

USDA Natural Resources Conservation Service  
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**Final Plan**

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### Deliverables for Construction

- Final Design/Construction Plans
- Construction Specifications
- Bid Packet
  - Quantities
  - Inspector Duties
  - Timeline
- Permits

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2

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### Final Design/Construction Plans

- Final design agreed upon by all parties involved
- Construction plan put together and approved by an NRCS engineer
- Typically includes but not limited to:
  - Cover Sheet
  - Design Data
  - Plan Views
  - Profiles
  - Survey Data



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3

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## Specifications

- NRCS uses method specs on wetland projects
  - Spells out specific materials and processes
  - Rely on the contractor to follow these specs
  - Common specs used are:
    - NE-1 Site Preparation & Structural Removal
    - NE-6 Seeding & Mulching for Protective Cover
    - NE-8 Mobilization and Demobilization
    - NE-11 Removal of Water
    - NE-21 Excavation
    - NE-2A Clearing and Grubbing
    - CPA-8 Seeding Sheet



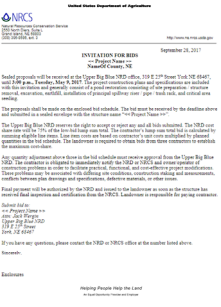
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4



## Bidding

- Contracting
  - Low bid higher than the allocated funding
    - Engineers determine if the increase is justified
    - Team Lead requests current year money for additional overrun
  - Low bid higher than the easement acquisition cost
    - Bid rejected



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5



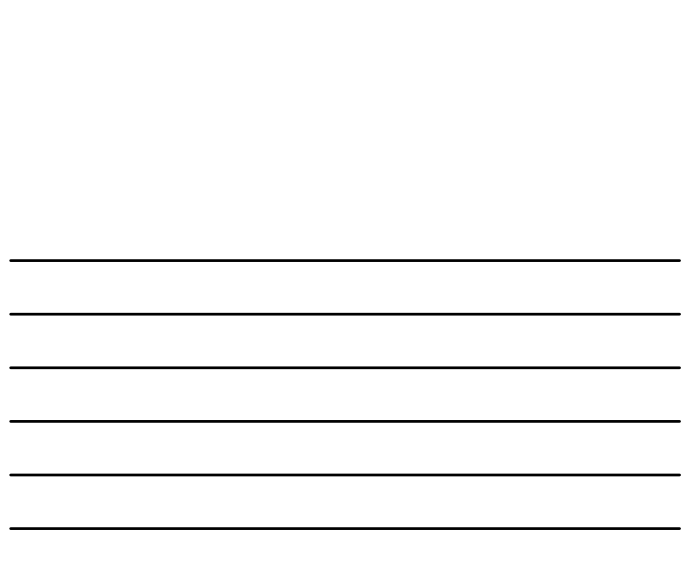
## Bidding

- Acceptance
  - Engineer sends Team Lead
    - Request for CPC
    - All bids
    - Construction plans and specification

BID ITEM	SPEC NO.	QUANTITY	UNITS	UNIT PRICE	TOTAL COST
Site Prep and Dist. Removal, 10 Acres	4, 18, 21	1	EA		
Land Clearing and Grubbing, 10 Acres	24	5.8	AC		
Site Preparation, Existing Exc. Area 1	21, 22	11	AC		
Site Preparation, Existing Exc. Area 2	21, 22	1.6	AC		
Excavation, Existing Exc. Area	22	1,800	CY		
Excavation, Existing Exc. Area	22	1,800	CY		
Excavation Area 1	22	13,300	CY		
Excavation Area 2	22	13,300	CY		
Earthfill, Existing Exc. Area	22	3,000	CY		
Earthfill, New	22	20,000	CY		
Earthfill, Existing Exc. Area	22	2,300	CY		
Earthfill, New	22	9,900	CY		
Seed / Fertilizer (Exc. A. 1&2)	6, 12, 13, 14	3.4	AC		

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6



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## Permitting

- Submittal for permitting should occur as the plan is finalized to allow time for approval prior to construction

The U.S. Army Corps of Engineers (USACE) received the Wetland Restoration Plan including project plans and location map for the above referenced project from the Natural Resources Conservation Service (NRCS) on June 27, 2022 (additional information received July 26, 2022). The submittal also included the baseline information such as wetland delineation and functional assessment. The USACE has reviewed and determined that all reporting requirements and terms and conditions of NWP 27 have been met. At this time, no further action is needed from NRCS or the USACE.

