UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

PACIFIC NORTHWEST REGION

ROGUE RIVER–SISKIYOU NATIONAL FOREST

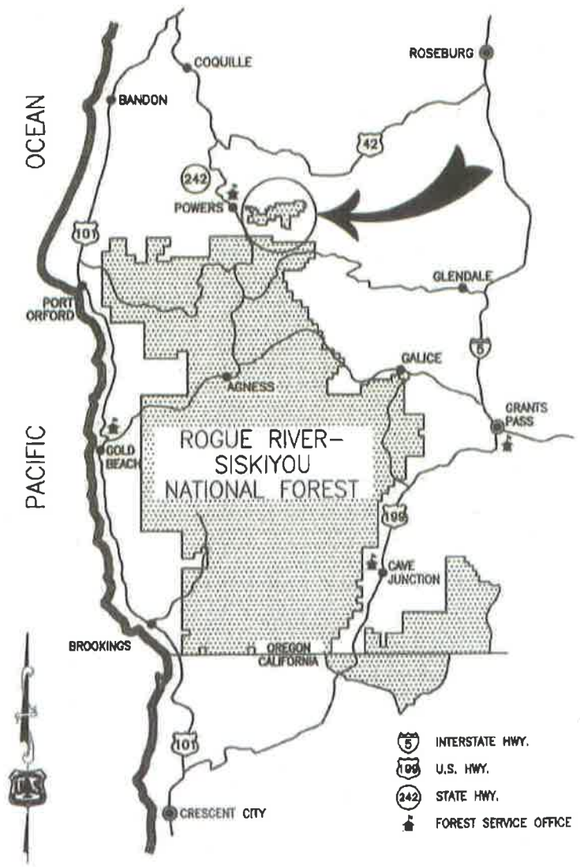
POWERS RANGER DISTRICT

COUNTY: COOS

PLANS FOR PROPOSED

SPAR TIMBER SALE

DESIGNED BY: David D. Tulee — PROJECT ENGINEER	Date 7/21/2016
REVIEWED BY: Linda Coombe — REVIEWER	Date 7/21/2016
RECOMMENDED BY: Scott Jones — ASSISTANT FOREST ENGINEER	Date 7/27/2016
APPROVED BY: Doug Bergstrom — REHLM STAFF OFFICER	Date 8-2-2016
APPROVED BY: Jessi Brown — DISTRICT RANGER	Date 7-27-16
APPROVED BY: — FOREST SUPERVISOR	Date 8/2/16



PROJECT LOCATION MAP
Not to Scale

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R6
PACIFIC NORTHWEST REGION

Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST

District: POWERS RANGER DISTRICT

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Drawn: D.TULEE
Checked: L.COOMBE
Date: 7/2016

Sheet Title: COVER SHEET

SPAR TIMBER SALE

Project No:

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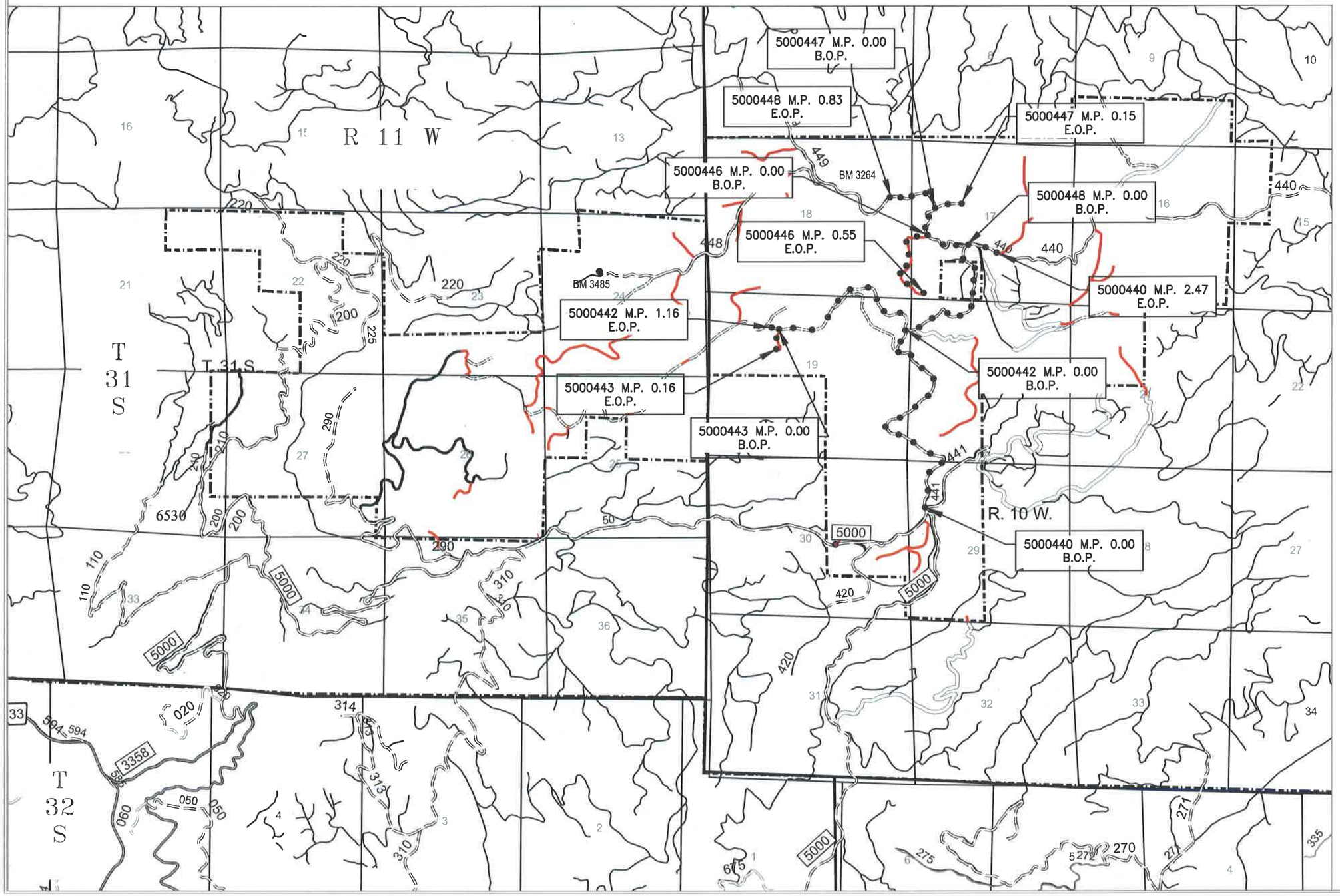
Sheet Title: INDEX TO SHEETS

SPAR TIMBER SALE

Project No:



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Sheet Title: VICINITY MAP

SPAR TIMBER SALE

Project No:

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SPAR TIMBER SALE

ESTIMATE OF QUANTITIES

FP-03 Pay Items	Mobilization	Construction survey and staking, method 2, tolerance C	Clearing and grubbing, disposal of tops and limbs (f), logs (i), stumps (f)	Removal of culvert, disposal method A	Roadway excavation, compaction method B, finishing method A	Unclassified borrow, compaction method B, (government source)	Waste, roadway excavation	Brushing	Road reconditioning, compaction method B	Aggregate surface course, grading XX, compaction method B	18-inch pipe culvert, aluminized-corrugated steel pipe, 16 gage, compaction method B	Cleaning culverts in place	Seeding and mulching, dry method	Install road closure device, type earthen barrier
Item Number:	15101	15211	20105	20301	20401	20404	20416	23050	30322	32111	60201	60708	62530	65002
Unit of Measure:	LSQ	Mile	LSQ	Each	CY	CY	CY	Mile	Mile	CY	FT	Each	LSQ	Each
Contract Quantity					*	*	*			*				
Road Number														
5000440	All							2.47	2.47					
5000442	All	0.05	All	2	0	49	721	0.00	0.00	468	34	2	All	1
5000443	All	0.16	All	0	305	0	0	0.00	0.00	287	28	0	All	1
5000446	All	0.55	All		706					873			All	1
5000447	All		All						0.15	195			All	1
5000448	All							0.83	0.83					
TOTAL FOR ALL ROAD	All	0.76	All	2	1011	49	721	3.30	3.45	1823	62	2	All	4

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Sheet Title: ESTIMATE OF QUANTITIES ALL ROADS
SPAR TIMBER SALE

Project No:

PAY ITEM NUMBER	PAY ITEM DESCRIPTION	PAY UNIT	NOTES
15101	MOBILIZATION	LUMP SUM	INDIRECT PAYMENT FOR TRAFFIC CONTROL AND EQUIPMENT WASHING. ALLOW 5 DAYS AFTER REQUEST HAS BEEN MADE TO SCHEDULE EQUIPMENT INSPECTIONS.
15211	CONSTRUCTION SURVEY AND STAKING, METHOD 2, TOLERANCE C	MILE	RESPONSIBLE FOR PROTECTION OF ALL STAKES
20105	CLEARING AND GRUBBING, DISPOSAL OF TOPS AND LIMBS (f), LOGS (i), STUMPS (f)	LUMP SUM	f–SCATTER, i–DECK, f–SCATTER, CLEARED TOPS AND LIMBS MAY BE PLACED ON FINISHED SLOPES AS EROSION CONTROL
20301	REMOVAL OF CULVERT, DISPOSAL METHOD A	EACH	LEGALLY DISPOSE OFF GOVERNMENT LAND
20401	ROADWAY EXCAVATION, COMPACTION METHOD B, FINISHING METHOD A	* CUBIC YARD	IN PLACE QUANTITIES
20404	UNCLASSIFIED BORROW, COMPACTION METHOD B, (GOVERNMENT SOURCE)	* CUBIC YARD	QUANTITY IS COMPACTED IN PLACE, MATERIAL IS FROM ROADWAY EXCAVATION.
20416	WASTE, ROADWAY EXCAVATION	* CUBIC YARD	
23050	BRUSHING	MILE	
30322	ROAD RECONDITIONING, COMPACTION METHOD B	MILE	DITCH INCLUDED
32111	AGGREGATE SURFACE COURSE, GRADING XX, COMPACTION METHOD B	* CUBIC YARD	COMMERCIAL SOURCE, QUANTITY IS COMPACTED IN PLACE
60201	18–INCH PIPE CULVERT, ALUMINIZED CORRUGATED STEEL PIPE, 16 GAGE, COMPACTION METHOD B	FOOT	INDIRECT PAYMENT FOR STAKING, EXCAVATION, BACKFILL, BEDDING, BANDS AND HARDWARE, LENGTHS SHOWN ARE APPROXIMATE, FIELD VERIFY, STAKE AND MEASURE FOR APPROVAL PRIOR TO ORDERING.
60708	CLEANING CULVERTS IN PLACE	EACH	
62530	SEEDING AND MULCHING, DRY METHOD	LSQ	GOVERNMENT PROVIDED SEED, ALLOW 7 DAY DELIVERY AFTER REQUEST IS MADE, CERTIFIED WEED FREE MULCH. COVER ALL DISTURBED AREAS
65002	INSTALL ROAD CLOSURE DEVICE, TYPE EARTHEN BARRIER	EACH	ROAD 5000442, 5000443, 5000446 AND 5000447 SHALL HAVE AN EARTHEN BARRIER CONSTRUCTED UPON APPROVAL AND COMPLETION OF CONSTRUCTION. CONSTRUCT EARTHEN BARRIER NEAR ENTRANCE, BETWEEN 50 TO 100 FEET OR AS STAKED BY THE FOREST SERVICE. UTILIZE LOGS, BOULDERS AND DIRT MATERIAL ONSITE TO CONSTRUCT EARTHEN BARRIER.

* CONTRACT QUANTITIES

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Sheet Title: PAY ITEM GENERAL NOTES
SPAR TIMBER SALE

Project No:

DRAINAGE LISTING

DESIGNED							AS BUILT					INSTALLATION DETAILS						OUTLET PROTECTION				REMARKS
ROAD #	MILEPOST/ STATION	CMP			DOWN DRAIN		CMP			DOWN DRAIN		TYPE	GRADE	ANCHOR ASSEMBLY	DOWN DRAIN CONNECT		** DEPTH OF EXCAVATION	TYPE A		TYPE B		ALL CULVERTS: CULVERT LENGTHS SHOWN ARE APPROXIMATE, THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING LENGTH AND SKEW ACCORDING TO FSSS 152.03(g). CONTRACTING OFFICER APPROVAL IS REQUIRED PRIOR TO PURCHASING CULVERT MATERIAL.
		DIAMETER	LENGTH	GAGE	DIAMETER	* LENGTH	DIAMETER	LENGTH	GAGE	DIAMETER	LENGTH				HINGED	ELBOW		RIPRAP CLASS 2	RIPRAP CLASS 3	RIPRAP CLASS 3	RIPRAP CLASS 6	
		IN.	FT.		IN.	FT.	IN.	FT.		IN.	FT			EA.			FT	CY	CY	CY		
5000442	5+53	18	34	16								3	8%				0–5'					
5000443	0+40	18	28	16								3	8%				0–5'					

METAL PIPE CORRUGATIONS SHALL BE 2 2/3" X 1/2" UNLESS OTHERWISE APPROVED. ALUMINIZED STEEL SHALL BE USED.

* DOWN DRAIN LENGTH SHOWN ON THIS LISTING IS SPILLWAY ASSEMBLY ONLY.

** APPROXIMATE RANGE OF DEPTH OF CULVERT FLOWLINE AT ROAD CENTERLINE GIVEN IN FEET. FOR EXAMPLE, 0–5 MEANS CULVERT IS BETWEEN 0 AND 5 FEET BELOW THE ROAD SURFACE AT ROAD CENTERLINE.

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Sheet Title: DRAINAGE LISTING

SPAR TIMBER SALE

Project No:

Sheet 6 OF 32

SPAR TIMBER SALE

WORK LIST & QUANTITIES

FP-03 Pay Items

Mile Post/ Station			Mobilization	Brushing	Road reconditioning, compaction method B
		Item Number:	15101	23050	30322
		Unit of Measure:	LSQ	Mile	Mile
		Contract Quantity			
Begin	End	Description of Work			
FSR 5000440					
0.00		Beginning of Project, junction with FSR 5000000.	All		
0.00	2.47	begin brushing		2.47	
0.00	2.47	begin road reconditioning			2.47
	2.47	End Of Project			
TOTAL FOR ROAD			All	2.47	2.47

U.S. DEPARTMENT OF AGRICULTURE
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Sheet Title: FSR 5000442 WORK LIST & QUANTITIES
SPAR TIMBER SALE

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Project No:

SPAR TIMBER SALE

WORK LIST & QUANTITIES

Mile Post/ Station		FP-03 Pay Items	Mobilization	Construction survey and staking, method 2, tolerance C	Clearing and grubbing, disposal of tops and limbs (f), logs (l), stumps (f)	Removal of culvert, disposal method A	Roadway excavation, compaction method B, finishing method A	Unclassified borrow, compaction method B, (government source)	Waste, roadway excavation	Road reconditioning, compaction method B	Aggregate surface course, grading XX, compaction method B	18-inch pipe culvert, aluminized-corrugated steel pipe, 16 gage, compaction method B	Cleaning culverts in place	Seeding and mulching, dry method	Install road closure device, type earthen barrier
		Item Number:	15101	15211	20105	20301	20401	20404	20416	30322	32111	60201	60708	62530	65002
		Unit of Measure:	LSQ	Mile	LSQ	Each	CY	CY	CY	Mile	CY	FT	Each	LSQ	Each
		Contract Quantity					*	*	*		*				
Begin	End	Description of Work													
FSR 5000442 P.O.C. Infected Area															
0+00	61+50	Beginning of Project. Washing equipment with bleach is required before leaving P.O.C. infected areas to un-infected areas. Waste locations shall be designated by FS near work locations.	All												1
4+00	5+00	Beginning widening, remove slide and berm material to obtain 14' width, place aggregate in excavated locations, 10" depth. See 'FSR 5000442 widening typicals culvert cross section'.							50		20				
5+53		POC site. Equipment must be washed after working in this area before moving to other sites. Existing stream, install 18" x 34' culvert, 10" deep aggregate surface. See 'FSR 5000442 widening typicals culvert cross section'			All						2	34		All	
5+53	8+23	POC site. Equipment must be washed after working in this area before moving to other sites. Water flow, wet area, place 10" deep aggregate surface									150				
9+20	9+90	Beginning widening, remove slide and berm material to obtain 14' width, place aggregate in excavated locations, 10" depth							46		20				
12+90	16+00	Water flow, wet area, place 10" deep aggregate surface, widen area from 13+30 to 14+00							10		155				
19+40		Clean slide and debris from ditch area							5						
22+20		Clean inlet 8" culvert											1		
22+76		Clean inlet & outlet 8" culvert											1		
25+50	28+00	Beginning widening, remove slide and berm material to obtain 14' width, place aggregate in excavated locations, 10" depth							122		40				
32+25	34+25	Realign road into cutbank due to fill failure, place 10" depth of aggregate in cutbank section, place as unclassified borrow at 57+50. See 'FSR 5000442 realignment plan view & cross sections'		0.04					393		33				
36+70		Existing previously excavated culvert on bank, remove off FS land				1									
38+10		Existing previously excavated culvert on bank, remove off FS land				1									
38+40	39+80	Beginning widening, remove slide and berm material to obtain 14' width, place aggregate in excavated locations, 10" depth							70		30				
40+65		Junction with existing road													
43+90		Obstructions (rocks) and slide material							10						
47+50	48+75	Rock embankment													
54+25	55+60	Beginning widening, remove approximately 3' of slide material along toe of cutbank							15						
57+30	58+80	Beginning widening by adding fill material to right side of road, use unclassified borrow from roadway excavation. See 'FSR 5000442 fill widening plan view & cross sections'		0.01				49			18			All	
60+53		Junction FSR 5000443													
	61+50	End Of Project													
TOTAL FOR ROAD			All	0.05	All	2	0	49	721	0.00	468	34	2	All	1

