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 WASHINGTON			
PS&E Date 08/01/2018	Letting Date 02/12/2019	County EAU CLAIRE			
Structure Number B-18-38		Section 35	Town 27N	Range 09W	
Station 62+63.03 - 63+60.69	Latitude: 444619.34 Longitude: 912537.97	☒ 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 USH 53 NB		Feature On 2014	14200	70 MPH	Principal Arterial
Feature Under KEYSTONE CROSSING		Feature Under			Collector
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: 98.0 (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	6	7	5	6

☒ 15. Load Ratings

	Inventory	Operational
Current Calculated Date: 07/11/2013	HS23	HS39
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: SE

☒ 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 0.015 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.

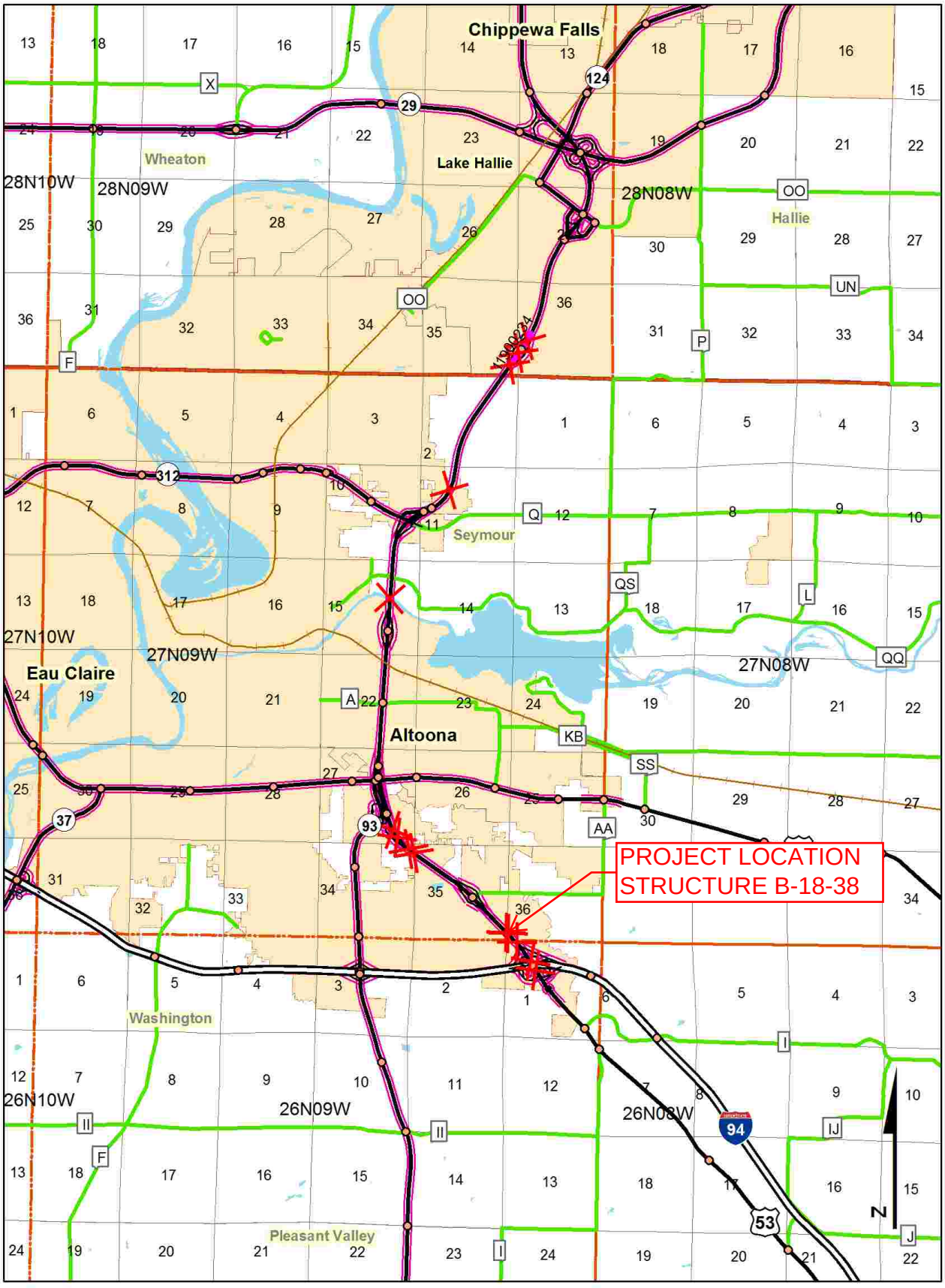
☐ 35. If project involves substructure widening coordinate with structure and/or hydraulic design engineer to determine if information on the separation and/or stream crossing SSR will be required.

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 1966. Concrete Masonry Deck Overlay was completed in 1989 and in 2008. 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 numerous hairline to medium longitudinal and transverse cracks with light leaching and delamination. There is a 9 ft x 6 inch spall at the southwest joint with no exposed rebar. The deck was scanned with Infrared Thermography in 2009 and showed 1.7% delamination.
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. Nighttime ramp closures are anticipated at some structures. All lanes and ramps will be opened to traffic daily.
11.) See asbuilt plans.
16.) No utilities on or near structure. No conflicts anticipated.
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. Asbestos-containing material was found in the gasket under the railing attachment plates on the concrete parapet. If the asbestos-containing material is not disturbed during construction, the asbestos-containing material can remain.
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-18-38
N

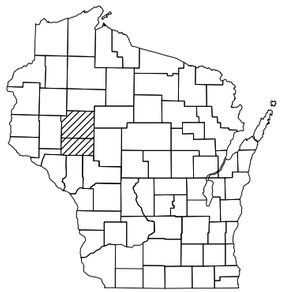
PROJECT ID: 1190-02-64

WITH:

COUNTY: EAU CLAIRE / CHIPPEWA

ORDER OF SHEETS

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

EAU CLAIRE - CHIPPEWA FALLS

IH 94 TO 40TH AVENUE (11 BRIDGES)

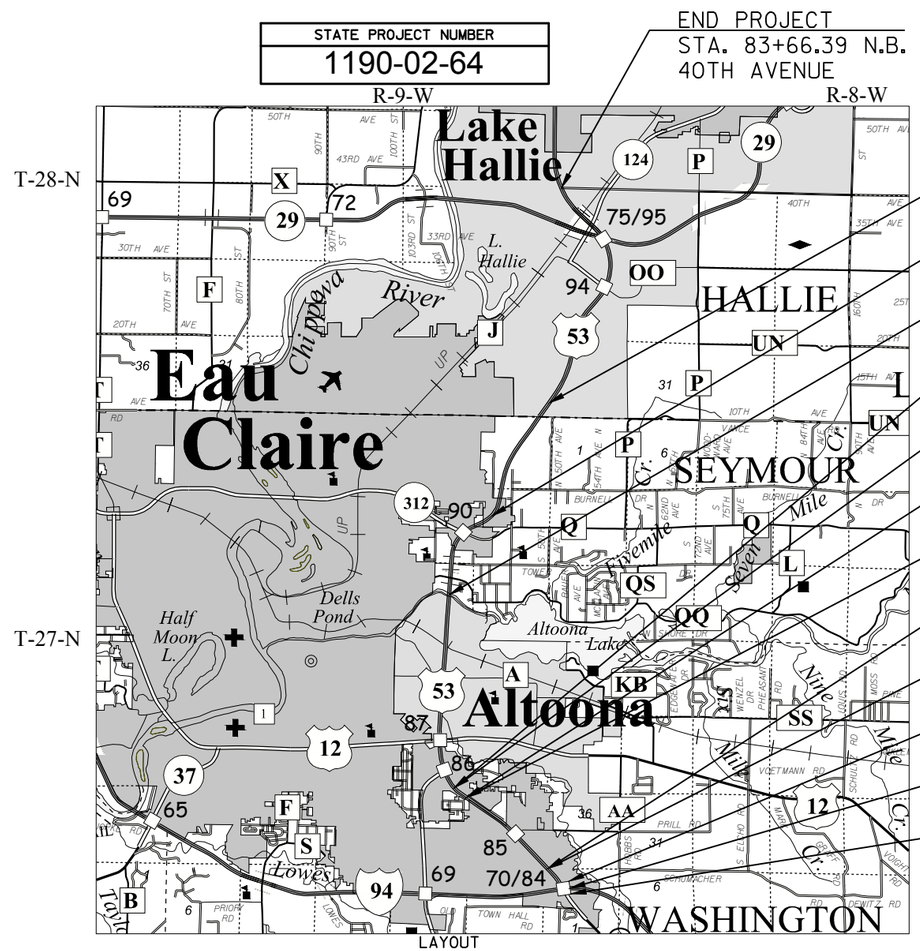
USH 53

EAU CLAIRE AND CHIPPEWA COUNTIES

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1190-02-64		

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

FILE NAME : N:\PDS\C3D\11900264\SHEETSPLAN\010101_TI.DWG
LAYOUT NAME - ****

PLOT DATE : 6/17/2015 3:44 PM

PLOT BY : HETRICK, ADAM M PLOT NAME :

route: 053N county: EAU CLAIRE date: 08/13/2013 plm: 063.277

Lat: 44.77165895 Long: -91.42698112 Elev: 828.16 ft.

\\doteauplog1p\photolog\Rg5\053N_R5_2013\\Front\Dir_066\F_06630.jpg

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route: 053N county: EAU CLAIRE date: 08/13/2013 plm: 063.287

Lat: 44.77176332 Long: -91.42712196 Elev: 828.39 ft.

\\doteauplog1p\photolog\Rg5\053N_R5_2013\\Front\Dir_066\F_06631.jpg

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route: 053N county: EAU CLAIRE date: 08/13/2013 plm: 063.297

Lat: 44.77186788 Long: -91.42726377 Elev: 828.61 ft.

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route: 053N county: EAU CLAIRE date: 08/13/2013 plm: 063.307

Lat: 44.77197205 Long: -91.42740357 Elev: 828.74 ft.

