

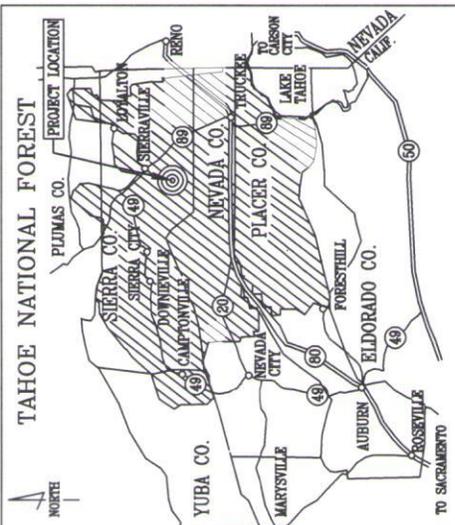
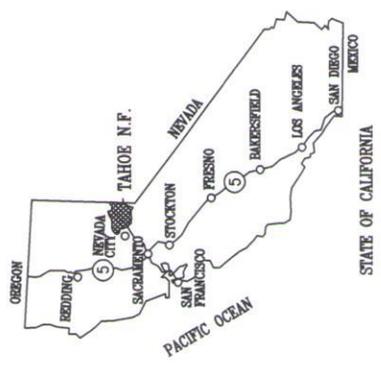
UNITED STATES DEPARTMENT OF AGRICULTURE
 FOREST SERVICE
 REGION FIVE



CASTLE STEWARDSHIP REOFFER

PLANS FOR PROPOSED
 FOREST DEVELOPMENT ROADS

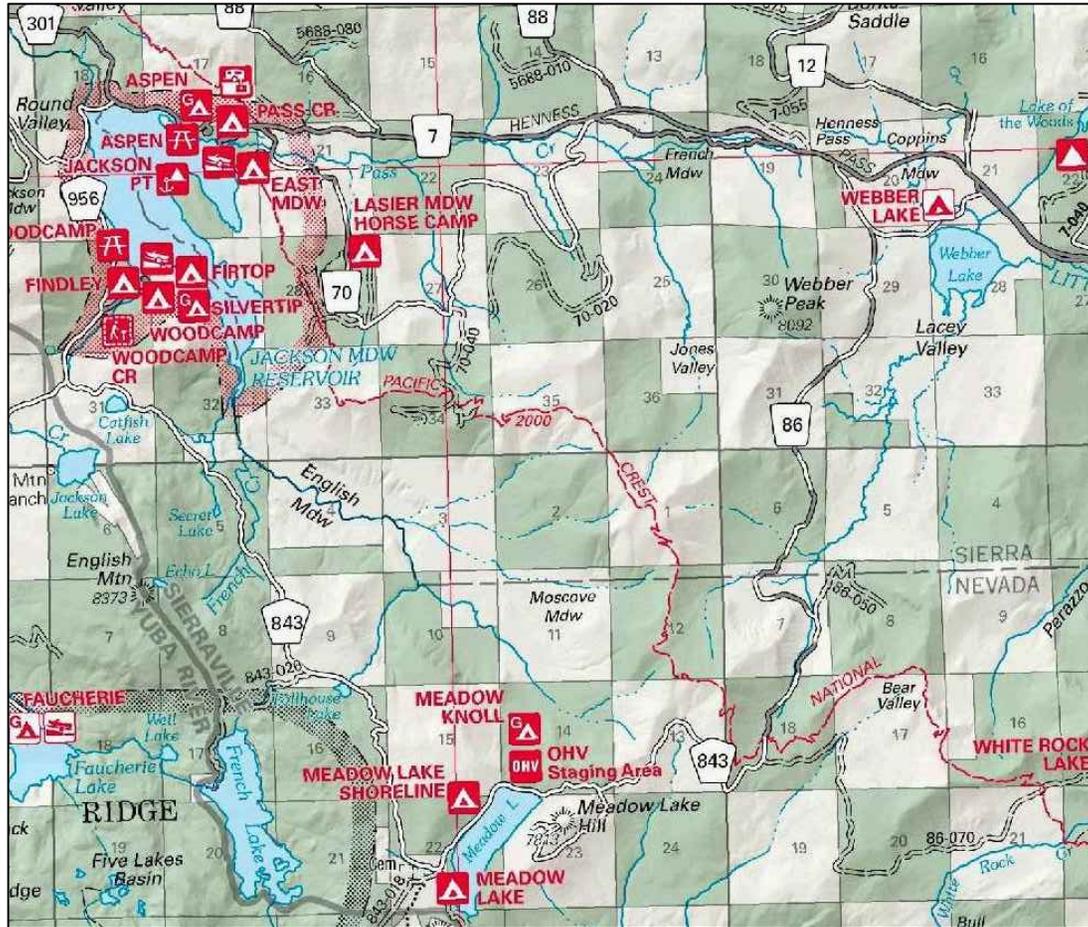
TAHOE NATIONAL FOREST
 SIERRA COUNTY



ROAD(S) INDEX		ROAD(S) INDEX		ROAD(S) INDEX		SHEET(S) INDEX	
ROAD NUMBER	ROAD NAME	RECONSTR. MILES	NEW CONST. MILES	DESIGN STANDARD	SHEET NO.	DESCRIPTION	SHEET NO.
70-20	FRENCH KNOB	0.23	N/A	S-5	1	TITLE SHEET	
70-30	PASS CREEK LOOP SPUR	0.37	N/A	S-5	2	VICINITY MAP	
70-40	MOSCOVE	1.47	N/A	S-5	3	RECONSTRUCTION REQUIREMENTS	
70-40-50	MOSCOVE SPUR	0.29	N/A	S-5	4	70-20 RECONSTRUCTION PLANS	
86-70-01-20	LACY CREEK	0.46	N/A	S-5	5	70-30 RECONSTRUCTION PLANS	
86-09	BALD RIDGE SPUR	0.96	N/A	S-5	6&7	70-40 RECONSTRUCTION PLANS	
843-29	MEADOW LAKE SPUR	0.49	N/A	S-5	8	70-40-50 RECONSTRUCTION PLANS	
956-10	FINDLEY	0.45	N/A	S-5	9	86-70-01-20 RECONSTRUCTION PLANS	
					10&11	88-09 RECONSTRUCTION PLANS	
					12	843-29 RECONSTRUCTION PLANS	
					13	956-10 RECONSTRUCTION PLANS	
					14	WATER BAR DETAILS	
					15	CONSTRUCTION SIGNS	

REVIEWED BY:	ENGINEERING REVIEW	DATE	DISTRICT RANGER	DATE	DESIGNER	DATE	FOREST ENGINEER	STATE	FOREST	PROJECT NAME	SHEET NUMBER	OF SHEETS
								CALIF.	TAHOE	CASTLE STEWARDSHIP REOFFER	1	15