SPAR TIMBER SALE

WORK LIST & QUANTITIES

Mile Post/ Station		FP-03 Pay Items	Mobilization	Construction survey and staking, method 2, tolerance C	Clearing and grubbing, disposal of tops and limbs (f), logs (i), stumps (f)	Removal of culvert, disposal method A	Roadway excavation, compaction method B, finishing method A	Unclassified borrow, compaction method B, (government source)	Waste, roadway excavation	Road reconditioning, compaction method B	Aggregate surface course, grading XX, compaction method B	18-inch pipe culvert, aluminized-corrugated steel pipe, 16 gage, compaction method B	Cleaning culverts in place	Seeding and mulching, dry method	Install road closure device, type earthen barrier
		Item Number:	15101	15211	20105	20301	20401	20404	20416	30322	32111	60201	60708	62530	65002
		Unit of Measure:	LSQ	Mile	LSQ	Each	CY	CY	CY	Mile	CY	FT	Each	LSQ	Each
		Contract Quantity					*	*	*		*				
Begin	End	Description of Work													
FSR 5000443															
0+00		Beginning of Project Junction with FSR 5000442	All												1
0+00	8+62	Complete survey and staking of L-Line		0.16											
0+00	8+62	Construct roadway, see sheets 'Road 5000443 Plan and Profile' and station details below. FS archeologist must be on site.			All		305								
0+40		Install 18" x 28' CMP.			All						3	28			
0+41	0+86	Curve left 100' radius, curve widening 2.5' left													
2+11	2+61	50' taper right									5				
2+61	3+11	Full width turnout right									18				
3+11	3+61	50' taper right									5				
4+63	5+37	Curve right 100' radius, curve widening right 3'													
7+65	8+31	Construct J turnaround left									26				
0+00	8+62	Place surface aggregate, seed & mulch all disturbed areas									230			All	
	8+62	End Of Project													
TOTAL FOR ROAD			All	0.16	All	0	305	0	0	0.00	287	28	0	All	1

U.S. DEPARTMENT OF AGRICULTURE
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R6
PACIFIC NORTHWEST REGION

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District: POWERS RANGER DISTRICT

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Sheet Title: FSR 5000446 WORK LIST & QUANTITIES
SPAR TIMBER SALE

Project No:

Sheet 10 OF 32

SPAR TIMBER SALE

FP-03 Pay Items

WORK LIST & QUANTITIES

Mile Post/ Station		Item Number:	15101	15211	20105	20401	32111	62530	65002
		Unit of Measure:	LSQ	Mile	LSQ	CY	CY	LSQ	Each
		Contract Quantity				*	*		
Begin	End	Description of Work							
FSR 5000446									
0+00		Beginning of Project, junction with FSR 5000448. Upon completion of road construction, construct earthen barrier near station 0+00.	All	0.55	All			All	1
0+00	28+96	Roadway excavation				706			
0+00	28+96	Place Aggregate surface course, grading XX, 6 inch depth x 12 foot road width entire length of road. including Turnouts & J Turnaround & Curve Widening & approaches.					784		
0+00	0+50	50' Taper begin					5		
0+50	1+00	50' Full width Turn out Left, 10' T.O. Width. Place Aggregate surface course, grading XX, 6 inch depth					11		
1+00	1+50	50' Taper end					5		
0+86	2+35	200' radius curve left, 2.0' curve widening left							
3+02		Center of rocked drain dip. Install Rocked Drain dip, 30' length, by 12' minimum top width, refer to slope staking notes for actual total width. Widths may include turnout tapers, turn outs, curve widening.							
3+06	4+03	100' radius curve right, 3.0' curve widening right							
6+16	7+39	100' radius curve left, 3.5' curve widening left							
8+84	10+17	200' radius curve left, 2.0' curve widening left							
10+56		Center of rocked drain dip. Install Rocked Drain dip, 30' length, by 12' minimum top width, refer to slope staking notes for actual total width. Widths may include turnout tapers, turn outs, curve widening.							
10+50	11+00	50' taper begin					5		
11+00	11+50	50' Full width Turn out right, 10' T.O. Width. Place Aggregate surface course, grading XX, 6 inch depth					11		
11+50	12+00	50' Taper end					5		
13+98	14+86	200' radius curve right, 1.5' curve widening right							
18+67	19+07	100' radius curve right, 2.5' curve widening right							
20+91		Center of rocked drain dip. Install Rocked Drain dip, 30' length, by 12' minimum top width, refer to slope staking notes for actual total width. Widths may include turnout tapers, turn outs, curve widening.							
20+06	21+54	100' radius curve left, 3.5' curve widening left							
21+50	22+00	50' Taper begin					5		
22+00	22+50	50' Full width Turn out right, 10' T.O. Width. Place Aggregate surface course, grading XX, 6 inch depth					11		
22+50	23+00	50' Taper end					5		
23+05	23+72	200' radius curve right, 1.5' curve widening right							
24+71	25+83	200' radius curve left, 1.5' curve widening left							
27+14	28+70	200' radius curve right, 2.0' curve widening right							
27+90		Construct J Turnaround, Place Aggregate surface course, grading XX, 6 inch depth.					26		
	28+96	End Of Project							
TOTAL FOR ROAD			All	0.55	All	706	873	All	1

SPAR TIMBER SALE

WORK LIST & QUANTITIES

Mile Post/ Station		FP-03 Pay Items	Mobilization	Clearing and grubbing, disposal of tops and limbs (f), logs (i), stumps (f)	Road reconditioning, compaction method B	Aggregate surface course, grading XX, compaction method B	Seeding and mulching, dry method	Install road closure device, type earthen barrier	
		Item Number:	15101	20105	30322	32111	62530	65002	
		Unit of Measure:	LSQ	LSQ	Mile	CY	LSQ	Each	
		Contract Quantity				*			
Begin	End	Description of Work							
FSR 5000447									
0.00		Beginning of Project	All				All	1	
0.00	0.15	Begin clearing and grubbing		All					
0.00	0.15	Road reconditioning			0.15				
0.00	0.15	Place aggregate surface course, grading XX 6 inch depth x 12 foot minimum top width, entire length of road.				195			
	0.15	End Of Project							
TOTAL FOR ROAD			All	All	0.15	195	All	1	

SPAR TIMBER SALE

WORK LIST & QUANTITIES

Mile Post/ Station		FP-03 Pay Items	Mobilization	Brushing	Road reconditioning, compaction method B					
		Item Number:	15101	23050	30322					
		Unit of Measure:	LSQ	Mile	Mile					
		Contract Quantity								
Begin	End	Description of Work								
FSR 5000448 P.O.C. Infected Area										
0.00	0.83	Beginning of Project, junction with FSR 5000440. Washing equipment with bleach is required before leaving P.O.C. infected areas to un-infected areas.	All							
0.00	0.83	Begin Brushing		0.83						
0.00	0.83	Begin Road reconditioning			0.83					
	0.83	End Of Project								
TOTAL FOR ROAD			All	0.83	0.83					

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Sheet Title: FSR 5000448 WORK LIST & QUANTITIES
SPAR TIMBER SALE

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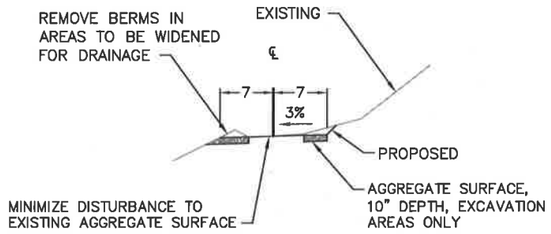
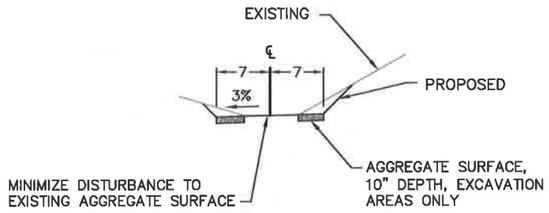
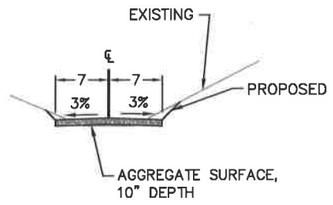


TYPICAL WIDENING SECTION, REMOVE BERM
FSR 5000442
STA 4+00



TYPICAL WIDENING SECTION
FSR 5000442
STA 9+20
STA 25+50
STA 38+40



TYPICAL WIDENING SECTION, WET AREA
FSR 5000442
STA 13+30

CONSTRUCTION NOTES, ALL CROSS SECTIONS:

EXISTING CENTERLINE OF ROAD AS STAKED ON SITE OR BY FS. USE TO OFFSET FOR PROPOSED CENTERLINE OF ROADWAY.

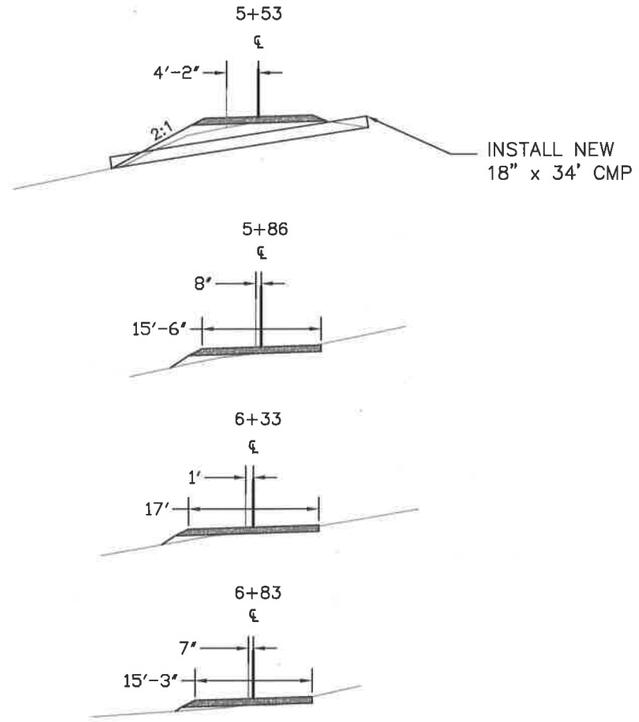
OUTSLOPE ROADWAY SURFACE UNLESS OTHERWISE NOTED OR DIRECTED BY FS.

USE SUITABLE WASTE FROM OTHER SITES AS UNCLASSIFIED BORROW WHEN NEEDED FOR FILL.

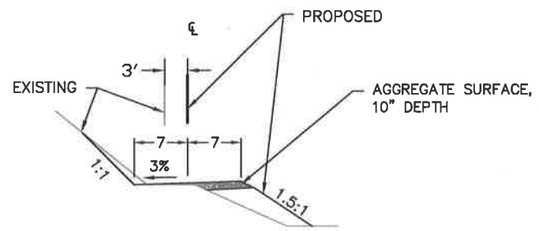
WASTE AREAS SHALL BE DESIGNATED BY FS NEAR EXCAVATION SITES.

ROADWAY OF 14' WIDTH INCLUDES 12' TRAVEL WAY, 1' SHOULDER. WIDER DIMENSIONS WILL BE SHOWN FOR CURVE WIDENING.

ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED INCLUDING WASTE AREAS (SEED SHALL BE GOVERNMENT FURNISHED).



CROSS SECTIONS
FSR 5000442
STA 5+53 TO 8+23



NOTE: TYPICAL NOTES AND SLOPES APPLY TO ALL SECTIONS UNLESS OTHERWISE NOTED.

NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R6
PACIFIC NORTHWEST REGION

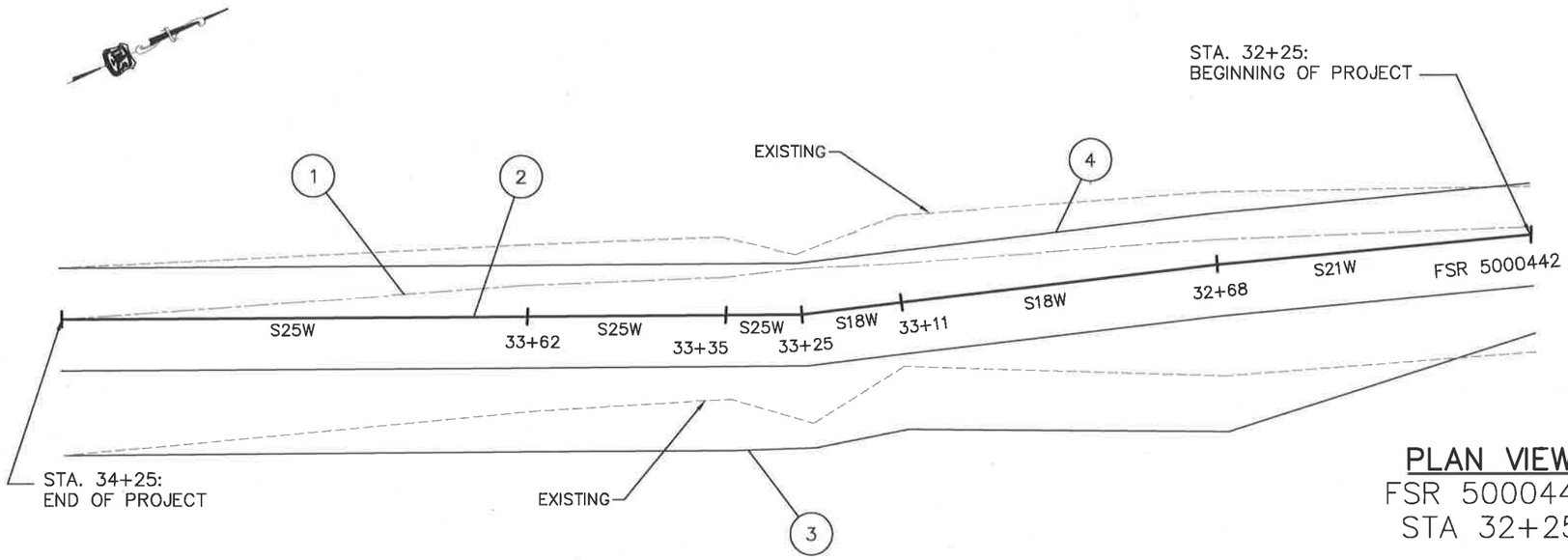
Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST
District: POWERS RANGER DISTRICT

Design: Lola Coombe
Drawn: Lola Coombe
Checked: David Tulee
Date: 7/2016

Sheet Title: FSR 5000442 WIDENING TYPICALS CULVERT CROSS SECTION
Project Name: SPAR TIMBER SALE

Project No:

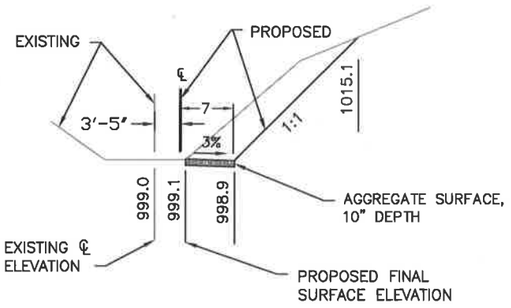
Sheet 13 OF 32



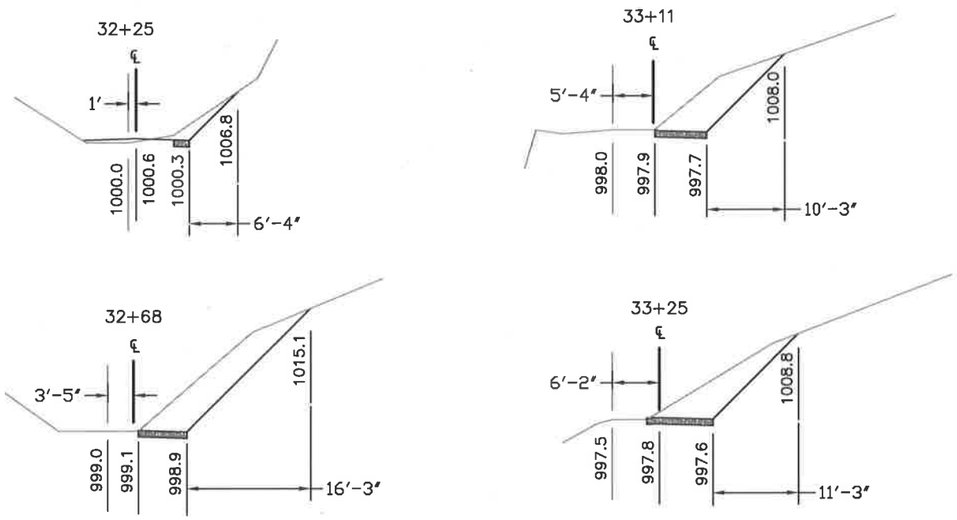
PLAN VIEW
FSR 5000442
STA 32+25

CONSTRUCTION NOTES:

1. EXISTING CENTERLINE OF ROAD AS STAKED ON SITE. USE TO OFFSET FOR PROPOSED CENTERLINE OF ROADWAY.
2. PROPOSED CENTERLINE INCLUDES BEARING OF EACH SECTION BETWEEN STATIONS.
3. EDGE OF PROPOSED CUT SLOPE. DISPOSE OF EXCAVATED MATERIAL IN LOCATION DESIGNATED BY FS. SEE SHEET 'ROAD RECONDITIONING/DISPOSAL AREA' FOR DISPOSAL METHOD.
4. EDGE OF PROPOSED ROAD. 14' WIDTH INCLUDES 12' TRAVEL WAY, 1' SHOULDER, CROWN WITH NO DITCH.
5. DISPOSAL AREA SHALL BE SEEDED AND MULCHED (SEED SHALL BE GOVERNMENT FURNISHED).



