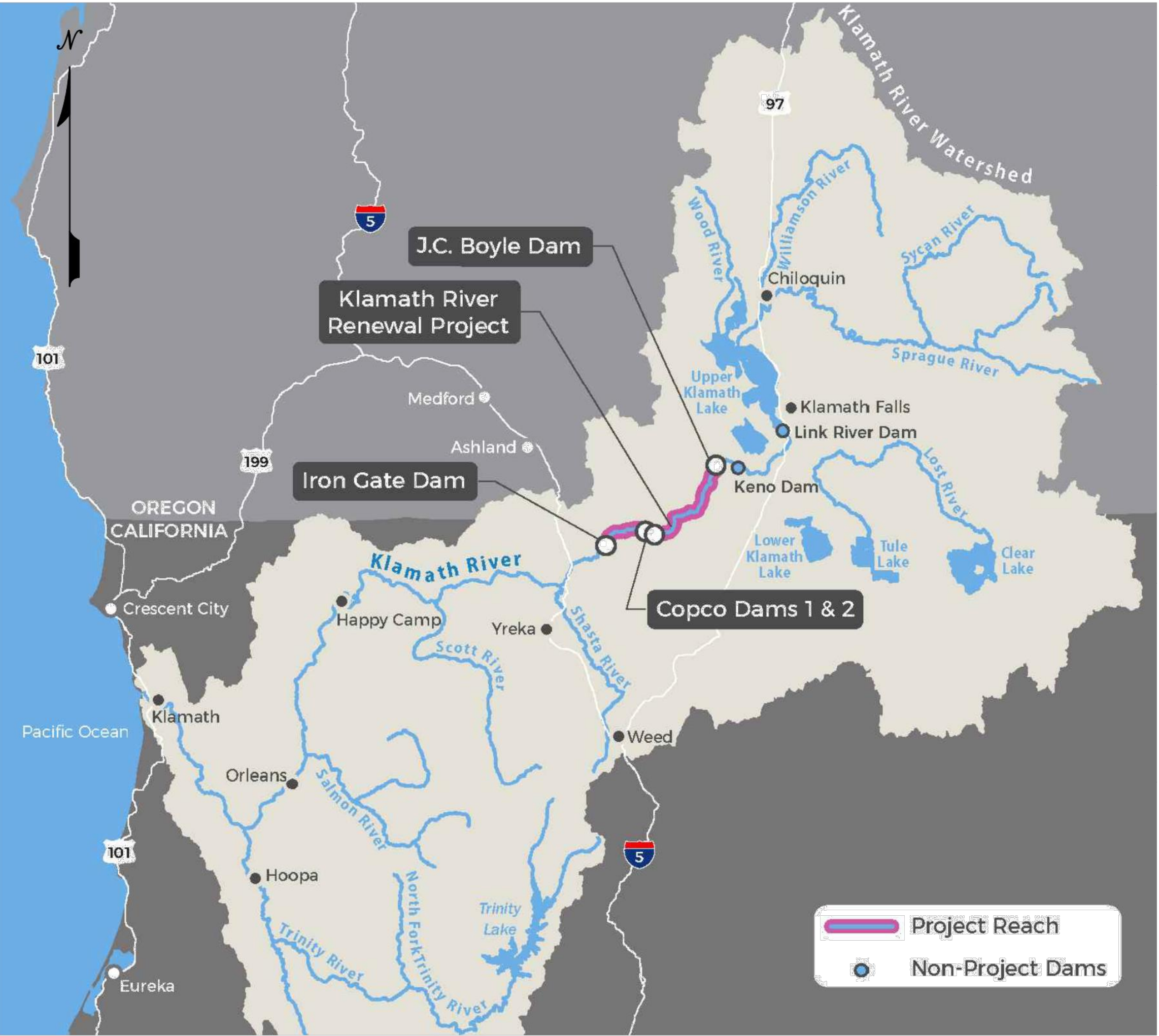


KLAMATH RIVER RENEWAL PROJECT

60% RESTORATION DESIGN DRAWINGS



KLAMATH COUNTY, OREGON
SISKIYOU COUNTY, CALIFORNIA



LOCATION MAP
NOT TO SCALE

FOR INFORMATION ONLY

PRELIMINARY DESIGN (NOT FOR CONSTRUCTION)

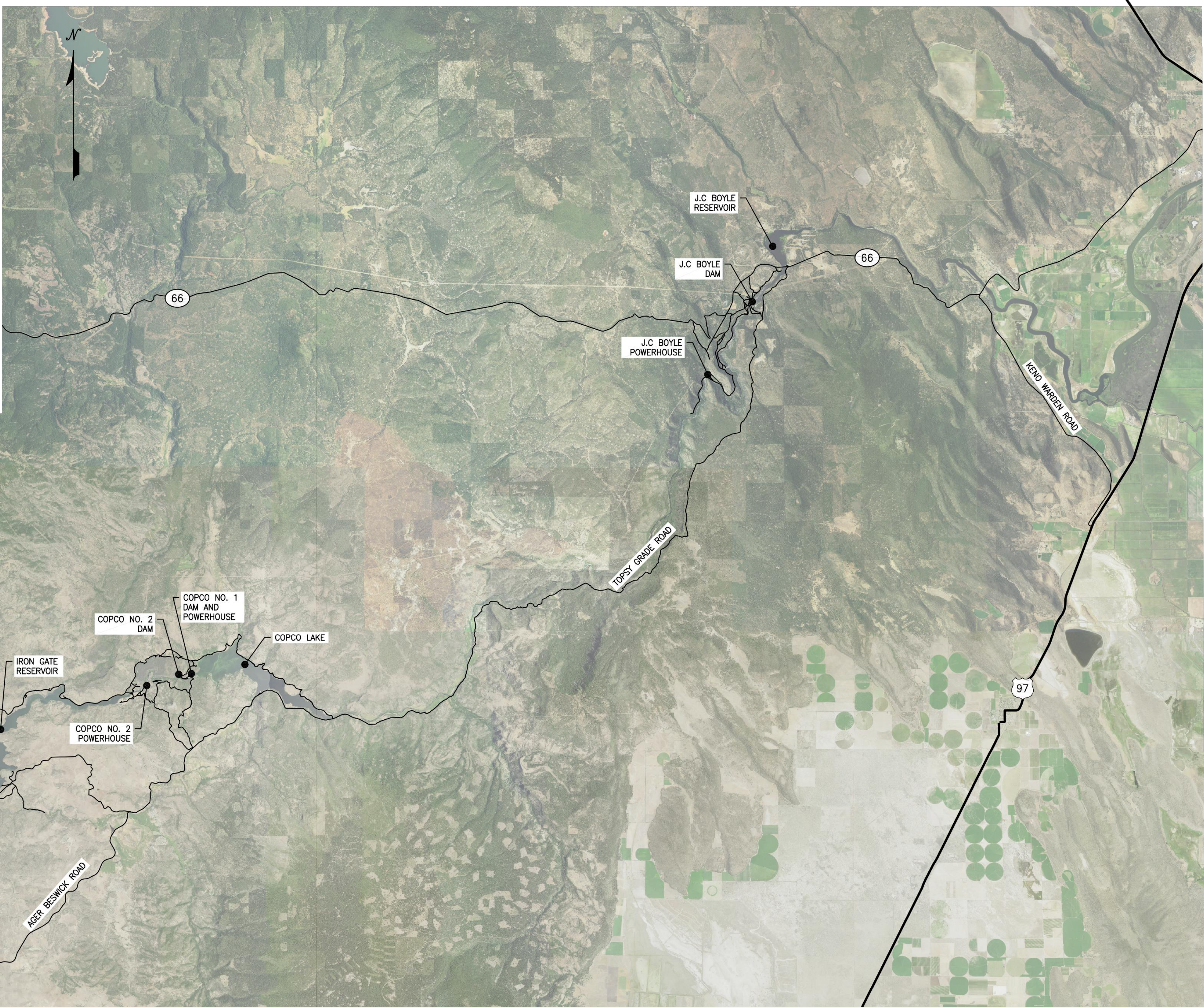
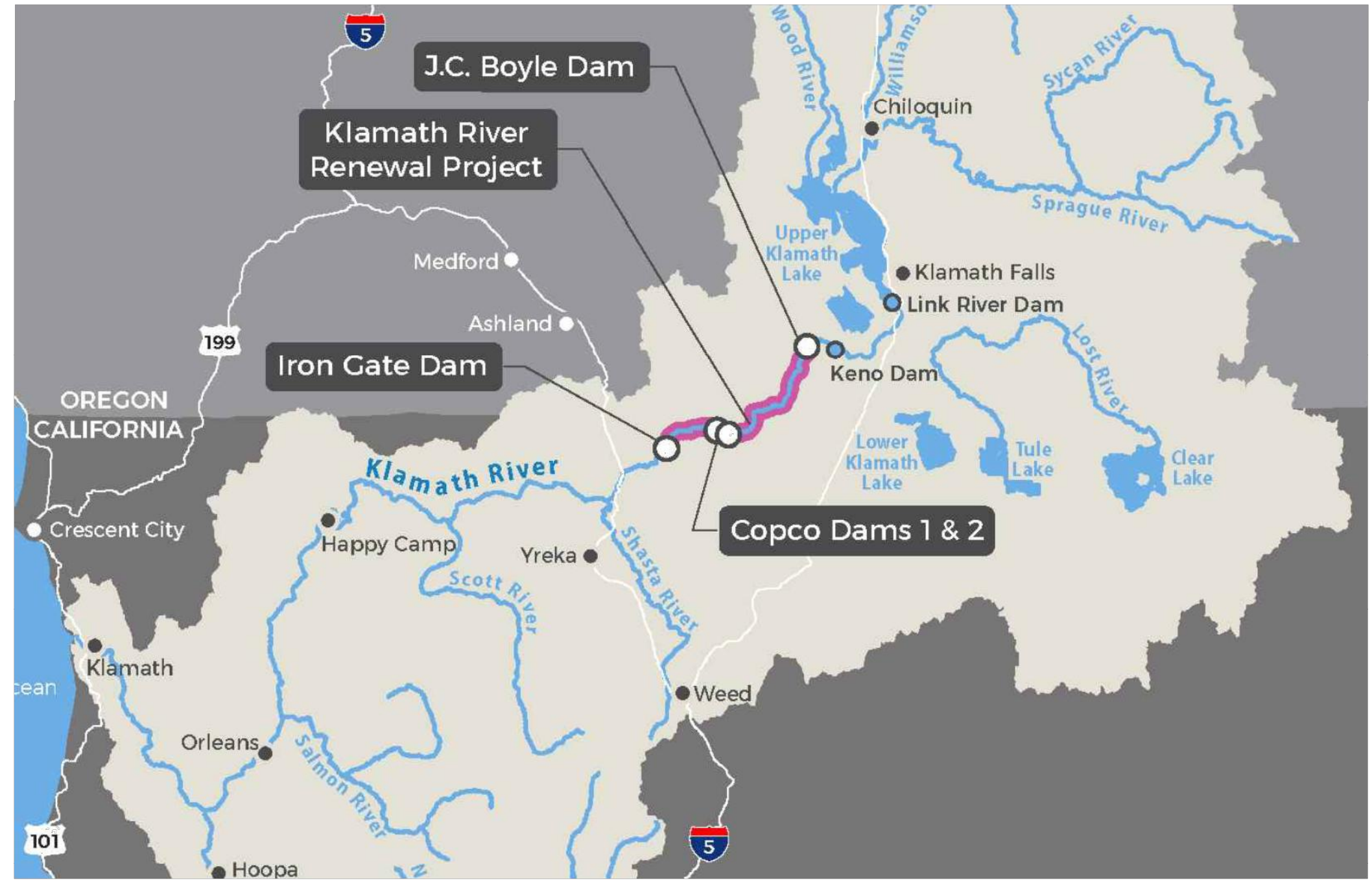
					WARNING 0 1/2 1 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE		PREPARED BY 		DESIGNED JMR, GH/KB AND JM DRAWN SMS REVIEWED JFS IN CHARGE SDP APPROVED MFA		PREPARED FOR 		PROJECT KLAMATH RIVER RENEWAL PROJECT SHEET TITLE COVER		PROJ # VA103-640/1 DATE 2020.02.07 DWG R0000	
B	ISSUED - 60% RESTORATION DESIGN SUBMITTAL				SMS	JFS	MFA	02/07/20								
A	ISSUED - 30% RESTORATION DESIGN SUBMITTAL				SMS	JFS	MFA	10/11/19								
REV	DESCRIPTION				BY	CHK	APP	DATE								

