REHABILITATION STRUCTURE SURVEY REPORT

Wisconsin Department of Transportation

DT1696 6/2012

☒ **Grade Separation** ☐ **Stream Crossing** ☐ **Culvert**

☐ **Railroad** ☐ **Retaining Wall** ☐ **Noise Barrier**

☐ **Sign Structure** ☐ **Other:** _____

For guidance see: **http://dotnet/dtid_bos/extranet/structures/reports-checklists.htm**

Design Project ID 1190-02-34	Construction Project ID 1190-02-64	Highway (Project Name) EAU CLAIRE - CHIPPEWA FALLS		
Final Plan Due Date 05/01/2018	Preliminary Plan Due Date 05/01/2018	☒ Town ☐ Village ☐ City SEYMOUR		
PS&E Date 08/01/2018	Letting Date 02/12/2019	County EAU CLAIRE		
Structure Number B-18-190		Section 11	Town 27N	Range 09W
Station 11+35.52 - 14+02.07	Latitude: 445023.83 Longitude: 912631.51	☒ YES ☐ NO Structure Located on National Highway System		
For Survey and CADD Files Horizontal Coordinate System: Vertical Datum:		**Traffic Forecast Data**		
		Design Year	Average Daily Traffic (ADT)	Roadway Design Speed	Functional Class
Feature On LASALLE STREET		Feature On 2004	3700	40 MPH	Collector
Feature Under USH 53		Feature Under 2014	36300	70 MPH	Principal Arterial
Region Contact: Adam Hetrick (Area Code) Telephone Number(s): 715-836-2855 Email: adam.hetrick@dot.wi.gov		Consultant Contact: (Area Code) Telephone Number(s): Email:			

Work To Be Performed

Field Information Required
Item Number *(see Pages 2–4)*

- ☐ A. Structural Repair 1–3, 22
- ☒ B. Overlay 1–3, 10–22, 26–28, 32, 34
  - ☐ Concrete Overlay ☐ Asphalt Overlay
  - ☐ Polymer Modified Asphalt Overlay ☒ Thin Bonded Polymer Overlay
  - ☐ Other: _____
- ☐ C. New Bearings 3, 8, 9, 22
- ☐ D. New Railings 15–17, 20–23
- ☒ E. Curb and Sidewalk Repair 2, 3, 16, 22, 23
- ☐ F. Abutment Repair 2, 3, 12, 16
- ☐ G. Pier Repair 2, 3, 12, 16
- ☐ H. New Deck 1–6, 9, 10, 13–28, 32–34
- ☐ I. Widening 1–28, 30, 32–35
- ☐ J. Joint Repair 2, 3, 8, 16, 19, 22
- ☐ K. Surface Repair 2, 3, 22
- ☐ L. Raising Bridge 3, 6, 9, 16, 20–24
- ☐ M. Slope Stabilization 1–3, 30
- ☐ N. Scour Repair ..... 1, 2 or 3, 16, 19, 21, 27, 29, 31–35
- ☐ O. Painting 16, 22, 24
- ☐ P. Other: _____

Field Information Required

If no structure number exists provide the following: Small County Map on which the location of proposed structure is shown in red and any highway relocation in green. In addition, provide Location Map of scale not less than 1" = 2000' showing the structure location and number.

☒ 1. Most recent inspection report, brief history of bridge construction date, and description of repairs with dates.

☒ 2. Outline deficient areas on existing structure plan or drawing.

☒ 3. Photographs of details requiring repairs or modifications, such as: bearings, x-frames, joints, etc. Photograph all deficient areas. Clearly label all photographs.

☐ 4. Provide proposed typical section for roadway and structure showing dimensions and cross slopes.

☐ 5. Survey beam seat or girder elevations at both sides of bridge at all substructure units.

☐ 6. Provide cross-section elevations at 10 foot intervals extending across the structure and a minimum of 100 feet beyond each end. Sections should be normal to centerline and show elevations at centerline roadway and gutter line. Take elevations along joints and at floor drains.

☐ 7. Show and identify starting stationing on bridge.

☐ 8. Record measurement, temperature of the structure, and date taken for each of the following:
(a) Joint opening measured normal to joint at centerline of roadway and both curb lines.
(b) Clearance between girder ends at piers.
(c) Distance from front face of abutment backwall to closest point of girder end measured parallel to girder.
(d) Temperature of structure determined by averaging top and under deck (if accessible) readings.

☐ 9. Fixed and expansion bearings - condition and orientation.

☒10. Number and width of proposed pours including construction staging sequence.

☒11. Location of existing construction joints in the deck.

☒12. Estimated Quantities:

Preparation, Decks, Type 1	Sq. Yd. 0	
Preparation, Decks, Type 2	Sq. Yd. 0	
Full Depth Deck Repair	Sq. Yd. 0	Galvanic Anodes? NO
Concrete Surface Repair Superstructure	Sq. Ft. 0	Galvanic Anodes? NO
Concrete Surface Repair Substructure	Sq. Ft. 0	Galvanic Anodes? NO
Curb Repair	LF. 0	Galvanic Anodes? NO

☒13. Sufficiency number: 93.5 (obtain from HSI Bridge Inventory System)

☒14. Appraisal and Condition Rating

	Deck Condition	Superstructure Condition	Substructure Condition	Load Capacity Appraisal	Structural EVAL Appraisal
Current	6	7	7	5	7

☒ 15. Load Ratings

	Inventory	Operational
Current Calculated Date: 6/10/2013	HS19	HS37
After Completed by Bridge Designer		

☒ 16. Utilities on/near Structure. (WisDOT policy is to avoid placing utilities on the structure.)
☐ Yes ☒ No

Type	Owner and Contact Information	Size	Opening at Abutment	Weight	Pressure

☒ 17. Is existing bridge railing deficient?
☐ Yes ☒ No If Yes – Replacement Rail Type:

☒ 18. Drains to be:
☐ Raised ☐ Closed ☐ Downspouted ☐ New

☒ 19. Traffic maintained on bridge during work?
☒ Yes ☐ No If Yes – Include sketches

☒ 20. Will guard rail be attached?
☐ Yes ☒ No If Yes – Which corners? Existing guardrail to remain at all corners.

☒ 21. Will work to be performed eliminate all deficiencies?
☒ Yes ☐ No If No – Explain:

☒ 22. Hazardous waste (asbestos) to be removed?
☐ Yes ☒ No If Yes – Explain:

☒ 23. Wing location(s) for surface drain anchors: NE and NW

☒ 24. Painting?
☐ Yes ☒ No If Yes – Explain on Page 4
(all, part, railing, color system, containment, bid items)

☐ 25. Desired roadway width: *(new deck / widening)* _____ Ft.
Desired sidewalk clear width: Left: _____ Ft. Right: _____ Ft.

☒ 26. Maximum increase in grade line elevation 3/8 In.

☒ 27. Benchmark description to be shown

☒ 28. Desired final cross slopes on bridge 0.02 Ft./Ft.

☐ 29. Underwater Inspection Report including:
- Streambed Cross Section With Pier, Footing and Seal Elevations
- Pier Elevation Drawings
- Pier Layout
- Hydrographic Survey

☐ 30. Slope stabilization, provide:
Type: _____ Quantity: _____ CY.
Slope: _____ Ft./Ft. Fill: _____ CY.

☐ 31. Preliminary layout of grout bags or proposed scour repair.
C.I.P. Articulated Mats (for Scour) _____ CY.
Grout Bags (for Scour) _____ CY.
Heavy Riprap _____ CY.
Extra Heavy Riprap _____ CY.

☒ 32. Report submitted with Preliminary Plan requires **no** CADD file submittal *(See ESubmittal instructions)*.

☐ 33. Report submitted for development of Preliminary Plan to structure design engineer requires CADD file (if available) submittal and Report submittal to Soils Engineer if project involves foundation modifications.

☐ 34. Coordinate with structure design engineer **before** going into the field if existing structure has no available plans, if staged construction is planned, or if there are adjoining/adjacent structures that will remain in place.

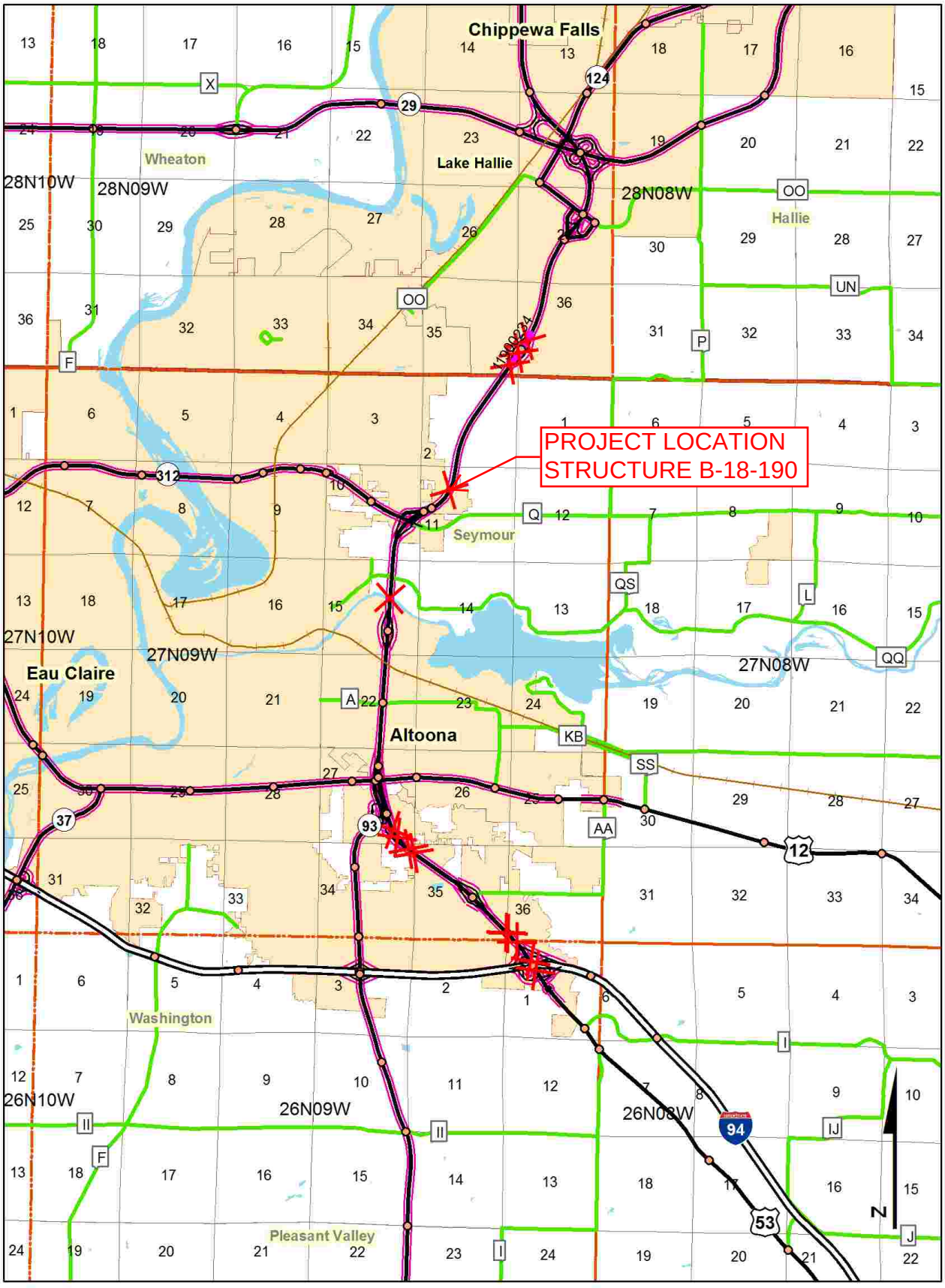
☐ 35. If project involves substructure widening coordinate with structure and/or hydraulic design engineer to determine if information on the separation and/or stream crossing SSR will be required.

Additional Information

Elaborate on other concerns such as: DNR, Local, Utility Conflicts, Aesthetics, Railing Type and Staged Construction.
Please be as detailed and specific as possible.

1.) Structure built in 2003. No repairs since construction. See attached Bridge Inspection Report.
2.) Deficient areas to be determined in the field by the engineer. See attached Bridge Inspection Report. A Polymer Overlay is proposed because of deficiency over the entire structure due to poor bridge deck surface. The deck has a few longitudinal/diagonal cracks at the deck ends. The deck has numerous hairline transverse cracks especially on both sides of the piers and some of the cracks are leaching. The deck has negative moment cracks – the top of the deck is really cracked with a lot of alligator cracks. The deck was partially epoxy crack filled in 2006. The deck has diagonal cracks at all corners. Both of the roadway approaches to the bridge have settled approximately 3.5 inches and both were wedged in 2006. Approaches to the sidewalk on the bridge have settled approximately 3.5 inches.
3.) See attached photographs.
10.) This work will be constructed half at a time under traffic using single lane closures during non-peak hours with night work. All lanes will be opened to traffic daily.
11.) See asbuilt plans.
16.) No utilities on or near structure. No conflicts anticipated.
18.) Existing drains on the bridge deck to remain.
19.) This work will be constructed half at a time under traffic using single lane closures during non-peak hours with night work. Nighttime ramp closures are anticipated at some structures. All lanes and ramps will be opened to traffic daily.
22.) See attached Asbestos Inspection Report. No asbestos-containing material was found.
27.) To be determined.
32.) See preliminary plans.

CDR Map


Chippewa Falls
Wheaton
Lake Hallie
Hallie
Seymour
Eau Claire
Altoona
Washington
Pleasant Valley
28N10W
28N09W
28N08W
27N10W
27N09W
27N08W
26N10W
26N09W
26N08W
PROJECT LOCATION
STRUCTURE B-18-190
N

PROJECT ID: 1190-02-64

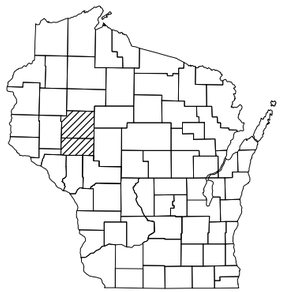
WITH:

COUNTY: EAU CLAIRE / CHIPPEWA

ORDER OF SHEETS

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

TOTAL SHEETS =



N

DESIGN DESIGNATION

A.A.D.T.	=
A.A.D.T.	=
D.H.V.	=
D.D.	=
T.	=
DESIGN SPEED	=
ESALS	=

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1190-02-64		

EAU CLAIRE - CHIPPEWA FALLS

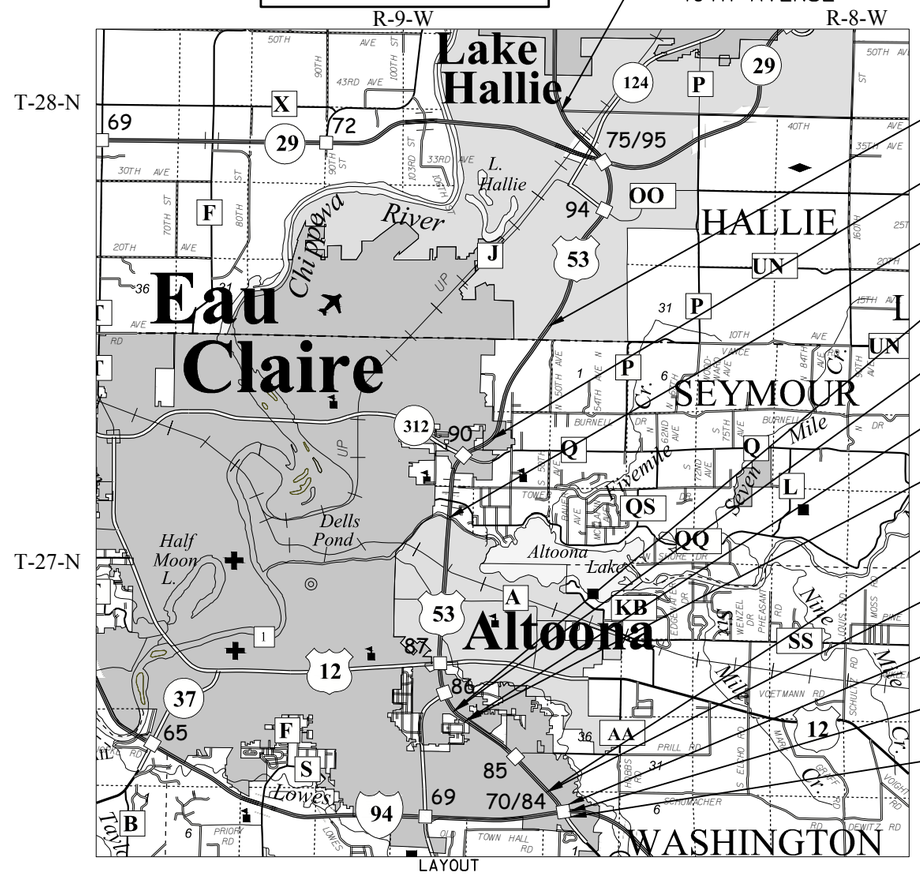
IH 94 TO 40TH AVENUE (11 BRIDGES)

USH 53

EAU CLAIRE AND CHIPPEWA COUNTIES

STATE PROJECT NUMBER
1190-02-64

END PROJECT
STA. 83+66.39 N.B.
40TH AVENUE



LAYOUT

SCALE 0 2 MILES

TOTAL NET LENGTH OF CENTERLINE = 11.26 MILES

STRUCTURE B-09-262

STRUCTURE B-18-190

STRUCTURE B-18-168

STRUCTURE B-18-178

STRUCTURE B-18-182

STRUCTURE B-18-183

STRUCTURE B-18-184

STRUCTURE B-18-37

STRUCTURE B-18-38

STRUCTURE B-18-35

STRUCTURE B-18-36

BEGIN PROJECT
STA. 38+66.40 N.B.
IH 94
X = 359529.44
Y = 262430.72

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, EAU CLAIRE COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	WISDOT
Designer	ADAM HETRICK
Project Manager	DAVID KOEPP
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	TMOTHY MASON

APPROVED FOR THE DEPARTMENT

DATE: _____ _____ (Signature)

E


4429 La Salle St
Exit Street View
N
30
© 2015 Google
© 2015 Google
Google earth
Report a problem
44°50'23.88" N 91°26'32.38" W elev 970 ft eye alt 970 ft

4200 La Salle St

Exit Street View

N

Report a problem

Google earth

44°50'23.29" N 91°26'27.90" W elev 969 ft eye alt 964 ft


4202 La Salle St
Exit Street View
N
© 2015 Google
© 2015 Google
Report a problem
Google earth
44°50'23.77" N 91°26'29.88" W elev 936 ft eye alt 948 ft


4204 La Salle St
Exit Street View
N
© 2015 Google
© 2015 Google
Google earth
Report a problem
44°50'23.77" N 91°26'28.86" W elev 926 ft eye alt 937 ft


4206 La Salle St
Exit Street View
© 2015 Google
© 2015 Google
Report a problem
Google earth
44°50'23.66" N 91°26'27.39" W elev 933 ft eye alt 944 ft


4210 La Salle St
Exit Street View
© 2015 Google
© 2015 Google
Report a problem
Google earth
44°50'23.75" N 91°26'27.13" W elev 943 ft eye alt 951 ft


4208 La Salle St
Exit Street View
© 2015 Google
© 2015 Google
Report a problem
Google earth
44°50'23.79" N 91°26'28.14" W elev 946 ft eye alt 954 ft


4208 La Salle St
Exit Street View
© 2015 Google
© 2015 Google
Google earth
Report a problem
44°50'23.68" N 91°26'27.77" W elev 945 ft eye alt 954 ft


4206 La Salle St
Exit Street View
© 2015 Google
© 2015 Google
Google earth
Report a problem
44°50'23.90" N 91°26'30.11" W elev 929 ft eye alt 937 ft


4202 La Salle St
Exit Street View
STOP
© 2015 Google
© 2015 Google
Google earth
Report a problem
44°50'24.02" N 91°26'32.09" W elev 937 ft eye alt 943 ft

route: 053N county: EAU CLAIRE date: 08/13/2013 plm: 068.697

Lat: 44.83786227 Long: -91.44337121 Elev: 828.06 ft.

\\doteauplog1p\photolog\Rg5\053N_R5_2013\\Front\Dir_071\F_07172.jpg

route: 053N county: EAU CLAIRE date: 08/13/2013 plm: 068.807

Lat: 44.83909623 Long: -91.44196077 Elev: 831.38 ft.

\\doteauplog1p\photolog\Rg5\053N_R5_2013\\Front\Dir_071\F_07183.jpg

route: 053S county: EAU CLAIRE date: 08/14/2013 plm: 134.373

Lat: 44.84224729 Long: -91.44093668 Elev: 834.19 ft.

\\doteauplog1p\photolog\Rg5\053S_R5_2013\\Front\Dir_136\F_13665.jpg

route: 053S county: EAU CLAIRE date: 08/14/2013 plm: 134.473

Lat: 44.84082334 Long: -91.44130824 Elev: 827.55 ft.

\\doteauplog1p\photolog\Rg5\053S_R5_2013\\Front\Dir_136\F_13675.jpg

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Inspection Report for B-18-190

LASALLE ST over USH 53

Jul 10,2015

Type	Prior	Frequency (mos)	Performed
Routine	07-10-15	24	X
SI&A	07-20-11	48	X

Latitude	44°50'23.83"N	Owner	STATE HIGHWAY DEPT
Longitude	91°26'31.51"W	Maintainer	STATE HIGHWAY DEPT

Time Log

Hours	Minutes
1	21

Team members

	Name	Number	Signature	Date
Inspector	Frueh, Rick J	1003	Completed by HSI System Account(HSI)	
Reviewer				

BRIDGE INSPECTION REPORT
Wisconsin Department of Transportation
DT2007 2003 s.84.17 Wis. Stats.

Identification & Location

Feature On: LASALLE ST	Section Town Range: S11 T27N R09W	Structure Number: **B-18-190**
Feature Under: USH 53	County: EAU CLAIRE(18)	
Location: AT USH 53	Municipality: TOWN-SEYMOUR(18020)	Structure Name:

Geometry

measurements in feet, except where noted

Approach Roadway Width: 33	Bridge Roadway Width: 31.8	Total Length: 265.7
Approach Pavement Width: 29	Deck Width: 40.4	Deck Area (sq ft): 10734

Traffic

	Lanes	ADT	ADT year	Traffic Pattern
On	2	3700	2004	TWO WAY TRAFFIC
Under	2	35600	2013	NO TRAFFIC

Capacity

Load Rating

Inventory rating: HS19	Overburden depth (in): 0.0	Last rating date: 06-10-03	Controlling: INTERIOR DECK GIRDER Fatigue
Operating rating: HS37	Deck surface material: CONCRETE	Re-rate for capacity (Y/N):	Control location: SPAN 1
Posting:	Re-rate notes:		

Hydraulic

Classification

Scour Critical Code(113): (N) NO WATERWAY	Q100 (ft3/sec): 0	
High water elevation (ft): 0.0	Velocity (ft/sec): 0.0	Sufficieny #: 93.5

Span(s)

Span #	Material	Configuration	Depth (in)	Length (ft)	Main
1	CONT PREST CONC	DECK GIRDER	70	137.8	Y
2	CONT PREST CONC	DECK GIRDER	70	124.7	

Expansion joint(s)

Temperature: File: | New:

Vertical Clearance

	Measurement file (ft)	File Date	Measurement new (ft)
Highway Minimum Under Cardinal	16.4	10-Dec-2002	
Highway Minimum Under Non-Cardinal	24.61	10-Dec-2002	
Highway Minimum On			
Railroad Minimum Under			

Elements

Chk	Element	Defect	Description	UOM	Total	Quantity in Condition State 1	2	3	4
X	**12**		**Reinforced Concrete Deck**	SF	10,784	10,000	784	0	0
		1130	Cracking (RC)	SF		0	784	0	0
			Few longitudinal/diagonal cracks at deck ends. Numerous hairline transverse cracks especially on both sides of piers and some of the cracks are leaching.						
	8000		Wearing Surface (Bare)	SF	10,784	10,229	555	0	0
		3210	Debonding/Spall/Patched Area/Pothole	SF		0	0	0	0
		3220	Crack (Wearing Surface)	SF		2,111	555	0	0
			Top of deck is really cracked with a lot of alligator cracks. Partially epoxy crack filled in 06. Few longitudinal/diagonal cracks at deck ends. Numerous hairline transverse cracks in pier area.						
	8522		Coated Reinforcing	SF	10,784	0	0	0	0
			ok - neg moment cracks - top is really cracked with a lot of alligator cracks. Partially epoxy crack filled in 06. Few longitudinal cracks at deck ends. Diagonal cracks at all corners.						
X	**109**		**Prestressed Concrete Open Girder**	LF	1,323	1,323	0	0	0
			5 - 70 inch girders.						
X	**205**		**Reinforced Concrete Column**	EA	3	3	0	0	0
			ok						
X	**215**		**Reinforced Concrete Abutment**	LF	82	73	7	2	0
			Water felt stained at front face and under parapet joints.						
		1080	Delamination - Spall - Patched Area	LF		0	0	0	0
		1130	Cracking (RC)	LF		0	7	2	0
			6 hairline vertical cracks at west abutment. 3 hairline vertical cracks in east abutment.						
X	**234**		**Reinforced Concrete Cap**	LF	40	37	3	0	0
		1130	Cracking (RC)	LF		0	3	0	0
			1 vertical crack below girder 2. 2 hairline vertical cracks below girder 4.						
X	**331**		**Reinforced Concrete Bridge Rail**	LF	532	432	100	0	0
			Railing on top of parapet, cracks at neg moment area. Sheared bolt at thrie beam attachment at southeast corner.						
		1130	Cracking (RC)	LF		36	100	0	0
			Hairline vertical cracks (approx 5FT spacing).						
X	**8400**		**Integral Wingwall**	EA	4	3	1	0	0
		8902	Wingwall Movement	EA		0	1	0	0
			Southeast wing is tipped outward about 1 inch. (2011-2013-2015)						
		8903	Wingwall Deterioration.	EA		0	0	0	0

BRIDGE INSPECTION REPORT
Wisconsin Department of Transportation
DT2007 2003 s.84.17 Wis. Stats.

Structure No.:**B-18-190**

Assessments

Chk	Element	Defect	Description	UOM	Total	Quantity in Condition State 1	2	3	4
X	**9004**		**Drainage - Deck** Inlets at NW and NE.	EA	2	2	0	0	0
X	**9009**		**Sidewalk** **On north side of bridge.** **Few hairline transverse cracks.** **Approaches to sidewalk have settled approx 3.5 inches (2011).** **Sidewalk approaches have AC wedges.**	EA	1	0	1	0	0
X	**9030**		**Signs - Object Markers** 4 markers	EA	4	4	0	0	0
X	**9043**		**Slope Protection- Crushed Aggregate with Bit.** Added slope paving beside abutment at SE corner to repair washout.	EA	2	2	0	0	0
X	**9167**		**Steel Diaphragm** ok	EA	16	16	0	0	0
X	**9168**		**Concrete Diaphragm** **Over pier.**	EA	4	4	0	0	0
X	**9323**		**Approach Roadway - Asphalt** Both approaches have settled (approx 3.5IN). Both have been wedged in 2006.	EA	2	2	0	0	0

NBI Ratings

	File	New
Deck	6	6
Superstructure	7	7
Substructure	7	7
Culvert	N	N
Channel	N	N
Waterway	N	N

Structure Specific Notes

Inspection Specific Notes

new bridge in 2003.
Possible epoxy overlay.

Inspector Site-Specific Safety Considerations

Structure Inspection Procedures

Walk around.

Special Requirements

	Chk	Comments
Traffic Control		
ReachAll Vehicle		
Access Equipment		
Other		

Construction History

Year	Work Performed	FOS id
2003	NEW STRUCTURE	1190-00-82

Maintenance Items History

Item	Recommended by	Status	Status change	Year completed

Maintenance Items

Item	Priority	Recommended by	Status	Status change
IMP-Thin Epoxy Overlay	MEDIUM	Frueh, Rick J (1003)	COMPLETE	08/09/15
Consider possible epoxy over lay.				

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-18-190
LASALLE ST over USH 53

LOCATION

(3) Municipality:	TOWN-SEYMOUR(18020)
(16) Latitiude(° ' "):	44°50'23.83"N
(17) Longitude(° ' "):	91°26'31.51"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(102) Traffic Pattern Under:	X-NO TRAFFIC -ONE WAY TRAFFIC -TWO WAY TRAFFIC
(19) Detour Length(mi):	1

GEOMETRY

(49) Structure Length(ft):	265.7	
(50) Sidewalk Width(ft):	**Left:** 5.9	**Right:** 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	**Angle(°):** 17	**Direction:** -RIGHT FORWARD X-LEFT FORWARD
	Cardinal Width	**Non-Cardinal Width**
(51) Bridge Roadway(ft):	31.8	31.8
(52) Deck(ft):	40.4	40.4
(32) Approach Roadway(ft):	33	0
	Cardinal Under Clearance	**Non-Cardinal Under Clearance**
(47) Minimum Horizontal(ft):	88.25	85.5
(55) Minimum Right Lateral(ft):	30.75	19.5
(55) Minimum Left Lateral(ft):	32.5	33.0

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36D) Guardrail Termination Adequacy:	X-SUB-STANDARD -STANDARD -NOT APPLICABLE

Outer Rail:

Left	Right	Type
		TYPE F (TWO SQUARE TUBES) - STEEL(8)
		TYPE F (3 SQUARE TUBES) - STEEL(65)
		TYPE F (4 SQUARE TUBES) - STEEL(72)
		TYPE M-STEEL 3 SQUARE TUBES(93)
X	X	SLOPED FACE PARAPET LF(91)
		SLOPED FACE PARAPET HF(92)
		VERTICAL FACE PARAPET TYPE A(74)
		TYPE W-THRIE BEAM(79)
		TYPE H ON VERTICAL PARAPET(80)
		TIMBER(38)
		OTHER(99) (Please specify)

Transition Type:

	CONT GUARD RAIL
	NO APP GRDRL
	NO ATTACHMENT
5	22 MM(7/8") BOLT (Please enter quantity)
	25 MM(1") BOLT (Please enter quantity)
	OTHER (Please specify)

Guardrail Termination Type:

	(01) ENERGY ABSORBING TERMINAL/EAT
	(02) TURN DOWN
X	(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:

	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vehicle operating speed
	(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required

Wisconsin Dept. of Transportation
Structure Inventory Data

Bridge B180190

Structure No.:	Municipality:	Section:	Town:	Range:	Maintenance Agency:	Owner:
B180190	TOWN-SEYMOUR(18020)				STATE HIGHWAY DEPT	STATE HIGHWAY DEPT
Replaced Structure No.:	**Historical Sig.:** 5	**Latitude:** 445023.83	**Longitude:** 912631.51		**County:** EAU CLAIRE(18)	**District:** 6

ABUTMENT DATA (CARDINAL)

1. Abutment Type: SILL/SEMI EXP/RECT
2. Pile Type: STEEL
3. Pile Size: 254 OR 273 MM (10 OR 10-3/4")
4. Slope Protection Type: STAB CR STONE
5. Rdwy. Width: 31.8 **ft**
6. Deck Width: 40.4 **ft**
7. Wing Type: PARALLEL TO ROADWAY

ABUTMENT DATA (NON-CARDINAL)

1. Abutment Type: SILL/SEMI EXP/RECT
2. Pile Type: STEEL
3. Pile Size: 305 MM (12")
4. Slope Protection Type: STAB CR STONE
5. Rdwy. Width: 31.8 **ft**
6. Deck Width: 40.4 **ft**
7. Wing Type: PARALLEL TO ROADWAY

GEOMETRIC DATA

1. Structure Length: 265.7 **ft (Back to Back Abuts. Along Rrdwy. Centerline)**
2. No. Lanes On: 2
3. L. Sdk. Width On: 5.9 **ft**
4. R. Sdk. Width On: 0.0 **ft**
5. Median Type:
6. Median Width: 0.0 **ft**
7. Skew Angle: 17 **Deg.**
8. Direction Skew Angle: LEFT
9. Horizontal Curve: 5728.35 **Radius, ft**
10. Dir.-Hor. Curve: LEFT
11. Girder Spacing: 6.6 **ft**
12. Height: 70.0 **ft (Top Pier Footing to Top Deck or Streambed Elev. to Top Deck)**
13. NBI Bridge Length Met: true

APPROACH DATA

1. Appr. Pavement Width: 29 **ft**
2. Rt. Shoulder Width: 4 **ft**
3. Lt. Shoulder Width: 0 **ft**
4. Total Width (Sum Above): 33 **ft**
5. Guardrail Termination: 0
6. Guardrail Adequacy: 1
7. Railing Attachment Type: 5 - 22 MM (7/8") BOLTS
8. Railing Design Year: 1965 AASHO
9. Left Outer Railing Type: SLOPED FACE PARAPET LF(91)
10. Right Outer Railing Type: SLOPED FACE PARAPET LF(91)
11. Left Inner Railing Type:
12. Right Inner Railing Type:

HYDRAULIC DATA

1. Design Flood Frequency: 0 **yrs**
2. Design Discharge: 0 **cu-ft/s**
3. Max. Velocity: 0.0 **ft/s**
4. Drainage Area: 0.0 **sq. ft**
5. High Water Elev.: 0.0 **ft**
6. Scour Critical Code: N
7. Scour Calculated?: false

CAPACITY DATA

1. Design MS: HS20
2. Inventory MS: HS22.2
3. Operating MS: HS40
4. Max. Veh. Wt.: 250 **kips**
5. Load Rating Basis.: LFR
6. Load Governing Member: DECK GIRDER
7. Deck Composition:
8a. Deck Membrane:
8b. Deck Surface: CONCRETE

STRUCTURE SERVICE DATA

1. Hwy. On Detour Length: 1 **ft**
2. Type Service On: HIGHWAY
3. Type Service Under: HIGHWAY

APPRAISAL UPDATE

1. Load Capacity: 5-LEGAL LOAD STRESS NOT EXCEEDED
2. Geom. On: 4-COND AT TOL LIMIT-NO REPAIRS
3. Geom. Under: 5-COND ADEQUATE-NO REPAIRS
4. Appr. Align: 8-COND EQUAL DESIRABLE CRITERIA
5. Horiz. Align:
6. Vert. Align:

PLANNING DATA

1. Functional Classification: LOCAL-URBAN(19)
2. ADT: 3700
3. ADT-Year: 2004
4. Truck ADT %: 0
5. Future ADT: 4100
6. Future ADT-Year: 2024

CONDITION DATA

Deck: 6	**SuperStructure:** 7	**SubStructure:** 7	**Channel:** N
Culvert: N	**Waterway:** N		

Bridge B180190

CONSTRUCTION DATE

Project ID	Construction Contractor	Construction Designer	Construction Year	Plans Reel Number	Letting Date	Survey Received	Work Performed
1190-00-82	HOFFMAN CONST.	ROMENESKO ENGINEERING	2003	PLAN	10-Jun-2003	07-Oct-2002	NEW STRUCTURE

CLEARANCE DATE

Clearance Lane Number	Minimum Vertical	Minimum Vertical Date	Minumum Horizontal Distance	Right Minimum Lateral
	24.61	10-Dec-2002	85.5	19.5
	16.4	10-Dec-2002	88.25	30.75

Left Minimum Lateral	Railroad Right Minimum Lateral	Railroad Left Minimum Lateral	Railroad Vertical Distance	Railroad Horizontal Distance
33.0				
32.5				

ROUTE DATE

Number	Direction	Type	Structure Route On / Under	Structure Route Cardinal / NonCardinal
	E		O	C
053	N		U	C
053	S		U	N

Number	Structure Route Location	Highway Feature Name	Structure Route Local System	Highway Feature Designation
	AT USH 53	LASALLE ST	LRD	MAINLINE
053	AT LASALLE ST	USH 53	USH	MAINLINE
053	AT LASALLE ST	USH 53	USH	MAINLINE

Number	Structure Route Primary Flag	Designed National Network Flag	Structure Defense Highway Designation	Highway On Inventory Route
	Y	N	0	NON
053	Y	N	0	NHS
053	N	N	0	NHS

PIER DATE

Number	Pier Type	Piling Type	Piling Size	Pier Skew Angle	Direction of Skew
1	ROUND COL BENT				

SPAN DATE

Number	Type	Length	Configuration	Material	Girder or Truss Height	Girder or Truss Spacing
1		137.8	DECK GIRDER	CONT PREST CONC	70.0	6.6
2		124.7	DECK GIRDER	CONT PREST CONC	70.0	6.6

EXPANSIONJOINT DATE

Number	Location	Type	Inactive Date

708 Heartland Trail, Suite 3000
Madison, WI 53717

608.826.3600 PHONE
608.826.3941 FAX

www.TRCsolutions.com

Bridge Asbestos Inspection Report

WisDOT Project ID: 1190-02-34
Structure Number: B-18-0168, B-18-0190
Structure Name: USH 53 SB over Eau Claire River, La Salle Street over USH 53
City/County: City of Altoona, Town of Seymour, Eau Claire County
Lat/Long Coordinates: 444929.4/ 912715.1, 445023.83/ 912631.51
TRC Project Number: 235777.0000.0000
Date Inspected: October 14, 2015
Inspected By/License Number: John Roelke, AII-119523

Findings:

The inspection to identify and collect samples of potential asbestos-containing material (ACM) was completed following WisDOT standard sampling procedure for bridge inspections found in FDM 21-35-45.

