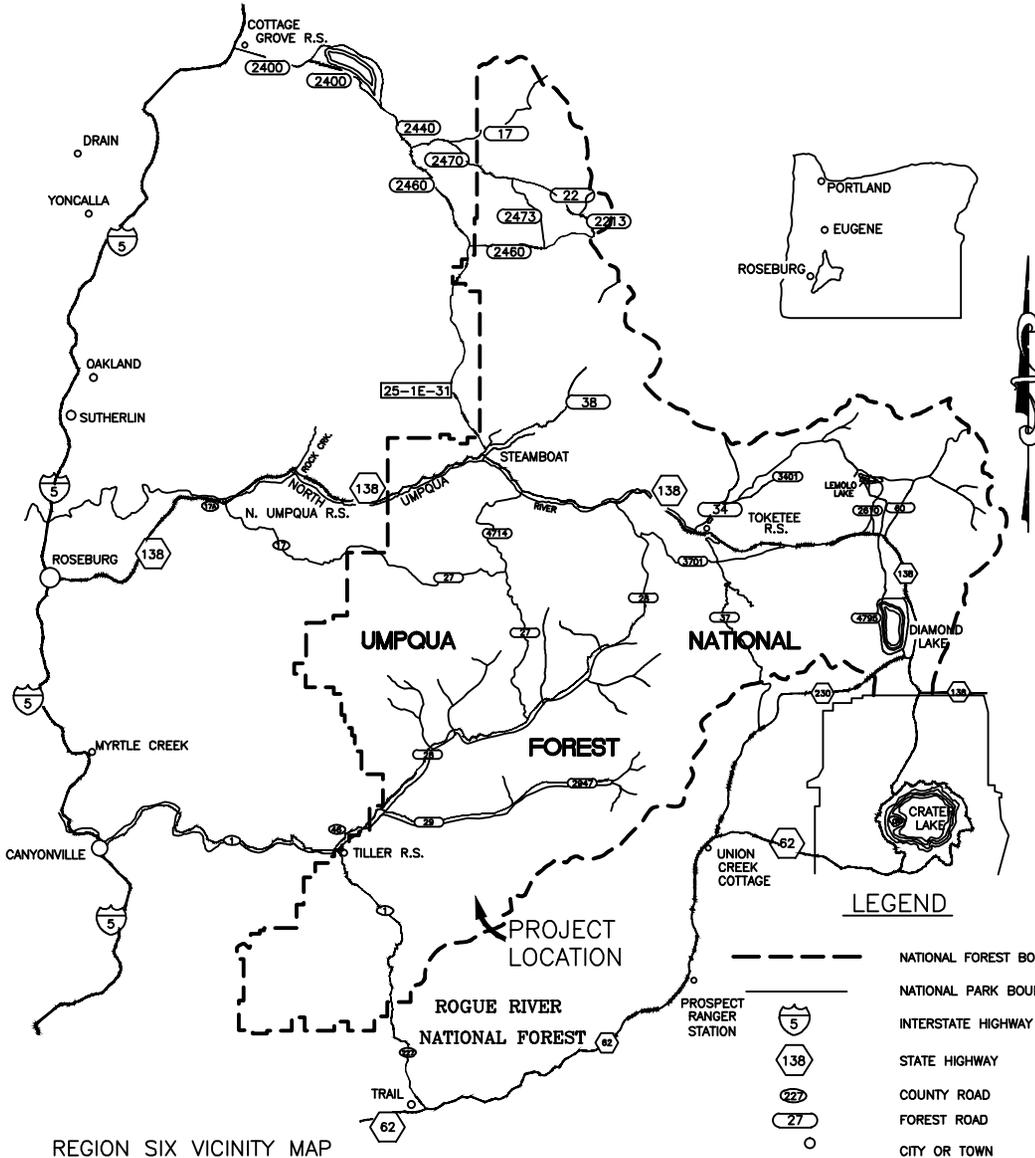




U.S. DEPARTMENT of AGRICULTURE  
FOREST SERVICE  
UMPQUA NATIONAL FOREST  
TILLER RANGER DISTRICT



INDEX

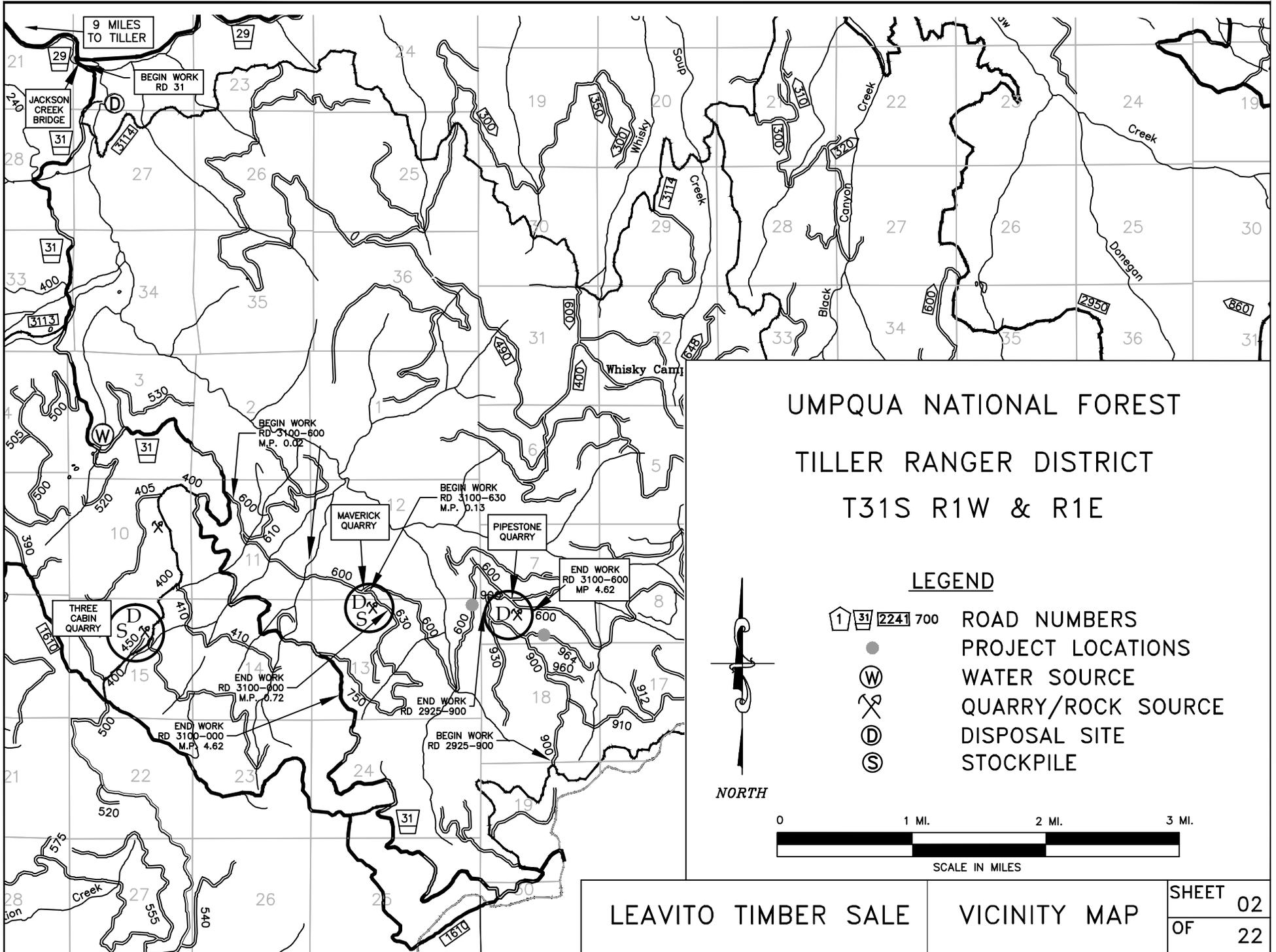
SHEET #	SHEET TITLE
01	TITLE SHEET
02	VICINITY MAP
03	ESTIMATE OF QUANTITIES
04	DRAINAGE LIST
05	CULVERT CONSTRUCTION DETAILS
06	AGGREGATE PLACEMENT TYPICAL FOR CULVERTS
07	ROAD RECONDITIONING TYPICAL
08	LOW WATER FORD
09	3100-600 MP 3.63 PLAN AND PROFILE
10	3100-600 MP 3.63 TYPICAL CROSS SECTIONS & CONSTRUCTION TABLES
11	3100-600 MP 3.63 GABION DETAILS
12	SIGN DRAWINGS AND NOTES
13-15	SIGN DETAILS
16-22	WORKLIST: RDS. 2925-900, 2925-964, 31, 3100-600, 3100-630.

