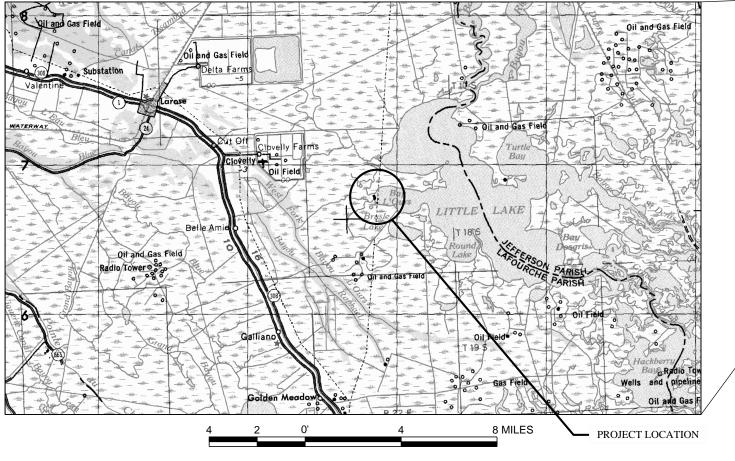
# INDEX TO SHEETS

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| ION<br>S & QUANTITIES<br>AL SECTION ROCK DIKE A<br>AL SECTION ROCK DIKE B<br>GE B<br>NS A<br>NS B<br>NS C<br>NS D<br>NS F<br>NS G<br>NS H<br>AID DETAILS | STATE OF LOUISIA<br>COASTAL PROTECTION AND RESTO<br>OPERATIONS DIVIS                               | ORATION AUTHORITY<br>SION<br>OGIC RESTORATION<br>PROJECT<br>A-02 |                               |   |
|--|--|--|-------------------------------|---|
| [  |  | 8 MILES PROJECT LOCATION   | PROF                          | MES R. SMITH<br>ENSINAL ENGINEER<br>IN<br>TITLE SHEET |
|  |  | 450 LAUREL STREET, SUITE 1200<br>BATON POLICE LOUISIANA 70801    | STATE PROJECT NUMBER: BA-02   |   |
|  | Stanley Consultants INC.   | BATON ROUGE, LOUISIANA 70801                                     | FEDERAL PROJECT NUMBER: BA-02 | DATE: NOVEMBER 2015                                   |
|  | REV. DATE DESCRIPTION BY 225 Iowa Avenue, Muscatine, Iowa 52761-3764<br>www.stanleyconsultants.com | DRAWN BY: SRH DESIGNED BY: SRH                                   | APPROVED BY: JRS              | SHEET 1 OF 18   |

TYPE OF CONSTRUCTION

CLASSIFICATION III HEAVY CONSTRUCTION

#### GENERAL NOTES

- 1. ALL ELEVATIONS ARE GIVEN IN THE NORTH AMERICAN VERTICAL DATUM ON 1988 (NAVD 88). ALL HORIZONTAL COORDINATES ARE GIVEN IN THE NORTH AMERICAN DATUM OF 1983 (NAD 83).
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NAVIGATING WITHIN THE LIMITS OF THE PROJECT PLAN AREA. CPRA OR ASSIGNED PROJECT REPRESENTATIVE SHALL MONITOR THE LOCATION DURING CONSTRUCTION.
- THE CONTRACTOR SHALL NOT, AT ANY TIME, TREAD ON EXISTING MARSH OR VEGETATIVE WETLANDS UNLESS OTHERWISE DIRECTED BY THE CPRA PROJECT ENGINEER OR ASSIGNED PROJECT REPRESENTATIVE.
- 4. THE LOCATIONS OF UTILITIES, PIPELINES, AND STRUCTURES SHOWN HEREON HAVE BEEN DETERMINED FROM DATA PROVIDED BY OTHERS. THE ACTUAL LOCATIONS MAY VARY FROM THESE SHOWN AND IT IS POSSIBLE SOME MAY EXIST THAT HAVE NOT BEEN SHOWN. THE CONTRACTOR SHALL BE ON ALERT FOR SUCH UTILITIES, PIPELINES, AND STRUCTURES AND REPORT THEM IMMEDIATELY TO THE CPRA PROJECT ENGINEER OR ASSIGNED PROJECT REPRESENTATIVE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES, PIPELINES, AND STRUCTURES PRIOR TO COMMENCING ANY WORK.
- PRIOR TO FLOATING EQUIPMENT BENEATH ELECTRICAL TRANSMISSION LINES, THE CONTRACTOR SHALL COORDINATE THE DE-ENERGIZING OF POWER LINES. FOR POWER LINES ADJACENT TO LIMITS OF WORK, CONTACT ENTERGY:

JIMMY SHOLAR CELL: 504-615-5540 EMAIL: JSHOLAR@ENTERGY.COM

ENTERGY REQUIRES A MINIMUM 6 WEEK NOTICE TO SCHEDULE DE-ENERGIZING OF POWER LINES. ONCE THE CONTRACT IS AWARDED, THE CONTRACTOR SHALL SUBMIT A SCHEDULE SHOWING WHEN DE-ENERGIZING WILL BE REQUIRED AND CONTACT ENTERGY TO SCHEDULE THESE SERVICE INTERRUPTIONS. DE-ENERGIZING OF POWER LINES ARE FIRST COME, FIRST SERVED AND ARE DEPENDENT ON WEATHER, LOAD REQUIRED, AND OTHER WORK BEING SCHEDULED AND LINES IN THE AREA BEING OUT OF SERVICE. THE CONTRACTOR MAY BE REQUIRED TO ADJUST THE CONSTRUCTION SCHEDULE IF ENTERGY CANNOT GRANT THE REQUESTED SERVICE INTERRUPTIONS.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING PIPELINE OPERATORS 48 HOURS IN ADVANCE OF THE WORK. ALL PIPELINES SHALL BE MARKED WITH BUOYS BY THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN BUOYS DURING CONSTRUCTION OR HAVE ADEQUATE NAVIGATIONAL EQUIPMENT ON THE DREDGE TO AVOID DREDGING IN RESTRICTED AREAS. THE CONTRACTOR SHALL NOT ANCHOR OR EXCAVATE WITHIN 50 FEET OF ANY PIPELINE. NOTICE: 48 HOURS BEFORE DREDGING CALL LOUISIANA ONE CALL AT 1-800-272-3020 TO LOCATE ANY OTHER PIPELINES OR UTILITIES.

PIPELINE COMPANIES MAY INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: STONE ENERGY CORPORATION - CONTACT SONNY CROSBY (985) 870-5001

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NAVIGATING FROM ACCESS WATER BODIES TO THE PROJECT AREA. DEPENDING ON THE CONTRACTOR'S ACCESS ROUTE TO THE PROJECT AREA, THERE MAY BE OTHER PIPELINES. THE CONTRACTOR SHALL CALL LOUISIANA ONE CALL TO LOCATE PIPELINES AND COORDINATE WITH THE PIPELINES FOR ACCESS.

- 8. VOLUMES SHOWN ARE FOR BIDDING PURPOSES ONLY AND WERE CALCULATED ACCORDING TO CONDITIONS SURVEYED IN 2014. DREDGE CROSS-SECTIONS WILL BE SURVEYED BY THE CONTRACTOR BEFORE AND AFTER FOR BACKFILL VERIFICATION. ALL SURVEYING AND MEASUREMENTS BY THE CONTRACTOR FOR MEASUREMENT AND PAYMENT WILL BE MONITORED BY THE CPRA PROJECT ENGINEER OR ASSIGNED PROJECT REPRESENTATIVE. THE CPRA PROJECT ENGINEER OR ASSIGNED PROJECT REPRESENTATIVE SHALL REVIEW ALL BEFORE AND AFTER SURVEYS, MEASUREMENTS AND PAYMENT CALCULATIONS. IF A DISCREPANCY CANNOT BE RESOLVED, THE CONSTRUCTION MANAGER SHALL PERFORM A CROSS-SECTION SURVEY TO VERIFY THE CONTRACTORS WORK.
- 9. DREDGED MATERIAL SHALL BE PLACED IN AREAS SHOWN ON THE PLANS.
- 10. DREDGED MATERIAL SHALL NOT IMPEDE FLOW OF NATURAL WATERWAYS NOR BE STOCKPILED WHERE NATURAL WATERWAYS INTERSECT CREVASSES.
- 11. CONTRACTOR IS RESPONSIBLE TO VERIFY EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK. ANY OBSERVED DISCREPANCIES BETWEEN PRE-CONSTRUCTION SURVEY AND THE PROJECT PLANS NEED TO BE DOCUMENTED AND PROVIDED TO CPRA PROJECT ENGINEER OR ASSIGNED PROJECT REPRESENTATIVE FOR ACCEPTANCE.
- 12. DISTURBANCE TO MARINE TRAFFIC NEEDS TO BE AVOIDED BY THE CONTRACTOR. NECESSARY WARNING SIGNS/TEMPORARY NAVIGATIONAL AIDS SHALL BE INSTALLED IN ACCORDANCE WITH USCG REGULATIONS. SEQUENCE OF CONSTRUCTION AND PLAN FOR MAINTAINING MARINE TRAFFIC THROUGH THE STRUCTURE SHALL BE SUBMITTED TO CPRA FOR APPROVAL.
- 13. EXISTING ELEVATIONS OF STRUCTURES AND NATURAL GROUND ARE BASED ON SURVEYS CONDUCTED IN 2014. IN AREAS WHERE SURVEY DATA WAS UNAVAILABLE, THE EXISTING CONDITIONS WERE EXTENDED AT THE SAME ELEVATION AS THE LAST MEASURED POINT. THE DRAWINGS INDICATE THE LOCATION OF 2014 AND EXTENDED DATA USED TO DEPICT EXISTING CONDITIONS.
- 14. THE SOUTH COASTAL WETLANDS (SLCW) SECONDARY GPS NETWORK MONUMENT, "BA02SM01 AND/OR BA02SM02, SHALL BE USED FOR HORIZONTAL AND VERTICAL CONTROL. THE DATA SHEET FOR THESE MONUMENTS CAN BE FOUND IN APPENDIX D OF THE SPECIFICATIONS.
- 15. MEAN HIGH WATER AND MEAN LOW WATER DATA BASED UPON 2009 MONITORING DATA PROVIDED BY CPRA.

