

Agenda Item: 12.

MEMORANDUM

TO: Programs, Projects and Operations Subcommittee

FROM: Martin P. Cleveland, Construction Engineer

SUBJECT: Missouri River Levee System Units R-613 and R-616 Sandbag, Debris and Levee Closure Structure Removal Project

DATE: November 22, 2011

Attached are location map and information related to the referenced project site.

The referenced levees are located along the Missouri River, Platte River and Papillion Creek south and east of Bellevue in Sarpy County. The projects had floodwater against them during the June through September 2011 period due to the Missouri river flood event. In the early period of the flood event, Offutt AFB, under contract with Corps of Engineers, placed over 140,000 sandbags on portions of the R-616 levee top to provide a uniform level of flood protection, extending over 12,000 linear feet. In addition, during the flood fight the District placed sandbags on pallets in strategic locations for emergency use (e.g. sandboils, etc.) and about 1400 sandbags remain on 26 pallets throughout the project. Also, a levee closure structure at BNSF RR under Hwy. 370 was built by the District with over 1000 cubic yards of soil and 1000 sandbags as part of the flood fight.

Recently the Corps of Engineers informed the District that they would not remove the sandbags, closure structure or flood debris on the project as a part of their PL 84-99 O & M program. There is considerable woody (trees) and other flood deposited debris throughout the levee project 18 mile length that will need to be removed before any reseeding of flooded areas can commence. District staff has been in contact with FEMA and it appears that the project will be eligible for FEMA cost share of 75% on a reimbursement basis. In the interest of completing this project as soon as possible before sandbags, debris, etc. are frozen to the ground or covered with snow, Management has solicited bids from contractors and a bid summary is attached. The Engineer's opinion of cost was \$321,000. The low bidder was TAB Construction Company for a Base Bid (remove and haul away sandbags, plastic, pallets and debris to off-site location, with sand to NRD disposal site) plus Alternate No. 2 Bid (remove levee closure structure at BNSF RR) totalling \$225,860.

Management has executed a contract for Missouri River Levee System Units R-613 and R-616 Sandbag, Debris and Levee Closure Structure Removal Project with TAB Construction Company, for their total base bid plus alternate #2 of \$225,860, under the flood emergency contract authority granted by the Board of Directors at the June 7, 2011 Special Board of Directors meeting.

This work will be funded via funds included in the Channel Project Missouri River Flood Account (Account 591-4450). As of November 2011 the remaining funds in this account were \$1,167,193.

Summary of Bid Proposals

Project: R-613 and R-616 Levee Sandbag and Debris Removal Project
 Opening Date: November 22, 2011

NRD Project No. 526A
 Opening Time: 2:00 p.m.

Bidder Name:

	1	2	3	4	5	6
TAB Construction		Heimes Corp.	Valley Corp.			

1. Base Bid

a. Remove and haul away sandbags, pallets and plastic with sand to NRD location (lump sum)	63,760	86,000	225,165			
b. Remove flood debris (lump sum)	151,600	268,450	674,830			
c. GRAND TOTAL (a. THRU b.)	215,360	354,450	899,995			

2. Alternate No. 1 Bid

a. Remove and haul away sandbags, pallets and plastic with sand to off site location (lump sum)	131,000	110,000	305,755			
b. Remove flood debris (lump sum)	151,600	268,450	674,830			
c. GRAND TOTAL (a. THRU b.)	282,600	378,450	980,585			

3. Alternate No. 2 Bid

Remove R-616 Closure Structure at BNSF RR with soil to NRD location (lump sum)	10,500	31,000	41,677			
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Base Bid plus Alternate No. 2 Bid	225,860	385,450	941,672			
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5.

Alternate No. 1 Bid plus Alternate No. 2 bid	293,100	409,450	1,022,262			
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*Apparent Low Bidder is TAB Construction Company.

Engineer's Estimate: \$321,000

**Sandbag Structure and Pallets at R-613 and R-616 Levees
Project Information**

November 14, 2011

A. Sandbags

1. There are approximately 140,000 filled sandbags and 80,000 square feet of poly (plastic sheeting) installed at R-613 and R-616 levees to raise the levee during 2011 flood event at the following locations:

R-616 Levee (along Missouri River):

- Approximate Station 219+18 to 221+23R (length = 205 ft.)
- Approximate Station 183+60 to 216+82R (length = 3,322 ft.)
- Approximate Station 117+45 to 138+17R (length = 2,072 ft.)

