

NOTES:
BEARINGS. (TRUE) - BASED UPON RESOURCE GRADE GPS COLLECTED AT POINTS 1 AND 2.
ELEVATIONS. - BASED ON RESOURCE GRADE GPS COLLECTED AT POINT 1.
COORDINATES. - WASHINGTON STATE PLANE, NORTH ZONE, NAD83, U.S. FEET, BASED ON RESOURCE GRADE GPS GATHERED AT POINT 1. ALL LATITUDES AND LONGITUDES SHOWN ARE NAD83, CORS96.



- LEGEND**
- CONTROL POINT - REBAR/CAP
 - ▲ CONTROL POINT - SPIKE
 - 🌲 FIR TREE
 - 🌳 COTTONWOOD TREE
 - 🌲 PINE TREE
 - EDGE OF WATER
 - THALWEG

36" CMP
I.E. INLET 2640.54 FT.
I.E. OUTLET 2640.21 FT.

CP #2
REBAR & CAP
ELEV: 2648.14'

CP #3
SPIKE
ELEV: 2646.21'

DISPERSED
CAMP AREA.

METAL OPEN BOTTOM
ARCH CULVERT

SPRING

CP #4
SPIKE
ELEV: 2646.17'

LOGJAM

CP #5
SPIKE
ELEV: 2638.80'

CONTROL POINT COORDINATES (WA STATE PLANE NORTH, NAD83, U.S. FEET)				
PointNo.	Northing(Y)	Easting(X)	Elev(Z)	Description
1	140598.22	1684197.45	2657.54	rbr/cap
2	140759.64	1683943.40	2648.14	rbr/cap
3	140727.66	1683986.34	2646.21	spike
4	140537.17	1683966.06	2646.17	spike
5	140857.32	1684009.69	2638.80	spike

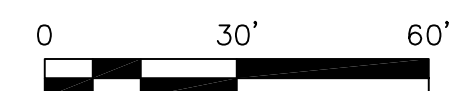
CONTROL POINT INVERSES			
CP 1 TO CP 2	N 57°34'12" W	Horizontal Distance: 301.00 FT.	
CP 2 TO CP 3	S 53°19'46" E	Horizontal Distance: 53.54 FT.	
CP 3 TO CP 4	S 06°04'39" W	Horizontal Distance: 191.57 FT.	
CP 3 TO CP 5	N 10°12'32" E	Horizontal Distance: 131.74 FT.	

CP #1 - REBAR/CAP
LAT 47° 23' 07.09" N
LONG 120° 39' 23.79" W
ELEV 2657.54 FT.

SURVEYED 10/29/2014 BY B. CATE, B.. SIDOR, C. RAEKES AND D.VANPOLEN WITH NIKON NPL-362, AND TRIMBLE TSC2 DATA COLLECTOR.

CONTOUR INTERVAL = 1 FOOT

SCALE: 1" = 30 FT.



Scotty Cr. Culvert

FS Rd 7324 Wenatchee River R.D.

