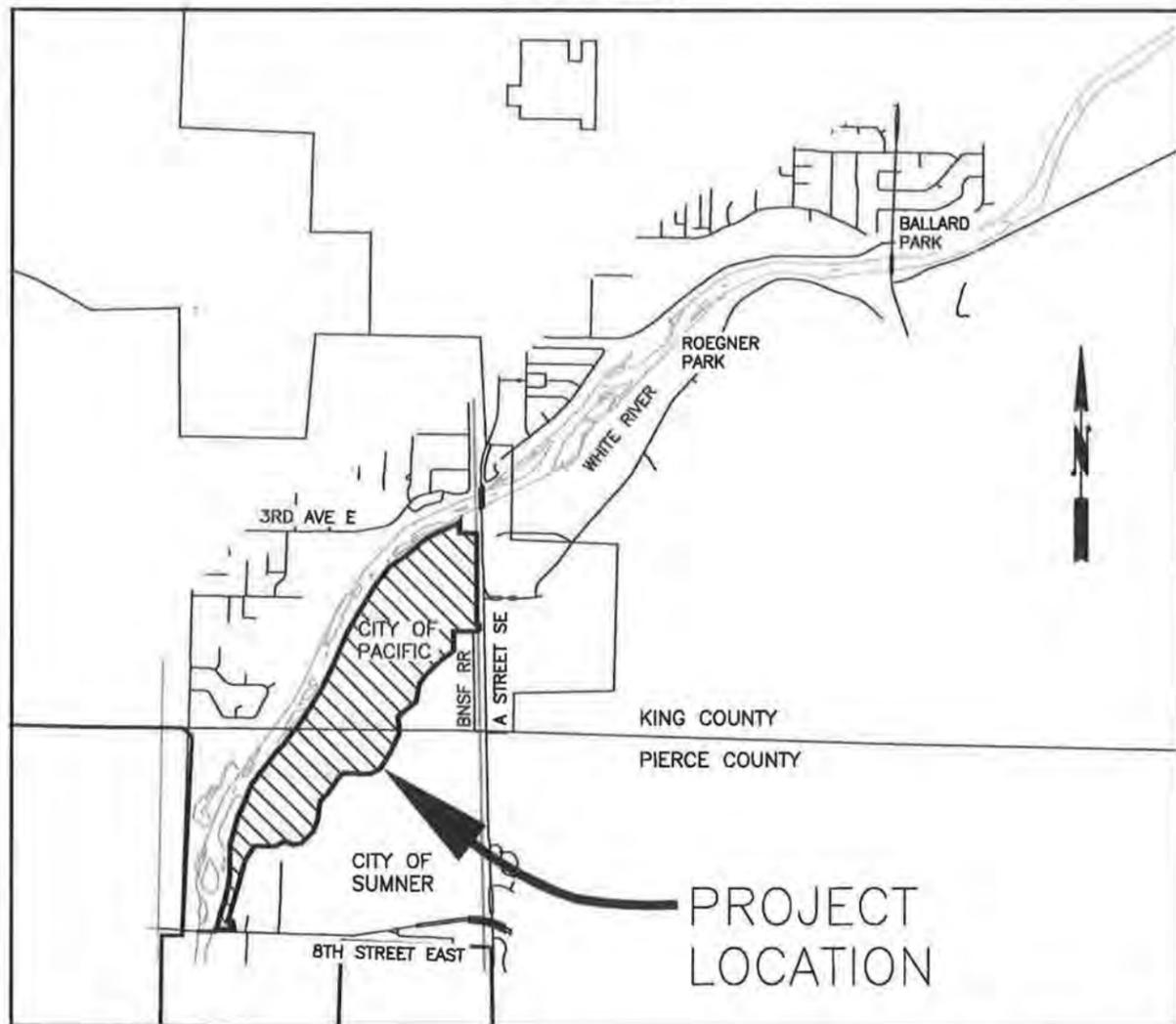
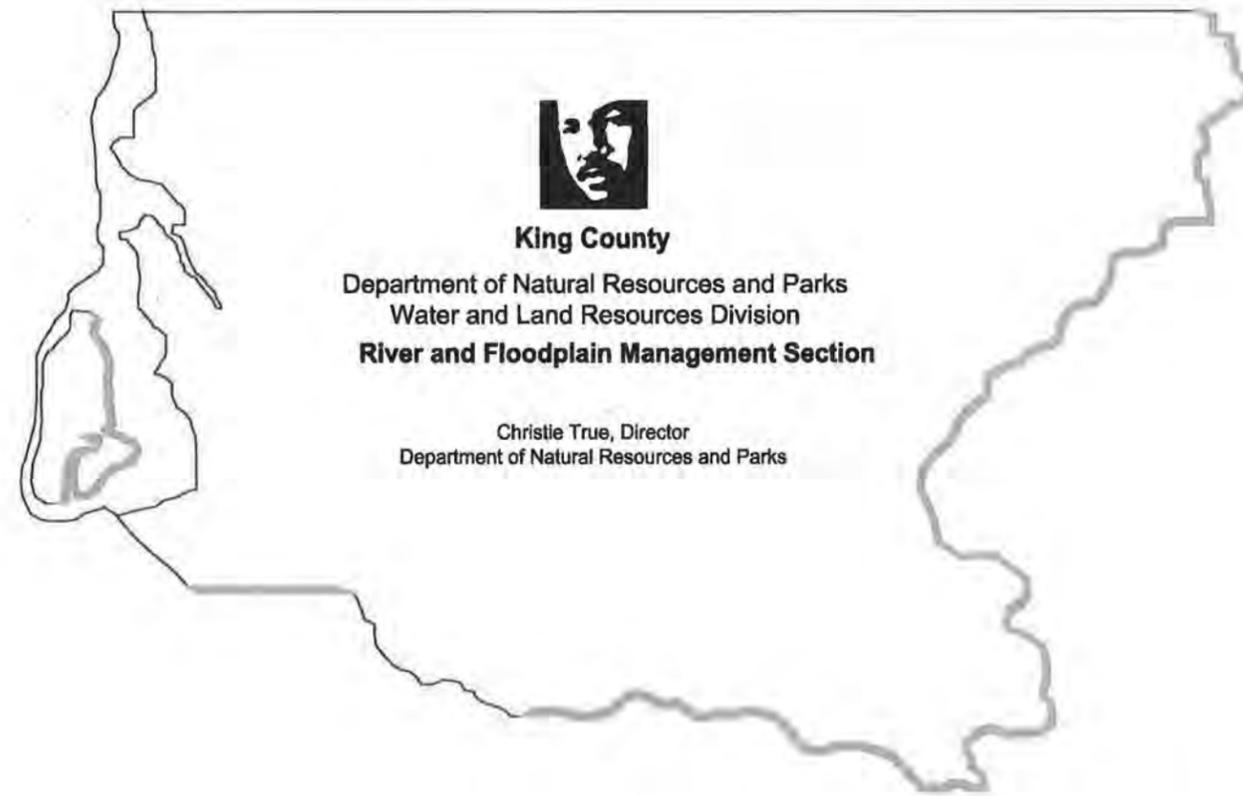


VICINITY MAP



INDEX



King County
 Department of Natural Resources and Parks
 Water and Land Resources Division
River and Floodplain Management Section

Christie True, Director
 Department of Natural Resources and Parks

Countyline Levee Setback

White River, River Mile 5.00-6.33

SHEET	DRAWING	DESCRIPTION
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18	ED2	TESC DETAILS FOR ELJS 1, 2 AND 3
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SHEET	DRAWING	DESCRIPTION
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CALL 2 WORKING DAYS
 BEFORE YOU DIG
 1-800-424-5555
 (UNDERGROUND UTILITY LOCATIONS ARE APPROX.)

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: CHRIS BRUMMER, PE	4-2013
ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

SRFB # RCO 087-1910C
 PROJECT No. 1112049 (FL9001)



King County
 Department of Natural Resources and Parks
 Water and Land Resources Division
 River and Floodplain Management Section
 Christie True, Director

COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 COVER SHEET

SHEET
 1
 OF
 69
 SHEETS
 GN1

CONSTRUCTION SEQUENCE NOTES:

1. CONSTRUCTION WILL BE DIVIDED INTO TWO CONSTRUCTION YEARS. THIS PLAN SET DESCRIBES THE PROJECT AS CONSTRUCTED AT COMPLETION OF CONSTRUCTION YEAR 2. THE CONSTRUCTION SEQUENCING DESCRIBED HERE WILL BE REFINED AND MODIFIED FOR THE FINAL CONSTRUCTION DRAWINGS TO MEET PERMIT REQUIREMENTS, FLOOD PROTECTION NEEDS, AND CONSTRUCTABILITY GOALS. THE CONTRACTOR SHALL SUBMIT A DETAILED CONSTRUCTION SEQUENCING PLAN MEETING PERMIT, FLOOD PROTECTION, AND CONSTRUCTABILITY REQUIREMENTS.
2. WATER MANAGEMENT METHODS SHALL BE USED TO DIVERT FLOW, ISOLATE WORK AREAS, PUMP CONSTRUCTION WATER, ESTABLISH INFILTRATION AREAS, MANAGE CONSTRUCTION WATER STORAGE AND DISCHARGE, AND AVOID IMPACTS TO WATER QUALITY. WATER PUMPED FROM EXCAVATIONS SHALL BE PUMPED TO APPROVED INFILTRATION AREAS OR ON-SITE STORAGE TANKS. AT NO TIME SHALL CONSTRUCTION WATER BE DISCHARGED TO THE WHITE RIVER, WETLANDS, OR OTHER WATER BODIES. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL SUBMIT A WORK AREA ISOLATION AND CONSTRUCTION WATER MANAGEMENT PLAN ADDRESSING SITE-SPECIFIC TECHNIQUES AND METHODS FOR EACH PHASE OF WORK THAT IS CONSISTENT WITH THE CONSTRUCTION SEQUENCING PLAN.
3. THE EXISTING LEVEE SHALL REMAIN INTACT DURING THE WINTER SEASON BETWEEN CONSTRUCTION YEARS 1 AND 2 IN ORDER TO MAINTAIN THE EXISTING LEVEL OF FLOOD PROTECTION.
4. CONSTRUCTION YEAR 1 WILL INCLUDE CONSTRUCTION OF MOST INTERIOR PROJECT ELEMENTS, INCLUDING; ACCESS ROADS, SETBACK LEVEE, BIORETMENT, BANK ROUGHENING STRUCTURES, ELJs, REVEGETATION OF THE WETLAND BUFFER, AND RELOCATION OF UTILITIES. WORK IN YEAR 1 MAY ALSO INCLUDE LIMITED EXCAVATION OF THE LANDWARD EDGE OF THE EXISTING LEVEE PRISM (FOR RE-USE AS BACKFILL), CONSTRUCTION OF POTENTIAL FLOODPLAIN ROUGHENING STRUCTURES, REMOVAL OF THE EXISTING CULVERT, AND DEMOLITION. CONSTRUCTION OF ELJs MAY SPAN TWO CONSTRUCTION SEASONS DUE TO IN-WATER CONSTRUCTION WORK WINDOW PERMIT REQUIREMENTS.
5. YEAR 2 CONSTRUCTION WILL INCLUDE THE COMPLETION OF ELJ AND SETBACK LEVEE CONSTRUCTION NOT COMPLETED IN YEAR 1, THE REMOVAL OF THE EXISTING LEVEE AND RIPRAP REVEGETATION, CULVERT REMOVAL AND CONSTRUCTION OF THE OUTLET CHANNEL, ADDITIONAL REVEGETATION OF THE WETLAND BUFFER, AND RESTORATION ACTIVITIES NEEDED TO COMPLETE THE WORK.

EROSION AND SEDIMENTATION CONTROL NOTES:

1. THE BOUNDARIES OF WORK AREA LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY SURVEY TAPE OR FENCING PRIOR TO CONSTRUCTION. TREES TO BE LEFT UNDISTURBED OR SALVAGED SHALL BE TAGGED AND MARKED PRIOR TO CONSTRUCTION DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE WORK AREA LIMITS SHALL BE PERMITTED. THE WORK AREA SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION, INCLUDING PERIODS OF WORK STOPPAGE BETWEEN CONSTRUCTION YEARS 1 AND 2.
2. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK OUT TO ROAD RIGHT OF WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT.
3. THE EROSION AND SEDIMENTATION CONTROL FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. EROSION AND SEDIMENT CONTROL FOR IN-WATER WORK ELEMENTS INCLUDING LEVEE EXCAVATION, OUTLET CHANNEL EXCAVATION, BIORETMENT, FLOODPLAIN ROUGHENING, AND ELJs WILL BE REFINED FOR THE FINAL CONSTRUCTION DRAWINGS. THESE FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL COVER MEASURES, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION, ETC.) AS DIRECTED BY THE PROJECT REPRESENTATIVE.
4. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO CONSECUTIVE DAYS DURING THE WET SEASON OR SEVEN (7) DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.)
5. ANY AREA NEEDING ESC MEASURES THAT DO NOT REQUIRE IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
6. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH DURING THE DRY SEASON, BI-MONTHLY DURING THE WET SEASON, OR WITHIN TWENTY FOUR (24) HOURS FOLLOWING A STORM EVENT.
7. COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE KING COUNTY SURFACE WATER DESIGN MANUAL.
8. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1) ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH MAP OF THOSE AREAS TO BE SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED BY THE CONTRACTOR.

CONSTRUCTION GENERAL NOTES:

1. THE WORK INCLUDES THE CONSTRUCTION OF ENGINEERED LOGJAMS (ELJs), LOG BIORETMENT, AND SETBACK LEVEE; THE REMOVAL OF AN EXISTING LEVEE; DEMOLITION; AND REVEGETATION. THE PROJECT ELEMENTS SHOWN ON THE PLANS ARE APPROXIMATE. ACTUAL LOCATIONS, ORIENTATION, AND DIMENSIONS WILL BE REFINED FOR FINAL CONSTRUCTION DRAWINGS BASED ON FURTHER ANALYSES, PERMIT REQUIREMENTS, AND CONSTRUCTABILITY REVIEW.
2. THE WORK SHOWN ON THE PLANS SHALL BE SEQUENCED AND PERFORMED IN A MANNER THAT MINIMIZES IMPACTS TO SURFACE WATERS, EXISTING VEGETATION, THE WORK SITE, AND ADJACENT PRIVATE PROPERTY AND PUBLIC INFRASTRUCTURE.
3. THE OWNER MAY DECIDE HOW TO SEQUENCE THE WORK. THIS PROJECT WILL BE CONSTRAINED BY AN IN-WATER WORK WINDOW SET FORTH IN THE PROJECT HPA PERMIT AND THE 404 PERMIT, OUTSIDE OF WHICH NO IN-WATER WORK MAY OCCUR.
4. THE CONTRACTOR SHALL STAKE FOR APPROVAL BY THE PROJECT REPRESENTATIVE PRIOR TO INITIATING CONSTRUCTION ACTIVITIES, THE LOCATIONS OF EACH ELJ STRUCTURE INCLUDING LENGTHS, WIDTHS, ORIENTATION, AND ELEVATIONS; TEMPORARY CONSTRUCTION ACCESS ROADS; TEMPORARY WATER MANAGEMENT FACILITIES; AND ALL GRADING/EXCAVATION EXTENTS.
5. THE CONTRACTOR SHALL STAKE CLEARING LIMITS FOR APPROVAL BY THE PROJECT REPRESENTATIVE AT LEAST 5 WORKING DAYS PRIOR TO COMMENCING CLEARING ACTIVITIES. CLEARING LIMITS FOR CONSTRUCTION SHALL BE LIMITED TO THE AREA REQUIRED FOR SAFE EQUIPMENT OPERATION AND TO MINIMIZE THE AREA OF DISTURBANCE. CLEARING LIMITS SHALL NOT BE EXPANDED UNLESS APPROVED IN WRITING BY THE OWNER OR ENGINEER.
6. TREES AND BRUSH NOT SHOWN ON THE DRAWINGS WILL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. THE OWNER SHALL IDENTIFY AND FLAG ALL TREES TO BE PROTECTED FROM DAMAGE PRIOR TO CONSTRUCTION. FOLLOWING CLEARING OF ALLOWED VEGETATION, THE CONTRACTOR SHALL STOCKPILE ALL TREES AND BRUSH IDENTIFIED BY THE PROJECT REPRESENTATIVE, PRIOR TO AND DURING CONSTRUCTION ACTIVITIES, FOR USE AS RACKING AND SLASH MATERIALS IN THE ELJ STRUCTURES, FOR USE IN AREAS AS SHOWN ON THE DRAWINGS, AND AS DIRECTED BY THE OWNER OR ENGINEER TO CREATE ROUGH FINISHED GRADED SURFACES. CERTAIN VEGETATION MAY BE FLAGGED BY THE PROJECT REPRESENTATIVE FOR SALVAGE, AND CARE SHALL BE TAKEN TO PROTECT THOSE PLANTS FROM DISTURBANCE DURING CONSTRUCTION. NOXIOUS WEEDS AND OTHER VEGETATION UNSUITABLE FOR SALVAGE AND REUSE SHALL BE SEGREGATED AS DIRECTED BY THE PROJECT REPRESENTATIVE AND HAULED OFF-SITE FOR PROPER DISPOSAL.
7. ALTERATION OR DISTURBANCE OF THE CHANNEL, FLOODPLAIN, AND ANY BANK AND FLOODPLAIN VEGETATION SHALL BE MINIMIZED TO THAT NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL KEEP DISTURBED AREAS WITHIN THE WORK AREA LIMITS SHOWN ON THE DRAWINGS, AND SHALL NOT EXTEND THESE LIMITS UNLESS APPROVED BY THE PROJECT REPRESENTATIVE.
8. THE CONTRACTOR SHALL PROVIDE 24 HOURS ADVANCE NOTICE TO THE PROJECT REPRESENTATIVE PRIOR TO ANY REQUIRED INSPECTION.
9. CONSTRUCTION MATERIAL AND EQUIPMENT STAGING AREAS SHALL BE LOCATED AS SHOWN OR DESCRIBED ON THE DRAWINGS. CONSTRUCTION MATERIALS AND EQUIPMENT SHALL NOT BE STORED OUTSIDE OF IDENTIFIED STAGING AREAS UNLESS APPROVED BY THE PROJECT REPRESENTATIVE. THE CONTRACTOR SHALL PROTECT ALL CONSTRUCTION MATERIALS AND EQUIPMENT FROM DAMAGE AT ALL TIMES
10. NO EQUIPMENT SHALL BE STORED AT ANY TIME BELOW THE ORDINARY HIGH WATER (OHW) LINE.
11. EQUIPMENT USED FOR THIS PROJECT SHALL BE FREE OF EXTERNAL PETROLEUM-BASED PRODUCTS WHILE WORKING NEAR ANY SURFACE WATER OR WETLANDS. ACCUMULATION OF SOILS OR DEBRIS SHALL BE REMOVED FROM THE DRIVE MECHANISMS (WHEELS, TRACKS, TIRES, ETC.) AND UNDERCARRIAGE OF EQUIPMENT PRIOR TO ITS WORKING BELOW THE OHW LINE.
12. ALL EQUIPMENT OPERATING IN AREAS OTHER THAN EXISTING UNIMPROVED ACCESS ROADS SHALL USE ONLY BIODEGRADABLE, VEGETABLE-BASED HYDRAULIC FLUIDS OR APPROVED OTHER.
13. EQUIPMENT SHALL BE CHECKED AT THE BEGINNING OF EACH WORK SHIFT FOR LEAKS, AND ANY NECESSARY REPAIRS SHALL BE COMPLETED PRIOR TO COMMENCING WORK ACTIVITIES.
14. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT NO PETROLEUM PRODUCTS, HYDRAULIC FLUID, SEDIMENTS, SEDIMENT-LADEN WATER, CHEMICALS, OR ANY OTHER TOXIC OR DELETERIOUS MATERIALS ARE ALLOWED TO ENTER OR LEACH FROM EQUIPMENT OR SUPPLIES USED DURING CONSTRUCTION INTO THE PROJECT SITE OR ADJACENT WETLANDS AND OTHER ENVIRONMENTALLY SENSITIVE AREAS.
15. CONTRACTOR SHALL LIMIT MACHINERY MOVEMENT TO THE PROJECT CONSTRUCTION LIMITS DEFINED ON THE DRAWINGS OR IDENTIFIED AS ACCEPTABLE BY THE PROJECT REPRESENTATIVE.
16. IF AT ANY TIME, AS A RESULT OF PROJECT ACTIVITIES, FISH ARE OBSERVED IN DISTRESS, A FISH KILL OCCURS, OR WATER QUALITY PROBLEMS DEVELOP (INCLUDING EQUIPMENT LEAKS OR SPILLS), OPERATIONS SHALL CEASE AND THE OWNER SHALL BE NOTIFIED IMMEDIATELY. WASHINGTON DEPARTMENT OF FISH AND WILDLIFE AND WASHINGTON STATE DEPARTMENT OF ECOLOGY SHALL BE CONTACTED IMMEDIATELY BY THE PROJECT REPRESENTATIVE. WORK SHALL NOT RESUME UNTIL FURTHER APPROVAL BY THE OWNER.
17. WOOD MATERIAL USED FOR CONSTRUCTING ELJs, THE BIORETMENT, AND FLOODPLAIN ROUGHING STRUCTURES SHALL BE DECKED IN THE STAGING AREAS FOR INSPECTION BY THE PROJECT REPRESENTATIVE AND ORGANIZED BY LOG TYPE, DIAMETER AND LENGTH. LOG TYPE IDENTIFICATION SHALL BE PAINTED ON ALL LOGS WITH LEAD-FREE, BLAZE-ORANGE SURVEY MARKING PAINT AND BE VISIBLE FOR INSPECTION BY THE PROJECT REPRESENTATIVE PRIOR TO PLACEMENT WITHIN THE ENGINEERED LOG STRUCTURES.

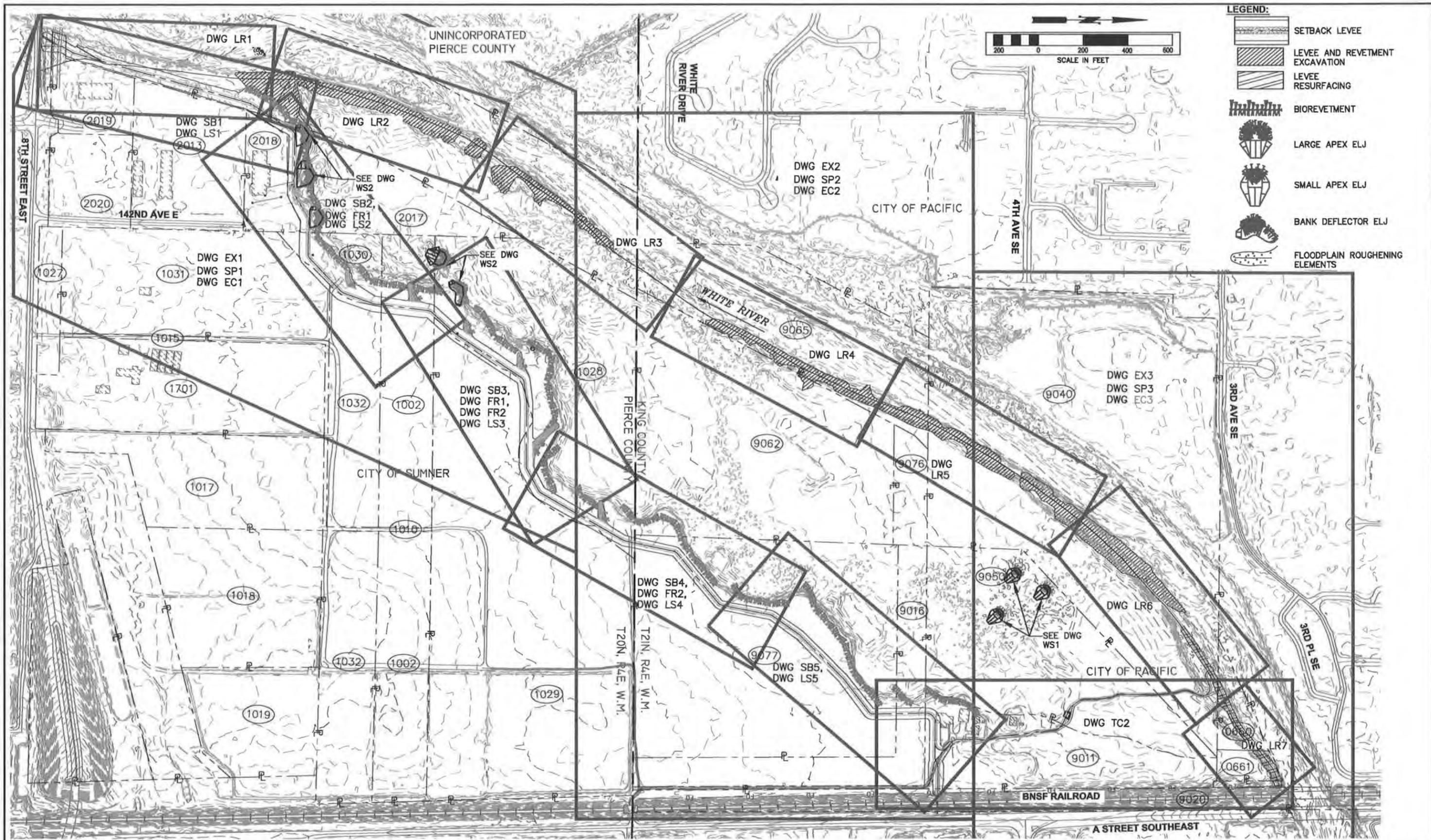
FIELD BOOK:				APPROVED: JEANNE STYPULA, PE	4-2013	SRFB #	RCO 087-1910C			COUNTYLINE LEVEE SETBACK WHITE RIVER, RIVER MILE 5.00-6.33 LEVEE MODIFICATION CONSTRUCTION NOTES	SHEET 3 OF 69 SHEETS GN3
SURVEYED:				PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013	PROJECT No.	1112049 (FL9001)				
SURVEY BASE MAP:				DESIGNED: CHRIS BRUMMER, PE	4-2013						
CHECKED:				ECOLOGIST: SARAH MCCARTHY	4-2013						
				DESIGN ENTERED: LICA DULAN	4-2013						
				NUM.	REVISION	BY	DATE				

DEWATERING NOTES:

1. THE DEWATERING PLAN AND NOTES WILL BE DEVELOPED FOR THE FINAL CONSTRUCTION PLANS TO MEET LOCAL, STATE, AND FEDERAL PERMIT REQUIREMENTS.

FIELD BOOK: _____				APPROVED: JEANNE STYPULA, PE	4-2013	SRFB # RCO 087-1910C		 King County Department of Natural Resources and Parks Water and Land Resources Division River and Floodplain Management Section <i>Christie True, Director</i>	COUNTYLINE LEVEE SETBACK WHITE RIVER, RIVER MILE 5.00-6.33 LEVEE MODIFICATION CONSTRUCTION NOTES	SHEET 4
SURVEYED: _____			PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013	PROJECT No. 1112049 (FL9001)	OF 69				
SURVEY BASE MAP: _____			DESIGNED: CHRIS BRUMMER, PE	4-2013		SHEETS				
CHECKED: _____			ECOLOGIST: SARAH MCCARTHY	4-2013		GN4				
			DESIGN ENTERED: LICA DULAN	4-2013						
			NUM.	REVISION	BY	DATE				

CADD / 60%
5-2013



FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

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ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)



King County
 Department of Natural Resources and Parks
 Water and Land Resources Division
 River and Floodplain Management Section
 Christie True, Director

COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 KEY SHEET

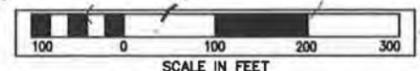
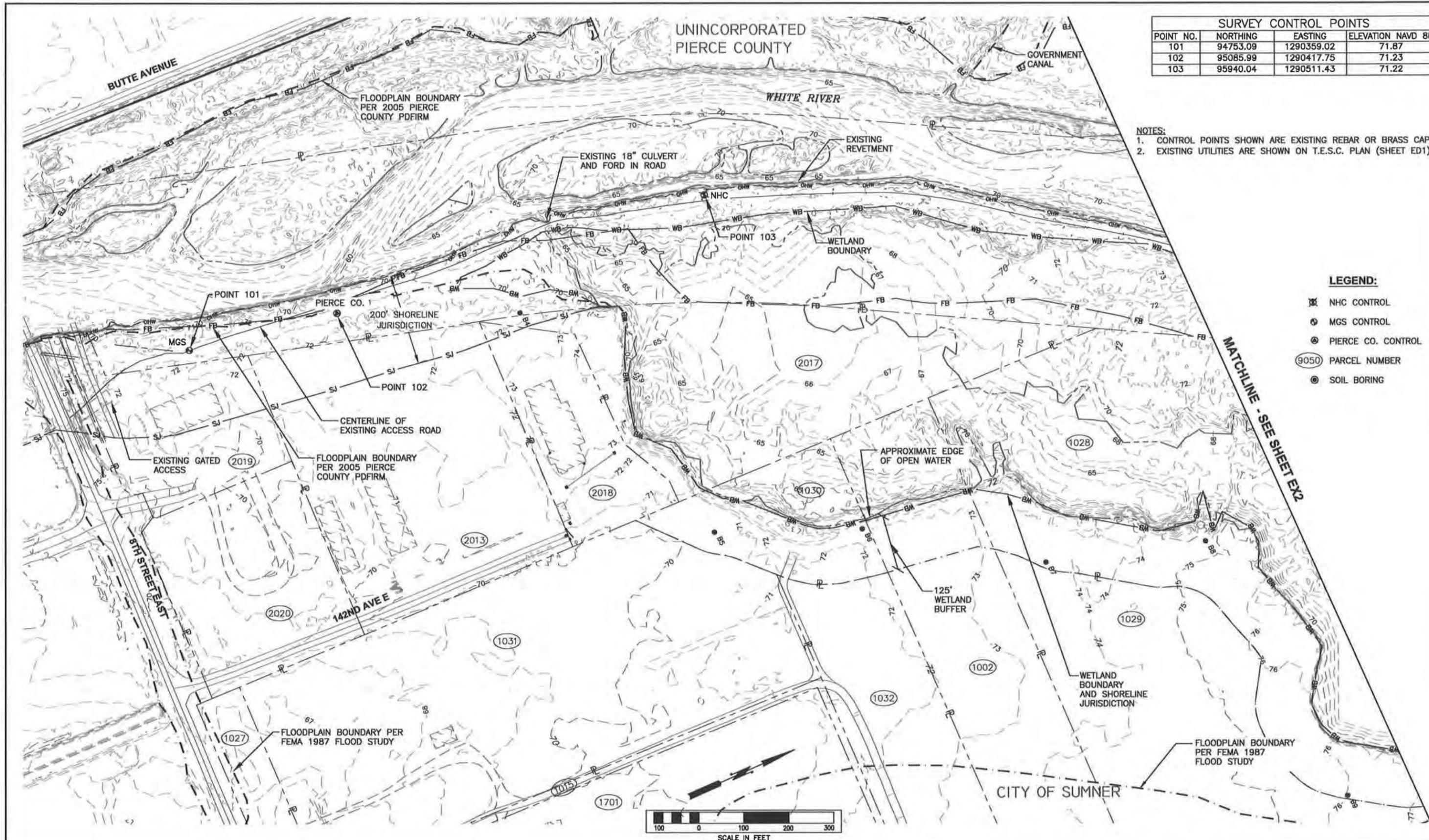
UNINCORPORATED
PIERCE COUNTY

SURVEY CONTROL POINTS			
POINT NO.	NORTHING	EASTING	ELEVATION NAVD 88
101	94753.09	1290359.02	71.87
102	95085.99	1290417.75	71.23
103	95940.04	1290511.43	71.22

- NOTES:
 1. CONTROL POINTS SHOWN ARE EXISTING REBAR OR BRASS CAPS.
 2. EXISTING UTILITIES ARE SHOWN ON T.E.S.C. PLAN (SHEET ED1).

LEGEND:

- ⊗ NHC CONTROL
- ⊙ MGS CONTROL
- ⊙ PIERCE CO. CONTROL
- ⊙ (9050) PARCEL NUMBER
- ⊙ SOIL BORING



MATCHLINE - SEE SHEET EX2

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

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King County
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 Water and Land Resources Division
 River and Floodplain Management Section
 Christie True, Director

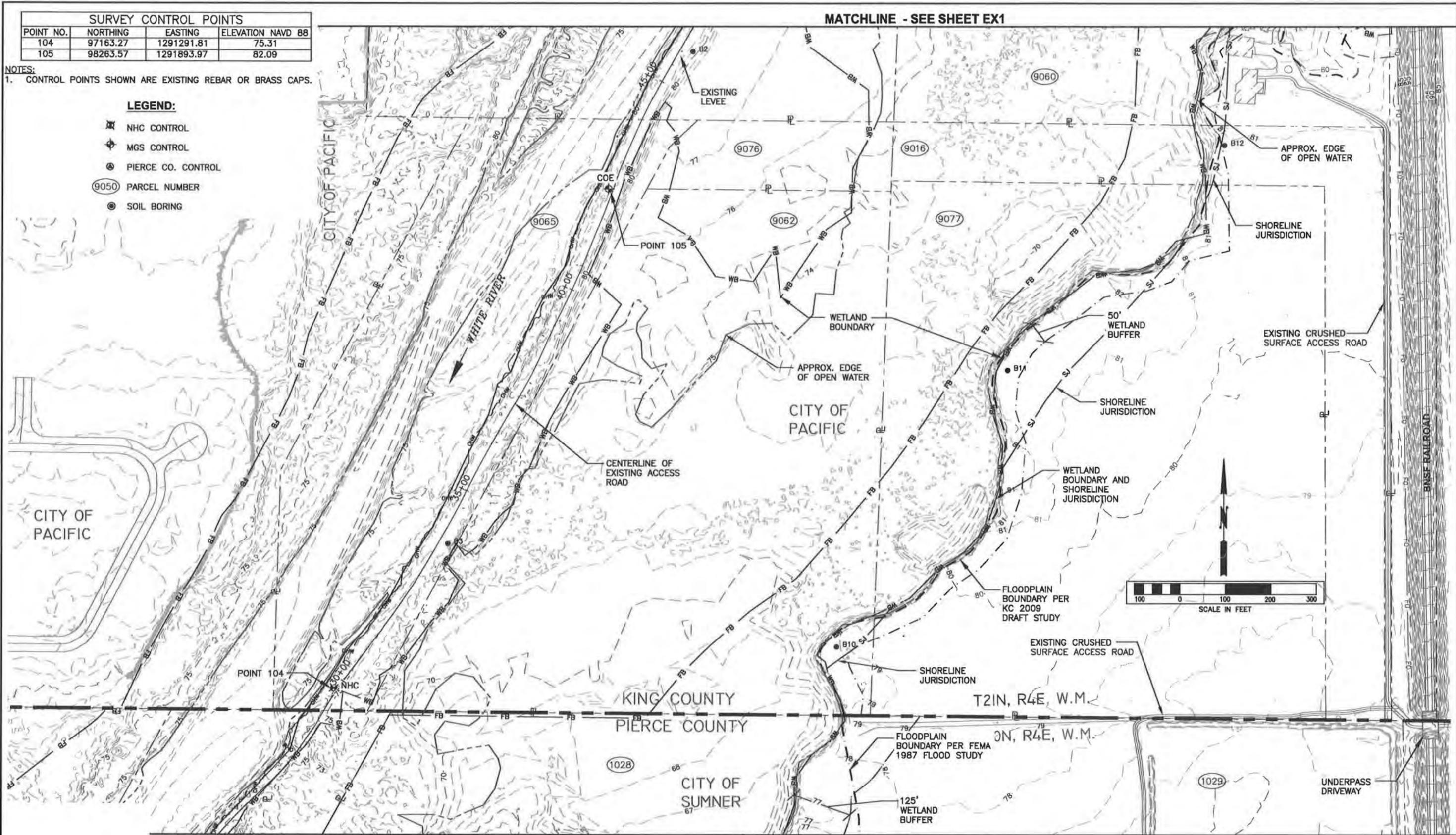
COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 EXISTING SITE PLAN AND SURVEY CONTROL

SHEET
 6
 OF
 69
 SHEETS
 EX1

SURVEY CONTROL POINTS			
POINT NO.	NORTHING	EASTING	ELEVATION NAVD 88
104	97163.27	1291291.81	75.31
105	98263.57	1291893.97	82.09

NOTES:
1. CONTROL POINTS SHOWN ARE EXISTING REBAR OR BRASS CAPS.

- LEGEND:**
- NHC CONTROL
 - MGS CONTROL
 - PIERCE CO. CONTROL
 - 9050 PARCEL NUMBER
 - SOIL BORING



MATCHLINE - SEE SHEET EX1

MATCHLINE - SEE SHEET EX3

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
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Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

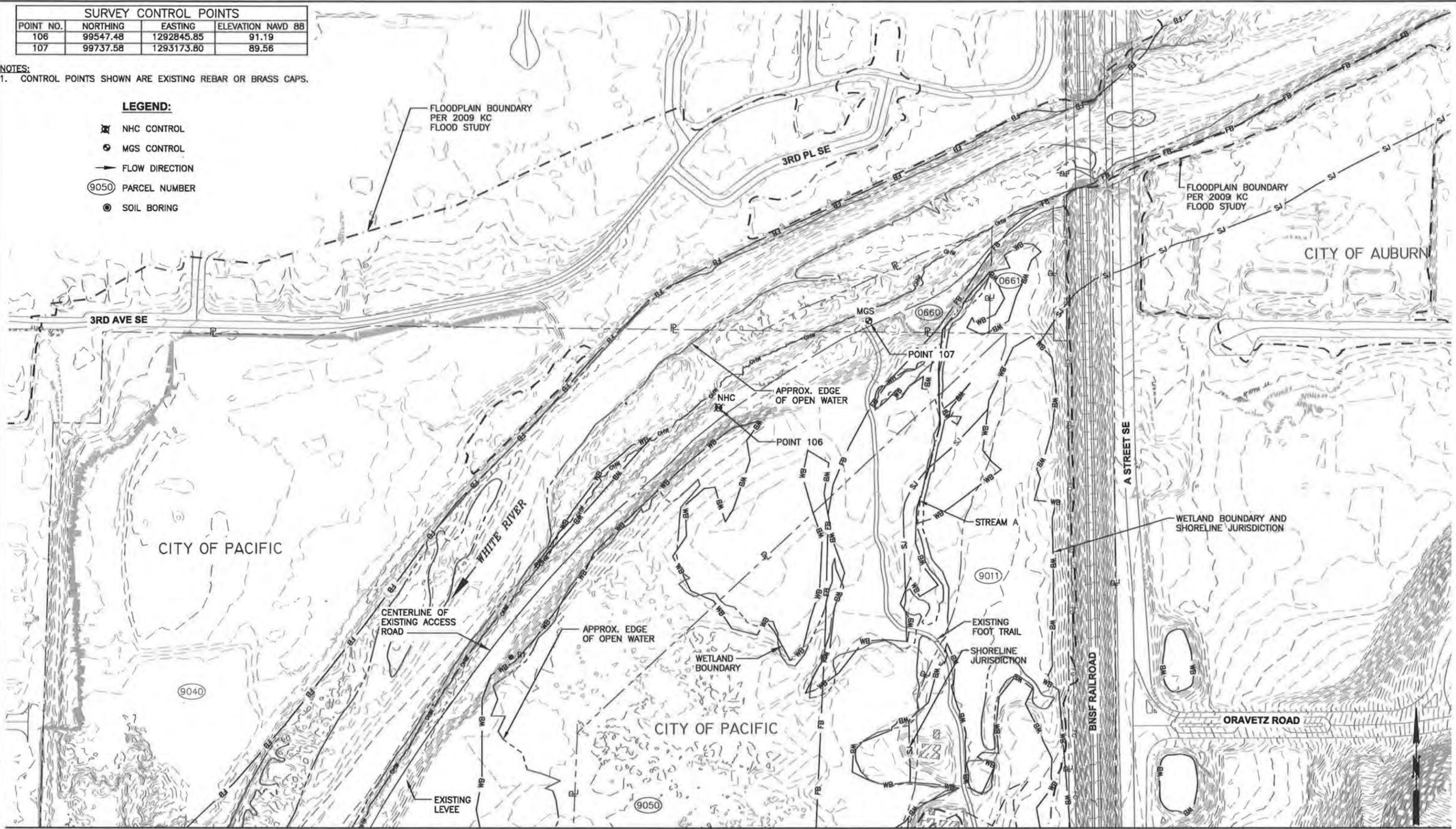
COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
EXISTING SITE PLAN AND SURVEY CONTROL

SHEET
7
OF
69
SHEETS
EX2

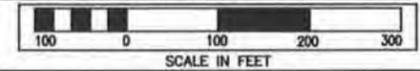
SURVEY CONTROL POINTS			
POINT NO.	NORTHING	EASTING	ELEVATION NAVD 88
106	99547.48	1292845.85	91.19
107	99737.58	1293173.80	89.56

NOTES:
1. CONTROL POINTS SHOWN ARE EXISTING REBAR OR BRASS CAPS.

- LEGEND:**
- NHC CONTROL
 - MGS CONTROL
 - FLOW DIRECTION
 - PARCEL NUMBER
 - SOIL BORING



MATCHLINE - SEE SHEET EX2



FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
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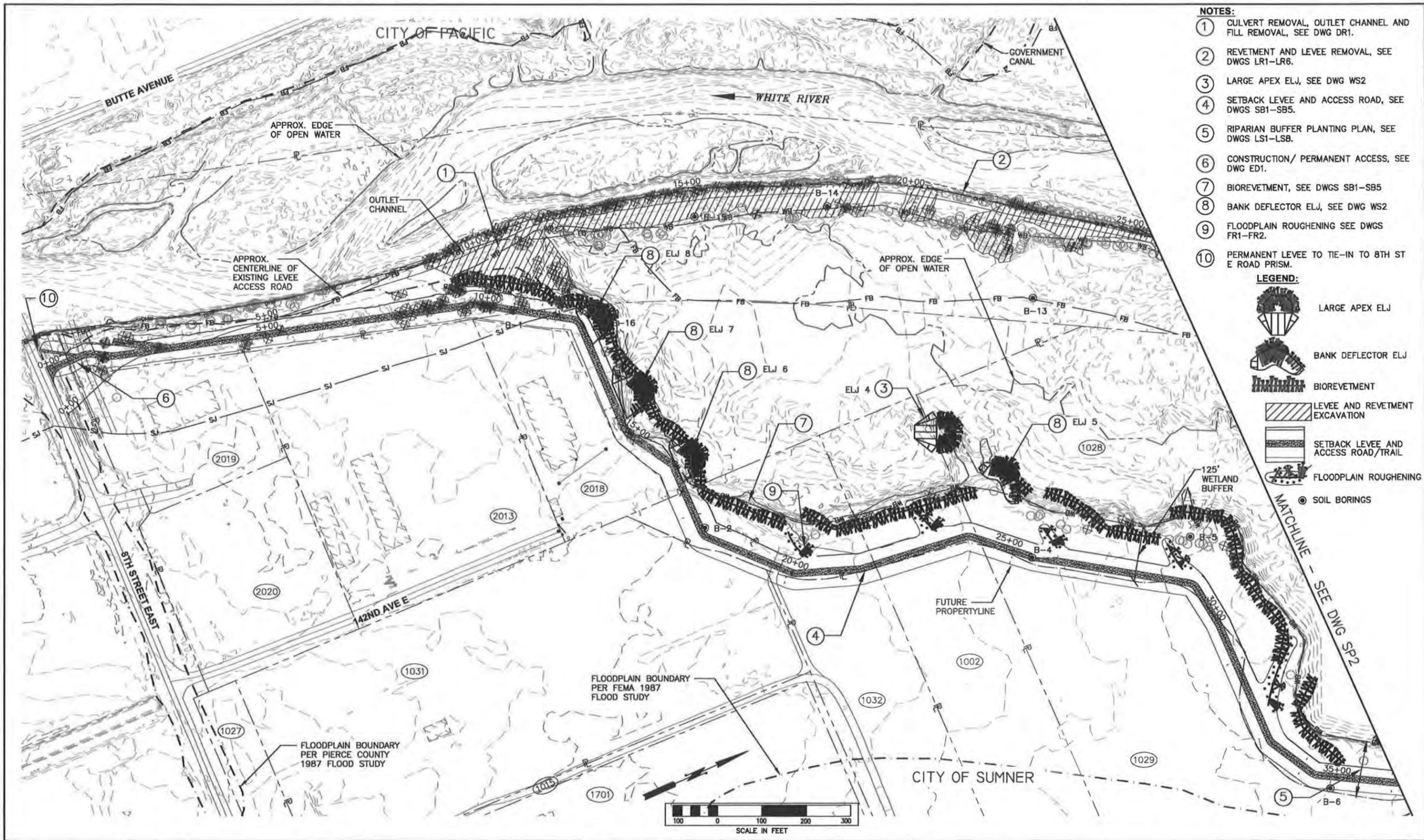
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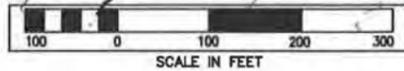
COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
EXISTING SITE PLAN AND SURVEY CONTROL

SHEET
8
OF
69
SHEETS
EX3



- NOTES:**
- ① CULVERT REMOVAL, OUTLET CHANNEL AND FILL REMOVAL, SEE DWG DR1.
 - ② REVETMENT AND LEVEE REMOVAL, SEE DWGS LR1-LR6.
 - ③ LARGE APEX ELJ, SEE DWG WS2
 - ④ SETBACK LEVEE AND ACCESS ROAD, SEE DWGS SB1-SB5.
 - ⑤ RIPARIAN BUFFER PLANTING PLAN, SEE DWGS LS1-LS8.
 - ⑥ CONSTRUCTION/ PERMANENT ACCESS, SEE DWG ED1.
 - ⑦ BIOREVETMENT, SEE DWGS SB1-SB5
 - ⑧ BANK DEFLECTOR ELJ, SEE DWG WS2
 - ⑨ FLOODPLAIN ROUGHENING SEE DWGS FR1-FR2.
 - ⑩ PERMANENT LEVEE TO TIE-IN TO 8TH ST E ROAD PRISM.

- LEGEND:**
- LARGE APEX ELJ
 - BANK DEFLECTOR ELJ
 - BIOREVETMENT
 - LEVEE AND REVETMENT EXCAVATION
 - SETBACK LEVEE AND ACCESS ROAD/TRAIL
 - FLOODPLAIN ROUGHENING
 - SOIL BORINGS

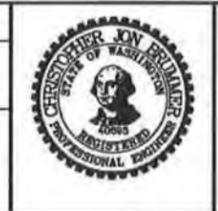


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 River and Floodplain Management Section
 Christie True, Director

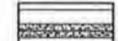
COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 PROPOSED SITE PLAN

SHEET
 9
 OF
 69
 SHEETS
 SP1

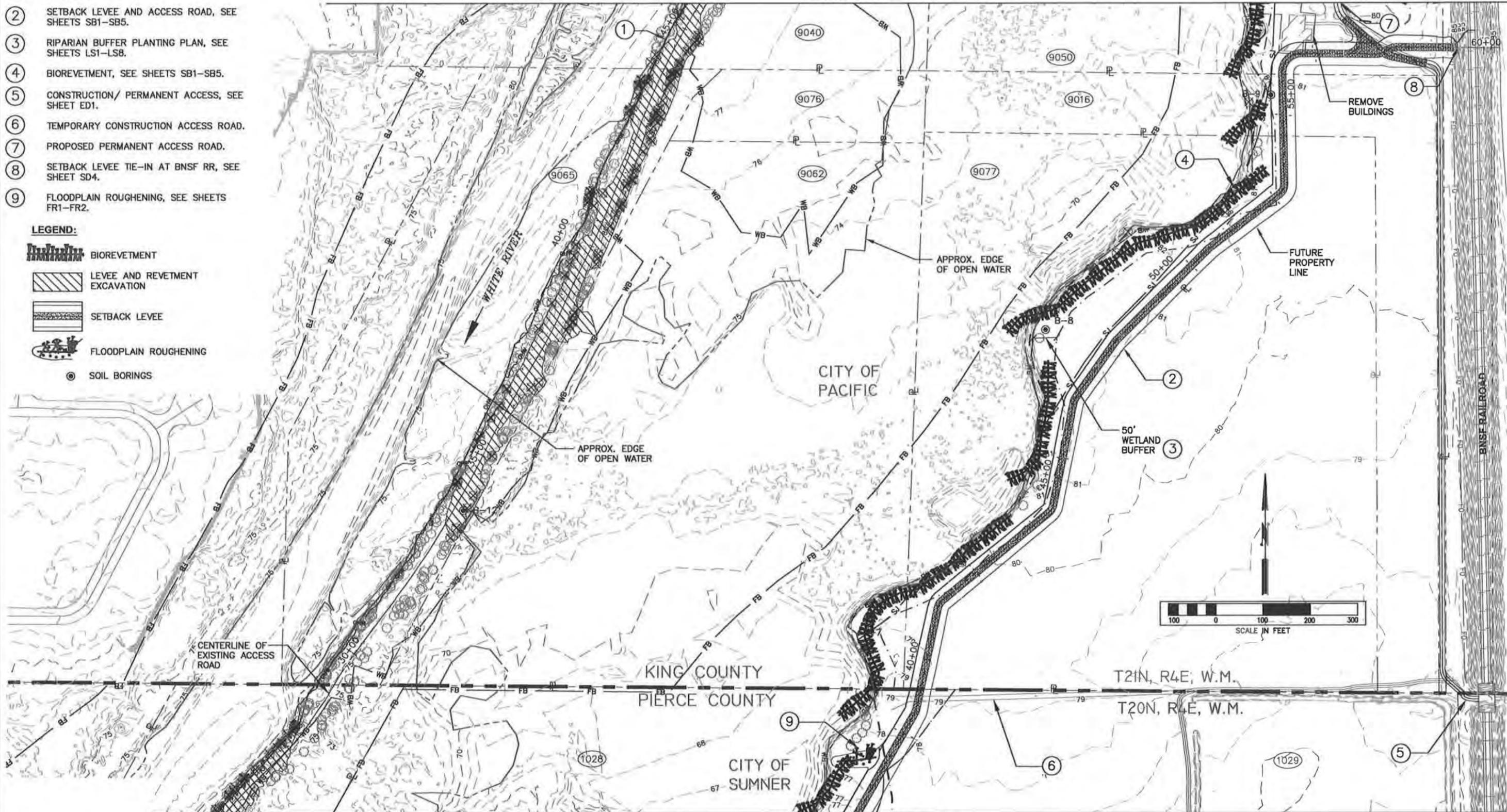
NOTES:

- ① REVELMENT AND LEVEE REMOVAL, SEE SHEETS LR1-LR6.
- ② SETBACK LEVEE AND ACCESS ROAD, SEE SHEETS SB1-SB5.
- ③ RIPARIAN BUFFER PLANTING PLAN, SEE SHEETS LS1-LS8.
- ④ BIOREVELMENT, SEE SHEETS SB1-SB5.
- ⑤ CONSTRUCTION/ PERMANENT ACCESS, SEE SHEET ED1.
- ⑥ TEMPORARY CONSTRUCTION ACCESS ROAD.
- ⑦ PROPOSED PERMANENT ACCESS ROAD.
- ⑧ SETBACK LEVEE TIE-IN AT BNSF RR, SEE SHEET SD4.
- ⑨ FLOODPLAIN ROUGHENING, SEE SHEETS FR1-FR2.