NOTE: TYPICAL NOTES AND SLOPES APPLY TO ALL SECTIONS UNLESS OTHERWISE NOTED



CROSS SECTIONS
FSR 5000442
STA 32+25

NOT TO SCALE

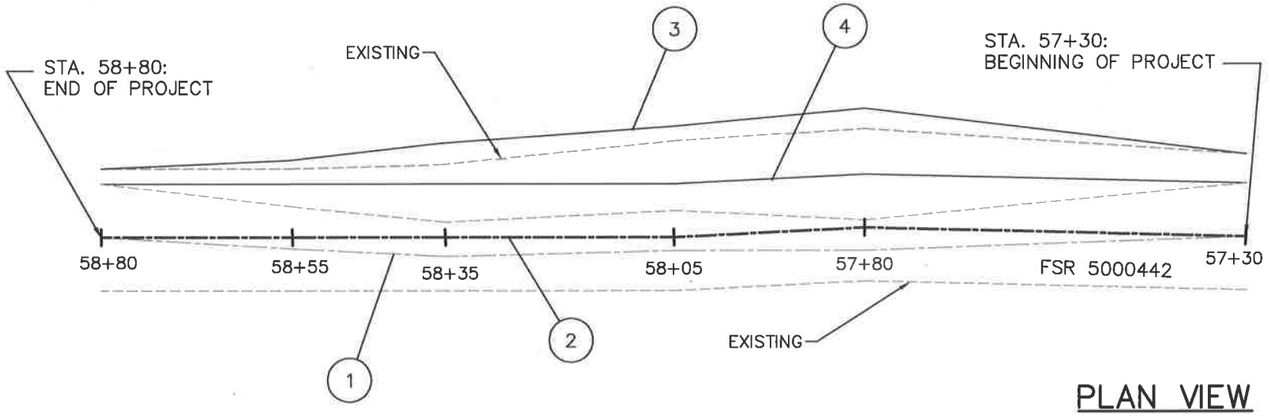
U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R6
PACIFIC NORTHWEST REGION

Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST
District: POWERS RANGER DISTRICT

Design: Lola Coombe
Drawn: Lola Coombe
Checked: David Tulee
Date: 7/2016

Sheet Title: FSR 5000442 REALIGNMENT PLAN VIEW & CROSS SECTIONS
Project Name: SPAR TIMBER SALE

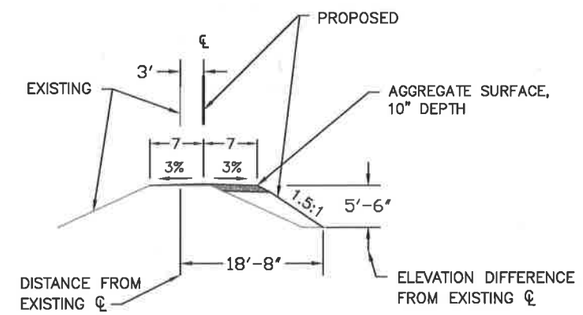
Project No:



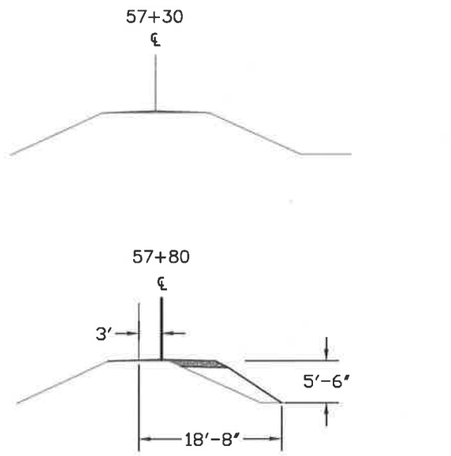
PLAN VIEW
FSR 5000442
STA 57+30

CONSTRUCTION NOTES:

1. EXISTING CENTERLINE OF ROAD AS STAKED ON SITE. USE TO OFFSET FOR PROPOSED CENTERLINE OF ROADWAY.
2. PROPOSED CENTERLINE OF ROAD. SEE CROSS SECTION FOR OFFSET FROM EXISTING.
3. TOE OF PROPOSED FILL SLOPE. USE SUITABLE WASTE FROM OTHER SITES ON ROAD AS UNCLASSIFIED BORROW.
4. EDGE OF PROPOSED ROAD. 14' WIDTH INCLUDES 12' TRAVEL WAY, 1' SHOULDER, CROWN WITH NO DITCH.
5. FILL SLOPE SHALL BE SEEDED AND MULCHED (SEED SHALL BE GOVERNMENT FURNISHED).



NOTE: TYPICAL NOTES AND SLOPES APPLY TO ALL SECTIONS UNLESS OTHERWISE NOTED



CROSS SECTIONS
FSR 5000442
STA 57+30

NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R6
PACIFIC NORTHWEST REGION

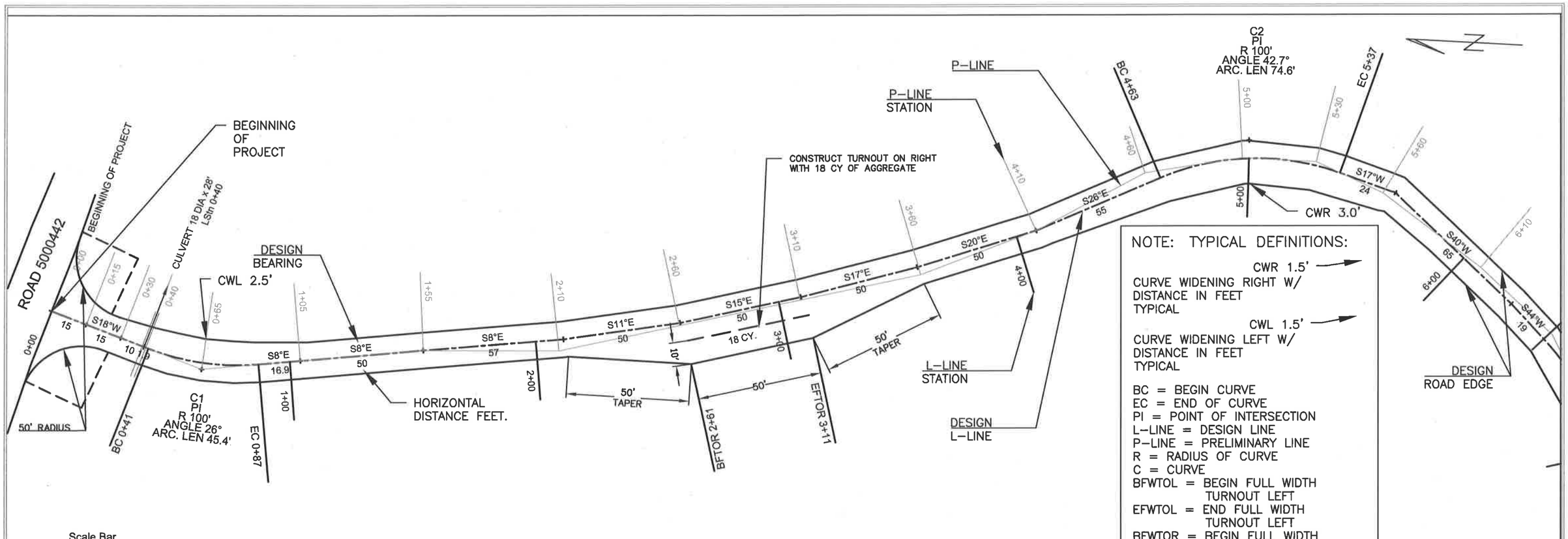
Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST
District: POWERS RANGER DISTRICT

Design: Lola Coombe
Drawn: Lola Coombe
Checked: David Tulee
Date: 7/2016

Sheet Title: FSR 5000442 FILL WIDENING PLAN VIEW & CROSS SECTIONS
Project Name: SPAR TIMBER SALE

Project No:

Sheet 15 OF 32



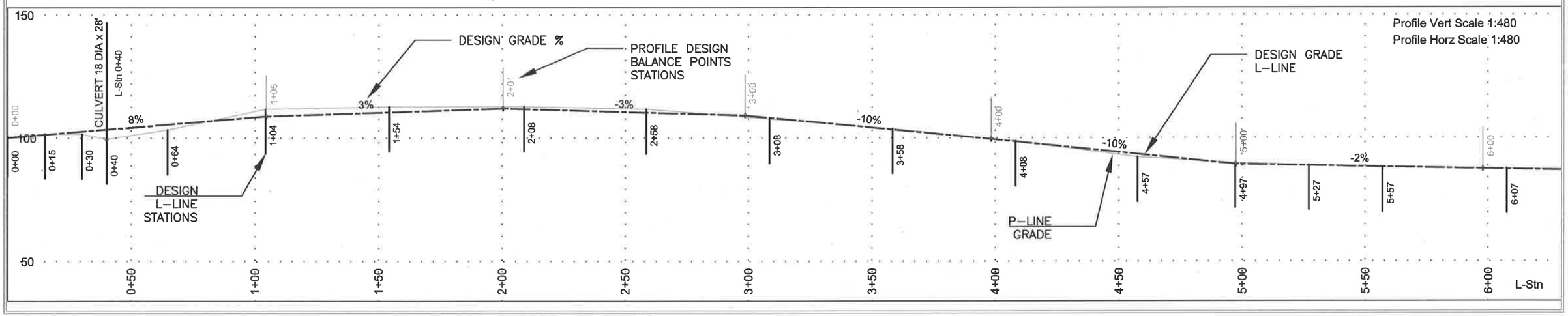
NOTE: TYPICAL DEFINITIONS:

CWR 1.5' → CURVE WIDENING RIGHT W/ DISTANCE IN FEET TYPICAL

CWL 1.5' → CURVE WIDENING LEFT W/ DISTANCE IN FEET TYPICAL

BC = BEGIN CURVE
EC = END OF CURVE
PI = POINT OF INTERSECTION
L-LINE = DESIGN LINE
P-LINE = PRELIMINARY LINE
R = RADIUS OF CURVE
C = CURVE
BFWTOL = BEGIN FULL WIDTH TURNOUT LEFT
EFWTOL = END FULL WIDTH TURNOUT LEFT
BFWTOR = BEGIN FULL WIDTH TURNOUT RIGHT
EFWTOR = END FULL WIDTH TURNOUT RIGHT

Plan Scale 1:480



U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R6
PACIFIC NORTHWEST REGION

Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST

District: POWERS RANGER DISTRICT

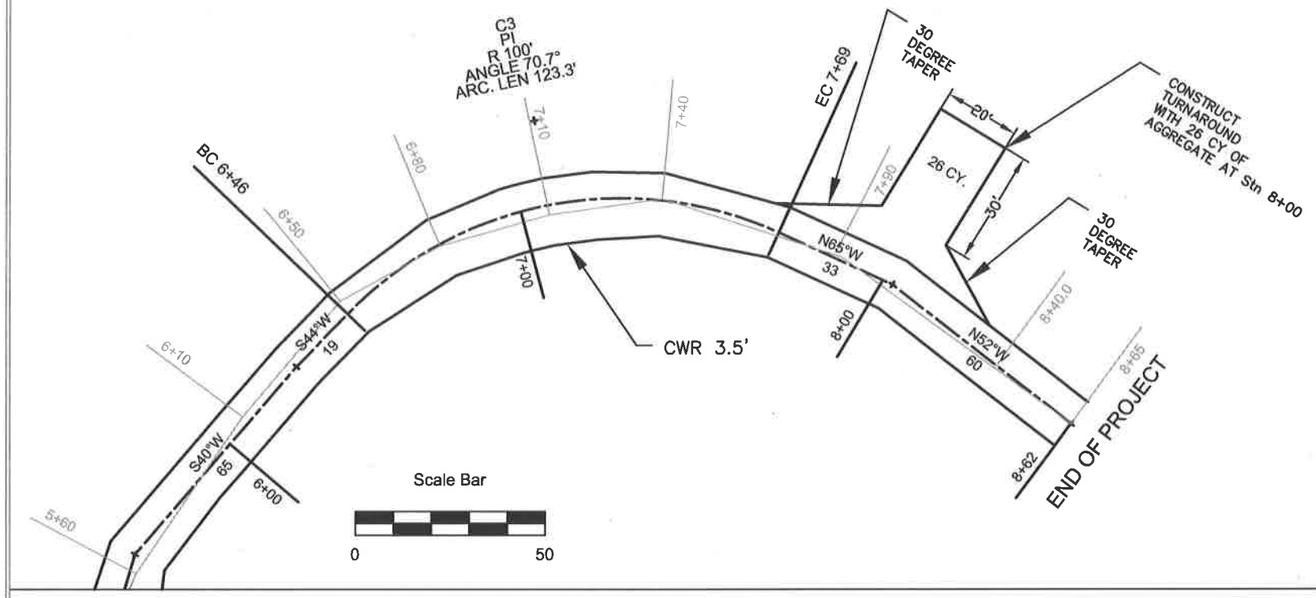
Design: D.TULEE
Drawn: D.TULEE
Checked: L.COOMBE
Date: 10/2015

Sheet Title: FSR 5000443 Plan and Profile

Project Name: SPAR TIMBER SALE

Project No:

Sheet 16 OF 32



NOTE: TYPICAL DEFINITIONS:

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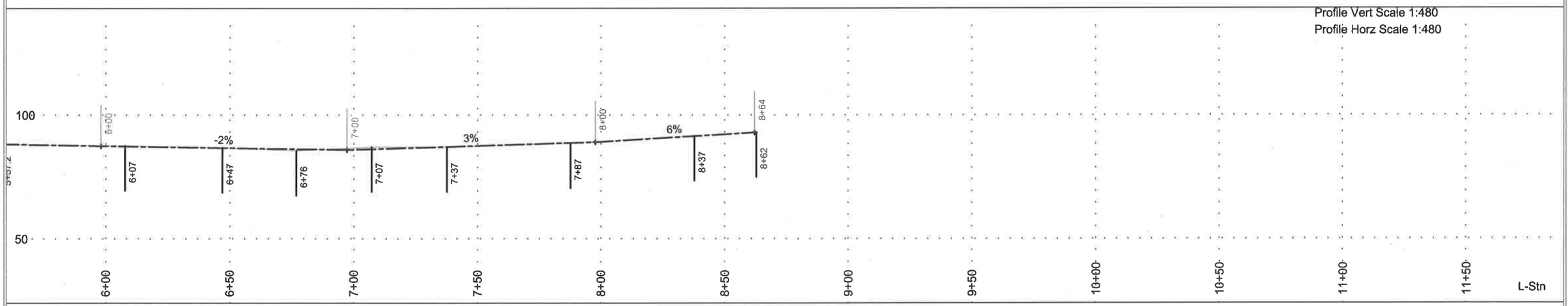
Plan Scale 1:480



U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R6
PACIFIC NORTHWEST REGION

Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST

District: POWERS RANGER DISTRICT

Design: D.TULEE
Drawn: D.TULEE
Checked: L.COOMBE
Date: 10/2015

Sheet Title: FSR 5000443 Plan and Profile

Project Name: SPAR TIMBER SALE

Project No:

Sheet 17 OF 32

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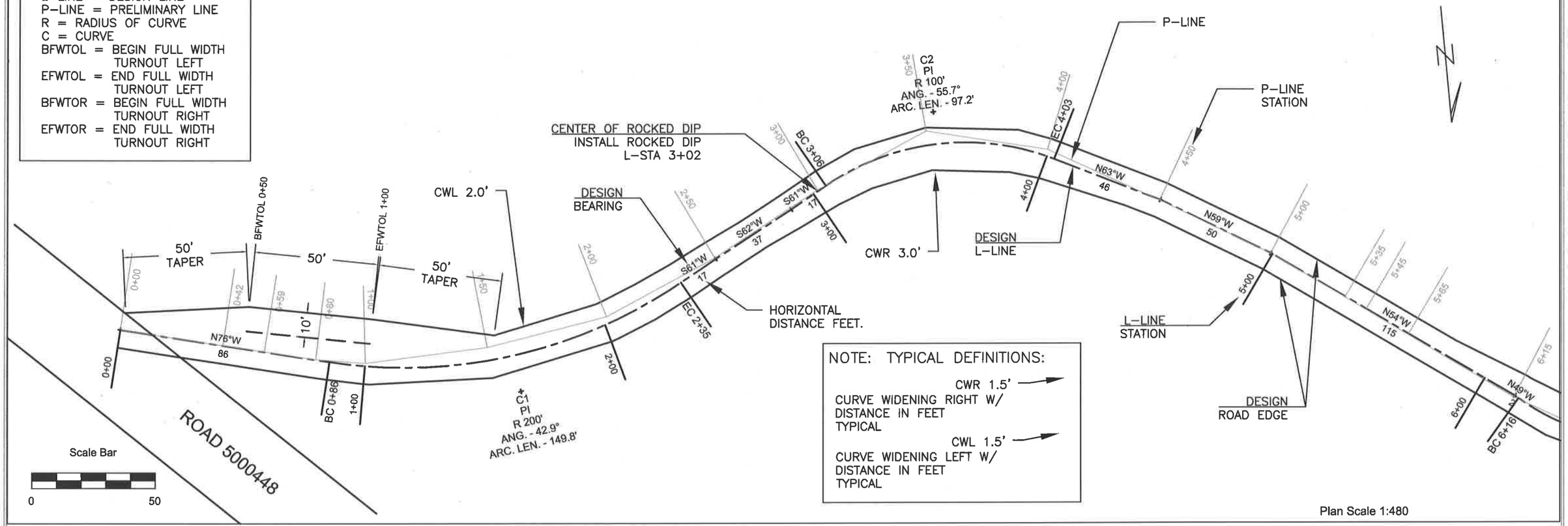
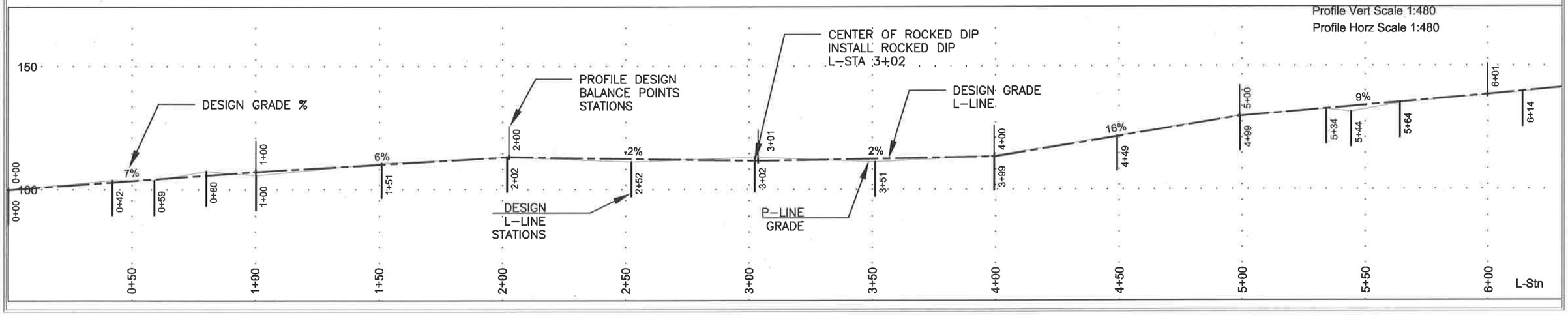


NOTE: TYPICAL DEFINITIONS:

CWR 1.5' → CURVE WIDENING RIGHT W/ DISTANCE IN FEET TYPICAL

CWL 1.5' → CURVE WIDENING LEFT W/ DISTANCE IN FEET TYPICAL

Plan Scale 1:480



U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
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PACIFIC NORTHWEST REGION

Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST
District: POWERS RANGER DISTRICT

Design: D.TULEE
Drawn: D.TULEE
Checked: L.COOMBE
Date: 7/2016

Sheet Title: FSR 5000446 Plan and Profile
Project Name: SPAR TIMBER SALE

Project No:
Sheet 18 OF 32

NOTE: TYPICAL DEFINITIONS:

CWR 1.5' → CURVE WIDENING RIGHT W/ DISTANCE IN FEET TYPICAL

CWL 1.5' → CURVE WIDENING LEFT W/ DISTANCE IN FEET TYPICAL

N54°W 115

N49°W 21

6+00

BC 6+16

5+65

6+15

6+50

CWL 3.5'

6+90

C3 PI R 100' ANG. - 70.2° ARC. LEN. - 122.5'

7+00

7+30

EC 7+39

S61°W 33

7+70

S59°W 40

8+10

S54°W 40

8+50

S30°W 32

8+00

BC 8+84

9+00

CWL 2.0'

9+30

C4 PI R 200' ANG. - 38.1° ARC. LEN. - 133.0'

10+00

EC 10+17

10+50

CENTER OF ROCKED DIP
INSTALL ROCKED DIP
L-STA 10+56

S8°E 77

10+56

50' TAPER

BFWTOR 11+00

11+00

11+50

S16°E 99

10'

50'

50' TAPER

EFWTOR 11+50

12+00

Scale Bar

0 50

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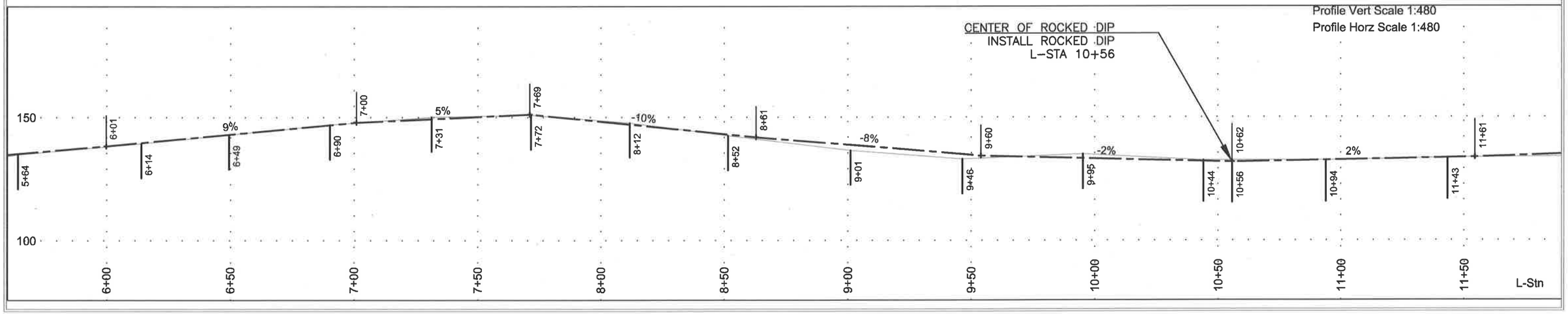
Plan Scale 1:480

Profile Vert Scale 1:480
Profile Horz Scale 1:480



U.S. DEPARTMENT OF AGRICULTURE
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Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST

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Drawn: D.TULEE
Checked: L.COOMBE
Date: 7/2016

Sheet Title: FSR 5000446 Plan and Profile

Project Name: SPAR TIMBER SALE

Project No:

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BC = BEGIN CURVE
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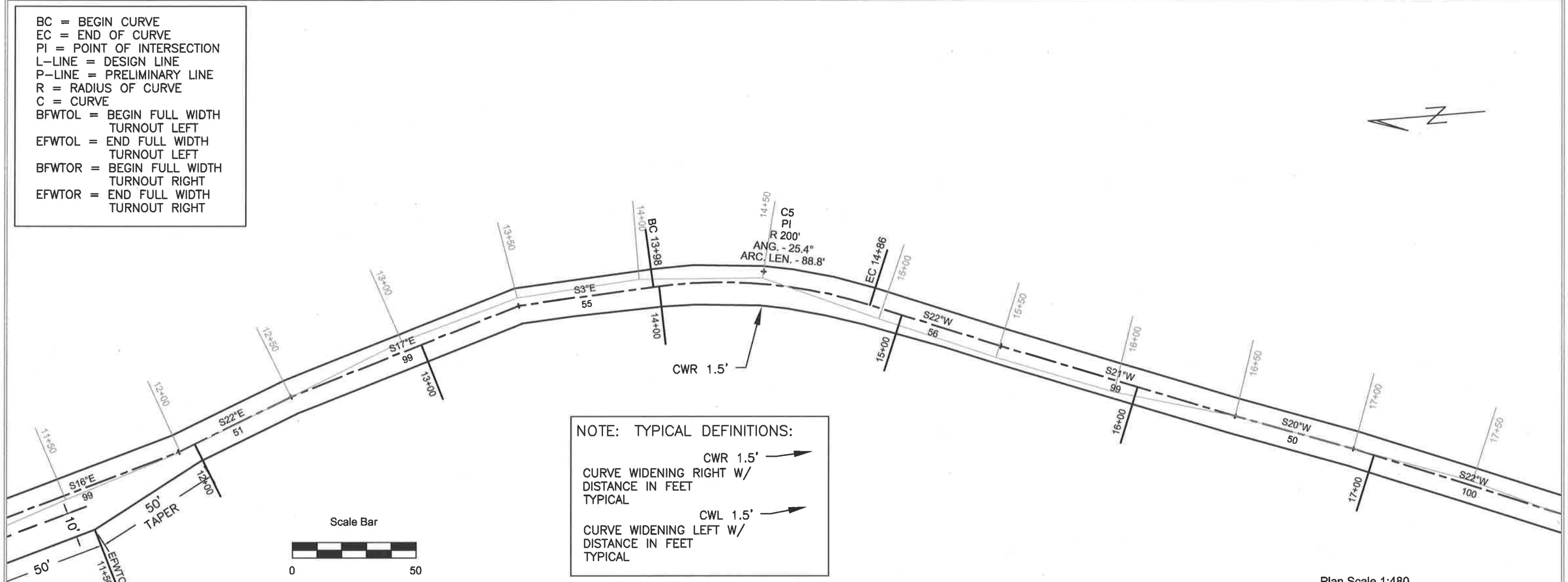


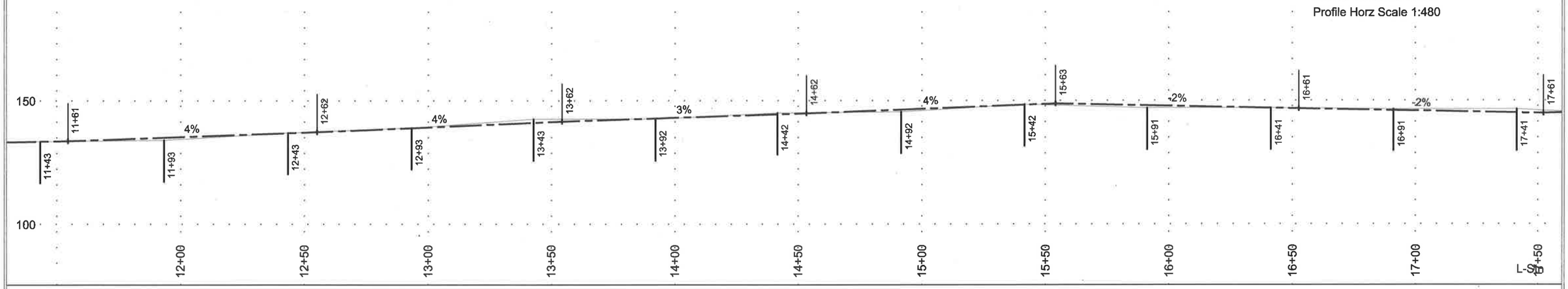
NOTE: TYPICAL DEFINITIONS:

CWR 1.5' → CURVE WIDENING RIGHT W/ DISTANCE IN FEET TYPICAL

CWL 1.5' → CURVE WIDENING LEFT W/ DISTANCE IN FEET TYPICAL

Plan Scale 1:480

Profile Vert Scale 1:480
Profile Horz Scale 1:480



U.S. DEPARTMENT OF AGRICULTURE
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Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST
District: POWERS RANGER DISTRICT

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Checked: L.COOMBE
Date: 7/2016

Sheet Title: FSR 5000446 Plan and Profile
Project Name: SPAR TIMBER SALE

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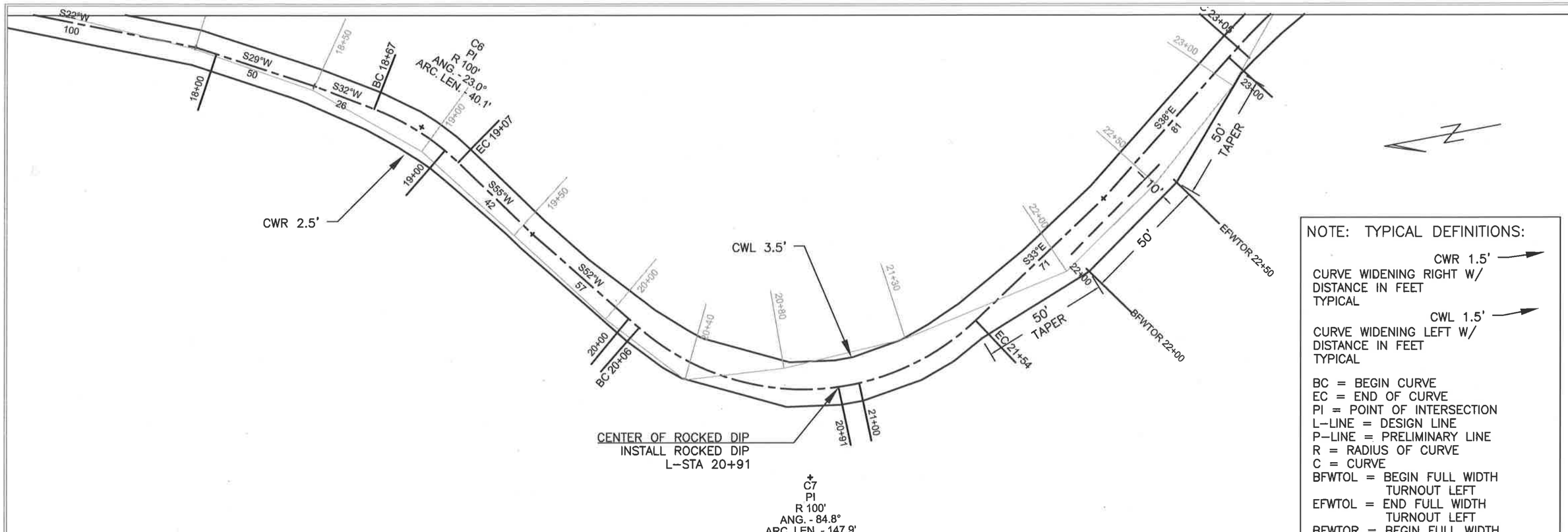
Sheet 20 OF 32



NOTE: TYPICAL DEFINITIONS:

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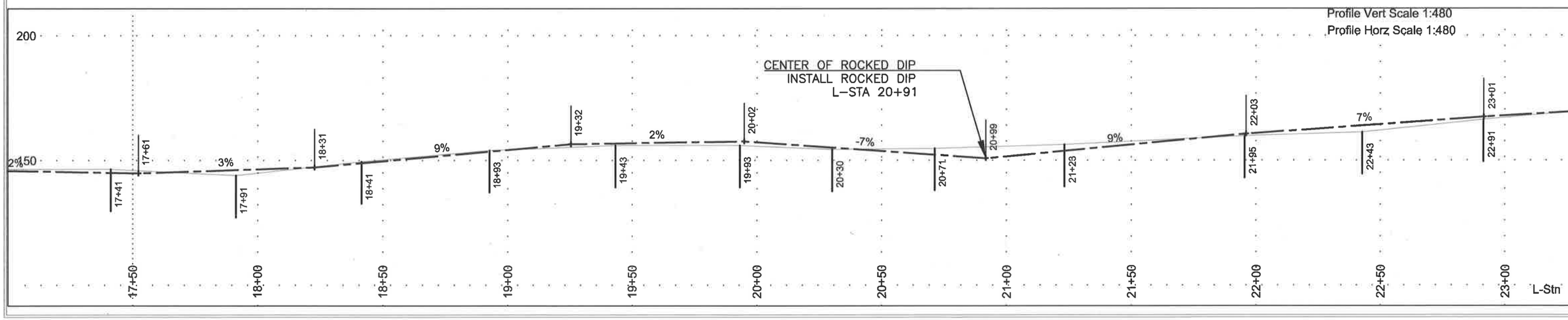
Plan Scale 1:480

Profile Vert Scale 1:480
Profile Horz Scale 1:480



U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
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PACIFIC NORTHWEST REGION

Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST
District: POWERS RANGER DISTRICT

Design: D.TULEE
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Checked: L.COOMBE
Date: 7/2016

Sheet Title: FSR 5000446 Plan and Profile
Project Name: SPAR TIMBER SALE

Project No:

Sheet 21 OF 32

BC = BEGIN CURVE
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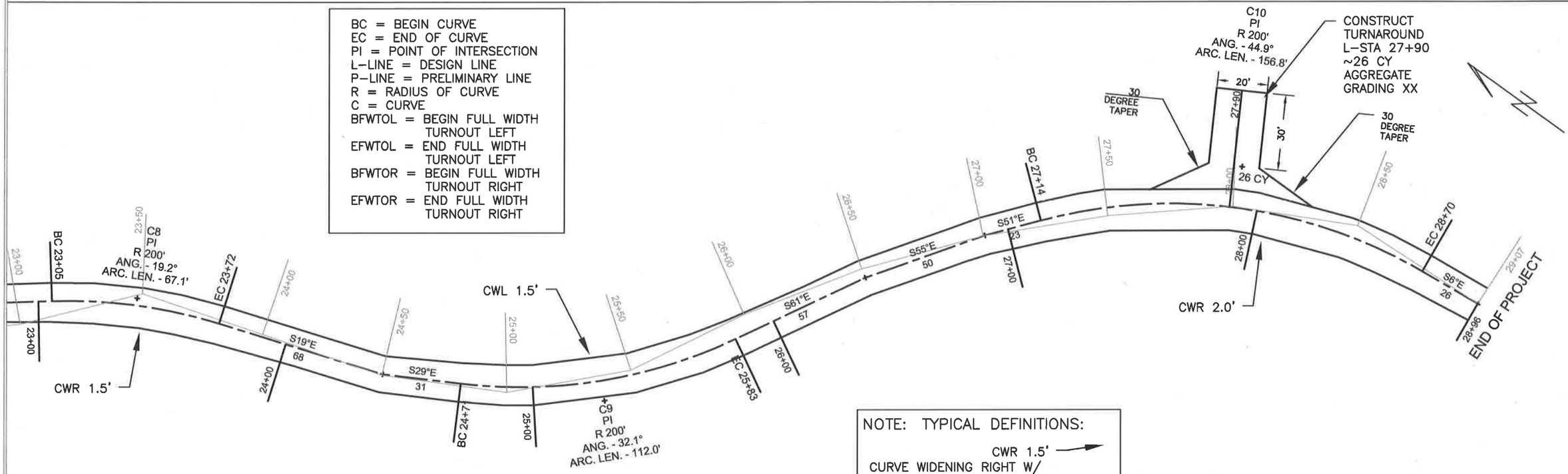

NOTE: TYPICAL DEFINITIONS:

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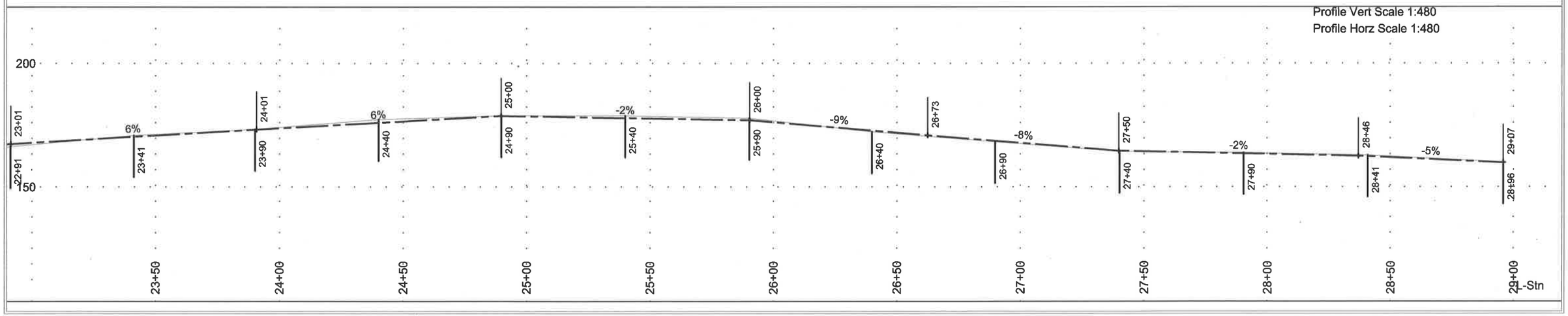
Scale Bar

0 50

Plan Scale 1:480

Profile Vert Scale 1:480
Profile Horz Scale 1:480



U.S. DEPARTMENT OF AGRICULTURE
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Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST
District: POWERS RANGER DISTRICT

Design: D.TULEE
Drawn: D.TULEE
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Date: 7/2016

Sheet Title: FSR 5000446 Plan and Profile
Project Name: SPAR TIMBER SALE

Project No:

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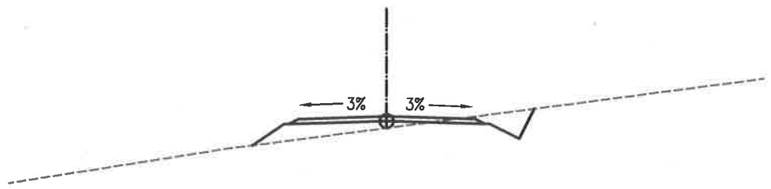
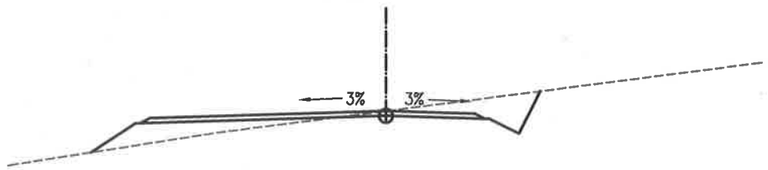
REFER TO THE SLOPE STAKING NOTES
FOR TYPICAL SECTION ASSIGNMENTS.

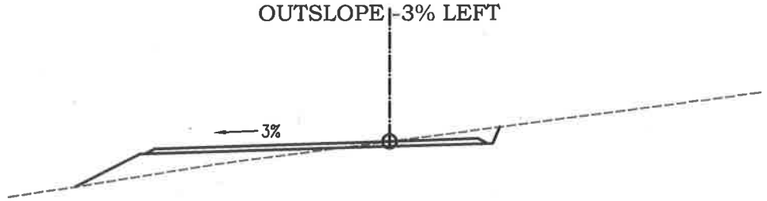
12' TOP WIDTH W/ DITCH
CROWN -3%



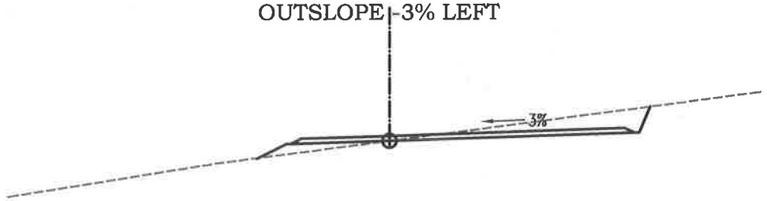
10' TURNOUT LEFT W/DITCH
CROWN -3%



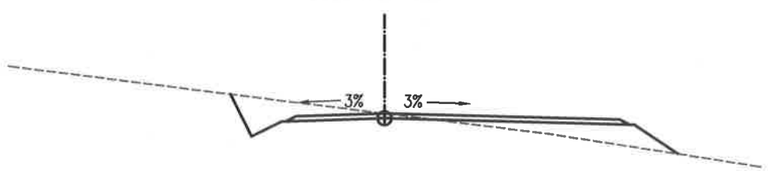
10' TURNOUT LEFT/ NO DITCH
OUTSLOPE -3% LEFT



10' TURNOUT RIGHT/ NO DITCH
OUTSLOPE -3% LEFT



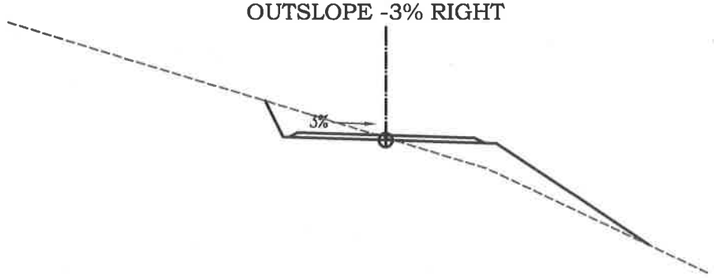
10' TURNOUT RIGHT W/ DITCH
CROWN -3%



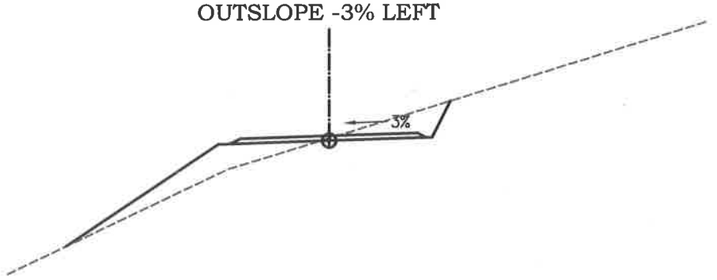
AGGREGATE DEPTH FOR ROADS:

5000443 - 6" STATION 0+00 - 8+62
5000446 - 6" MP 0+00 - 28+96

OUTSLOPE RIGHT/ NO DITCH
OUTSLOPE -3% RIGHT



OUTSLOPE LEFT/ NO DITCH
OUTSLOPE -3% LEFT



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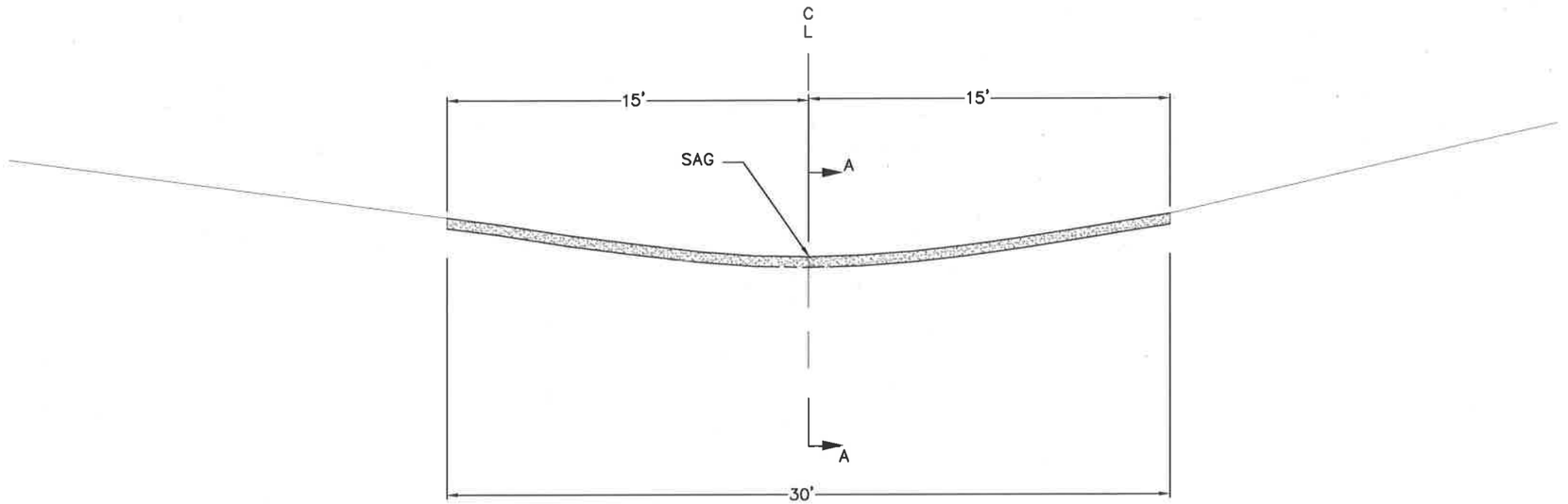
Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST
District: POWERS RANGER DISTRICT

Design: D.TULEE
Drawn: D.TULEE
Checked: L.COOMBE
Date: 7/2016

Sheet Title: TYPICAL SECTIONS
SPAR TIMBER SALE

Project No:

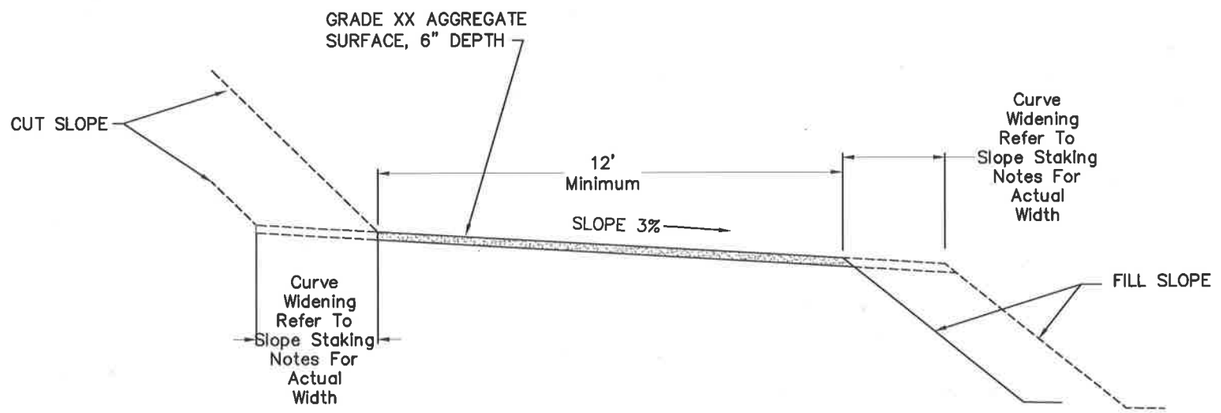
Sheet 23 OF 32



PROFILE

NOTES:

1. LOCATION AS SHOWN IN PLAN & PROFILE SHEETS.
2. 12' MINIMUM WIDTH, MAY INCLUDE CURVE WIDENING EITHER FOR A CUT OR FILL SECTION (NOT BOTH), IF ON A CURVE, IF NEAR A TURNOUT MAY INCLUDE SOME WIDTH FOR TAPER OR TURNOUT. QUANTITIES ARE APPROXIMATE. REFER TO SLOPE STAKING NOTES FOR ACTUAL WIDJH AT LOCATIONS SHOWN.
3. SAG OF ROCKED DIP SHALL BE SMOOTH AND FREE DRAINING.
4. THE CROSS SLOPE SHALL BE 3% AT THE BOTTOM OF THE ROCKED DIP.
5. EXCAVATE EXISTING MATERIAL AND DISPOSE AT DESIGNATED WASTE SITE.



SECTION A–A

DRAWINGS
NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R6
PACIFIC NORTHWEST REGION

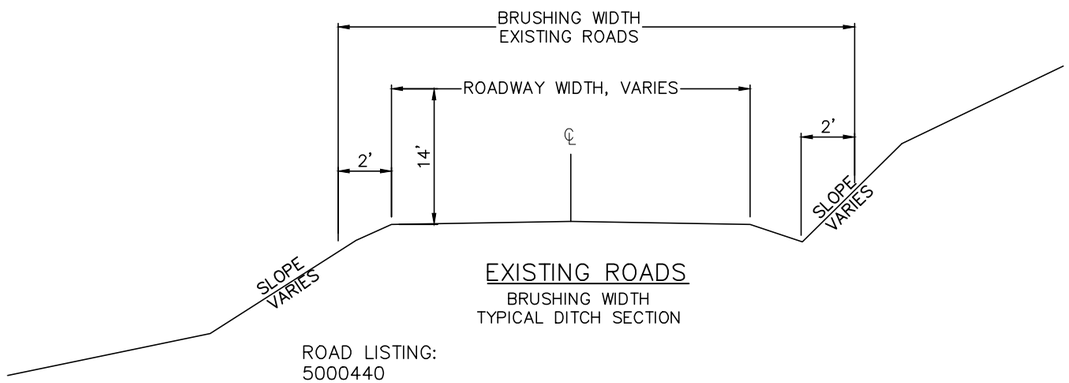
Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST
District: POWERS RANGER DISTRICT

Design: D.Tulee
Drawn: D.Tulee
Checked: L.Coombe
Date: 7/2016

Sheet Title: ROCKED DIP
SPAR TIMBER SALE

Project No:

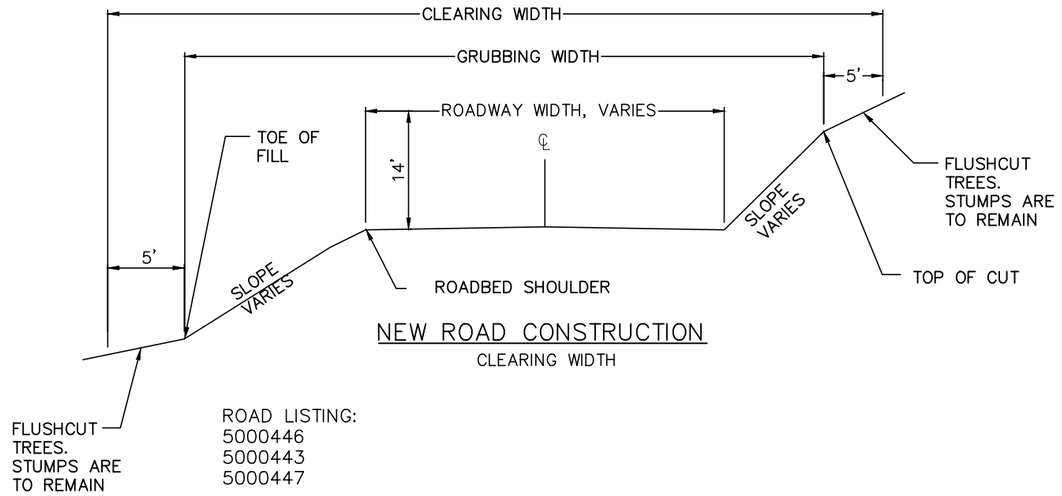
Sheet 24 OF 32



EXISTING ROADS

BRUSHING WIDTH
TYPICAL DITCH SECTION

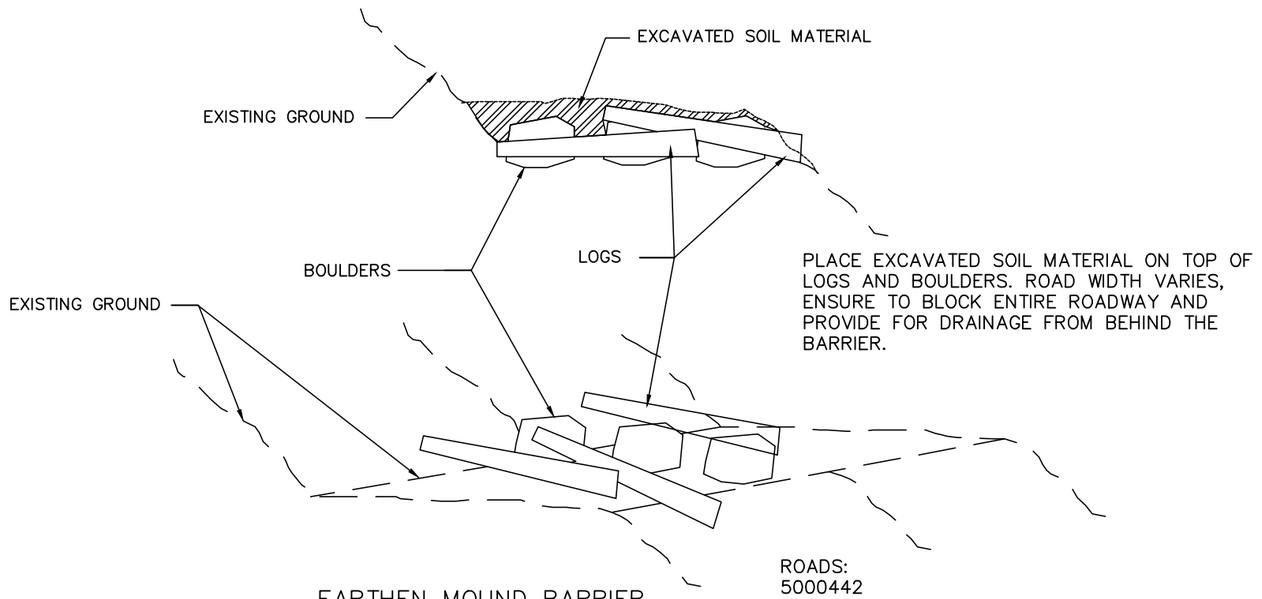
ROAD LISTING:
5000440
5000448
5000442



NEW ROAD CONSTRUCTION

CLEARING WIDTH

ROAD LISTING:
5000446
5000443
5000447



EARTHEN MOUND BARRIER

ROADS:
5000442
5000443
5000446
5000447

NOTES:

1. GRUB AND BACKFILL STUMPS IN ROADBED AREA. BACKFILL IF GRUBBED FROM CUT OR FILL SLOPES.
2. DECK LOGS IN DESIGNATED LOCATIONS.
3. CONSTRUCT /OR REMOVE AND RE–INSTALL EXISTING EARTH MOUND BARRIER AS DESIGNATED OR AS SHOWN ON PLANS. CONSTRUCT EARTH MOUND BARRIER FROM EXISTING BOULDERS, LOGS AND EXCAVATED MATERIAL ADJACENT TO EXISTING BARRIER LOCATION. USE ADEQUATE AMOUNT OF LOGS AND BOULDERS. PLACE EXCAVATED SOIL MATERIAL ON TOP OF BOULDERS AND LOGS, MINIMUM 5 FEET HIGH. ENSURE TO COMPLETELY BLOCK ENTRANCE FROM CUTBANK TO OUTER EDGE OF EXISTING ROADWAY.

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FOREST SERVICE
R6
PACIFIC NORTHWEST REGION

Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST
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Design: D.TULEE
Drawn: D.TULEE
Checked: L.COOMBE
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Sheet Title:
CLEARING AND GRUBBING TYPICALS
SPAR TIMBER SALE

Project No:

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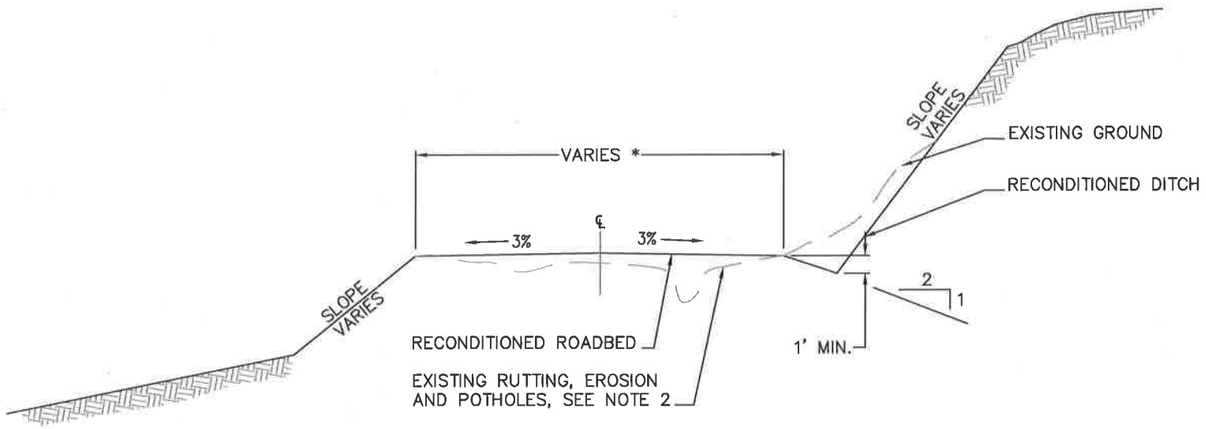
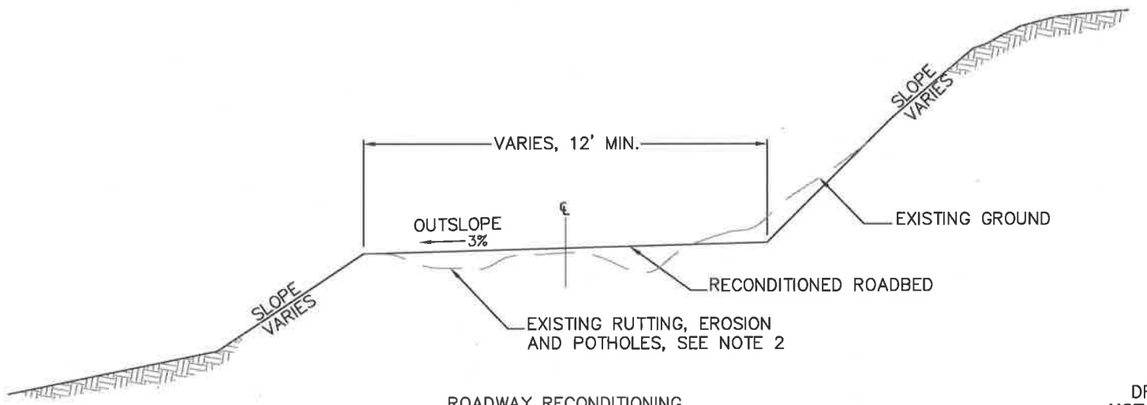


* WIDTH VARIES, MATCH EXISTING ROADWAY WIDTHS, 12 FT. MINIMUM

ROADWAY RECONDITIONING
TYPICAL DITCH SECTION

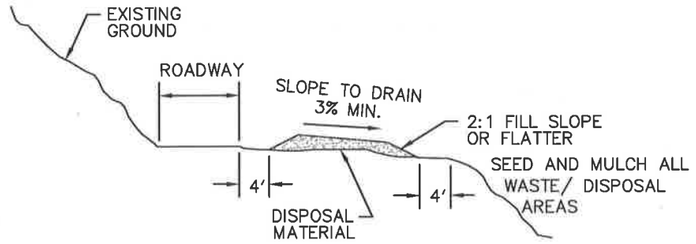
NOTES:

1. RECONDITION ROADS AS SHOWN AND IN ACCORDANCE WITH FP-03 SECTION 303. REQUIRED RECONDITIONING INCLUDES WIDENING FOR CURVES AND TURNOUTS.
2. WHERE RUTTING, EROSION AND POTHOLES EXIST, SCARIFY TO DEPTH OF RUT/EROSION/POTHOLE, BLADE, SHAPE AND COMPACT EXISTING AGGREGATE SURFACE MATERIAL.
3. PLACE AGGREGATE SURFACE OR ROADWAY EXCAVATION MATERIAL AS SHOWN ON WORK LISTS.
4. REMOVE AND DISPOSE OF SLIDE, DITCH, AND CATCH BASIN MATERIAL.
5. SEED AND MULCH ALL WASTE/DISPOSED MATERIAL.



ROADWAY RECONDITIONING
TYPICAL NO DITCH SECTION

DRAWINGS
NOT TO SCALE



DISPOSAL AREA TYPICAL

DISPOSAL SITES	
ROAD #	MILEPOSTS
5000000	MP. 5.7

U.S. DEPARTMENT OF AGRICULTURE
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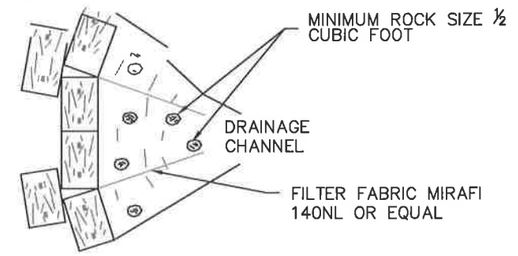
Sheet Title: ROAD RECONDITIONING
SPAR TIMBER SALE

Project No:

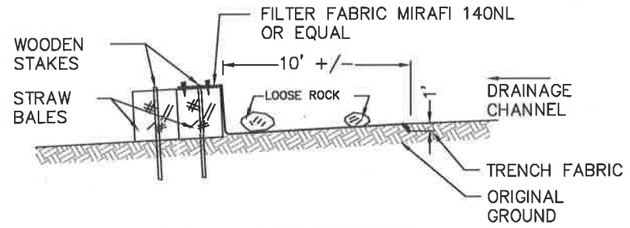
Sheet 26 OF 32

EROSION AND SEDIMENT CONTROL:

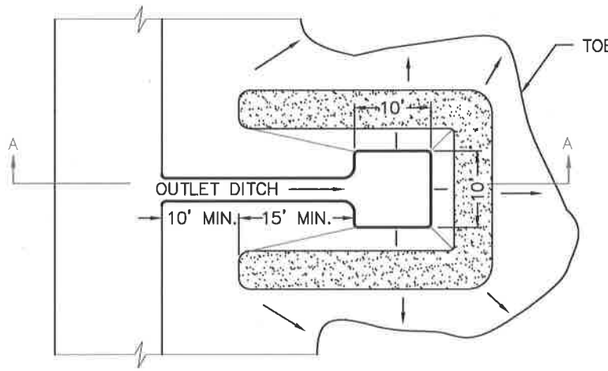
1. PRIOR TO THE START OF CONSTRUCTION, SUBMIT A WRITTEN PLAN THAT PROVIDES PERMANENT AND TEMPORARY EROSION CONTROL MEASURES TO MINIMIZE EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION.
2. PURCHASER SHALL PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED TO CONTROL SOIL EROSION DURING ROAD RECONSTRUCTION.
3. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO BEGINNING EARTH DISTURBING ACTIVITIES IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLAN. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED BY CONTRACTING OFFICER.
4. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER WORK HAS CEASED.
5. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED EVERY SEVEN (7) DAYS OR AFTER EACH RAINFALL OCCURRENCE THAT EXCEEDS ONE–HALF (1/2) INCH. DAMAGED OR INEFFECTIVE DEVICES SHALL BE REPAIRED OR REPLACED.
6. SEDIMENT SHALL BE REMOVED FROM BEHIND TEMPORARY SILT FENCING WHEN THE DEPTH OF SEDIMENT REACHES 6 INCHES.
7. ALL DISTURBED AREAS WHERE EARTH IS EXPOSED SHALL BE CLEANED, GRADED SMOOTH, SHAPED TO DRAIN. SEEDED AND MULCHED. SEED WILL BE GOVERNMENT FURNISHED. MULCH SHALL BE CERTIFIED WEED FREE.
8. ALL TEMPORARY SEDIMENT CONTROL MEASURES AND PRACTICES SHALL BE REMOVED WITHIN TWO (2) MONTHS AFTER THE FOREST SERVICE HAS ACCEPTED THE PROJECT.



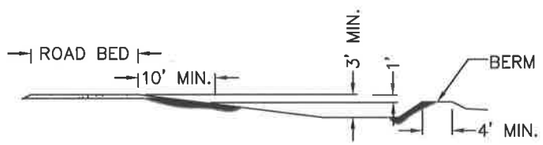
TEMPORARY STRAW SEDIMENT TRAP
PLAN VIEW



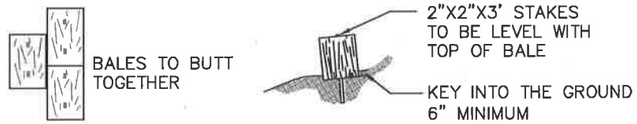
TEMPORARY SEDIMENT TRAP
PROFILE



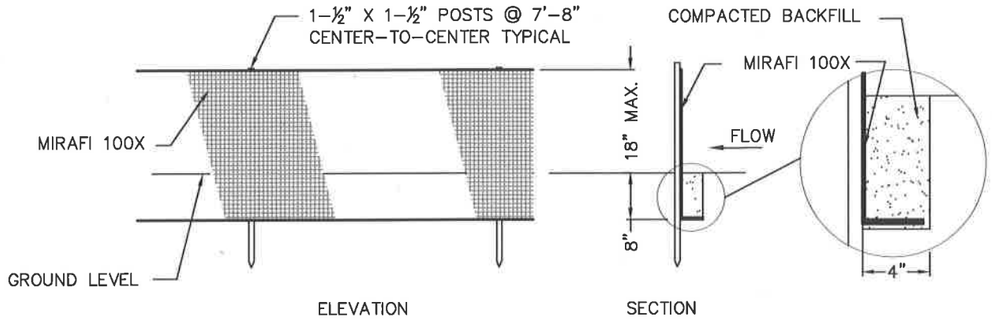
SEDIMENT BASIN PLAN VIEW



SEDIMENT BASIN SECTION A–A



TEMPORARY STRAW SILT CHECKS



SILT FENCE DETAILS

DRAWINGS
NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R6
PACIFIC NORTHWEST REGION

Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST
District: POWERS RANGER DISTRICT

Design: D.TULEE
Drawn: D.TULEE
Checked: L.COOMBE
Date: 7/2016

Sheet Title: SEDIMENT CONTROL
SPAR TIMBER SALE

Project No:
Sheet 27 OF 32

COUPLING BANDS FOR METAL PIPE CULVERT					
CORRUGATION SIZE	PIPE DIAMETER	PIPE–ARCH SPAN X RISE	MINIMUM BAND WIDTH – W		
			ANNULAR CORRUGATED BANDS	HELICALLY CORRUGATED BANDS	SEMI–CORRUGATED BANDS
INCHES					
1–1/2 by 1/4	under drain	–	12	12	12
2–2/3 by 1/2	12 to 36	17x13 to 42x29	12	12	12
	42 to 72	49x33 to 83x57	12	12	12
	78 to 84	–	12	12	12
3 by 1	36 to 72	42x29 to 81x59	12	14	12
	78 to 144	87x63 to 142x91	12	14	12
5 by 1	48 to 72	57x38 to 81x59	20	22	12
	78 to 144	87x63 to 142x91	20	22	12

NOTES:

1. FABRICATE ANNULAR, HELICAL AND SEMI–CORRUGATED TYPE COUPLING BANDS FROM THE SAME METAL AS THE CONNECTING PIPE. PROVIDE COUPLING BANDS NOT MORE THAN 2 NOMINAL SHEET THICKNESS THINNER THAN THE THICKNESS OF THE PIPE TO BE CONNECTED, AND NO THINNER THAN 0.052 INCH (18 GAGE) FOR STEEL OR 0.048 INCH (18 GAGE) FOR ALUMINUM. FASTEN COUPLING BANDS WITH THE FOLLOWING SIZE OF BOLT:

   3/8–INCH FOR PIPE DIAMETER – 18" (21"X15" PIPE ARCH) OR LESS
   1/2–INCH FOR PIPE DIAMETER – 21" (24"X18" PIPE ARCH) OR MORE

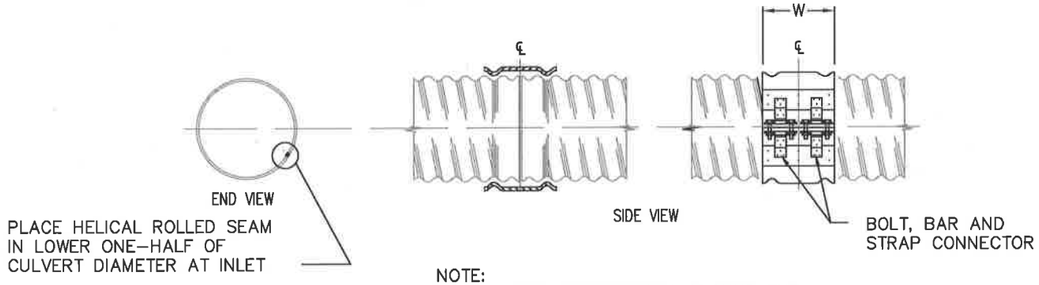
2. FOR HELICALLY CORRUGATED PIPE WITH REROLLED ENDS, THE NOMINAL CORRUGATION SIZE REFERS TO THE DIMENSION OF THE END CORRUGATION IN THE PIPE.