T.22N, R.17E, S.24

Surveyed by RJC, BTS, DVP & CR on 10/29/2014

PROJECT NUMBER: 15-02

DRAWN BY

Ben Sidor

DATE

1/14/2015

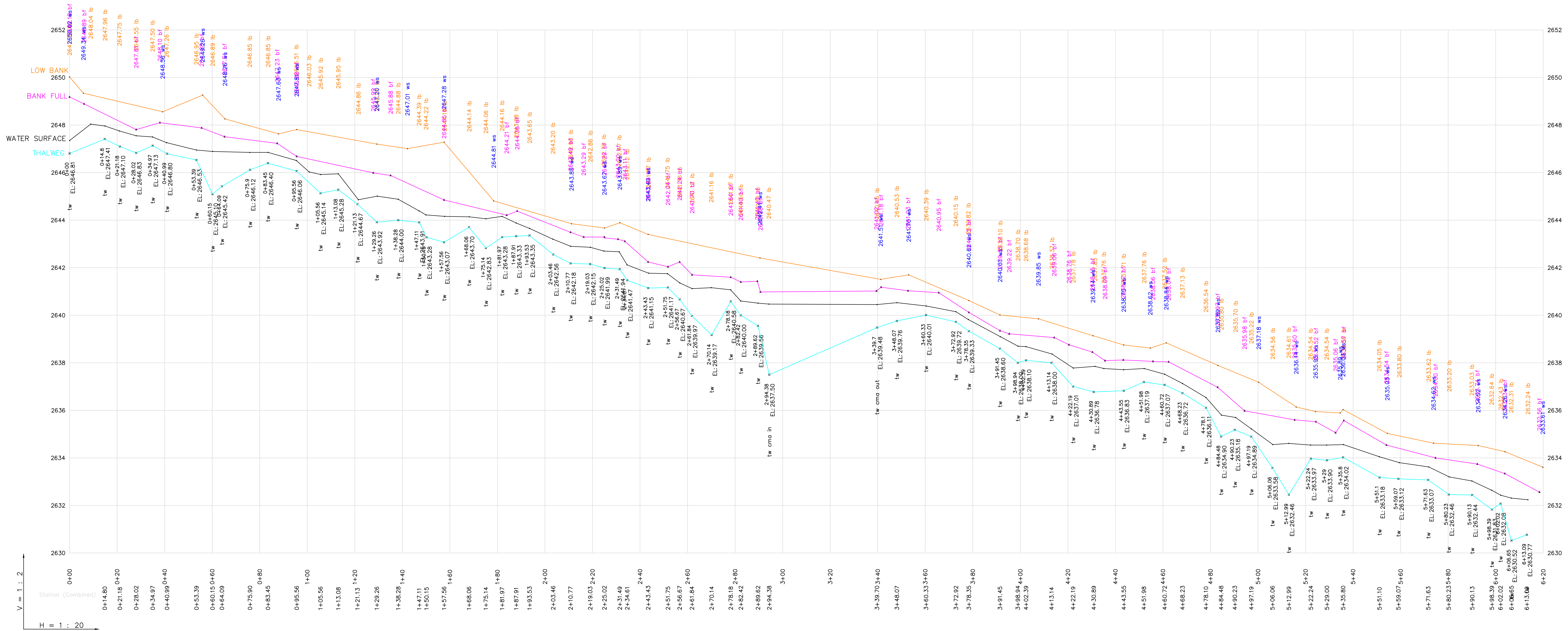
SCALE

1 inch = 30 feet

SHEET

1 of 3

SCOTTY CREEK CULVERT SITE
ROAD #7324
SCOTTY CREEK THALWEG PROFILE



Scotty Cr. Culvert

FS Rd 7324 Wenatchee River R.D.
T.22N, R.17 S.24
Surveyed by RJC, BTS, DVP & CR on 10/29/2014

