



Floodplain Encroachment Review

	Overnight
	Regular Mail
	Hand Delivery
X	Email

Date: June 30, 2022
To: Jake Smith and Kimberly Baker
From: Carter Hubbard, PE
Thru: Julie Ramirez and Kirk Harvey
Subject: PQS Floodplain Statement: 33rd/Cornhusker Viaduct, Lincoln, LCLC-5233(4), CN 13294

The 33rd/Cornhusker Viaduct, Lincoln project LCLC-5233(4), CN 13294, has been reviewed for its impact to floodplains within the State of Nebraska.

Project is located within:	
County(ies):	Lancaster County, Nebraska
Floodplain Community(ies):	City of Lincoln, Nebraska
Community(ies) are:	
Mapped?	Yes
Participating?	Yes
State Minimum Standards for Mapping?	No
Project Overlaps:	
Mapped Base Floodplain?	Yes
Floodplain Designations(s):	AE
Mapped Floodway?	Yes
State Minimum Standards Base Floodplain?	Not Applicable

Floodplain Statement

Review of floodplain mapping shows that the project overlaps upon one or more designated Regulatory Floodways and Base Floodplains. Based on the current scope of work the project would be designed to assure that no increase in a Regulatory Floodway's Base Flood Elevation occurs. All certifications required from a Licensed Professional Engineer confirming that the project meets floodplain regulations would be forwarded for inclusion in a Permit Application. Any change in project scope would be communicated to the Certifying Engineer(s).

Certification Requirements:

Floodplain Permit required from:	City of Lincoln, Nebraska
State Minimum Standards Community(ies):	None
Floodplain Encroachments:	
Stream Name 1. Deadmans Run, from North 33rd Street crossing to Cornhusker Highway in north overbank.	
Stream Name 2. Salt Creek, from 27th Street east to 33rd Street in south overbank.	

Would the Project cause a rise in the Base Flood Elevation (BFE):

More than one (1) foot in a Regulatory Base Floodplain?	No
Any rise in a Regulatory Floodway?	No
More than one (1) foot in a State Minimum Standards Floodplain?	Not Applicable
Floodplain Statement:	
It is anticipated that this project would be certified to meet floodplain regulations. It is not anticipated to cause greater than one foot of rise in the Base Flood Elevation within a Base Floodplain, any rise in the Base Flood Elevation within a Regulatory Floodway, nor increase the potential for property loss and hazard to life.	

Functionally Dependent Use in Base Floodplain:

Project overlaps a floodplain at a location without a functionally dependent use?	Yes
Floodplain Statement:	
Much of the work parallels the streams and is not associated with bridges or culverts conveying the base flood elevation. There are locations along the project that overlap a base floodplain and are not functionally dependent. The Floodplain Statement under 650.111(b) below provides a description of the Deadmans Run Flood Risk Management Project (DMRFRMP) being completed by the U.S. Army Corps of Engineers (Corps), which reduces the Deadmans Run floodplain extents and flood elevations in the 33rd/Cornhusker Viaduct, Lincoln project area.	
The following floodplain NFIP/FHBM maps were reviewed: Panel 31109C0310F, Dated 02/18/2011	

23 CFR SECTION 650.111 REVIEW

650.111(b)

