SP-230014
(New)

SPECIAL PROVISIONS
FOR
EMERGENCY ACTION PLAN

Fremont County
STP-333-1(030)--2C-36

Effective Date
October 17, 2023

THE STANDARD SPECIFICATIONS, SERIES 2015, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

230014.01 DESCRIPTION.

A. Levee Unit Name: Hamburg – Main Ditch 6 LB
Local Sponsor: City of Hamburg, Iowa
Levee Stations: 63+50 to 66+50

B. The Iowa Department of Transportation is proceeding with the construction of the Main Ditch 6 Levee raise and subsequent Highway 333 roadway raise. Most of the construction will take place within the "critical area" of the levee, which is defined by the USACE as the area within 300 feet riverward and 500 feet landward of the levee.

C. The levee affected by this construction is the Hamburg – Main Ditch 6 LB Levee, which was originally completed following Missouri River flooding in 1998 under the guidance of the Omaha District of the U.S. Army Corps of Engineers (USACE) to provide flood protection along Main Ditch 6 which discharges into the Nishnabotna River through a gate structure. The gates are closed during flooding on the Nishnabotna River. The levee was raised in 2021 by the USACE Omaha District to provide additional flood protection for a breach of the Missouri River Levee (Unit L-575). The Missouri River Levee follows upstream along the Nishnabotna River until it ties into high ground.

D. The purpose of these Special Provisions is:

- To identify the submittals required by the Contractor for compliance with the Section 408 submittal to the United States Army Corps of Engineers (USACE),
- State the Section 408 submittal limitations on work in the levee critical area,
- Establish the minimum monitoring requirements,
- Establish the emergency response in case of a flood event, and
- Establish the restoration requirements for damage to the levee critical area.

A copy of the Section 408 submittal is available from the Engineer.

230014.02 CONSTRUCTION REQUIREMENTS.

A. Preparation of Emergency Action Plan.

1. The proposed construction will be performed during flood and non-flood event periods.

2. Prior to construction, the Contractor shall prepare and follow an Emergency Action Plan (EAP) which will address the requirements presented in these special provisions and the procedures for high-water conditions during construction. The EAP shall include emergency contact information, including cell phone numbers of the project manager, project superintendent and foreman. The numbers provided shall be monitored 24 hours a day, 7 days a week.

B. Submittals.

1. The following submittals are required:
- Emergency Action Plan,
- Pre-Construction Testing of Proposed Emergency Stockpile Materials
- Pre-Construction Survey,
- Post-Construction Survey,
- Excavation Shoring Plan, and
- Dewatering Plan.

2. Submittals will be reviewed by the Engineer.

C. Emergency Stockpile Material.

1. Emergency Stockpile Material shall consist of cohesive materials having at least 50% passing the U.S. Standard 200 mesh sieve size. Cohesive materials consist of materials classifying as lean (CL), having a Plasticity Index of 10 or greater, and falling between the “U” line and the “A” line on Figure 3 in ASTM D 2487 – Standard Tests for Classifications of Soils for Engineering Purposes and a Liquid Limit less than 50.

2. Stockpiled materials shall be appropriately protected from the elements such that it maintains a workable moisture content for placement and compaction at all times.

D. Pre-Construction Testing of Proposed Emergency Stockpile Materials.

1. Submit to the Engineer for approval the results of grain size testing (ASTM D 6913 and D 7928) and plasticity testing (ASTM D 4318) on all Cohesive Fill Materials proposed for use in the Emergency Stockpile.

2. The source of materials proposed for use in Emergency Stockpile shall also be submitted. These submittals must be approved by the Engineer prior to the placement of materials within the Emergency Stockpile.

E. Survey.

1. Complete a levee centerline profile survey including the existing levee crest, slopes, and area extending 25 feet landward and riverward of the levee slopes a minimum of 100 feet beyond the area that will be accessed by the Contractor. The survey shall be completed prior to construction activities, at the end of construction, and as requested by the Engineer to document observed distress. The survey results shall be provided to the Engineer as soon as they are available. The results of the post-construction survey shall be provided to the Engineer prior demobilization.

