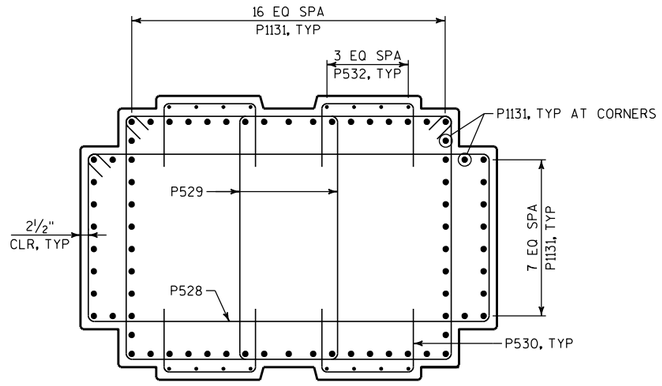
PLOT DATE : 02-MAR-2015 15:22 PLOT BY : MSCGLM PLOT NAME : B786_080313B_pi PLOT SCALE : 2.666667:1

STATE PROJECT NUMBER
1060-33-81



ELEVATION

"A" = 9 SPA @ 6", P528, 2-P529, 4-P530
"B" = 18 SPA @ 6", P528, 2-P529, 4-P530



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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

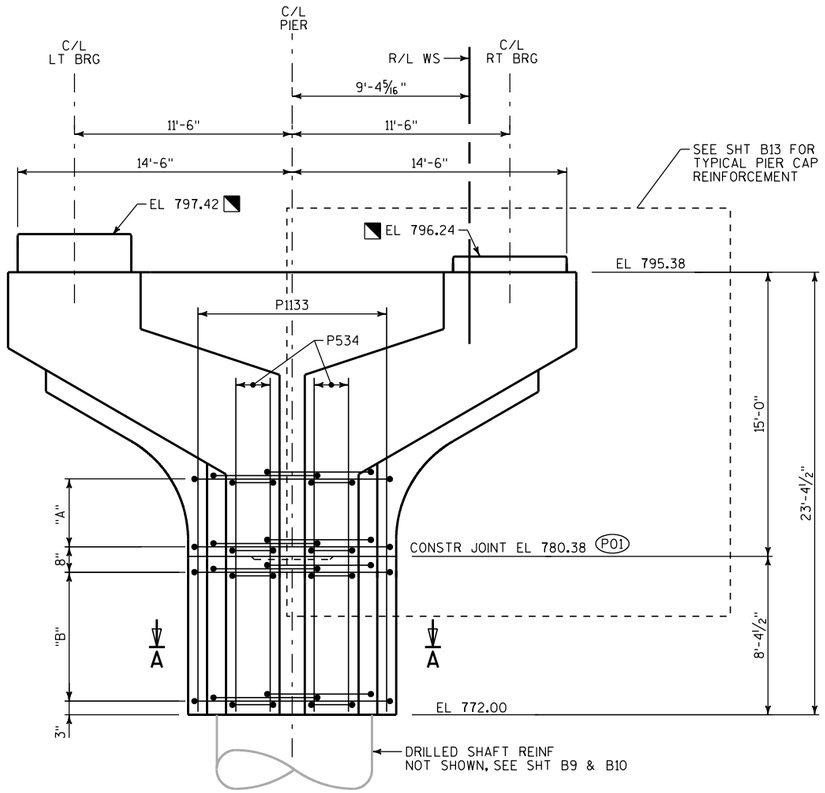
OPTION B
PIER WS01
DETAILS

SHEET B14 OF B26

8

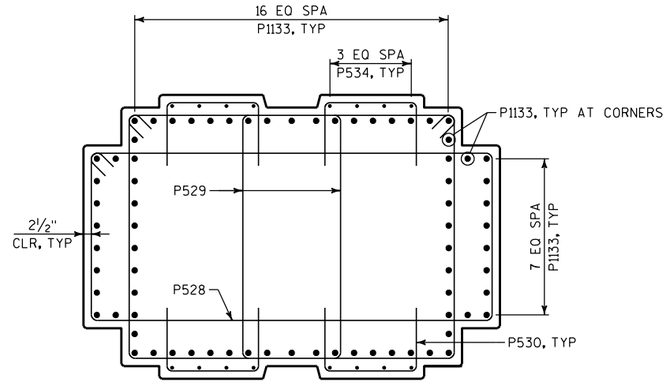
8

STATE PROJECT NUMBER
1060-33-81



ELEVATION

"A" = 8 SPA @ 6", P528, 2-P529, 4-P530
"B" = 16 SPA @ 6", P528, 2-P529, 4-P530



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

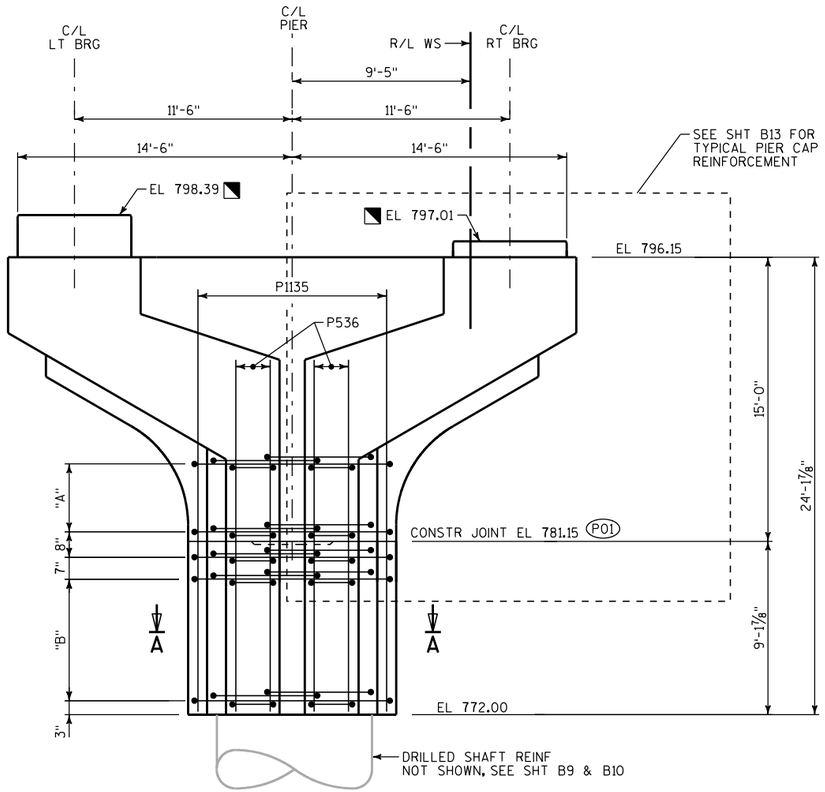
STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

OPTION B
PIER WS02
DETAILS

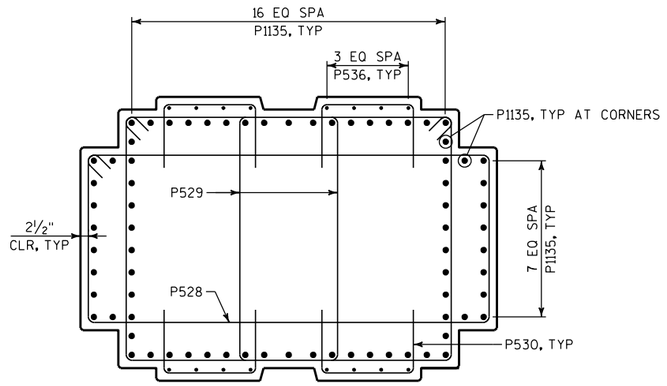
SHEET B15 OF B26

STATE PROJECT NUMBER
1060-33-81



ELEVATION

"A" = 8 SPA @ 6", P528, 2-P529, 4-P530
"B" = 16 SPA @ 6", P528, 2-P529, 4-P530



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-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