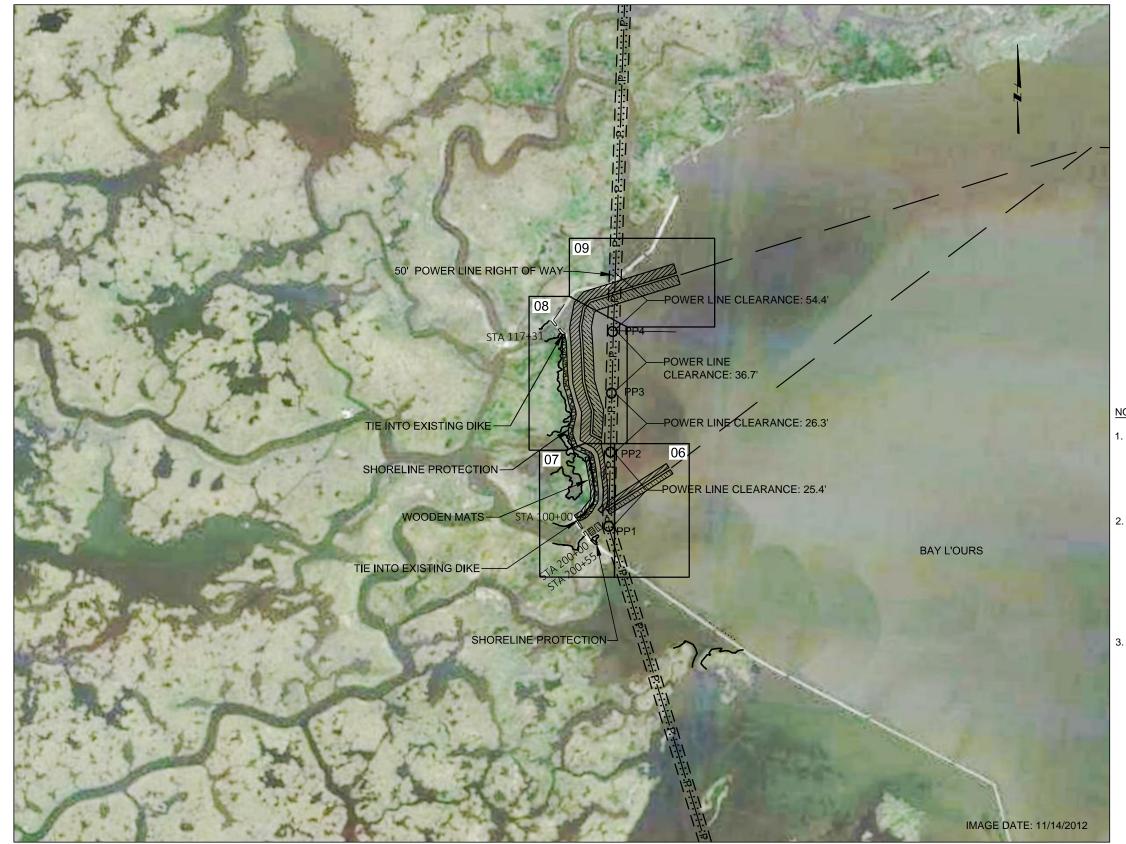
| ITEM No. | ITEM                                 | UNIT     | QUANTITY |
|----------|--------------------------------------|----------|----------|
| 1        | MOBILIZATION AND DEMOBILIZATION      | LUMP SUM | 1        |
| 2        | CONSTRUCTION SURVEYS                 | LUMP SUM | 1        |
| 3        | ACCESS AND FLOATATION CHANNELS       | LUMP SUM | 1        |
| 4        | 130 LB RIPRAP                        | TONS     | 14300    |
| 5A       | PERMANENT WARNING SIGNS              | EACH     | 13       |
| 5B       | PERMANENT WARNING SIGNS (SIGNS ONLY) | EACH     | 5        |
| 6        | WOVEN GEOTEXTILE FABRIC              | SQ YD    | 11000    |
| 7        | DE-ENERGIZE POWER LINES              | EACH     | 4        |

|      |      |             |    | Stanley Consultants INC.<br>225 Iowa Avenue, Muscatine, Iowa 52761-3764 | OPERATIO<br>450 LAUREL ST | D RESTORATION AUTHORITY<br>NS DIVISION<br>TREET, SUITE 1200<br>, LOUISIANA 70801 |
|------|------|-------------|----|---|---------------------------|--|
| REV. | DATE | DESCRIPTION | BY | www.stanleyconsultants.com  | DRAWN BY: SRH             | DESIGNED BY: SRH   |

## SUMMARY OF ESTIMATED QUANTITIES

### BASE BID

|   | E OF LOUIS<br>HES R. SMITH<br>Inse No. 19893<br>IN<br>IN<br>IN<br>IN<br>IN<br>IN<br>IN<br>IN<br>IN<br>IN<br>IN<br>IN<br>IN |
|---|--|
| GIWW TO CLOVELLY HYDROLOGIC RESTORATION<br>2015 MAINTENANCE PROJECT | GENERAL NOTES<br>& QUANTITIES  |
| STATE PROJECT NUMBER: BA-02   | a gomminis   |
| FEDERAL PROJECT NUMBER: BA-02                                       | DATE: NOVEMBER 2015  |
| APPROVED BY: JRS  | SHEET 2 OF 18  |
|   |  |



| sc | ALE: 1"= 800' (11" X 17")   |               | IMAGE DATE: 11/14/2012                 | JAN<br>PROFE  | EOF LOUIS<br>MES R. SMITH<br>INSE NO. 19893<br>SSIONAL ENGINEER<br>IN<br>NGINEER |
|----|---|---------------|--|---|--|
|    |   |               | D RESTORATION AUTHORITY<br>NS DIVISION | GIWW TO CLOVELLY HYDROLOGIC RESTORATION<br>2015 MAINTENANCE PROJECT | SITE PLAN  |
| +  | Stoplay Consultants   | 450 LAUREL ST | REET, SUITE 1200<br>, LOUISIANA 70801  | STATE PROJECT NUMBER: BA-02   |  |
| +  | Stanley Consultants INC.  | BATON ROUGE   | , LOUISIANA 70001                      | FEDERAL PROJECT NUMBER: BA-02                                       | DATE: NOVEMBER 2015  |
| B١ | 225 Iowa Avenue, Muscatine, Iowa 52761-3764<br>www.stanleyconsultants.com | DRAWN BY: SRH | DESIGNED BY: SRH                       | APPROVED BY: JRS  | SHEET 3 OF 18  |

| REV. | DATE | DESCRIPTION | BY |
|------|------|-------------|----|

|          | WOODEN MATS   |
|----------|---|
|          | PROPOSED SHORELINE PROTECTION                       |
|          | PROPOSED EXCAVATION AREA                            |
| UNNNN    | TEMPORARY SPOIL LOCATION                            |
|          | EXISTING MARSH EDGE                                 |
| P        | POWER LINES   |
| —o—      | SURVEYED POWER POLES                                |
|          | 20 FT VERTICAL AND HORIZONTAL<br>CLEARANCE          |
|          | 50 FT ENTERGY POWER LINE<br>RIGHT OF WAY            |
| <u> </u> | POTENTIAL ACCESS ROUTE<br>(CONTRACTOR TO DETERMINE) |
|          |   |

| Utility Disposition |                          |             |             |                |  |  |  |  |  |
|---------------------|--------------------------|-------------|-------------|----------------|--|--|--|--|--|
| Item                | Description              | Northing    | Easting     | Disposition    |  |  |  |  |  |
| PP 1                | Wooden Poles<br>(triple) | 369083.35'  | 3631165.86' | Do Not Disturb |  |  |  |  |  |
| PP 2                | Metal Pole               | 369703.60'  | 3631177.08' | Do Not Disturb |  |  |  |  |  |
| PP 3                | Metal Pole               | 370198.75'  | 3631188.40' | Do Not Disturb |  |  |  |  |  |
| PP 4                | Wooden Poles<br>(double) | 3631193.48' | 370714.44'  | Do Not Disturb |  |  |  |  |  |