PROPOSED PROJECT

ROAD NUMBER	MILES	TYPE OF WORK
2925-900	1.49	RECONSTRUCTION
2925-964	0.02	RECONSTRUCTION
31	9.45	RECONSTRUCTION
3100-600	4.60	RECONSTRUCTION
3100-630	0.59	RECONSTRUCTION

RECOMMENDED BY:	DESIGNED BY:
TRANSPORTATION ENGINEER	PLAN IN HAND BY:
APPROVED BY:	REVIEWED BY:
DISTRICT RANGER	PROJECT TEAM LEADER/DISTRICT ENGINEER
FOREST ENGINEER	

LEAVITO TIMBER SALE



UMPQUA NATIONAL FOREST  
 TILLER RANGER DISTRICT  
 T31S R1W & R1E

LEGEND

- ROAD NUMBERS
- PROJECT LOCATIONS
- WATER SOURCE
- QUARRY/ROCK SOURCE
- DISPOSAL SITE
- STOCKPILE



NORTH



SCALE IN MILES

LEAVITO TIMBER SALE

VICINITY MAP

SHEET 02  
 OF 22

**ESTIMATE OF QUANTITIES**

<b>NOTES:</b> 1. All volume unit pay items are measured in-place. All reference to quantities of excavated volumes refer to original (prior to excavation) volume. 2. See worklists and vicinity map for further description and location of work. 3. Units are measured as Actual Quantity unless denoted by an asterisk *. If denoted by an asterisk (*), the quantity is measured as a contract quantity in accordance with FP-03 109.2.	<b>Road No.</b>	<b>2925-900</b>	<b>2925-964</b>	<b>31</b>	<b>3100-600</b>	<b>3100-630</b>	<b>NOTES:</b> 4. All waste material, woody debris, slash or boulders shall be hauled and placed in disposal area at Pipestone Quarry. 5. Obtain aggregate from 3 Cabin Quarry located on Forest Road 1610-450, T 31 S, R 1 W, Sec 15, and riprap fromMaverick Pit located on Forest Road 3100-630, T 31 S, R 1 W, Sec 13
	<b>Project Length (Miles)</b>	<b>1.49</b>	<b>0.02</b>	<b>9.45</b>	<b>4.60</b>	<b>0.59</b>	
	<b>Work Type</b>	<b>Recon</b>	<b>Recon</b>	<b>Recon</b>	<b>Recon</b>	<b>Recon</b>	

<b>Pay Item</b>	<b>Description</b>	<b>Unit</b>						<b>Total Quantities</b>	<b>Remarks</b>
<b>151-01</b>	Mobilization	Lump Sum	ALL REQUIRED					1	Mobilization for all roads
<b>203-01</b>	Removal of metal culverts, Method (a)	Each	1	-	1	-	-	2	Excavation paid under Items 602-63.18
<b>203-04</b>	Removal of signs and posts, Method (a)	Lump Sum	ALL REQUIRED					1	
<b>204-20</b>	Drainage excavation, type low water ford	Each	-	1	-	-	-	1	
<b>204-90</b>	Roadway excavation	Lump Sum	-	-	-	1	-	1	
<b>251-01.1</b>	Placed riprap, class 1	Cubic Yard*	-	10	-	-	-	10	
<b>251-01.2</b>	Placed riprap, class 2	Cubic Yard*	-	3	-	-	-	3	
<b>253-15</b>	Gabions, welded wire baskets	Lump Sum	-	-	-	1	-	1	
<b>303-57</b>	Roadway reconditioning. Compaction Method B.	Mile	-	-	-	0.65	-	0.65	
<b>322-22</b>	Gabion cell fill material, pit run max size 8"	Cubic Yard*	-	-	-	21	-	21	Refer to FP 03 - 253
<b>322-32</b>	Haul and place stockpiled aggregate. Compaction Method B.	Cubic Yard*	10	-	5	66	-	81	
<b>602-63.18</b>	18 inch aluminized steel, corrugated steel pipe, .064 inch thickness, Method A	Linear Foot	72	-	34	76	-	182	
<b>633-13</b>	Signs	Square Foot	-	-	44.6	3.1	-	47.7	
<b>633-15</b>	Posts	Each	-	-	8	4	-	12	
<b>633-17</b>	Object markers, Type 3 w/ steel U-posts	Each	-	-	4	-	-	4	
<b>633-19</b>	Object marker- modified Type 2	Each	-	-	13	-	-	13	
<b>633-21</b>	Object marker- modified Type 2, w/ steel posts	Each	-	-	-	6	-	6	
<b>633-23</b>	Route markers & mile markers	Each	3	-	10	3	3	19	
<b>633-25</b>	Reset posts	Each	-	-	5	-	-	5	
<b>633-27</b>	Warning signs	Each	-	-	-	2	-	2	

**LEAVITO TIMBER SALE**

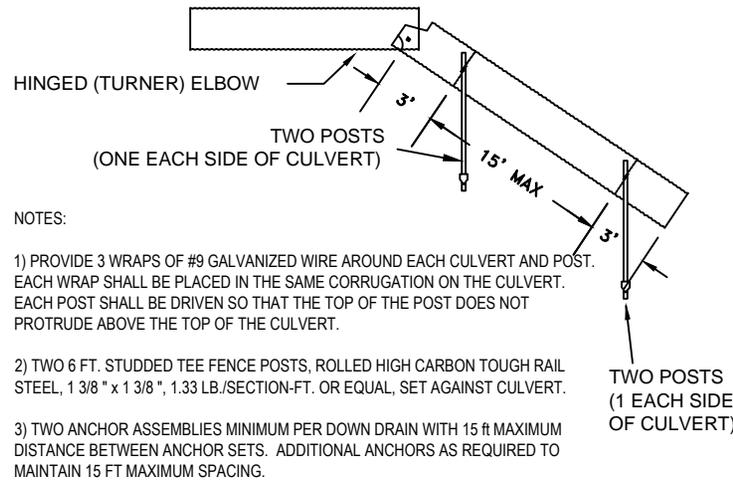
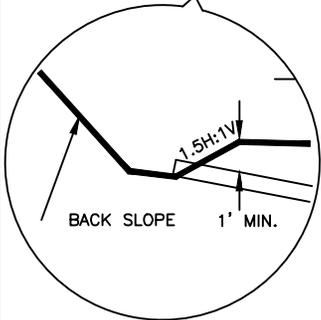
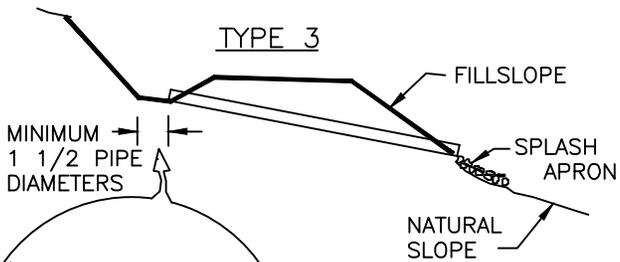
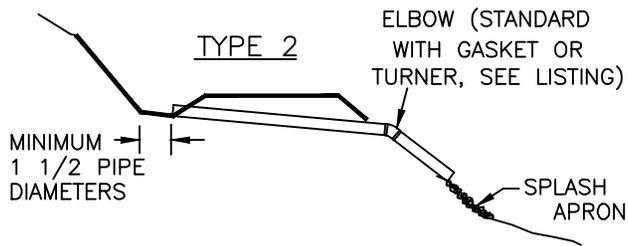
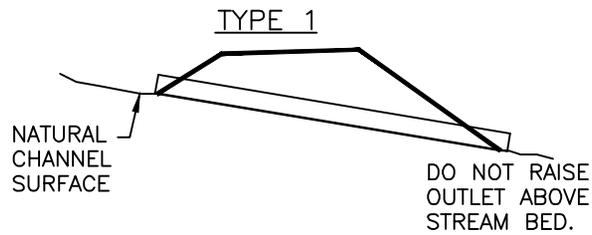
**ESTIMATE OF QUANTITIES**

SHEET	<b>03</b>
OF	<b>22</b>

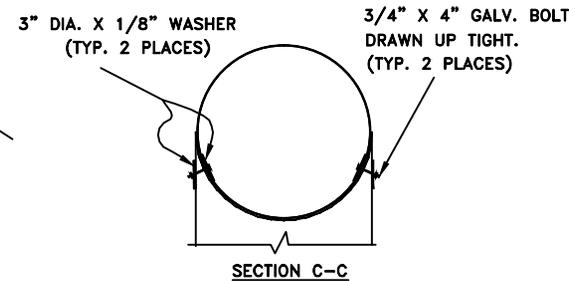
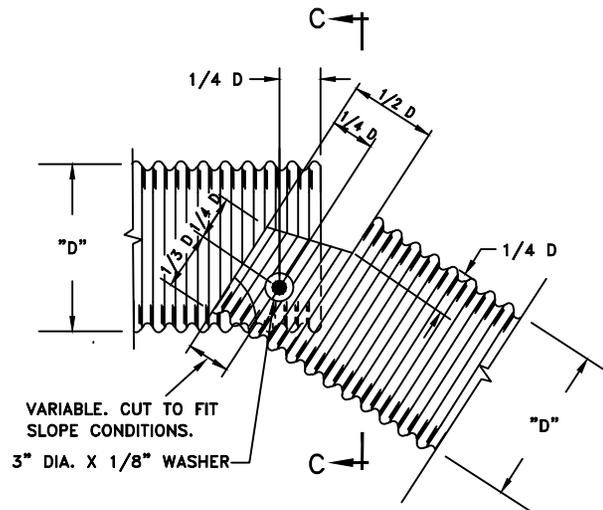
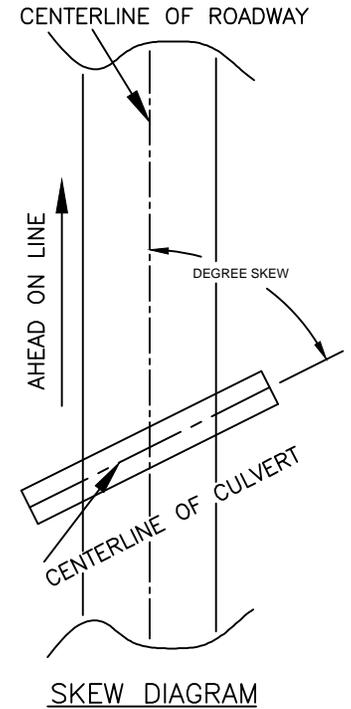
LOCATION AND CULVERT LENGTHS				INSTALLATION DETAILS AND SPECIAL SECTIONS									RIPRAP REQUIREMENTS								Remarks					
DESIGNED			AS BUILT				CORRUGATED METAL PIPE			SPILLWAYS			BEVELED DROP INLET			HEADWALL		SPLASH APRON		SLOPE PROTECTION		SUBGRADE REINFORCEMENT				
MP	STA (FT)	LENGTH (FT)	DEGREE SKEW	MP	STA (FT)	SKEW	LENGTH (FT)	DIA (IN)	TH (IN)	TYPE	DOWN-DRAIN LENGTH (FT)	ANCHORS (EA)	ELBOW	DIA (IN)	LENGTH (FT)	"B" ANGLE	CY	CLASS	CY	CLASS		CY	CLASS	CY	CLASS	
<b>Road 2925-900</b>																										
1.44		38	60					18	0.064	3																
1.50		34	*same					18	0.064	3																
<b>Road 2925-964</b>																										
0.17																					3	2	10	1		Construct low water ford
<b>Road 31</b>																										
9.47		34	*same					18	0.064	3																Construct catch basin.
<b>Road 3100-600</b>																										
3.65		40	58					18	0.064	3																Construct catch basin.
3.72		36	63					18	0.064	3																Construct catch basin.