PROJECT NUMBER: 15-02

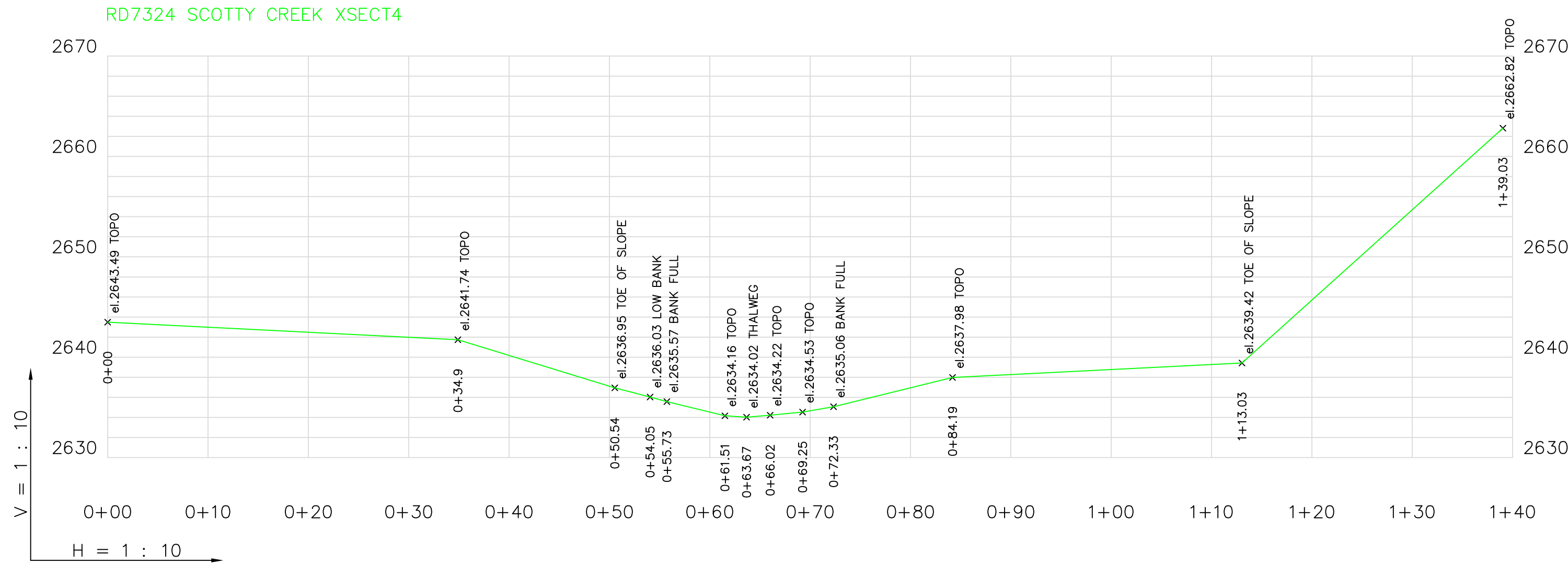
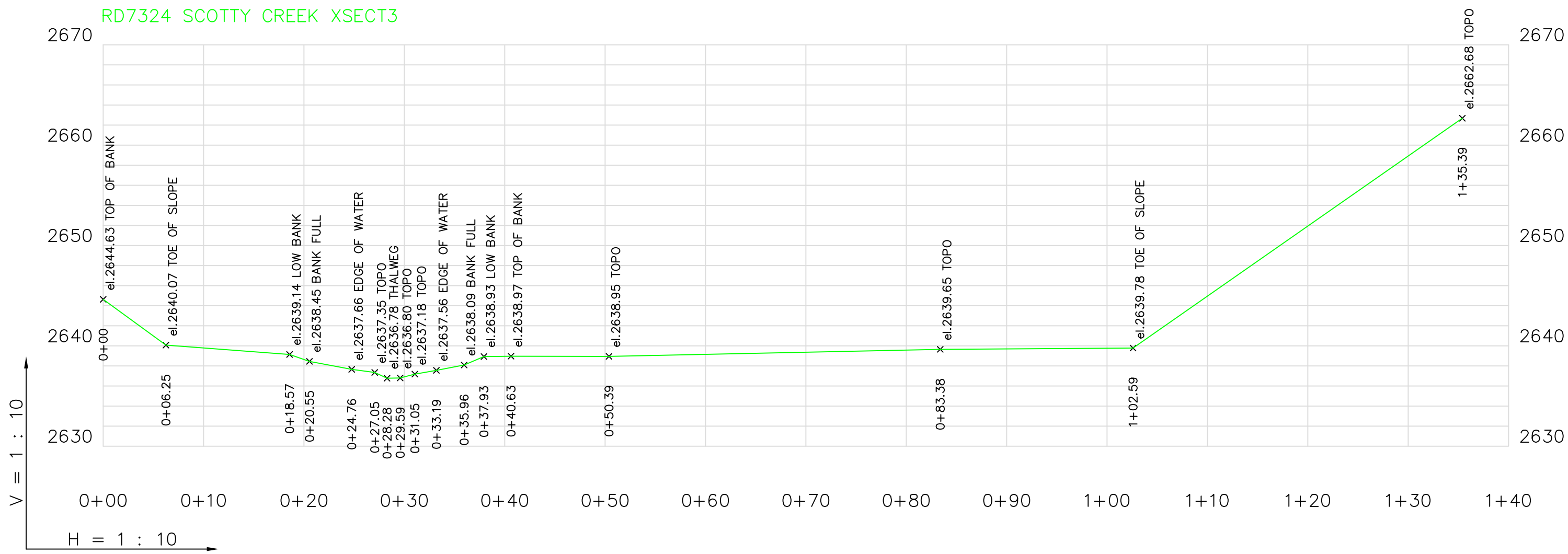