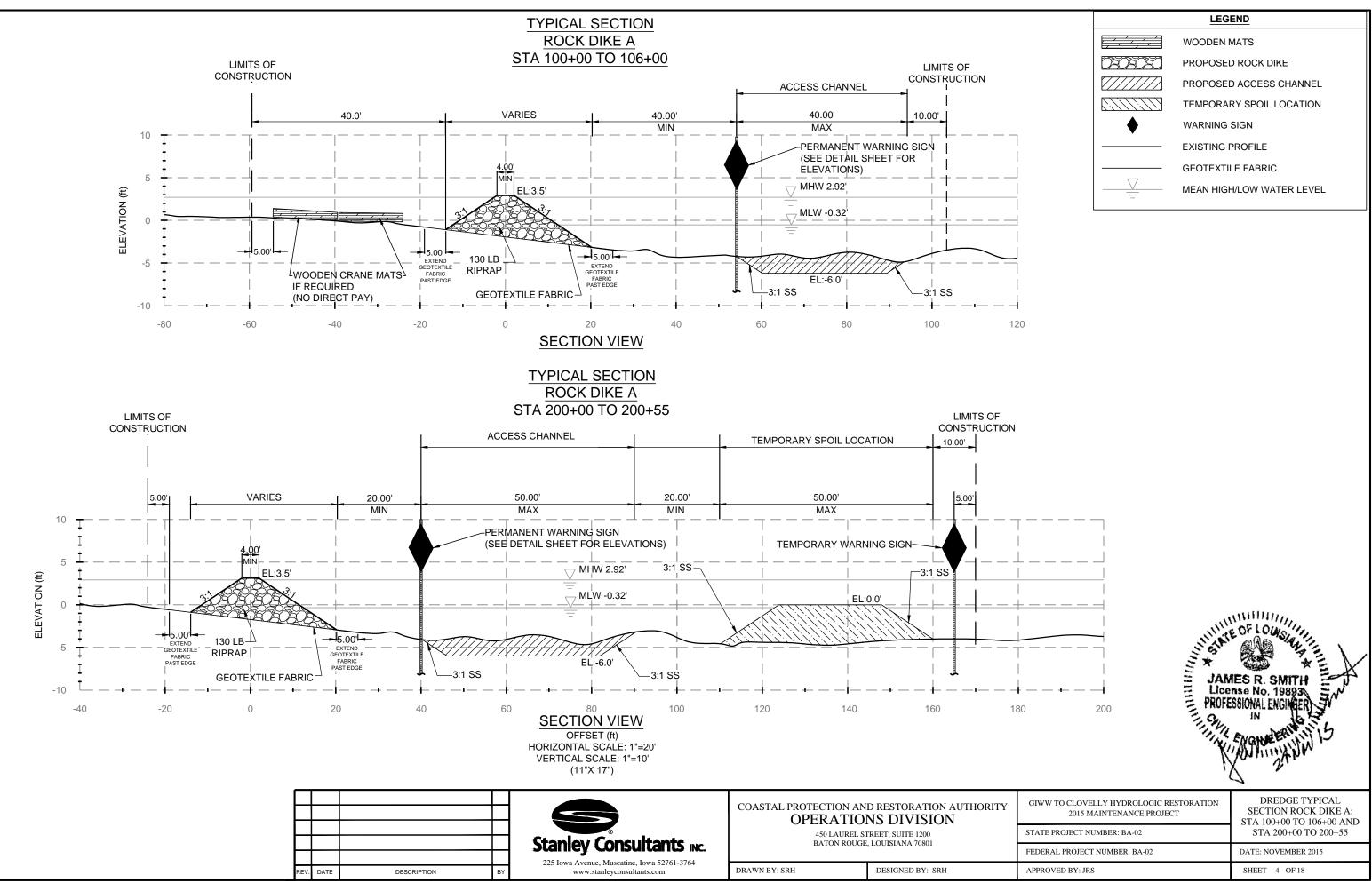
NOTES:

1. ACCESS ROUTES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. ACCESS CHANNELS, OTHER THAN THOSE SHOWN ON THE PLANS MAY BE REQUIRED TO REACH LAKE RIM TO CONSTRUCT PROPOSED SHORELINE PROTECTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ACCESS CHANNEL REQUIREMENTS PRIOR TO SUBMITTING BID AND INCLUDE IN BID PRICE.

2. PRIOR TO FLOATING EQUIPMENT BENEATH ELECTRICAL TRANSMISSION LINES, THE CONTRACTOR SHALL COORDINATE THE DE-ENERGIZING OF POWER LINES. FOR POWER LINES ADJACENT TO LIMITS OF WORK, CONTACT ENTERGY:

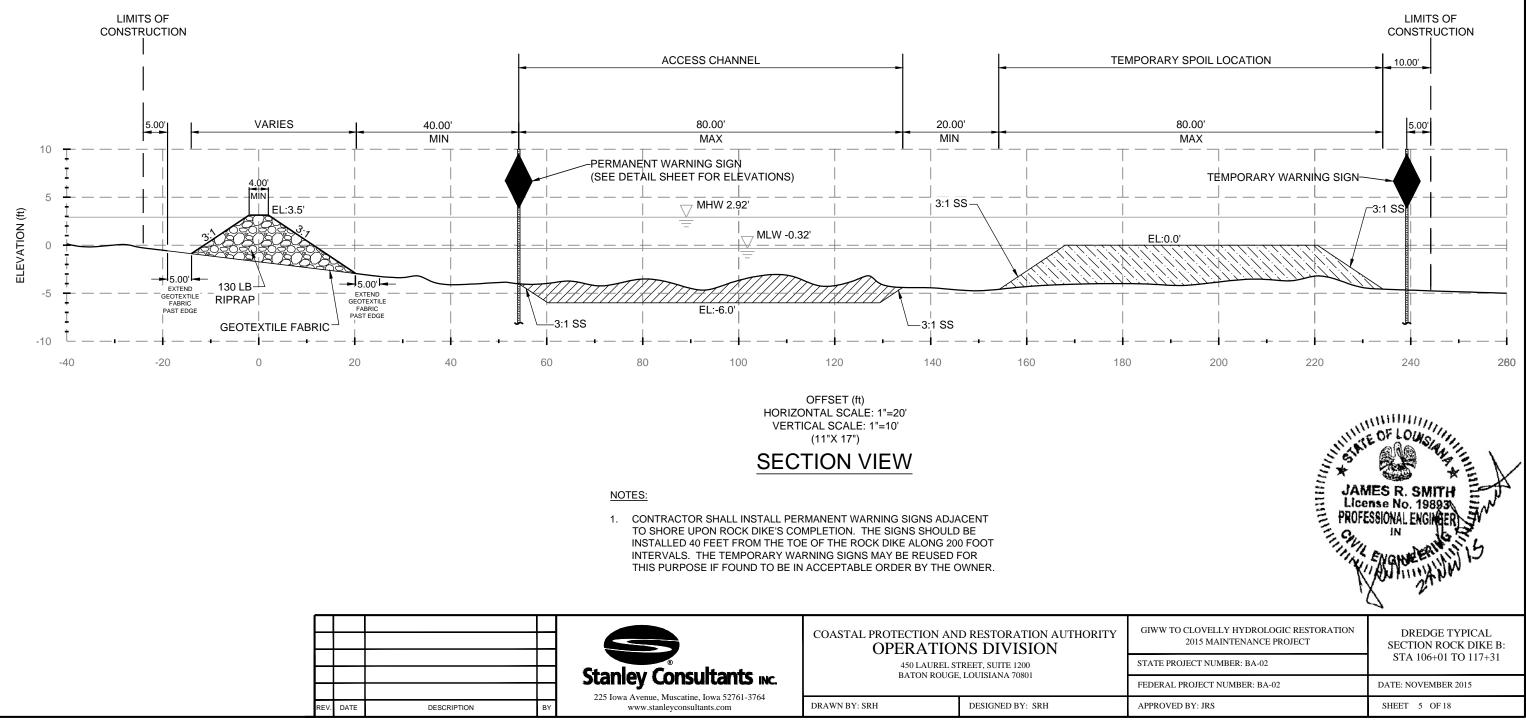
JIMMY SHOLAR CELL: 504-615-5540 EMAIL: JSHOLAR@ENTERGY.COM SEE NOTE 5 ON SHEET 2 AND SPECIFICATIONS FOR ADDITIONAL INFORMATION ON DE-ENERGIZING ..

3. SEE NOTE 4, 6 AND 7 ON SHEET 2.

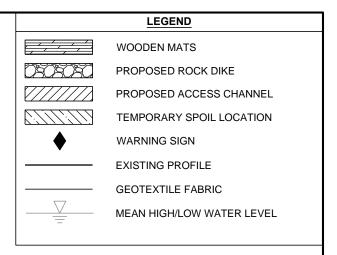


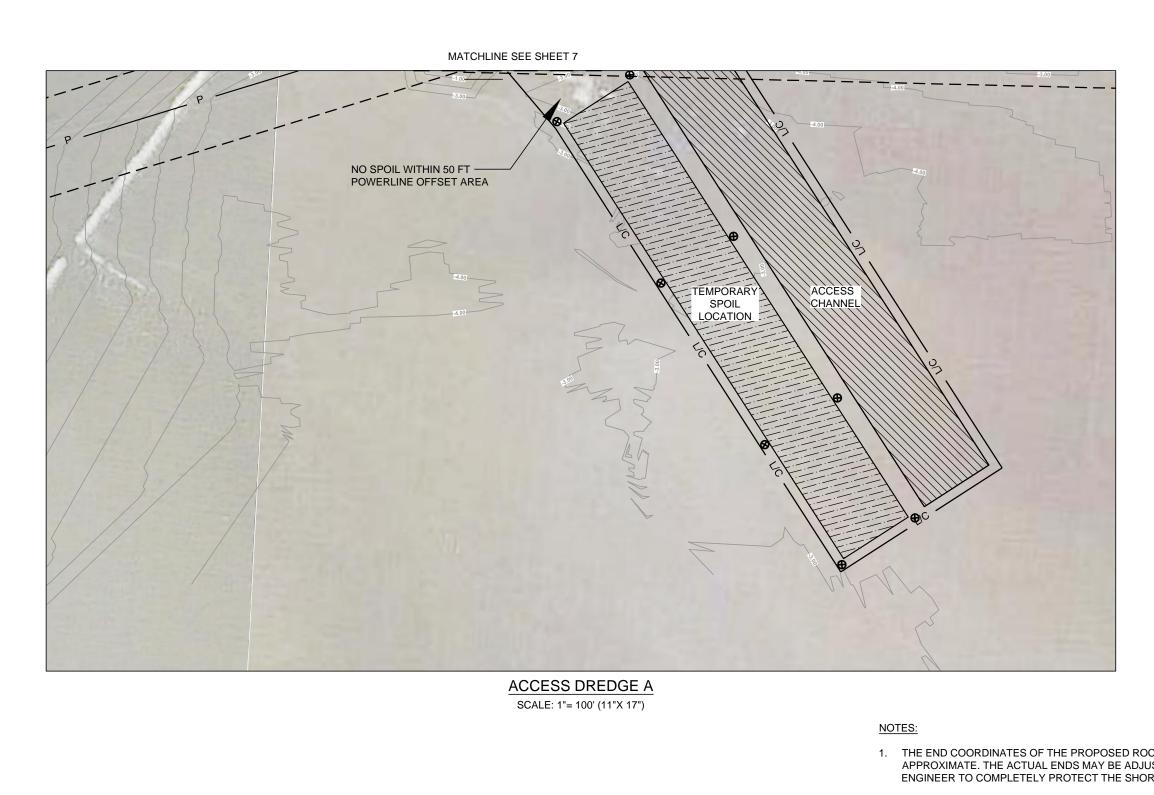
|         | WOODEN MATS               |
|---------|---------------------------|
| DRORORO | PROPOSED ROCK DIKE        |
|         | PROPOSED ACCESS CHANNEL   |
|         | TEMPORARY SPOIL LOCATION  |
| •       | WARNING SIGN              |
|         | EXISTING PROFILE          |
|         | GEOTEXTILE FABRIC         |
|         | MEAN HIGH/LOW WATER LEVEL |
|         |                           |