3. USE ANNULAR CORRUGATED BANDS WITH PIPES HAVING ANNULAR CORRUGATIONS OR WITH HELICAL PIPE HAVING REROLLED ENDS TO FORM ANNULAR CORRUGATIONS.

4. USE HELICAL CORRUGATED BAND WITH PIPES HAVING HELICALLY CORRUGATED ENDS. HELICAL CULVERT INSTALLATIONS SHALL HAVE THE ROLLED SEAM AT THE INLET PLACED IN THE LOWER ONE–HALF OF THE PIPE DIAMETER.

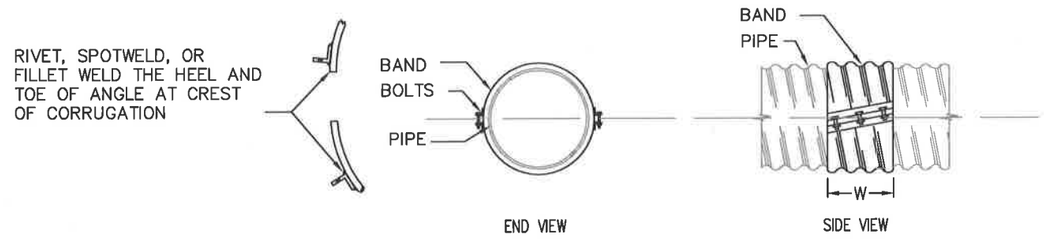
5. SMOOTH SLEEVE–TYPE COUPLERS AND FLAT BANDS MAY BE USED FOR PIPE DIAMETERS OF 12 INCHES OR LESS. USE A MATCHING METAL HAVING A NOMINAL THICKNESS OF NOT LESS THAT 0.040 INCH (20 GAGE) FOR STEEL, OR 0.036 INCH (20 GAGE) FOR ALUMINUM, OR A PLASTIC WITH AN EQUIVALENT STRENGTH TO METAL.

EQUIVALENT CULVERT THICKNESS		
GAUGE NUMBER	THICKNESS – INCHES	
	STEEL	ALUMINUM
16	0.064	0.060
14	0.079	0.075
12	0.109	0.105
10	0.138	0.135
6	0.168	0.165



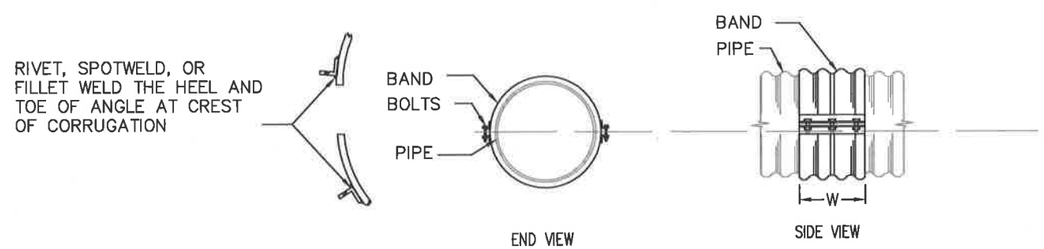
NOTE:
CONTINUOUS CORRUGATION AROUND THE BAND SHALL MESH WITH SECOND ANNULAR CORRUGATION FROM END OF PIPE END.

SEMI–CORRUGATED BAND



NOTE:
A BAND WITH 2 ANGLE CONNECTIONS IS OPTIONAL UP TO 42" DIA., REQUIRED FOR DIA. GREATER THAN 42".

HELICAL BAND



NOTE:
A BAND WITH 2 ANGLE CONNECTIONS IS OPTIONAL UP TO 42" DIA., REQUIRED FOR DIA. GREATER THAN 42".

ANNULAR BAND

DRAWINGS
NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R6
PACIFIC NORTHWEST REGION

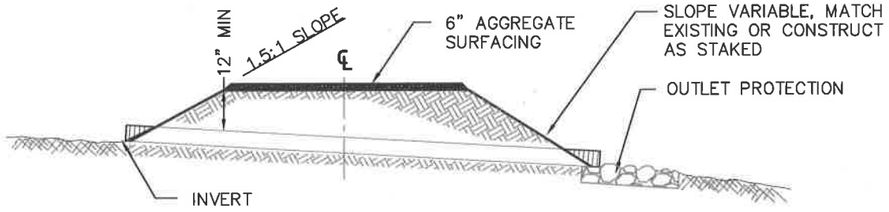
Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST
District: POWERS RANGER DISTRICT

Design: D.TULEE
Drawn: D.TULEE
Checked: L.COOMBE
Date: 7/2016

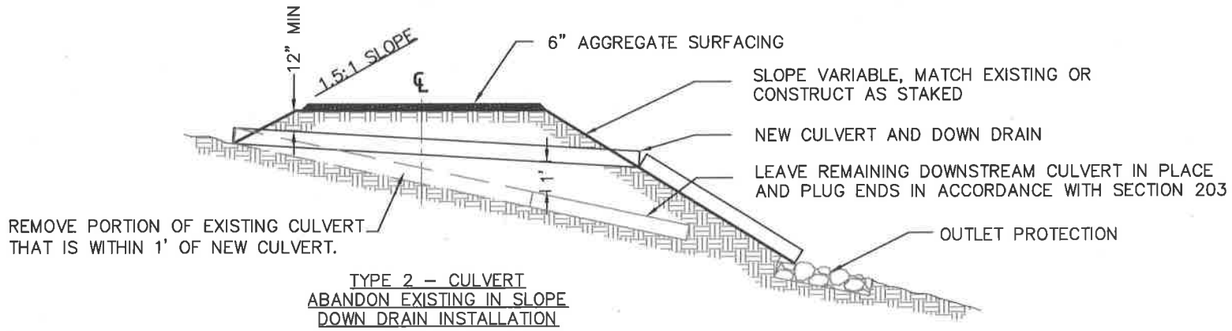
Sheet Title: COUPLING BANDS FOR METAL PIPE CULVERTS
SPAR TIMBER SALE

Project No:

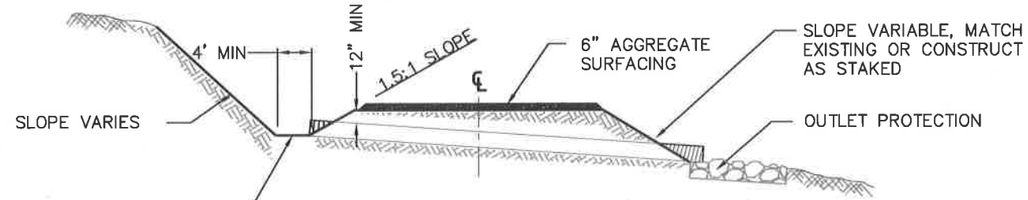
Sheet 28 OF 32



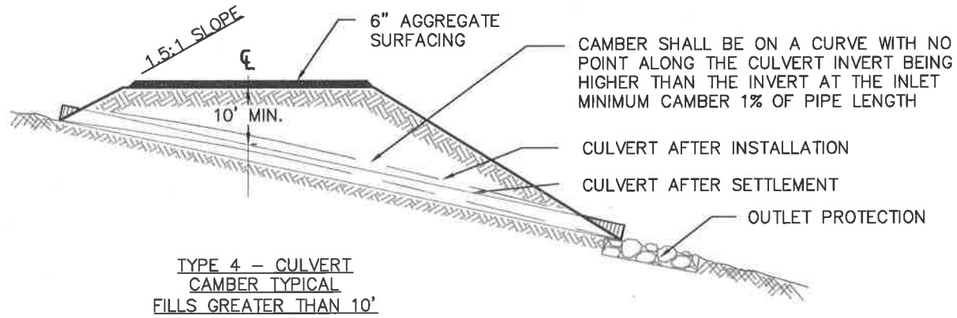
TYPE 1 – CULVERT
FILL SECTION INSTALLATION



TYPE 2 – CULVERT
ABANDON EXISTING IN SLOPE
DOWN DRAIN INSTALLATION

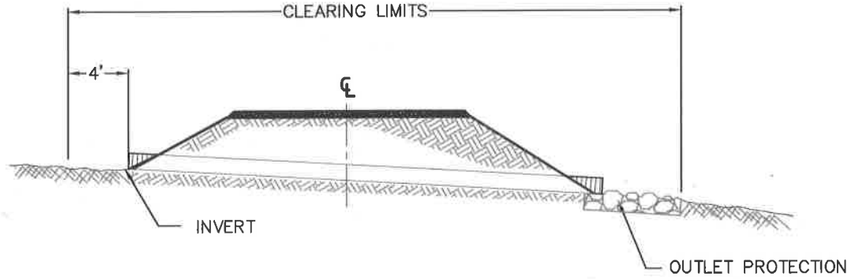


TYPE 3 – CULVERT
SIDEHILL SECTION INSTALLATION

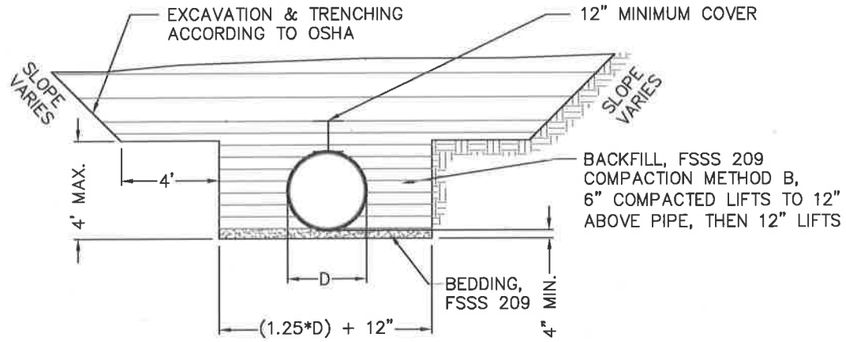


TYPE 4 – CULVERT
CAMBER TYPICAL
FILLS GREATER THAN 10'

DRAWINGS
NOT TO SCALE



CLEARING LIMITS



TYPICAL CMP ROUND CULVERT SECTION

NOTES:

1. CLEAR AND GRUB IN ACCORDANCE WITH SECTION 201. SEE PAY ITEM 201 FOR DISPOSAL METHODS.
2. INSTALL NEW CULVERT ACCORDING TO SECTION 602. EXCAVATION, BEDDING, AND BACKFILL ARE INCIDENTAL TO ITEM 602 AND IN ACCORDANCE WITH SECTION 209. USE COMPACTION METHOD B FOR BACKFILL.
3. MATCH EXISTING ROAD WIDTH AND GRADE. IMPORT SELECT BORROW AS NEEDED.
4. PLACE CRUSHED AGGREGATE AT 6" DEPTH OVER CULVERT INSTALLATION FOR ROAD SURFACING. SALVAGE EXISTING ROAD AGGREGATE AND UTILIZE AS BASE ROCK.
5. PROVIDE FOR A 25' TRANSITION GRADE INTO INLET OF CULVERT. SEE 'CULVERT CATCH BASIN & OUTLET DITCH'.
6. ALL EXCAVATION AND TRENCHING OPERATIONS SHALL CONFORM TO OSHA REQUIREMENTS.
7. DO NOT OPERATE ANY HEAVY EQUIPMENT OVER ANY CULVERT UNTIL IT HAS BEEN PROPERLY BACK FILLED WITH A MINIMUM OF 1–FOOT COVER.
8. CULVERTS SHALL BE INSTALLED AS STAKED, WITH A MINIMUM OF 8% SLOPE WHERE POSSIBLE.
9. THE MINIMUM LENGTH OF A SINGLE PIPE SECTION FOR ANY INSTALLATION SHALL NOT BE LESS THAN 10 L.F.
10. FIELD CUTTING OF CULVERT IS NOT PERMITTED UNLESS APPROVED BY THE CONTRACTING OFFICER.
11. REMOVE AND DISPOSE OF EXISTING CULVERT ACCORDING TO SECTION 203.

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R6
PACIFIC NORTHWEST REGION

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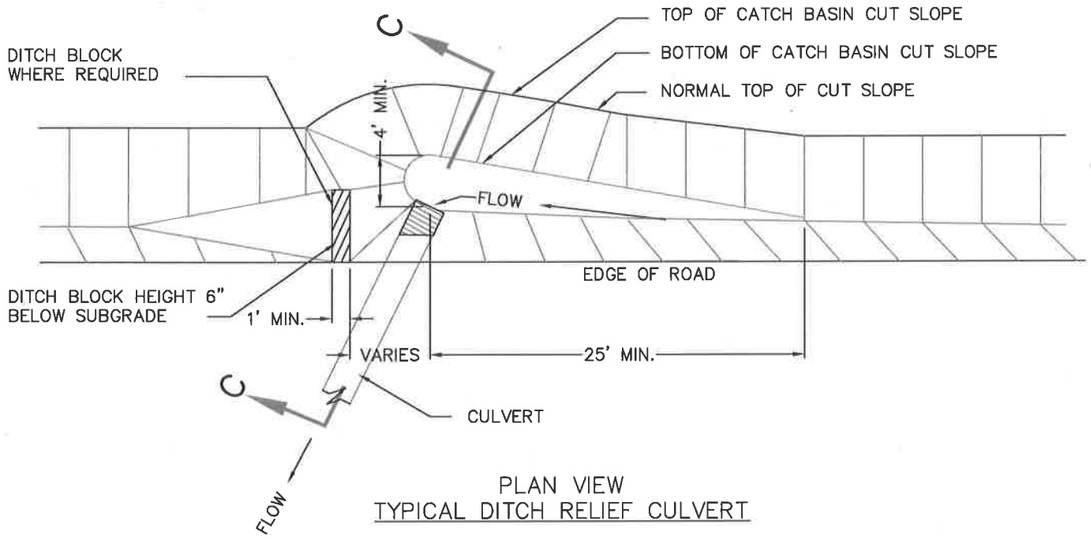
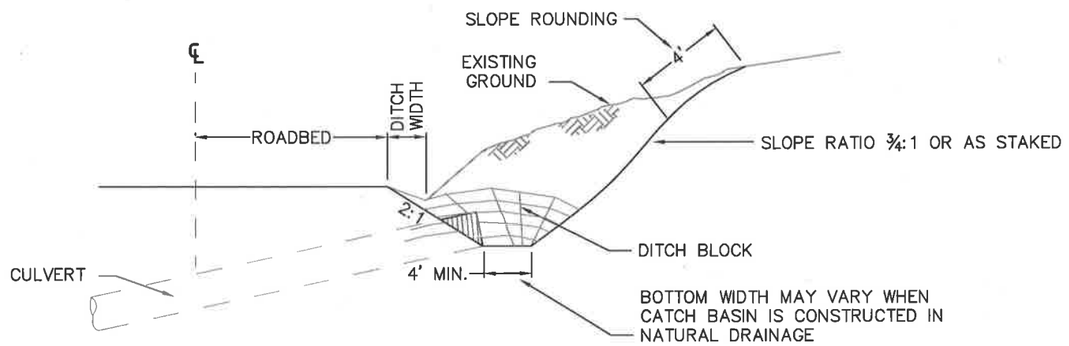
Design: D.TULEE
Drawn: D.TULEE
Checked: L.COOMBE
Date: 7/2016

Sheet Title: CULVERT INSTALLATION & BEDDING
SPAR TIMBER SALE

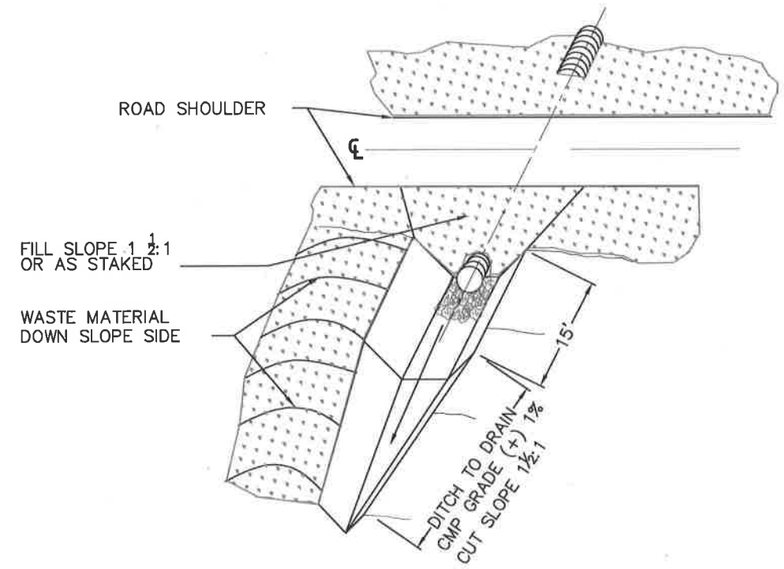
Project No:



PLAN VIEW
TYPICAL DITCH RELIEF CULVERT



SECTION C–C
DITCH RELIEF CULVERT



OUTLET "V" DITCH
PICTORIAL VIEW

NOTE:

MATERIAL REMOVED IN THE MAINTENANCE, RECONDITIONING, & CLEANING OF CATCH BASINS & CULVERTS SHALL **NOT** BE DEPOSITED ON / OR ABOVE CUT SLOPES. MATERIAL MAY BE DEPOSITED ON FILL SLOPE TO A DEPTH OF **NOT** MORE THAN 4 INCHES WHEN APPROVED BY THE CONTRACTING OFFICER. OTHERWISE ALL MATERIAL SHALL BE REMOVED FROM NATIONAL FOREST LANDS IN A LEGAL MANNER OR DISPOSAL AREA AS APPROVED BY THE CONTRACTING OFFICER.