**NOTES:**

- 1) Staking for culverts has been completed by the Forest Service. Culvert lengths and locations are based on as-staked conditions. Install culverts as staked.
- 2) Excavations for new culverts and culvert replacements are generally deeper than existing culvert installations. Excavation of solid rock may be required in some locations.
- 3) Dimpled bands shall not be used on downpipes, elbows, or pipes laid on grades greater than 15%.
- 4) Unless shown otherwise, where cover heights exceed 10-feet, culverts shall be cambered an amount equal to 0.5% of the culvert length.
- 5) Riprap shall be placed to the minimum dimensions shown on typical section drawings.
- 6) Refer to Sheet 05 for typical Culvert Construction Details and Sheet 06 for Aggregate Placement Typical for Culverts.
- 7) Skew is in degrees. From center line of roadway, looking ahead on line, turn angle right.
- 8) Ex = Existing culvert, not to be replaced.
- 9) \*same = skew is same as replaced culvert.



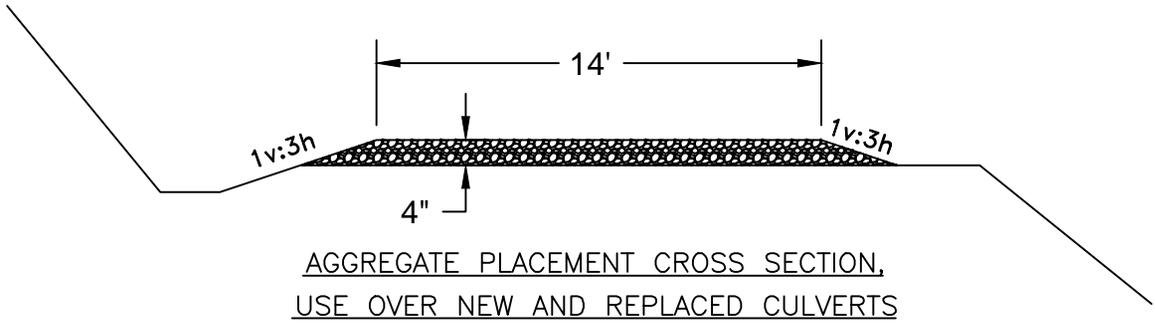
**SPECIAL ANCHORING FOR TYPE 2 (DOWNDRAIN)**



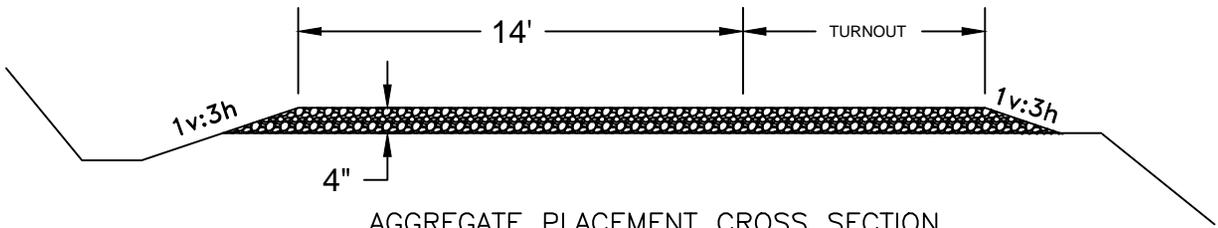
**TURNER ELBOW DETAILS**

DRAWINGS NOT TO SCALE. REFER TO THE SPECIFIC CULVERT ON WORKLIST.

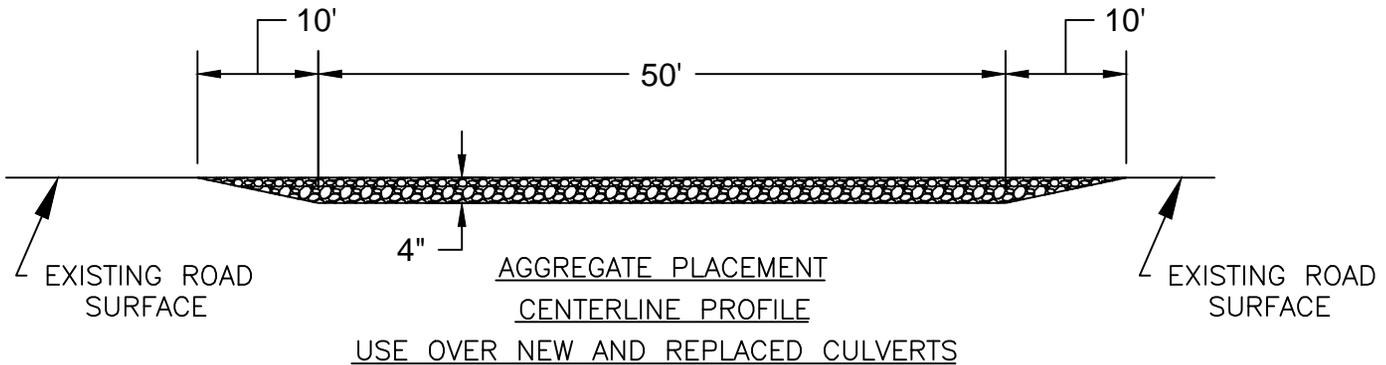
LEAVITO TIMBER SALE	CULVERT CONSTRUCTION DETAILS	SHEET	05
		OF	22



AGGREGATE PLACEMENT CROSS SECTION,  
USE OVER NEW AND REPLACED CULVERTS



AGGREGATE PLACEMENT CROSS SECTION,  
WITH TURNOUT  
USE OVER NEW AND REPLACED CULVERTS



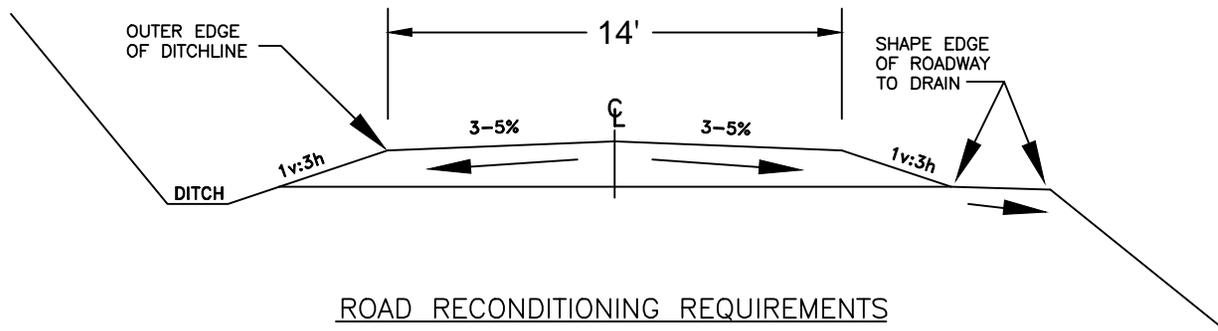
AGGREGATE PLACEMENT  
CENTERLINE PROFILE  
USE OVER NEW AND REPLACED CULVERTS

NOTES:

1. THESE TYPICALS APPLY TO ALL AREAS REQUIRING SUPPLEMENTAL AGGREGATE PLACEMENT OVER NEWLY INSTALLED AND REPLACED CULVERTS.
2. REFER TO WORKLIST FOR LOCATIONS. ITEM 322-32 QUANTITIES ARE INTENDED TO SUPPLEMENT EXISTING MATERIALS CONSERVED DURING CONSTRUCTION.
3. RECONDITION ENTIRE SUBGRADE LENGTH AS SPECIFIED IN PROFILE DRAWING PRIOR TO AGGREGATE PLACEMENT.

