Contract Drawings For:

LEVEE LANDSLIDE IMPROVEMENT
STA 5+80 TO 9+00 (PLM 0.38 TO 0.44)
Yuba River South Levee

Prepared for:
Three Rivers Levee Improvement Authority

HDR Project Number: 201064-091273-141
TRLIA Contract Number: PH4 2012-01
Grading Permit Number: PWGR12-0005

HDR Engineering Inc.
2365 Iron Point Rd. Suite 300
Folsom, CA 95630

CONFORM SET
SEPTEMBER 7, 2012
CONFORM SET
SEPTEMBER 7, 2012

Three Rivers Levee Improvement Authority
LEVEE LANDSIDE IMPROVEMENT
STA 5+80 TO 9+00 (PLM 0.38 TO 0.44)
Yuba River South Levee

PROJECT MANAGER: D. JOHNSON
DESIGN BY: D. JOHNSON
CHECKED BY: D. JOHNSON
TECHNICAL LOC: D. JOHNSON

Sheets:

G-000 COVER SHEET
G-001 SHEET INDEX
G-002 GENERAL ABBREVIATIONS
G-003 GENERAL SYMBOLS AND LEGENDS
G-004 LOCATION MAP
G-005 SURVEY CONTROL AND LEVEL STATIONING
G-100 DEMOLITION
G-101 DEMOLITION AND TREE REMOVAL
C-100 PLAN AND PROFILE - STATION 5+00 TO 9+30
C-000 SECTIONS AND DETAILS
C-001 TYPICAL LEVEE SECTIONS AND DETAILS
C-002 TYPICAL PAVEMENT AND DRAIN PIPE LAYOUT
C-003 TYPICAL DRAIN OUTLET AND PIPE FENCE DETAILS
C-004 CROSS SECTIONS - STATION 5+00 TO 9+30
C-005 EROSION CONTROL
C-006 EROSION CONTROL PLAN
C-007 EROSION CONTROL DETAILS
C-008 EROSION CONTROL DETAILS

AS-BUILT
Three Rivers Levee Improvement Authority
LEVEE LANDSLIDE IMPROVEMENT
STA 5+80 TG 9+00 (PLM 0.38 TO 0.64)
Yuba River South Levee

LOCATION MAPS

PROJECT AREA

CONFORM SET
SEPTEMBER 7, 2012
1. SEE SHEETS C-300 TO FOR TYPICAL LEVEE SECTIONS & DETAILS
2. EXISTING CUT OFF WILL NOT SHOWN.

LEGEND
EXISTING GRADE
FINISHED GRADE

CONFORM SET
SEPTEMBER 7, 2012

Three Rivers Levee Improvement Authority
LEVEE LANDSIDE IMPROVEMENT
STA 5+80 TO 9+00 (PLM 0.38 TO 0.44)
Yuba River South Levee

PROJECT MANAGER: B. JOHNSON
DESIGNER: D. HAMMER
DRAWER: H. ZUMBERTZ
CHECKER: D. JOHNSON
TECHNICAL LEAD: J. JENSEN

CROSS SECTIONS
STATION 5+00 TO 9+00

FILENAME: DEC-303.mxd
SCALE: AS SHOWN

C-303
BEST MANAGEMENT PRACTICE INSTALLATION SCHEDULE

EROSION AND SEDIMENT CONTROL MEASURES

CONSTRUCTION PHASE

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<th>SOIL MIKERS</th>
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<th>FIBER ROLLS</th>
<th>DUST CONTROL</th>
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<td>PRE-CONSTRUCTION</td>
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CUT & FILL ACTIVITIES

UNDERGROUND WORK

FINISH OUT

POST CONSTRUCTION

BEST MANAGEMENT PRACTICES:

1. All erosion and sediment control measures shall be constructed and maintained in accordance with these plans, the project specifications, and the most current edition of the Yuba County Improvement Standards.

2. Erosion control best management practices (BMPs) shall be installed and maintained during the wet season (October 1 through April 30). Sediment control BMPs shall be installed and maintained all year.

3. All drainages, inlet, and erosion control systems within the work areas and within the work areas shall be protected with sediment control and inlet filter bags per the details on these plans. Flow return inlet filter bags shall be removed from the drainage inlets upon completion of the project.

4. All stabilized construction access locations shall be constructed for the details on these plans. The stabilized access shall be maintained on a year-round basis until the completion of construction. Stabilized construction access shall be removed upon completion of the project.

5. All sediment deposited on public roadways shall be swept of the end of each working day or as necessary.

6. All areas disturbed during construction, by grading, trenching, or other activities, shall be protected from erosion during the wet season (October 1 through April 30). Prospered must be placed no later than October 31.