\\doteauplog1p\photolog\Rg5\053N_R5_2013\\Front\Dir_066\F_06633.jpg

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route: 053N county: EAU CLAIRE date: 08/13/2013 plm: 063.317

Lat: 44.7720775 Long: -91.42754315 Elev: 828.94 ft.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Inspection Report for B-18-038

USH 53 NB over TOWN RD

Jul 14,2015

Type	Prior	Frequency (mos)	Performed
Routine	07-14-15	24	X
Interim	12-06-11	0	
SI&A	07-11-13	48	

Latitude	44°46'19.34"N	Owner	STATE HIGHWAY DEPT
Longitude	91°25'37.97"W	Maintainer	STATE HIGHWAY DEPT

Time Log

Hours	Minutes
1	31

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: USH 53 NB	Section Town Range: S35 T27N R09W	Structure Number: **B-18-038**
Feature Under: TOWN RD	County: EAU CLAIRE(18)	
Location: 0.6M N JCT IH 94 TO E	Municipality: TOWN-WASHINGTON(18024)	Structure Name:

Geometry

measurements in feet, except where noted

Approach Roadway Width: 40	Bridge Roadway Width: 45.9	Total Length: 97.7
Approach Pavement Width: 24	Deck Width: 48.9	Deck Area (sq ft): 4689

Traffic

	Lanes	ADT	ADT year	Traffic Pattern
On	2	16200	1993	ONE WAY TRAFFIC
Under	2	35	1981	TWO WAY TRAFFIC

Capacity

Load Rating

Inventory rating: HS23	Overburden depth (in): 0.5	Last rating date:	Controlling: SLAB Positive Moment
Operating rating: HS39	Deck surface material: CONCRETE	Re-rate for capacity (Y/N):	Control location: 0.4 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 #: 98.0

Span(s)

Span #	Material	Configuration	Depth (in)	Length (ft)	Main
1	CONT CONCRETE	FLAT SLAB		30.5	
2	CONT CONCRETE	FLAT SLAB		36.5	Y
3	CONT CONCRETE	FLAT SLAB		30.5	

Expansion joint(s)

Temperature: File: | New:

Vertical Clearance

	Measurement file (ft)	File Date	Measurement new (ft)
Highway Minimum Under Cardinal	15.0		
Highway Minimum Under Non-Cardinal			
Highway Minimum On			
Railroad Minimum Under			

Elements

Chk	Element	Defect	Description	UOM	Total	Quantity in Condition State 1	2	3	4
X	**38**		**Reinforced Concrete Slab** Mill and overlay in 2008. Deck was scanned with Infrared Thermography in 2009 and showed 1.7% delam.	SF	4,690	4,669	21	0	0
		1080	Delamination - Spall - Patched Area	SF		0	0	0	0
		1130	Cracking (RC) **East deck edge (fascia) has longitudinal cracks and delam.** **Few hairline longitudinal with light leaching.**	SF		109	21	0	0
	8514		Concrete Overlay Mill and overlay in 2008. Deck was scanned with Infrared Thermography in 2009 and showed 1.7% delam.	SF	4,690	2,987	1,694	9	0
		3210	Debonding/Spall/Patched Area/Pothole **9 ft X 6 inch spall at southwest joint with no exposed rebar.**	SF		0	0	9	0
		3220	Crack (Wearing Surface) **Numerous hairline to medium longitudinal and transverse cracks.**	SF		2,616	1,694	0	0
X	**205**		**Reinforced Concrete Column** 2 Piers.	EA	8	8	0	0	0
		1130	Cracking (RC) **Couple hairline vertical cracks.**	EA		8	0	0	0
X	**215**		**Reinforced Concrete Abutment** Some scaling at north abutment.	LF	82	74	6	2	0
		1080	Delamination - Spall - Patched Area	LF		0	0	0	0
		1130	Cracking (RC) **Few hairline vertical cracks on north abutment.** **Large crack at southeast corner.**	LF		12	6	2	0
		1190	Abrasion-Wear (PSC-RC)	LF		0	0	0	0
X	**331**		**Reinforced Concrete Bridge Rail**	LF	236	210	26	0	0
		1080	Delamination - Spall - Patched Area	LF		0	0	0	0
		1130	Cracking (RC) **Few verical cracks in concrete railing.**	LF		14	26	0	0
X	**8400**		**Integral Wingwall** Minor erosion around northeast wing.	EA	4	0	4	0	0
		8902	Wingwall Movement **All wings are settling at the ends.** **All wing walls seem to be tipping away from concrete parapet railing.** **Northeast tipped outward about 1 1/2".** **Northwest tipped outward about 2".** **Southeast tipped outward about 2".** **Southwest tipped outward about 1 1/2".**	EA		0	4	0	0

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

Structure No.:**B-18-038**

Assessments

Chk	Element	Defect	Description	UOM	Total	Quantity in Condition State 1	2	3	4
X	**9030**		**Signs - Object Markers** 2 south end	EA	4	4	0	0	0
X	**9043**		**Slope Protection- Crushed Aggregate with Bit.** New in 1996. South slope reoiled in 2008. South slope 4 **ft** block retaining wall a**nd sidewalk a**t toe **of slope** (new 2008). **Water seeping through block retaining wall onto sidewalk near pier 1, column 4.** **Bottom southeast slope corner behind block retaining wall crushed rock is settling.** Few hairline vertical cracks.	EA	2	1	1	0	0
X	**9322**		**Approach Roadway - Concrete (non-structural)**	EA	2	2	0	0	0
X	**9335**		**Decorative Rail** **Alum railing is OK.** **Inside of alum tube has some deep snow plow scrapes.**	EA	2	2	0	0	0

NBI Ratings

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

Structure Specific Notes

The spalls at the transv. saw cuts are getting worse and we need to address it.
****No bridge plaque found.**

Inspection Specific Notes

The is ponding under both structures

Inspector Site-Specific Safety Considerations

Structure Inspection Procedures

Walk around.

Special Requirements

	Chk	Comments
Traffic Control		
Access Equipment		
Other		

Special Components

Component	Year	Work Performed	Note
DECK - IOWA MIX	1989	OVERLAY - CONCRETE	

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

Structure No.:**B-18-038**

Construction History

Year	Work Performed	FOS id
2008	OVERLAY - CONCRETE	1191-06-61
1989	OVERLAY - CONCRETE	0018-94-10
1966	NEW STRUCTURE	

Maintenance Items History

Item	Recommended by	Status	Status change	Year completed

Maintenance Items

Item	Priority	Recommended by	Status	Status change

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-18-0037, B-18-0038
Structure Name: USH 53 over Town Road
City/County: Town of Washington, Eau Claire County
Lat/Long Coordinates: 444619.03/ 912540.6, 444619.34/ 912537.97
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.

On both of the bridges, the gaskets located under the railing attachment plates on the parapet tested positive for asbestos greater than 1% and is therefore regulated ACM. If the ACM will be disturbed during the planned overlays, the ACM must be removed prior to any work. Standard Special Provision (STSP) 203-005 should be incorporated into the specifications. If the ACM will not be disturbed during the planned overlays, STSP 107-120 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-18-0037					
1	Gasket	Under railing attachment plate	PLM, 3%	Friable	30x7”x7” + 4x20”x8” = 15 sq ft
2	Gasket	Under railing attachment plate	Not analyzed, positive stop	--	
3	Gasket	Under railing attachment plate	Not analyzed, positive stop	--	
4	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	0
5	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	
6	Caulk	Parapet expansion joint	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
7	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	0
8	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	
9	Caulk	Parapet expansion joint	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	
B-18-0038					
1	Gasket	Under railing attachment plate	PLM, 10%	Friable	30x7”x7” + 4x20”x8” = 15 sq ft
2	Gasket	Under railing attachment plate	Not analyzed, positive stop	--	
3	Gasket	Under railing attachment plate	Not analyzed, positive stop	--	
4	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	0
5	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	
6	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	
7	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	0
8	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	
9	Caulk	Parapet expansion joint	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	

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

TRC Environmental Corporation

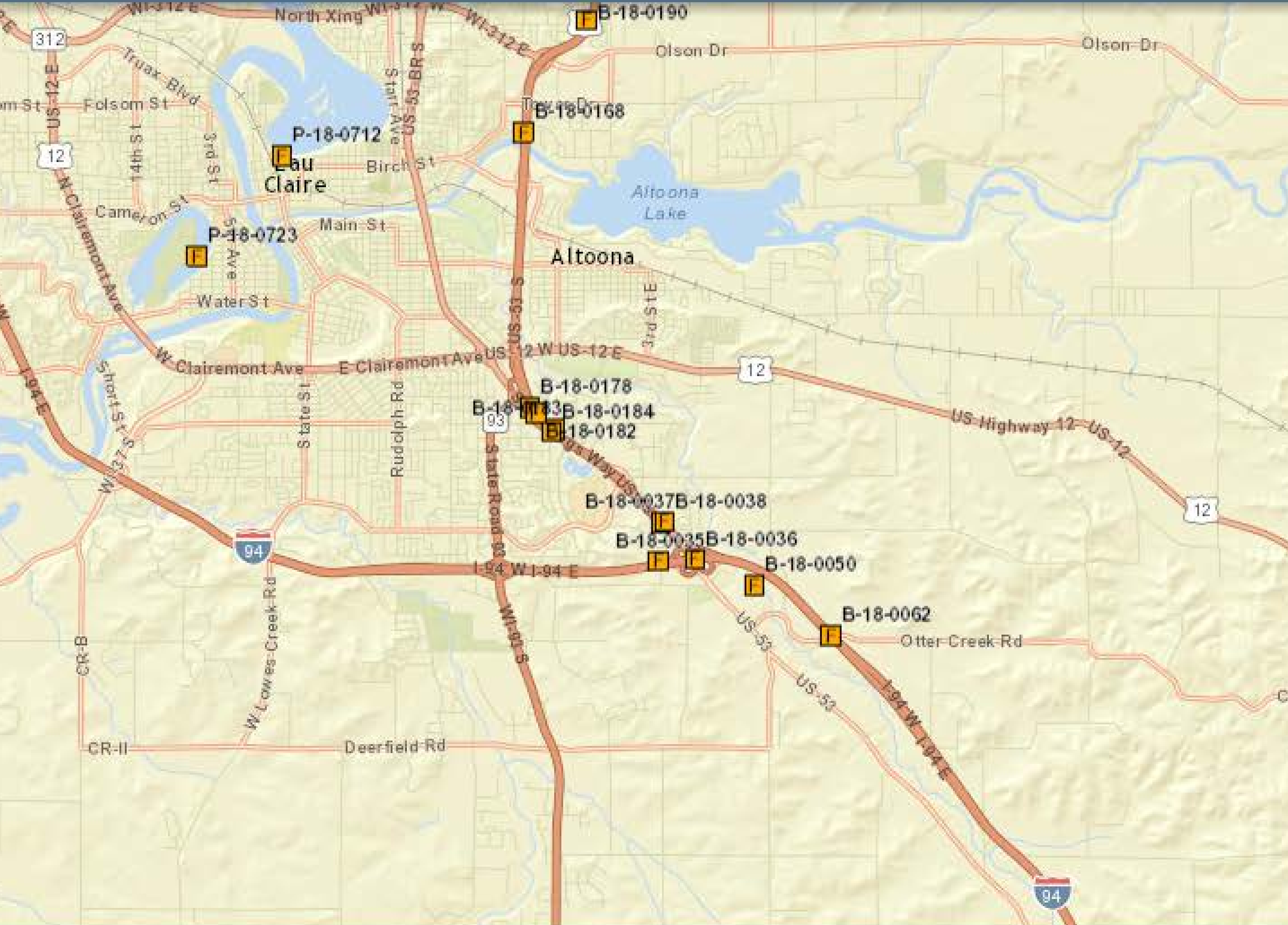
Daniel Haak
Project Manager

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
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
B-18-0178
B-18-0184
B-18-0182
US Highway 12
B-18-0038
B-18-0036
B-18-0050
B-18-0062
Otter Creek Rd
I-94 W
I-94 E
Deerfield Rd
CR-II
CR-B
State Road 93
Rudolph Rd
State St
Short St
Folsom St
Cameron St
Truax Blvd
North Xing
94
12
93
312