2. Repair any locations that deviate in elevation more than 0.2 feet from the pre-construction survey and any other location determined to be deficient by the Engineer. Survey repair locations.

3. Survey information shall be reported in a table format with levee stations and elevations presented along the levee centerline at 25-foot intervals and in graphical format in plan and profile view and cross-sections at 25-foot intervals. The plan view shall show the levee centerline, levee station, and 1-foot elevation contours. The profile view shall show the elevation at the levee centerline. The Engineer will provide the alignment and stationing of the levee.

4. Record survey data in reference to horizontal datum Iowa State Plane Coordinate System, NAD83 South Zone and vertical datum North American Vertical Datum NAVD88.

5. Provide the raw survey data to the Engineer in form of ASCII text or spreadsheet files, as well as provide plots in .pdf format.

F. Restoration.

The Engineer will complete a pre-construction and post-construction inspection of the levee to identify any observable signs of distress including: rutting, cracks, lack of sod cover, settlement, erosion, or stability issues on the levee. If the post-construction inspection identifies any observable sign of distress that was the result of the Contractor, the area shall be repaired to pre-construction conditions by the Contractor.

G. Modifications.

Any modifications to the pre-approved contract documents proposed by the Contractor for construction activities located in the levee critical area, such as: changes to staging, excavation depths, shoring, haul routes, levee access, or groundwater dewatering must be submitted to the Engineer for approval.

H. Limitations.

The Contractor shall ensure that the line-of-protection provided by the levee is maintained at all times during construction and that the proposed construction will not involve any additional landward or riverward excavations in the critical area that may impact the levee at any time during construction except as shown in the approved contract documents.

230014.03 CONTRACTOR'S EMERGENCY ACTION PLAN.

A. Contents of EAP.

1. The contents of the Contractor's EAP shall present a detailed staging plan and all provisions in the Contract Documents so that the integrity of the levee system and its ability to provide flood protection will be maintained throughout the entire duration of construction. This includes the construction of a temporary ring levee during removal of the existing drainage structures and installation of new drainage structures.

2. A site map shall be provided in the EAP that identifies during each stage of construction the location of:
   - Levee centerline with stationing,
   - 500 foot landward and 300 foot riverward critical area,
   - Proposed haul routes,
   - Proposed construction within the levee critical area, and
   - Proposed locations for the storage of equipment and materials within the levee critical area.
   - Location of emergency stockpile of cohesive fill.

B. Procedures.

The following procedures shall be in place to address an emergency situation:

1. Daily Monitoring.

a. The water level in the Main Ditch 6 shall be visually monitored on a daily basis by the Contractor and recorded in the daily construction log. The extended forecast of precipitation in the Main Ditch 6 drainage basin will be monitored on a daily basis by the Contractor and recorded in the daily construction log. The Contractor shall be able to react quickly to the required actions described in these Special Provisions should the water level in Main Ditch 6 rise.

b. The water level in the Missouri River and Nishnabotna River shall be monitored on a daily basis by the Contractor and recorded in the daily construction log. The extended forecast of future river levels shall also be monitored and recorded in the daily construction log. The Contractor shall be able to react quickly to the required actions described in these Special Provisions should overtopping or breaching of the Missouri River Levee (Unit L-575) be imminent.

2. Monitoring Agencies.

a. The precipitation forecast shall be monitoring using the National Oceanic and Atmospheric Administration (NOAA) web site:

- https://www.wpc.ncep.noaa.gov/basicwx/basicwx_ndfd.php

b. The Missouri River level shall be monitored through USGS and National Weather Service websites for River Gage - 0680700 Missouri River at Nebraska City, NE.

- https://waterdata.usgs.gov/ia/nwis/uv/?site_no=06807000
- http://www.riverwatch.noaa.gov/forecasts/OAXRDOAX.php

c. The Nishnabotna River level shall be monitored through USGS and National Weather Service websites for River Gage - 06810000 Nishnabotna River above Hamburg, IA.