7. Erosion control BMPs (filter rolls and inlet screen) shall be placed along the project perimeter where drainage leaves the project. Filter rolls (silt fence) shall be installed for the details on these plans and in accordance with the County Improvement Standards. BMPs shall be maintained year-round until the construction is complete or the drainage pattern has been changed and no longer leaves the site.

8. During the wet season, storm water controls must be inspected before and after anticipated rain events and each 24-hour period during extended rain events.

9. Contractor shall maintain a log at the site of all inspections and maintenance of BMPs, as well as any corrective changes to the BMPs or erosion and sediment control plan.

10. Existing grass, mulch, and filter bag inserts per the details on these plans, the project specifications, and in accordance with the County Improvement Standards.

11. Construction shall implement good housekeeping practices as follows:

   A. Solid waste management. Provide designated waste collection areas and containers. Arrange for regular removal, and dispose of clear site of trash daily. Concrete washout is to be installed for the details on these plans or equivalent, and shall be located in a central location and shall be covered and provided properly disposed.

   B. Material delivery and storage. Provide a designated material storage area with secondary containment such as berms or equivalent.

   C. Vehicle fueling, maintenance, and cleaning. Provide a designated fueling area with secondary containment such as berms. Do not allow mobile fueling of equipment. Provide equipment with drip pans, restrict offsite maintenance and cleaning of equipment to a minimum, inspect area weekly.

   D. Incombustible waste management. Provide the disposal of combustible waste from hazardous wastes to the disposal system through proper material use, waste disposal, and removal of employees. Noncombustible waste products that may be on site include but are not limited to fertilizers, herbicides, and pesticides.

12. Storm water areas to have perimeter protection on fiber roll or equivalent.

Three Rivers Levee Improvement Authority
Levee Landside Improvement
STA 5+80 TO 8+90 (PLM 0.38 TO 0.44)
Yuba River South Levee

CONFORM SET SEPTEMBER 7, 2012

EROSION CONTROL DETAILS

FILENAME: DOC-043.doc
SCALE: 1/100
SHET: C-401
NOTES:

1. THE GEOTEXTILE FABRIC SHALL BE PLACED IN THE EXCAVATED TRENCH, SMOOTHED AND COMPACTED TO THE EXISTING GROUND SURFACE.

2. WOODEN SUPPORT POSTS SHALL BE A MINIMUM DIAMETER OF 1-1/8" x 1-1/2" AIR OR DRIED HEMLOCK OR DOUGLAS AND 4 FEET LONG. STEEL POSTS SHALL BE STUDDED "TEE" OR "H" TYPE WITH A MINIMUM WIDTH OF 1-1/2 PLATE FOR LATERAL LOAD AND 6 FEET LONG. POST SPORTING SHALL BE A MINIMUM OF 8 FEET FOR WOODED FABRIC AND 3 FEET FOR NON-WOODED FABRIC.

3. THE GEOTEXTILE FABRIC SHALL BE ATTACHED DIRECTLY TO THE UPSIDE EDGE OF WOODEN POSTS WITH 0.5 INCH SNAPPLIES AT LEAST 3 PLACES OR WITH WOOD AND NAILS. ATTACHMENTS TO STEEL POSTS WILL BE BY NAIL EXTENDERS OR 50 POUND PLASTIC TO STRAPS ON THE UPSIDE EDGE.

4. THE GEOTEXTILE FABRIC SHALL CONSIST OF EITHER WALONG OR NON-WOODED POLYETHYLENE, POLYPROPYLENE, OR POLYARYLTHEINE CHLORIDE. NON-WOODED FABRIC MAY BE NEEDLE PUNCHED, HEAT BONDED, RESIN BONDED, OR COMBINATION THEREOF. ALL FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS:

   TEST REQUIREMENT
   MINIMUM Grav TENSILE STRENGTH IN THE MACHINE DIRECTION
   ASTM D 4532
   120 LBS.

   MINIMUM Grav TENSILE STRENGTH IN THE TRANSVERSE DIRECTION
   ASTM D 4532
   100 LBS.

   MAXIMUM APPARENT OPENING SIZE
   ASTM D 4751
   MAX. 30

   MINIMUM PERMEABILITY
   ASTM D 4491
   0.05 SEC *

   MAXIMUM PERMEABILITY
   ASTM D 4491
   0.123 SEC

   MINIMUM ULTRAVIOLET STABILITY
   PERCENTAGE OF STRENGTH REMAINED AFTER 500 HOURS OF EXPOSURE
   ASTM D 4303
   70%

* ALL NUMERICAL VALUES REPRESENT MINIMUM/AVERAGE ROLL VALUES. (FOR EXAMPLE, THE AVERAGE OF MINIMUM TEST RESULTS ON ANY ROLL IN A LOT SHOULD MEET OR EXCEED THE MINIMUM SPECIFIED VALUES.)