

APPLICABLE CONDITIONS FROM FEMA
RECORD OF ENVIRONMENTAL CONSIDERATION (REC):

1. All temporary storage facilities for petroleum products, other fuels, and chemicals shall be located and protected to prevent accidental spills from entering the stream, its tributaries, or off channel wetland complexes/oxbows within the project area.
2. All riprap and other project material that will be placed in or adjacent to the stream shall be clean, and free of fine particles and chemicals.
3. There shall be no deposition of cement sweepings, washings, treatment chemicals, or other material into the stream proper or into any location where such pollutants can be washed into the stream by runoff water.
4. Close attention is warranted for the placement and maintenance of temporary erosion and sediment control measures to minimize unnecessary sediment loading into the stream. Appropriate temporary erosion control measures or temporary grass seeding should be in place within one week of land disturbance at the project site. Other applicable erosion and turbidity control measures should be implemented at these sites, as sediment loading could result in considerable harm to both the Higgins eye mussel and its habitat.
5. All areas denuded of vegetation as a result of the action, including any borrow areas that drain into the stream shall be reseeded within one month following completion of construction.
6. Equipment will be cleaned and decontaminated to minimize the spread of zebra mussels utilizing accepted protocols. Refer to IMCDecon-Guide-4.3.2017.pdf (invasivemusselcollaborative.net).

APPLICABLE CONDITIONS FROM
State 401 Water Quality Certification:

- (1) During construction and upon completion of the project, actions must be taken to prevent pollution affecting public health, fish, shellfish, wildlife, and recreation due to turbidity, pH, nutrients, suspended solids, floating debris, visible oil and grease, or other pollutants entering a water of the state. This condition will ensure permittees comply with Iowa's narrative water quality standards found at 567 IAC 61.3(2);
- (2) Equipment used in waters of the state shall be cleaned of all hazardous materials, pesticides, fuels, lubricants, oils, hydraulic fluids, or other construction-related, potentially hazardous substances before arriving on site. Wash water shall not be discharged into a water of the state. This condition will ensure permittees comply with Iowa's narrative water quality standards found at 567 IAC 61.3(2);
- (3) All cleared vegetative material shall be properly managed in such a manner that it cannot enter a water of the state and cause a violation of water quality requirements. This condition will ensure permittees comply with Iowa's narrative water quality standards found at 567 IAC 61.3(2);
- (4) All construction debris shall be properly managed in such a manner that it cannot enter a water of the state. This condition will ensure permittees comply with Iowa's narrative water quality standards found at 567 IAC 61.3(2);
- (5) Erosion shall be managed so that sediment is not discharged to a water of the state in a manner that causes a violation of water quality requirements. This condition will ensure permittees comply with Iowa's narrative water quality standards found at 567 IAC 61.3(2);
- (6) Riprap, treated lumber products, and temporary structures shall consist of clean material free of coatings of potentially hazardous substances. No asphalt or petroleum-based material shall be used as or included in material placed in any water of the state or within the high-water table. This condition will ensure permittees comply with Iowa's narrative water quality standards found at 567 IAC 61.3(2); and
- (7) Stockpiled dredged materials on the shore shall be managed so that sediment is not discharged to a water of the state in a manner that causes a violation of water quality requirements. This condition will ensure permittees comply with Iowa's narrative water quality standards found at 567 IAC 61.3(2).

GENERAL NOTES:

ITEM	DESCRIPTION
A.	The contractor shall notify the following two weeks prior to construction: 1. District Inspector: Michael Dufoe, P.E. (515)-985-9196
B.	The contractor shall verify actual locations and elevations with the D.N.R Inspector.
C.	All work shall conform to and be performed in accordance with all applicable codes and ordinances.
D.	The contractor shall visit the site and inspect the project area and thoroughly familiarize themselves with the actual job conditions prior to the start of work. Failure to visit the project site shall not relieve the contractor from performing the work in accordance to the plans, specifications, special provisions and contract.
E.	The contractor shall verify, at the site, all dimensions and conditions shown on the plans and shall notify the D.N.R Inspector of any discrepancies, omissions and/or conflicts prior to proceeding with the work.
F.	The contractor is responsible for disposal for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project. No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed, unless specifically stated in the plans or approved by the D.N.R Inspector.
G.	The contractor shall not disturb desirable grass areas and desirable trees outside construction limits. The contractor will not be permitted to park or service vehicles and equipment or use these areas for storage of materials. Storage, parking and service areas will be subject to the approval of the D.N.R Inspector.
H.	The contractor is expected to have materials, equipment and labor available on a daily basis to install and maintain erosion control features on the project, if needed.
I.	The contractor shall be responsible for any damage to existing facilities resulting from their negligence, or that of a subcontractor, and said repairs shall be approved by the owner.
J.	All work shall be per Iowa Statewide Urban Design and Specifications (SUDAS). Manuals can be viewed online at www.iowasudas.org .