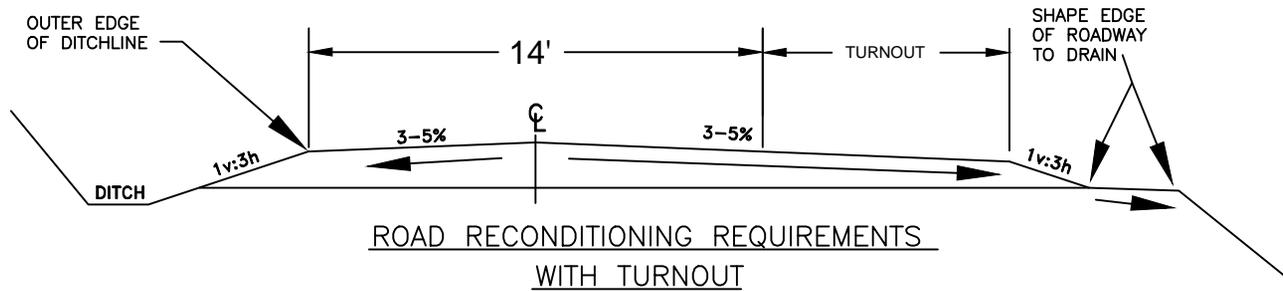
DRAWINGS NOT TO SCALE. REFER TO THE WORKLIST.

LEAVITO TIMBER SALE	AGGREGATE PLACEMENT TYPICAL FOR CULVERTS	SHEET 06
		OF 22



NOTES:

1. RE-ESTABLISH A 14-FT WIDE TRAVELWAY MEASURED FROM THE OUTER EDGE OF DITCHLINE.
2. CROWN RECONDITIONED TRAVELWAY. SLOPE 3-5% AWAY FROM CENTERLINE OF TRAVELWAY.
3. CREATE A 1v:3h SLOPE AT EDGE OF RECONDITIONED TRAVELWAY.



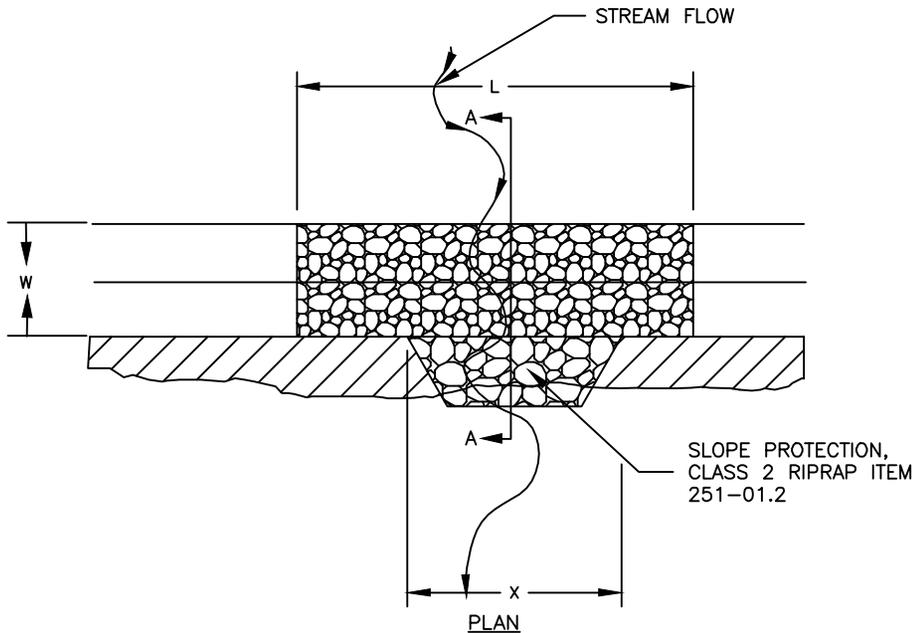
ROAD NUMBER	TURNOUT			
	MILE POST	WIDTH FT	TRANSITION LENGTH FT	LENGTH FT
3100-600	1.06	10	50	65
3100-600	1.15	10	50	65
3100-600	1.38	10	50	65
3100-600	1.51	10	50	65
3100-600	2.1	10	50	100

DRAWINGS NOT TO SCALE. REFER TO THE WORKLIST.

LEAVITO TIMBER SALE

ROAD RECONDITIONING  
TYPICAL

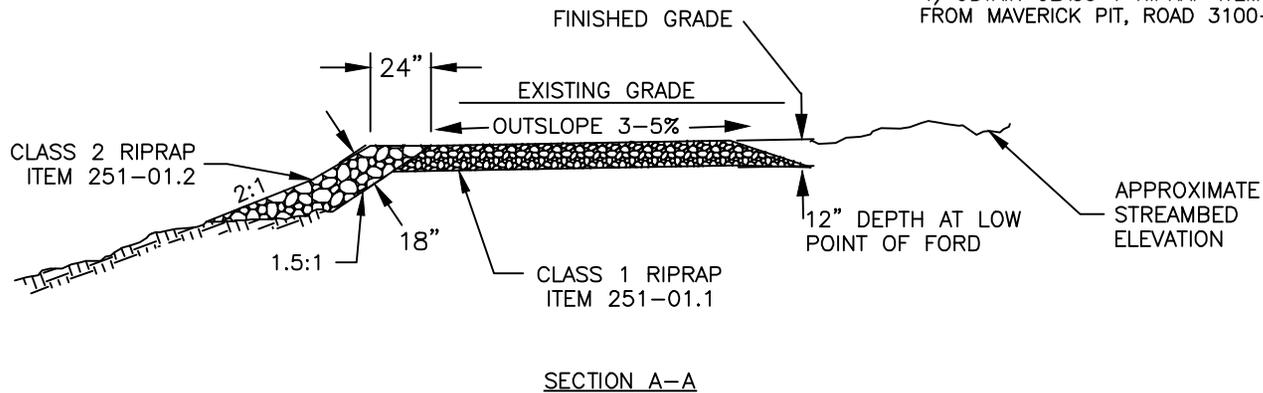
SHEET	07
OF	22



	CLASS 1 RIPRAP		CLASS 3 RIPRAP
LOCATION	L	W	X
2925-964 M.P. 0.17	20'	14'	8'