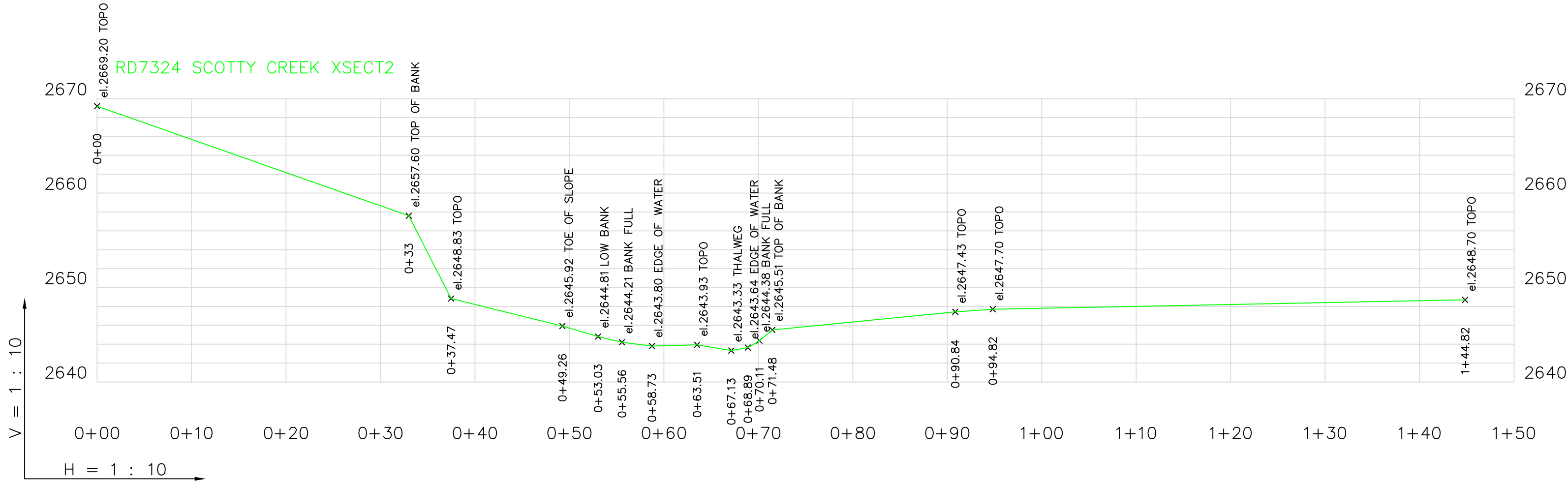
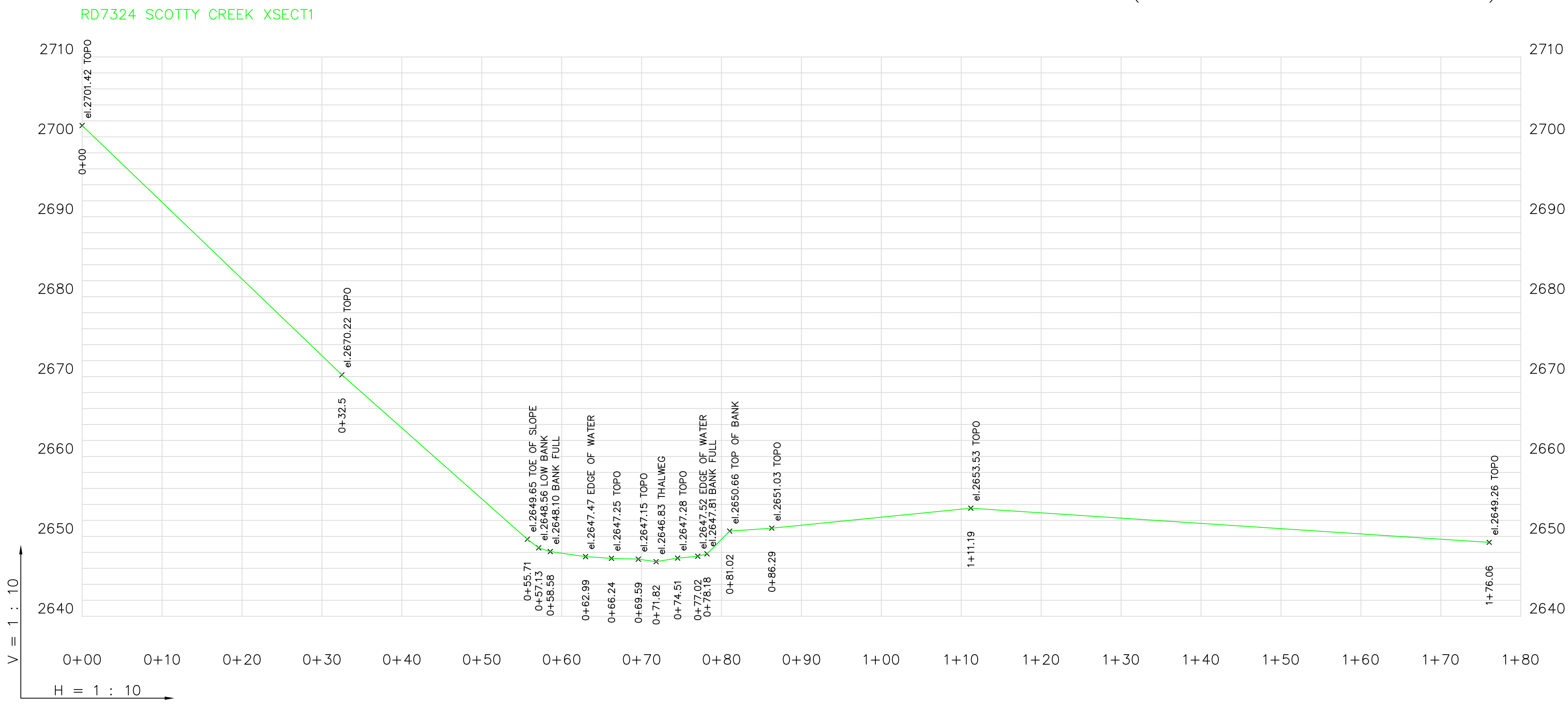
DRAWN Ben Sidor