CONSULTANT:
NONE

IOWA DEPARTMENT OF
NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034



GENERAL NOTES

FEMA FLOOD REPAIRS FOR:

WAPSICON STATE PARK

JONES COUNTY, IA

NO. BY DATE REVISION

DRAWN BY PROJECT NUMBER:

MDD 23-06-53-01

CHECKED BY DATE:

HJD JANUARY 22, 2024

SHEET No:

ESTIMATED PROJECT QUANTITIES

Item No	Description	Quantity	Unit
1	Mobilization	1	LS
2	Construction Survey	1	LS
3	Clearing and Grubbing	0.75	Ac
4	Large Boulders	900	EA
5	Revetment, Class B	540	Tons
6	Rock, 6" minus	270	Tons
7	Engineering Fabric	68	SY
8	Revetment, Class E	80	Tons
9	Site Restoration	1	LS

ESTIMATE REFERENCE NOTES

Bid Item	Note
1	Mobilization - Paid per SUDAS Section 11020.
2	Construction Survey - Paid per SUDAS Section 11010 and shall consist of marking the station of each weir, setting the angle and providing an elevation bench mark(s). Iowa DNR staff shall verify all locations prior to work and will assist with determining
3	Clearing & Grubbing - Per SUDAS Section 2010. Trees in bank tie locations are to be downed prior to construction by others. This bid item is for minor brush in areas for access, stump removal and tree trimming.
4	Large Boulders - Placing and sizing per detail Sheet 6 with the following conditions: A. Per FEMA requirements, the boulders shall come from a licensed quarry or a pre-approved site that has been cleared for archeological concerns. B. Due to archeologi
5	Revetment, Class B - To be used in bank tie-in locations. Respreading any dirt excavated for tie-in shall be wasted around site.
6	Rock, 6" Minus - Rock to be used as "choke stone" on weir. Can be 4-6" Erosion Stone or other as approved by the Engineer.
7	Engineering Fabric - Per SUDAS Section 2010. Includes reshaping the bank to a consistent slope (2:1 preferred) per detail Sheet 9.
8	Revetment, Class E - To be used at Dutch Creek Bank Repair, Sheet 9.
9	Site Restoration - Includes the following: A. Removing all ruts or other disturbance caused by construction. B. Seeding all disturbed areas with either Iowa DOT Turf mix (mowed areas) or Iowa DOT Rural Mix. C. Mulching all seeded areas.

CONSULTANT:
NONE

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502 E. 9TH ST., DES MOINES, IA 50319-0034