B-18-0037

Gasket under railing attachment plate

Caulk in parapet expansion joint

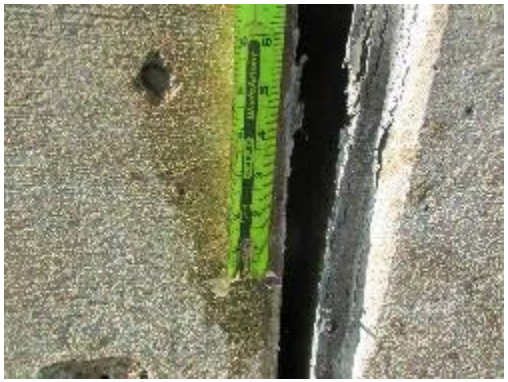
Caulk in parapet expansion joint

Caulk in abutment joint

B-18-0038

Gasket under railing attachment plate

Caulk in parapet expansion joint



Caulk in abutment 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 #:	0047021
Project #:	235777.0000.0000
Date Received:	10/16/2015
Date Analyzed:	10/19/2015

Site: DOT Bridge Inspection, B-18-37

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
B-18-37 (1)	Grey	Yes	No	- -	- - -	3%	Chrysotile
B-18-37 (2)	- -	- -	- -	- -	- -	NA/PS	- -
B-18-37 (3)	- -	- -	- -	- -	- -	NA/PS	- -
B-18-37 (4)	Grey	Yes	No	- -	- - -	ND	None
B-18-37 (5)	Grey	Yes	No	- -	- - -	ND	None
B-18-37 (6)	Grey	Yes	No	- -	- - -	ND	None
B-18-37 (7)	Grey	Yes	No	- -	- - -	ND	None
B-18-37 (8)	Grey	Yes	No	- -	- - -	ND	None
B-18-37 (9)	Grey	Yes	No	- -	- - -	ND	None

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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.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

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 #:	0047035
Project #:	235777.0000.0000
Date Received:	10/16/2015
Date Analyzed:	10/20/2015

Site: DOT Bridge Inspection, B-18-38

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
B-18-38 (1)	Grey	Yes	No	- -	- - -	10%	Chrysotile
B-18-38 (2)	- -	- -	- -	- -	- -	NA/PS	- -
B-18-38 (3)	- -	- -	- -	- -	- -	NA/PS	- -
B-18-38 (4)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (5)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (6)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (7)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (8)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (9)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (10)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (11)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (12)	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%
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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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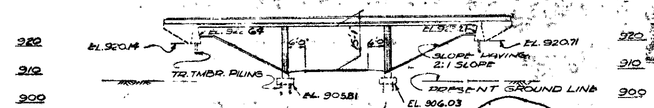
Analyzed by: K. Williamson — Kathleen Williamson, Laboratory Manager

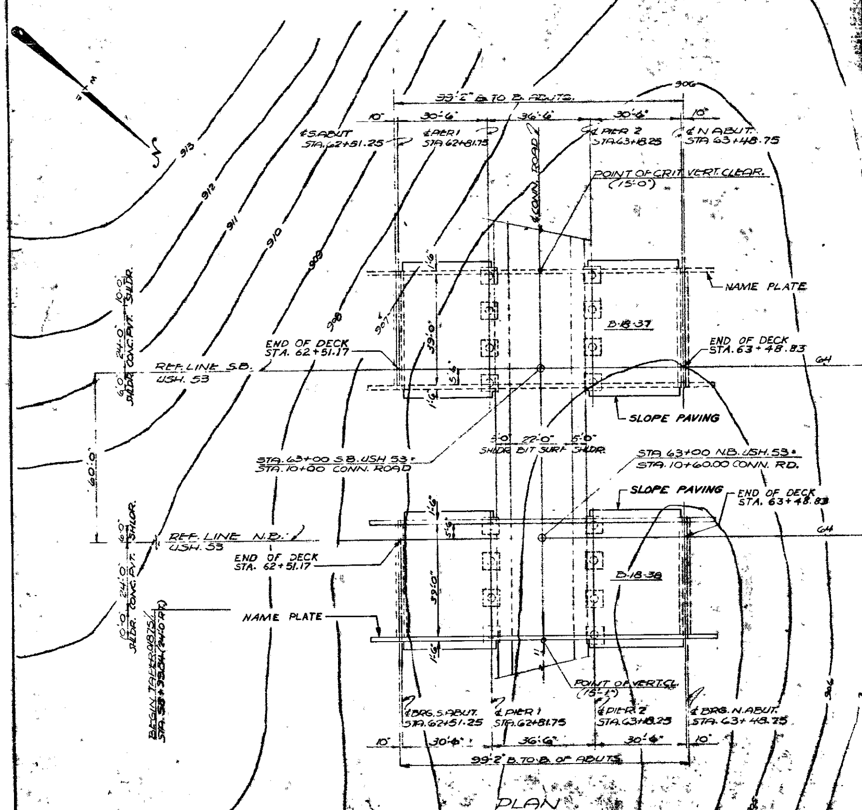
Reviewed by: Amanda Parkins — Amanda Parkins, Approved Signatory

Date Issued 10/21/2015

County & Highway	Route & Section	Class & Agreement State	Federal	S.A.S. Division	Project	Sheet No.	Total Sheets
18.1	8.4	21.20		4	F08-4(29)53	218	

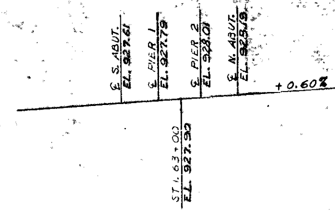


ELEVATION B-18-38

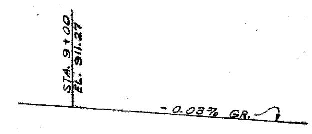


PLAN

3 SPAN (30.5'-36.5'-30.5') CONTINUOUS R.C. SLAB SPAN SUPERSTRUCTURE WITH 4 COLUMN R.C. PIERS AND R.C. SILL ABUTMENTS.



U.S.H. 53 GRADE LINES
(ALONG N.B. & S.B. REF. LINES)



℄ CONNECTOR ROAD GRADE LINE

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
ALL CONCRETE MASONRY SHALL BE GRADE "AA" f'c = 1400 P.S.I.
BEVEL EXPOSED EDGES OF CONCRETE 1" UNLESS OTHERWISE SHOWN OR NOTED.
IMBED ALL BAR STEEL 2" UNLESS OTHERWISE SHOWN.

PILING AT ABUTMENTS SHALL BE TREATED TIMBER PILING EST. 35'-0" LONG AND DRIVEN TO A MIN. BRG. VALUE OF 24 TONS PER PILE.
PILING AT PIERS SHALL BE TREATED TIMBER PILING EST. 30'-0" LONG AND DRIVEN TO A MIN. BRG. VALUE OF 24 TONS PER PILE.
COVER FRONT OF ABUTMENTS AND SLOPES WITH SLOPE PAVING AS SHOWN.
JOINT FILLER SHALL CONFORM TO A.A.S.H.O. DESIGNATION M153 TYPE III.
THE UPPER LIMITS FOR "EXCAVATION FOR STRUCTURES" SHALL BE THE FINISHED GRADED SECTION AT PIERS AND EL 922.31 AT S. ABUT. AND EL 922.88 AT N. ABUT.
ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW ABUTMENTS SHALL BE BACKFILLED WITH "GRANULAR BACKFILL". PAYMENT WILL BE MADE ONLY FOR THE MATERIAL ACTUALLY PLACED WITHIN THE LIMITS SPECIFIED FOR "EXCAVATION FOR STRUCTURES."

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	S. ABUT.	PIER 1	PIER 2	N. ABUT.	TOTAL
EXCAVATION FOR STRUCTURES	C.Y.	—	30	50	50	30	160
GRANULAR BACKFILL	C.Y.	—	20	50	50	20	140
CONCRETE MASONRY	C.Y.	230.4	27.3	24.2	24.2	27.3	333.4
BAR STEEL REINFORCEMENT	LB.	63,720	1,360	2,930	2,930	1,360	72,300
* TREATED TIMBER TEST PILING	L.S.	—	—	—	—	—	1
TREATED TIMBER PILING (DEL.)	L.F.	—	245	570	570	245	1,630
TREATED TIMBER PILING (DR.)	L.F.	—	245	570	570	245	1,630
TUBULAR RAILING TYPE G	L.F.	232	—	—	—	—	232
SLOPE PAVING, CONCRETE	S.Y.	—	180	—	—	180	360
NON-BID ITEMS							
FILLER	SIZE	½"	—	—	—	—	½"
⅛" AL. OR ZN. PLATES	S.F.	18	—	—	—	—	18

* DRIVE ONE 45'-0" TEST PILE AT PIERS 1 & 2 AND ONE 50'-0" TEST PILE AT NORTH & SOUTH ABUTMENTS.

LIST OF DRAWINGS

STATE HIGHWAY COMMISSION OF WISCONSIN

REVISED 9-10-65 JDT; 9-10-65 F.R.W.

GENERAL PLAN

CO. EAU CLAIRE | TN. WASHINGTON | STA. 63+00 N.B.
SECTION 35 | TOWN 27 N | RANGE 9 W
DESIGN SPEC. A.A.S.H.O. '61 | LOADING H20-S16 | CONST. SPEC. 1963
DATE 2-17-64 | DESIGN R.L.P. | DRAWN J.K.G. | CKD. F.R.W.