OPTION B
PIER WS03
DETAILS

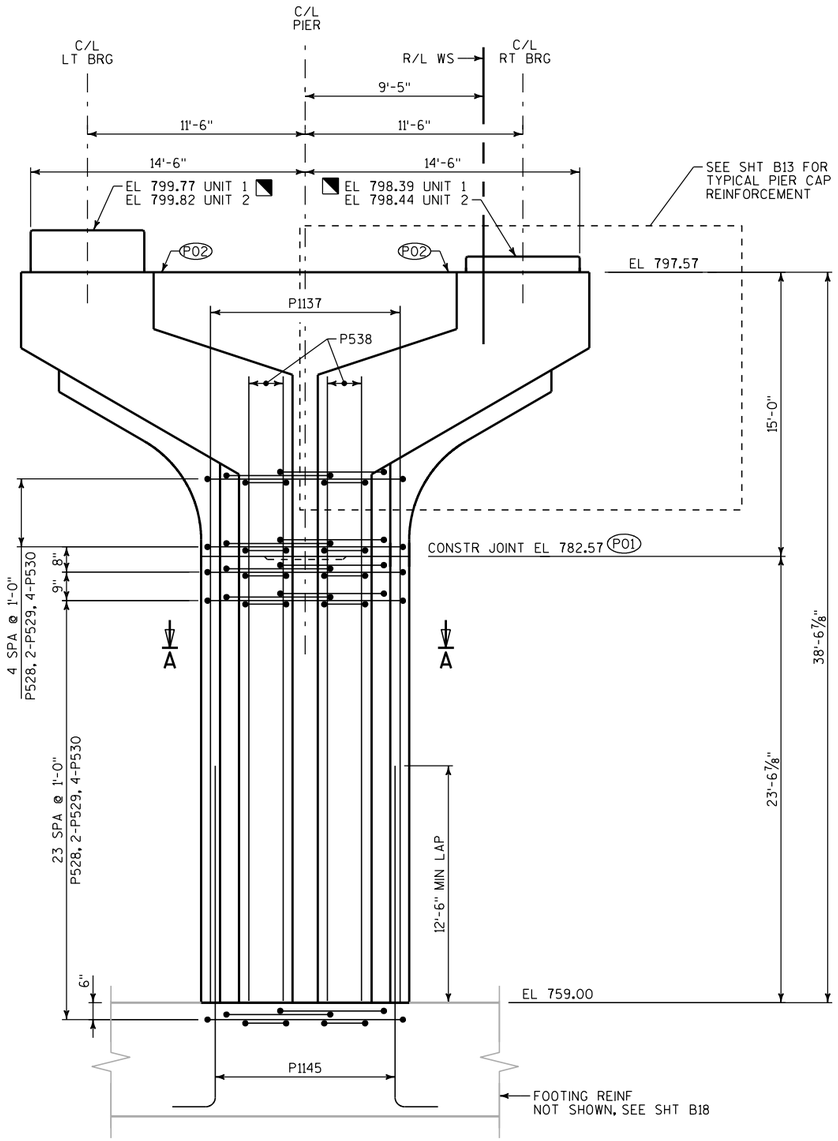
SHEET B16 OF B26

8

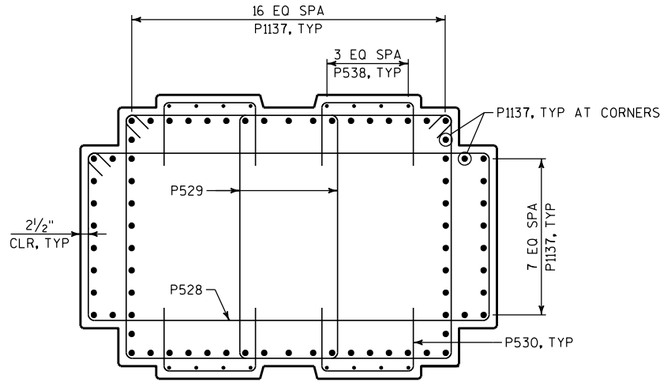
8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option B\B786_080316B_pi.dgn PLOT DATE : 05-MAR-2015 11:11 PLOT BY : MSCGLM PLOT NAME : B786_080316B_pi 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".

(P02) TEMPORARY HOLD DOWN DEVICE, SEE DETAIL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