SCALE 1 inch = 20 feet

DATE 1/14/2015

SHEET 2 of 3

SCOTTY CREEK CULVERT SITE
ROAD #7324
CROSS SECTIONS
(VIEW LOOKING DOWNSTREAM)



Scotty Cr. Culvert	
FS Rd 7324 Wenatchee River R.D. T.22N, R.17E, S.24	
Surveyed by RJC, BTS, DVP & CR on 10/29/2014	
PROJECT NUMBER: 15-02	
DRAWN Ben Sidor	DATE 1/14/2015
SCALE 1 inch = 10 feet	SHEET 3 of 3

36" CMP
I.E. INLET 2640.54 FT.
I.E. OUTLET 2640.21 FT.

▲ CP #5
SPIKE
ELEV: 2638.80'

PointNo.	Northing(Y)	Easting(X)	Elev(Z)	Description
1	140598.22	1684197.45	2657.54	zbr/cap
2	140759.64	1683943.40	2648.14	zbr/cap
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CENTER LINE PROPOSED STRUCTURES (WA STATE PLANE NORTH, NAD83, U.S. FEET)			
PointNo.	Northing(Y)	Easting(X)	Elev(Z)
CONCRETE BOX			(THALWEG)
#1	140728.86	1684022.78	2639.54
#2	140711.36	1684012.71	2640.00
ARCH PIPE			(INVERT)
#3	140725.70	1684012.71	2641.03
#4	140699.52	1684023.17	2641.72

LEGEND

- CONTROL POINT - REBAR/CAP
- ▲ CONTROL POINT - SPIKE
- ⊗ FIR TREE
- ⊗ COTTONWOOD TREE
- ⊗ PINE TREE
- EDGE OF WATER
- THALWEG

SURVEYED 10/29/2014 BY B. CATE, B. SIDOR, C. RAKES AND D. VANPOLEN WITH NIKON NPL-362, AND TRIMBLE TSC2 DATA COLLECTOR.

CP #1 - REBAR/CAP
LAT 47° 23' 07.09" N
LONG 120° 39' 23.79" W
ELEV 2657.54 FT.



NOTES:

The proposed structure is to be installed to all manufactures recommendations regarding fill, foundation, installation methods, and etc.

All work must be accomplished "in the dry"

A dewatering plan will be submitted by the contractor for approve no more than 3 days after the notice to proceed.

The plan must meet all state and federal guidelines.

