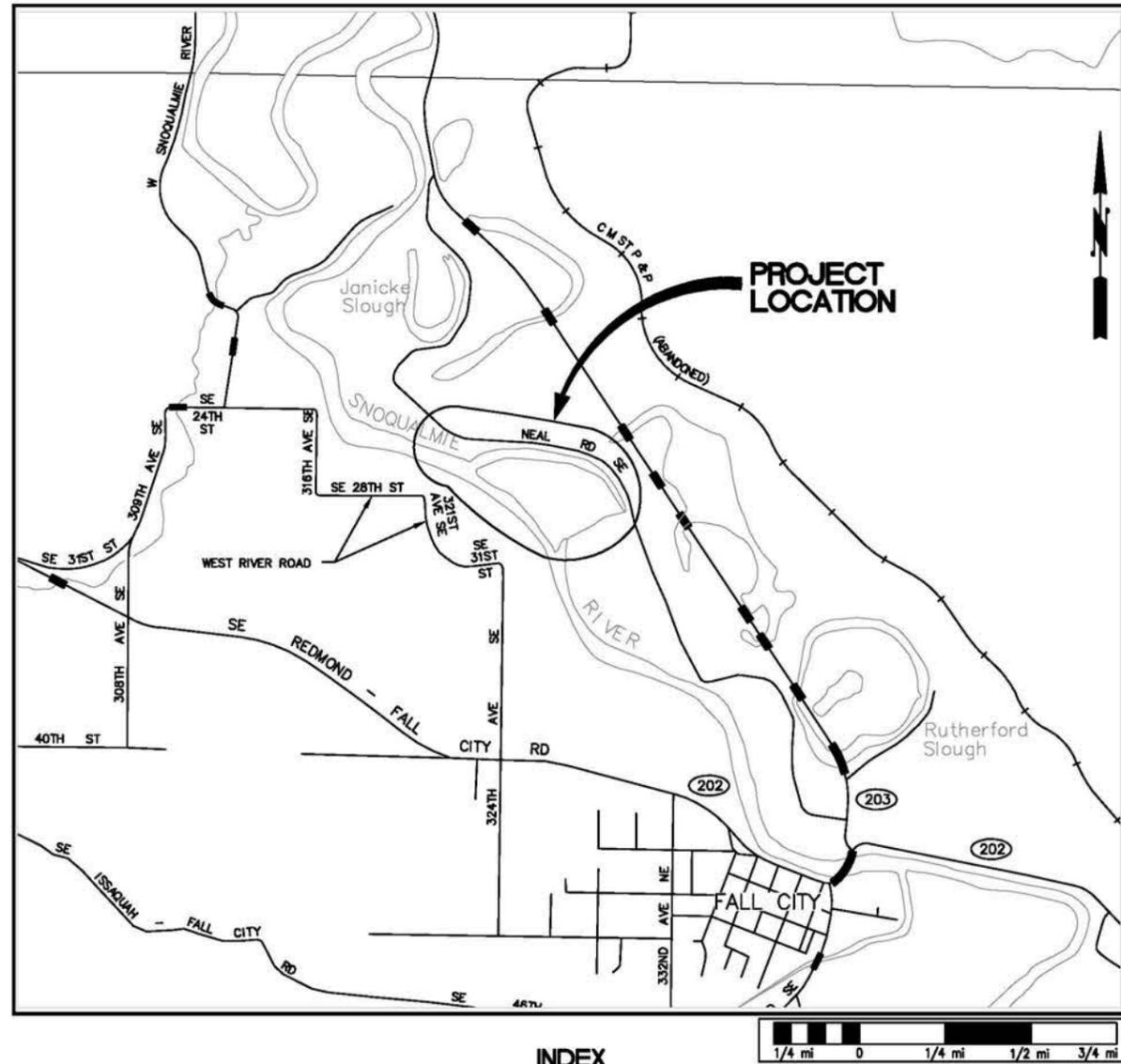
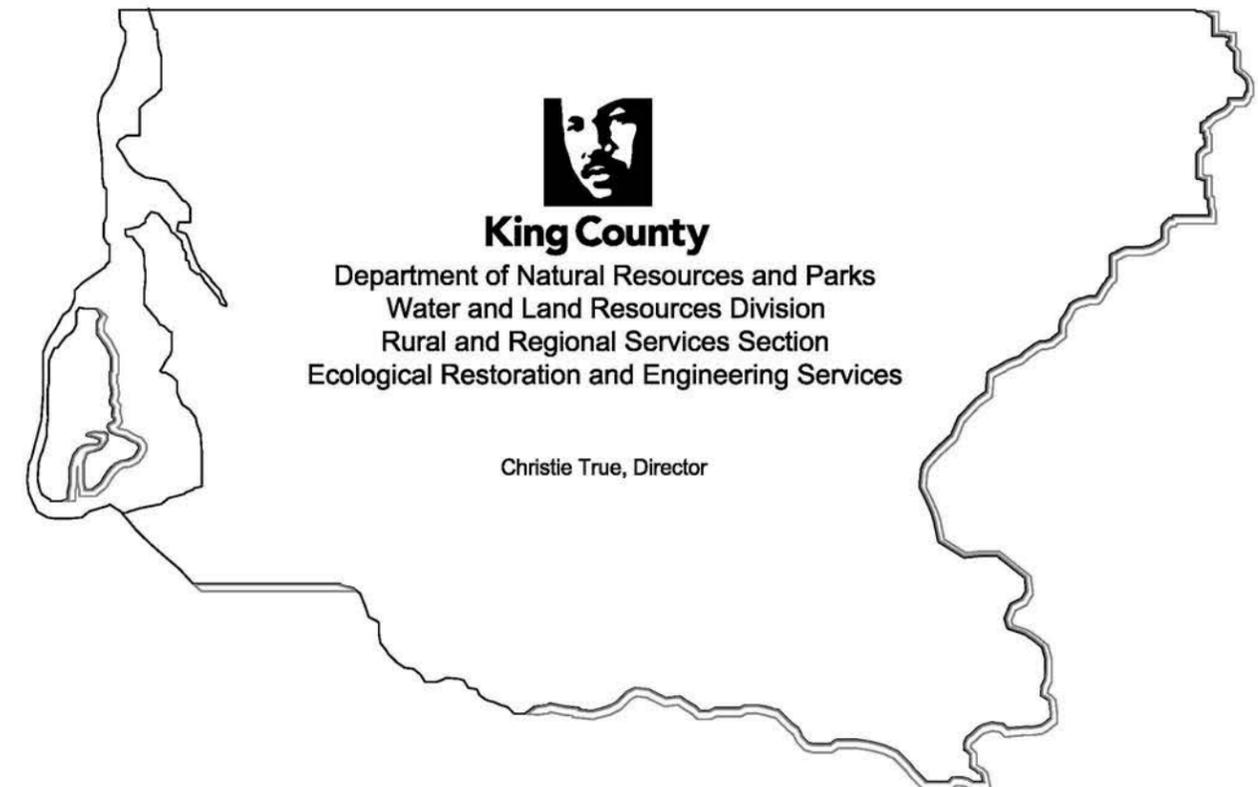


VICINITY MAP



INDEX

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UPPER CARLSON FLOODPLAIN RESTORATION PROJECT

30% DESIGN
 CONTRACT NO. XXXX

- ① ← LOG PLACEMENT ORDER NUMBER
- ② ← KEY NOTE NUMBER
- $\frac{1}{5}$ ← DETAIL REFERENCE NUMBER
DRAWING ON WHICH DETAIL IS SHOWN

- $\frac{A}{5}$ ← SECTION REFERENCE LETTER
DRAWING ON WHICH SECTION IS SHOWN

- SECTION/DETAIL $\frac{1}{5}$ ← SECTION/DETAIL REFERENCE NUMBER/LETTER
SCALE: 1"=XX' ← DRAWING FROM WHICH SECTION/DETAIL WAS TAKEN

"-" INDICATES THAT THE DETAIL/SECTION IS SHOWN ON THE SAME DRAWING
 "TYP" INDICATES THAT THE DETAIL/SECTION IS UNIFORMLY TYPICAL THROUGHOUT PROJECT EXCEPT WHERE OTHERWISE NOTED
 "VAR" SPECIFIES THAT DETAIL/SECTION WAS TAKEN FROM VARIOUS DRAWINGS



NAVD 88
 HORIZONTAL DATUM:
 NAD83 WA STATE PLANE NORTH

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NOTE AND DETAIL/SECTION REFERENCING

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FIELD BOOK: _____	APPROVED: WILL MANSFIELD, P.E. 5-2013
SURVEYED: _____	PROJECT SUPERVISOR: DIANE CONCANNON 5-2013
SURVEY BASE MAP: _____	PROJECT MANAGER: DAN EASTMAN 5-2013
CHECKED: M. EWBANK (HERRERA) 05/08/2013	DESIGNED: B. SCOTT, I MOSTRENKO P.E. 5-2013
KC: 2006-48	DESIGN ENTERED: T. PRESCOTT 5-2013
PROJECT No. HERRERA: 10-04765-060	
SURVEY No. _____	

NUM.	REVISION	BY	DATE

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King County
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 Water and Land Resources Division
 Rural and Regional Services Section
 Ecological Restoration and Engineering Services
 Christie True, Director

UPPER CARLSON FLOODPLAIN RESTORATION PROJECT 30% DESIGN
 VICINITY MAP AND SHEET INDEX

SHEET 1 OF 16 SHEETS
 2006-48

GENERAL CONSTRUCTION NOTES:

- THE WORK INCLUDES CLEARING WORK AREAS OF VEGETATION, STOCKPILING CLEARED VEGETATION, REMOVING AN EXISTING LEVEE AND ROCK ARMORING, CONSTRUCTING A NEW WOOD AND ROCK BASED SETBACK REVETMENT, CONSTRUCTING ENGINEERED LOG JAMS, INSTALLING TIMBER PILES AND IMPORTED AND SALVAGED LOGS IN THE FLOODPLAIN, PLANTING, ROADWAY REGRADING, CONSTRUCTING AND REMOVING TEMPORARY FACILITIES, WORKING AROUND EXISTING ABOVE GROUND UTILITIES, AND RESTORING THE SITE.
- THE WORK SHOWN ON THE PLANS SHALL BE SEQUENCED AND PERFORMED IN A MANNER THAT MINIMIZES IMPACTS TO THE RIVER, WETLANDS, EXISTING VEGETATION, THE WORK SITE AND ADJACENT PRIVATE PROPERTY AND PUBLIC INFRASTRUCTURE.
- THE CONTRACTOR MAY DECIDE HOW TO SEQUENCE THE WORK AT EACH SITE. HOWEVER THIS PROJECT WILL BE CONSTRAINED BY AN IN-WATER WORK WINDOW SET FORTH IN THE PROJECT HPA PERMIT, 404 PERMIT, AND ANY OTHER APPLICABLE PERMIT, OUTSIDE OF WHICH NO IN-WATER WORK MAY OCCUR. WORK WITHIN THE ORDINARY HIGH WATER LINE WILL BE RESTRICTED TO THE DATES SET FORTH IN THE PROJECT HYDRAULIC PROJECT APPROVAL.
- ENGINEER IS DEFINED AS THE OWNER'S REPRESENTATIVE OR OWNER'S ENGINEER. KING COUNTY IS DEFINED AS THE OWNER.
- THE CONTRACTOR SHALL STAKE THE PROJECT CONSTRUCTION LIMITS FOR APPROVAL BY THE OWNER OR ENGINEER AT LEAST 5 WORKING DAYS PRIOR TO COMMENCING ONSITE ACTIVITIES. PROJECT CONSTRUCTION LIMITS SHOWN ON THE PLANS REPRESENT WORK AREAS AND DOES NOT REPRESENT CLEARING LIMITS. CLEARING LIMITS ARE NOT SHOWN. CLEARING MAY OCCUR WITHIN THE PROJECT LIMITS; HOWEVER, THE CONTRACTOR SHALL STAKE CLEARING LIMITS FOR APPROVAL BY THE OWNER OR ENGINEER AT LEAST 5 WORKING DAYS PRIOR TO COMMENCING ONSITE CLEARING ACTIVITIES. ALL CLEARING NECESSARY 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 BY THE OWNER OR ENGINEER. THE CONTRACTOR SHALL PRESERVE AS MUCH EXISTING VEGETATION AS POSSIBLE AND NOT DAMAGE OR DISTURB VEGETATION MARKED BY THE OWNER OR ENGINEER FOR PRESERVATION.
- TREES AND BRUSH NOT SHOWN ON THE PLANS 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 OWNER, PRIOR TO AND DURING CONSTRUCTION ACTIVITIES, FOR USE IN AREAS AS SHOWN ON THE PLANS, AND AS DIRECTED BY THE OWNER OR ENGINEER TO CREATE ROUGH FINISHED GRADED SURFACES. CERTAIN VEGETATION MAY BE FLAGGED BY THE ENGINEER OR OWNER FOR SALVAGE, AND CARE SHALL BE TAKEN TO PROTECT THOSE PLANTS FROM DAMAGE AND DEHYDRATION.
- 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 PROJECT CONSTRUCTION LIMITS SHOWN ON THE PLANS, AND SHALL NOT EXTEND THESE LIMITS UNLESS APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL PROVIDE 24 HOURS ADVANCE NOTICE TO THE OWNER OR ENGINEER PRIOR TO ANY REQUIRED INSPECTION.
- CONSTRUCTION MATERIAL AND EQUIPMENT STAGING AREAS SHALL BE LOCATED ENTIRELY WITHIN THE PROJECT CONSTRUCTION LIMITS. CONSTRUCTION MATERIALS AND EQUIPMENT SHALL NOT BE STORED OUTSIDE OF IDENTIFIED STAGING AREAS, UNLESS APPROVED BY THE OWNER OR ENGINEER. THE CONTRACTOR SHALL PROTECT ALL CONSTRUCTION MATERIALS AND EQUIPMENT FROM DAMAGE AT ALL TIMES.
- NO EQUIPMENT SHALL BE STORED OVERNIGHT BELOW THE ORDINARY HIGH WATER (OHW) LINE.
- 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.
- ALL EQUIPMENT OPERATING IN AREAS OTHER THAN EXISTING UNIMPROVED ACCESS ROADS SHALL USE ONLY BIODEGRADABLE, VEGETABLE BASED HYDRAULIC FLUIDS OR APPROVED OTHER.
- 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.
- THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT NO PETROLEUM PRODUCTS, HYDRAULIC FLUID, CHEMICALS, OR ANY OTHER TOXIC OR DELETERIOUS MATERIALS ARE ALLOWED TO ENTER OR LEACH INTO THE RIVER, WETLANDS OR THE PROJECT SITE FROM EQUIPMENT OR SUPPLIES USED DURING CONSTRUCTION.
- CONTRACTOR SHALL LIMIT MACHINERY MOVEMENT TO THE PROJECT CONSTRUCTION LIMITS DEFINED ON THE PLANS OR IDENTIFIED AS ACCEPTABLE BY THE OWNER OR ENGINEER.
- 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 OWNER OR BY HIS/HER DESIGNEE. WORK SHALL NOT RESUME UNTIL FURTHER APPROVAL BY THE OWNER.
- EROSION AND SEDIMENT CONTROL METHODS SHALL BE USED TO PREVENT SILT-LADEN WATER FROM ENTERING THE RIVER AND WETLANDS. MINIMUM EROSION AND WATER POLLUTION CONTROL AND WATER MANAGEMENT BMPs ARE SHOWN ON THE TESC AND WATER MANAGEMENT PLAN. THE CONTRACTOR SHALL IMPLEMENT THE PLAN, ADD ANY ADDITIONAL MEASURES REQUIRED TO MEET WASHINGTON STATE WATER QUALITY STANDARDS AND PROJECT PERMIT CONDITIONS, AND SHALL BE RESPONSIBLE FOR ALL EROSION AND SEDIMENT CONTROL AND WATER MANAGEMENT NEEDED DURING CONSTRUCTION ACTIVITIES.
- IF HIGH FLOW CONDITIONS THAT MAY CAUSE SILTATION, EROSION OR A DANGEROUS WORK ENVIRONMENT ARE ENCOUNTERED DURING CONSTRUCTION, WORK SHALL STOP IN THOSE AFFECTED AREAS UNTIL THE FLOW SUBSIDES.
- PROJECT SITE CULTURAL RESOURCES ASSESSMENT TO BE COMPLETED BY KING COUNTY DURING THE FINAL DESIGN PHASE OF THE PROJECT.