None of the materials that were identified as potentially ACM and sampled tested positive for asbestos. The overlay on the bridges can proceed as planned. Standard Special Provision (STSP) 107-125 should be included in the specifications.

Sample Number	Sample Description	Sample Location	Analytical Results and Method	Friable/ Non-friable or No ACM	Quantity of ACM Material
B-18-0168					
1	Caulk	Abutment joint	PLM, non-detect	No ACM	0
2	Caulk	Abutment joint	PLM, non-detect	No ACM	
3	Caulk	Abutment joint	PLM, non-detect	No ACM	
4	Brown paint	Girder	PLM, non-detect	No ACM	0
5	Brown paint	Girder	PLM, non-detect	No ACM	
6	Brown paint	Girder	PLM, non-detect	No ACM	
7	White paint	Girder	PLM, non-detect	No ACM	0
8	White paint	Girder	PLM, non-detect	No ACM	
9	White paint	Girder	PLM, non-detect	No ACM	

Sample Number	Sample Description	Sample Location	Analytical Results and Method	Friable/ Non-friable or No ACM	Quantity of ACM Material
B-18-0190					
1	Paint	Pedestrian fence	PLM, non-detect	No ACM	0
2	Paint	Pedestrian fence	PLM, non-detect	No ACM	
3	Paint	Pedestrian fence	PLM, non-detect	No ACM	
4	Caulk	Around fence attachment plate	PLM, non-detect	No ACM	0
5	Caulk	Around fence attachment plate	PLM, non-detect	No ACM	
6	Caulk	Around fence attachment plate	PLM, non-detect	No ACM	
7	Caulk	Around bolts in fence attachment plate	PLM, non-detect	No ACM	0
8	Caulk	Around bolts in fence attachment plate	PLM, non-detect	No ACM	
9	Caulk	Around bolts in fence attachment plate	PLM, non-detect	No ACM	
10	Caulk	Abutment joint	PLM, non-detect	No ACM	0
11	Caulk	Abutment joint	PLM, non-detect	No ACM	
12	Caulk	Abutment joint	PLM, non-detect	No ACM	
13	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	0
14	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	
15	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	

If you have any questions, please contact me, at (608) 826-3628.

TRC Environmental Corporation

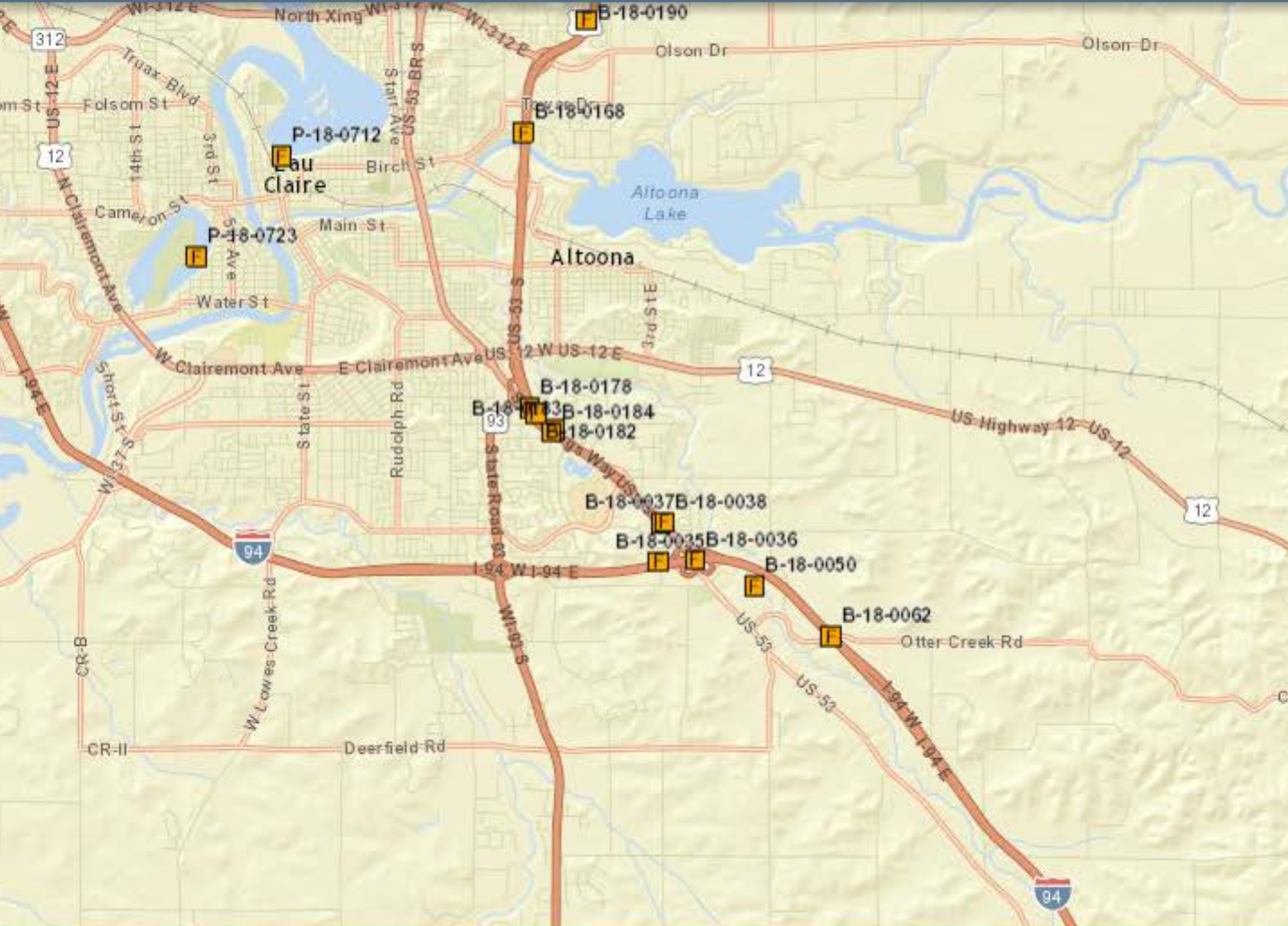
Daniel Haak
Project Manager

John Roelke
Asbestos Inspector

Attachments: Location Map, Photos, and Laboratory Reports

Report Distribution:

Recipient	Electronic (PDF) Copy	Paper Copy
BTS-ESS sharlene.tebeest@dot.wi.gov	X (via email)	X
REC amy.adrihan@dot.wi.gov; nicholasA.schaff@dot.wi.gov	X (via email)	
Project Manager david.koepp@dot.wi.gov	X (via email)	
Other		


B-18-0190
Olson Dr
Olson Dr
B-18-0168
P-18-0712
Eau Claire
Birch St
Altoona Lake
P-18-0723
Main St
Altoona
Water St
W Clairemont Ave
E Clairemont Ave
US 12 W US 12 E
B-18-0178
B-18-0184
B-18-0182
US Highway 12 US-12
B-18-0037
B-18-0038
B-18-0035
B-18-0036
B-18-0050
I-94 W I-94 E
B-18-0062
Otter Creek Rd
Deerfield Rd
CR-II
CR-B
W Lowes Creek Rd
State Road 93
Rudolph Rd
State St
Short St
N Clairemont Ave
Truax Blvd
Folsom St
Cameron St
14th St
3rd St
5th Ave
Start Ave
US-53-BR-S
US-53-S
3rd St E
US-53
I-94 W I-94 E
312
12
93
94

B-18-0168

Caulk in abutment joint

White graffiti paint on girder

Brown graffiti paint on girder

B-18-0190

Paint on fence

Caulk around fence attachment plate

Caulk around bolts in attachment plate

Caulk in abutment joint

Caulk in parapet expansion joint

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

BULK ASBESTOS ANALYSIS REPORT

CLIENT: Wisconsin Department of Transportation

Lab Log #: 0047027
Project #: 235777.0000.0000
Date Received: 10/16/2015
Date Analyzed: 10/19/2015

Site: DOT Bridge Inspection, B-18-168

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
B-18-168 (1)	Grey	Yes	No	- -	- - -	ND	None
B-18-168 (2)	Grey	Yes	No	- -	- - -	ND	None
B-18-168 (3)	Grey	Yes	No	- -	- - -	ND	None
B-18-168 (4)	Brown	Yes	No	- -	- - -	ND	None
B-18-168 (5)	Brown	Yes	No	- -	- - -	ND	None
B-18-168 (6)	Brown	Yes	No	- -	- - -	ND	None
B-18-168 (7)	White	Yes	No	- -	- - -	ND	None
B-18-168 (8)	White	Yes	No	- -	- - -	ND	None
B-18-168 (9)	White	Yes	No	- -	- - -	ND	None

Industrial Hygiene Laboratory
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Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop
SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2016. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2016. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

Analyzed by: K. Williamson — Kathleen Williamson, Laboratory Manager

Reviewed by: Amanda Parkins — Amanda Parkins, Approved Signatory

Date Issued 10/19/2015

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

BULK ASBESTOS ANALYSIS REPORT

CLIENT: Wisconsin Department of Transportation

Lab Log #: 0047038
Project #: 235777.0000.0000
Date Received: 10/16/2015
Date Analyzed: 10/20/2015

Site: DOT Bridge Inspection, B-18-190

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
B-18-190 (1)	Black	Yes	No	- -	- - -	ND	None
B-18-190 (2)	Black	Yes	No	- -	- - -	ND	None
B-18-190 (3)	Black	Yes	No	- -	- - -	ND	None
B-18-190 (4)	Grey	Yes	No	- -	- - -	ND	None
B-18-190 (5)	Grey	Yes	No	- -	- - -	ND	None
B-18-190 (6)	Grey	Yes	No	- -	- - -	ND	None
B-18-190 (7)	Grey	Yes	No	- -	- - -	ND	None
B-18-190 (8)	Grey	Yes	No	- -	- - -	ND	None
B-18-190 (9)	Grey	Yes	No	- -	- - -	ND	None
B-18-190 (10)	Grey	Yes	No	- -	- - -	ND	None
B-18-190 (11)	Grey	Yes	No	- -	- - -	ND	None
B-18-190 (12)	Grey	Yes	No	- -	- - -	ND	None
B-18-190 (13)	Grey	Yes	No	- -	- - -	ND	None
B-18-190 (14)	Grey	Yes	No	- -	- - -	ND	None
B-18-190 (15)	Grey	Yes	No	- -	- - -	ND	None

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop
SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

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Analyzed by: K. Williamson — Kathleen Williamson, Laboratory Manager

Reviewed by: Amanda Parkins — Amanda Parkins, Approved Signatory

Date Issued 10/21/2015

PROJECT ID: 1190-00-82 WITH 8610-00-72

DESIGN ID 1190-00-02 WITH 8610-00-02

COUNTY: EAU CLAIRE

+50 D

ORDER OF SHEETS

Sheet No.	1	Title
Sheet No.		Typical Sections and Details (includes erosion control plans)
Sheet No.		Estimate of Quantities
Sheet No.		Miscellaneous Quantities
Sheet No.		Right of Way Plat
Sheet No.		Plan and Profile
Sheet No.		Standard Detail Drawings
Sheet No.		Sign Plates
Sheet No.	✓	Structure Plans
Sheet No.		Computer Earthwork Data
Sheet No.		Cross Sections

TOTAL SHEETS = 858

MAY 0 8 2003

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1190-00-82	HHP 2003493	1
8610-00-72	STP 2003490	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

EAU CLAIRE - CHIPPEWA FALLS ROAD

(NORTH CROSSING TO LASALLE ST.)
U.S.H. 53
EAU CLAIRE COUNTY

STATE PROJECT NUMBER
1190-00-82

(LASALLE ST. TO U.S.H. 53)
U.S.H. 53
EAU CLAIRE COUNTY

STATE PROJECT NUMBER
8610-00-72

BEGIN CONSTRUCTION 1190-00-82
STA. 490'N'+00
N 371463.8541
E 1585386.6558

STRUCTURE B-18-0189

STRUCTURE C-18-0026
PEDESTRIAN UNDERPASS

BEGIN PROJECT 8610-00-72
STA. 515+00
N 371424.6411
E 1587890.2782

STRUCTURE C-18-0027

END PROJECT 1190-00-82
STA. 455'US'+00
N 371106.7175
E 1595001.7199

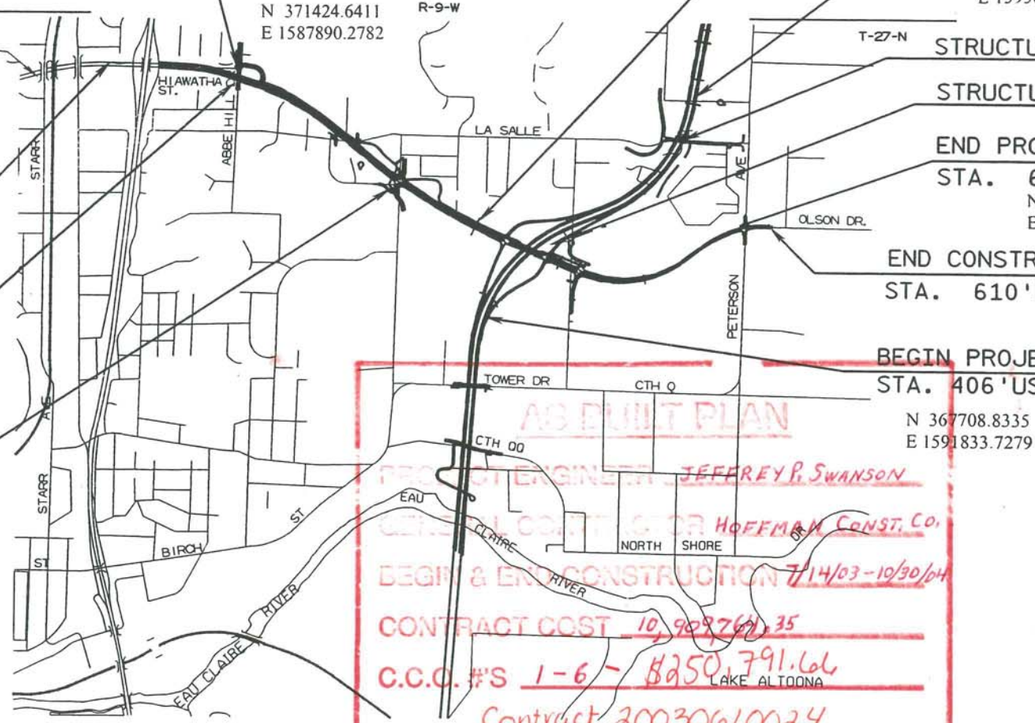
STRUCTURE B-18-0190

STRUCTURE B-18-0188

END PROJECT 8610-00-72
STA. 604+25
N 368886.3964
E 1595730.6697

END CONSTRUCTION 1190-00-82
STA. 610'N'+00

BEGIN PROJECT 1190-00-82
STA. 406'US'+25
N 367708.8335
E 1591833.7279



AS BUILT PLAN
PROJECT ENGINEER JEFFREY P. SWANSON
GENERAL CONTRACTOR HOFFMAN CONST. CO.
BEGIN & END CONSTRUCTION 7/14/03 - 10/30/04
CONTRACT COST 10,907,760.35
C.C.C. #'S 1-6 - 8250,791.66
Contract 20030610024
3/9/11 CAD

"Coordinates on this plan are referenced to the Wisconsin State Plane Coordinate System (WSPCS), 'Central' Zone."

LAYOUT
SCALE 0 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.923 MI. (1190-00-82)
TOTAL NET LENGTH OF CENTERLINE = 1.690 MI. (8610-00-72)

DESIGN DESIGNATION

A.D.T. (2004)	=	23,200
A.D.T. (2024)	=	31,100
D.H.V. (2024)	=	3,565
D.	=	50/60
T.	=	7.7
DESIGN SPEED	=	70 MPH
ESALS	=	6,321,800

CONVENTIONAL SYMBOLS

COUNTY LINE		COMBUSTIBLE FLUIDS	CAUTION
CORPORATE LIMITS		UNDERGROUND UTILITIES	
PROPERTY LINE	P.L. + 58.1	GAS	G
LOT LINE		ELECTRIC	E
LIMITED EASEMENT		TELEPHONE OR TELEGRAPH	T
EXISTING RIGHT OF WAY		COMMUNICATIONS LINE	C
PROPOSED OR NEW R/W LINE		SERVICE PEDESTAL	
SURVEY LINE		POWER POLE	
SLOPE INTERCEPT		TELEPHONE POLE	
ORIGINAL GROUND		RAILROAD	
MARSH OR ROCK PROFILE (To be noted as such)	ROCK	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		WATER	W
		EXISTING CULVERT	
WOODED OR SHRUB AREA		PROPOSED CULVERT (Box or Pipe)	
		CULVERT (Profile View)	

ACCEPTED FOR
CITY of EAU CLAIRE
Storm Sewer
2-10-03 (Date)
D.P.W. (Signature & Title of Official)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	DTD DIST. 6
Designer	MIKE BERTHOLD
District Examiner	SCOTT IVES
District Supervisor	RICK SHERMO
Proj. Dev. Engineer	LARRY JONES
C.O. Examiner	C. BUJANOWSKI

APPROVED FOR DISTRICT OFFICE
DATE: 2/7/03 (Signature)

E

FILE NAME : ±±EAU31ZP1±CADDPROJ±microstation±Projects±d6_11900006±d6_11900082±010101eTitl.dgn DATE: 30-JAN-2003 15:47 ORIG DATE : 9-18-01 leo PLOT NAME : 010101Titl.I Originator : DIST. 6, L. OLSON PLOT SCALE : 480.000000:1.000000

WISDOT/CADDS SHEET 1

\\EAU31ZP1\caddproj\microstation\Projects\d6_11900006\d6_1190008282PLPR583.DGN

VIKING GAS

E.C. ENERGY

CAUTION

CHARTER COMM.

PC 10+18.72

PT 18+94.57

PETERSON AVE.

15' S

LASALLE ST.

20' S

PI 12+00.00

PI 14+87.09

STA 22+84.72

USH 53 FREEWAY S.B.

USH 53 FREEWAY N.B.

REMOVING PAVEMENT

CAUTION

0 100 200 300 FEET

SCALE

970 960 950 940 930 920 910

VPC STA 12+00.00
VPC EL 958.00

VPI STA 13+50.00
VPI EL 955.97

VPT STA 15+00.00
VPT EL 947.57

-1.3514 %

VPOT STA 10+00.00
VPOT EL 960.70

K = 70.61
VCL 300.00

FINISHED GROUND PROFILE ON ℄

-5.6000 %

EXISTING GROUND

VCL 300.00
K = 66.41

VPC STA 18+70.00
VPC EL 926.85

VPI STA 20+20.00
VPI EL 918.45

VPT STA 21+70.90
VPT EL 916.83

-1.0824 %

+2.1650 %

VPI STA 22+15.00
VPI EL 915.69

VPOT STA 22+84.72
VPOT EL 915.90

STA. 12'LS'+74.31
2 SPAN 70' PRESTRESSED
GIRDER GRIDGE B-18-190
16'-11" CLEAR ROADWAY
SKEW 17°30' RHF

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37

957.49 960.70 | 948.19 959.35 | 940.86 958.00 | 936.70 955.94 | 932.98 952.46 | 929.41 947.57 | 927.19 941.97 | 924.16 936.37 | 922.36 930.77 | 921.02 925.24 | 919.19 920.84 | 917.89 917.95 | 916.16 916.50

STATE PROJECT NO: 1190-00-82	HWY: U.S.H. 53 FREEWAY	COUNTY: EAU CLAIRE	PLAN & PROFILE: LASALLE STREET - 'LS' LINE	SHEET NO: . 338 E

FILE NAME : ±±EAU31ZP1±caddproj±microstation±Projects±d6_11900006±d6_11900082±PLPR583.DGN

PLOT DATE : 09-APR-2003 15:16

ORG DATE :

PLOT NAME :

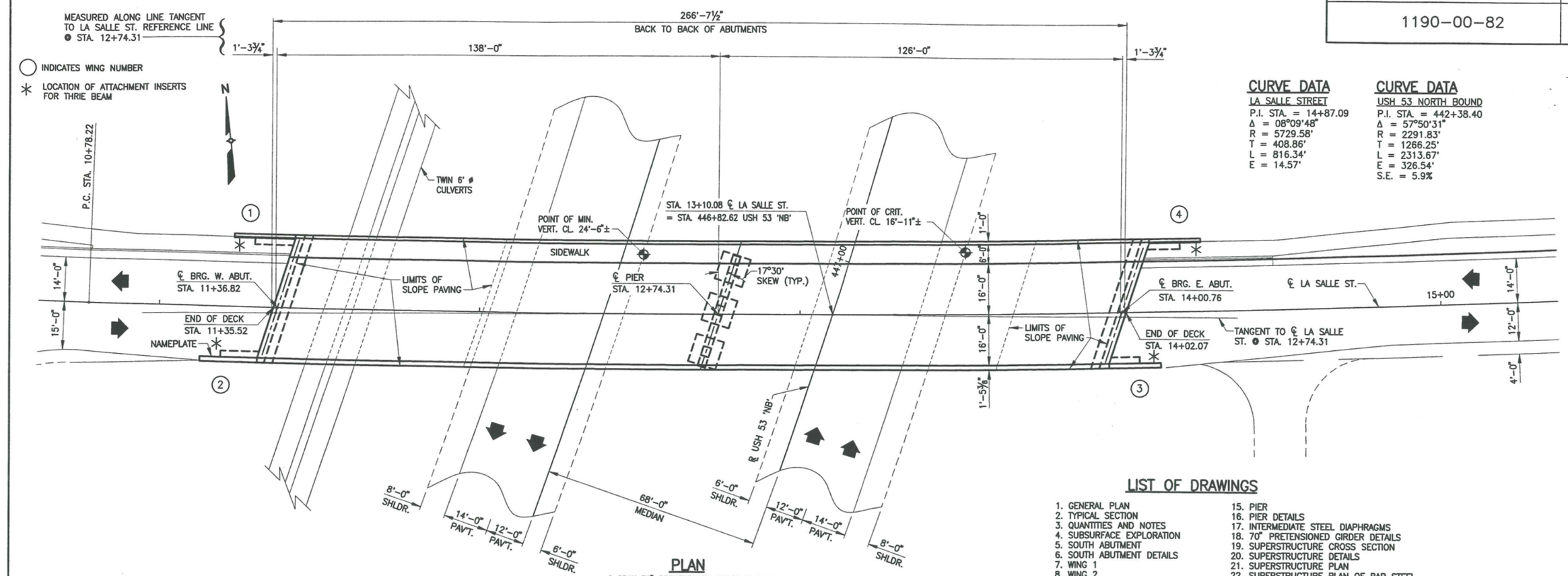
ORIGINATOR :

PLOT SCALE : 2.006061:1.000000

WSDOT/CADDS SHEET 42

LEVELS ON

STATE PROJECT NUMBER	SHEET NO.
1190-00-82	547



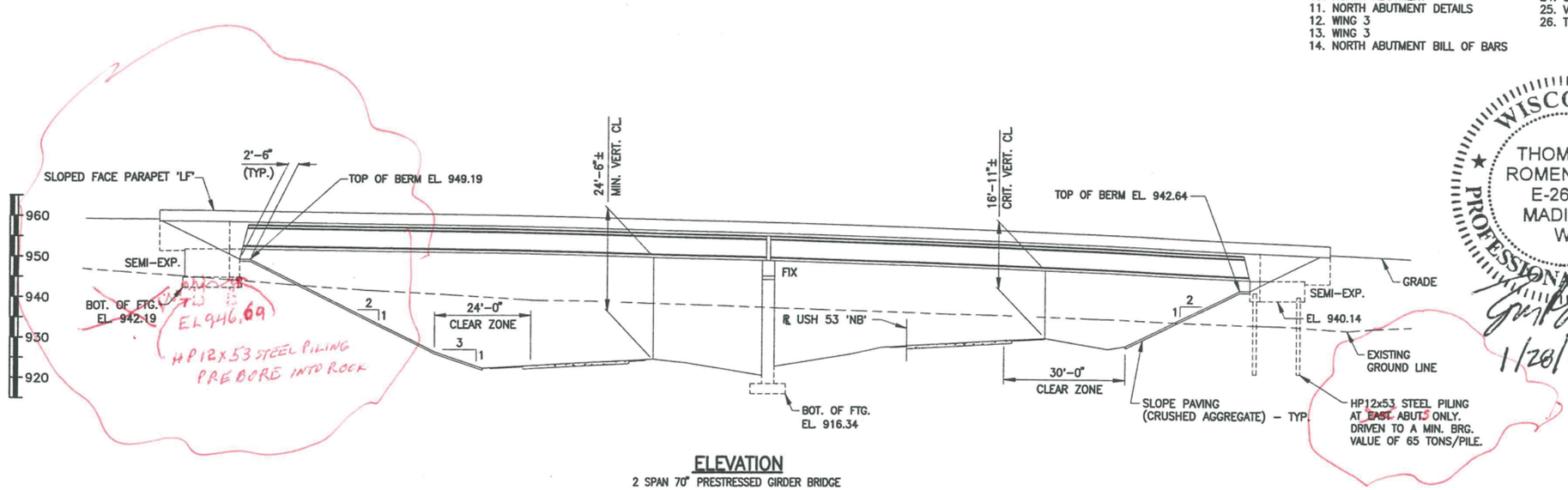
PLAN
2 SPAN 70' PRESTRESSED GIRDER BRIDGE

CURVE DATA
LA SALLE STREET
P.I. STA. = 14+87.09
Δ = 08°09'48"
R = 5729.58'
T = 408.86'
L = 816.34'
E = 14.57'

CURVE DATA
USH 53 NORTH BOUND
P.I. STA. = 442+38.40
Δ = 57°50'31"
R = 2291.83'
T = 1266.25'
L = 2313.67'
E = 326.54'
S.E. = 5.9%

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION
3. QUANTITIES AND NOTES
4. SUBSURFACE EXPLORATION
5. SOUTH ABUTMENT
6. SOUTH ABUTMENT DETAILS
7. WING 1
8. WING 2
9. SOUTH ABUTMENT BILL OF BARS
10. NORTH ABUTMENT
11. NORTH ABUTMENT DETAILS
12. WING 3
13. WING 3
14. NORTH ABUTMENT BILL OF BARS
15. PIER
16. PIER DETAILS
17. INTERMEDIATE STEEL DIAPHRAGMS
18. 70' PRETENSIONED GIRDER DETAILS
19. SUPERSTRUCTURE CROSS SECTION
20. SUPERSTRUCTURE DETAILS
21. SUPERSTRUCTURE PLAN
22. SUPERSTRUCTURE PLAN OF BAR STEEL
23. SUPERSTRUCTURE DETAILS AND BILL OF BARS
24. SLOPED FACE PARAPET "LF" (SOUTH SIDE)
25. VERTICAL FACE PARAPET "A" (NORTH FACE)
26. TUBULAR RAILING, SPECIAL



ELEVATION
2 SPAN 70' PRESTRESSED GIRDER BRIDGE

BRIDGE OFFICE CONTACT:
GERRY ANDERSON
(608) 266-8488

ROMENESKO ENGINEERING, LLC
213 JACKSON STREET
SAUK CITY, WI. 53583
(608) 644-1502

WISCONSIN
THOMAS J. ROMENESKO
E-26318
MADISON
WI
PROFESSIONAL ENGINEER

1/28/03

No.	Date	Revision	By

ROMENESKO ENGINEERING, LLC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190
LA SALLE ST. OVER USH 53

County EAU CLAIRE		Town SEYMOUR	
Design Spec. A.A.S.H.T.O. 1996		Load HS20	Const. Spec. WIS. 1996
Designed By T.J.R.	Design Checked V.A.R.	Drawn By T.L.	Plans Checked T.J.R.

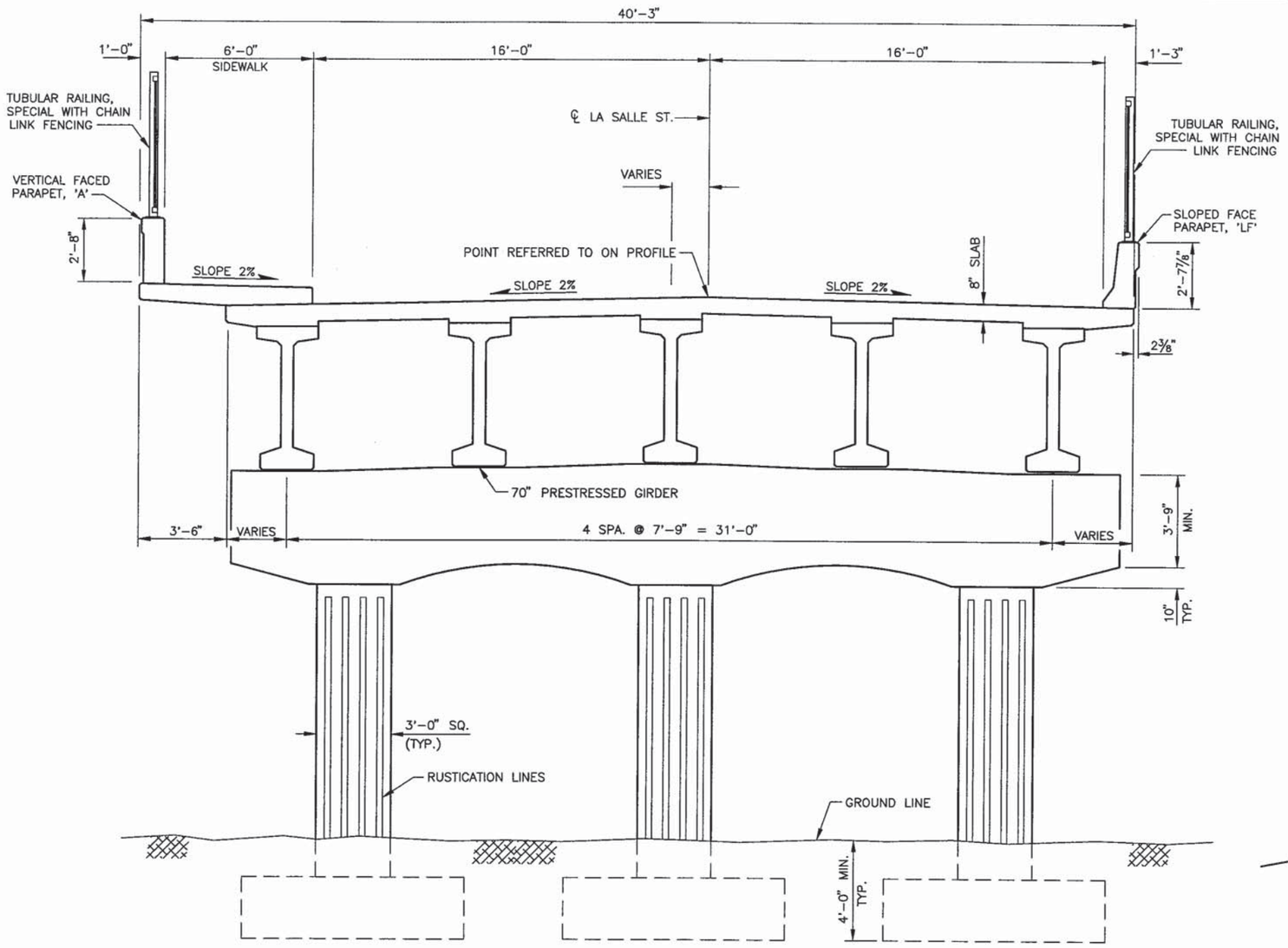
Approved [signature] State Bridge Engineer 03/26/03 Date

GENERAL PLAN

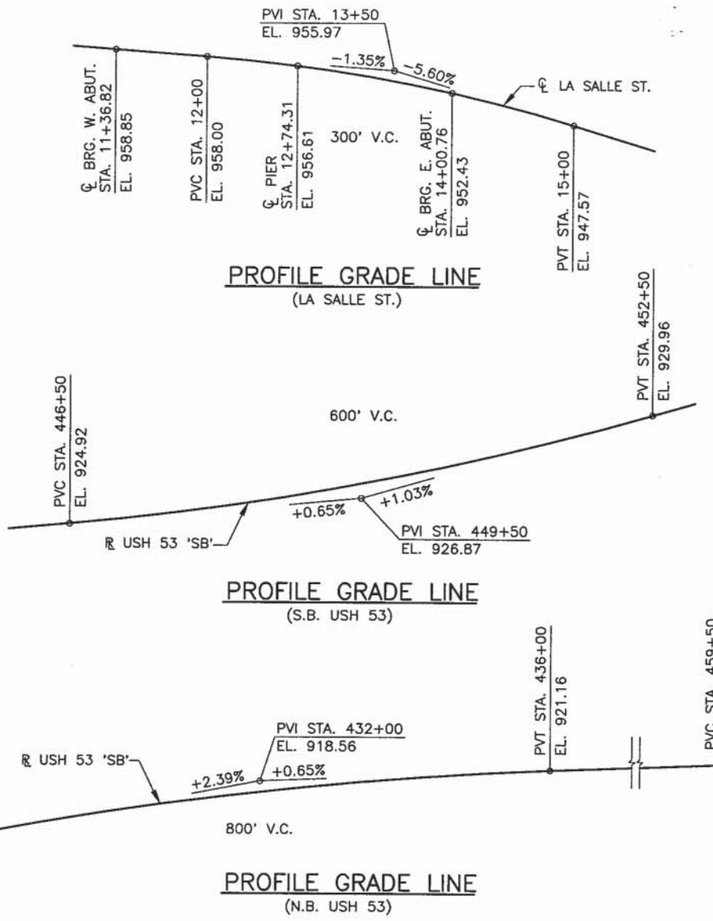
SHEET 1 OF 26

DATE: DECEMBER 2002

STATE PROJECT NUMBER	SHEET NO
1190-00-82	



LA SALLE TYPICAL BRIDGE SECTION



DESIGN DATA

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE 20 PSF.