LEGEND:

-  BIOREVELMENT
-  LEVEE AND REVELMENT EXCAVATION
-  SETBACK LEVEE
-  FLOODPLAIN ROUGHENING
-  SOIL BORINGS

MATCHLINE - SEE SHEET SP3



MATCHLINE - SEE SHEET SP1

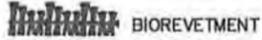
<p>FIELD BOOK: _____</p> <p>SURVEYED: _____</p> <p>SURVEY BASE MAP: _____</p> <p>CHECKED: _____</p>	<p style="font-size: 2em; font-weight: bold;">CADD / 60%</p> <p style="font-size: 1.5em; font-weight: bold;">5-2013</p>	<p>APPROVED: JEANNE STYPULA, PE 4-2013</p> <p>PROJECT MANAGER: CHRIS BRUMMER, PE 4-2013</p> <p>DESIGNED: CHRIS BRUMMER, PE 4-2013</p> <p>ECOLOGIST: SARAH MCCARTHY 4-2013</p> <p>DESIGN ENTERED: LICA DULAN 4-2013</p>	<p>SRFB # RCO 087-1910C</p> <p>PROJECT No. 1112049 (FL9001)</p>		<p>King County</p> <p>Department of Natural Resources and Parks Water and Land Resources Division River and Floodplain Management Section</p> <p><i>Christie True, Director</i></p>	<p>COUNTYLINE LEVEE SETBACK WHITE RIVER, RIVER MILE 5.00-6.33 LEVEE MODIFICATION PROPOSED SITE PLAN</p>	<p>SHEET 10 OF 69 SHEETS SP2</p>								
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NUM.	REVISION	BY	DATE												

- NOTES:**
- ① REVETMENT AND LEVEE REMOVAL, SEE SHEETS LR1-LR6.
 - ② SMALL APEX ELJ (TYP.), SEE SHEET WS1
 - ③ AT-GRADE PERMANENT LEVEE ACCESS ROAD, SEE SHEET TC2.
 - ④ EXISTING LEVEE TO REMAIN.
 - ⑤ BIOREVETMENT, SEE SHEETS SB1-SB5

LEGEND:



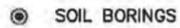
SMALL APEX ELJ



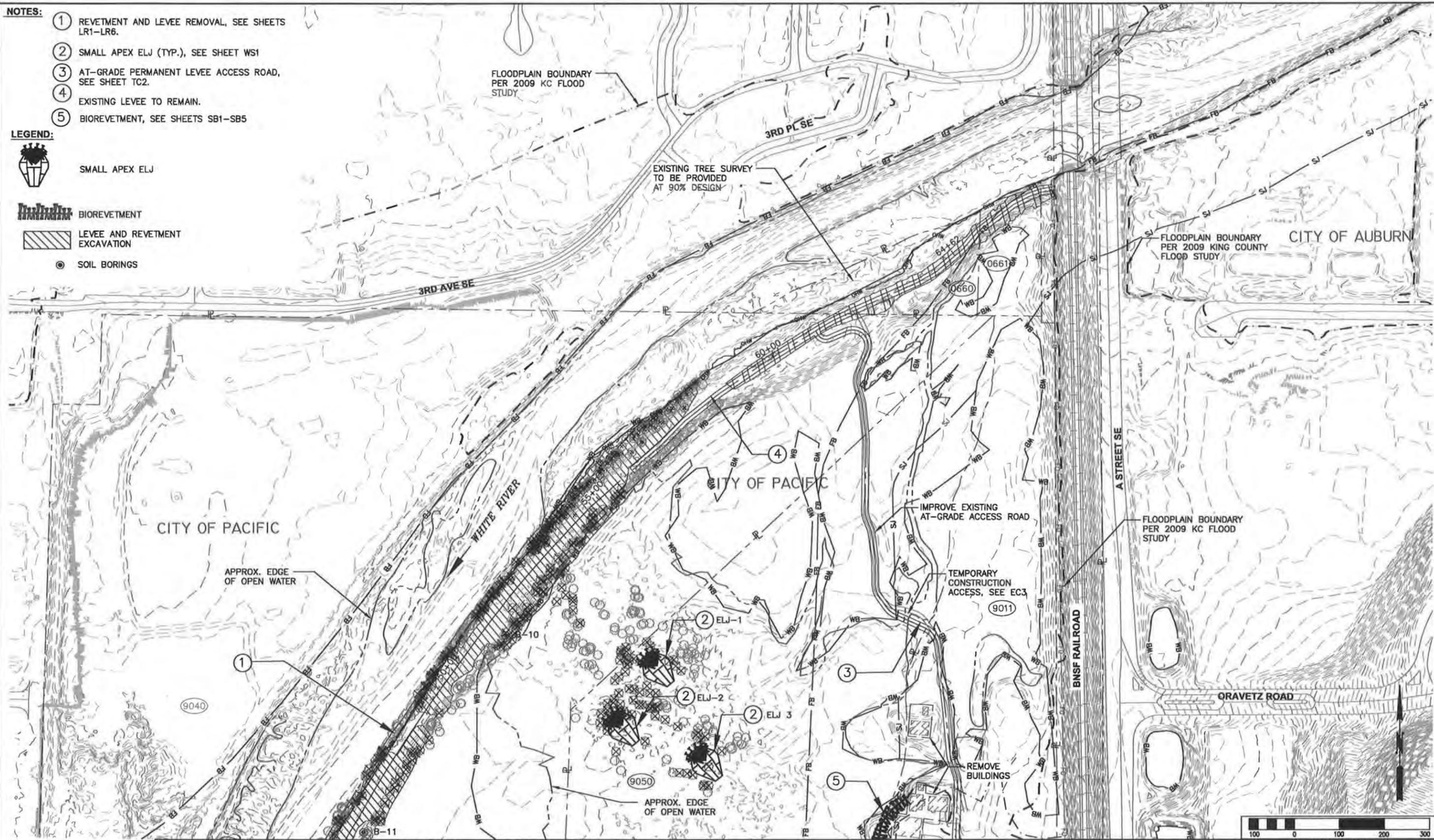
BIOREVETMENT



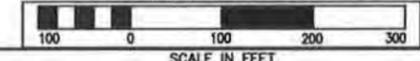
LEVEE AND REVETMENT EXCAVATION



SOIL BORINGS



MATCHLINE - SEE SHEET SP2



FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

APPROVED:	JEANNE STYPULA, PE	4-2013
PROJECT MANAGER:	CHRIS BRUMMER, PE	4-2013
DESIGNED:	CHRIS BRUMMER, PE	4-2013
ECOLOGIST:	SARAH MCCARTHY	4-2013
DESIGN ENTERED:	LICA DULAN	4-2013

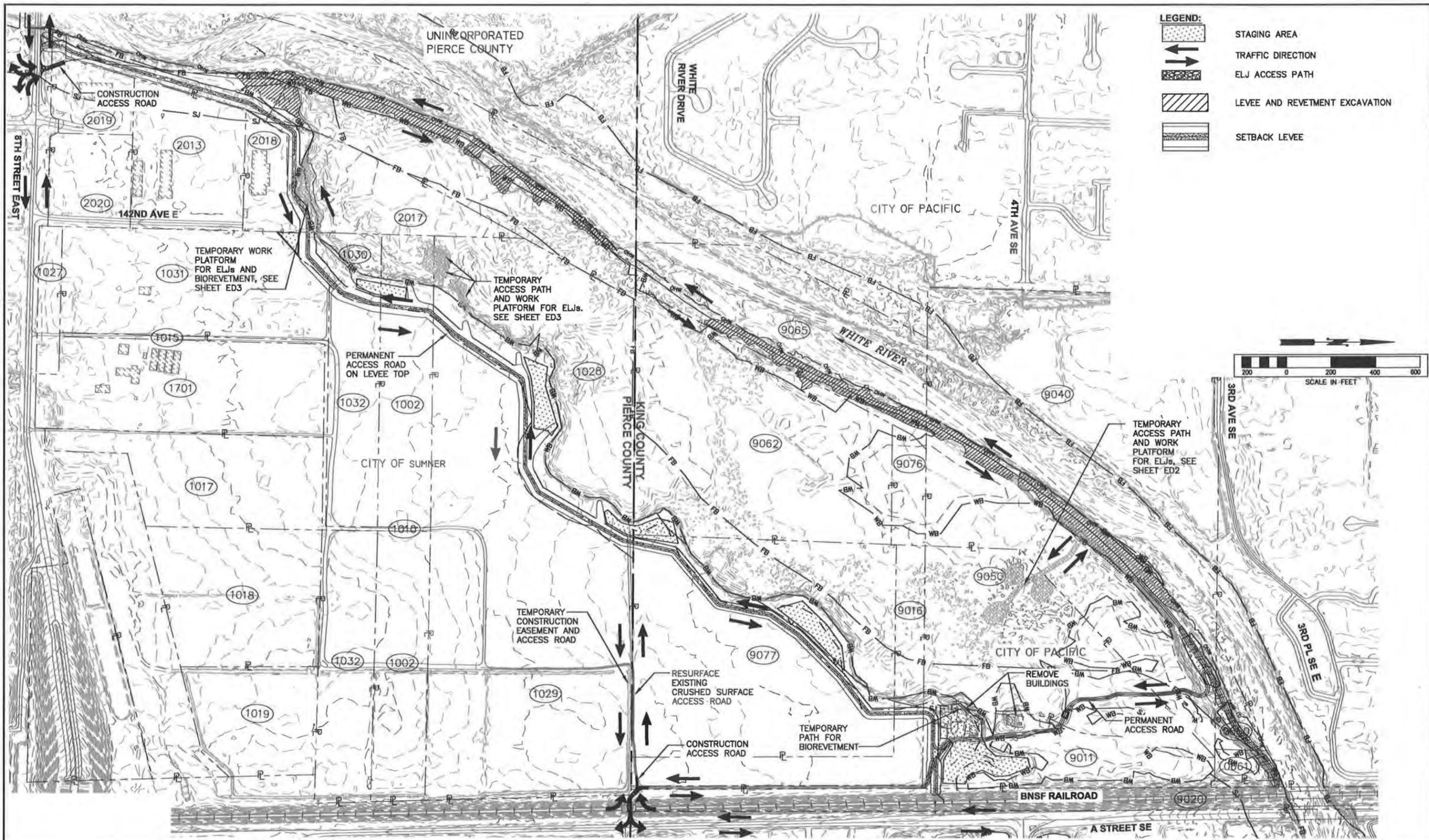
SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)



King County
 Department of Natural Resources and Parks
 Water and Land Resources Division
 River and Floodplain Management Section
 Christie Trus, Director

COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 PROPOSED SITE PLAN

SHEET
 11
 OF
 69
 SHEETS
 SP3

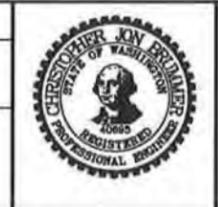


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SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

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5-2013			
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ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

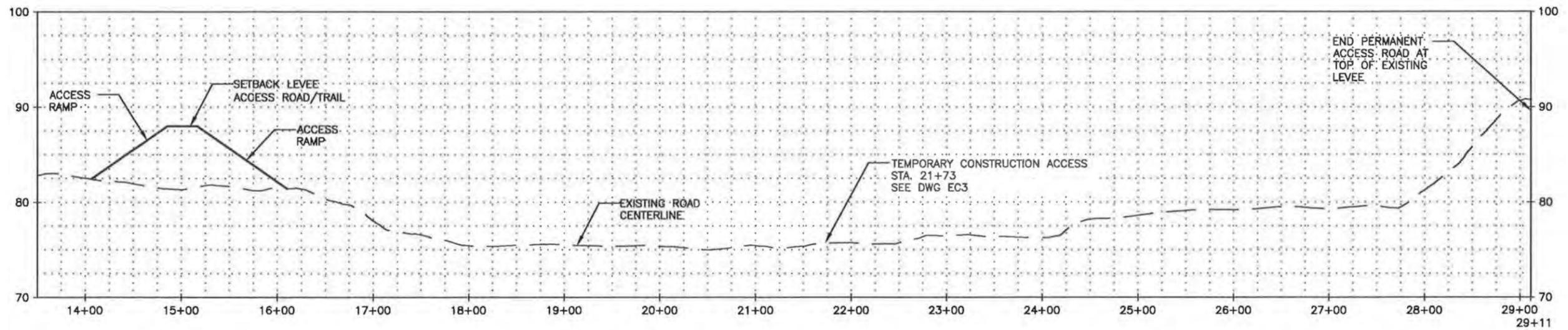
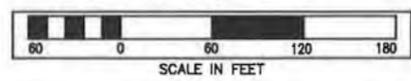
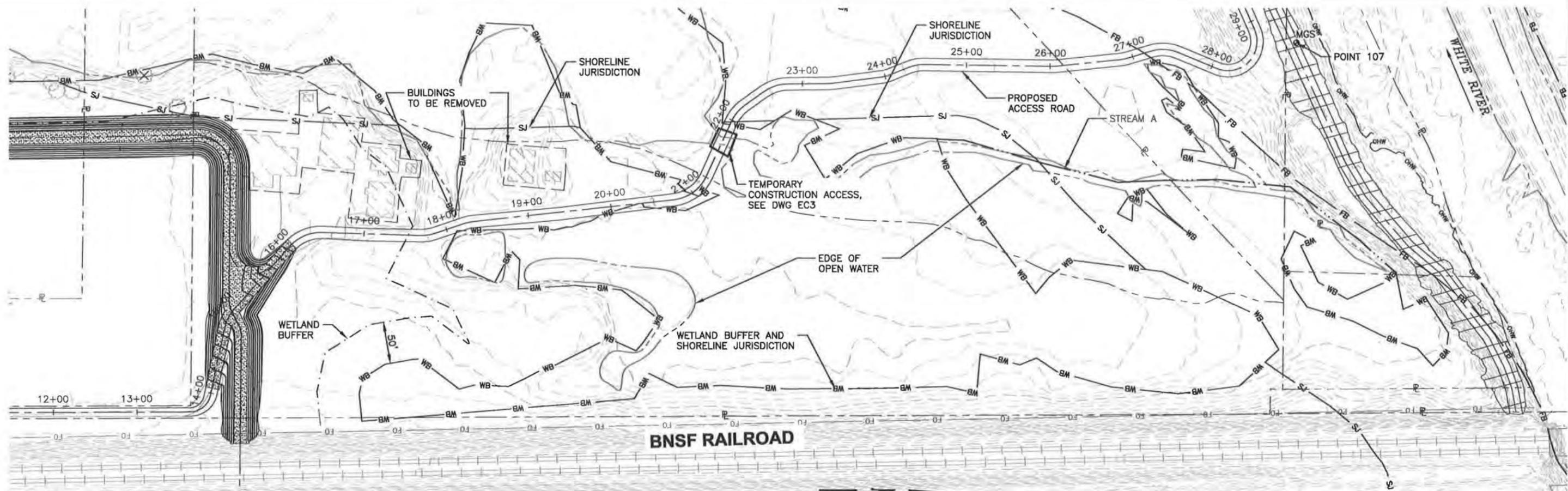
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 Christie True, Director

COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 TRAFFIC, ACCESS AND STAGING PLAN

SHEET	12
OF	69
SHEETS	
TC1	



FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

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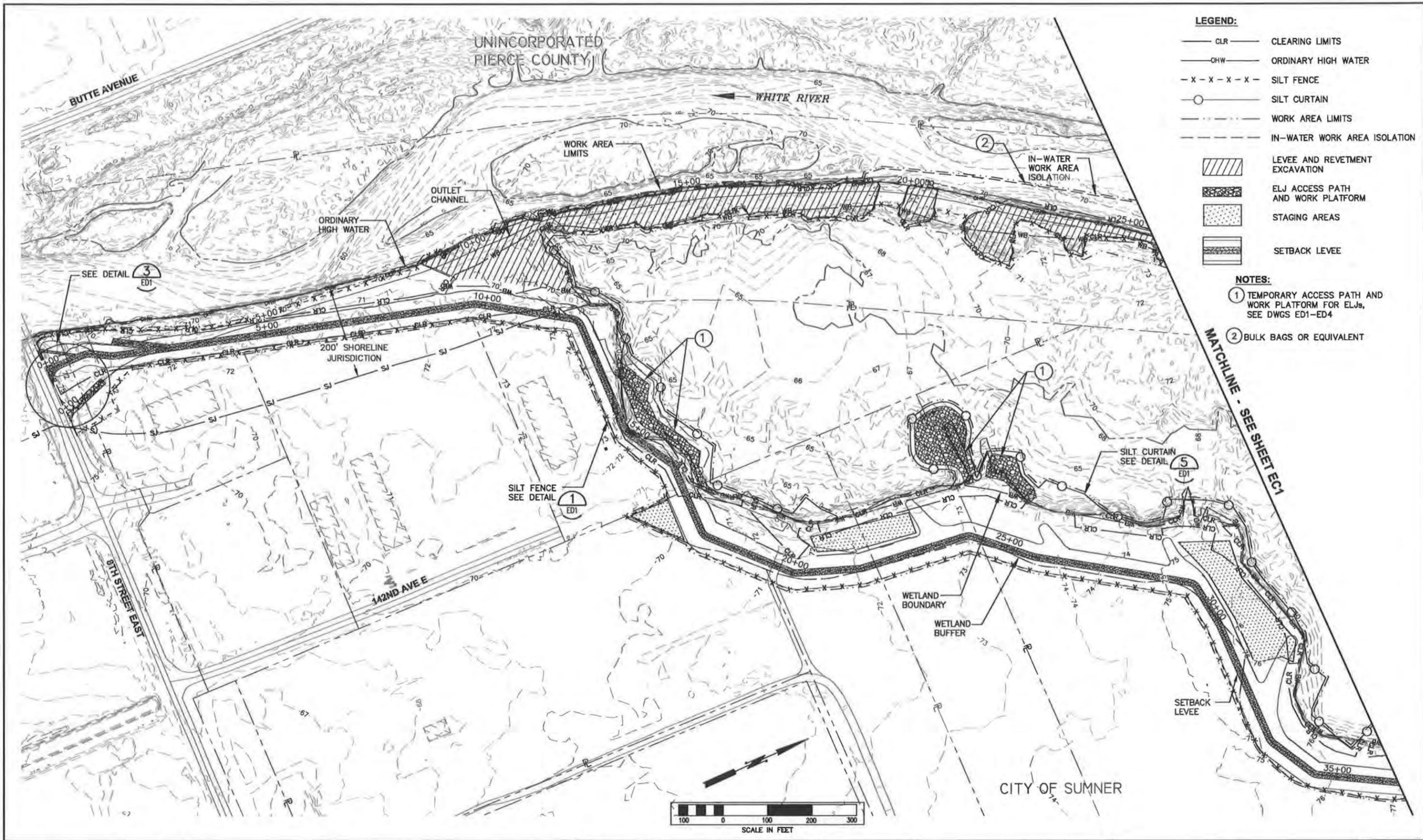
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King County
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Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
NORTH PERMANENT ACCESS PLAN,
TYPICAL SECTIONS AND DETAILS

SHEET	13
OF	69
SHEETS	
TC2	



- LEGEND:**
- CLR — CLEARING LIMITS
 - OHW — ORDINARY HIGH WATER
 - X - X - X - X - SILT FENCE
 - SILT CURTAIN
 - - - - - WORK AREA LIMITS
 - - - - - IN-WATER WORK AREA ISOLATION

- LEVEE AND REVETMENT EXCAVATION
- ELJ ACCESS PATH AND WORK PLATFORM
- STAGING AREAS
- SETBACK LEVEL

- NOTES:**
- ① TEMPORARY ACCESS PATH AND WORK PLATFORM FOR ELJs, SEE DWGS ED1-ED4
 - ② BULK BAGS OR EQUIVALENT

MATCHLINE - SEE SHEET EC1

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

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5-2013

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DESIGN ENTERED: LICA DULAN	4-2013

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King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christle True, Director

COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
T.E.S.C. PLAN

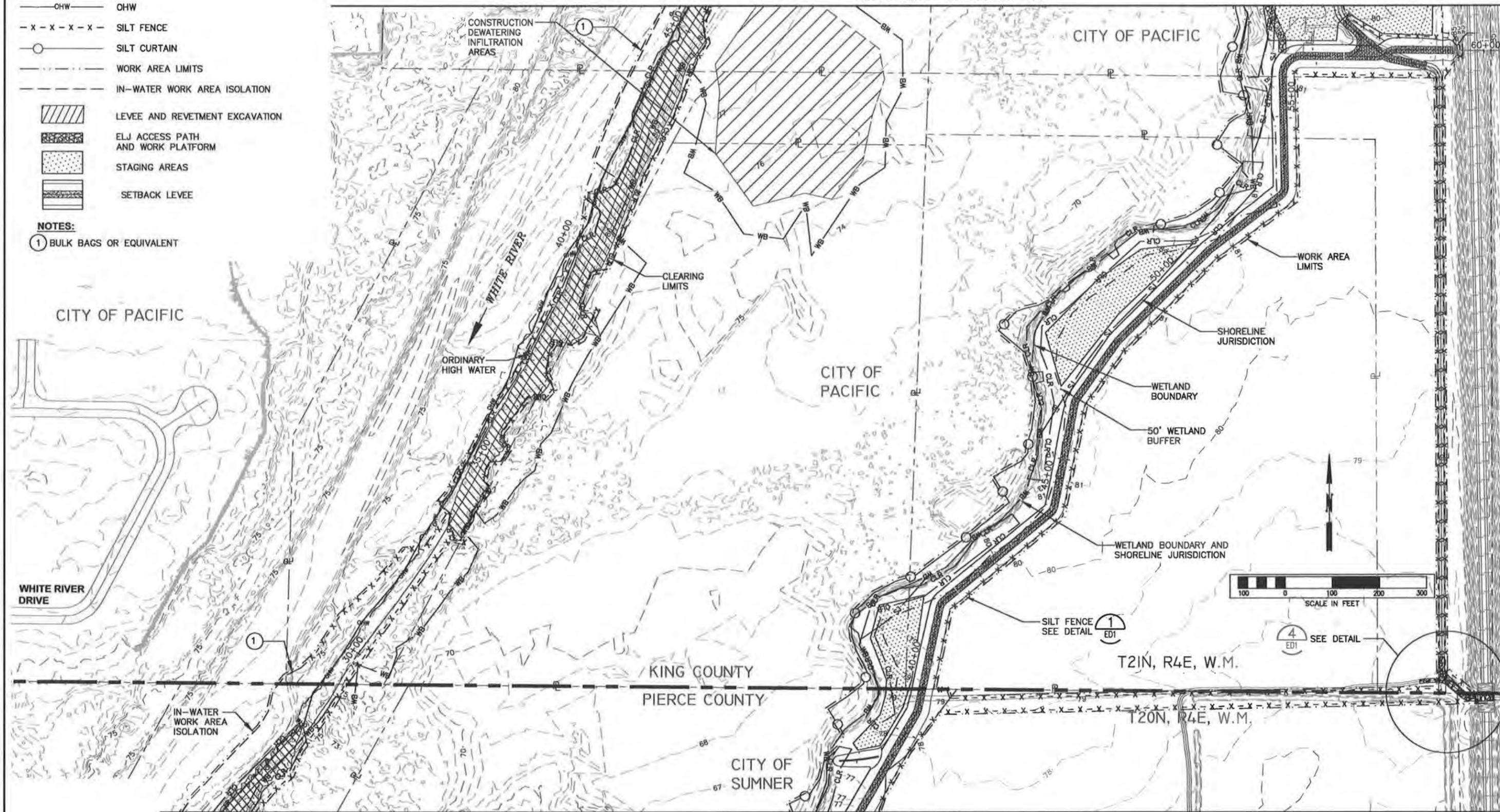
SHEET
14
OF
69
SHEETS
EC1

LEGEND:

- CLR — CLEARING LIMITS
- OHW — OHW
- x - x - x - x - SILT FENCE
- SILT CURTAIN
- - - - - WORK AREA LIMITS
- - - - - IN-WATER WORK AREA ISOLATION
-  LEVEE AND REVETMENT EXCAVATION
-  ELJ ACCESS PATH AND WORK PLATFORM
-  STAGING AREAS
-  SETBACK LEVEE

- NOTES:**
- ① BULK BAGS OR EQUIVALENT

MATCHLINE - SEE SHEET EC3



MATCHLINE - SEE SHEET EC1

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

APPROVED: JEANNE STYPULA, PE	4-2013	SRFB #	RCO 087-1910C
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013	PROJECT No.	1112049 (FL9001)
DESIGNED: CHRIS BRUMMER, PE	4-2013		
ECOLOGIST: SARAH MCCARTHY	4-2013		
DESIGN ENTERED: LICA DULAN	4-2013		



King County
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 Christle Trus, Director

COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 T.E.S.C. PLAN

SHEET
 15
 OF
 69
 SHEETS
 EC2

CADD / 60%
5-2013
 EC1

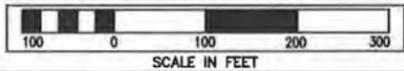
NUM.	REVISION	BY	DATE

LEGEND:

- CLR — CLEARING LIMITS
- OHW — ORDINARY HIGH WATER
- x - x - x - SILT FENCE
- - - - - WORK AREA LIMITS
- - - - - IN-WATER WORK AREA ISOLATION
- [Hatched Box] LEVEE AND REVETMENT EXCAVATION
- [Dotted Box] ELJ ACCESS PATH AND WORK PLATFORM
- [Stippled Box] STAGING AREAS

NOTES:

- ① TEMPORARY ACCESS PATH AND WORK PLATFORM FOR ELJs, SEE SHEETS ED1-ED2
- ② BULK BAGS OR EQUIVALENT



FIELD BOOK:			
SURVEYED:			
SURVEY BASE MAP:			
CHECKED:			
NUM.	REVISION	BY	DATE

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5-2013

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DESIGNED: CHRIS BRUMMER, PE	4-2013
ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

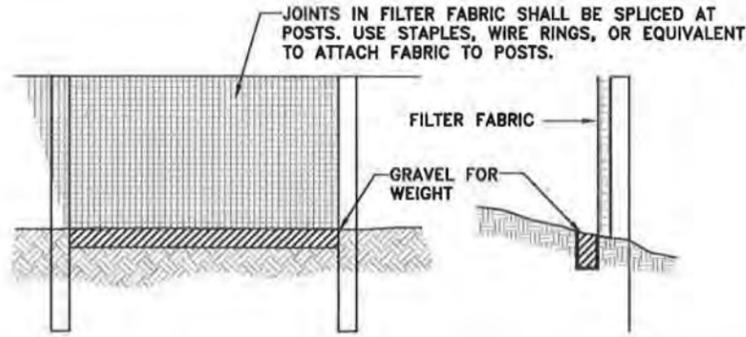
SRFB # RCO 087-1910C
PROJECT No. 1112049 (FL9001)



King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
T.E.S.C. PLAN

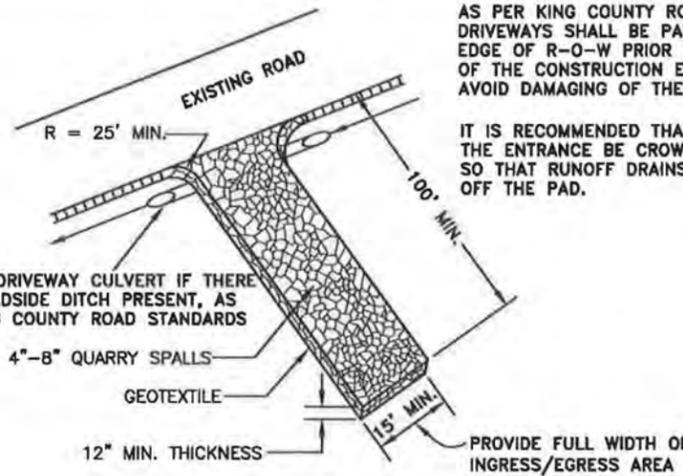
SHEET 16 OF 69 SHEETS
EC3



WEIGHTED SILT FENCE

NTS

1
EC1-EC3



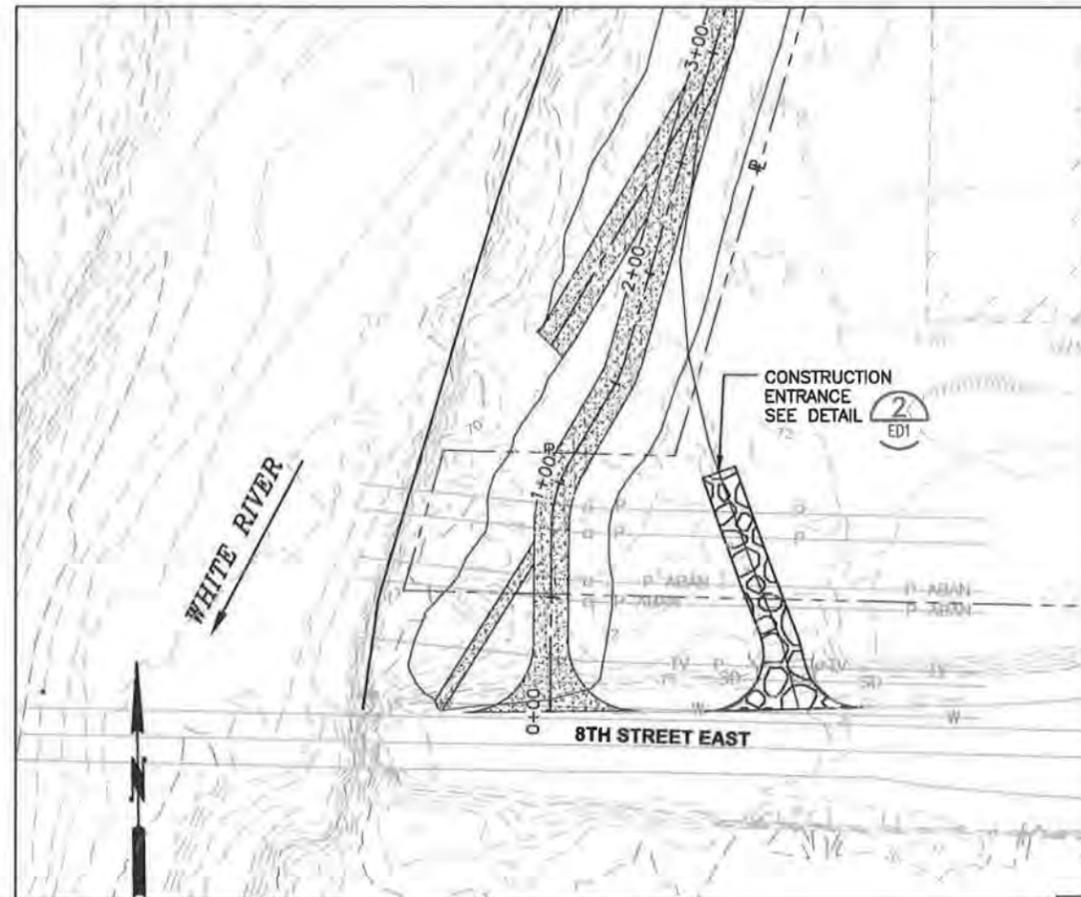
STABILIZED CONSTRUCTION ENTRANCE

NTS

2
SP1,SP2

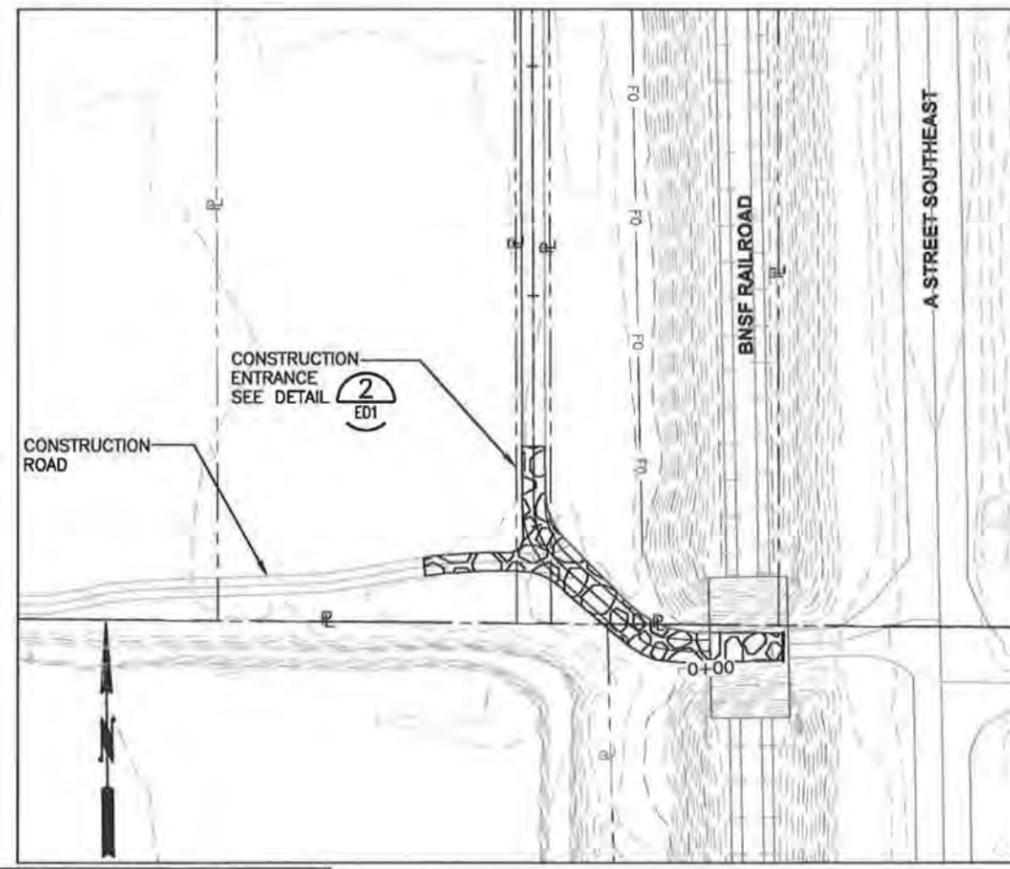
NOTES FOR TEMPORARY ACCESS PATH TO ELJs

1. CLEARED ACCESS PATH TO BE ROUTED TO MINIMIZE VEGETATION DISTURBANCE AND FOREST CLEARING.
2. CONTRACTOR SHALL MARK CLEARING LIMITS WITH FLAGGING. CLEARING LIMITS TO BE APPROVED BY ENGINEER OR OWNER PRIOR TO ANY CLEARING ACTIVITIES.
3. NO STANDING TREES GREATER THAN 4 INCHES DIAMETER AT BREAST HEIGHT SHALL BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.
4. TREES WITH MARKED FOR REUSE CLEARED FOR ACCESS PATH CONSTRUCTION SHALL BE STOCKPILED FOR USE AS RACKING IN ELJ CONSTRUCTION. SHRUBS CLEARED FOR ACCESS PATH CONSTRUCTION SHALL BE STOCKPILED FOR USE AS SLASH IN ELJ CONSTRUCTION.
5. ACCESS PATH SHALL BE MAINTAINED BY MINOR GRADING AND IMPORTATION OF ALLUVIUM FROM THE EXIST LEVEE AS NECESSARY, OR AS DIRECTED BY THE ENGINEER. NON-NATIVE ANGULAR ROCK IS NOT ALLOWED TO BE PLACED ON TEMPORARY ACCESS PATHS.
6. CLEARED ACCESS PATH SHALL BE DECOMPACTED AT THE TERMINATION OF WORK.
7. ALL VEGETATION CLEARED FOR ACCESS PATH AND ELJ CONSTRUCTION THAT IS NOT USED IN THE ELJs SHALL BE PLACED ON THE DECOMPACTED PATH AND OTHER DISTURBED AREAS AS DIRECTED BY THE ENGINEER.
8. SOIL REMOVED AS PART OF ACCESS PATH CONSTRUCTION SHALL BE STOCKPILED AND THEN SPREAD BACK ONTO TEMPORARY ACCESS PATH ALIGNMENT FOLLOWING COMPLETION OF WORK. EXISTING GRADE OF ACCESS PATH SHALL BE RESTORED AS PART OF WORK TO REMOVE ACCESS PATH.



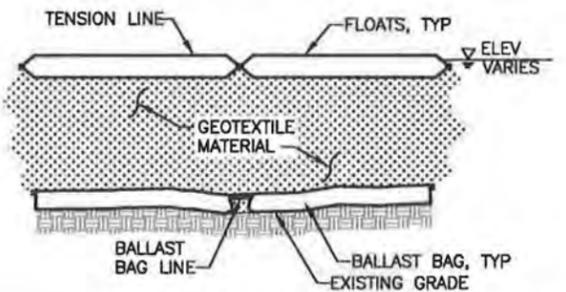
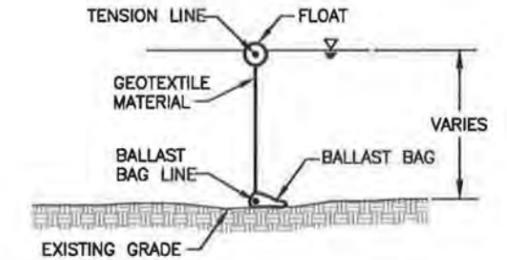
CONSTRUCTION ACCESS FROM 8TH ST E

3
EC1



CONSTRUCTION ACCESS FROM A ST SE

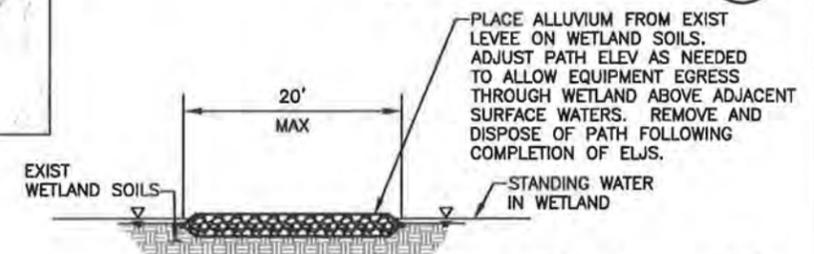
4
EC2



SILT CURTAIN

NTS

5
EC1



TEMP ACCESS PATH FOR APEX ELJ

NTS

6
EC1, EC3

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	
CADD / 60%	
5-2013	
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BY	DATE

APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: CHRIS BRUMMER, PE	4-2013
ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

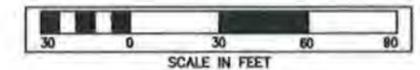
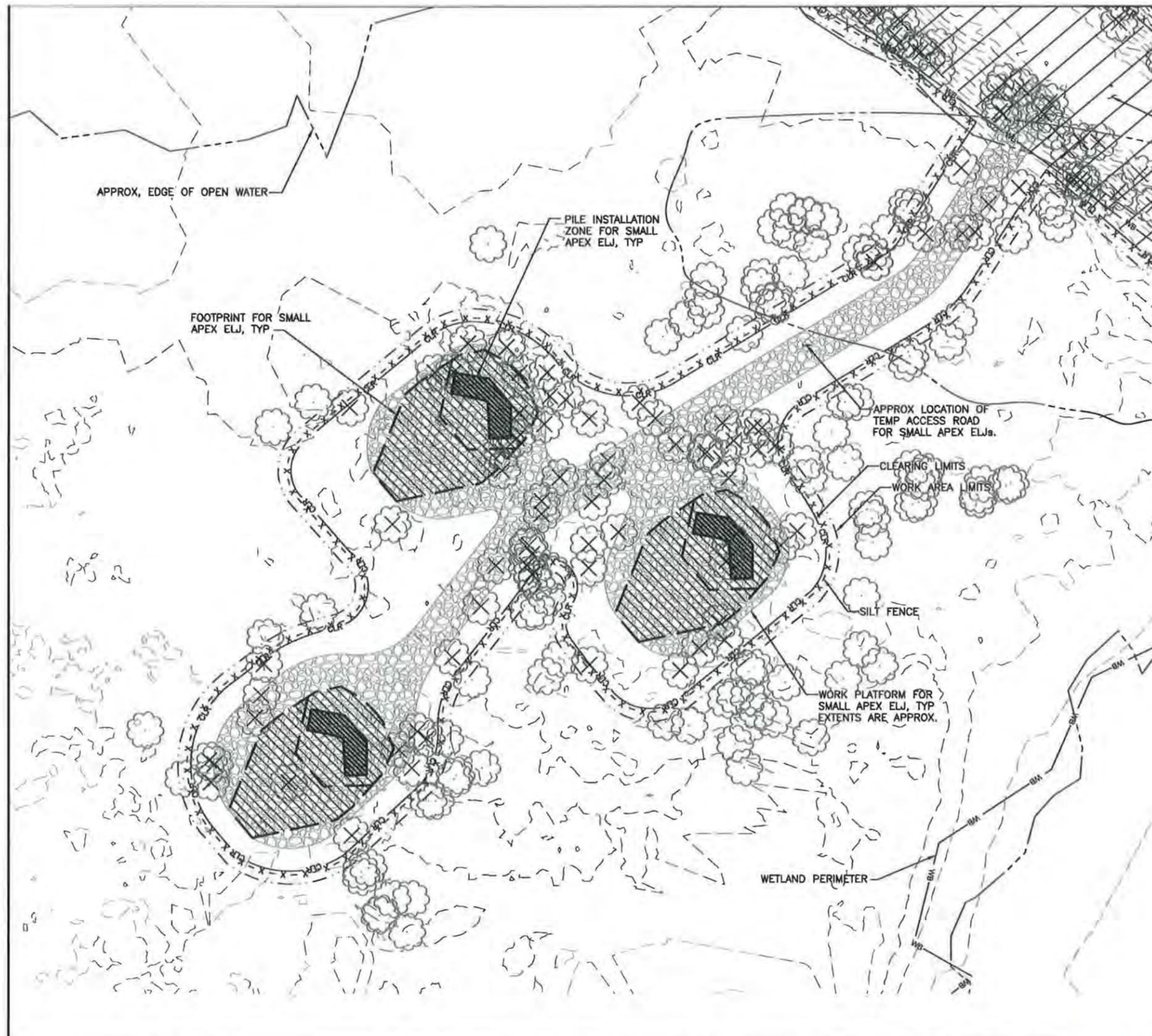
SRFB #	RCD 087-1910C
PROJECT No.	1112049 (FL9001)



King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
T.E.S.C. DETAILS

SHEET	17
OF	69
SHEETS	
ED1	

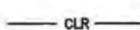
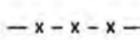


LEVEE AND REVETMENT EXCAVATION

NOTES:

1. FOR ELJ PILE INSTALLATION CONSTRUCT WORK PLATFORM IN LOCATION SHOWN TO ALLOW PILE INSTALLATION TO OCCUR IN THE DRY. USE ALLUVIUM EXCAVATED FROM EXIST LEVEE AND PLACE SPOILS BY END-DUMPING AND COMPACT BY ROUTING EQUIPMENT OVER SPOILS. SPOILS WILL SLOPE FROM PILE PLACEMENT ZONE AT MATERIAL'S ANGLE OF REPOSE DOWN TO BOTTOM OF WETLAND. CONSTRUCT WORK PLATFORM ABOVE THE WSE AT THE TIME OF CONSTRUCTION.
2. ISOLATE ELJs FROM STANDING WATER IN WETLAND WITH A SILT CURTAIN OR APPROVED OTHER TO CONTAIN TURBID WATER WHILE CONSTRUCTING STRUCTURES.
3. FOLLOWING PILE INSTALLATION, EXCAVATE THROUGH WORK PLATFORM AS NEEDED TO COMPLETE STRUCTURE CONSTRUCTION. WORK PLATFORM MATERIAL MAY BE REUSED AS STRUCTURE BACKFILL MATERIAL.
4. IF NECESSARY TO COMPLETE CONSTRUCTION OF ELJs, PUMP WATER FROM EXCAVATION AND DISCHARGE TO INFILTRATION AREA OUTSIDE OF WETLAND BOUNDARY OR TO PORTABLE WATER TREATMENT SYSTEM PER PROJECT PERMIT REQUIREMENTS.
5. WORK AREA LIMITS SHOWN AROUND ELJ WORK AREAS REPRESENT THE MAXIMUM ALLOWABLE CLEARING LIMITS. THE CONTRACTOR SHALL MINIMIZE CLEARING WHERE POSSIBLE TO PRESERVE AS MUCH EXISTING VEGETATION AS POSSIBLE AND NOT DAMAGE OR DISTURB VEGETATION MARKED BY THE OWNER OR PROJECT REPRESENTATIVE FOR PRESERVATION. AT THE DISCRETION OF THE PROJECT REPRESENTATIVE CLEARING DEBRIS MAY BE USED AS SLASH IN THE ELJs EXCLUDING NON-NATIVE, INVASIVE AND NOXIOUS VEGETATION.

LEGEND:

-  LEVEE AND REVETMENT EXCAVATION
-  TEMPORARY ACCESS ROAD AND ELJ WORK PLATFORM
-  WORK AREA LIMITS
-  CLR CLEARING LIMITS
-  SILT FENCE
-  EDGE OF OPEN WATER
-  ELJ FOOTPRINT
-  ELJ PILE INSTALLATION ZONE
-  EXISTING TREE (TO REMAIN)
-  EXISTING TREE (TO BE REMOVED)

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	
CADD / 60%	
5-2013	
NUM.	REVISION
BY	DATE

APPROVED: IAN MOSTRENKO, PE	5-2013
PROJECT MANAGER: MARK EWBANK, PE	5-2013
DESIGNED: BRIAN SCOTT	5-2013
ECOLOGIST:	
DESIGN ENTERED: TODD PRESCOTT	5-2013

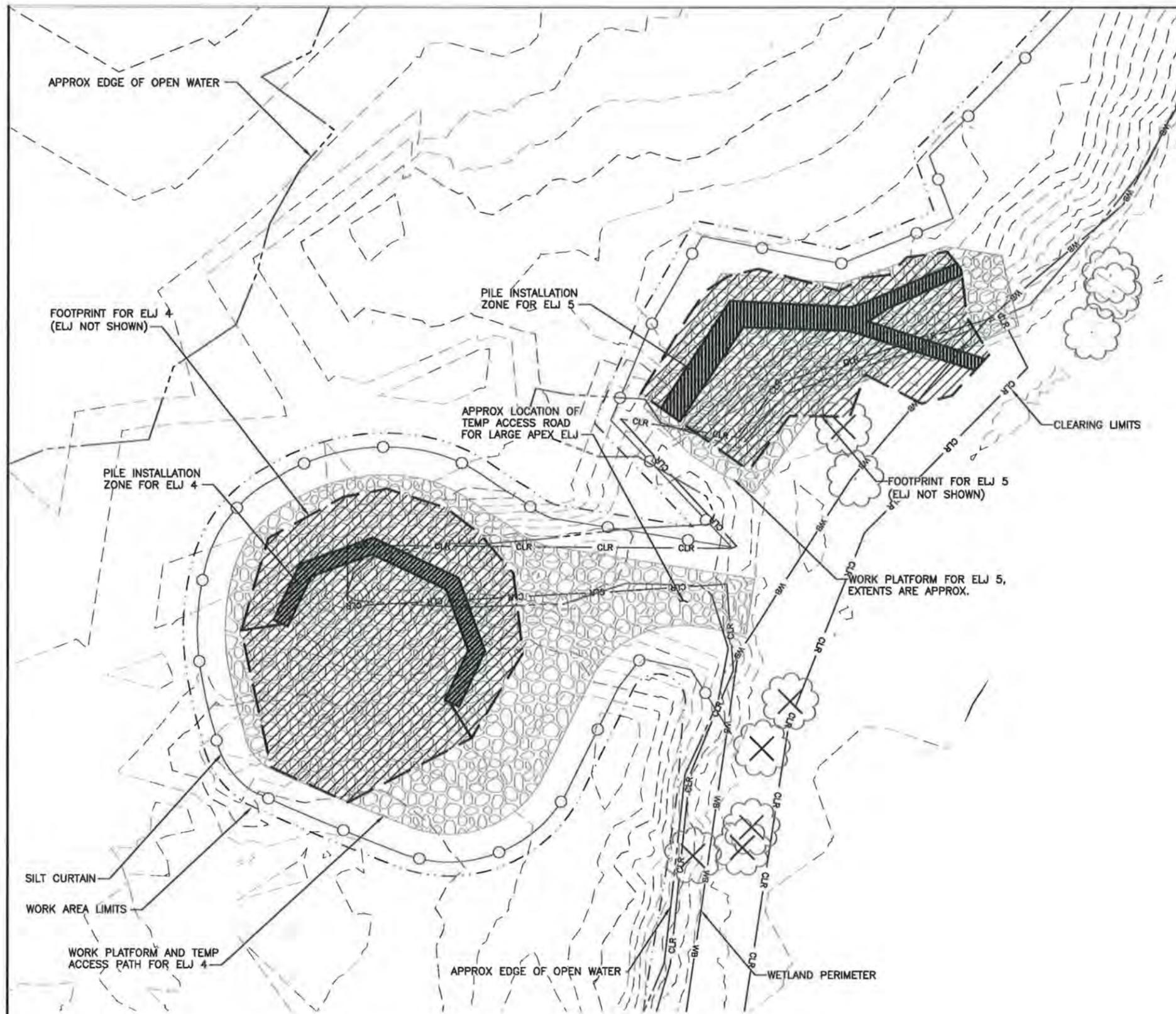
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Chrlie True, Director

COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 TESC DETAILS FOR ELJs 1, 2, AND 3

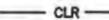
SHEET	18
OF	69
SHEETS	
ED2	



NOTES:

1. FOR ELJ PILE INSTALLATION CONSTRUCT WORK PLATFORM IN LOCATION SHOWN TO ALLOW PILE INSTALLATION TO OCCUR IN THE DRY. USE ALLUVIUM EXCAVATED FROM EXIST LEVEE AND PLACE SPOILS BY END-DUMPING AND COMPACT BY ROUTING EQUIPMENT OVER SPOILS. SPOILS WILL SLOPE FROM PILE PLACEMENT ZONE AT MATERIAL'S ANGLE OF REPOSE DOWN TO BOTTOM OF WETLAND. CONSTRUCT WORK PLATFORM ABOVE THE WSE AT THE TIME OF CONSTRUCTION.
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LEGEND:

-  TEMPORARY ACCESS ROAD AND ELJ WORK PLATFORM
-  WORK AREA LIMITS
-  CLR CLEARING LIMITS
-  SILT CURTAIN
-  EDGE OF OPEN WATER
-  ELJ FOOTPRINT
-  ELJ PILE INSTALLATION ZONE
-  EXISTING TREE (TO REMAIN)
-  EXISTING TREE (TO BE REMOVED)

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

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5-2013

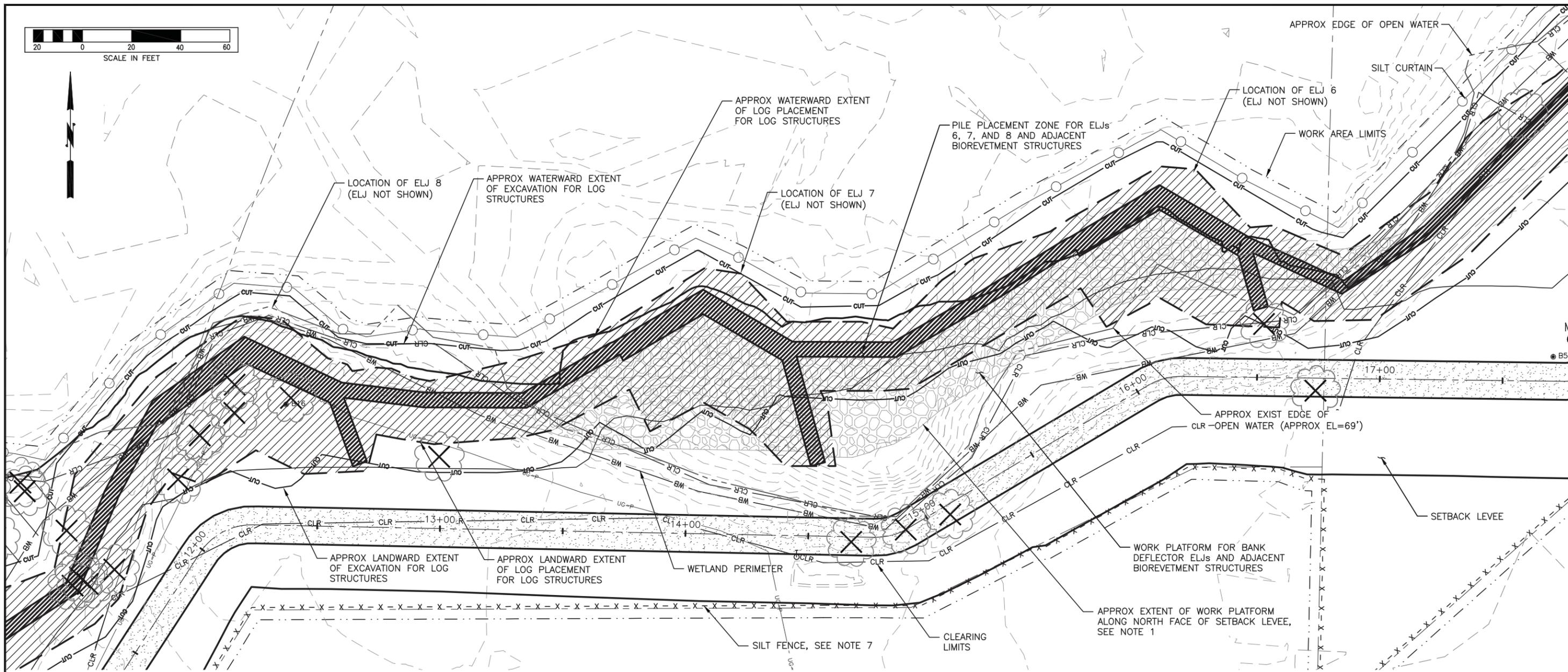
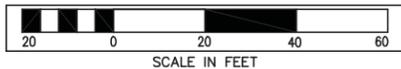
NUM.	REVISION	BY	DATE

APPROVED: IAN MOSTRENKO, PE	5-2013	SRFB #	RCO 087-1910C
PROJECT MANAGER: MARK EWBANK, PE	5-2013	PROJECT No.	1112049 (FL9001)
DESIGNED: BRIAN SCOTT	5-2013		
ECOLOGIST:			
DESIGN ENTERED: TODD PRESCOTT	5-2013		



King County
 Department of Natural Resources and Parks
 Water and Land Resources Division
 River and Floodplain Management Section
 Christie True, Director

COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 TESC DETAILS FOR ELJs 4 AND 5



NOTES:

- FOR LOG STRUCTURE PILE INSTALLATION CONSTRUCT WORK PLATFORM BETWEEN PILE PLACEMENT ZONE AND NORTH FACE OF SETBACK LEVEE TO DISPLACE STANDING WATER AND ALLOW PILE INSTALLATION TO OCCUR IN THE DRY IN THE VICINITY OF ELJs 6, 7, AND 8, AND ADJACENT BIOREVEGETMENT STRUCTURES. USE ALLUVIUM EXCAVATED FROM EXIST LEVEE AND PLACE SPOILS BY END-DUMPING AND COMPACT BY ROUTING EQUIPMENT OVER SPOILS. SPOILS WILL SLOPE FROM PILE PLACEMENT ZONE AT MATERIAL'S ANGLE OF REPOSE DOWN TO BOTTOM OF WETLAND. CONSTRUCT WORK PLATFORM ABOVE THE WSE AT THE TIME OF CONSTRUCTION.
- USE THE SETBACK LEVEE AS A TEMPORARY ACCESS ROAD AND STAGING AREA TO CONSTRUCT ELJs 6, 7, AND 8, AND ADJACENT BIOREVEGETMENT STRUCTURES.
- ISOLATE ELJs AND BIOREVEGETMENT WORK AREAS FROM STANDING WATER IN WETLAND WITH A SILT CURTAIN OR APPROVED OTHER TO CONTAIN TURBID WATER WHILE CONSTRUCTING STRUCTURES. ISOLATE INDIVIDUAL AREAS AS NEEDED TO COMPLETE CONSTRUCTION AND CONTAIN TURBID WATER.
- FOLLOWING PILE INSTALLATION, EXCAVATE THROUGH WORK PLATFORM AS NEEDED TO COMPLETE STRUCTURE CONSTRUCTION. WORK PLATFORM MATERIAL MAY BE REUSED AS STRUCTURE BACKFILL MATERIAL.
- IF NECESSARY TO COMPLETE CONSTRUCTION OF LOG STRUCTURES, PUMP WATER FROM EXCAVATION AND DISCHARGE TO INFILTRATION AREA OUTSIDE OF WETLAND BOUNDARY OR TO PORTABLE WATER TREATMENT SYSTEM PER PROJECT PERMIT REQUIREMENTS.
- WORK AREA LIMITS SHOWN AROUND ELJ WORK AREAS REPRESENT THE MAXIMUM ALLOWABLE CLEARING LIMITS. THE CONTRACTOR SHALL MINIMIZE CLEARING WHERE POSSIBLE TO PRESERVE AS MUCH EXISTING VEGETATION AS POSSIBLE AND NOT DAMAGE OR DISTURB VEGETATION MARKED BY THE OWNER OR PROJECT REPRESENTATIVE FOR PRESERVATION. AT THE DISCRETION OF THE PROJECT REPRESENTATIVE CLEARING DEBRIS MAY BE USED AS SLASH IN THE ELJs EXCLUDING NON-NATIVE, INVASIVE AND NOXIOUS VEGETATION.
- SILT FENCE ALONG SETBACK LEVEE SHOWN OUTSIDE OF PROPERTY LINE FOR CLARITY AND SHALL BE PLACED WITHIN PROPERTY LINE.