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RESTORATION DRAWING INDEX	
Sheet Number	Sheet Title
60% SUBMITTAL: GENERAL	
R0000	COVER
R0000	RESTORATION DRAWING INDEX
R0002	PROJECT LOCATION, VICINITY AND ACCESS
60% SUBMITTAL: JC BOYLE RESERVOIR	
R1700	JC BOYLE RESERVOIR-INDEX
R1701	JC BOYLE RESERVOIR-EXISTING CONDITIONS
R1702	JC BOYLE RESERVOIR-ACCESS PLAN
R1703	JC BOYLE RESERVOIR-PLANTING PLAN 1
R1704	JC BOYLE RESERVOIR-PLANTING PLAN 2
R1705	JC BOYLE RESERVOIR-SPENCER CREEK PLAN
R1706	JC BOYLE RESERVOIR-PIER REMOVAL
R1707	JC BOYLE RESERVOIR-SPENCER CREEK PROFILE
60% SUBMITTAL: COPCO RESERVOIR	
R2700	COPCO RESERVOIR-INDEX
R2701	COPCO RESERVOIR-EXISTING CONDITIONS
R2702	COPCO RESERVOIR-ACCESS PLAN
R2703	COPCO RESERVOIR-PLANTING PLAN 1
R2704	COPCO RESERVOIR-PLANTING PLAN 2
R2705	COPCO RESERVOIR-ASSISTED SEDIMENT EVACUATION AREAS
R2706	COPCO RESERVOIR-DEER CREEK PLAN 1
R2707	COPCO RESERVOIR-DEER CREEK PLAN 2
R2708	COPCO RESERVOIR-BEAVER CREEK PLAN 1
R2709	COPCO RESERVOIR-BEAVER CREEK PLAN 2
R2710	COPCO RESERVOIR-BEAVER CREEK PLAN 3
R2711	COPCO RESERVOIR-BEAVER CREEK PLAN 4
R2712	COPCO RESERVOIR-DEER CREEK PROFILES
R2713	COPCO RESERVOIR-BEAVER CREEK PROFILES
60% SUBMITTAL: IRON GATE RESERVOIR	
R4700	IRON GATE RESERVOIR-INDEX
R4701	IRON GATE RESERVOIR-EXISTING CONDITIONS
R4702	IRON GATE RESERVOIR-ACCESS PLAN
R4703	IRON GATE RESERVOIR-PLANTING PLAN 1
R4704	IRON GATE RESERVOIR-PLANTING PLAN 2
R4705	IRON GATE RESERVOIR-PLANTING PLAN 3
R4706	IRON GATE RESERVOIR-PLANTING PLAN 4
R4707	IRON GATE RESERVOIR-PLANTING PLAN 5
R4708	IRON GATE RESERVOIR-ASSISTED SEDIMENT EVACUATION AREAS
R4709	IRON GATE RESERVOIR-JENNY CREEK PLAN 1
R4710	IRON GATE RESERVOIR-JENNY CREEK PLAN 2
R4711	IRON GATE RESERVOIR-CAMP-SCOTCH CREEK PLAN 1
R4712	IRON GATE RESERVOIR-CAMP-SCOTCH CREEK PLAN 2
R4713	IRON GATE RESERVOIR-CAMP-SCOTCH CREEK PLAN 3
R4714	IRON GATE RESERVOIR-CAMP-SCOTCH CREEK PLAN 4
R4715	IRON GATE RESERVOIR-CAMP-SCOTCH CREEK PLAN 5
R4716	IRON GATE RESERVOIR-CAMP-SCOTCH CREEK PLAN 6
R4717	IRON GATE RESERVOIR-CAMP-SCOTCH CREEK PLAN 7
R4718	IRON GATE RESERVOIR-LONG GULCH PLAN 1
R4719	IRON GATE RESERVOIR-LONG GULCH PLAN 2
R4720	IRON GATE RESERVOIR-JENNY CREEK PROFILE 1
R4721	IRON GATE RESERVOIR-JENNY CREEK PROFILE 2 & SCOTCH CREEK
R4722	IRON GATE RESERVOIR-CAMP CREEK PROFILE 1
R4723	IRON GATE RESERVOIR-CAMP CREEK PROFILE 2
60% SUBMITTAL: DETAILS	
R0801	EROSION AND SDEIMENT CONTROL DETAILS
R0802	RESTORATION DETAILS 1
R0803	RESTORATION DETAILS 2
R0804	RESTORATION DETAILS 3
R0805	RESTORATION DETAILS 4
R0806	RESTORATION DETAILS 5
R0807	TRIBUTARY GRADING QUANTITIES
R0808	TRIBUTARY TYPICAL SECTIONS
R0809	PLANTING PALETTE
R0810	PLANTING DETAILS 1
R0811	PLANTING DETAILS 2
R0812	IRRIGATION DETAILS
R0813	FENCING DETAILS

PRELIMINARY DESIGN (NOT FOR CONSTRUCTION) 60% PLAN

								PREPARED BY 		DESIGNED JMR, GH/KB AND JM		PREPARED FOR 		PROJECT KLAMATH RIVER RENEWAL PROJECT		PROJ # VA103-640/1	
								DRAWN SMS						DATE 2020.02.07			
								REVIEWED JFS						DWG R0000			
B ISSUED - 60% RESTORATION DESIGN SUBMITTAL				SMS JFS MFA 02/07/20				IN CHARGE SDP									
A ISSUED - 30% RESTORATION DESIGN SUBMITTAL				SMS JFS MFA 10/11/19				APPROVED MFA									
REV DESCRIPTION				BY CHK APP DATE													



PLAN
1" = 8000'

FOR INFORMATION ONLY
0 8000 16000 24000
HORIZ 1" = 8000'

PRELIMINARY DESIGN (NOT FOR CONSTRUCTION)

REV	DESCRIPTION	BY	CHK	APP	DATE
B	ISSUED - 60% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	02/07/20
A	ISSUED - 30% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	10/11/19



WARNING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

PREPARED BY



DESIGNED JMR, GH/KB AND JM

DRAWN SMS

REVIEWED JFS

IN CHARGE SDP

APPROVED MFA

PREPARED FOR



PROJECT
KLAMATH RIVER RENEWAL PROJECT

SHEET TITLE
PROJECT LOCATION, VICINITY AND ACCESS

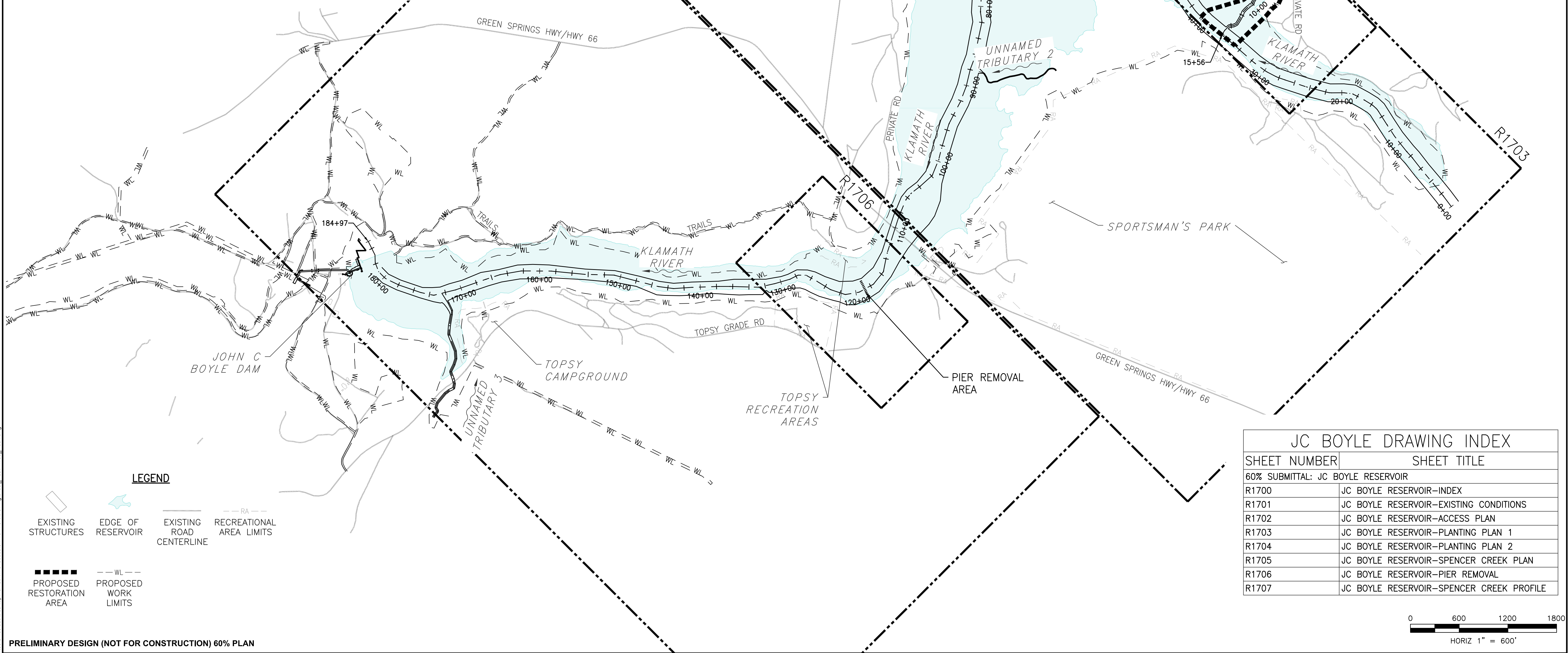
PROJ #
VA103-640/1

DATE
2020.02.07

DWG
R0002

NOTES:

1. FOLLOWING PROJECT STANDARDS ESTABLISHED BY KRRC, HORIZONTAL DATUM IS CALIFORNIA NAD83 HARN CALIFORNIA STATE PLANE, ZONE 1, US SURVEY FOOT (HARN.CA.CA-IF). VERTICAL DATUM IS NAVD88.
2. EXISTING GROUND CONTOURS WERE GENERATED FROM COMBINED 2018 BATHYMETRY AND LIDAR PROVIDED TO KIEWIT BY KRRC.
3. EXISTING CONDITIONS PLANIMETRICS, INCLUDING UTILITIES, EXISTING STRUCTURES, ROADWAYS, BOUNDARIES, AND PLACE NAMES ARE TAKEN FROM GIS DATA PROVIDED TO KIEWIT BY KRRC.
4. SUBMERGED EXISTING CROSSINGS AND PIERS SHOWN WITHIN THE CURRENT RESERVOIR LIMITS ARE TAKEN FROM HISTORIC DOCUMENTATION PROVIDED TO KIEWIT BY KRRC.
5. ANTICIPATED POST-DRAWDOWN KLAMATH RIVER CHANNEL WAS DEVELOPED THROUGH INTERPRETATION OF 2018 BATHYMETRY AND POST DRAWDOWN SURFACES.
6. AERIAL PHOTOGRAPHY PROVIDED BY BING IMAGES DATED 2019.
7. ALL AREAS EXPOSED POST-DRAWDOWN WILL BE PLANTED WITH NATIVE VEGETATION AS DESCRIBED ON SHEETS R1703 AND R1704.
8. RESTORATION AREA BOUNDARIES ARE PROVIDED TO ESTABLISH THE ANTICIPATED SPATIAL EXTENTS OF THE WORK REQUIRED AT EACH SITE. RESTORATION ACTIVITIES WITHIN THE BOUNDARIES WILL BE UNDERTAKEN WITH THE PRINCIPAL GOAL OF ACHIEVING VOLITIONAL FISH PASSAGE AND WILL CONSIST OF IN- AND NEAR-CHANNEL GRADING, BED MATERIAL AUGMENTATION, HEAD CUT STABILIZATION AND OTHER ACTIVITIES, AS APPROPRIATE, TO REMOVE FISH PASSAGE BARRIERS. KNOWN OBSTRUCTIONS HAVE BEEN CALLED OUT IN THESE PLANS BUT ADDITIONAL IMPEDIMENTS TO FISH PASSAGE THAT WILL REQUIRE INTERVENTION ARE EXPECTED TO MATERIALIZE AT UNKNOWN LOCATIONS WITHIN THE RESTORATION AREAS POST-DRAWDOWN. ADDITIONAL HABITAT IMPROVEMENT ACTIVITIES AS DESCRIBED IN TABLE 8.2 OF THE DESIGN REPORT WILL ALSO BE UNDERTAKEN WITHIN THE RESTORATION AREAS PER THE ESTIMATED QUANTITIES TABLES PROVIDED FOR EACH RESTORATION AREA. THE ACTUAL QUANTITIES AND LOCATIONS OF THESE ACTIVITIES WILL BE DETERMINED POST-DRAWDOWN.
9. RESTORATION AREAS ARE SHOWN ON SHEETS INDICATED IN SHEET KEY ON THIS SHEET.
10. SCALE NOTATIONS REFER TO FULL SIZE DRAWINGS (22" X 34").
11. APPROXIMATE ORDINARY HIGH WATER MARK (OHWM) IS INTERPRETED FROM 2018 BATHYMETRY AND WILL CHANGE POST-DRAWDOWN.