# **TYPICAL SECTION ROCK DIKE:** STA 106+01 TO 117+31



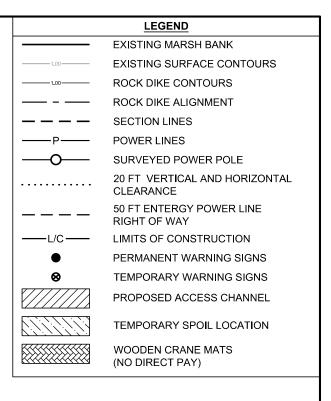
|    |         |             |    | Stanley Consultants INC.  | OPERATIO<br>450 LAUREL ST | D RESTORATION AUTHORITY<br>NS DIVISION<br>IREET, SUITE 1200<br>5, LOUISIANA 70801 |   |
|----|---------|-------------|----|---|---------------------------|---|---|
| RE | V. DATE | DESCRIPTION | BY | 225 Iowa Avenue, Muscatine, Iowa 52761-3764<br>www.stanleyconsultants.com | DRAWN BY: SRH             | DESIGNED BY: SRH  | Γ |





- 2. LOCATIONS OF PERMANENT WARNING SIGNS MAY BE ADJUSTED IN THE FIELD BY ENGINEER.
- 3. SEE SHEET 7 FOR ADDITIONAL ROCK DIKE ALIGNMENT INFORMATION.

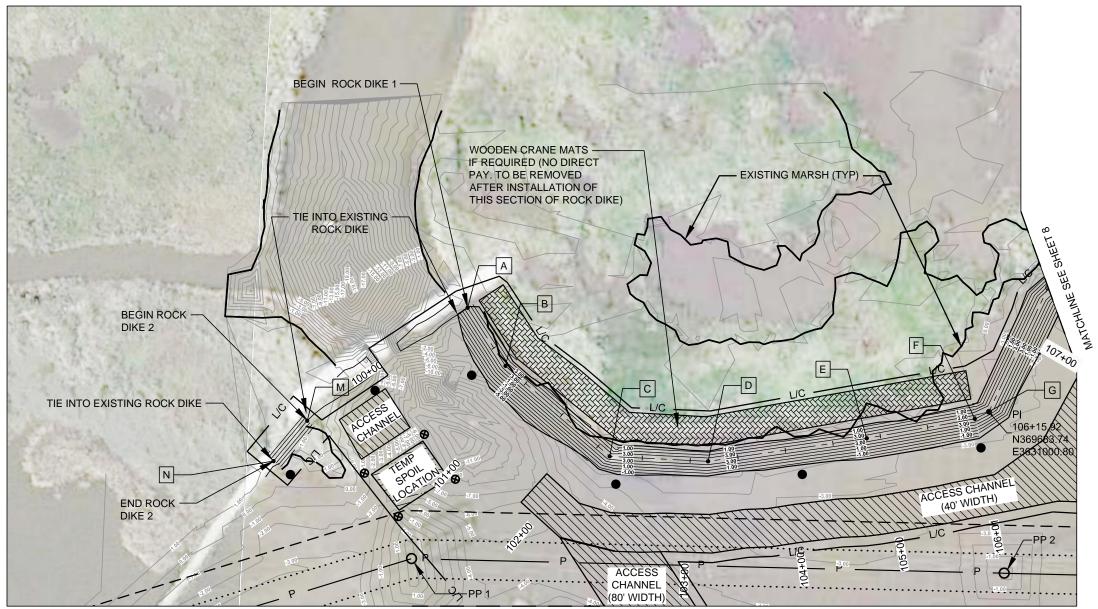
|    |         |             |    | Stanley Consultants INC.  | OPERATIO<br>450 LAUREL ST | D RESTORATION AUTHORITY<br>NS DIVISION<br>FREET, SUITE 1200<br>C, LOUISIANA 70801 |
|----|---------|-------------|----|---|---------------------------|---|
| RE | V. DATE | DESCRIPTION | BY | 225 Iowa Avenue, Muscatine, Iowa 52761-3764<br>www.stanleyconsultants.com | DRAWN BY: SRH             | DESIGNED BY: SRH  |



| CK DIKES ARE      |  |
|-------------------|--|
| ISTED IN FIELD BY |  |
| RE LINE.          |  |

IN TE OF LOW - PK 94 JAMES R. SMITH License No. 19893 PROFESSIONAL ENGINEE

| GIWW TO CLOVELLY HYDROLOGIC RESTORATION<br>2015 MAINTENANCE PROJECT | ACCESS DREDGE A     |
|---|---------------------|
| STATE PROJECT NUMBER: BA-02   |                     |
| FEDERAL PROJECT NUMBER: BA-02                                       | DATE: NOVEMBER 2015 |
| APPROVED BY: JRS  | SHEET 6 OF 18       |



MATCHLINE SEE SHEET 6

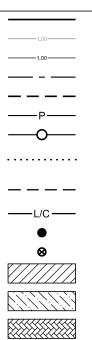
# PLAN VIEW A

SCALE: 1"= 100' (11"X 17")

### NOTES:

- 1. THE END COORDINATES OF THE PROPOSED ROCK DIKES ARE APPROXIMATE. THE ACTUAL ENDS MAY BE ADJUSTED IN FIELD BY ENGINEER TO COMPLETELY PROTECT THE SHORE LINE.
- 2. LOCATIONS OF PERMANENT WARNING SIGNS MAY BE ADJUSTED IN THE FIELD BY ENGINEER.
- 3. SEE SHEET 8 FOR ADDITIONAL ROCK DIKE ALIGNMENT INFORMATION.
- 4. THE CONTRACTOR MAY INSTALL THE DIKE FROM STATION 100+00 TO 106+00 USING EITHER THE ACCESS CHANNEL OR CRANE MATS AT HIS OPTION.
- 5. IF THE POWERLINE CANNOT BE DE-ENERGIZED BETWEEN STATIONS 106+00 AND 117+31 AND STATIONS 200+00 TO 200+55, THE CONTRACTOR SHALL INSTALL THE DIKE USING CRANE MATS.

| $\square$ |      |             |    |   | BATON ROUGE, LOUISIANA 70801 |                  | GIWW TO CLOVELLY HYDROLOGIC RESTORATION<br>2015 MAINTENANCE PROJECT | PLAN VIEW A<br>100+00 TO 107+00 AND |  |
|-----------|------|-------------|----|---|------------------------------|------------------|---|-------------------------------------|--|
| _         |      |             |    | Stanley Consultants INC.  |                              |                  | STATE PROJECT NUMBER: BA-02   | 200+00 TO 200+55                    |  |
|           |      |             |    | 4   |                              |                  | FEDERAL PROJECT NUMBER: BA-02                                       | DATE: NOVEMBER 2015                 |  |
| <br>REV.  | DATE | DESCRIPTION | BY | 225 Iowa Avenue, Muscatine, Iowa 52761-3764<br>www.stanleyconsultants.com | DRAWN BY: SRH                | DESIGNED BY: SRH | APPROVED BY: JRS  | SHEET 7 OF 18                       |  |