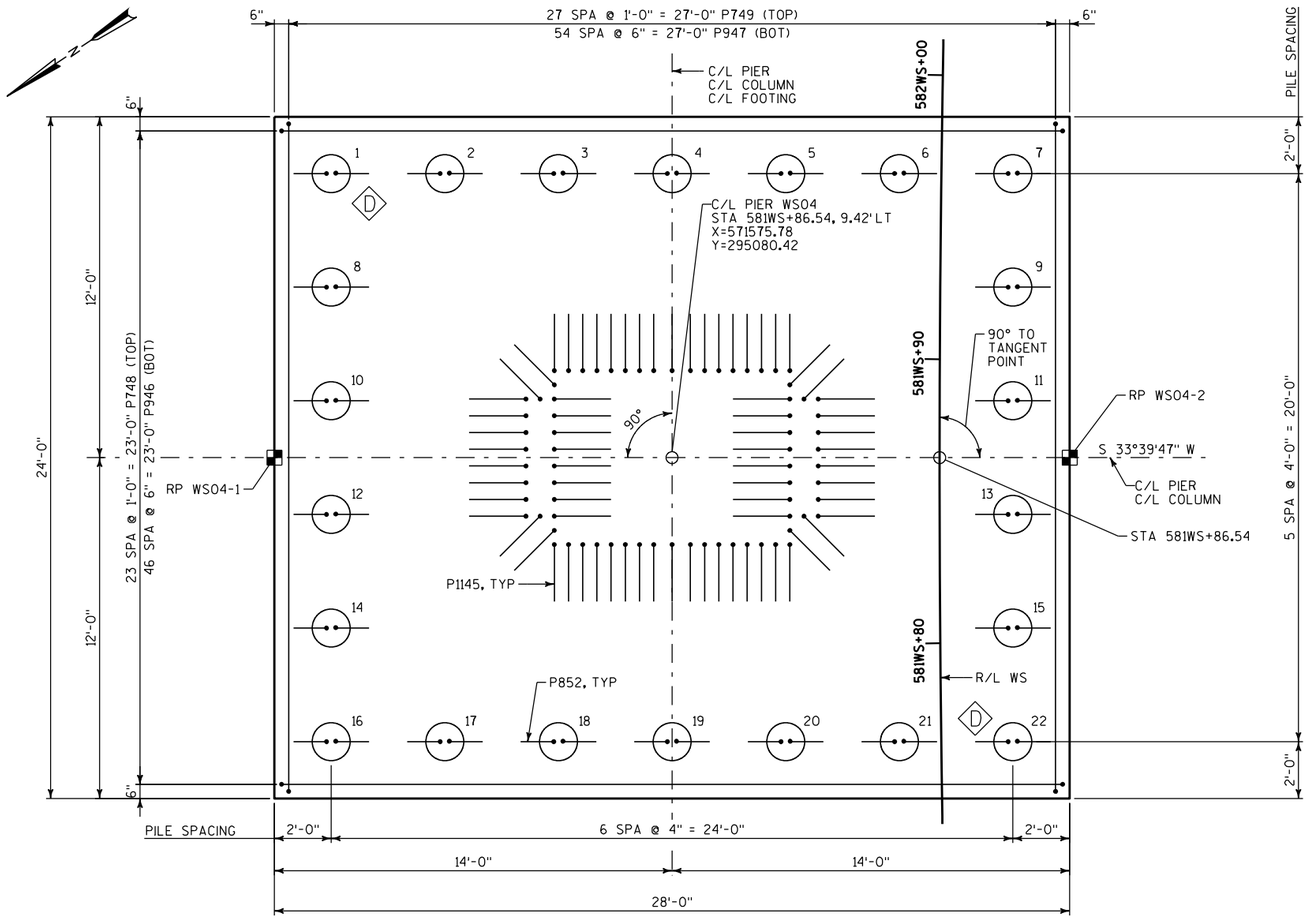
OPTION B
PIER WS04
DETAILS

SHEET B17 OF B26

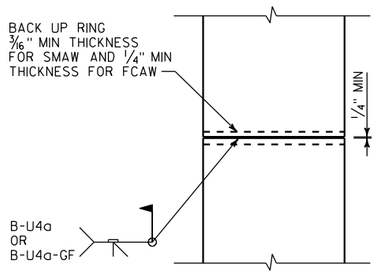
8

8

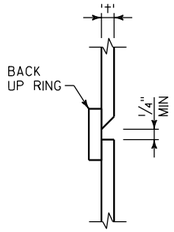
STATE PROJECT NUMBER
1060-33-81



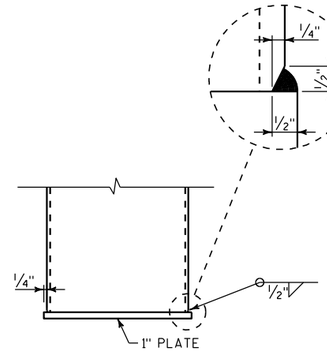
PLAN



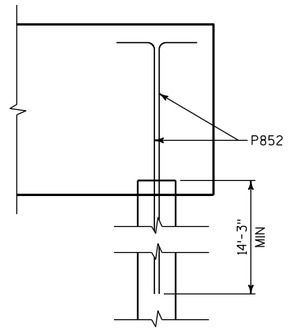
CIP PILE SPLICE DETAIL



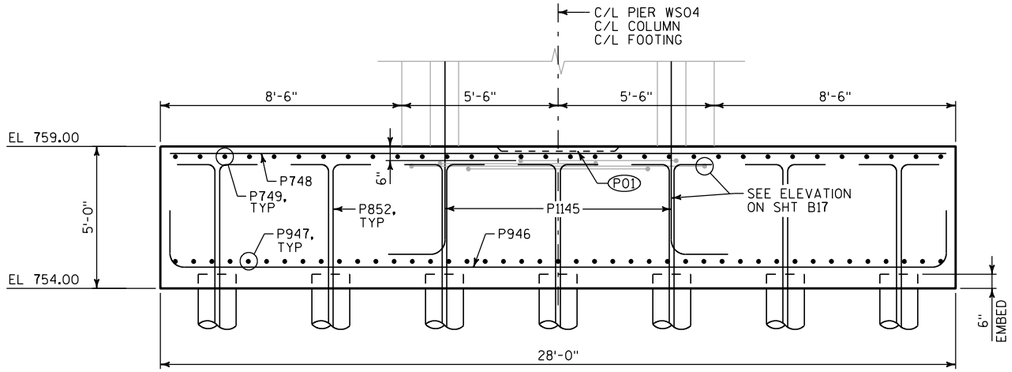
CIP PILE WELD DETAIL



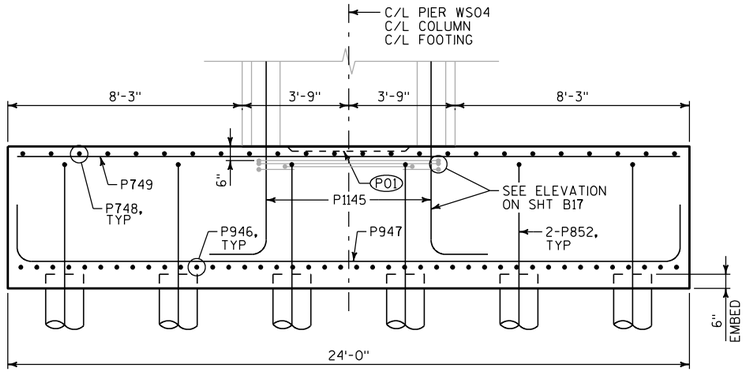
CIP PILE END
PLATE DETAIL



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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

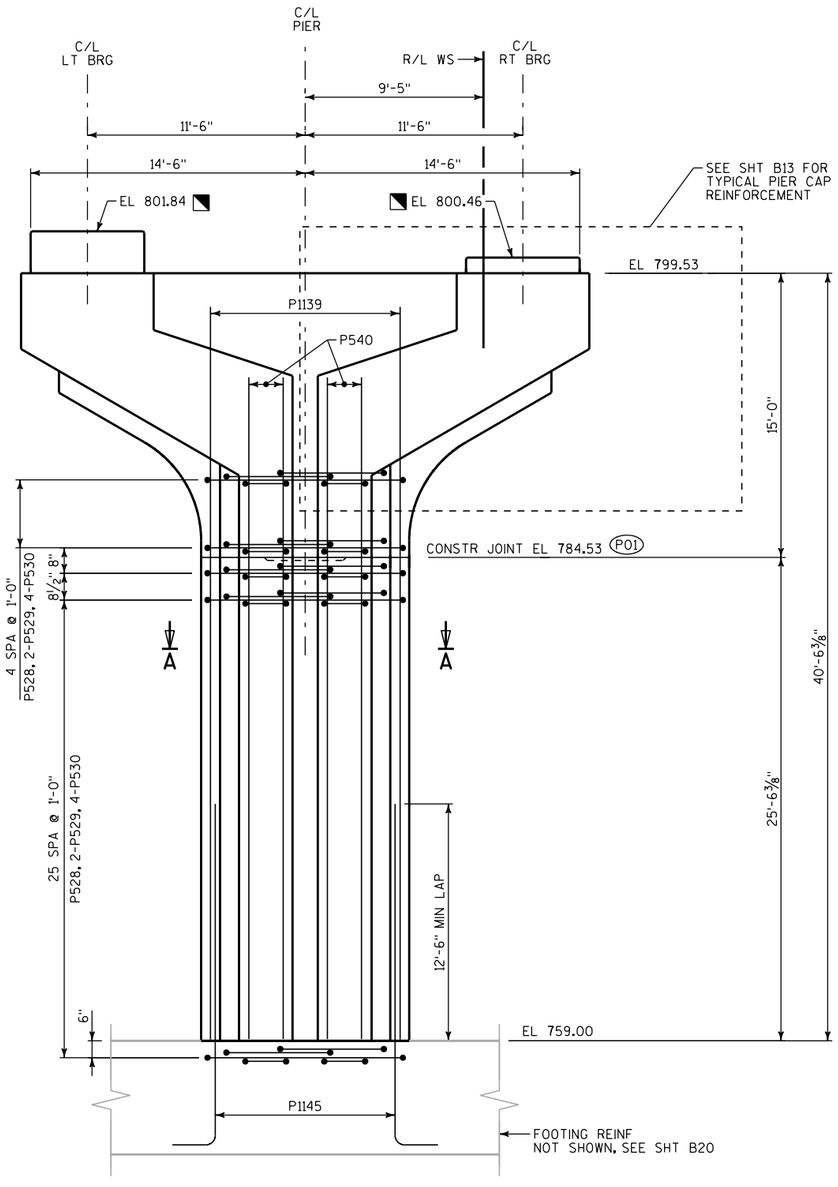
OPTION B
PIER WS04
FOOTING

SHEET B18 OF B26

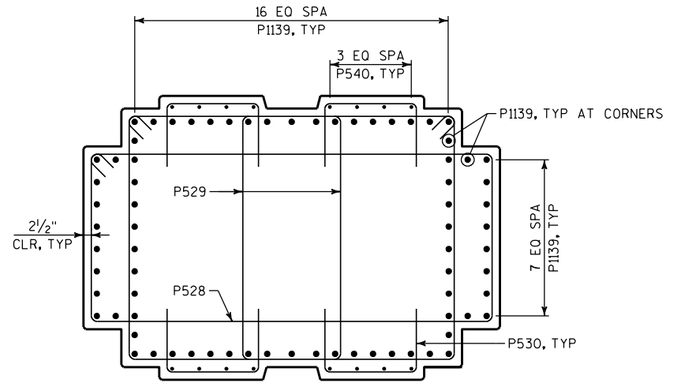
8

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-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