LEGEND

- EXISTING STRUCTURES
- EDGE OF RESERVOIR
- EXISTING ROAD CENTERLINE
- RECREATIONAL AREA LIMITS
- PROPOSED RESTORATION AREA
- PROPOSED WORK LIMITS

PRELIMINARY DESIGN (NOT FOR CONSTRUCTION) 60% PLAN

REV	DESCRIPTION	BY	CHK	APP	DATE
B	ISSUED - 60% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	02/07/20
A	ISSUED - 30% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	10/11/19



WARNING
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PREPARED BY



DESIGNED

JMR
DRAWN
SMS
REVIEWED
JFS
IN CHARGE
SDP
APPROVED
MFA

PREPARED FOR



PROJECT

KLAMATH RIVER RENEWAL PROJECT

SHEET TITLE

JC BOYLE RESERVOIR-INDEX

PROJ #

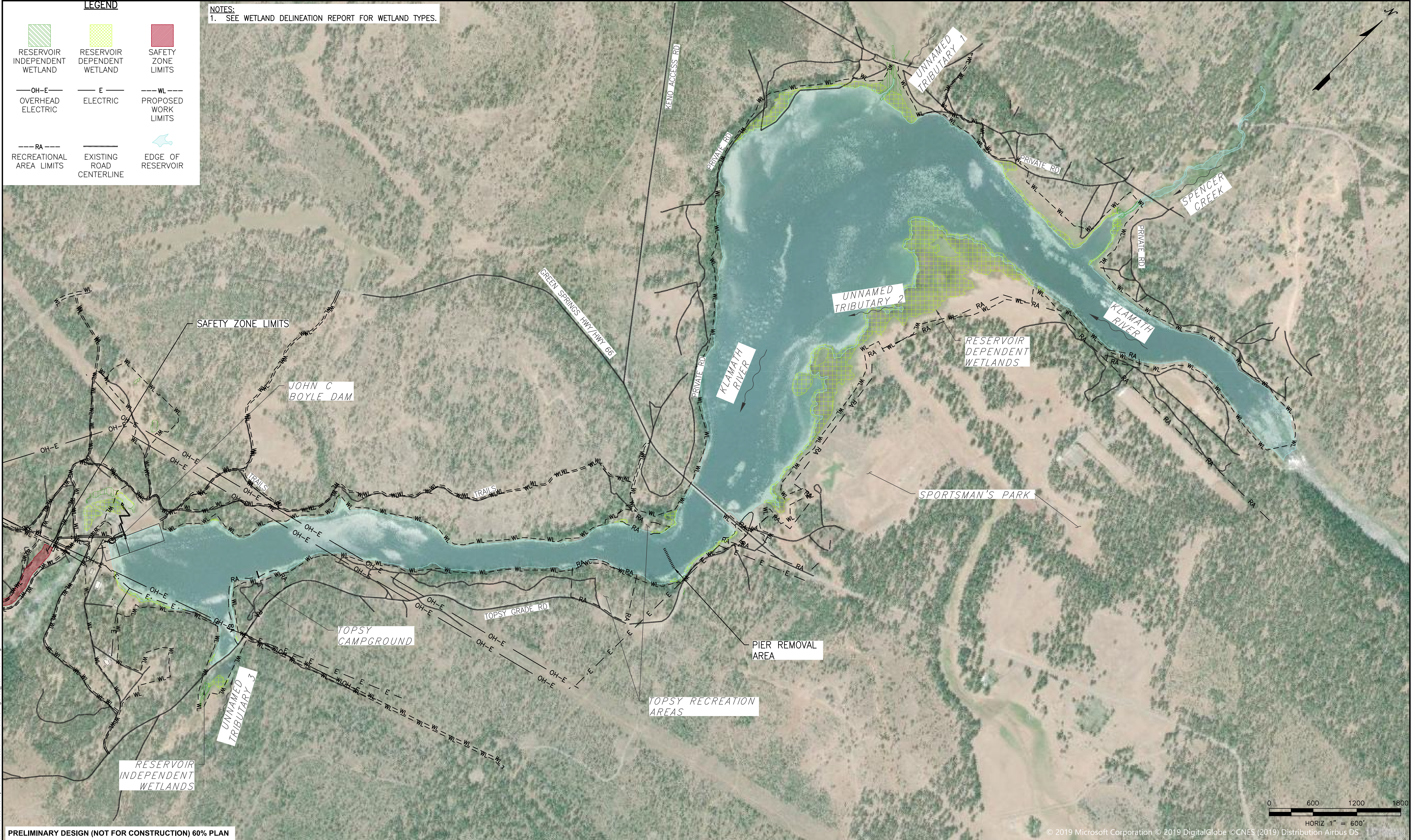
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DATE

2020.02.07

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R1700



PRELIMINARY DESIGN (NOT FOR CONSTRUCTION) 60% PLAN

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A	ISSUED - 30% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	10/11/19
REV	DESCRIPTION	BY	CHK	APP	DATE

WARNING
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IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

PREPARED BY



DESIGNED

JMR
DRAWN
SMS
REVIEWED
JFS
IN CHARGE
SDP
APPROVED
MFA

PREPARED FOR



PROJECT

KLAMATH RIVER RENEWAL PROJECT

SHEET TITLE

JC BOYLE RESERVOIR-EXISTING CONDITIONS

PROJ #

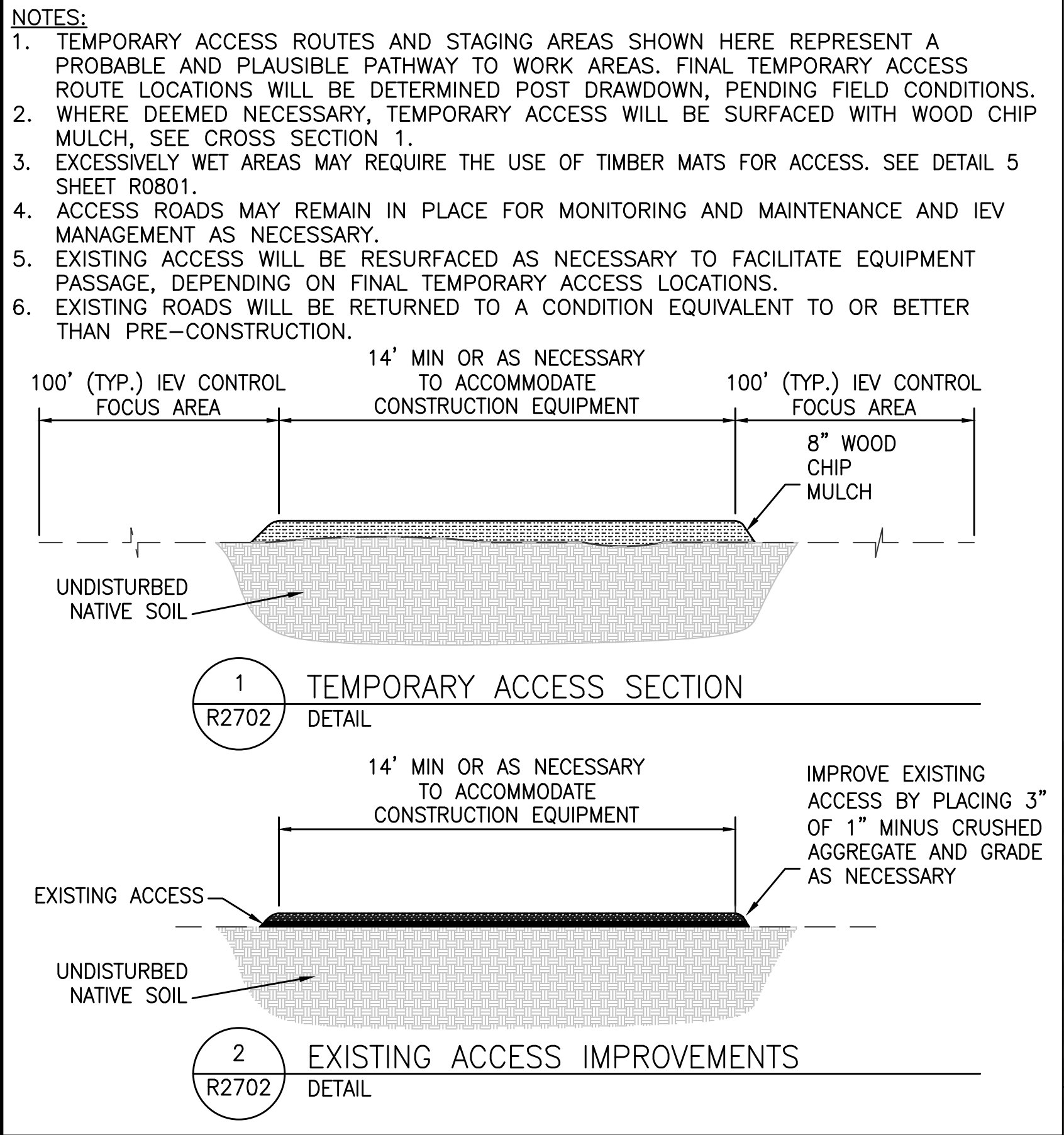
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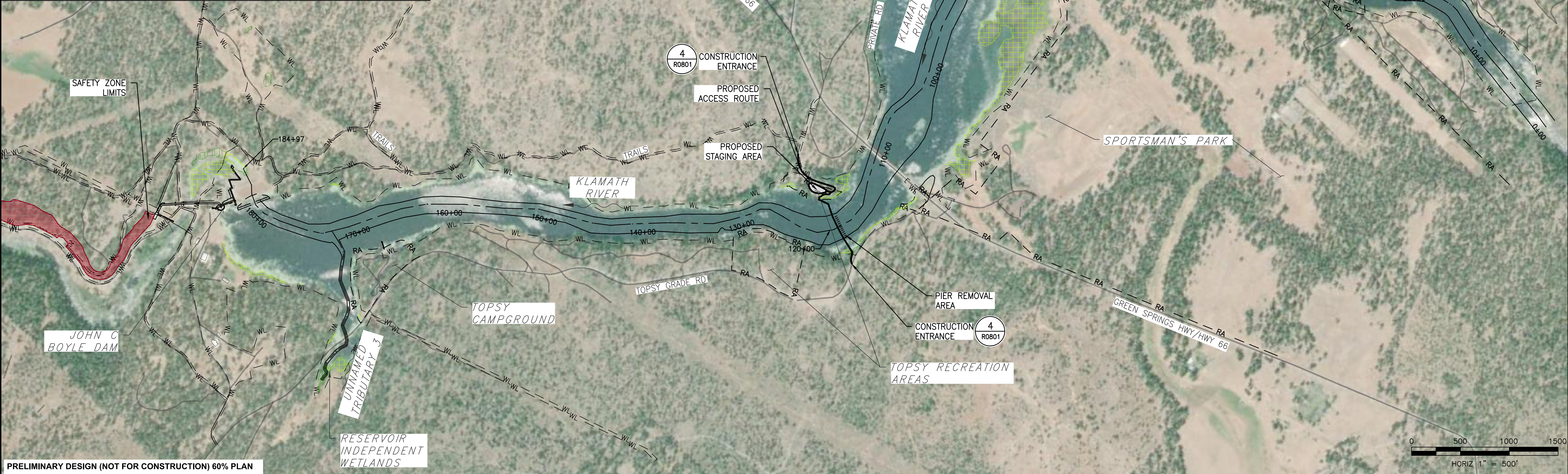
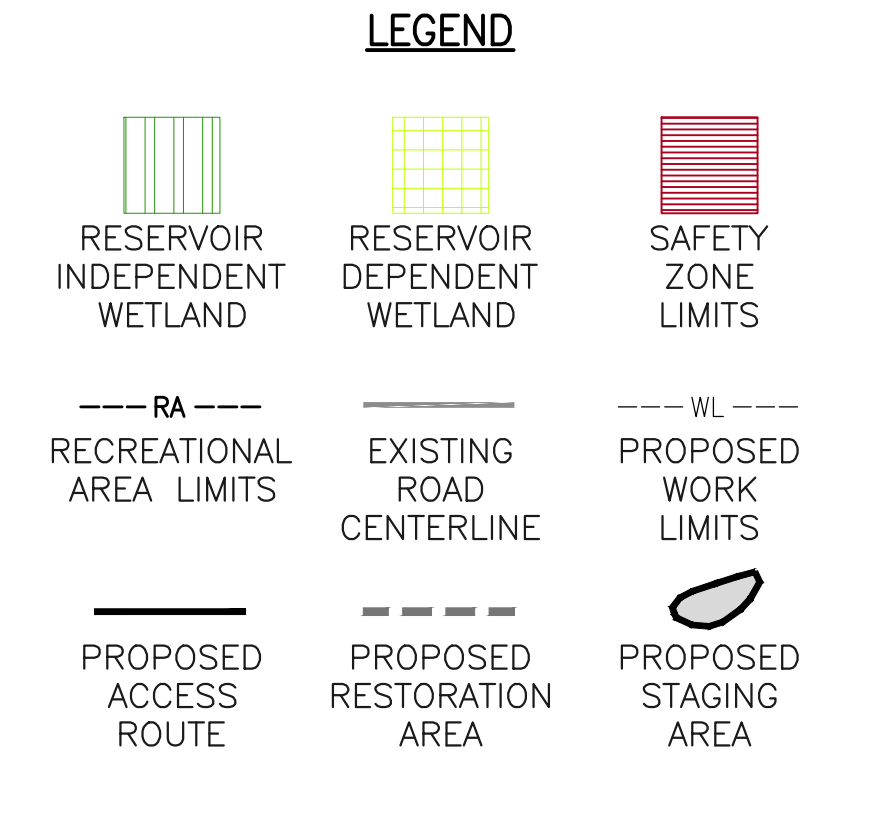
2020.02.07

DWG

R1701



JC BOYLE RESERVOIR ACCESS PLAN QUANTITIES			
WORK AREA	PROP. ACCESS (LF)	EX. ACCESS IMPROVEMENT (LF)	PROP. STAGING AREA (SY)
SPENCER CREEK	1,442	1,680	4,600
PIER DEMOLITION	993	641	1,315



PRELIMINARY DESIGN (NOT FOR CONSTRUCTION) 60% PLAN

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B	ISSUED - 60% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	02/07/20
A	ISSUED - 30% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	10/11/19