- https://waterdata.usgs.gov/monitoring-location/06810000/#parameterCode=00065&period=P7D
- http://www.riverwatch.noaa.gov/forecasts/OAXRDOAX.php

3. Ceasing Operation.

a. Construction operations near the levee shall cease in the event that flooding from Main Ditch 6 is imminent, as per the following:

- The excavation on the riverward side of the levee shall cease and the excavation shall be emergency filled.
- The excavation on the landward side of the levee shall cease and shall be continuously observed for seepage, sloughing and other distress to the levee and foundation soils. The Contractor may continue to work if the excavation on the landward side of the levee is complete and there are no indications of distress as determined by the Engineer
- If dewatering is being performed with dewatering wells, then the wells shall be continuously pumped unless the excavation is backfilled or as directed by the Engineer.
- If water is observed to enter the excavation resulting in sloughing or excessive seepage, then all work shall cease within the excavation and the excavation shall be backfilled.

b. Construction operations near the levee shall cease in the event that overtopping or breaching of the Missouri River Levee (L-575) is imminent, as per the following:

- The excavation on the riverward side of the levee shall cease and the excavation shall be emergency filled.
- The levee shall be emergency raised to El. 919.65 feet.
- The excavation on the landward side of the levee shall cease and shall be continuously observed for seepage, sloughing and other distress to the levee and foundation soils. The Contractor may continue to work if the excavation on the

landward side of the levee is complete and there are no indications of distress as determined by the Engineer

- If dewatering is being performed with dewatering wells, then the wells shall be continuously pumped unless the excavation is backfilled or as directed by the Engineer.
- If water is observed to enter the excavation resulting in sloughing or excessive seepage, then all work shall cease within the excavation and the excavation shall be backfilled.

c. Coordinate with the Engineer, local sponsor, and USACE to determine timing and sequence of activities, as appropriate for returning to working following the receding of flood waters. When the flood waters recede and if repairs are needed, complete repairs, as directed by the Engineer. Remove debris that has been deposited in the work areas.

4. Construction Equipment.
The Contractor shall provide a list of all construction equipment and material stockpiles that will be stored on the riverward and landward side of the levee during each stage of construction. All equipment, construction materials and stockpiled soils on the riverward side of the levee will be removed in the event that flooding from the Main Ditch 6 or breach of the Missouri River Levee (L-575) is imminent.

5. Emergency Backfilling.
The rate of emergency backfilling shall exceed the rate of the rising water. Excavated or imported soil shall be used as emergency backfill. The Contractor shall maintain construction equipment on-site that will be available for emergency backfilling of excavations.

6. Emergency Levee Raise.
The emergency placement of fill shall be completed within 48 hours of notice from the Engineer. The cohesive fill from the Emergency Stockpile shall be used as emergency fill. The Contractor shall maintain construction equipment on-site that will be available for emergency backfilling of excavations.

230014.04 EMERGENCY CONTACT INFORMATION.

A. City of Hamburg, Iowa.
Alan Dovel
1201 Main Street
Hamburg, Iowa 51640
Phone: 712-382-0024
Email: coachdovel@hotmail.com

B. Iowa DOT Resident Construction Engineer.
David Dorsett, P.E.
3538 S. Expressway
Council Bluffs, Iowa 51501
Phone: 712-366-0568
Email: David.Dorsett@dot.iowa.gov

C. Iowa DOT District 4 Construction Engineer.
Dan Redmond, P.E.
2210 East 7th Street
Atlantic, Iowa 50022
Phone: 712-243-7628
Email: Daniel.Redmond@dot.iowa.gov

D. Section 408 Engineer.
Vicki B. Twerdochlib, P.E.

HDR, Inc.
1917 S. 67th Street
Omaha, NE 68106
Phone: 402-926-7190
Cell: 402-906-7599
Email: vicki.twerdochlib@hdrinc.com

E. USACE – Omaha District.
24-Hour Emergency Contact
Phone: (402) 995-2448
Email: cenwo-eoc@usace.army.mil

F. Contractor.
Provide primary and secondary contact information for project manager, project superintendent, and foreman.

230014.05 METHOD OF MEASUREMENT AND BASIS OF PAYMENT.
All costs for complying with this special provision including the preparation of the EAP, inclusion of submittals with the EAP, project coordination, monitoring, emergency actions, and any other item associated with implementation of the EAP shall be considered incidental to the project. No separate payment will be made.