VICINITY MAP



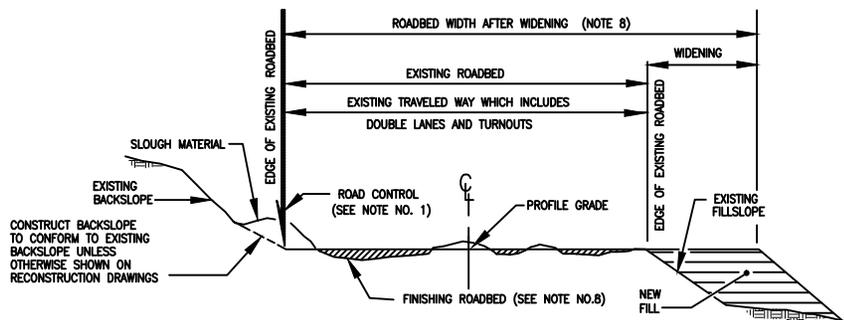
TO BOWMAN LAKE



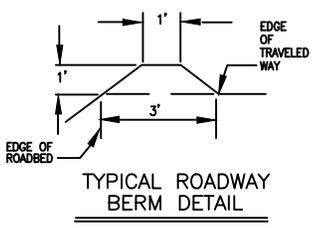
TO HIGHWAY 89



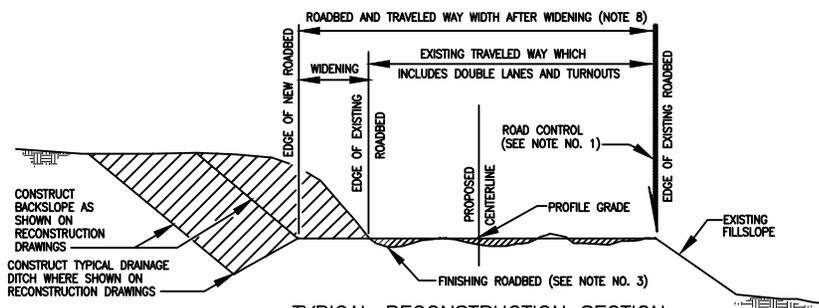
VICINITY MAP		
PROJECT NAME	SHEET NUMBER	OF SHEETS
CASTLE STEWARDSHIP REOFFER	2	15



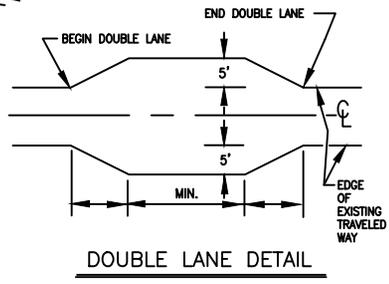
TYPICAL RECONSTRUCTION SECTION



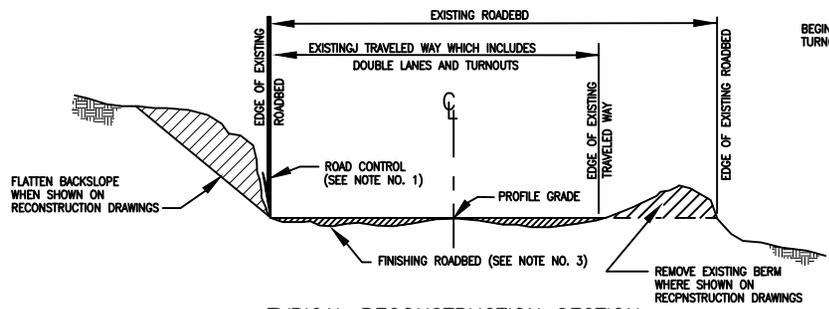
RECONSTRUCTION SCHEDULE									
ROAD NUMBER	SLASH TREATMENT METHODS			EMBANKMENT PLACEMENT METHODS	TOLERANCE CLASS	PAVEMENT STRUCTURE			
	TOPS & LIMBS	LOGS	STUMPS			STA. TO STA.	DEPTH	TYPE	
70-20	H		F						
70-30	H		F						
70-40	H		F						
70-40-50	H		F						
88-70-01-20	H		F						
88-09	H		F						
843-29	H		F						
956-10	H		F						



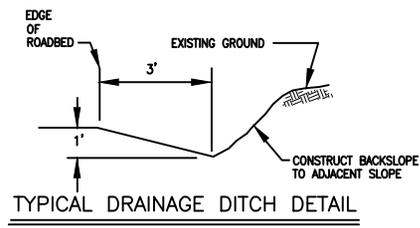
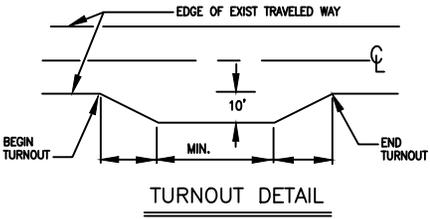
TYPICAL RECONSTRUCTION SECTION SHOWING WIDENING AND DRAINAGE DITCH



- NOTES:
- ROAD CONTROL**
WHEN SHOWN ON THE RECONSTRUCTION DRAWINGS, ROAD CONTROL SHALL BE THE POINT FROM WHICH ALL WIDTH MEASUREMENTS ARE MADE.
 - CLEARING**
CLEARING WIDTH SHALL BE 4' BEYOND EDGE OF ROAD OR BOTTOM OF DITCH, WHICHEVER IS GREATER.
 - FINISHING ROADBED**
ALL AREAS SHOWN ON THE RECONSTRUCTION DRAWINGS WHERE WORK IS REQUIRED SHALL BE SHAPED AND DRESSED.
 - TRAVELED WAY WIDTH**
TRAVELED WAY WIDTH SHALL REMAIN AS EXISTING UNLESS SPECIFIED OTHERWISE ON THE RECONSTRUCTION DRAWINGS.
 - CROSS SLOPE**
CROSS SLOPE SHALL REMAIN AS EXISTING UNLESS SPECIFIED OTHERWISE ON THE RECONSTRUCTION DRAWINGS.
 - EXCESS EXCAVATION**
UNLESS SPECIFIED OTHERWISE ON THE RECONSTRUCTION DRAWINGS, EXCESS EXCAVATION FROM WIDENING ROADBED, FLATTENING BACKSLOPES, TURNOUTS, DOUBLE LANES, DITCHES, DIPS, SLOUGH MATERIAL AND BERM REMOVAL SHALL BE PLACED AND SPREAD ON ROADBED.
 - BERM REMOVAL**
WHEN SPECIFIED ON THE RECONSTRUCTION DRAWINGS, BERMS SHALL BE REMOVED TO THE EXISTING SUBGRADE ELEVATION AND SHALL CONFORM TO EXISTING CROSS SLOPE.
 - WIDENING**
WIDENING DISTANCE AND WIDTH AFTER WIDENING IS SHOWN ON THE RECONSTRUCTION PLANS.



TYPICAL RECONSTRUCTION SECTION SHOWING FLATTER BACKSLOPE AND BERM REMOVAL



RECONSTRUCTION REQUIREMENTS		
PROJECT NAME	SHEET NUMBER	OF SHEETS
CASTLE STEWARDSHIP REOFFER	3	15

Reconstruction Plans

Road Number: 70-40

Outslope 2%

Road Name: Moscove

Shoulders N/A

Notes:

- 1) 14' Minimum road width.
- 2) Clearing limits – 4' beyond edge of road or bottom of ditch, whichever is greater.

<u>Station</u>	<u>Description of work</u>
0+00	Beginning of Project (BOP) - Construct Waterbar
3+00	Construct waterbar
6+00	Construct waterbar
9+00	Construct waterbar
12+00	Construct waterbar
15+30	Existing culvert. Clean catch basin and outlet.
15+65	Construct waterbar
18+00	Construct waterbar
21+00	Construct waterbar
23+00	Construct waterbar
25+00	Existing culvert. Clean inlet and outlet.
26+00	Construct waterbar
29+00	Construct waterbar
32+70	Existing culvert. Clean inlet and outlet.
36+90	Existing culvert. Clean inlet and outlet.
38+57	Existing culvert. No work needed.
37+55	Construct waterbar
40+00	Construct waterbar
43+53	Construct waterbar
45+00	Existing culvert. Remove vegetation from inlet.
46+00	Construct waterbar
49+30	Existing culvert. Clean inlet and outlet.
49+50	Construct waterbar
52+30	Existing culvert. Clean inlet and outlet.
52+55	Construct waterbar

Reconstruction Plans

Road Number: 70-40

Outslope 2%

Road Name: Moscove

Shoulders N/A

Notes:

- 1) 14' Minimum road width.
- 2) Clearing limits – 4' beyond edge of road or bottom of ditch, whichever is greater.

