

Final Scope Certification

Date: 5/18/2020

Project I.D. (design/construction): 1360-12-00 and 1360-12-70

Route: STH 145

Title/Limits : Fond du Lac, City of Milwaukee, 107th St. Bridge

Bridge # (if applicable): B-40-0252

County: Milwaukee

Having considered the criteria and documentation attached we concur and approve the Final Scope.

Concurrence:

Region Project Development Chief or delegate:	<i>Olubunmi Olapo</i>	6/3/2020
Region Technical Services Chief or delegate:	<i>James J. Robinette</i>	6/3/2020
Region Technical Services Chief or delegate:	<i>Emlyn Grisar</i>	06/03/2020
Region Operations Chief or delegate:	<i>Brian Bliesner</i>	6/4/2020
Bureau of Project Development – Design Standards and Oversight Chief or delegate:	<i>Richard Herrick</i>	6/4/2020

Approval:

Tony J. Barth

Region Programming/Planning Chief

6/9/2020

Date

Performance Measure Compliance

Program Effectiveness – Is the project in compliance with the Department’s current asset management theme for appropriate highway treatment?

Theme recommended improvement (PEM): Choose an item.

Proposed improvement: Choose an item.

Is proposed improvement within one level on the Program Effectiveness scale? ☐ Yes ☒ No

If no, explain:

N/A – Program Effectiveness is not applicable to Bridges

Balanced program

Programmed LC10 construction estimate: \$6,350,000.00

Proposed LC11 construction estimate: \$4,194,000.00

Does the project estimate allow the region to stay within its assigned program funding levels?

☒ Yes ☐ No

If no, have other programmatic changes been identified to stay within guidelines for program balance?

Estimate was reduced to \$3,585,000 on 1/31/2019 when BOS implemented new scoping procedures for structures. This change is an increase of \$609k

Delivery Risk - Is the project scheduled to be compliant with current PLP and APLP programmatic completion goals for LC 12 and LC 15 Delivery Risk?

PLP:

Proposed letting month: November 2023

PLP guidelines for that month (\$): \$30 million

Current region programmed amount for that month (\$): \$5.4 million

APLP:

Proposed earliest letting month (advanceable projects): EPSE Aug 2022 / ELET Dec 2022 (FY23)

APLP guidelines for that quarter (\$): \$31.2 Million

Current advanceable programmed amount for that month: \$49.3 Million

LC12 and LC15 Delivery Risk:

Does the milestone schedule allow for the project to reach LC12 and LC15 in accordance with Delivery Risk Guidelines? ☒ Yes ☐ No

If outside PLP, APLP, or LC12 and LC15 Delivery Risk guidelines, explain why and what mitigations will be made?

PLP – Meets

APLP – Meets

LC12/15 - Meets

Design on Budget (DOBI)

Delivery Budget Worksheet (link): FIIPS \$951k, DDCI \$394k

Is the established project delivery budget compliant with EDCI goals for that project treatment type?

☐ Yes ☒ No

If no, has the appropriate exception process been followed to allow the established delivery budget to stay as is?

Initial budget was based on the original scope which was down scoped in Jan 2019. DDCI should be \$394k, charging to date is \$61k or 15% of the DDCI.

Design on Time (DOTI)

Does milestone schedule allow project to meet APLP and PLP LC12 and LC15 performance measures?

☒ Yes ☐ No

If no, does the region program remain compliant to APLP and PLP without the project? ☐ Yes ☐ No

If no, what action is the region taking to ensure overall programmatic compliance to APLP and PLP performance expectations.

Click or tap here to enter text.

Certifications

Safety Certification Document (SCD)

(<N:\PDS\Projects\13601200\DER\Safety certification>): SAFETY: During the crash vetting process of the Safety certification document, a total of 27 crashes were reported over the past 7 years and only 16 of them had reports. Out of all the crashes reviewed, 0 crashes remained after the vetting process. All crashes were excluded due to violations of rules of the road and/or laws, weather relation, or speed. No geometric updates due to safety will be done under this project.

Bridge or Structure Certification Document (BOSCD) Date: 4/23/2020

(enter link): <N:\PDS\Projects\13601200\DER\Final Scoping Cert>

Pavement Design Report Date: N/A

Risk Based Environmental Scoping Template or draft environmental document:

<N:\PDS\Projects\13601200\ENVR\Envr Document>

Native American Lands of Interest (NALI) scoping determination: <N:\PDS\Projects\13601200\ENVR\Tribal Corr>

Resiliency F4R: <N:\PDS\Projects\13601200\DER\Final Scoping Cert>

Final Scope Certification: <N:\PDS\Projects\13601200\DER\Final Scoping Cert>

Project Information

Purpose and need:

Project Purpose:

The purpose of this project is address the deteriorating bridge.

Project Need:

The original structure was built in 1964. Since then the bridge has been painted in 1988 and has had 1 deck overlay in 1999. existing bridge deck is experiencing cracking, heavy efflorescence at underside of the deck cracks, delamination and spalling. Heavy rust resides on the bottom flanges of girders over the piers, typically at piers 1 & 2 and paint is and has been largely ineffective at these locations (painted in 1988). Finally, there is a misaligned girder on a bearing seat and medium horizontal cracks at the S. abutment sill with heavy rust at the S. Abutment bearing and missing keeper bar.