EXISTING LEGEND

- PARCEL BOUNDARY
- 0924079081 PARCEL NUMBER
- VEGETATION CANOPY BOUNDARY
- APPROX WETLAND "A" BOUNDARY
- ORDINARY HIGH WATER LINE
- ROAD/EDGE OF PAVEMENT
- EXISTING LEVEE/REVETMENT
- EXISTING SLOUGH
- EXISTING MAJOR CONTOUR (10 FT)
- EXISTING MINOR CONTOUR (2 FT)
- EXISTING BUILDING
- EXISTING LARGE TREE
- EXISTING UTILITY POLE

ABBREVIATIONS

- APPROX APPROXIMATE
- AVG AVERAGE
- BMP BEST MANAGEMENT PRACTICE
- CF CUBIC FEET
- CFS CUBIC FEET PER SECOND
- DBH DIAMETER AT BREST HEIGHT
- DIA DIAMETER
- EL ELEVATION
- ELJ ENGINEERED LOGJAM
- EXIST EXISTING
- FT FEET
- HORIZ HORIZONTAL
- IN INCHES
- LF LINEAR FEET
- MAX MAXIMUM
- MIN MINIMUM
- NTS NOT TO SCALE
- OC ON CENTER
- OHW ORDINARY HIGH WATER
- STA STATION
- TEMP TEMPORARY
- TESC TEMPORARY EROSION AND SEDIMENT CONTROL
- TOT TOTAL
- TYP TYPICAL
- VERT VERTICAL
- WET WETLAND
- WSE WATER SURFACE ELEVATION

PROPOSED LEGEND

- PROJECT CONSTRUCTION LIMITS
- LEVEE REMOVAL ALIGNMENT
- TEMPORARY CONSTRUCTION ACCESS ROAD
- WETTED AREAS AT APPROXIMATE LOW FLOW
- LEVEE AND ROCK ARMORING REMOVAL WORK ZONE
- FLOODPLAIN LOG ROUGHENING ZONE
- SETBACK REVETMENT ZONE
- ENGINEERED LOGJAM AND BANK ROUGHENING LOG STRUCTURE ZONE
- FLOODPLAIN TREE REMOVAL ZONE
- NEAL ROAD GRADE MODIFICATION ZONE
- CONSTRUCTION MATERIAL STOCKPILE AREA
- PERMANENT SPOILS DISPOSAL AREA
- EQUIPMENT STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- RIPRAP PLACEMENT ZONE
- TEMPORARY SILT CURTAIN
- STRAW WATTLES OR SILT FENCE
- TEMPORARY CONSTRUCTION FENCE
- LOG REVETMENT
- FLOODPLAIN ROUGHENING LOG WITHOUT PILES
- FLOODPLAIN ROUGHENING LOG STRUCTURE WITH PILES
- BANK ROUGHENING LOG STRUCTURE WITH PILES
- BANK DEFLECTOR ELJ
- ROW OF TIMBER PILES
- TEMPORARY BRIDGE CROSSING

GENERAL LEGEND NOTES:

- ITEMS IN LEGEND MAY DISPLAY DIFFERENTLY IN LEGEND THAN ON INDIVIDUAL SHEETS DUE TO SCALE AND FOR CLARITY.

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KC: 2006-48			
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APPROVED: WILL MANSFIELD, P.E.	5-2013
PROJECT SUPERVISOR: DIANE CONCANNON	5-2013
PROJECT MANAGER: DAN EASTMAN	5-2013
DESIGNED: B. SCOTT, I MOSTRENKO P.E.	5-2013
DESIGN ENTERED: T. PRESCOTT	5-2013

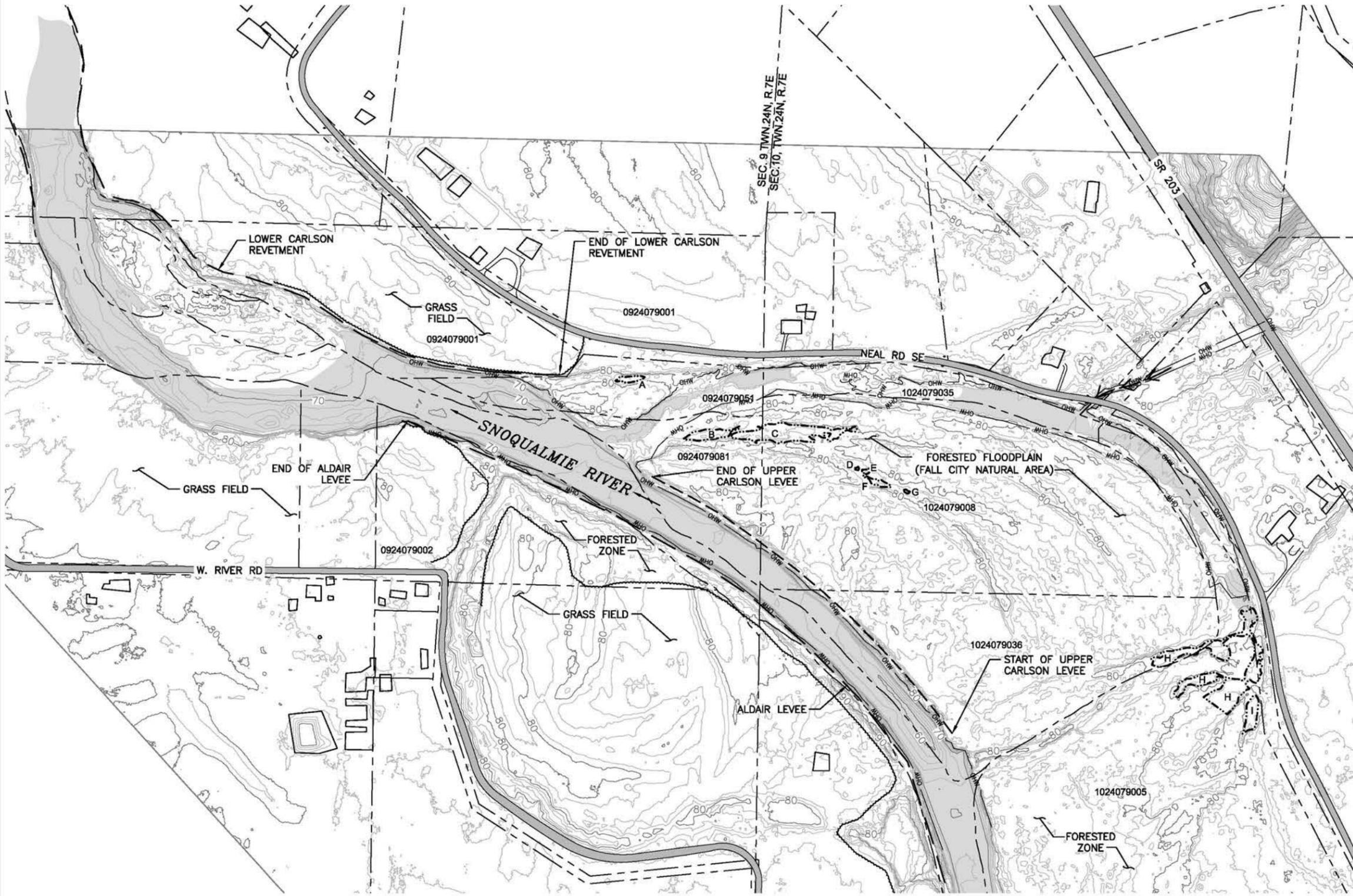
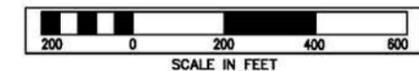
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 Ecological Restoration and Engineering Services
 Christie True, Director

UPPER CARLSON FLOODPLAIN RESTORATION PROJECT 30% DESIGN
NOTES, LEGEND AND ABBREVIATIONS

SHEET **2** OF **16** SHEETS
2006-48



NOTES:

1. BASIS OF BEARING IS THE WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE, N.A.D. 83/91.
2. FLOODPLAIN AND UPLAND CONTOURS SHOWN ARE BASED ON 2009 AND 2011 LIDAR DATA. RIVER CONTOURS SHOWN ARE BASED ON 2012 RIVER BATHYMETRY SURVEY.
3. PARCEL AND WETLAND BOUNDARIES, OHW LINES, EXIST TREES AND EXIST LEVEE ALIGNMENTS SHOWN ARE PROVIDED BY KING COUNTY.
4. NEAL RD SE AND W. RIVER RD DELINEATED BASED ON 2009 AERIAL PHOTOGRAPHY OF SITE PROVIDED BY KING COUNTY.
5. INDIVIDUAL TREES WITHIN THE PROJECT AREA ARE NOT SHOWN ON THIS SHEET FOR CLARITY. SEE SHEETS 6, 7, 10 AND 13 FOR ADDITIONAL TREE INFORMATION.

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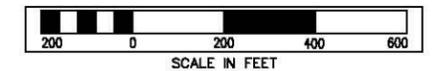
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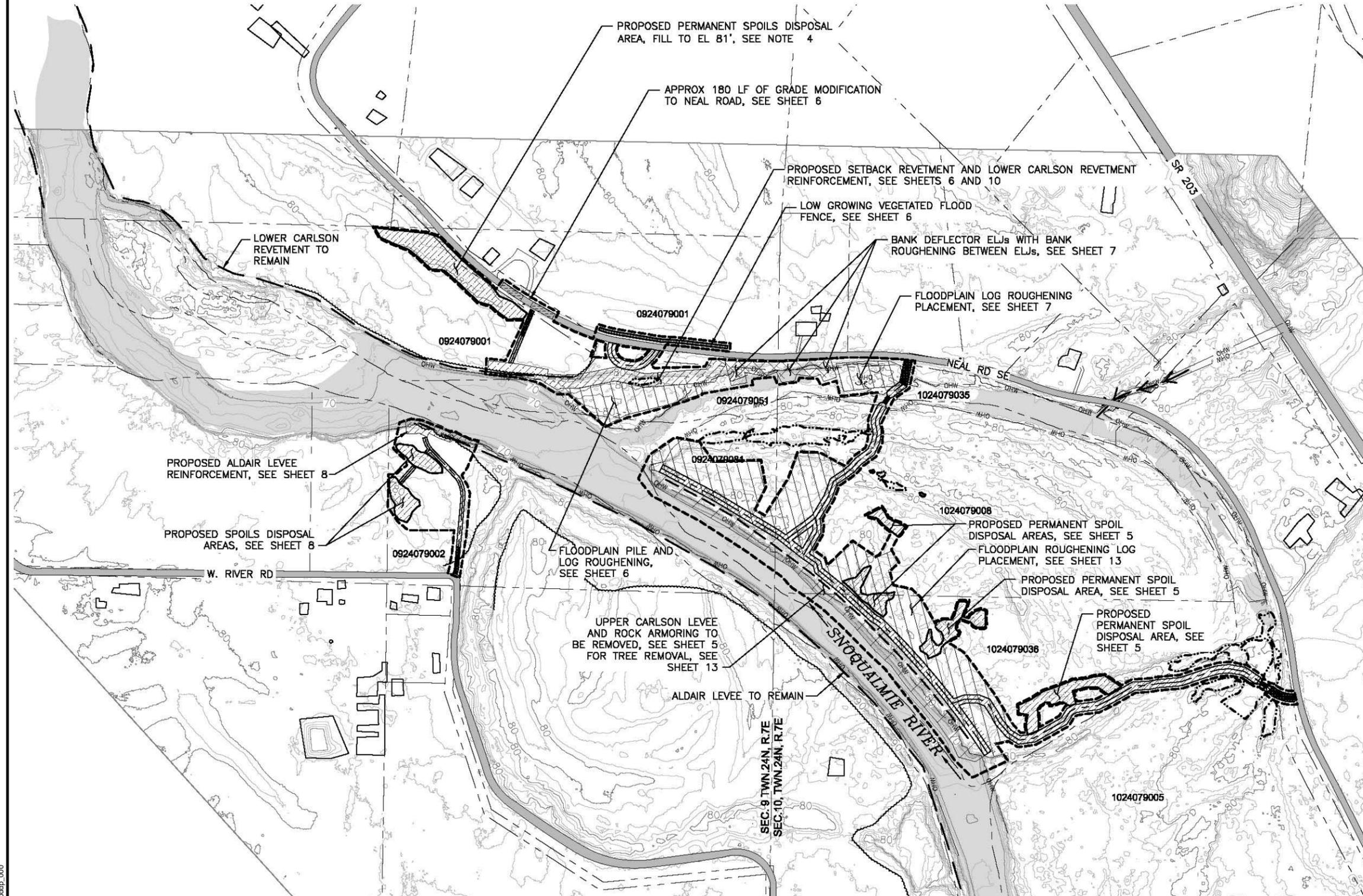
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RESTORATION PROJECT 30% DESIGN**
EXISTING CONDITIONS

SHEET
3
 OF
16
 SHEETS
2006-48



LEGEND

	PROJECT CONSTRUCTION LIMITS
	TEMPORARY CONSTRUCTION ACCESS ROAD
	LEVEE AND ROCK ARMORING REMOVAL WORK ZONE
	FLOODPLAIN LOG ROUGHENING ZONE
	SETBACK REVETMENT ZONE
	ENGINEERED LOGJAM AND BANK ROUGHENING LOG STRUCTURE ZONE
	PERMANENT SPOILS DISPOSAL ZONE
	NEAL ROAD GRADE MODIFICATION ZONE
	ORDINARY HIGH WATER LINE



- NOTES:**
- PROJECT CONSTRUCTION LIMITS ARE APPROXIMATE, WILL BE FINALIZED DURING THE FINAL DESIGN PHASE OF THE PROJECT, AND WILL BE LOCATED TO MINIMIZE DISTURBANCE TO EXISTING PROPERTY, VEGETATION AND ALL ENVIRONMENTALLY SENSITIVE AREAS.
 - THE WORK SHOWN INCLUDES REMOVAL OF THE EXISTING UPPER CARLSON LEVEE AND ROCK ARMORING, CONSTRUCTION OF A SETBACK ROCK AND LOG REVETMENT AND ENGINEERED LOGJAM STRUCTURES, PLACEMENT OF TIMBER PILES AND LOGS IN THE FLOODPLAIN, REINFORCING THE EXISTING ALDAIR LEVEE AND LOWER CARLSON REVETMENT, CLEARING OF VEGETATION, TOPSOIL REMOVAL AND PLACEMENT, AND USING SPOILS TO PERMANENTLY FILL FLOODPLAIN DEPRESSIONS AND CREATE FLOODPLAIN HUMMOCKS.
 - REMOVE AND DISPOSE OF GRASS FROM SPOILS DISPOSAL AREA, THEN REMOVE UPPER 12 IN OF TOPSOIL AND STOCKPILE PRIOR TO FILLING WITH NATIVE SPOILS. FILL TO WITHIN 12 IN OF TOP OF FILL AREA WITH NATIVE BANK AND ALLUVIAL SPOILS. DISPOSAL OF ANGULAR ROCK IS NOT ALLOWED. PLACE TOPSOIL OVER SPOILS AND SPREAD EVENLY. DO NOT COMPACT TOPSOIL.
 - SEE SHEETS 14-16 FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND WATER MANAGEMENT BMPs TO BE USED TO ISOLATE WORK AREAS AND PREVENT SILT-LADEN WATER FROM ENTERING THE RIVER AND WETLANDS.