LIVE LOAD:
- DESIGN RATING — HS20
- INVENTORY RATING — HS23
- OPERATING RATING — HS40
- MAX. STD. PERMIT VEHICLE LOAD = 250 KIPS

ULTIMATE DESIGN STRESSES:
- CONCRETE MASONRY SLAB — f'c = 4,000 psi
- ALL OTHER — f'c = 3,500 psi

HIGH STRENGTH BAR STEEL REINFORCEMENT — fy = 60,000 psi

70" PRETENSIONED GIRDERS
- CONCRETE MASONRY — 8,000 psi
- STRANDS – ½" OR 0.6" DIA. WITH AN ULTIMATE TENSILE STRENGTH OF 270,000 psi

FOUNDATION DATA:

WEST ABUTMENT TO BE SUPPORTED ON SPREAD FOOTINGS ON SANDSTONE BEDROCK AT A MINIMUM BEARING CAPACITY OF 7.5 TONS PER SQUARE FOOT.

PIER TO BE SUPPORTED ON SPREAD FOOTINGS ON SANDSTONE BEDROCK AT A MINIMUM BEARING CAPACITY OF 7.5 TONS PER SQUARE FOOT.

EAST ABUTMENT TO BE SUPPORTED ON HP12x53 STEEL PILING EST. 20' LG., DRIVEN TO A MIN. BRG. VALUE OF 65 TONS PER PILE (TYP.)

TRAFFIC DATA:

LA SALLE STREET	USH 53
ADT = 4,100 (2024)	ADT = 32,750 (2024)
RDS = 40	RDS = 70

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-18-190

Const. Spec. WIS. '99	Drawn By TL	Plans Checked TR

TYPICAL SECTION

SHEET 2 OF 26

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STATE PROJECT NUMBER	SHEET NO
1190–00–82	

TOTAL ESTIMATED QUANTITIES

BID ITEM	UNIT	W ABUT	PIER	E ABUT	SUPER	TOTAL
EXCAVATION FOR STRUCTURES, BRIDGE B–18–190	L.S.	–	–	–	–	1
CONCRETE MASONRY, BRIDGES	C.Y.	82.3	65.8	43.3	436.6	628
PROTECTIVE SURFACE TREATMENT	S.Y.	–	–	–	1,388	1,388
PRESTRESSED GIRDER, I TYPE, 70–INCH	L.F.	–	–	–	1,323	1,323
STEEL DIAPHRAGMS, STRUCTURE B–18–190	EACH	–	–	–	16	16
HIGH STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LB.	7,810	1,500	4,590	–	13,900
COATED HIGH STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LB.	135	11,990	115	65,720	77,960
NON–LAMINATED ELASTOMERIC BEARING PADS	EACH	5	5	5	–	15
STEEL PILING, DELIVERED AND DRIVEN, HP12x53	L.F.	–	–	180	–	180
SLOPE PAVING, CRUSHED AGGREGATE	S.Y.	300	–	160	–	460
RUBBERIZED MEMBRANE WATERPROOFING	S.Y.	9	–	9	–	18
STRUCTURE BACKFILL	C.Y.	290	–	170	–	460
GEOTEXTILE FABRIC, TYPE DF	S.Y.	48	–	52	–	100
ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	–	2	–	4
PIPE UNDERDRAIN, 6–INCH	L.F.	60	–	65	–	125
PIPE UNDERDRAIN, UNPERFORATED, 6–INCH	L.F.	75	–	75	–	150
PAINTING CONCRETE, STRUCTURE B–18–190	S.Y.	42	137	42	833	1,054
TUBULAR RAILING, SPECIAL, STRUCTURE B–18–190	L.S.	–	–	–	1	1
QUALITY MANAGEMENT PROGRAM READY MIXED CONCRETE MASONRY FOR BRIDGES, 5–CYLINDER	C.Y.	82.3	65.8	43.3	436.6	628
QUALITY MANAGEMENT PROGRAM BRIDGE STRENGTH INCENTIVE, CONCRETE	DOL.	823	658	433	4366	6280
NON–BID ITEMS						
FILLER	SIZE	–	–	–	–	½" & ¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION: M153, TYPE I, II, OR III OR A.A.S.H.T.O. DESIGNATION: M213.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING TO THE EXTENT SHOWN IN THE ABUTMENT DETAILS AND ON THE GENERAL PLAN SHEET.

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE TOP OF DECK AND INSIDE FACE AND TOP OF PARAPETS.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE FINISHED GRADED SECTION SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

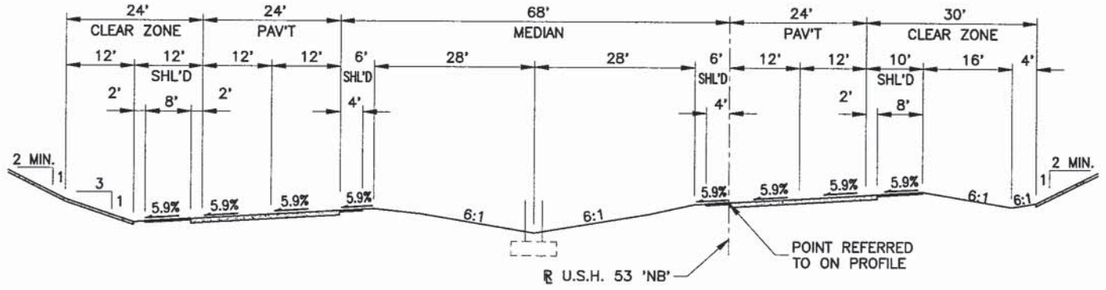
THE STRUCTURE SHALL BE PAINTED IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND THE PAINTING DETAILS BELOW.

ALL SPACES AT THE BACKFACE OF THE ABUTMENTS SHALL BE BACKFILLED WITH STRUCTURAL BACKFILL TO THE ELEVATION OF THE TOP OF THE PROPOSED SUBGRADE ELEVATION WITHIN THE LENGTH OF THE ABUTMENT. SEE ABUTMENT SHEETS FOR DETAIL.

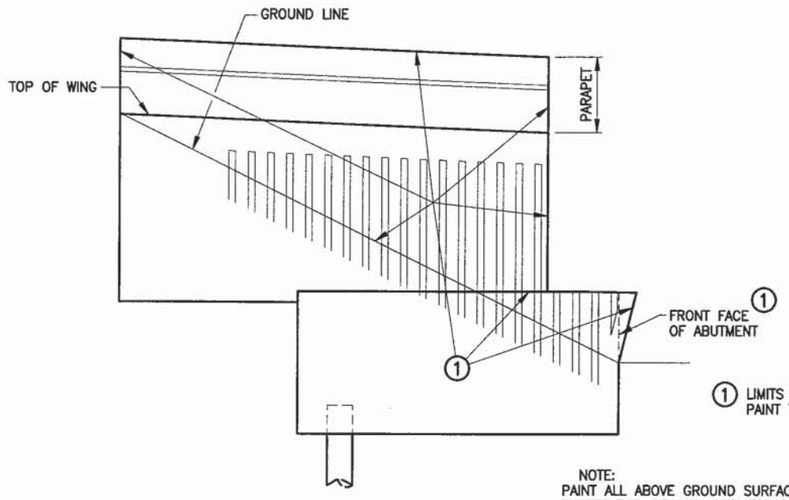
FILL/EXCAVATION TO BOTTOM OF ABUTMENT ELEVATION BEFORE DRIVING PILING.

THE MINIMUM CONCRETE HAUNCH SHALL BE 2" FOR DESIGN CALCULATIONS AND THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE HAUNCH DEPTH OF 2½" WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

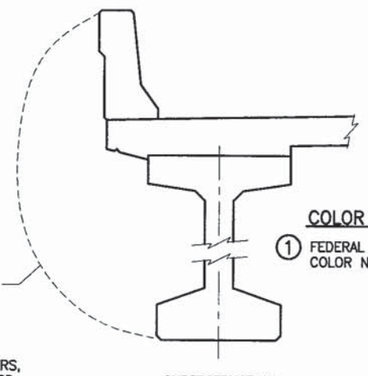
THE DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR WITH A MONUMENT TO BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.



TYPICAL SECTION THRU U.S.H. 53



ABUTMENT WINGWALLS



SUPERSTRUCTURE

COLOR LEGEND

1 FEDERAL STANDARD COLOR NUMBER 36622

NOTE:
PAINT ALL ABOVE GROUND SURFACES OF PIERS, EXCEPT TOP OF CAP, WITH FEDERAL STANDARD COLOR NUMBER 36622.

PAINT FRONT FACE OF ABUTMENT ABOVE THE GROUNLINE.

PAINTING DETAILS
(SEE SPECIAL PROVISIONS)

No.	Date.	Revision •	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

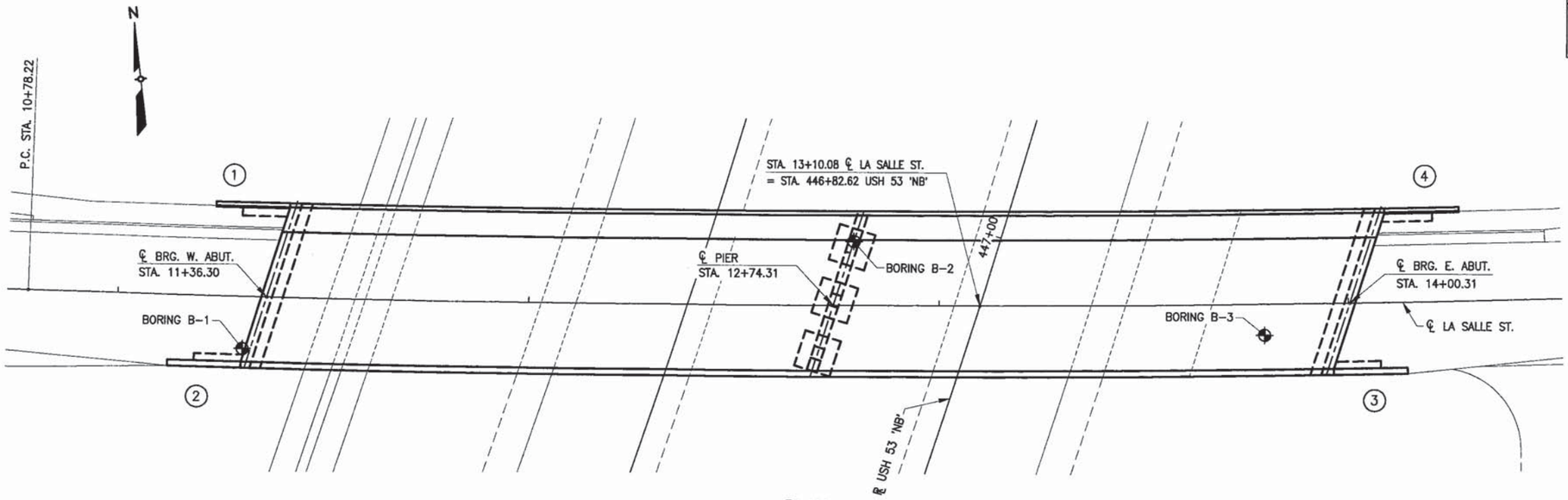
STRUCTURE B–18–190

Const. Spec.	Drawn By	Plans Checked
WIS. '99	TL	TR

QUANTITIES AND NOTES

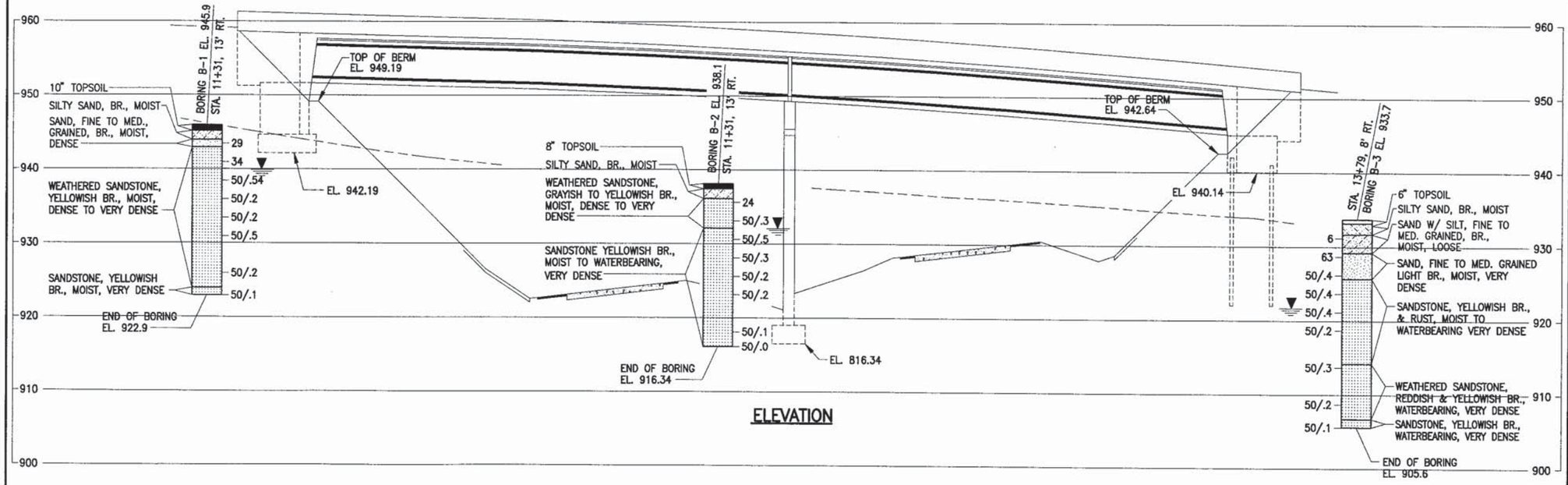
SHEET 3 OF 26

599



PLAN

BORINGS BY:
MAXIM TECHNOLOGIES, INC.
WAUSAU, WISCONSIN
JUNE 13, 2002



ELEVATION

STATE PROJECT NUMBER	SHEET NO.
1190-00-82	

ABBREVIATIONS

F— Fine M— Medium C— Coarse
Ws— Weathered So— Sound

MATERIAL SYMBOLS

Topsoil, Silt, Sandstone
Sand, Peat, Limestone
Gravel, Clay, Igneous Rock

LEGEND OF PROBING

95/6 = 95 Blows for 6" Penetration
Probing taken with a 350 Lb. Wt. Falling 18" on a 2" O.D. Point

Probing No.
Sta.
Elevation
7 Average Blows Per Foot
Refusal 95/6

LEGEND OF BORING

Boring No., Elev. Sta. & Offset
Elev.
Unconfined Strength — 7.7 — 7
Blows Per Foot Using 140 Lb. Wt. Falling 30"
Wash Sample
Shelby Tube — S.T.
Ground Water Elevation
No Ground Water Observed Above This Elevation
Sandy Gravel
F.
Boulders or Cobbles
Sand
Silty Clay
So Limestone

Unless otherwise specified, the blows per foot at the locations indicated are based on driving a 2" O.D. x 1.4" I.D. split spoon sampler with a 140 lb. 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 Division of Highways 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-18-190

Const. Spec.	WIS. 1996	Drawn By	T.L.	Plans Checked	T.R.

SUBSURFACE EXPLORATION

SHEET 4 OF 26

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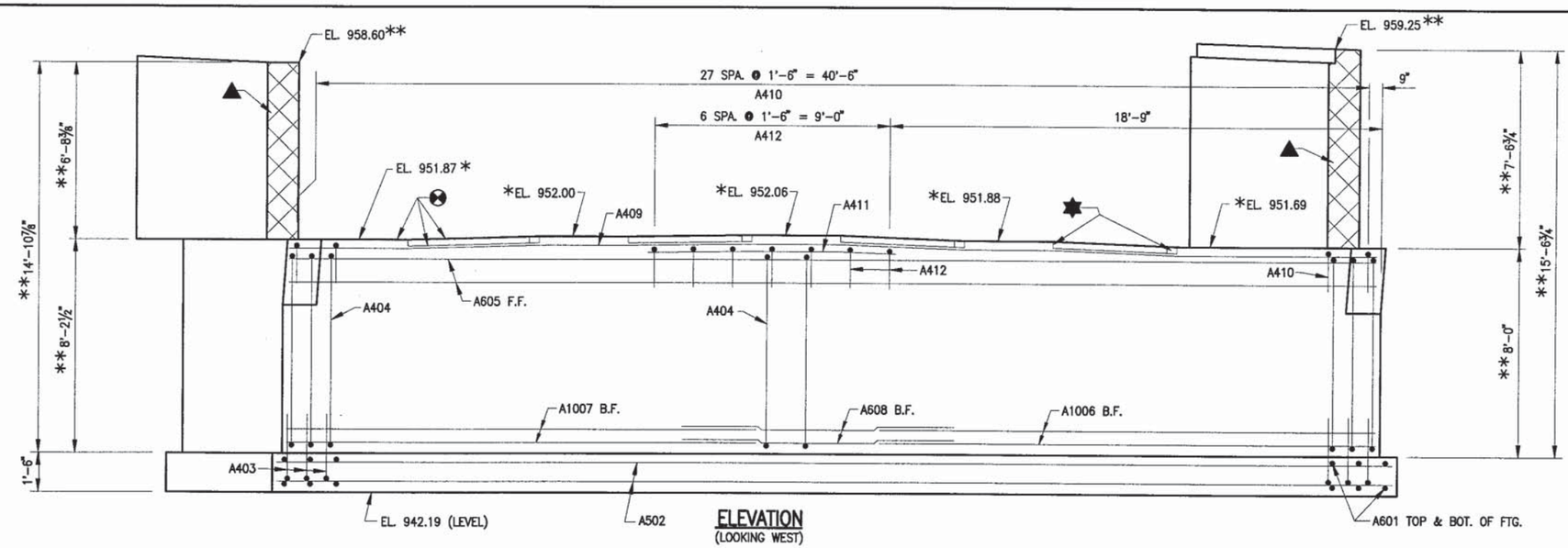
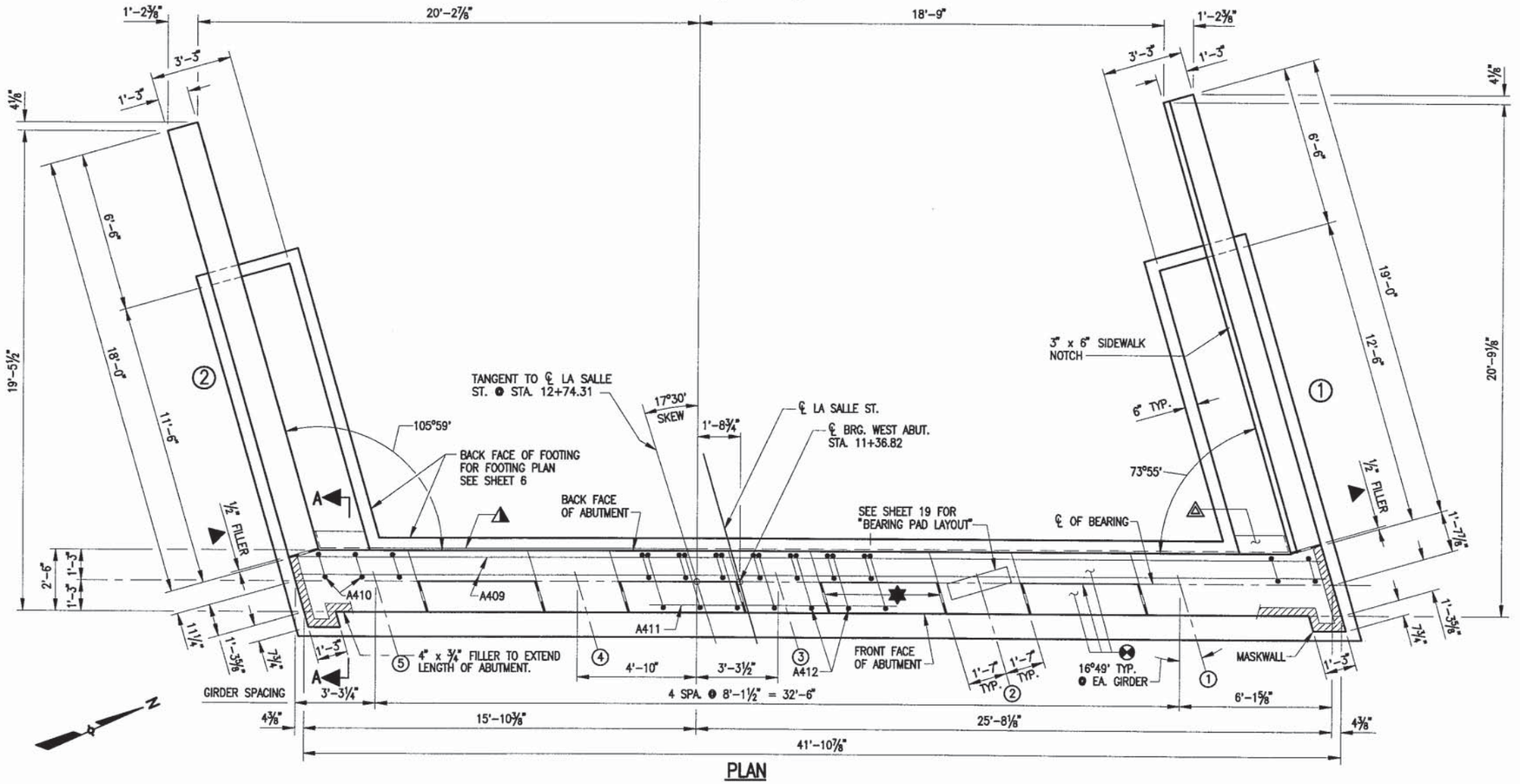
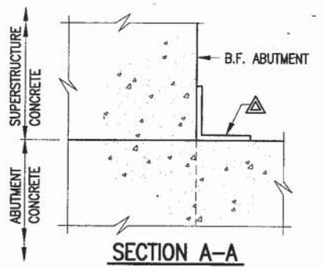
STATE PROJECT NUMBER	SHEET NO
1190-00-82	



ELEVATION
(LOOKING WEST)



PLAN



SECTION A-A

LEGEND

* DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE AT THE ℄ OF BEARING.

** DIMENSIONS ARE GIVEN AT THE B.F. OF ABUTMENT. FOR WING DETAILS AND ELEVATIONS, SEE SHEETS 7 & 8.

▲ ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

△ 18" RUBBERIZED MEMBRANE WATERPROOFING - TO EXTEND HORIZONTAL BETWEEN INSIDE FACE OF WINGS AND VERTICAL FROM TOP OF BODY TO TOP OF WINGS.

★ ¾" CORK FILLER ON VERTICAL FACES ONLY.

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

△ PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZONTAL IN THIS AREA. SEE SECTION A-A ON THIS SHEET.

■ VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY A SURFACED, BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾".

(X) INDICATES WING NUMBER

FOOTING NOTE

ABUTMENTS TO BE SUPPORTED ON SPREAD FOOTING ON BEDROCK AT A MINIMUM BEARING CAPACITY OF 7.5 TONS PER SQUARE FOOT.

MINIMUM BAR LAPS
#6 = 2'-11"

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

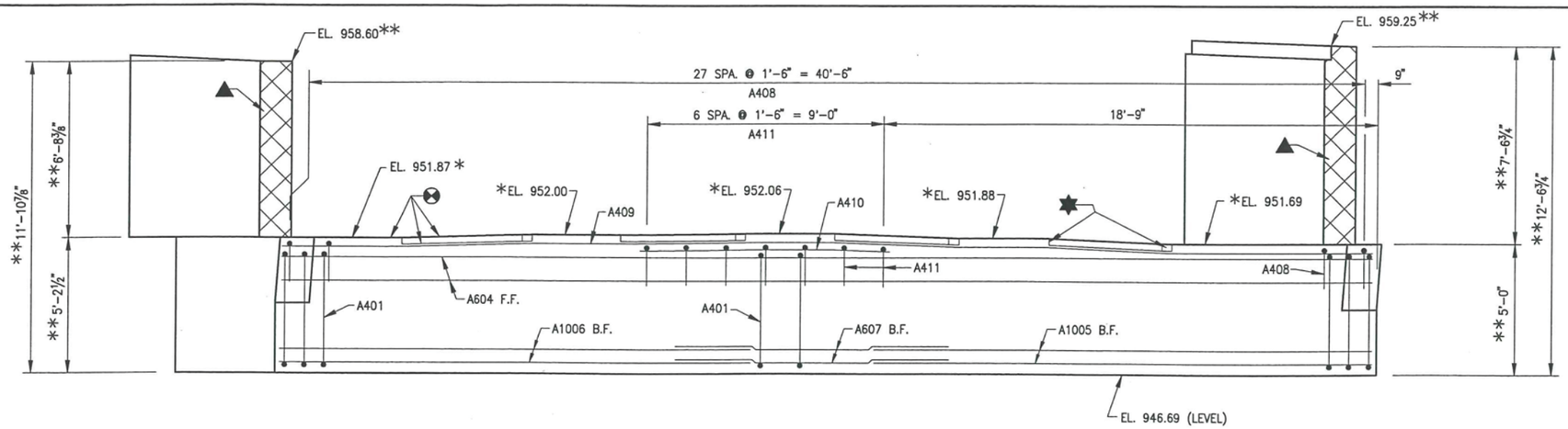
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

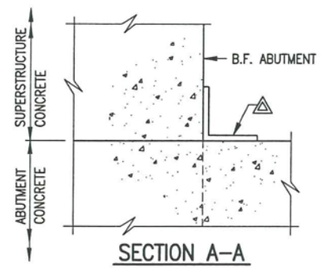
WEST ABUTMENT

SHEET 5 OF 26

55L

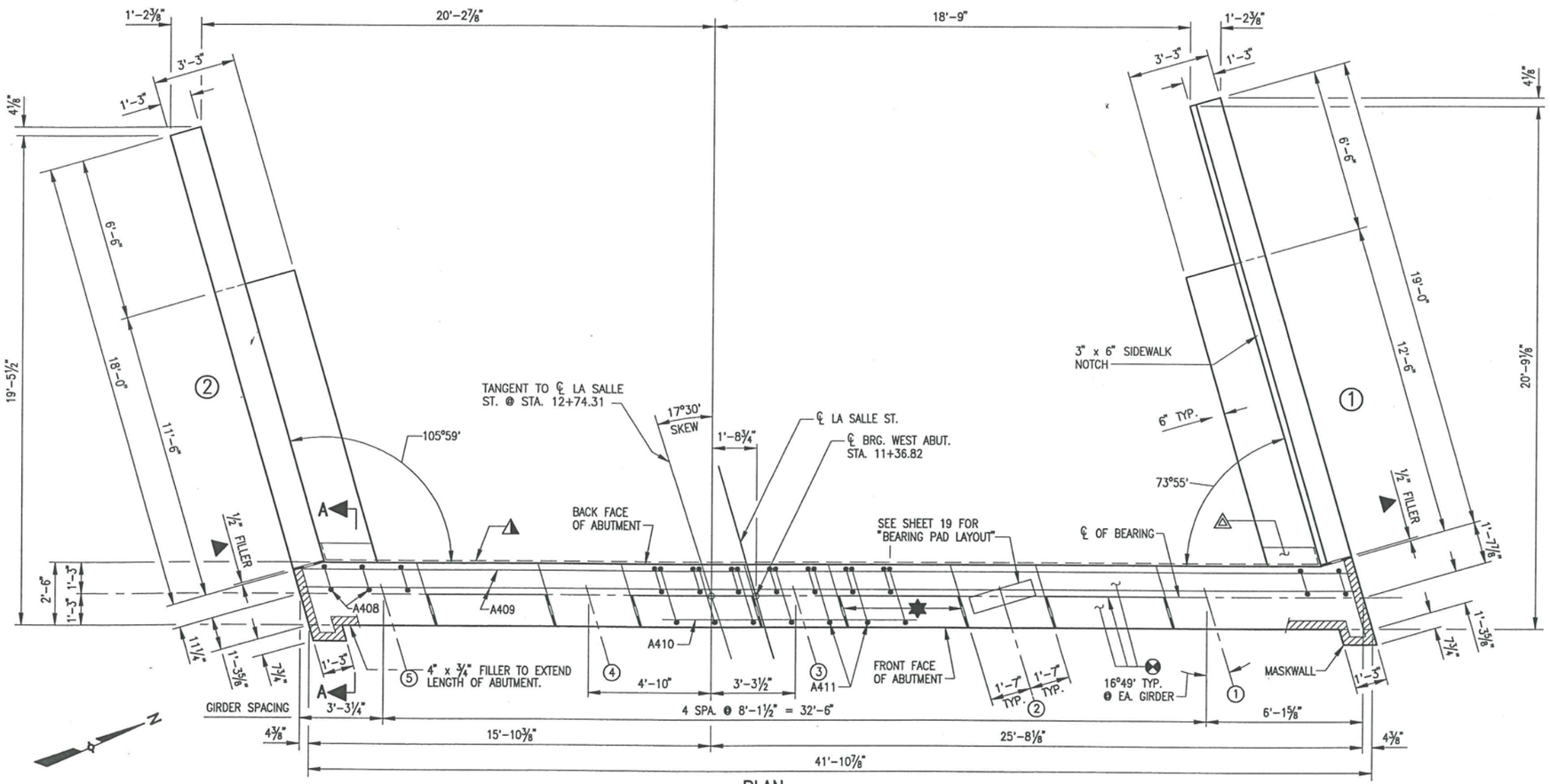
STATE PROJECT NUMBER	SHEET NO
1190-00-82	





SECTION A-A

ELEVATION
(LOOKING WEST)



PLAN

LEGEND

* DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE AT THE ℄ OF BEARING.

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▲ ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

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◬ PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZONTAL IN THIS AREA. SEE SECTION A-A ON THIS SHEET.

■ VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY A SURFACED, BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾".

Ⓧ INDICATES WING NUMBER

PILE NOTE

WEST ABUTMENT TO BE SUPPORTED ON HP 12 x 53 STEEL PILING. PREBORE PILES TO ELEV. 932.2, THEN DRIVE PILES TO A MINIMUM BEARING VALUE OF 67 TONS PER PILE AND FILL VOID AROUND PILE WITH CONCRETE MASONRY. FOR PILE SPLICE DETAILS AND PILE LAYOUT, SEE SHEET 6.