SUBMITTED N. B. Schultz, ENGINEER OF BRIDGES
APPROVED E. L. Roettiger, STATE HIGHWAY ENGINEER

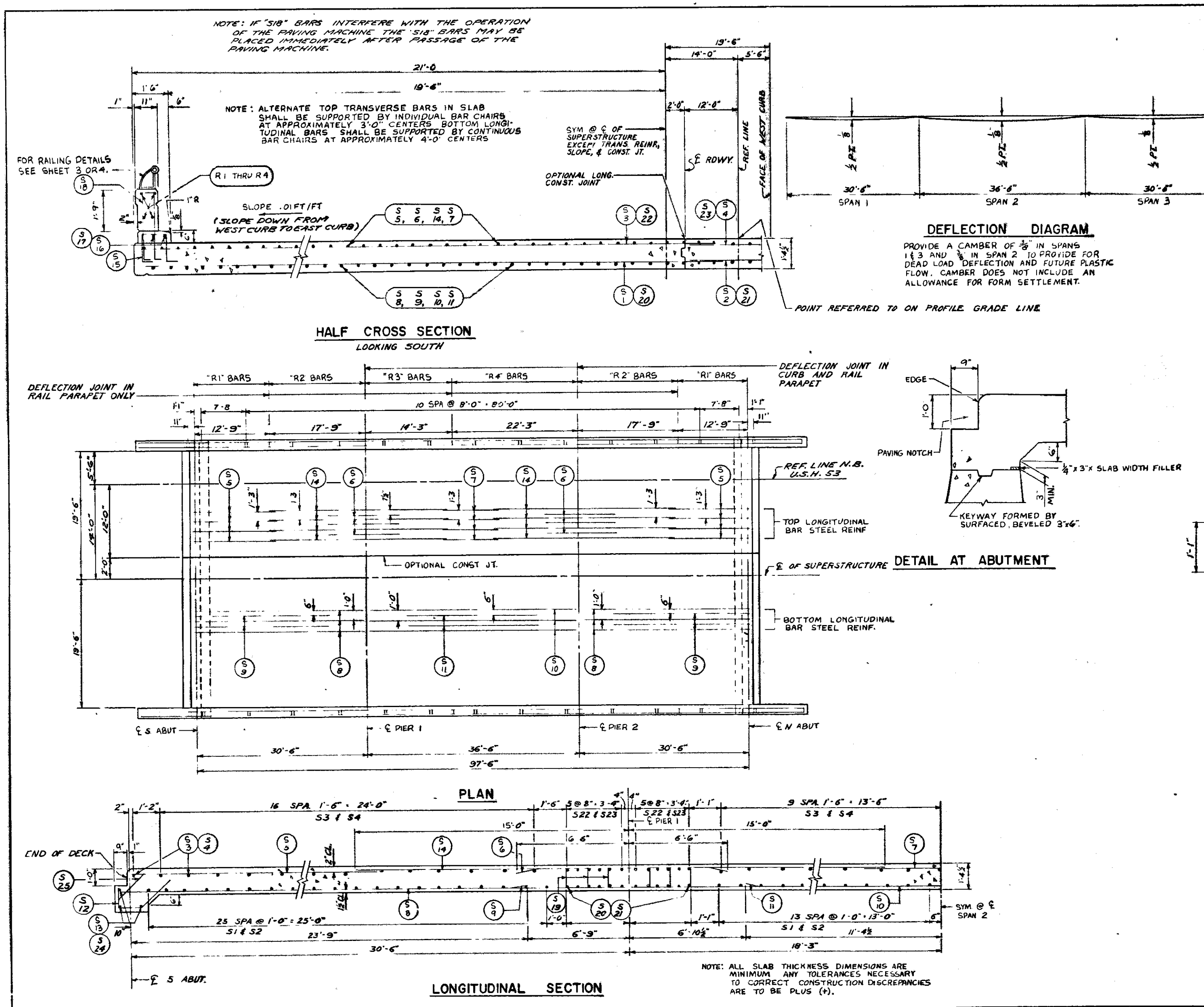
STRUCTURE B-18-38 | SHEET 1 OF 7

X28324

14-NOV-1997 12:53
ScreenScan

FORM E B-12 62

W H R DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
	F08-4(29)	54	218

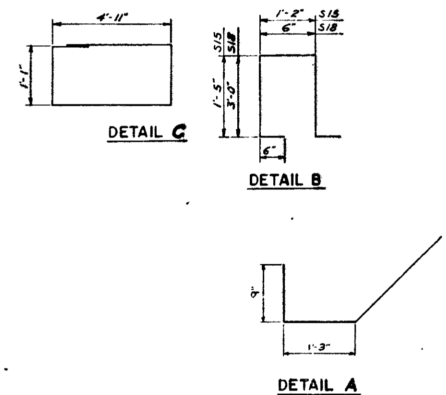


BILL OF BARS 63,720#

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
S1	80	6	24-6	SHOWN	SLAB TRANS BOTTOM	
S2	80	6	18-6	"	" " "	
S3	55	4	24-0	1-6	" " - TOP	
S4	55	4	18-6	1-6	" " TOP	
S5	68	4	16-6	1-3	- LONGIT. - SPANS 1 & 3	
S6	68	11	13-0	1 3	OVER PIERS	
S7	34	4	8-6	1-3	" SPAN 2	
S8	84	9	28-9	1-0	" " - BOTTOM SPAN 1 & 3	
S9	84	9	24-3	1-0	" " " SPAN 1 & 3	
S10	42	9	36-6	1-0	" " " - SPAN 2	
S11	42	9	22-9	1-0	" " " - SPAN 2	
S12	78	5	4-3	1-0	" AT ABUTMENT	A
S13	6	4	22-6	SHOWN	" " "	
S14	68	11	30-0	1-3	" - LONGIT. TOP OVER PIERS	
S15	260	5	5-6	9	SLAB & CURB	B
S16	8	5	30 0	SHOWN	CURB SPANS 1 & 3	
S17	8	5	18-9	"	CURB SPAN 2	
S18	260	5	7-6	9	RAIL PARAPET	B
S19	204	5	13-3	SHOWN*	SLAB - STIRRUPS OVER PIERS	C
S20	24	9	25-6	"	" - TRANS. " "	
S21	24	9	18-6	"	" - " " "	
S22	24	10	25-6	"	" - "	
S23	24	10	18-6	"	" - "	
R1	16	5	12-3	SHOWN	RAIL PARAPET	
R2	16	5	17-3	"	" "	
R3	8	5	13-9	"	" "	
R4	8	5	21-9	"	" "	
S24	6	4	17-0	"	SLAB AT ABUTMENTS	
S25	79	4	2-3	1-0	" " "	

* SEE X28329 FOR SPA. OF S19 BARS



STATE HIGHWAY COMMISSION OF WISCONSIN

SUPERSTRUCTURE

REVISED 9-17-65 9-10-68 JDT F.R.W.

DESIGN SPEC AASHO 61 LOADING H20-S16 CONST SPEC 1963

DATE 2 17 64 DES. RLP. DRAWN J.K.G. CKD FRW

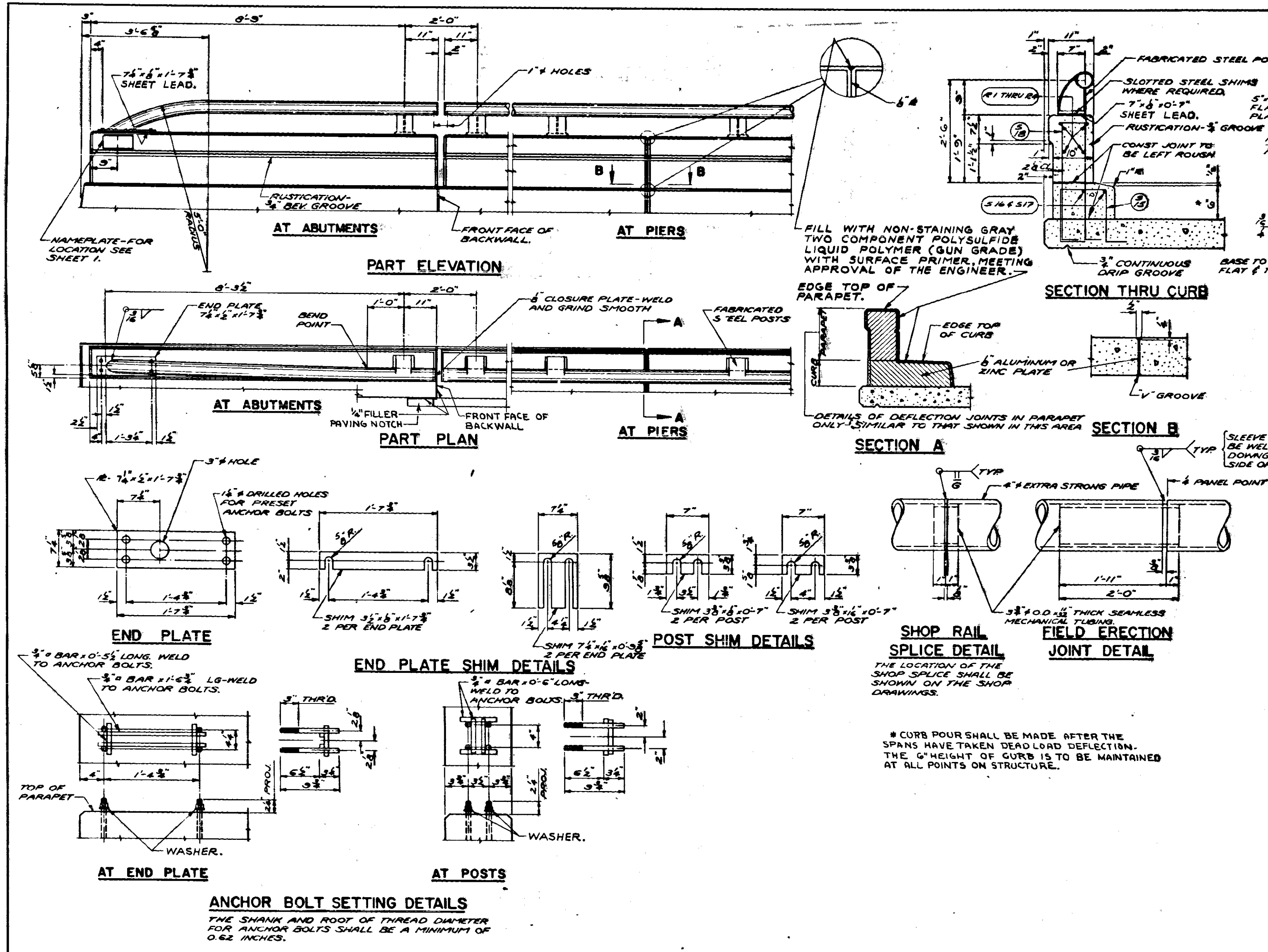
STRUCTURE B - 18 - 38 SHEET 2 OF 7

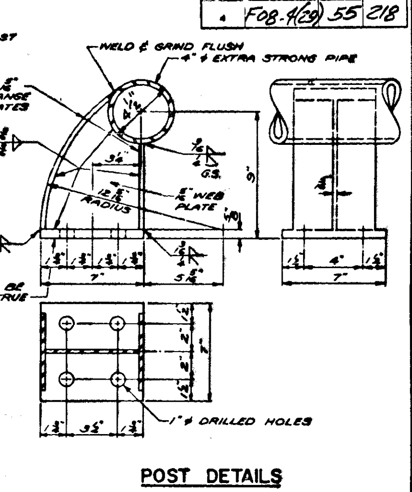
X28325

14-NOV-1997 12:54
ScrenScan

FORM E.B.12 62

D.P.S. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F08-4(29)	55	218





NOTES

1. STEEL RAIL POSTS SHALL BE SET NORMAL TO GRADE.
2. RAILING SHALL BE FABRICATED IN 2 & 3 PANEL LENGTHS.
3. STEEL SHIMS SHALL BE USED UNDER POSTS AND UNDER END PLATES WHERE REQUIRED FOR ALIGNMENT.
4. WHEN PARAPETS AND CURBS ARE POURED CONTINUOUSLY FROM END TO END THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF ⅛ ZINC OR ALUMINUM PLATE CUT AS SHOWN IN SECTION "A" BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS AND CURBS ARE USED AT THE DEFLECTION JOINTS ONE SIDE OF JOINT SHALL BE COATED WITH BITUMINOUS PAINT AND PLATE SEPARATORS MAY BE OMITTED.
5. THE FOLLOWING MATERIALS SHALL BE USED:
   RAILING SHALL BE 4"⌀ EXTRA STRONG PIPE CONFORMING TO ASTM DESIGNATION A53, GRADE B.
   SLEEVES SHALL BE 3⅜"⌀ O.D. × 11/32" THICK SEAMLESS MECHANICAL TUBING MADE OF STEEL WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 60,000 P.S.I. AND A MINIMUM ELONGATION OF 10%.
   POSTS SHALL BE FABRICATED FROM MATERIAL CONFORMING TO ASTM DESIGNATION A36.
   ANCHOR BOLTS TO BE MADE FROM MATERIAL CONFORMING TO ASTM A307.
6. CAULK EXPOSED OPENINGS BETWEEN SHIMS WITH LEAD WOOL.
7. GALVANIZE ENTIRE RAILING AFTER FABRICATION INCLUDING NUTS, WASHERS, SHIMS AND TOP 3½" OF ANCHOR BOLTS.

