

# SEPARATION STRUCTURE SURVEY REPORT

DT1694 6/2012

Wisconsin Department of Transportation

☒ **Grade Separation** ☐ **Railroad** ☐ **Retaining Wall** ☐ **Noise Barrier**

☐ **Sign Structure** ☐ **High Mast Lighting** ☐ **Other:** \_\_\_\_\_

**RECEIVED**  
**4/26/2019**  
**BUREAU OF STRUCTURES**

For guidance see: [http://dotnet/dtid\\_bos/extranet/structures/reports-checklists.htm](http://dotnet/dtid_bos/extranet/structures/reports-checklists.htm)

Design Project ID 1007-10-02	Construction Project ID 1007-12-78	Highway (Project Name) I-39/90 Expansion		
Final Plan Due Date 6/1/2019	Preliminary Plan Due Date 3/15/2019	<input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City Blooming Grove		
PS&E Date 8/1/2019	Letting Date 12/10/2019	County Dane		
New Structure Number B-13-732	Existing Structure Number N/A	Section 26	Town 07N	Range 10E
Station 2582'NB'+55.95	Latitude: 43°03'06.73" N Longitude: 89°16'37.67" W	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Structure Located on National Highway System		
For Survey and CADD Files Horizontal Coordinate System: Dane County Vertical Datum: NAVD 88 (2007)		<b>Traffic Forecast Data</b>		
		Design Year	Average Daily Traffic (ADT)	Roadway Design Speed
Feature On I-39/90 NB		Feature On 2040	72,000	70 Principal Arterial
Feature Under Femrite Drive		Feature Under 2040	9,800	40 Minor Arterial
Region Contact: Mark A. Vesperman (Area Code) Telephone Number(s): 608.844.1227 Email: Mark.Vesperman@dot.wi.gov		Consultant Contact: Christopher B. McMahon - Dane Partners (Area Code) Telephone Number(s): 715.834.3161 Email: McMahonC@AyresAssociates.com		

## Instructions for Structure Survey

- Report submitted with Preliminary Plan requires **no** CADD file submittal (see ESubmittal instructions).
- Report submitted for development of Preliminary Plan to structure design engineer requires CADD file(s) submittal and Report submittal to Soils Engineer.
- Coordinate with 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.

In addition to this report, the following information shall be submitted.

1. **Small County Map** on which the location of proposed structure is shown in red, any highway relocation in green, and **Location Map** of scale not less than 1" = 2000' showing the structure location and number.
2. **Plan and Profile Sheet** on proposed reference line of feature on and feature under showing the following:
  - (a) Ground line; (b) Finished grade line; (c) Profile grade line elevations at least every 100 feet for 1,000 feet each side of the structure; (d) Vertical curve control points; (e) Horizontal curve control points; (f) Curve data, including full SE and runoff distance; (g) For railroad project, survey top of each rail and provide proposed geometrics in conformance with railroad company standards.
3. **Layout Sketch** of the site drawn to a scale of not less than 1 inch = 100 feet showing the following:
  - (a) Existing highway and structure; (b) Proposed highway alignment and R/W; (c) Station numbers; (d) Reference line intersection stationing and intersection angle; (e) North Arrow; (f) Buildings; (g) Above and below ground facilities; (h) Proposed structure when report submitted with Preliminary Plan; (i) Railroad company stationing; (j) Station at ends of existing structure; (k) Other features which influence the design.
4. **Typical Sections** of all roadways showing the following:
  - (a) Dimensions; (b) Slopes; (c) Type and width of surfacing or pavement; (d) Subgrade; (e) Sidewalk, curb and gutter; (f) Median treatment at underpass mounted or ditch section; (g) Clear zone width; (h) Horizontal clearances at underpass.
5. **Labeled Photographs** of: (a) Existing structure; (b) Site pictures in all controlling directions including, but not limited to North, East, South and West; (c) Buildings within 100 feet of proposed structure.