54+55	Existing culvert. Clean inlet and outlet.
55+00	Construct waterbar
55+80	Existing culvert. Clean inlet and outlet.
58+00	Construct waterbar
59+40	Existing culvert. Clean inlet and outlet.
60+20	Construct waterbar
62+40	Construct waterbar
63+05	Existing culvert. Clean inlet and outlet.
65+15	Construct waterbar
67+70	Existing culvert. No work needed.
68+00	Construct waterbar
69+50	Construct waterbar
71+20	Existing culvert. Clean inlet and outlet.
72+40	Construct waterbar
73+05	Existing culvert. No work needed.
74+20	Construct waterbar
76+30	Construct waterbar
77+45	Maintain dip
77+75	End of Project (EOP)

Reconstruction Plans

Road Number: 88-09

Outslope 2%

Road Name: Bald Ridge Spur

Shoulders N/A

Notes:

- 1) 14' Minimum road width.
- 2) Clearing limits – 4' beyond edge of road or bottom of ditch, whichever is greater.

<u>Station</u>	<u>Description of work</u>
0+00	Beginning of Project (BOP)
0+20	Construct waterbar
1+56	Existing barricade. Protect
1+90	Construct waterbar
3+78	Construct waterbar
5+42	Construct waterbar
6+88	Construct waterbar
7+92	Construct waterbar
9+48	Construct waterbar
10+95	Construct waterbar
11+83	Construct waterbar
12+72	Construct waterbar
14+15	Construct waterbar
14+60	Clean culvert.
15+00	Start ditch cleaning.
16+19	Construct waterbar, intercept ditch.
16+75	Construct waterbar, intercept ditch.
18+77	Construct waterbar, intercept ditch.
20+20	Construct waterbar, intercept ditch.
22+56	Stop ditch cleaning, clean culvert.
23+75	Clean culvert.
25+60	Construct waterbar
27+65	Construct waterbar
30+10	Construct waterbar
32+73	Construct waterbar

Reconstruction Plans

Road Number: 956-10

Outslope 2%

Road Name: Findley

Shoulders N/A

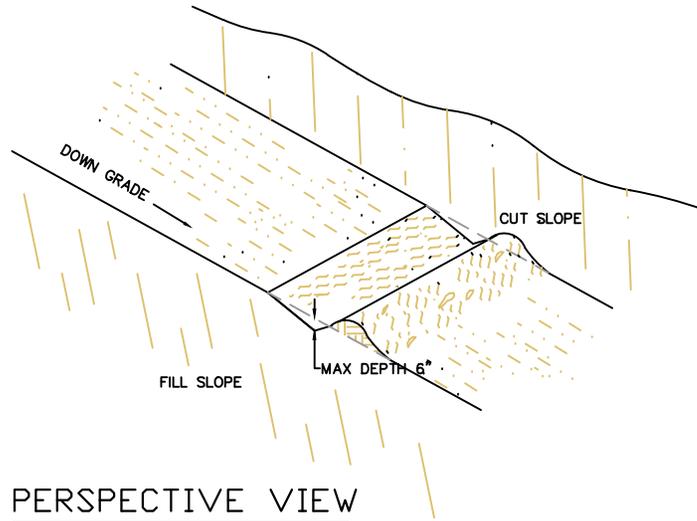
Notes:

- 1) 14' Minimum road width.
- 2) Clearing limits – 4' beyond edge of road or bottom of ditch, whichever is greater.

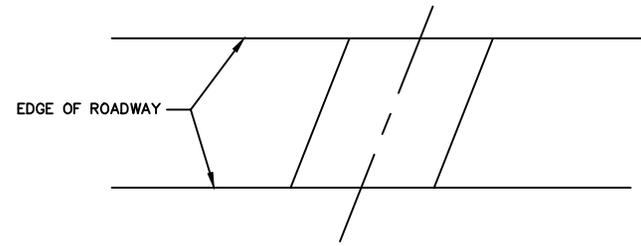
<u>Station</u>	<u>Description of work</u>
0+00	Beginning of Project (BOP)
2+40	Clean culvert.
6+41	Clean culvert.
6+78	Construct waterbar
10+10	Existing culvert. No work needed.
10+65	Construct waterbar
12+00	Construct waterbar
13+20	Construct waterbar
14+65	Construct waterbar
16+22	Construct waterbar
17+10	Construct waterbar. Ensure to catch run off from hillside.
18+05	Construct waterbar
19+76	Construct waterbar
20+37	Clean culvert
20+72	Construct waterbar
22+33	Construct waterbar
22+63	Intersection with temp road on right.
23+76	Construct waterbar. End of Project (EOP)

WATER BAR DETAIL

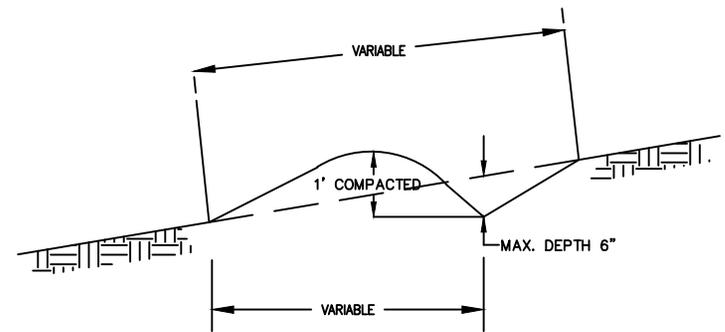
For Use on Open Roads
NO SCALE



PERSPECTIVE VIEW



PLAN VIEW



PROFILE VIEW

- NOTES
1. ALL WATER BARS SHALL BEGIN AT THE INTERSECTION OF THE ROADBED AND CUT SLOPE AND RUN ACROSS THE ENTIRE WIDTH OF THE ROADBED.
 2. ALL WATER BARS SHALL HAVE FREE FLOWING OUTLETS.
 3. WHEN STAKES ARE USED, THEY SHALL DESIGNATE THE OUTLET LOCATION.

WATER BAR DETAIL		
PROJECT NAME	SHEET NUMBER	OF SHEETS
CASTLE STEWARDSHIP REOFFER	14	15

ROAD SUBJECT
TO ___ HR. DELAY

FG 20-5-36
FG 20-5-48
24" x 12"



M4-10L
30" x 9"
RIGHT OR LEFT

END
ROAD WORK

G20-2
36" x 18"



W21-3
30" x 30" MIN.
36" x 36" TYPICAL



W20-2
30" x 30" MIN.
36" x 36" TYPICAL



W20-2
30" x 30" MIN.
36" x 36" TYPICAL



W21-2
30" x 30" MIN.
36" x 36" TYPICAL



W21-1
30" x 30" MIN.
36" x 36" TYPICAL



W20-7
30" x 30" MIN.
36" x 36" TYPICAL



W20-1
30" x 30" MIN.
36" x 36" TYPICAL



W8-8
30" x 30" MIN.
36" x 36" TYPICAL



W5-3
30" x 30" MIN.
36" x 36" TYPICAL



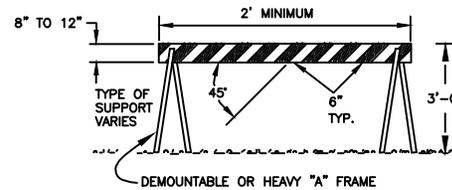
W8-6
30" x 30" MIN.
36" x 36" TYPICAL



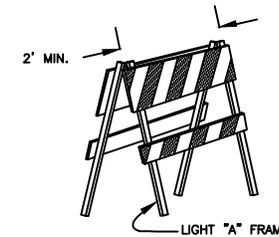
W8-7
30" x 30" MIN.
36" x 36" TYPICAL

GENERAL NOTES:

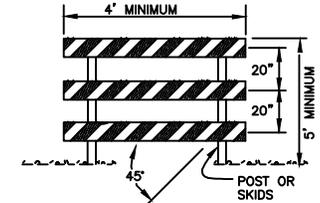
- DESIGNS FOR SIGNS AND CHANNELIZING DEVICES SHALL BE IN ACCORDANCE WITH MINIMUM STANDARDS IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" LATEST EDITION.
- SIGNS SHALL BE MADE FROM SUITABLE MATERIALS WHICH ARE IN ACCORDANCE WITH ALL STATE AND FEDERAL SPECIFICATIONS.
- ALL CONSTRUCTION SIGNS SHALL BE BLACK ON ORANGE.
- SIGNS THAT ARE INTENDED TO BE USED DURING AN HOUR OF DARKNESS OR LONGER THAN THREE DAYS IN THE SAME LOCATION SHALL BE EITHER RETROREFLECTIVE OR ILLUMINATED.
- SIGN SUBSTRATE MAY BE WOOD, METAL, POLYPLATE, FABRIC OR OTHER APPROVED MATERIAL.
- SIGNS SHALL BE LOCATED WHERE THEY WILL BE CONSPICUOUSLY VISIBLE DAY AND NIGHT ON THE RIGHT HAND SIDE OF APPROACHING TRAFFIC. THEY SHALL BE FACING TRAFFIC AND LOCATED WHERE THEY CAN BE SEEN AT ALL TIMES BY APPROACHING DRIVERS.
- WHEN A SIGN IS REQUIRED FOR AN EXTENDED PERIOD, IT SHALL BE FASTENED TO 4 X 4 POSTS WITH 2-3/8" CARRIAGE BOLTS. PORTABLE CRASHWORTHY SUPPORTS ARE PERMITTED FOR SHORT PERIODS PROVIDED THE CONSTRUCTION IS SUCH THAT WIND OR OTHER AGENTS CANNOT READILY UPSET THE SIGN.
- ADVANCE WARNING SIGNS OF CONSTRUCTION ACTIVITIES SHOULD BE LOCATED BETWEEN 500 AND 1500 FEET IN ADVANCE OF CONSTRUCTION, DEPENDING UPON THE PREVAILING SPEED ON THE ROAD.
- OTHER SIGNS, NOT SHOWN, THAT BETTER DESCRIBE THE CONSTRUCTION ACTIVITY MAY BE USED PROVIDED THEY ARE IN CONFORMANCE WITH MUTCD STANDARDS AND COMMONLY USED BY OTHER AGENCIES.
- SELECTION AND PLACEMENT OF ALL SIGNS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.
- LIGHTING DEVICES SUCH AS FLASHERS, TORCHES, LANTERNS AND ELECTRIC LIGHTS SHALL BE PLACED AND MAINTAINED FROM SUNSET TO SUNRISE AT ALL POINTS OF HAZARD AND AT ALL SIGNS INDICATING CAUTION.
- DIAMOND WARNING SIGNS SHALL BE 30" X 30" OR LARGER FOR LOW VOLUME ROADS. A LOW VOLUME ROAD IS DEFINED AS HAVING AN AVERAGE OF LESS THAN 400 VEHICLES PER DAY AND AN 85TH PERCENTILE SPEED OF LESS THAN 35 MILES PER HOUR.
- DIAMOND WARNING SIGNS FOR CONVENTIONAL ROADS SHALL BE 36" X 36" OR LARGER.
- BARRICADES SHALL BE CRASHWORTHY.
- THE SIDES OF BARRICADES FACING TRAFFIC SHALL HAVE RETROREFLECTIVE RAIL FACES.
- STRIPES ON BARRICADE RAILS SHALL BE ALTERNATING ORANGE AND WHITE.



TYPE I BARRICADE

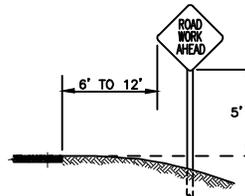


TYPE II BARRICADE

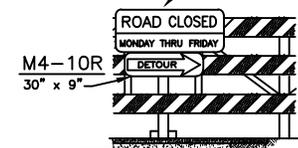


TYPE III BARRICADE

W20-1



FR 11-2b-20 MIN.



CONSTRUCTION SIGNS

PROJECT NAME	SHEET NUMBER	OF SHEETS
CASTLE STEWARDSHIP REOFFER	15	15

K-F.2.1.3 Deposits for Reconstruction Engineering Services

Castle Stewardship Reoffer

8/8/2016

Name	Cost/hour	Recon		Survey		Design/Prep		Design changes	
		Hour	Cost	Hour	Cost	Hour	Cost	Hour	Cost
Draper	\$41.56		\$0.00		\$0.00	1	\$41.56	1	\$41.56
Rios	\$61.32		\$0.00		\$0.00	1	\$61.32	1	\$61.32
Reugebrink	\$34.34	16	\$549.44	16	\$549.44	30	\$1,030.20	3	\$103.02
			\$0.00		\$0.00		\$0.00		\$0.00
			\$0.00		\$0.00		\$0.00		\$0.00
			\$0.00		\$0.00		\$0.00		\$0.00
			\$0.00		\$0.00		\$0.00		\$0.00
			\$0.00		\$0.00		\$0.00		\$0.00
Vehicle #	Cost/mile	Miles		Miles		Miles		Miles	
836	0.49	150	\$73.50	150	\$73.50		\$0.00	50	\$24.50
			\$0.00		\$0.00		\$0.00		\$0.00
			\$0.00		\$0.00		\$0.00		\$0.00
Supplies									
Total			\$622.94		\$622.94		\$1,133.08		\$230.40

Total from above		\$2,609.36
Future Design Changes	0%	\$0.00
Engineering	10%	\$260.94
S.O. Overhead	14%	\$365.31
Multi-Line	11%	\$287.03
Grand Total		\$3,522.64

Prism	97%	\$3,416.96
Culvert	3%	\$105.68
Surface	0%	\$0.00

Note: Employee cost to government as of pay period 14 of 2016

Schedule of Items Applicable to A7 and B5.2

Sale Name: Castle Stewardship RO	Road Name: French Knob	Road Number: 70-20	Segment No.:
New construction: No	Reconstruction: Yes	Design Class: S-5	Survey Class:
Station: 0+00 to 14+76	Checked By:	Equations: No	Length: 0.23 Miles
Estimated By: Robert Reugebrink	Estimation Date: 08/11/16	DE Review:	SO Review:
Cost Guide Date: Nov-93		Tahoe National Forest	Page: 1 of 1

1	2	3	4	5	6	7	8	9	10	11	12
Item No.	Description	Method of Measure	Unit of Measure	Base Unit Cost	Projection Factor	Estimated Unit Cost	Red. Factor	Reduced Unit Cost	Estimated Quantity	Road Const. Cost	P.W. Road Const. Cost
<u>PRISM</u>											
299(01)	Composite Road Reconstruction	CQ	Mile	15,000.00	1.72	25,800.00	0.72	18,576.00	0.23	4,272.48	5,934.00
SUBTOTAL										4,272.48	5,934.00
<u>CULVERT</u>											
SUBTOTAL										0.00	0.00
<u>SURFACE</u>											
SUBTOTAL										0.00	0.00
TOTAL										4,272.48	5,934.00