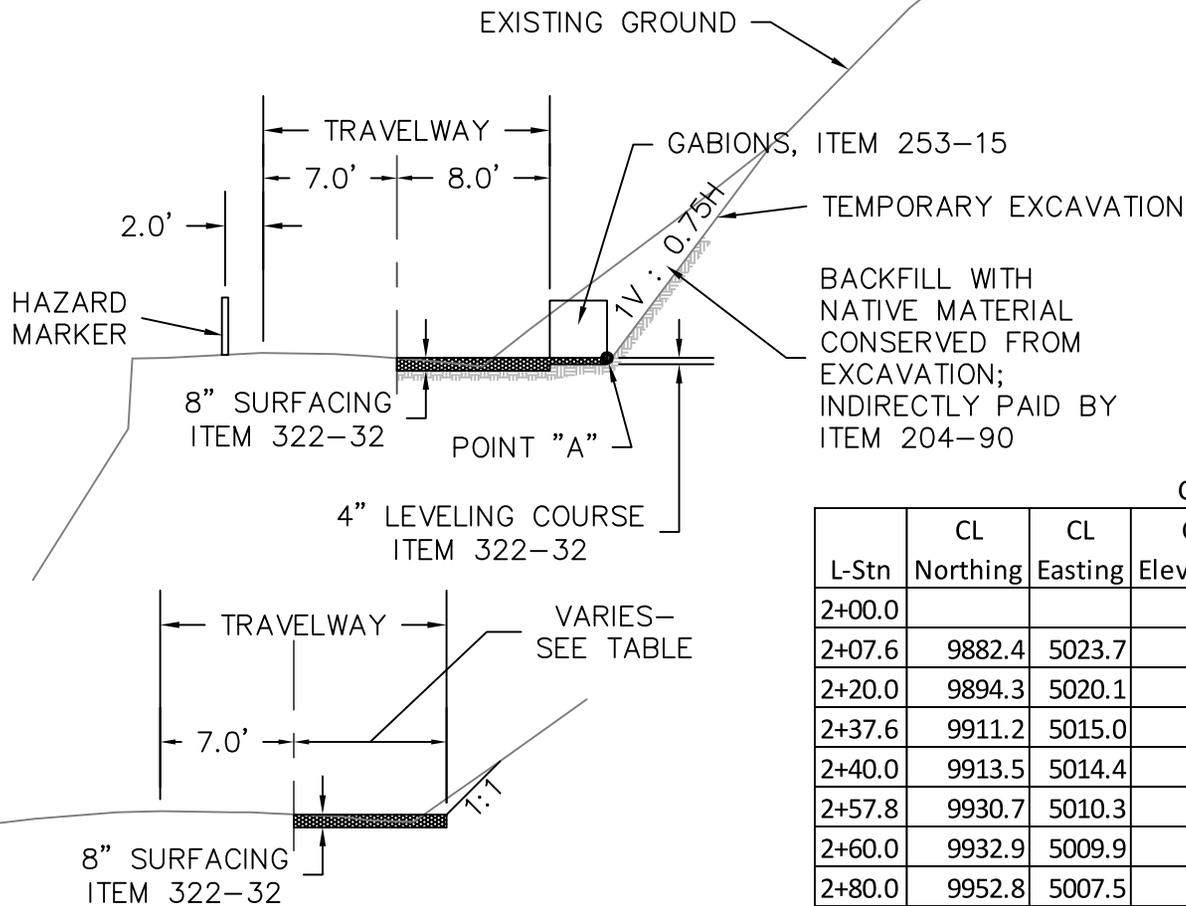
**NOTES:**

- 1) LOW WATER FORD LOCATIONS SHALL BE EXCAVATED 2 FEET DEEPER THAN THE EXISTING GRADE AT THE LOW POINT OF THE FORD CROSSING. THE EXCAVATION SHALL BE 10' EACH SIDE OF THE LOW POINT AND SHALL TAPER FROM THE LOW POINT TO THE EXISTING ROAD SURFACE.
- 2) EXCAVATED MATERIAL FROM LOW WATER FORD LOCATIONS SHALL BE HAULED TO THE DISPOSAL AREA LOCATED AT PIPESTONE PIT, ROAD 3100-600, M.P. 4.44. THE SPECIFIC LOCATION FOR THE WASTE STOCKPILE SHALL BE DESIGNATED BY THE ENGINEER. DISPOSE OF MATERIAL IN AREA FLAGGED OR IDENTIFIED BY ER. SPREAD AND SHAPE WASTE TO DRAIN AND TO FIT EXISTING GROUND. FINISH SLOPES ON WASTE NO STEEPER THAN 1.5H:1V. DISPOSAL AND PLACEMENT OF EXCESS MATERIAL IS INDIRECTLY PAID TO ITEM 204-20.
- 3) FINISHED GRADE AT THE LOW POINT OF THE FORD SHALL BE 1' LOWER THAN THE EXISTING ROAD GRADE. CREATE A SMOOTH TRANSITION FROM DESIGN GRADE AT THE LOW POINT OF THE FORD WITH CLASS 1 RIPRAP TO THE EXISTING ROADWAY ELEVATION AT THE LIMITS OF THE EXCAVATION.
- 4) OBTAIN CLASS 1 RIPRAP ITEM 251-01.1 AND CLASS 2 RIPRAP ITEM 251-01.2 FROM MAVERICK PIT, ROAD 3100-630, M.P. 0.56. RIPRAP WILL REQUIRE SORTING.



DRAWINGS NOT TO SCALE





Construction Table: Gabion Baskets, Point "A"

Station	Offset	Northing	Easting	Elevation
2+57.8	11.0 R	9932.7	5021.1	495.3
2+67.3	11.0 R	9941.6	5019.7	496.0
2+76.9	11.0 R	9950.6	5018.7	496.6
2+86.5	11.0 R	9959.6	5018.2	497.2
2+96.0	11.0 R	9968.6	5018.2	497.8
3+05.6	11.0 R	9977.5	5018.6	498.5
3+15.2	11.0 R	9986.5	5019.5	499.1
3+24.7	11.0 R	9995.4	5020.9	499.7

BACKFILL WITH  
NATIVE MATERIAL  
CONSERVED FROM  
EXCAVATION;  
INDIRECTLY PAID BY  
ITEM 204-90

Centerline Construction Table

L-Stn	CL Northing	CL Easting	CL Elevation	Rd. Wd. Left	Rd. Wd. Right	Comments
2+00.0						Match Existing
2+07.6	9882.4	5023.7	491.6	7.0	7.0	Begin Taper from 14' to 15' Width
2+20.0	9894.3	5020.1	492.6	7.0	7.4	
2+37.6	9911.2	5015.0	494.0	7.0	8.0	End Taper, Begin 15' Width
2+40.0	9913.5	5014.4	494.2	7.0	8.0	
2+57.8	9930.7	5010.3	495.3	7.0	8.0	Begin Gabions
2+60.0	9932.9	5009.9	495.5	7.0	8.0	
2+80.0	9952.8	5007.5	496.8	7.0	8.0	
3+00.0	9972.8	5007.3	498.1	7.0	8.0	
3+20.0	9992.7	5009.2	499.4	7.0	8.0	
3+24.7	9997.3	5010.0	499.7	7.0	8.0	End Gabions
3+40.0	10012.2	5013.3	500.8	7.0	8.0	
3+60.0	10031.3	5019.5	502.2	7.0	8.0	
3+75.8	10045.7	5025.8	503.4	7.0	8.0	End 15' Width, Begin Taper to 14' Width
3+80.0	10049.5	5027.6	503.7	7.0	7.9	
4+00.0	10067.5	5036.4	505.2	7.0	7.2	
4+05.8	10072.7	5038.9	505.7	7.0	7.0	End Taper, Begin 14' Width
4+20.0						Match Existing

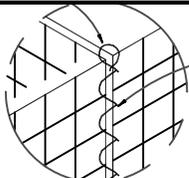
**Notes:**  
 1. Excavation paid by item 204-90. Dispose of excess material at Pipestone Quarry, Rd. 3100-600 MP 4.44 in area marked on ground. Shape material to drain.

2. Geotextile is not required for backfilling behind gabions

3. Fill gabions with pit run, max size 8-inch; item 322-22

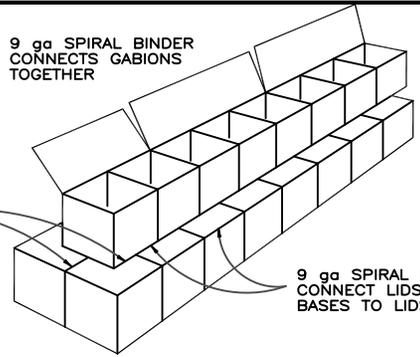
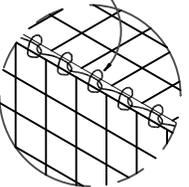
Hazard Marker Locations

Station	Northing	Easting
1+95	9867.8	5018.8
2+30	9901.3	5008.6
2+60	9931.4	5001.0
2+95	9967.9	4998.2
3+30	10004.4	5002.2
3+65	10039.4	5013.1



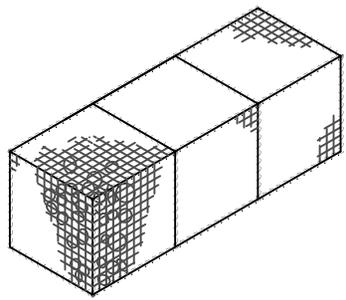
9 ga SPIRAL BINDER  
CONNECTS GABIONS  
TOGETHER

OPTIONAL 13 ga TIE  
WIRE, ONE HITCH AT  
3" SPACING

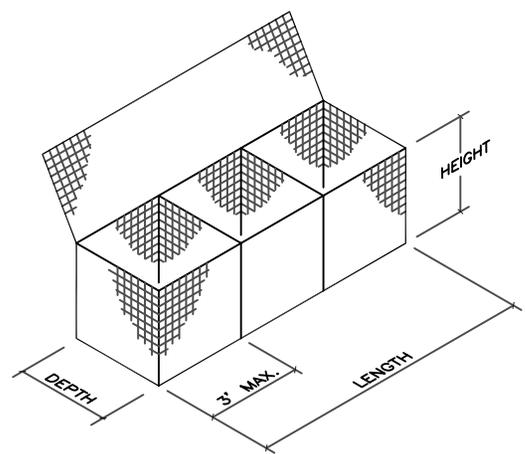


9 ga SPIRAL BINDERS  
CONNECT LIDS AND  
BASES TO LIDS.

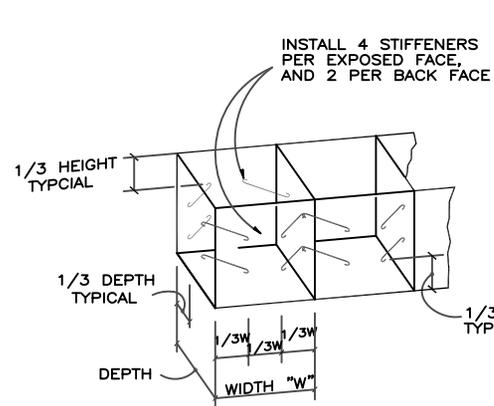
**ASSEMBLY DETAILS**



**TYPICAL ASSEMBLED GABION**

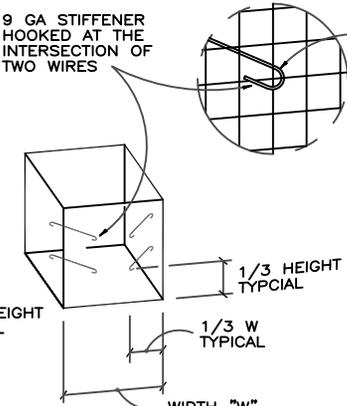


**TYPICAL GABION**



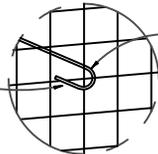
INSTALL 4 STIFFENERS  
PER EXPOSED FACE,  
AND 2 PER BACK FACE

**END CELLS**

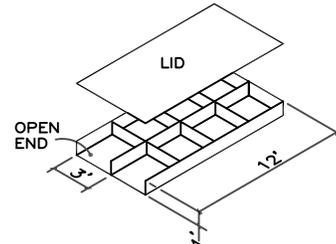


9 GA STIFFENER  
HOOKED AT THE  
INTERSECTION OF  
TWO WIRES

**EXPOSED FACES**

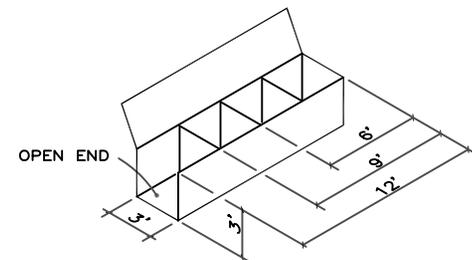


CRIMP HOOK  
CLOSED



**TYPICAL MATTRESS**

(SIZES CAN VARY)

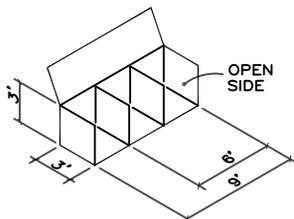


**TYPICAL OPEN END**

(SIZES CAN VARY)

**STIFFENER DETAILS**

WHERE HEIGHT OF GABION IS 18" OR LESS,  
INSTALL 2 STIFFENERS PER FACE WHERE  
HEIGHT IS 12", NO STIFFENERS REQUIRED.