MINIMUM BAR LAPS
#6 = 2'-11"

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

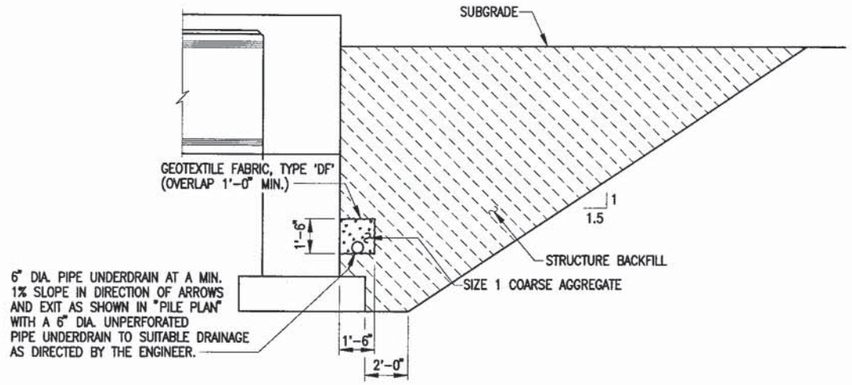
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

WEST ABUTMENT

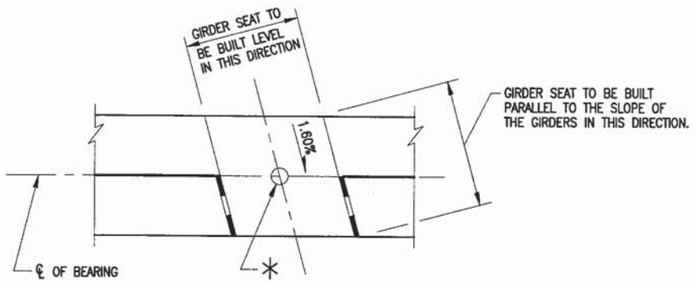
SHEET 5 OF 26

551 A

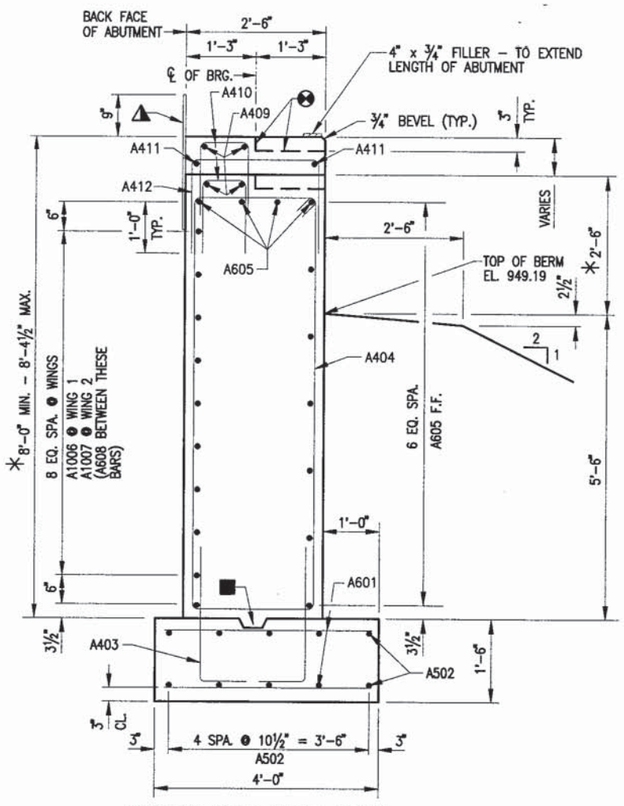
STATE PROJECT NUMBER	SHEET NO
1190-00-82	



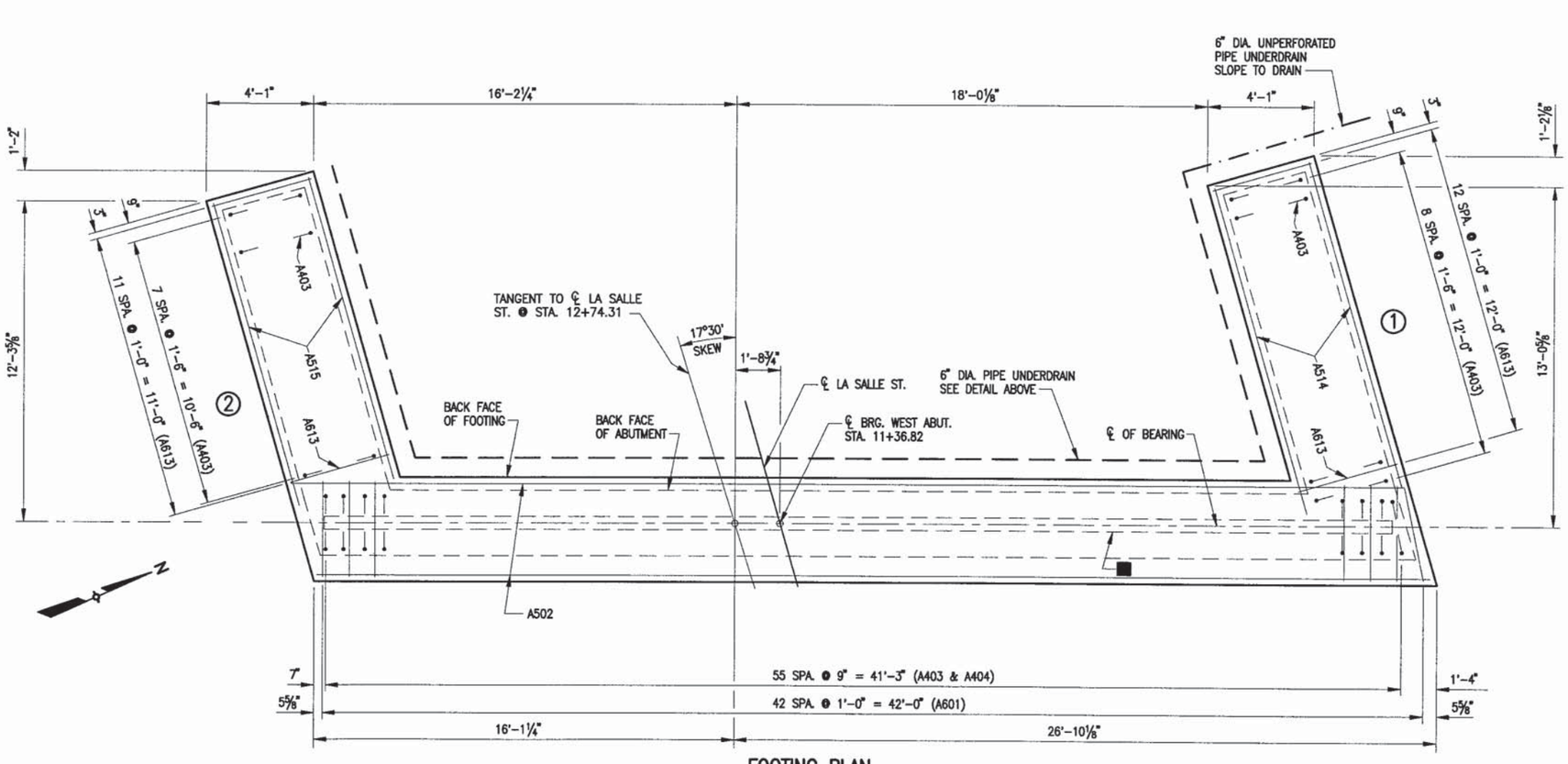
PIPE UNDERDRAIN AND BACKFILL DETAILS



PLAN
GIRDER SEAT DETAIL



SECTION THRU ABUT. BODY



FOOTING PLAN

LEGEND

∗ Ⓧ ⚠ ⊗ FOR SYMBOL DESCRIPTIONS, SEE SHEET 5.

■ CONSTRUCTION JOINT FORMED BY A SURFACED, BEVELED 2' X 6". TERMINATE 6" FROM END OF ABUTMENT BODY.

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

WEST ABUTMENT DETAILS

SHEET 6 OF 26

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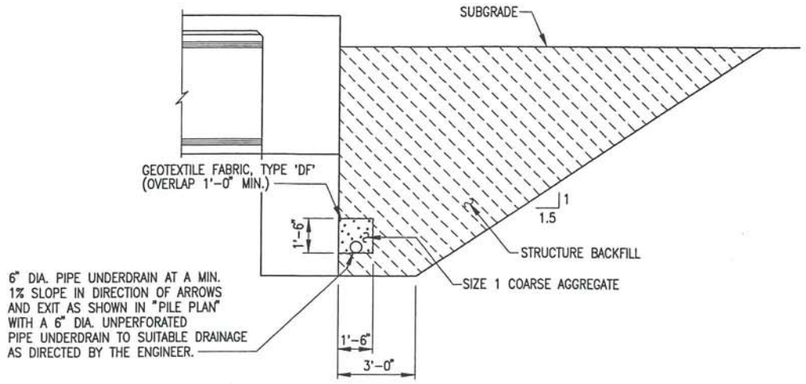
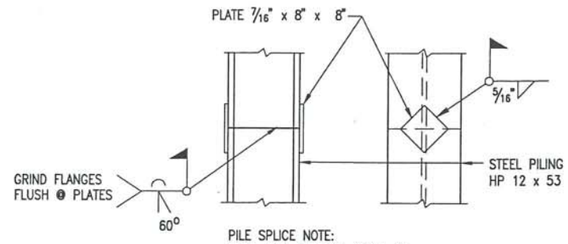
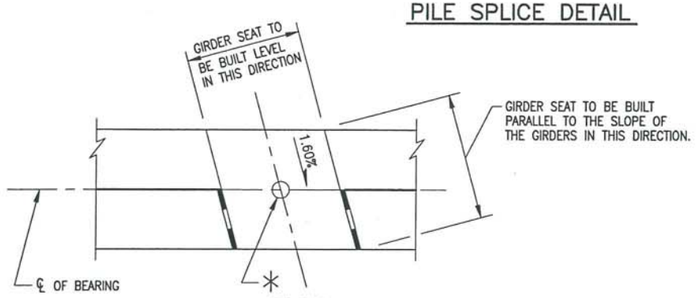
STATE PROJECT NUMBER	SHEET NO
1190-00-82	



PIPE UNDERDRAIN AND BACKFILL DETAILS

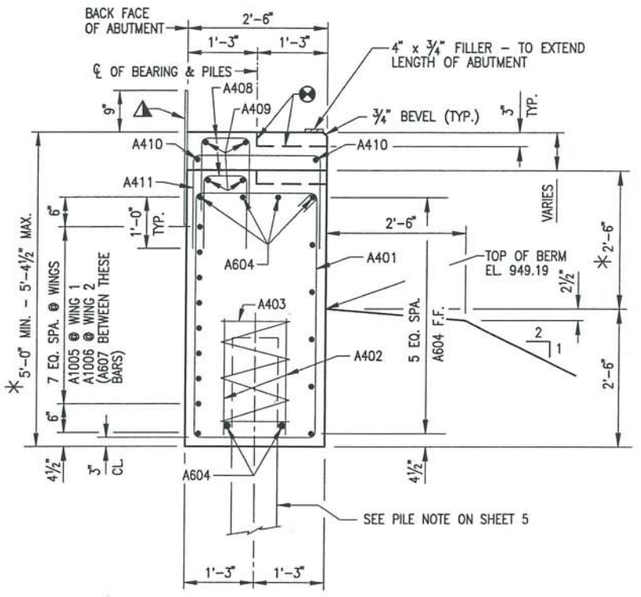


PILE SPLICE DETAIL

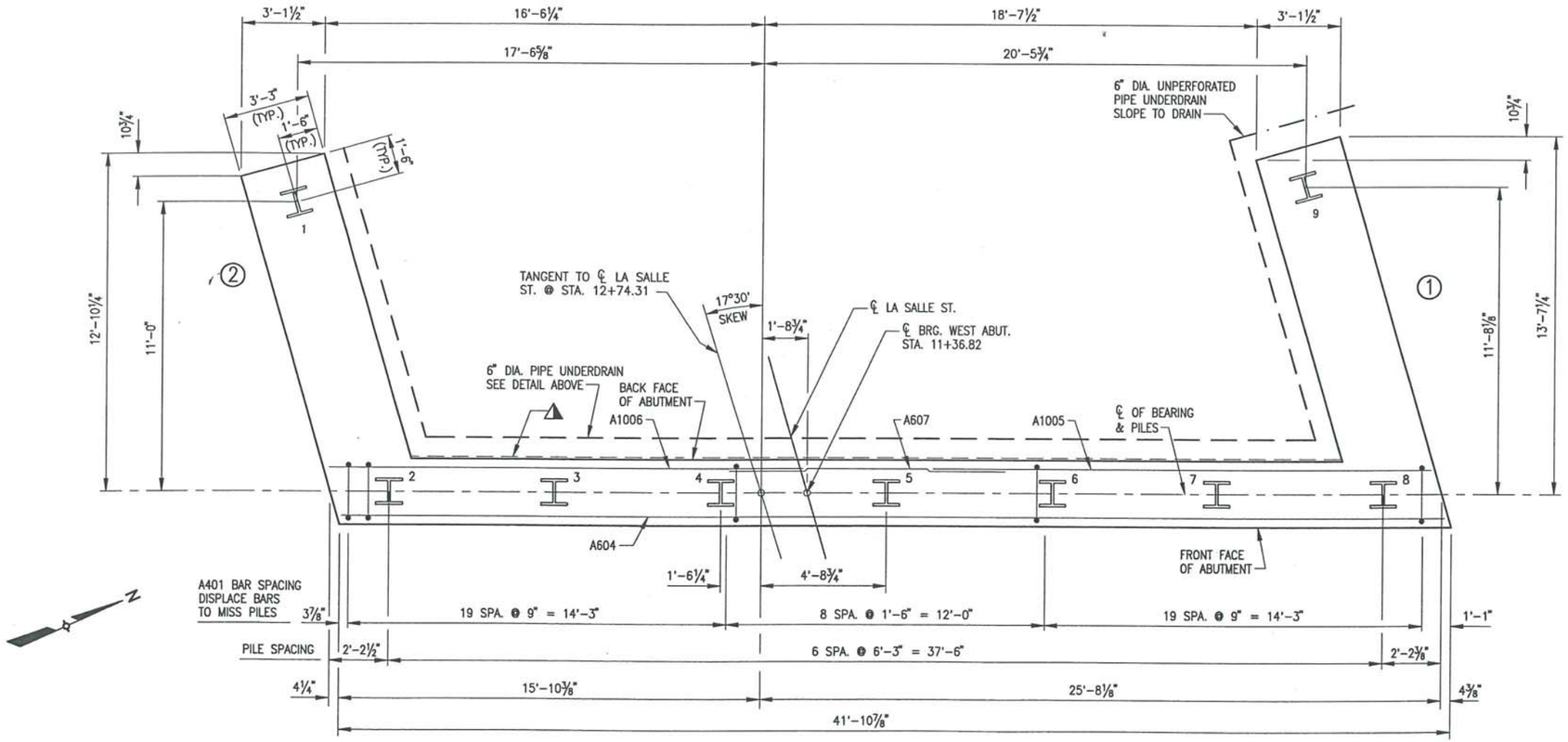


PLAN

GIRDER SEAT DETAIL



SECTION THRU ABUT. BODY



PILE PLAN

LEGEND

* Ⓧ ◭ ⊗ FOR SYMBOL DESCRIPTIONS, SEE SHEET 5.

■ CONSTRUCTION JOINT FORMED BY A SURFACED, BEVELED 2" X 6". TERMINATE 6" FROM END OF ABUTMENT BODY.

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

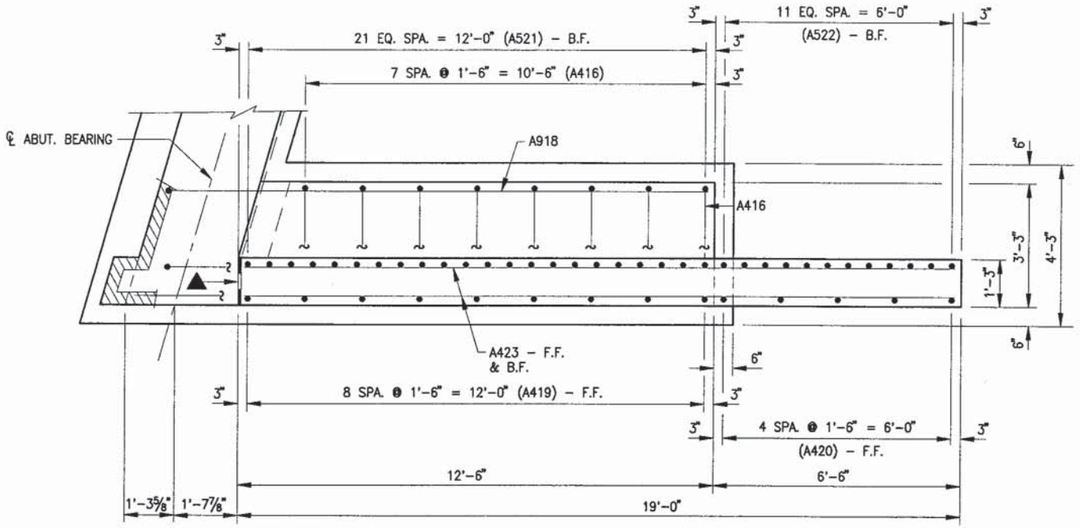
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

WEST ABUTMENT DETAILS

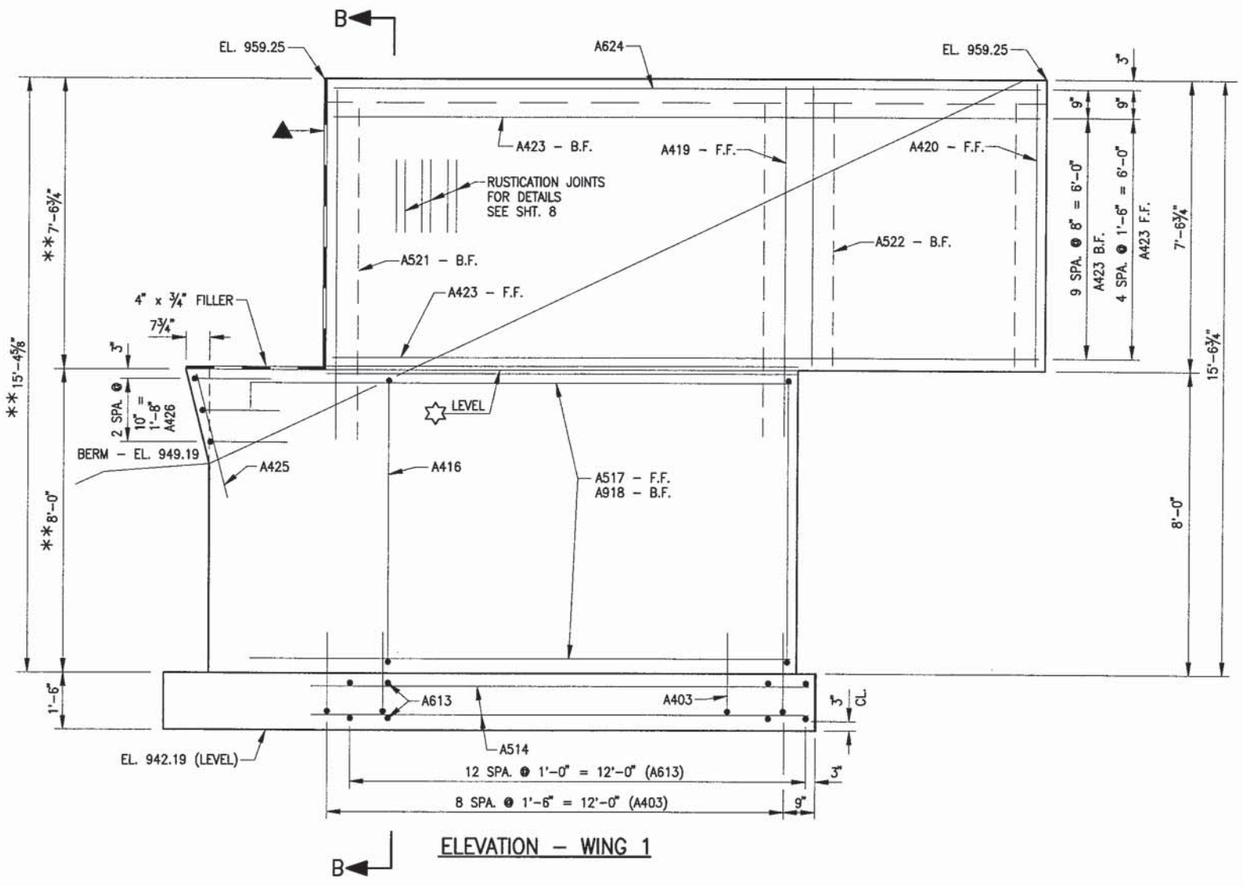
SHEET 6 OF 26

552A

STATE PROJECT NUMBER	SHEET NO
1190-00-82	



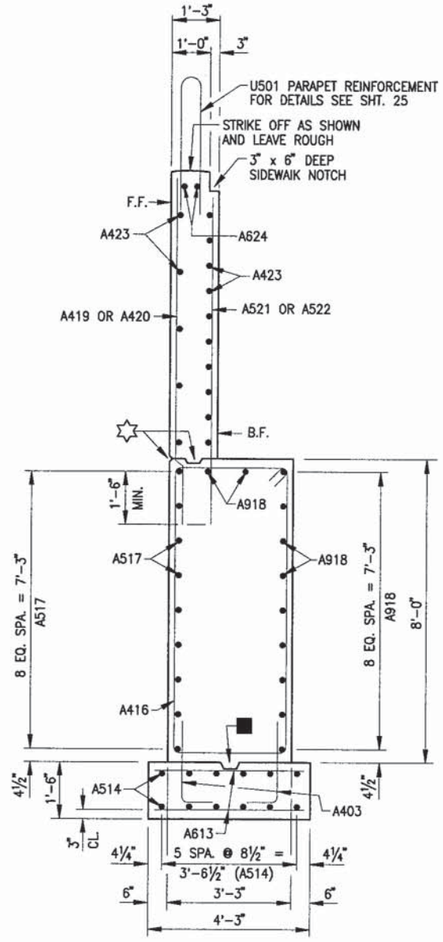
PLAN - WING 1



ELEVATION - WING 1

LEGEND

- ☆ OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY A SURFACED, BEVELED 2" x 6" AND A ¾" V-GROOVE ON FRONT FACE OF WINGWALL. V-GROOVE SHALL BE OMITTED IF CONSTRUCTION JOINT IS NOT USED.
- ** DIMENSIONS ARE GIVEN AT THE B.F. OF ABUTMENT.
- ▲ ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)
- ■ CONSTRUCTION JOINT FORMED BY A A SURFACED, BEVELED 2" X 6". TERMINATE 6" FROM END OF WING.



SECTION B-B

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

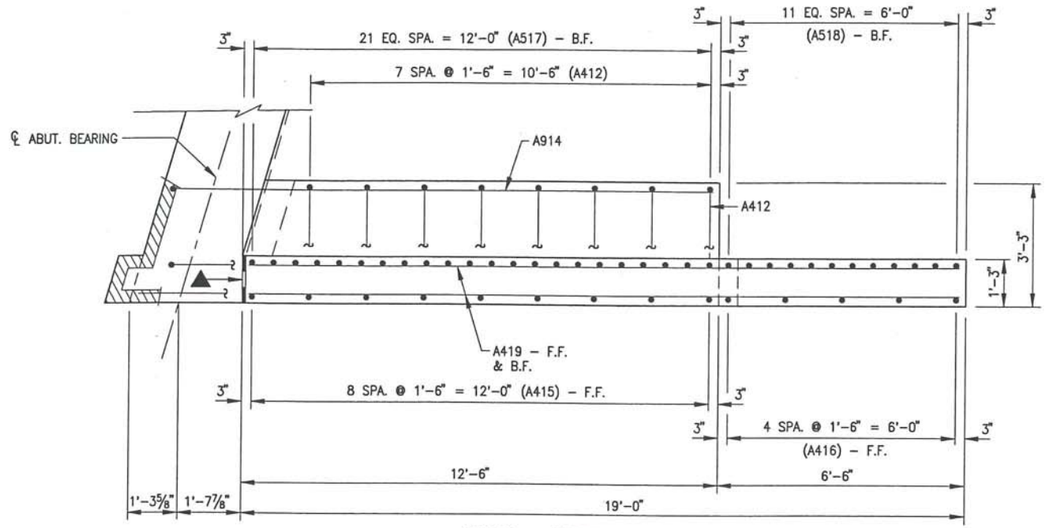
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

WING 1

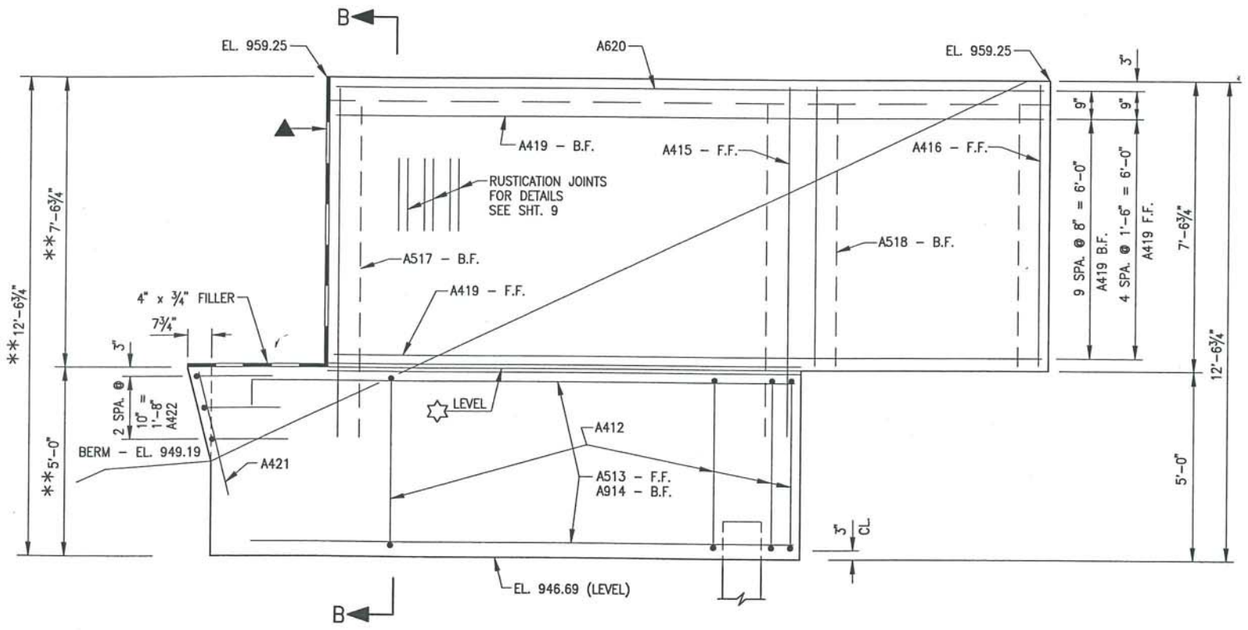
SHEET 7 OF 26

553

STATE PROJECT NUMBER	SHEET NO
1190–00–82	



PLAN – WING 1



ELEVATION – WING 1

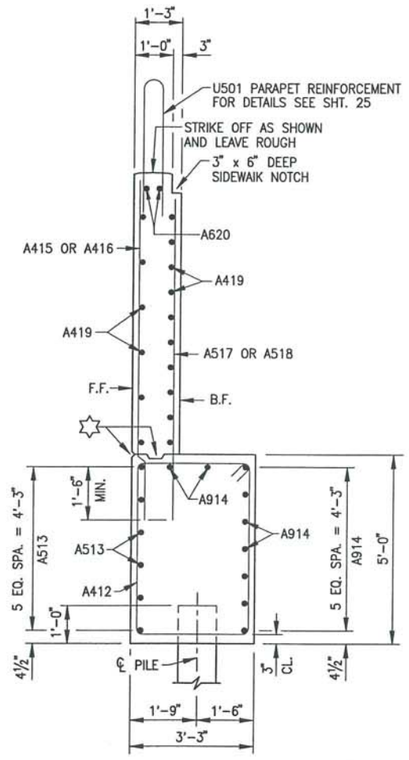
LEGEND

☆ OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY A SURFACED, BEVELED 2" x 6" AND A ¾" V–GROOVE ON FRONT FACE OF WINGWALL. V–GROOVE SHALL BE OMITTED IF CONSTRUCTION JOINT IS NOT USED.

** DIMENSIONS ARE GIVEN AT THE B.F. OF ABUTMENT.

▲ ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON–STAINING GRAY NON–BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

■ CONSTRUCTION JOINT FORMED BY A A SURFACED, BEVELED 2" X 6". TERMINATE 6" FROM END OF WING.



SECTION B–B

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–18–190

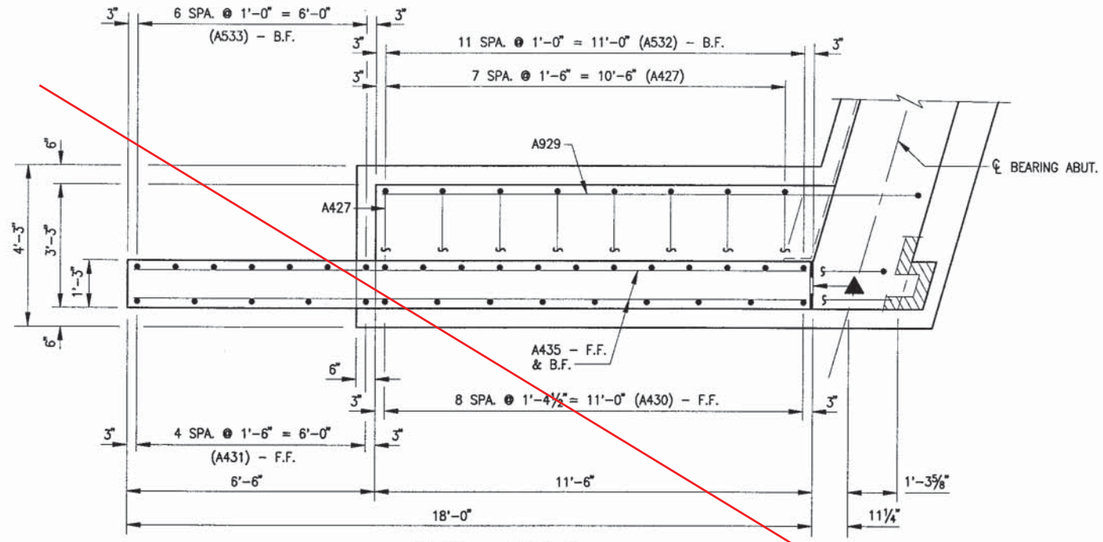
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

WING 1

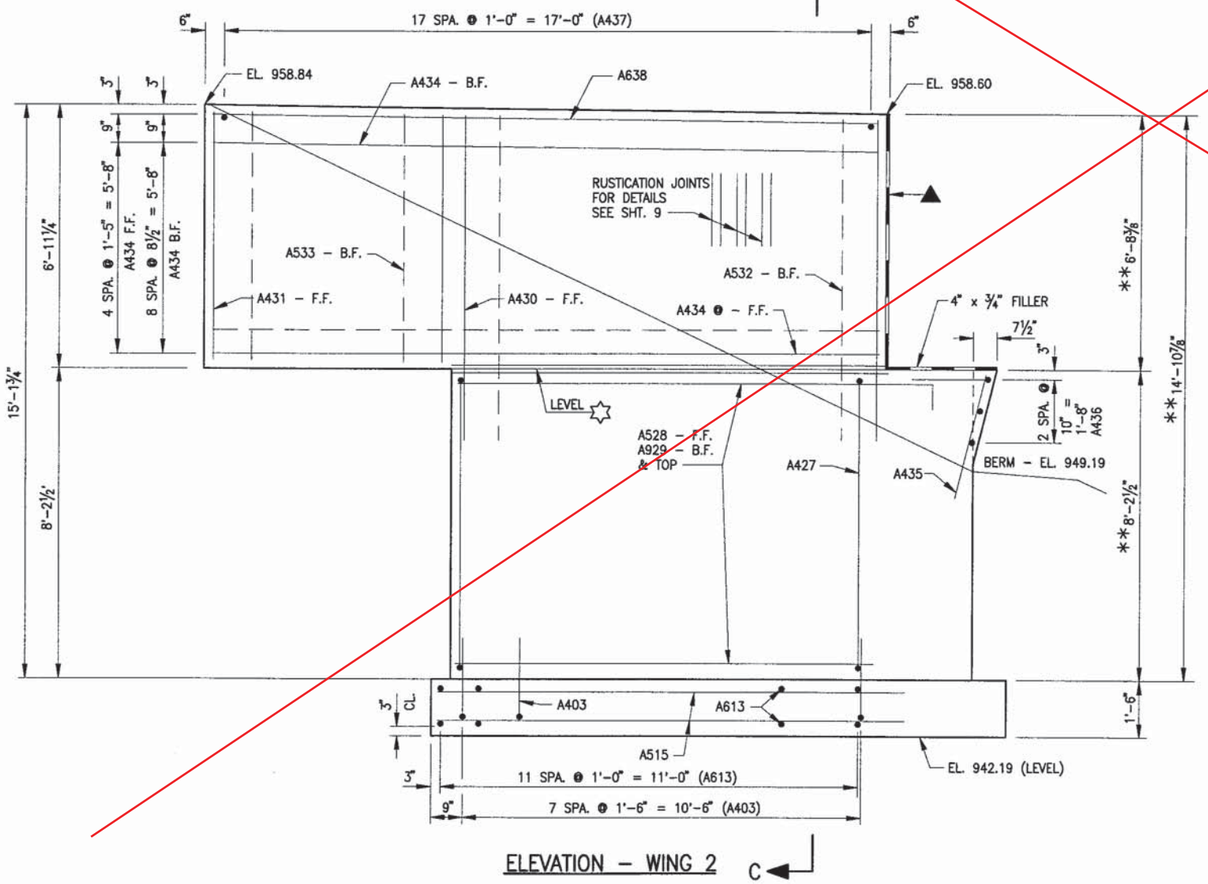
SHEET 7 OF 26

559A

STATE PROJECT NUMBER	SHEET NO
1190-00-82	



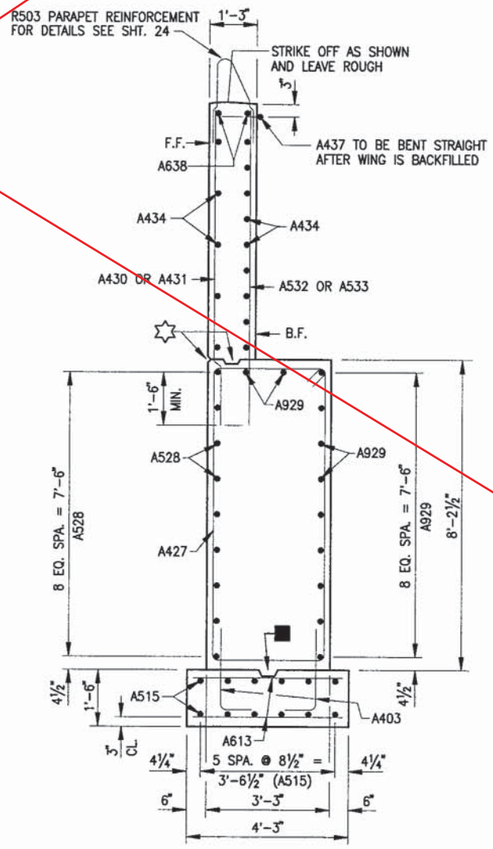
PLAN - WING 2



ELEVATION - WING 2

LEGEND

- ☆ OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY A SURFACED, BEVELED 2" x 6" AND A ¾" V-GROOVE ON FRONT FACE OF WINGWALL. V-GROOVE SHALL BE OMITTED IF CONSTRUCTION JOINT IS NOT USED.
- ** DIMENSIONS ARE GIVEN AT THE B.F. OF ABUTMENT.
- ▲ ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)
- ■ CONSTRUCTION JOINT FORMED BY A A SURFACED, BEVELED 2' X 6". TERMINATE 6" FROM END OF WING.