ESTIMATED QUANTITIES AND
REFERENCE NOTES

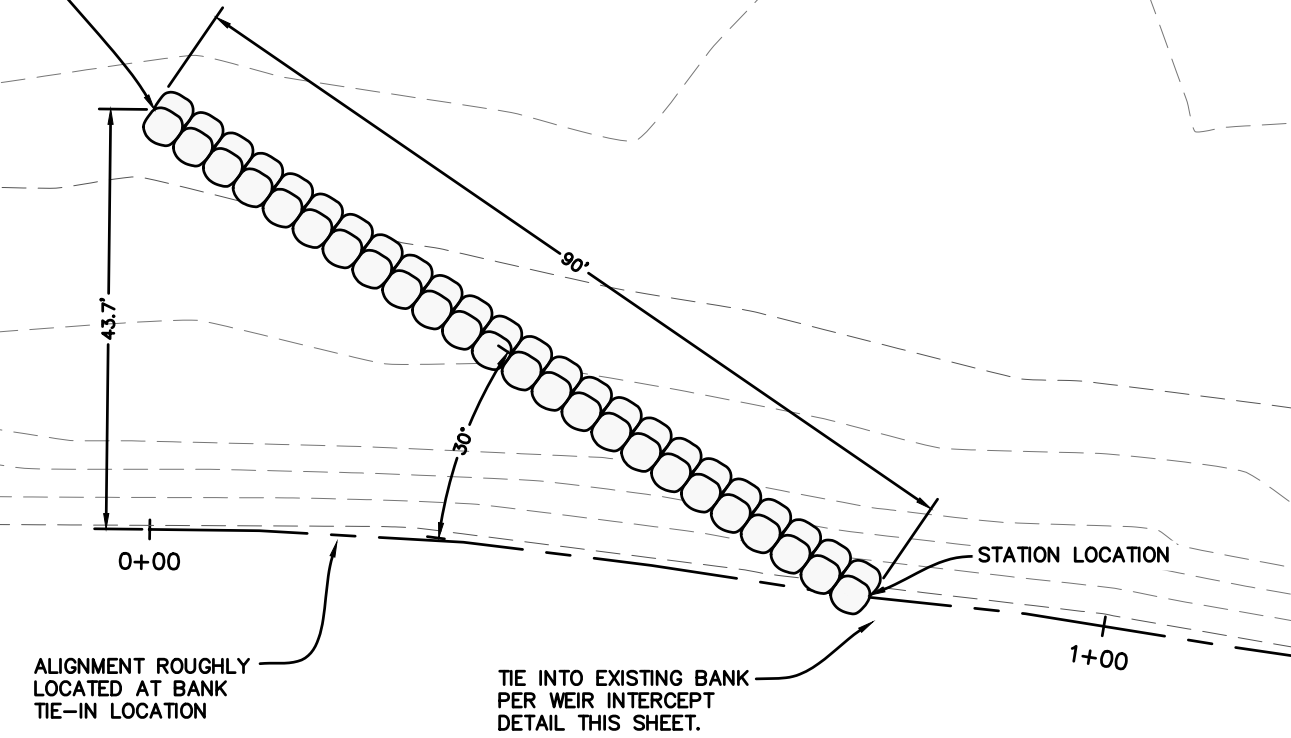
FEMA FLOOD REPAIRS FOR:
WAPSIPINICON STATE PARK
JONES COUNTY, IA

NO.	BY	DATE	REVISION

DRAWN BY: MDD	PROJECT NUMBER: 23-06-53-01
CHECKED BY: HJD	DATE: JANUARY 22, 2024

SHEET No: **4**

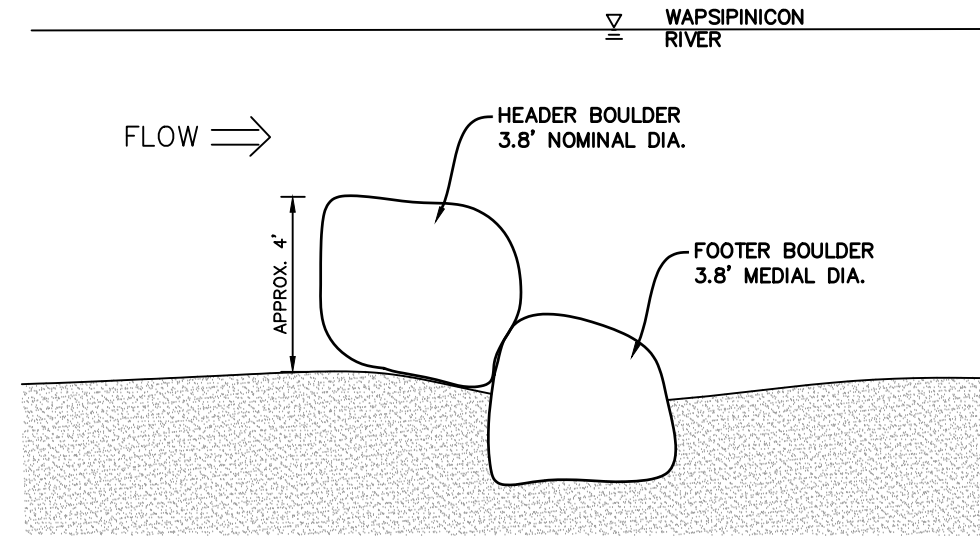
TYPICAL WEIR, 90' LONG CONSISTING OF 50 BOULDERS. SEE DETAIL THIS SHEET.