B-40-252: 107th St. Bridge over STH 145 (New structure will be numbered: B-40-1004)

- N. backwall is sheared for nearly entire length at beam seat, both abuts may be rotating inward. There are medium cracks typical throughout entire concrete deck overlay (done in 1999) as well as heavy efflorescence at underside of the deck cracks. There is also spall at underside of deck above the East girder at the north pier. Heavy rust resides on the bottom flanges of girders over the piers, typically at piers 1 & 2 and paint is and has been largely ineffective at these locations (painted in 1988). Finally, there is a misaligned girder on a bearing seat and medium horizontal cracks at the S. abutment sill with heavy rust at the S. Abutment bearing and missing keeper bar.

- Bridge deck is continuing to delaminate

- B-40-0252: 2009 IR indicates 0% - 1% delamination and < 2% Spall (most recent IR for 2014);
- 2004: < 2% small Spalls

Summary of scope of work:

The 107th St. Bridge residing over STH 145 in Milwaukee County will be reconstructed. The new structure will be widened to accommodate shoulders/bike lane and new MSE walls will be reconstructed.

1. Signals Improvements = No improvements included
2. Lighting Improvements = No improvements included
3. Operational Improvements = New pavement markings, signing, etc.
4. Signing Improvements = A signing plan will be completed by WisDOT Traffic Operations. A cost for signing has been included at this stage, based on coordination between Preliminary Scoping and Tom Heydel.
5. Bike/Ped Improvements = New sidewalk and curb ramps will be constructed. Bridge will be widened for shoulders and sidewalks will be reconstructed as part of new structure. See Complete Streets Tech memo for more details.
6. Environmental Improvements/Agreements = Potential impacts to wetlands with MSE wall construction (see attached Initial DNR review letter). Project has been submitted to be put on section 106 screening list. Still waiting on results.
7. Drainage Improvements = Storm sewer will likely need to be reconstructed. BOS will perform drainage analysis and/or the hydraulic/hydrologic analysis for all bridges that are designed by the Department. Consultants are responsible for all drainage analysis and /or hydraulic/hydrologic analysis of the bridges and box culverts they design. (FDM Chapter 13)
8. Municipal Agreements = A municipal agreement will be needed for the maintenance of the new sidewalk that will be installed as part of the project. Final Scoping will initiate the agreement with the City of Milwaukee and PDS will have 2 months from the time of Final Scoping handoff to finalize the agreement with the City of Milwaukee. (Approx. until Aug 15, 2020.)
9. Maintenance Improvements = Bridge will be reconstructed. No other improvements noted.
10. Freight/OSOW = 107th St. is not an Oversize-Overweight (OSOW) route, so no permit data is available. Running parallel to STH 145 is a Local OSOW-TR Route, Fond du Lac Ave., from N. 107th Street to N. 35th Street. Without improvements to the other substandard height on structures like Silver Spring Drive, N. 76th Street, and Grantosa Drive, the OSOW route will not be relocated to STH 145. There are no current plans to replace these structures to improve the vertical clearances all along STH 145.
11. Non-TLE Right of way impacts = Possible slight TLE may be needed. Could possibly avoid with final design/construction grading. No other impacts under this project.
12. Railroad Coordination = No railroads with 1,000' of the project limits.

Milestone Schedule (milestones shown in [FDM 3-1 attachment 1.1](#))

Project Initiation Complete (actual)	1/23/2017
Preliminary Scope Complete (actual)	5/2/2017
Final Scope Certification (actual)	5/30/2020
Final Resourcing/Start Final Design	6/7/2020
Design Study Report	3/1/2021
Early PS&E	8/1/2022
PS&E	8/1/2023
Project Let (Programmed)	11/14/2023
Project Award (based on Programmed)	12/26/2023

Additional Dates:

Plat Complete/Real Estate Acquisition Start	3/25/2021
DT1078 Plan Submittal	7/1/2021
Real Estate Acquisition Complete/Utility Relocation Begin	1/3/2022

Non-Let schedule and estimates:

RE \$ 10,000.00 **Schedule date** 3/25/2021
RR \$ Click or tap here to enter text. **Schedule date** Click or tap to enter a date.
UTL \$ Click or tap here to enter text. **Schedule date** Click or tap to enter a date.
MISC \$ Click or tap here to enter text. **Schedule date** Click or tap to enter a date.

Supplemental Data

Scoping notes (enter link) <N:\PDS\Projects\13601200\DESIGN\pip\Scoping Documents>

ICE (enter link) N/A

Tech memos: Complete Streets <N:\PDS\Projects\13601200\DER\complete streets>
DNR Initial Review: <N:\PDS\Projects\13601200\ENVR\DNR\Received>

Preliminary drawings/preliminary plan (Final Scoping Plan) <N:\PDS\Projects\13601200\PLAN\FINAL SCOPING PLAN\PLAN>

Detail schedule: <N:\PDS\Projects\13601200\DER\Final Scoping Cert>

Delivery Budget Worksheet: <N:\PDS\Projects\13601200\DER\Final Scoping Cert>

Major Bid Item estimate (<N:\PDS\Projects\13601200\PLAN\FINAL SCOPING PLAN\COST ESTIMATE>)
\$4,824,000.00