CQ = Contract Quantity

VQ = Vehicle Quantity

LSQ = Lump Sum Quantity

AQ = Actual Quantity

SQ = Staked Quantity

Schedule of Items Applicable to A7 and B5.2

Sale Name: Castle Stewardship RO	Road Name: Pass Ck Loop Sp	Road Number: 70-30	Segment No.:
New construction: No	Reconstruction: Yes	Design Class: S-5	Survey Class:
Station: 0+00 to 20+01	Checked By:	Equations: No	Length: 0.37 Miles
Estimated By: Robert Reugebrink	Estimation Date: 08/11/16	DE Review:	SO Review:
Cost Guide Date: Nov-93		Tahoe National Forest	Page: 1 of 1

1	2	3	4	5	6	7	8	9	10	11	12
Item No.	Description	Method of Measure	Unit of Measure	Base Unit Cost	Projection Factor	Estimated Unit Cost	Red. Factor	Reduced Unit Cost	Estimated Quantity	Road Const. Cost	P.W. Road Const. Cost
<u>PRISM</u>											
299(01)	Composite Road Reconstruction	CQ	Mile	15,000.00	1.72	25,800.00	0.72	18,576.00	0.37	6,873.12	9,546.00
SUBTOTAL										6,873.12	9,546.00
<u>CULVERT</u>											
SUBTOTAL										0.00	0.00
<u>SURFACE</u>											
SUBTOTAL										0.00	0.00
TOTAL										6,873.12	9,546.00

CQ = Contract Quantity

VQ = Vehicle Quantity

LSQ = Lump Sum Quantity

AQ = Actual Quantity

SQ = Staked Quantity

Schedule of Items Applicable to A7 and B5.2

Sale Name: Castle Stewardship RO	Road Name: Moscove	Road Number: 70-40	Segment No.:
New construction: No	Reconstruction: Yes	Design Class: S-5	Survey Class:
Station: 0+00 to 77+75		Equations: No	Length: 1.47 Miles
Estimated By: Robert Reugebrink	Checked By:	DE Review:	SO Review:
Cost Guide Date: Nov-93	Estimation Date: 08/11/16	Tahoe National Forest	Page: 1 of 1

1	2	3	4	5	6	7	8	9	10	11	12
Item No.	Description	Method of Measure	Unit of Measure	Base Unit Cost	Projection Factor	Estimated Unit Cost	Red. Factor	Reduced Unit Cost	Estimated Quantity	Road Const. Cost	P.W. Road Const. Cost
<u>PRISM</u>											
299(01)	Composite Road Reconstruction	CQ	Mile	15,000.00	1.72	25,800.00	0.72	18,576.00	1.47	27,306.72	37,926.00
SUBTOTAL										27,306.72	37,926.00
<u>CULVERT</u>											
607(08)	Cleaning culverts in place	CQ	EA	150.00	1	150.00	0.54	81.00	12	972.00	1,800.00
SUBTOTAL										972.00	1,800.00
<u>SURFACE</u>											
SUBTOTAL										0.00	0.00
TOTAL										28,278.72	39,726.00

CQ = Contract Quantity

VQ = Vehicle Quantity

LSQ = Lump Sum Quantity

AQ = Actual Quantity

SQ = Staked Quantity

Schedule of Items Applicable to A7 and B5.2

Sale Name: Castle Stewardship RO	Road Name: Moscové Spur	Road Number: 70-40-50	Segment No.:
New construction: No	Reconstruction: Yes	Design Class: S-5	Survey Class:
Station: 0+00 to 15+35	Checked By:	Equations: No	Length: 0.29 Miles
Estimated By: Robert Reugebrink	Estimation Date: 08/11/16	DE Review:	SO Review:
Cost Guide Date: Nov-93		Tahoe National Forest	Page: 1 of 1

1	2	3	4	5	6	7	8	9	10	11	12
Item No.	Description	Method of Measure	Unit of Measure	Base Unit Cost	Projection Factor	Estimated Unit Cost	Red. Factor	Reduced Unit Cost	Estimated Quantity	Road Const. Cost	P.W. Road Const. Cost
<u>PRISM</u>											
299(01)	Composite Road Reconstruction	CQ	Mile	15,000.00	1.72	25,800.00	0.72	18,576.00	0.29	5,387.04	7,482.00
SUBTOTAL										5,387.04	7,482.00
<u>CULVERT</u>											
607(08)	Cleaning culverts in place	CQ	EA	150.00	1	150.00	0.54	81.00	1	81.00	150.00
SUBTOTAL										81.00	150.00
<u>SURFACE</u>											
SUBTOTAL										0.00	0.00
TOTAL										5,468.04	7,632.00

CQ = Contract Quantity

VQ = Vehicle Quantity

LSQ = Lump Sum Quantity

AQ = Actual Quantity

SQ = Staked Quantity

Schedule of Items Applicable to A7 and B5.2

Sale Name: Castle Stewardship RO	Road Name: Lacy Creek Spur	Road Number: 86-70-01-20	Segment No.:
New construction: No	Reconstruction: Yes	Design Class: S-5	Survey Class:
Station: 0+00 to 25+15	Checked By:	Equations: No	Length: 0.46 Miles
Estimated By: Robert Reugebrink	Estimation Date: 08/11/16	DE Review:	SO Review:
Cost Guide Date: Nov-93		Tahoe National Forest	Page: 1 of 1

1	2	3	4	5	6	7	8	9	10	11	12
Item No.	Description	Method of Measure	Unit of Measure	Base Unit Cost	Projection Factor	Estimated Unit Cost	Red. Factor	Reduced Unit Cost	Estimated Quantity	Road Const. Cost	P.W. Road Const. Cost
<u>PRISM</u>											
299(01)	Composite Road Reconstruction	CQ	Mile	15,000.00	1.72	25,800.00	0.72	18,576.00	0.46	8,544.96	11,868.00
SUBTOTAL										8,544.96	11,868.00
<u>CULVERT</u>											
607(08)	Cleaning culverts in place	CQ	EA	150.00	1	150.00	0.54	81.00	3	243.00	450.00
SUBTOTAL										243.00	450.00
<u>SURFACE</u>											
SUBTOTAL										0.00	0.00
TOTAL										8,787.96	12,318.00

CQ = Contract Quantity

VQ = Vehicle Quantity

LSQ = Lump Sum Quantity

AQ = Actual Quantity

SQ = Staked Quantity

Schedule of Items Applicable to A7 and B5.2

Sale Name: Castle Stewardship RO	Road Name: Bald Ridge Spur	Road Number: 88-09	Segment No.:
New construction: No	Reconstruction: Yes	Design Class: S-5	Survey Class:
Station: 0+00 to 50+70	Checked By:	Equations: No	Length: 0.96 Miles
Estimated By: Robert Reugebrink	Estimation Date: 08/11/16	DE Review:	SO Review:
Cost Guide Date: Nov-93		Tahoe National Forest	Page: 1 of 1

1	2	3	4	5	6	7	8	9	10	11	12
Item No.	Description	Method of Measure	Unit of Measure	Base Unit Cost	Projection Factor	Estimated Unit Cost	Red. Factor	Reduced Unit Cost	Estimated Quantity	Road Const. Cost	P.W. Road Const. Cost
<u>PRISM</u>											
299(01)	Composite Road Reconstruction	CQ	Mile	15,000.00	1.72	25,800.00	0.72	18,576.00	0.96	17,832.96	24,768.00
SUBTOTAL										17,832.96	24,768.00
<u>CULVERT</u>											
607(08)	Cleaning culverts in place	CQ	EA	150.00	1	150.00	0.54	81.00	4	324.00	600.00
SUBTOTAL										324.00	600.00
<u>SURFACE</u>											
SUBTOTAL										0.00	0.00
TOTAL										18,156.96	25,368.00