LEGEND:

- ELJ WORK PLATFORM
- ELJ FOOTPRINT
- ELJ PILE INSTALLATION ZONE
- EXISTING TREE (TO REMAIN)
- EXISTING TREE (TO BE REMOVED)
- WORK AREA LIMITS
- CLEARING LIMITS
- SILT FENCE
- SILT CURTAIN
- ELJ EXCAVATION EXTENTS (APPROX)
- EDGE OF OPEN WATER

FIELD BOOK: _____			
SURVEYED: _____			
SURVEY BASE MAP: _____			
CHECKED: _____			
CADD / 60%			
5-2013			
NUM.	REVISION	BY	DATE

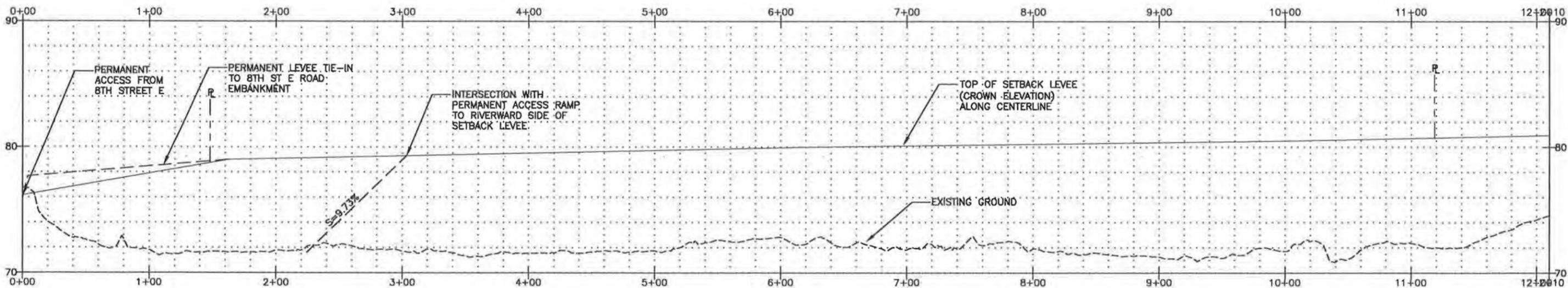
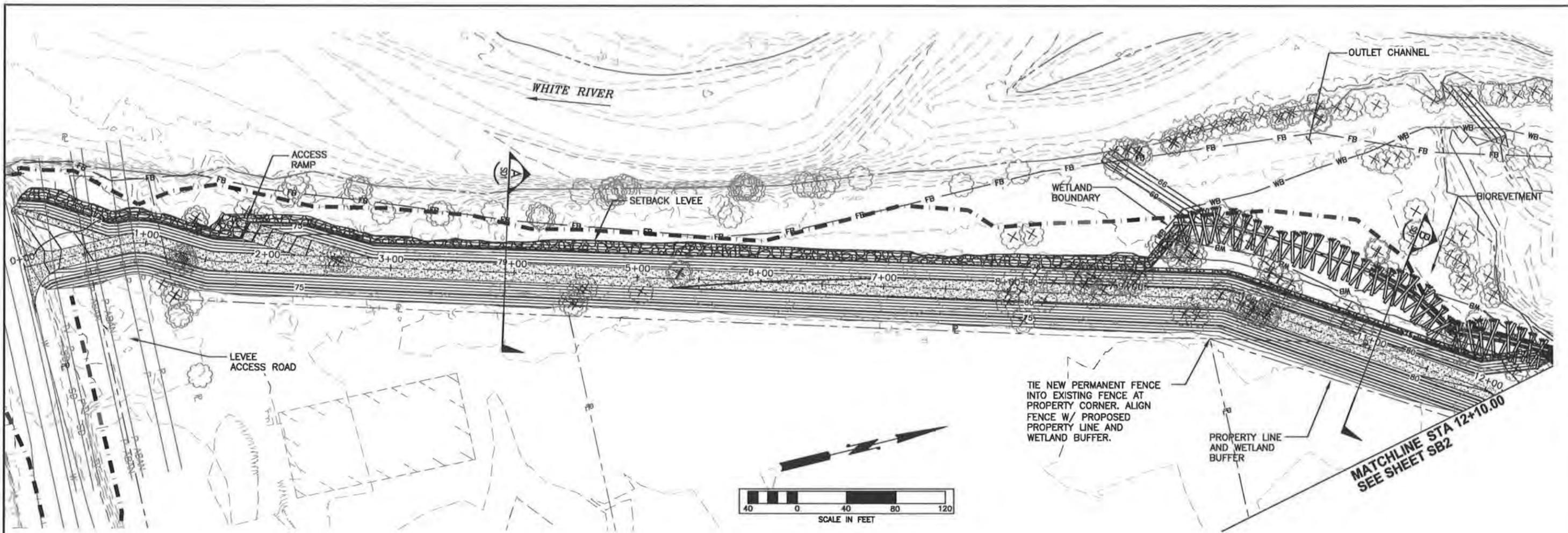
APPROVED: IAN MOSTRENKO, PE	5-2013
PROJECT MANAGER: MARK EW BANK, PE	5-2013
DESIGNED: BRIAN SCOTT	5-2013
ECOLOGIST: _____	
DESIGN ENTERED: TODD PRESCOTT	5-2013

SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)



COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 TESC DETAILS FOR ELJs 6, 7, AND 8

SHEET
 20
 OF
 69
 SHEETS
 ED4



FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: CHRIS BRUMMER, PE	4-2013
ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

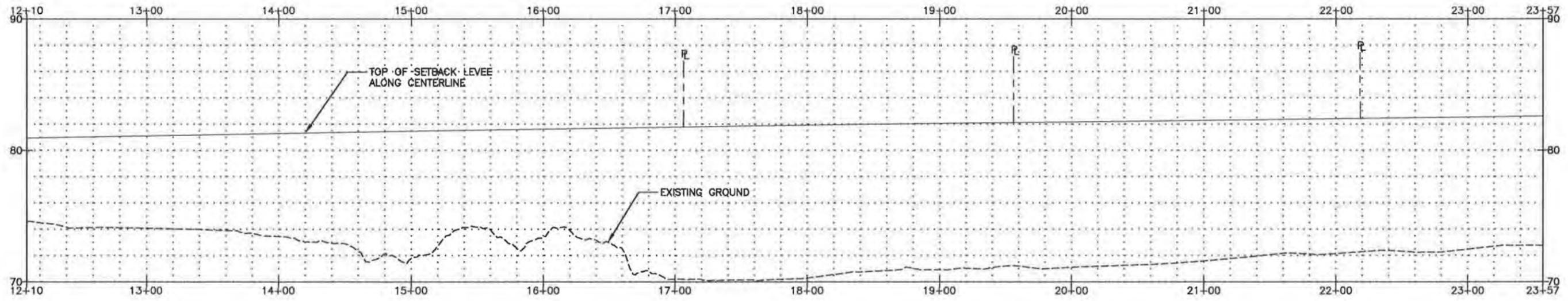
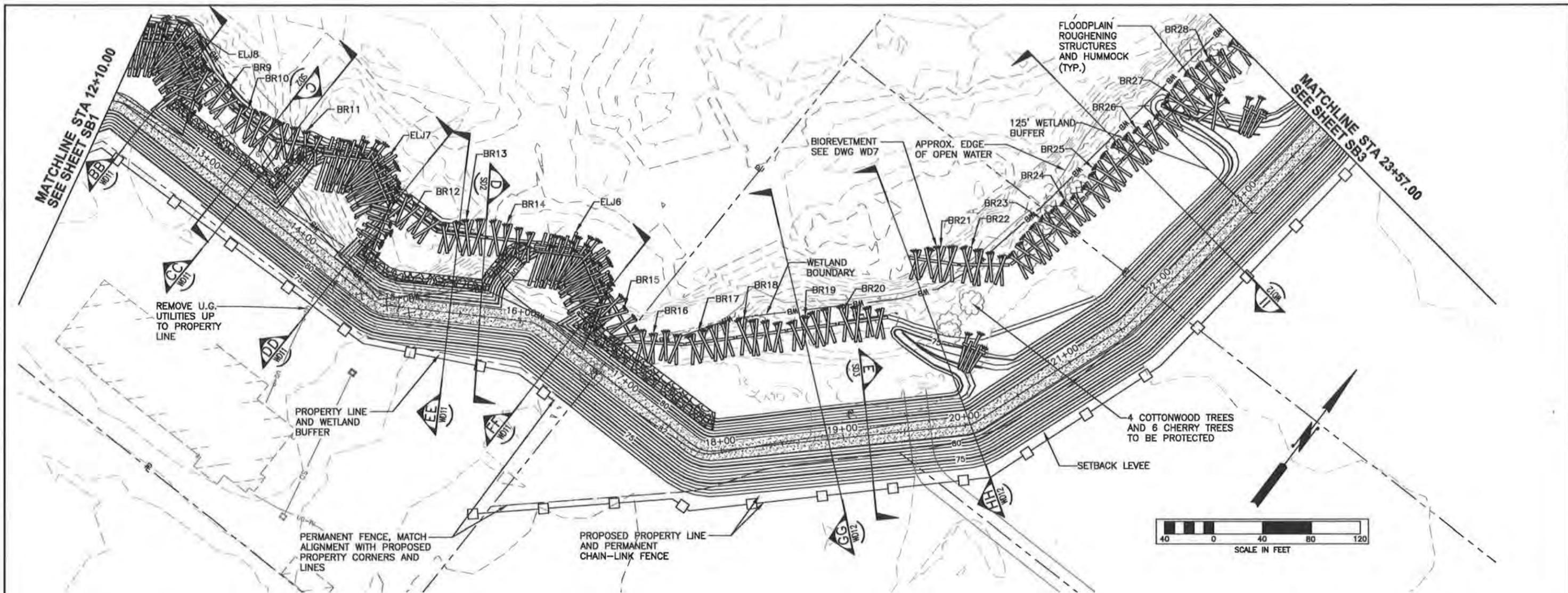
SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)



King County
 Department of Natural Resources and Parks
 Water and Land Resources Division
 River and Floodplain Management Section
 Christie Trus, Director

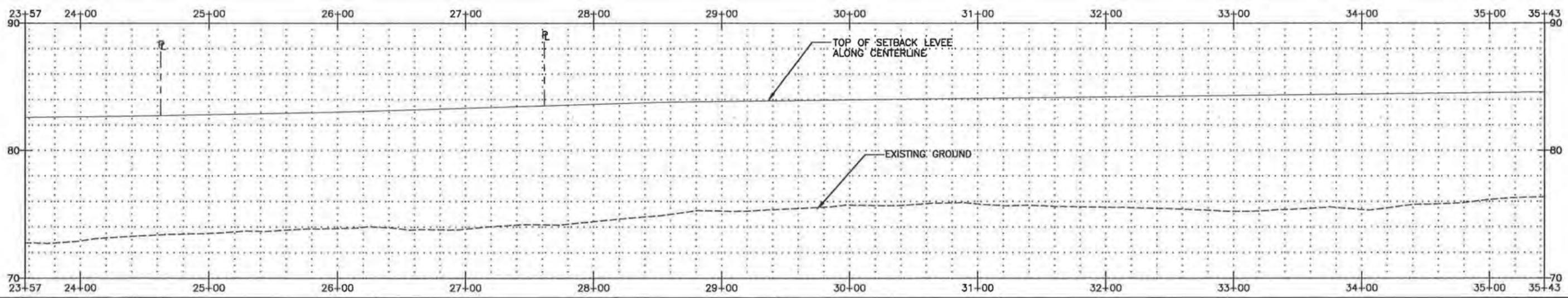
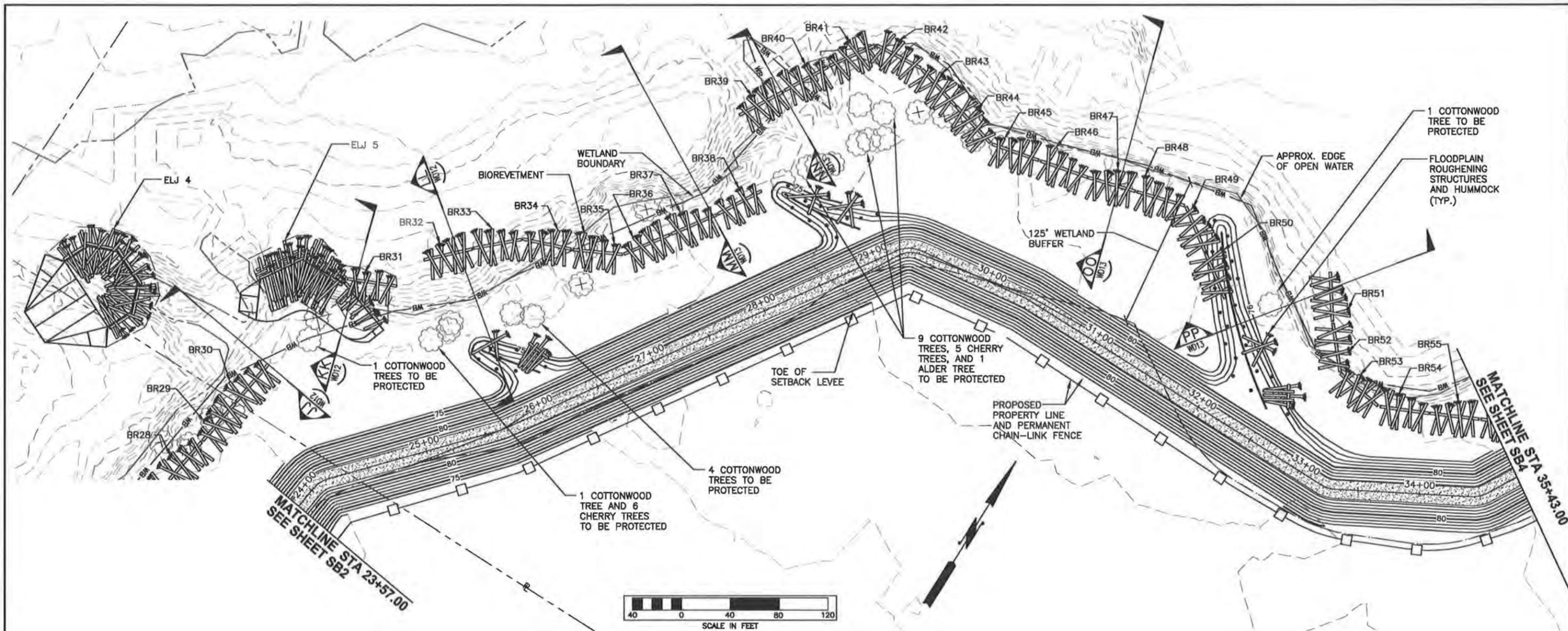
COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 SITE PLAN AND PROFILE FOR SETBACK LEVEE
 AND BIOEVETMENT

SHEET
 21
 OF
 69
 SHEETS
 SB1



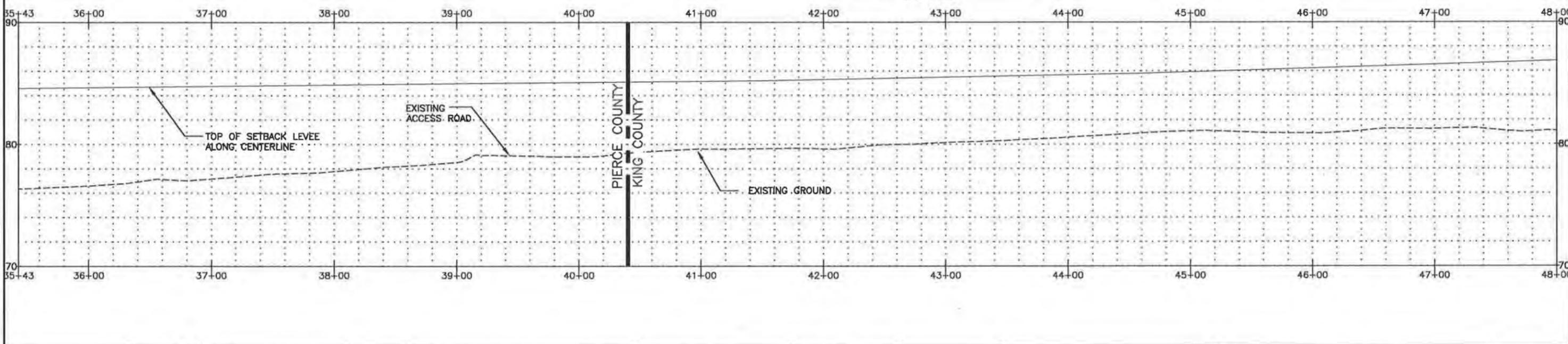
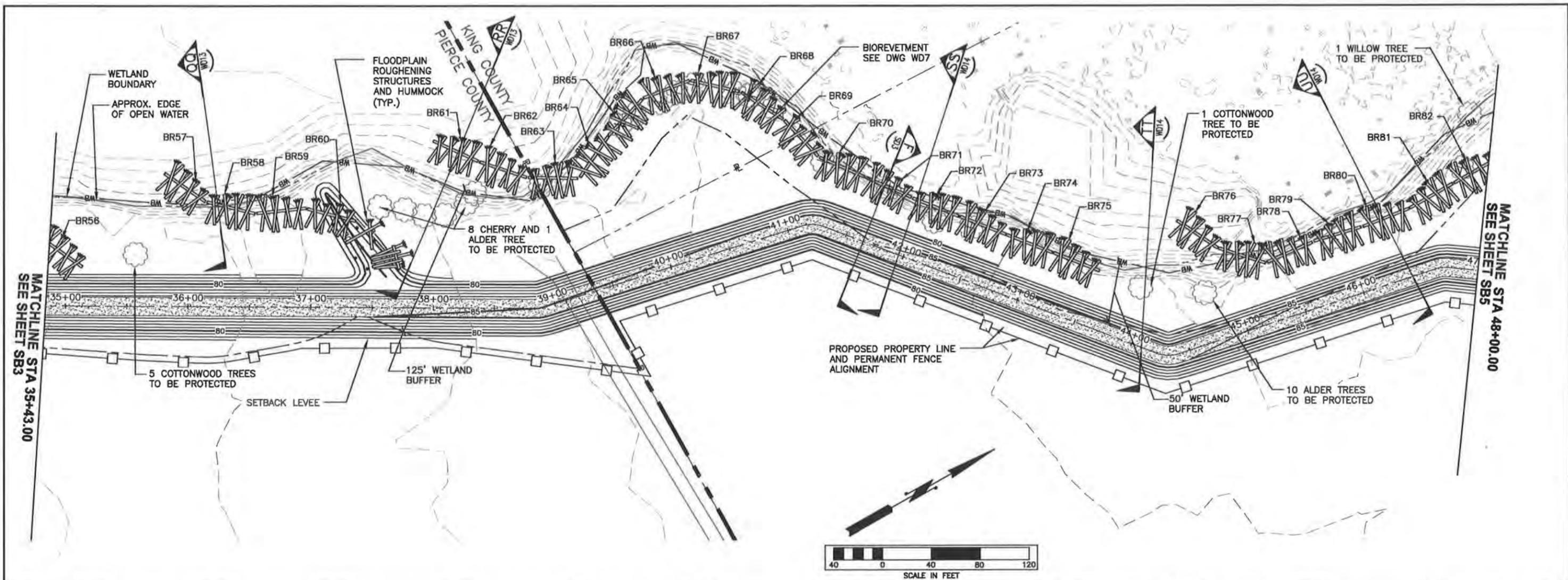
FIELD BOOK:		APPROVED: JEANNE STYPULA, PE	4-2013	SRFB #	RCO 087-1910C			COUNTYLINE LEVEE SETBACK WHITE RIVER, RIVER MILE 5.00-6.33 LEVEE MODIFICATION SITE PLAN AND PROFILE FOR SETBACK LEVEL AND BIOREVETMENT	SHEET 22 OF 69 SHEETS SB2
SURVEYED:		PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013	PROJECT No.	1112049 (FL9001)				
SURVEY BASE MAP:		DESIGNED: CHRIS BRUMMER, PE	4-2013						
CHECKED:		ECOLOGIST: SARAH MCCARTHY	4-2013						
		DESIGN ENTERED: LICA DULAN	4-2013						

CADD / 60%
5-2013



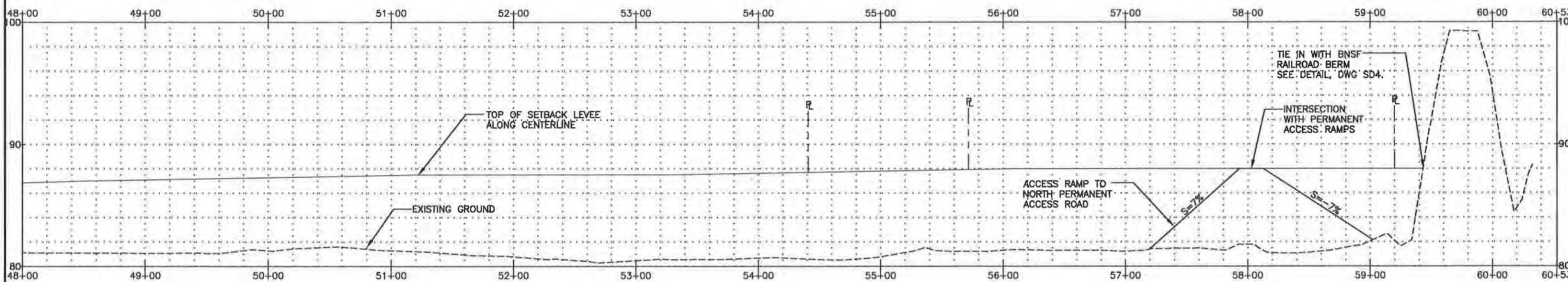
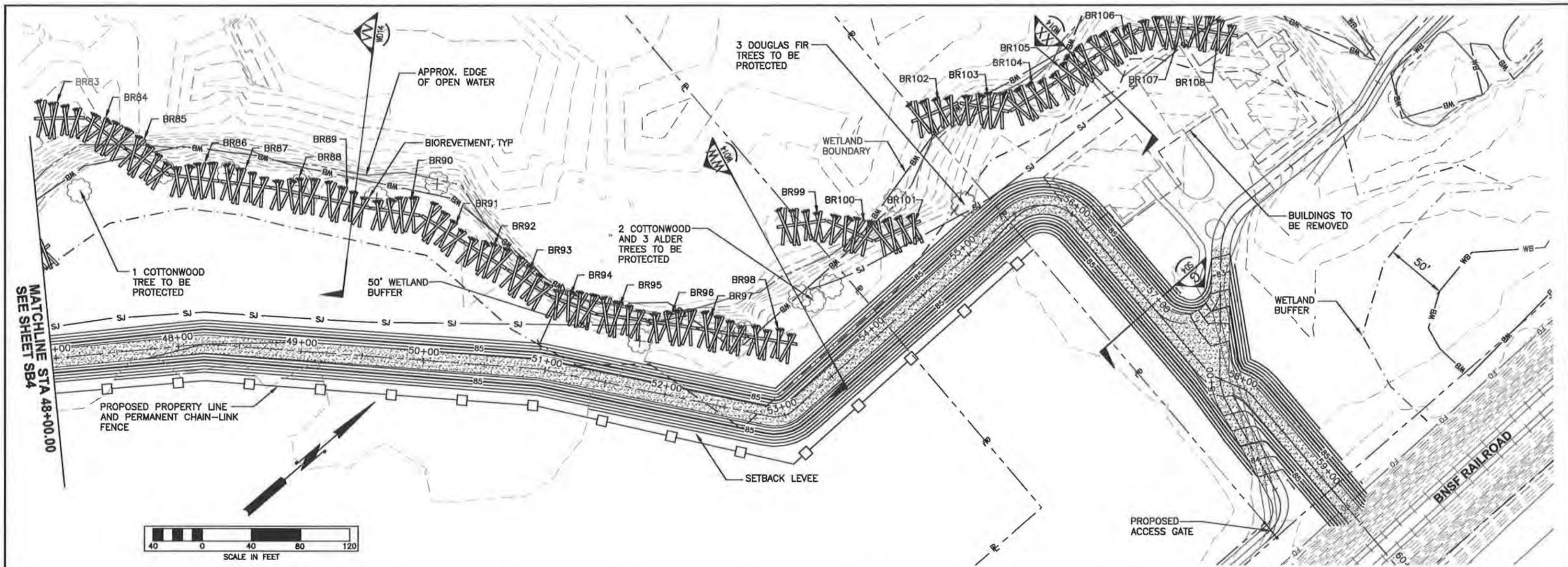
FIELD BOOK:		APPROVED: JEANNE STYPULA, PE	4-2013	SRFB #	RCO 087-1910C		<p>Christle True, Director</p>	<p>COUNTYLINE LEVEE SETBACK WHITE RIVER, RIVER MILE 5.00-6.33 LEVEE MODIFICATION</p> <p>SITE PLAN AND PROFILE FOR SETBACK LEVEE AND BIOEVETMENT</p>	<p>SHEET 23 OF 69 SHEETS SB3</p>
SURVEYED:		PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013	PROJECT No.	1112049 (FL9001)				
SURVEY BASE MAP:		DESIGNED: CHRIS BRUMMER, PE	4-2013						
CHECKED:		ECOLOGIST: SARAH MCCARTHY	4-2013						
		DESIGN ENTERED: UCA DULAN	4-2013						

CADD / 60%
5-2013

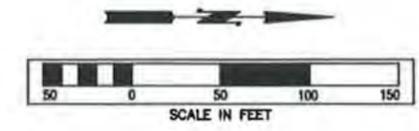
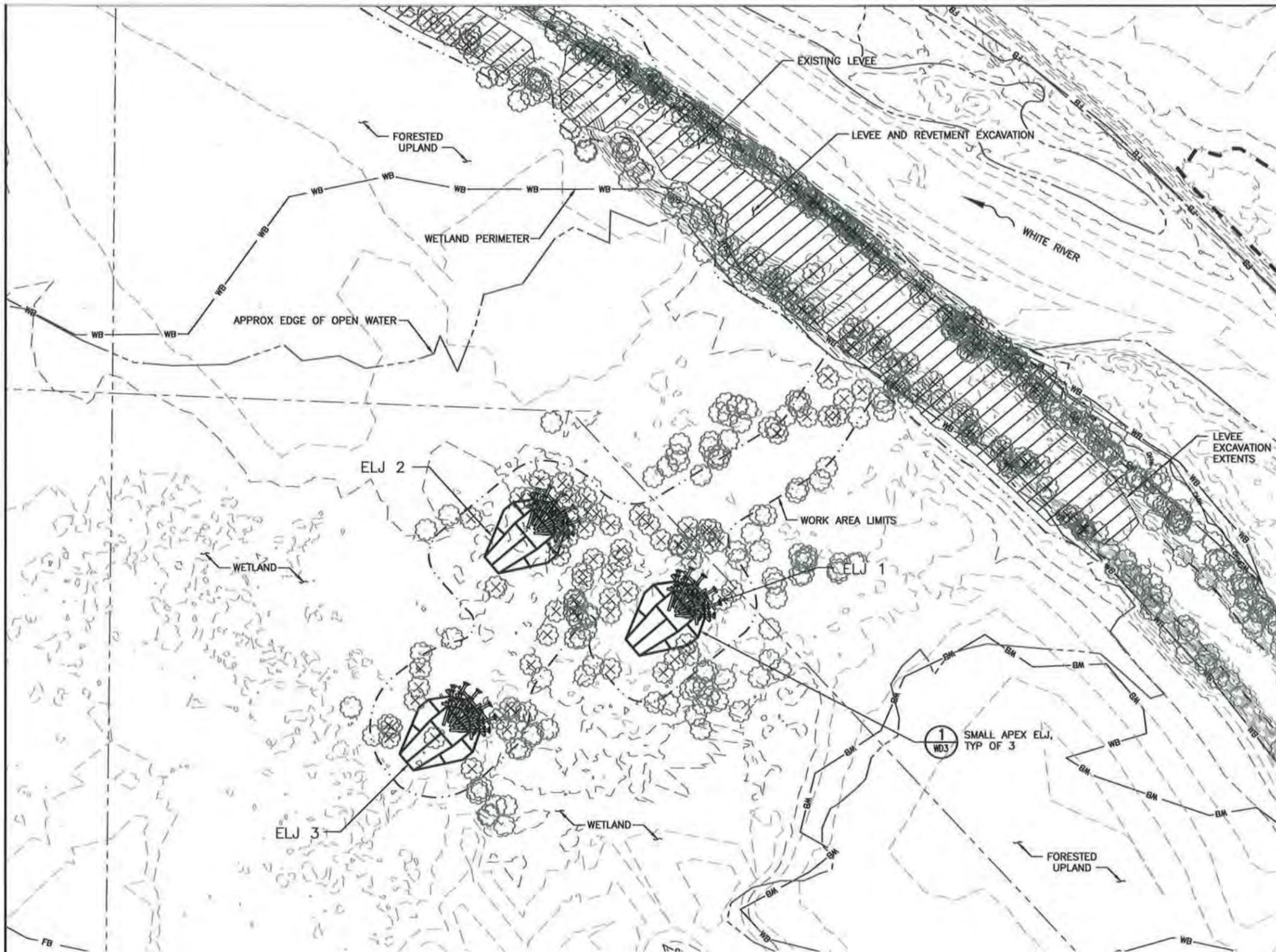


FIELD BOOK:		APPROVED: JEANNE STYPULA, PE	4-2013	SRFB #	RCO 087-1910C			COUNTYLINE LEVEL SETBACK WHITE RIVER, RIVER MILE 5.00-6.33 LEVELLE MODIFICATION SITE PLAN AND PROFILE FOR SETBACK LEVELLE AND BIOREVEIMENT	SHEET 24 OF 69 SHEETS SB4
SURVEYED:		PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013	PROJECT No.	1112049 (FL9001)				
SURVEY BASE MAP:		DESIGNED: CHRIS BRUMMER, PE	4-2013						
CHECKED:		ECOLOGIST: SARAH MCCARTHY	4-2013						
		DESIGN ENTERED: LICA DULAN	4-2013						

CADD / 60%
5-2013



FIELD BOOK:		APPROVED: JEANNE STYPULA, PE	4-2013	SRFB #	RCO 087-1910C			COUNTYLINE LEVEE SETBACK WHITE RIVER, RIVER MILE 5.00-6.33 LEVEE MODIFICATION SITE PLAN AND PROFILE FOR SETBACK LEVEE AND BIORETMENT	SHEET 25 OF 69 SHEETS SB5
SURVEYED:		PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013	PROJECT No.	1112049 (FL9001)				
SURVEY BASE MAP:		DESIGNED: CHRIS BRUMMER, PE	4-2013						
CHECKED:		ECOLOGIST: SARAH MCCARTHY	4-2013						
		DESIGN ENTERED: LICA DULAN	4-2013						
	NUM.	REVISION	BY	DATE					



NOTES:

1. SEE STRUCTURE LAYERING PLAN ON DWG WD4 FOR LOCATION OF CONTROL POINTS ON EACH STRUCTURE.
2. TEMPORARY ACCESS PATH FROM EXISTING LEVEE THROUGH WETLAND TO ELJs 1, 2 AND 3 SHOWN ON DWG ED2. ADJUST ELEVATION OF PATH AS NEEDED TO ALLOW EQUIPMENT EGRESS THROUGH WETLAND ABOVE ADJACENT SURFACE WATERS. REMOVE PATH FOLLOWING COMPLETION OF ELJ CONSTRUCTION. ADJUST SLOPE OF ACCESS PATH FROM EXISTING LEVEE TO WETLAND AS NEEDED TO ALLOW SAFE EQUIPMENT EGRESS.
3. PLACE VEGETATION THAT IS CLEARED FOR ELJ AND TEMPORARY ACCESS PATH CONSTRUCTION WITHIN LIMITS OF DISTURBED AREAS AND AS DIRECTED BY THE PROJECT REPRESENTATIVE.
4. WORK PLATFORM FOR ELJs 1, 2 AND 3 SHOWN ON DWG ED2. ISOLATE ELJ WORK AREA TO CONTAIN TURBID SURFACE WATER USING A SILT FENCE OR SILT CURTAIN AS SHOWN ON DWG ED2. SILT FENCE/CURTAIN NOT SHOWN FOR CLARITY. REMOVE WORK PLATFORM OUTSIDE OF FOOTPRINT OF ELJ FOLLOWING COMPLETION OF ELJ CONSTRUCTION.

SMALL APEX ELJ CONTROL POINT TABLE:

ITEM	CP	NORTHING	EASTING
ELJ 1	1		
	2		
ELJ 2	1		
	2		
ELJ 3	1		
	2		

NOTE: TABLE TO BE COMPLETED FOR FINAL DESIGN.

LEGEND:

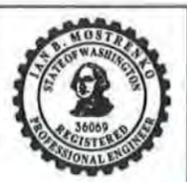
- LEVEE AND REVETMENT EXCAVATION
- WORK AREA LIMITS
- EDGE OF OPEN WATER
- EXISTING TREE (TO REMAIN)
- EXISTING TREE (TO BE REMOVED)

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

APPROVED: JAN MOSTRENKO, PE	5-2013
PROJECT MANAGER: MARK EW BANK, PE	5-2013
DESIGNED: BRIAN SCOTT	5-2013
ECOLOGIST:	
DESIGN ENTERED: TODD PRESCOTT	5-2013

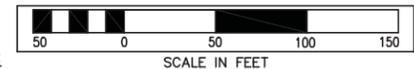
SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)



King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
ELJ SITE PLAN (SHEET 1 OF 2)

SHEET
26
OF
69
SHEETS
WS1



- NOTES:**
- SEE STRUCTURE LAYERING PLANS ON DWGS WD2, WD6, AND WD8 FOR LOCATION OF CONTROL POINTS ON EACH STRUCTURE.
 - SEE DWGS SB1 THROUGH SB5 FOR DESIGN RELATED INFORMATION FOR THE BIOREVTMENT.
 - TEMPORARY ACCESS PATH FOR ELJ 4 SHOWN ON DWG ED3. ADJUST ELEVATION OF PATH AS NEEDED TO ALLOW EQUIPMENT EGRESS THROUGH WETLAND ABOVE ADJACENT SURFACE WATERS. REMOVE PATH FOLLOWING COMPLETION OF ELJ CONSTRUCTION.
 - WORK PLATFORM FOR ELJs 4, 5, 6, 7 AND 8 SHOWN ON DWGS ED3 AND ED4. ISOLATE ELJ WORK AREA TO CONTAIN TURBID SURFACE WATER USING A SILT FENCE OR SILT CURTAIN AS SHOWN ON DWGS ED3 AND ED4. SILT FENCE/CURTAIN NOT SHOWN FOR CLARITY. REMOVE WORK PLATFORM OUTSIDE OF FOOTPRINT OF EACH ELJ FOLLOWING COMPLETION OF ELJ CONSTRUCTION.
 - FINAL GRADE OVER BIOREVTMENT BETWEEN ELJs 5, 6, 7, AND 8 IS 73'.

LARGE APEX AND BANK DEFLECTOR ELJ CONTROL POINT TABLE:

ITEM	CP	NORTHING	EASTING
ELJ 4	1		
	2		
ELJ 5	1		
	2		
	3		
	4		
	5		
ELJ 6	1		
	2		
	3		
	4		
	5		
ELJ 7	1		
	2		
	3		
	4		
	5		
ELJ 8	1		
	2		
	3		
	4		
	5		

NOTE: TABLE TO BE COMPLETED FOR FINAL DESIGN.

- LEGEND:**
- LEVEE AND REVETMENT EXCAVATION
 - WORK AREA LIMITS
 - EDGE OF OPEN WATER
 - EXISTING TREE (TO REMAIN)
 - EXISTING TREE (TO BE REMOVED)

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

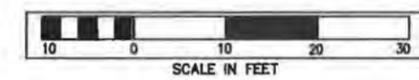
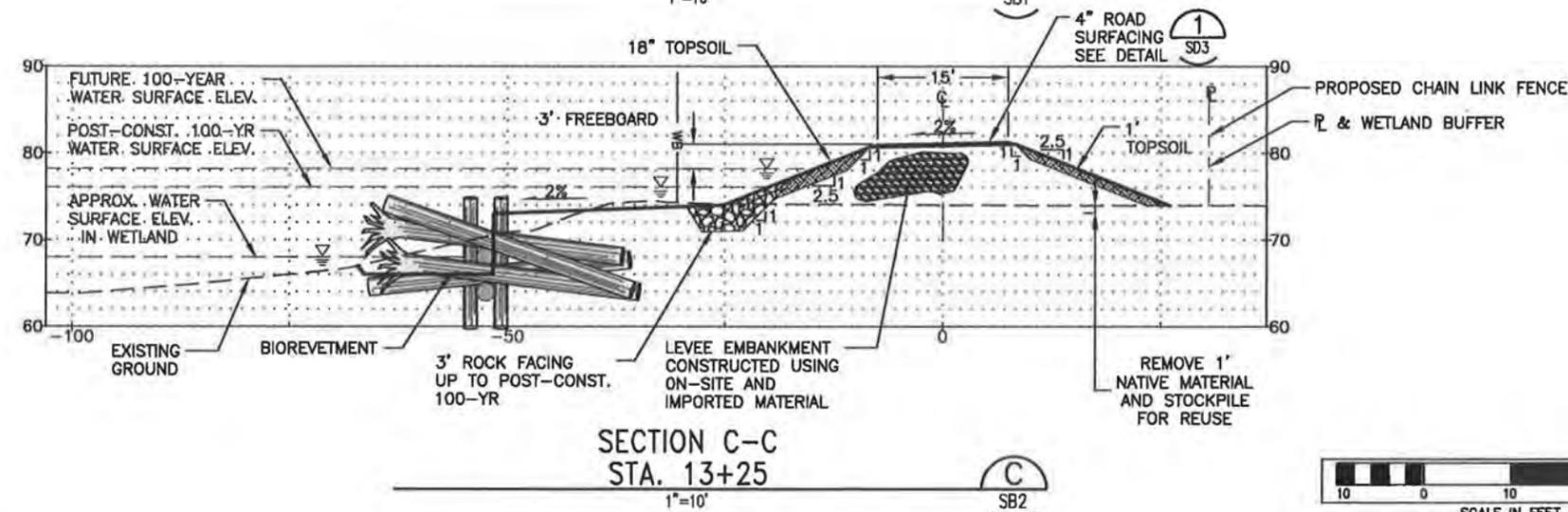
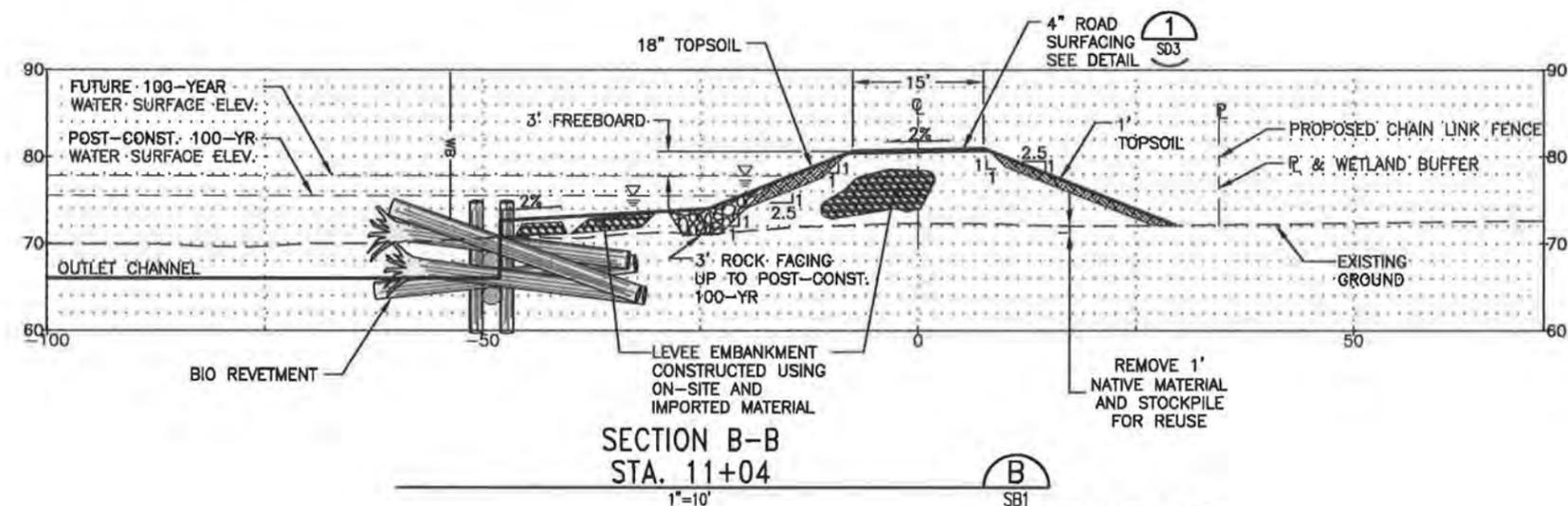
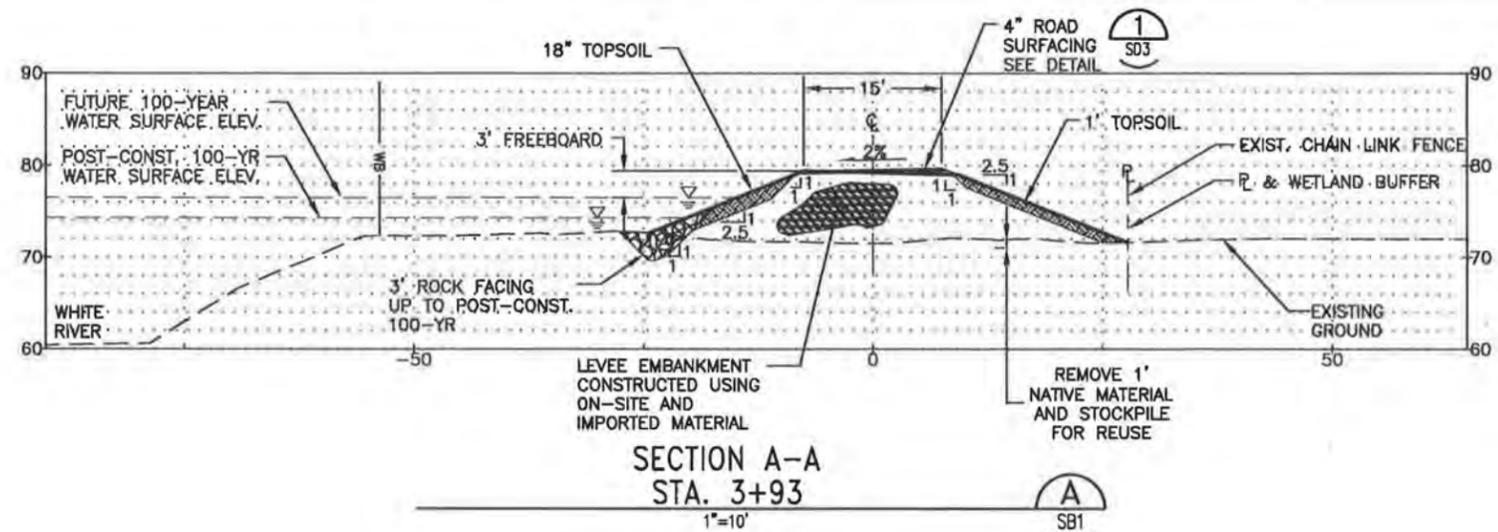
CADD / 60%
 5-2013

NUM.	REVISION	BY	DATE

APPROVED: IAN MOSTRENKO, PE	5-2013	SRFB #	RCO 087-1910C
PROJECT MANAGER: MARK EW BANK, PE	5-2013	PROJECT No.	1112049 (FL9001)
DESIGNED: BRIAN SCOTT	5-2013		
ECOLOGIST:			
DESIGN ENTERED: TODD PRESCOTT	5-2013		

Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 ELJ SITE PLAN (SHEET 2 OF 2)



FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: CHRIS BRUMMER, PE	4-2013
ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

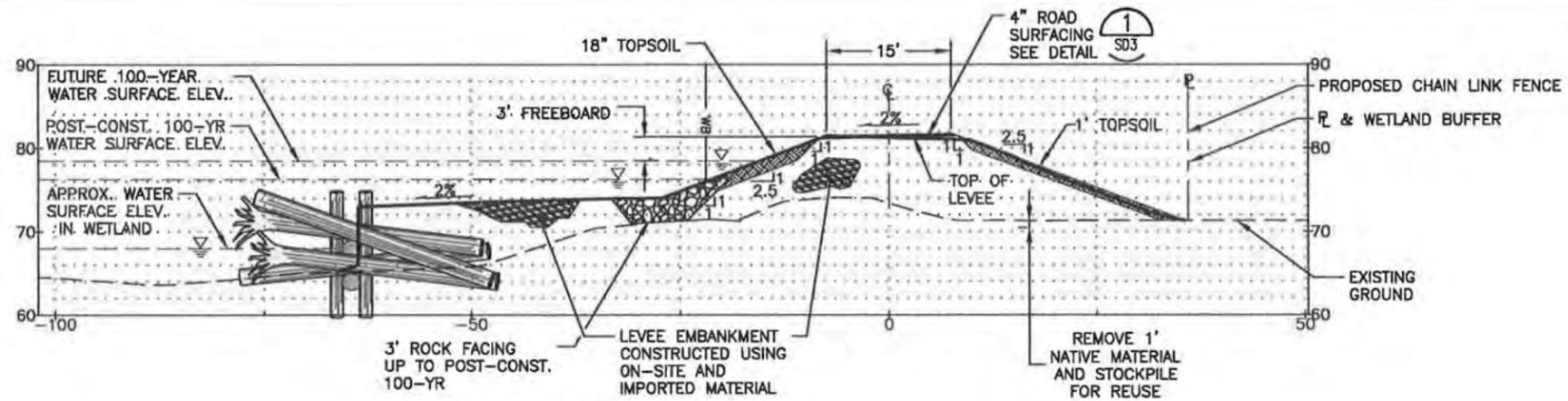
SRFB # RCO 087-1910C
PROJECT No. 1112049 (FL9001)



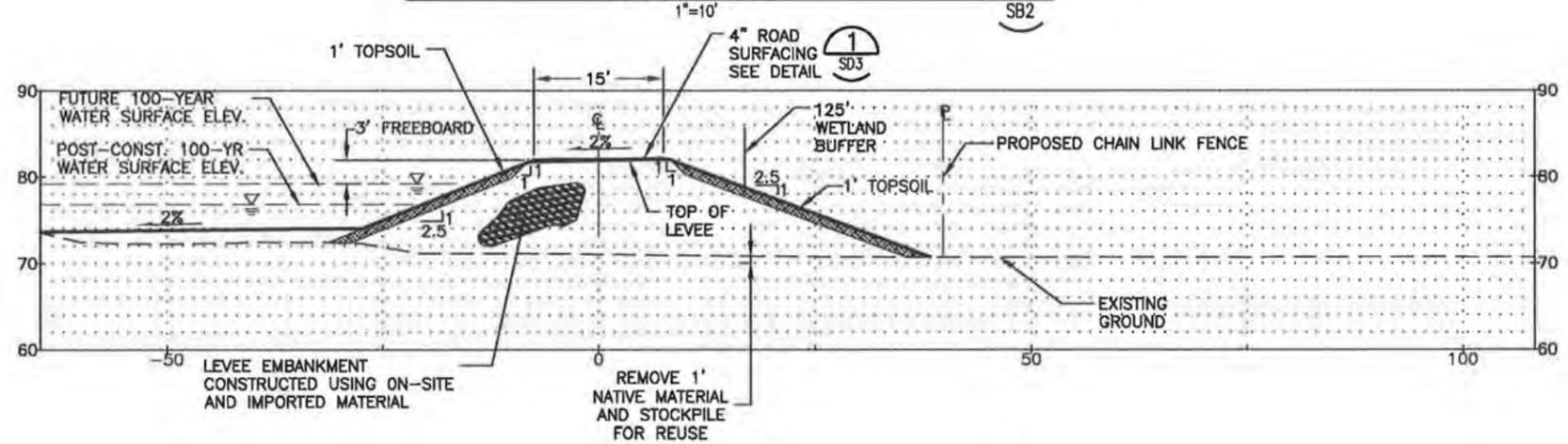
King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
SETBACK LEVEE CROSS SECTIONS
AND DETAILS

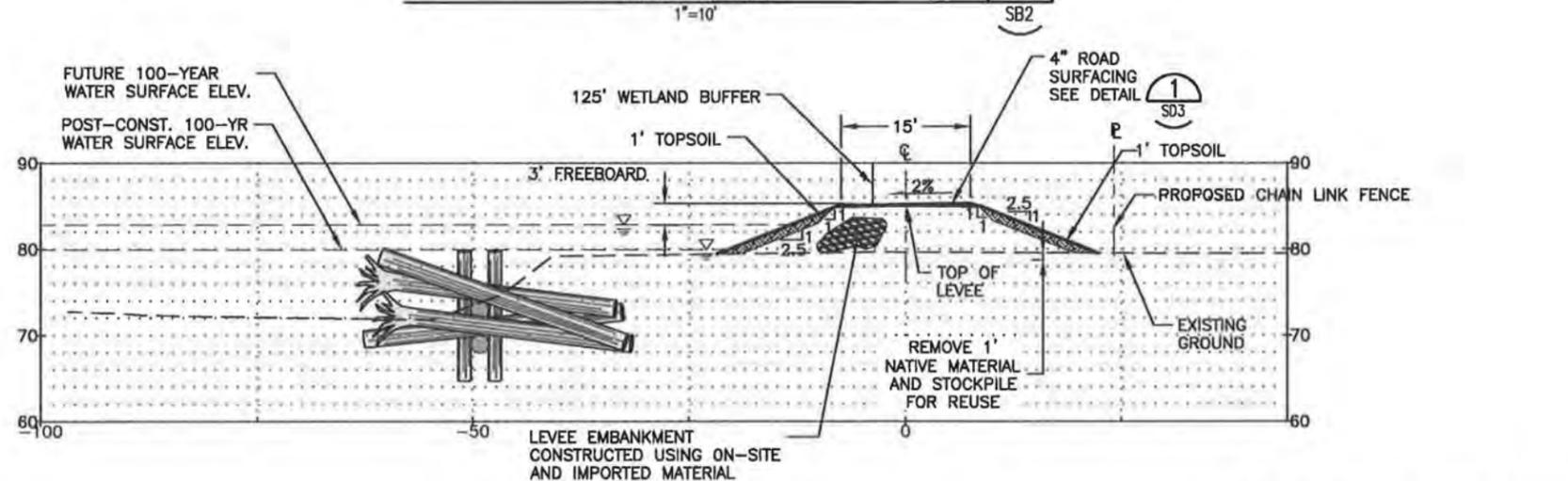
SHEET
28
OF
69
SHEETS
SD1



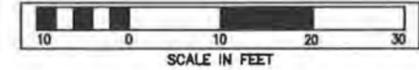
SECTION D-D
STA. 15+66



SECTION E-E
STA. 19+20



SECTION F-F
STA. 41+65



FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

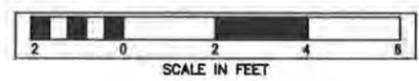
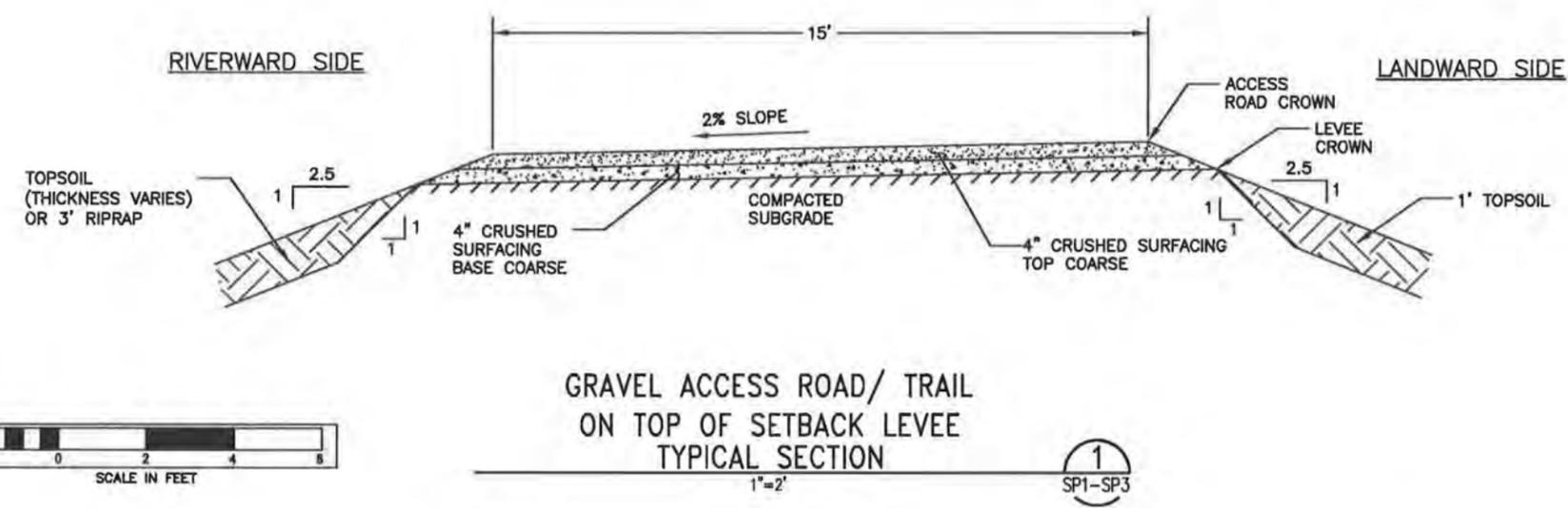
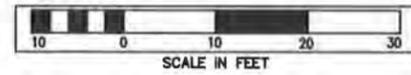
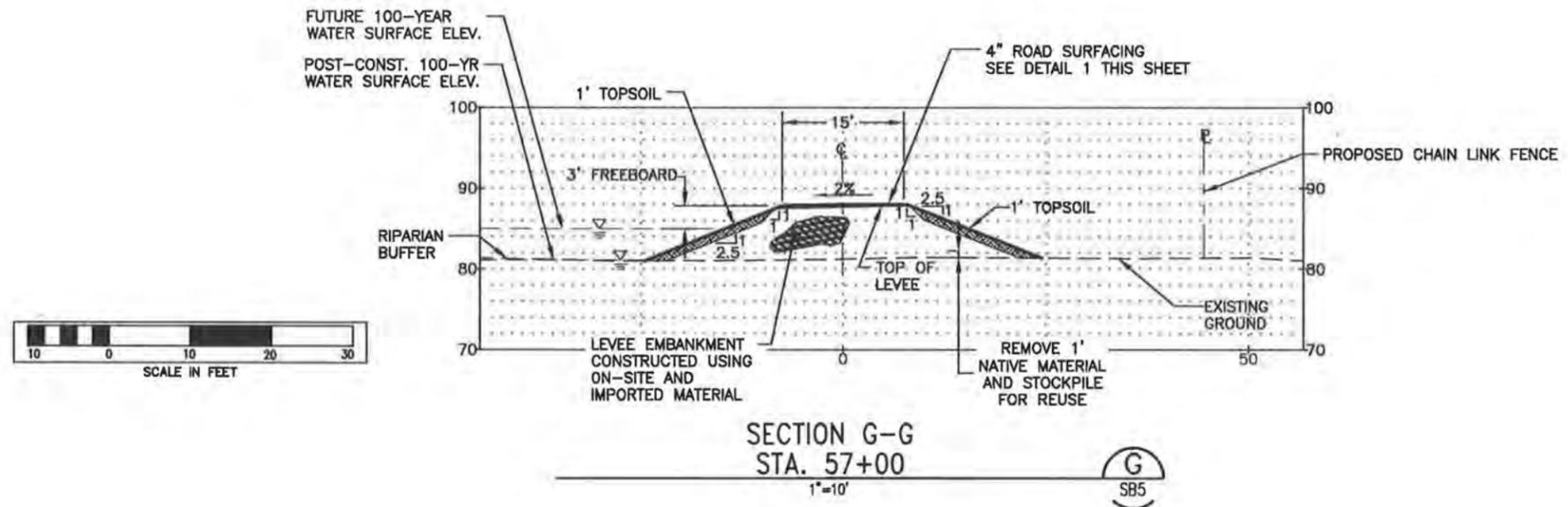
APPROVED:	JEANNE STYPULA, PE	4-2013
PROJECT MANAGER:	CHRIS BRUMMER, PE	4-2013
DESIGNED:	CHRIS BRUMMER, PE	4-2013
ECOLOGIST:	SARAH MCCARTHY	4-2013
DESIGN ENTERED:	LICA DULAN	4-2013

SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)



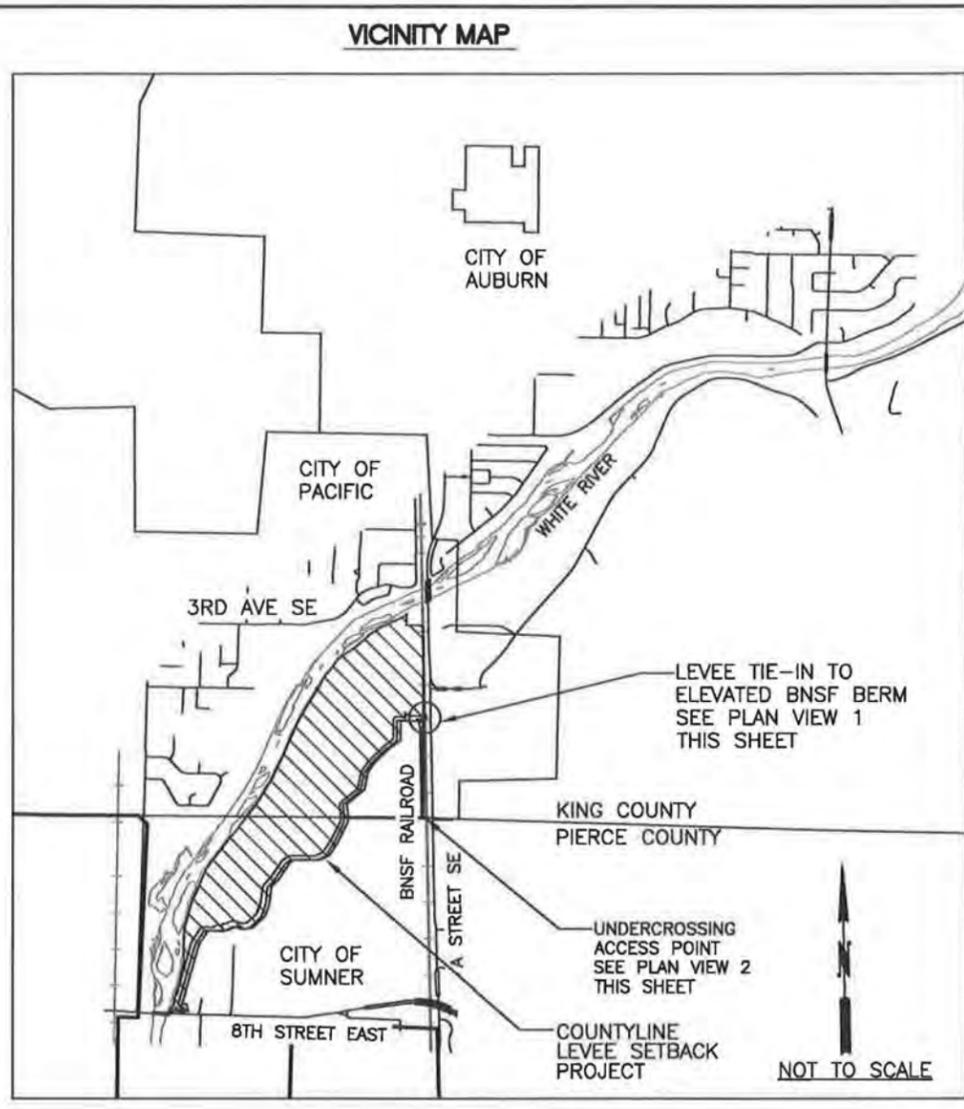
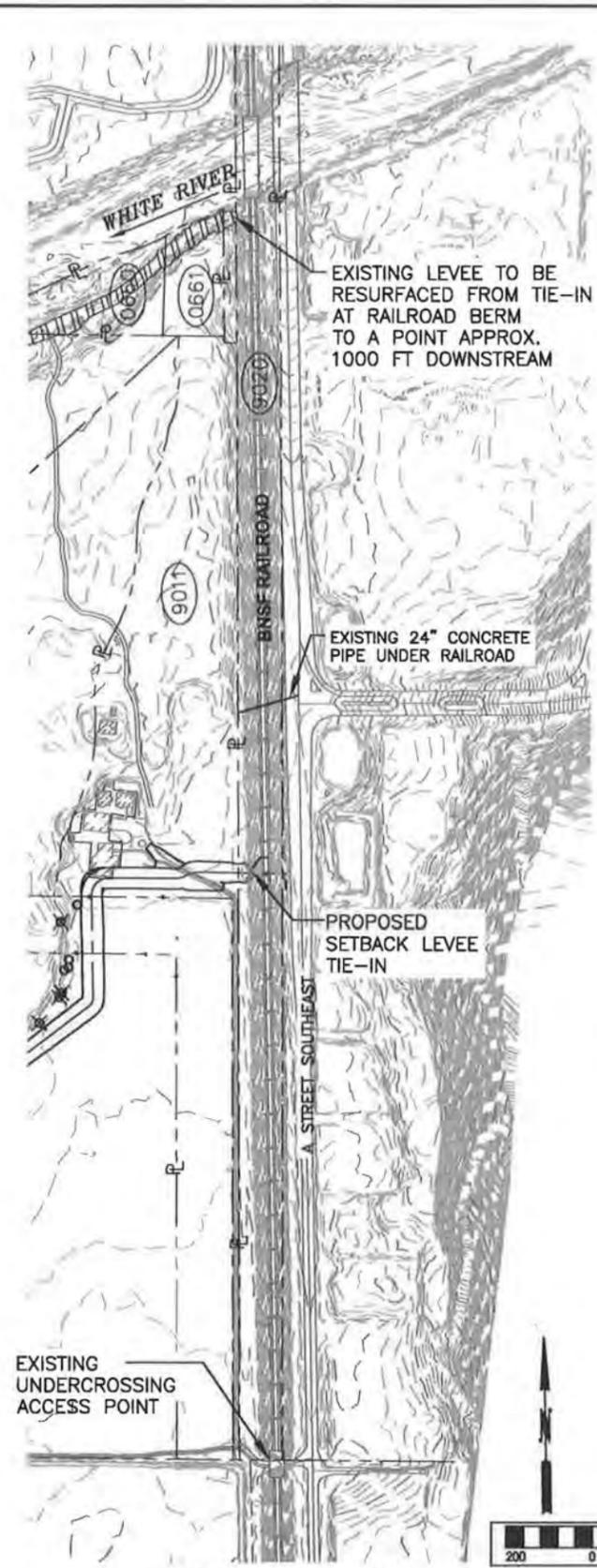
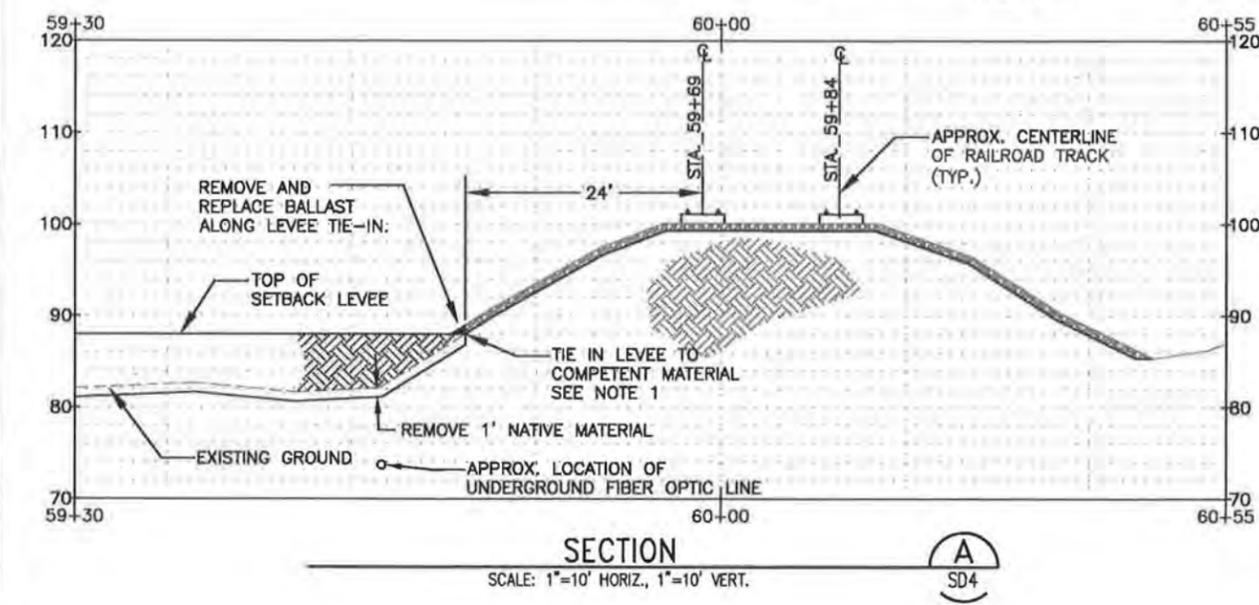
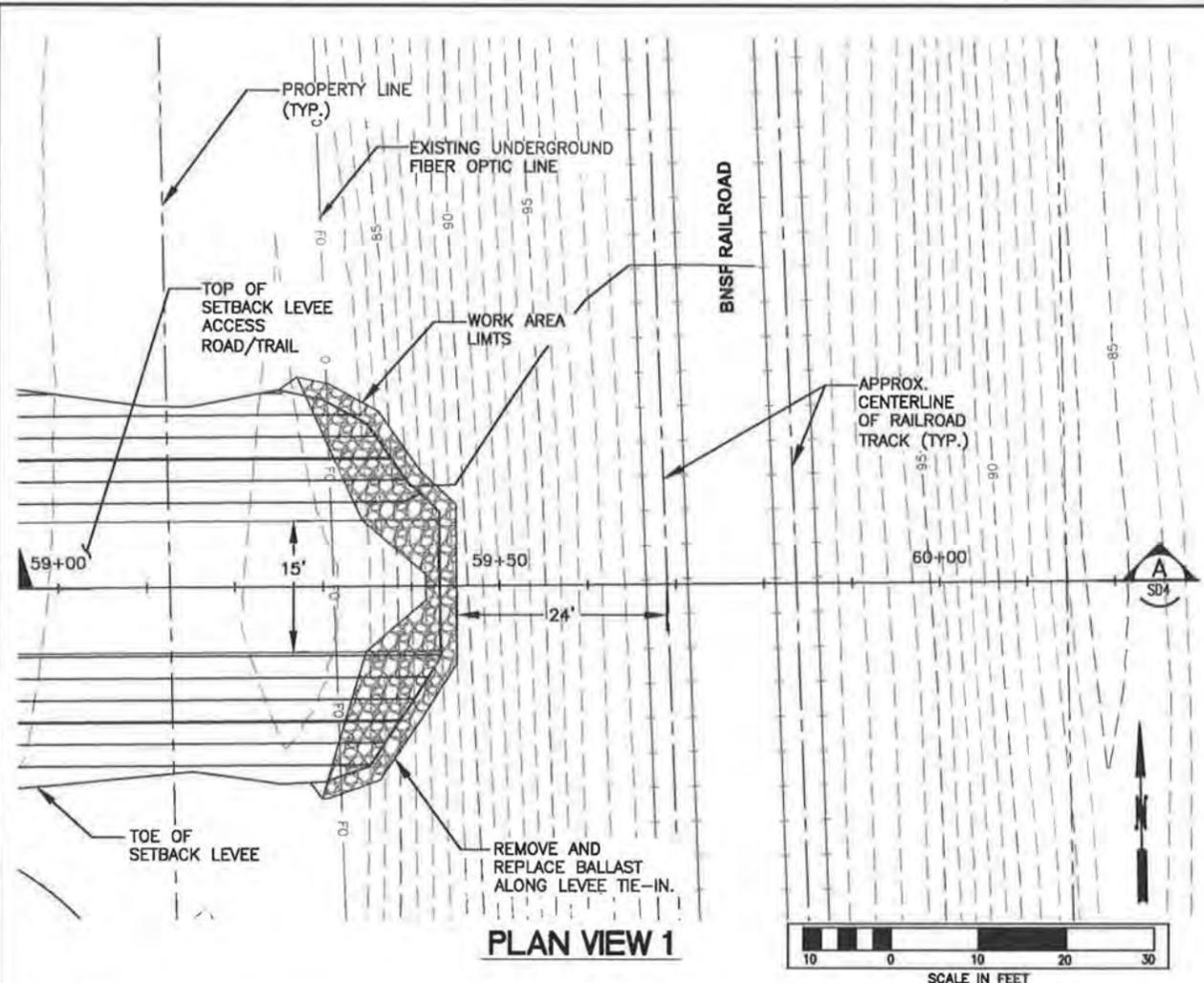
King County
 Department of Natural Resources and Parks
 Water and Land Resources Division
 River and Floodplain Management Section
 Christie True, Director

COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 SETBACK LEVEE CROSS SECTIONS
 AND DETAILS



FIELD BOOK: _____				APPROVED: JEANNE STYPULA, PE	4-2013	SRFB #	RCO 087-1910C			COUNTYLINE LEVEE SETBACK WHITE RIVER, RIVER MILE 5.00-6.33 LEVEE MODIFICATION SETBACK LEVEE CROSS SECTIONS AND DETAILS	SHEET
SURVEYED: _____				PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013	PROJECT No.	1112049 (FL9001)				30
SURVEY BASE MAP: _____				DESIGNED: CHRIS BRUMMER, PE	4-2013						OF
CHECKED: _____				ECOLOGIST: SARAH MCCARTHY	4-2013						69
				DESIGN ENTERED: UCA DULAN	4-2013						SHEETS
											SD3

CADD / 60%
5-2013



- NOTES:**
1. DRILL EXPLORATORY BORING TO CONFIRM DEPTH TO COMPETENT MATERIAL.
 2. REMOVE EXISTING ROCK BALLAST FROM RAILROAD BERM WITHIN WORK AREA LIMITS AND EXPOSE COMPETENT MATERIAL.
 3. SCARIFY EXPOSED SURFACE OF RAILROAD BERM AND PLACE SOIL LIFTS FOR SETBACK LEVEE TO FINISHED GRADES AS SHOWN ON THE PLANS.
 4. REPLACE ROCK BALLAST ON RAILROAD BERM AND PLACE ADDITIONAL BALLAST OVER SETBACK LEVEE SLOPE AS SHOWN ON THE PLANS.