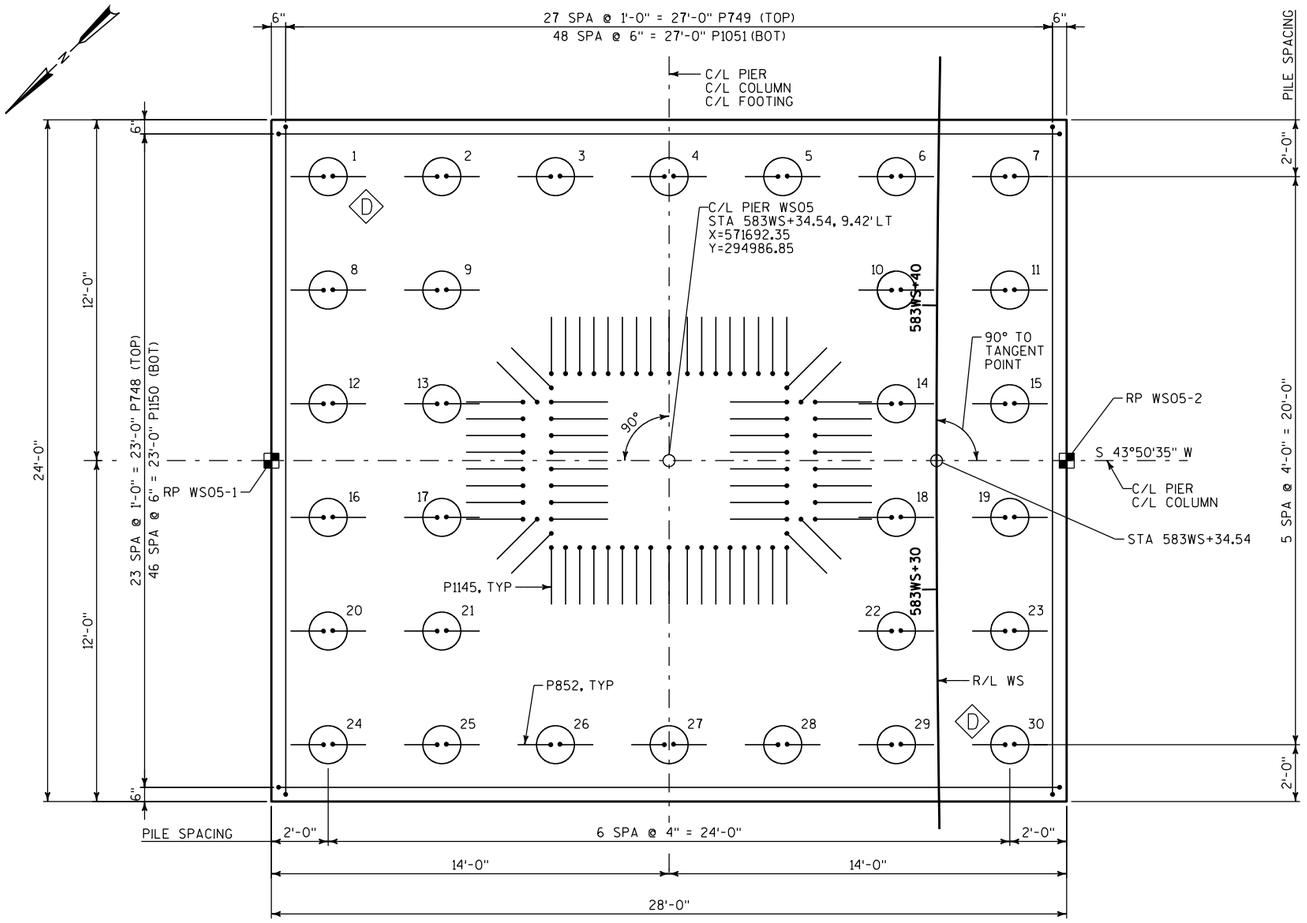
OPTION B
PIER WS05
DETAILS

SHEET B19 OF B26

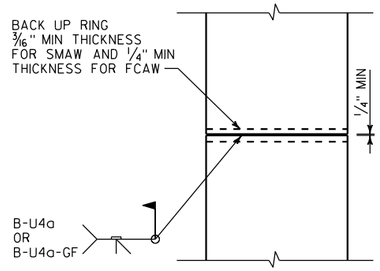
8

8

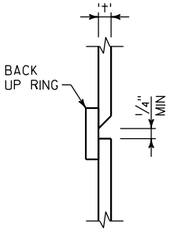
STATE PROJECT NUMBER
1060-33-81



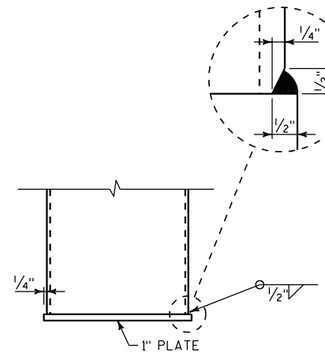
PLAN



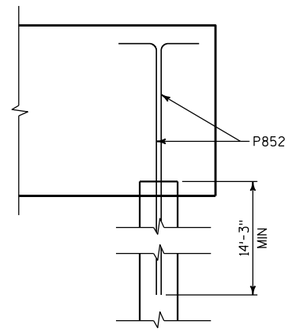
CIP PILE SPLICE DETAIL



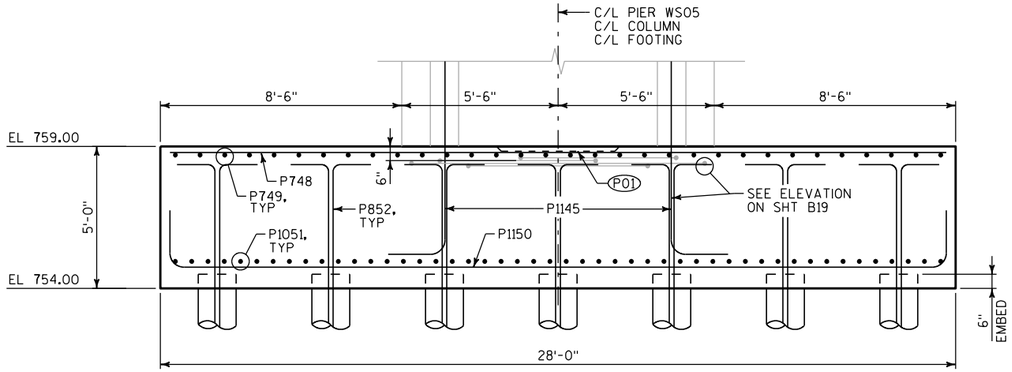
CIP PILE WELD DETAIL



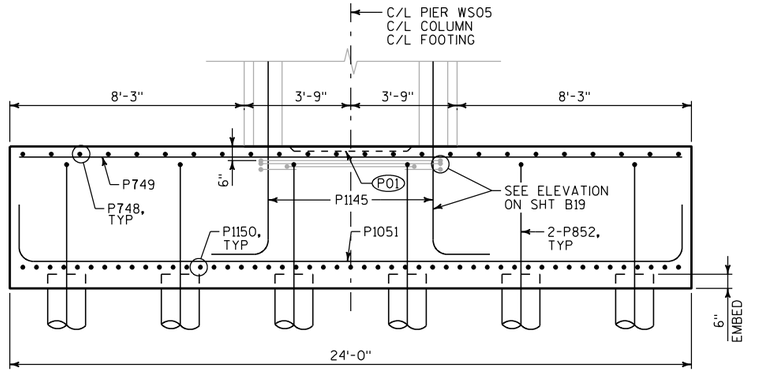
CIP PILE END
PLATE DETAIL



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 = 45 FT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