SECTION C-C

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

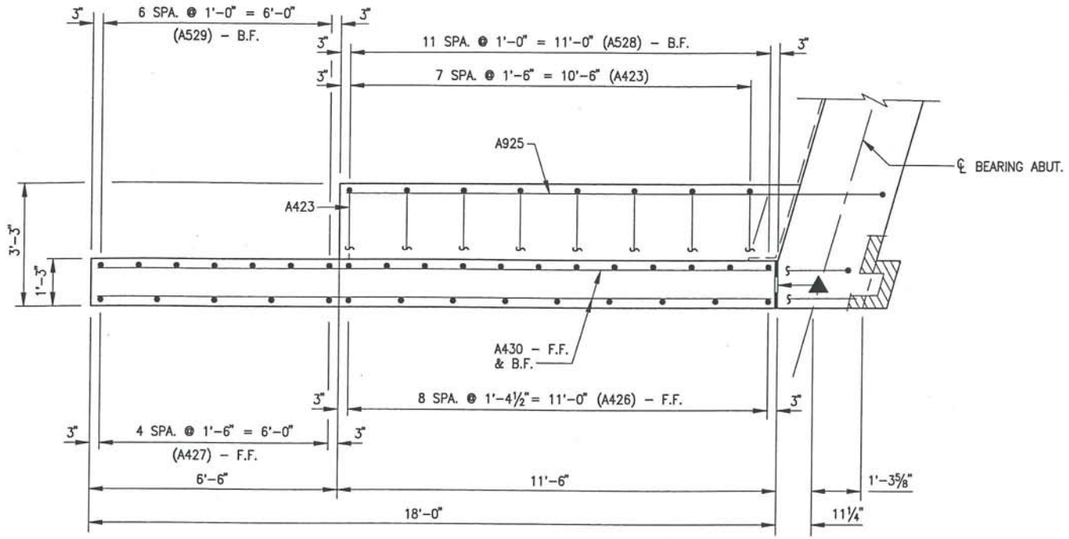
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

WING 2

SHEET 8 OF 26

554

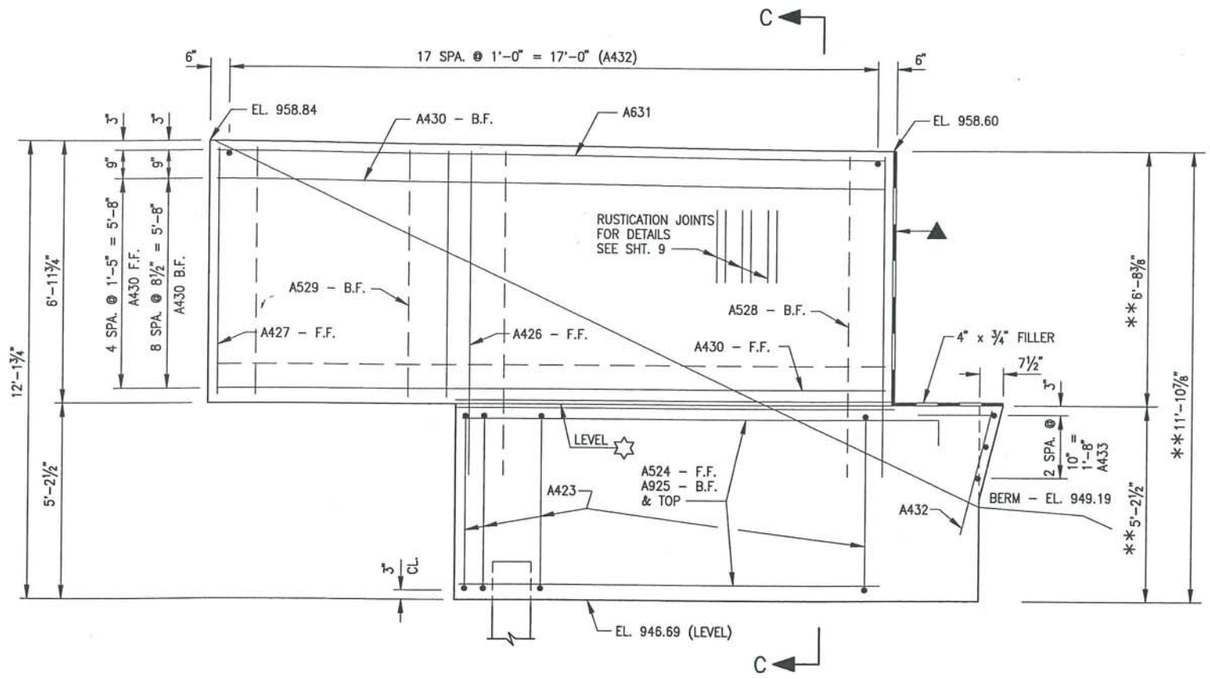
STATE PROJECT NUMBER	SHEET NO
1190-00-82	



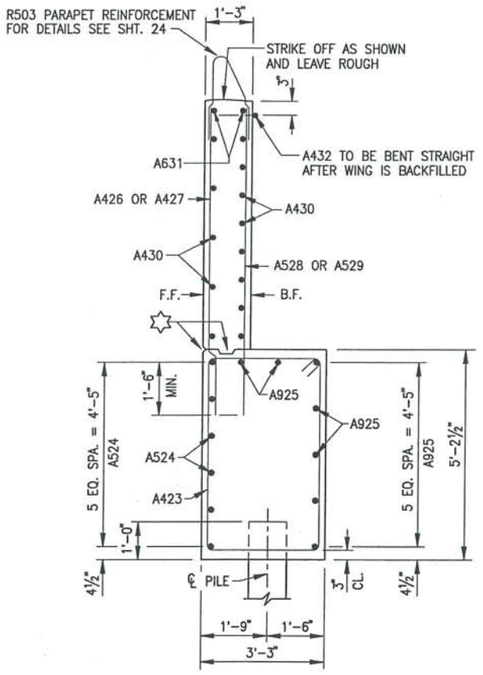
PLAN - WING 2

LEGEND

- ☆ OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY A SURFACED, BEVELED 2" x 6" AND A ¾" V-GROOVE ON FRONT FACE OF WINGWALL. V-GROOVE SHALL BE OMITTED IF CONSTRUCTION JOINT IS NOT USED.
- ** DIMENSIONS ARE GIVEN AT THE B.F. OF ABUTMENT.
- ▲ ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)
- ■ CONSTRUCTION JOINT FORMED BY A A SURFACED, BEVELED 2' X 6". TERMINATE 6" FROM END OF WING.



ELEVATION - WING 2



SECTION B-B

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

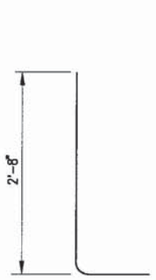
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

WING 2

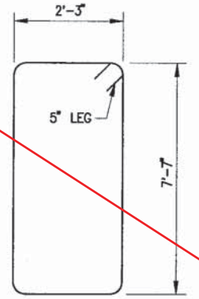
SHEET 8 OF 26

554 A

STATE PROJECT NUMBER	SHEET NO
1190-00-82	



A403



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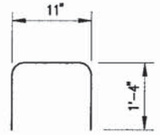

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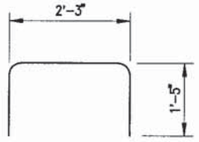

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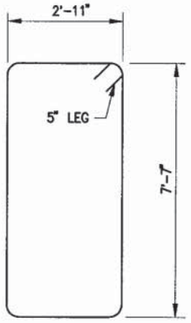
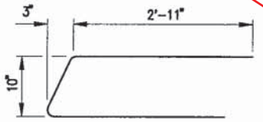
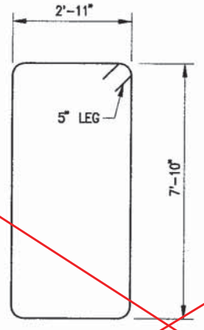


A416

A918



A426 & A436



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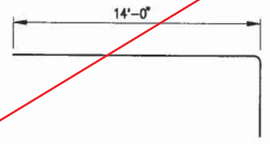


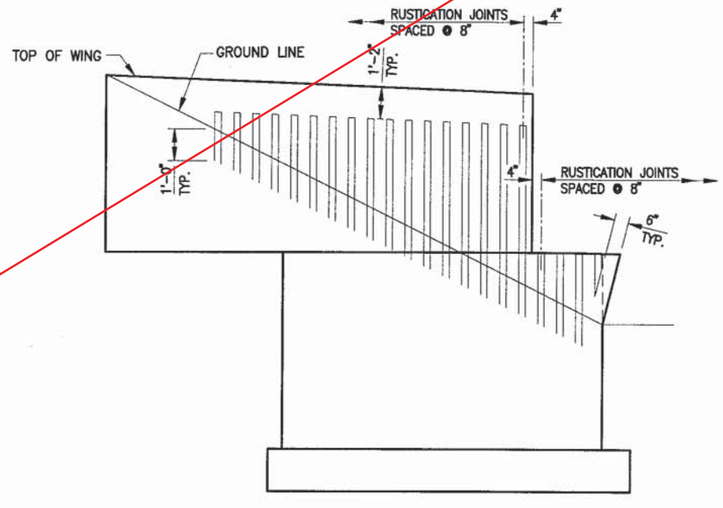
A929

BILL OF BARS

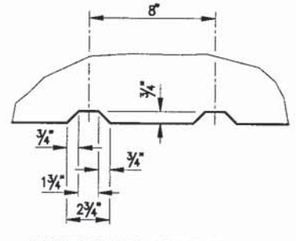
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D.	LENGTH	BENT	LOCATION	
A601	86	3'-8"		SPREAD FTG. @ ABUT. - TOP & BOT.	TRANSV.
A502	10	42'-7"		SPREAD FTG. @ ABUT. - TOP & BOT.	LONGIT.
A403	148	3'-7"	X	SPREAD FTG. - DOWELS - F.F. & B.F.	VERT.
A404	56	20'-3"	X	ABUT. BODY - STIRRUPS	VERT.
A605	10	41'-6"		ABUT. BODY	HORIZ.
A1006	10	19'-0"		ABUT. BODY - B.F.	HORIZ.
A1007	10	18'-0"		ABUT. BODY - B.F.	HORIZ.
A608	10	10'-5"		ABUT. BODY - B.F.	HORIZ.
A409	2	41'-6"		ABUT. BODY - TOP	HORIZ.
A410	28	3'-5"	X	ABUT. BODY - TOP - B.F. ALL GIRDERS	VERT.
A411	2	10'-0"		ABUT. BODY - TOP	HORIZ.
A412	7	4'-11"	X	ABUT. BODY - TOP - AT GIRDER 3	VERT.
A613	50	3'-11"		SPREAD FTG. @ WINGS 1 & 2 - TOP & BOT.	TRANSV.
A514	12	13'-6"		SPREAD FTG. @ WING 1 - TOP & BOT.	LONGIT.
A515	12	12'-6"		SPREAD FTG. @ WING 2 - TOP & BOT.	LONGIT.
A416	8	21'-7"	X	WING 1 - STIRRUPS	VERT.
A517	9	15'-0"		WING 1 - F.F.	HORIZ.
A918	11	15'-6"	X	WING 1 - B.F.	HORIZ.
A419	9	9'-3"		WING 1 - F.F.	VERT.
A420	5	7'-3"		WING 1 - F.F.	VERT.
A521	22	8'-9"		WING 1 - B.F.	VERT.
A522	12	6'-9"		WING 1 - B.F.	VERT.
A423	15	18'-8"		WING 1 - F.F. & B.F.	HORIZ.
A425	2	3'-6"		WING 1 - @ MASKWALL	VERT.
A426	3	6'-6"	X	WING 1 - @ MASKWALL	HORIZ.
A427	8	22'-1"	X	WING 2 - STIRRUPS	VERT.
A528	9	13'-4"		WING 2 - F.F.	HORIZ.
A929	11	15'-4"	X	WING 2 - B.F.	HORIZ.
A430	9	8'-6"		WING 2 - F.F.	VERT.
A431	5	6'-6"		WING 2 - F.F.	VERT.
A532	12	8'-6"		WING 2 - B.F.	VERT.
A533	7	6'-6"		WING 2 - B.F.	VERT.
A434	14	17'-8"		WING 2 - F.F. & B.F.	HORIZ.
A435	2	3'-6"		WING 2 - @ MASKWALL	VERT.
A436	3	6'-1"	X	WING 2 - @ MASKWALL	HORIZ.
EPOXY COATED BARS					
A624	2	18'-8"		WING 1 - TOP	HORIZ.
A437	18	2'-0"	X	WING 2 - DOWEL	HORIZ.
A638	2	17'-8"		WING 2 - TOP	HORIZ.

● FIELD BEND TO FOLLOW TOP SLOPE OF ABUTMENT.



ELEVATION OF RUSTICATION JOINTS



RUSTICATION JOINT DETAILS
(VERTICAL JOINTS ONLY)
(INCIDENTAL TO "CONCRETE MASONRY BRIDGES")

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

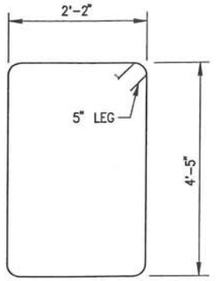
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

WEST ABUTMENT
BILL OF BARS

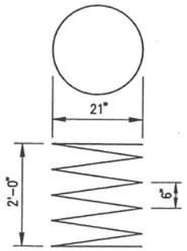
SHEET 9 OF 26

555

STATE PROJECT NUMBER	SHEET NO
1190-00-82	



A401



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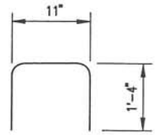
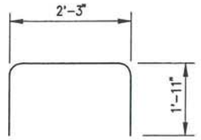


A408



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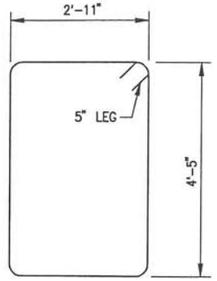

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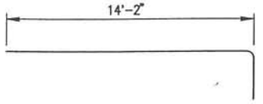
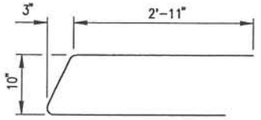
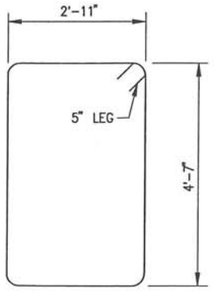


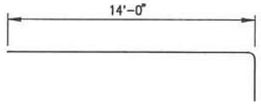
A914



A422 & A433



A423



A925

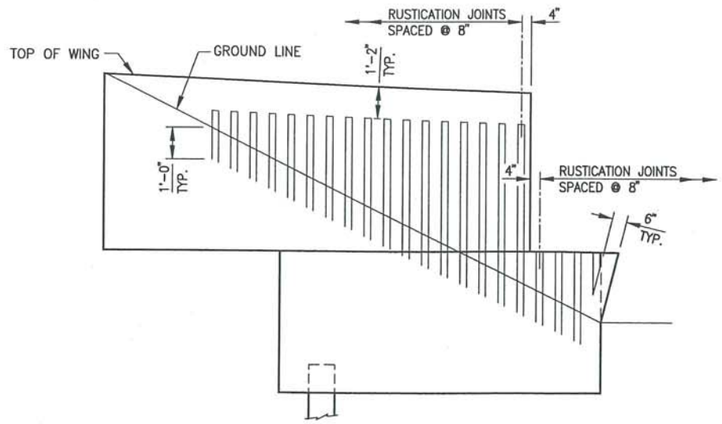
A432

BILL OF BARS

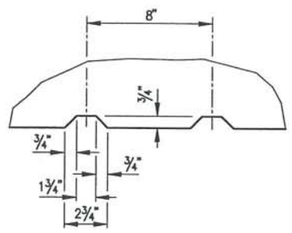
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D.	LENGTH	BENT	LOCATION	
A401	47	13'-9"	X	ABUT. BODY - STIRRUPS	VERT.
A402	14	2'-3"		ABUT. BODY - 2 ℄ EA. PILE	VERT.
A403	7	28'-0"	X	ABUT. BODY - ℄ EA. PILE	HORIZ.
A604	11	41'-6"		ABUT. BODY	HORIZ.
A1005	9	19'-0"		ABUT. BODY - B.F.	HORIZ.
A1006	9	18'-0"		ABUT. BODY - B.F.	HORIZ.
A607	9	10'-4"		ABUT. BODY - B.F.	HORIZ.
A408	28	3'-5"	X	ABUT. BODY - TOP - B.F. ALL GIRDERS	VERT
A409	2	41'-6"		ABUT. BODY - TOP	HORIZ.
A410	2	10'-0"		ABUT. BODY - TOP	HORIZ.
A411	7	5'-11"	X	ABUT. BODY - TOP - BETWEEN GIRDERS 2 & 4	VERT.
A412	8	15'-3"	X	WING 1 - STIRRUPS	VERT.
A513	6	15'-0"		WING 1 - F.F.	HORIZ.
A914	8	15'-6"	X	WING 1 - B.F.	HORIZ.
A415	9	9'-3"		WING 1 - F.F.	VERT.
A416	5	7'-3"		WING 1 - F.F.	VERT.
A517	22	8'-9"		WING 1 - B.F.	VERT.
A518	12	6'-9"		WING 1 - B.F.	VERT.
A419	15	18'-8"		WING 1 - F.F. & B.F.	HORIZ.
A421	2	3'-6"		WING 1 - ℄ MASKWALL	VERT.
A422	3	6'-6"	X	WING 1 - ℄ MASKWALL	HORIZ.
A423	8	15'-7"	X	WING 2 - STIRRUPS	VERT.
A524	6	13'-4"		WING 2 - F.F.	HORIZ.
A925	8	15'-4"	X	WING 2 - B.F.	HORIZ.
A426	9	8'-6"		WING 2 - F.F.	VERT.
A427	5	6'-7"		WING 2 - F.F.	VERT.
A528	12	8'-6"		WING 2 - B.F.	VERT.
A529	7	6'-7"		WING 2 - B.F.	VERT.
A430	14	17'-8"		WING 2 - F.F. & B.F.	HORIZ.
A432	2	3'-6"		WING 2 - ℄ MASKWALL	VERT.
A433	3	6'-6"	X	WING 2 - ℄ MASKWALL	HORIZ.
EPOXY COATED BARS					
A620	2	18'-8"		WING 1 - TOP	HORIZ.
A631	2	17'-8"		WING 2 - TOP	HORIZ.
A432	18	2'-0"	X	WING 2 - DOWEL	HORIZ.

● FIELD BEND TO FOLLOW TOP SLOPE OF ABUTMENT.



ELEVATION OF RUSTICATION JOINTS



RUSTICATION JOINT DETAILS
(VERTICAL JOINTS ONLY)
(INCIDENTAL TO "CONCRETE MASONRY BRIDGES")

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

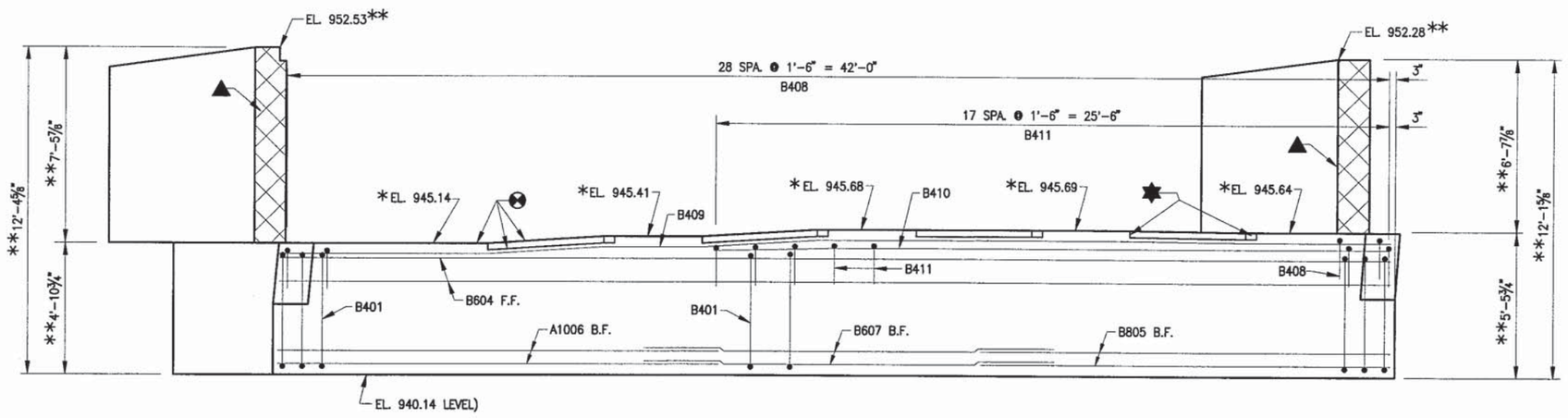
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

WEST ABUTMENT
BILL OF BARS

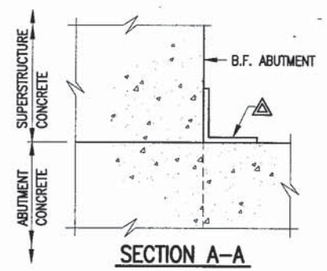
SHEET 9 OF 26

555 A

STATE PROJECT NUMBER	SHEET NO
1190-00-82	



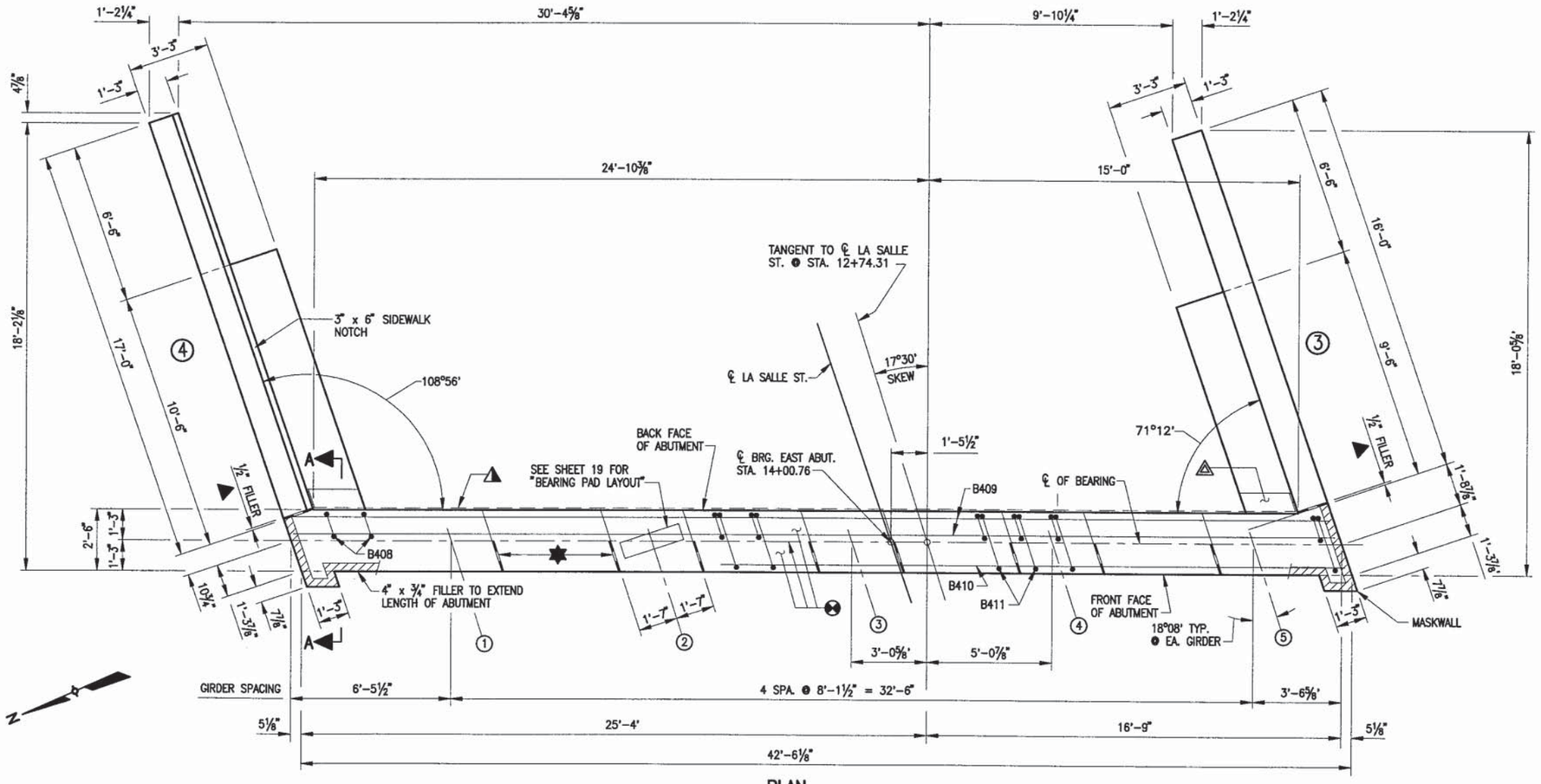
ELEVATION
(LOOKING EAST)



SECTION A-A

LEGEND

- * DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE AT THE ℄ OF BEARING.
- ** DIMENSIONS ARE GIVEN AT THE B.F. OF ABUTMENT. FOR WING DETAILS AND ELEVATIONS, SEE SHEETS 12 & 13.
- ▲ ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)
- ⚠ 18" RUBBERIZED MEMBRANE WATERPROOFING - TO EXTEND HORIZONTAL BETWEEN INSIDE FACE OF WINGS AND VERTICAL FROM TOP OF BODY TO TOP OF WINGS.
- ✸ ¾" CORK FILLER ON VERTICAL FACES ONLY.
- ⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ⚠ PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZONTAL IN THIS AREA. SEE SECTION A-A ON THIS SHEET.
- ■ VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY A SURFACED, BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾".
- Ⓧ INDICATES WING NUMBER



PLAN

PILE NOTE

EAST ABUTMENT TO BE SUPPORTED ON HP 12 x 53 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 65 TONS PER PILE. ESTIMATED 20' LONG. FOR PILE SPLICE DETAILS AND PILE LAYOUT, SEE SHEET 11.

MINIMUM BAR LAPS
#6 = 2'-11"

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STATE OF WISCONSIN
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EAST ABUTMENT

SHEET 10 OF 26

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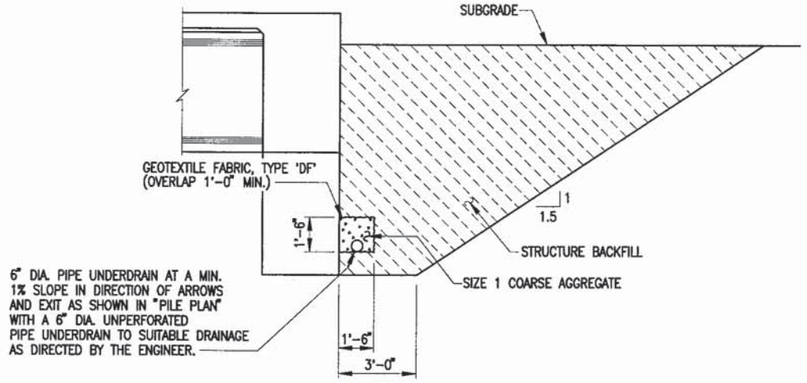
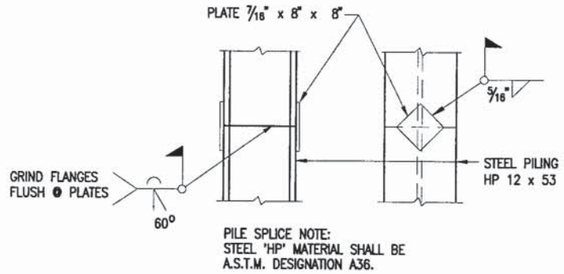
STATE PROJECT NUMBER	SHEET NO
1190-00-82	

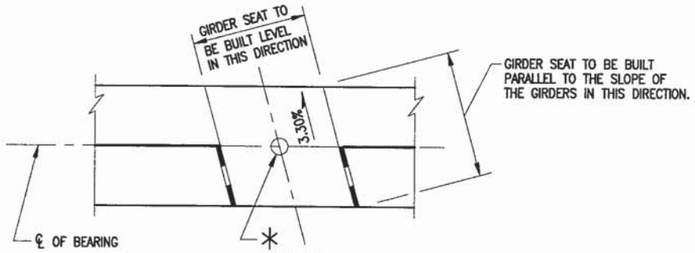


PIPE UNDERDRAIN AND BACKFILL DETAILS



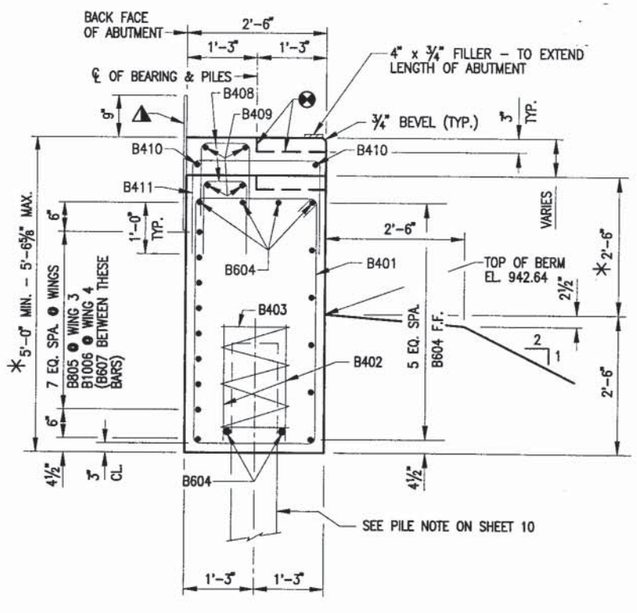
PILE SPLICE NOTE:
STEEL 'HP' MATERIAL SHALL BE
A.S.T.M. DESIGNATION A36.

PILE SPLICE DETAIL

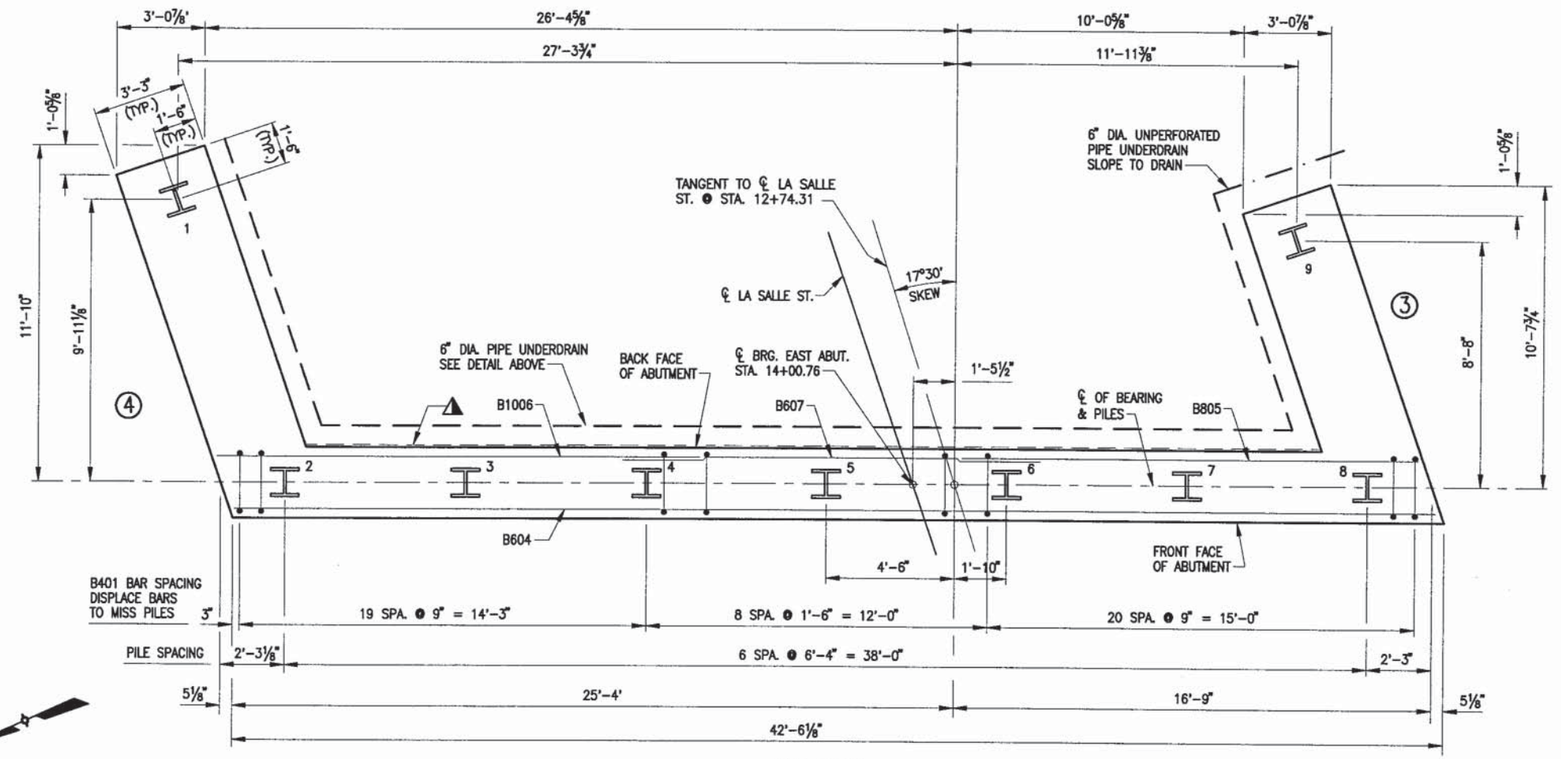


PLAN

GIRDER SEAT DETAIL



SECTION THRU ABUT. BODY



PILE PLAN

LEGEND

*Ⓧ ▲ ● FOR SYMBOL DESCRIPTIONS, SEE SHEET 10.