* CURB POUR SHALL BE MADE AFTER THE SPANS HAVE TAKEN DEAD LOAD DEFLECTION. THE 6" HEIGHT OF CURB IS TO BE MAINTAINED AT ALL POINTS ON STRUCTURE.

STATE HIGHWAY COMMISSION OF WISCONSIN
TUBULAR STEEL RAILING TYPE "G"
DESIGN SPEC. A.A.S.H.O. '61 — STD. SPEC. 1963
DATE 2-17-64 — DRAWN G.N.S. — CK. F.R.W.
STRUCTURE B-18-38 — SHEET 3 OF 7

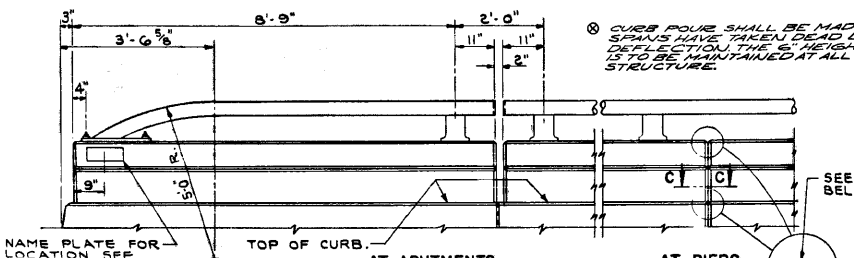
X28326

14-NOV-1997 12:54 ScreenScan

14-NOV-1997 12:55

FORM E-P 12 68

P.F.D. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	Fob-4(69)	56	218



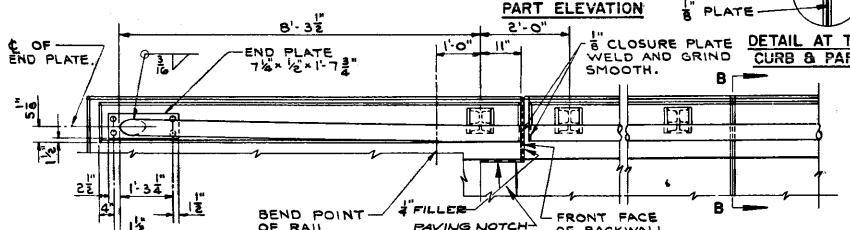
⊗ CURB POUR SHALL BE MADE AFTER SPANS HAVE TAKEN DEAD LOAD DEFLE DEFLECTION. THE "C" HEIGHT OF CURB IS TO BE MAINTAINED AT ALL POINTS ON STRUCTURE.

AT ABUTMENTS

PART ELEVATION

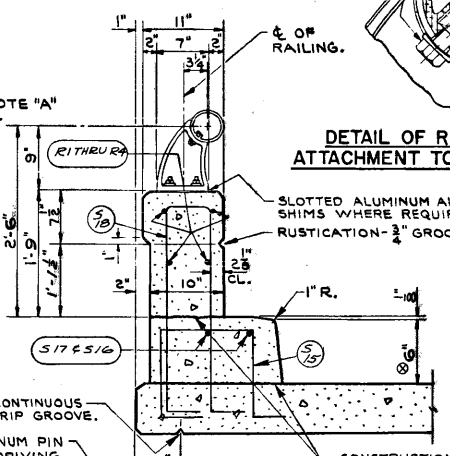
AT PIERS

1/8" PLATE



AT ABUTMENTS

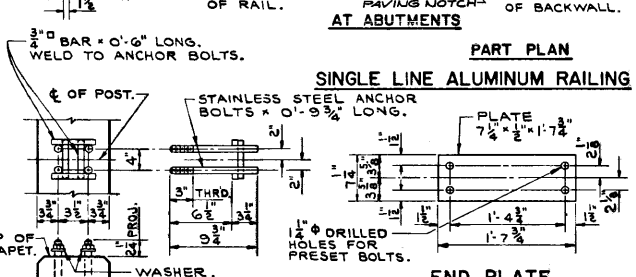
DETAIL AT TOP OF CURB & PARAPET



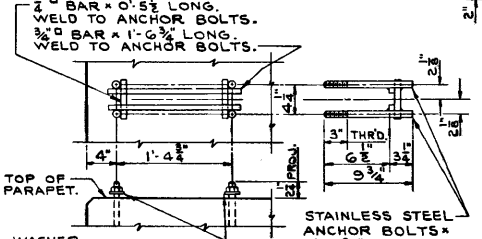
AT PIERS

PART PLAN

SINGLE LINE ALUMINUM RAILING



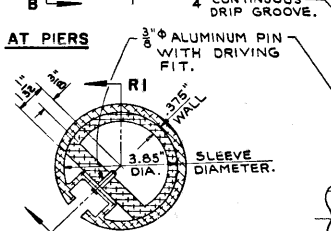
AT POSTS



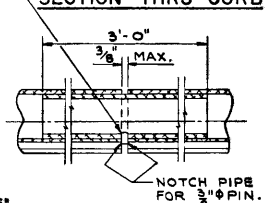
AT END PLATE

ANCHOR BOLT SETTING DETAILS

THE SHANK AND ROOT OF THREAD DIAMETER FOR ANCHOR BOLTS SHALL BE A MINIMUM OF 0.62 INCHES.



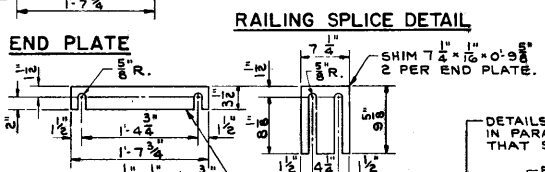
RAILING SPLICE DETAIL



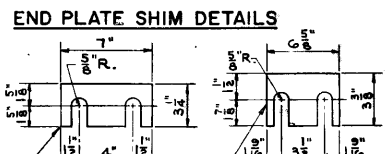
SECTION R1

SECTION THRU CURB

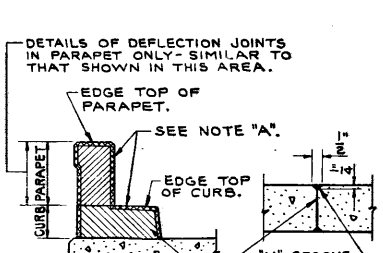
END PLATE



END PLATE SHIM DETAILS



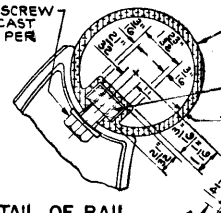
POST SHIM DETAILS



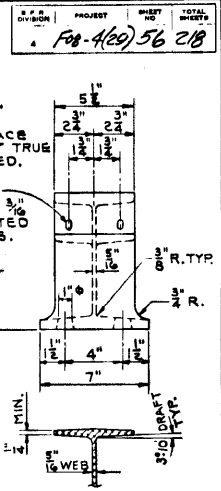
SECTION C

SECTION B

SHOWING DEFLECTION JOINT IN CURB AND PARAPET AT PIERS.



DETAIL OF RAIL ATTACHMENT TO POST



SECTION A

ALUMINUM POST CASTING

GENERAL NOTES

1. WHEN PARAPETS AND CURBS ARE POURED CONTINUOUSLY FROM END TO END THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF 1/8 ZINC OR ALUMINUM PLATE CUT AS SHOWN IN SECTION "B" BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS AND CURBS ARE USED AT THE DEFLECTION JOINTS ONE SIDE OF JOINT SHALL BE COATED WITH BITUMINOUS PAINT AND PLATE SEPARATORS MAY BE OMITTED.
2. ALL POST SPACINGS ARE TAKEN HORIZONTALLY ALONG ℄ OF RAILING AT BASE OF POSTS.
3. RAILING SPLICES SHALL BE LOCATED APPROXIMATELY AT 1/4 POINTS BETWEEN POSTS.
4. ALUMINUM SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQUIRED FOR ALIGNMENT.
5. RAILING SHALL BE FABRICATED IN TWO AND THREE PANEL LENGTHS. SEE X28325 FOR PANEL LENGTHS.

NOTE "A": FILL WITH NON-STAINING GRAY TWO COMPONENT POLYSULFIDE LIQUID POLYMER (GUN GRADE) WITH SURFACE PRIMER, MEETING APPROVAL OF THE ENGINEER.

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN	
	TUBULAR ALUMINUM RAILING TYPE "G"	
	DESIGN SPEC A.A.S.H.O.'61 LL-DING ——	CONST. SPEC 1963
	DATE 2-17-64 DESIGN STD. DRAWN G.N.B. CKD. F.R.V.	
	STRUCTURE B-18-38	SHEET 4 OF 7