Are there Base Floodplains located Longitudinal (parallel) to the project?	Yes
Is any of the project on Existing Alignment?	Yes
Does the Existing Alignment encroach upon a Longitudinal (parallel) Base Floodplain?	Yes
Is any of the project on New Alignment?	Yes
Does the New Alignment encroach upon a Longitudinal (parallel) Base Floodplain?	Yes
Floodplain Statement:	
<p>Design of the 33rd/Cornhusker Viaduct, Lincoln project to replace the 33rd Street bridge over Deadmans Run and construct roadway improvements in the vicinity of the intersection of North 33rd Street and Cornhusker Highway is being coordinated with the ongoing Corps DMRFRMP. The DMRFRMP would result in substantial reductions to the floodplain extents and base flood elevations for Deadmans Run in the vicinity of the 33rd/Cornhusker Viaduct, Lincoln Project. The DMRFRMP includes construction of channel improvements along Deadmans Run, from Cornhusker Highway upstream through the 48th Street crossing of Deadmans Run. The DMRFRMP also includes improvement of the BNSF railroad bridge over Deadmans Run and the replacement of the 33rd Street, Huntington Avenue, and 48th Street bridges over Deadmans Run with new structures, with larger openings and greater hydraulic capacity.</p> <p>The Deadmans Run floodplain would be contained within the banks of the proposed channel at the completion of the DMRFRMP. West of 33rd Street, the floodplain extents and flood elevations would remain mostly unchanged after the DMRFRMP, because the floodplain in this area is based on backwater from Salt Creek. Construction work on Cornhusker Highway, the new alignment of North 33rd Street, and the connecting roads in the area west of 33rd Street would encroach on the floodplain extents of the Salt Creek backwater. However, they would not adversely impact the base flood elevations of Salt Creek or Deadmans Run. Floodplain fill associated with the 33rd/Cornhusker Viaduct, Lincoln project would be mitigated by creating additional flood storage at nearby sites, through excavation and grading of open spaces.</p> <p>The models developed by the Corps for the DMRFRMP project were used to evaluate Deadmans Run hydraulics. The model was run for two conditions; pre-DMRFRMP conditions and post-North 33rd and Cornhusker Conditions (includes post-DMRFRMP conditions). In the post-North 33rd and Cornhusker conditions model, the North 33rd Street and Cornhusker Highway crossings of Deadmans Run reflect the latest plans from the North 33rd and Cornhusker project.</p> <p>Stream Name 1. Deadmans Run, from North 33rd Street crossing to Cornhusker Highway in north overbank.</p> <p>Stream Name 2. Salt Creek, from 27th Street east to 33rd Street in south overbank.</p>	

650.111 (c) (1)

Project increases the potential for loss of life or property?	No
Floodplain Statement:	
This action would not increase the potential for loss of life or property. The 100-year floodplain for Deadmans Run would be mostly within banks following the DMRFRMP. The 33rd/Cornhusker Viaduct, Lincoln project would not increase the risk of flooding in the overbanks.	

650.111 (c) (2)

Project impacts the natural and beneficial floodplain values?	No
Floodplain Statement:	
The floodplain that exists within the project area is largely an urban business and industrial district, with some residential areas. The proposed project work does not further degrade the function of the floodplain. Additionally, the floodplain of Deadmans Run would be mostly contained within the banks after the DMRFRMP project. Thus, the 33rd/Cornhusker Viaduct, Lincoln project would have no impact on Deadmans Run flood flows. There are encroachments associated with this Project, but this project would not have an impact on the natural and beneficial floodplain values.	

650.111 (c) (3)

Project supports probable incompatible floodplain development?	No
Floodplain Statement:	
The proposed improvements on the 33rd/Cornhusker Viaduct, Lincoln project would maintain local access to existing development in the project area. No new accesses would be constructed to properties within the floodplains of Salt Creek or Deadmans Run. The project includes acquisition of several commercial properties and removal of the buildings on those properties to facilitate the new overpass and roadway connection from North 33rd Street to Adams Street, thereby reducing the number and extent of developed properties in the floodplain. Therefore, the 33rd/Cornhusker Viaduct, Lincoln project would not support probable incompatible floodplain development.	

650.111 (c) (4)

Project results in a significant risk of impact to the base floodplain or environment?	No
Floodplain Statement:	
Based on assessment of the significance of the risk or environmental impact, no additional measures are necessary to minimize floodplain impacts associated with the action.	