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

PREPARED BY



DESIGNED

JMR
SMS
JFS
SDP
MFA

PREPARED FOR



PROJECT

KLAMATH RIVER RENEWAL PROJECT

SHEET TITLE

JC BOYLE RESERVOIR-ACCESS PLAN

PROJ #

VA103-640/1

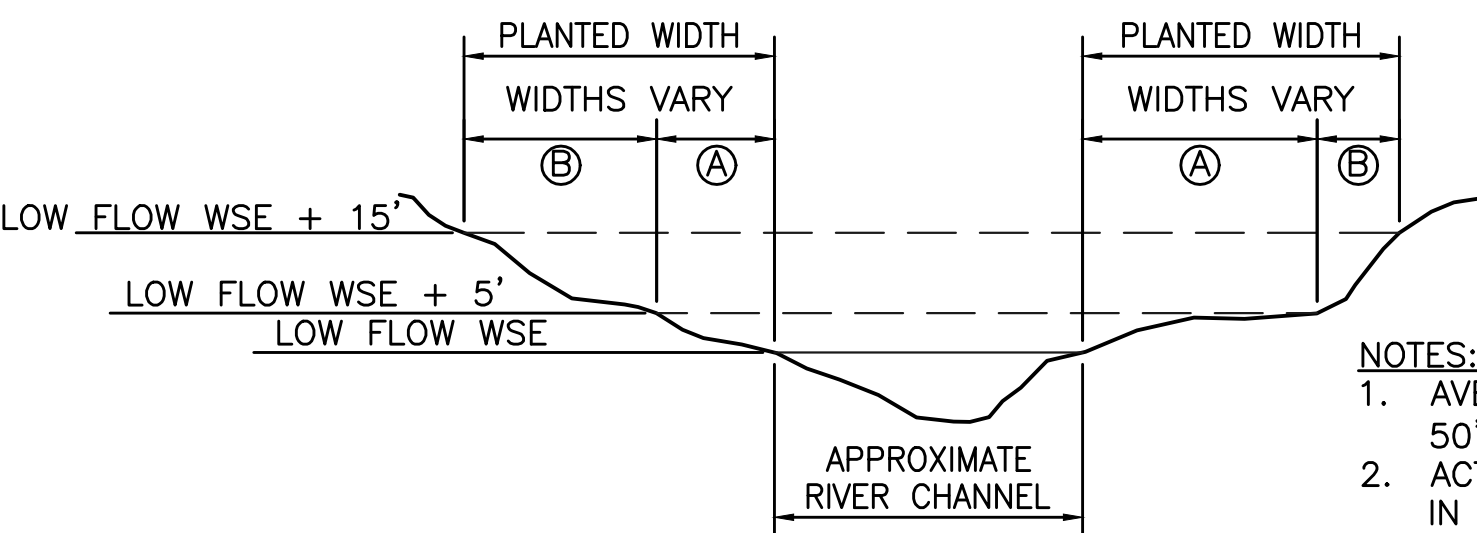
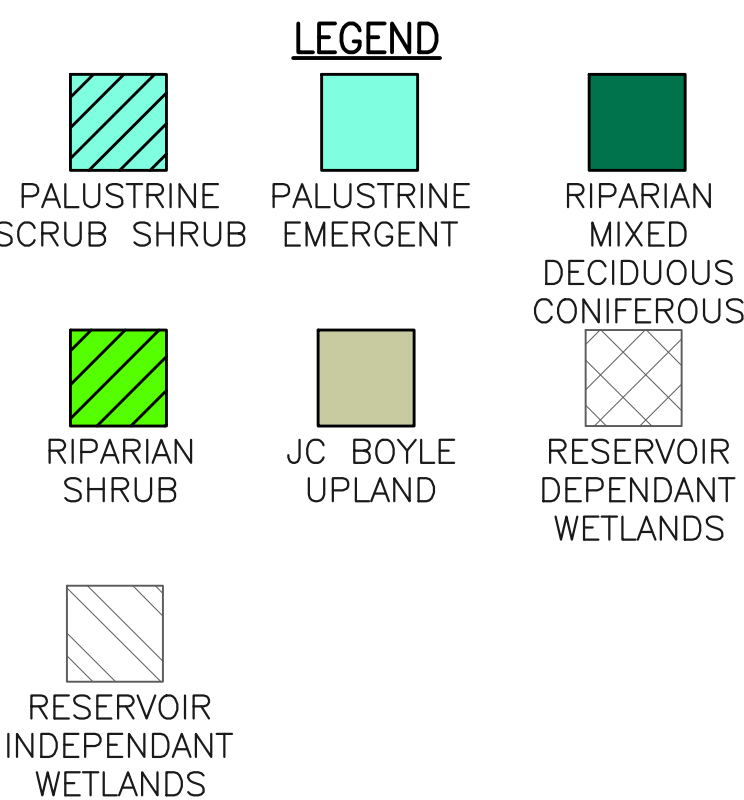
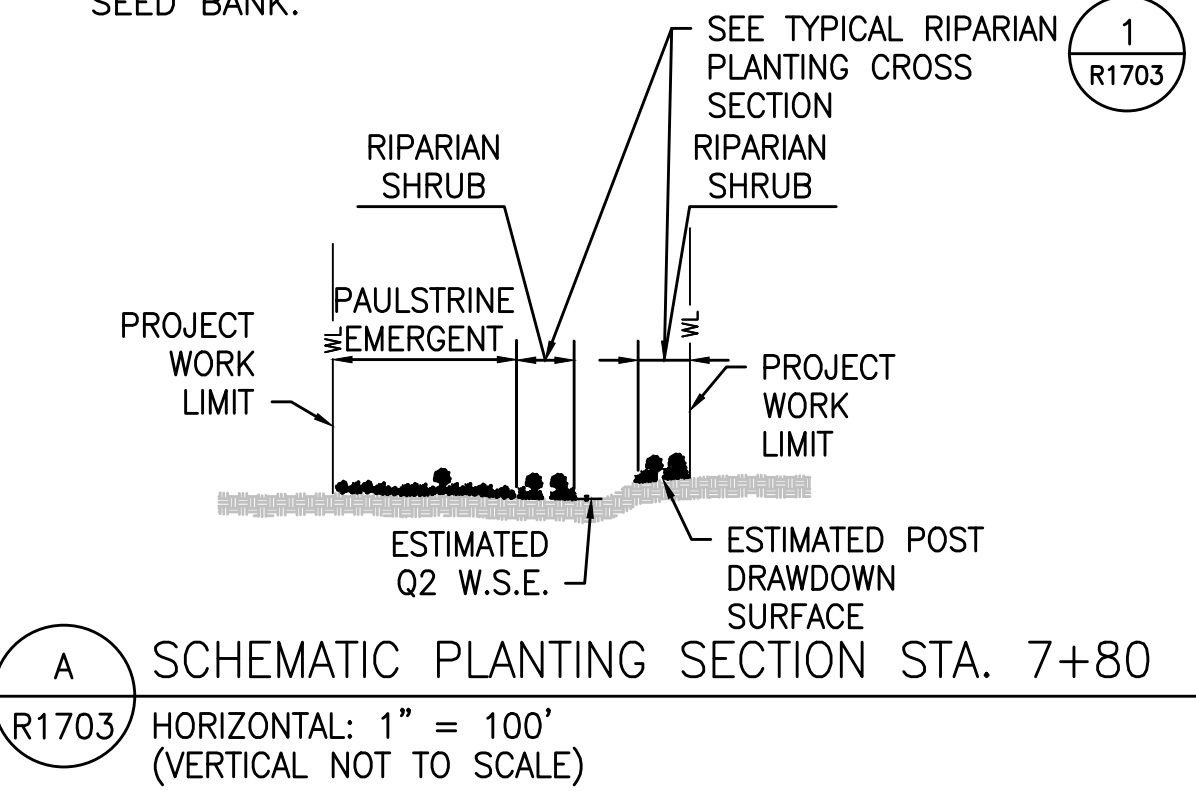
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2020.02.07

DWG

R1702

- NOTES:
1. RESERVOIR DEPENDANT WETLANDS CAN BE USED AS WETLAND VEGETATION HARVEST AREAS.
 2. SEE SHEET R0809 FOR REVEGETATION NOTES, QUANTITIES, AND SEED MIXES.
 3. SEE SHEETS R0810 AND R0811 FOR REVEGETATION DETAILS.
 4. INSTALL IRRIGATION IN RIPARIAN PLANTING ZONES.
 5. IT IS POSSIBLE RESERVOIR DEPENDANT WETLANDS MAY CONVERT TO UPLAND BETWEEN DRAWDOWN AND CONSTRUCTION. IT IS EXPECTED THAT IF THEY DO THESE AREAS CAN STILL BE HARVESTED TO ACCESS THE WETLAND SEED BANK.



- NOTES:
1. AVERAGE PLANTED WIDTH: 50' MAIN STEM, 30' TRIBUTARY
 2. ACTUAL PLANTED WIDTHS WILL VARY IN RESPONSE TO POST-DRAWDOWN TOPOGRAPHY AND GRADING TO AVOID IMPACTS TO EXISTING WETLAND AND RIPARIAN VEGETATION.
(A) WETTER RIPARIAN SPECIES
(B) DRIER RIPARIAN SPECIES CAN BE WIDENED WITH ADJACENT UPLAND PLANTS
 3. WSE = WATER SURFACE ELEVATION

PRELIMINARY DESIGN (NOT FOR CONSTRUCTION) 60% PLAN

REV	DESCRIPTION	BY	CHK	APP	DATE
B	ISSUED - 60% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	02/07/20
A	ISSUED - 30% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	10/11/19



IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

PREPARED BY



DESIGNED

JMR

DRAWN

REVIEWED

JFS

IN CHARGE

SDP

APPROVED

MFA

PREPARED FOR



PROJECT

KLAMATH RIVER RENEWAL PROJECT

SHEET TITLE

JC BOYLE RESERVOIR-PLANTING PLAN 1

PROJ #

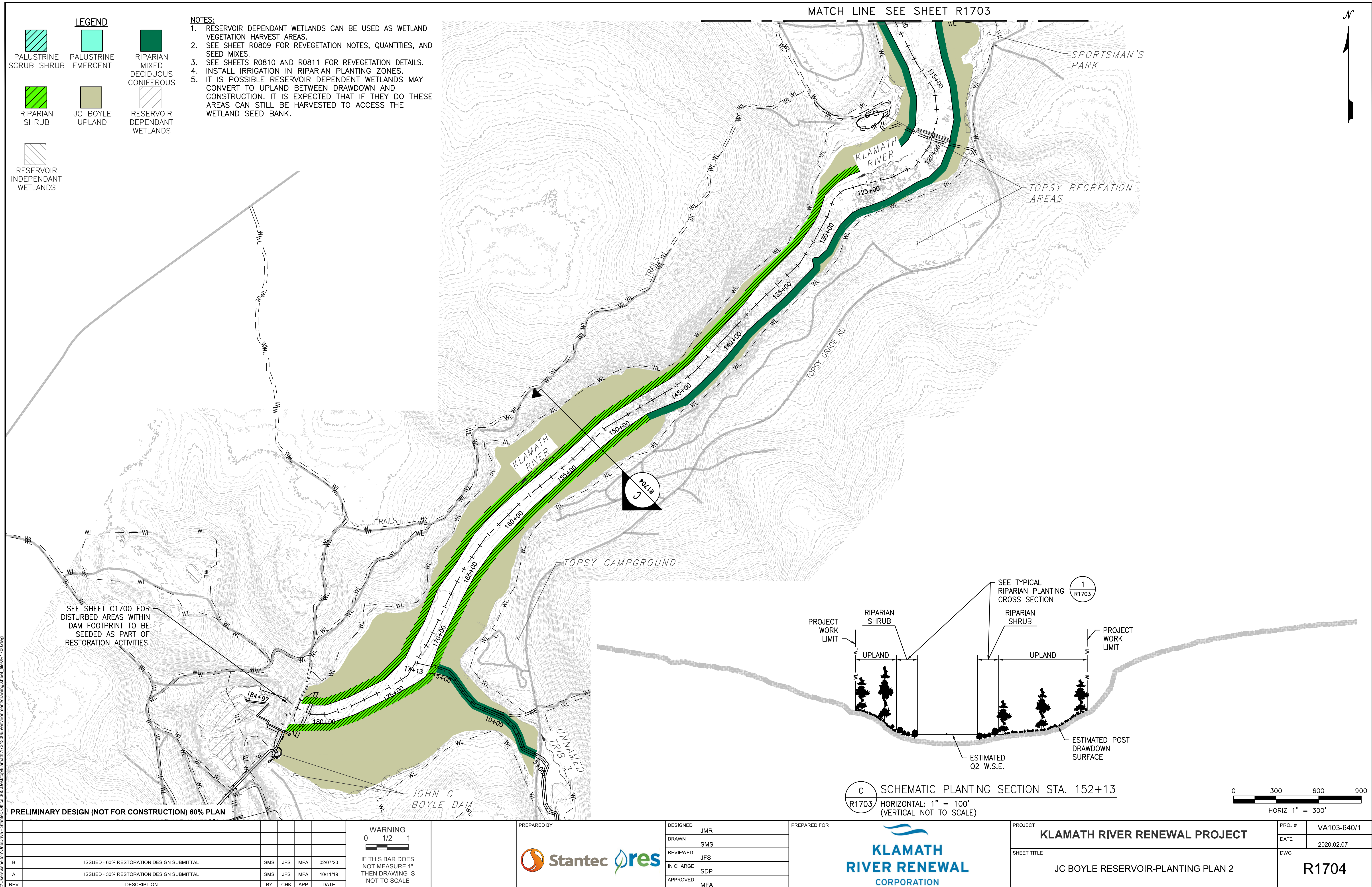
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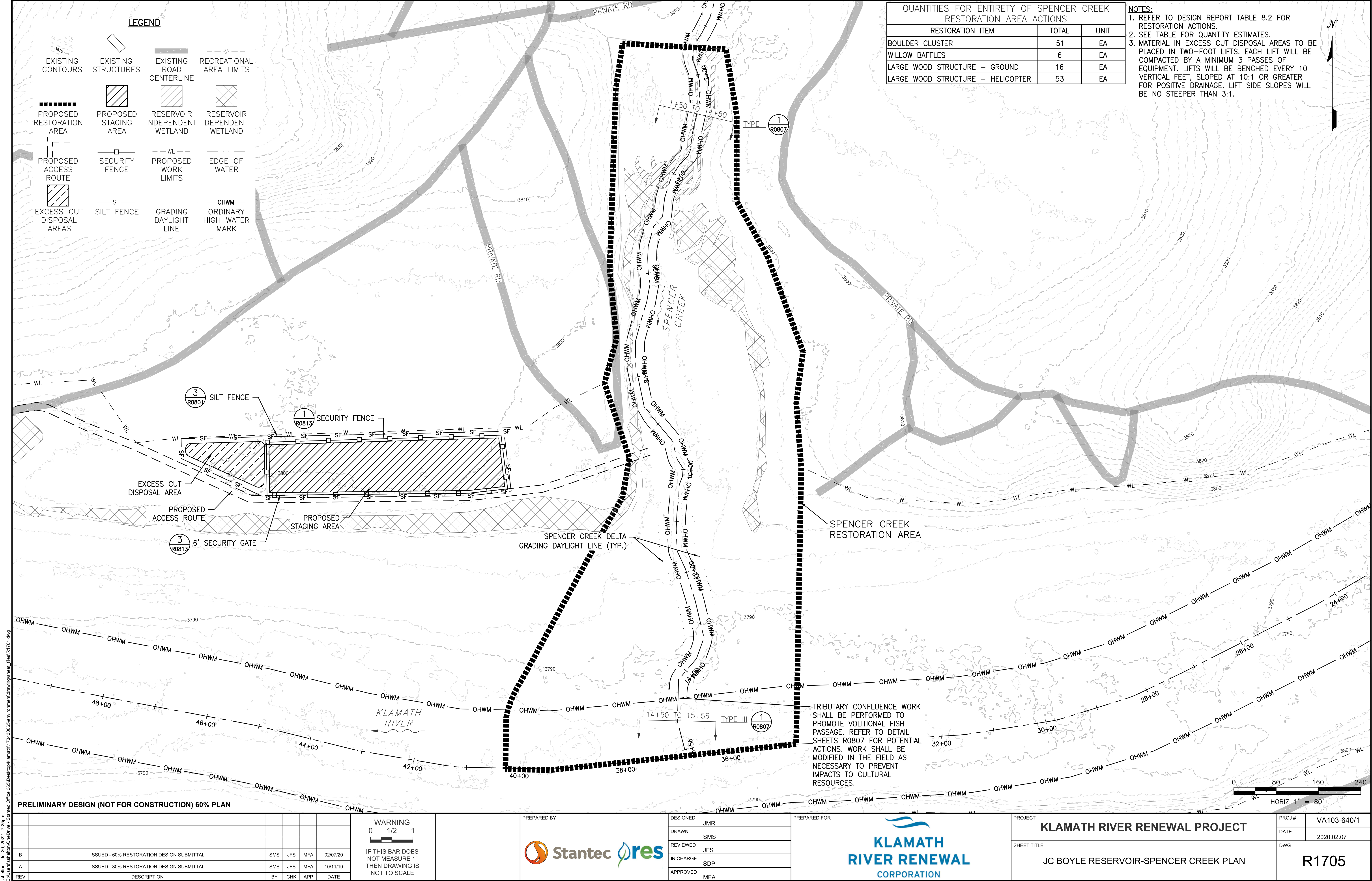
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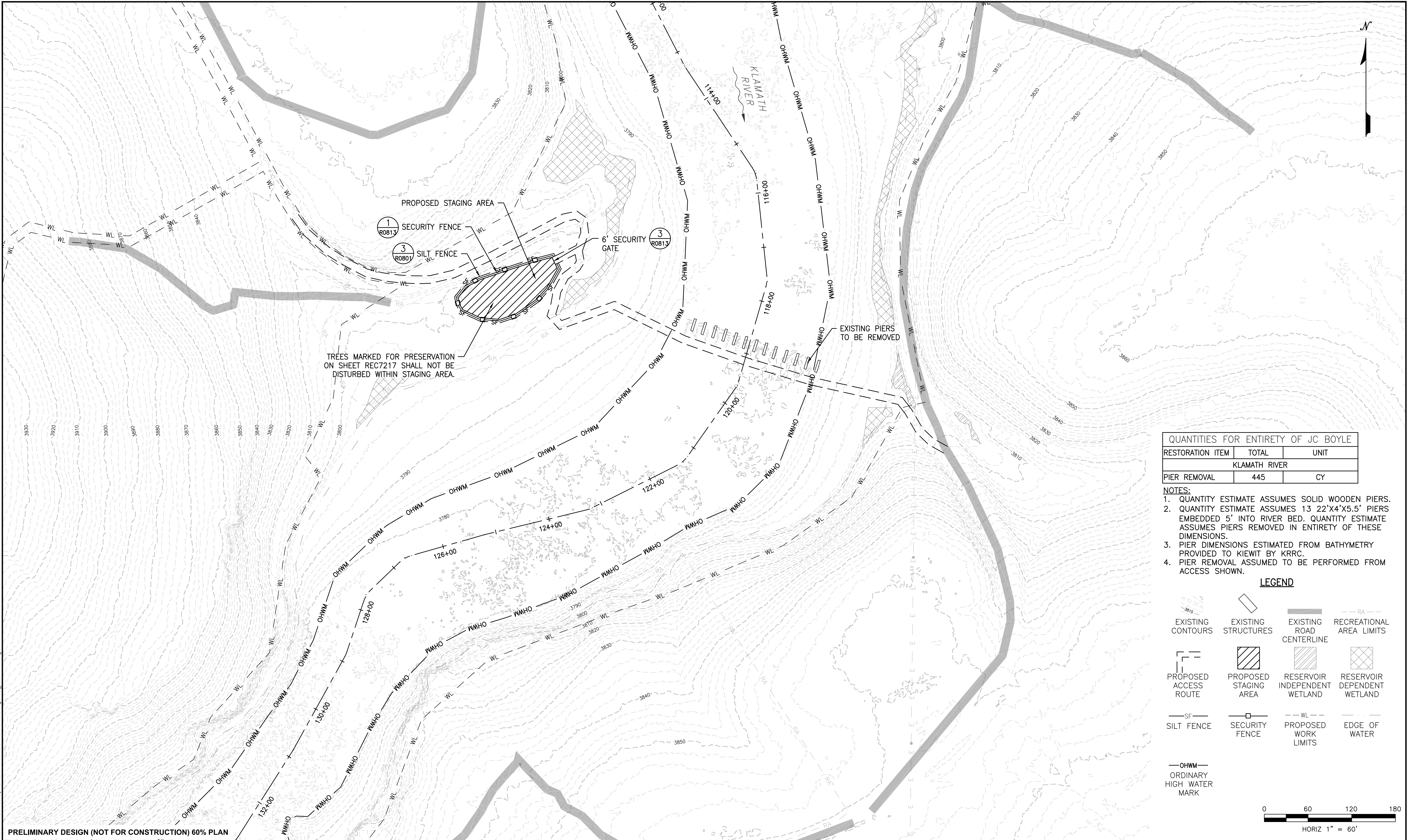
2020.02.07

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R1703







QUANTITIES FOR ENTIRETY OF JC BOYLE		
RESTORATION ITEM	TOTAL	UNIT
KLAMATH RIVER		
PIER REMOVAL	445	CY

- NOTES:
1. QUANTITY ESTIMATE ASSUMES SOLID WOODEN PIERS.
 2. QUANTITY ESTIMATE ASSUMES 13 22'X4'X5.5' PIERS EMBEDDED 5' INTO RIVER BED. QUANTITY ESTIMATE ASSUMES PIERS REMOVED IN ENTIRETY OF THESE DIMENSIONS.
 3. PIER DIMENSIONS ESTIMATED FROM BATHYMETRY PROVIDED TO KIEWIT BY KRRC.
 4. PIER REMOVAL ASSUMED TO BE PERFORMED FROM ACCESS SHOWN.

LEGEND

EXISTING CONTOURS

EXISTING STRUCTURES

EXISTING ROAD CENTERLINE

RECREATIONAL AREA LIMITS

PROPOSED ACCESS ROUTE

PROPOSED STAGING AREA

RESERVOIR INDEPENDENT WETLAND

RESERVOIR DEPENDENT WETLAND

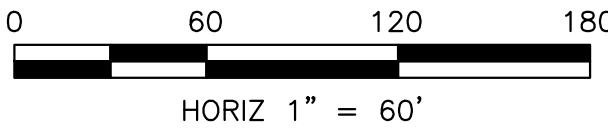
SILT FENCE

SECURITY FENCE

PROPOSED WORK LIMITS

EDGE OF WATER

OHWM
ORDINARY HIGH WATER MARK



PRELIMINARY DESIGN (NOT FOR CONSTRUCTION) 60% PLAN

REV	DESCRIPTION	BY	CHK	APP	DATE
B	ISSUED - 60% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	02/07/20
A	ISSUED - 30% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	10/11/19



PREPARED BY



DESIGNED

JMR

DRAWN

SMS

REVIEWED

JFS

IN CHARGE

SDP

APPROVED

MFA

PREPARED FOR



PROJECT

KLAMATH RIVER RENEWAL PROJECT

SHEET TITLE

JC BOYLE RESERVOIR-PIER REMOVAL

PROJ #

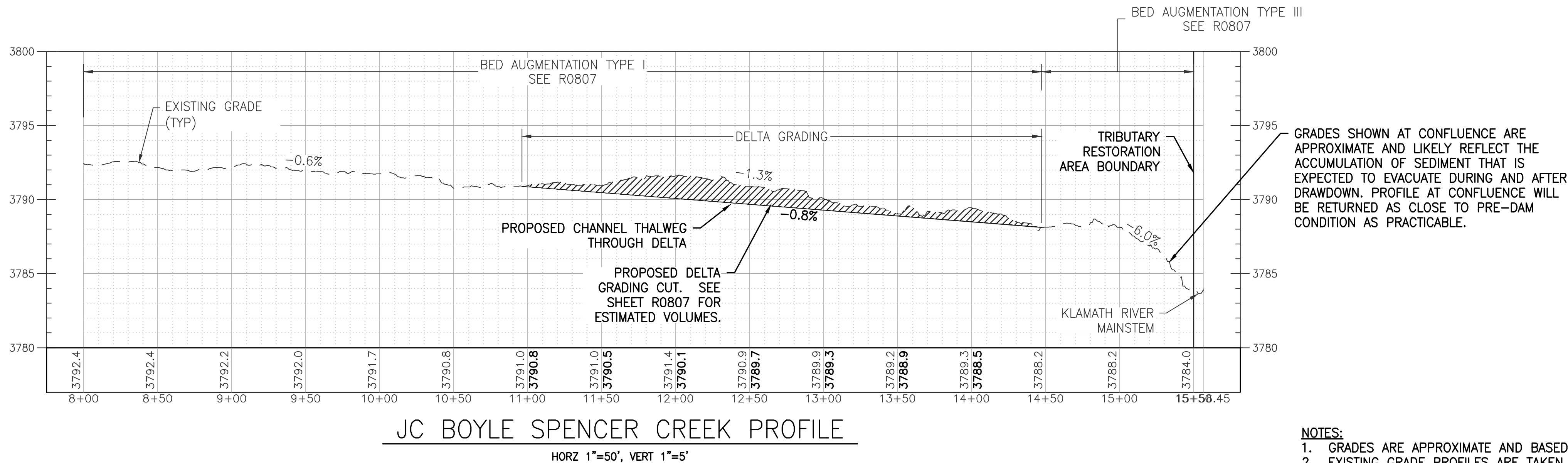
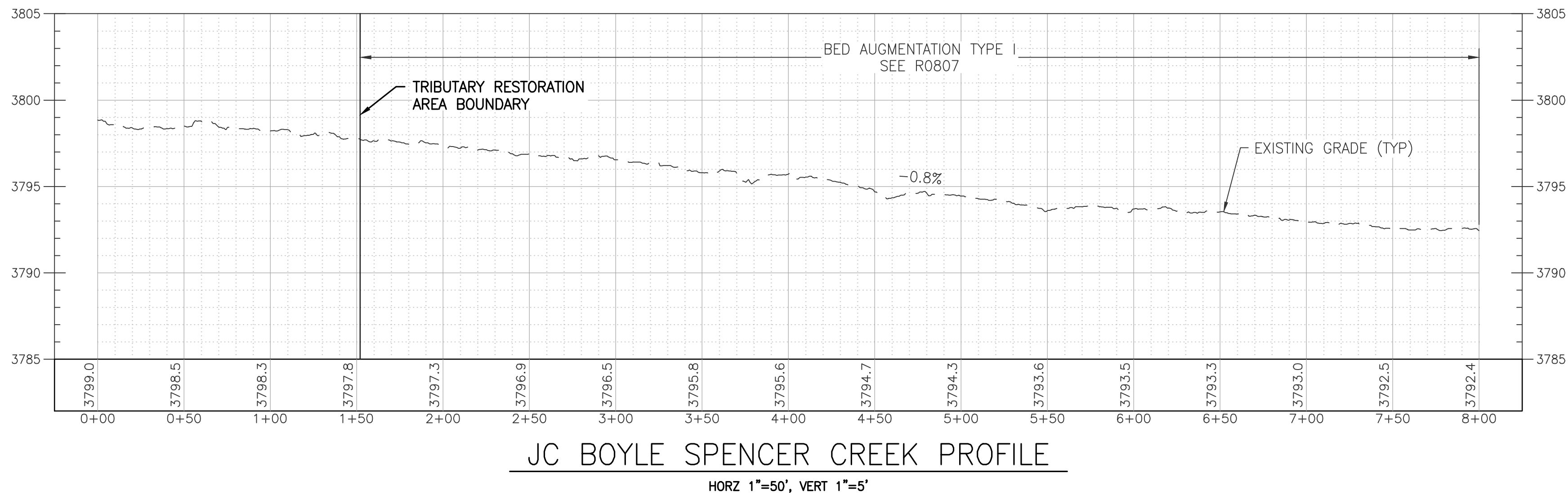
VA103-640/1

DATE

2020.02.07

DWG

R1706



GRADES SHOWN AT CONFLUENCE ARE APPROXIMATE AND LIKELY REFLECT THE ACCUMULATION OF SEDIMENT THAT IS EXPECTED TO EVACUATE DURING AND AFTER DRAWDOWN. PROFILE AT CONFLUENCE WILL BE RETURNED AS CLOSE TO PRE-DAM CONDITION AS PRACTICABLE.