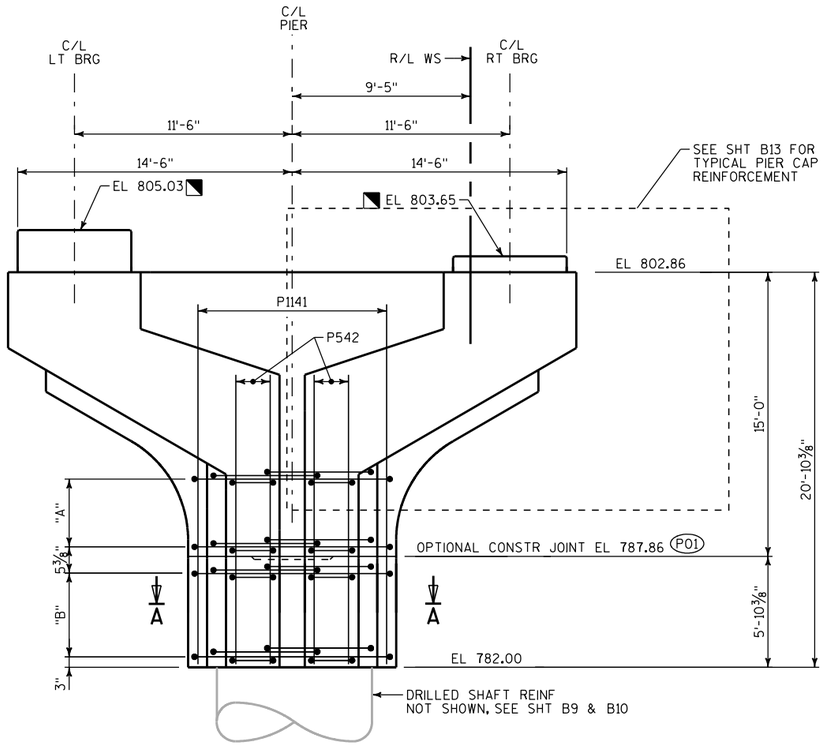
OPTION B
PIER WS05
FOOTING

SHEET B20 OF B26

8

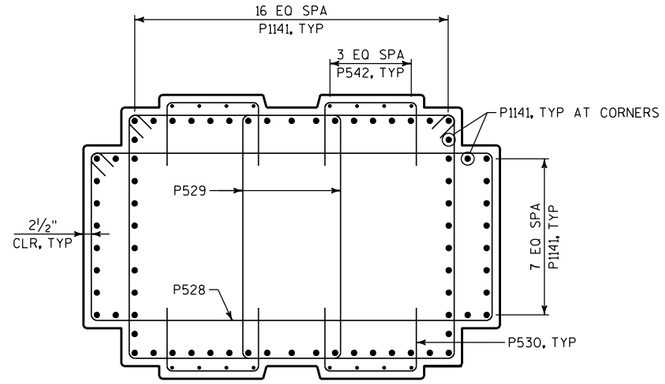
8

STATE PROJECT NUMBER
1060-33-81



ELEVATION

"A" = 8 SPA @ 6", P528, 2-P529, 4-P530
"B" = 11 SPA @ 6", P528, 2-P529, 4-P530



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-40-786

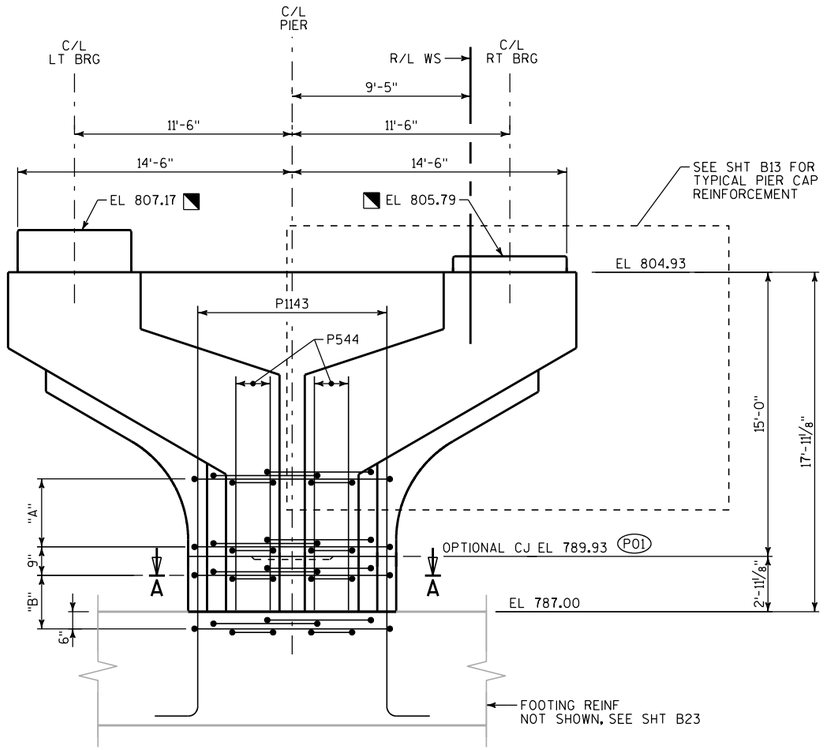
DRAWN BY	GLM	PLANS CK'D.	WRT

OPTION B
PIER WS06
DETAILS

SHEET B21 OF B26

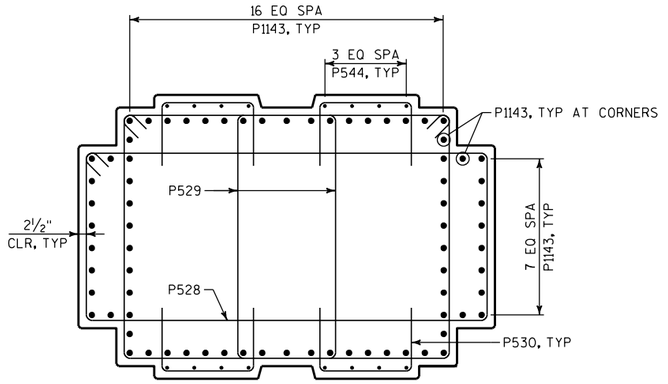
FILE NAME : \\WKE31FP1\w3zoo\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option B\B786_080321B_pi.dgn PLOT DATE : 05-MAR-2015 11:13 PLOT BY : MSCGLM PLOT NAME : sht B21 PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-33-81



ELEVATION

"A" = 4 SPA @ 1'-0", P528, 2-P529, 4-P530
"B" = 3 SPA @ 1'-0", P528, 2-P529, 4-P530



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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