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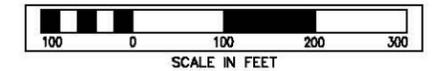
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UPPER CARLSON FLOODPLAIN RESTORATION PROJECT 30% DESIGN
PROJECT SITE PLAN

SHEET
4
 OF
16
 SHEETS
2006-48



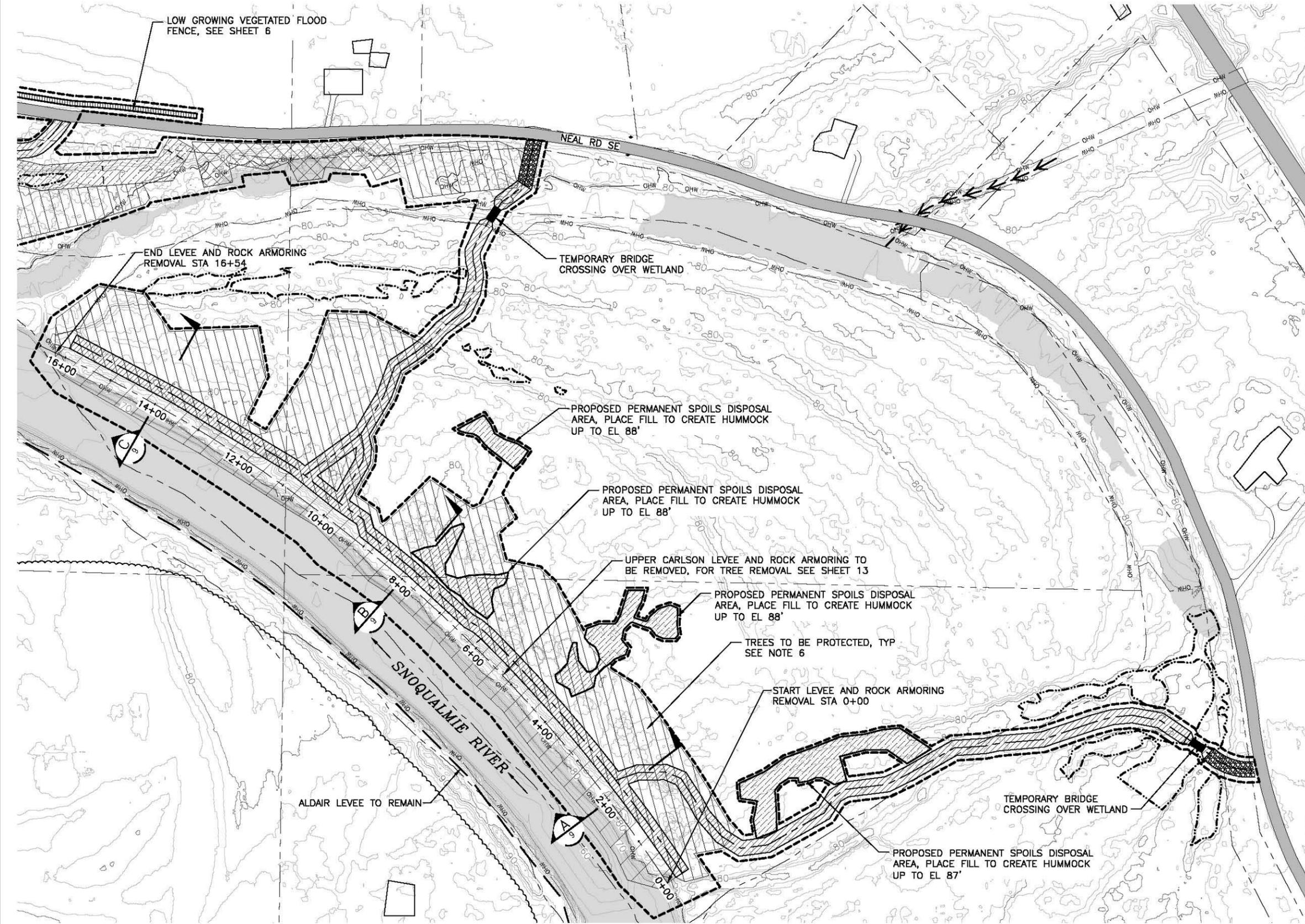
LEGEND

- PROJECT CONSTRUCTION LIMITS
- LEVEE REMOVAL ALIGNMENT
- TEMPORARY CONSTRUCTION ACCESS ROAD
- LEVEE AND ROCK ARMORING REMOVAL WORK ZONE
- FLOODPLAIN LOG ROUGHENING ZONE
- SETBACK REVETMENT ZONE
- ENGINEERED LOG JAM AND BANK ROUGHENING LOG STRUCTURE ZONE
- PERMANENT SPOILS DISPOSAL ZONE
- ORDINARY HIGH WATER LINE

NOTES:

1. PROJECT CONSTRUCTION LIMITS AND TEMPORARY CONSTRUCTION ACCESS ROADS SHOWN ARE APPROXIMATE, WILL BE FINALIZED DURING THE FINAL DESIGN PHASE OF THE PROJECT, AND WILL BE LOCATED TO MINIMIZE DISTURBANCE TO EXISTING PROPERTY AND VEGETATION.
2. TEMPORARY CONSTRUCTION ACCESS ROAD LOCATION ALONG UPPER CARLSON LEVEE WILL VARY AS LEVEE REMOVAL WORK IS COMPLETED.
3. EXCAVATED ALLUVIUM FROM LEVEE CORE SHALL BE USED FOR PERMANENTLY FILLING FLOODPLAIN DEPRESSIONS AND CREATING FLOODPLAIN HUMMOCKS. SURPLUS ALLUVIUM SPOILS SHALL BE REMOVED AND DISPOSED OF OFF SITE.
4. FOLLOWING LEVEE REMOVAL CONSTRUCT BENCH BELOW FINAL GRADE AS NECESSARY TO COMPLETE ROCK REMOVAL. BACKFILL BENCH FOLLOWING ROCK REMOVAL WITH NATIVE SPOILS, BUT DO NOT COMPACT. SURPLUS BENCH SPOILS SHALL BE REMOVED AND DISPOSED OF OFF SITE OR USED FOR PERMANENTLY FILLING FLOODPLAIN DEPRESSIONS.
5. ROCK SUITABLE FOR RE-USE SHALL BE HAULED TO SETBACK REVETMENT AND ELJ_s FOR RE-USE. ROCK NOT SUITABLE FOR RE-USE WILL BE REMOVED AND DISPOSED OF OFF SITE.
6. ONLY TREES TO BE PROTECTED ALONG THE LEVEE ARE SHOWN. SEE SHEET 13 FOR TREE REMOVAL EXTENTS ASSOCIATED WITH LEVEE REMOVAL WORK.

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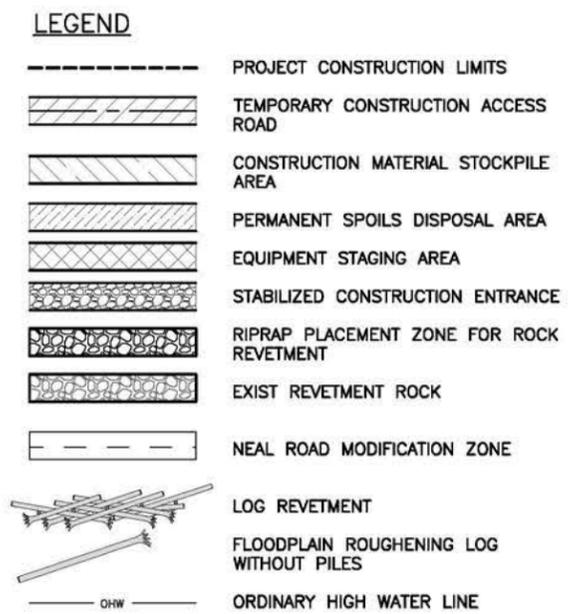
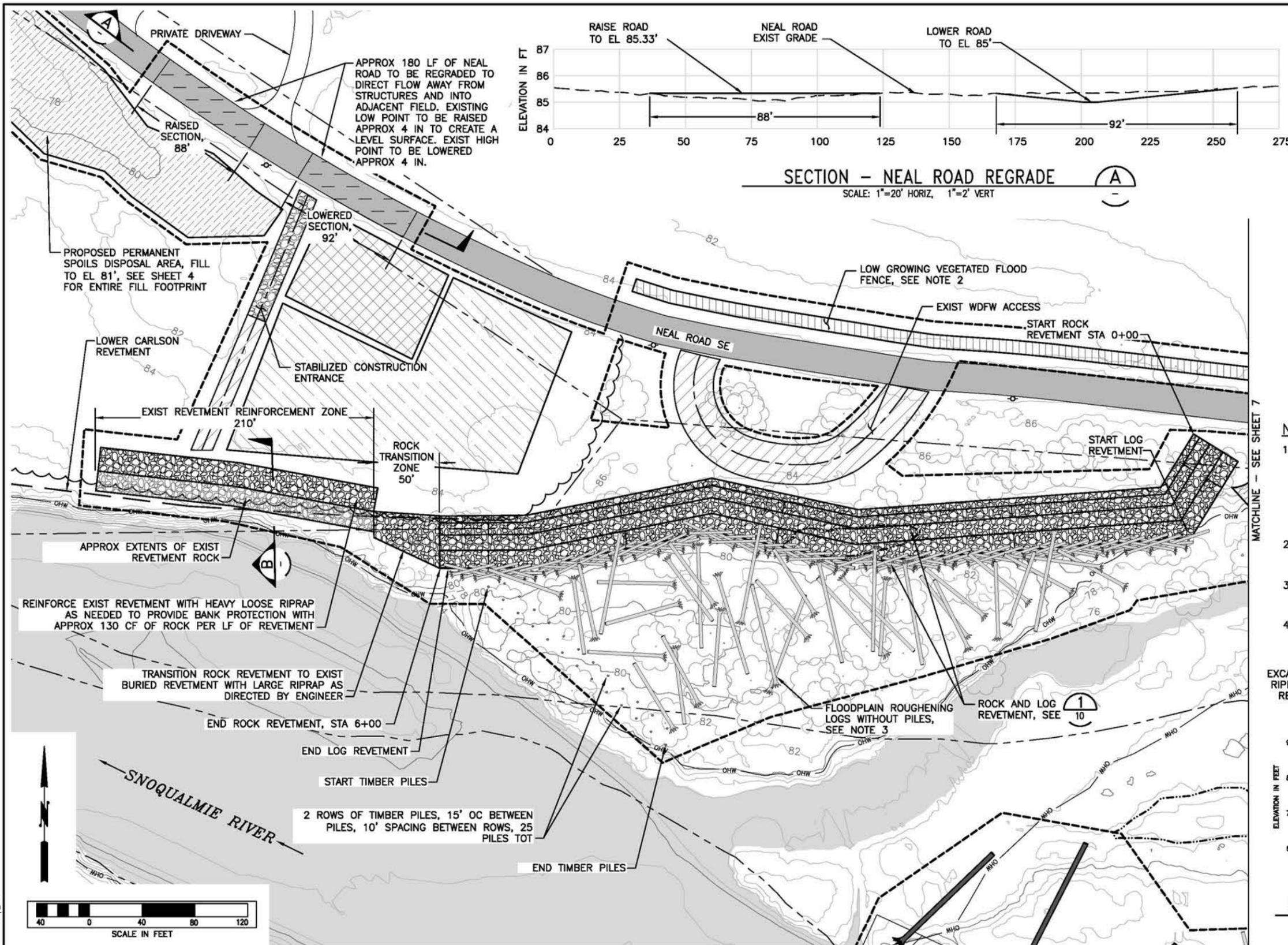
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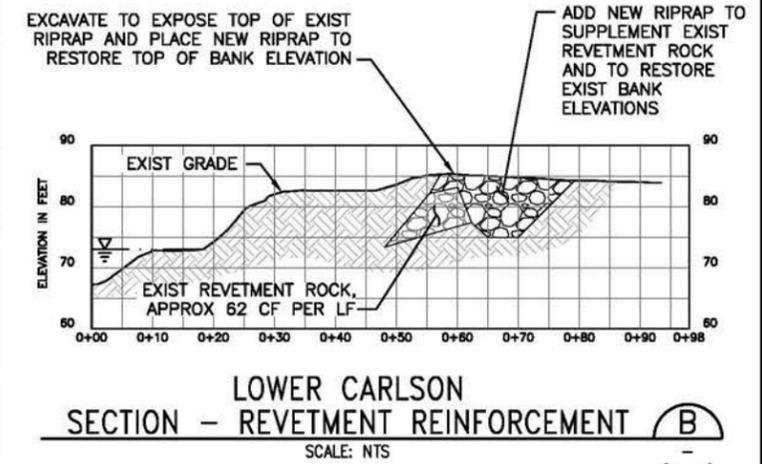
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**UPPER CARLSON FLOODPLAIN
RESTORATION PROJECT 30% DESIGN**
**LEVEE AND REVETMENT REMOVAL
SITE PLAN**

SHEET
5
 OF
16
 SHEETS
2006-48



- NOTES:**
- TREES AND BRUSH NOT SHOWN WITHIN THE PROJECT CONSTRUCTION LIMITS WILL BE ENCOUNTERED DURING CONSTRUCTION. ALL TREES AND BRUSH REMOVED FOR CONSTRUCTION SHALL BE STOCKPILED FOR USE AS RACKING LOGS AND SLASH MATERIAL AND FOR USE IN AREAS SHOWN ON THE PLANS TO CREATE ROUGHENED FINISHED SURFACES. CERTAIN VEGETATION MAY BE FLAGGED BY THE ENGINEER OR OWNER FOR SALVAGE OR PRESERVATION AND CARE SHALL BE TAKEN TO PROTECT THOSE PLANTS.
 - FLOOD FENCE SHALL CONSIST OF A 480 FT LONG AND 10 FT WIDE ROW OF DENSE PLANTINGS OF LOW GROWING NATIVE SHRUBS. EDGE OF FLOOD FENCE SHALL BE 10 FT FROM EDGE OF PAVEMENT.
 - PLACE SLASH (WOOD MATERIAL LESS THAN 12 INCHES IN DIAMETER) GENERATED FROM CONSTRUCTION ACTIVITIES WITHIN THE FLOODPLAIN LOG ROUGHENING ZONE AS DIRECTED BY ENGINEER.
 - REMOVE APPROX 100 LF OF THE EXIST BURIED LOWER CARLSON REVETMENT TO COMPLETE CONSTRUCTION. EXTENTS OF SUBSURFACE ROCK IS UNKNOWN. RE-USE ROCK IN TRANSITION STRUCTURE.