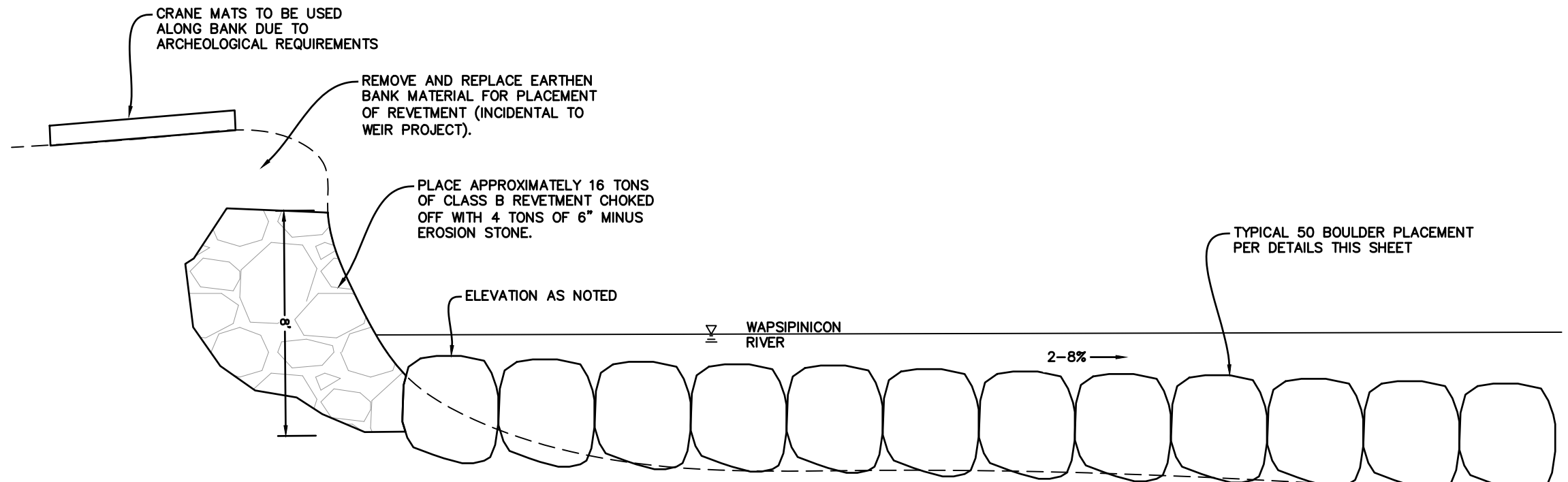
TYPICAL RIVER BANK WEIR PLACEMENT
SCALE 1"=20'

BOULDER NOTES:

1. THE ROCK SIZING FOR THE STRUCTURE HAS A MAXIMUM SIZING OF 4.0' AND A MINIMUM SIZING OF 3' IN MEDIAL DIAMETER WITH THE AVERAGE GOAL OF 3.8'.
2. THE FLATTEST STONES SHOULD BE USED FOR THE TOP OF THE STRUCTURE TO MAINTAIN A CONSISTENT SLOPE ON THE WEIR.
3. IRREGULAR STONES CAN BE USED FOR THE FOOTERS.
4. THE ENTIRE STRUCTURE WILL BE HELD TO A .1' TOLERANCE AND WILL BE INSPECTED BY IOWA DNR THROUGHOUT THE CONSTRUCTION.



TYPICAL RIVER BANK WEIR SECTION
N.T.S.



TYPICAL RIVER BANK WEIR PROFILE
SCALE 1"=20'

CONSULTANT:
NONE

**IOWA DEPARTMENT OF
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ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034