NOTES:

1. GRADES ARE APPROXIMATE AND BASED ON BEST AVAILABLE DATA; SEE NOTES BELOW.
2. EXISTING GRADE PROFILES ARE TAKEN FROM THE COMBINED 2018 BATHYMETRY AND LIDAR SURFACES PROVIDED TO KIEWIT BY KRRC.
3. POST DRAWDOWN PROFILES ARE NOT SHOWN FOR SPENCER CREEK AS THE REQUIRED BASE DATA ARE NOT AVAILABLE (SEE NOTES 6 AND 7 BELOW). EXCESSIVE RESIDUAL SEDIMENT IS NOT ANTICIPATED IN SPENCER CREEK. HOWEVER, LOCALIZED ADAPTIVE MANAGEMENT ACTIONS TO MAINTAIN VOLITIONAL FISH PASSAGE MAY BE REQUIRED POST-DRAWDOWN. REFER TO SHEETS R0808 FOR ADAPTIVE MANAGEMENT ACTIONS AND GRADING APPROACHES.
4. POST DRAWDOWN PROFILES ARE INTENDED TO REPRESENT A PLAUSIBLE ENDPOINT FOR BASIN SEDIMENTS AFTER DAM REMOVAL, RESERVOIR DRAWDOWN, AND SEDIMENT EVACUATION IN A TYPICAL WATER YEAR.
5. POST DRAWDOWN PROFILES ARE NOT INTENDED TO PROVIDE A GRADING TARGET ELEVATION; HOWEVER, POST-DRAWDOWN GRADING OF RESIDUAL SEDIMENT OR OTHER IN-CHANNEL WORK (SEE SHEET R0808) MAY BE REQUIRED TO PROMOTE VOLITIONAL FISH PASSAGE IN CERTAIN TRIBUTARIES AND AT THEIR CONFLUENCES WITH THE KLAMATH RIVER. QUANTITY ESTIMATES ARE DERIVED FROM COMPARISON OF THE POST-DRAWDOWN SURFACE AND 2018 BATHYMETRY WITHIN ANTICIPATED CHANNEL EXTENTS. SEE SHEET R0807.
6. POST DRAWDOWN SURFACES WERE GENERATED BY ESTIMATING MATERIAL CONSOLIDATION AFTER RESERVOIR DRAWDOWN, SUBTRACTING THE ESTIMATED CONSOLIDATION FROM THE 2018 EXISTING GROUND SURFACE, AND THEN SUBTRACTING ESTIMATED EVACUATION VOLUME WITHIN THE KLAMATH RIVER AND ITS TRIBUTARIES FROM THE RESULTANT SURFACE.
7. CONSOLIDATION SURFACE BASE DATA ARE GEOREFERENCED SEDIMENT DEPTH ISOLINE MAPS FROM THE BUREAU OF RECLAMATION 2011 HYDROLOGY, HYDRAULICS, AND SEDIMENT TRANSPORT STUDIES FOR THE SECRETARY'S DETERMINATION ON KLAMATH RIVER DAM REMOVAL AND BASIN RESTORATION (TECHNICAL REPORT NO. SRH-2011-02). FOR J.C. BOYLE, THESE DATA DO NOT EXTEND TO SPENCER CREEK.
8. FULL SEDIMENT EVACUATION WAS ASSUMED WITHIN CHANNEL SECTIONS. FOR THE J.C. BOYLE BASIN, REASONABLE PRE-DAM DATA WERE NOT AVAILABLE TO ESTIMATE HISTORIC CONDITIONS. PRE-DAM THALWEG ELEVATIONS WERE ESTIMATED BY SUBTRACTING TOTAL SEDIMENT DEPTHS FROM THE 2011 USBR REPORT FROM THE 2018 EXISTING CONDITIONS SURFACE.

PRELIMINARY DESIGN (NOT FOR CONSTRUCTION) 60% PLAN

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Date: 02/07/20
Time: 11:07 AM
User: jchellon

B	ISSUED - 60% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	02/07/20
A	ISSUED - 30% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	10/11/19
REV	DESCRIPTION	BY	CHK	APP	DATE

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

PREPARED BY



DESIGNED

JMR

DRAWN

SMS

REVIEWED

JFS

IN CHARGE

SDP

APPROVED

MFA

PREPARED FOR



PROJECT

KLAMATH RIVER RENEWAL PROJECT

SHEET TITLE

JC BOYLE RESERVOIR-SPENCER CREEK PROFILE

PROJ #

VA103-640/1

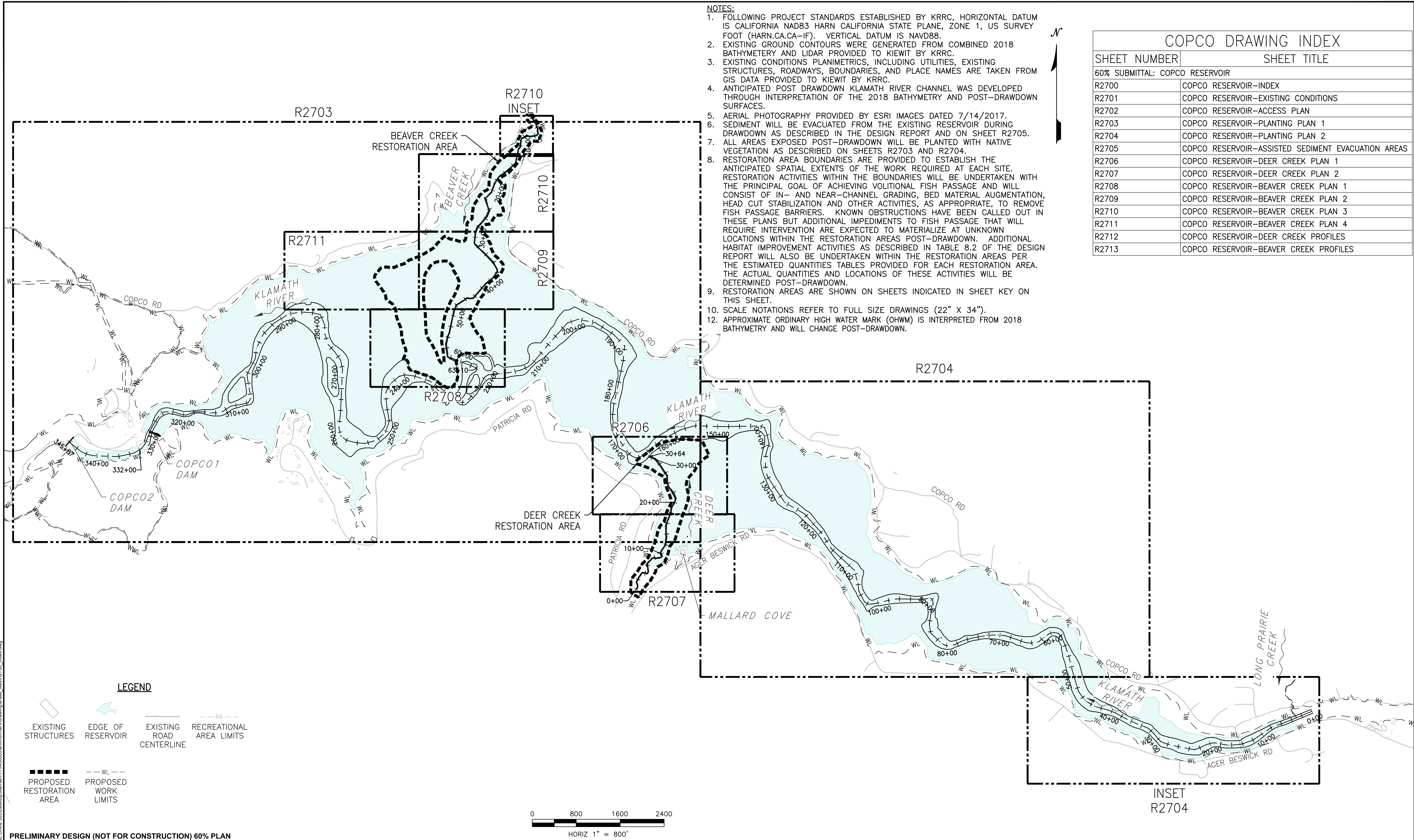
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2020.02.07

DWG

R1707

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Sheet: 1 of 1
Date: 10/11/19
User: jfs



- NOTES:**
1. FOLLOWING PROJECT STANDARDS ESTABLISHED BY KRRC, HORIZONTAL DATUM IS CALIFORNIA NAD83 HARN CALIFORNIA STATE PLANE, ZONE 1, US SURVEY FOOT (HARN.CA.CA-IF). VERTICAL DATUM IS NAVD88.
 2. EXISTING GROUND CONTOURS WERE GENERATED FROM COMBINED 2018 BATHYMETRY AND LIDAR PROVIDED TO KIEWIT BY KRRC.
 3. EXISTING CONDITIONS PLANIMETRICS, INCLUDING UTILITIES, EXISTING STRUCTURES, ROADWAYS, BOUNDARIES, AND PLACE NAMES ARE TAKEN FROM GIS DATA PROVIDED TO KIEWIT BY KRRC.
 4. ANTICIPATED POST DRAWDOWN KLAMATH RIVER CHANNEL WAS DEVELOPED THROUGH INTERPRETATION OF THE 2018 BATHYMETRY AND POST-DRAWDOWN SURFACES.
 5. AERIAL PHOTOGRAPHY PROVIDED BY ESRI IMAGES DATED 7/14/2017.
 6. SEDIMENT WILL BE EVACUATED FROM THE EXISTING RESERVOIR DURING DRAWDOWN AS DESCRIBED IN THE DESIGN REPORT AND ON SHEET R2705.
 7. ALL AREAS EXPOSED POST-DRAWDOWN WILL BE PLANTED WITH NATIVE VEGETATION AS DESCRIBED ON SHEETS R2703 AND R2704.
 8. RESTORATION AREA BOUNDARIES ARE PROVIDED TO ESTABLISH THE ANTICIPATED SPATIAL EXTENTS OF THE WORK REQUIRED AT EACH SITE. RESTORATION ACTIVITIES WITHIN THE BOUNDARIES WILL BE UNDERTAKEN WITH THE PRINCIPAL GOAL OF ACHIEVING VOLITIONAL FISH PASSAGE AND WILL CONSIST OF IN- AND NEAR-CHANNEL GRADING, BED MATERIAL AUGMENTATION, HEAD CUT STABILIZATION AND OTHER ACTIVITIES, AS APPROPRIATE, TO REMOVE FISH PASSAGE BARRIERS. KNOWN OBSTRUCTIONS HAVE BEEN CALLED OUT IN THESE PLANS BUT ADDITIONAL IMPEDIMENTS TO FISH PASSAGE THAT WILL REQUIRE INTERVENTION ARE EXPECTED TO MATERIALIZE AT UNKNOWN LOCATIONS WITHIN THE RESTORATION AREAS POST-DRAWDOWN. ADDITIONAL HABITAT IMPROVEMENT ACTIVITIES AS DESCRIBED IN TABLE 8.2 OF THE DESIGN REPORT WILL ALSO BE UNDERTAKEN WITHIN THE RESTORATION AREAS PER THE ESTIMATED QUANTITIES TABLES PROVIDED FOR EACH RESTORATION AREA. THE ACTUAL QUANTITIES AND LOCATIONS OF THESE ACTIVITIES WILL BE DETERMINED POST-DRAWDOWN.
 9. RESTORATION AREAS ARE SHOWN ON SHEETS INDICATED IN SHEET KEY ON THIS SHEET.
 10. SCALE NOTATIONS REFER TO FULL SIZE DRAWINGS (22" X 34").
 12. APPROXIMATE ORDINARY HIGH WATER MARK (OHWM) IS INTERPRETED FROM 2018 BATHYMETRY AND WILL CHANGE POST-DRAWDOWN.