X28327

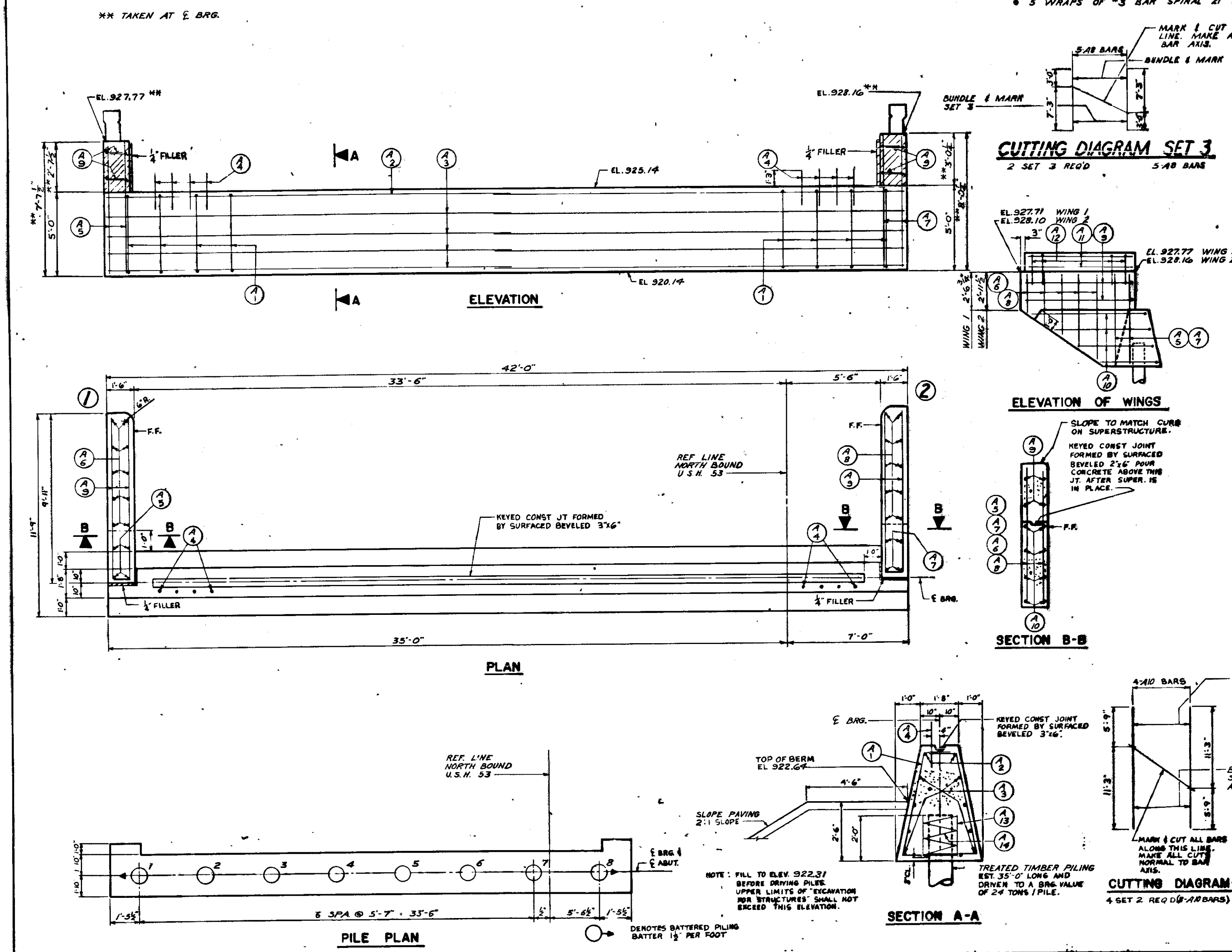
screenscan

FORM E-B-15-33

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F08-4(29)	57	218

● 5 WRAPS OF #3 BAR SPIRAL 21" DIA. 28'-0" LONG

** TAKEN AT ℄ BRG.

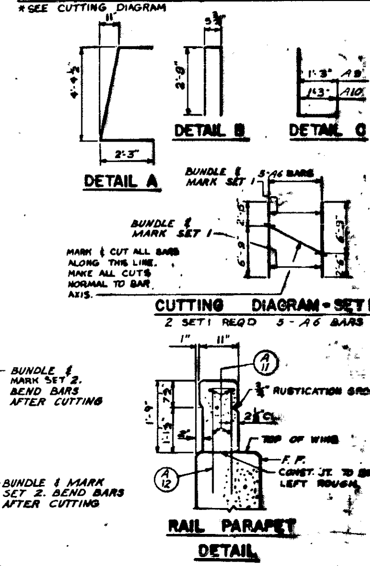


BILL OF BARS 1,360#

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
A1	42	4	8-0	2-0	BODY	A
A2	4	6	21-9	SHOWN	"	
A3	20	4	21-6	"	"	
A4	42	5	2-6	1-0	" - VERT. DOWELS	
A5	4	4	7-3	1-6	WING 1 - VERT.	
A6	5	4	9-3	1-6	" 1- " SET 1	
A7	4	4	7-6	1-6	" 2- "	
A8	5	4	10-3	1-6	" 2- " SET 3	
A9	8	4	10-9	1-6	" - HORIZ.	C
A10	8	4	17-0	1-6	" - " SET 2	C
A11	8	5	9-3	SHOWN	RAIL PARAPET	
A12	26	5	6-0	9"	" "	B
A13	16	4	2-3	SHOWN	2 BARS EACH PILE	
A14	8	3	28-0	SHOWN	1 SPIRAL EACH PILE	●

*SEE CUTTING DIAGRAM



STATE HIGHWAY COMMISSION OF WISCONSIN

SOUTH ABUTMENT

DESIGN SPEC. AASHO '61 | LOADING H20-S16 | 1963

DATE 2-17-64 | R.L.P. | J.K.G. | F.R.W.

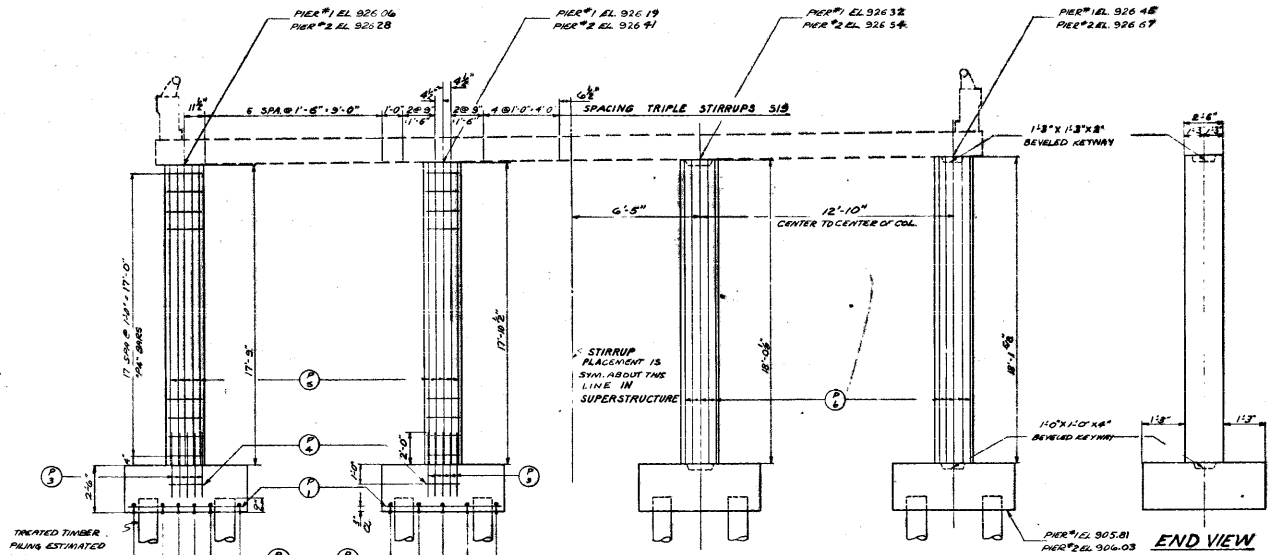
9-10-65 J.O.T. | 3-10-65 F.R.W.

STRUCTURE B-18-38 | SHEET 5 OF 7

X28328

ScreenScan

B P R DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
	F08-4(29) 58 218		

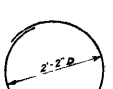


BILL OF BARS* 5,860#

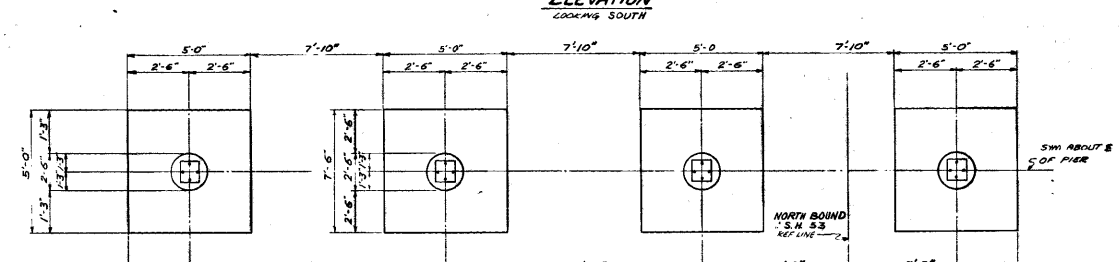
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT

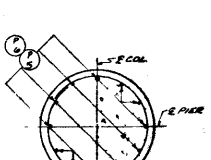
POUR	MARK	NO	SIZE	LENGTH	SPACING	LOCATION	DET
FOOTINGS	P1	80	5	4'-6	SHOWN	FOOTINGS	
	P2	20	7	7'-0	SHOWN	"	
	P3	96	7	3'-9	SHOWN	COL. DOWELS	
	P4	8	4	7'-9	SHOWN	" HOOPS	A
COLUMNS	P5	144	4	7'-9	1'-0	COLUMNS HOOPS	A
	P6	48	7	17'-6	SHOWN	" VERT	
	P6	48	7	17'-9	SHOWN	"	
	P7	32	8	2'-6	SHOWN	" & SUPER - DOWEL	

* COMBINED TOTALS FOR BOTH PIERS



DETAIL A

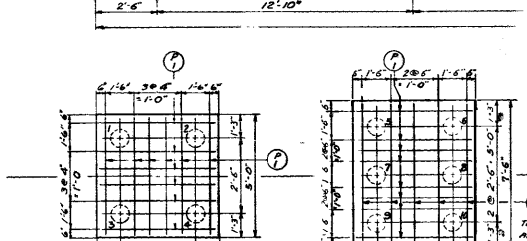




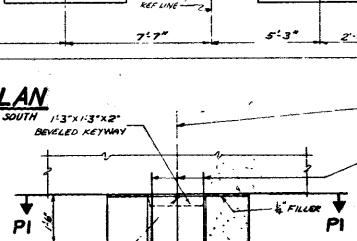
SECTION THRU COLUMN

CONCRETE MASONRY

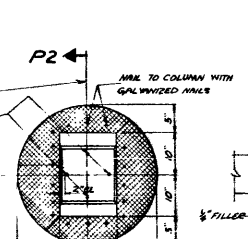
POUR	PIER #1		PIER #2	
FOOTINGS	11.1	CY	11.1	CY
COLUMNS	13.1	CY	13.1	CY
TOTAL	24.2	CY	24.2	CY



FOOTING PLAN



DETAIL AT PIERS



SECTION P1

SECTION P2

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
9-10-65 5-10-68 JSP F.R.W.	PIERS
	DESIGN SPEC. AASHO '61 LOADING H20 S16 CONST. SPEC. 1969
	DATE 2-1764 DESIGN R.L.P. DETAIL J.K.G. CHK. F.R.W.
	STRUCTURE B-18-38 SHEET 6 OF 7

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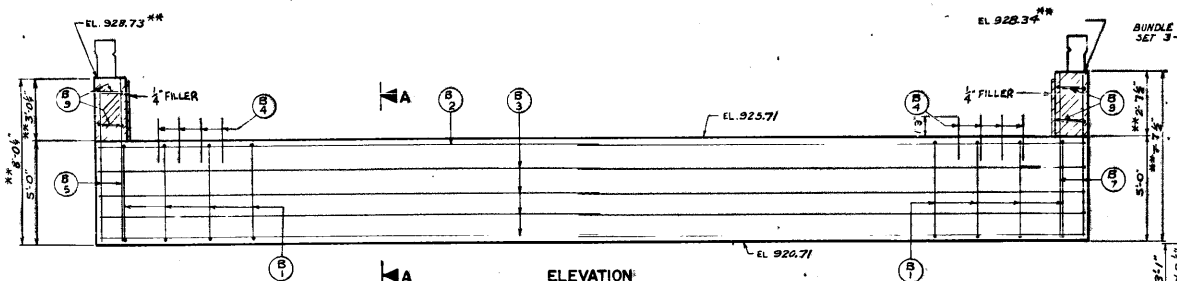
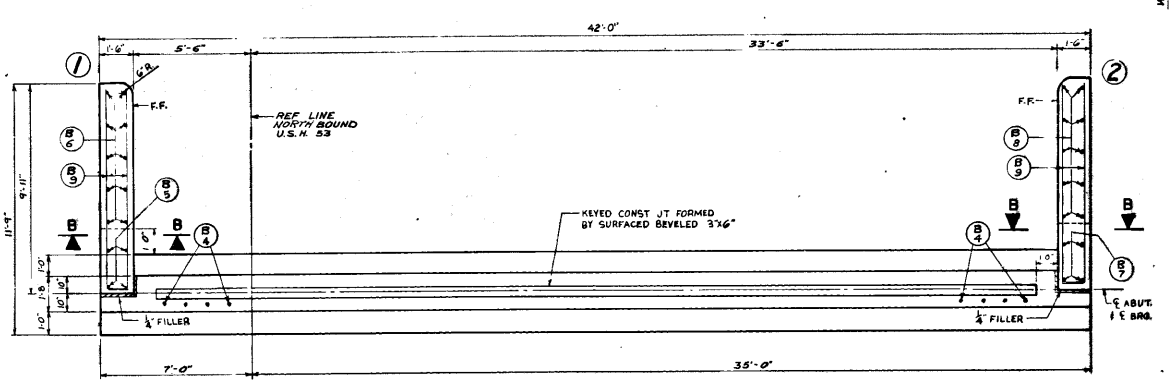
FORM E-B-12-68