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7

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## Nebraska Wetland Restoration Techniques

Nebraska's Regional Wetland Complexes.

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8

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## Sandhills Wetlands/Groundwater Interception

- Ditch Plugs
- Berms
- Water Control Structures

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### Streams/Rivers

- Grade Stabilization
  - Sheet Pile Weir
  - Rock Chute
  - Articulated Concrete Mat
- Meander Reconstruction
- Slough/Oxbow Restoration
- Bank Stabilization

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13

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### Sheet Pile Weir

### Cross Vane



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14

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### Block Vortex Weir



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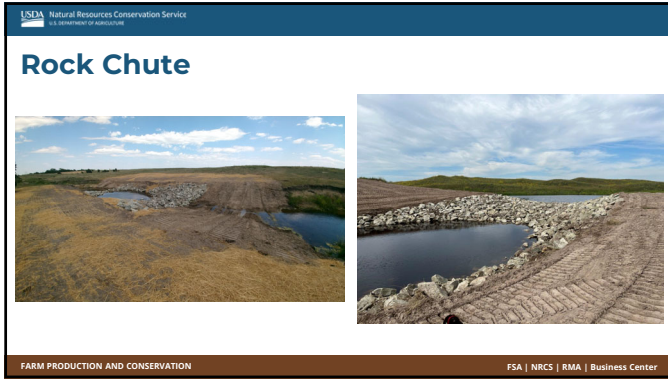
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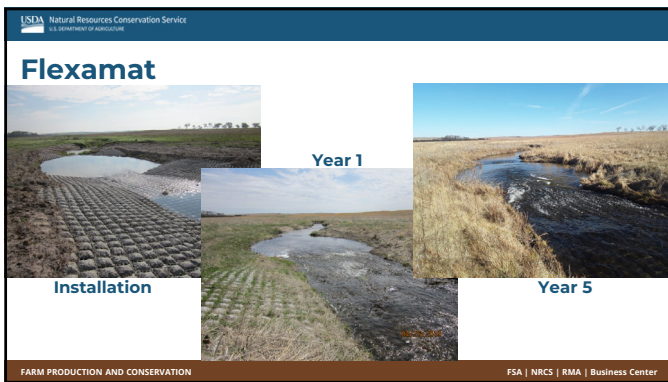
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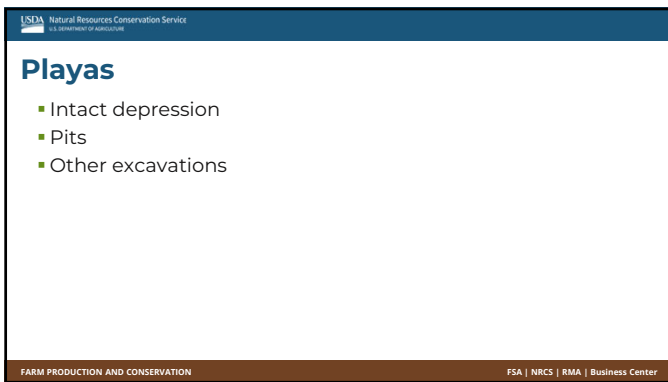
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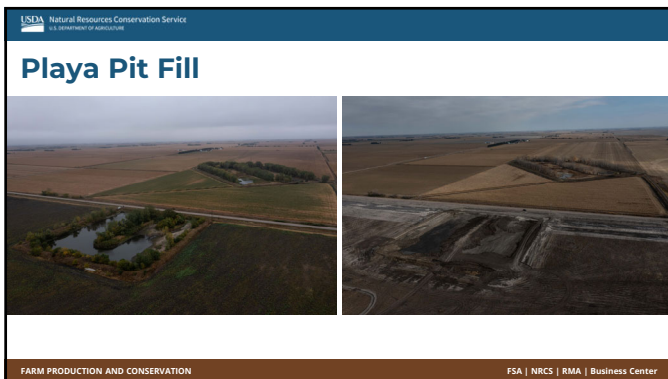
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## Sediment Removal



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22

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## Types of Equipment

Scraper Dozer



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23

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## Types of Equipment

Excavator Wheel Loader



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24

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## Types of Equipment

**Skid Steer**



**Dump Trailer**



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## Next Step

- Construction!



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