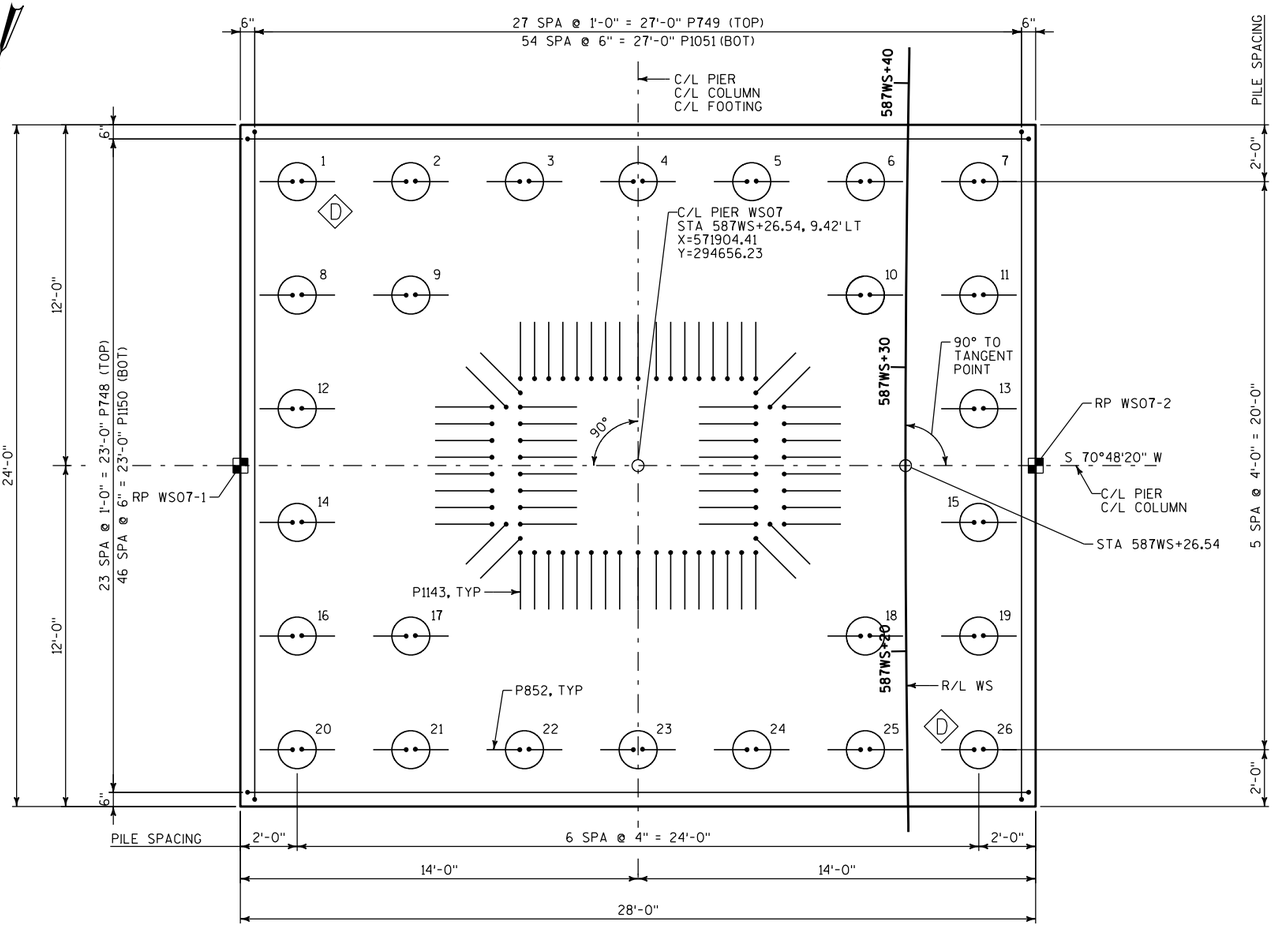
OPTION B
PIER WS07
DETAILS

SHEET B22 OF B26

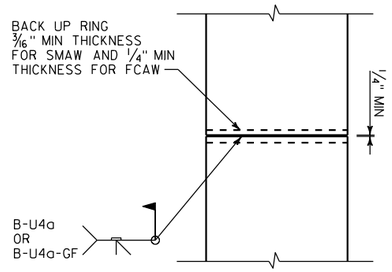
8

8

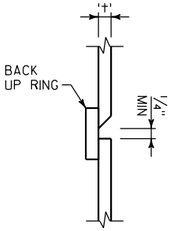
STATE PROJECT NUMBER
1060-33-81



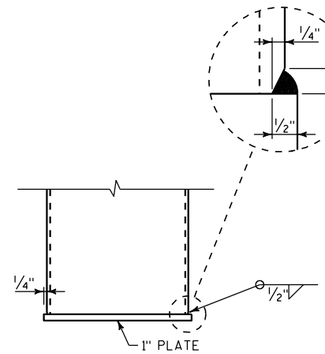
PLAN



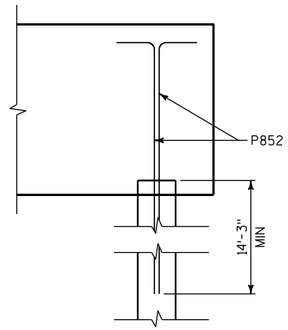
CIP PILE SPLICE DETAIL



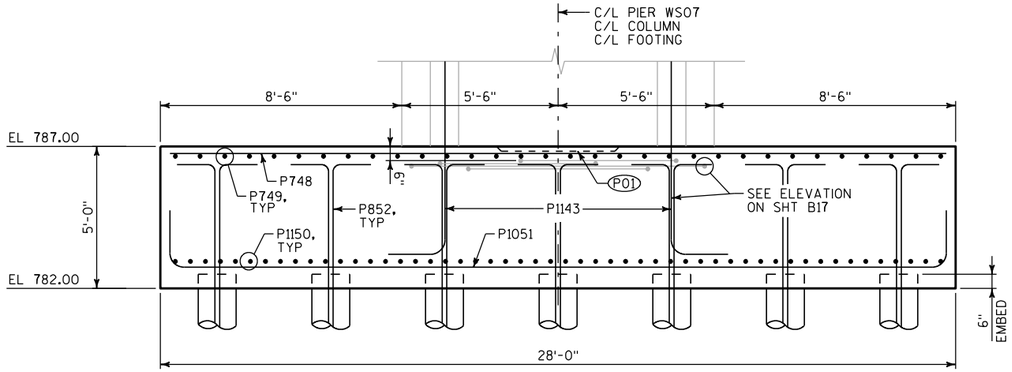
CIP PILE WELD DETAIL



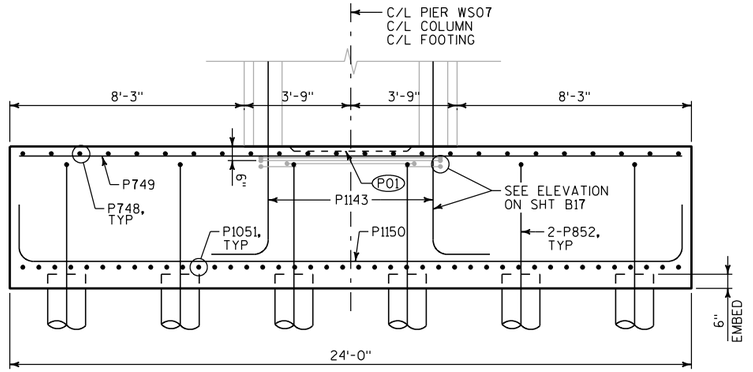
CIP PILE END PLATE DETAIL



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 = 90 FT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-786