CQ = Contract Quantity

VQ = Vehicle Quantity

LSQ = Lump Sum Quantity

AQ = Actual Quantity

SQ = Staked Quantity

Schedule of Items Applicable to A7 and B5.2

Sale Name: Castle Stewardship RO	Road Name: Meadow Lake Sp	Road Number: 843-29	Segment No.:
New construction: No	Reconstruction: Yes	Design Class: S-5	Survey Class:
Station: 0+00 to 26+10	Checked By:	Equations: No	Length: 0.49 Miles
Estimated By: Robert Reugebrink	Estimation Date: 08/11/16	DE Review:	SO Review:
Cost Guide Date: Nov-93		Tahoe National Forest	Page: 1 of 1

1	2	3	4	5	6	7	8	9	10	11	12
Item No.	Description	Method of Measure	Unit of Measure	Base Unit Cost	Projection Factor	Estimated Unit Cost	Red. Factor	Reduced Unit Cost	Estimated Quantity	Road Const. Cost	P.W. Road Const. Cost
<u>PRISM</u>											
299(01)	Composite Road Reconstruction	CQ	Mile	15,000.00	1.72	25,800.00	0.72	18,576.00	0.49	9,102.24	12,642.00
SUBTOTAL										9,102.24	12,642.00
<u>CULVERT</u>											
607(08)	Cleaning culverts in place	CQ	EA	150.00	1	150.00	0.54	81.00	5	405.00	750.00
SUBTOTAL										405.00	750.00
<u>SURFACE</u>											
SUBTOTAL										0.00	0.00
TOTAL										9,507.24	13,392.00

CQ = Contract Quantity

VQ = Vehicle Quantity

LSQ = Lump Sum Quantity

AQ = Actual Quantity

SQ = Staked Quantity

Schedule of Items Applicable to A7 and B5.2

Sale Name: Castle Stewardship RO	Road Name: Findley	Road Number: 956-10	Segment No.:
New construction: No	Reconstruction: Yes	Design Class: S-5	Survey Class:
Station: 0+00 to 23+76	Checked By:	Equations: No	Length: 0.45 Miles
Estimated By: Robert Reugebrink	Estimation Date: 08/11/16	DE Review:	SO Review:
Cost Guide Date: Nov-93		Tahoe National Forest	Page: 1 of 1

1	2	3	4	5	6	7	8	9	10	11	12
Item No.	Description	Method of Measure	Unit of Measure	Base Unit Cost	Projection Factor	Estimated Unit Cost	Red. Factor	Reduced Unit Cost	Estimated Quantity	Road Const. Cost	P.W. Road Const. Cost
<u>PRISM</u>											
299(01)	Composite Road Reconstruction	CQ	Mile	15,000.00	1.72	25,800.00	0.72	18,576.00	0.45	8,359.20	11,610.00
SUBTOTAL										8,359.20	11,610.00
<u>CULVERT</u>											
607(08)	Cleaning culverts in place	CQ	EA	150.00	1	150.00	0.54	81.00	3	243.00	450.00
SUBTOTAL										243.00	450.00
<u>SURFACE</u>											
SUBTOTAL										0.00	0.00
TOTAL										8,602.20	12,060.00

CQ = Contract Quantity

VQ = Vehicle Quantity

LSQ = Lump Sum Quantity

AQ = Actual Quantity

SQ = Staked Quantity

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**Castle Stewardship Reoffer
Forest Service Supplemental Specifications**

Preface

Preface_wo_03_15_2004_m

Delete all but the first paragraph and add the following:

The Forest Service, US Department of Agriculture has adopted FP-03 for construction of National Forest System Roads.

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Forest Service Supplemental Specifications

101 - Terms, Format, and Definitions

101.00_nat_us_07_25_2005

101.01_nat_us_01_22_2009

101.01 Meaning of Terms

Delete all references to the TAR (Transportation Acquisition Regulations) in the specifications.

101.03_nat_us_06_16_2006

101.03 Abbreviations.

Add the following to (a) Acronyms:

AFPA	American Forest and Paper Association
MSHA	Mine Safety and Health Administration
NIST	National Institute of Standards and Technology
NESC	National Electrical Safety Code
WCLIB	West Coast Lumber Inspection Bureau

.

Add the following to (b) SI symbols:

mp	Milepost
ppm	Part Per Million

101.04_nat_us_03_29_2007

101.04 Definitions.

Delete the following definitions and substitute the following:

Bid Schedule--The Schedule of Items.

Bridge--No definition.

Contractor--The individual or legal entity contracting with the Government for performance of prescribed work. In a timber sale contract, the contractor is the “purchaser”.

Culvert--No definition.

Right-of-Way--A general term denoting (1) the privilege to pass over land in some particular line (including easement, lease, permit, or license to occupy, use, or traverse public or private

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lands), or (2) Real property necessary for the project, including roadway, buffer areas, access, and drainage areas.

Add the following:

Adjustment in Contract Price--“Equitable adjustment,” as used in the Federal Acquisition Regulations, or “construction cost adjustment,” as used in the Timber Sale Contract, as applicable.

Change--“Change” means “change order” as used in the Federal Acquisition Regulations, or “design change” as used in the Timber Sale Contract.

Design Quantity--“Design quantity” is a Forest Service method of measurement from the FS-96 *Forest Service Specifications for the Construction of Roads and Bridges*. Under these FP specifications this term is replaced by the term “Contract Quantities”.

Forest Service--The United States of America, acting through the Forest Service, U.S. Department of Agriculture.

Neat Line--A line defining the proposed or specified limits of an excavation or structure.

Pioneer Road--Temporary construction access built along the route of the project.

Purchaser--The individual, partnership, joint venture, or corporation contracting with the Government under the terms of a Timber Sale Contract and acting independently or through agents, employees, or subcontractors.

Protected Streamcourse--A drainage shown on the plans or timber sale area map that requires designated mitigation measures.

Road Order--An order affecting and controlling traffic on roads under Forest Service jurisdiction. Road Orders are issued by a designated Forest Officer under the authorities of 36 CFR, part 260.