DRAWINGS
NOT TO SCALE

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FOREST SERVICE
R6
PACIFIC NORTHWEST REGION

Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST
District: POWERS RANGER DISTRICT

Design: D.TULEE
Drawn: D.TULEE
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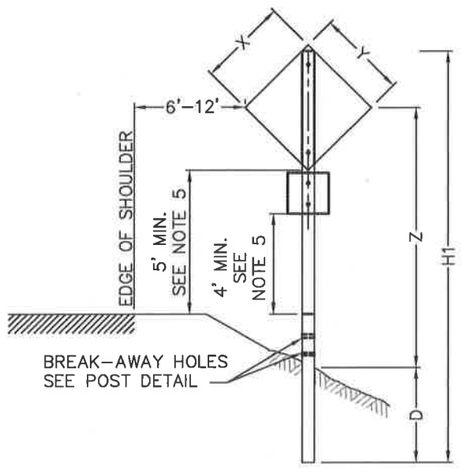
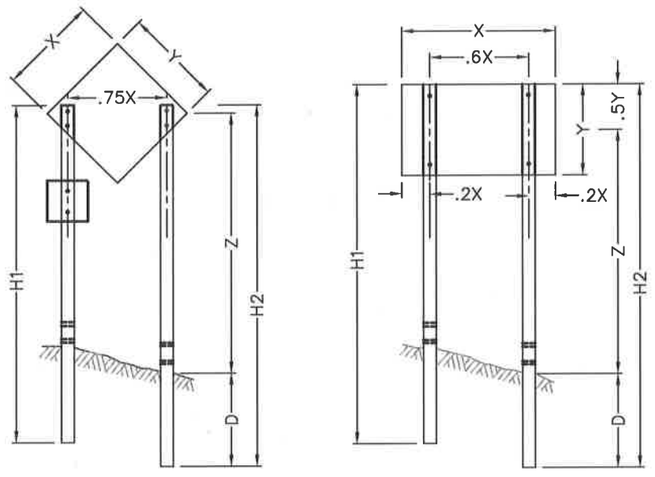
Date: 7/2016

Sheet Title: CULVERT CATCH BASIN & OUTLET DITCH
SPAR TIMBER SALE

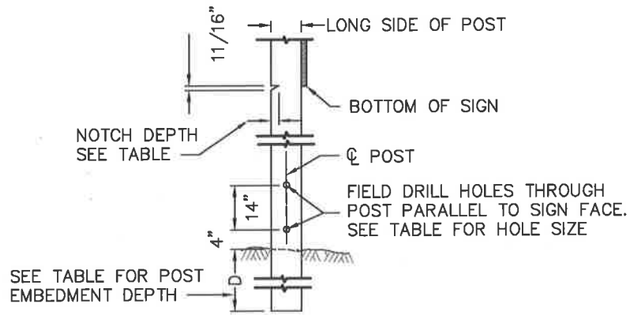
Project No:



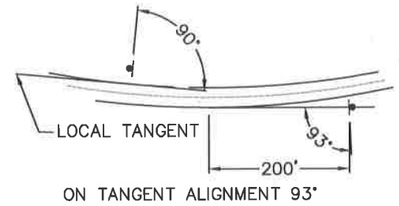
SIGN POST DETAIL



TWO POST SIGN



POST DETAIL



SIGN INSTALLATION ANGLE

DRAWINGS
NOT TO SCALE

WOOD POST SELECTION TABLE

SIGN SHAPE	X x Y	GROUND LINE TO CENTER OF SIGN HEIGHT (Z)									
		Z IS 10' OR LESS					Z IS GREATER THAN 10'				
		NUMBER OF POSTS	POST SIZE	D	HOLE SIZE	NOTCH DEPTH	NUMBER OF POSTS	POST SIZE	D	HOLE SIZE	NOTCH DEPTH
◇⬡	30" X 30"	1	4" X 4"	36"	0	0	1 or 2	4" X 6" 4" X 4"	48" 36"	1½" 0	0 0
◇⬡◇	36" X 36"	1 or 2	4" X 6" 4" X 4"	48" 36"	1½" 0	0	1 or 2	4" X 6" 4" X 4"	48" 36"	1½" 0	0 0
◇⬡	48" X 48"	1	4" x 6"	48"	1½"	0	1 or 2	6" X 8" 4" X 6"	48" 48"	3" 1½"	0 1¾"
▭	60" X 30"	2	4" x 4"	36"	0	0	2	4" x 6"	48"	1½"	1¾"
▭	78" X 42"	2	4" x 6"	48"	1½"	1¾"	2	4" x 6"	48"	1½"	1¾"
▭	96" X 48"	2	4" x 6"	48"	1½"	1¾"	2	6" x 8"	48"	3"	2¼"

NOTE:

1. ATTACH SIGN PANELS WITH A MINIMUM OF 2 – ¼" DIA. BOLTS PER POST.
2. MOUNT SIGNS SMALLER THAN LISTED ON A SINGLE 4" X 4" POST. FOR SIGNS NOT SHOWN, USE NEXT LARGEST SIZE.
3. H1 AND H2 = OVERALL POST LENGTH.
   SELECT POST LENGTHS TO FIT FIELD CONDITIONS.
4. D = POST EMBEDMENT DEPTH FOR AVERAGE SOIL CONDITIONS.
5. WHEN PEDESTRIANS ARE PRESENT, OR IN AREAS WHERE THE VIEW IS OBSTRUCTED, USE 7' MINIMUM MOUNTING HEIGHT.
6. USE TYPE III OR HIGHER TYPE SHEETING ON ALL SIGNS AND CHANNELIZING DEVICES. WARNING LIGHTS ARE NOT NORMALLY NEEDED ON DEVICES WITH TYPE III OR HIGHER TYPE SHEETING, BUT MAY BE BENEFICIAL TO ATTRACT THE DRIVERS ATTENTION IN FOG OR OTHER SPECIAL CONDITIONS. WHEN USED, APPLY THE APPROPRIATE TYPE OR WARNING LIGHT (TYPE A, B, C, OR D) PER THE MUTCD CHAPTER 6F.
7. ENSURE ALL SIGN SUPPORTS EXPOSED TO IMPACT BY TRAFFIC MEET THE REQUIREMENTS OF NCHRP-350 FOR CRASH WORTHINESS.
8. DO NOT STORE TRAFFIC CONTROL DEVICES ALONG THE ROADWAY WHEN NOT IN USE. COVER POST-MOUNTED SIGNS WHEN NOT APPLICABLE.
9. STATE STANDARDS MAY BE USED AS AN ALTERNATIVE IF APPROVED BY THE CONTRACTING OFFICER.

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R6
PACIFIC NORTHWEST REGION

Forest: ROGUE RIVER-SISKIYOU NATIONAL FOREST
District: POWERS RANGER DISTRICT

Design: D.TULEE
Drawn: D.TULEE
Checked: L.COOMBE
Date: 7/2016

Sheet Title: TEMPORARY TRAFFIC CONTROL - POST DETAIL
SPAR TIMBER SALE

Project No:

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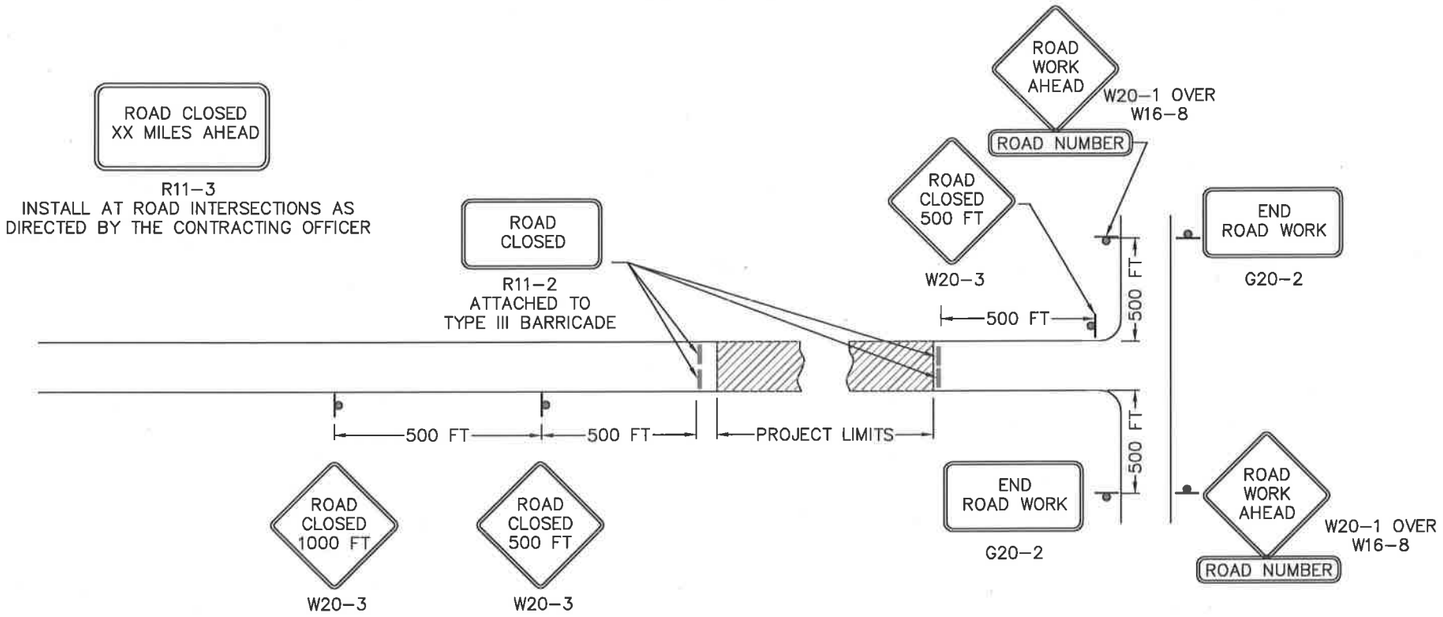
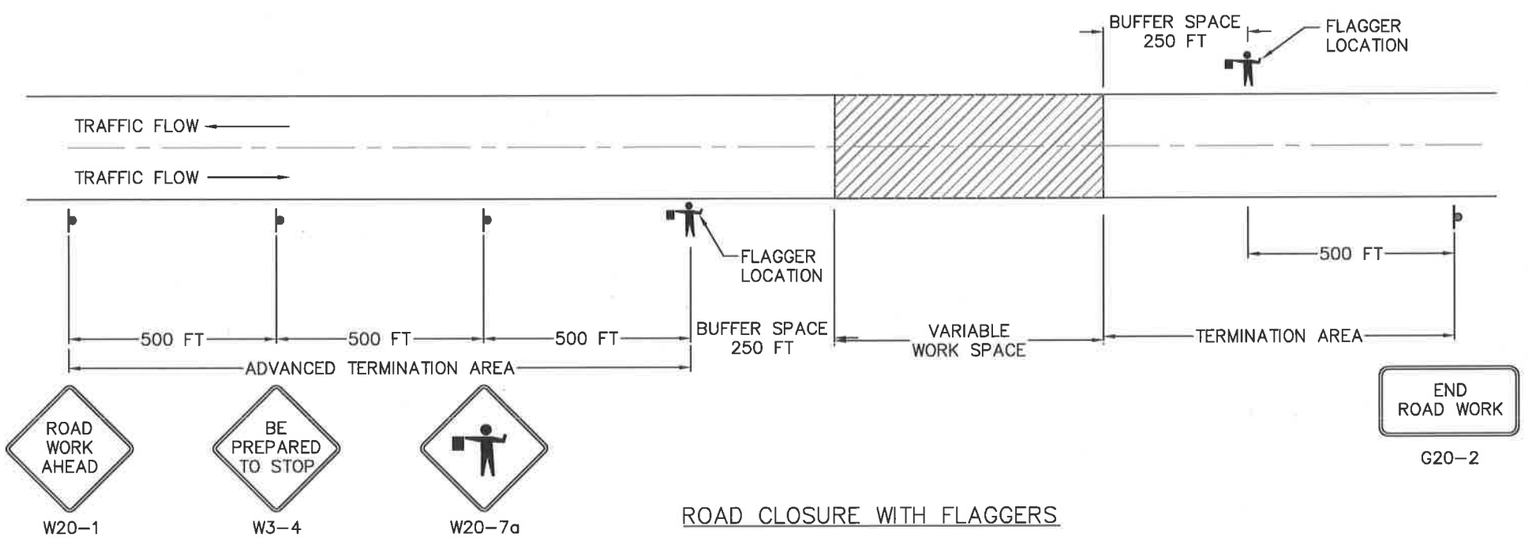


ROAD CLOSURE WITHOUT FLAGGERS

NOTE
1. ERECT ALL ADVANCE WARNING SIGNS BEFORE STARTING CONSTRUCTION WORK.
2. NOT ALL DETAILS SHOWN ON THE TEMPORARY TRAFFIC CONTROL SHEETS MAY BE APPLICABLE TO THIS PROJECT. THE CONTRACTOR MAY ADD OR DELETE INFORMATION AND DETAILS IN THIS TRAFFIC CONTROL PLAN AS NECESSARY TO ACCOMMODATE ACTUAL OPERATIONS WITH WRITTEN APPROVAL FROM THE CONTRACTING OFFICER.
3. WHERE ADVANCE WARNING SIGNS, PLACED AS SHOWN, INTERFERE WITH PERMANENT SIGNS, LOCATE THE WARNING SIGNS AS DETERMINED BY THE CO FOR BEST RESULTS. VARY MESSAGES AS REQUIRED.
4. ADDITIONAL OR DIFFERENT MESSAGE SIGNS MAY BE REQUIRED TO FIT THE ACTUAL CONSTRUCTION CONDITIONS.
5. IF W20–1 IS ON A ROADWAY OTHER THAN THAT ON WHICH THE ACTUAL CONSTRUCTION WORK OCCURS, INCLUDE A SUPPLEMENTARY PLAQUE INDICATING THE NAME OF THE ROAD THE WORK IS ON.
6. IF SIGNS WILL BE IN PLACE MORE THAN 72 CONSECUTIVE HOURS, USE GROUND–MOUNTED POSTS.



ROAD CLOSURE WITH FLAGGERS

NOTE
1. SIGNS ARE SHOWN FOR ONE DIRECTION OF TRAVEL ONLY. PLACE DEVICES SIMILAR TO THOSE DEPICTED FOR THE OPPOSITE DIRECTION OF TRAVEL.
2. FINAL LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE CHANGED TO FIT FIELD CONDITIONS AS APPROVED BY THE CO.
3. FOR PILOT CAR OPERATION, MOUNT THE "PILOT CAR FOLLOW ME" (G20–4) SIGN AT A CONSPICUOUS LOCATION ON THE REAR OF VEHICLE. PROMINENTLY DISPLAY THE NAME OF THE CONTRACTOR ON THE PILOT CAR.
4. FOR NIGHT TIME FLAGGING OPERATION, PROVIDE FLOODLIGHTING AT FLAGGER STATIONS PER OSHA REGULATIONS.
5. DO NOT ALLOW EQUIPMENT, MATERIALS, OR VEHICLES TO BE PARKED OR STORED IN THE BUFFER SPACE.

DRAWINGS
NOT TO SCALE

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Sheet Title:
TEMPORARY TRAFFIC CONTROL - SINGLE LANE CLOSURE LAYOUT
SPAR TIMBER SALE

Project No:

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