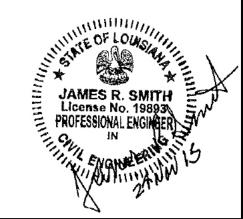


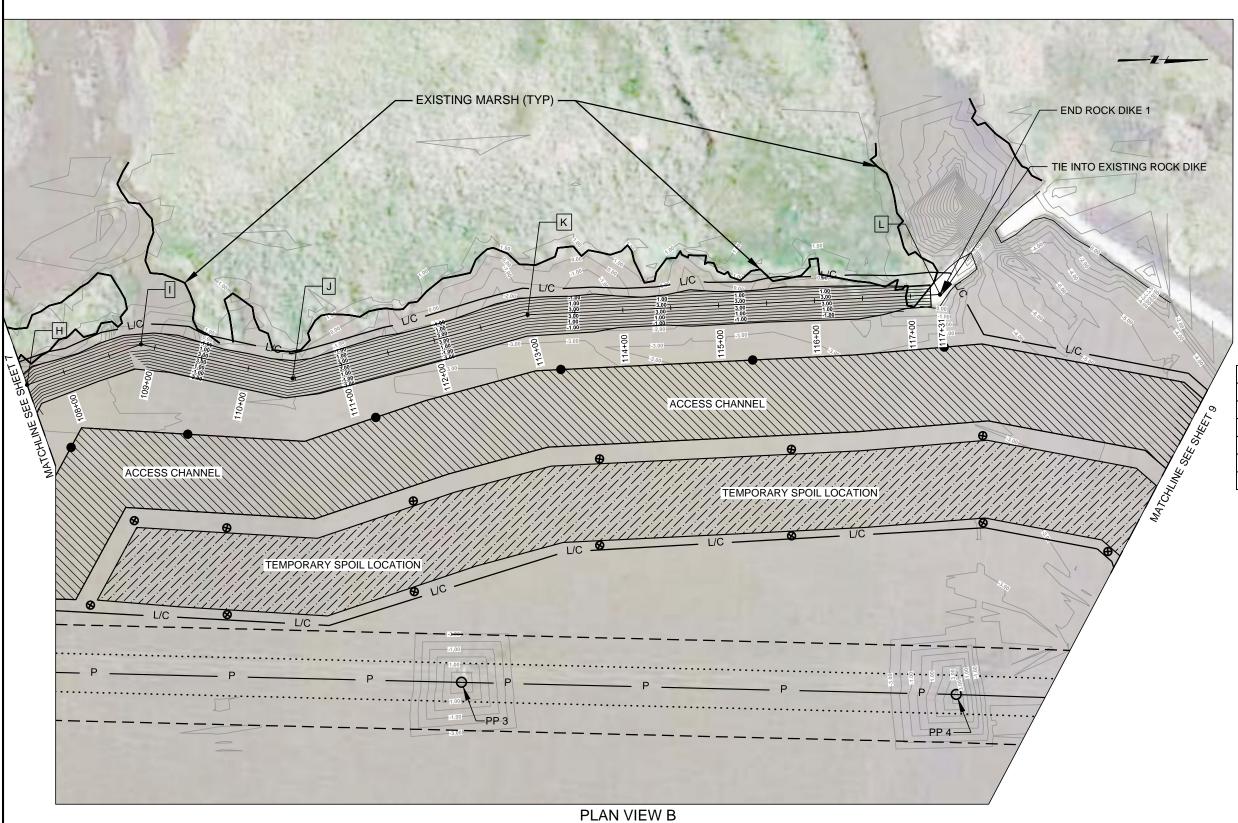
LEGEND EXISTING MARSH BANK EXISTING SURFACE CONTOURS ROCK DIKE CONTOURS ROCK DIKE ALIGNMENT SECTION LINES POWER LINES SURVEYED POWER POLE 20 FT VERTICAL AND HORIZONTAL CLEARANCE 50 FT ENTERGY POWER LINE RIGHT OF WAY LIMITS OF CONSTRUCTION PERMANENT WARNING SIGNS TEMPORARY WARNING SIGNS PROPOSED ACCESS CHANNEL TEMPORARY SPOIL LOCATION

WOODEN CRANE MATS (NO DIRECT PAY)

| ROCK DIKE 1 POINT TABLE    |           |           |            |  |  |  |
|----------------------------|-----------|-----------|------------|--|--|--|
| POINT                      | STATION   | NORTHING  | EASTING    |  |  |  |
| A<br>B<br>C<br>D<br>E<br>F | 100+00.00 | 369140.81 | 3630892.44 |  |  |  |
|                            | 100+72.29 | 369180.21 | 3630953.04 |  |  |  |
|                            | 102+15.98 | 369288.73 | 3631047.23 |  |  |  |
|                            | 103+18.66 | 369391.28 | 3631052.42 |  |  |  |
|                            | 104+85.62 | 369556.52 | 3631028.54 |  |  |  |
|                            | 106+00.87 | 369669.91 | 3631007.92 |  |  |  |
| G                          | 106+15.92 | 369683.74 | 3631000.80 |  |  |  |

| ROCK DIKE 2 POINT TABLE |           |           |            |  |  |  |
|-------------------------|-----------|-----------|------------|--|--|--|
| POINT                   | STATION   | NORTHING  | EASTING    |  |  |  |
| М                       | 200+00.00 | 368973.86 | 3631009.82 |  |  |  |
| N                       | 200+54.79 | 368938.71 | 3631051.86 |  |  |  |





SCALE: 1"= 100' (11"X 17")

### NOTES:

- 1. THE END COORDINATES OF THE PROPOSED ROCK DIKES ARE APPROXIMATE. THE ACTUAL ENDS MAY BE ADJUSTED IN FIELD TO COMPLETELY PROTECT THE SHORE LINE.
- 2. LOCATIONS OF PERMANENT WARNING SIGNS MAY BE ADJUSTED IN THE FIELD BY ENGINEER.

| DATE DESCRIPTION BY | -    |
|---------------------|------|
| DATE DESCRIPTION BY | www. |



|   | D RESTORATION AUTHORITY | GIWW TO CLOVELLY HYDROLOGIC RESTORATION<br>2015 MAINTENANCE PROJECT | PLAN VIEW B<br>107+00 TO 117+31 |  |
|---|-------------------------|---|---------------------------------|--|
| 450 LAUREL STREET, SUITE 1200<br>BATON ROUGE, LOUISIANA 70801<br>DRAWN BY: SRH DESIGNED BY: SRH |                         | STATE PROJECT NUMBER: BA-02   |                                 |  |
|   |                         | FEDERAL PROJECT NUMBER: BA-02                                       | DATE: NOVEMBER 2015             |  |
|   |                         | APPROVED BY: JRS  | SHEET 8 OF 18                   |  |

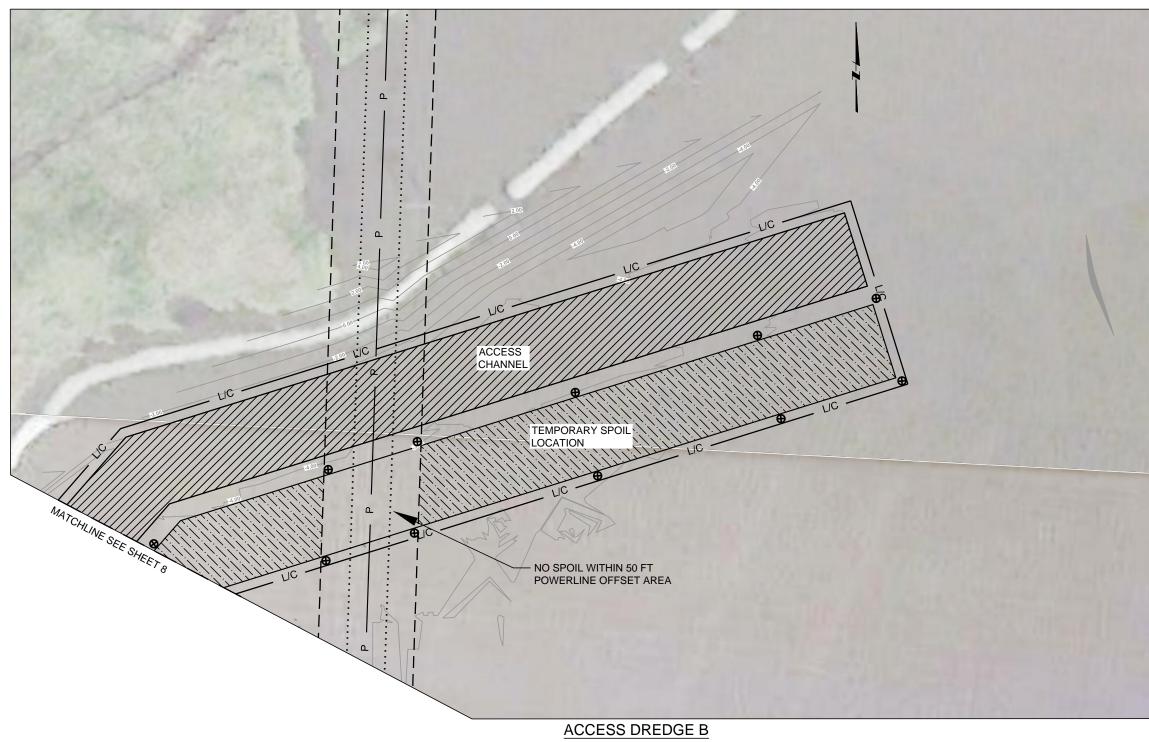
|     | EXIST         |
|-----|---------------|
|     | EXIST         |
|     | ROCK          |
|     | ROCK          |
|     | SECT          |
| —_Р | POWE          |
| —o— | SURV          |
|     | 20 FT<br>CLEA |
|     | 50 FT<br>RIGH |
| L/C | LIMIT         |
| •   | PERM          |
| 8   | TEMP          |
|     | PROP          |
|     | TEMP          |

| LEGEND                                   |
|--|
| EXISTING MARSH BANK                      |
| EXISTING SURFACE CONTOURS                |
| ROCK DIKE CONTOURS                       |
| ROCK DIKE ALIGNMENT                      |
| SECTION LINES                            |
| POWER LINES                              |
| SURVEYED POWER POLE                      |
| 20 FT VERTICAL AND HORIZONTAL CLEARANCE  |
| 50 FT ENTERGY POWER LINE<br>RIGHT OF WAY |
| LIMITS OF CONSTRUCTION                   |
| PERMANENT WARNING SIGNS                  |
| TEMPORARY WARNING SIGNS                  |
| PROPOSED ACCESS CHANNEL                  |
| TEMPORARY SPOIL LOCATION                 |

WOODEN CRANE MATS (NO DIRECT PAY)

| ROCK DIKE 1 POINT TABLE (CON'T) |   |  |  |  |  |  |  |
|---------------------------------|---|--|--|--|--|--|--|
| STATION                         | NORTHING  | EASTING  |  |  |  |  |  |
| 107+59.29                       | 369745.49   | 3630871.41   |  |  |  |  |  |
| 108+85.28                       | 369864.16   | 3630829.09   |  |  |  |  |  |
| 110+47.22                       | 370022.17   | 3630864.54   |  |  |  |  |  |
| 113+00.81                       | 370266.97   | 3630798.35   |  |  |  |  |  |
| 117+30.85                       | 370696.50   | 3630777.23   |  |  |  |  |  |
|                                 | STATION<br>107+59.29<br>108+85.28<br>110+47.22<br>113+00.81 | STATION     NORTHING       107+59.29     369745.49       108+85.28     369864.16       110+47.22     370022.17       113+00.81     370266.97 |  |  |  |  |  |

| JAMES R. SMITH<br>License No. 19893<br>PROFESSIONAL ENGINEER |
|--|
|--|



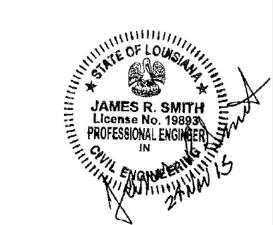
SCALE: 1"= 100' (11"X 17")