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

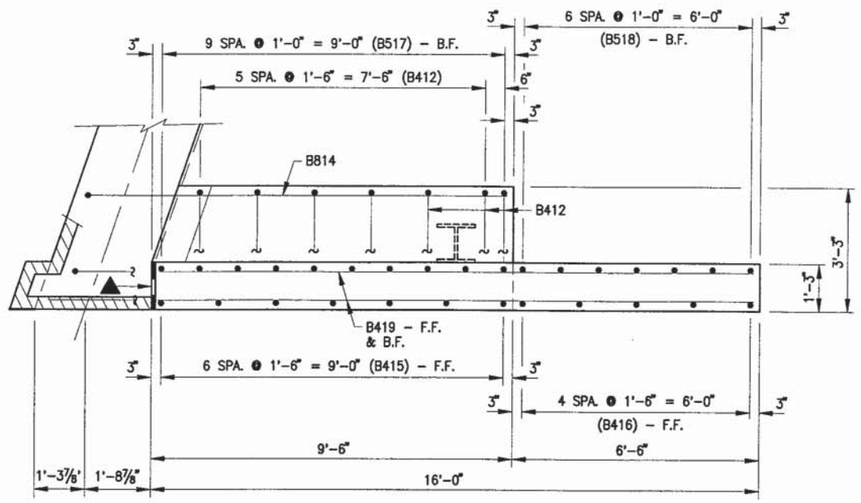
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

EAST ABUTMENT DETAILS

SHEET 11 OF 26

557

STATE PROJECT NUMBER	SHEET NO
1190-00-82	



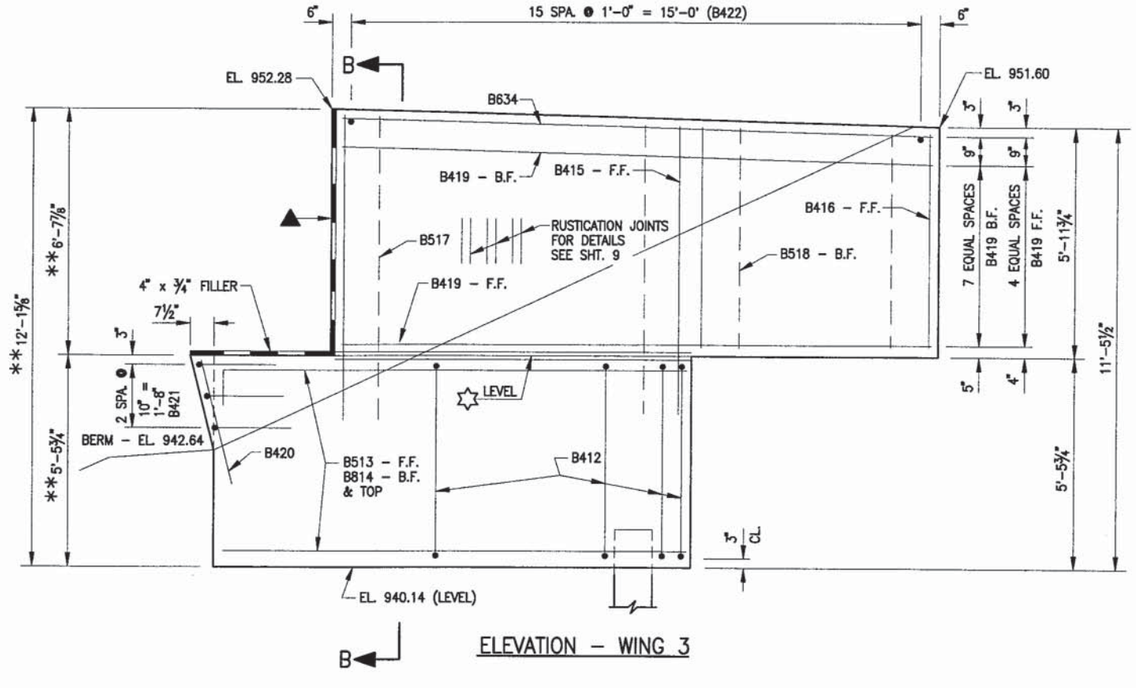
PLAN – WING 3

LEGEND

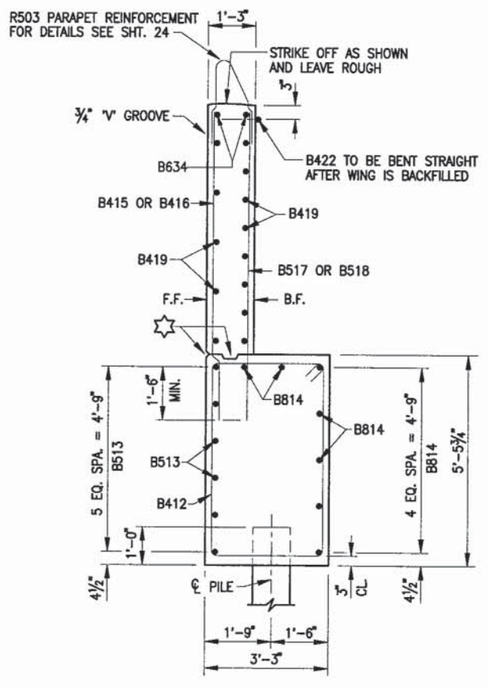
☆ OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY A SURFACED, BEVELED 2" x 6" AND A ¾" V-GROOVE ON FRONT FACE OF WINGWALL. V-GROOVE SHALL BE OMITTED IF CONSTRUCTION JOINT IS NOT USED.

** DIMENSIONS ARE GIVEN AT THE B.F. OF ABUTMENT.

▲ ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)



ELEVATION – WING 3



SECTION B-B

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

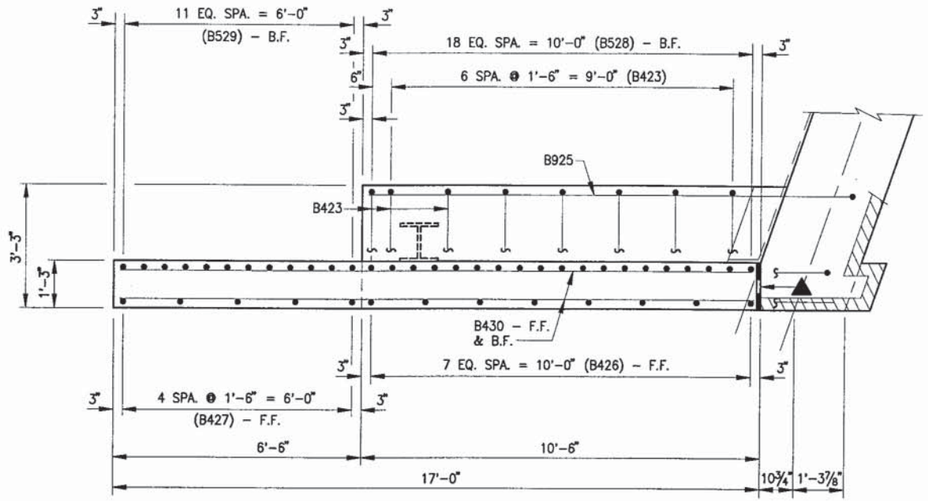
Const. Spec. WIS. '99	Drawn By TL	Plans Checked TR

WING 3

SHEET 12 OF 26

558

STATE PROJECT NUMBER	SHEET NO
1190-00-82	



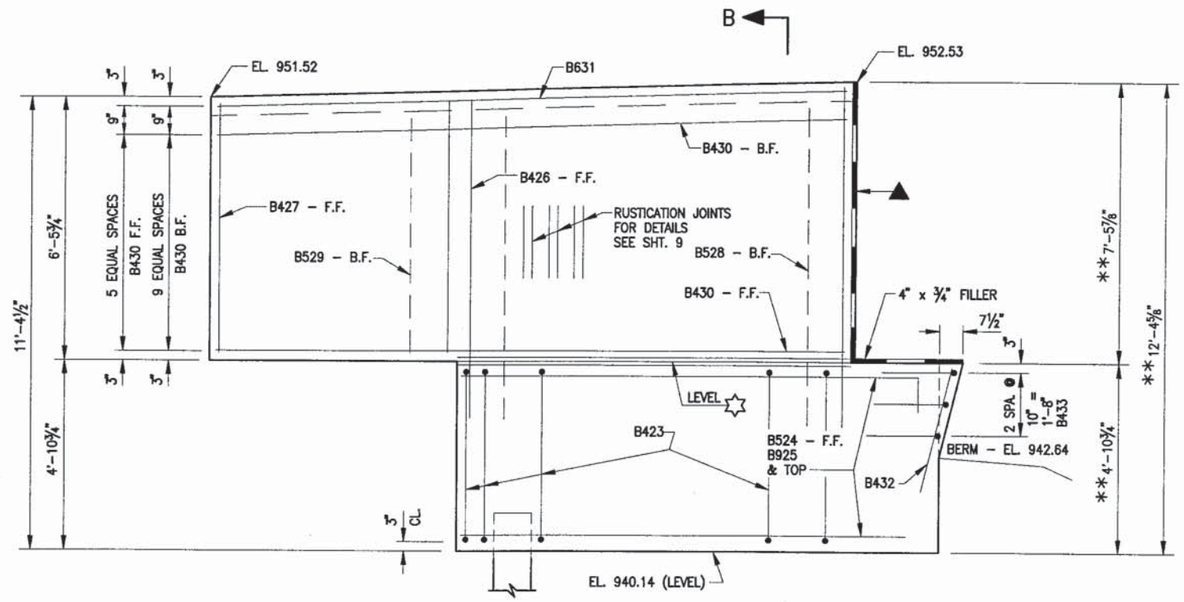
PLAN – WING 4

LEGEND

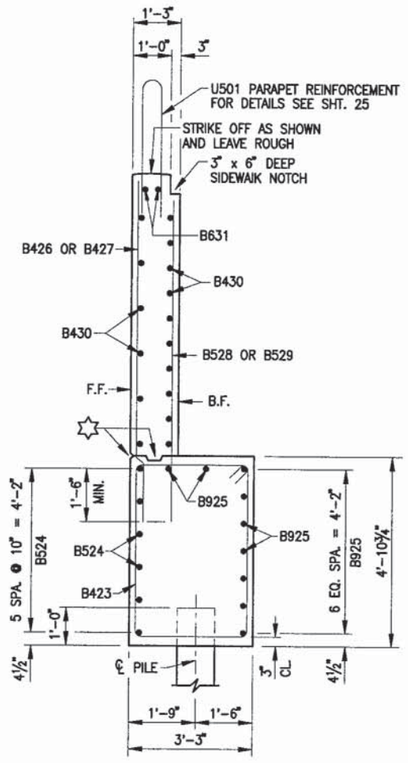
☆ OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY A SURFACED, BEVELED 2" x 6" AND A ¾" V-GROOVE ON FRONT FACE OF WINGWALL. V-GROOVE SHALL BE OMITTED IF CONSTRUCTION JOINT IS NOT USED.

** DIMENSIONS ARE GIVEN AT THE B.F. OF ABUTMENT.

▲ ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)



ELEVATION – WING 4



SECTION B-B

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

Const. Spec. WIS. '99	Drawn By TL	Plans Checked TR

WING 4

SHEET 13 OF 26

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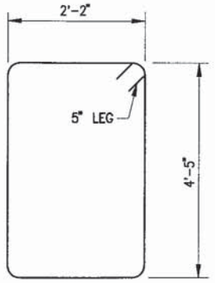
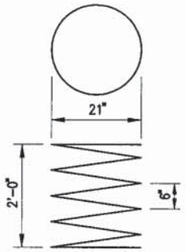
STATE PROJECT NUMBER	SHEET NO
1190-00-82	



B401



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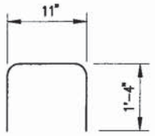

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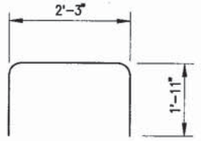
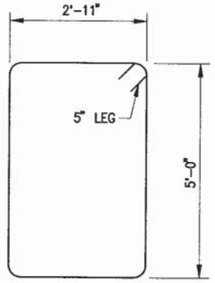


B411



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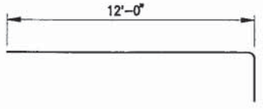
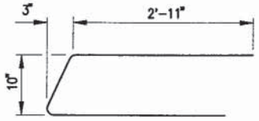
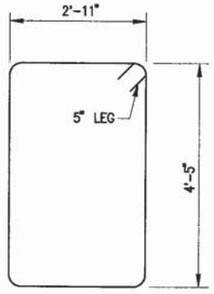


B814



B421 & B433

B422



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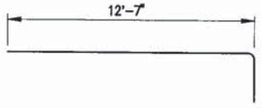


B925

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D.	LENGTH	BENT	LOCATION	
B401	48	13'-9"	X	ABUT. BODY - STIRRUPS	VERT.
B402	14	2'-3"		ABUT. BODY - 2 ❶ EA. PILE	VERT.
B403	7	28'-0"	X	ABUT. BODY - ❶ EA. PILE	HORIZ.
B604	11	42'-1"		ABUT. BODY	HORIZ.
B805	9	16'-0"		ABUT. BODY - B.F.	HORIZ.
B1006	9	17'-0"		ABUT. BODY - B.F.	HORIZ.
B607	9	14'-11"		ABUT. BODY - B.F.	HORIZ.
B408	29	3'-5"	X	ABUT. BODY - TOP - B.F. ALL GIRDERS	VERT
B409	2	42'-1'		ABUT. BODY - TOP	HORIZ.
B410	2	26'-0"		ABUT. BODY - TOP	HORIZ.
B411	18	5'-11"	X	ABUT. BODY - TOP - BETWEEN GIRDERS 2 & 5	VERT.
B412	7	16'-5"	X	WING 3 - STIRRUPS	VERT.
B513	6	12'-0"		WING 3 - F.F.	HORIZ.
B814	7	13'-2"	X	WING 3 - B.F.	HORIZ.
B415	7	8'-0"		WING 3 - F.F.	VERT.
B416	5	5'-7"		WING 3 - F.F.	VERT.
B517	10	8'-0"		WING 3 - B.F.	VERT.
B518	7	5'-7"		WING 3 - B.F.	VERT.
B419	13	15'-8"		WING 3 - F.F. & B.F.	HORIZ.
B420	2	3'-6"		WING 3 - ❶ MASKWALL	VERT.
B421	3	6'-6"	X	WING 3 - ❶ MASKWALL	HORIZ.
B423	8	15'-7"	X	WING 4 - STIRRUPS	VERT.
B524	6	12'-3"		WING 4 - F.F.	HORIZ.
B925	9	13'-11"	X	WING 4 - B.F.	HORIZ.
B426	8	8'-9"		WING 4 - F.F.	VERT.
B427	5	6'-1"		WING 4 - F.F.	VERT.
B528	19	8'-3"		WING 4 - B.F.	VERT.
B529	12	5'-7"		WING 4 - B.F.	VERT.
B430	16	16'-8"		WING 4 - F.F. & B.F.	HORIZ.
B432	2	3'-6"		WING 4 - ❶ MASKWALL	VERT.
B433	3	6'-6"	X	WING 4 - ❶ MASKWALL	HORIZ.
EPOXY COATED BARS					
B631	2	16'-8"		WING 4 - TOP	HORIZ.
B422	16	2'-0"	X	WING 3 - DOWEL	HORIZ.
B634	2	15'-8"		WING 3 - TOP	

● FIELD BEND TO FOLLOW TOP SLOPE OF ABUTMENT.

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

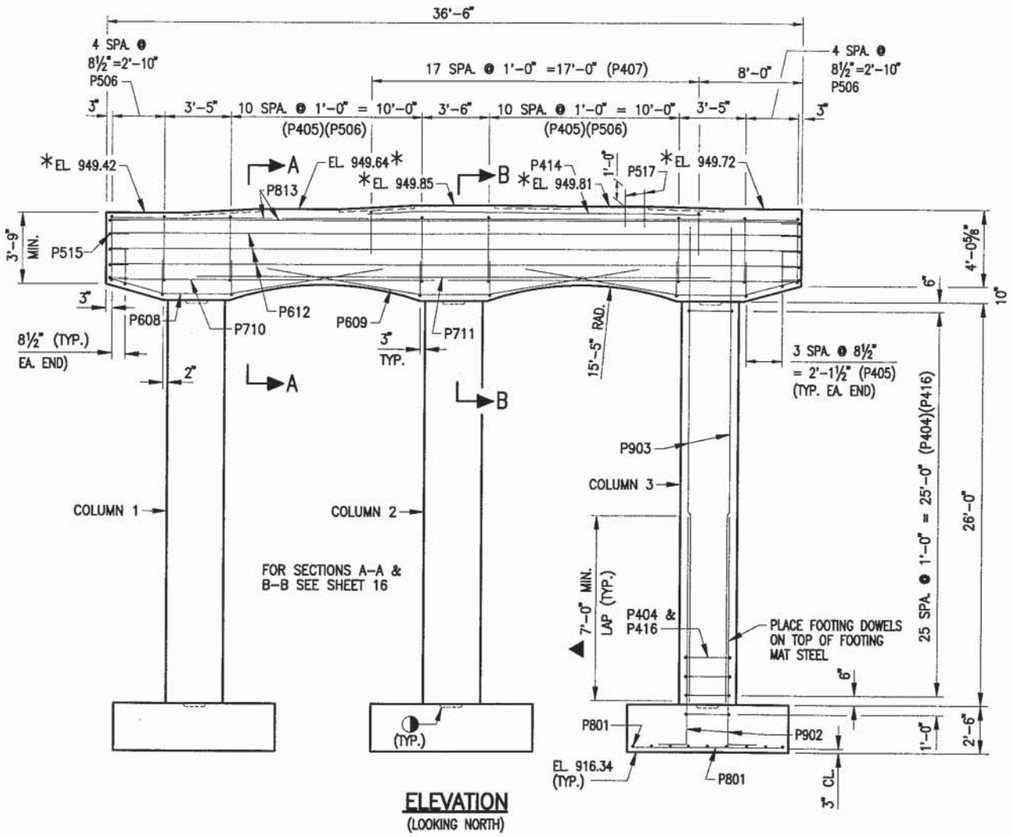
Const. Spec.	Drawn By	Plans Checked
WIS. '99	TL	TR

EAST ABUTMENT
BILL OF BARS

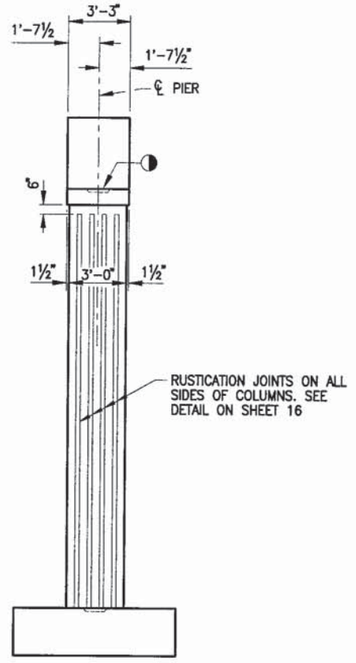
SHEET 14 OF 26

560

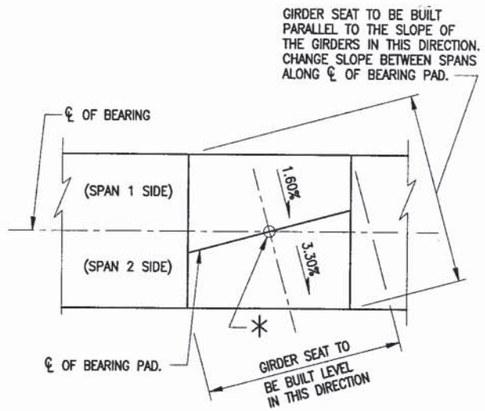
STATE PROJECT NUMBER	SHEET NO
1190-00-82	



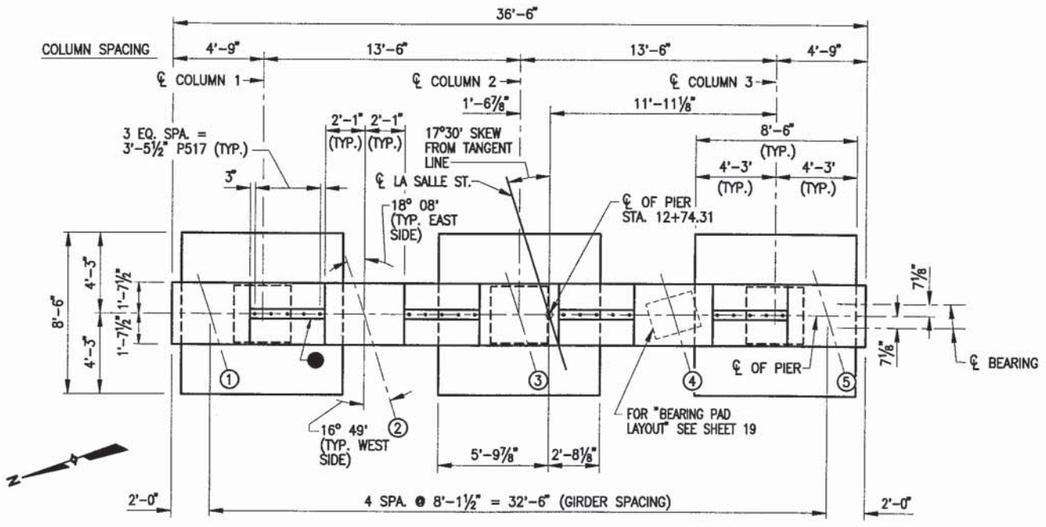
ELEVATION
(LOOKING NORTH)



END VIEW



GIRDER SEAT DETAIL



PLAN

LEGEND

- ✱ ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE AT THE ℄ OF PIER.
- ● KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6".
- ◑ 1'-3" x 1'-3" x 2" CONSTRUCTION JOINT FORMED BY A BEVELED KEYWAY, TYPICAL ALL COLUMNS AND FOOTINGS.
- ▲ P902 BAR PROVIDED WITH 3'-0" EXTRA LENGTH FOR FOOTING ELEVATION ADJUSTMENT. ADDITIONAL P404 & P416 BARS ALSO PROVIDED.
  FOOTING CAN BE LOWERED A MAXIMUM OF 3'-0" WITHOUT A RE-DESIGN.

FOOTING NOTE

PIER TO BE SUPPORTED ON SPREAD FOOTINGS ON SANDSTONE BEDROCK AT A MINIMUM BEARING CAPACITY OF 7.5 TONS PER SQUARE FOOT.

NOTE:
P517 BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE THE INITIAL SET HAS TAKEN PLACE. SEE SHEET 16 FOR CAP AND FOOTING DETAILS.

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

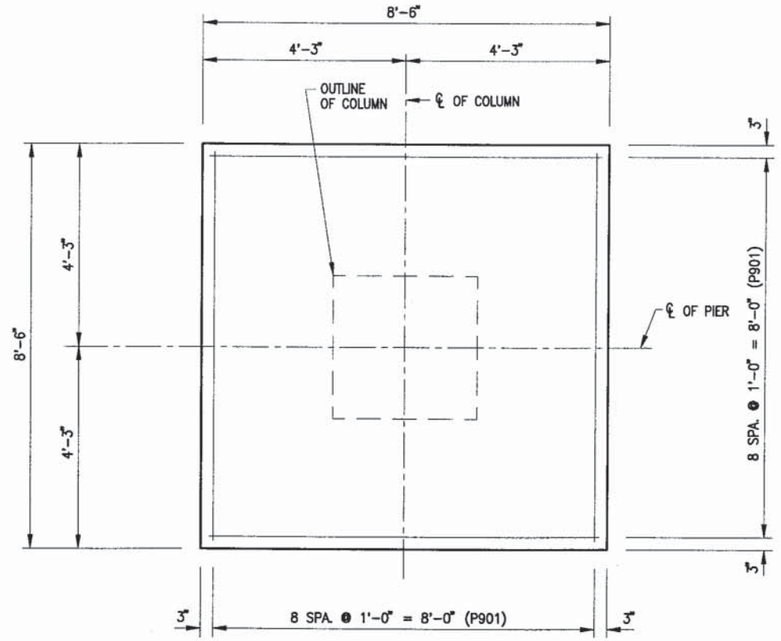
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

PIER

SHEET 15 OF 26

561

STATE PROJECT NUMBER	SHEET NO
1190-00-82	

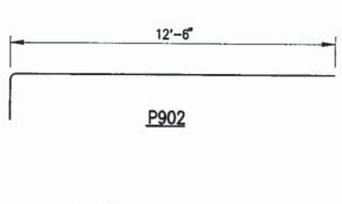


FOOTING PLAN

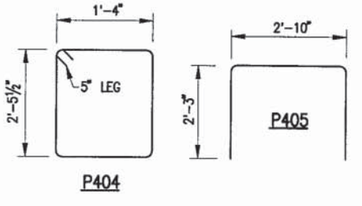
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D.	LENGTH	BENT	COATED	LOCATION	
P901	54	8'-2"			FOOTING	HORIZ.
P902	48	13'-10"	X	X	FOOTING & COLUMN	VERT.
P903	48	29'-6"		X	COLUMN	VERT.
P404	180	8'-1"	X	X	COLUMN - STIRRUPS	HORIZ.
P405	30	7'-2"	X	X	CAP - BOTTOM - STIRRUPS	VERT.
P506	64	11'-0"	X	X	CAP - STIRRUPS	VERT.
P407	18	8'-2"	X	X	CAP - TOP - STIRRUPS	VERT.
P608	8	12'-8"	X	X	CAP - BOTTOM	HORIZ.
P609	4	15'-11"	X	X	CAP - BOTTOM	HORIZ.
P710	4	36'-2"		X	CAP - BOTTOM	HORIZ.
P711	4	27'-0"		X	CAP - BOTTOM	HORIZ.
P612	6	36'-2"		X	CAP	HORIZ.
P813	12	36'-2"		X	CAP - TOP	HORIZ.
P414	4	17'-6"		X	CAP - TOP	HORIZ.
P515	10	4'-7"	X	X	CAP - END	HORIZ.
P416	90	10'-5"	X	X	COLUMN - STIRRUPS	HORIZ.
P517	20	2'-0"		X	CAP - TOP DOWELS	VERT.

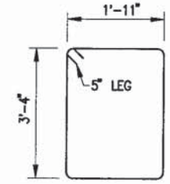


P902

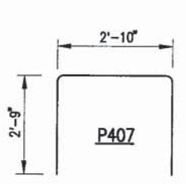


P404

P405



P506



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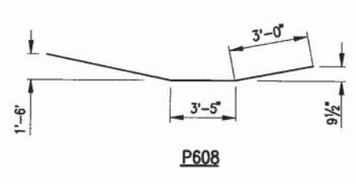

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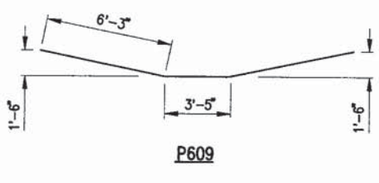
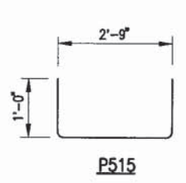


P609



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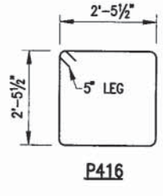

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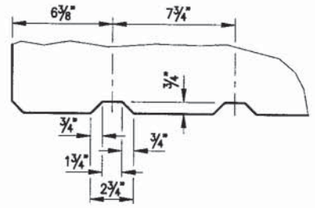
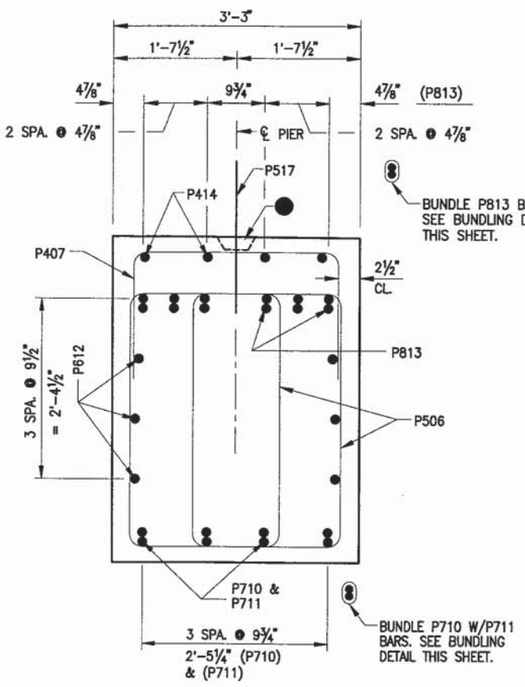
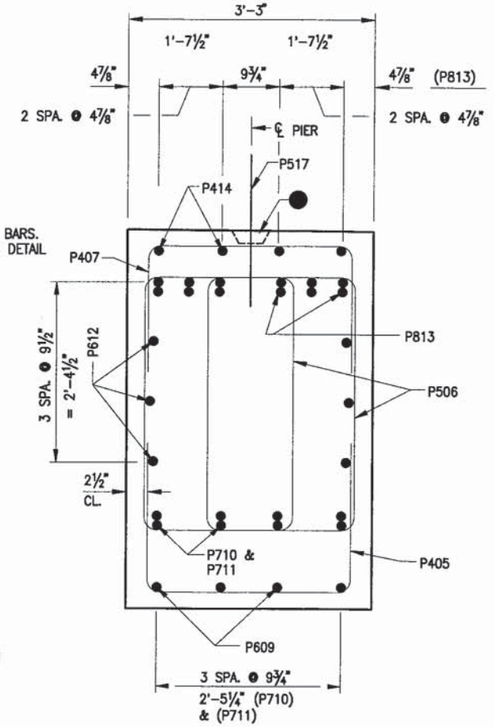


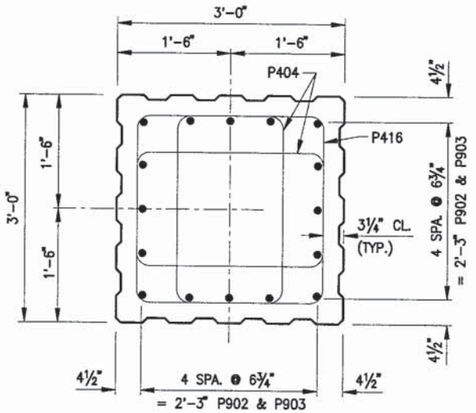
RUSTICATION JOINT DETAILS
(VERTICAL JOINTS ONLY
ON ALL SIDES OF COLUMN)
(INCIDENTAL TO "CONCRETE MASONRY BRIDGES")



SECTION A-A



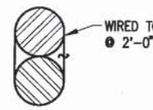
SECTION B-B



TYPICAL COLUMN SECTION

LEGEND

● KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2" x 6"



BUNDLING DETAIL

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

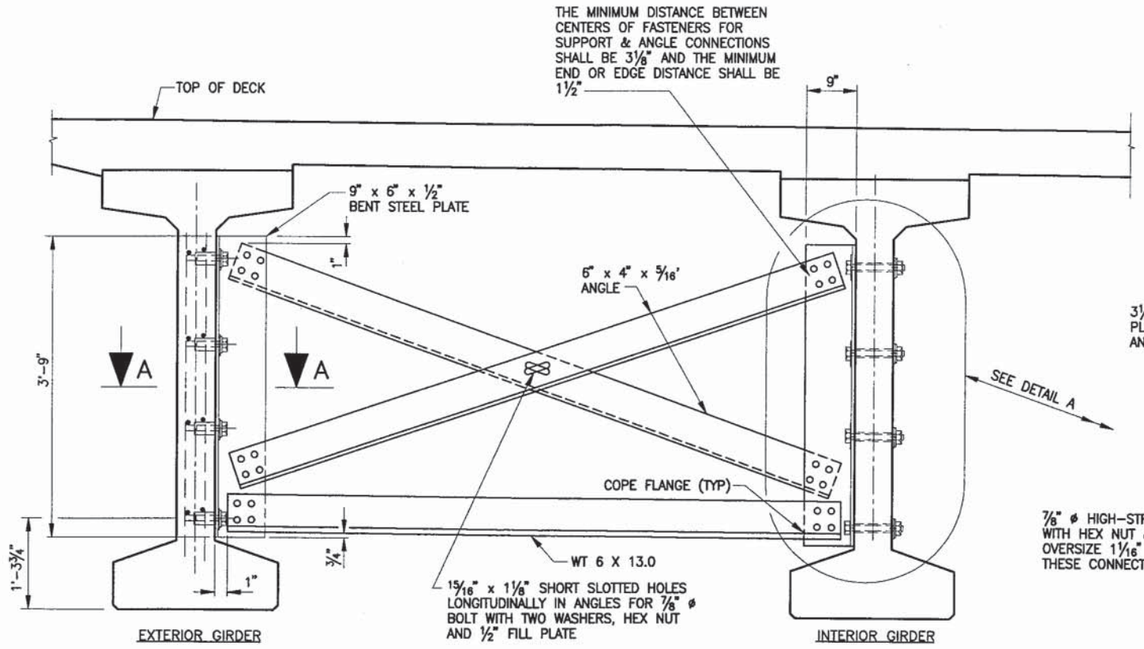
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

PIER DETAILS

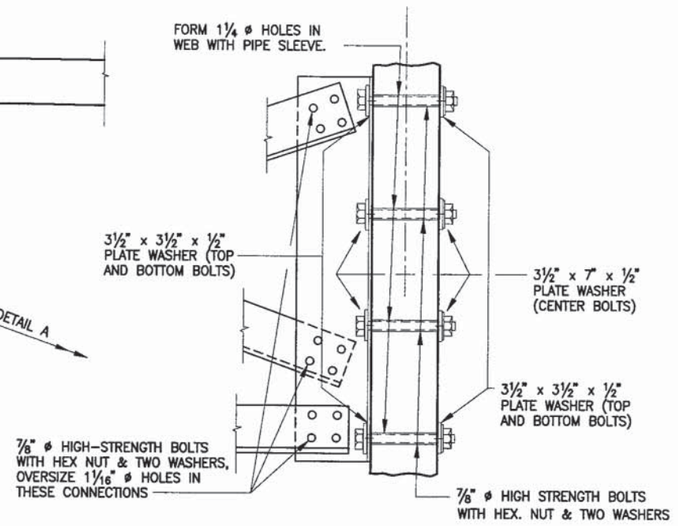
SHEET 16 OF 26

562

STATE PROJECT NUMBER	SHEET NO
1190-00-82	



PART TRANSVERSE SECTION AT DIAPHRAGM



DETAIL A

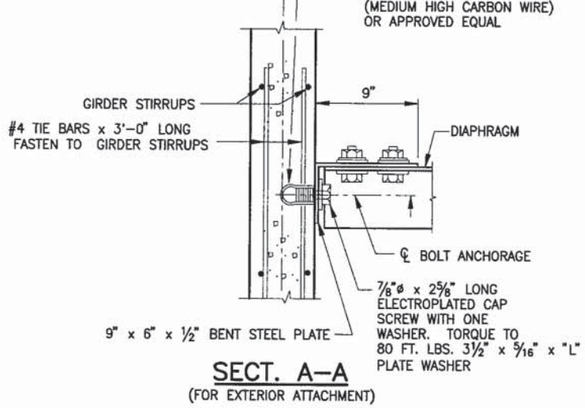
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGM, STRUCTURE B-18-190", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

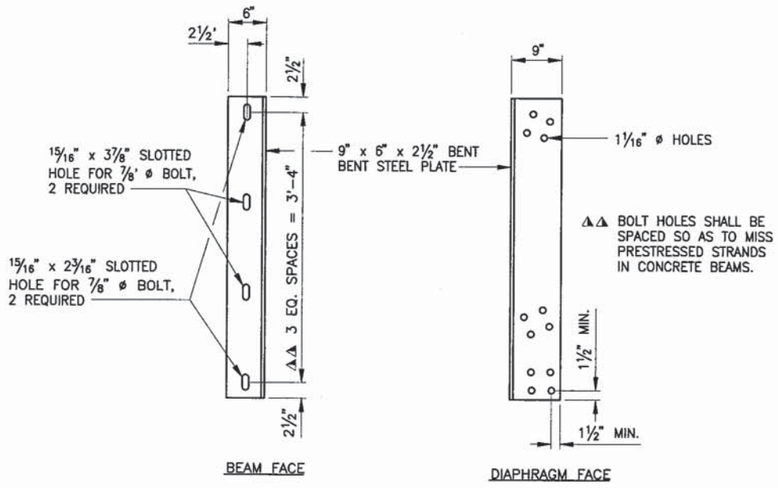
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.