R-613/R-616 Levee (along Papillion Creek):

- Approximate Station 238+30 to 276+04L (length = 3,774 ft.)
- Approximate Station 278+09 to 279+20L (length = 111 ft.)
- Approximate Station 284+60 to 313+28L (length = 2,868 ft.)

TOTAL length of sandbag structures = 12,352 ft.

Height varies from 1 to 6 bags high and estimated sand weight in levee raise and pallet sandbags (filled) is 4,000 tons.

B. Pallets of Sandbags

1. There are approximately 1,400 filled sandbags on 26 pallets at the following locations:

a. R-613 Levee	<u>No. of Pallets</u>	<u>No. of Filled Bags</u>
Station 113+70R	2	180
Station 180+00R	7	430
Station 210+00R	2	85
Station 256+00R	2	130

b. R-616 Levee	<u>No. of Pallets</u>	<u>No. of Filled Bags</u>
Station 39+00R	2	90
Station 63+00R	2	85
Station 70+00R	2	95
Station 117+00R	2	70
Station 143+00R	2	105
Station 210+00R	1	25
Station 222+00R	<u>2</u>	<u>120</u>
TOTAL	26	1,415

Station 156+00R*

200 filled bags

*Bags not on pallets at this location

C. Disposal of Sandbags, Sand and Plastic

1. The overall project (R-613 and R-616 levees) has an estimated 140,000 sandbags (filled with sand) in position in sandbag structure (to raise levee top), 1,415 sandbags on 26 pallets, a pile of 200 sandbags and 80,000 square feet (40 rolls) of plastic sheeting. It is estimated that there is approximately 4,000 tons of sand in the filled sandbags described above.
2. The sandbag material, plastic sheeting and pallets must be removed from the project site and hauled to a contractor provided disposal site. Location of the disposal site to be identified in the bid submittal.
3. Sand from sandbags (once removed from bags) is to be placed on landside seepage blanket near station 210+00R on R-616 levee, near Haworth Park.

Flood Debris Removal at R-613 and R-616 Levees Project Information

- A. Remove flood deposited debris 2 inch diameter or larger on riverside of R-616 Levee from Station 0+00 (confluence of Papillion Creek and Missouri River) to Station 232+00 (Hwy 370) and river/creek side of R-613 levee from Station 40+00 to 508+00R and Station 238+00 to 508+00L (entire length of both levee projects). Debris includes tree limbs, cans, etc.
- B. All removed debris is to be hauled to a contractor provided disposal site. Location of disposal site to be identified in the bid submittal.
- C. Project Levees are located along Missouri River, Platte River and Papillion Creek south and east of Bellevue Nebraska and were impacted by June through September 2011 Missouri River flood.

11/14/2011

**R-613-616 Levees
Paplo-Missouri River NRD**

SD SAND DISPOSAL SITE
P PALLETS OF SANDBAGS





US Army Corps
of Engineers

2011 MISSOURI RIVER LEVEE REHAB UPDATE Dec 9, 2011

Missouri River Levee Unit R-616
Sarpy County, Nebraska

Readiness Branch

Omaha District

PL 84-99 Process

Once the request from a Sponsor within the PL 84-99 is received, the Omaha District request funding to complete a Project Information Report (PIR). The PIR is a report documenting the damages, proposed repair method, a rough order magnitude cost estimate, an economics and environmental impacts. Repairs must have been caused by a flood event, cost more than \$15,000, and have a benefit cost ratio greater than 1.0. When the report is complete it is submitted to NWD for approval and recommendation to HQ for funding. The timeline is approximately 40 days after funding is received to finish the PIR and submit to HQ.

Schedule

Request for Assistance:	Oct. 24, 2011
Request for PIR Funds:	Oct. 25, 2011
Received PIR Funds:	Nov. 9, 2011
Damage Survey Report:	Aug 20, 2011 and Dec. 01, 2011
Completion of PIR:	Dec. 13, 2011
NWD Approval:	Dec. 19, 2011
HQ Approval and Funding:	Depends on available funding