WEIR TYPICAL DETAILS

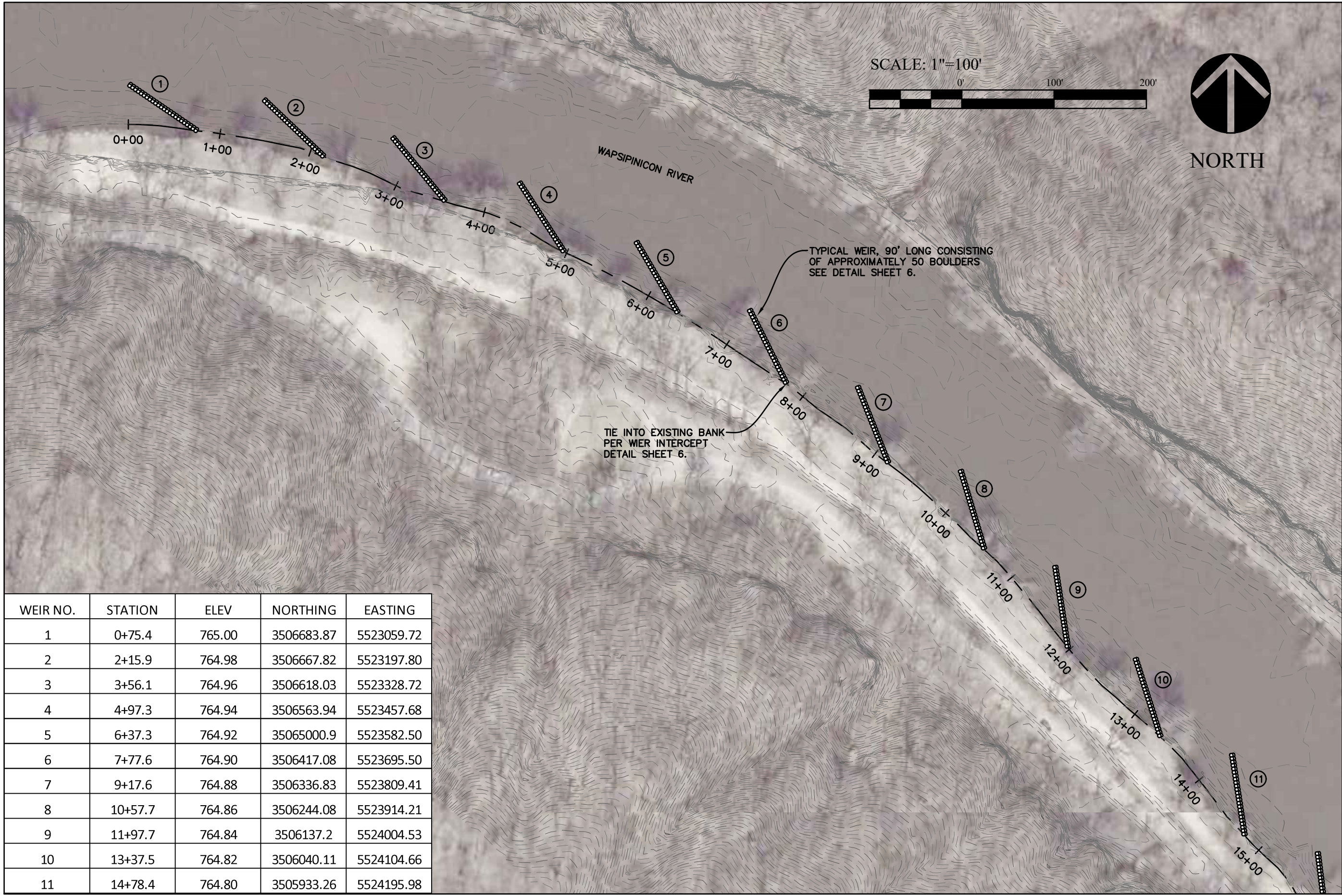
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WAPSIPICON STATE PARK

JONES COUNTY, IA

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DRAWN BY: MDD	PROJECT NUMBER: 23-06-53-01
CHECKED BY:	DATE: JANUARY 22, 2024
SHEET No:	



WEIR NO.	STATION	ELEV	NORTHING	EASTING
1	0+75.4	765.00	3506683.87	5523059.72
2	2+15.9	764.98	3506667.82	5523197.80
3	3+56.1	764.96	3506618.03	5523328.72
4	4+97.3	764.94	3506563.94	5523457.68
5	6+37.3	764.92	35065000.9	5523582.50
6	7+77.6	764.90	3506417.08	5523695.50
7	9+17.6	764.88	3506336.83	5523809.41
8	10+57.7	764.86	3506244.08	5523914.21
9	11+97.7	764.84	3506137.2	5524004.53
10	13+37.5	764.82	3506040.11	5524104.66
11	14+78.4	764.80	3505933.26	5524195.98

CONSULTANT:
NONE

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ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034