FIELD BOOK:		APPROVED: JEANNE STYPULA, PE	4-2013	SRFB #	RCO 087-1910C
SURVEYED:		PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013	PROJECT No.	1112049 (FL9001)
SURVEY BASE MAP:		DESIGNED: CHRIS BRUMMER, PE	4-2013		
CHECKED:		ECOLOGIST: SARAH MCCARTHY	4-2013		
		DESIGN ENTERED: LICA DULAN	4-2013		

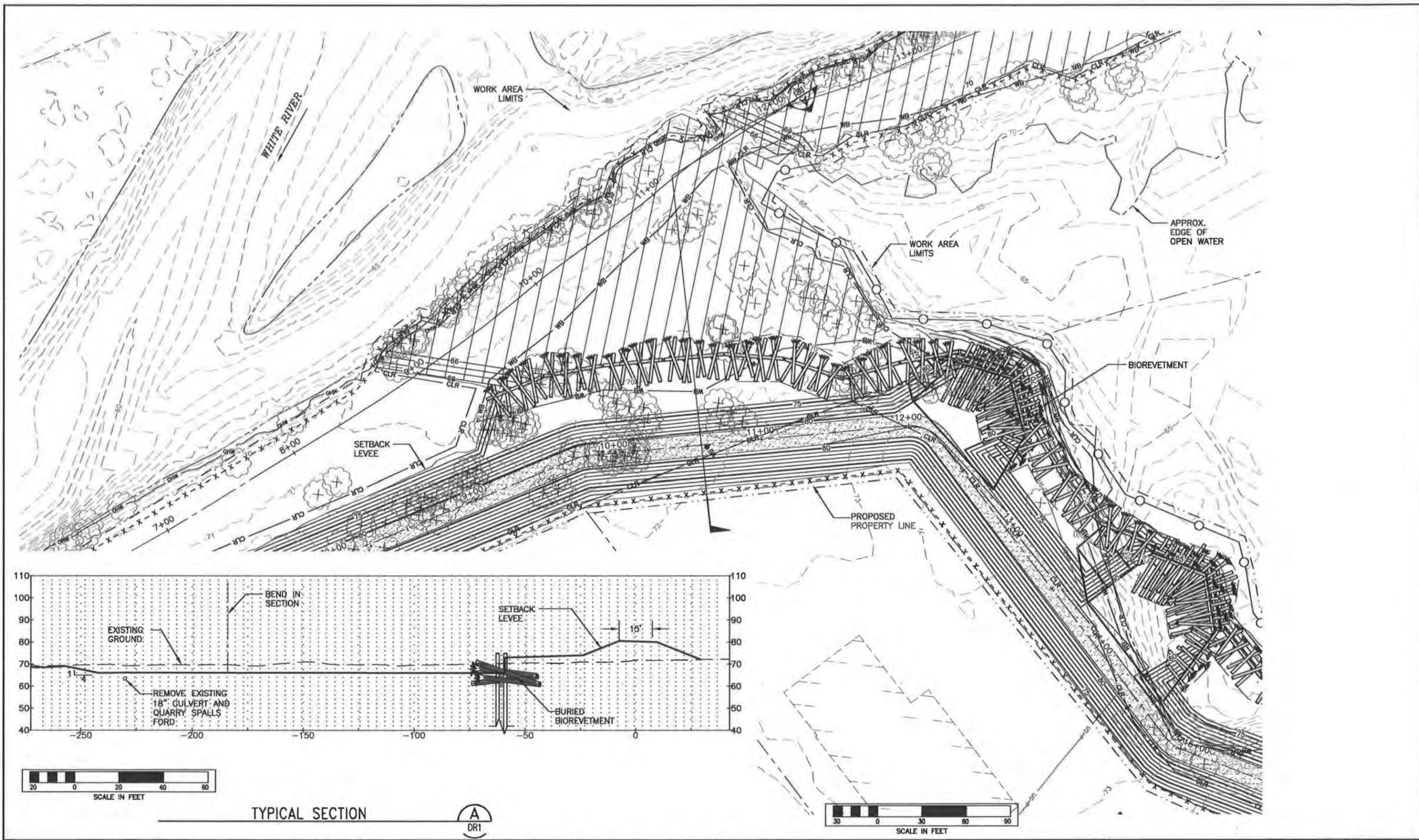
CADD / 60%
5-2013



King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
SETBACK LEVEE TIE-IN PLAN AND DETAILS

SHEET
31
OF
69
SHEETS
SD4



TYPICAL SECTION

A
DR1

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: CHRIS BRUMMER, PE	4-2013
ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)



King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

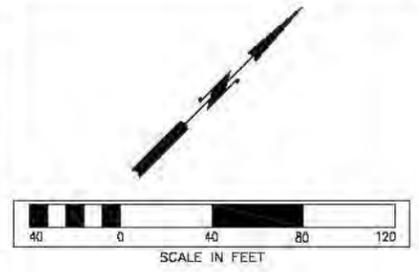
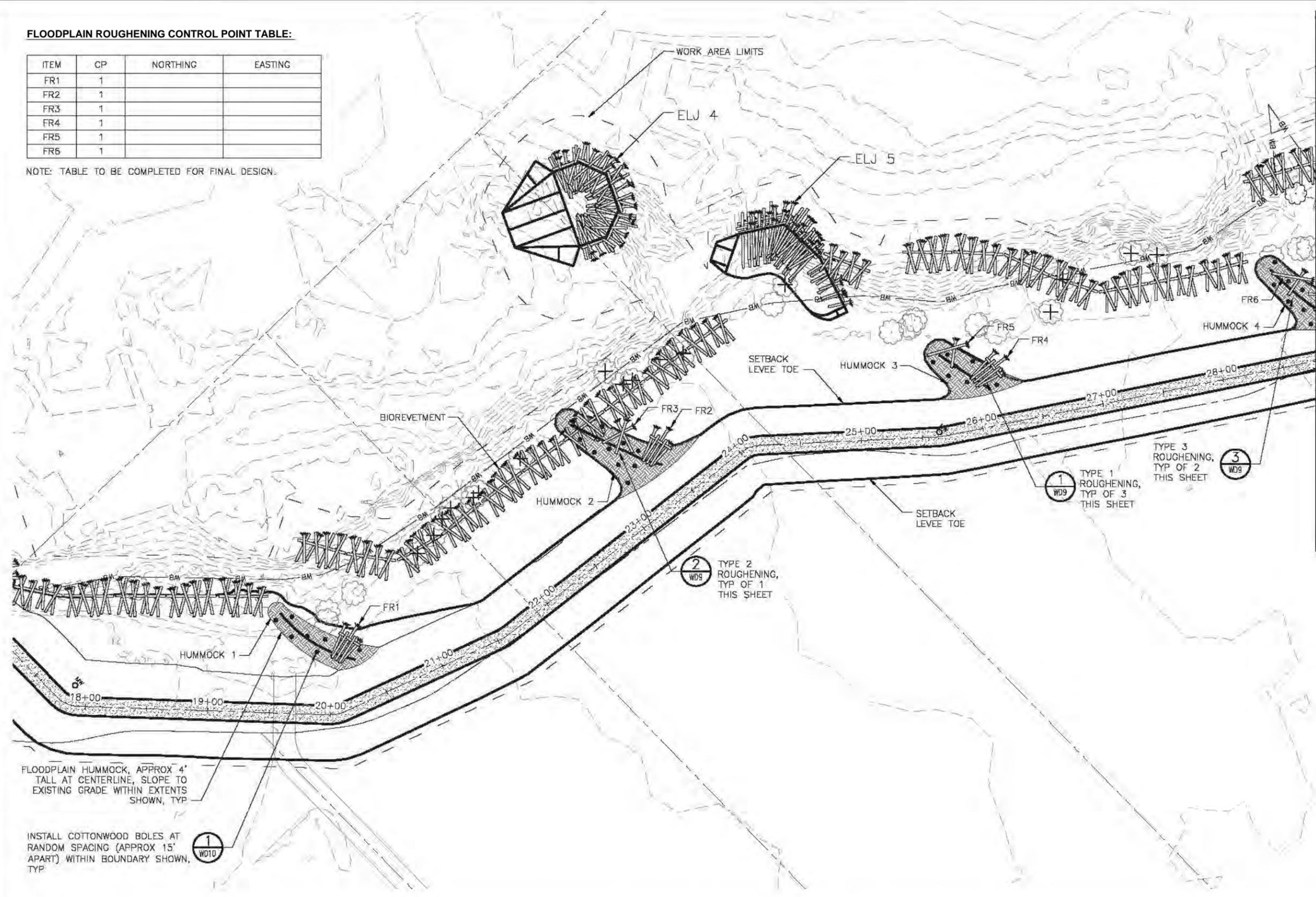
COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
SOUTH OUTLET CHANNEL PLAN AND SECTION

SHEET
32
OF
69
SHEETS
DR1

FLOODPLAIN ROUGHENING CONTROL POINT TABLE:

ITEM	CP	NORTHING	EASTING
FR1	1		
FR2	1		
FR3	1		
FR4	1		
FR5	1		
FR6	1		

NOTE: TABLE TO BE COMPLETED FOR FINAL DESIGN.



MATCHLINE - SEE SHEET FR2

NOTES:

1. CONSTRUCT FLOODPLAIN HUMMOCKS AFTER TYPES 1, 2, AND 3 ROUGHENING ELEMENTS HAVE BEEN INSTALLED.
2. EXTENTS AND ALIGNMENT OF FLOODPLAIN HUMMOCKS ARE APPROXIMATE AND WILL BE VERIFIED BY THE PROJECT REPRESENTATIVE PRIOR TO THEIR CONSTRUCTION.
3. SEE DWG WD9 FOR EXTENTS OF WOOD BURIAL FOR TYPES 1, 2, AND 3 ROUGHENING ELEMENTS.
4. EXTEND FLOODPLAIN HUMMOCKS TO SETBACK LEVEE AS SHOWN. CORE OF HUMMOCKS SHALL BE EITHER LEVEE REMOVAL SPOILS OR SURPLUS BIOREVETMENT EXCAVATION SPOILS PLACED IN 12" DEEP LAYERS. PLACE A 12" DEEP LAYER OF NATIVE TOPSOIL OVER CORE. COMPACT CORE LAYERS WITH BACKSIDE OF EXCAVATOR BUCKET. DO NOT COMPACT TOPSOIL.
5. SEE PLANTING PLAN FOR FLOODPLAIN HUMMOCK PLANTING DETAILS AND FOR PLANTING DETAILS OVER TYPES 1, 2, AND 3 ROUGHENING ELEMENTS.

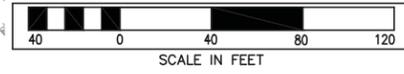
LEGEND:

- HUMMOCK
- TYPE 1 ROUGHENING
- TYPE 2 ROUGHENING
- TYPE 3 ROUGHENING

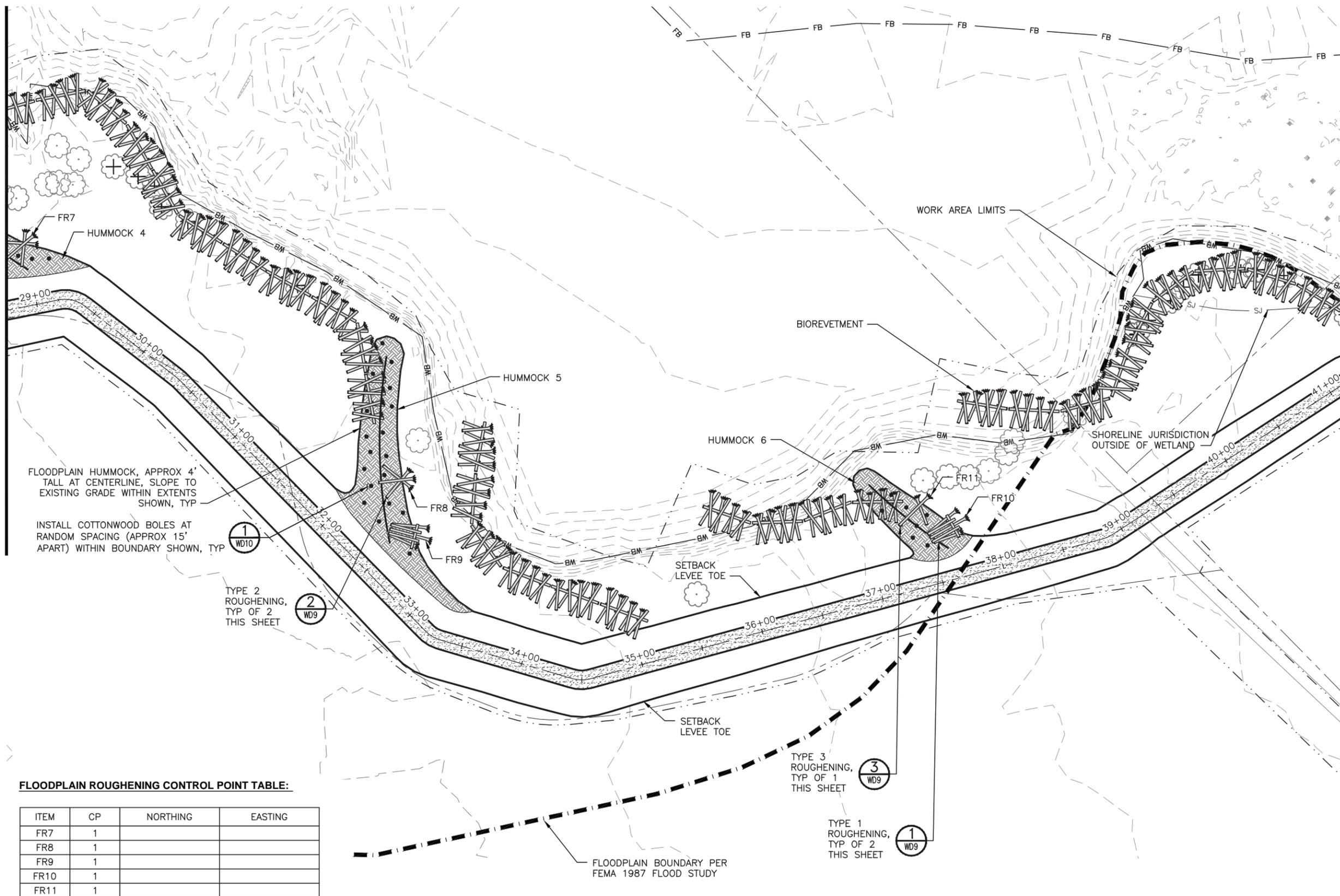
FLOODPLAIN HUMMOCK, APPROX 4' TALL AT CENTERLINE, SLOPE TO EXISTING GRADE WITHIN EXTENTS SHOWN, TYP

INSTALL COTTONWOOD BOLES AT RANDOM SPACING (APPROX 15' APART) WITHIN BOUNDARY SHOWN, TYP

FIELD BOOK: SURVEYED: SURVEY BASE MAP: CHECKED:	<p style="font-size: 2em; font-weight: bold;">CADD / 60%</p> <p style="font-size: 1.5em; font-weight: bold;">5-2013</p>	APPROVED: IAN MOSTRENKO, PE 5-2013 PROJECT MANAGER: MARK EW BANK, PE 5-2013 DESIGNED: BRIAN SCOTT 5-2013 ECODLOGIST: DESIGN ENTERED: TODD PRESCOTT 5-2013	SRFB # RCO 087-1910C PROJECT No. 1112049 (FL9001)			<p>King County Department of Natural Resources and Parks Water and Land Resources Division River and Floodplain Management Section Christa True, Director</p>	COUNTYLINE LEVEE SETBACK WHITE RIVER, RIVER MILE 5.00-6.33 LEVEE MODIFICATION FLOODPLAIN ROUGHENING PLAN (SHEET 1 OF 2)	SHEET 33 OF 69 SHEETS FR1
NUM. REVISION BY DATE								



MATCHLINE - SEE SHEET FR1



- NOTES:**
1. CONSTRUCT FLOODPLAIN HUMMOCKS AFTER TYPES 1, 2, AND 3 ROUGHENING ELEMENTS HAVE BEEN INSTALLED.
 2. EXTENTS AND ALIGNMENT OF FLOODPLAIN HUMMOCKS ARE APPROXIMATE AND WILL BE VERIFIED BY THE PROJECT REPRESENTATIVE PRIOR TO THEIR CONSTRUCTION.
 3. SEE DWG WD9 FOR EXTENTS OF WOOD BURIAL FOR TYPES 1, 2, AND 3 ROUGHENING ELEMENTS.
 4. EXTEND FLOODPLAIN HUMMOCKS TO SETBACK LEVEE AS SHOWN. CORE OF HUMMOCKS SHALL BE EITHER LEVEE REMOVAL SPOILS OR SURPLUS BIOREVEGETMENT EXCAVATION SPOILS PLACED IN 12" DEEP LAYERS. PLACE A 12" DEEP LAYER OF NATIVE TOPSOIL OVER CORE. COMPACT CORE LAYERS WITH BACKSIDE OF EXCAVATOR BUCKET. DO NOT COMPACT TOPSOIL.
 5. SEE PLANTING PLAN FOR FLOODPLAIN HUMMOCK PLANTING DETAILS AND FOR PLANTING DETAILS OVER TYPES 1, 2, AND 3 ROUGHENING ELEMENTS.

FLOODPLAIN HUMMOCK, APPROX 4' TALL AT CENTERLINE, SLOPE TO EXISTING GRADE WITHIN EXTENTS SHOWN, TYP

INSTALL COTTONWOOD BOLES AT RANDOM SPACING (APPROX 15' APART) WITHIN BOUNDARY SHOWN, TYP

1
WD10

2
WD9

3
WD9

1
WD9

FLOODPLAIN ROUGHENING CONTROL POINT TABLE:

ITEM	CP	NORTHING	EASTING
FR7	1		
FR8	1		
FR9	1		
FR10	1		
FR11	1		

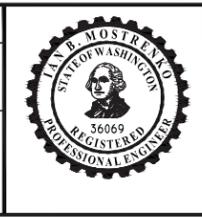
NOTE: TABLE TO BE COMPLETED FOR FINAL DESIGN.

LEGEND:

- HUMMOCK
- TYPE 1 ROUGHENING
- TYPE 2 ROUGHENING
- TYPE 3 ROUGHENING

FIELD BOOK: _____	CADD / 60% 5-2013	APPROVED: IAN MOSTRENKO, PE	5-2013	SRFB #	RCO 087-1910C
SURVEYED: _____		PROJECT MANAGER: MARK EWBank, PE	5-2013	PROJECT No.	1112049 (FL9001)
SURVEY BASE MAP: _____		DESIGNED: BRIAN SCOTT	5-2013		
CHECKED: _____		ECOLOGIST: _____			
	NUM.	REVISION	BY	DATE	DESIGN ENTERED: TODD PRESCOTT
					5-2013

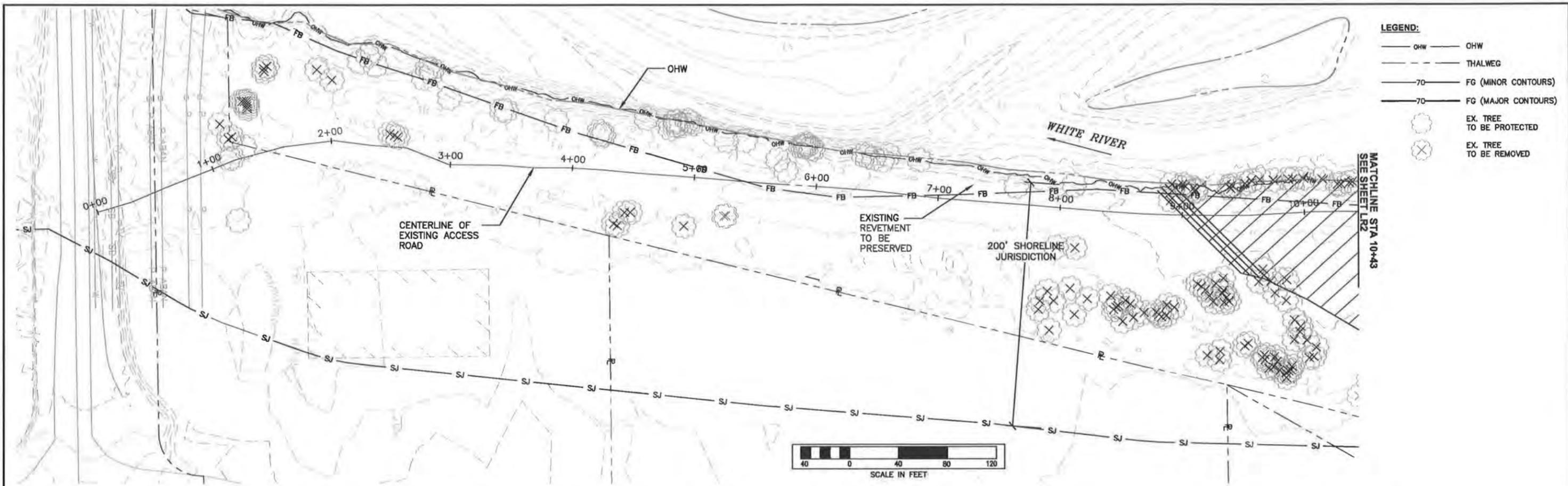
APPROVED: IAN MOSTRENKO, PE	5-2013	SRFB #	RCO 087-1910C
PROJECT MANAGER: MARK EWBank, PE	5-2013	PROJECT No.	1112049 (FL9001)
DESIGNED: BRIAN SCOTT	5-2013		
ECOLOGIST: _____			
DESIGN ENTERED: TODD PRESCOTT	5-2013		



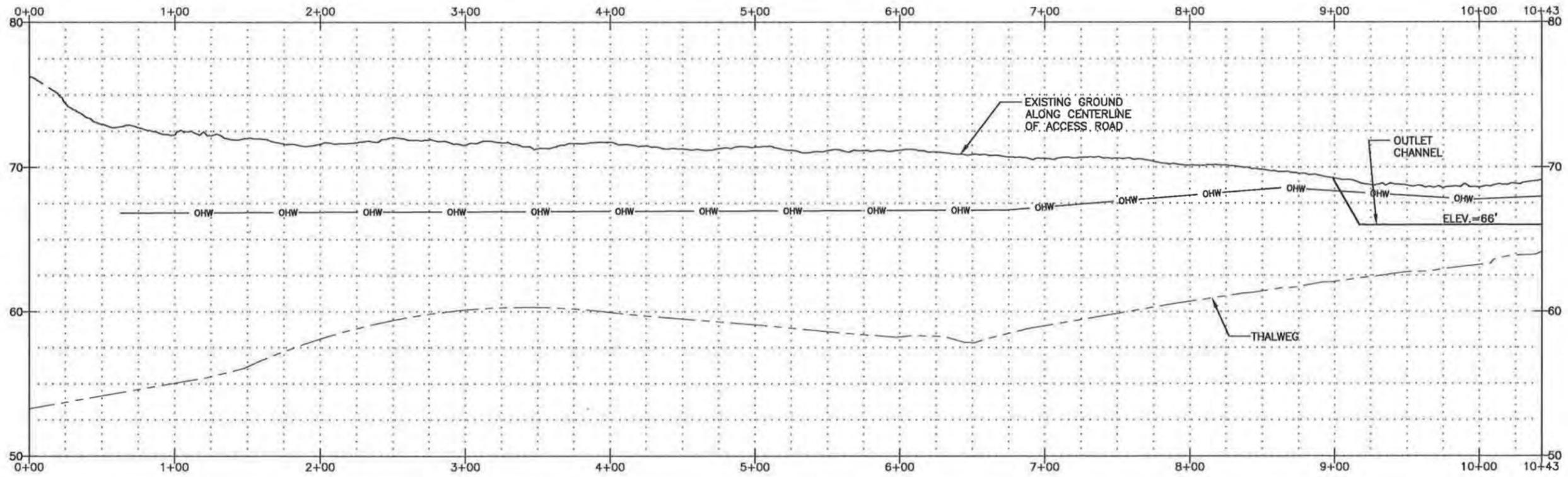
King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
FLOODPLAIN ROUGHENING PLAN
(SHEET 2 OF 2)

SHEET
34
OF
69
SHEETS
FR2



- LEGEND:**
- OHW
 - - - THALWEG
 - 70 FG (MINOR CONTOURS)
 - 70 FG (MAJOR CONTOURS)
 - EX. TREE TO BE PROTECTED
 - ⊗ EX. TREE TO BE REMOVED



FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: CHRIS BRUMMER, PE	4-2013
ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

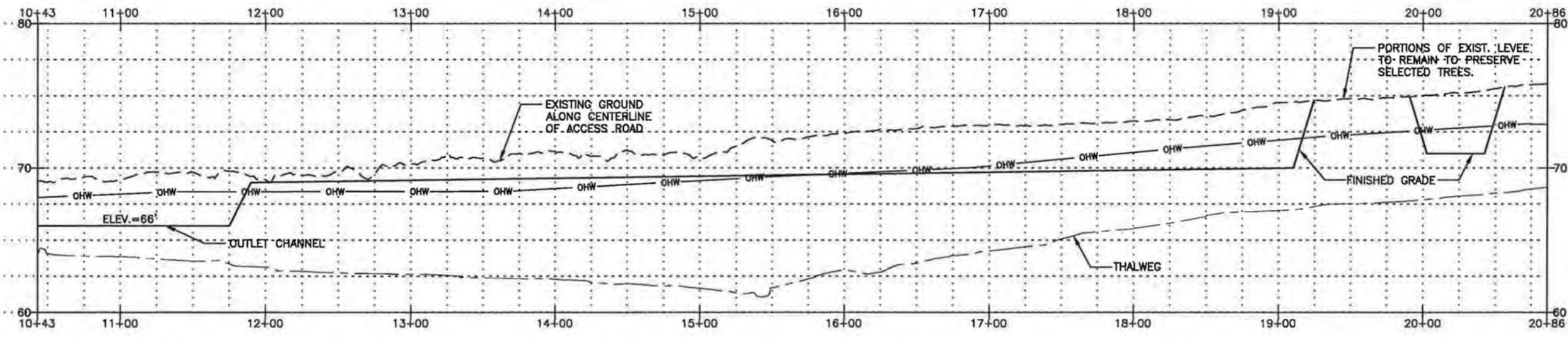
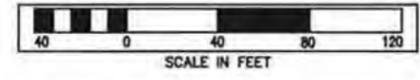
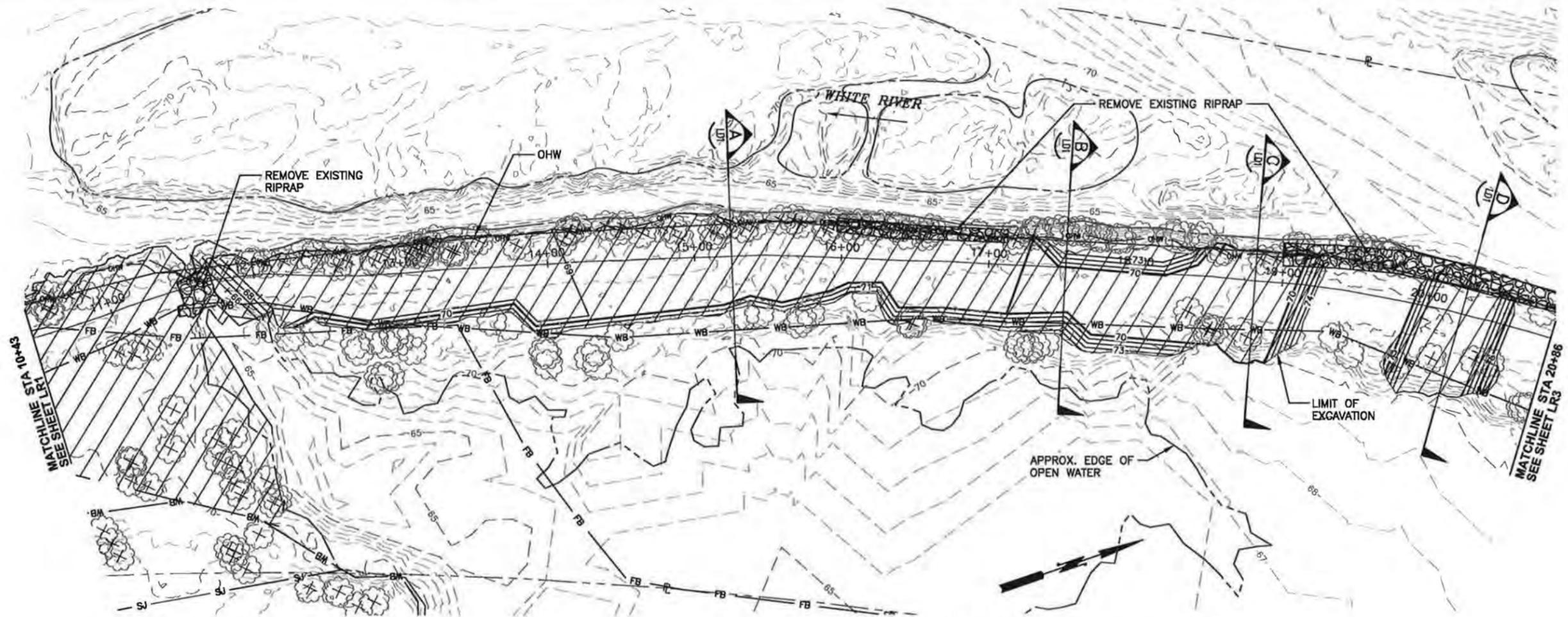
SRFB # RCO 087-1910C
PROJECT No. 1112049 (FL9001)



King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEL SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEL MODIFICATION
LEVEL EXCAVATION PLAN AND PROFILE

SHEET 35 OF 69 SHEETS
LR1



FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

APPROVED:	JEANNE STYPULA, PE	4-2013
PROJECT MANAGER:	CHRIS BRUMMER, PE	4-2013
DESIGNED:	CHRIS BRUMMER, PE	4-2013
ECOLOGIST:	SARAH MCCARTHY	4-2013
DESIGN ENTERED:	LICA DULAN	4-2013

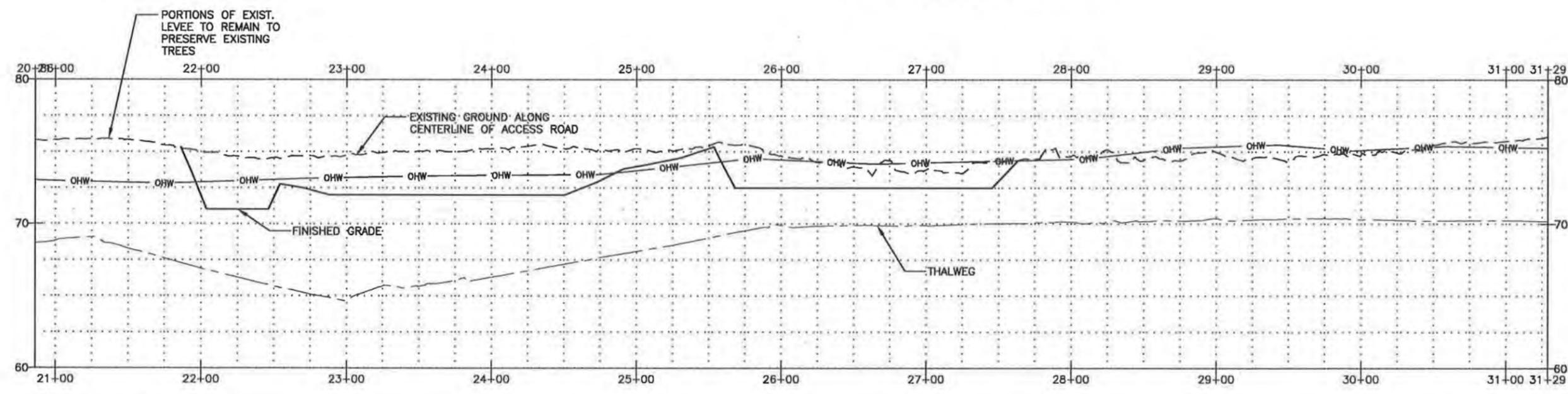
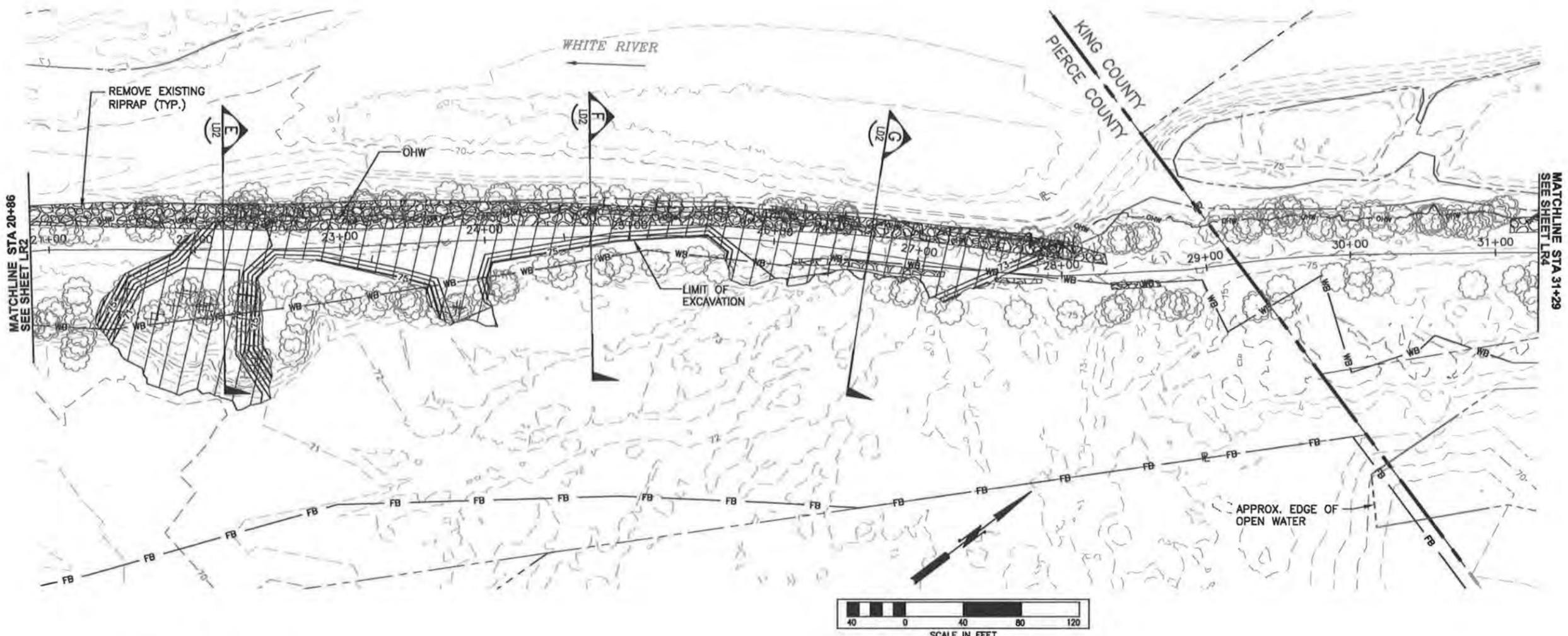
SRFB # RCO 087-1910C
PROJECT No. 1112049 (FL9001)



King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
LEVEE EXCAVATION PLAN AND PROFILE

SHEET 36 OF 69 SHEETS
LR2



FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: CHRIS BRUMMER, PE	4-2013
ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

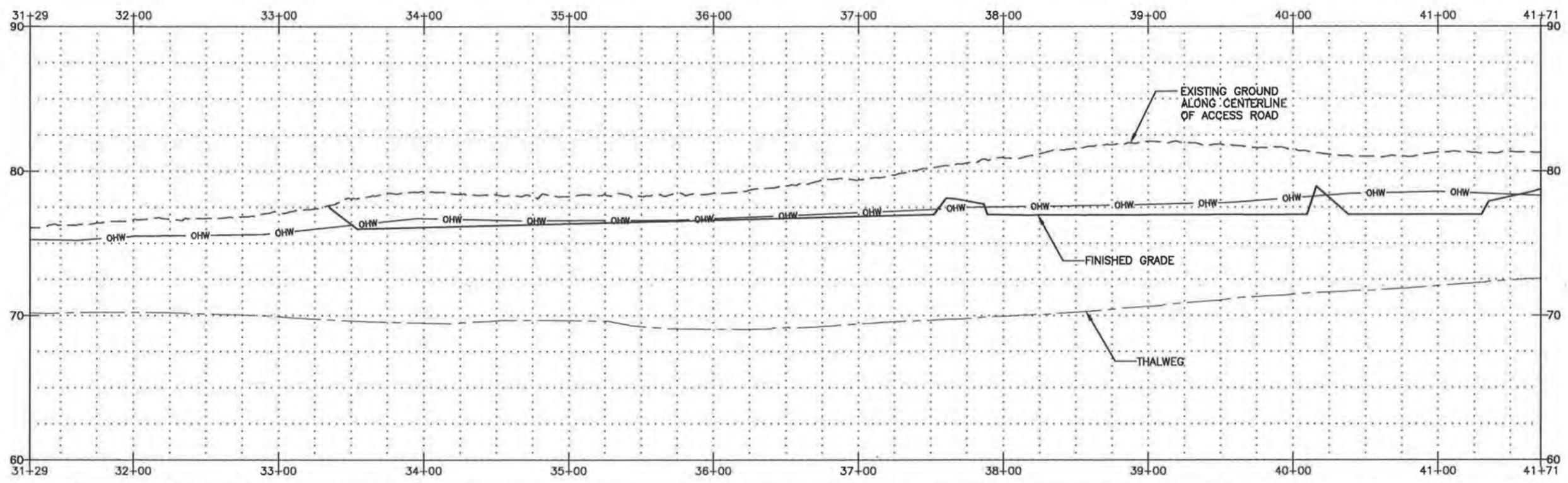
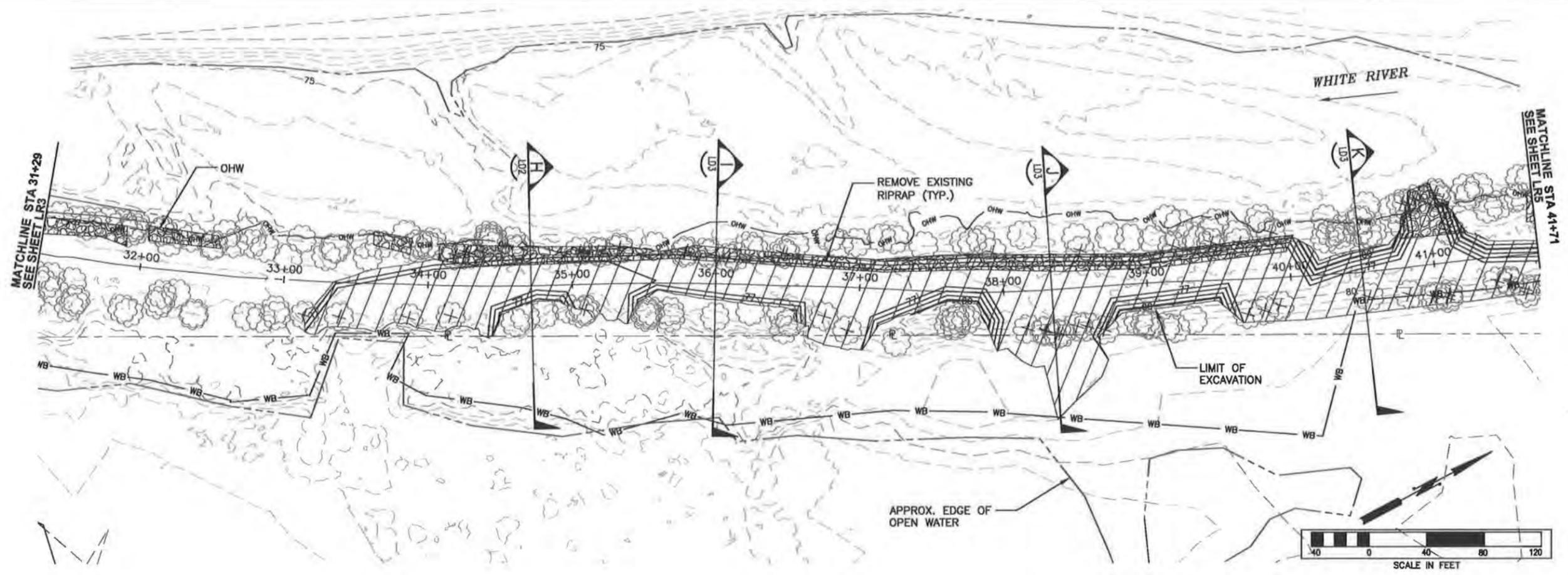
SRFB # RCO 087-1910C
PROJECT No. 1112049 (FL9001)



King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
LEVEE EXCAVATION PLAN AND PROFILE

SHEET
37
OF
69
SHEETS
LR3



FIELD BOOK: _____
 SURVEYED: _____
 SURVEY BASE MAP: _____
 CHECKED: _____

CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

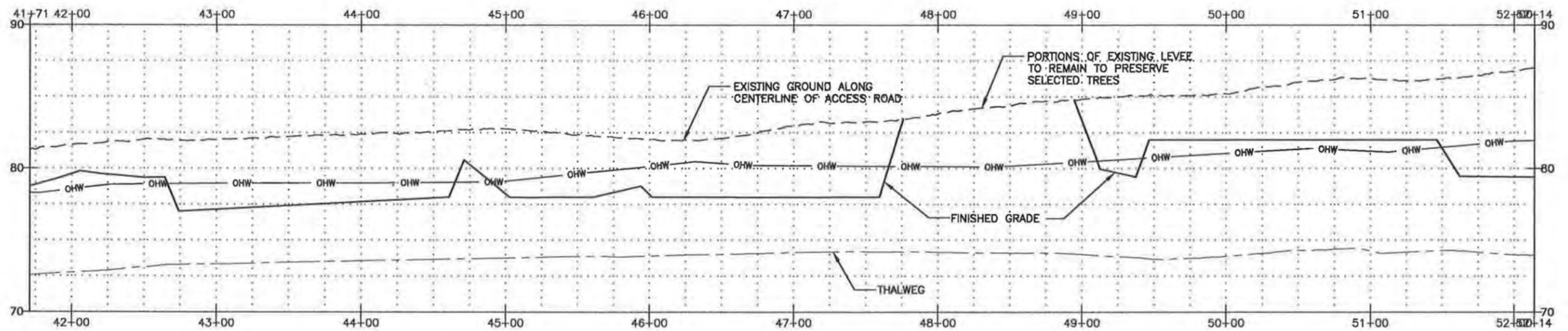
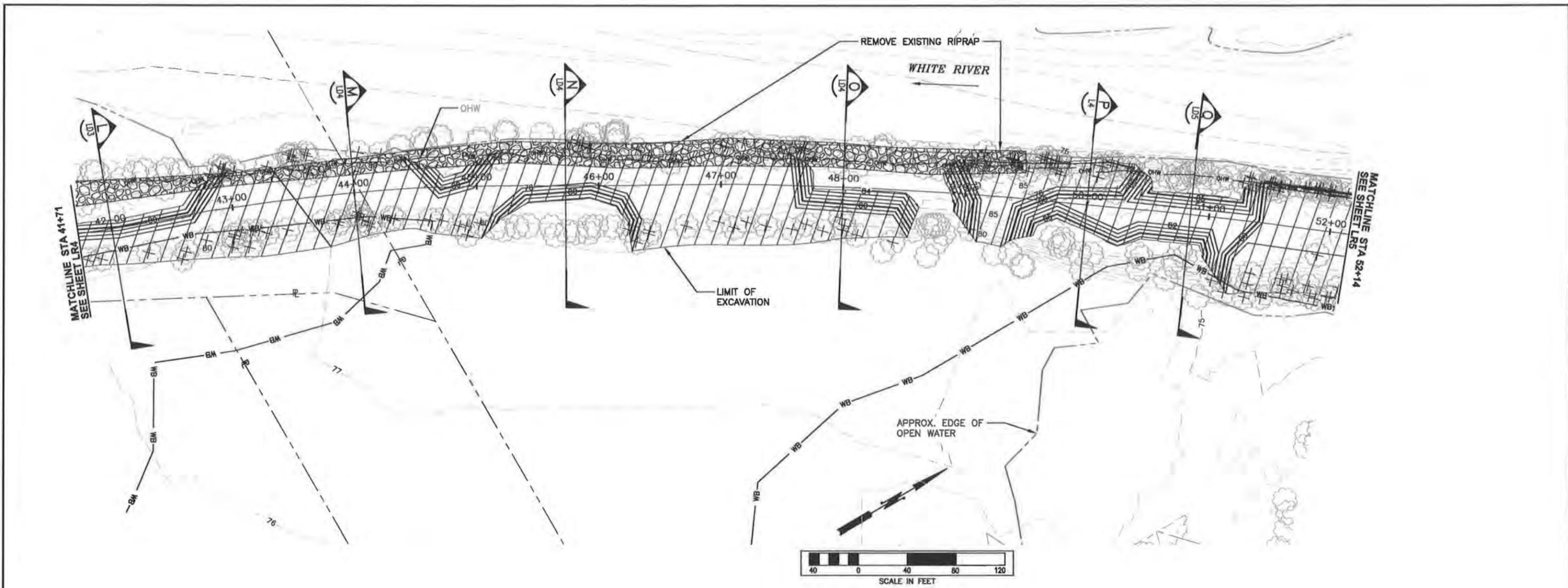
APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: CHRIS BRUMMER, PE	4-2013
ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LUCA DULAN	4-2013

SRFB # RCO 087-1910C
 PROJECT No. 1112049 (FL9001)



COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 LEVEE EXCAVATION PLAN AND PROFILE

SHEET 38 OF 69 SHEETS
 LR4

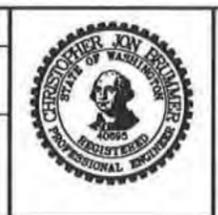


FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

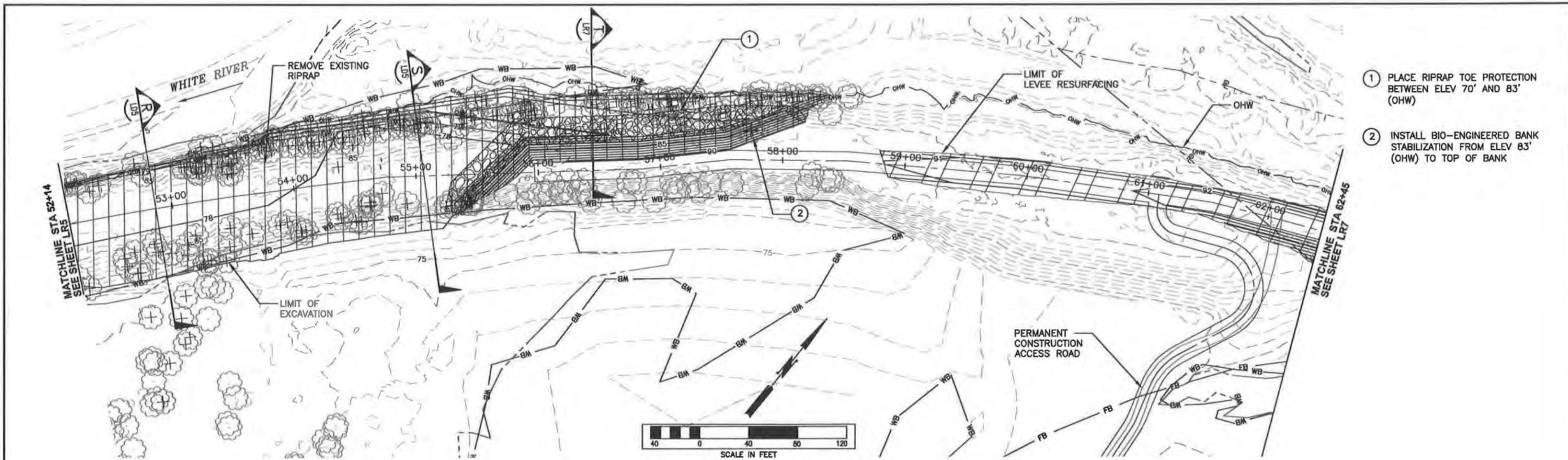
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PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013	PROJECT No.	1112049 (FL9001)
DESIGNED: CHRIS BRUMMER, PE	4-2013		
ECOLOGIST: SARAH McCARTHY	4-2013		
DESIGN ENTERED: LICA DULAN	4-2013		



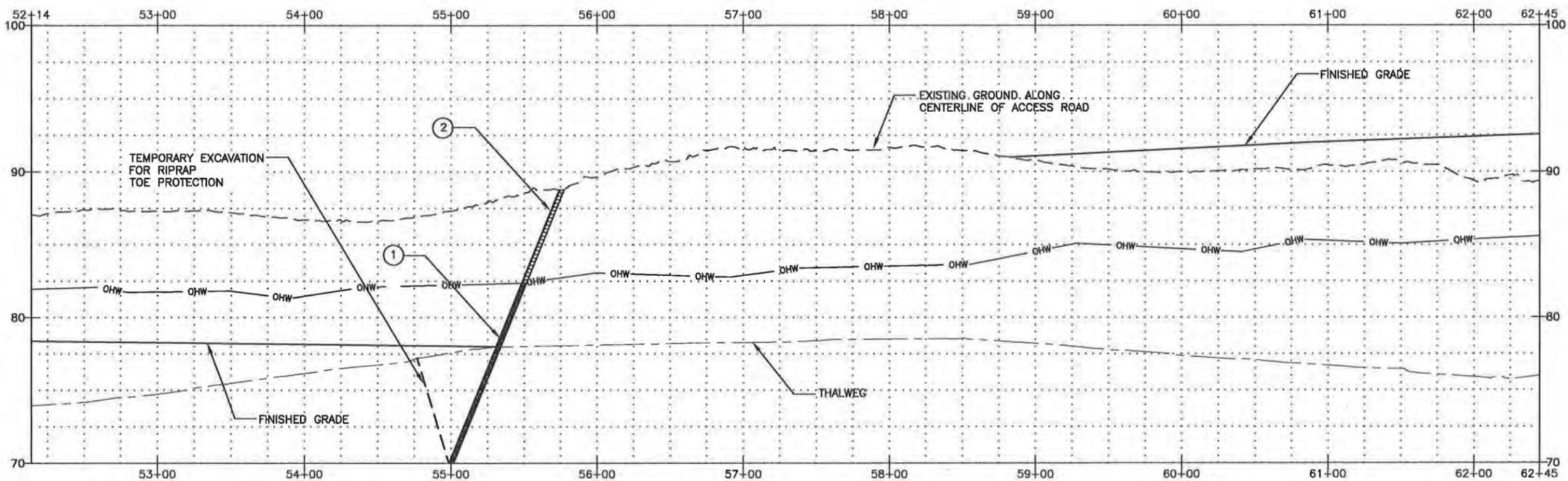
King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEL SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
LEVEE EXCAVATION PLAN AND PROFILE

SHEET
39
OF
69
SHEETS
LR5



- ① PLACE RIPRAP TOE PROTECTION BETWEEN ELEV 70' AND 83' (OHW)
- ② INSTALL BIO-ENGINEERED BANK STABILIZATION FROM ELEV 83' (OHW) TO TOP OF BANK



FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

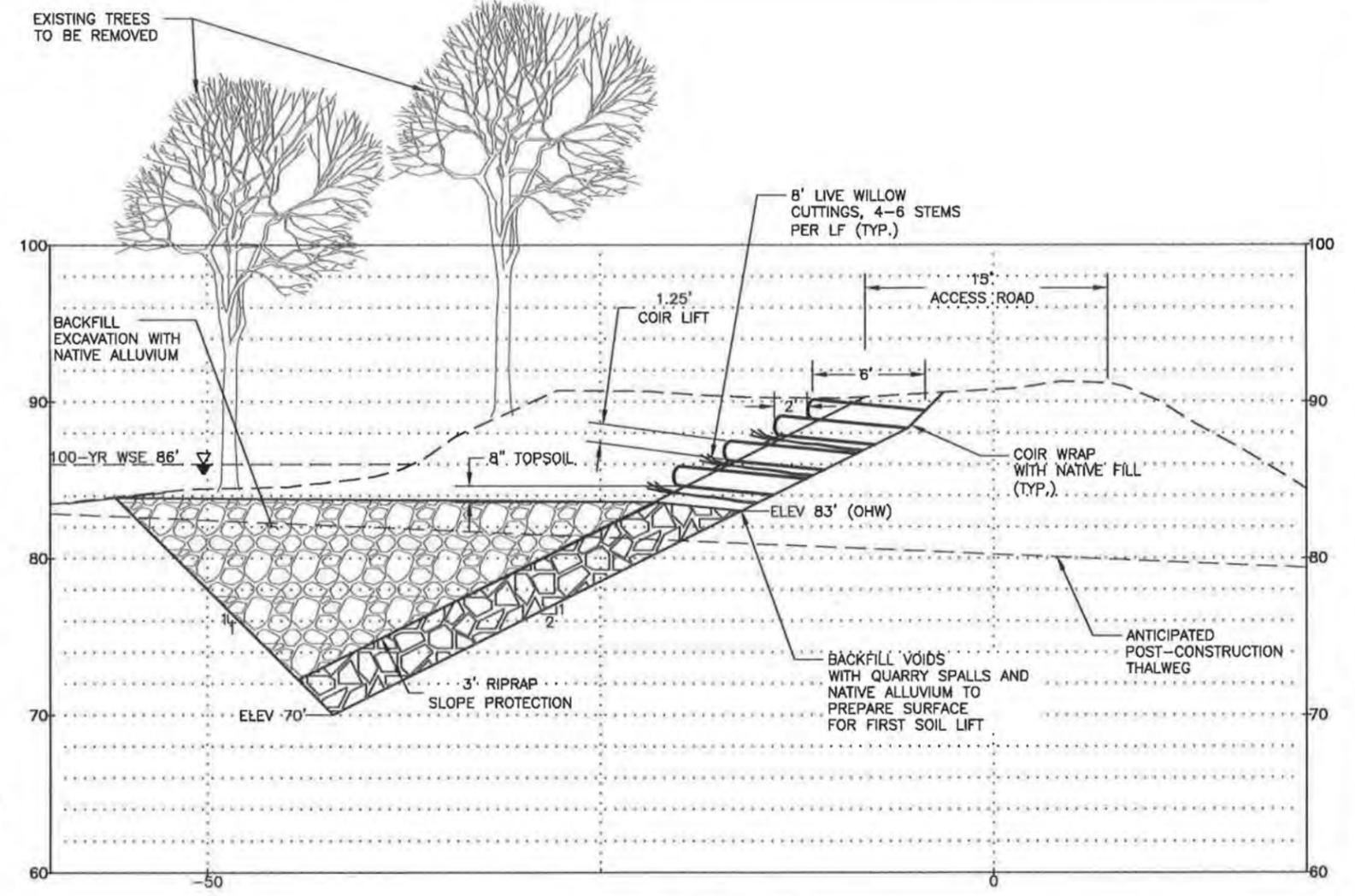
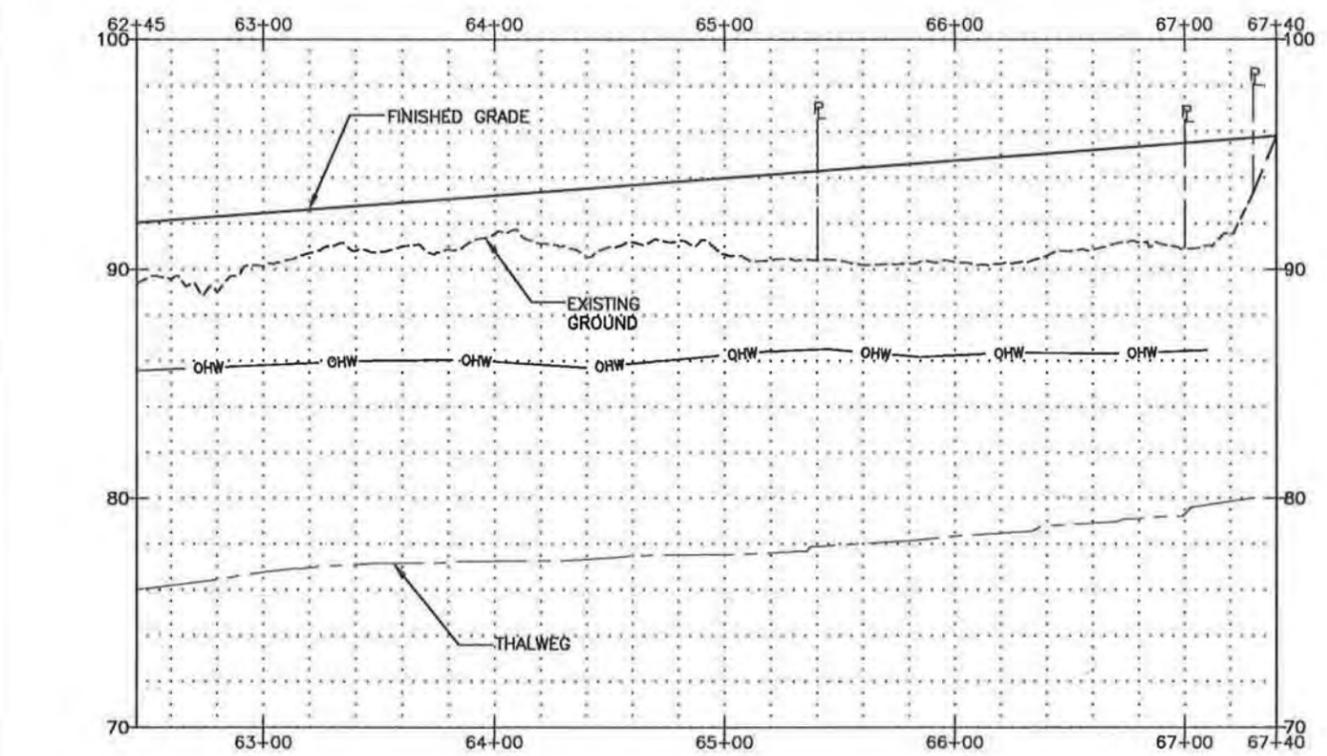
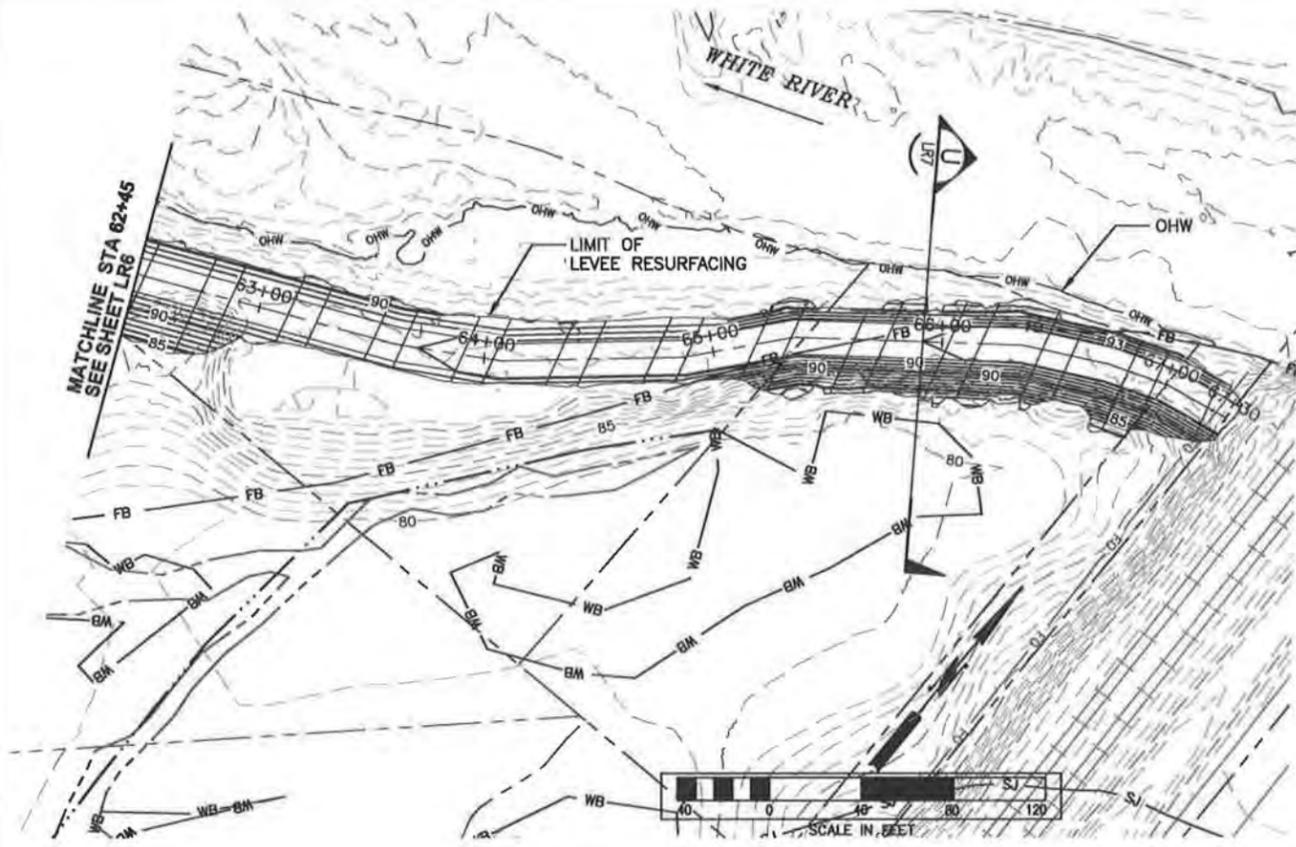
APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: CHRIS BRUMMER, PE	4-2013
ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

SRFB # RCO 087-1910C
PROJECT No. 1112049 (FL9001)

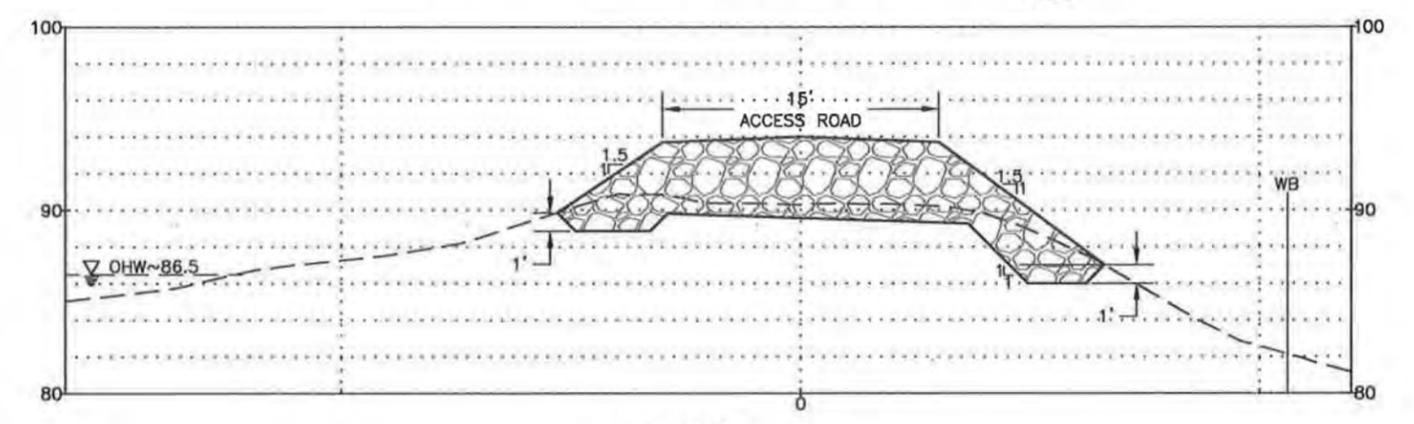


King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEL SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVELLE MODIFICATION
LEVELLE EXCAVATION PLAN AND PROFILE



SECTION T-T
LEVEE TOE AND BANK PROTECTION
1"=5' (T) LR6



SECTION U-U
LEVEE RESURFACING
1"=5' (U) LR7

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	
CADD / 60%	
5-2013	
NUM.	REVISION
BY	DATE

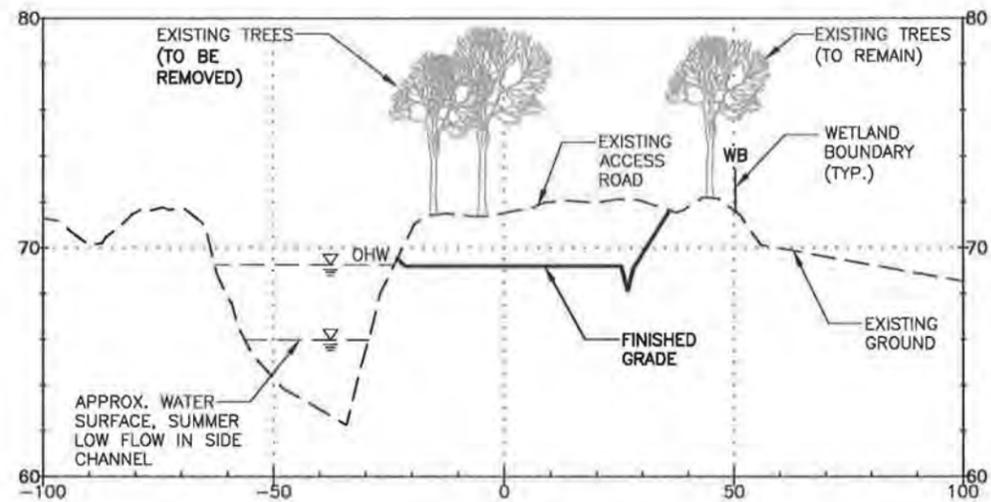
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PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013	PROJECT No.	1112049 (FL9001)
DESIGNED: CHRIS BRUMMER, PE	4-2013		
ECOLOGIST: SARAH MCCARTHY	4-2013		
DESIGN ENTERED: LICA DULAN	4-2013		



King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

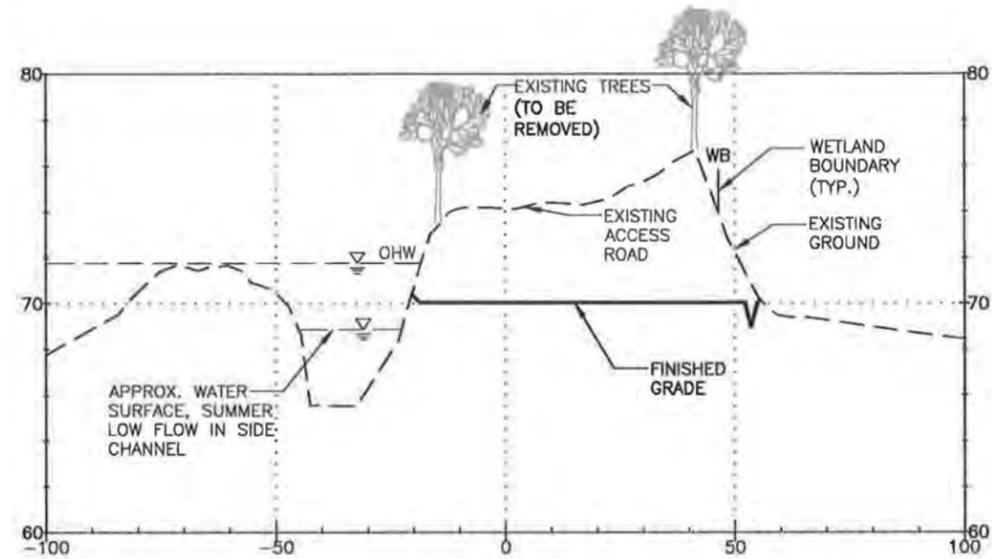
COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
LEVEE EXCAVATION PLAN AND PROFILE

SHEET
41
OF
69
SHEETS
LR7



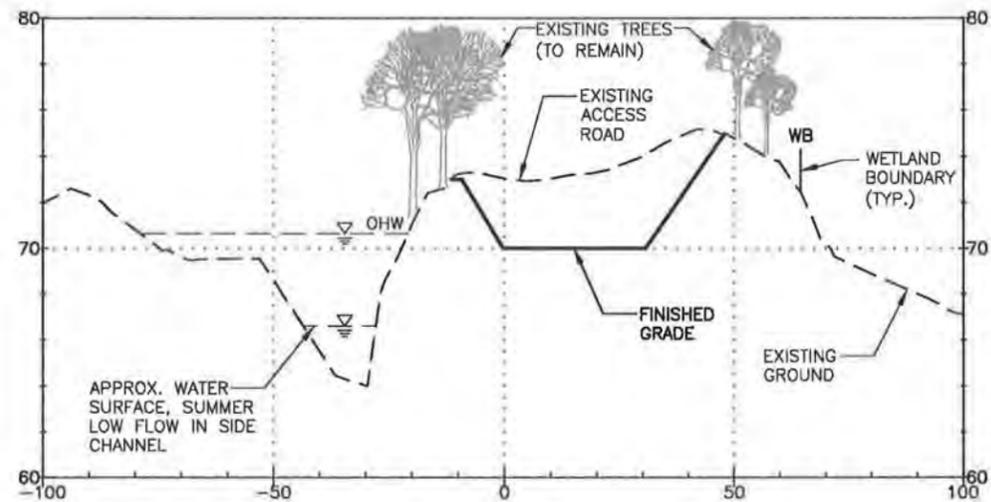
SECTION A-A
STA. 15+25

NTS



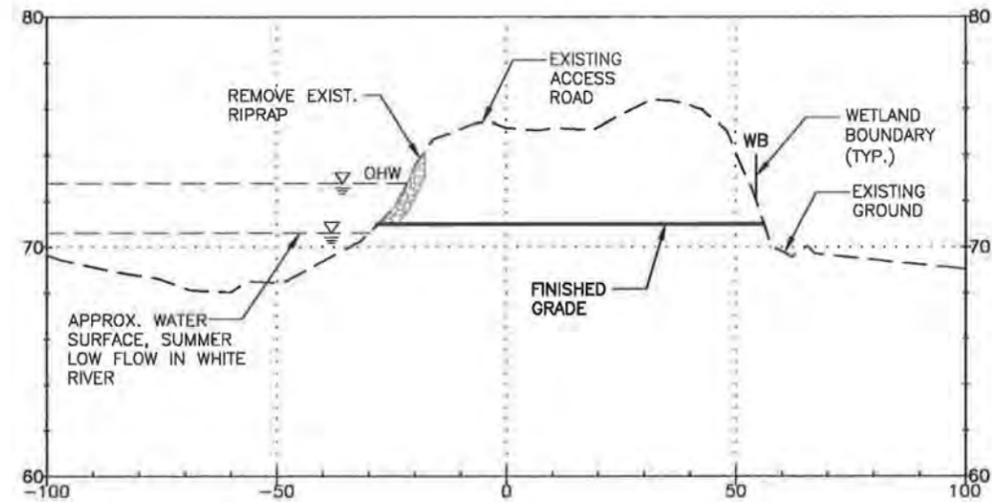
SECTION C-C
STA. 18+81

NTS



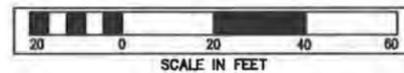
SECTION B-B
STA. 17+53

NTS



SECTION D-D
STA. 20+24

NTS



FIELD BOOK:				APPROVED: JEANNE STYPULA, PE	4-2013	SRFB #	RCO 087-1910C
SURVEYED:				PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013	PROJECT No.	1112049 (FL9001)
SURVEY BASE MAP:				DESIGNED: CHRIS BRUMMER, PE	4-2013		
CHECKED:				ECOLOGIST: SARAH MCCARTHY	4-2013		
				DESIGN ENTERED: LICA DULAN	4-2013		

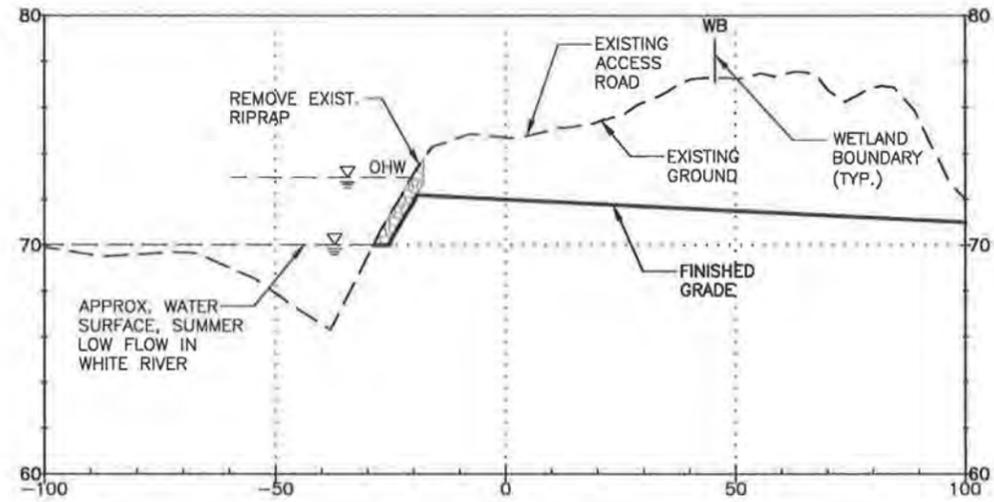
CADD / 60%
5-2013



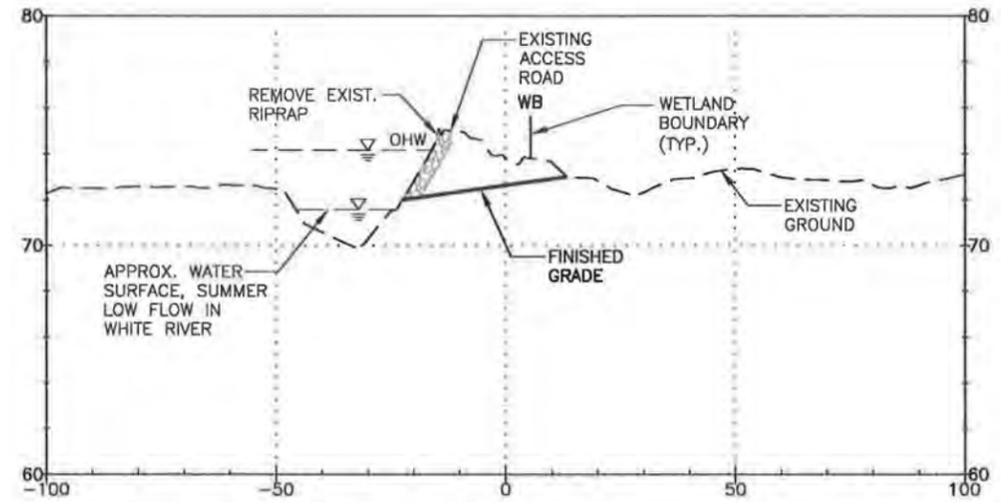
King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
LEVEE EXCAVATION CROSS SECTIONS

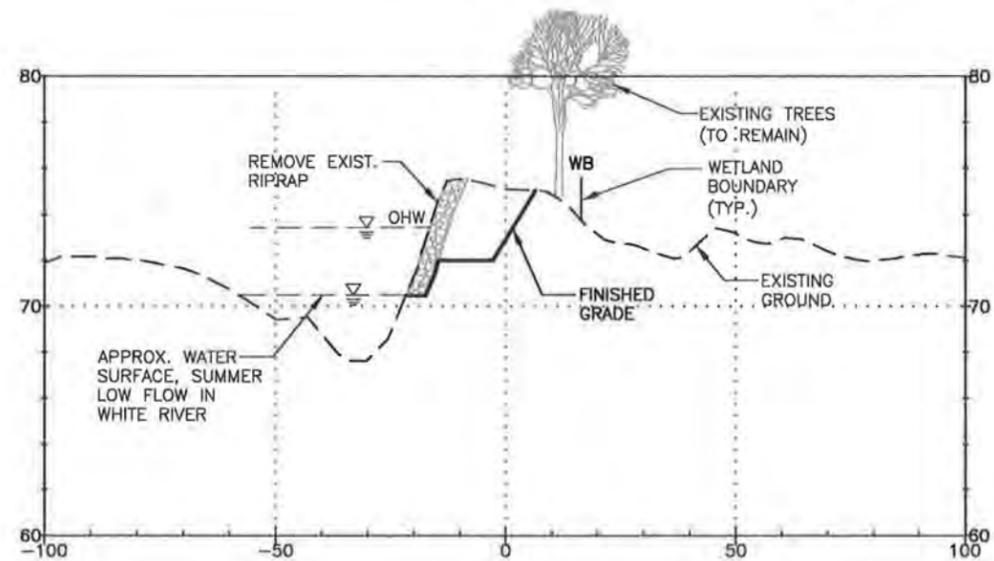
SHEET
43
OF
69
SHEETS
LD1



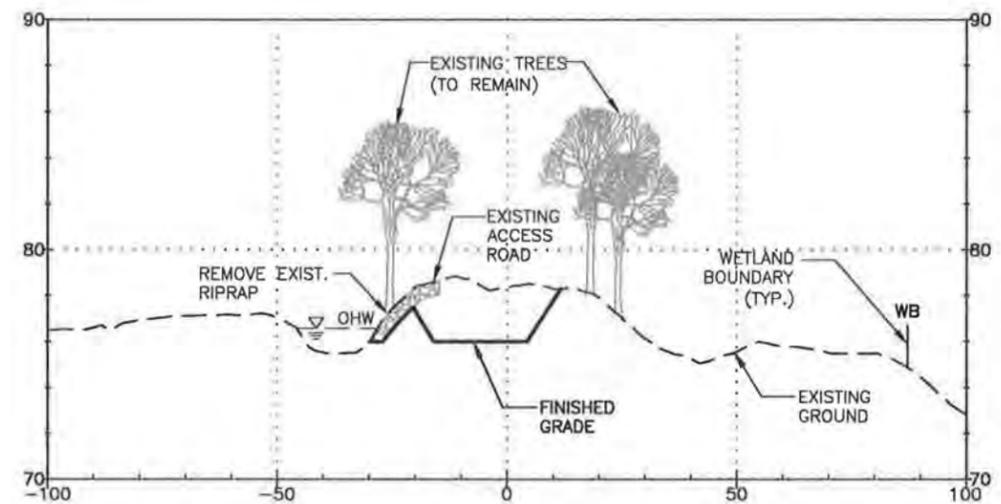
SECTION E-E
STA. 22+20



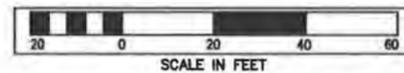
SECTION G-G
STA. 26+66



SECTION F-F
STA. 24+73



SECTION H-H
STA. 34+72



FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	
CADD / 60%	
5-2013	
NUM.	REVISION
BY	DATE

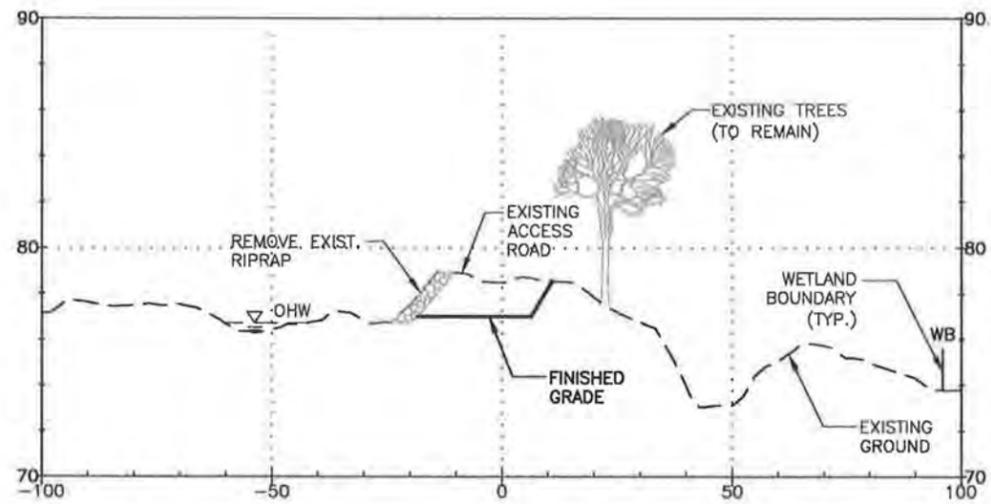
APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: CHRIS BRUMMER, PE	4-2013
ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)



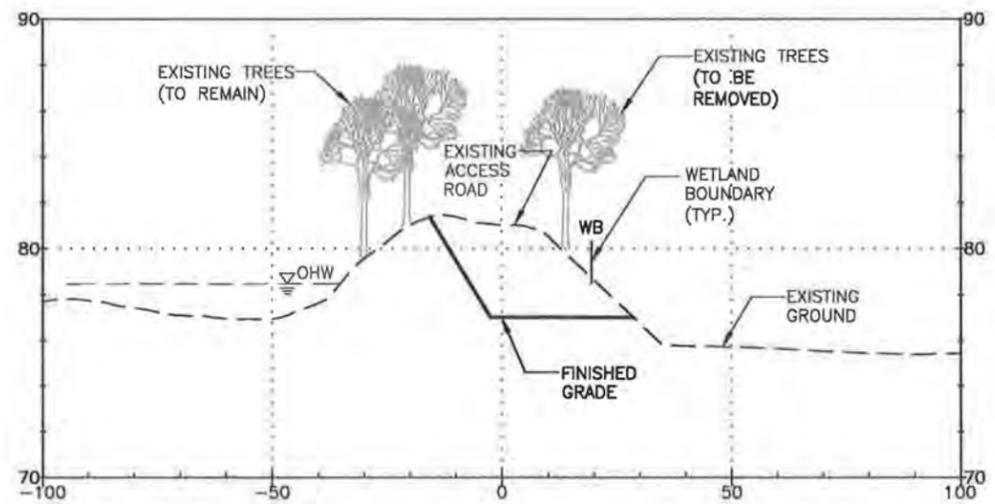
King County
 Department of Natural Resources and Parks
 Water and Land Resources Division
 River and Floodplain Management Section
 Christia True, Director

COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 LEVEE EXCAVATION CROSS SECTIONS



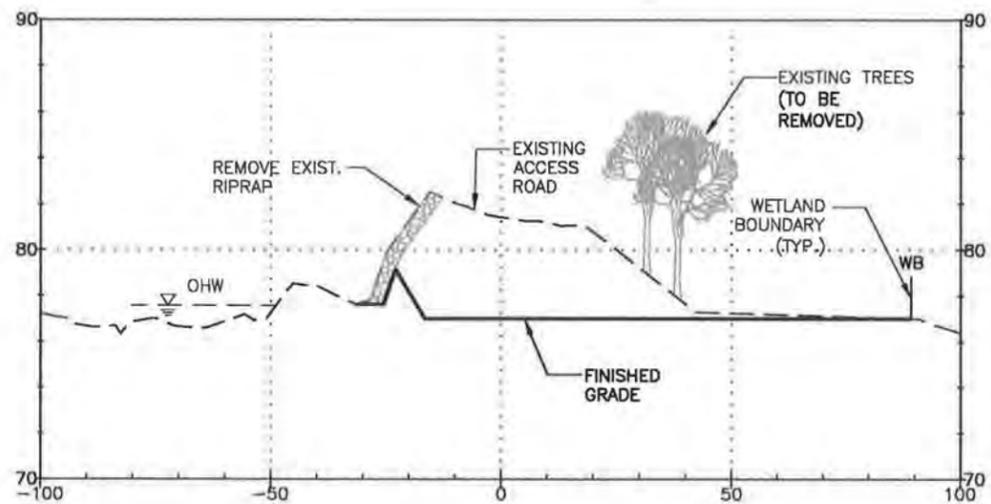
SECTION I-I
STA. 36+00

NTS



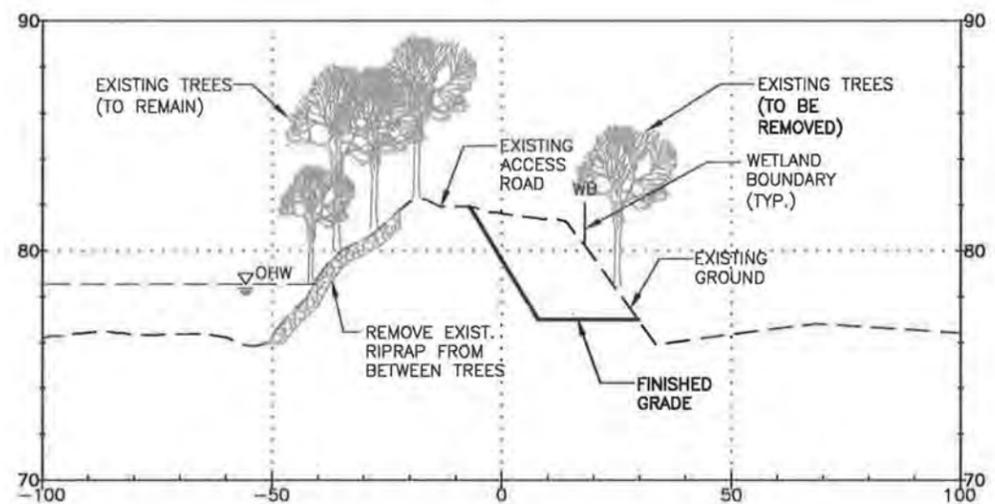
SECTION K-K
STA. 40+50

NTS



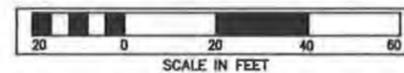
SECTION J-J
STA. 38+34

NTS



SECTION L-L
STA. 42+00

NTS



FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	
CADD / 60%	
5-2013	
NUM.	REVISION
BY	DATE

APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: CHRIS BRUMMER, PE	4-2013
ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

SRFB # RCO 087-1910C

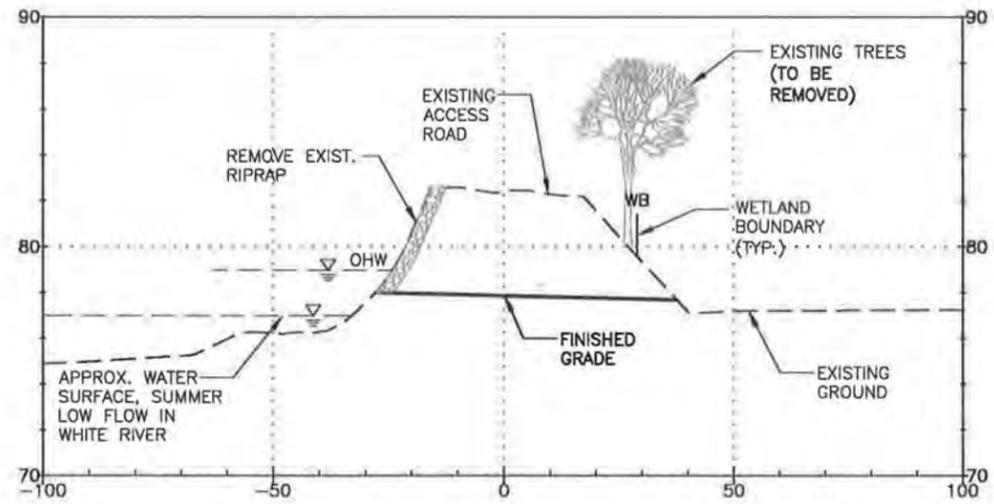
PROJECT No. 1112049 (FL9001)



King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
LEVEE EXCAVATION CROSS SECTIONS

SHEET
45
OF
69
SHEETS
LD3

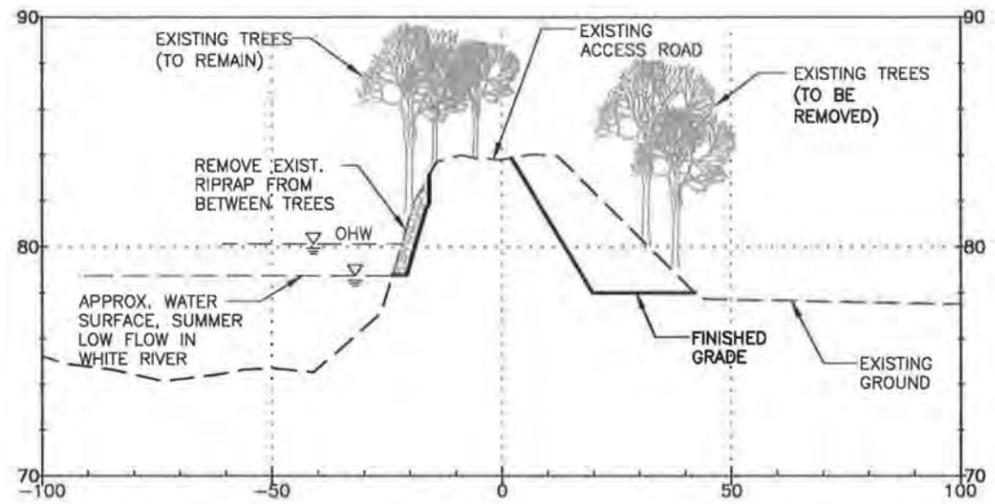


SECTION M-M
STA. 44+00



NTS

LR5

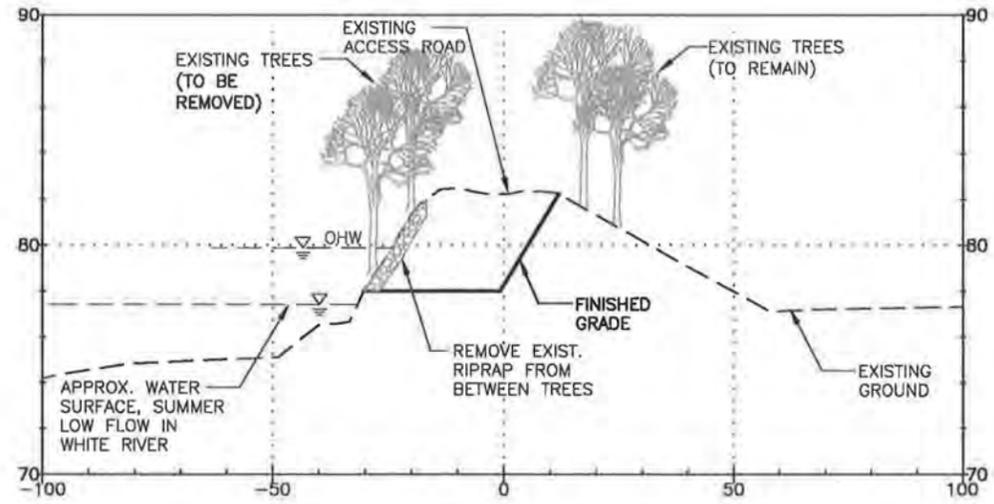


SECTION O-O
STA. 48+00



NTS

LR5

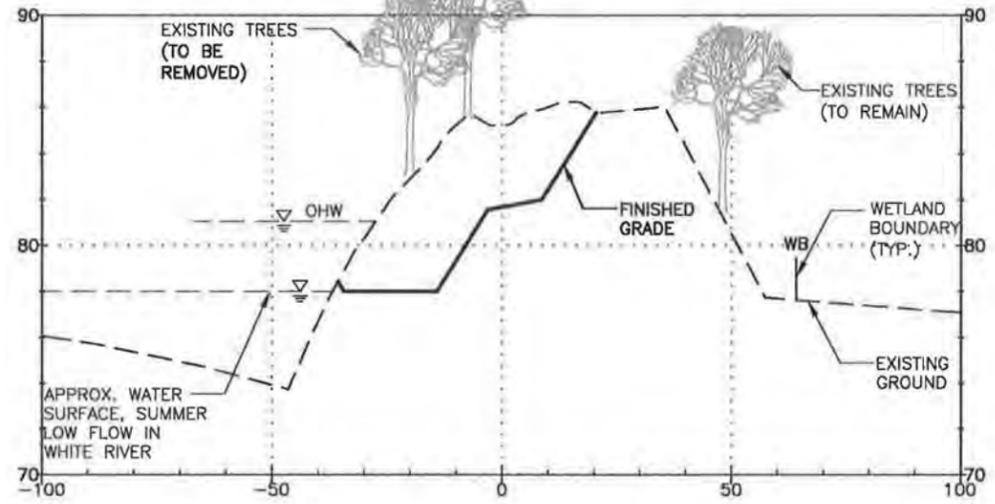


SECTION N-N
STA. 45+73



NTS

LR5

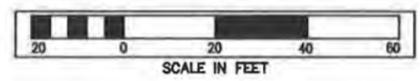


SECTION P-P
STA. 50+00



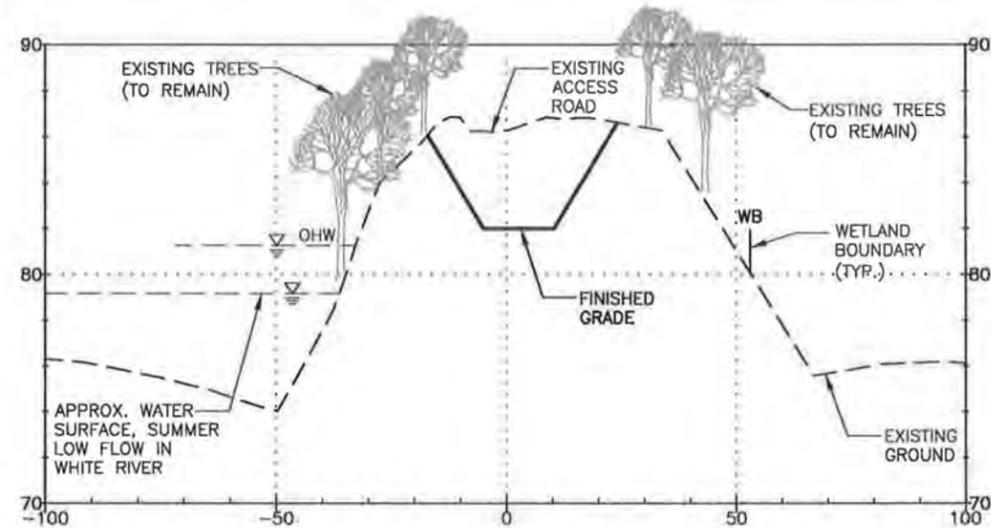
NTS

LR5

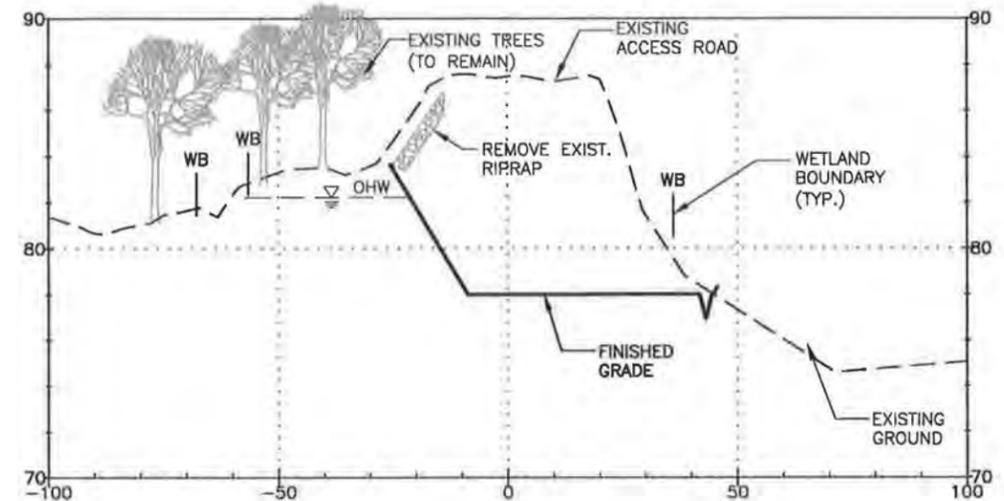


FIELD BOOK:		APPROVED: JEANNE STYPULA, PE	4-2013	SRFB #	RCO 087-1910C			COUNTYLINE LEVEE SETBACK WHITE RIVER, RIVER MILE 5.00-6.33 LEVEE MODIFICATION LEVEE EXCAVATION CROSS SECTIONS	SHEET
SURVEYED:		PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013	PROJECT No.	1112049 (FL9001)				46
SURVEY BASE MAP:		DESIGNED: CHRIS BRUMMER, PE	4-2013						OF
CHECKED:		ECOLOGIST: SARAH MCCARTHY	4-2013						69
		DESIGN ENTERED: LICA DULAN	4-2013					SHEETS	
									LD4

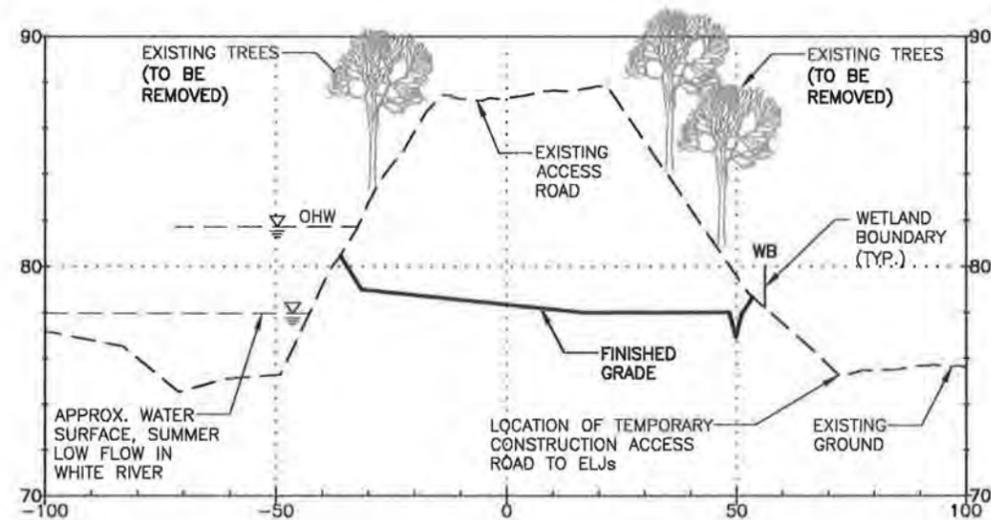
CADD / 60%
5-2013



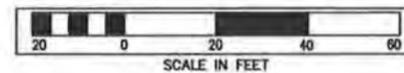
SECTION Q-Q
STA. 50+85



SECTION S-S
STA. 55+06



SECTION R-R
STA. 52+86



FIELD BOOK:		APPROVED: JEANNE STYPULA, PE	4-2013
SURVEYED:		PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
SURVEY BASE MAP:		DESIGNED: CHRIS BRUMMER, PE	4-2013
CHECKED:		ECOLOGIST: SARAH McCARTHY	4-2013
		DESIGN ENTERED: LICA DULAN	4-2013

CADD / 60%
5-2013

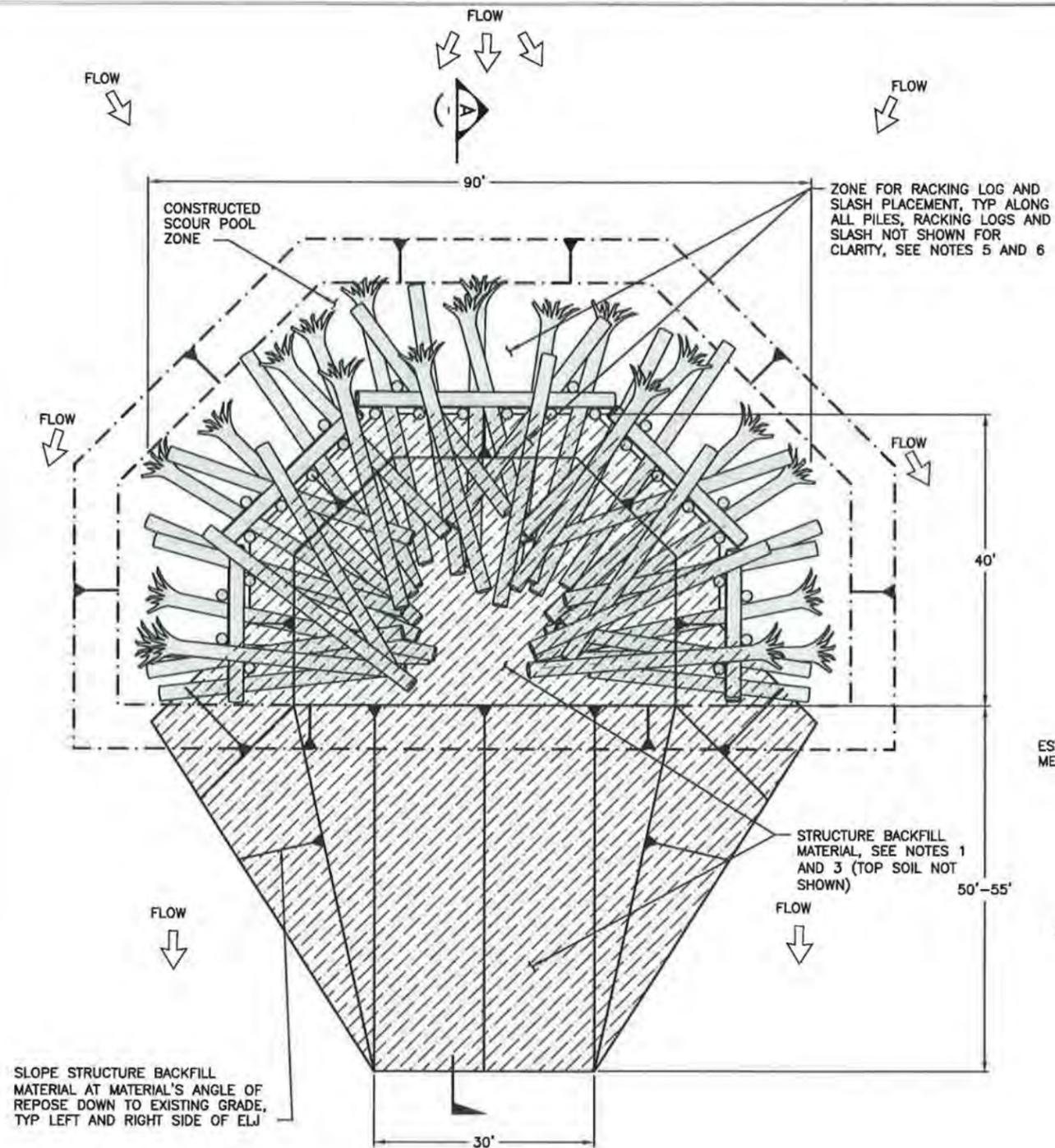
SRFB # RCO 087-1910C
PROJECT No. 1112049 (FL9001)



King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEL SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEL MODIFICATION
LEVEL EXCAVATION CROSS SECTIONS

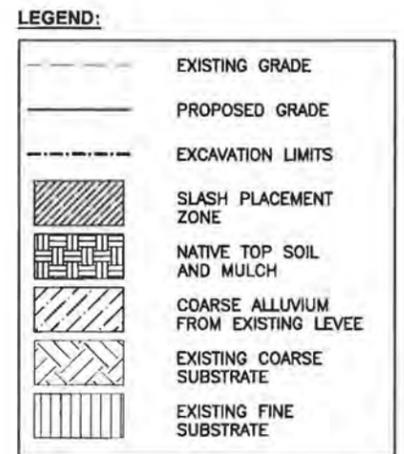
SHEET 47 OF 69 SHEETS
LD5



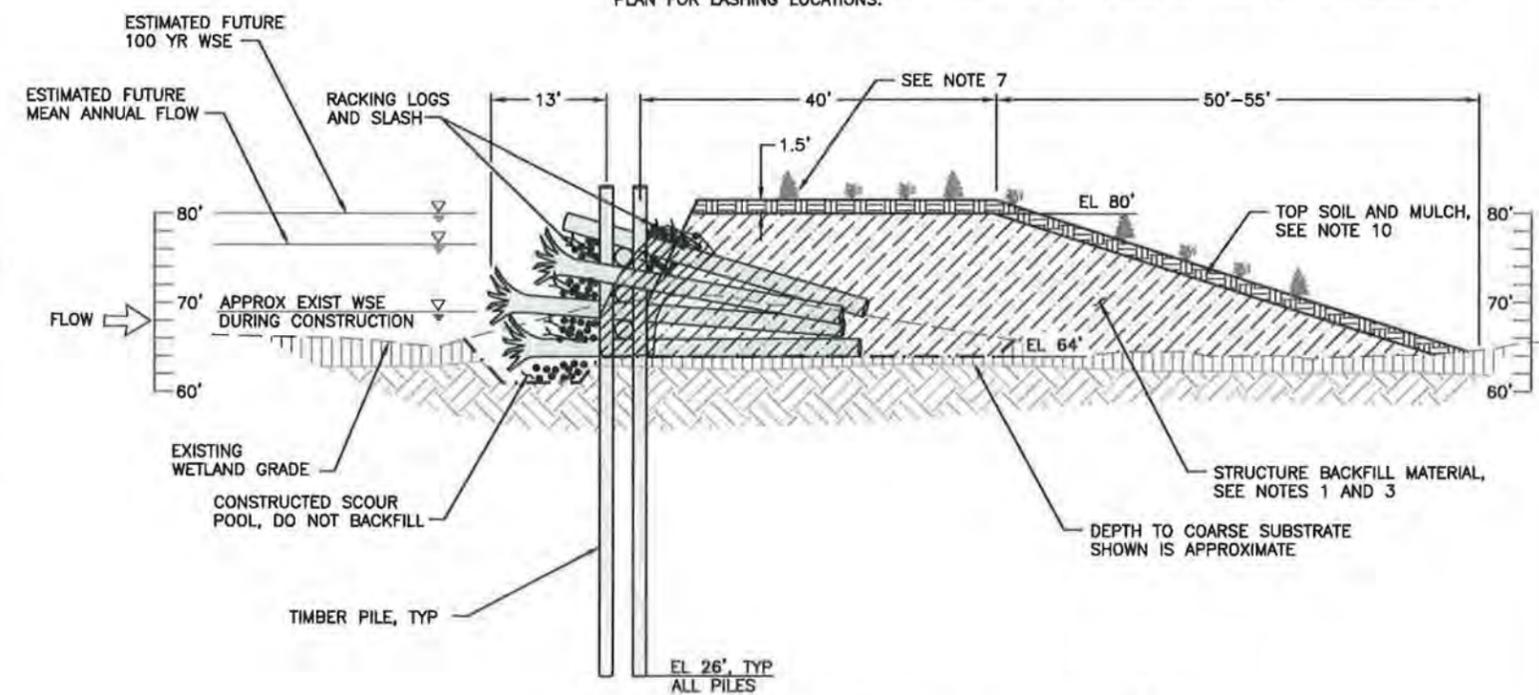
PLAN - LARGE APEX ELJ

1
WS2

SCALE IN FEET



- NOTES:**
- EXTENTS OF BACKFILL ARE APPROXIMATE AND MAY VARY FROM THAT SHOWN.
 - EXCAVATION LIMITS SHOWN ARE APPROXIMATE AND WILL VARY BASED ON CONSTRUCTION MEANS AND METHODS, SUBSURFACE CONDITIONS, DEPTH OF SURFACE WATER (IF ANY), AND LOCATION OF STRUCTURE. CONTRACTOR SHALL ADJUST EXCAVATION LIMITS AS NECESSARY TO COMPLETE CONSTRUCTION.
 - PLACE ONLY DRY LEVEE REMOVAL SPOILS WITHIN INTERIOR CORE OF STRUCTURE AND OVER FINAL LAYER OF LOGS IN 2" LAYERS AND COMPACT WITH BACKSIDE OF EXCAVATOR BUCKET. SATURATED BACKFILL MATERIAL THAT CANNOT BE PROPERLY COMPACTED WILL NOT BE ALLOWED.
 - SEE LOG SCHEDULE ON STRUCTURE LAYERING PLAN FOR DIMENSIONS AND NUMBERS OF EACH LOG TYPE IN STRUCTURE.
 - PLACEMENT OF RACKING LOGS SHOWN IS APPROXIMATE. PLACE RACKING LOGS ALONG UPSTREAM FACE OF STRUCTURE. APPROXIMATELY 1/2 OF RACKING LOGS SHALL BE PLACED ACROSS PILE ROWS (PERPENDICULAR TO FLOW) AND 1/2 OF THE RACKING LOGS PARALLEL TO FLOW AND EXTENDING INTO THE CORE OF THE STRUCTURE BETWEEN HORIZONTAL KEY LOGS. RACKING SHALL BE PLACED WITH EACH LAYER OF KEY LOGS, SHALL BE ANGLED UP AND DOWN FROM THE HORIZONTAL, AND SHALL BE PLACED TO CREATE AN INTERLOCKING MATRIX OF LOGS SECURED BETWEEN VERTICAL PILE LOGS AND HORIZONTAL KEY LOGS. COORDINATE WITH THE PROJECT REPRESENTATIVE PRIOR TO PLACING RACKING LOGS, SLASH AND BACKFILLING.
 - SEE STRUCTURE LAYERING PLAN FOR SLASH PLACEMENT. PLACE SLASH AS SHOWN ON LAYERING PLAN TO FILL VOIDS BETWEEN RACKING LOGS.
 - SEE PLANTING PLAN FOR RECOMMENDED STRUCTURE PLANTING INFORMATION AND DETAILS.
 - CONSTRUCT TEMPORARY ACCESS PATH TO ELJ AND WORK PLATFORM AS NECESSARY USING ALLUVIUM EXCAVATED FROM THE EXISTING LEVEE AS SHOWN ON DWG ED2. ADJUST EXTENTS AND ELEVATION OF ACCESS PATH AND WORK PLATFORM AS NEEDED TO COMPLETE CONSTRUCTION. ACCESS PATH AND WORK PLATFORM NOT SHOWN HERE FOR CLARITY. SEE DWG ED2 FOR ADDITIONAL TESC AND WORK AREA ISOLATION MEASURES NEEDED TO COMPLETE STRUCTURE CONSTRUCTION.
 - INSTALL SILT CURTAIN, OR EQUIVALENT AS APPROVED BY THE PROJECT REPRESENTATIVE, AROUND PERIPHERY OF STRUCTURE AND WITHIN CONSTRUCTION LIMITS TO CONTAIN TURBID WATER DURING CONSTRUCTION. SILT CURTAIN NOT SHOWN HERE FOR CLARITY.
 - PLACE 18" OF NATIVE TOP SOIL OVER STRUCTURE BACKFILL MATERIAL, THEN CAP WITH 3"-6" OF MULCH, TO EXTENTS SHOWN OR AS DIRECTED BY THE PROJECT REPRESENTATIVE.
 - CABLE LASHING FOR KEY LOGS TO PILES NOT SHOWN FOR CLARITY. SEE STRUCTURE LAYERING PLAN FOR LASHING LOCATIONS.