COPCO DRAWING INDEX	
SHEET NUMBER	SHEET TITLE
60% SUBMITTAL: COPCO RESERVOIR	
R2700	COPCO RESERVOIR-INDEX
R2701	COPCO RESERVOIR-EXISTING CONDITIONS
R2702	COPCO RESERVOIR-ACCESS PLAN
R2703	COPCO RESERVOIR-PLANTING PLAN 1
R2704	COPCO RESERVOIR-PLANTING PLAN 2
R2705	COPCO RESERVOIR-ASSISTED SEDIMENT EVACUATION AREAS
R2706	COPCO RESERVOIR-DEER CREEK PLAN 1
R2707	COPCO RESERVOIR-DEER CREEK PLAN 2
R2708	COPCO RESERVOIR-BEAVER CREEK PLAN 1
R2709	COPCO RESERVOIR-BEAVER CREEK PLAN 2
R2710	COPCO RESERVOIR-BEAVER CREEK PLAN 3
R2711	COPCO RESERVOIR-BEAVER CREEK PLAN 4
R2712	COPCO RESERVOIR-DEER CREEK PROFILES
R2713	COPCO RESERVOIR-BEAVER CREEK PROFILES

PRELIMINARY DESIGN (NOT FOR CONSTRUCTION) 60% PLAN

REV	DESCRIPTION	BY	CHK	APP	DATE
B	ISSUED - 60% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	02/07/20
A	ISSUED - 30% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	10/11/19

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

PREPARED BY



DESIGNED

DRAWN	GH/KB
REVIEWED	SMS
IN CHARGE	JFS
APPROVED	SDP
	MFA

PREPARED FOR



PROJECT

KLAMATH RIVER RENEWAL PROJECT

SHEET TITLE

COPCO RESERVOIR-INDEX

PROJ #

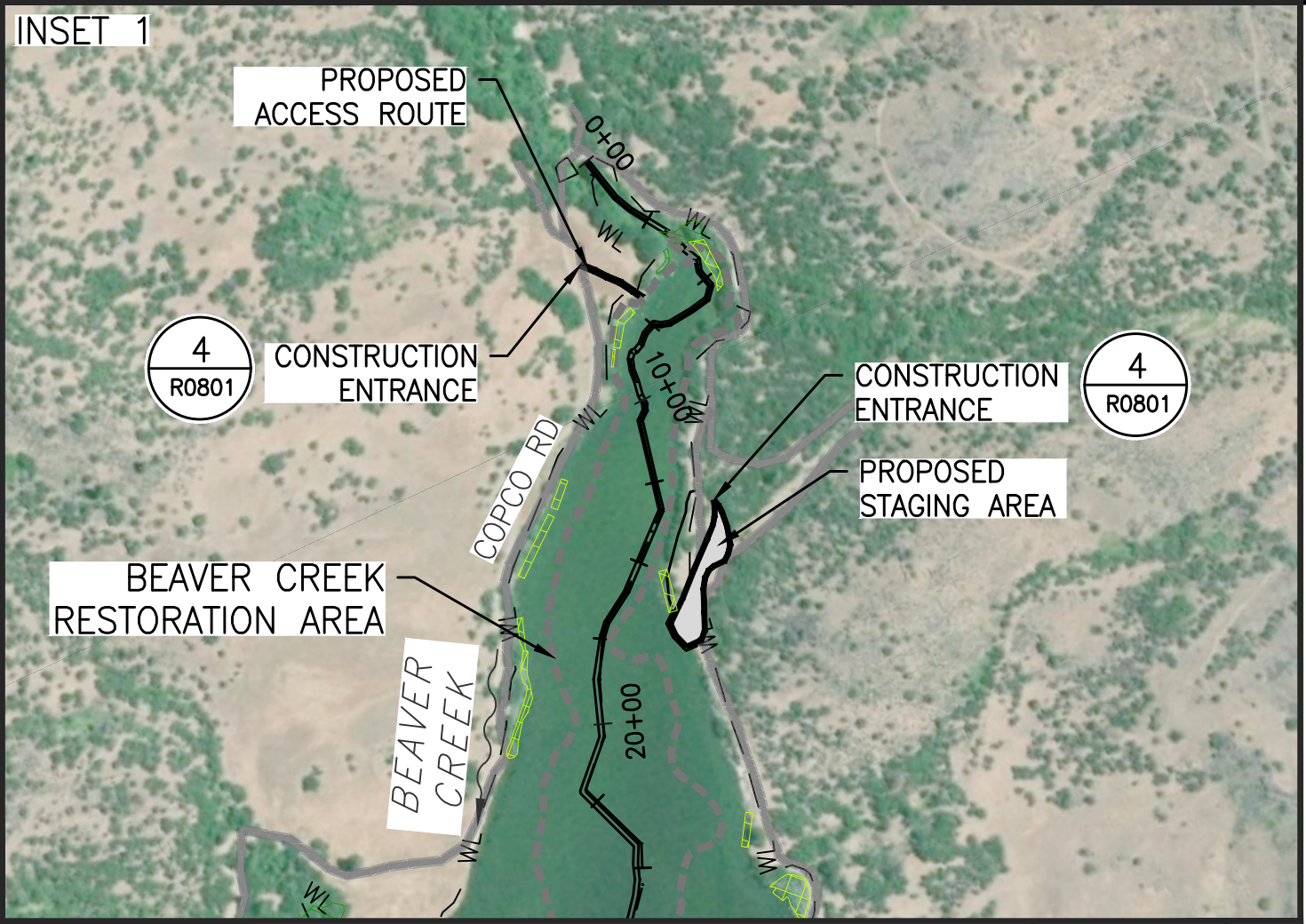
VA103-640/1

DATE

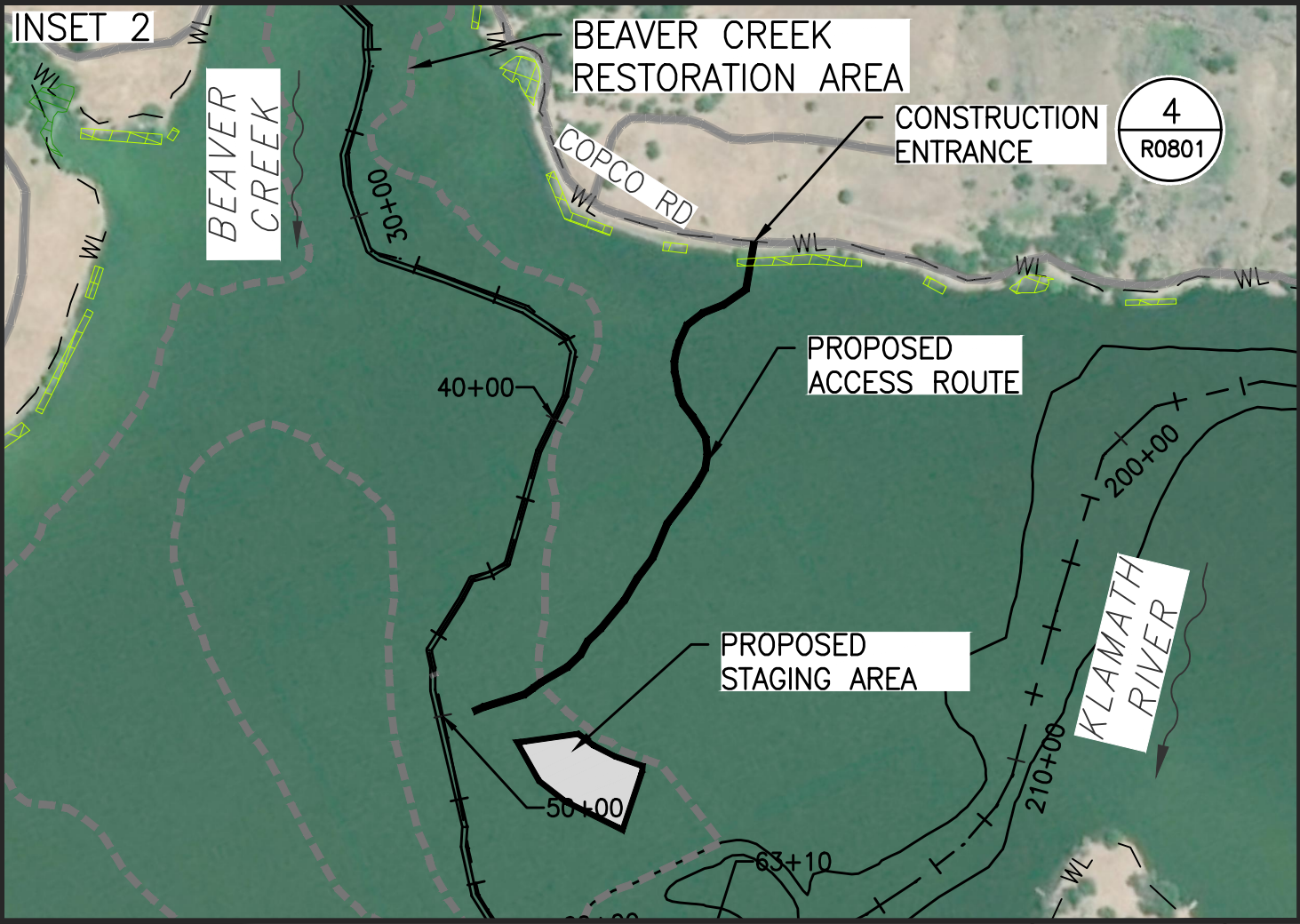
2020.02.07

DWG

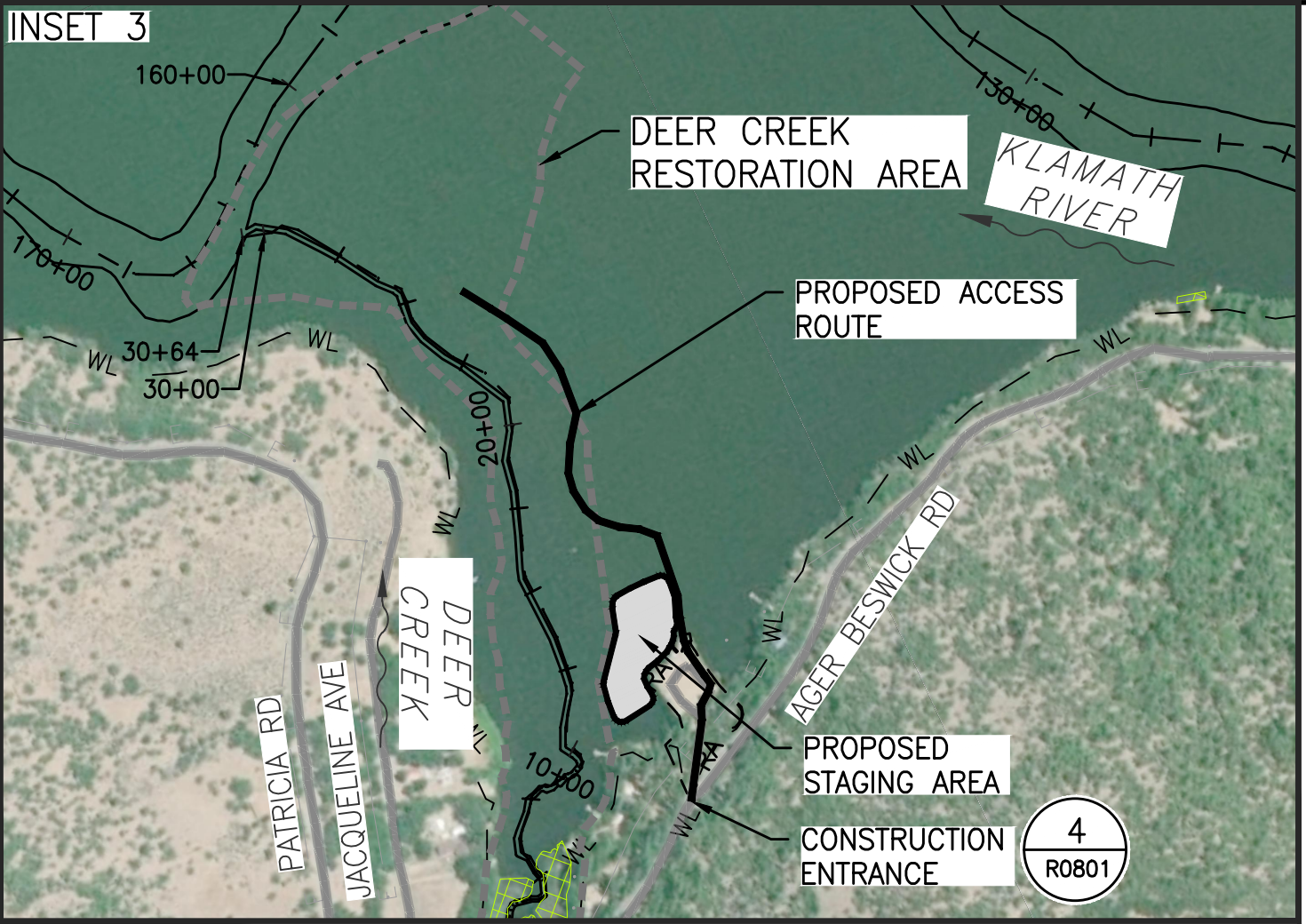
R2700



BEAVER CREEK – ACCESS PLAN (NORTH)



BEAVER CREEK – ACCESS PLAN (SOUTH)