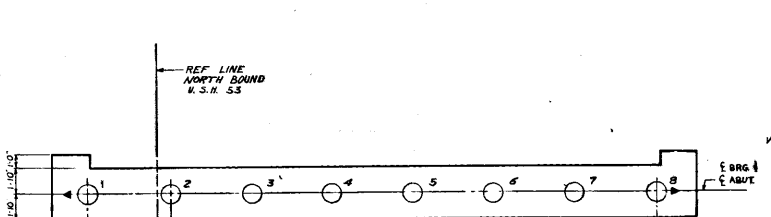
B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	F08-9(29)	59	218

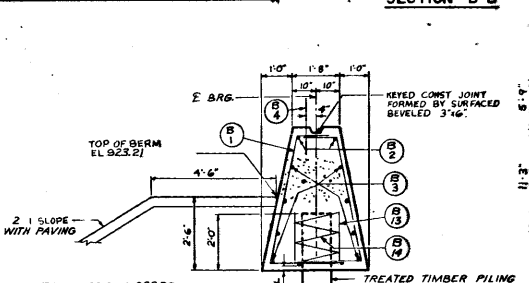
** TAKEN AT ℄ BRG.

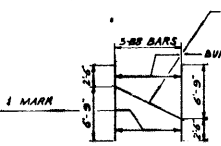
● 5 WRAPS OF #3 BAR SPIRAL 21" DIA. 28'-0" LONG

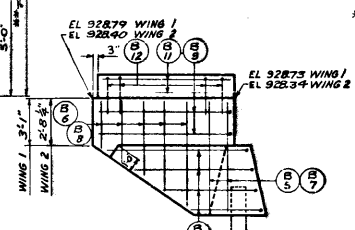


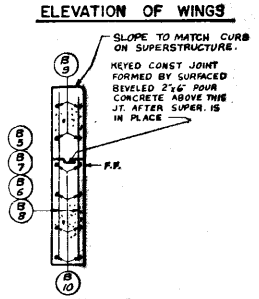


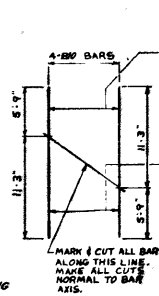










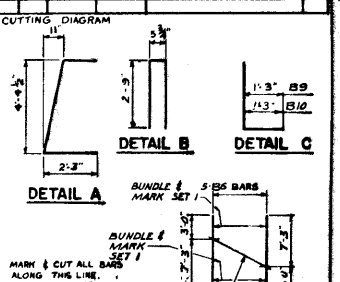


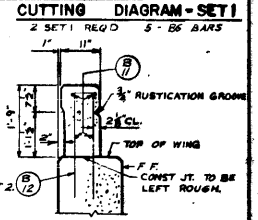
MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET
B1	42	4	8'-0	2'-0	BODY	A
B2	4	6	21'-9	SHOWN	"	
B3	20	4	21'-6	"	"	
B4	42	5	2'-6	1'-0	" VERT. DOWELS	
B5	4	4	7'-6	1'-6	WING 1 - VERT.	
* B6	5	4	10'-3	1'-6	" 1 " " SET 1	
B7	4	4	7'-3	1'-6	" 2 "	
* B8	5	4	9'-3	1'-6	" 2 " " SET 3	
B9	8	4	10'-8	1'-6	" - HORIZ	C
* B10	8	4	17'-0	1'-6	" " SET 2	C
B11	8	5	9'-3	SHOWN	RAIL PARAPET	A
B12	28	5	5'-0	9"	"	A
B13	16	4	2'-3	SHOWN	2 BARS EACH PILE	
B14	8	3	28'-0	SHOWN	1 SPIRAL " "	●

BILL OF BARS 1,360#

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT

*SEE CUTTING DIAGRAM





REVISIONS	STATE HIGHWAY COMMISSION OF WISCONSIN
	NORTH ABUTMENT
	DESIGN SPEC AASHO '61 LOADING H20-S16 CHKD 1963
	DATE 2-17-64 DESIGN R.L.P. DRAWN J.K.G. CHKD F.R.W.
	STRUCTURE B-18-38 SHEET 7 OF 7

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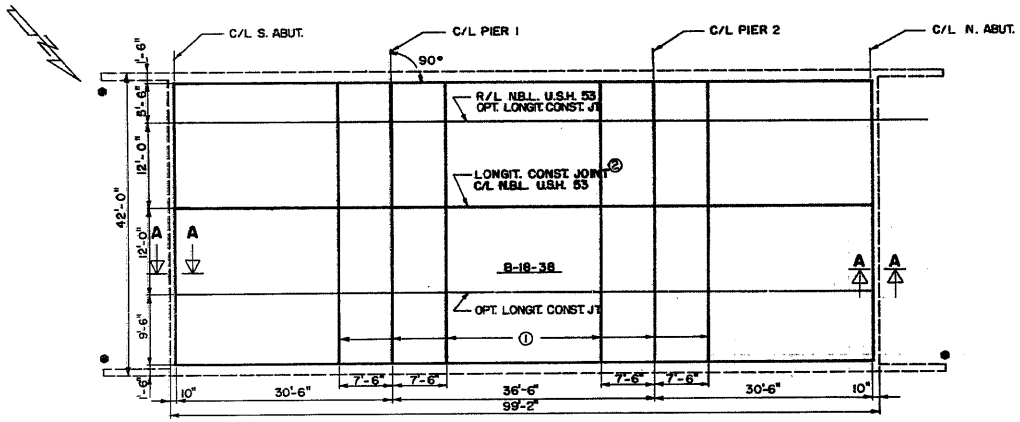
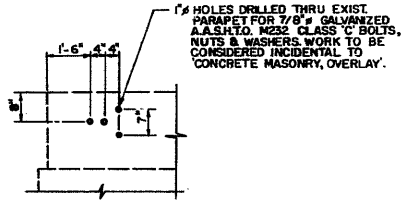
STATE PROJECT NUMBER	SHEET NO.
0018-94-10	8.2

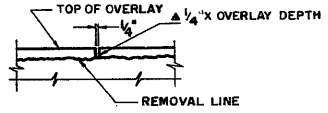


BENCH MARK: BRASS CAP ON S.E. CURB OF B-18-38. EL. 927.72

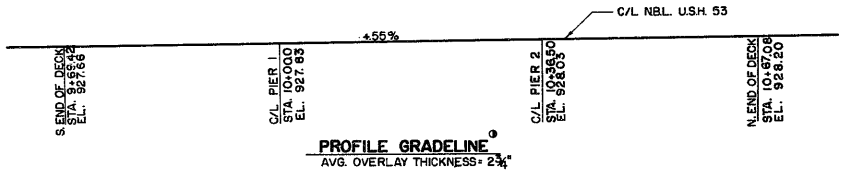
PLAN



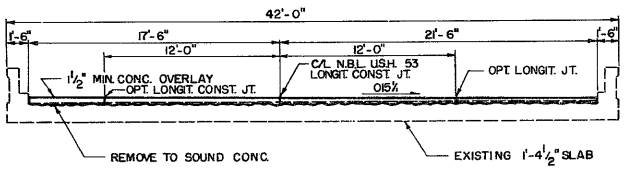
● BEAM GUARD ATTACHMENT DETAIL



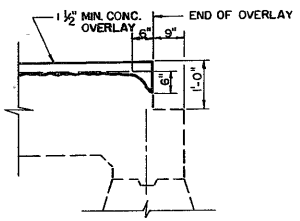
① TRANSVERSE JOINT
EXTEND TRANSVERSE JOINT 6" UP THE FACE OF PARAPETS.



PROFILE GRADELINE ◉
AVG. OVERLAY THICKNESS = 2¾"



CROSS SECTION THRU ROADWAY
LOOKING NORTH



SECTION A-A

LAYOUT

GENERAL NOTES

DRAWING SHALL NOT BE SCALED. ALL DIMENSIONS ARE PLUS OR MINUS AND SHALL BE FIELD VERIFIED.

◉ ANY VARIATION TO THE GRADELINE OVER 1/4" MUST BE SUBMITTED FOR REVIEW BY THE BRIDGE OFFICE.

▲ TWO ALTERNATES:

A) INSTALL NEOPRENE COMPRESSION SEAL RECESSED 1/8".

B) FILL OPENING WITH COLD APPLIED ELASTIC TYPE JOINT SEALER.

② TRAFFIC IS TO BE MAINTAINED DURING CONSTRUCTION.

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNITS	TOTALS
DECK PREPARATION	S.Y.	30
DECK CLEANING	S.Y.	423
CONCRETE MASONRY, OVERLAY	C.Y.	37
PROTECTIVE SURFACE TREATMENT	GAL.	25

DESIGN RATINGS

INVENTORY RATING — HS 21
OPERATIONAL RATING — HS 35

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-18-38

N.B.L. U.S.H. 53 OVER TOWN ROAD

County EAU CLAIRE — Town WASHINGTON

Design Spec. A.A.S.H.T.O. 86 — Load — — Const Spec. 1981

Designed By D.C.B. — Design Checked B.D. — Drawn By D.C.B. — Plans Checked B.DUKE