650.111 (c) (5)

Floodplain Statement:

The proposed North 33rd Street bridge over Deadmans Run includes an elevated roadway and additional bridge spans in the right (north) overbank of the channel to allow for Deadmans Run overflows and local overland flows to flow freely and drain west into the Deadmans Run channel. The DMRFRMP would reduce floodplain extents and flood elevations of Deadmans Run.

650.111 (d)

Does a significant encroachment occur as a result of the project?	No
Does the project support incompatible floodplain development?	No
Floodplain Statement:	
<p>There is no significant encroachment into a base floodplain. As noted in 23 CFR 650.111 (a)-(c), the DMRFRMP would reduce the flood elevations and flood extents of the Deadmans Run floodplain so that it is mostly contained within the Deadmans Run channel. As noted in 23 CFR 650.111 (b), the 33rd/Cornhusker Viaduct, Lincoln project would have no impact on Deadmans Run flooding conditions following the DMRFRMP project. This also does not result in a significant risk or potential for loss of life or property due to the base flood. This project also does not result in a substantial adverse impact on natural and beneficial floodplain values. An alternatives analysis related to the significance of encroachment into a base floodplain is not warranted.</p> <p>The proposed improvements on the 33rd/Cornhusker Viaduct, Lincoln project would maintain local access to existing development in the project area. No new accesses would be constructed to properties within the floodplains of Salt Creek or Deadmans Run. The project includes acquisition of several commercial properties and removal of the buildings on those properties to facilitate the new overpass and roadway connection from North 33rd Street to Adams Street, thereby reducing the number and extent of developed properties in the floodplain. Therefore, this highway improvement Project would not support probable incompatible floodplain development.</p> <p>The floodplain that exists within the project area is largely an urban business and industrial district, with some residential areas. The proposed project work does not further degrade the function of the floodplain. Additionally, the floodplain of Deadmans Run would be mostly contained within the banks after the DMRFRMP project. Thus, the 33rd/Cornhusker Viaduct, Lincoln project would have little to no impact on Deadmans Run flood flows. There are encroachments associated with this project, but this project would not have an impact on the natural and beneficial floodplain values.</p>	

Floodplain Statement:

Amy Cherko

From: Baker, Kimberly K <kimberly.k.baker@nebraska.gov>
Sent: Tuesday, August 30, 2022 11:43 AM
To: Amy Cherko
Subject: FW: Floodplain PQS Memo reviewed and approved, 33rd/Cornhusker Viaduct, Lincoln, LCLC-5233(4), CN 13294

From: Carnazzo, Bob <bob.carnazzo@nebraska.gov>
Sent: Tuesday, August 30, 2022 11:21 AM
To: Smith, Jake <jake.smith@nebraska.gov>; Bavougian, Christina <christina.bavougian@nebraska.gov>
Cc: Ramirez, Julie <julie.ramirez@nebraska.gov>; Harvey, Kirk <kirk.harvey@nebraska.gov>; Bavougian, Christina <christina.bavougian@nebraska.gov>; Carter Hubbard <chubbard@olsson.com>; Aaron Keller <akeller@olsson.com>; Brian Osborn <bosborn@olsson.com>; Baker, Kimberly K <kimberly.k.baker@nebraska.gov>; Soula, Jeffrey <jeffrey.soula@nebraska.gov>; Karim, Asreen <Asreen.Karim@nebraska.gov>
Subject: Floodplain PQS Memo reviewed and approved, 33rd/Cornhusker Viaduct, Lincoln, LCLC-5233(4), CN 13294

Jake, Christina,

This is your Record of Transmittal.

I have reviewed and approve the Floodplain PQS Memo provided by Carter Hubbard, PE for the project 33rd/Cornhusker Viaduct, Lincoln LCLC-5233(4), CN 13294. The PQS Floodplain Statement for the project is complete. The document has been placed in OnBase at CN 13294 > NDOT RD Floodplain PQS Memo.

Robert Carnazzo, PE, CFM

Roadway Design Division, Professional Engineer I

Nebraska Department of Transportation

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