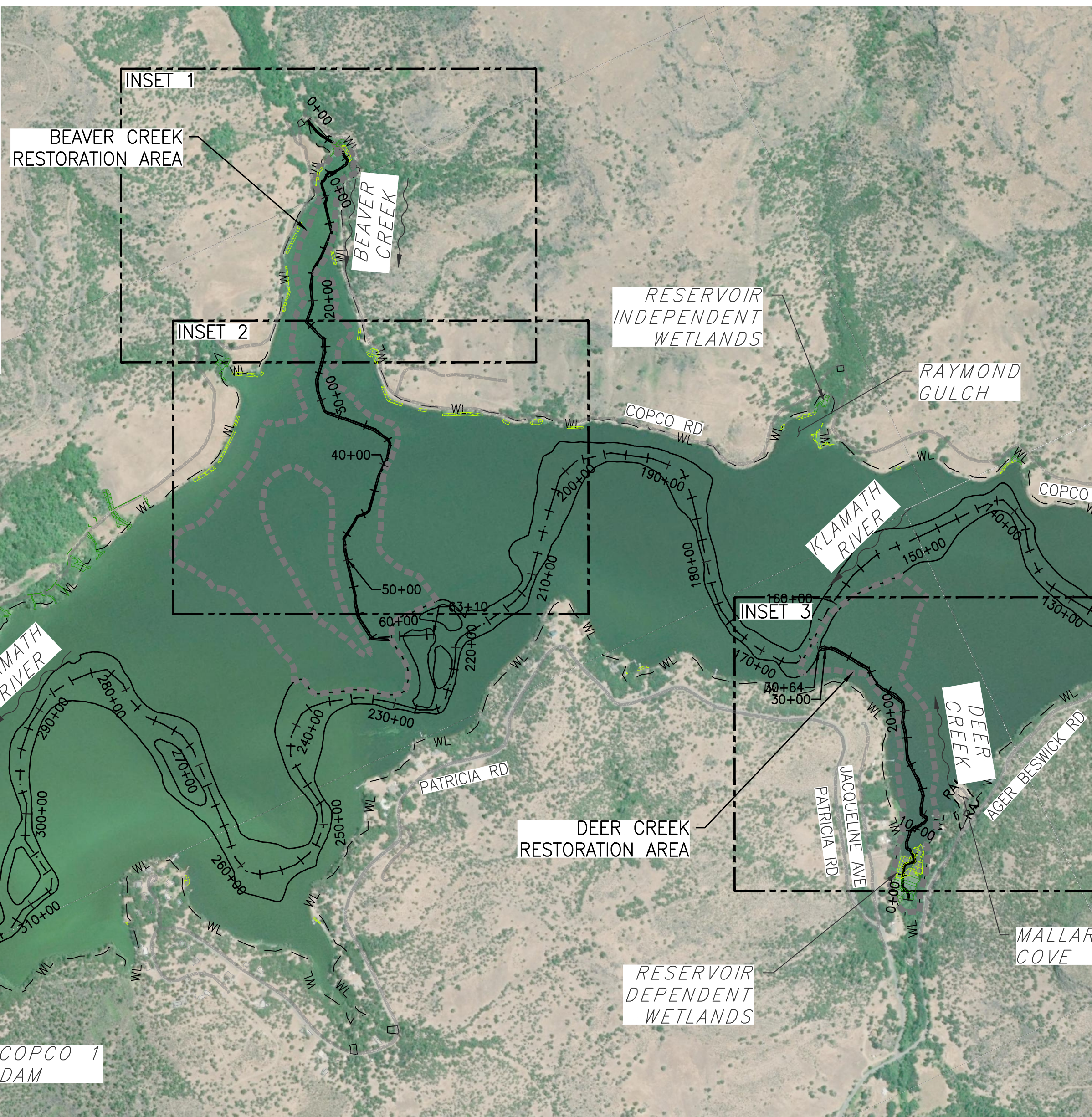


DEER CREEK – ACCESS PLAN

LEGEND

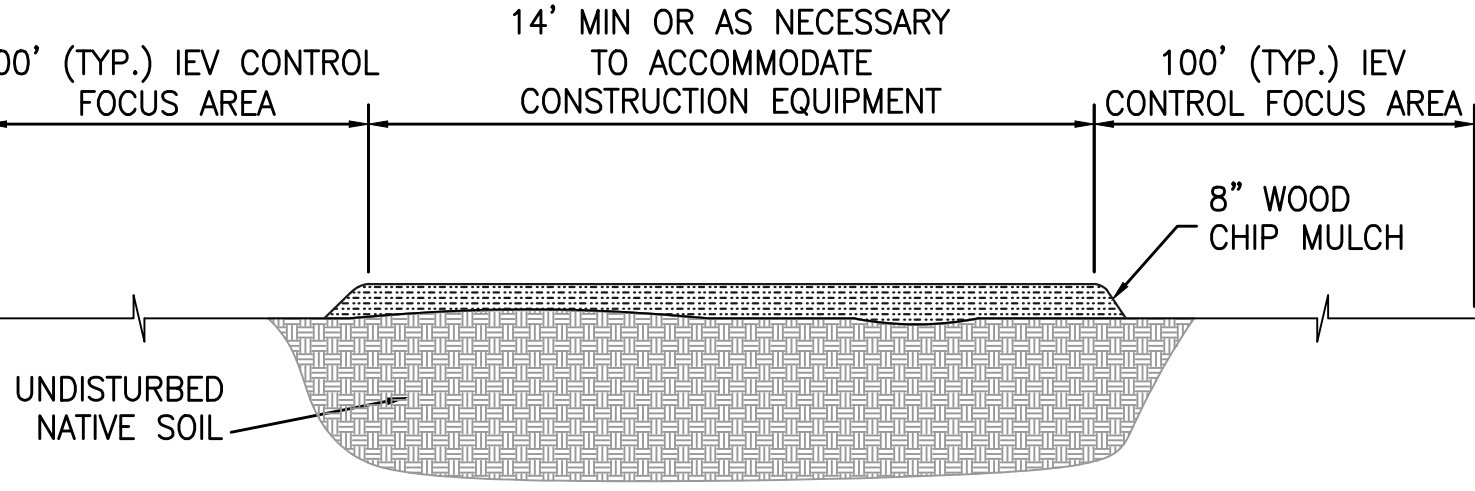
1" = 500'

RESERVOIR DEPENDENT WETLAND
RESERVOIR INDEPENDENT WETLAND
PROPOSED STAGING AREA
RECREATIONAL AREA LIMITS
EXISTING ROAD CENTERLINE
PROPOSED WORK LIMITS
PROPOSED ACCESS ROUTE
PROPOSED RESTORATION AREA

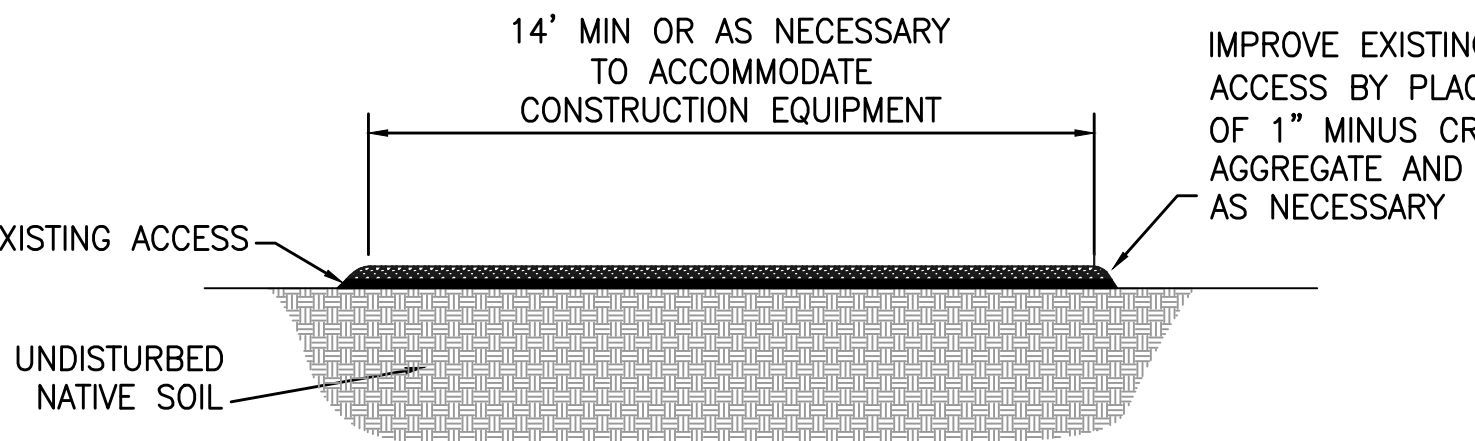


COPCO RESERVOIR ACCESS PLAN QUANTITIES			
WORK AREA	PROP. ACCESS (LF)	EX. ACCESS IMPROVEMENT (LF)	PROP. STAGING AREA (SY)
BEAVER CREEK	2,027	0	7,090
DEER CREEK	776	338	6,140

- NOTES:
1. TEMPORARY ACCESS ROUTES AND STAGING AREAS SHOWN HERE REPRESENT A PROBABLE AND PLAUSIBLE PATHWAY TO WORK AREAS. FINAL TEMPORARY ACCESS ROUTE LOCATIONS WILL BE DETERMINED POST DRAWDOWN, PENDING FIELD CONDITIONS.
 2. WHERE DEEMED NECESSARY, TEMPORARY ACCESS WILL BE SURFACED WITH WOOD CHIP MULCH, SEE CROSS SECTION 1.
 3. EXCESSIVELY WET AREAS MAY REQUIRE THE USE OF TIMBER MATS FOR ACCESS. SEE DETAIL 5 SHEET R0801.
 4. ACCESS ROADS MAY REMAIN IN PLACE FOR MONITORING AND MAINTENANCE AND IEV MANAGEMENT AS NECESSARY.
 5. EXISTING ACCESS WILL BE RESURFACED AS NECESSARY TO FACILITATE EQUIPMENT PASSAGE, DEPENDING ON FINAL TEMPORARY ACCESS LOCATIONS.
 6. EXISTING ROADS WILL BE RETURNED TO A CONDITION EQUIVALENT TO OR BETTER THAN PRE-CONSTRUCTION.



1
R2702
TEMPORARY ACCESS SECTION
DETAIL



2
R2702
EXISTING ACCESS IMPROVEMENTS
DETAIL

PRELIMINARY DESIGN (NOT FOR CONSTRUCTION) 60% PLAN

REV	DESCRIPTION	BY	CHK	APP	DATE
B	ISSUED - 60% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	02/07/20
A	ISSUED - 30% RESTORATION DESIGN SUBMITTAL	SMS	JFS	MFA	10/11/19

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

PREPARED BY
Stantec **ores**

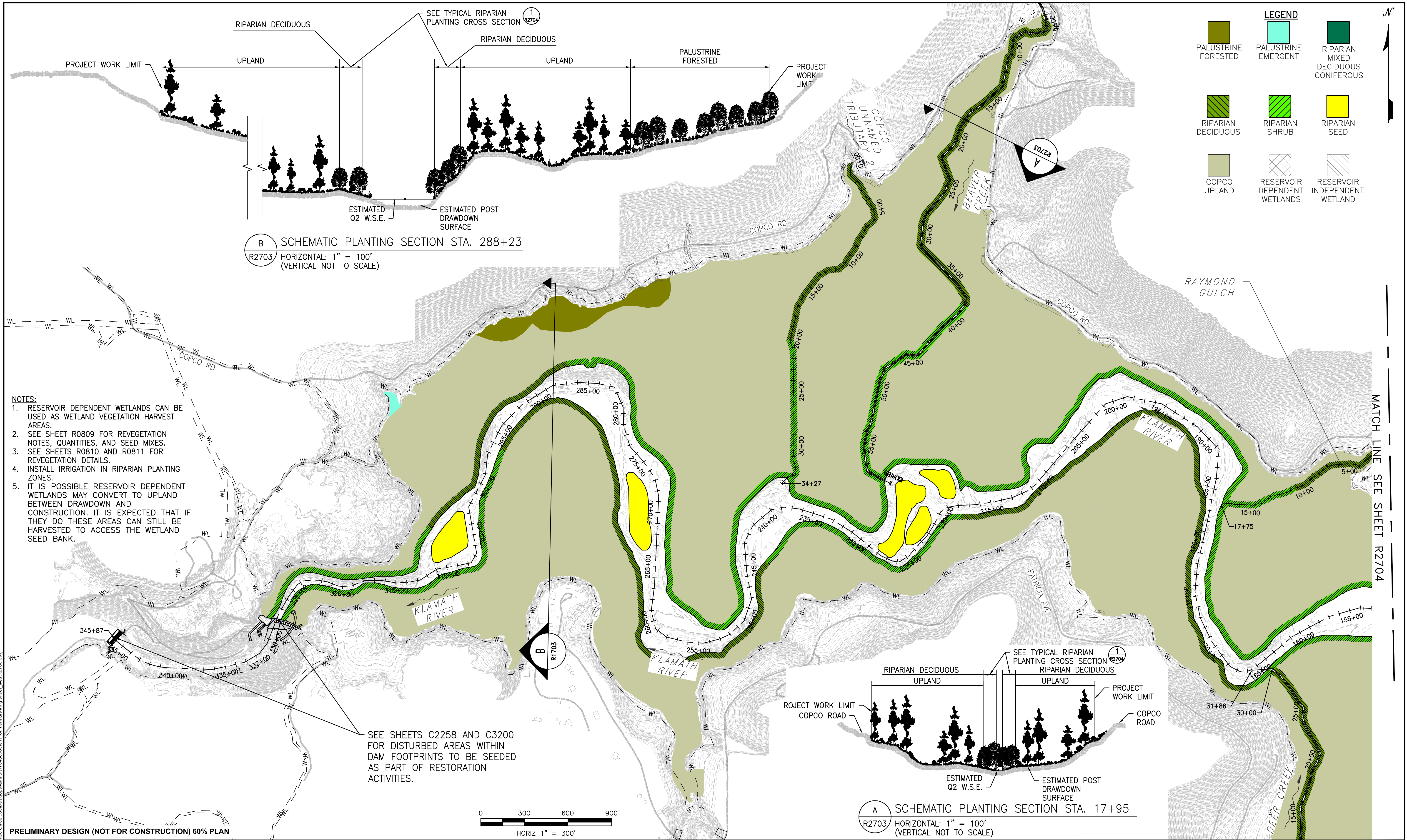
DESIGNED GH/KB
DRAWN SMS
REVIEWED JFS
IN CHARGE SDP
APPROVED MFA





PREPARED FOR
KLAMATH RIVER RENEWAL CORPORATION

PROJECT
KLAMATH RIVER RENEWAL PROJECT
SHEET TITLE
COPCO RESERVOIR-ACCESS PLAN

PROJ # VA103-640/1
DATE 2020.02.07
DWG
R2702

3/1/2020 10:22:48 AM
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3/1/2020 10:22:48 AM



					WARNING 0 1/2 1 				PREPARED BY  		DESIGNED GH/KB		PREPARED FOR 		PROJECT KLAMATH RIVER RENEWAL PROJECT		PROJ # VA103-640/1	
											DRAWN SMS				KLAMATH RIVER RENEWAL CORPORATION		DATE 2020.02.07	
											REVIEWED JFS				SHEET TITLE COPCO RESERVOIR-PLANTING PLAN 1		DWG R2703	
B ISSUED - 60% RESTORATION DESIGN SUBMITTAL					SMS	JFS	MFA	02/07/20			IN CHARGE SDP							
A ISSUED - 30% RESTORATION DESIGN SUBMITTAL					SMS	JFS	MFA	10/11/19			APPROVED MFA							
REV DESCRIPTION					BY	CHK	APP	DATE										