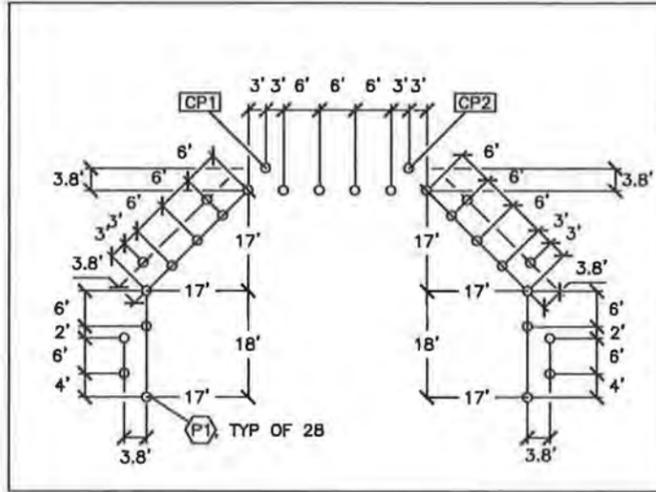


SECTION - LARGE APEX ELJ

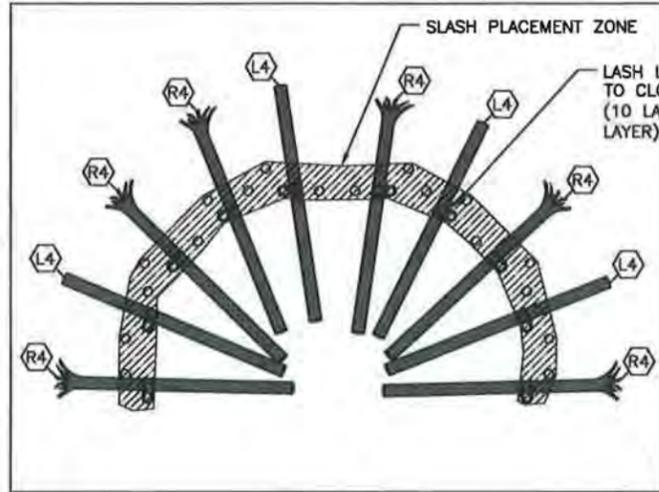
A

SCALE IN FEET

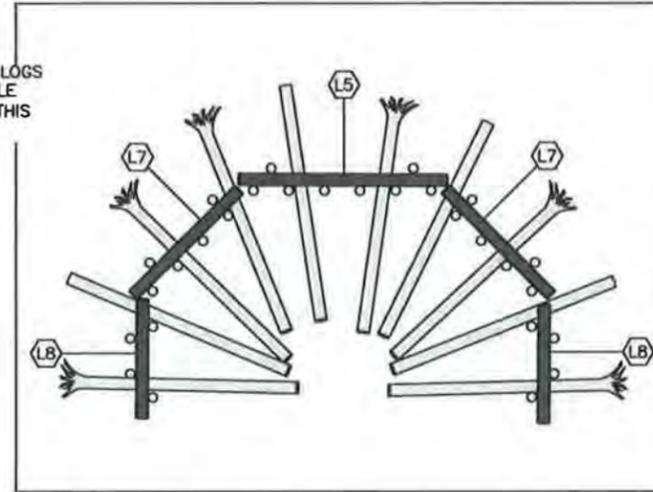
FIELD BOOK:		APPROVED: JAN MOSTRENKO, PE	5-2013	SRFB #	RCO 087-1910C			COUNTYLINE LEVEE SETBACK WHITE RIVER, RIVER MILE 5.00-6.33 LEVEE MODIFICATION LARGE APEX ELJ PLAN AND SECTIONS	SHEET
SURVEYED:		PROJECT MANAGER: MARK EWBANK, PE	5-2013	PROJECT No.	1112049 (FL#001)				48
SURVEY BASE MAP:		DESIGNED: BRIAN SCOTT	5-2013						OF
CHECKED:		ECOLOGIST:							69
		DESIGN ENTERED: TODD PRESCOTT	5-2013						SHEETS
						WD1			



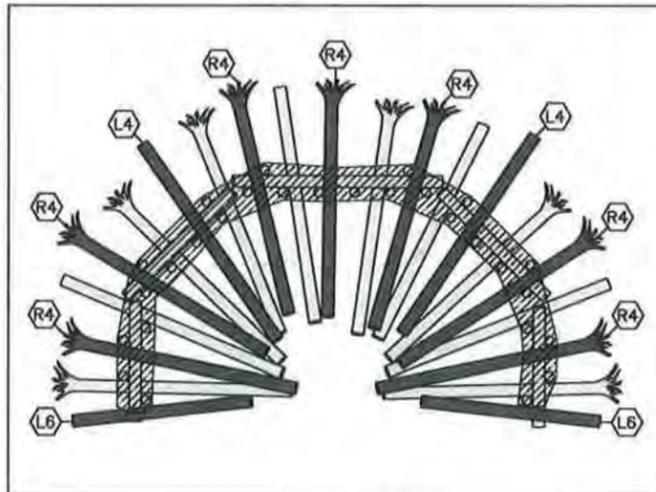
PILES



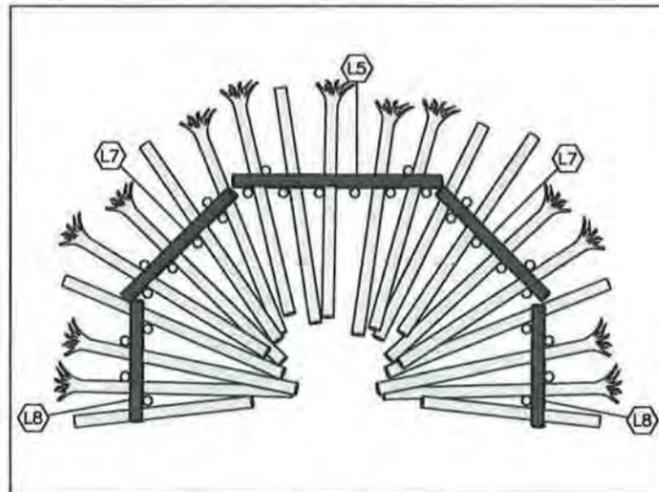
LAYER 1



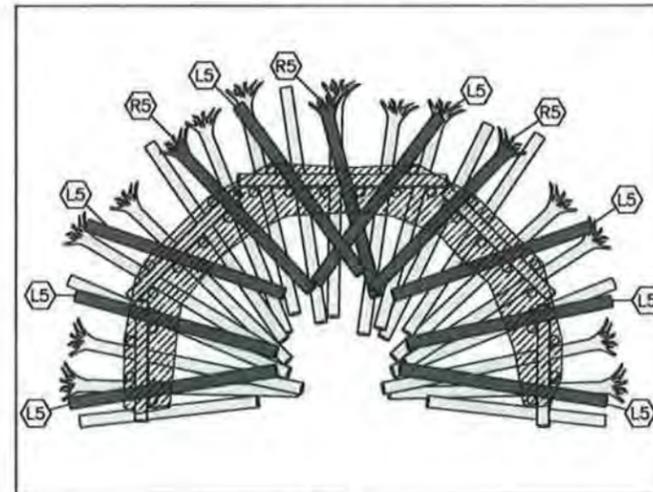
LAYER 2



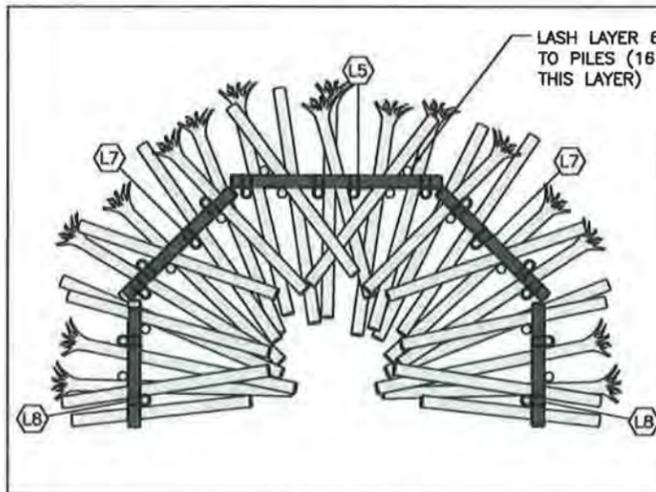
LAYER 3



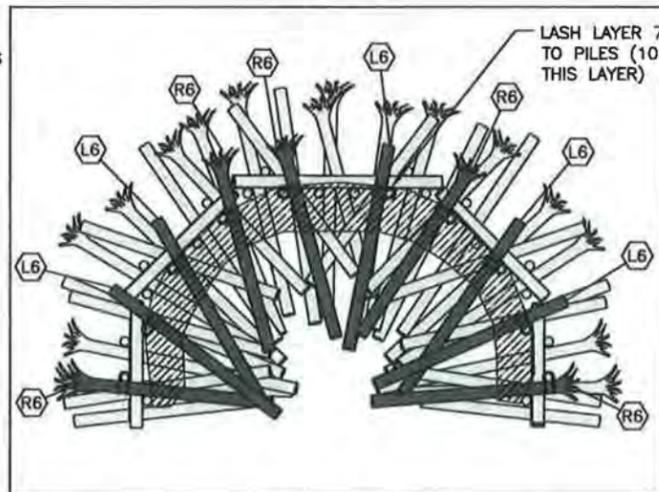
LAYER 4



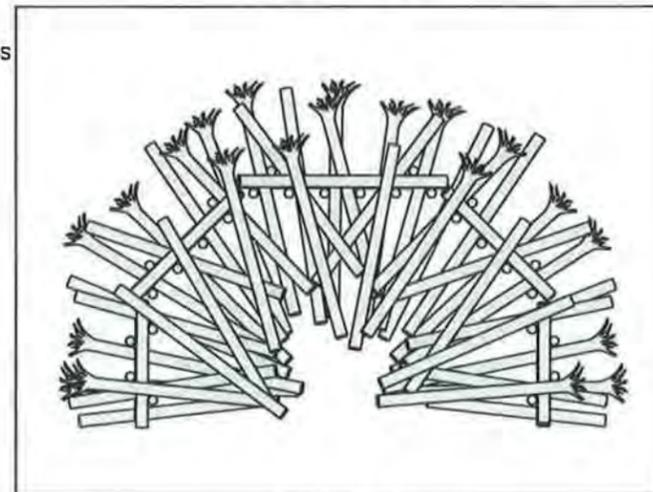
LAYER 5



LAYER 6



LAYER 7

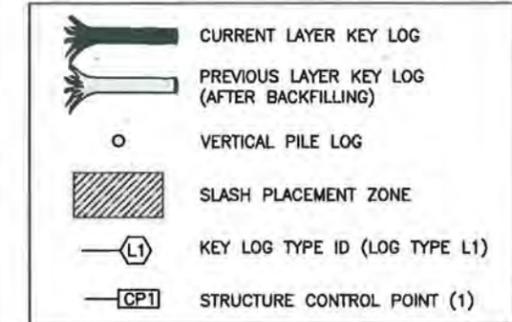


COMPLETE

LOG SCHEDULE:

LOG TYPE	MIN DIA (IN)	LENGTH (FT)	ROOTWAD	TOTAL QTY PER ELJ
P1	18 (BUTT)	55	NO	28
R4	24	40	YES	13
R5	24	35	YES	8
L4	24	40	NO	6
L5	24	35	NO	16
L6	24	30	NO	2
L7	24	25	NO	6
LB	24	20	NO	6
RACKING	6-16	15-30	OPTIONAL	200
SLASH	-	-	-	200 CY

LEGEND:



NOTES:

- STRUCTURE GENERAL LOCATION AND ORIENTATION SHALL BE STAKED BY THE CONTRACTOR. FINAL STRUCTURE LOCATION AND ORIENTATION TO BE FIELD VERIFIED BY THE PROJECT REPRESENTATIVE FOLLOWING CONTRACTOR STAKING.
- ALL PILE LOCATIONS SHALL BE STAKED BY THE CONTRACTOR AND APPROVED BY THE PROJECT REPRESENTATIVE PRIOR TO PILE INSTALLATION.
- ALL PILE LOCATIONS SHALL BE BASED ON THE LOCATION OF THE STRUCTURE CONTROL POINTS AND SHALL BE WITHIN 6" OF THE LOCATION SHOWN ON THE DRAWINGS.
- PILE DIAMETERS SHALL BE MEASURED AT THE BUTT (LARGER) ENDS. PILES SHALL BE UNTREATED DOUGLAS FIR MEETING ASTM D25 REQUIREMENTS.
- LOG MATERIALS SHALL BE PLACED AT THE LOCATIONS AND ORIENTATIONS SPECIFIED ON THE DRAWINGS OR AS DIRECTED BY THE PROJECT REPRESENTATIVE. TRIM CUT ENDS OF HORIZONTAL KEY LOGS TO FIT AS REQUIRED.
- PLACE SLASH OVER AND BETWEEN KEY LOGS AND PILES AS SHOWN FOR EACH LAYER SPECIFIED FOLLOWING PLACEMENT OF KEY LOGS AND RACKING LOGS. PLACE APPROXIMATELY 2' TO 3' OF NATIVE ALLUVIUM OVER 1/2 THE WIDTH OF SLASH TO SECURE IN PLACE SUCH THAT SLASH IS VISIBLE FOLLOWING CONSTRUCTION. COORDINATE WITH THE PROJECT REPRESENTATIVE PRIOR TO PLACING RACKING AND SLASH.
- BACKFILL EACH LAYER WITH DRY COARSE ALLUVIUM AND RIPRAP EXCAVATED FROM THE EXISTING LEVEE FLUSH TO TOP OF CURRENT LAYER PRIOR TO CONSTRUCTING SUBSEQUENT LAYER. COMPACT ALLUVIUM BACKFILL WITH EXCAVATOR BUCKET. FILL ALL VOIDS BETWEEN BOULDERS (ROCKS GREATER THAN 12" DIAMETER) WITH FINER ALLUVIUM TO ACHIEVE A WELL GRADED AND COMPACTED MASS.
- SEE DWG WS2 FOR COORDINATES OF STRUCTURE CONTROL POINTS.
- SEE DWG WD10 FOR CABLE LASHING DETAIL.

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

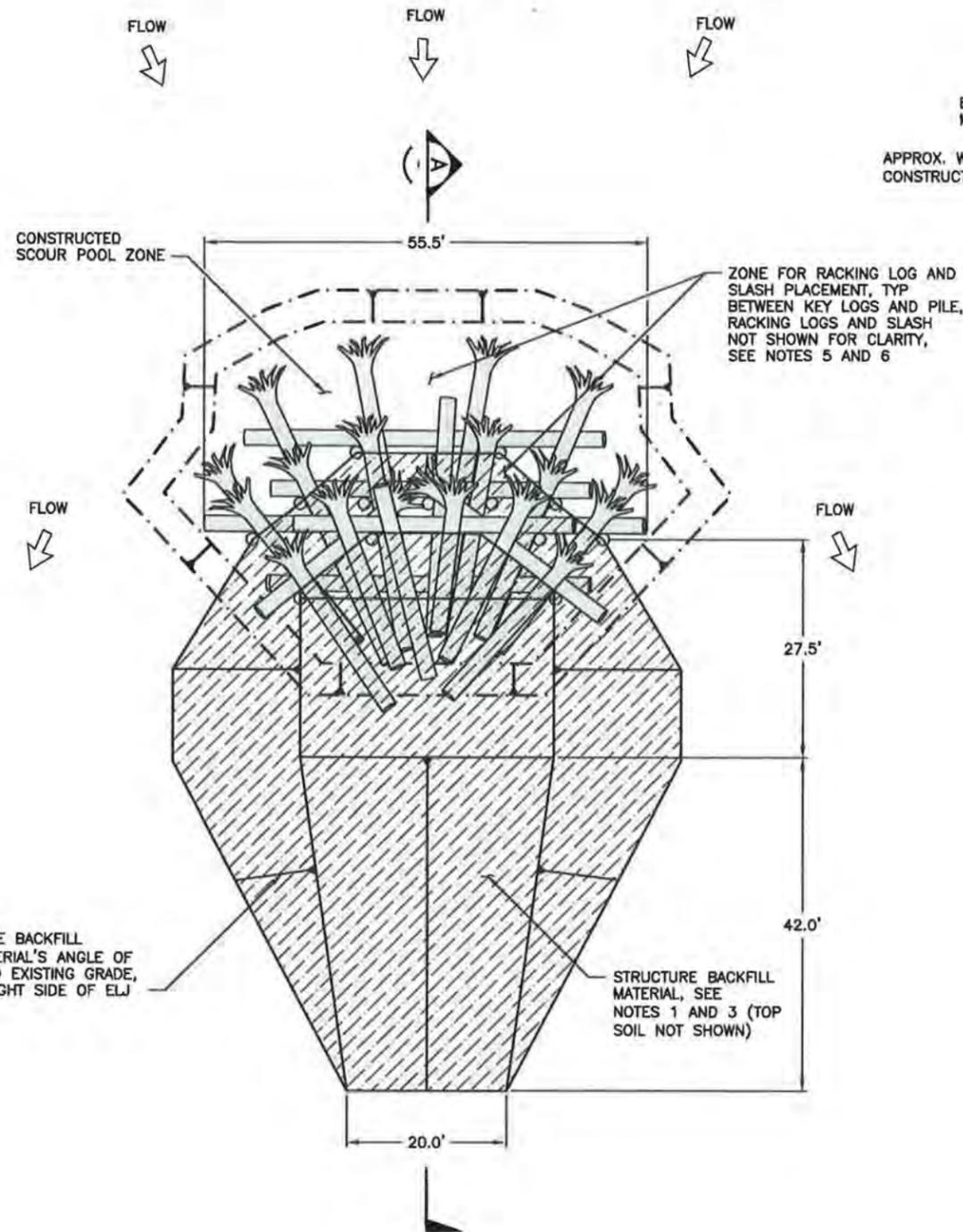
CADD / 60%
 5-2013

NUM.	REVISION	BY	DATE

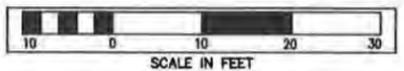
APPROVED: IAN MOSTRENKO, PE	5-2013	SRFB #	RCO 087-1910C
PROJECT MANAGER: MARK EWBANK, PE	5-2013	PROJECT No.	1112049 (FL9001)
DESIGNED: BRIAN SCOTT	5-2013		
ECOLOGIST:			
DESIGN ENTERED: TODD PRESCOTT	5-2013		



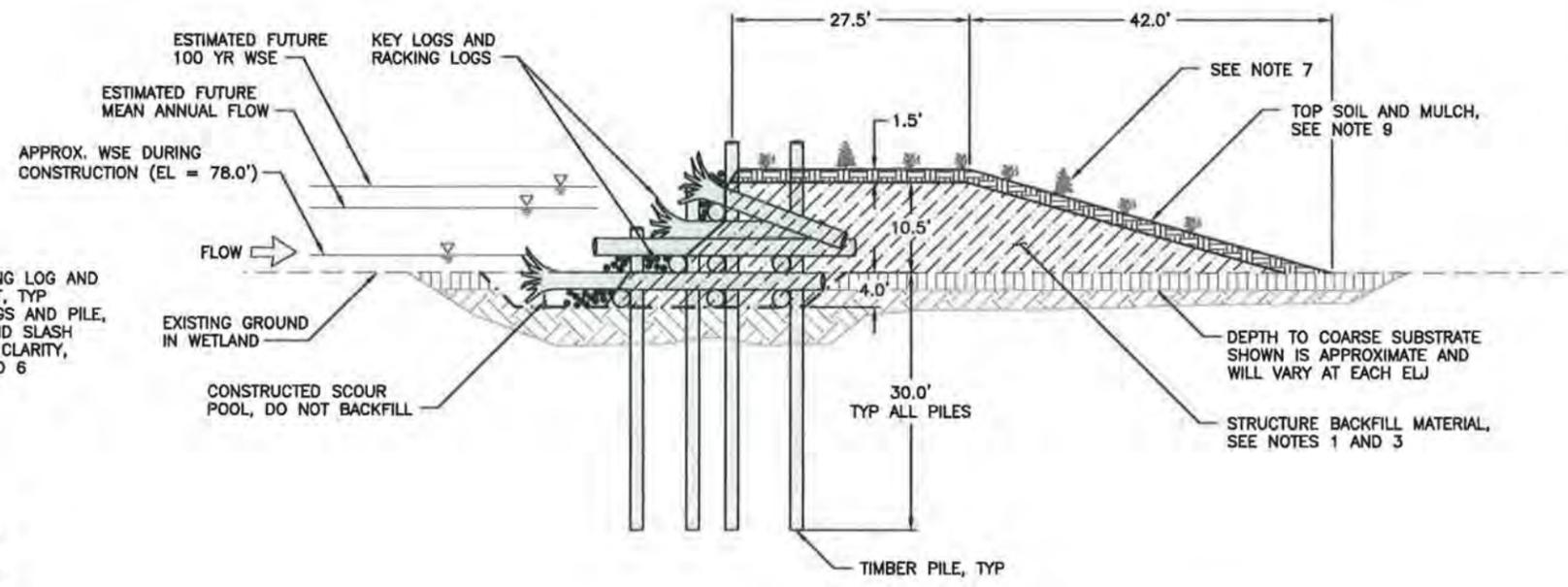
COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
LARGE APEX ELJ LAYERING PLAN



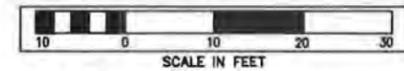
PLAN - SMALL APEX ELJ



1
WS1



SECTION - SMALL APEX ELJ



A

NOTES:

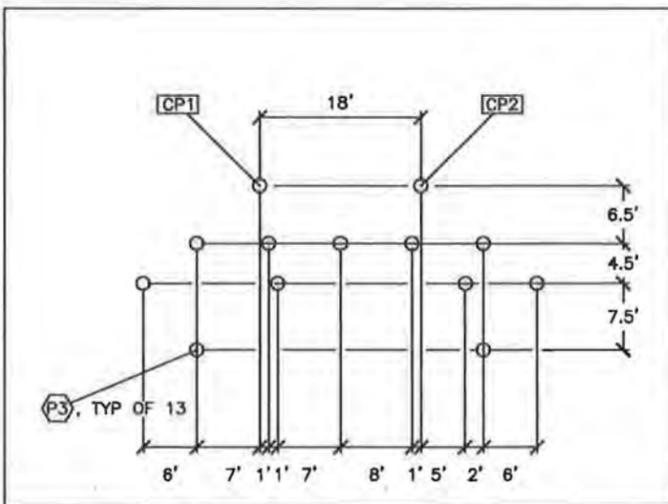
- EXTENTS OF BACKFILL SHOWN ARE APPROXIMATE AND WILL VARY FOR EACH ELJ.
- EXCAVATION LIMITS SHOWN ARE APPROXIMATE AND WILL VARY BASED ON CONSTRUCTION MEANS AND METHODS, SUBSURFACE CONDITIONS AND LOCATION OF STRUCTURE. CONTRACTOR SHALL ADJUST EXCAVATION LIMITS AS NECESSARY TO COMPLETE CONSTRUCTION.
- PLACE ONLY DRY LEVEE REMOVAL SPOILS WITHIN INTERIOR CORE OF STRUCTURE AND OVER FINAL LAYER OF LOGS IN 2 FOOT LAYERS AND COMPACT WITH BACKSIDE OF EXCAVATOR BUCKET. SATURATED BACKFILL MATERIAL THAT CANNOT BE PROPERLY COMPACTED WILL NOT BE ALLOWED.
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- CONSTRUCT TEMPORARY ACCESS PATH TO ELJ AND WORK PLATFORM AS NECESSARY USING ALLUVIUM EXCAVATED FROM THE EXISTING LEVEE AS SHOWN ON DWG ED2. ADJUST EXTENTS AND ELEVATION OF ACCESS PATH AND WORK PLATFORM AS NEEDED TO COMPLETE CONSTRUCTION. ACCESS PATH AND WORK PLATFORM NOT SHOWN HERE FOR CLARITY. SEE DWG ED2 FOR ADDITIONAL TESC AND WORK AREA ISOLATION MEASURES NEEDED TO COMPLETE STRUCTURE CONSTRUCTION.
- PLACE 18" OF NATIVE TOP SOIL OVER STRUCTURE BACKFILL MATERIAL, THEN CAP WITH 3"-6" OF MULCH, TO EXTENTS SHOWN OR AS DIRECTED BY THE PROJECT REPRESENTATIVE.

LEGEND:

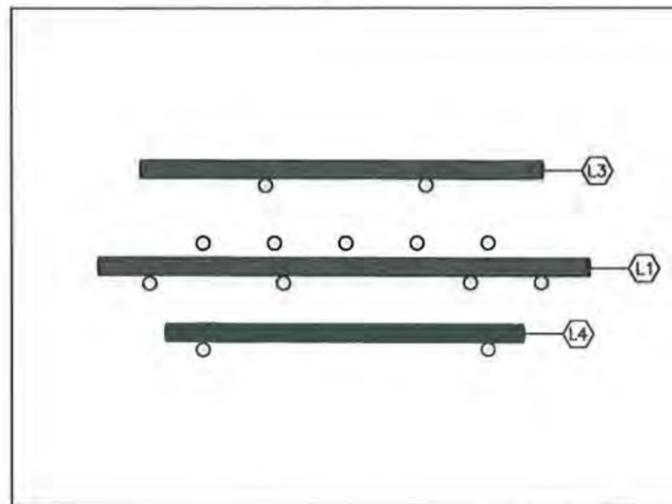
	EXISTING GRADE
	PROPOSED GRADE
	EXCAVATION LIMITS
	NATIVE TOP SOIL AND MULCH
	COARSE ALLUVIUM FROM EXISTING LEVEE
	EXISTING COARSE SUBSTRATE
	EXISTING FINE SUBSTRATE

FIELD BOOK:		APPROVED: IAN MOSTRENKO, PE	5-2013	SRFB #	RCO 087-1910C		<p>Department of Natural Resources and Parks Water and Land Resources Division River and Floodplain Management Section <i>Christie Truo, Director</i></p>	<p>COUNTYLINE LEVEE SETBACK WHITE RIVER, RIVER MILE 5.00-6.33 LEVEE MODIFICATION SMALL APEX ELJ PLAN AND SECTIONS</p>	SHEET
SURVEYED:		PROJECT MANAGER: MARK EW BANK, PE	5-2013	PROJECT No.	1112049 (FL9001)				50
SURVEY BASE MAP:		DESIGNED: BRIAN SCOTT	5-2013						OF
CHECKED:		ECOLOGIST:							69
		DESIGN ENTERED: TODD PRESCOTT	5-2013						SHEETS
						WD3			

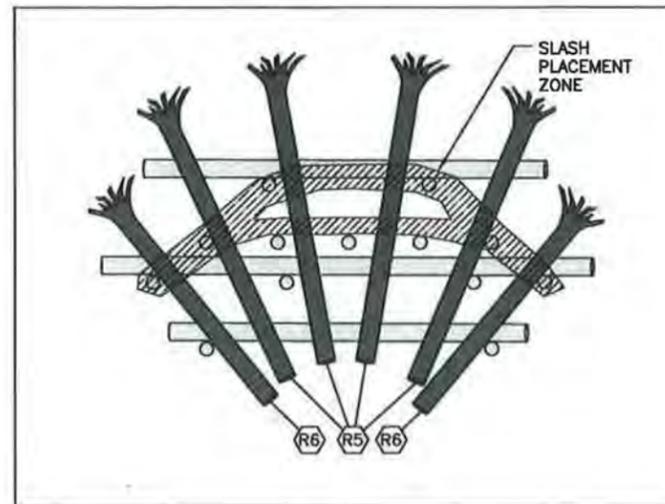
CADD / 60%
5-2013



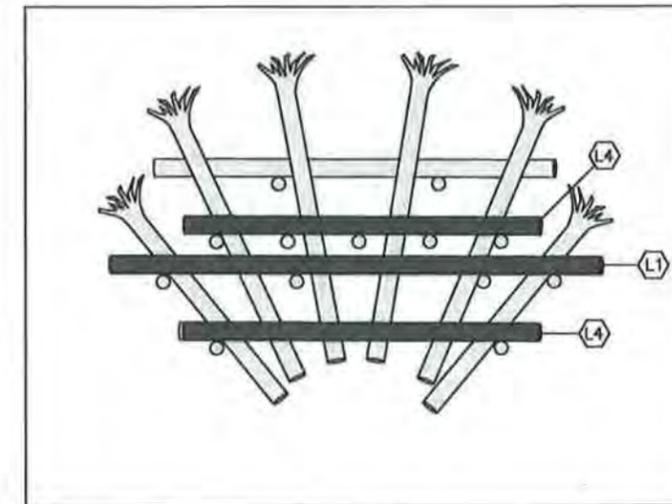
PILES



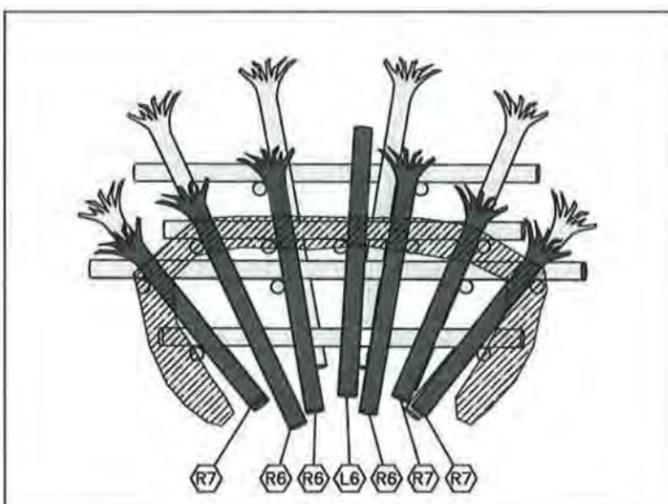
LAYER 1



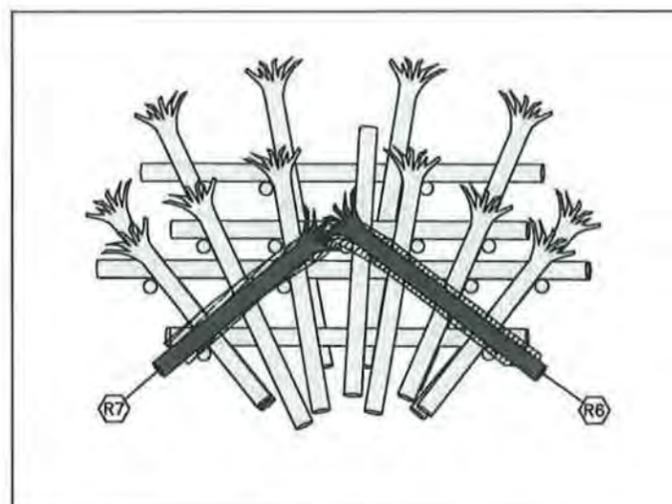
LAYER 2



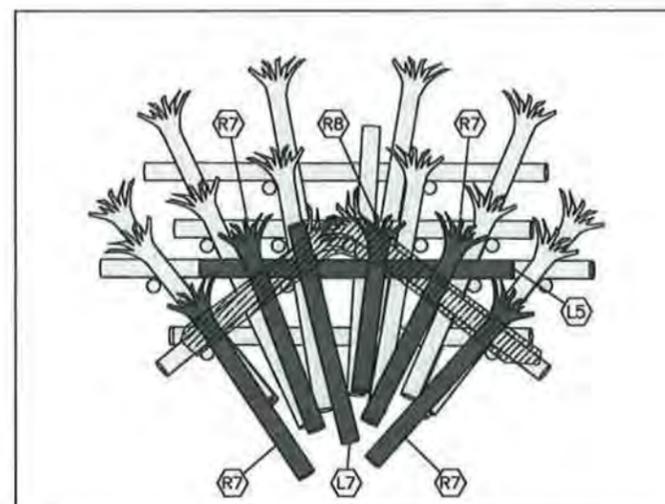
LAYER 3



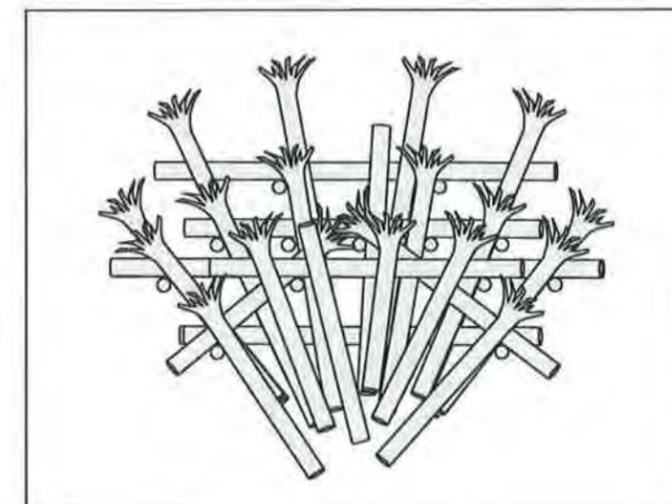
LAYER 4



LAYER 5



LAYER 6



COMPLETE

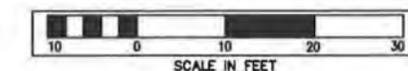
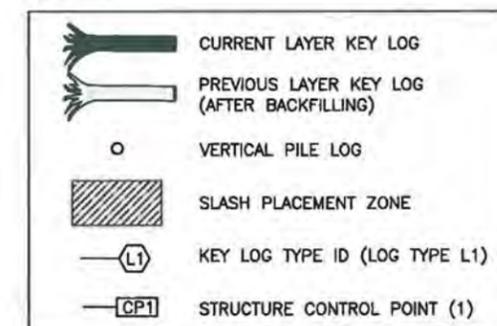
LOG SCHEDULE:

LOG TYPE	MIN DIA (IN)	LENGTH (FT)	ROOTWAD	TOTAL QTY PER ELJ
P3	18 (BUTT)	45	NO	13
5	24	35	YES	4
6	24	30	YES	6
7	24	25	YES	8
8	24	20	YES	1
L1	24	55	NO	2
L3	24	45	NO	1
L4	24	40	NO	3
L5	24	35	NO	1
L6	24	30	NO	1
L7	24	25	NO	1
RACKING	6-16	15-30	OPTIONAL	100
SLASH				80 CY

NOTES:

- STRUCTURE GENERAL LOCATION AND ORIENTATION SHALL BE STAKED BY THE CONTRACTOR. FINAL STRUCTURE LOCATION AND ORIENTATION TO BE FIELD VERIFIED BY THE PROJECT REPRESENTATIVE FOLLOWING CONTRACTOR STAKING.
- ALL PILE LOCATIONS SHALL BE STAKED BY THE CONTRACTOR AND APPROVED BY THE PROJECT REPRESENTATIVE PRIOR TO PILE INSTALLATION.
- ALL PILE LOCATIONS SHALL BE BASED ON THE LOCATION OF THE STRUCTURE CONTROL POINTS AND SHALL BE WITHIN 6" OF THE LOCATION SHOWN ON THE DRAWINGS.
- PILE DIAMETERS SHALL BE MEASURED AT THE BUTT (LARGER) ENDS. PILES SHALL BE UNTREATED DOUGLAS FIR MEETING ASTM D25 REQUIREMENTS.
- LOG MATERIALS SHALL BE PLACED AT THE LOCATIONS AND ORIENTATIONS SPECIFIED ON THE DRAWINGS OR AS DIRECTED BY THE PROJECT REPRESENTATIVE. TRIM CUT ENDS OF HORIZONTAL KEY LOGS TO FIT AS REQUIRED.
- PLACE SLASH OVER AND BETWEEN KEY LOGS AND PILES AS SHOWN FOR EACH LAYER SPECIFIED FOLLOWING PLACEMENT OF KEY LOGS AND RACKING LOGS. PLACE APPROXIMATELY 2' TO 3' OF NATIVE ALLUVIUM OVER 1/2 THE WIDTH OF SLASH TO SECURE IN PLACE SUCH THAT SLASH IS VISIBLE FOLLOWING CONSTRUCTION. COORDINATE WITH THE PROJECT REPRESENTATIVE PRIOR TO PLACING RACKING AND SLASH.
- BACKFILL EACH LAYER WITH DRY COARSE ALLUVIUM EXCAVATED FROM THE EXISTING LEVEE FLUSH TO TOP OF CURRENT LAYER PRIOR TO CONSTRUCTING SUBSEQUENT LAYER. COMPACT ALLUVIUM BACKFILL WITH EXCAVATOR BUCKET. FILL ALL VOIDS BETWEEN BOULDERS (ROCKS GREATER THAN 12" DIAMETER) WITH FINER ALLUVIUM TO ACHIEVE A WELL GRADED AND COMPACTED MASS.
- SEE DWG WS1 FOR COORDINATES OF STRUCTURE CONTROL POINTS.

LEGEND:



FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	
CADD / 60%	
5-2013	
NUM.	REVISION
BY	DATE

APPROVED:	IAN MOSTRENKO, PE	5-2013
PROJECT MANAGER:	MARK EWBANK, PE	5-2013
DESIGNED:	BRIAN SCOTT	5-2013
ECOLOGIST:		
DESIGN ENTERED:	TODD PRESCOTT	5-2013

SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)



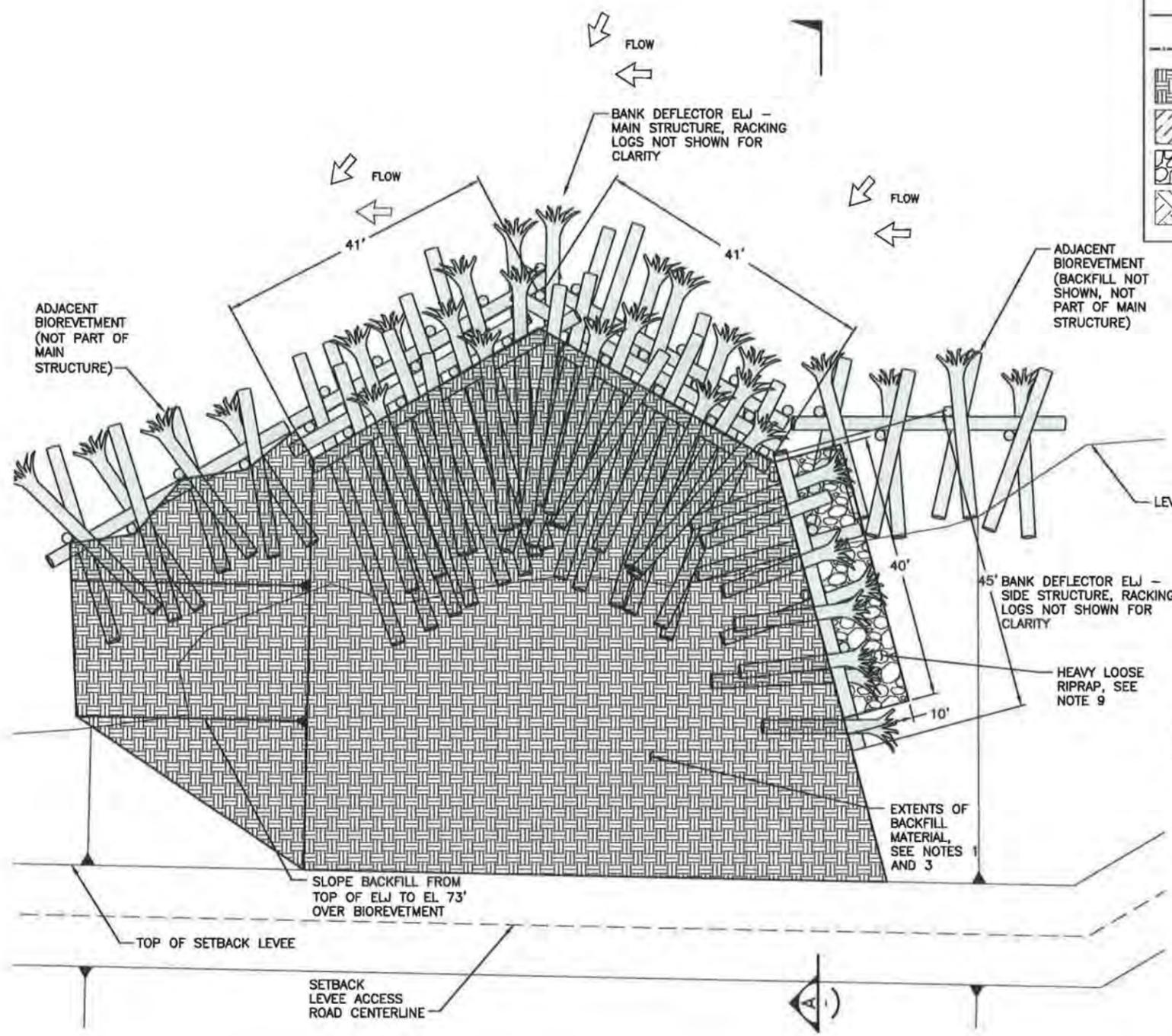
COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 SAMLL APEX ELJ LAYERING PLAN

SHEET
 51
 OF
 69
 SHEETS
 WD4

LEGEND:

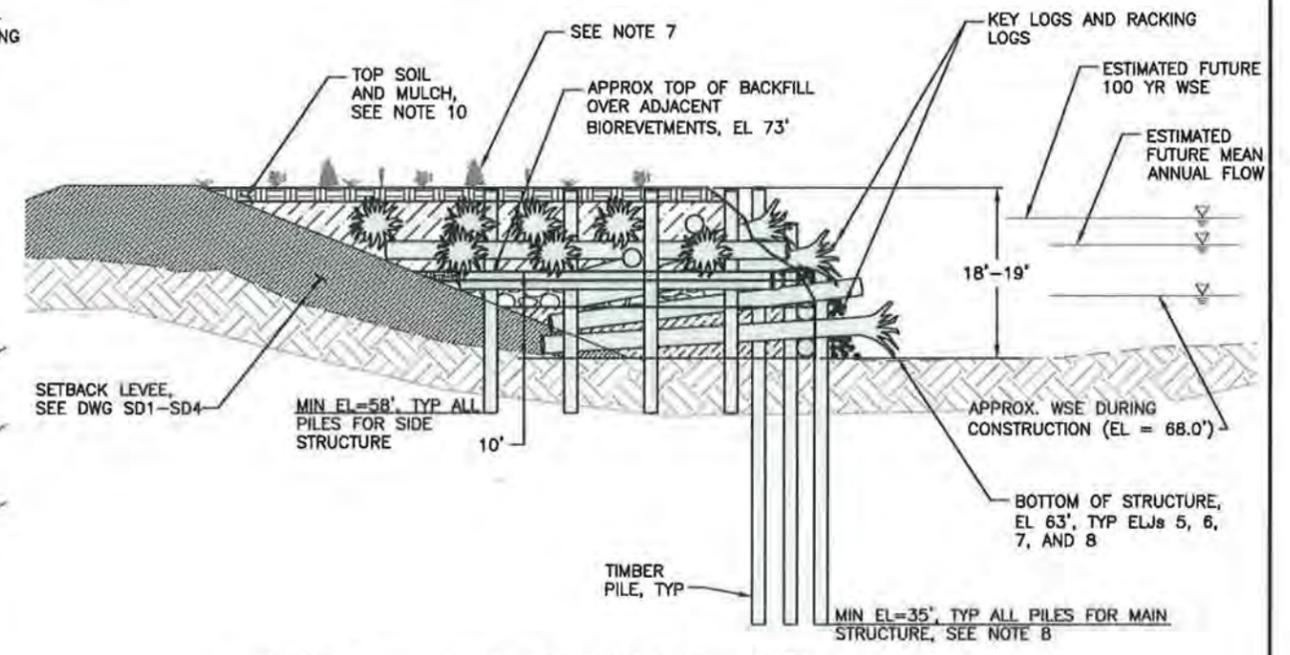
- EXISTING GRADE
- PROPOSED GRADE
- - - EXCAVATION LIMITS
- [Pattern: Top Soil Type A and Mulch] TOP SOIL TYPE A AND MULCH
- [Pattern: Coarse Alluvium] COARSE ALLUVIUM FROM EXIST LEVEE
- [Pattern: Heavy Loose Riprap] HEAVY LOOSE RIPRAP
- [Pattern: Existing Substrate] EXISTING SUBSTRATE

- NOTES:**
- EXTENTS OF BACKFILL SHOWN ARE APPROXIMATE AND WILL VARY FOR EACH ELJ.
 - EXCAVATION LIMITS ARE APPROXIMATE AND WILL VARY BASED ON CONSTRUCTION MEANS AND METHODS, SUBSURFACE CONDITIONS AND LOCATION OF STRUCTURE. CONTRACTOR SHALL ADJUST EXCAVATION LIMITS AS NECESSARY TO COMPLETE CONSTRUCTION. SEE DWG ED4 FOR EXCAVATION LIMITS FOR ELJs 6, 7, AND 8.
 - PLACE ONLY DRY LEVEE REMOVAL SPOILS WITHIN INTERIOR CORE OF STRUCTURE AND OVER FINAL LAYER OF LOGS IN 2' LAYERS AND COMPACT WITH BACKSIDE OF EXCAVATOR BUCKET. SATURATED BACKFILL MATERIAL THAT CANNOT BE PROPERLY COMPACTED WILL NOT BE ALLOWED.
 - SEE LOG SCHEDULE ON STRUCTURE LAYERING PLAN FOR DIMENSIONS AND NUMBERS OF EACH LOG TYPE IN STRUCTURE.
 - PLACEMENT OF RACKING LOGS SHOWN IS APPROXIMATE. PLACE RACKING LOGS ALONG UPSTREAM FACE OF STRUCTURE. APPROXIMATELY 1/2 OF RACKING LOGS SHALL BE PLACED ACROSS PILE ROWS (PERPENDICULAR TO FLOW) AND 1/2 OF THE RACKING LOGS PARALLEL TO FLOW AND EXTENDING INTO THE CORE OF THE STRUCTURE BETWEEN HORIZONTAL KEY LOGS. RACKING SHALL BE PLACED WITH EACH LAYER OF KEY LOGS, SHALL BE ANGLED UP AND DOWN FROM THE HORIZONTAL, AND SHALL BE PLACED TO CREATE AN INTERLOCKING MATRIX OF LOGS SECURED BETWEEN VERTICAL PILE LOGS AND HORIZONTAL KEY LOGS. COORDINATE WITH THE PROJECT REPRESENTATIVE PRIOR TO PLACING RACKING LOGS, SLASH AND BACKFILLING.
 - SEE STRUCTURE LAYERING PLAN FOR SLASH PLACEMENT. SLASH NOT SHOWN HERE FOR CLARITY. PLACE SLASH AT SAME TIME AS RACKING LOGS TO FILL VOIDS BETWEEN RACKING LOGS.
 - SEE PLANTING PLAN FOR RECOMMENDED STRUCTURE PLANTING INFORMATION AND DETAILS.
 - PILE TIPS FOR MAIN STRUCTURE SHALL BE EMBEDDED A MINIMUM OF 10' BELOW THE TOP OF DENSE SOIL.
 - PLACE A 3' DEEP LAYER OF HEAVY LOOSE RIPRAP TO THE DIMENSIONS SHOWN. TOP OF RIPRAP SHALL BE 1' BELOW THE ELEVATION OF BACKFILL OVER THE ADJACENT BIORETMENT. PLACE 1' OF TOPSOIL THEN 3" OF MULCH OVER THE RIPRAP.
 - PLACE 18" OF NATIVE TOP SOIL OVER STRUCTURE BACKFILL MATERIAL, THEN CAP WITH 3"-6" OF MULCH, TO EXTENTS SHOWN OR AS DIRECTED BY THE PROJECT REPRESENTATIVE.



PLAN - BANK DEFLECTOR ELJ (1) WS2

SCALE IN FEET



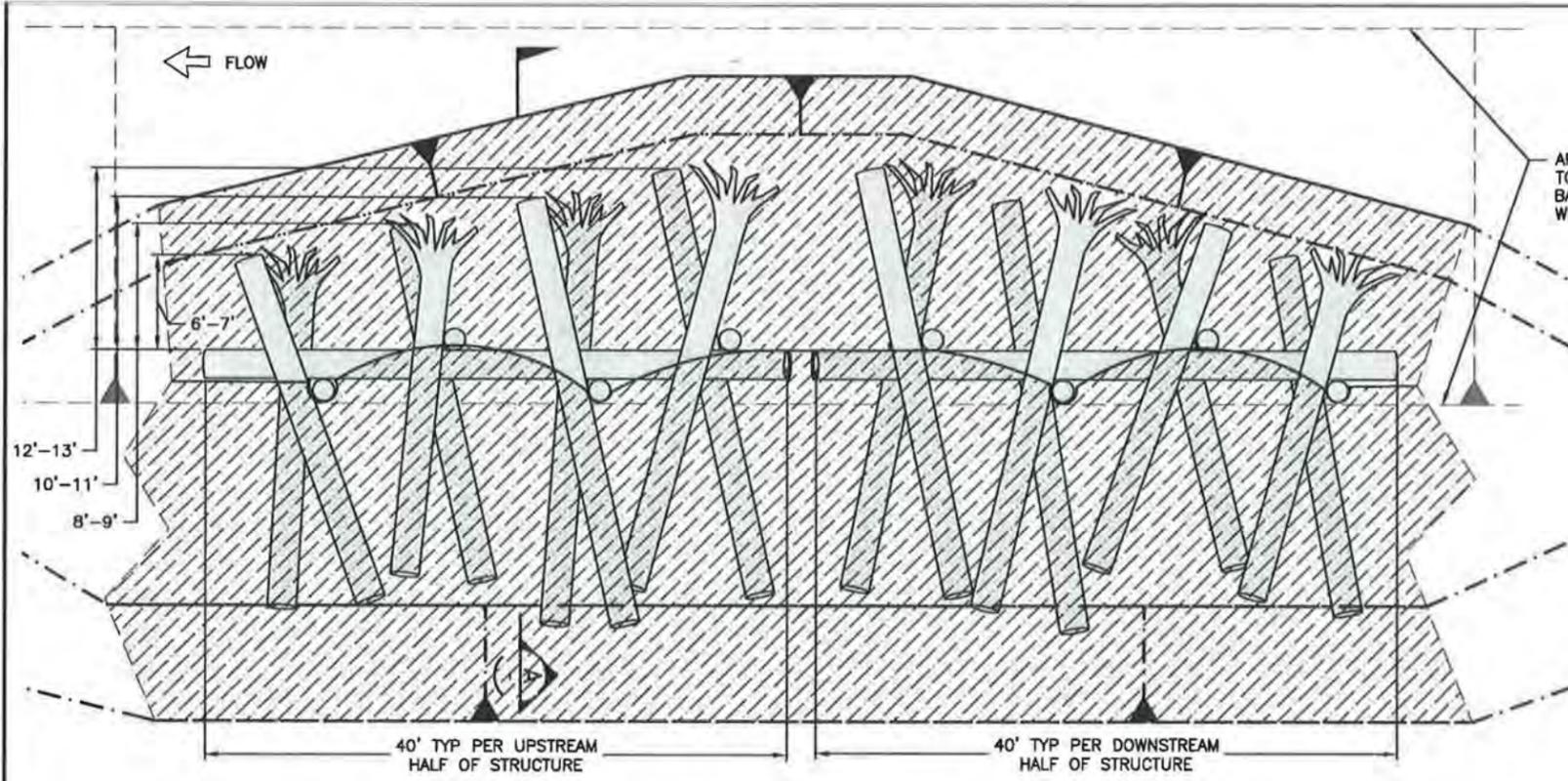
SECTION - BANK DEFLECTOR ELJ (A)

SCALE IN FEET

FIELD BOOK:		APPROVED: IAN MOSTRENKO, PE	5-2013	SRFB #	RCO 087-1910C			 Department of Natural Resources and Parks Water and Land Resources Division River and Floodplain Management Section Christia True, Director	COUNTYLINE LEVEE SETBACK WHITE RIVER, RIVER MILE 5.00-6.33 LEVEE MODIFICATION BANK DEFLECTOR ELJ PLAN AND SECTIONS	SHEET	52
SURVEYED:		PROJECT MANAGER: MARK EW BANK, PE	5-2013	PROJECT No.	1112049 (FL9001)					OF	69
SURVEY BASE MAP:		DESIGNED: BRIAN SCOTT	5-2013			SHEETS	WD5				
CHECKED:		ECOLOGIST:									
		DESIGN ENTERED: TODD PRESCOTT	5-2013								

CADD / 60%

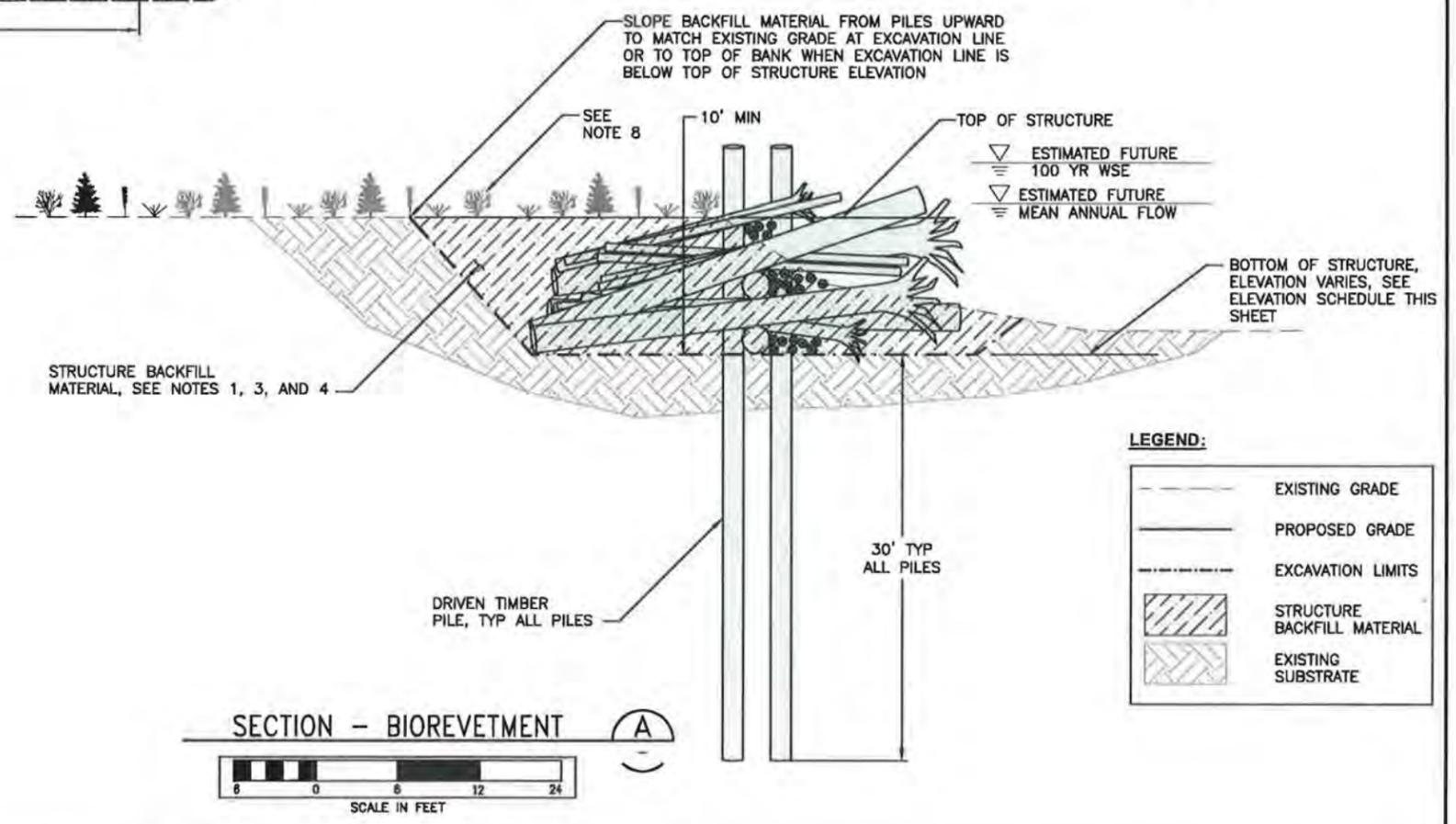
5-2013



PLAN - BIOEVETMENT
 SCALE IN FEET
 1 WS2

NOTES:

1. EXTENTS OF BACKFILL SHOWN ARE APPROXIMATE AND WILL VARY FOR EACH STRUCTURE.
2. EXCAVATION LIMITS SHOWN ARE APPROXIMATE AND WILL VARY BASED ON CONSTRUCTION MEANS AND METHODS, SUBSURFACE CONDITIONS AND LOCATION OF STRUCTURE. CONTRACTOR SHALL ADJUST EXCAVATION LIMITS AS NECESSARY TO COMPLETE CONSTRUCTION.
3. FOR "SHINGLED" BIOEVETMENT STRUCTURES, BACKFILL MATERIAL WILL CONSIST OF DRY LEVEE EXCAVATION SPOILS CAPPED WITH A 12" DEEP LAYER OF NATIVE TOPSOIL. PLACE SPOILS WITHIN INTERIOR CORE OF STRUCTURE AND OVER FINAL LAYER OF LOGS IN 2' LAYERS AND COMPACT WITH BACKSIDE OF EXCAVATOR BUCKET. SATURATED BACKFILL MATERIAL THAT CANNOT BE PROPERLY COMPACTED WILL NOT BE ALLOWED. SEE DWGS SB1-SB5 FOR LOCATION OF "SHINGLED" BIOEVETMENT STRUCTURES.
4. FOR NON-SHINGLED BIOEVETMENT STRUCTURES, PLACE ONLY DRY NATIVE EXCAVATION SPOILS WITHIN INTERIOR CORE OF STRUCTURE AND OVER FINAL LAYER OF LOGS IN 2' LAYERS AND COMPACT WITH BACKSIDE OF EXCAVATOR BUCKET. SATURATED BACKFILL MATERIAL THAT CANNOT BE COMPACTED PROPERLY WILL NOT BE ALLOWED.
5. SEE LOG SCHEDULE ON STRUCTURE LAYERING PLAN FOR DIMENSIONS AND NUMBERS OF EACH LOG TYPE IN STRUCTURE.
6. PLACEMENT OF RACKING LOGS SHOWN IS APPROXIMATE. PLACE RACKING LOGS ALONG UPSTREAM FACE OF STRUCTURE. APPROXIMATELY 1/2 OF RACKING LOGS SHALL BE PLACED ACROSS PILE ROWS (PERPENDICULAR TO FLOW) AND 1/2 OF THE RACKING LOGS PARALLEL TO FLOW AND EXTENDING INTO THE CORE OF THE STRUCTURE BETWEEN HORIZONTAL KEY LOGS. RACKING SHALL BE PLACED WITH EACH LAYER OF KEY LOGS, SHALL BE ANGLED UP AND DOWN FROM THE HORIZONTAL, AND SHALL BE PLACED TO CREATE AN INTERLOCKING MATRIX OF LOGS SECURED BETWEEN VERTICAL PILE LOGS AND HORIZONTAL KEY LOGS. COORDINATE WITH THE PROJECT REPRESENTATIVE PRIOR TO PLACING RACKING LOGS, SLASH AND BACKFILLING.
7. SEE STRUCTURE LAYERING PLAN FOR SLASH PLACEMENT. SLASH NOT SHOWN HERE FOR CLARITY. PLACE SLASH AS SHOWN ON LAYERING PLAN TO FILL VOIDS BETWEEN RACKING LOGS.
8. SEE PLANTING PLAN FOR RECOMMENDED STRUCTURE PLANTING INFORMATION AND DETAILS.
9. BIOEVETMENT CONTROL POINT TABLE TO BE PROVIDED FOR FINAL DESIGN.
10. SEE DWGS WD11 - WD14 FOR APPROX WSE DURING CONSTRUCTION.