Sponsor Requested Items

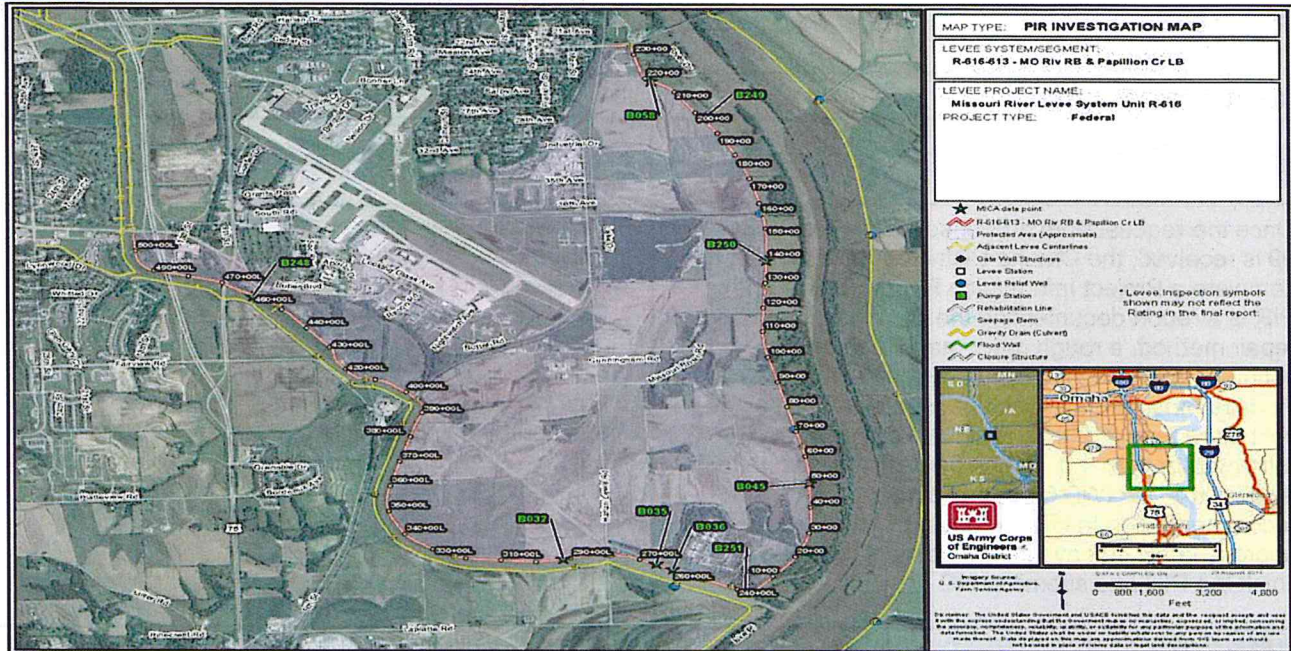
1. BNSF Railroad Closure Structure: (USACE—Removal of emergency work is the responsibility of the Sponsor)
2. Sandbags on levee: (USACE—Removal of emergency work is the responsibility of the Sponsor)
3. Debris Removal: (USACE—Removal of sandbags, plastic, trash is the responsibility of the Sponsor)
4. Levee Restoration: (USACE—PL 84-99 eligible within project ROW)
5. Drainage Structure inlet and Outlet Ditches—(Sponsor has undertaken this request)
6. Landside seepage hole (STA. 87+60R) - (USACE—outside project ROW—not PL 84-99 eligible)
7. Relief Wells—(USACE inspected and deemed that they are operational and no damaged was incurred)
8. Landside Sand Boil Mitigation (STA. 210+00 to 218+00): (USACE—PL 84-99 eligible)
9. Landside Sand Boil Mitigation (STA. 48+60R) - (USACE—PL 84-99 eligible)

USACE Proposed Scope of Work

1. 13 Damage Areas identified
2. Repair landside slope immediately off levee crest for approximately 6250 linear feet.
3. Repair landside seepage—STA. 207+25 to 215+75
4. Repair landside seepage—STA. 47+50 to 49+00
5. Repair landside seepage—STA. 258+55 to 259+95
6. Repair landside seepage—STA. 261+80 to 265+20
7. Repair landside seepage—STA. 286+50 to 292+50
8. Repair damaged 36" Dia. Drainage Structure—STA. 460+00
9. Repair damage to riverside turf
10. Repair scour holes at outflow channel—STA. 155+00
11. Repair riverside erosion—STA. 205+00

Estimated Repair Costs: \$2,000,000

Project Location Map—R616



Photos



Landside Seepage—Emergency Berms



Landside Damage near levee crest



Outlet Channel Scour



Riverside Turf Damage