SECT. A-A
(FOR EXTERIOR ATTACHMENT)

"L" = 3½"; TOP & BOTTOM BOLTS
"L" = 7"; CENTER BOLTS



DIAPHRAGM SUPPORT

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

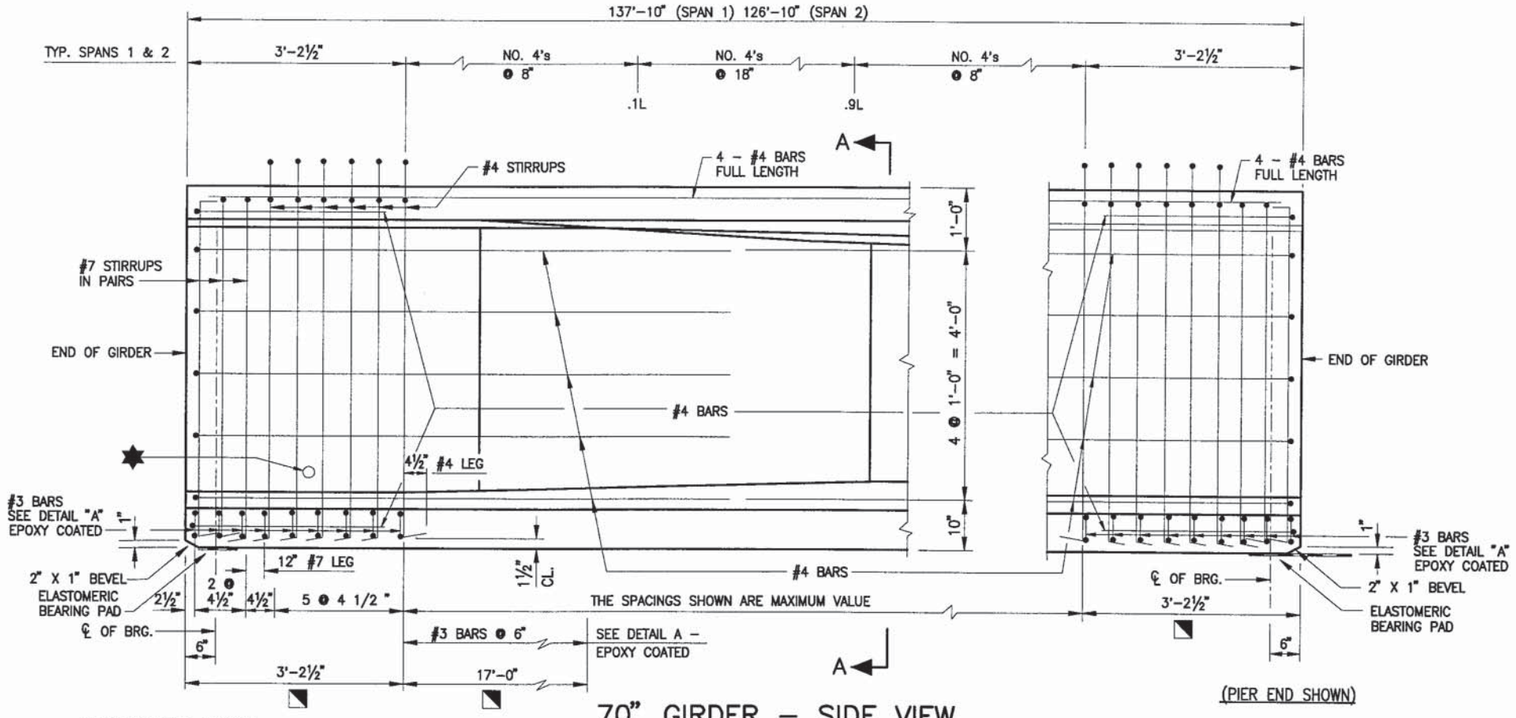
Const. Spec.	Drawn By	Plans Checked
WIS. '99	TL	TR

INTERMEDIATE STEEL DIAPHRAGMS

SHEET 17 OF 26

563

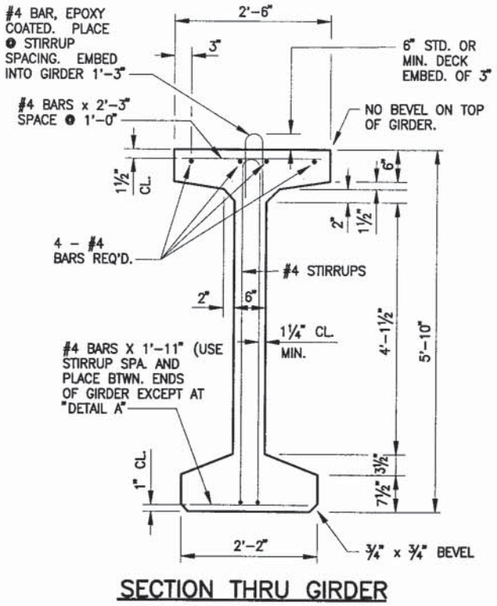
STATE PROJECT NUMBER	SHEET NO
1190-00-82	



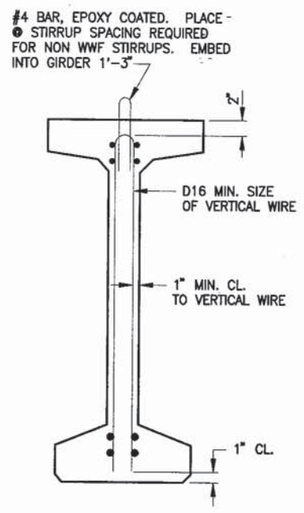
70" GIRDER - SIDE VIEW

▙ DETAIL TYPICAL EACH END.

★ 1½" DIA. HOLE IN WEB FOR 2 S515 BARS, (TYPICAL AT ABUTMENTS) FIELD BEND ALONG SKEW

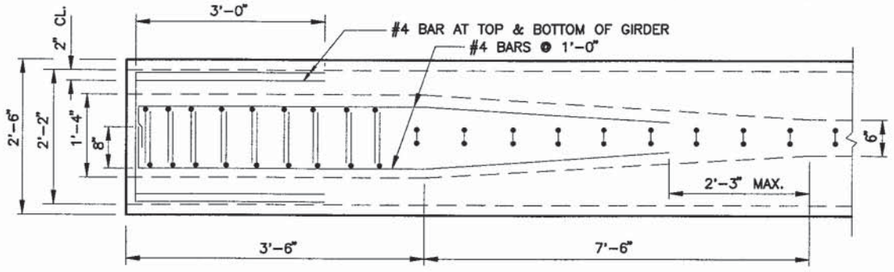


SECTION THRU GIRDER

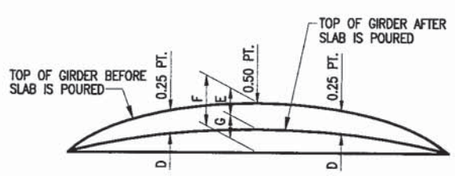


SECTION THRU GIRDER

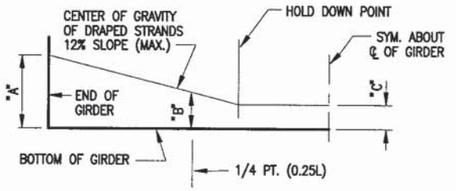
SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS



TOP VIEW OF GIRDER



DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE

GIRDER NOTES

TOP OF GIRDERS TO BE ROUGH FLOATED AND BROOMED TRANSVERSELEY FOR BONDING TO THE SLAB, EXCEPT THE OUTSIDE 2" OF GIRDER, WHICH SHALL BE TROWEL FINISHED.

THE GIRDER MANUFACTURER SHALL PROVIDE A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. THE DETAILS OF THE LIFTING DEVICE USED SHALL BE SUBMITTED FOR APPROVAL.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

BEND EACH END OF NO. 4 STIRRUPS 4½" AND NO. 7 STIRRUPS 12".

PRESTRESSING STRANDS SHALL BE 0.6" ø 7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 psi AND SHALL BE FLUSH WITH THE ENDS OF THE GIRDER.

ENDS OF STRANDS SHALL BE PAINTED WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (THIS APPLIES ONLY TO THOSE ENDS OF GIRDER THAT ARE FINALLY EXPOSED.)

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, 2 OPTIONS ARE AVAILABLE:

1. USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.
2. USE ASTM A615, GRADE 40 REINFORCEMENT AND A MODIFIED STIRRUP SPACING SUBMITTED TO AND APPROVED BY THE STRUCTURES DEVELOPMENT SECTION.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION (608) 266-8494

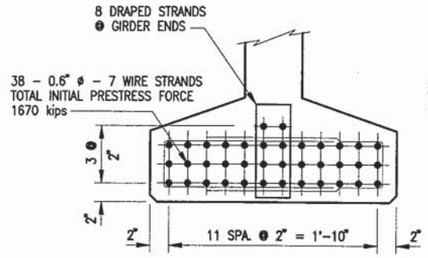
WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A497.

IF THE CONTRACTOR USES THE BOTTOM FLANGE TO SUPPORT CONSTRUCTION FORMS, THE CONTRACTOR SHALL SUBMIT FALSEWORK PLANS FOR APPROVAL BY THE STRUCTURES DESIGN SECTION.

GIRDER DATA		LOW RELAXATION	
		SPAN 1	SPAN 2
GIRDER LENGTH "L" REQUIRED		137'-10"	126'-10"
f'ci (psi) *	DRAPED PATTERN	6200	4800
	SPREAD PATTERN	N/A	N/A
DRAPED STRANDS	DIMENSION "A"	65	65
	DIMENSION "B" (MINIMUM)	20	20
	DIMENSION "B" (MAXIMUM)	23	23
	DIMENSION "C"	5	5
DEFLECTION DATA **	DIMENSION "D"	1 5/8"	1 1/8"
	DIMENSION "E"	2 7/8"	1 5/8"
CAMBER DATA	PRESTRESSED CAMBER "F"	4 7/8"	2 5/8"
	RESIDUAL CAMBER "G"	2"	1"

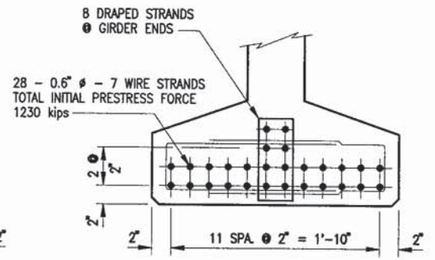
* MINIMUM CYLINDER STRENGTH OF CONCRETE AT THE TIME OF TRANSFER OF PRESTRESS FORCE.

** DATA SHOWN IS THEORETICAL AND MAY VARY WITH CONCRETE STRENGTH, VARIABLE PRESTRESS CONDITIONS AND PRESTRESS LOSSES.



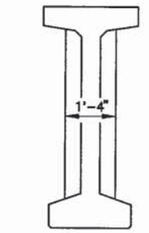
DRAPED STRAND PATTERN

(SPAN 1)

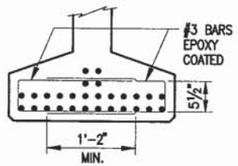


DRAPED STRAND PATTERN

(SPAN 2)



SECTION A-A



DETAIL A

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

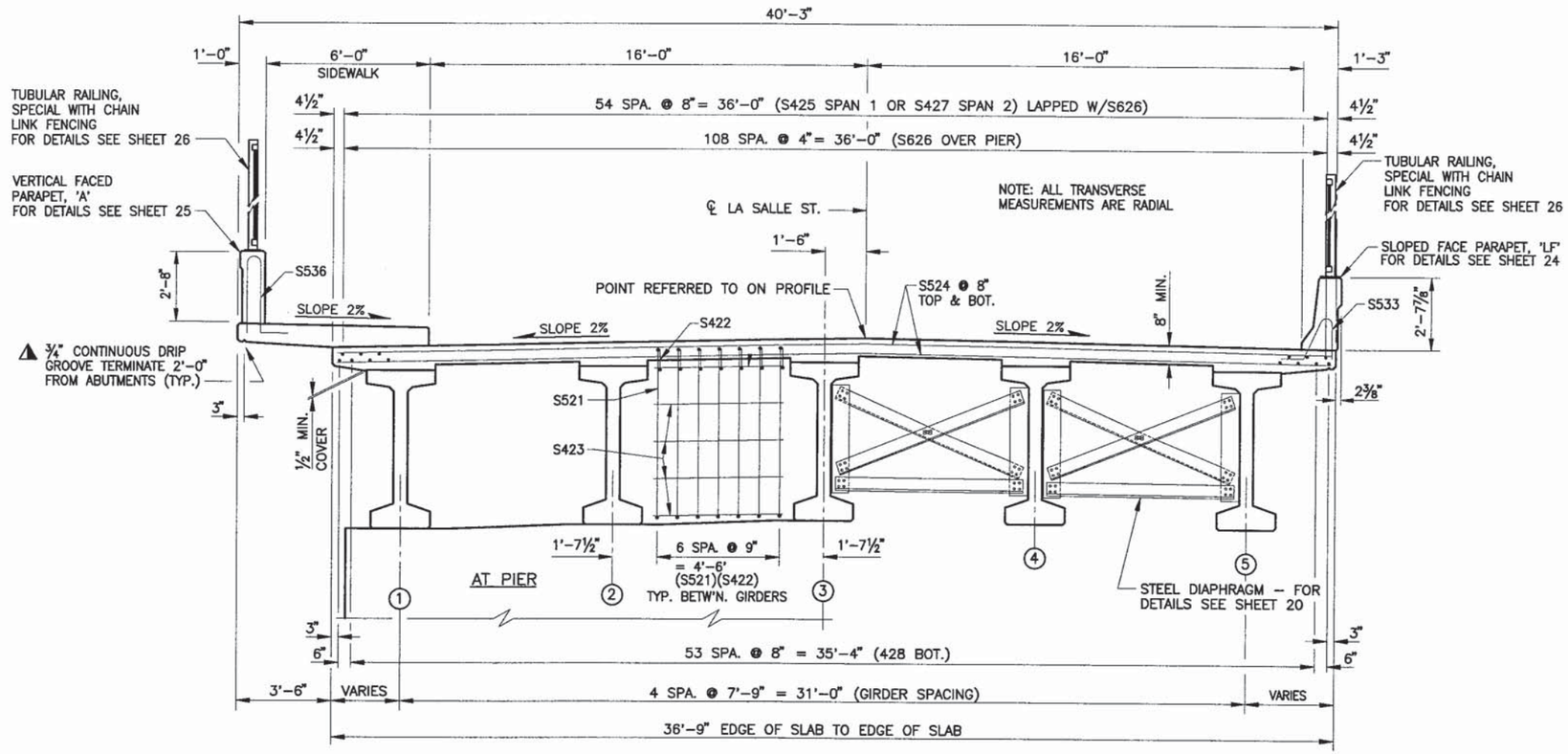
Const. Spec. WIS. '99	Drawn By TL	Plans Checked TR

70" PRETENSIONED GIRDER DETAILS

SHEET 18 OF 26

564

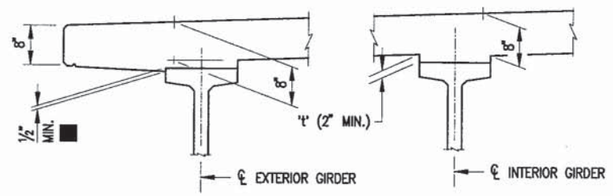
STATE PROJECT NUMBER	SHEET NO
1190-00-82	



TYPICAL CROSS SECTION THRU DECK

(LOOKING EAST)

■ SLAB THICKNESS SHALL BE INCREASED TO CONCEAL INTERSECTION OF SLAB AND TOP OF GIRDER AT ALL FASCIA GIRDERS.

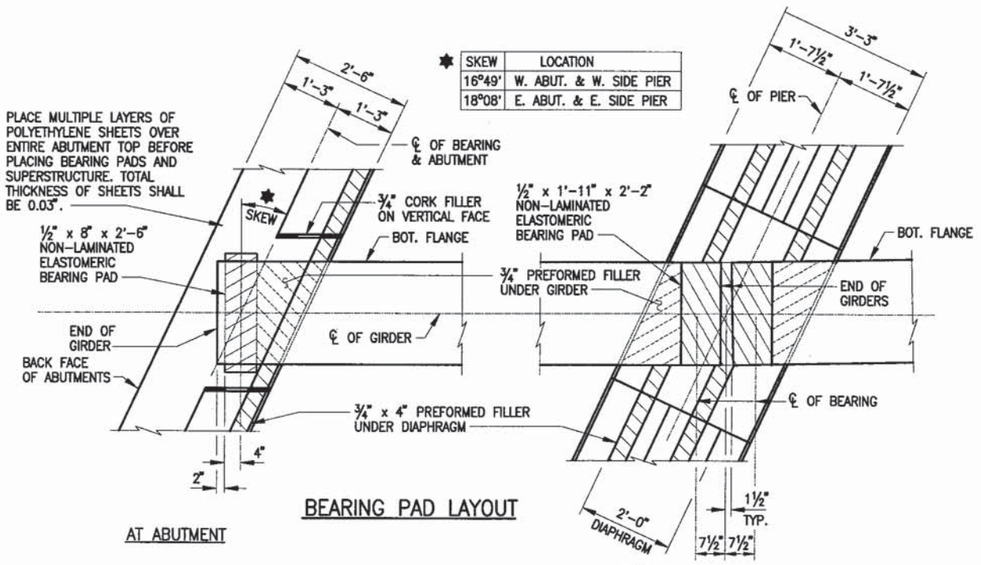


SLAB HAUNCH DETAIL

IF THE 2" MINIMUM HAUNCH HEIGHT 't' CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. TO DETERMINE 't', ELEV. OF TOP OF GIRDERS AT ℄ OF SUBSTRUCTURE UNITS & AT 0.1 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
− TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
− SLAB THICKNESS
= HAUNCH HEIGHT 't'

★ SKEW	LOCATION
16°49'	W. ABUT. & W. SIDE PIER
18°08'	E. ABUT. & E. SIDE PIER

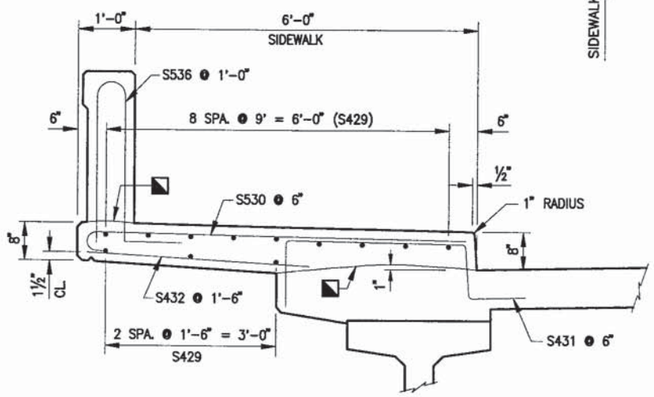


BEARING PAD LAYOUT

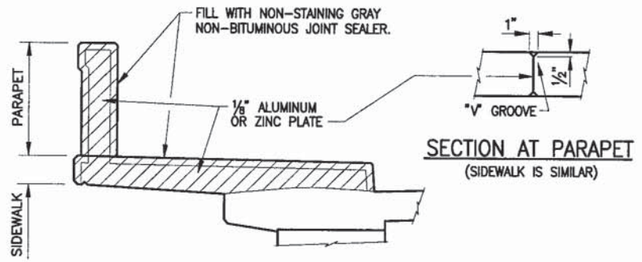
LEGEND

▲ END 2'-0" AWAY FROM FACE OF ABUTMENT.

◥ HORIZONTAL CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.



TYPICAL SECTION AT SIDEWALK



SECTION AT PARAPET

(SIDEWALK IS SIMILAR)

DEFLECTION JOINT DETAIL

(PLACE DEFLECTION JOINT OVER PIER)

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-18-190

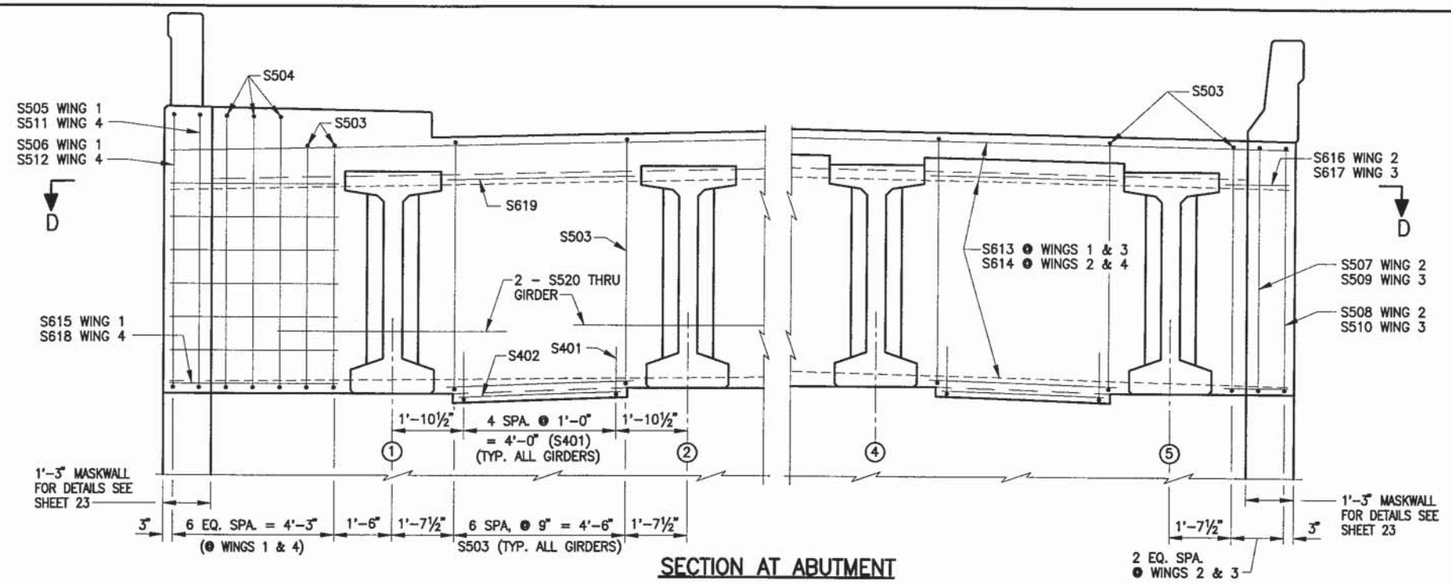
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

SUPERSTRUCTURE CROSS SECTION

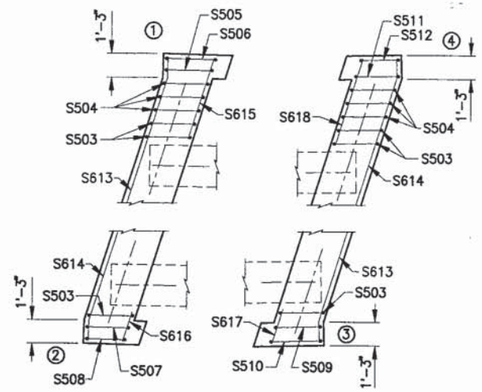
SHEET 19 OF 26

565

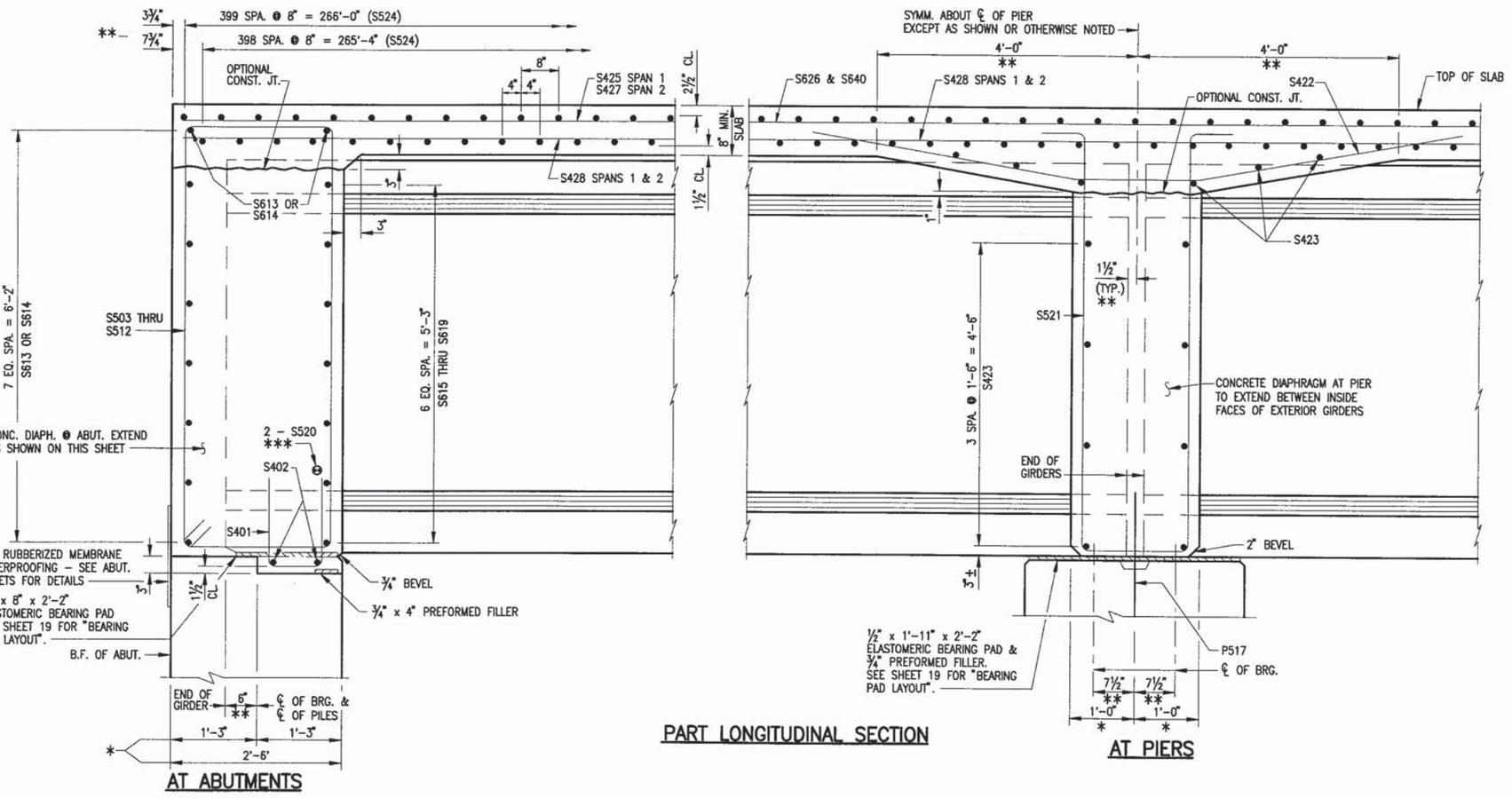
STATE PROJECT NUMBER	SHEET NO
1190-00-82	



SECTION AT ABUTMENT



SECTION D-D



PART LONGITUDINAL SECTION

LEGEND

* DIMENSION IS TAKEN NORMAL TO ℄ OF SUBSTRUCTURE UNITS.

** DIMENSIONS ARE GIVEN PARALLEL TO THE TANGENT LINE.

*** 1½" DIA. HOLE IN WEB FOR S515 BARS. 2 - S515 BARS TO BE PLACED SYM. ABOUT ℄ OF EACH GIRDER. FIELD BEND BARS ALONG SKEW.

NOTE:
ALL VERTICAL BAR STEEL REINFORCEMENT IN CONCRETE DIAPHRAGMS SHALL BE PLACED PARALLEL TO GIRDER.

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

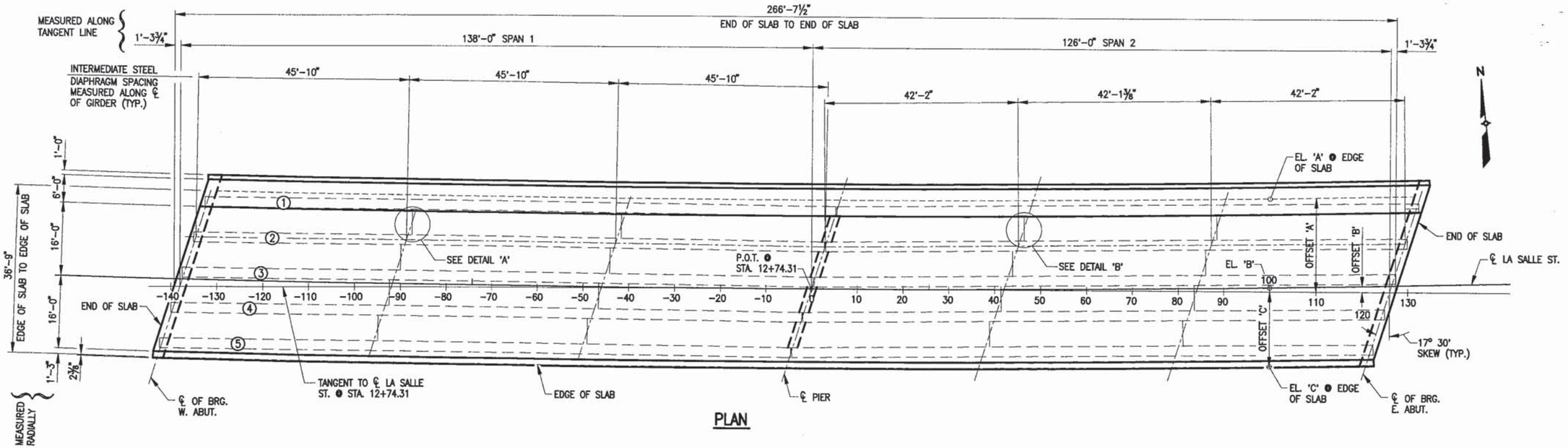
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

SUPERSTRUCTURE DETAILS

SHEET 20 OF 26

566

STATE PROJECT NUMBER	SHEET NO
1190-00-82	

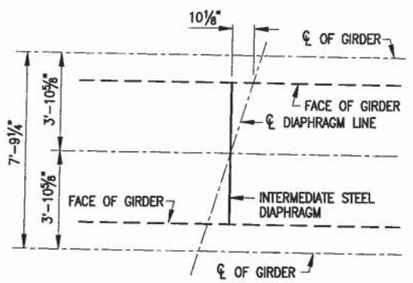


PLAN

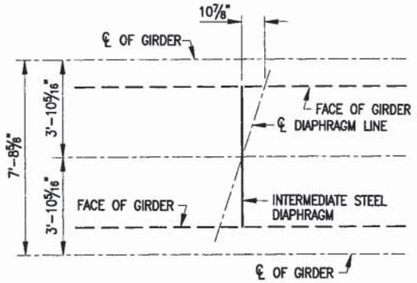
OFFSET & ELEVATION TABLE

DISTANCE	-140	-130	-120	-110	-100	-90	-80	-70	-60	-50	-40	-30	-20	-10
OFFSET 'A'	----	20'-11¾"	20'-9⅛"	20'-6¾"	20'-4½'	20'-2½"	20'-0¾"	19'-11⅛"	19'-9¾"	19'-8⅝"	19'-7⅝"	19'-7"	19'-6⅜"	19'-6⅛"
EL. 'A'	----	958.36	958.23	958.09	957.96	957.82	957.69	957.55	957.40	957.24	957.06	956.87	956.66	956.44
OFFSET 'B'	----	1'-5¾"	1'-3⅛"	1'-0⅝"	10½"	8½"	6¾"	5⅛"	3¾"	2⅝"	1⅝"	⅞"	⅜"	⅛"
EL. 'B'	----	958.75	958.61	958.48	958.34	958.21	958.07	957.94	957.79	957.62	957.45	957.26	957.05	956.83
OFFSET 'C'	15'-6½"	15'-9⅜"	16'-0"	16'-2⅜"	16'-4½'	16'-6½"	16'-8⅜"	16'-9⅞"	16'-11¼"	17'-0⅜"	17'-1⅜"	17'-2"	17'-2⅝'	17'-2⅞"
EL. 'C'	958.53	958.40	958.26	958.13	957.99	957.86	957.72	957.59	957.44	957.28	957.10	956.91	956.71	956.49

DISTANCE	0	10	20	30	40	50	60	70	80	90	100	110	120	130
OFFSET 'A'	19'-6"	19'-6⅛"	19'-6⅜"	19'-7'	19'-7⅝"	19'-8⅝"	19'-9¾"	19'-11⅛"	20'-0¾"	20'-2½"	20'-4½'	20'-6¾"	20'-9⅛"	20'-11¾"
EL. 'A'	956.21	955.96	955.70	955.42	955.13	954.83	954.51	954.17	953.83	953.46	953.09	952.70	952.29	951.87
OFFSET 'B'	0	⅛"	⅜"	⅞"	1⅝"	2⅝"	3¾"	5⅛"	6¾"	8½"	10½"	1'-0⅝"	1'-3⅛"	----
EL. 'B'	956.60	956.35	956.09	955.82	955.53	955.22	954.90	954.57	954.23	953.86	953.49	953.10	952.70	----
OFFSET 'C'	17'-3"	17'-2⅞"	17'-2⅝'	17'-2"	17'-1⅜"	17'-0⅞"	16'-11¼"	16'-9⅞"	16'-8⅜"	16'-6½"	16'-4½"	16'-2⅜"	16'-0"	----
EL. 'C'	956.26	956.01	955.75	955.47	955.18	954.88	954.56	954.23	953.89	953.53	953.16	952.77	952.37	----



DETAIL A



DETAIL B

TOP OF DECK ELEVATIONS

	℄ OF BRG. W. ABUT.	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ OF PIER	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ OF BRG. E. ABUT.
GIRDER 1	958.44	958.25	958.06	957.87	957.69	957.49	957.27	957.03	956.75	956.45	956.13	955.80	955.45	955.08	954.68	954.27	953.83	953.37	953.57	952.38	951.85
GIRDER 2	958.63	958.43	958.25	958.06	957.87	957.68	957.47	957.23	956.96	956.66	956.34	956.02	955.68	955.31	954.92	954.51	954.07	953.62	953.14	952.64	952.11
GIRDER 3	958.81	958.62	958.44	958.25	958.06	957.87	957.66	957.43	957.16	956.87	956.56	956.24	955.90	955.54	955.15	954.75	954.32	953.86	953.39	952.90	952.39
GIRDER 4	958.75	958.56	958.38	958.20	958.01	957.83	957.62	957.39	957.13	956.84	956.52	956.21	955.88	955.53	955.15	954.75	954.32	953.88	953.41	952.91	952.39
GIRDER 5	958.62	958.44	958.26	958.07	957.89	957.70	957.50	957.27	957.02	956.74	956.43	956.12	955.79	955.44	955.07	954.68	954.26	953.81	953.35	952.86	952.35

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

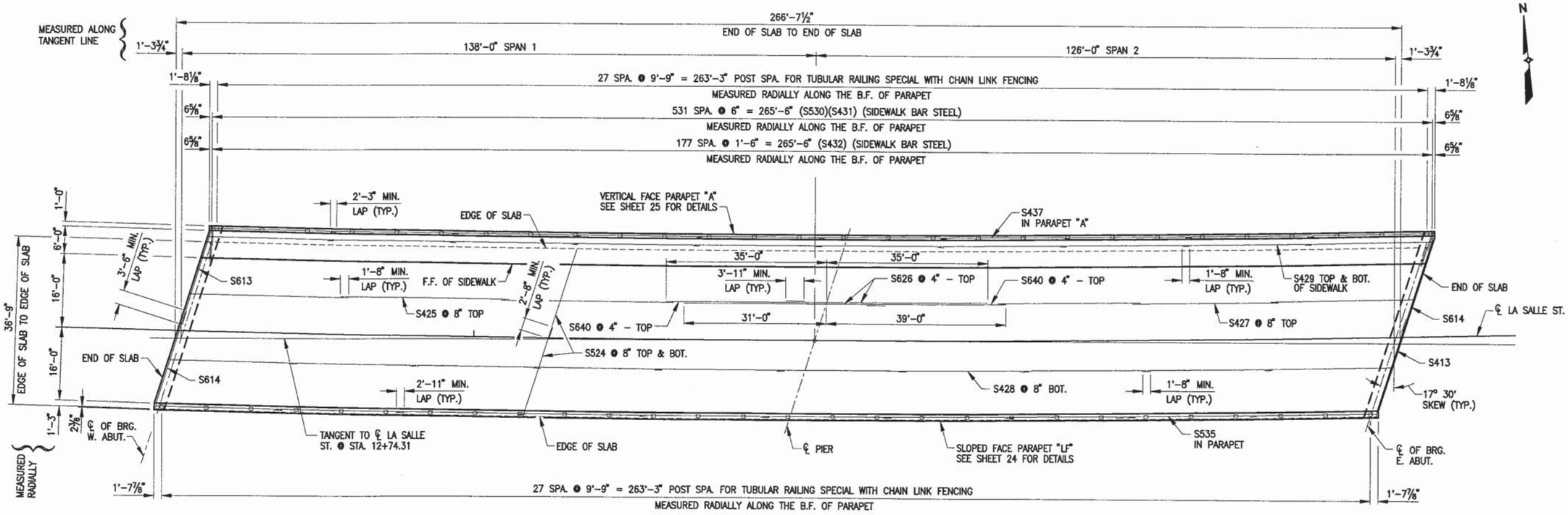
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

SUPERSTRUCTURE PLAN

SHEET 21 OF 26

567

STATE PROJECT NUMBER	SHEET NO
1190–00–82	



PLAN

NOTES

1. ALL TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE PLACED ALONG THE SKEW.
2. THE BOTTOM TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS WITH A CENTER TO CENTER SPACING NOT TO EXCEED 4'–0". ONE LINE OF CONTINUOUS BAR CHAIRS SHALL BE PLACED NEAR EACH EDGE OF SLAB TO SUPPORT THE ENDS OF THE BOTTOM TRANSVERSE BAR STEEL.
3. THE TOP LONGITUDINAL BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS IN TRANSVERSE DIRECTION ON 4'–0" CENTERS.