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SURVEY BASE MAP: _____	PROJECT MANAGER: DAN EASTMAN 5-2013
CHECKED: M. EWBANK (HERRERA) 05/08/2013	DESIGNED: B. SCOTT, I MOSTRENKO P.E. 5-2013
KC: 2006-48	DESIGN ENTERED: T. PRESCOTT 5-2013
PROJECT No. HERRERA: 10-04765-060	
SURVEY No. _____	
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Department of Natural Resources and Parks
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Ecological Restoration and Engineering Services

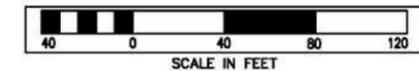
Christie True, Director

UPPER CARLSON FLOODPLAIN RESTORATION PROJECT 30% DESIGN

NEAL ROAD SE PROTECTION SITE PLAN - SHEET 1 OF 2

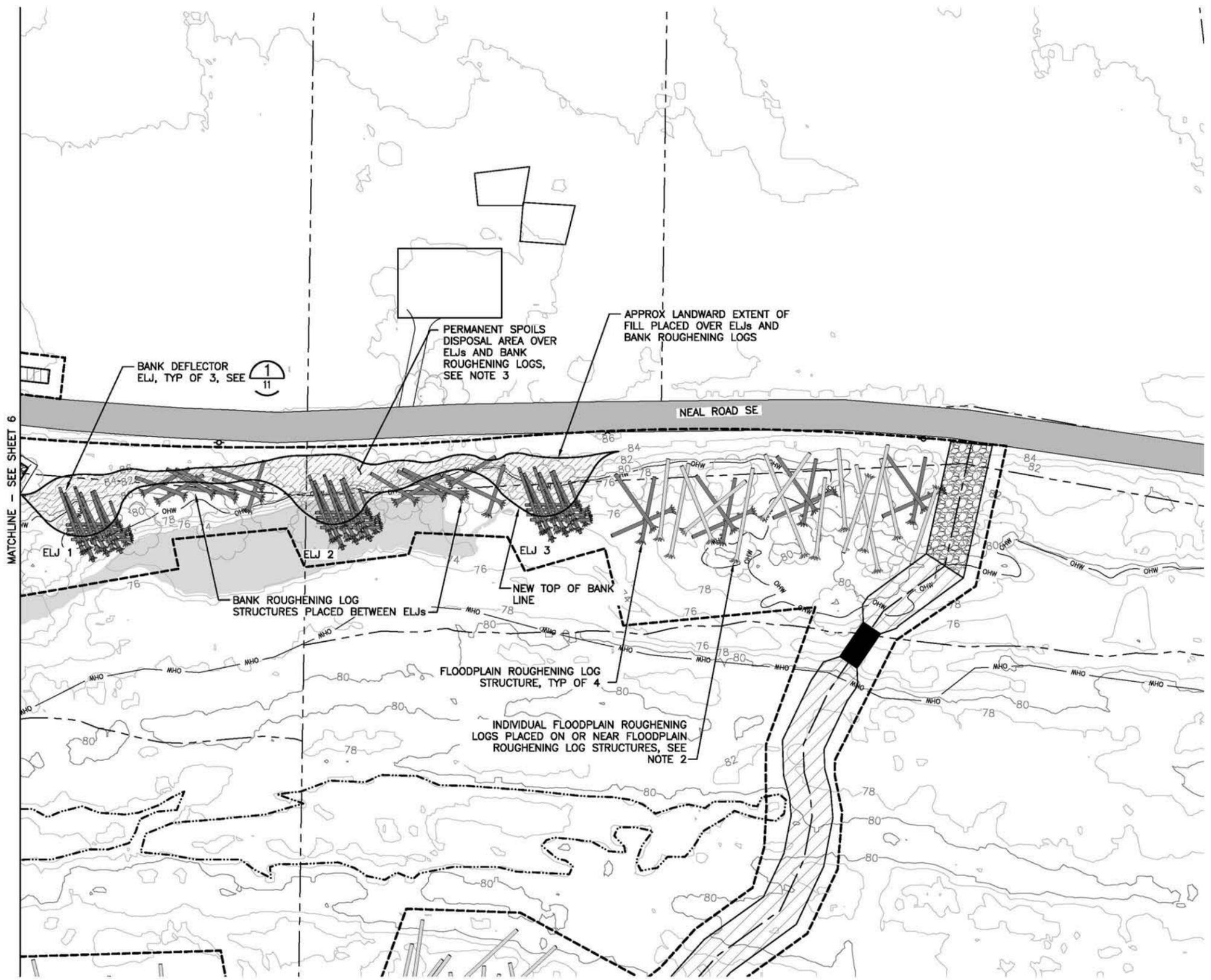
SHEET 6 OF 16 SHEETS

2006-48



LEGEND

- PROJECT CONSTRUCTION LIMITS
- TEMPORARY CONSTRUCTION ACCESS ROAD
- STABILIZED CONSTRUCTION ENTRANCE
- PERMANENT SPOILS DISPOSAL AREA FOR ELJs AND BANK ROUGHENING LOGS
- FLOODPLAIN ROUGHENING LOG STRUCTURE WITH PILES
- FLOODPLAIN ROUGHENING LOG WITHOUT PILES
- BANK ROUGHENING LOG STRUCTURE WITH PILES
- BANK DEFLECTOR ELJ
- TEMPORARY 30' BRIDGE CROSSING OVER WETLAND
- ORDINARY HIGH WATER LINE



NOTES:

1. TREES AND BRUSH NOT SHOWN WITHIN THE PROJECT CONSTRUCTION LIMITS WILL BE ENCOUNTERED DURING CONSTRUCTION. ALL TREES AND BRUSH REMOVED FOR CONSTRUCTION SHALL BE STOCKPILED FOR USE AS RACKING LOGS AND SLASH MATERIAL AND FOR USE IN AREAS SHOWN ON THE PLANS TO CREATE ROUGHENED FINISHED SURFACES. CERTAIN VEGETATION MAY BE FLAGGED BY THE ENGINEER OR OWNER FOR SALVAGE OR PRESERVATION AND CARE SHALL BE TAKEN TO PROTECT THOSE PLANTS.
2. PLACE SLASH (WOOD MATERIAL LESS THAN 12 INCHES IN DIAMETER) GENERATED FROM CONSTRUCTION ACTIVITIES WITHIN THE FLOODPLAIN LOG ROUGHENING ZONE AS DIRECTED BY ENGINEER.
3. ALLUVIUM AND ROCK REMOVED FROM THE UPPER CARLSON LEVEE SHALL BE PLACED WITHIN THE EXTENTS SHOWN TO PROVIDE BALLAST FOR THE ELJs AND THE BANK ROUGHENING LOGS.

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KC: 2006-48			
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PROJECT MANAGER: DAN EASTMAN	5-2013
DESIGNED: B. SCOTT, I MOSTRENKO P.E.	5-2013
DESIGN ENTERED: T. PRESCOTT	5-2013

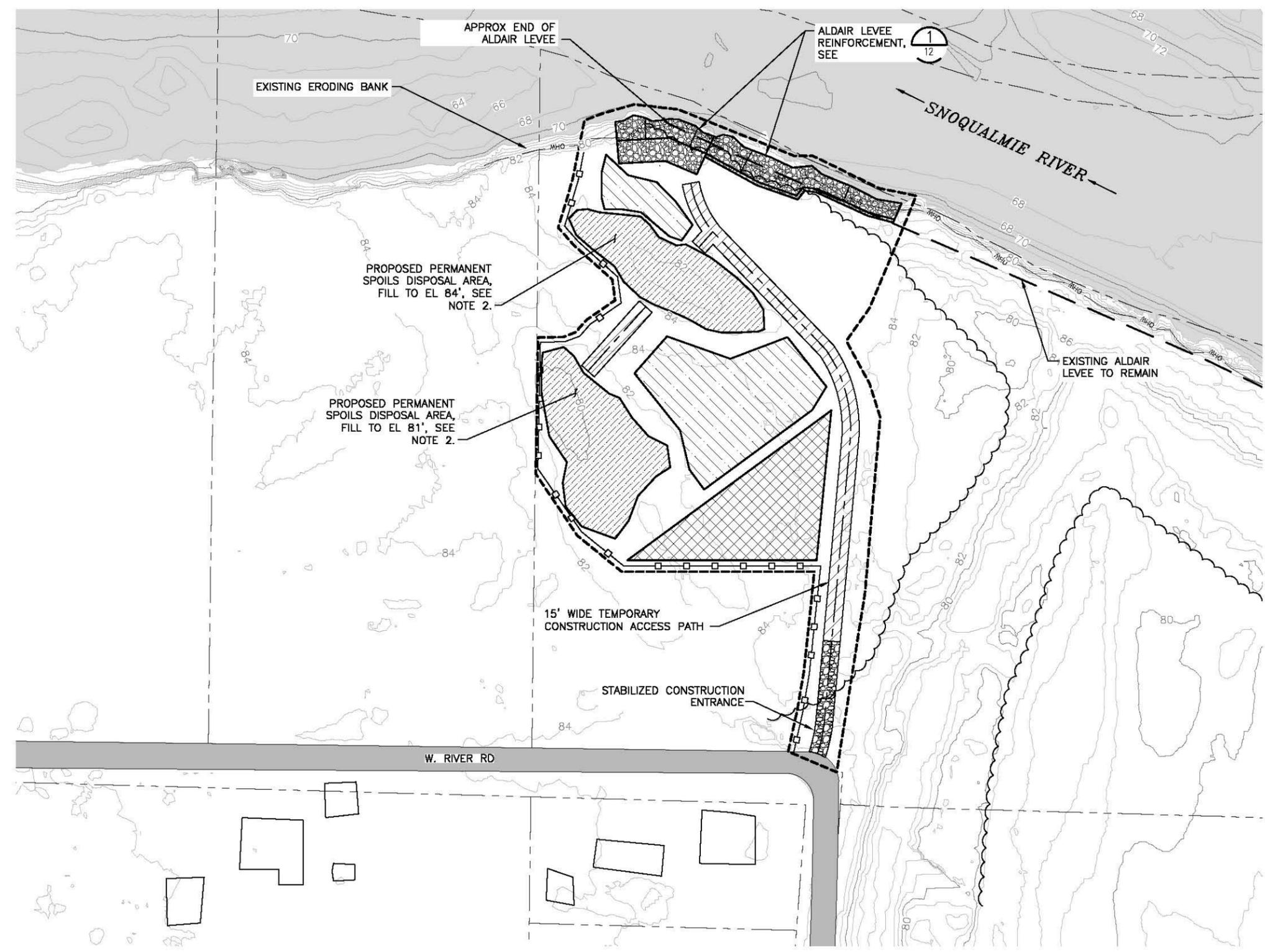
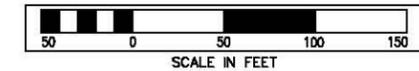
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NEAL ROAD SE PROTECTION SITE PLAN - SHEET 2 OF 2

SHEET **7** OF **16** SHEETS
2006-48



LEGEND

- PROJECT CONSTRUCTION LIMITS
- TEMPORARY CONSTRUCTION ACCESS ROAD
- CONSTRUCTION MATERIAL STOCKPILE AREA
- PERMANENT SPOILS DISPOSAL AREA
- EQUIPMENT STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- RIPRAP PLACEMENT ZONE FOR ALDAIR LEVEE REINFORCEMENT
- TEMPORARY CONSTRUCTION FENCE
- ORDINARY HIGH WATER LINE

NOTES:

1. PROJECT CONSTRUCTION LIMITS, TEMPORARY CONSTRUCTION ACCESS ROADS, STOCKPILE AREAS, SPOIL DISPOSAL AREAS AND STAGING AREAS SHOWN ARE APPROXIMATE, WILL BE FINALIZED DURING THE FINAL DESIGN PHASE OF THE PROJECT, AND WILL BE LOCATED TO MINIMIZE DISTURBANCE TO EXISTING PROPERTY AND VEGETATION SUBJECT TO LANDOWNER NEGOTIATION.
2. REMOVE AND DISPOSE OF GRASS FROM SPOILS DISPOSAL AREA, THEN REMOVE UPPER 12 IN OF TOPSOIL AND STOCKPILE PRIOR TO FILLING WITH NATIVE SPOILS. FILL TO WITHIN 12 IN OF TOP OF FILL AREA WITH NATIVE BANK AND ALLUVIAL SPOILS. DISPOSAL OF ANGULAR ROCK IS NOT ALLOWED. PLACE TOPSOIL OVER SPOILS AND SPREAD EVENLY. DO NOT COMPACT TOPSOIL.
3. WORK AREA WILL BE RESTORED TO EXISTING CONDITIONS FOLLOWING COMPLETION OF STRUCTURES. WORK AREA TO BE PLANTED WITH NATIVE VEGETATION BY OWNER FOLLOWING CONTRACTOR DEMOBILIZATION SUBJECT TO LANDOWNER NEGOTIATION.

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SURVEY No. _____			
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PROJECT	
SUPERVISOR: DIANE CONCANNON	5-2013
PROJECT MANAGER: DAN EASTMAN	5-2013
DESIGNED: B. SCOTT, I MOSTRENKO P.E.	5-2013
DESIGN ENTERED: T. PRESCOTT	5-2013

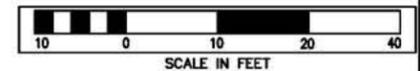
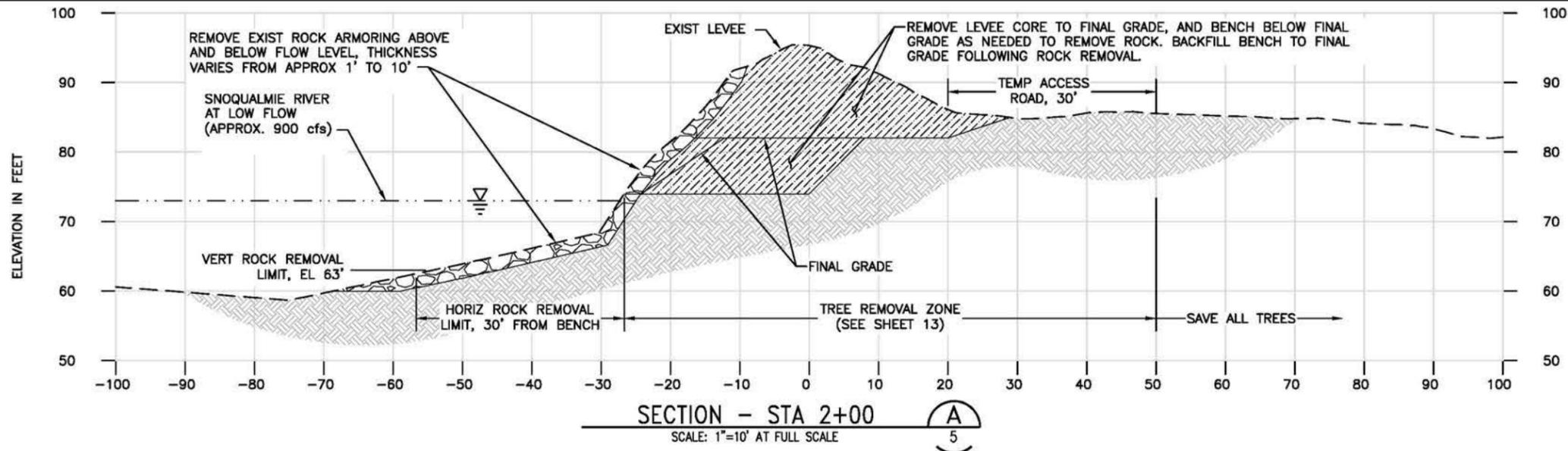
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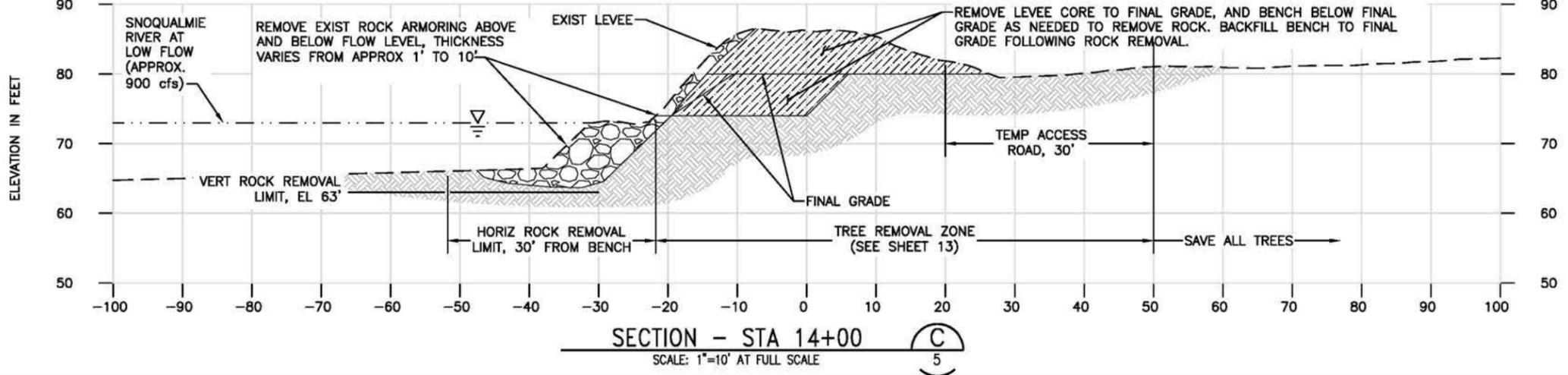
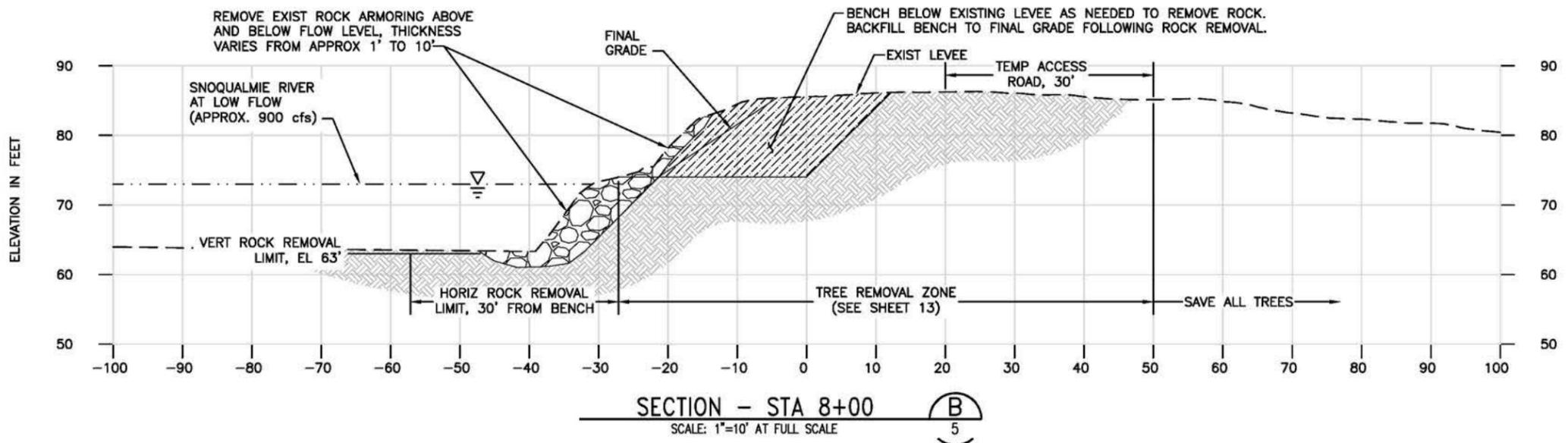
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**UPPER CARLSON FLOODPLAIN
RESTORATION PROJECT 30% DESIGN**
ALDAIR LEVEE REINFORCEMENT SITE PLAN