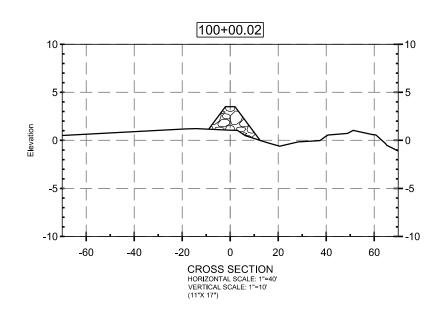
## NOTES:

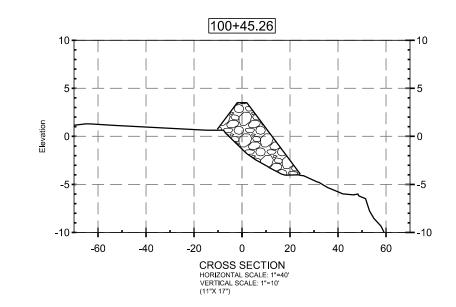
- 1. THE END COORDINATES OF THE PROPOSED ROCK DIKES ARE APPROXIMATE. THE ACTUAL ENDS MAY BE ADJUSTED IN FIELD TO COMPLETELY PROTECT THE SHORE LINE.
- 2. LOCATIONS OF PERMANENT WARNING SIGNS MAY BE ADJUSTED IN THE FIELD BY ENGINEER.

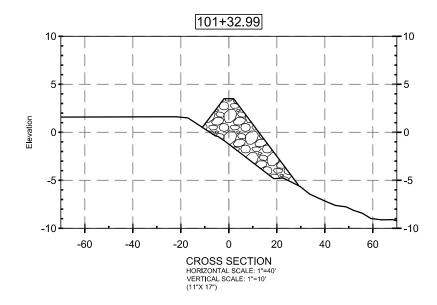
|   |          |             |           | Stanley Consultants INC.  | COASTAL PROTECTION AND RESTORATION AUTHORITY<br>OPERATIONS DIVISION<br>450 LAUREL STREET, SUITE 1200<br>BATON ROUGE, LOUISIANA 70801 |                  | GIWW TO CLOVELLY HYDROLOGIC RESTORATION<br>2015 MAINTENANCE PROJECT<br>STATE PROJECT NUMBER: BA-02 | ACCESS DREDGE B     |
|---|----------|-------------|-----------|---|--|------------------|--|---------------------|
| F |          |             | $\square$ | -   | BATON ROUGE, LOUISIANA 70001   |                  | FEDERAL PROJECT NUMBER: BA-02  | DATE: NOVEMBER 2015 |
| R | EV. DATE | DESCRIPTION | BY        | 225 Iowa Avenue, Muscatine, Iowa 52761-3764<br>www.stanleyconsultants.com | DRAWN BY: SRH  | DESIGNED BY: SRH | APPROVED BY: JRS   | SHEET 9 OF 18       |

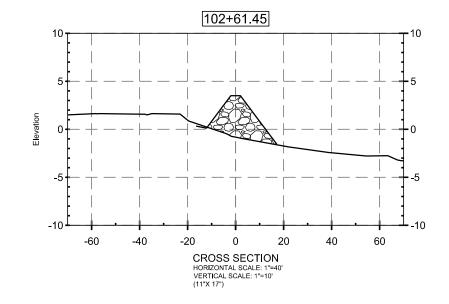
|       | LEGEND                                     |
|-------|--|
|       | EXISTING MARSH BANK                        |
|       | EXISTING SURFACE CONTOURS                  |
|       | ROCK DIKE CONTOURS                         |
|       | ROCK DIKE ALIGNMENT                        |
|       | SECTION LINES                              |
| —Р    | POWER LINES                                |
| ——O—— | SURVEYED POWER POLE                        |
|       | 20 FT VERTICAL AND HORIZONTAL<br>CLEARANCE |
|       | 50 FT ENTERGY POWER LINE<br>RIGHT OF WAY   |
| L/C   | LIMITS OF CONSTRUCTION                     |
| •     | PERMANENT WARNING SIGNS                    |
| 8     | TEMPORARY WARNING SIGNS                    |
|       | PROPOSED ACCESS CHANNEL                    |
|       | TEMPORARY SPOIL LOCATION                   |
|       | WOODEN CRANE MATS<br>(NO DIRECT PAY)       |
|       |  |











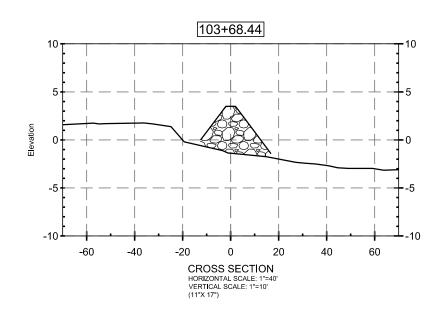
| f |      |      |             |           |   |               | D RESTORATION AUTHORITY |   |
|---|------|------|-------------|-----------|---|---------------|-------------------------|---|
| ┢ | _    |      |             | $\square$ | Ctoplay Consultants   |               | TREET, SUITE 1200       | 5 |
| ł | -    |      |             | $\square$ | Stanley Consultants INC.  | BATON ROUGH   | E, LOUISIANA 70801      | 1 |
| F | REV. | DATE | DESCRIPTION | BY        | 225 Iowa Avenue, Muscatine, Iowa 52761-3764<br>www.stanleyconsultants.com | DRAWN BY: SRH | DESIGNED BY: SRH        | 4 |

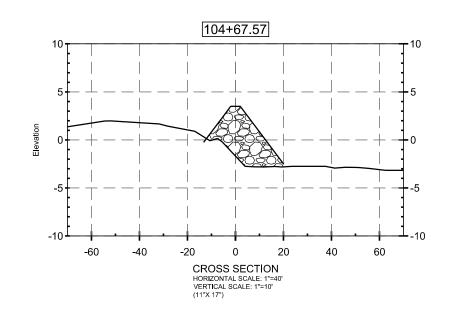


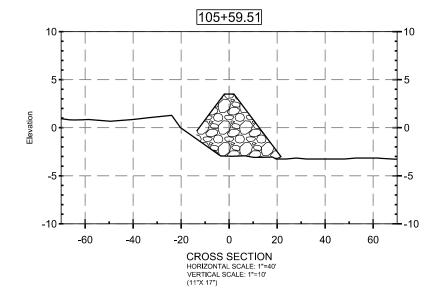
EXISTING PROFILE PROPOSED ROCK DIKE PROPOSED EXCAVATION AREA TEMPORARY SPOIL LOCATION

LEGEND

|   | E OF LOUIS<br>MES R. SMITH<br>INSE NO. 19893<br>SSIONAL ENGINEER<br>IN |
|---|--|
| GIWW TO CLOVELLY HYDROLOGIC RESTORATION<br>2015 MAINTENANCE PROJECT | CROSS SECTIONS A   |
| STATE PROJECT NUMBER: BA-02   |  |
| FEDERAL PROJECT NUMBER: BA-02                                       | DATE: NOVEMBER 2015  |
| APPROVED BY: JRS  | SHEET 10 OF 18   |



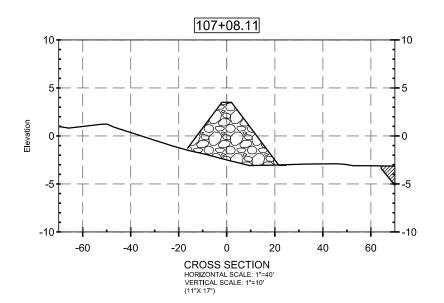


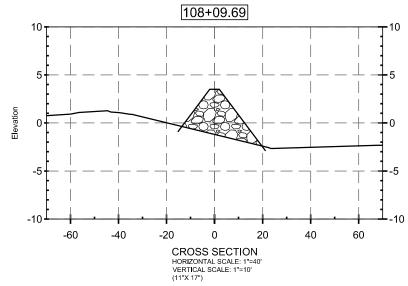


| f |      |      |             |    |   |               | D RESTORATION AUTHORITY<br>NS DIVISION | G  |
|---|------|------|-------------|----|---|---------------|--|----|
| ŀ | _    |      |             |    |   |               | TREET, SUITE 1200                      | ST |
| ŀ | _    |      |             |    | Stanley Consultants INC.  | BATON ROUGE   | E, LOUISIANA 70801                     | FE |
| F | REV. | DATE | DESCRIPTION | BY | 225 Iowa Avenue, Muscatine, Iowa 52761-3764<br>www.stanleyconsultants.com | DRAWN BY: SRH | DESIGNED BY: SRH                       | AP |



|   | MES R. SMITH<br>Inse No. 19893<br>SSIONAL ENGINEER |
|---|--|
| GIWW TO CLOVELLY HYDROLOGIC RESTORATION<br>2015 MAINTENANCE PROJECT | CROSS SECTIONS B                                   |
| STATE PROJECT NUMBER: BA-02   |  |
| FEDERAL PROJECT NUMBER: BA-02                                       | DATE: NOVEMBER 2015                                |
| APPROVED BY: JRS  | SHEET 11 OF 18                                     |