**TYPICAL OPEN SIDE**

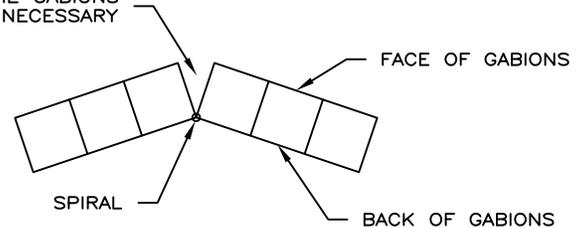
(SIZES CAN VARY)

**NOTES**

- GABION SIZES ARE EXPRESSED IN FEET.
- GABIONS WHICH ARE TO BE CONNECTED TOGETHER SIDE TO SIDE, OR END TO END, MAY BE PROVIDED OPEN-SIDE OR OPEN-END AS SHOWN, TO REDUCE WEIGHT, COST AND ASSEMBLY TIME.
- GABIONS ARE MANUFACTURED OF 3" X 3" WELDED WIRE MESH, 9 GA. WITH 0.9 OZ/S.F. ZINC COATING, OR 11 GA. WITH 0.85 OZ/S.F. ZINC COATING. OPTIONAL 2.0 OZ/S.F. ZINC COATING IS AVAILABLE ON REQUEST.

**FORMING ANGLES**

SPREAD THE GABIONS  
APART AS NECESSARY



**STANDARD GABION SIZES**

SIZE	SIZE LxWxH	CU.YD.	SIZE	SIZE LxWxH	CU.YD.	SIZE	SIZE LxWxH	CU.YD.
A	6 x 3 x 3	2	D	6 x 3 x 1.5	1	G	6 x 3 x 1	0.67
B	9 x 3 x 3	3	E	9 x 3 x 1.5	1.5	H	9 x 3 x 1	1
C	12 x 3 x 3	4	F	12 x 3 x 1.5	2	I	12 x 3 x 1	1.33

\* ALL GABIONS SHALL BE MANUFACTURED OF 9 GA. WIRE.

**Notes:**

1. Signs shall be sized, manufactured and installed in accordance with the following references:
  - (a) EM 7100-15 "Sign and Poster Guidelines for the Forest Service." Dec. 2005
  - (b) 7100-Engineering "Sign Installation Guide" March 2010.
  - (c) MUTCD "Manual on Uniform Traffic Control Devices". 2009 Edition with Revision Numbers 1 and 2 incorporated, dated May 2012.
  - (d) FP- 03 with FS Supplements.
2. All roads requiring signing on this contract are ML2, low volume roads, with speed limits up to 15 mph.
3. Removal and disposal of all sign material will be paid under Pay Item 203-04.

4. All HDO plywood signs shall be fully retroreflective, using Type III or IV High intensity sheeting, with a white legend on a brown background. Use U.S. Forest Service brown, Federal Standard 595C #20059.

5. All sign areas shall be brushed so signs are clearly visible and provide adequate time for proper viewer response. (Paid indirectly under Pay Items 633)

6. Further information about Forest Service signs may be obtained from the following sources:

P&M Signs, Inc.  
866-767-4461  
www.pmsignsinc.com

Rockart Signs & Markers  
480-854-3400  
www.rockartsigns.com

TAPCO  
800-236-0112  
www.tapconet.com

Wood Product Signs  
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7. Acronyms used:

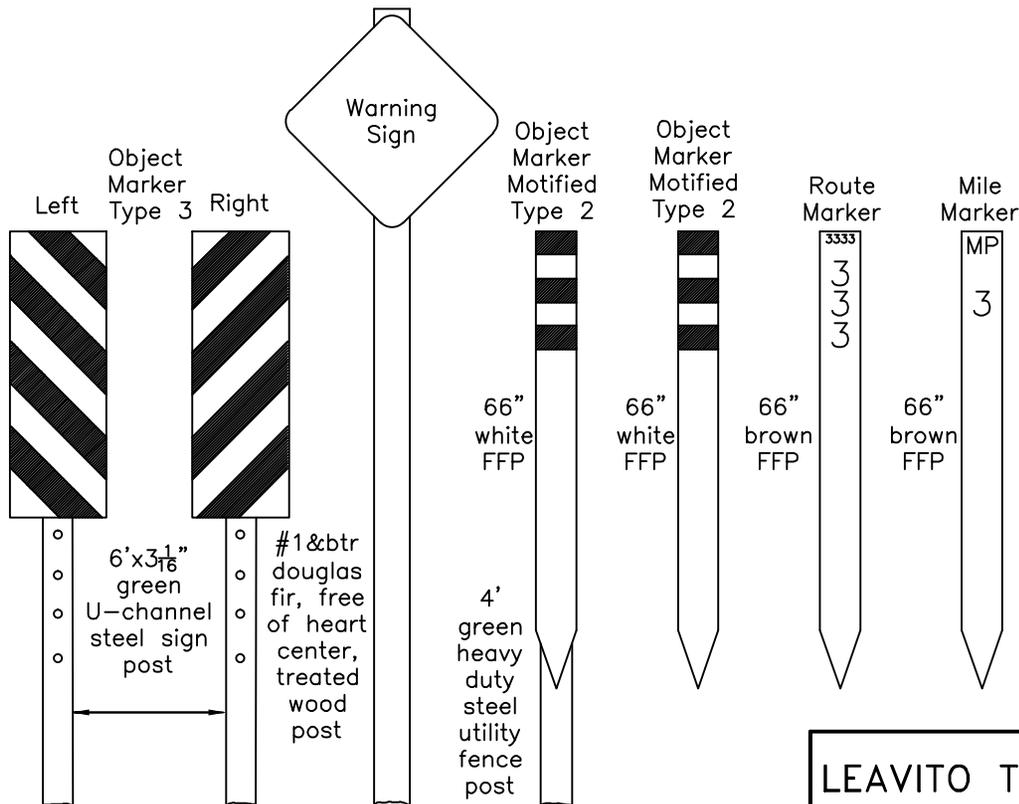
FFP = Flexible Fiberglass Post (one sided and two sided)

HDO = High Density Overlay

MP = Milepoint

ML = Maintenance Level designation of Forest Service Roads.

OM = Object Marker - Type 3 or Modified Type 2



DRAWINGS NOT TO SCALE. REFER TO THE WORKLIST.

## Sign Table

### Road 31

Left Right	MP	Sign Type	Material Type	quantity	Estimated Size of Sign	TEXT(Vertical or Horizontal) (Size)	Post	Remarks	Pay Item
L	0.02	Sign - Route	HDO plywood	1	6" x 18"	<b>31</b> (V) (3")	Use existing 4"x4"		633-13
L R	0.08	O M - Type 3	Aluminum	2	12" x 36"		6' U-channel	yellow and black decal	633-17
L R	0.10	O M - Type 3	Aluminum	2	12" x 36"		6' U-channel	yellow and black decal	633-17
L	0.15	O M - Modified Type 2	FFP	3			Replace white FFP	3" x 18" hazard decals. Both sides	633-19
L	0.61	Route Marker	FFP	1		<b>3100</b> (H) (1") <b>037</b> (V) (3")	Install brown FFP		633-23
R	0.67	Sign - Destination	HDO plywood	1	8" x 36"	<b>&lt;--- WHISKY CAMP 9</b> (H) (3")	Use existing 4"x4"		633-13
R	0.67	Sign - Route	HDO plywood	1	6" x 18"	<b>3114</b> (V) (3")	Use existing 4"x4"		633-13
R	0.67	Sign - Left Arrow	HDO plywood	1	8" x 16"	<b>&lt;---</b> (H) left	Use existing 4"x4"		633-13
R	0.70	Sign - Destination	HDO plywood	1	12" x 36"		Use existing 4"x4"		633-13
		1st Line				<b>&lt;--- STATE HWY 62 33</b> (H) (3")			
		2nd Line				<b>TILLER 10 --&gt;</b> (H) (3")			
R	0.70	Sign - Route	HDO plywood	1	6" x 18"	<b>31</b> (V) (3")	Use existing 4"x4"		633-13
R	0.70	Sign - Double Arrow	HDO plywood	1	8" x 16"	<b>&lt;-----&gt;</b> (H) left and right	Use existing 4"x4"		633-13
L	0.70	Route Marker	FFP			<b>3114</b> (V) (3")	New brown FFP		633-23
R	0.78	Sign - Route	HDO plywood	1	6" x 18"	<b>31</b> (V) (3")	Use existing 4"x4"		633-13
L	0.90	Route Marker	FFP	1			Reset	reset route marker	633-25
L	0.96	O M - Modified Type 2	FFP	3			Replace white FFP	3" x 18" hazard decals. Both sides	633-19
R	1.01	Mile Marker	FFP	1			Existing brown FFP	reset mile marker	633-25
L	1.03	O M - Modified Type 2	FFP	3			Replace white FFP	3" x 18" hazard decals. Both sides	633-19
R	1.46	Route Marker	FFP	1		<b>3100</b> (H) (1") <b>200</b> (V) (3")	Install brown FFP		633-23
L	1.97	O M - Modified Type 2	FFP	1			Replace white FFP	3" x 18" hazard decals. Both sides	633-19
R	2.02	Mile Post	FFP	2		<b>MP</b> (H) (2") <b>2</b> (V) (3")	Replace brown FFP	Text on both sides	633-23
L	2.60	Sign - Destination	HDO plywood		12" x 32"		Use existing 4"x4"		633-13
		1st Line				<b>&lt;--- TILLER 11</b> (H) (3")			
		2nd Line				<b>STATE HWY 62 31 --&gt;</b> (H) (3")			
L	2.60	Sign - Route	HDO plywood		6" x 18"	<b>31</b> (V) (3")	Use existing 4"x4"		633-13
R	2.60	Sign - Route	HDO plywood	1	6" x 18"	<b>3100</b> (H) (1") <b>400</b> (V) (3")	Use existing 4"x4"		633-13
L	2.65	O M - Modified Type 2	FFP	3			Reset	Reset hazard markers	633-25
R	2.94	Sign - Destination	HDO plywood	1	12" x 50"		Use existing 4"x4"		633-13
		1st Line				<b>PICKET BUTTE</b> (H) (3")			
		2nd Line				<b>LOOKOUT 8 --&gt;</b> (H) (3")			
L	2.97	Post	Treated wood	1			Replace 4"x4"x10'		633-15
L	2.97	Sign - Destination	HDO plywood	1	12" x 36"				633-13
		1st Line				<b>&lt;--- TILLER 12</b> (H) (3")			
		2nd Line				<b>STATE HWY 62 30 --&gt;</b> (H) (3")			
L	2.97	Sign - Route	HDO plywood	1	6" x 18"	<b>31</b> (V) (3")	On the new 4"x4"		633-13
L	2.97	Sign - Double Arrow	HDO plywood	1	8" x 16"	<b>&lt;-----&gt;</b> (H) left and right	On the new 4"x4"		633-13