SHEET
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 OF
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 SHEETS
2006-48



- NOTES:**
1. EXTENTS OF EXIST ROCK SHOWN ARE APPROX AND SHALL BE VERIFIED BY THE CONTRACTOR DURING ROCK REMOVAL WORK.
 2. TEMP CONSTRUCTION ACCESS ROAD MAY BE ALIGNED OVER LEVEE REMOVAL FOOTPRINT AND WITHIN THE TEMP BENCH FOLLOWING LEVEE REMOVAL.
 3. LEVEE CORE AND BENCH SPOILS MATERIAL IS ALLUVIAL SOILS CONSISTING OF SANDS, GRAVELS AND COBBLES.
 4. ROCK ARMORING CONSISTS OF ANGULAR AND SUB-ANGULAR ROCK APPROX 1'-5' IN DIAMETER. SOME SMALLER AND LARGER ROCK MAY ALSO BE PRESENT.



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PROJECT No. HERRERA: 10-04765-060				
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PROJECT MANAGER: DAN EASTMAN	5-2013
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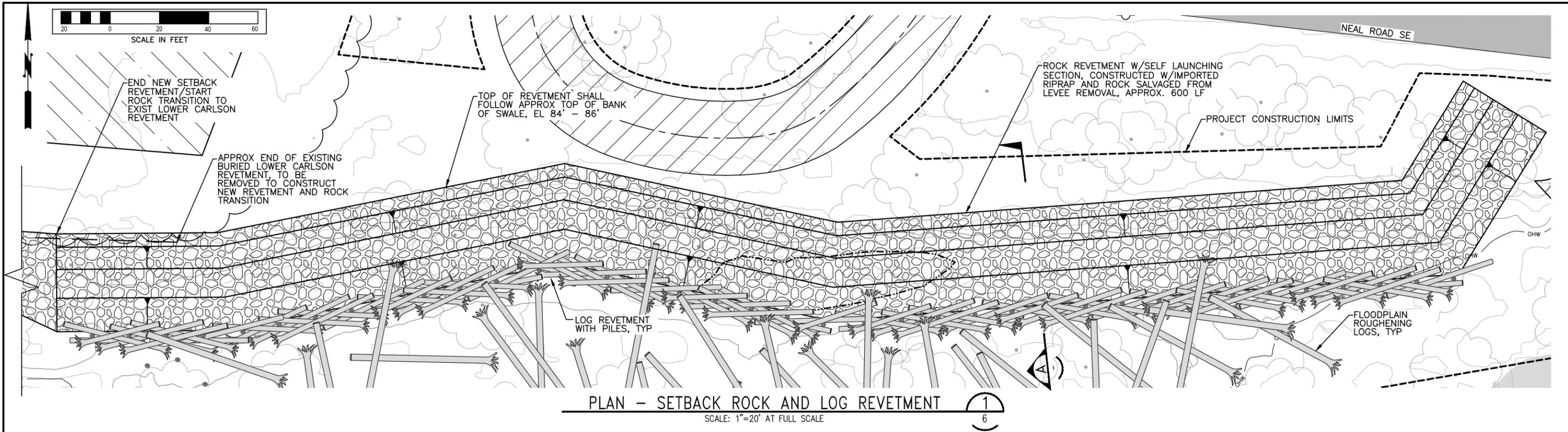


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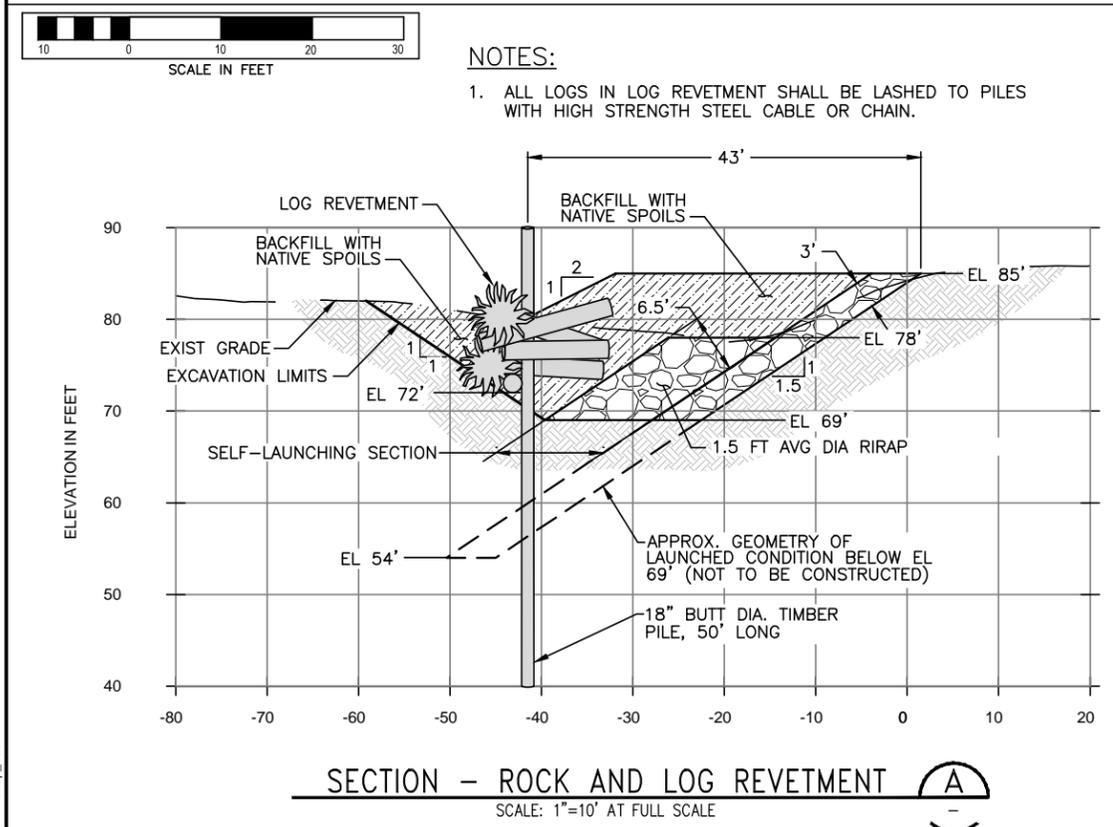
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RESTORATION PROJECT 30% DESIGN**

**LEVEE AND ROCK ARMORING REMOVAL
TYPICAL DETAILS**

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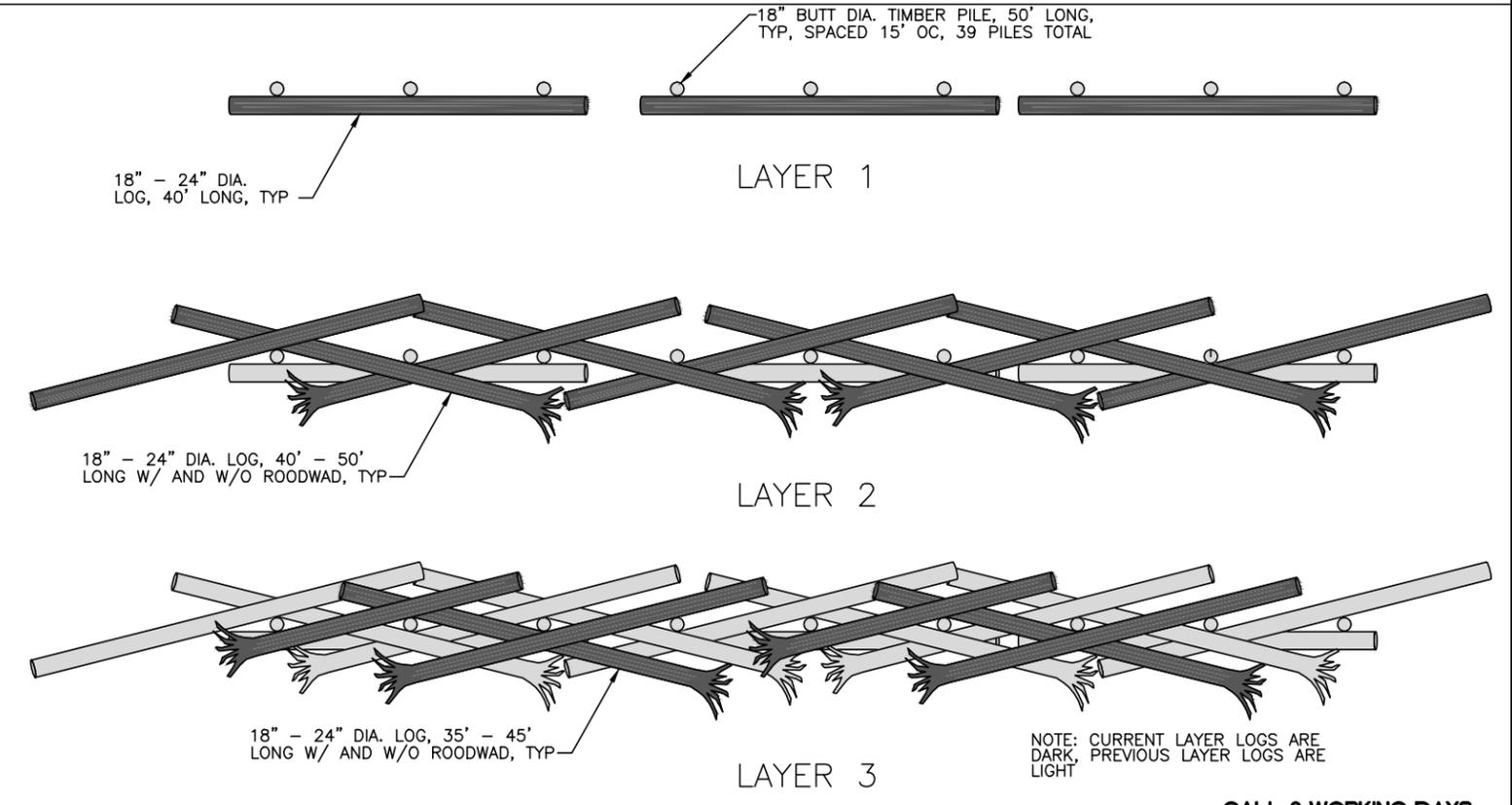


PLAN - SETBACK ROCK AND LOG REVETMENT 1
SCALE: 1"=20' AT FULL SCALE



SECTION - ROCK AND LOG REVETMENT A
SCALE: 1"=10' AT FULL SCALE

NOTES:
1. ALL LOGS IN LOG REVETMENT SHALL BE LASHED TO PILES WITH HIGH STRENGTH STEEL CABLE OR CHAIN.



LAYERING PLAN - LOG REVETMENT 2
SCALE: 1"=10' AT FULL SCALE

CALL 2 WORKING DAYS BEFORE YOU DIG
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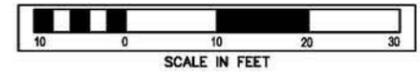
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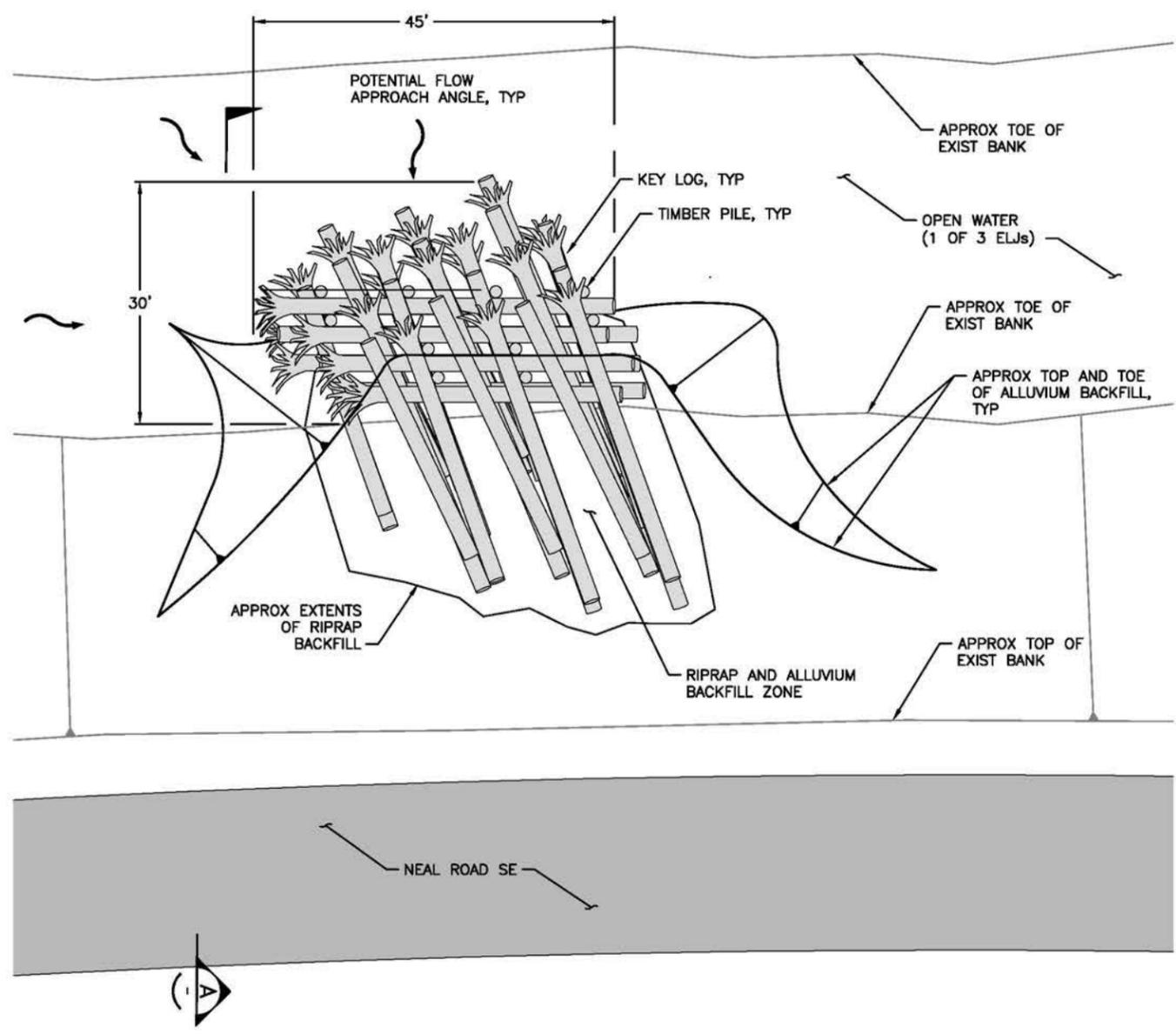
SETBACK ROCK AND LOG REVETMENT PLAN AND SECTION