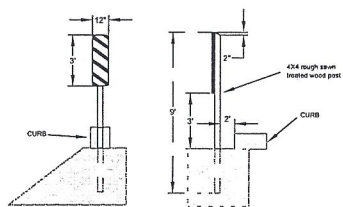
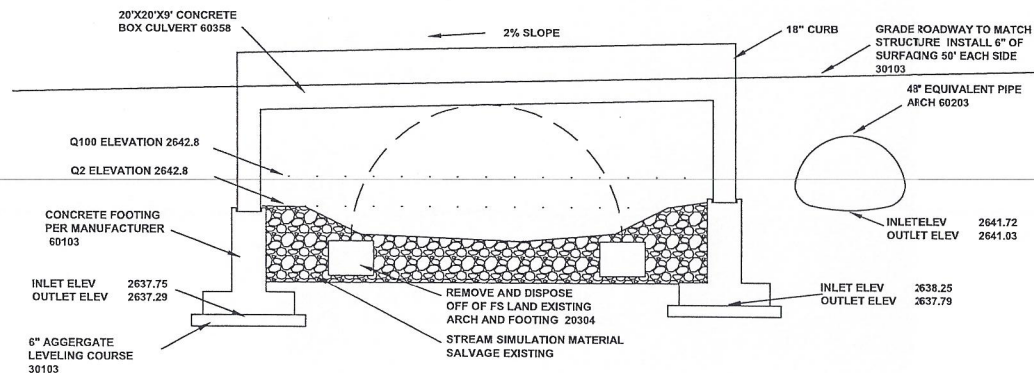
All water pumped from within the dewatered area must be discharged away from the channel such that no flowing water returns to the stream.

The contractor must give 48 hrs notice before beginning dewatering to allow for fish removal

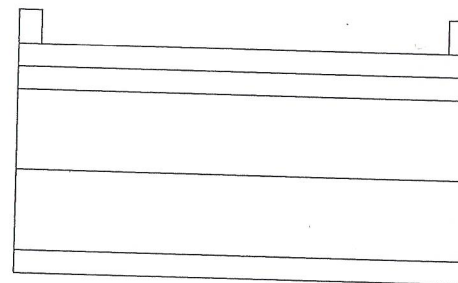
Once fish barriers are installed the contractor shall be responsible for there upkeep. If damage to the barriers occurs which could have resulted in fish entering the dewatered area contract activities will be stopped until such time as the area can be defished.

COR will direct the placement of boulder and log weir at inlet to facilitate fish passage and grade control.

All excess material excavated from the site will be disposed of within 500' of the crossing. If disposal occurs within the road template the contractor will be responsible for compaction and spreading.



OBJECT MARKERS: Use 12" X 36" Type 3 object markers colored yellow and black. Use material meeting current edition of MUTCD OM-3L or OM-3R specifications. Fasten to posts w/(2) 1/4" machine bolts w/washers. Field drill bolt holes. Install posts such that the inside edge of the reflectorized panel is on line with the inside edge of the curb.



U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R-6
PACIFIC NORTHWEST REGION

T_{26N} R_{19E}
Sec 27

Drawn B. Dreier
Drawn

Forest Okanogan & Wenatchee
National Forests
Project Tillicum Creek
Culvert Replacement

Sheet Title Sections

Scale 1:10

Sheet 5 of 6

ESTIMATE OF QUANTITIES

PAY ITEM	DESCRIPTION	METHOD OF MEASURE	UNIT	QUANTITIES
15101	Mobilization	CQ	Lump Sum	1
	Drainage Structure Survey & Staking, Method I, Precision Class B,			
15204	Tolerance A	CQ	Lump Sum	1
15755	Jobsite dewatering & erosion control	CQ	Lump Sum	1
20304	Removal of existing 14' bottomless steel arch pipe and footings 40' long	CQ	Lump Sum	1
20962	Structure excavation and backfill	CQ	Cubic Yard	140
25101	Placed riprap, class 5	AQ	Cubic Yard	30
30103	Aggregate base, Grading WSDOT 1 1/4" minus, compaction method e	AQ	Cubic Yard	40
60103	Minor concrete member, footing	AQ	Lineal Feet	40
60203	48" equivalent diameter arch pipe ^{+ 4'} _{13'}	AQ	Lineal Feet	50
60358	Concrete Box culvert 20'x20'x9' ^{9'}	AQ	Lineal Feet	60
62503	Sedding (dry method) With Shredded Wood Mulch	CQ	Lump Sum	1