## Sign Table

### Road 31 cont.

Left Right	MP	Sign Type	Material Type	quantity	Estimated Size of Sign	TEXT(Vertical or Horizontal) (Size)	Post	Remarks	Pay Item
R	2.98	O M - Modified Type 2	FFP	3			Replace white FFP	3" x 18" hazard decals. Both sides	633-19
R	3.03	Mile Marker	FFP	2		<b>MP</b> (H) (2") <b>3</b> (V) (3")	Replace brown FFP	Text on both sides	633-23
L	3.70	Post	Treated wood	1			Replace 4"x4"x10'		633-15
L	3.70	Sign - Route	HDO plywood	1	6" x 18"	<b>31</b> (V) (3")	On the new 4"x4"		633-13
L	3.70	Sign - Double Arrow	HDO plywood	1	8" x 16"	<-----> (H) left and right	On the new 4"x4"		633-13
R	4.00	Mile Marker	FFP	2		<b>MP</b> (H) (2") <b>4</b> (V) (3")	Replace brown FFP	Text on both sides	633-23
L	4.60	Route Marker	FFP	1		<b>3100</b> (H) (1") <b>530</b> (V) (3")	Install brown FFP		633-23
R	6.05	Post	Treated wood	2			Replace 2- 4"x4"x10'		633-15
R	6.05	Sign - Destination	HDO plywood	1	17" x 48"				633-13
		1st Line				<--TILLER TRAIL HWY 10 (H)(3")	On the new 4"x4"		
		2nd Line				<-- STATE HWY 62 27 (H) (3")			
		3rd Line				TILLER 15 --> (H) (3")			
R	6.05	Sign - Route	HDO plywood	1	6" x 18"	<b>31</b> (V) (3")	On the new 4"x4"		633-13
R	6.05	Sign - Double Arrow	HDO plywood	1	8" x 16"	<-----> (H) left and right	On the new 4"x4"		633-13
R	6.06	Remove		1			Remove	Remove wooden post and sign	203-04
R	6.73	Post	Treated wood	2			Replace 2- 4"x4"x10'		633-15
R	6.73	Sign - Destination	HDO plywood	1	8" x 48"	TILLER TRAIL HWY 9 -->(H) (3")	On the new 4"x4"		633-13
R	6.73	Sign - Route	HDO plywood	1	6" x 18"	<b>1610</b> (H) (1") <b>400</b> (V) (3")	On the new 4"x4"		633-13
R	6.73	Sign - Right Arrow	HDO plywood	1	8" x 16"	--> (H) right	On the new 4"x4"		633-13
L	6.76	Post	Treated wood	1			Replace 4"x4"x10'		633-15
L	6.76	Sign - Destination	HDO plywood	1	12" x 32"				633-13
		1st Line				<-- TILLER 16 (H) (3")	On the new 4"x4"		
		2nd Line				STATE HWY 62 --> (H) (3")			
L	6.76	Sign - Route	HDO plywood	1	6" x 18"	<b>31</b> (V) (3")	On the new 4"x4"		633-13
L	6.76	Sign - Double Arrow	HDO plywood	1	8" x 16"	<-----> (H) left and right	On the new 4"x4"		633-13
L	6.77	Sign - Destination	HDO plywood	1	8" x 48"	<-- TILLER TRAIL HWY 9 (H) (3")	Use existing 4"x4"		633-13
L	6.77	Sign - Route	HDO plywood	1	6" x 18"	<b>1610</b> (H) (1") <b>400</b> (V) (3")	Use existing 4"x4"		633-13
L	6.77	Sign - Left Arrow	HDO plywood	1	8" x 16"	<-- (H) left	Use existing 4"x4"		633-13
R	7.07	Mile Marker	FFP	1		<b>MP</b> (H) (2") <b>7</b> (H) (3")	Replace brown FFP	Text on both sides	633-23
L	8.93	Route Marker	FFP	1		<b>3100</b> (H) (1") <b>725</b> (V) (3")	Replace brown FFP		633-23
L	9.00	Route Marker	FFP	1		<b>3100</b> (H) (1") <b>740</b> (V) (3")	Install brown FFP		633-23

## Sign Tables

### Road 3100-600

Left Right	MP	Sign Type	Material Type	quantity	Estimated Size of sign	TEXT (Vertical or Horizontal) (Size)	Post	Remarks	Pay Item
R	0.02	Post	Treated wood	1			Replace 4"x4"x10'		633-15
R	0.02	Sign - Route	HDO plywood	1	6" x 18"	<b>3100</b> (H) (1") <b>600</b> (V) (3")	On the new 4"x4"		633-13
L	0.45	Route Marker	FFP	1		<b>3100</b> (H) (1") <b>610</b> (V) (3")	Replace brown FFP		633-23
R	3.61	Post	Treated wood	1			New 4"x4" x10'		
R	3.61	Warning Sign	Aluminum	1	30"x30"	<b>SLOW</b>	On the new 4"x4"	Yellow and black warning sign	633-27
L	3.66	Begin O M - Modified Type 2							
L		O M - Modified Type 2	White FFP	6		3" x 18" hazard decals. Both sides	4 ft green U-Channel	See Sheet 09 for placement	633-21
L	3.69	End O M - Modified Type 2							
R	3.74	Post	Treated wood	1			New 4"x4"x10'		633-15
R	3.74	Warning Sign	Aluminum	1	30"x30"	<b>SLOW</b>	On the new 4"x4"	Yellow and black warning sign	633-27
L	4.58	Post	Treated wood	1			New 4"x4" x10'		633-15
L	4.58	Sign - Destination	HDO plywood	1	12"x27"				633-13
		1st Line				<b>&lt;-- TILLER 19</b> (H) (3")			
		2nd Line				<b>DEAD END 31 --&gt;</b> (H) (3")			
R	4.58	Route Marker	FFP	1		<b>2925</b> (H) (1") <b>900</b> (V) (3")	Replace brown FFP		633-23
R	4.62	Route Marker	FFP	1		<b>3100</b> (H) (1") <b>660</b> (V) (3")	Replace brown FFP		633-23

### Road 3100-630

R	0.13	Route Marker	FFP	1		<b>3100</b> (H) (1") <b>635</b> (V) (3")	New brown FFP		633-23
L	0.35	Route Marker	FFP	1		<b>3100</b> (H) (1") <b>634</b> (V) (3")	Replace brown FFP		633-23
R	0.72	Route Marker	FFP	1		<b>3100</b> (H) (1") <b>631</b> (V) (3")	New brown FFP		633-23

### Road 2925-900

R	0.01	Route Marker	FFP	1		<b>2925</b> (H) (1") <b>900</b> (V) (3")	Use existing 4"x4"	Attatch FFP to existing 4"x4"	633-23
R	0.62	Route Marker	FFP	1		<b>2925</b> (H) (1") <b>910</b> (V) (3")	Replace brown FFP		633-23
R	1.33	Route Marker	FFP	1		<b>2925</b> (H) (1") <b>964</b> (V) (3")	Replace brown FFP		633-23