SECTION - BIOEVETMENT
 SCALE IN FEET
 A

ELEVATION SCHEDULE FOR ALL BIOEVETMENT STRUCTURES

STRUCTURE #	NO. OF STRUCTURES	BOTTOM OF STRUCTURE EL (FT)	TOP OF STRUCTURE EL (FT)
1-38	38	63	73
39-50	12	64	74
51-56	6	65	75
57-60	4	66	76
61-65	5	67	77
66-75	10	68	78
76-82	7	69	79
83-108	26	70	80

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	
CADD / 60% 5-2013	
NUM.	REVISION
BY	DATE

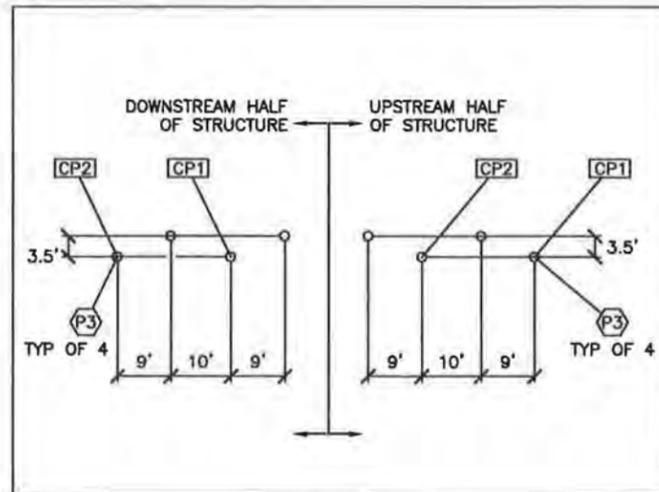
APPROVED: IAN MOSTRENKO, PE	5-2013
PROJECT MANAGER: MARK EWBANK, PE	5-2013
DESIGNED: BRIAN SCOTT	5-2013
ECOLOGIST:	
DESIGN ENTERED: TODD PRESCOTT	5-2013

SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)

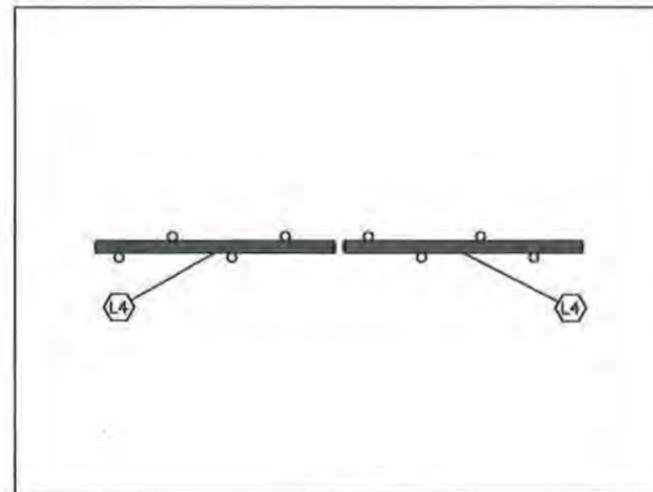


COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 BIOEVETMENT PLAN AND SECTIONS

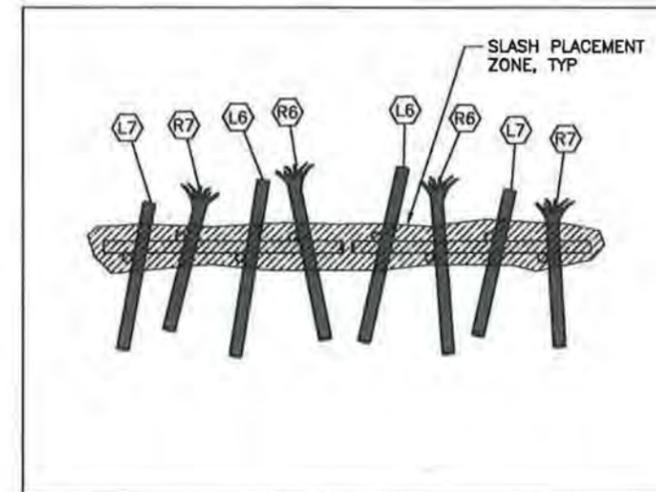
SHEET	54
OF	69
SHEETS	
WD7	



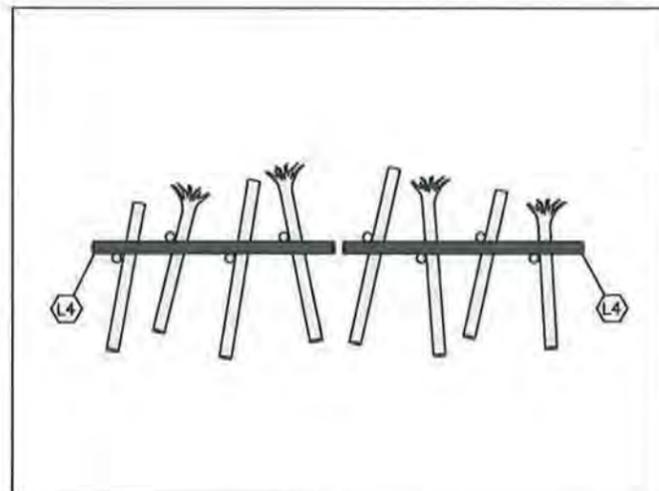
PILES



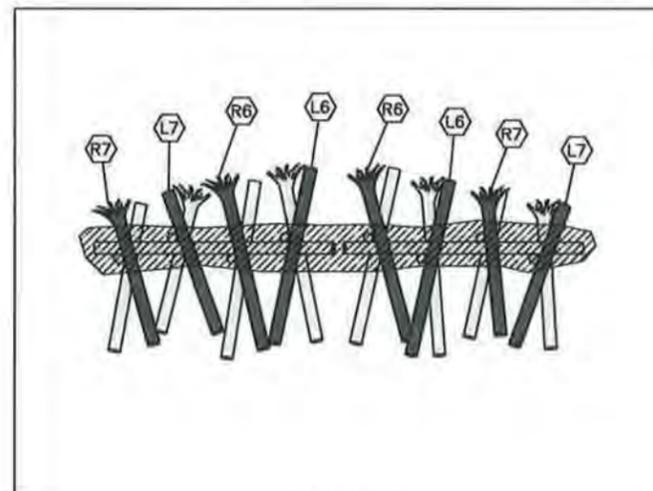
LAYER 1



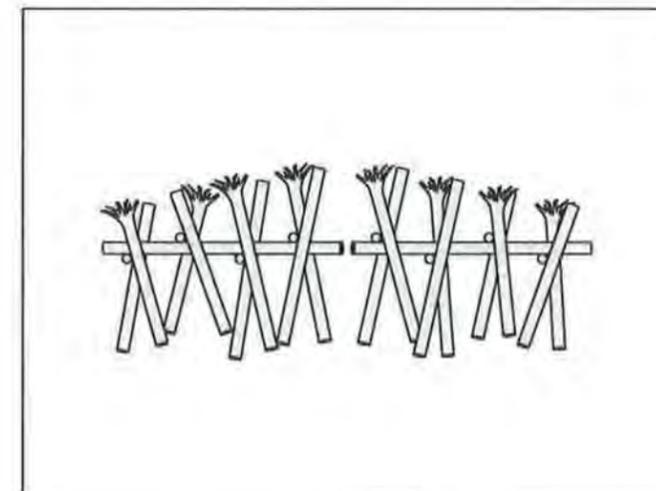
LAYER 2



LAYER 3



LAYER 4



COMPLETE

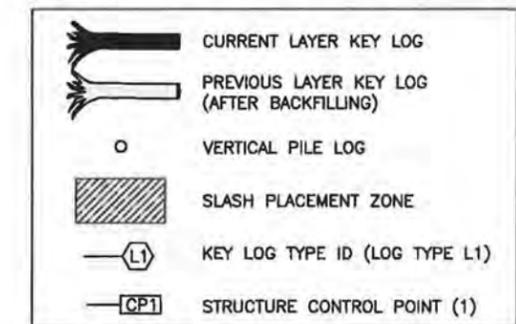
LOG SCHEDULE - PER 80' STRUCTURE

LOG TYPE	MIN DIA (IN)	LENGTH (FT)	ROOTWAD	TOTAL QTY PER ELJ
P3	18 (BUTT)	45	NO	8
6	24	30	YES	4
7	24	25	YES	4
L4	24	40	NO	4
L6	24	30	NO	4
L7	24	25	NO	4
RACKING	8-16	15-30	OPTIONAL	80
SLASH	-	-	-	80 CY

NOTES:

- STRUCTURE GENERAL LOCATION AND ORIENTATION SHALL BE STAKED BY THE CONTRACTOR. FINAL STRUCTURE LOCATION AND ORIENTATION TO BE FIELD VERIFIED BY THE PROJECT REPRESENTATIVE FOLLOWING CONTRACTOR STAKING.
- ALL PILE LOCATIONS SHALL BE STAKED BY THE CONTRACTOR AND APPROVED BY THE PROJECT REPRESENTATIVE PRIOR TO PILE INSTALLATION.
- ALL PILE LOCATIONS SHALL BE BASED ON THE LOCATION OF THE STRUCTURE CONTROL POINTS AND SHALL BE WITHIN 6" OF THE LOCATION SHOWN ON THE DRAWINGS.
- PILE DIAMETERS SHALL BE MEASURED AT THE BUTT (LARGER) ENDS. PILES SHALL BE UNTREATED DOUGLAS FIR MEETING ASTM D25 REQUIREMENTS.
- LOG MATERIALS SHALL BE PLACED AT THE LOCATIONS AND ORIENTATIONS SPECIFIED ON THE DRAWINGS OR AS DIRECTED BY THE PROJECT REPRESENTATIVE. TRIM CUT ENDS OF HORIZONTAL KEY LOGS TO FIT AS REQUIRED.
- PLACE SLASH OVER AND BETWEEN KEY LOGS AND PILES AS SHOWN FOR EACH LAYER SPECIFIED FOLLOWING PLACEMENT OF KEY LOGS AND RACKING LOGS. PLACE APPROXIMATELY 2' TO 3' OF NATIVE ALLUVIUM OVER 1/2 THE WIDTH OF SLASH TO SECURE IN PLACE SUCH THAT SLASH IS VISIBLE FOLLOWING CONSTRUCTION. COORDINATE WITH THE PROJECT REPRESENTATIVE PRIOR TO PLACING RACKING AND SLASH.
- BACKFILL EACH LAYER WITH THE SPECIFIED MATERIAL FLUSH TO TOP OF CURRENT LAYER PRIOR TO CONSTRUCTING SUBSEQUENT LAYER. COMPACT ALLUVIUM BACKFILL WITH EXCAVATOR BUCKET. FILL ALL VOIDS BETWEEN BOULDERS (ROCKS GREATER THAN 12" DIAMETER) WITH FINER ALLUVIUM TO ACHIEVE A WELL GRADED AND COMPACTED MASS.

LEGEND:



FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

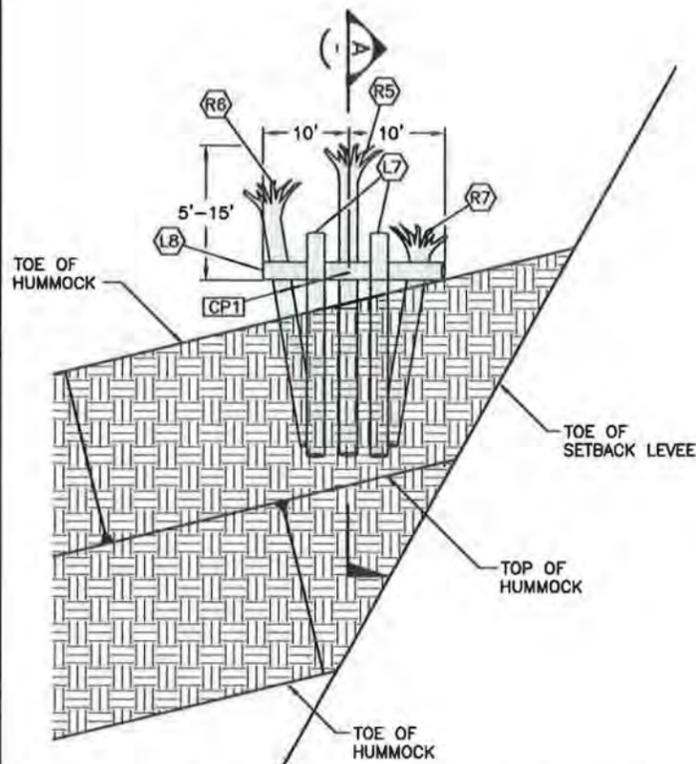
APPROVED: IAN MOSTRENKO, PE	5-2013
PROJECT MANAGER: MARK EWBANK, PE	5-2013
DESIGNED: BRIAN SCOTT	5-2013
ECOLOGIST:	
DESIGN ENTERED: TODD PRESCOTT	5-2013

SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)

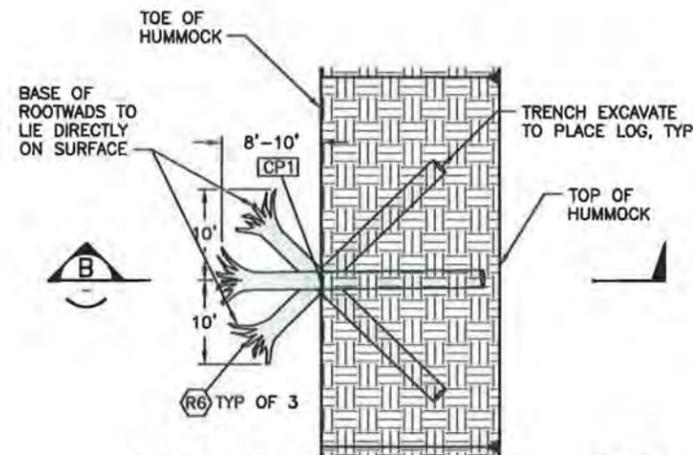


COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
BIOREVETMENT LAYERING PLAN

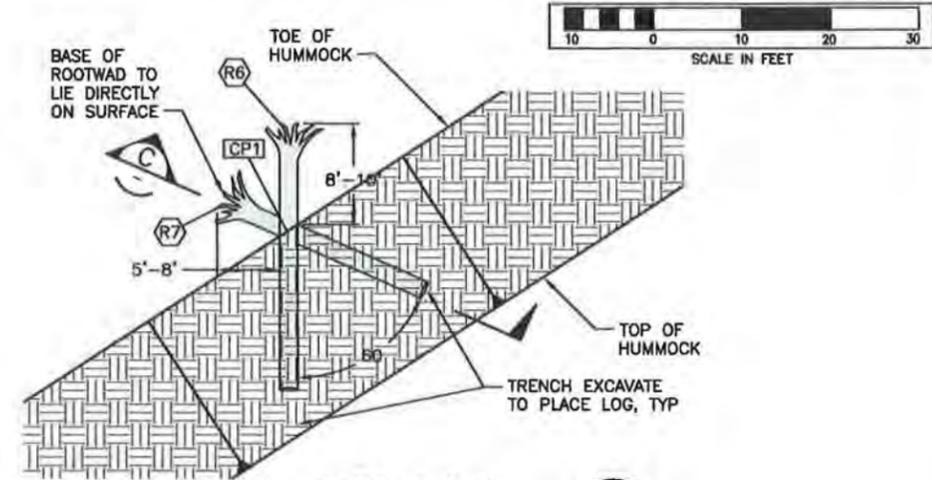
SHEET
55
OF
69
SHEETS
WDB



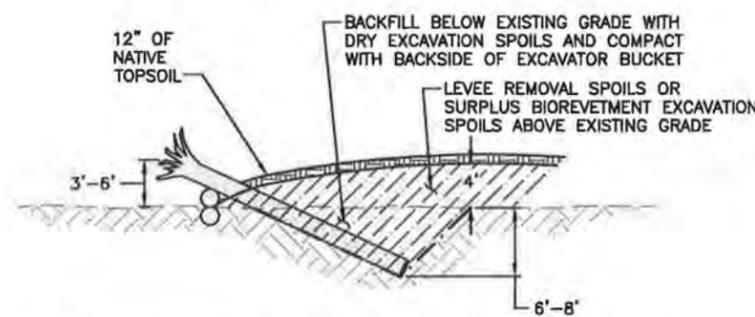
ROUGHENING - TYPE 1 PLAN (1) FR1, FR2



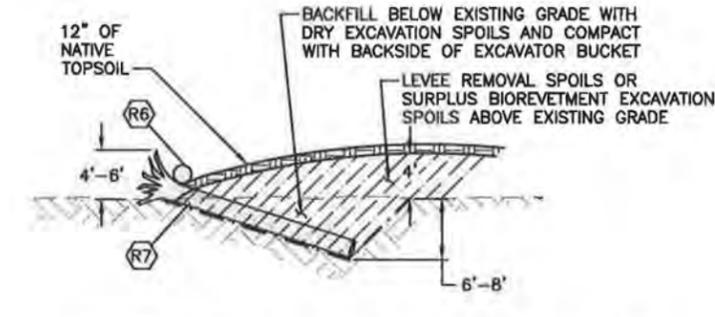
ROUGHENING - TYPE 2 PLAN (2) FR1, FR2



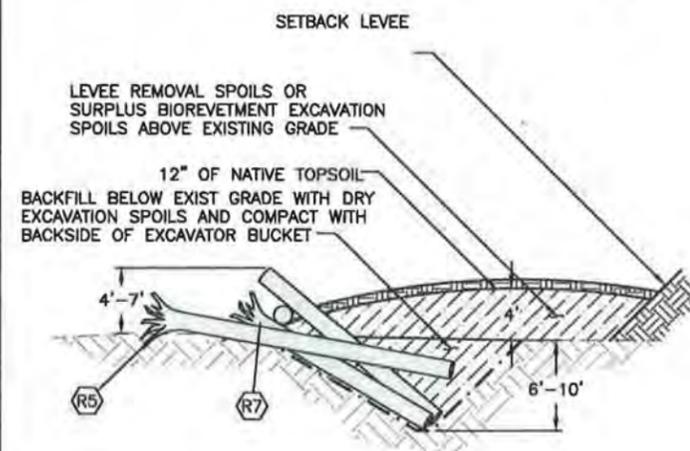
ROUGHENING - TYPE 3 PLAN (3) FR1, FR2



ROUGHENING - TYPE 2 SECTION (B)



ROUGHENING - TYPE 3 SECTION (C)



ROUGHENING - TYPE 1 SECTION (A)

LEGEND:

	EXISTING GRADE		TOPSOIL
	PROPOSED GRADE		STRUCTURE BACKFILL MATERIAL
	EXCAVATION LIMITS		EXISTING SUBSTRATE
	KEY LOG TYPE ID (LOG TYPE L1)		
	STRUCTURE CONTROL POINT (1)		

NOTES:

- EXTENTS OF BACKFILL SHOWN ARE APPROXIMATE AND WILL VARY FOR EACH LOG STRUCTURE.
- EXCAVATION LIMITS SHOWN ARE APPROXIMATE AND WILL VARY BASED ON CONSTRUCTION MEANS AND METHODS, SUBSURFACE CONDITIONS AND LOCATION OF STRUCTURE. CONTRACTOR SHALL ADJUST EXCAVATION LIMITS AS NECESSARY TO COMPLETE CONSTRUCTION.
- SEE LOG SCHEDULE FOR DIMENSIONS AND NUMBERS OF EACH LOG TYPE IN STRUCTURE.

ROUGHENING - TYPE 1 LOG SCHEDULE

LOG TYPE	MIN DIA (IN)	LENGTH (FT)	ROOTWAD	TOTAL QTY PER ELJ
R5	24	35	Y	1
R6	24	30	Y	1
R7	24	25	Y	1
L7	24	25	N	2
L8	24	20	N	1

ROUGHENING - TYPE 2 LOG SCHEDULE

LOG TYPE	MIN DIA (IN)	LENGTH (FT)	ROOTWAD	TOTAL QTY PER ELJ
R6	24	30	Y	3

ROUGHENING - TYPE 3 LOG SCHEDULE

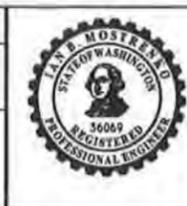
LOG TYPE	MIN DIA (IN)	LENGTH (FT)	ROOTWAD	TOTAL QTY PER ELJ
R6	24	30	Y	1
R7	24	25	Y	1

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

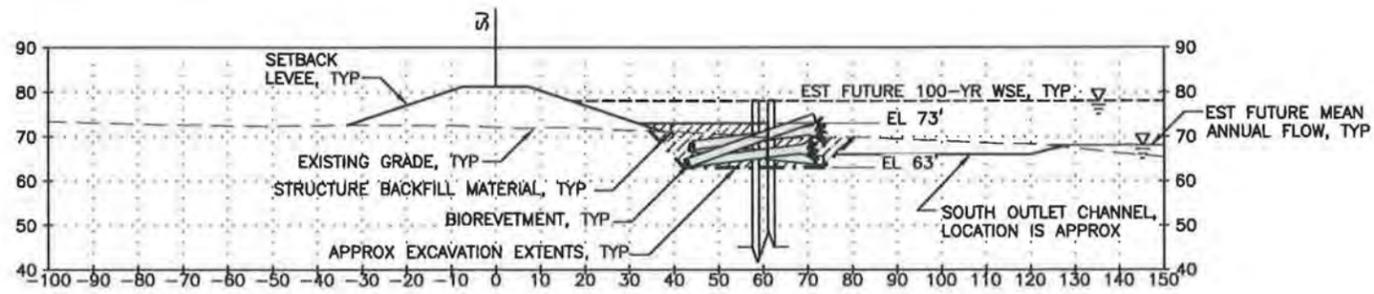
NUM.	REVISION	BY	DATE

APPROVED: IAN MOSTRENKO, PE	5-2013	SRFB #	RCO 087-1910C
PROJECT MANAGER: MARK EW BANK, PE	5-2013	PROJECT No.	1112049 (FL9001)
DESIGNED: BRIAN SCOTT	5-2013		
ECOLOGIST:			
DESIGN ENTERED: TODD PRESCOTT	5-2013		



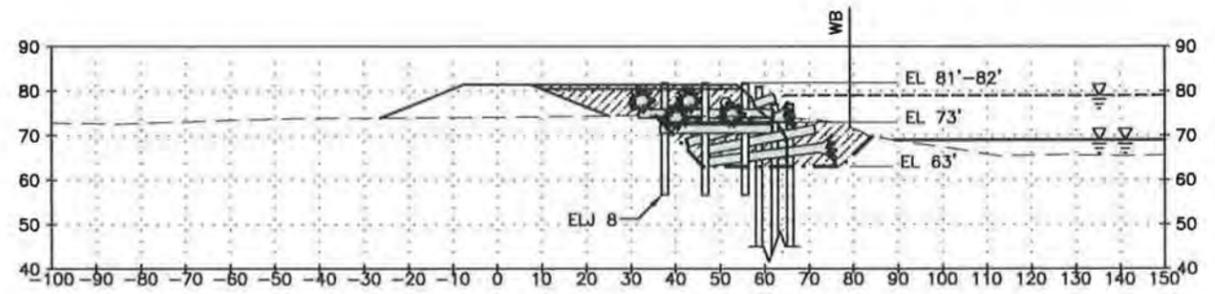
COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
FLOODPLAIN ROUGHENING DETAILS

SHEET
56
OF
69
SHEETS
WD9



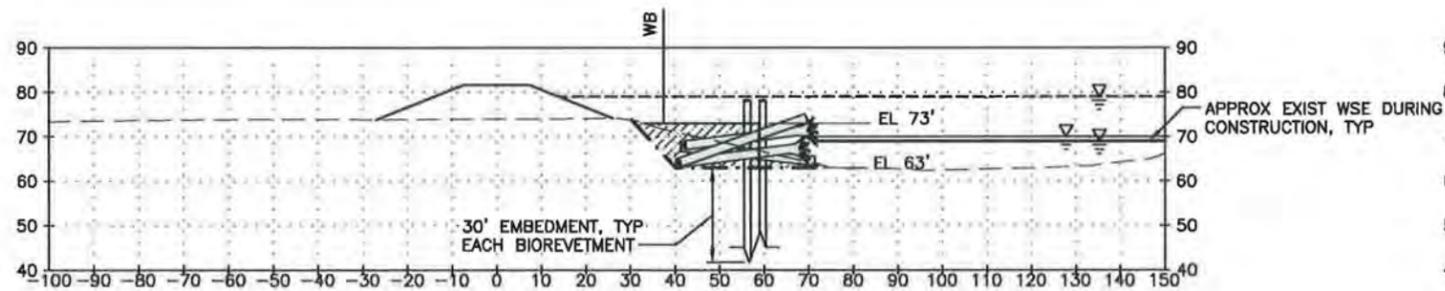
SECTION AA-AA

1"=20'



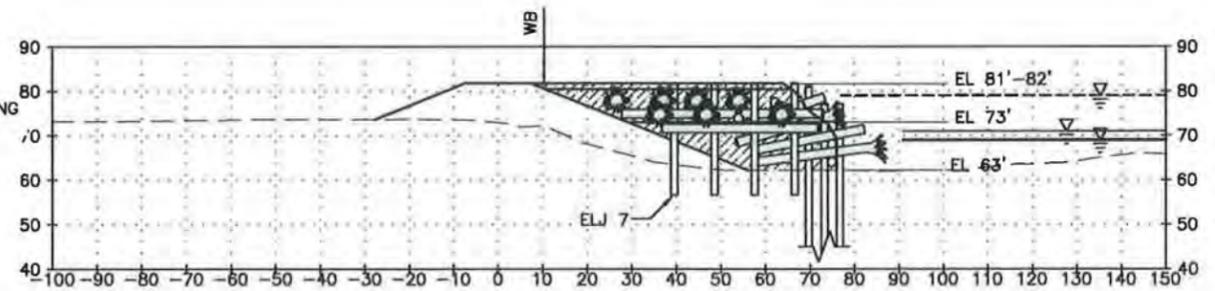
SECTION BB-BB

1"=20'



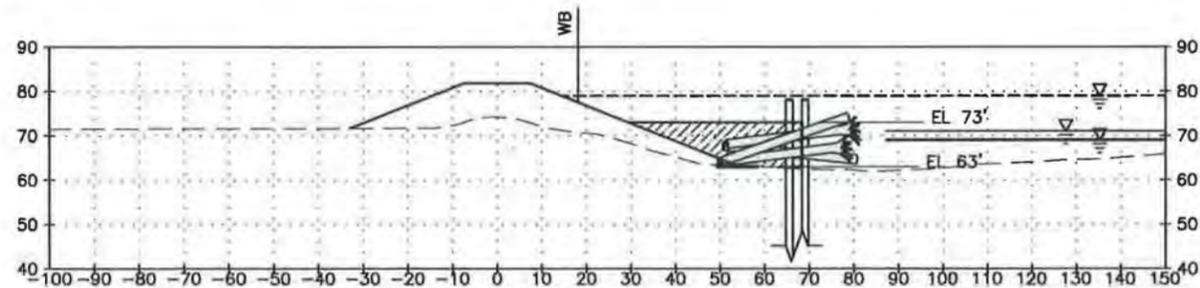
SECTION CC-CC

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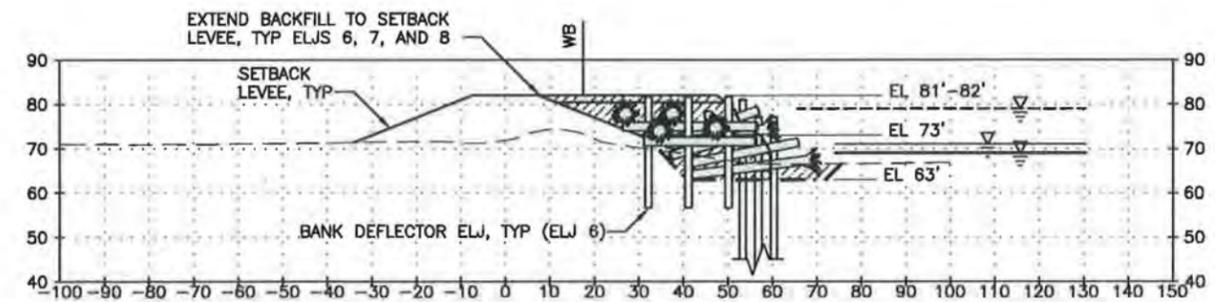
SECTION DD-DD

1"=20'



SECTION EE-EE

1"=20'



SECTION FF-FF

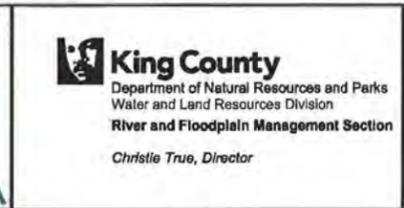
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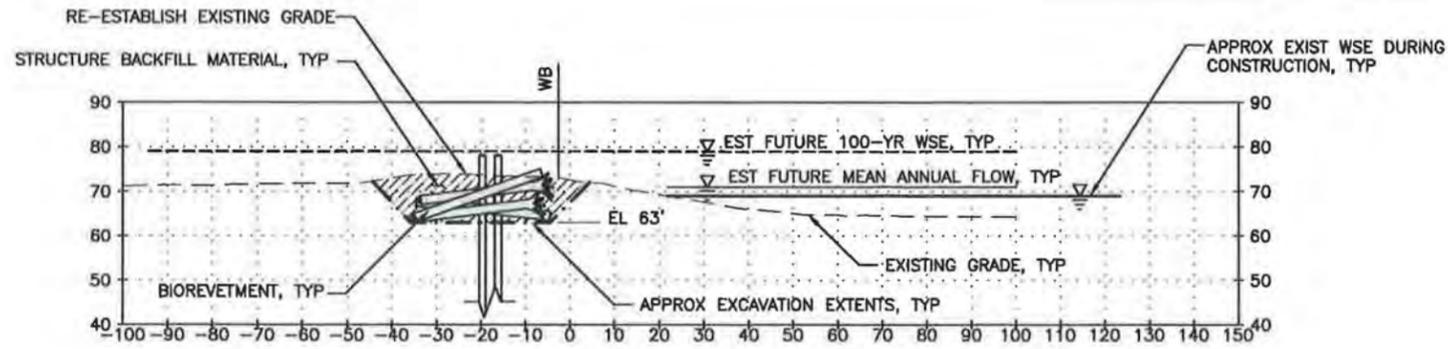
FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	
CADD / 60%	
5-2013	
NUM.	REVISION
BY	DATE

APPROVED: IAN MOSTRENKO, PE	5-2013
PROJECT MANAGER: MARK EWBANK, PE	5-2013
DESIGNED: BRIAN SCOTT	5-2013
ECOLOGIST:	
DESIGN ENTERED: TODD PRESCOTT	5-2013

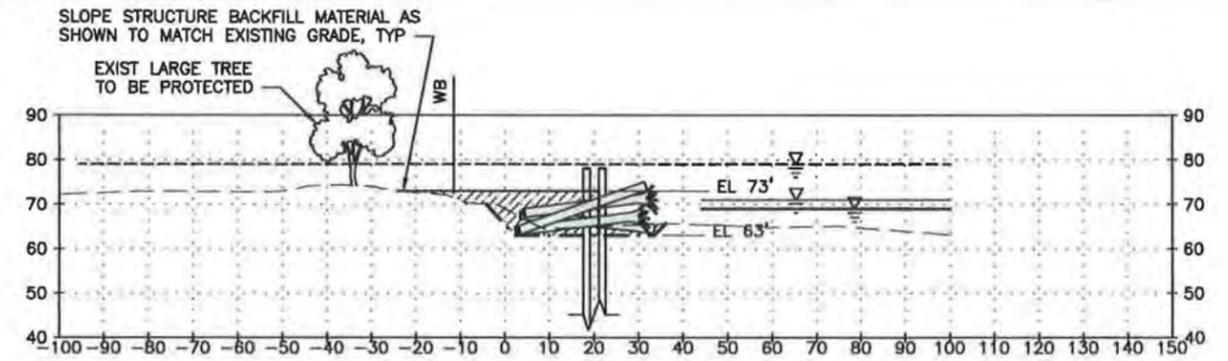
SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)



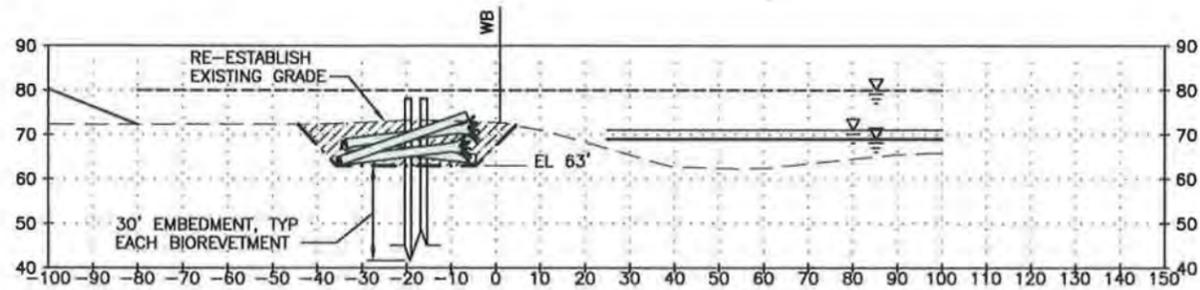
COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 BIOREVETMENT SECTIONS



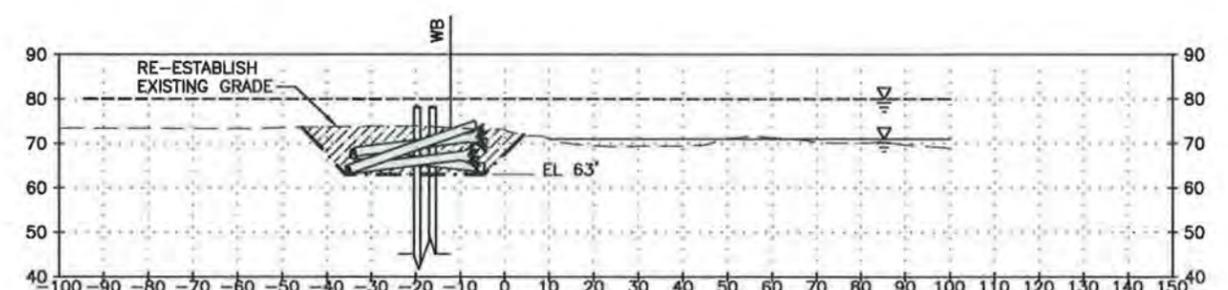
SECTION GG-GG
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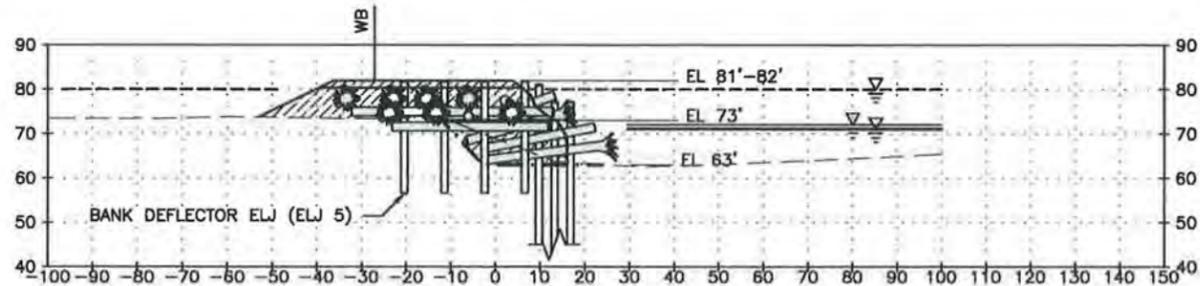
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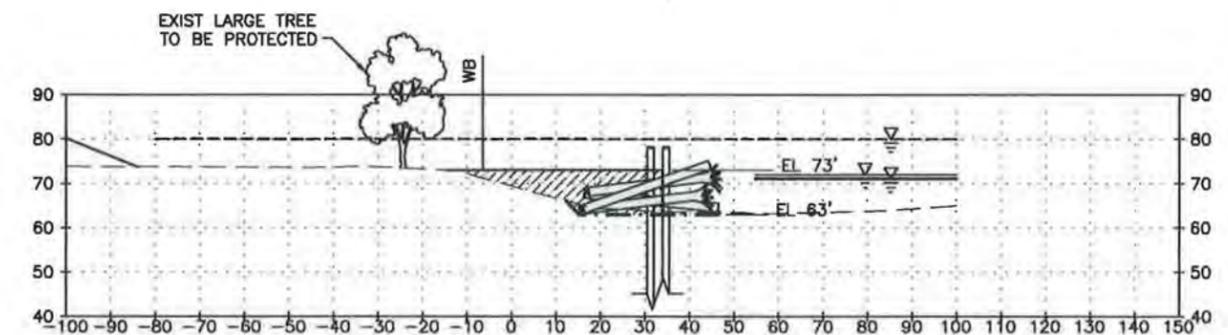
SECTION II-II
 1"=20'



SECTION JJ-JJ
 1"=20'



SECTION KK-KK
 1"=20'



SECTION LL-LL
 1"=20'



FIELD BOOK: _____
 SURVEYED: _____
 SURVEY BASE MAP: _____
 CHECKED: _____

CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

APPROVED: IAN MOSTRENKO, PE	5-2013
PROJECT MANAGER: MARK EWBANK, PE	5-2013
DESIGNED: BRIAN SCOTT	5-2013
ECOLOGIST: _____	
DESIGN ENTERED: TODD PRESCOTT	5-2013

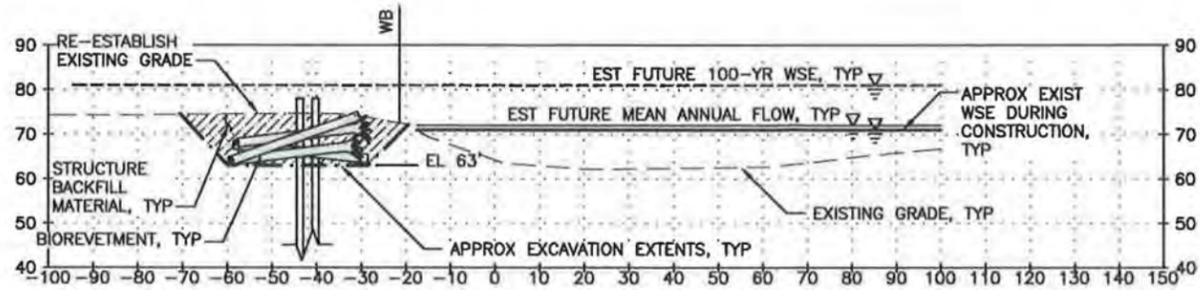
SRFB # RCO 087-1910C
 PROJECT No. 1112049 (FL9001)



King County
 Department of Natural Resources and Parks
 Water and Land Resources Division
 River and Floodplain Management Section
 Christie Trus, Director

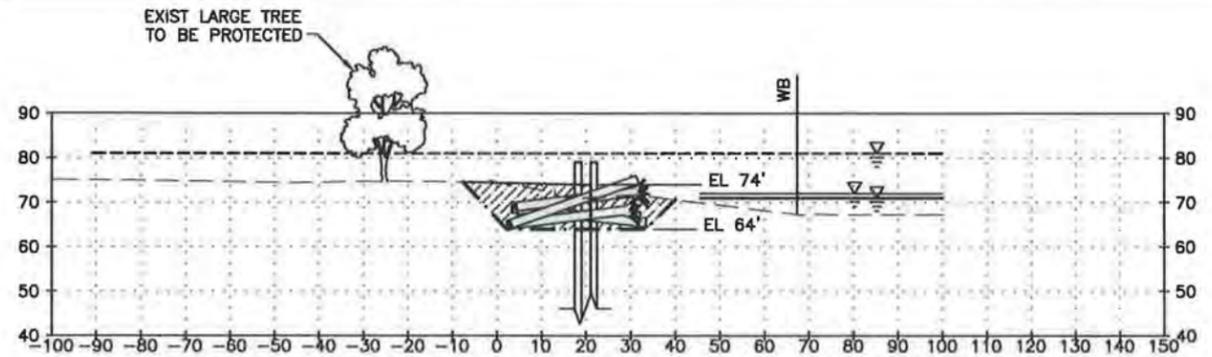
COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 BIOREVETMENT SECTIONS

SHEET
 59
 OF
 69
 SHEETS
 WD12



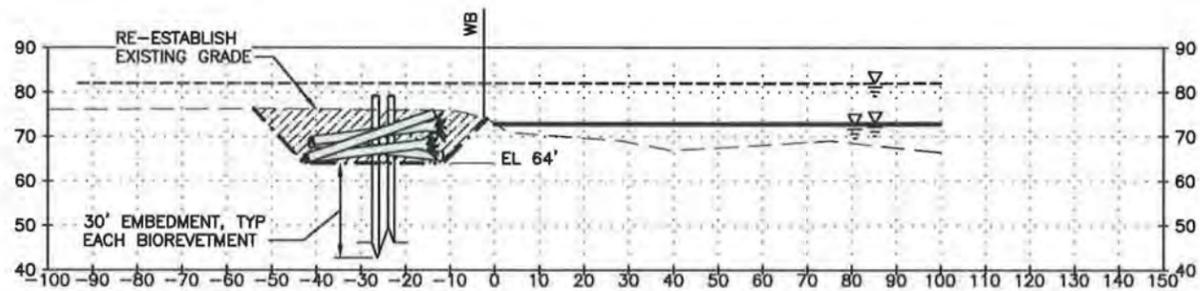
SECTION MM-MM

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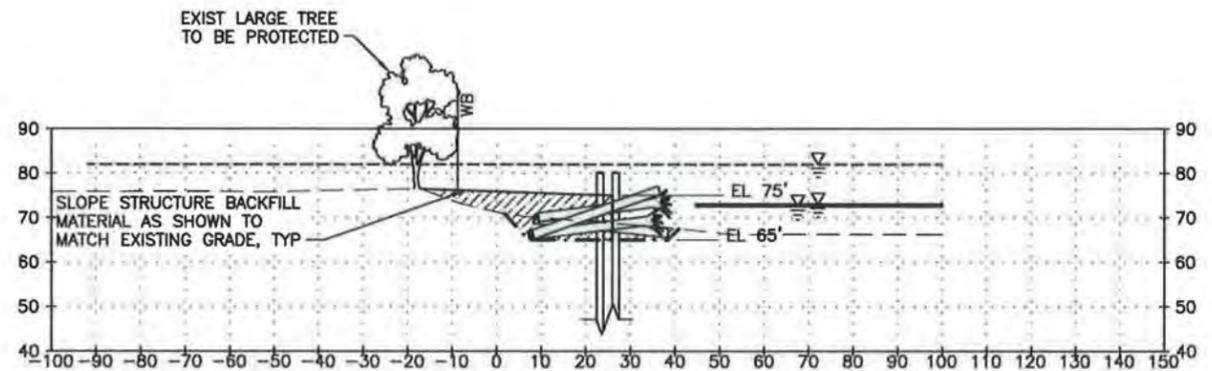
SECTION NN-NN

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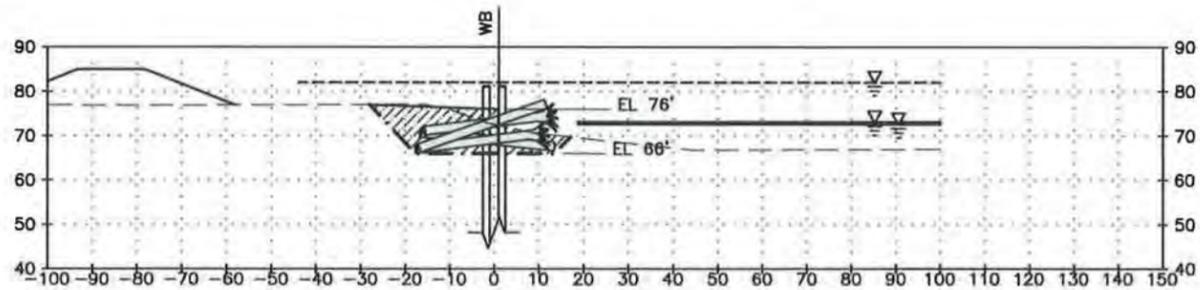
SECTION OO-OO

1"=20'



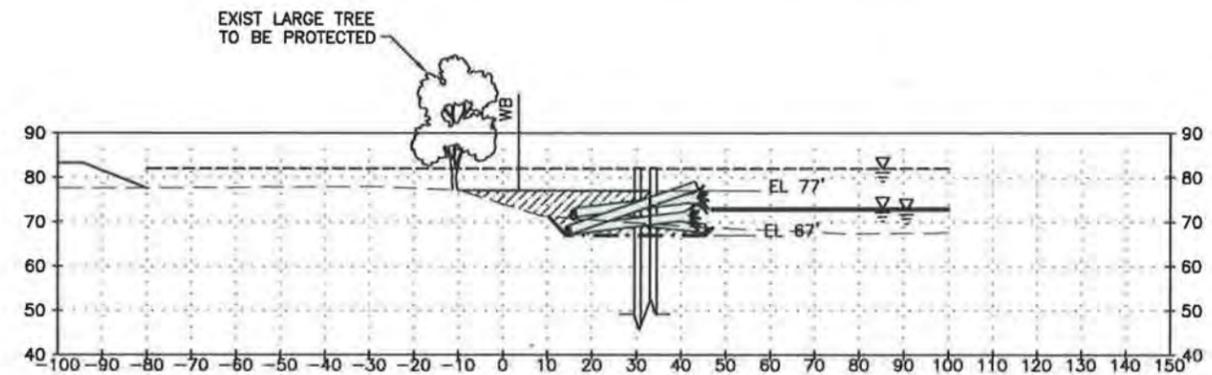
SECTION PP-PP

1"=20'



SECTION QQ-QQ

1"=20'



SECTION RR-RR

1"=20'



FIELD BOOK:
SURVEYED:
SURVEY BASE MAP:
CHECKED:

CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

APPROVED: IAN MOSTRENKO, PE 5-2013
PROJECT MANAGER: MARK EWBANK, PE 5-2013
DESIGNED: BRIAN SCOTT 5-2013
ECOLOGIST:
DESIGN ENTERED: TODD PRESCOTT 5-2013

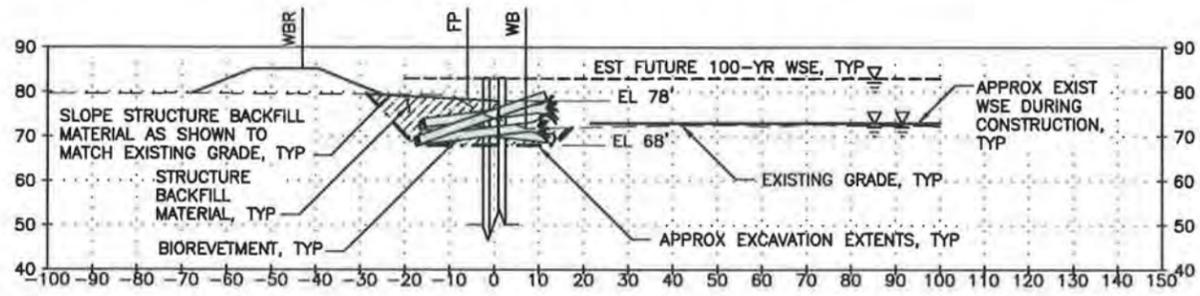
SRFB # RCO 087-1910C
PROJECT No. 1112049 (FL9001)



King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

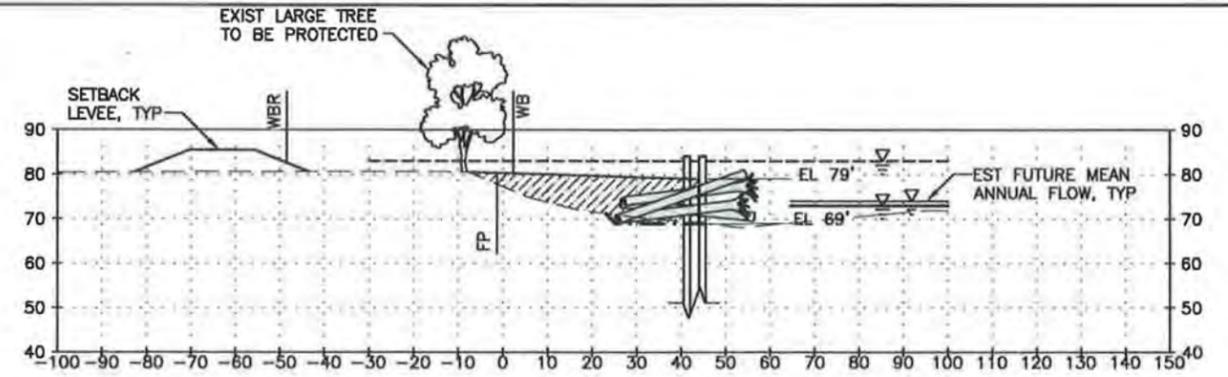
COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
BIOREVETMENT SECTIONS

SHEET
60
OF
69
SHEETS
WD13



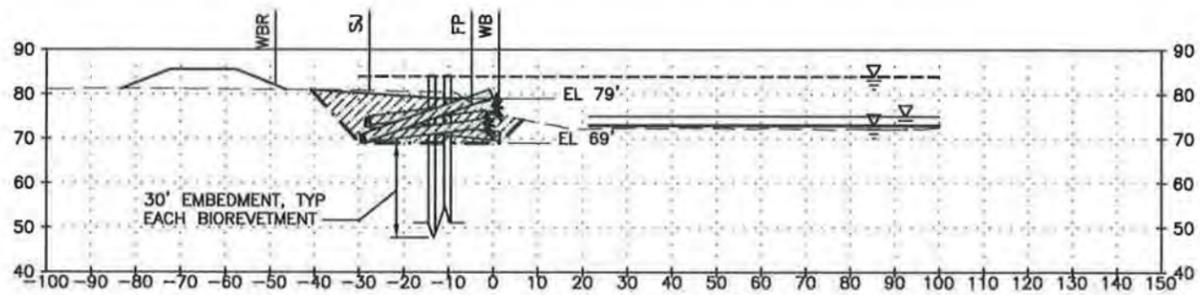
SECTION SS-SS

1"=20'



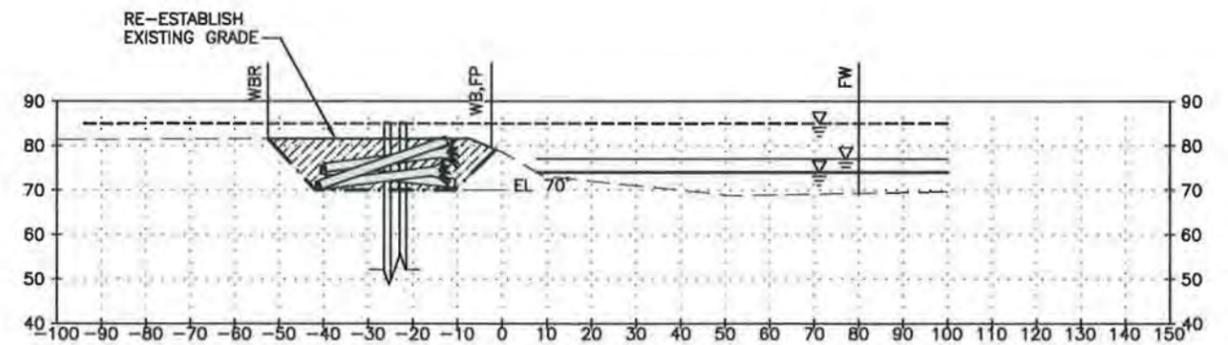
SECTION TT-TT

1"=20'



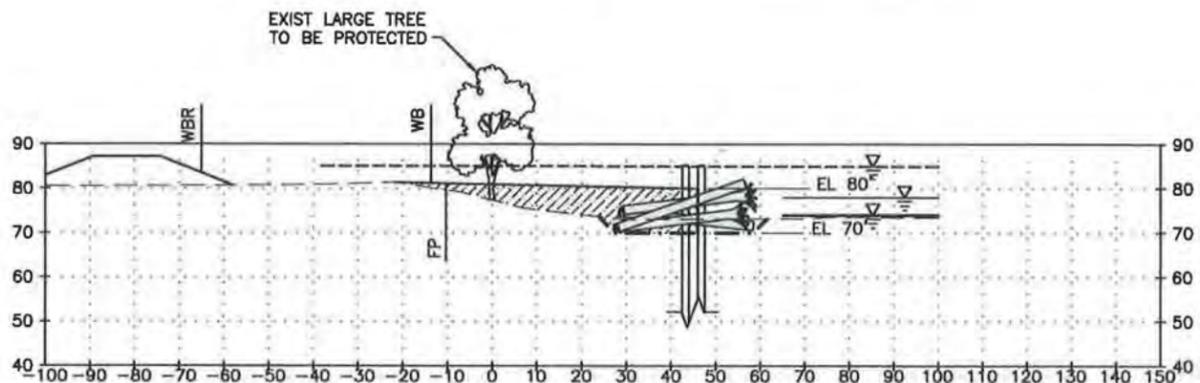
SECTION UU-UU

1"=20'



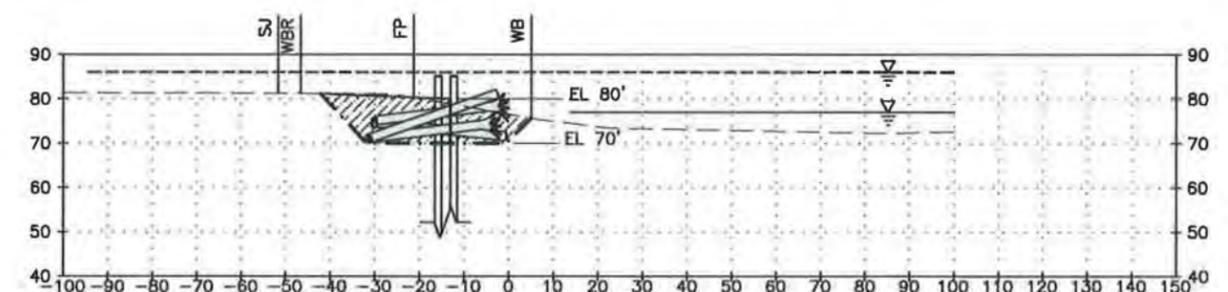
SECTION VV-VV

1"=20'



SECTION WW-WW

1"=20'



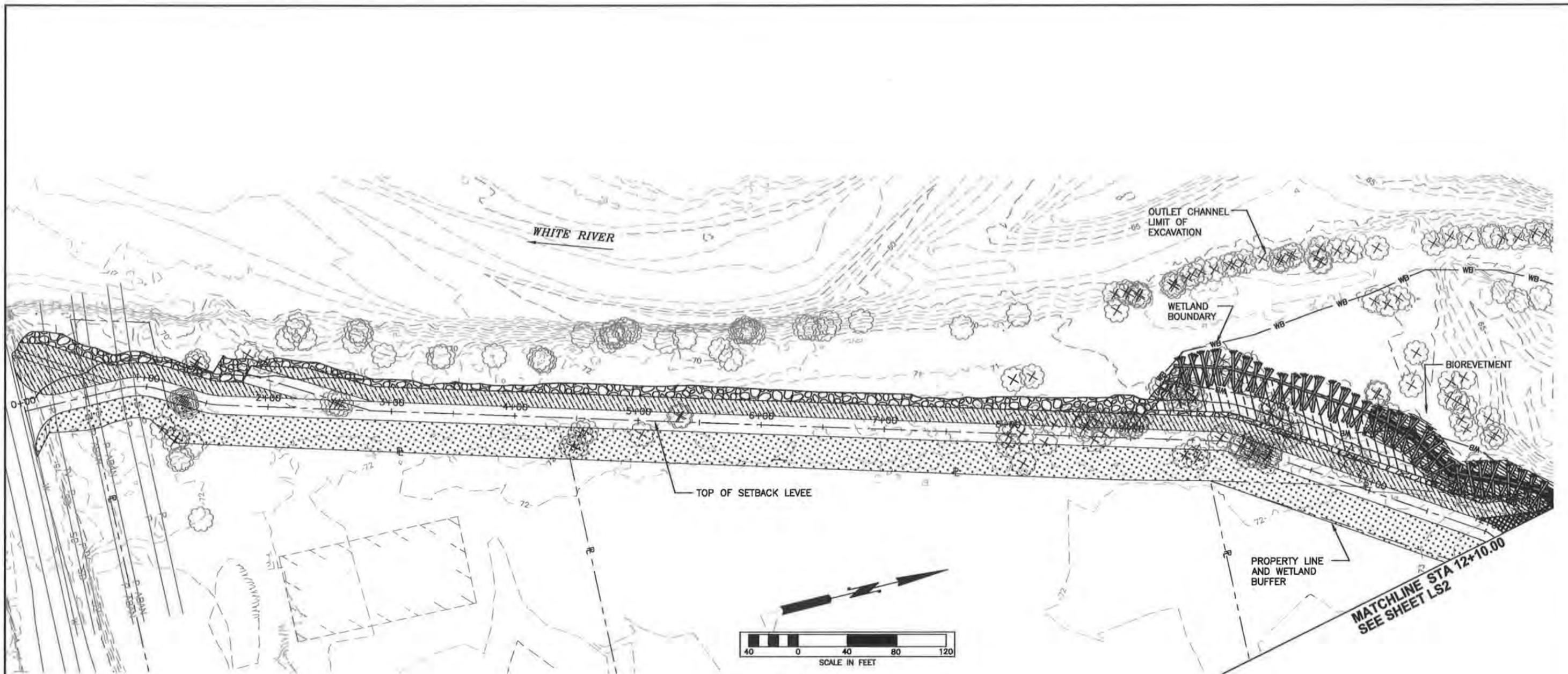
SECTION XX-XX

1"=20'



FIELD BOOK:		APPROVED: IAN MOSTRENKO, PE	5-2013	SRFB #	RCO 087-1910C			<p>King County Department of Natural Resources and Parks Water and Land Resources Division River and Floodplain Management Section Christie True, Director</p>	COUNTYLINE LEVEE SETBACK WHITE RIVER, RIVER MILE 5.00-6.33 LEVEE MODIFICATION BIOREVETMENT SECTIONS	SHEET
SURVEYED:		PROJECT MANAGER: MARK EW BANK, PE	5-2013	PROJECT No.	1112049 (FL9001)					61
SURVEY BASE MAP:		DESIGNED: BRIAN SCOTT	5-2013							OF
CHECKED:		ECOLOGIST:								69
		DESIGN ENTERED: TODD PRESCOTT	5-2013							SHEETS
										WD14

CADD / 60%
5-2013



NOTES:

1. SEE DWG LS7 FOR LEGEND OF PLANT TYPES.

LEGEND:

-  EX. TREE TO BE PROTECTED
-  EX. TREE TO BE REMOVED

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	
CADD / 60%	
5-2013	
NUM.	REVISION
BY	DATE

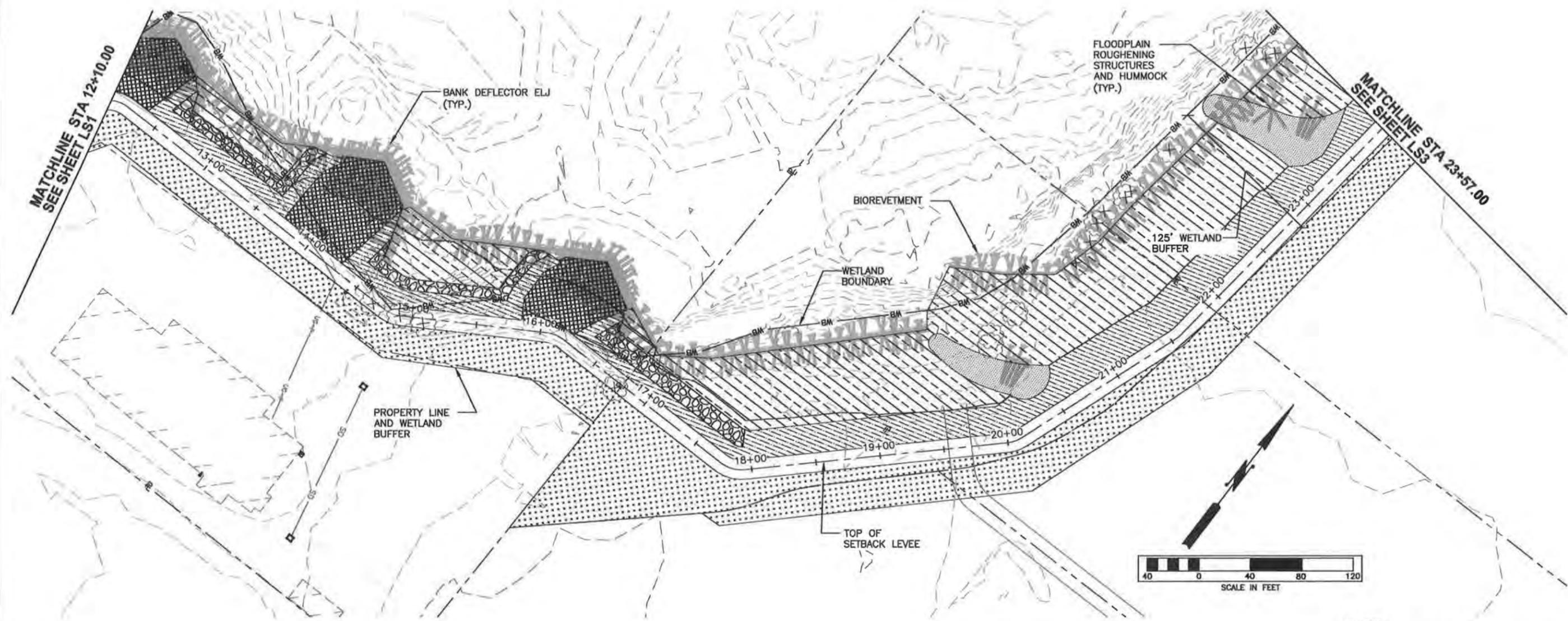
APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: KATE AKYUZ	4-2013
ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

SRFB # RCO 087-1910C
PROJECT No. 1112049 (FL9001)

King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Christie True, Director

COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
PLANTING PLAN

SHEET
62
OF
69
SHEETS
LS1



NOTES:
 1. SEE DWG LS7 FOR LEGEND OF PLANT TYPES.