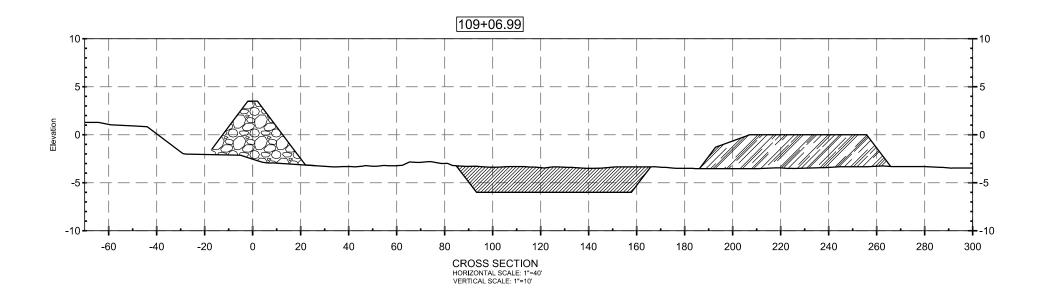
| F |          |             |           |   |                               | D RESTORATION AUTHORITY | GIWW TO CLOVELLY HYDROLOGIC RESTORATION<br>2015 MAINTENANCE PROJECT | CROSS SECTIONS C    |
|---|----------|-------------|-----------|---|-------------------------------|-------------------------|---|---------------------|
| ┢ |          |             | $\square$ | Stonley Consultants   | 450 LAUREL STREET. SUITE 1200 |                         | STATE PROJECT NUMBER: BA-02   |                     |
| ŀ | +        |             |           | Stanley Consultants INC.  | BATON ROUGE                   | , LOUISIANA 70801       | FEDERAL PROJECT NUMBER: BA-02                                       | DATE: NOVEMBER 2015 |
| F | EV. DATE | DESCRIPTION | BY        | 225 Iowa Avenue, Muscatine, Iowa 52761-3764<br>www.stanleyconsultants.com | DRAWN BY: SRH                 | DESIGNED BY: SRH        | APPROVED BY: JRS  | SHEET 12 OF 18      |

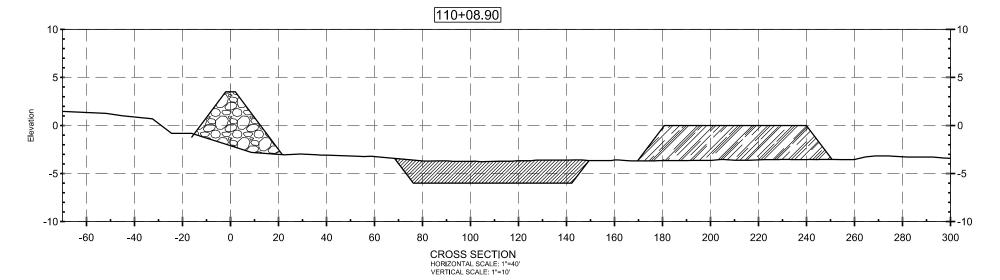
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EXISTING PROFILE PROPOSED ROCK DIKE PROPOSED EXCAVATION AREA TEMPORARY SPOIL LOCATION

LEGEND

|                                      | ES R. SMITH<br>IES R. SMITH<br>ISSIONAL ENGINEER |
|--------------------------------------|--|
| PROLOGIC RESTORATION<br>ANCE PROJECT | CROSS SECTIONS C                                 |

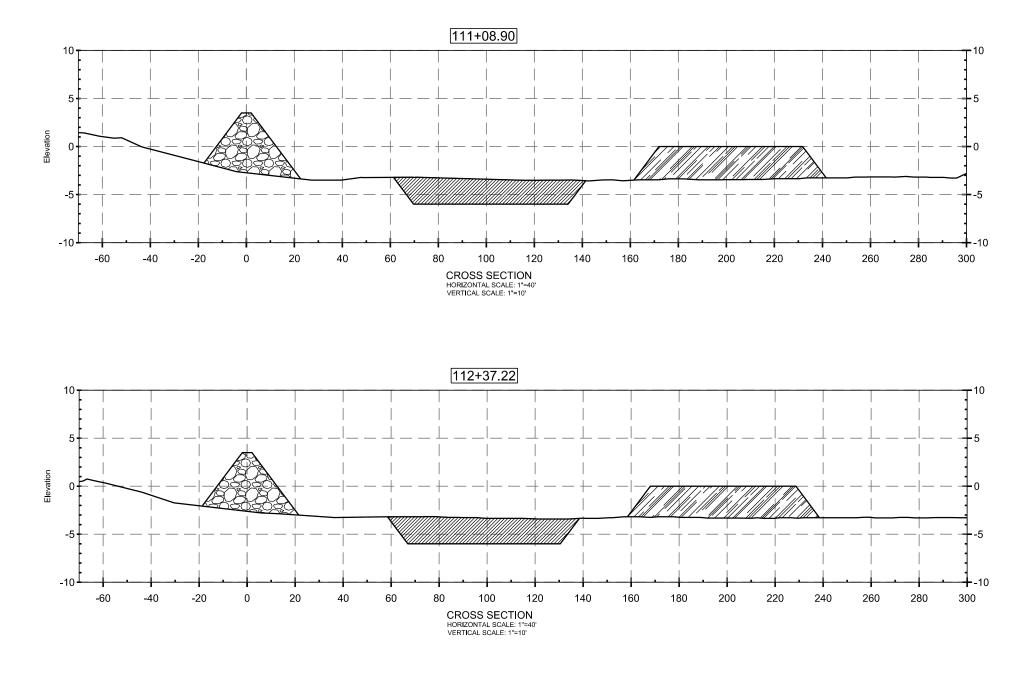








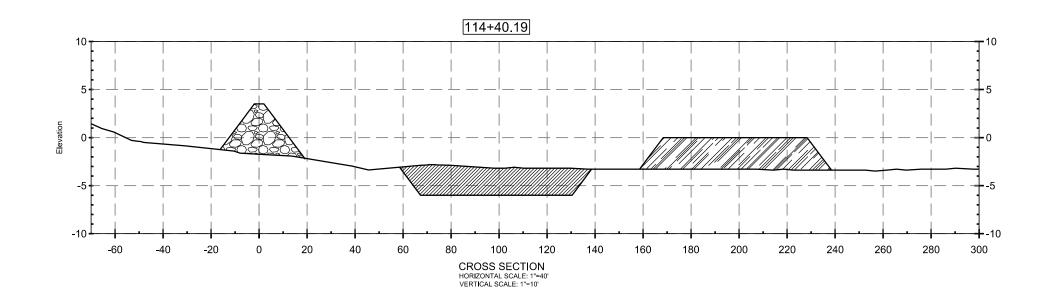
| AND                             | AES R. SMITH<br>INSE NO. 19893<br>SSIONAL ENGINEER |
|---|--|
| GIWW TO CLOVELLY HYDROLOGIC RESTORATION<br>2015 MAINTENANCE PROJECT | CROSS SECTIONS D                                   |
| STATE PROJECT NUMBER: BA-02   |  |
| FEDERAL PROJECT NUMBER: BA-02                                       | DATE: NOVEMBER 2015                                |
| APPROVED BY: JRS  | SHEET 13 OF 18                                     |

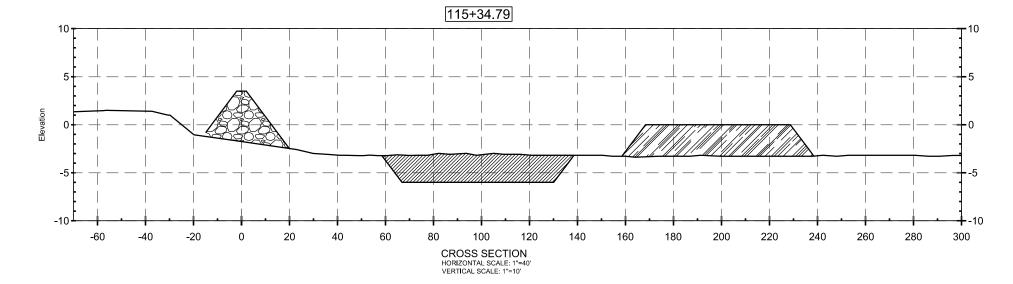






| JAN<br>PROFI  | AES R. SMITH<br>Inse No. 19893<br>SSIONAL ENGINEER |
|---|--|
| GIWW TO CLOVELLY HYDROLOGIC RESTORATION<br>2015 MAINTENANCE PROJECT | CROSS SECTIONS E                                   |
| STATE PROJECT NUMBER: BA-02   |  |
| FEDERAL PROJECT NUMBER: BA-02                                       | DATE: NOVEMBER 2015                                |
| APPROVED BY: JRS  | SHEET 14 OF 18                                     |