LEAVITO TIMBER SALE

SIGN DETAILS ROADS  
3100-600, 3100-630,  
2925-900

SHEET <b>15</b>
OF <b>22</b>

MP	SPECIFIED ROAD WORKLIST - ROAD 2925-900	PAY ITEM	QUANTITY
0.00	Intersection Road 2925 and 2925-900		
0.01	<b>BEGIN WORK THIS ROAD.</b> Right. Install route marker. See Sheets 12-15 for details.	633-23	1 EA
0.62	Right. Road 2925-910. Remove and replace route marker. See Sheets 12-15 for details.	633-23	1 EA
0.99	Right. Road 2925-960.		
1.33	Left. Spur Road. Right. Road 2925-964. Remove and replace route marker. See Sheets 12-15 for details.	633-23	1 EA
1.44	Install a new 18" CMP. Conserve and utilize existing aggregate from roadbed at pipe excavation site. Suitable material from existing excavation may be used as backfill material. Replace conserved aggregate on road surface, supplementing the aggregate surface with 5 cubic yards of material obtained from Three Cabin Quarry (see Sheet 06 for placement typical). Any unsuitable backfill material, woody debris, slash or boulders from excavation will be hauled (indirectly paid by Item 602-63.18) to approved disposal sites (see Note 4 on Sheet 03).	322-32 602-63.18	5 CY 38 LF
1.50	Remove existing 18" culvert and replace with a new 18" CMP. Conserve and utilize existing aggregate from roadbed at pipe excavation site. Suitable material from existing excavation may be used as backfill material. Replace conserved aggregate on road surface, supplementing the aggregate surface with 5 cubic yards of material obtained from Three Cabin Quarry (see Sheet 06 for placement typical). Any unsuitable backfill material, woody debris, slash or boulders from excavation will be hauled (indirectly paid by Item 602-63.18) to approved disposal sites (see Note 4 on Sheet 03). <b>END WORK THIS ROAD.</b>	203-01 322-32 602-63.18	1 EACH 5 CY 34 LF
1.65	Left. Road 2925-930.		
1.85	Left. Spur Road.		
2.02	Intersection Road 3100-600 and 2925-900.		
		RD 2925-900 WORKLIST	SHEET 16 OF 22

LEAVITO  
TIMBER SALE

RD 2925-900  
WORKLIST

SHEET  
16  
OF  
22



MP	SPECIFIED ROAD WORKLIST- ROAD 31	PAY ITEM	QUANTITY	
0.00	Intersection of Road 29 and Road 31.			
0.02	<b>BEGIN WORK THIS ROAD.</b> Left. Remove and replace sign. See Sheets 12-15 for sign details.	633-13	0.8 SF	
0.08	Beginning of bridge. Left and right. Remove and replace object markers. See Sheets 12-15 for sign details.	633-17	2 EA	
0.10	End of bridge. Left and right. Remove and replace object markers. See Sheets 12-15 for sign details.	633-17	2 EA	
0.15	Left. Remove and replace hazard object markers. See Sheets 12-15 for sign details.	633-19	3 EA	
0.61	Left. Road 3100-037. Install route marker. See Sheets 12-15 for sign details.	633-23	1 EA	
0.67	Right. Remove and replace signs. See Sheets 12-15 for sign details.	633-13	3.6 SF	
0.70	Left. Road 3114. Install route marker. See Sheets 12-15 for sign details.	633-23	1 EA	
0.70	Right. Remove and replace post and signs. See Sheets 12-15 for sign details.	633-13 633-15	4.6 SF 1 EA	
0.78	Right. Remove and replace sign. See Sheets 12-15 for sign details.	633-13	0.8 SF	
0.90	Left. Road 3100-100. Bermed. Reset route marker. See Sheets 12-15 for sign details.	633-25	1 EA	
0.96	Left. Remove and replace hazard object markers. See Sheets 12-15 for sign details.	633-19	3 EA	
1.01	Right. Reset mile marker. See Sheets 12-15 for sign details.	633-25	1 EA	
1.03	Left. Remove and replace hazard object markers. See Sheets 12-15 for sign details.	633-19	3 EA	
1.46	Right. Roads 3100-200 & 3100-240. Install route marker. See Sheets 12-15 for sign details.	633-23	1 EA	
1.97	Left. Remove and replace hazard object markers. See Sheets 12-15 for sign details.	633-19	1 EA	
2.02	Right. Remove and replace mile marker. See Sheets 12-15 for sign details.	633-23	1 EA	
2.60	Left. Remove and replace signs. See Sheets 12-15 for sign details.	633-13	3.4 SF	
2.60	Right. Install sign. See Sheets 12-15 for sign details.	633-13	0.8 SF	
2.65	Left. Reset hazard object markers. See Sheets 12-15 for sign details.	633-25	3 EA	
2.94	Right. Remove and replace sign. See Sheets 12-15 for sign details.	633-13	4.2 SF	
2.97	Left. Remove and replace signs and post. See Sheets 12-15 for sign details.	633-13 633-15	4.6 SF 1 EA	
2.98	Left. Remove and replace hazard object markers. See Sheets 12-15 for sign details. Right. Road 3113.	633-19	3 EA	
3.03	Right. Remove and replace mile marker. See Sheets 12-15 for sign details.	633-23	1 EA	
3.70	Left. Install signs. See Sheets 12-15 for sign details. Right. Road 3100-500.	633-13 633-15	1.6 SF 1 EA	
		<b>LEAVITO TIMBER SALE</b>	<b>RD 31 WORKLIST</b>	SHEET <b>18</b> OF <b>22</b>

MP	SPECIFIED ROAD WORKLIST- ROAD 31 Cont.	PAY ITEM	QUANTITY	
4.00	Right. Remove and replace mile marker. See Sheets 12-15 for sign details.	633-23	1 EA	
4.23	Right. Road 3100-520.			
4.60	Left. Road 3100-530. Install route marker. See Sheets 12-15 for sign details.	633-23	1 EA	
6.05	Left. Road 3100-600. Right. Install posts and signs. See Sheets 12-15 for sign details.	633-13 633-15	7.3 SF 2 EA	
6.06	Right. Remove post. See Sheets 12-15 for sign details.			
6.73	Right. Remove and replace posts and signs. See Sheets 12-15 for sign details.	633-13 633-15	4.3 SF 2 EA	
6.76	Left. Remove and replace post and signs. See Sheets 12-15 for sign details.	633-13 633-15	4.3 SF 1 EA	
6.77	Left. Remove and replace signs. See Sheets 12-15 for sign details.	633-13	4.3 SF	
7.07	Right. Remove and replace mile marker. See Sheets 12-15 for sign details.	633-23	1 EA	
7.83	Right. Road 3100-698.			
8.89	Intersection of Road 31 & 3100-740.			
8.93	Left. Road 3100-725. Remove and replace route marker. See Sheets 12-15 for sign details.	633-23	1 EA	
9.00	Left. Road 3100-740. Bermed. Install route marker. See Sheets 12-15 for sign details.	633-23	1 EA	
9.27	Intersection of Road 31 & 3100-750.			
9.47	Remove existing 15" culvert and replace with a new 18" CMP. Conserve and utilize existing aggregate from roadbed at pipe excavation site. Suitable material from existing excavation may be used as backfill material. Replace conserved aggregate on road surface, supplementing the aggregate surface with 5 cubic yards of material obtained from Three Cabin Quarry (see Sheet 06 for placement typical). Any unsuitable backfill material, woody debris, slash or boulders from excavation will be hauled (indirectly paid by Item 602-63.18) to approved disposal sites (see Note 4 on Sheet 03). Construct catch basin. <b>END WORK THIS ROAD.</b>	203-01 322-32 602-63.18	1 EACH 5 CY 34 LF	
		<b>LEAVITO TIMBER SALE</b>	<b>RD 31 WORKLIST</b>	SHEET <b>19</b> OF <b>22</b>

MP	SPECIFIED ROAD WORKLIST- ROAD 3100-600	PAY ITEM	QUANTITY
0.00	Intersection with Road 31.		
0.02	<b>BEGIN WORK THIS ROAD.</b> Right. Remove and replace post and sign. See Sheets 12-15 for details.	633-13 633-15	0.8 SF 1 EA
0.45	Left. Remove and replace route marker. See Sheets 12-15 for details.	633-23	1 EA
0.98	Begin reconditioning existing roadway. Conserve and utilize the aggregate that has scattered onto the shoulders of the roadway and re-incorporate into the traveled way. Scarify aggregate surface in accordance with FP-03 303.06. Shape and compact the traveled way, shoulders and existing staked turnouts (see Sheet 07). Existing staked turnouts are 10' X 65' (unless noted on the worklist or drawing) plus transitions. Existing staked turnouts have variable length transitions. Mile post stakes are at approximate center of turnout.	303-57	0.65 MILE
1.06	Left. Center of turnout.		
1.15	Left. Center of turnout.		
1.18	Left. Spur road.		
1.38	Left. Center of turnout.		
1.51	Left. Center of turnout.		
1.61	Right. Road 3100-630.		
1.63	Left. Road 3100-640. <b>END ROAD RECONDITIONING THIS ROAD.</b>		
2.01	Left. Unnumbered road.		
2.10	Left. Center of 10 FT X 100 FT turnout.		
3.41	Right. Spur road.		
3.63	Realign road at bedrock slump. See Sheet 09-11 for plans. Install hazard object markers and warning signs. See Sheets 12-15 for details.	204-90 253-15 322-22 322-32 633-15 633-21 633-27	1 EA 1 LS 21 CY 56 CY 2 EA 6 EA 2 EA
3.65	Install a new 18" CMP. Conserve and utilize existing aggregate from roadbed at pipe excavation site. Suitable material from existing excavation may be used as backfill material. Replace conserved aggregate on road surface, supplementing the aggregate surface with 5 cubic yards of material obtained from Three Cabin Quarry (see Sheet 06 for placement typical). Any unsuitable backfill material, woody debris, slash or boulders from excavation will be hauled (indirectly paid by Item 602-63.18) to approved disposal sites (see Note 4 on Sheet 03). Construct catch basin.	322-32 602-63.18	5 CY 40 LF
		<b>LEAVITO TIMBER SALE</b>	SHEET <b>20</b> OF <b>22</b>