DRAWN BY	GLM	PLANS CK'D.	WRT

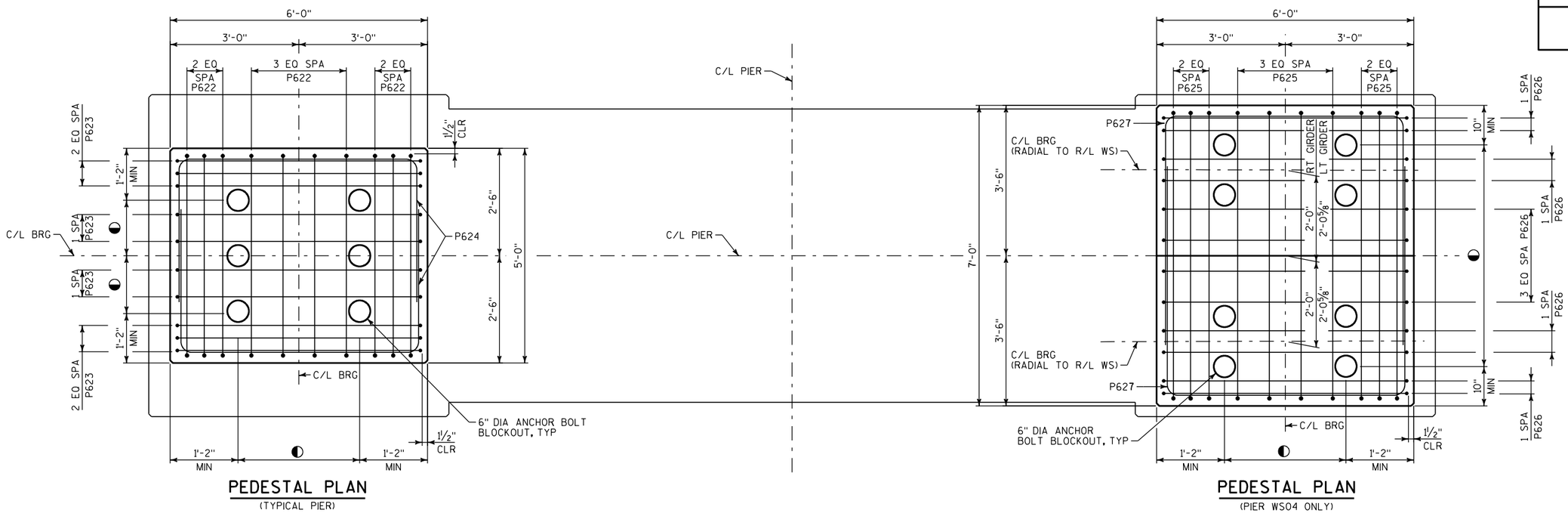
OPTION B
PIER WS07
FOOTING

SHEET B23 OF B26

8

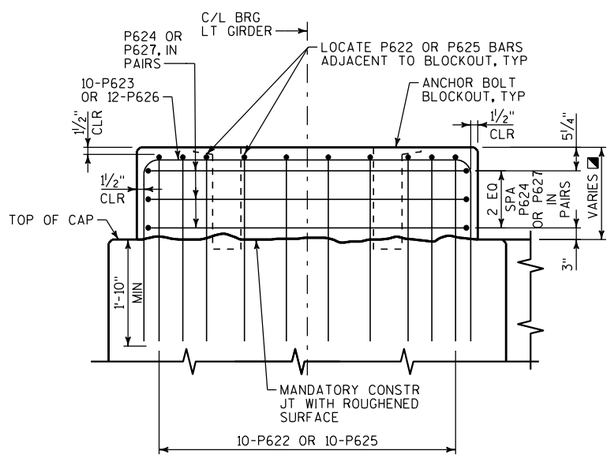
8

STATE PROJECT NUMBER
1060-33-81

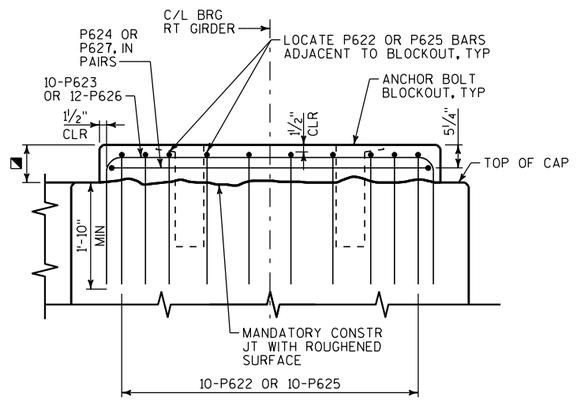


PEDESTAL PLAN
(TYPICAL PIER)

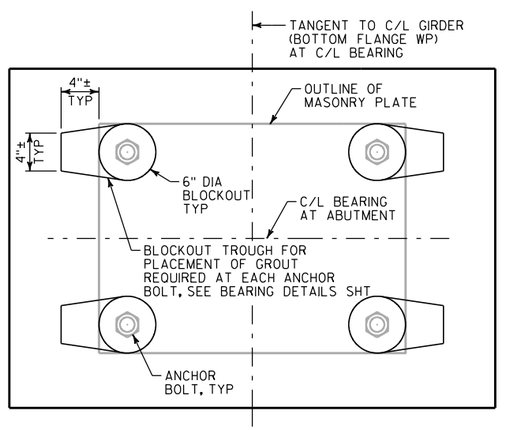
PEDESTAL PLAN
(PIER WS04 ONLY)



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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
TYPICAL PEDESTAL REINFORCEMENT

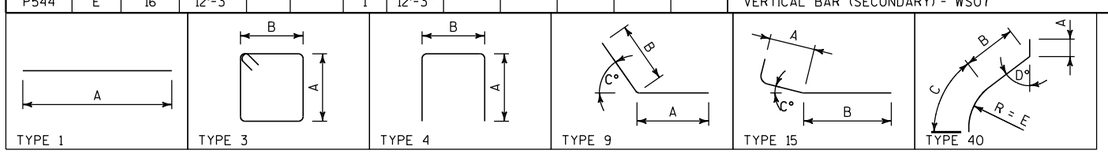
SHEET B24 OF B26

8

FILE NAME : W:\Cadd\Final\10603381_Z2\Structs\B-40-786\cds\cds Option B\B786_080324B_pi.dgn
PLOT DATE : 02-MAR-2015 15:23
PLOT BY : MSCGLM
PLOT NAME : B786_080324B_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	77	32'-8"	X		4	2'-0"	29'-4"					TOP TIE BAR					
P1102	E	77	31'-10"	X		4	2'-0"	28'-6"					BOTTOM TIE BAR					
P803	E	84	29'-4"			1	29'-4"						SKIN STEEL - TOP OF CAP					
P804	E	168	19'-5"		X	1	19'-5"						SKIN STEEL - MIDDLE OF CAP (SERIES)					
P606	E	560	21'-11"	X	X	3	4'-2"	6'-4½"					STIRRUPS - TOP EDGES OF CAP (SERIES)					
P507	E	98	17'-11"	X		4	6'-4"	5'-6"					TIE - TOP CENTER OF CAP					
P508	E	168	18'-9"	X		9	3'-6"	15'-3"	60				OUTSIDE FACE OF PIER CAP - TOP					
P509	E	168	11'-3"	X		4	4'-3"	3'-0"					HORIZONTAL TIE - BOTTOM OF CAP (TOP SEC)					
P510	E	308	13'-3"	X		4	5'-3"	3'-0"					HORIZONTAL TIE - BOTTOM OF CAP (BOT SEC)					
P511	E	336	10'-3"	X		4	3'-9"	3'-0"					VERTICAL TIE - BOTTOM OF CAP (TOP SEC)					
P512	E	56	11'-3"	X		4	4'-3"	3'-0"					VERTICAL TIE - BOTTOM OF CAP (BOT SEC)					
P513	E	98	14'-5"	X		40	3'-0"	5'-0"	6'-5"	60	6'-5"		OUTSIDE FACE OF PIER CAP - BOT					
P514	E	140	16'-5"	X		4	5'-1"	6'-6"					TIE - ARCHITECTURAL REVEAL - HORIZ - TOP					
P515	E	28	18'-1"	X		4	5'-1"	8'-2"					TIE - ARCHITECTURAL REVEAL - HORIZ - MID					
P516	E	28	18'-10"	X		4	5'-1"	8'-11"					TIE - ARCHITECTURAL REVEAL - HORIZ - MID					
P517	E	28	19'-9"	X		4	5'-1"	9'-10"					TIE - ARCHITECTURAL REVEAL - HORIZ - MID					
P518	E	140	11'-4"	X	X	4	2'-4"	6'-10½"					TIE - ARCHITECTURAL REVEAL - HORIZ - BOT (SERIES)					
P519	E	168	5'-0"		X	1	5'-0"						ARCHITECTURAL REVEAL - VERT - TOP (SERIES)					
P520	E	140	4'-11"		X	1	4'-11"						ARCHITECTURAL REVEAL - VERT - MID (SERIES)					
P521	E	28	11'-6"	X		15	7'-9"	3'-0"	72				ARCHITECTURAL REVEAL - VERT - INSIDE FACE					
P622	E	120	10'-11"	X		4	3'-3"	4'-9"					PEDESTAL REINFORCEMENT - TYP - TOP FACE					
P623	E	108	11'-9"	X		4	3'-2"	5'-9"					PEDESTAL REINFORCEMENT - TYP - TOP FACE					
P624	E	24	12'-5"	X		4	3'-7"	5'-7"					PEDESTAL REINFORCEMENT - TYP - SIDE					
P625	E	20	12'-11"	X		4	3'-3"	6'-9"					PEDESTAL REINFORCEMENT - WS04 - TOP FACE					
P626	E	24	11'-9"	X		4	3'-2"	5'-9"					PEDESTAL REINFORCEMENT - WS04 - TOP FACE					
P627	E	8	14'-5"	X		4	4'-7"	5'-7"					PEDESTAL REINFORCEMENT - WS04 - SIDE					
P528	E	196	30'-7"	X		3	10'-7"	4'-5"					COLUMN TRANSVERSE (MAIN)					
P529	E	392	24'-7"	X		3	6'-5"	5'-7"					COLUMN TRANSVERSE (MAIN)					
P530	E	784	5'-6"	X		4	1'-8"	2'-5"					COLUMN TRANSVERSE (SECONDARY)					
P1131	E	74	22'-6"			1	22'-6"						VERTICAL BAR (MAIN) - WS01					
P532	E	16	18'-9"			1	18'-9"						VERTICAL BAR (SECONDARY) - WS01					
P1133	E	74	21'-6"			1	21'-6"						VERTICAL BAR (MAIN) - WS02					
P534	E	16	17'-9"			1	17'-9"						VERTICAL BAR (SECONDARY) - WS02					
P1135	E	74	22'-0"			1	22'-0"						VERTICAL BAR (MAIN) - WS03					
P536	E	16	18'-6"			1	18'-6"						VERTICAL BAR (SECONDARY) - WS03					
P1137	E	74	36'-6"			1	36'-6"						VERTICAL BAR (MAIN) - WS04					
P538	E	16	33'-0"			1	33'-0"						VERTICAL BAR (SECONDARY) - WS04					
P1139	E	74	38'-6"			1	38'-6"						VERTICAL BAR (MAIN) - WS05					
P540	E	16	35'-0"			1	35'-0"						VERTICAL BAR (SECONDARY) - WS05					
P1141	E	74	18'-9"			1	18'-9"						VERTICAL BAR (MAIN) - WS06					
P542	E	16	15'-3"			1	15'-3"						VERTICAL BAR (SECONDARY) - WS06					
P1143	E	74	21'-8"	X		8	20'-0"	2'-0"					VERTICAL BAR (MAIN) - WS07					
P544	E	16	12'-3"			1	12'-3"						VERTICAL BAR (SECONDARY) - WS07					