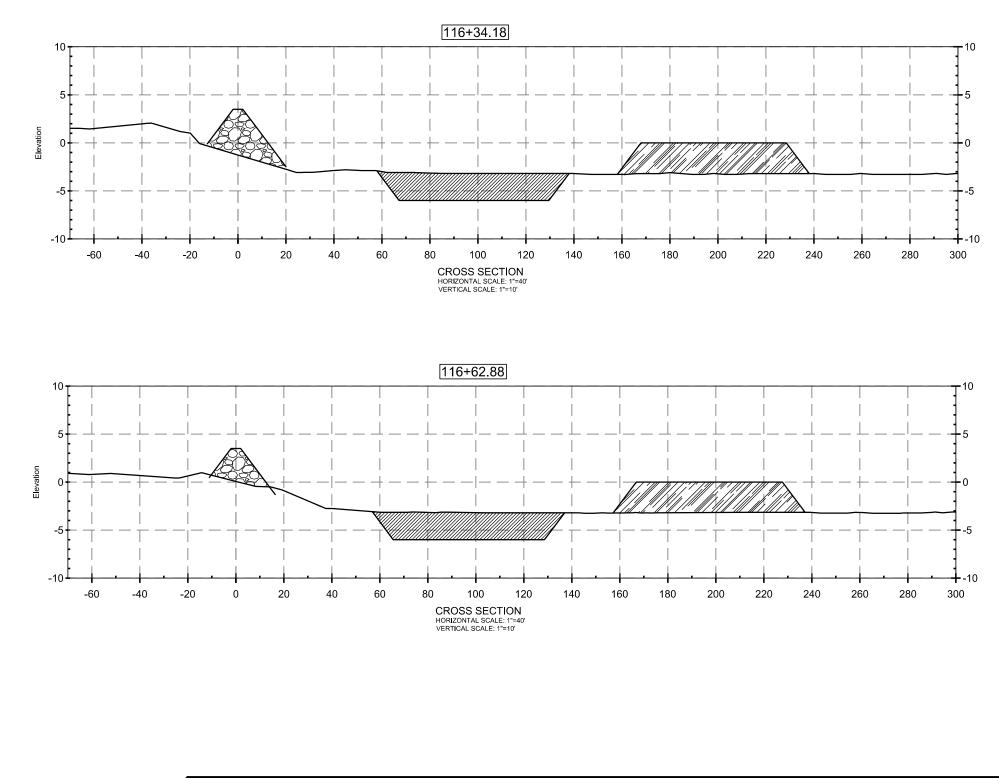




| E |      |      |             |           |   |               | D RESTORATION AUTHORITY | G  |
|---|------|------|-------------|-----------|---|---------------|-------------------------|----|
| ┝ | _    |      |             |           |   |               | TREET, SUITE 1200       | ST |
| ŀ | -    |      |             | $\square$ | Stanley Consultants INC.  | BATON ROUGE   | E, LOUISIANA 70801      | FF |
| F | REV. | DATE | DESCRIPTION | BY        | 225 Iowa Avenue, Muscatine, Iowa 52761-3764<br>www.stanleyconsultants.com | DRAWN BY: SRH | DESIGNED BY: SRH        | Ał |



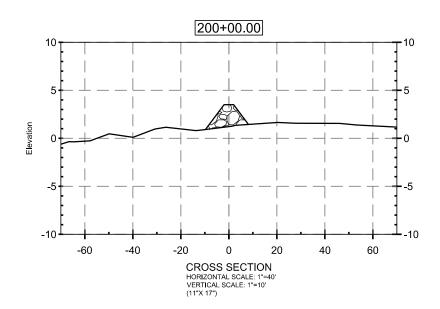
|   | NES R. SMITH<br>IES R. SMITH<br>SSIONAL ENGINEER |
|---|--|
| GIWW TO CLOVELLY HYDROLOGIC RESTORATION<br>2015 MAINTENANCE PROJECT | CROSS SECTIONS F                                 |
| STATE PROJECT NUMBER: BA-02   |  |
| FEDERAL PROJECT NUMBER: BA-02                                       | DATE: NOVEMBER 2015                              |
| APPROVED BY: JRS  | SHEET 15 OF 18                                   |

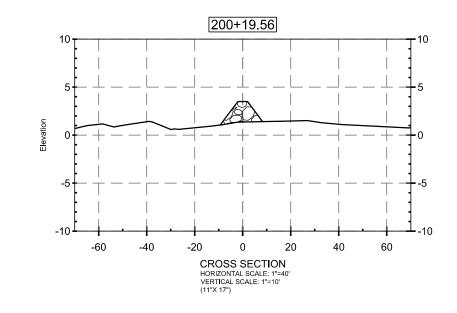


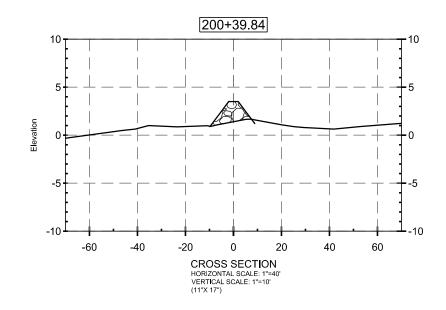
|   |      |      |             |    | Stanley Consultants INC.<br>225 Iowa Avenue, Muscatine, Iowa 52761-3764 | OPERATIO<br>450 LAUREL ST | COASTAL PROTECTION AND RESTORATION AUTHORITY<br>OPERATIONS DIVISION<br>450 LAUREL STREET, SUITE 1200<br>BATON ROUGE, LOUISIANA 70801 |  |  |
|---|------|------|-------------|----|---|---------------------------|--|--|--|
| L | _ I  |      |             |    | 225 Iowa Avenue Muscatine Iowa 52761-3764                               |                           |  |  |  |
| F | REV. | DATE | DESCRIPTION | BY | www.stanleyconsultants.com  | DRAWN BY: SRH             | DESIGNED BY: SRH   |  |  |

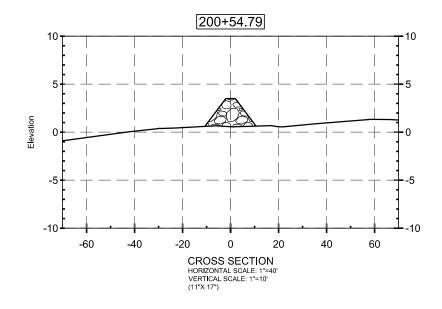


| JAN<br>Lice<br>PROFE  | NES R. SMITH<br>INSE NO. 19893<br>SSIONAL ENGINEER<br>IN<br>IN |  |
|---|--|--|
| GIWW TO CLOVELLY HYDROLOGIC RESTORATION<br>2015 MAINTENANCE PROJECT | CROSS SECTIONS G   |  |
|   |  |  |
| STATE PROJECT NUMBER: BA-02   |  |  |
| STATE PROJECT NUMBER: BA-02<br>FEDERAL PROJECT NUMBER: BA-02        | DATE: NOVEMBER 2015  |  |





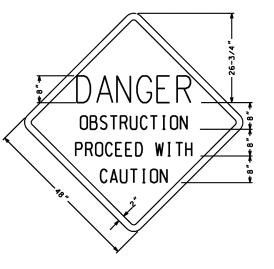




|    |         |             |          |   |               | D RESTORATION AUTHORITY |   |
|----|---------|-------------|----------|---|---------------|-------------------------|---|
|    |         |             | $\vdash$ |   |               | TREET, SUITE 1200       | 5 |
| ┢  |         |             | $\vdash$ | Stanley Consultants INC.  | BATON ROUGE   | E, LOUISIANA 70801      | 1 |
| RE | V. DATE | DESCRIPTION | BY       | 225 Iowa Avenue, Muscatine, Iowa 52761-3764<br>www.stanleyconsultants.com | DRAWN BY: SRH | DESIGNED BY: SRH        | 1 |



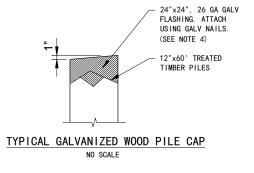
|   | AES R. SMITH<br>Inse No. 19893<br>SSIONAL ENGINEER |  |
|---|--|--|
| GIWW TO CLOVELLY HYDROLOGIC RESTORATION<br>2015 MAINTENANCE PROJECT | CROSS SECTIONS H                                   |  |
| STATE PROJECT NUMBER: BA-02   |  |  |
| FEDERAL PROJECT NUMBER: BA-02                                       | DATE: NOVEMBER 2015                                |  |
| APPROVED BY: JRS  | SHEET 17 OF 18                                     |  |



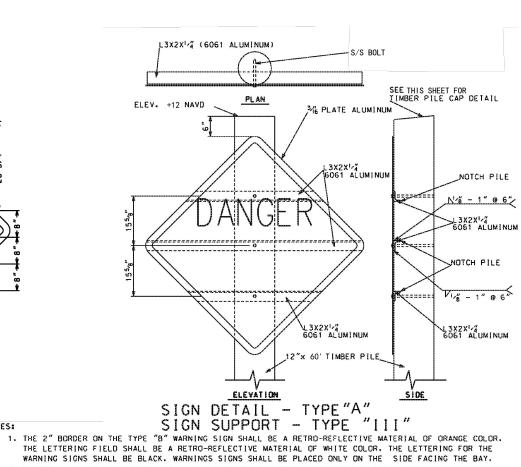
#### NOTES:

- 1. CONTRACTOR TO REMOVE AND PROPERLY DISPOSE OF SUBSTRUCTURES FOLLOWING APPLICABLE LAWS.
- 2. ALL 3/4" DIAMETER ALL-THREAD TIE RODS SHALL BE SECURED BY NOTCHED IN PLACE OGEE WASHERS AND TACK WELDED NUTS.
- 3. GALVANIZED WOOD PILE CAPS SHALL BE INSTALLED ON EACH PILE AT STRUCTURE .
- 4. THE TOP OF THE PILES SHALL BE COATED WITH COAL TAR EPOXY PAINT PRIOR TO PLACING CAP.

NOTES:



|      |      |             |    | Stanley Consultants INC.<br>225 Iowa Avenue, Muscatine, Iowa 52761-3764 | COASTAL PROTECTION AND RESTORATION AUTHORITY<br>OPERATIONS DIVISION<br>450 LAUREL STREET, SUITE 1200<br>BATON ROUGE, LOUISIANA 70801 |                  |
|------|------|-------------|----|---|--|------------------|
| REV. | DATE | DESCRIPTION | BY | www.stanleyconsultants.com  | DRAWN BY: SRH  | DESIGNED BY: SRH |



2. NEOPRENE OR TEFLON WASHERS SHALL BE PLACED BETWEEN STEEL ANGLE AND ALUMINUM SIGNS.

|   | SR. SMITH<br>Se No. 19893<br>NONAL ENGINEER |
|---|---|
| GIWW TO CLOVELLY HYDROLOGIC RESTORATION<br>2015 MAINTENANCE PROJECT | NAVIGATIONAL AID<br>DETAILS                 |
| STATE PROJECT NUMBER: BA-02   | DETAILS                                     |
| FEDERAL PROJECT NUMBER: BA-02                                       | DATE: NOVEMBER 2015                         |
|   |   |