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OF
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SHEETS
2006-48

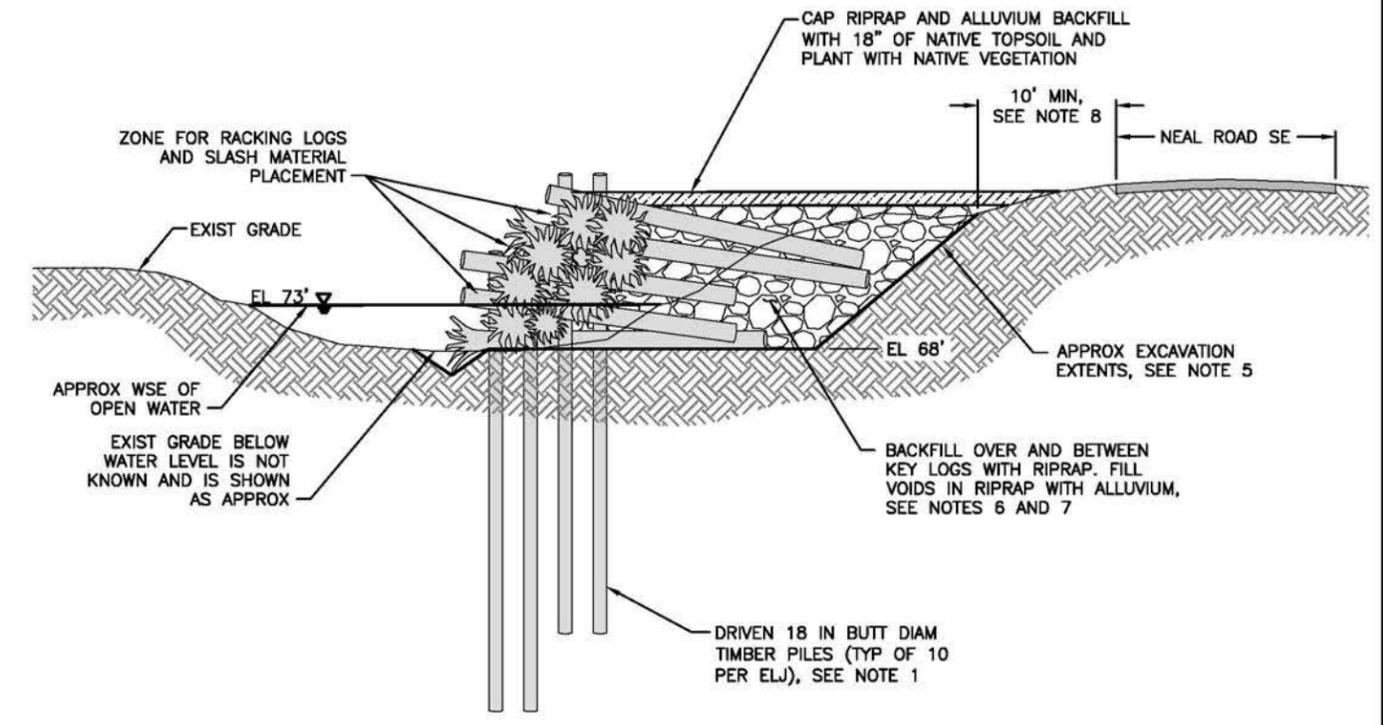


NOTES:

1. PILE TIP ELEVATION AND EMBEDMENT REQUIREMENTS FOR STRUCTURE TO BE DETERMINED DURING FINAL DESIGN PHASE OF PROJECT.
2. ONLY THE TOP LAYER OF LOGS FOR EACH STRUCTURE SHALL BE CABLED OR CHAINED TO DRIVEN PILES. DO NOT SECURE LOWER LAYER KEY LOGS TO PILE OR TO ANOTHER KEY LOG.
3. RACKING LOGS AND SLASH MATERIAL NOT SHOWN FOR CLARITY. RACKING LOGS SHALL CONSIST OF APPROX 100 - 150 INDIVIDUAL LOGS PER STRUCTURE AT 6"-16" DIA EACH. RACKING PLACEMENT SHALL BE COORDINATED WITH LOG LAYER PLACEMENT AND SLASH PLACEMENT TO ENSURE RACKING AND SLASH EXTEND THROUGH WATERWARD FACE OF STRUCTURE.
4. EXTENTS OF BACKFILL SHOWN ARE APPROXIMATE AND WILL VARY FOR EACH STRUCTURE. PLACE ALL EXCESS SPOILS OVER KEY LOGS AS SHOWN AND AS DIRECTED BY THE ENGINEER.
5. EXCAVATION LIMITS SHOWN ARE APPROXIMATE AND WILL VARY BASED ON CONSTRUCTION MEANS AND METHODS, SUBSURFACE CONDITIONS AND LOCATION OF STRUCTURE. CONTRACTOR SHALL ADJUST AND MINIMIZE EXCAVATION LIMITS AS NECESSARY TO COMPLETE CONSTRUCTION.
6. RIPRAP FOR ELJ BACKFILLING WILL CONSIST OF RIPRAP SALVAGED FROM THE EXIST UPPER CARLSON LEVEE AND/OR IMPORTED RIPRAP DEPENDING ON VOLUME OF RIPRAP REMOVED FROM THE LEVEE AND REUSED IN THE NEW SETBACK REVETMENT.
7. ALLUVIUM FOR ELJ BACKFILLING WILL CONSIST OF LOCALLY EXCAVATED SOILS AND ALLUVIUM EXCAVATED FROM THE EXIST UPPER CARLSON LEVEE AS NEEDED. TOP ELEVATION OF BACKFILL SHALL NOT EXCEED ELEVATION OF NEAL ROAD SE.
8. NO EXCAVATION SHALL OCCUR WITHIN 10 FT OF THE EDGE OF PAVEMENT ALONG NEAL ROAD. RESTORE ROAD SHOULDER FOLLOWING ELJ CONSTRUCTION TO ORIGINAL CONDITION.



PLAN - BANK DEFLECTOR ELJ (1)
SCALE: 1"=10' AT FULL SCALE



SECTION - BANK DEFLECTOR ELJ (A)
SCALE: 1"=10' AT FULL SCALE

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KC: 2006-48	DESIGNED: B. SCOTT, I MOSTRENKO P.E. 5-2013
PROJECT No. HERRERA: 10-04765-060	DESIGN ENTERED: T. PRESCOTT 5-2013
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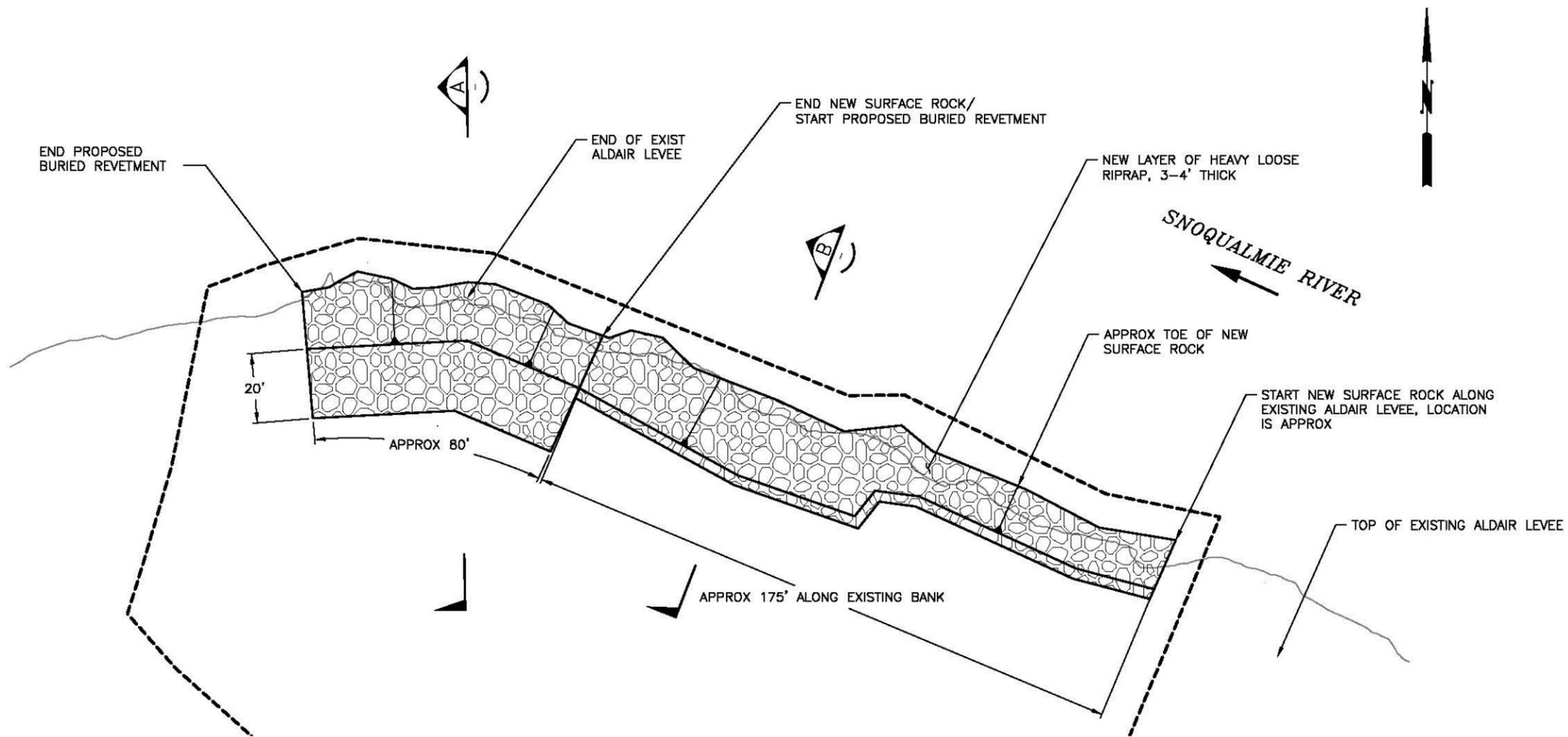
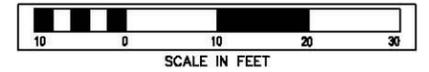
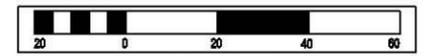
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BANK DEFLECTOR ELJ PLAN AND SECTION

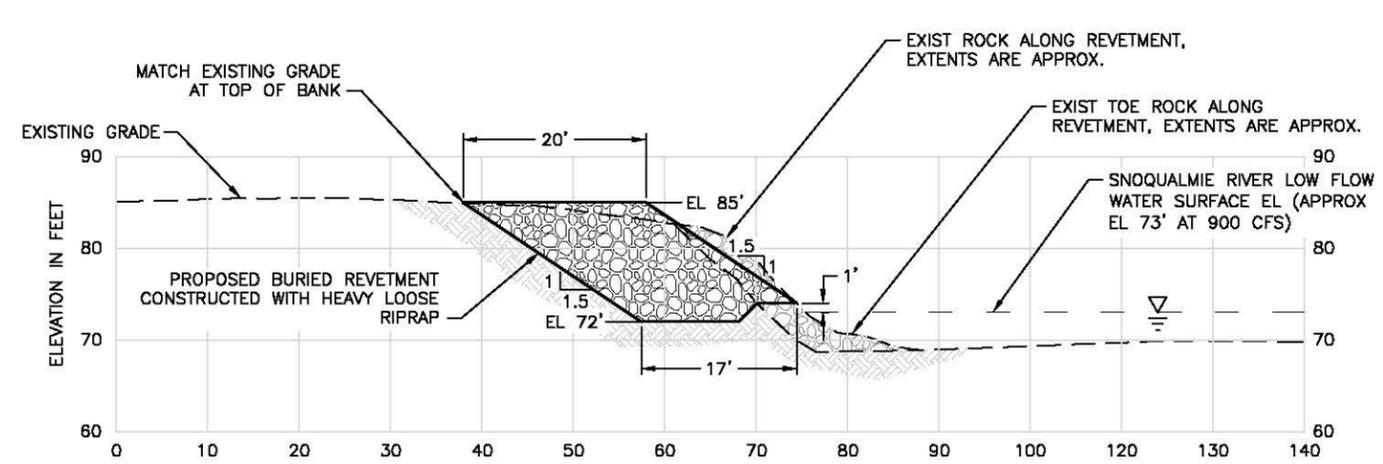
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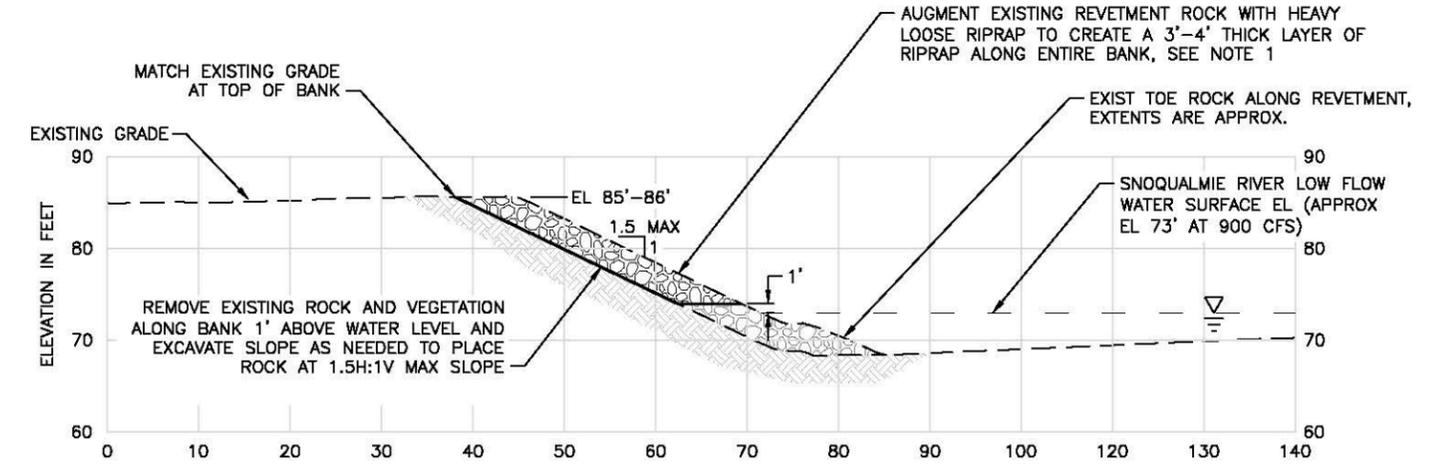
NOTES:

1. ALDAIR LEVEE REINFORCEMENT WORK SHALL OCCUR IN THE DRY. EXCAVATIONS ALONG EXISTING REVETMENT SHALL BE 1 FT ABOVE THE WATER LEVEL AT THE TIME OF CONSTRUCTION TO AVOID RIVER WATER INTRUSION INTO EXCAVATION PIT.
2. REMOVE EXIST ROCK ALONG DOWNSTREAM MOST 40 FT OF LEVEE TO CONSTRUCT BURIED REVETMENT. USE EXIST AND IMPORTED ROCK TO CONSTRUCT REVETMENT.
3. REMOVE EXIST TREE WITHIN FOOTPRINT OF NEW BURIED REVETMENT.