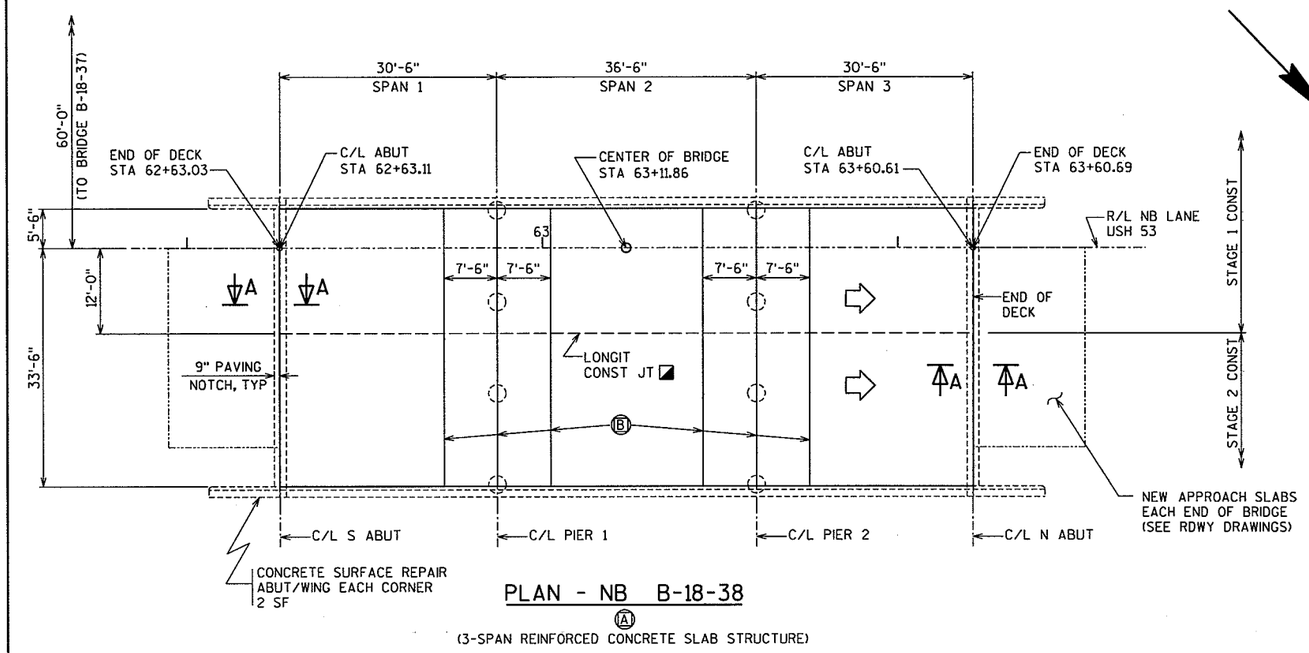
Approved Stanley W. Woods, Chief Bridge Engineer — Date 1-20-89

CONCRETE OVERLAY

SHEET 1 OF 1

X 82225

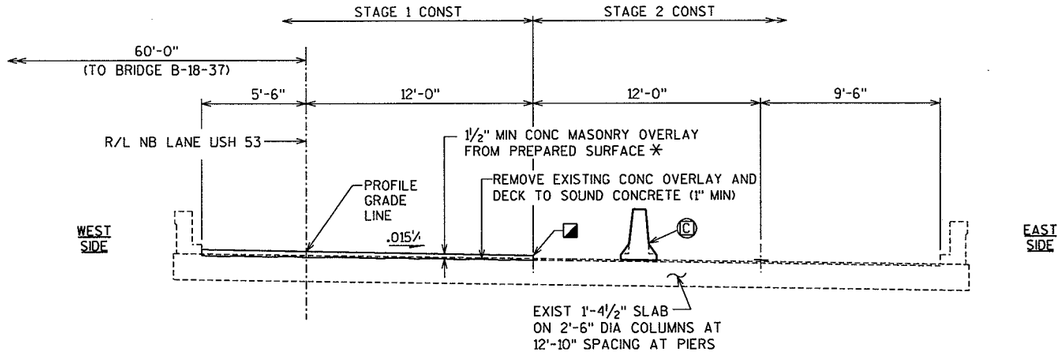
B-18-38



PLAN - NB B-18-38

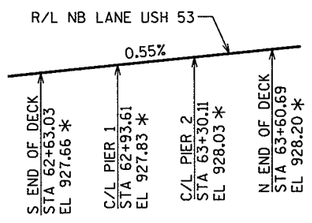
(A)

(3-SPAN REINFORCED CONCRETE SLAB STRUCTURE)



CROSS SECT THRU BRIDGE - SHOWING STAGE 1 CONST

(LOOKING NORTH)



PROPOSED GRADE LINE (A)

BENCH MARK

NO	STATION	DESCRIPTION	ELEV
		BRASS CAP ON SE CURB OF B-18-38	EL 927.72

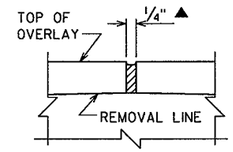
◪ LONGITUDINAL CONST JOINT IN OVERLAY MAY BE USED. ½" DEEP SAWCUT FILL WITH JOINT SEALER. COORDINATE WITH STAGING PLAN.

* MAINTAIN EXIST DECK ELEVATIONS. A 1½" MIN NEW OVERLAY THICKNESS IS REQUIRED

(A) STATIONING MAY VARY BASED ON EXACT LOCATION OF BRIDGE TO PROPOSED ALIGNMENT. CONTRACTOR TO VERIFY. VARIATIONS TO THE NEW GRADE LINE OVER 1/4-INCH MUST BE SUBMITTED FOR REVIEW BY BRIDGE SECTION.

(B) TRANSVERSE CONST JOINT: PROVIDE ¼" SAW CUT FULL DEPTH OF OVERLAY

(C) TEMPORARY PRECAST CONC BARRIER TO PROVIDE 15'-0" MIN CLEARANCE FOR TRAFFIC IN STAGES 2 AND 3. SEE APPROACH ROADWAY PLANS FOR ALIGNMENT & BID ITEM.

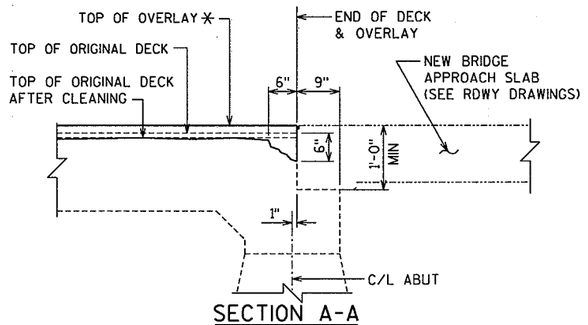


(B) TRANSVERSE JOINT

▲ ¼" SAW CUT FULL DEPTH OF OVERLAY.

PROVIDE EITHER:
A) INSTALL NEOPRENE COMPRESSION SEAL ACME M044 OR APPROVED EQUAL.
B) COLD APPLIED ELASTIC TYPE JOINT SEALER.

HOLD ALL ⅛" BELOW SURFACE OF OVERLAY. CONSIDERED INCIDENTAL TO 'CONCRETE MASONRY OVERLAY'



SECTION A-A

TOTAL ESTIMATED QUANTITIES - B-18-38

	BID ITEMS	UNIT	STAGE 1	STAGE 2	TOTALS
(2)	PROTECTIVE SURFACE TREATMENT	SY	226	270	496
	PREPARATION OF DECK TYPE 1	SY	19	23	42
	PREPARATION OF DECK TYPE 2	SY	8	9	17
	CLEANING DECKS	SY	190	233	423
	CURB REPAIR	LF	10	10	20
	CONCRETE SURFACE REPAIR	SF	4	4	8
(1)	CONCRETE MASONRY OVERLAY DECKS	CY	18	22	40
	REMOVING CONCRETE MASONRY DECK OVERLAY	SY	190	233	423
	NON-BID ITEMS				

(1) GRADE E CONCRETE PER SECTION 501.

(2) INCLUDES PROTECTIVE SURFACE TREATMENT ON CURBS AND FRONT FACE OF EXIST CONC PARAPET RAIL ON BRIDGE AND ON ABUTMENT WINGS.

STATE PROJECT NUMBER

1191-06-61

DESIGN DATA

LIVE LOAD:
INVENTORY RATING = HS20
OPERATING RATING = HS32
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 170 KIPS
INVENTORY AND OPERATING RATINGS ACCOUNT FOR THE DECK IMPROVEMENTS SHOWN IN THESE PLANS BUT DO NOT INCLUDE FUTURE WEARING SURFACE.

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY - SUPERSTRUCTURE f'c = 4,000 psi
- ALL OTHER (GRADE A) f'c = 3,500 psi

GENERAL NOTES:

DRAWINGS ARE NOT TO BE SCALED.

DIMENSIONS SHOWN ARE BASED ON EXISTING ORIGINAL STRUCTURE PLANS AND INSPECTION REPORTS. CONTRACTOR TO VERIFY BEFORE ACCEPTANCE. EXIST BRIDGE PLANS AVAILABLE AT WisDOT.

PROFILE GRADE LINE SHALL BE DETERMINED BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER CLEANING. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

TOP OF EXISTING DECK ELEVATION SHALL BE DETERMINED FROM A FIELD SURVEY AT LOCATION DEEMED NECESSARY FOR ESTABLISHING OVERLAY THICKNESS FOR ACCURATE RATINGS AND POINT OF MINIMUM THICKNESS.

CLEAN AND FILL EXISTING LONGITUDINAL AND TRANSVERSE CRACKS WTH PENETRATING EPOXY AS DIRECTED BY THE FIELD ENGINEER.

PRIOR TO CLEANING DECK FOR CONCRETE OVERLAY, SEAL CONSTRUCTION JOINT AND ALL TRANSVERSE CRACKS IN SLAB WITH TK-210 EPOXY. REFER TO MANUFACTURER RECOMMENDATIONS FOR APPLICATION.

THE ITEM "PREPARATION DECKS TYPE _" SHALL BE LOCATED, MARKED AND MEASURED BY THE FIELD ENGINEER.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY OR THE PAVING NOTCH AT THE ABUTMENTS IS INCIDENTAL TO THE BID ITEM, "CONCRETE MASONRY, OVERLAY, DECKS".

THE EXISTING CONCRETE OVERLAY REMOVAL SHALL BE PAID UNDER ITEM "REMOVING CONCRETE MASONRY DECK OVERLAY". AN ADDITIONAL 1-INCH MINIMUM OF CONCRETE SHALL BE REMOVED FROM BELOW THE ENTIRE SURFACE OF THE ORIGINAL DECK ELEVATION. THIS REMOVAL SHALL BE PAID UNDER ITEM "CLEANING DECKS" CONTRACTOR TO VERIFY COMPLETENESS OF REMOVALS WITH THE ENGINEER.

MULTIPLE POURS AND SEQUENCE OF POURS FOR A GIVEN CONSTRUCTION STAGE MUST BE APPROVED BY THE STRUCTURES DESIGN SECTION.

SEE ROADWAY PLANS FOR EXISTING & PROPOSED UTILITY LOCATIONS.

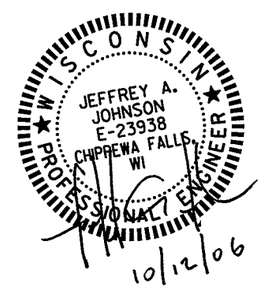
ALL CONC REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT.

LIST OF DRAWINGS

1 CONCRETE OVERLAY

TRAFFIC DATA

ADT (2004) = 24,300
ADT (2024) = 27,300
DHV = 2,730
D = 50/50
T = 5.4 %
V = 60 MPH



BRIDGE OFFICE CONTACT:
FINN HUBBARD
(608) 266-8489

SEH

SEH INC CONTACT:
JOHN BECKFIELD
(715) 720-6265
421 FRENETTE DR CHIPPEWA FALLS WI, 54729

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED William C. Dahm SDR 10-16-07
CHIEF STRUCTURAL DESIGN ENGINEER DATE

STRUCTURE B-18-38

USH 53 NB OVER KEYSTONE CIRCLE

COUNTY EAU CLAIRE	TOWN/~~CITY/VILLAGE~~ WASHINGTON
DESIGN SPEC. AASHTO STD. SPEC. 2002	LOAD HS20 CONST. SPEC. 2003
DESIGNED BY JAJ / DESIGN CK'D. ALGE	DRAWN BY DLF / PLANS CK'D. ALGE

CONCRETE OVERLAY

SHEET 1 OF 1
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PLANS RECEIVED

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