WEIR PLAN

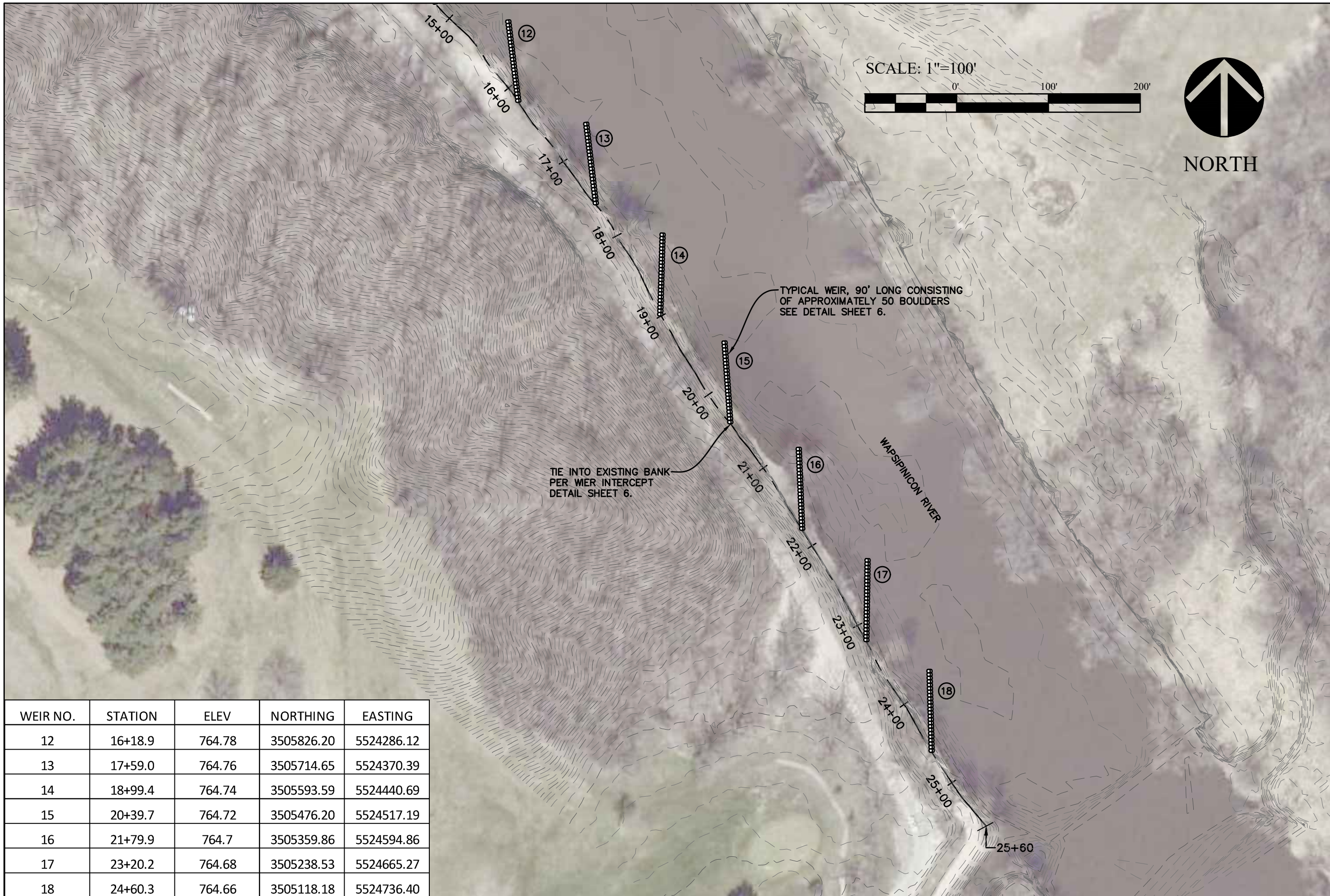
FEMA FLOOD REPAIRS FOR:

WAPSIPICON STATE PARK

JONES COUNTY, IA

NO.	BY	DATE	REVISION

DRAWN BY:	PROJECT NUMBER:
CHKD BY:	23-06-53-01
DATE:	JANUARY 22, 2024
SHEET NO.:	7



WEIR NO.	STATION	ELEV	NORTHING	EASTING
12	16+18.9	764.78	3505826.20	5524286.12
13	17+59.0	764.76	3505714.65	5524370.39
14	18+99.4	764.74	3505593.59	5524440.69
15	20+39.7	764.72	3505476.20	5524517.19
16	21+79.9	764.7	3505359.86	5524594.86
17	23+20.2	764.68	3505238.53	5524665.27
18	24+60.3	764.66	3505118.18	5524736.40

CONSULTANT:
NONE

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WEIR PLAN

FEMA FLOOD REPAIRS FOR:

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