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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
PIER REINFORCEMENT
SCHEDULE (1 OF 2)

SHEET B25 OF B26

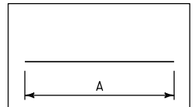
BAR INFORMATION							BAR DIMENSIONS						LOCATION	BAR SERIES INFORMATION				
BAR MARK	MATL	NO. REQ'D	LENGTH	BENT	BAR SERIES	BEND TYPE	A	B	C	D	E	F		DIM 1	MIN	MAX	NO REQ'D	LENGTH
P1145	E	74	18'-8"	X		8	17'-0"	2'-0"					FOOTING TO COLUNM DOWEL					
P946	U	47	28'-4"	X		8	27'-0"	1'-7"					FOOTING BOTTOM WS04					
P947	U	55	24'-4"	X		8	23'-0"	1'-7"					FOOTING BOTTOM WS04					
P748	U	72	27'-0"			1	27'-0"						FOOTING TOP					
P749	U	84	23'-0"			1	23'-0"						FOOTING TOP					
P1150	U	94	20'-8"	X		8	19'-0"	2'-0"					FOOTING BOTTOM WS05 & WS07					
P1051	U	110	16'-6"	X		8	15'-0"	1'-10"					FOOTING BOTTOM WS05 & WS07					
P852	U	156	19'-5"	X		8	18'-3"	1'-4"					PILE TO COLUMN DOWEL					

BAR MARK BREAKDOWN									
MARK	PIER WS01	PIER WS02	PIER WS03	PIER WS04	PIER WS05	PIER WS06	PIER WS07	TOTAL NO	WEIGHT
P1101	11	11	11	11	11	11	11	77	13364
P1102	11	11	11	11	11	11	11	77	13023
P803	12	12	12	12	12	12	12	84	6579
P804	24	24	24	24	24	24	24	168	8710
P606	80	80	80	80	80	80	80	560	18435
P507	14	14	14	14	14	14	14	98	1831
P508	24	24	24	24	24	24	24	168	3285
P509	24	24	24	24	24	24	24	168	1971
P510	44	44	44	44	44	44	44	308	4256
P511	48	48	48	48	48	48	48	336	3592
P512	8	8	8	8	8	8	8	56	657
P513	14	14	14	14	14	14	14	98	1474
P514	20	20	20	20	20	20	20	140	2397
P515	4	4	4	4	4	4	4	28	528
P516	4	4	4	4	4	4	4	28	550
P517	4	4	4	4	4	4	4	28	577
P518	20	20	20	20	20	20	20	140	1655
P519	24	24	24	24	24	24	24	168	876
P520	20	20	20	20	20	20	20	140	718
P521	4	4	4	4	4	4	4	28	336
P622	20	20	20	0	20	20	20	120	1968
P623	18	18	18	0	18	18	18	108	1906
P624	4	4	4	0	4	4	4	24	448
P625	0	0	0	20	0	0	0	20	388
P626	0	0	0	24	0	0	0	24	424
P627	0	0	0	8	0	0	0	8	173
P528	29	26	27	30	32	21	31	196	6252
P529	58	52	54	60	64	42	62	392	10051
P530	116	104	108	120	128	84	124	784	4497
P1131	74	0	0	0	0	0	0	74	8846
P532	16	0	0	0	0	0	0	16	313
P1133	0	74	0	0	0	0	0	74	8453
P534	0	16	0	0	0	0	0	16	296

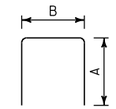
BAR MARK BREAKDOWN									
MARK	PIER WS01	PIER WS02	PIER WS03	PIER WS04	PIER WS05	PIER WS06	PIER WS07	TOTAL NO	WEIGHT
P1135	0	0	74	0	0	0	0	74	8650
P536	0	0	16	0	0	0	0	16	309
P1137	0	0	0	74	0	0	0	74	14350
P538	0	0	0	16	0	0	0	16	551
P1139	0	0	0	0	74	0	0	74	15137
P540	0	0	0	0	16	0	0	16	584
P1141	0	0	0	0	0	74	0	74	7372
P542	0	0	0	0	0	16	0	16	254
P1143	0	0	0	0	0	0	74	74	8519
P544	0	0	0	0	0	0	16	16	204
P1145	0	0	0	74	0	0	0	74	7339
P946	0	0	0	47	0	0	0	47	4528
P947	0	0	0	55	0	0	0	55	4550
P748	0	0	0	24	24	0	24	72	3974
P749	0	0	0	28	28	0	28	84	3949
P1150	0	0	0	0	47	0	47	94	10321
P1051	0	0	0	0	55	0	55	110	7810
P852	0	0	0	44	60	0	52	156	8087
TOT WEIGHT	25073	24345	24660	52525	46770	22691	39252	5896	235317

STATE PROJECT NUMBER

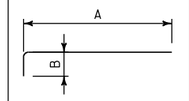
1060-33-81



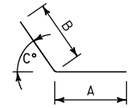
TYPE 1



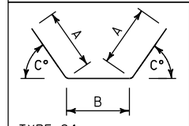
TYPE 4



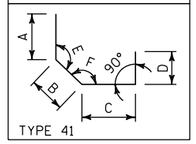
TYPE 8



TYPE 9



TYPE 24



TYPE 41

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-40-786

DRAWN BY GLM | PLANS CK'D. WRT

OPTION B
PIER REINFORCEMENT
SCHEDULE (2 OF 2)

SHEET B26 OF B26

8

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