- LEGEND:**
- EX. TREE TO BE PROTECTED
 - EX. TREE TO BE REMOVED

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

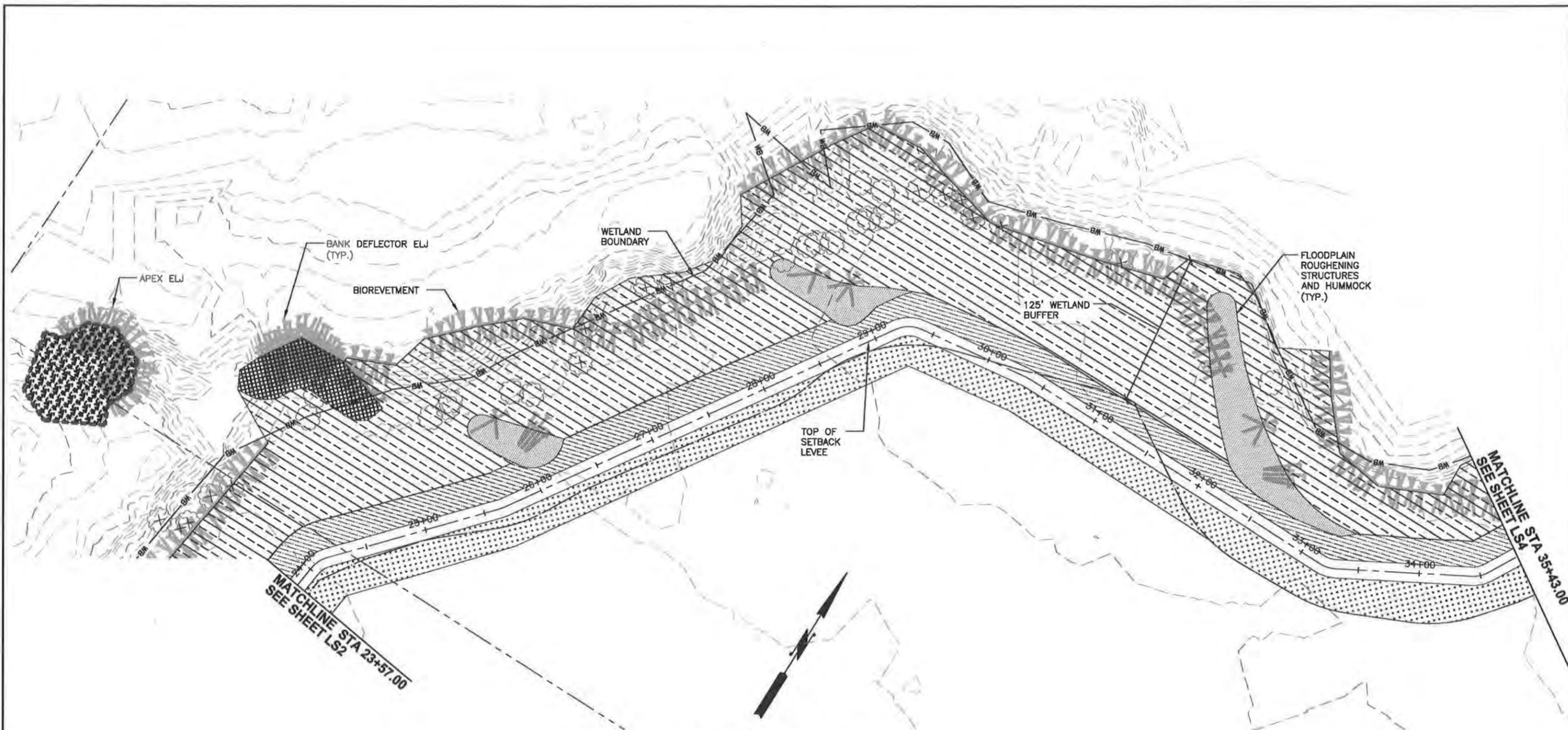
NUM.	REVISION	BY	DATE

APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: KATE AKYUZ	4-2013
ECOLOGIST: SARAH McCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)



COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 PLANTING PLAN



NOTES:
 1. SEE DWG LS7 FOR LEGEND OF PLANT TYPES.

- LEGEND:**
-  EX. TREE TO BE PROTECTED
 -  EX. TREE TO BE REMOVED

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

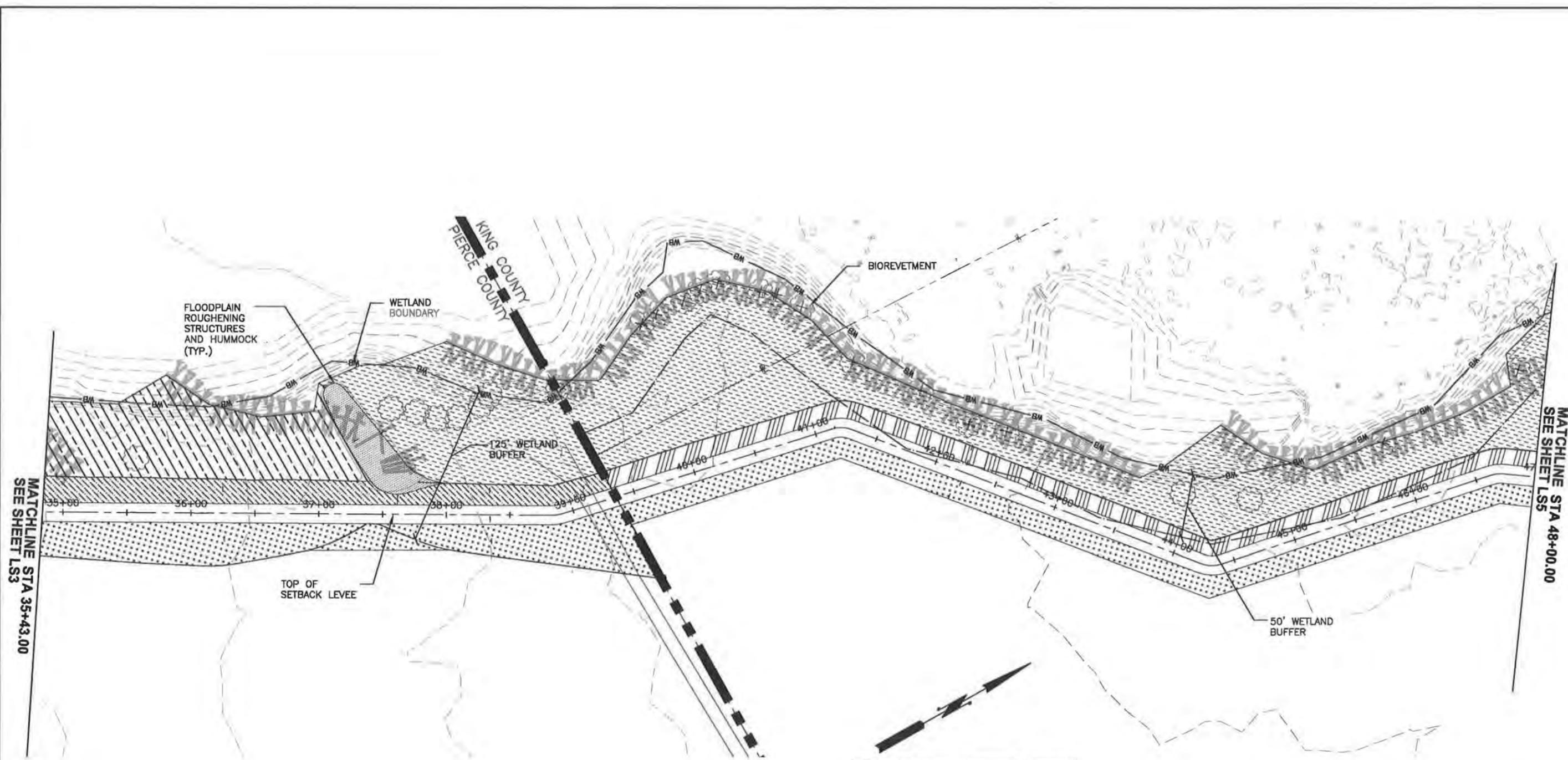
APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: KATE AKYUZ	4-2013
ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)



**COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 PLANTING PLAN**

SHEET
64
OF
69
SHEETS
LS3



MATCHLINE STA 35+43.00
SEE SHEET LS3

MATCHLINE STA 48+00.00
SEE SHEET LS5

NOTES:
1. SEE DWG LS7 FOR LEGEND OF PLANT TYPES.

LEGEND:
 EX. TREE TO BE PROTECTED
 EX. TREE TO BE REMOVED

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

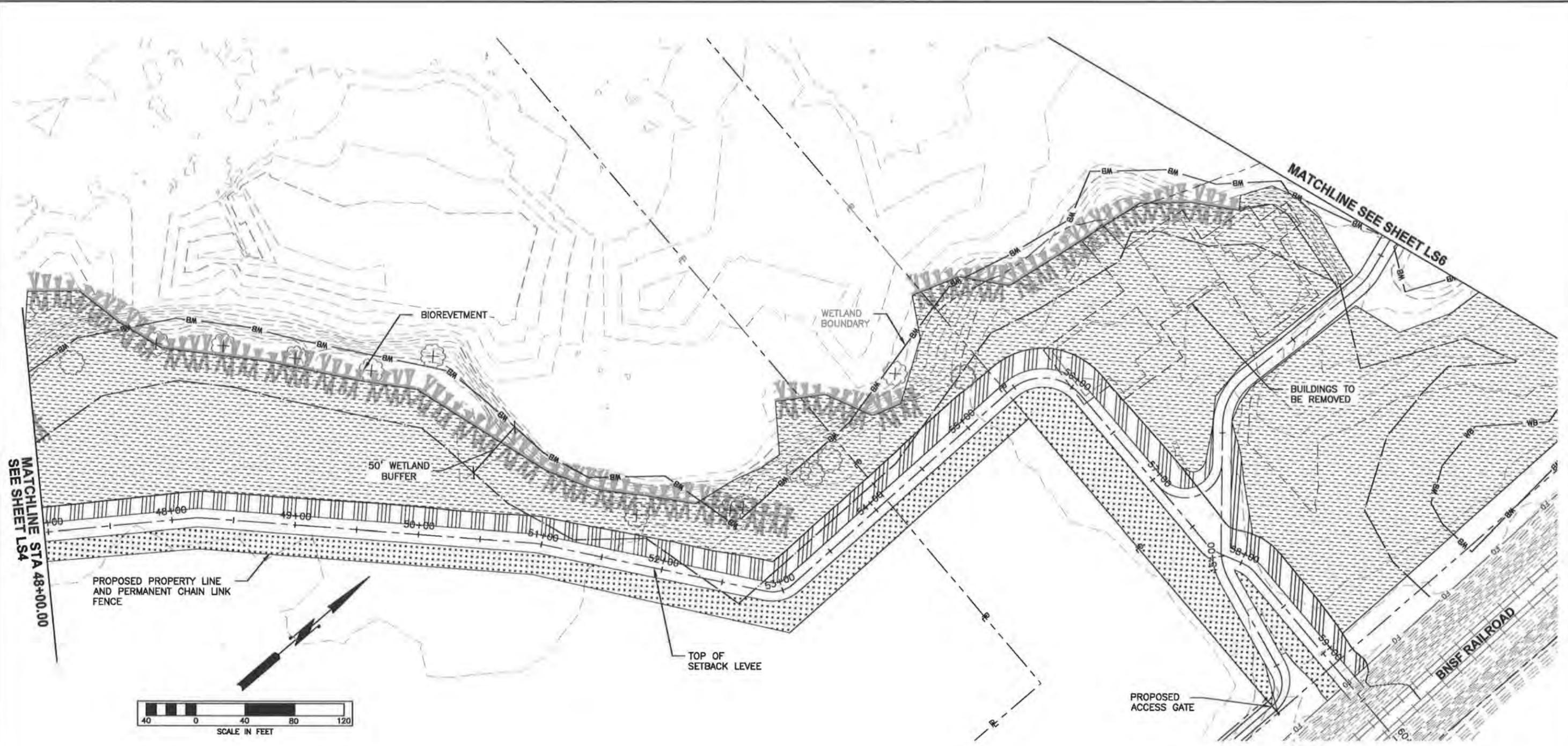
APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: KATE AKYUZ	4-2013
ECOLOGIST: SARAH MCCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)



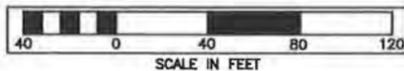
COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
PLANTING PLAN

SHEET 65 OF 69 SHEETS
LS4



MATCHLINE STA 48+00.00
SEE SHEET LS4

MATCHLINE SEE SHEET LS6



NOTES:
1. SEE DWG LS7 FOR LEGEND OF PLANT TYPES.

- LEGEND:**
- EX. TREE TO BE PROTECTED
 - EX. TREE TO BE REMOVED

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

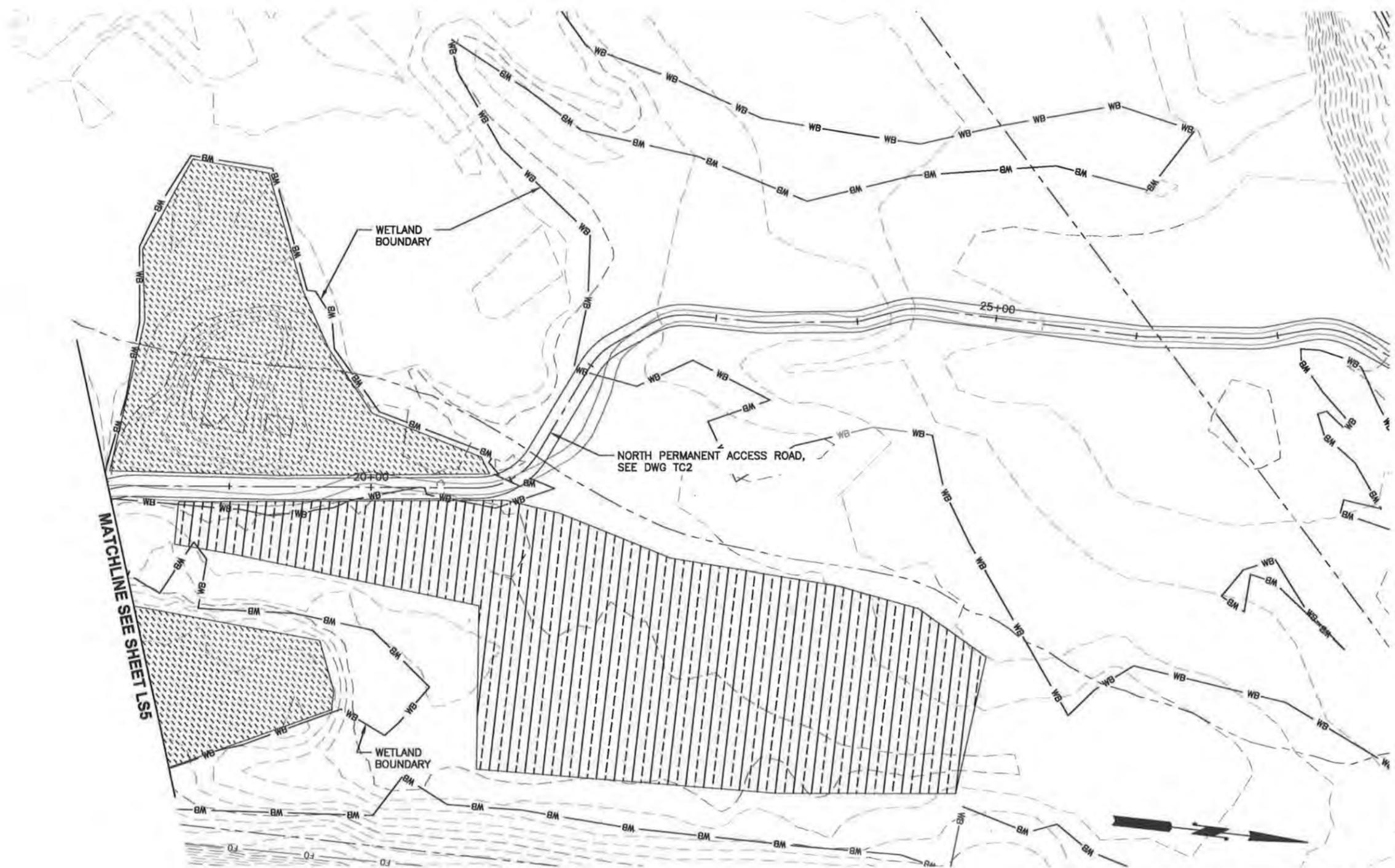
APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: KATE AKYUZ	4-2013
ECOLOGIST: SARAH McCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

SRFB # RCO 087-1910C
PROJECT No. 1112049 (FL9001)

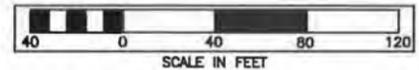


COUNTYLINE LEVEE SETBACK
WHITE RIVER, RIVER MILE 5.00-6.33
LEVEE MODIFICATION
PLANTING PLAN

SHEET 66 OF 69 SHEETS
LS5



NOTES:
 1. SEE DWG LS7 FOR LEGEND OF PLANT TYPES.



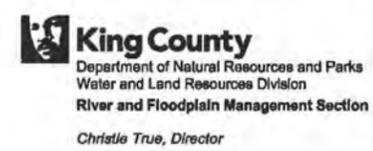
- LEGEND:**
- EX. TREE TO BE PROTECTED
 - EX. TREE TO BE REMOVED

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

APPROVED: JEANNE STYPULA, PE	4-2013	SRFB #	RCO 087-1910C
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013	PROJECT No.	1112049 (FL9001)
DESIGNED: KATE AKYUZ	4-2013		
ECOLOGIST: SARAH MCCARTHY	4-2013		
DESIGN ENTERED: LICA DULAN	4-2013		



COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 PLANTING PLAN

SHEET
 67
 OF
 69
 SHEETS
 LS6

Symbol	Species Name	Common Name	Wetland Indicator Status	Area (SQ)	% Cover Goal	Spacing (ft o.c.)	Stock Type	Quantity	
WETLAND BUFFER WET									
[Symbol]	<i>Acer macrophyllum</i>	Big-leaf maple	FACU	247,563	10.000000	10.000000	10, GAL	248	
	<i>Populus trichocarpa</i>	Black cottonwood	FAC	247,563	50.000000	10.000000	LS3	1,238	
	<i>Pseudotsuga menziesii</i>	Douglas fir	FACU	247,563	20.000000	10.000000	PL, GAL	495	
	<i>Alnus rubra</i>	Red alder	FACU	247,563	20.000000	10.000000	SD, GAL	495	
	<i>Rhus purshiana</i>	Cascara	FAC	247,563	10.000000	6.000000	SD, GAL	598	
	<i>Salix acuticarpa</i>	Scout's willow	FAC	247,563	10.000000	6.000000	SD, LS3	598	
	<i>Acer circinnatum</i>	Vine maple	FAC	247,563	10.000000	6.000000	TR, GAL	598	
	<i>Rosa gymnocarpa</i>	Bald-hip rose	FACU	247,563	10.000000	4.000000	SD, GAL	1,547	
	<i>Corylus cornuta</i>	Hazelnut	FACU	247,563	10.000000	6.000000	TR, GAL	598	
	<i>Oenothera versajiformis</i>	Indian plum	FACU	247,563	10.000000	6.000000	TR, GAL	598	
	<i>Vaccinium parviflorum</i>	Red huckleberry	FACU	247,563	10.000000	6.000000	GAL	598	
	<i>Amaranthus alifolius</i>	Sesbania	FACU	247,563	10.000000	6.000000	TR, GAL	598	
<i>Symphoricarpos alba</i>	Snowberry	FACU	247,563	20.000000	6.000000	TR, GAL	1,375		
<i>Rubus saxiflorus</i>	Thimbleberry	FACU	247,563	10.000000	4.000000	SD, GAL	1,547		
<i>Polystichum multum</i>	Sword fern	FACU	247,563	10.000000	4.000000	GAL	1,547		
WETLAND BUFFER WET									
[Symbol]	<i>Populus trichocarpa</i>	Black cottonwood	FAC	230,480	70.000000	10.000000	LS3	1,613	
	<i>Alnus rubra</i>	Red alder	FAC	230,480	20.000000	10.000000	SD, GAL	461	
	<i>Thuja plicata</i>	Western redcedar	FAC	230,480	10.000000	10.000000	PL, GAL	230	
	<i>Rhus purshiana</i>	Cascara	FAC	230,480	10.000000	6.000000	SD, GAL	640	
	<i>Salix lucida</i>	Hooker's willow	FACW	230,480	10.000000	6.000000	SD, LS3	640	
	<i>Salix sitchensis</i>	Sitka willow	FACW	230,480	10.000000	6.000000	SD, LS3	640	
	<i>Acer circinnatum</i>	Vine maple	FAC	230,480	10.000000	6.000000	TR, GAL	640	
	<i>Rosa rostrata</i>	Hoodia rose	FAC	230,480	10.000000	4.000000	SD, GAL	1,441	
	<i>Cornus sericea</i>	Red hairy dogwood	FACW	230,480	20.000000	6.000000	TR, GAL	1,270	
	<i>Rubus spectabilis</i>	Salmonberry	FAC	230,480	10.000000	4.000000	TR, GAL	1,441	
	<i>Athyrium filix-femina</i>	Lady fern	FAC	230,480	10.000000	4.000000	GAL	1,441	
	WATERWARD LEVEE SLOPE DRY - Plant live leaf maple & Douglas fir alternately 25' o.c. in undulating line on mid-slope position. First 3' of slope adjacent to road and with red fence. Next 3' to be planted to lady fern and sedge cup only.								
[Symbol]	<i>Acer circinnatum</i>	Vine maple	FAC	30,304	10.000000	6.000000	GAL	94	
	<i>Acer macrophyllum</i>	Big-leaf maple	FACU	2,252.15	10.000000	25' L	GAL	45	
	<i>Cornus sericea</i>	Red hairy dogwood	FACW	30,304	20.000000	6.000000	GAL	158	
	<i>Corylus cornuta</i>	Hazelnut	FACU	30,304	10.000000	6.000000	GAL	94	
	<i>Festuca rubra</i>	Red fescue	FAC	30,304	5.000000	14 lbs/ac	SEED	10	
	<i>Hobolobos albacolor</i>	Oceanspray	FACU	30,304	10.000000	6.000000	GAL	94	
	<i>Oenothera versajiformis</i>	Indian plum	FACU	30,304	10.000000	6.000000	GAL	94	
	<i>Polystichum multum</i>	Sword fern	FACU	30,304	10.000000	4.000000	GAL	185	
	<i>Pseudotsuga menziesii</i>	Douglas fir	FACU	2,252.15	10.000000	25' L	GAL	45	
	<i>Rhus purshiana</i>	Cascara	FAC	30,304	10.000000	6.000000	GAL	94	
	<i>Rosa gymnocarpa</i>	Bald-hip rose	FACU	30,304	10.000000	4.000000	GAL	185	
	<i>Rubus saxiflorus</i>	Thimbleberry	FACU	30,304	15.000000	4.000000	GAL	284	
<i>Symphoricarpos alba</i>	Snowberry	FACU	30,304	25.000000	6.000000	GAL	210		
<i>Tillandsia grandiflora</i>	Prince cup	FACU	30,304	5.000000	4.000000	POT	95		
WATERWARD LEVEE SLOPE WET - Plant Western redcedar 25' o.c. in undulating line on mid-slope position. First 3' of slope adjacent to road and with red fence. Next 3' to be planted to lady fern and sedge cup only.									
[Symbol]	<i>Acer circinnatum</i>	Vine maple	FAC	67,881	10.000000	6.000000	GAL	189	
	<i>Alnus rubra</i>	Red alder	FAC	67,881	20.000000	12.000000	GAL	54	
	<i>Athyrium filix-femina</i>	Lady fern	FAC	67,881	10.000000	4.000000	GAL	424	
	<i>Cornus sericea</i>	Red hairy dogwood	FACW	67,881	25.000000	6.000000	GAL	471	
	<i>Corylus cornuta</i>	Hazelnut	FACU	67,881	10.000000	6.000000	GAL	189	
	<i>Festuca rubra</i>	Red fescue	FAC	67,881	5.000000	14 lbs/ac	SEED	22	
	<i>Oenothera versajiformis</i>	Indian plum	FACU	67,881	10.000000	6.000000	GAL	189	
	<i>Rosa rostrata</i>	Hoodia rose	FAC	67,881	10.000000	4.000000	GAL	424	
	<i>Rubus spectabilis</i>	Salmonberry	FAC	67,881	10.000000	4.000000	GAL	424	
	<i>Salix lucida</i>	Hooker's willow	FACW	67,881	10.000000	6.000000	LS3	189	
	<i>Salix sitchensis</i>	Sitka willow	FACW	67,881	10.000000	6.000000	LS3	189	
	<i>Sambucus racemosa</i>	Red elderberry	FACU	67,881	10.000000	6.000000	GAL	189	
<i>Symphoricarpos alba</i>	Snowberry	FACU	67,881	25.000000	6.000000	GAL	471		
<i>Thuja plicata</i>	Western redcedar	FAC	67,881	10.000000	25' L	GAL	154		
<i>Tolmiea menziesii</i>	Flower stick plant	FAC	67,881	5.000000	4.000000	POT	212		
LANDWARD LEVEE SLOPE - Plant shrubs pine in straight line 25' o.c. in mid-slope position only. First 3' of slope adjacent to road and with red fence. Next 3' to be planted to sedge cup only.									
[Symbol]	<i>Amaranthus alifolius</i>	Sesbania	FACU	152,170	10.000000	6.000000	GAL	423	
	<i>Corylus cornuta</i>	Hazelnut	FACU	152,170	25.000000	6.000000	GAL	1,057	
	<i>Festuca rubra</i>	Red fescue	FAC	152,170	5.000000	14 lbs/ac	SEED	49	
	<i>Hobolobos albacolor</i>	Oceanspray	FACU	152,170	40.000000	6.000000	GAL	1,891	
	<i>Pinus contorta s. con.</i>	Shore pine	FAC	6,000.15	25.000000	25' L	GAL	240	
	<i>Polystichum multum</i>	Sword fern	FACU	152,170	10.000000	4.000000	GAL	952	
	<i>Symphoricarpos alba</i>	Snowberry	FACU	152,170	25.000000	6.000000	GAL	1,057	
	<i>Tillandsia grandiflora</i>	Prince cup	FACU	152,170	5.000000	4.000000	POT	476	
	BANK DEFLECTOR BLS								
	[Symbol]	<i>Acer circinnatum</i>	Vine maple	FAC	15,497	10.000000	6.000000	GAL	43
		<i>Acer macrophyllum</i>	Big-leaf maple	FACU	15,497	30.000000	12.000000	GAL	32
		<i>Alnus rubra</i>	Red alder	FAC	15,497	30.000000	12.000000	GAL	32
<i>Corylus cornuta</i>		Hazelnut	FACU	15,497	20.000000	6.000000	GAL	66	
<i>Oenothera versajiformis</i>		Indian plum	FACU	15,497	15.000000	6.000000	GAL	65	
<i>Polystichum multum</i>		Sword fern	FACU	15,497	10.000000	4.000000	GAL	108	
<i>Pseudotsuga menziesii</i>		Douglas fir	FACU	15,497	25.000000	12.000000	GAL	27	
<i>Rhus purshiana</i>		Cascara	FAC	15,497	20.000000	6.000000	GAL	66	
<i>Rosa gymnocarpa</i>		Bald-hip rose	FACU	15,497	20.000000	4.000000	GAL	194	
<i>Symphoricarpos alba</i>		Snowberry	FACU	15,497	20.000000	6.000000	GAL	66	
<i>Thuja plicata</i>		Western redcedar	FAC	15,497	15.000000	12.000000	GAL	16	

APEX BLS								
Upper 1/2 of Apex BLS								
<i>Acer circinnatum</i>	Vine maple	FAC	7,448	20.000000	6.000000	GAL	41	
<i>Alnus rubra</i>	Red alder	FAC	7,448	75.000000	12.000000	GAL	39	
<i>Corylus cornuta</i>	Hazelnut	FACU	7,448	10.000000	6.000000	GAL	21	
<i>Oenothera versajiformis</i>	Indian plum	FACU	7,448	10.000000	6.000000	GAL	21	
<i>Rosa gymnocarpa</i>	Bald-hip rose	FACU	7,448	10.000000	4.000000	GAL	47	
<i>Rubus saxiflorus</i>	Thimbleberry	FACU	7,448	20.000000	4.000000	GAL	93	
<i>Sambucus racemosa</i>	Red elderberry	FACU	7,448	10.000000	5.000000	GAL	21	
<i>Symphoricarpos alba</i>	Snowberry	FACU	7,448	20.000000	5.000000	GAL	41	
<i>Thuja plicata</i>	Western redcedar	FAC	7,448	35.000000	12.000000	GAL	18	
<i>Vaccinium parviflorum</i>	Red huckleberry	FACU	7,448	10.000000	6.000000	GAL	21	
Lower 1/2 of Apex BLS								
<i>Cornus sericea</i>	Red hairy dogwood	FACW	7,448	10.000000	6.000000	GAL	21	
<i>Populus trichocarpa</i>	Black cottonwood	FAC	7,448	100.000000	12.000000	LS3	52	
<i>Rhus purshiana</i>	Cascara	FAC	7,448	10.000000	6.000000	GAL	21	
<i>Rosa rostrata</i>	Hoodia rose	FAC	7,448	10.000000	4.000000	GAL	47	
<i>Rubus spectabilis</i>	Salmonberry	FAC	7,448	20.000000	4.000000	GAL	93	
<i>Salix lucida</i>	Hooker's willow	FACW	7,448	20.000000	6.000000	LS3	41	
<i>Salix sitchensis</i>	Sitka willow	FACW	7,448	20.000000	6.000000	LS3	41	
ROUGHENING HUMMOCKS								
<i>Acer circinnatum</i>	Vine maple	FAC	18,794	10.000000	6.000000	GAL	52	
<i>Athyrium filix-femina</i>	Lady fern	FAC	18,794	10.000000	4.000000	GAL	117	
<i>Cornus sericea</i>	Red hairy dogwood	FACW	18,794	20.000000	6.000000	GAL	104	
<i>Polystichum multum</i>	Sword fern	FACU	18,794	10.000000	4.000000	GAL	117	
<i>Populus trichocarpa</i>	Black cottonwood	FAC	18,794	100.000000	12.000000	LS3	133	
<i>Rhus purshiana</i>	Cascara	FAC	18,794	10.000000	6.000000	GAL	52	
<i>Rosa rostrata</i>	Hoodia rose	FAC	18,794	10.000000	4.000000	GAL	117	
<i>Rubus spectabilis</i>	Salmonberry	FAC	18,794	10.000000	4.000000	GAL	117	
<i>Salix lucida</i>	Hooker's willow	FACW	18,794	20.000000	6.000000	LS3	104	
<i>Salix sitchensis</i>	Sitka willow	FACW	18,794	20.000000	6.000000	LS3	104	
ROCK FACED LEVEE								
Lower 1/2 of Rock faced Levee - Install 8-8" 3-2" willow livestock 2' o.c. in single layer in 2" topsoil (immediately above) rock layer of levee per design drawings.								
<i>Salix acuticarpa</i>	Scout's willow	FAC	1,731	100.000000	2 L	LS6	864	

NOTES:

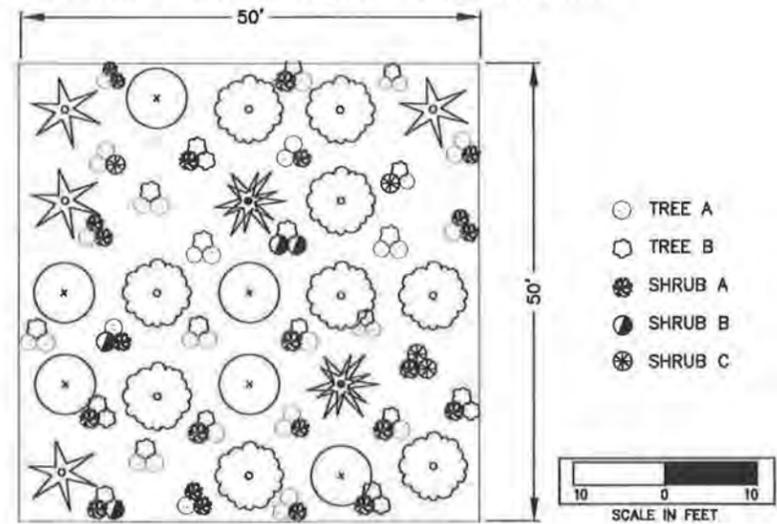
- SPACING IN FT O.C. UNLESS LINEAR FT AS INDICATED BY "L". TREES TO BE PLANTED 10 OR 12 FEET O.C. FROM OTHER TREES IN PLANTING UNIT AS INDICATED. SHRUBS TO BE PLANTED 4 OR 6 FEET FROM OTHER SHRUBS AS INDICATED. QUANTITIES ARE BASED ON PERCENT COVER GOALS FOR EACH SPECIES AS OPPOSED TO SPACING.
- ALTERNATIVE A INCLUDES MAINLY PLANTING CONTAINERS EXCEPT FOR WILLOW AND BLACK COTTONWOOD, WHICH WILL BE LIVESTAKES.
- SD=SEEDLING, TR=TRANSPLANT, LS3=3' LIVE STAKE, LS6=6' LIVE STAKE, PL=PLUG, GAL=1-GALLON CONTAINER, POT= 4" POT, SEED=POUND OF SEED
- WHERE TWO STOCK TYPES ARE INDICATED, SPLIT QUANTITIES HALF AND HALF FOR EACH TYPE.

GENERAL PLANTING NOTES:

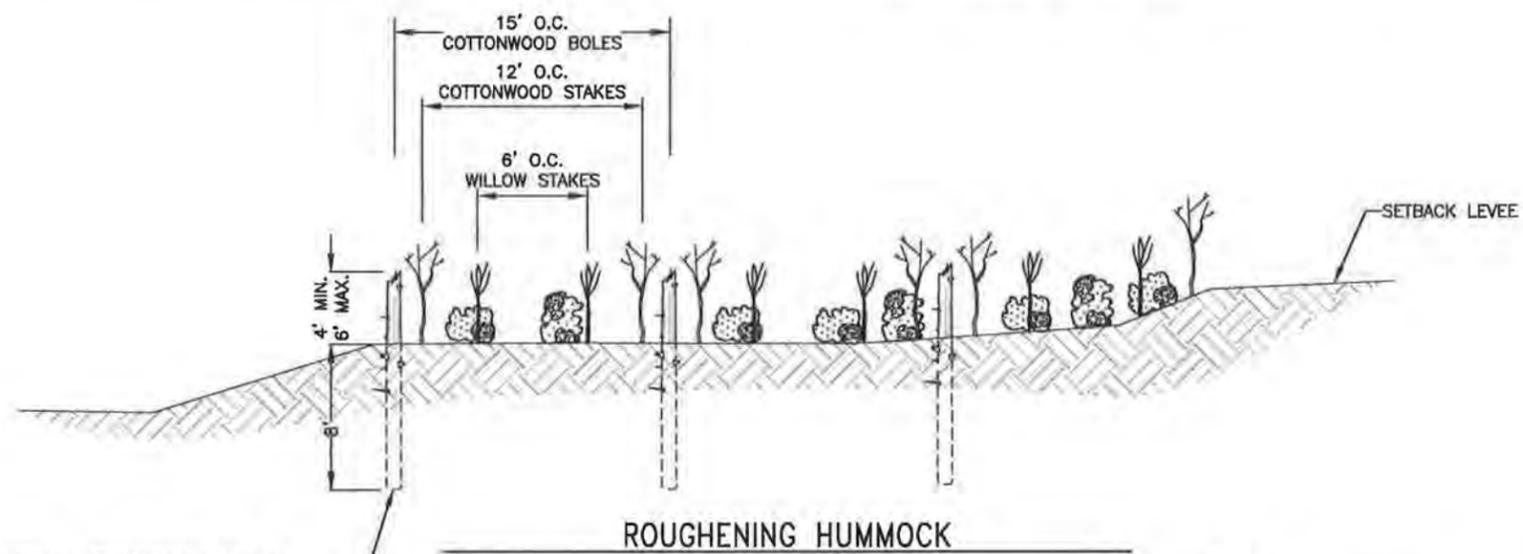
- BIOREVETMENT WILL BE PLANTED WITH TALL SHRUBS (WILLOWS & DOGWOOD) ALONG THE EDGE OF THE STRUCTURE IN GAPS BETWEEN LOGS.
- THE WETLAND BUFFER WET/DRY WILL BE PLANTED WITH A MIX OF TREES AND SHRUBS. SEE WETLAND BUFFER WET/DRY TYP. DETAIL, THIS SHEET.
- THE LEVEE TOP/ACCESS ROAD WILL BE COVERED WITH GRAVEL.
- LEVEE BACK SLOPES WILL BE PLANTED WITH SHRUBS AND SELECT TREE SPECIES.
- APPLY COMPOST IN THE LEVEL PLANTING AREAS AND 18" TOPSOIL ON LEVEE SIDE SLOPES AS SHOWN ON PLANS.

PLANTING NOTES:

- PLANT TREES AT VARIABLE SPACING AVERAGING 10' O.C.
- PLANT SHRUBS BETWEEN TREES IN CLUSTER-GAP MOSAIC.
- SHRUBS TO BE SPACED 1'-2' APART IN CLUSTERS OF THREE, APPROXIMATELY 7'-9' APART.
- EACH CLUSTER TO CONTAIN AT LEAST TWO DIFFERENT SPECIES.



WETLAND BUFFER WET/DRY TYPICAL PLAN DETAIL



INSTALL COTTONWOOD BOLES IN OPEN PITS DURING LOG STRUCTURE INSTALLATION OR VIA AUGERING, TYP. SEE DRAWINGS WD9-WD10

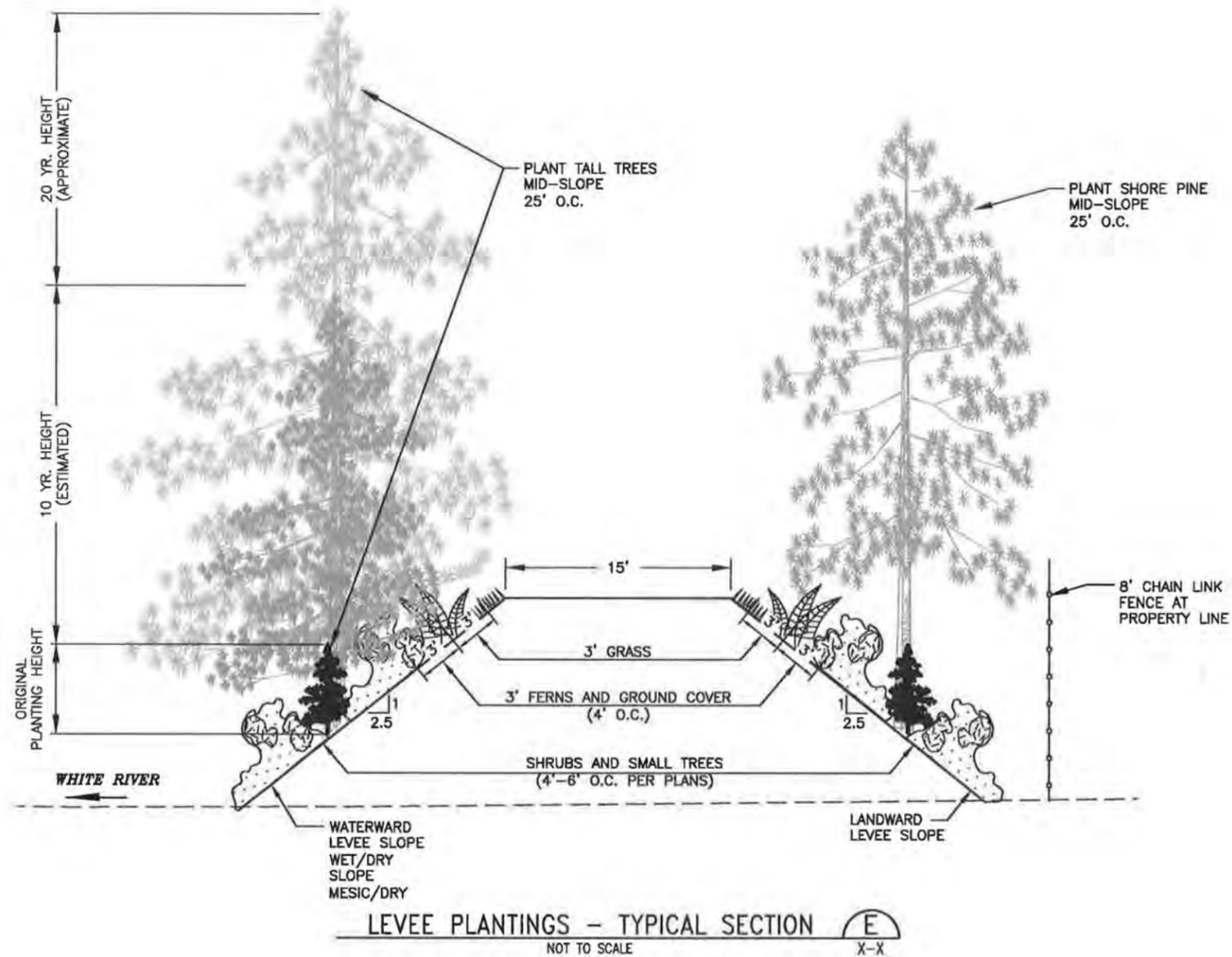
- NOTES:**
- PLANT COTTONWOOD LIVESTAKES 12' O.C. AND WILLOW LIVESTAKES 6' O.C. AMONG COTTONWOOD BOLES.
 - PLANT SHRUBS 4'-6' O.C. IN CLUSTER GAP MOSAIC AS PER WETLAND BUFFER PLAN DETAIL.

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	

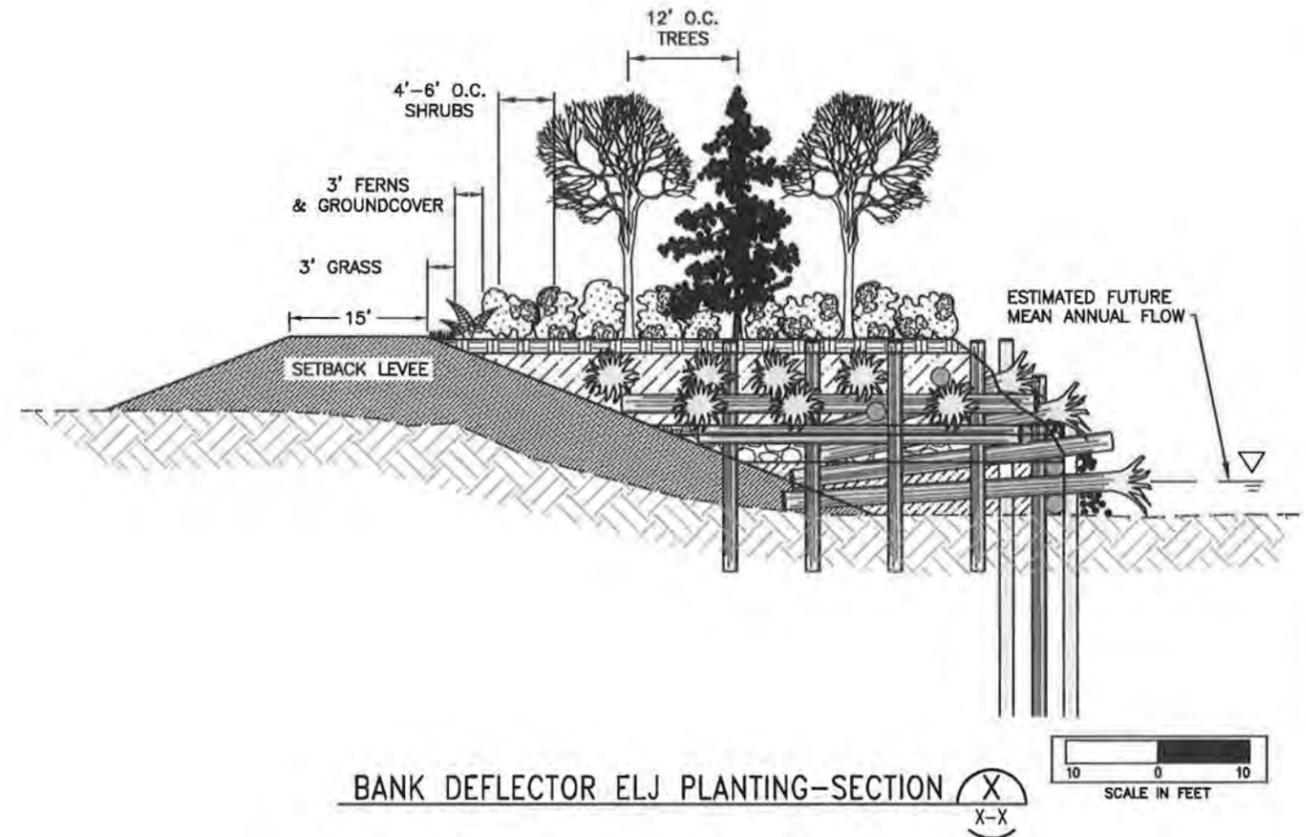
CADD / 60%
5-2013

NUM.	REVISION	BY	DATE

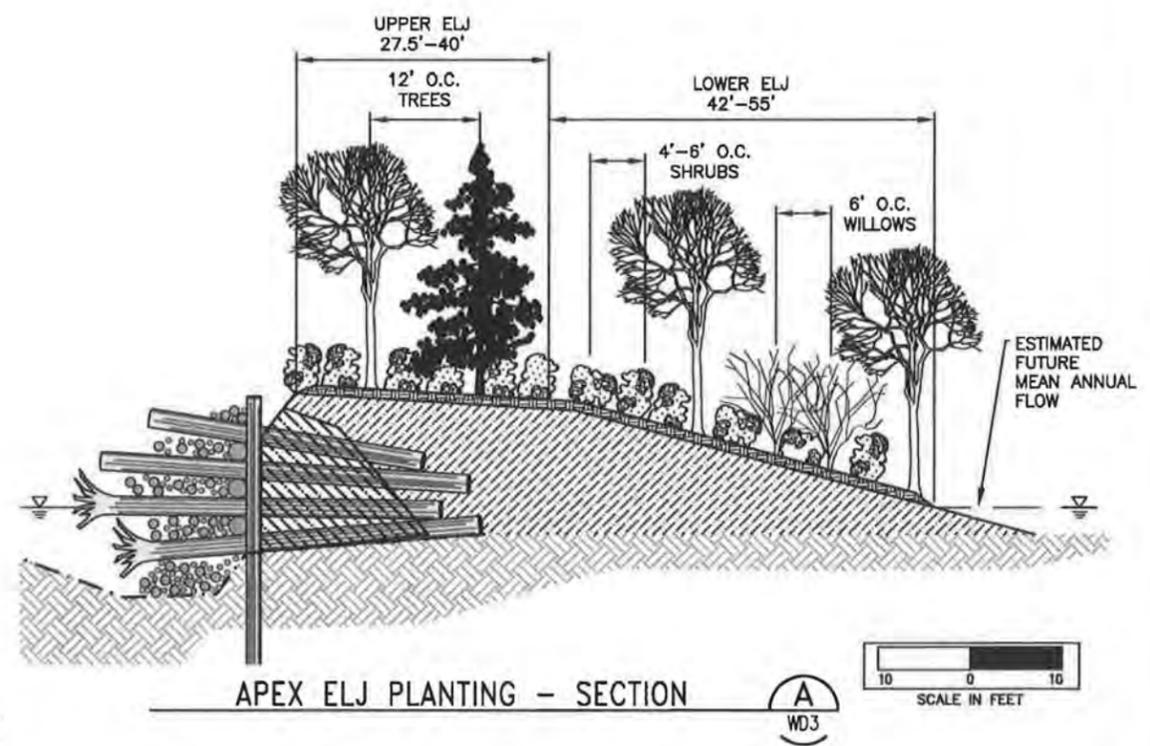
APPROVED: JEANNE STYPULA, PE	4-2013	SRFB #	RCO 087-1910C
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013	PROJECT No	



LEVEE PLANTINGS - TYPICAL SECTION
NOT TO SCALE



BANK DEFLECTOR ELJ PLANTING-SECTION X-X
SCALE IN FEET



APEX ELJ PLANTING - SECTION A-WD3
SCALE IN FEET

- NOTES:
 1. SEE TABLE, DWG LS7 FOR PLANT SPACING.
 2. PLANT "UPPER HALF ELJ" SPECIES AND "LOWER HALF ELJ" SPECIES ABOVE AND BELOW SLOPE BREAK, RESPECTIVELY.

FIELD BOOK:	
SURVEYED:	
SURVEY BASE MAP:	
CHECKED:	
CADD / 60% 5-2013	
NUM.	REVISION
BY	DATE

APPROVED: JEANNE STYPULA, PE	4-2013
PROJECT MANAGER: CHRIS BRUMMER, PE	4-2013
DESIGNED: KATE AKYUZ	4-2013
ECOLOGIST: SARAH McCARTHY	4-2013
DESIGN ENTERED: LICA DULAN	4-2013

SRFB #	RCO 087-1910C
PROJECT No.	1112049 (FL9001)

King County
 Department of Natural Resources and Parks
 Water and Land Resources Division
 River and Floodplain Management Section
 Christie True, Director

COUNTYLINE LEVEE SETBACK
 WHITE RIVER, RIVER MILE 5.00-6.33
 LEVEE MODIFICATION
 PLANTING DETAILS

SHEET
 69
 OF
 69
 SHEETS
 LS8