PLAN - ALDAIR LEVEE REINFORCEMENT 1
SCALE: 1"=20' AT FULL SCALE 8



SECTION - ALDAIR LEVEE REINFORCEMENT A
SCALE: 1"=10' AT FULL SCALE



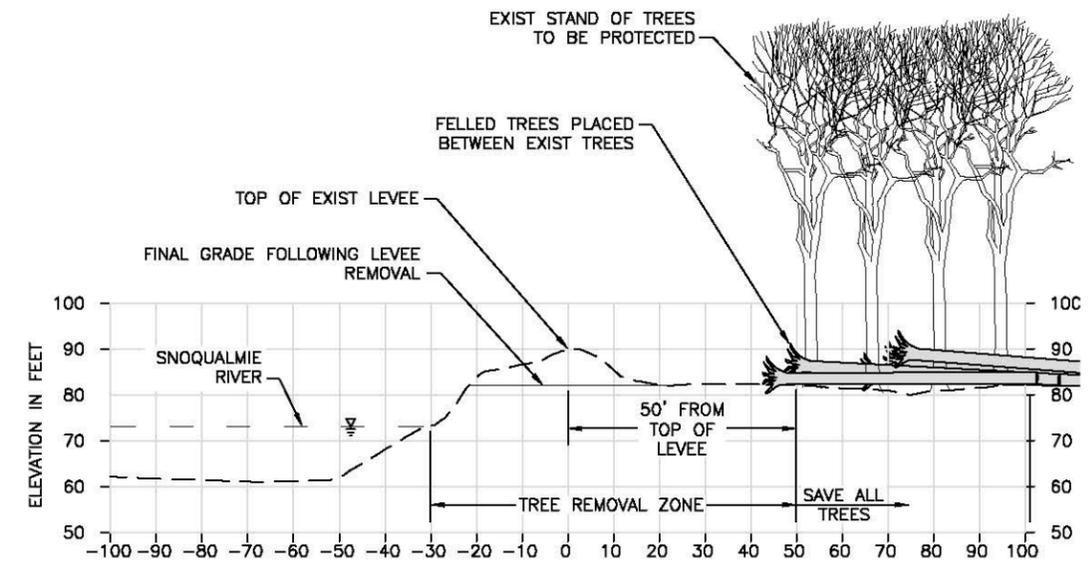
SECTION - ALDAIR LEVEE REINFORCEMENT B
SCALE: 1"=10' AT FULL SCALE

FELLED TREE INVENTORY	
SIZE CLASS	# OF TREE
< 6" DBH	105
6"-12" DBH	76
>13"-18" DBH	75
>19"-30" DBH	87
>30" DBH	52

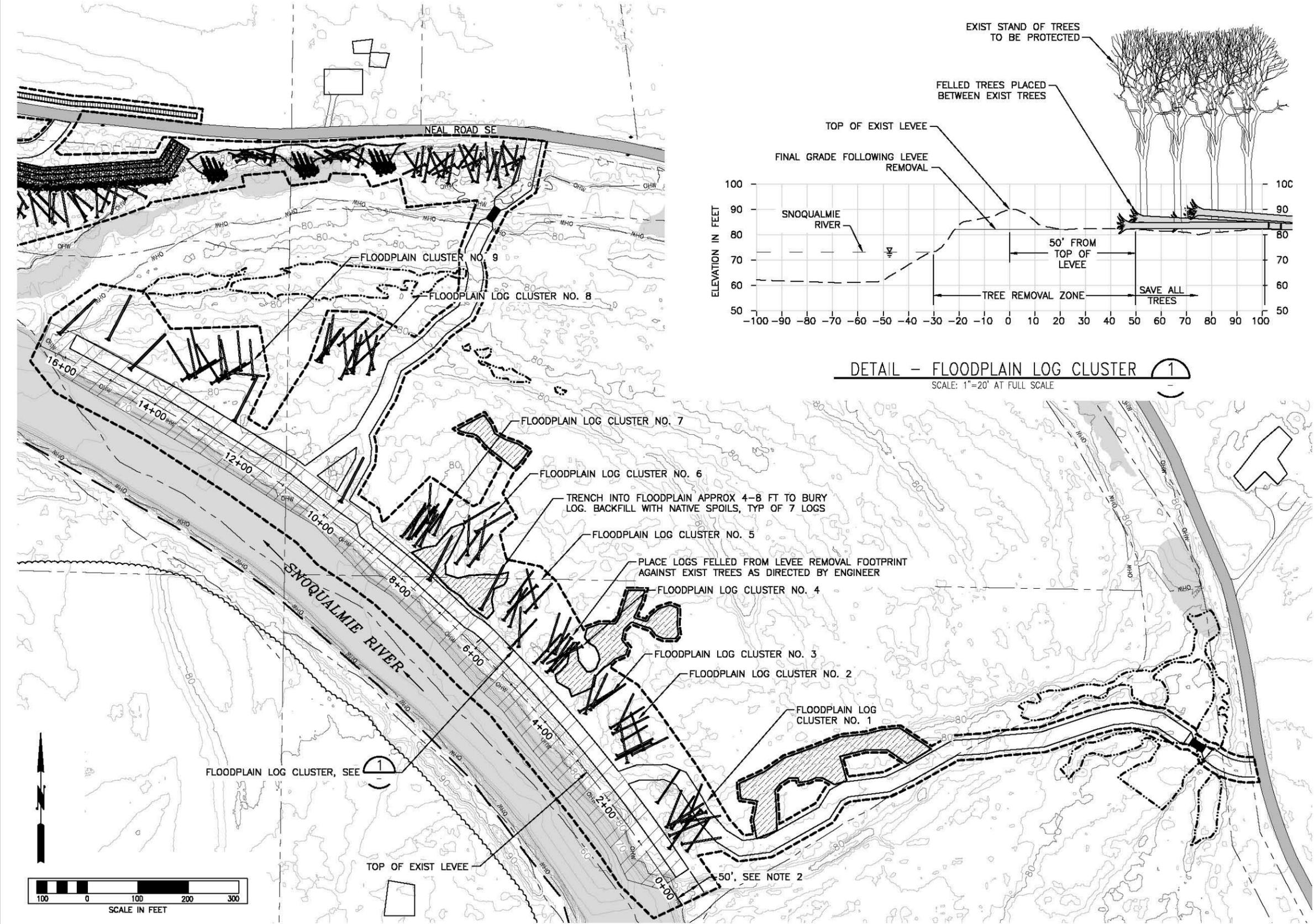
LEGEND

	PROJECT CONSTRUCTION LIMITS
	LEVEE REMOVAL ALIGNMENT
	FLOODPLAIN TREE REMOVAL ZONE
	PERMANENT SPOILS DISPOSAL ZONE
	ORDINARY HIGH WATER LINE

- NOTES:**
- TREES TO BE FELLED ALONG EXIST UPPER CARLSON LEVEE SHALL BE REMOVED WITH ROOTWADS FULLY INTACT. TREES TO BE FELLED SHALL NOT BE CUT.
 - NO TREES SHALL BE FELLED OUTSIDE OF THE DESIGNATED TREE REMOVAL ZONE, WHICH SHALL EXTEND 50 FT LANDWARD FROM THE TOP OF THE EXIST LEVEE.
 - FELLED TREES SHALL BE A MIN 60' LONG FROM TIP OF ROOTWAD.
 - MINIMIZE REMOVAL OF BRANCHES AND LIMBS FROM FELLED TREES PRIOR TO PLACING THEM IN THEIR FINAL LOCATION.
 - SECTIONS OF FELLED TREES THAT ARE BROKEN DURING FELLING ACTIVITIES SHALL BE KEPT AS LONG AS POSSIBLE.
 - PLACE FELLED TREES IN CLUSTERS AS DIRECTED BY THE ENGINEER.
 - ALL SLASH AND BROKEN LIMBS AND BRANCHES GENERATED DURING TREE FELLING ACTIVITIES SHALL BE PLACED IN LOG CLUSTERS AS DIRECTED BY THE ENGINEER.



DETAIL - FLOODPLAIN LOG CLUSTER 1
SCALE: 1"=20' AT FULL SCALE



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DESIGN ENTERED: T. PRESCOTT	5-2013

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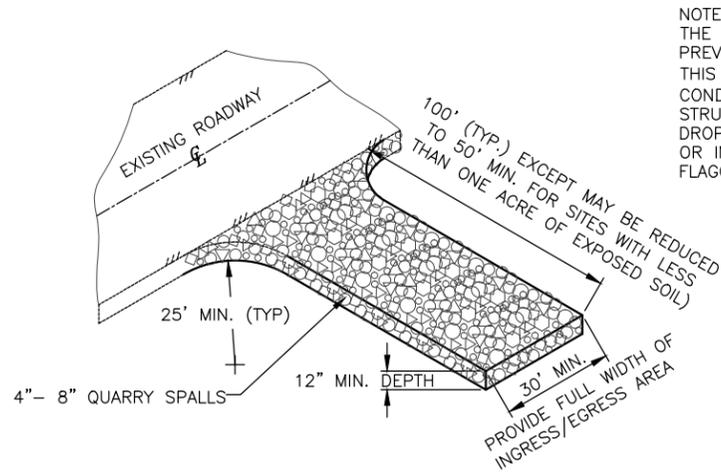
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UPPER CARLSON FLOODPLAIN RESTORATION PROJECT 30% DESIGN

FLOODPLAIN ROUGHENING SITE PLAN

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OF
16
SHEETS
2006-48

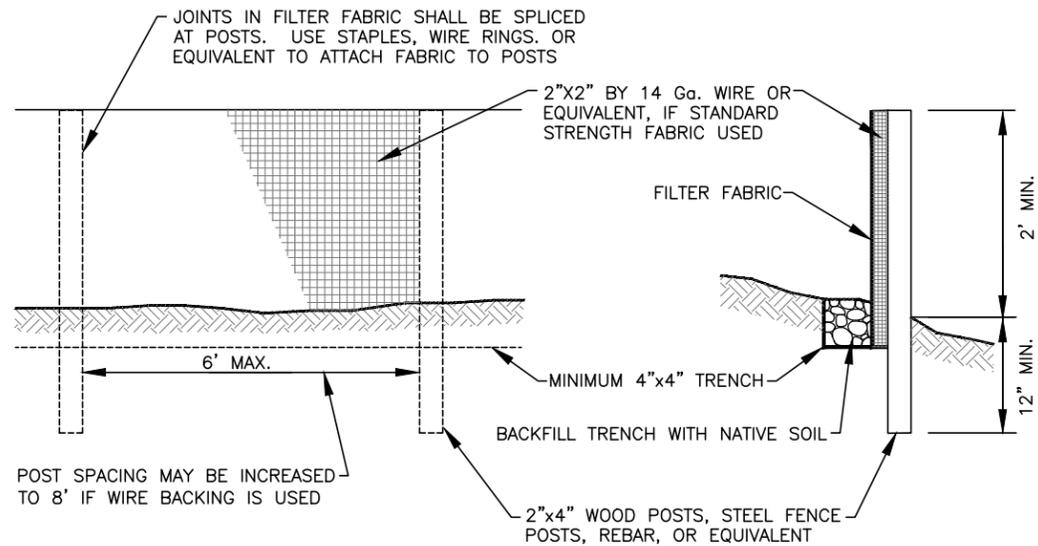


NOTE:
THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2" STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN-OUT OF ANY STRUCTURES USE TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. PROVIDE FLAGGING FOR CONSTRUCTION VEHICLES ENTERING AND LEAVING SITE.

STABILIZED CONSTRUCTION ENTRANCE

NTS

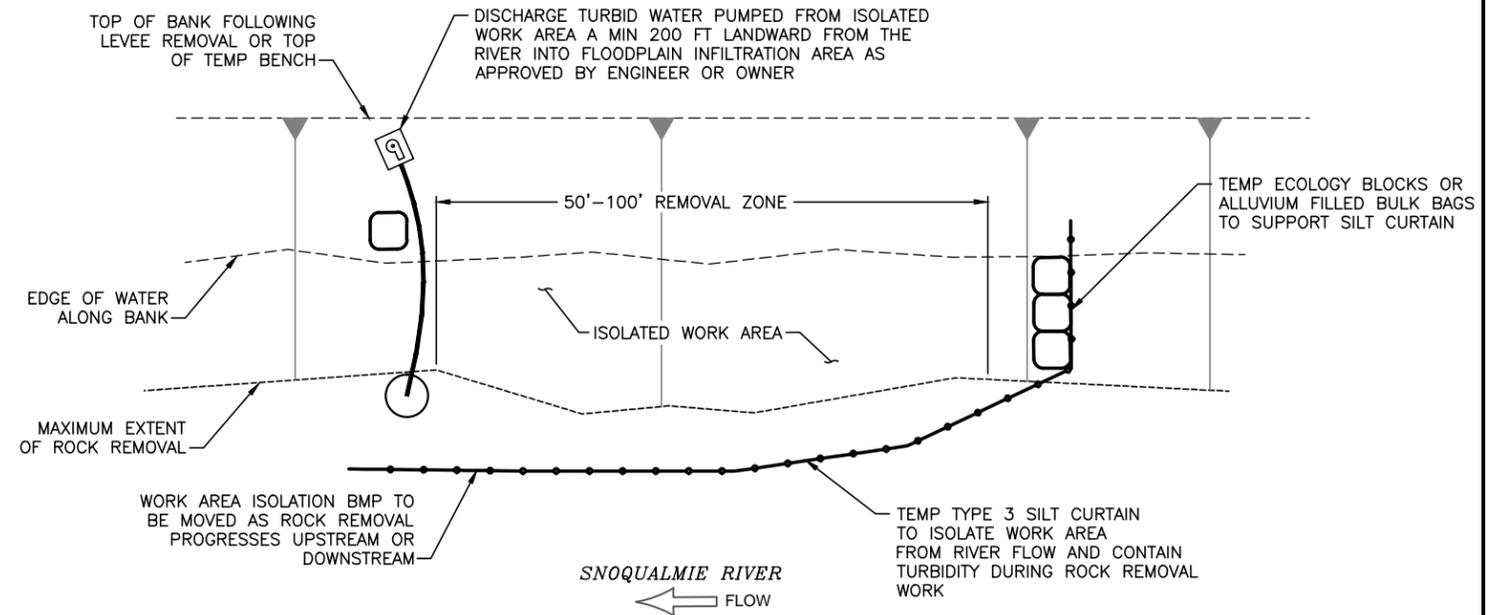
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SILT FENCE DETAIL

NTS

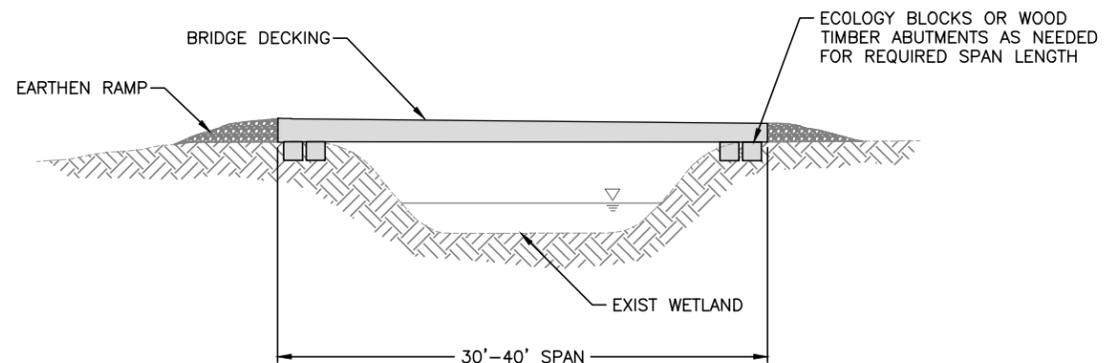
2



DETAIL - LEVEE ROCK REMOVAL AREA ISOLATION SCHEMATIC

NTS

3



DETAIL - TEMPORARY BRIDGE FOR WETLAND CROSSING

NTS

4

1. MAXIMIZE DETENTION OF STORMWATER BY PLACING FENCE AS FAR AWAY FROM TOE OF SLOPE AS POSSIBLE WITHOUT ENCRoACHING ON SENSITIVE AREAS OR OUTSIDE OF THE CLEARING BOUNDARIES.
2. INSTALL SILT FENCING ALONG CONTOURS WHENEVER POSSIBLE.
3. INSTALL THE ENDS OF THE SILT FENCE TO POINT SLIGHTLY UP-SLOPE TO PREVENT SEDIMENT FROM FLOWING AROUND THE ENDS OF THE FENCE.
4. PERFORM MAINTENANCE IN ACCORDANCE WITH STANDARD SPECIFICATIONS 8.01.3(9)A AND 8.01.3(15).