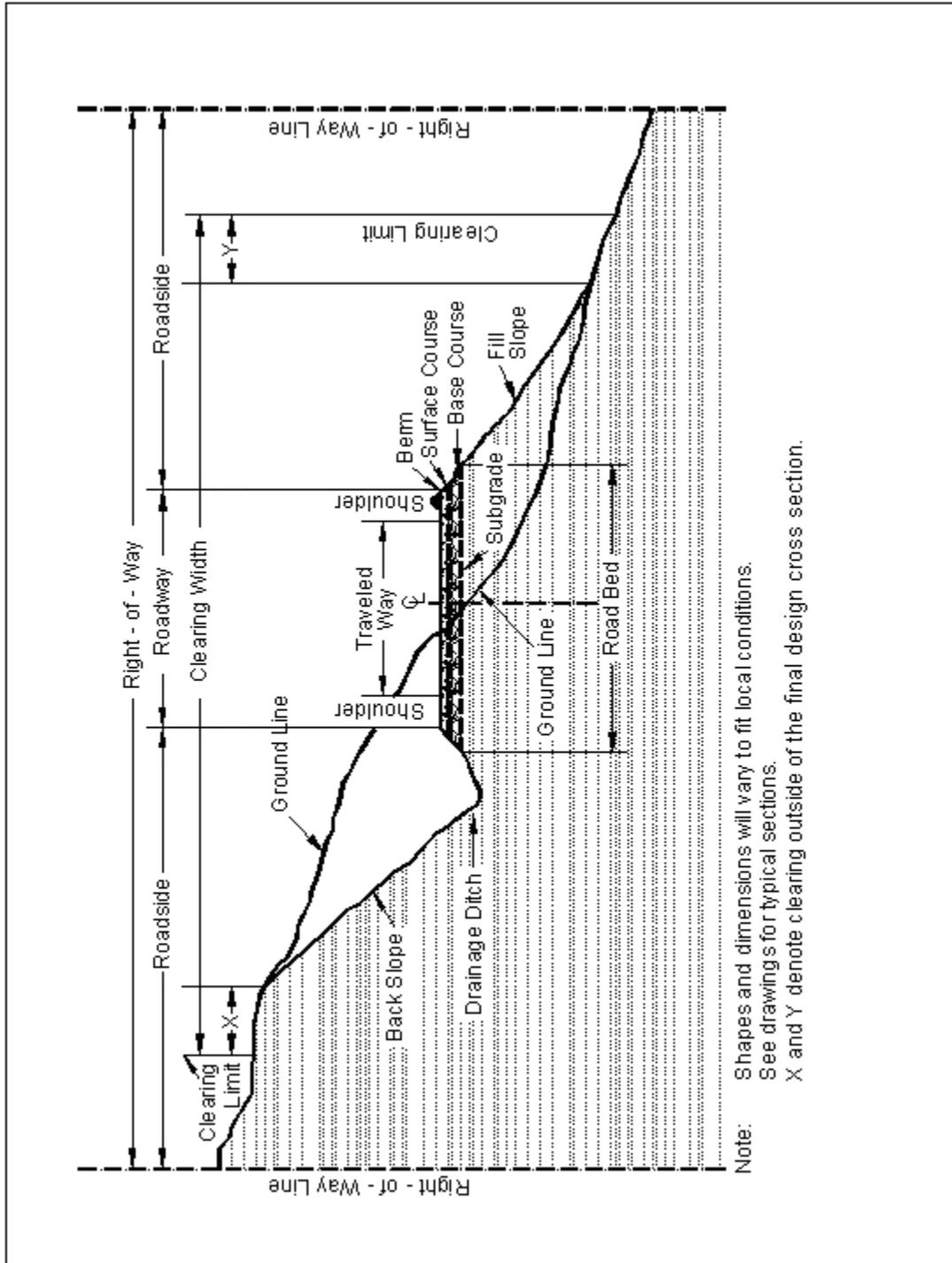
Schedule of Items--A schedule in the contract that contains a listing and description of construction items, quantities, units of measure, unit price, and amount.

Utilization Standards--The minimum size and percent soundness of trees described in the specifications to determine merchantable timber.

Add Figure 101-1—Illustration of road structure terms:

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Figure 101-1—Illustration of road structure terms.



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Forest Service Supplemental Specifications
102 - Bid, Award, and Execution of Contract

102.00_nat_us_02_16_2005

102 Bid, Award, and Execution of Contract

Delete Section 102 in its entirety.

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103 - Scope of Work

103.00_nat_us_02_16_2005

Deletions

Delete all but subsection 103.01 Intent of Contract.

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104 - Control of Work

104.00_nat_us_06_16_2006

Deletions

Delete Sections 104.01, 104.02, and 104.04.

104.06_nat_us_02_17_2005

Add the following subsection:

104.06 Use of Roads by Contractor

The Contractor is authorized to use roads under the jurisdiction of the Forest Service for all activities necessary to complete this contract, subject to the limitations and authorizations designated in the Road Order(s) or described in the contract, when such use will not damage the roads or national forest resources, and when traffic can be accommodated safely.

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105 - Control of Material

105.02_nat_us_01_18_2007

105.02 Material Sources.

105.02(a) Government-provided sources.

Add the following:

Comply with the requirements of 30 CFR 56, subparts B and H. Use all suitable material for aggregate regardless of size unless otherwise designated. When required, re-establish vegetation in disturbed areas according to section 625.

105.05_nat_us_05_12_2004

105.05 Use of Material Found in the Work.

Delete 105.05 (a) and (b) and the last sentence of the second paragraph and substitute the following:

Materials produced or processed from Government lands in excess of the quantities required for performance of this contract are the property of the Government. The Government is not obligated to make reimbursement for the cost of producing these materials.

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106 - Acceptance of Work

106.07_nat_us_05_11_2004

106.07 Delete

Delete subsection 106.07.

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107 - Legal Relations and Responsibility to the Public

107.05_nat_us_05_11_2004

107.05 Responsibility for Damage Claims.

Delete the entire subsection.

107.06_nat_us_06_16_2006

107.06 Contractor's Responsibility for Work.

Delete the following from the first paragraph.

“except as provided in Subsection 106.07”.

107.09_nat_us_06_16_2006

107.09 Legal Relationship of the Parties.

Delete the entire subsection.

107.10_nat_us_06_16_2006

107.10 Environmental Protection.

Add the following:

Design and locate equipment repair shops, stationary refueling sites, or other facilities to minimize the potential and impacts of hazardous material spills on Government land.

Before beginning any work, submit a Hazardous Spill Plan. List actions to be taken in the event of a spill. Incorporate preventive measures to be taken, such as the location of mobile refueling facilities, storage and handling of hazardous materials, and similar information. Immediately notify the CO of all hazardous material spills. Provide a written narrative report form no later than 24 hours after the initial report and include the following:

- Description of the item spilled (including identity, quantity, manifest number, and other identifying information).
- Whether amount spilled is EPA or state reportable, and if so whether it was reported, and to whom.
- Exact time and location of spill including a description of the area involved.
- Containment procedures.
- Summary of any communications the Contractor had with news media, Federal, state and local regulatory agencies and officials, or Forest Service officials.
- Description of clean-up procedures employed or to be employed at the site including final disposition and disposal location of spill residue.

When available provide copies of all spill related clean up and closure documentation and correspondence from regulatory agencies.

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The Contractor is solely responsible for all spills or leaks that occur during the performance of this contract. Clean up spills or leaks to the satisfaction of the CO and in a manner that complies with Federal, state, and local laws and regulations.

107.10_05_us_05_04_2007

107.02 Protection and Restoration of Property and Landscape

Add the following:

Meet the requirements chapters 10, 11, and 12.2 in their entirety of “Water Quality Management for National Forest System Lands in California Best Management Practices” dated September 2000

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108 - Prosecution and Progress

108.00_nat_us_02_16_2005

108 Delete.

Delete Section 108 in its entirety.

Castle Stewardship Reoffer
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109 - Measurement and Payment

109.00_nat_us_02_17_2005

109 Deletions

Delete the following entire subsections:

109.06 Pricing of Adjustments.

109.07 Eliminated Work.

109.08 Progress Payments.

109.09 Final Payment.

109.02_nat_us_06_16_2006

109.02 Measurement Terms and Definitions.

(b) Contract quantity.

Add the following:

Contract quantities will be adjusted only when there are errors in the original design of 15% or more.

Change the following:

“(b) Cubic yard” to “(c) Cubic yard”.

Add the following definition:

(p) Thousand Board Feet (Mbf). 1,000 board feet based on nominal widths, thickness, and extreme usable length of each piece of lumber or timber actually incorporated in the job. For glued laminated timber, 1,000 board feet based on actual width, thickness, and length of each piece actually incorporated in the job.

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Forest Service Supplemental Specifications
155 - Schedules for Construction Contracts

155.00_nat_us_05_11_2004

155 Delete.

Delete Section 155 in its entirety.