## Proposed Structure

Preference for Structure Type at this Site:

Three-Span 36W" Prestressed Concrete Girder

☐ No Preference

Aesthetics Level – See Bridge Manual Chapter 4

☐ 1 ☒ 2 ☐ 3 ☐ 4 (For Levels 2, 3 & 4 Explain on Page 3)

Spans- Number 3		Approximate Centerline to Centerline Span Lengths Along Reference Line of Highway 42'-60'-42'			
Clear Roadway Width on Structure 60 Ft.		Cross Slope on Deck or N.C. (Normal Crown) N.C.		Skew 3° <input checked="" type="checkbox"/> R.H.F. <input type="checkbox"/> L.H.F.	
Sidewalks/Multi-Use Path <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Left Clear Sidewalk/Path Width N/A Ft.	Separation Barrier <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Right Clear Sidewalk/Path Width N/A Ft.	Separation Barrier <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Type of Slope Protection Crushed Aggregate					
Specify Wing Location(s) for Beam Guard Attachment All Quadrants			Specify Wing Location(s) for Surface Drain Anchors N/A		
Specify Wing Location(s) where Bridge Barrier/Rail Continues on Roadway Approach All Quadrants					

### YES NO

- ☒ ☐ Structure Will be Constructed to Accommodate Traffic Staging
- ☒ ☐ Structural Approach Slab
- ☐ ☒ Lighting Required: Bolt Circle Diameter \_\_\_\_\_ inches
- ☐ ☒ Traffic/Lighting Staff been Notified for Review
- ☒ ☐ Conduit in Parapet: Diameter 2" Number 2
- ☐ ☒ Historical Properties (Archaeological, Historic) Present Near Structure

### Vertical Clearance Design

- ☒ 14' 9" to 15' 3"
- ☐ 16' 3" to 16' 9"
- ☐ Other: \_\_\_\_\_

### Utilities on Structure (WisDOT policy is to avoid placing utilities on the structure.)

#### YES NO

- ☐ ☒ Utilities will be located on the structure?  
(if YES, provide the following information as well as the alignment and profile on Page 3)
- ☐ ☐ Utilities have been approved by Region Utility Coordinator or previously approved by the Bureau of Structures?  
(if NO, please explain on Page 3)

Type	Owner and Contact Information	Size	Opening at Abutment	Weight	Pressure

## Proposed Disposition of Existing Structure

### YES NO

- ☐ ☒ Structure will be Removed  
☐ Bid Item ☐ Later Contract ☐ Other: \_\_\_\_\_
- ☐ ☒ Structure will Remain in Service, Purpose: \_\_\_\_\_

## For Structure Designers Use Only Proposed Structure

Spans – Number: 3	Span Lengths (C.L. to C.L. of Substructure): 42'-60'-42'	Skew: 3°	<input checked="" type="checkbox"/> R.H.F. <input type="checkbox"/> L.H.F.
Latitude: 43°03'06.73" N		Longitude: 89°16'37.67" W	

### Additional Information

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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. See Attachment 1 for County Map.
2. See Attachment 2 for Plan and Profile Sheets.
3. See Attachment 3 for Typical Sections of roadways.
4. See Attachment 4 for Structure Aesthetic Details as stated in IH-39 CMT Manual.
5. Railings shall be Single Slope Parapet 42SS Modified. Refer to IH-39 CMT Manual for parapet modifications. See Attachment 4.
6. No utility conflicts are anticipated.
7. Anchors for thrie beam type guardrail will be added to all quadrants of the bridge. The anchors in the NW and NE quadrants will allow guardrail to be attached to the bridge in the future if bi-directional traffic is required for maintenance.
8. The proposed minimum vertical clearance is approximately 16'-4 7/8", which is more than the 15'-3" desired clearance. The chording effect was used to calculate vertical clearances. The profile was set to accommodate a future interchange configuration. See Attachment 5 for the 'Profile of Roadway Through the Core Interchange' Memo.
9. The bridge will not be constructed in stages.
10. Femrite Drive will remain open during construction.
11. A Structural Approach Slab will be used on each end of the structure.
12. Crushed aggregate slope paving is required to protect the slopes adjacent to the abutments.
13. The bridge is skewed 3°. The roadway under the bridge is skewed 3°01'30.51". The maximum abutment height will be 8'-0".