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CHECKED: M. EWANK (HERRERA) 05/08/2013	DESIGNED: T. HURLEY, L.E.G.	5-2013
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Christie True, Director

UPPER CARLSON FLOODPLAIN RESTORATION PROJECT 30% DESIGN

TEC AND WATER MANAGEMENT DETAILS

SHEET
15
OF
16
SHEETS

2006-48

STORMWATER POLLUTION PREVENTION PLAN NOTES (SWPPP)

IN COMPLIANCE WITH THE STORMWATER MANAGEMENT MANUAL FOR PUGET SOUND (2001)

MINIMUM REQUIREMENT #2 – CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

ELEMENT REQUIREMENTS	BEST MANAGEMENT PRACTICES – (BMP's)
ELEMENT #1 "DELINEATE CLEARING AND GRADING LIMITS"	(PRESERVE NATURAL VEGETATION; BUFFER ZONES; HIGH VISIBILITY FENCE) – SURVEY AND STAKE ALL "CUT & FILL" SLOPES. INDIVIDUAL TREES TO BE PRESERVED WITHIN THE CONSTRUCTION AREA SHALL BE MARKED.
ELEMENT #2 "ESTABLISH CONSTRUCTION ACCESS"	(STABILIZED CONSTRUCTION ENTRANCE, CONSTRUCTION ROAD STABILIZATION) – CONSTRUCTION VEHICLE ACCESS AND EXIT TO STAGING AREAS, STOCKPILING AND GRADED AREAS, SHALL BE IMPLEMENTED TO LIMITED TWO DEFINED ACCESS POINTS TO ACCOMMODATE LARGE EQUIPMENT MANEUVERING. ACCESS POINTS SHALL TYPICALLY BE STABILIZED AND MAINTAINED WITH QUARRY SPALLS OR CRUSHED ROCK TO MINIMIZE THE TRANSPORT OF SEDIMENT ONTO PAVED SURFACES. WHEEL WASH OR TIRE BATHS SHOULD BE LOCATED ON SITE AS FEASIBLE AND APPLICABLE. SEDIMENT SHALL BE REMOVED FROM ROADWAYS BY SHOVELING OR PICKUP SWEEPING AND DEPOSITED IN A SEDIMENT DISPOSAL AREA. CONSTRUCTION ACCESS RESTORATION SHALL BE EQUAL TO OR BETTER THAN ITS PRE-CONSTRUCTION STATE.
ELEMENT #3 "CONTROL FLOW RATES"	(SEDIMENT TRAP; CHECK DAMS; INTERCEPTOR DIKE & SWALE) – DOWNSTREAM PROPERTIES AND WATERWAYS SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOWS FROM CONSTRUCTION SITE STORMWATER RUNOFF. TEMPORARY STORMWATER FACILITIES SHALL BE BUILT AND OPERATIONAL AS PART OF THE FIRST STAGE OF GRADING OPERATIONS.
ELEMENT #4 "INSTALL SEDIMENT CONTROLS"	(BRUSH BARRIER; GRAVEL FILTER BERM; COMPOST BERM; SILT FENCE; VEGETATED STRIP; STRAW WATTLES, COIR LOGS; SEDIMENT TRAP; SEDIMENT POND) – PRIOR TO THE RELEASE OF STORMWATER FROM DISTURBED AREAS, IT SHALL PASS THROUGH A SEDIMENT POND, TRAP, BIOSWALE, SEDIMENT BAG OR OTHER APPROPRIATE SEDIMENT REMOVAL BMP.
ELEMENT #5 "STABILIZE SOILS"	(TEMPORARY & PERMANENT SEEDING; STRAW AND WOOD CHIP MULCHING; EROSION CONTROL BLANKETS, MATTING AND NETS); PLASTIC COVERING; SODDING; TOPSOILING; COMPOST; PAM'S; SURFACE ROUGHENING; GRADIENT TERRACES; DUST CONTROL) – BETWEEN OCTOBER 1 AND APRIL 30, SOILS (INCLUDING STOCKPILES) SHALL NOT REMAIN EXPOSED MORE THAN 2 DAYS. FROM MAY 1 TO SEPTEMBER 30, NO SOILS SHALL REMAIN EXPOSED AND UNWORKED FOR MORE THAN 7 DAYS. SELECTED SOIL STABILIZATION MEASURES SHALL BE IMPLEMENTED MAINTAINED AND APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, EXPOSURE & ORIENTATION, DURATION OF USE AND IMPACTS TO WATER QUALITY AND GROUND WATER.
ELEMENT #6 "PROTECT SLOPES"	(TEMPORARY & PERMANENT SEEDING; PRESERVE VEGETATION; PHASED GRADING; SURFACE ROUGHENING; EROSION CONTROL BLANKETS, MATTING & NETS; PLASTIC COVERING; GRADIENT TERRACES; INTERCEPTOR DIKE & SWALE; GRASS LINED CHANNELS; PIPE SLOPE DRAINS; SUBSURFACE DRAINS; LEVEL SPREADER; CHECK DAMS; TRIANGULAR SILT DIKE) – PHASE GRADING TO MINIMIZE EXPOSED CUT & FILL SLOPES; REDUCE RUNOFF VELOCITIES BY TERRACING CUT SLOPES & DIVERSIONS AND SURFACE ROUGHEN. USE AND MAINTAIN APPROPRIATE "COVER MEASURES" TO PROTECT SLOPES FROM EROSION AND AS A DUST CONTROL. DIVERT UPSLOPE DRAINAGE AT TOP OF SLOPES AWAY FROM GRADING OPERATIONS. SEGREGATE OFF-SITE STORMWATER FROM ON-SITE STORMWATER AND BYPASS AS NEEDED.

ELEMENT REQUIREMENTS	BEST MANAGEMENT PRACTICES – (BMP's)
ELEMENT #7 "PROTECT DRAIN INLETS"	(STORMDRAIN INLET PROTECTION, INTERCEPTOR DIKE & SWALE) – ALL OPERABLE INLETS SHALL BE PROTECTED AND MAINTAINED WITH A SEDIMENT FILTERING DEVICE. SEDIMENT AND STREET WASH WATER SHALL NOT ENTER STORM DRAINS INLETS WITHOUT PRIOR TREATMENT UNLESS THE STORM DRAIN DISCHARGES TO A SEDIMENT TREATMENT FACILITY (DETENTION POND, BIOSWALE, ETC.) PRIOR TO RELEASE TO WATERS OF THE STATE. WHENEVER FEASIBLE, DIVERT STORMWATER RUNOFF AWAY FROM INLETS TO SWALES, DITCHES, TRAPS, ETC.
ELEMENT #8 "STABILIZE CHANNELS AND OUTLETS"	(CHANNEL LINING; OUTLET PROTECTION; EROSION CONTROL BLANKETS, MATTING & NETS; SODDING AND/OR PERMANENT SEEDING) – TEMPORARY ON SITE CONVEYANCE CHANNELS SHALL BE CONSTRUCTED, STABILIZED AND MAINTAINED TO PREVENT EROSION FROM THE EXPECTED 2 YEAR, 24-HOUR FREQUENCY STORM. STABILIZATION INCLUDING ARMORING MATERIAL ADEQUATE TO PREVENT EROSION OF OUTLETS, ADJACENT STREAMBANKS, SLOPES AND DOWNSTREAM REACHES, SHALL BE PROVIDED AT THE OUTLETS OF ALL CONVEYANCE SYSTEMS.
ELEMENT #9 "CONTROL POLLUTANTS"	(CONCRETE HANDLING; SAWCUTTING AND SURFACE POLLUTION PREVENTION; FUGITIVE DUST CONTROL) – ALL POLLUTANTS INCLUDING WASTE MATERIALS, DEMOLITION DEBRIS WHEEL WASH WATER, SHALL HANDLED AND DISPOSED OF IN A MANNER TO PREVENT STORMWATER CONTAMINATION. COVER, CONTAINMENT AND PROTECTION FROM VANDALISM SHALL BE PROVIDED FOR ALL EQUIPMENT, CHEMICALS, LIQUID, PETROLEUM AND INERT WASTES. ADEQUATE BMP'S SHALL BE IMPLEMENTED FOR PH MODIFYING SOURCES TO ENSURE STORMWATER DISCHARGES DO NOT CAUSE A VIOLATION OF THE WATER QUALITY STANDARD FOR PH. THESE SOURCES INCLUDE BULK CEMENT, KILN DUSTS, FLY ASH, NEW CONCRETE WASHING & CURING, CONCRETE GRINDING AND SAW CUTTING WASTE STREAMS, CONCRETE PUMPING AND MIXER WASHOUT, ETC.
ELEMENT #10 "CONTROL DE-WATERING"	(SEDIMENT TRAP; SEDIMENT BAG; SANITARY SEWER DISCHARGE W/ DISTRICT APPROVAL; TRANSPORT OFF SITE, VEGETATED FILTER STRIP; INFILTRATION) – FOUNDATION, VAULT, PILLING, TRENCH DE-WATERING AND WHEEL WASH WATER SHALL BE DISCHARGED INTO A CONTROLLED CONVEYANCE SYSTEM PRIOR TO DISCHARGE TO A SEDIMENT POND. CLEAN, NON-TURBID DEWATERING WATER SUCH AS WELL-POINT SOURCEGROUND WATER, MAY BE DISCHARGED TO VEGETATED FILTER STRIPS OR TRIBUTARIES, PROVIDED THE DE-WATERING FLOW DOES NOT CAUSE EROSION OR FLOODING OF RECEIVING WATERS. CLEAN WATERS, SHOULD NOT BE ROUTED THROUGH STORMWATER SEDIMENT POND. ACCEPTABLE DISPOSAL OPTIONS INCLUDE INFILTRATION, OFFSITE TRANSPORT, SANITARY SEWER DISCHARGE WITH DISTRICT APPROVAL, SEDIMENTATION BAG WITH OUTFALL TO VEGETATED DITCH OR SWALE FOR SMALL VOLUMES OF LOCALIZED DE-WATERING. ON SITE CHEMICAL TREATMENT OR OTHER SUITABLE TECHNOLOGIES AS D.O.E. APPROVED
ELEMENT #11 "MAINTAIN BMP'S"	TEMPORARY AND PERMANENT TESC AND POLLUTANT BMP'S SHALL BE INSTALLED PER THE PROJECT PLANS, SPECIFICATIONS AND CONTRACTING AGENCY DIRECTION. THEY SHALL BE "MAINTAINED & REPAIRED" AS NEEDED TO ENSURE THEIR CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. SEDIMENT CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER A RUNOFF PRODUCING STORM EVENT DURING THE DRY SEASON AND DAILY DURING THE WET SEASON. BMP'S SHALL ONLY BE REMOVED 30 DAYS AFTER THE FINAL SITE STABILIZATION IS ACHIEVED AS DIRECTED BY THE CONTRACTING AGENCY. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL RESULTING FROM THE REMOVAL OF BMP'S OR VEGETATION SHALL BE PERMANENTLY STABILIZED. A PROJECT RECORD OR LOG SHALL BE KEPT OF ALL BMP MEASURES IMPLEMENTED WITH DATES OF INSTALLATION, MAINTENANCE, STORM EVENTS, REQUIRED WATER QUALITY SAMPLING, REPAIR AND ACTION TAKEN TO PREVENT AND/OR CORRECT IMPACTS.
ELEMENT #12 "MANAGE THE PROJECT"	(PHASE CONSTRUCTION; SEASONAL WORK LIMITATIONS) – CONSTRUCTION SHALL BE PHASED WHERE FEASIBLE TO THE MAXIMUM EXTENT PRACTICABLE, THE TRANSPORT OF SEDIMENT FROM CLEARING & GRUBBING AND GRADING OPERATIONS. STABILIZATION AND MAINTENANCE SHALL BE AN INTEGRAL PART OF EACH CONSTRUCTION PHASE. THE CONTRACTING AGENCY MAY IMPOSE SEASONAL LIMITATIONS DURING THE WET SEASON (OCTOBER 1 – APRIL 30) ON CLEARING, GRUBBING AND GRADING OPERATIONS BASED ON SOILS, SLOPES VEGETATIVE COVER, WEATHER, ETC. TO PREVENT THE TRANSPORT OF SEDIMENT FROM THE CONSTRUCTION SITE TO RECEIVING WATERS. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL DESIGNATE THEIR CERTIFIED EROSION & SEDIMENT CONTROL PROFESSIONAL(S) WHOM SHALL BE ON-SITE OR, ON CALL AT ALL TIMES WITH AUTHORITY TO TAKE QUICK ACTION TO CORRECT AND/OR IMPLEMENT EFFECTIVE BMP'S. WHENEVER INSPECTION, MONITORING AND SAMPLING REVEALS THAT BMP'S IDENTIFIED IN THE SWPPP ARE INADEQUATE, DUE TO THE ACTUAL OR POTENTIAL DISCHARGE OF SIGNIFICANT AMOUNTS OF ANY POLLUTANT, THE SWPPP SHALL BE MODIFIED AS DIRECTED BY THE CONTRACTING AGENCY. THE SWPPP SHALL BE RETAINED ON-SITE AND MODIFIED AND DOCUMENTED WHENEVER THERE IS A SIGNIFICANT CHANGE IN THE PROJECT DESIGN, CONSTRUCTION, OPERATION OR MAINTENANCE OF ANY BMP.

CALL 2 WORKING DAYS BEFORE YOU DIG
1-800-424-5555

(UNDERGROUND UTILITY LOCATIONS ARE APPROX.)

Path: \\SEA-FILE03\hera\proj\Y2010\10-04765-060\CAD\Drawings\2006-48_SH16.dwg
Plot Date: 5/13/2013 12:35 PM
Cad User: Toddp_000

FIELD BOOK: _____	APPROVED: WILL MANSFIELD, P.E. 5-2013
SURVEYED: _____	PROJECT SUPERVISOR: DIANE CONCANNON 5-2013
SURVEY BASE MAP: _____	PROJECT MANAGER: DAN EASTMAN 5-2013
CHECKED: M. EWBANK (HERRERA) 05/08/2013	DESIGNED: T. HURLEY, L.E.G. 5-2013
KC: 2006-48	DESIGNED: D. EASTMAN 5-2013
PROJECT No. HERRERA: 10-04765-060	DESIGN ENTERED: T. PRESCOTT 5-2013
SURVEY No. _____	
NUM. _____	REVISION _____
BY _____	DATE _____

FINAL 30%
NOT FOR
CONSTRUCTION



King County
Department of Natural Resources and Parks
Water and Land Resources Division
Rural and Regional Services Section
Ecological Restoration and Engineering Services

Christie True, Director

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