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Forest Service Supplemental Specifications
299 – Composite Road Reconstruction

R5-17 08/16

Description

299.01 WORK. This work shall consist of clearing and grubbing, excavation and embankment. Clearing and grubbing shall include treatment of merchantable timber, and disposal of construction slash, including all designated trees. Excavation and embankment shall include drainage excavation, shaping the roadway, including approaches, turnarounds, ditches, and drainage dips, and disposal of all excavated material. Construction of the roadway shall be in conformance with the dimensions SHOWN ON THE DRAWINGS and DESIGNATED on the ground.

Construction Requirements

299.02 CLEARING AND DISPOSAL. All trees, snags, downed timber, brush and stumps within the clearing limits shall be removed and disposed of by:

- a) Decking or removing timber meeting utilization standards (merchantable timber).
- b) Decking unmerchantable timber. Logs not meeting utilization standards that are more than 6 inches in diameter and 10 feet or more in length which are suitable for use as firewood, shall be limbed and bucked into lengths not to exceed 32 feet, and placed in stable decks free of brush and soil. Decks shall be located in areas SHOWN ON THE DRAWINGS or DESIGNATED on the ground. Material not suitable for firewood shall be treated under slash treatment methods.
- c) Purchaser shall treat the construction slash by one or more of the following methods as SHOWN ON THE DRAWINGS:
 - a. **Method A** - Incorporation. Construction slash may be incorporated as part of the embankment provided it is distributed to avoid concentrations or matting, and is covered with a minimum of 18 inches of excavated material. Slash that cannot be incorporated shall be treated by other methods SHOWN ON THE DRAWINGS.
 - b. **Method B** - Windrowing construction slash. When slash is windrowed, it shall be placed approximately parallel to the roadway. The toe of the fill slope may catch or cover the finished windrow, must be covered with a minimum of 18" of excavated material. The windrow shall not hinder equipment during maintenance of the roadway.
 - c. **Method C** - Scattering. Construction slash shall be scattered outside the clearing limits in areas SHOWN ON THE DRAWINGS. Slash shall not be piled higher than 18" above the ground. Limbs having a diameter of between 3" and 6" shall

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be bucked into lengths not exceeding 6 feet. Material over 6" shall not be scattered, but shall be treated under other slash treatment methods.

- d. **Method D** - Piling for future disposal. Construction slash shall be piled in locations **SHOWN ON THE DRAWINGS**. Piles shall be free of soil and constructed with smaller slash well mixed with larger slash.
- e. **Method E** - Piling and Burning. Construction slash shall be deposited in areas **SHOWN ON THE DRAWINGS** and **DESIGNATED** on the ground. Piles shall be constructed so that burning does not damage standing trees. If burning is incomplete, the slash remaining shall be repiled and burned until reduced to 20% or less of their original volume and no individual piece remaining shall be greater than four cubic feet in volume. These pieces shall then be scattered, buried, removed or left in place as **SHOWN ON THE DRAWINGS**.
- f. **Method F** - Stump placement. Stumps shall be placed at locations **SHOWN ON THE DRAWINGS** or **DESIGNATED IN THE FIELD**, and placed on ground that is level or has been leveled in a manner that the stumps will not roll downhill. Stumps shall then be covered with excavated material a minimum of one quarter of the stump volume to prevent their dislodgement. When steep side slopes prevent the successful placement of stumps, the designated disposal sites shall be used.
- g. **Method G** - Bury. Construction slash may be buried within the roadway at locations **SHOWN ON THE DRAWINGS**, or **DESIGNATED IN THE FIELD**. Buried material shall be covered with a minimum of 24 inches of excavated material and shall not be buried within 25 feet of culverts. Slash that cannot be buried shall be treated by other methods **SHOWN ON THE DRAWINGS**.
- h. **Method H** - Chipping. Construction slash up to at least 4 inches in diameter and longer than 3 feet shall be processed through a chipping machine. Chips shall be deposited on embankment slopes or outside the roadway to a loose depth not exceeding 6 inches. Minor amounts of chips may be permitted within the roadway if they are thoroughly mixed with soil and do not form a layer. Chipping may also be accomplished by use of a roadside brushing machine designed for this specific type of work and capable of chipping trees to 10" diameter. The engineer shall approve in writing the type of brushing machine to be used in lieu of a chipping machine. A2500 gallon minimum water truck shall work with the brushing machine when it is in operation for fire protection.

All piles created under Methods D and E shall have a 15 foot fire break cleared between the piles and the adjacent vegetation.

Slash shall not be deposited within 25 feet of stream courses.

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Branches on remaining trees or shrubs shall be trimmed to give a clear height of 14 feet above the roadbed unless otherwise SHOWN ON THE DRAWINGS. Tree limbs shall be trimmed as near flush with the trunk as practicable.

Fell all dead trees that are outside the clearing limits and that lean toward the road and are tall enough to reach the roadbed. Disposed in accordance with (a), (b), or (c).

299.03 EXCAVATION AND EMBANKMENT. The roadway shall be constructed to conform to the typical sections SHOWN ON THE DRAWINGS. Embankment shall be placed by side-casting, end-dumping, or layer placement, as SHOWN ON THE DRAWINGS.

Backslopes shall not be undercut.

Embankment material designated to be layer placed may be end dumped to the minimum depth needed for operation of spreading equipment. Each embankment layer shall be leveled and smoothed before placement of subsequent layers. Hauling and spreading equipment shall be operated uniformly over the full width of each layer, a minimum of three complete passes.

Suitable material shall be placed in layers no more than 12 inches thick, except when the material contains rock more than 9 inches in diameter, in which case layers may be of sufficient thickness to accommodate the material involved. No layer shall exceed 24 inches before compaction.

Rocks too large to be incorporated in the embankment shall be placed on the downhill side, outside the traveled way. Rocks shall be placed so that they will not roll or obstruct drainage. Rocks may not be placed against trees, nor hinder the use and the maintenance of the roadbed.

The location and use of borrow material, and any requirements for the removal and disposal of unsuitable or excess material, will be SHOWN ON THE DRAWINGS.

Unless otherwise SHOWN ON THE DRAWINGS, the roadbed shall be shaped to provide drainage of surface water, and finished to the standard ordinarily accomplished by a motor grader. Individual rocks within the roadbed shall not protrude over two inches above the subgrade. The road bed shall be visibly moist during shaping.

Unless otherwise SHOWN ON THE DRAWINGS, the traveled way width shall not exceed the specified dimension by more than two feet.

MEASUREMENT

299.04 METHOD. The method of measurement will be "Designed Quantities" (DQ) in accordance with Section 109.

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Forest Service Supplemental Specifications

PAYMENT

299.05 BASIS. The accepted quantities will be paid for at the Contract unit price for each pay item shown in the SCHEDULE OF ITEMS.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
299(01)	Composite Road Construction	STA
299(02)	Composite Road Construction	MI
299(03)	Composite Road Construction	LS

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607 - Cleaning, Reconditioning, and Repairing Existing Drainage Structures

607.04_nat_us_05_01_2013

607.04 Cleaning Culverts in Place.

Add the following:

If approved by the CO, all or part of the pipe designated to be cleaned in-place may be removed, cleaned, and re-laid in accordance with Section 602. In these cases, furnish all material required to replace damaged pipe and joints and relay the pipe.

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Forest Service Supplemental Specifications
718 - Traffic Signing and Marking Material

718.05_nat_us_08_05_2009

718.05 Aluminum Panels

Delete the third paragraph and replace with the following:

Clean, degrease and properly prepare the panels according to methods recommended by the sheeting manufacturer. Conversion coatings will conform to ASTM B-921 or ASTM B-449.