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–18–190

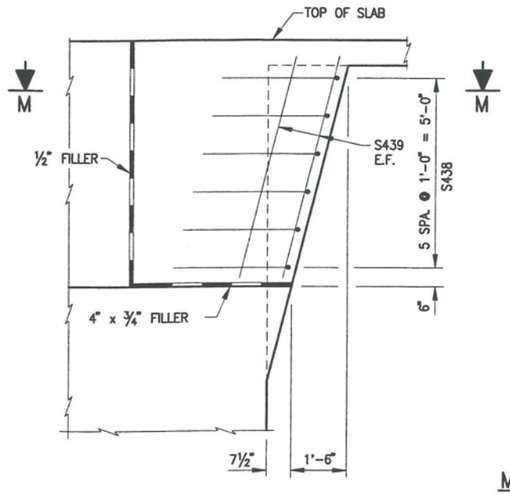
Const. Spec.	Drawn By	Plans Checked
WIS. '99	TL	TR

SUPERSTRUCTURE PLAN OFF BAR STEEL

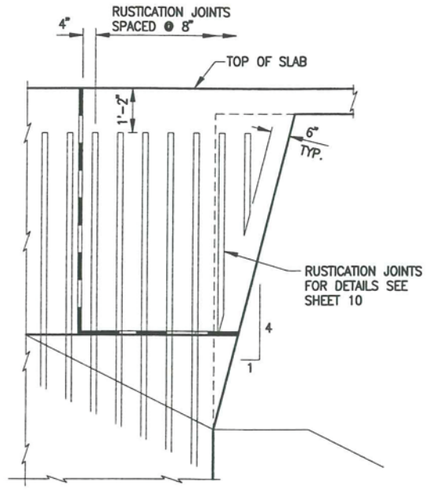
SHEET 22 OF 26

568

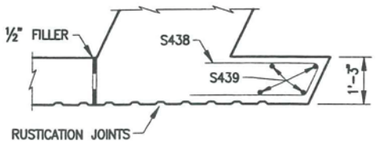
STATE PROJECT NUMBER	SHEET NO
1190-00-82	



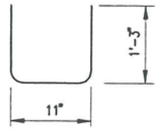
MASKWALL SECTION



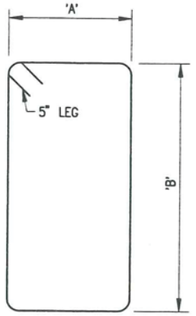
MASKWALL RUSTICATION JOINT DETAILS
(INCIDENTAL TO "CONCRETE MASONRY, BRIDGES)



SECTION M-M

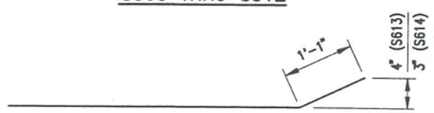


S401

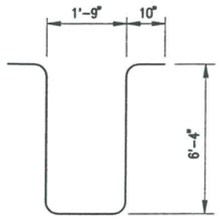


BAR NO.	DIM. 'A'	DIM. 'B'
S503	2'-3"	6'-4"
S504	2'-3"	7'-1"
S505	2'-4½"	7'-1"
S506	2'-6½"	7'-1"
S507	2'-1½"	6'-4"
S508	1'-11½"	6'-4"
S509	2'-4½"	6'-4"
S510	2'-7½"	6'-4"
S511	2'-2½"	7'-1"
S512	1'-11"	7'-1"

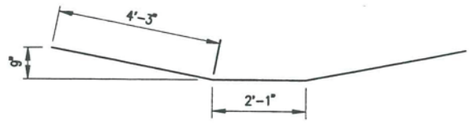
S503 THRU S512



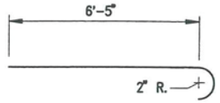
S613 & S614



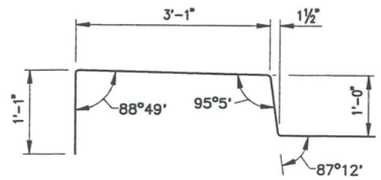
S521



S422



S530



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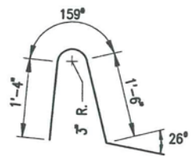

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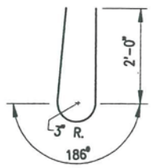

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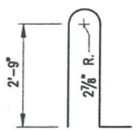

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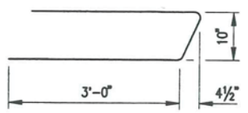


S438

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL REINFORCEMENT BARS IN THIS BILL SHALL BE EPOXY COATED.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION	
S401	40	3'-3"	X		DIAPHRAGM @ ABUTMENTS	VERT.
S402	16	4'-5"			DIAPHRAGM @ ABUTMENTS BETWEEN GIRDERS	HORIZ.
S503	62	17'-7"	X		DIAPHRAGM @ ABUTMENTS - STIRRUPS	VERT.
S504	6	19'-1"	X		DIAPHRAGM @ ABUTMENTS - STIRRUPS - @ WINGS 1 & 4	VERT.
S505	1	19'-4"	X		DIAPHRAGM @ S. ABUTMENT - STIRRUPS - @ WING 1	VERT.
S506	1	19'-8"	X		DIAPHRAGM @ S. ABUTMENT - STIRRUPS - @ WING 1	VERT.
S507	1	17'-4"	X		DIAPHRAGM @ S. ABUTMENT - STIRRUPS - @ WING 2	VERT.
S508	1	17'-0"	X		DIAPHRAGM @ S. ABUTMENT - STIRRUPS - @ WING 2	VERT.
S509	1	17'-10"	X		DIAPHRAGM @ N. ABUTMENT - STIRRUPS - @ WING 3	VERT.
S510	1	18'-4"	X		DIAPHRAGM @ N. ABUTMENT - STIRRUPS - @ WING 3	VERT.
S511	1	19'-0"	X		DIAPHRAGM @ N. ABUTMENT - STIRRUPS - @ WING 4	VERT.
S512	1	18'-5"	X		DIAPHRAGM @ N. ABUTMENT - STIRRUPS - @ WING 4	VERT.
S613	18	22'-7"	X		DIAPHRAGM @ ABUTMENTS - WINGS 1 & 3 - B.F.	HORIZ.
S614	18	22'-7"	X		DIAPHRAGM @ ABUTMENTS - WINGS 2 & 4 - B.F.	HORIZ.
S615	7	4'-6"			DIAPHRAGM @ S. ABUTMENT - WING 1 - F.F.	HORIZ.
S616	7	1'-7"			DIAPHRAGM @ S. ABUTMENT - WING 2 - F.F.	HORIZ.
S617	7	1'-10"			DIAPHRAGM @ N. ABUTMENT - WING 3 - F.F.	HORIZ.
S618	7	4'-9"			DIAPHRAGM @ N. ABUTMENT - WING 4 - F.F.	HORIZ.
S619	56	5'-2"			DIAPHRAGM @ ABUTMENTS - BETWEEN GIRDERS - F.F.	HORIZ.
S520	20	6'-0"			DIAPHRAGM @ ABUTMENTS - 2 @ EA. GIRDER - SYM. ABOUT ℄	HORIZ.
S521	28	15'-5"	X		DIAPHRAGM @ PIER	VERT.
S422	28	10'-7"	X		DIAPHRAGM @ PIER	LONGIT.
S423	56	5'-2"			DIAPHRAGM @ PIER - BETWEEN GIRDERS	HORIZ.
S524	799	20'-9"			SLAB - TOP & BOT.	TRANSV.
S425	165	36'-3"			SLAB - TOP - SPAN 1	LONGIT.
S626	109	44'-0"			SLAB - TOP OVER PIER	LONGIT.
S427	165	31'-3"			SLAB - TOP -SPAN 2	LONGIT.
S428	560	28'-2"			SLAB - BOT.	LONGIT.
S429	120	28'-2"			SIDEWALK - TOP & BOT.	LONGIT.
S530	532	7'-0"	X		SIDEWALK	TRANSV.
S431	532	6'-0"	X		SIDEWALK	TRANSV.
S432	178	4'-6"			SIDEWALK	TRANSV.
S533	400	4'-8"	X		"LF" PARAPETS SOUTH SIDE	VERT.
S534	400	4'-10"	X		"LF" PARAPETS SOUTH SIDE	VERT.
S535	50	28'-3"			"LF" PARAPETS SOUTH SIDE	HORIZ.
S536	267	7'-4"	X		"A" PARAPET NORTH SIDE	VERT.
S437	60	28'-8"			"A" PARAPET NORTH SIDE	HORIZ.
S438	24	6'-9"	X		DIAPHRAGM @ MASKWALLS	HORIZ.
S439	16	6'-2"			DIAPHRAGM @ MASKWALLS	VERT.
S640	109	30'-0"			SLAB - TOP OVER PIER	LONGIT.

1598

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

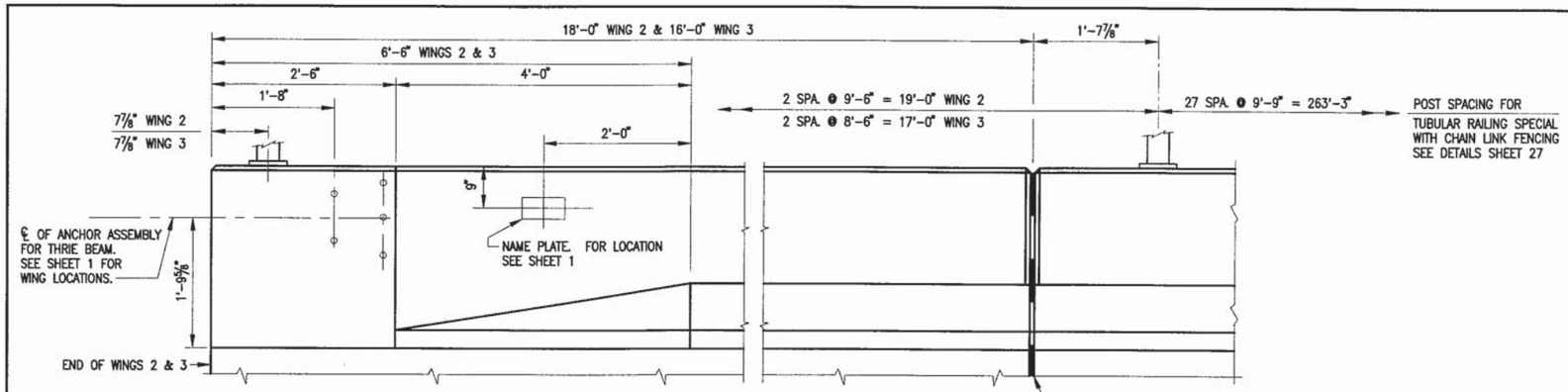
Const. Spec.	WIS. '99	Drawn By	TL	Plans Checked	TR

SUPERSTRUCTURE DETAILS & BILL OF BARS

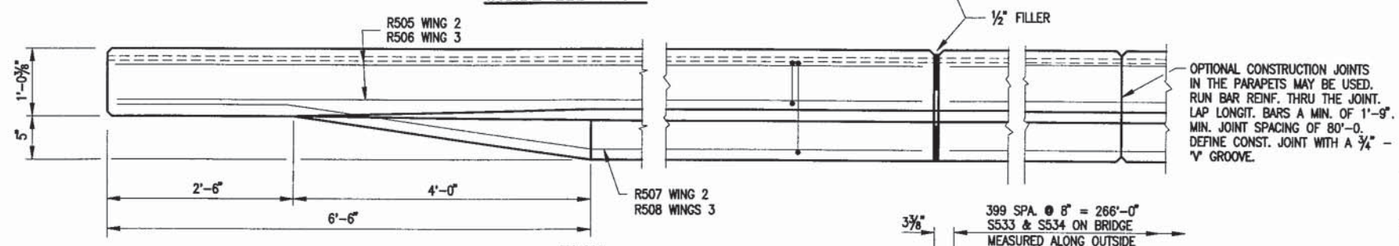
SHEET 23 OF 26

569

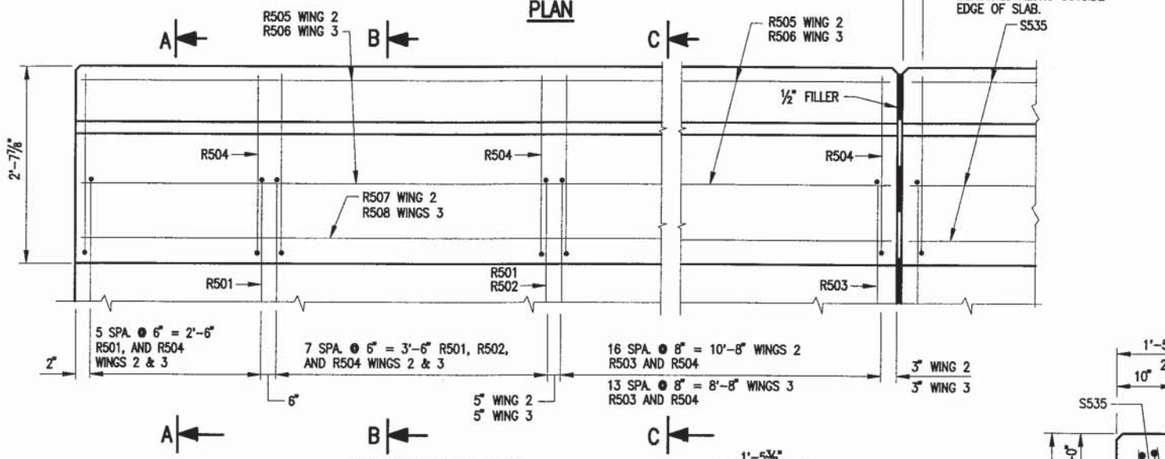
STATE PROJECT NUMBER	SHEET NO
1190-00-82	



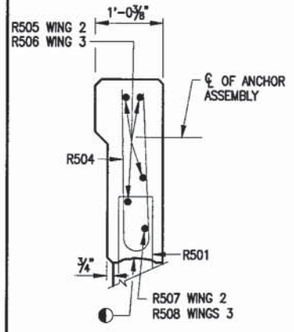
INSIDE ELEVATION



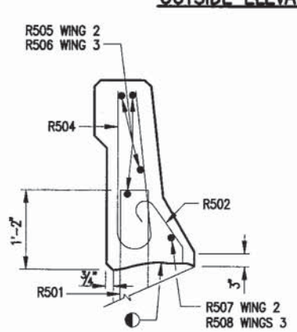
PLAN



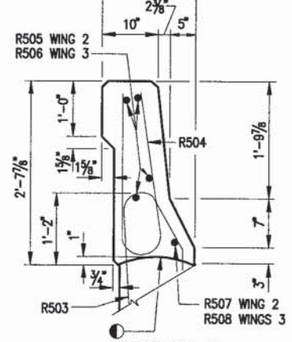
OUTSIDE ELEVATION



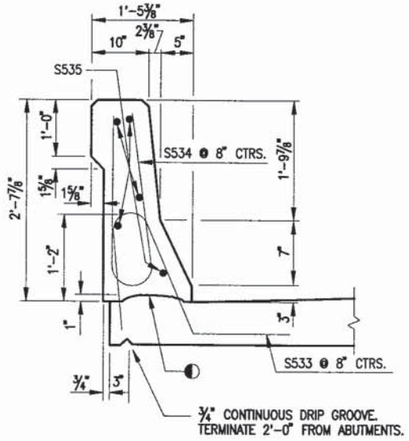
SECTION A



SECTION B



SECTION C

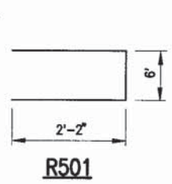


SECTION THRU PARAPET ON BRIDGE

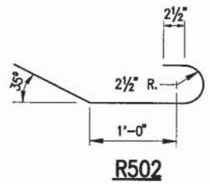
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL REINFORCEMENT BARS IN THIS BILL SHALL BE EPOXY COATED.

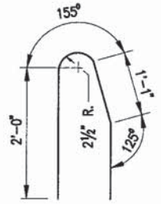
MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION	
R501	28	4'-7"	X		PARAPET - WINGS 2 & 3	VERT.
R502	16	3'-2"	X		PARAPET - WINGS 2 & 3	VERT.
R503	31	4'-8"	X		PARAPET - WINGS 2 & 3	VERT.
R504	59	4'-10"	X		PARAPET - WINGS 2 & 3	VERT.
R505	4	17'-8"			PARAPET - WING 2	HORIZ.
R506	4	15'-8"			PARAPET - WING 3	HORIZ.
R507	1	17'-8"	X		PARAPET - WING 2	HORIZ.
R508	1	15'-8"	X		PARAPET - WING 3	HORIZ.



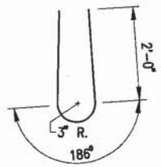
R501



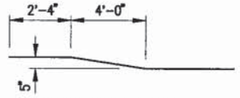
R502



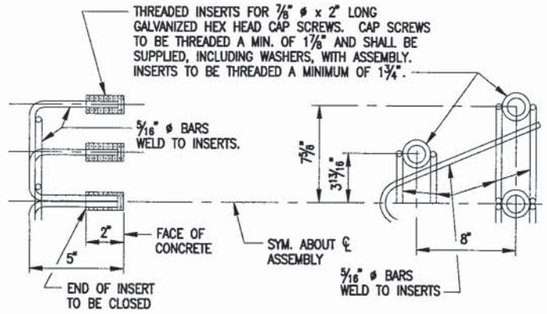
R503



R504



R507 WING 2
R508 WING 3



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX. HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.
SEE SHEET 1 FOR LOCATION

◐ CONST. JOINT - STRIKE OFF AS SHOWN & FINISH WITH A WOODEN TROWEL.

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-18-190

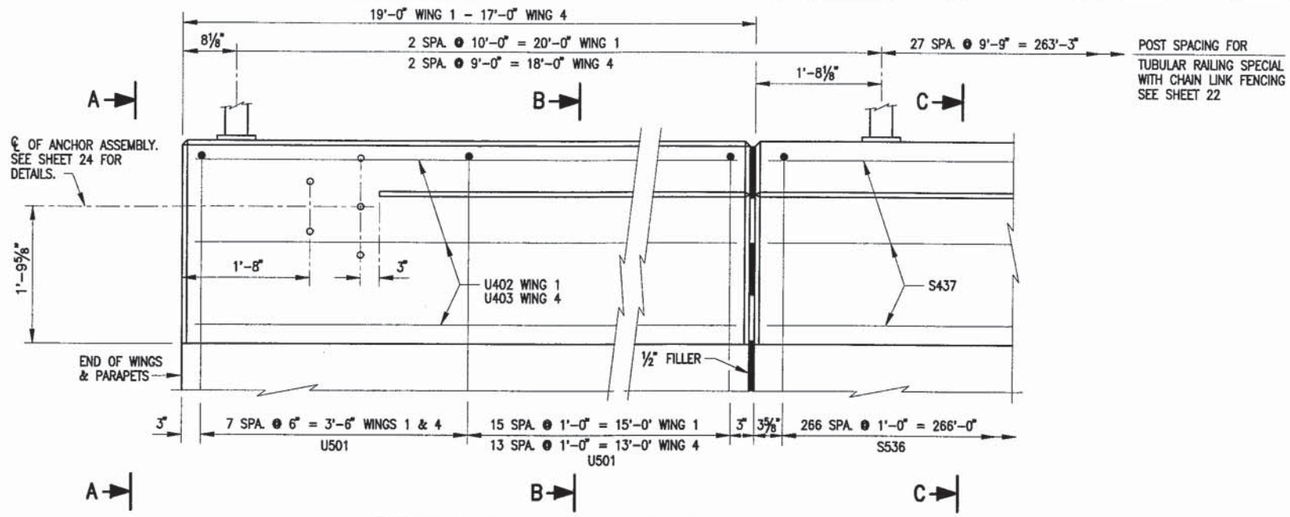
Const. Spec. WIS. '99	Drawn By TL	Plans Checked TR

SLOPED FACE PARAPET "LF" (SOUTH SIDE)

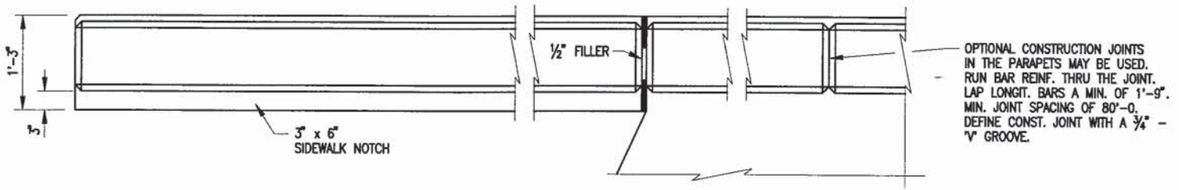
SHEET 24 OF 26

270

STATE PROJECT NUMBER	SHEET NO
1190-00-82	



ELEVATION AT INSIDE FACE OF PARAPET AT ABUTMENTS

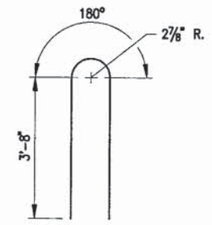


PLAN OF PARAPET

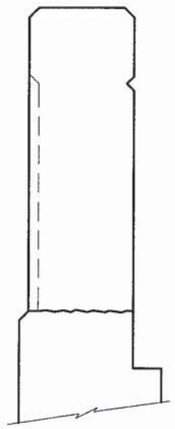
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL REINFORCEMENT BARS IN THIS BILL SHALL BE EPOXY COATED.

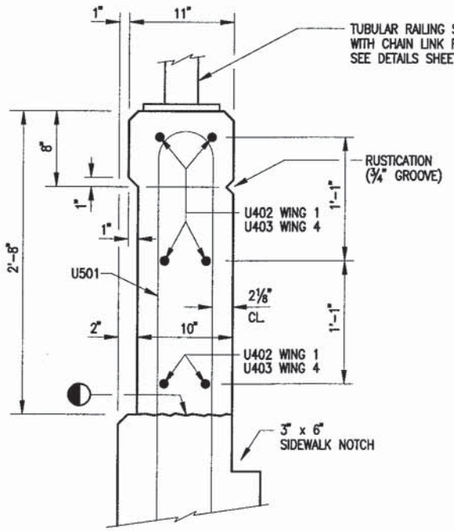
MARK	NO. REQ'D.	LENGTH	BENT	LOCATION	
U501	44	8'-1"	X	PARAPET - WINGS 1 & 4	VERT.
U402	6	18'-8"		PARAPET - WING 1	HORIZ.
U403	6	16'-8"		PARAPET - WING 4	



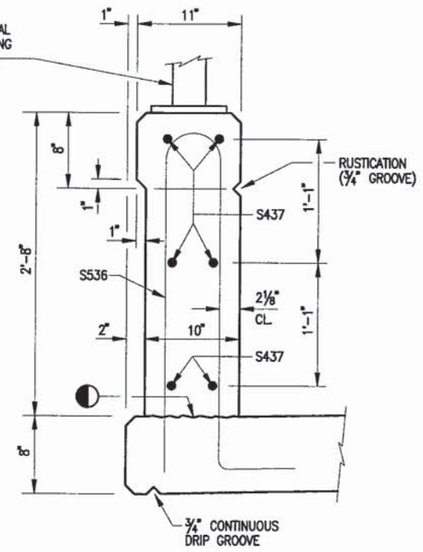
U501



VIEW A

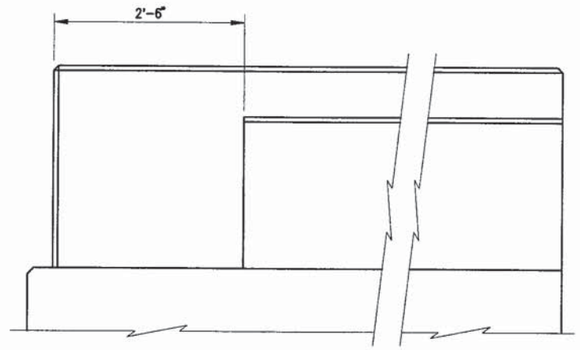


SECTION B



SECTION C AT MULTI USE PATH

◐ CONST. JOINT - STRIKE OFF AS SHOWN & FINISH WITH A WOODEN TROWEL.



OUTSIDE FACE OF PARAPET

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STATE OF WISCONSIN
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VERTICAL FACE PARAPET "A" (NORTH SIDE)

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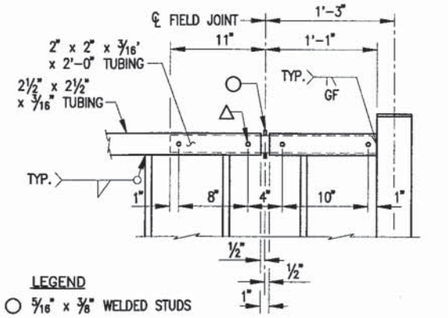
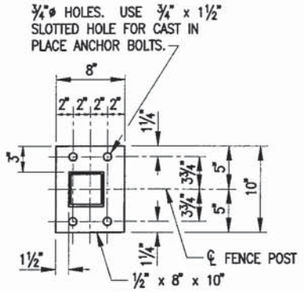
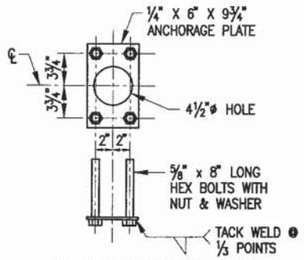


RAILING EXPANSION JOINT DETAIL

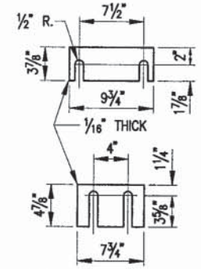


BASE PLATE



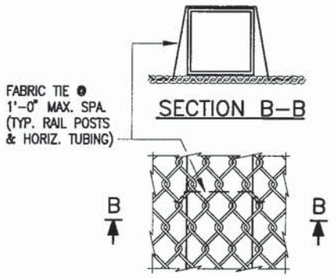
ANCHORAGE DETAIL

⅝"ø CONCRETE MASONRY ANCHOR, TYPE S EPOXY, 7" MINIMUM EMBEDMENT WITH A MINIMUM PULLOUT OF 20 KIPS MAY BE SUBSTITUTED FOR ⅝" CAST IN PLACE ANCHOR BOLTS. ANCHORAGE PLATE NOT REQUIRED WHEN TYPE S ANCHORS ARE USED.

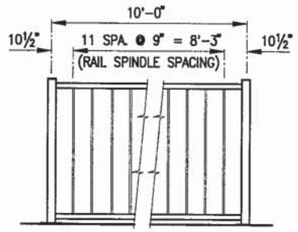


SHIM PLATE DETAILS

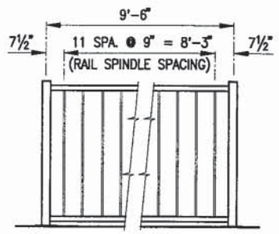
TWO SHIMS OF EACH SIZE REQUIRED PER POST



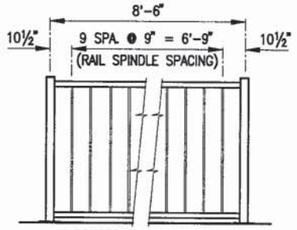
DETAIL B



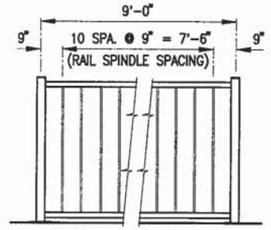
RAILING SPINDLE SPACING – WING 1



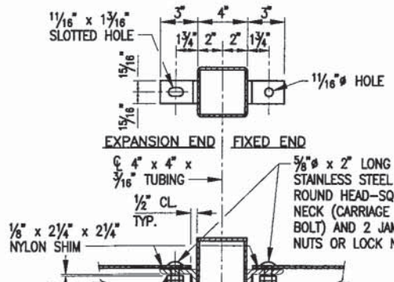
RAILING SPINDLE SPACING – WING 2



RAILING SPINDLE SPACING – WING 3

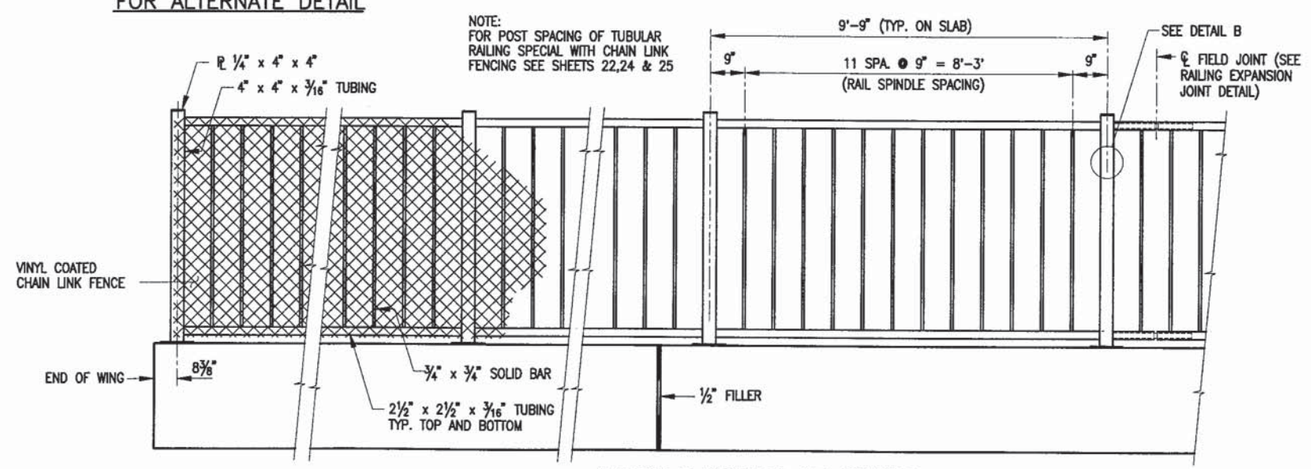


RAILING SPINDLE SPACING – WING 4



TOP RAIL CONNECTION FOR ALTERNATE DETAIL

SECTION THRU RAILING



INSIDE ELEVATION OF RAILING

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NOTES

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

RAILS AND POSTS TO BE A.S.T.M. A500, GRADE B. BASE PLATES AND SHIMS TO BE A.S.T.M. A709, GRADE 36. ALL GALVANIZED AFTER FABRICATION.

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

ALL POST SPACING ARE TAKEN HORIZONTAL ALONG CENTER LINE OF RAILING AT BASE OF POST.

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

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

CUT BOTTOM OF POST TO MAKE VERTICAL IN TRANSVERSE DIRECTION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR A.S.T.M. 307. IF 307 IS USED, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED.

RAILING TO BE PAINTED AND CHAIN LINK FENCE AND TIES TO BE VINYL COATED. FEDERAL COLOR NO. 27038.

THE BID ITEM SHALL BE "TUBULAR RAILING, SPECIAL" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

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

THE END OF THE FABRIC SHALL BE ATTACHED TO THE POST BY MEANS OF A STRETCHER BAR THREADED THROUGH THE END LOOPS OF THE FABRIC AND SECURED TO THE POST WITH CLAMPS & BOLT. THE FABRIC SHALL BE STRETCHED TO REMOVE ALL SLACK.

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

ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A #6 BLAST CLEANING BY SSPC SPECIFICATIONS.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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TUBULAR RAILING SPECIAL

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