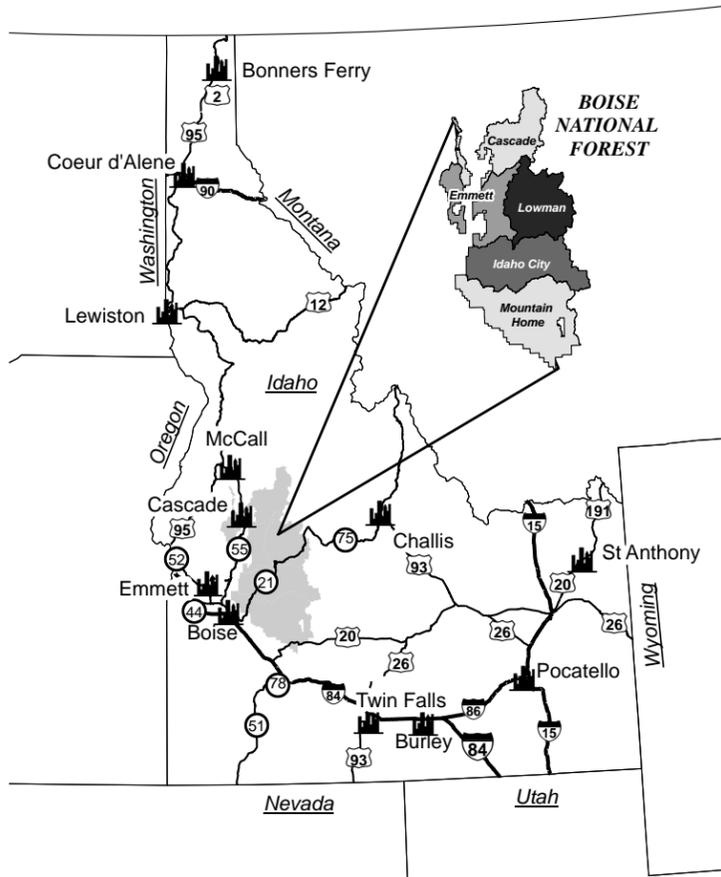


U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE REGION 4



PLANS FOR PROPOSED PROJECT STONEY HOUSELOG TIMBER SALE

BOISE NATIONAL FOREST
CASCADE RANGER DISTRICT
VALLEY COUNTY
IDAHO

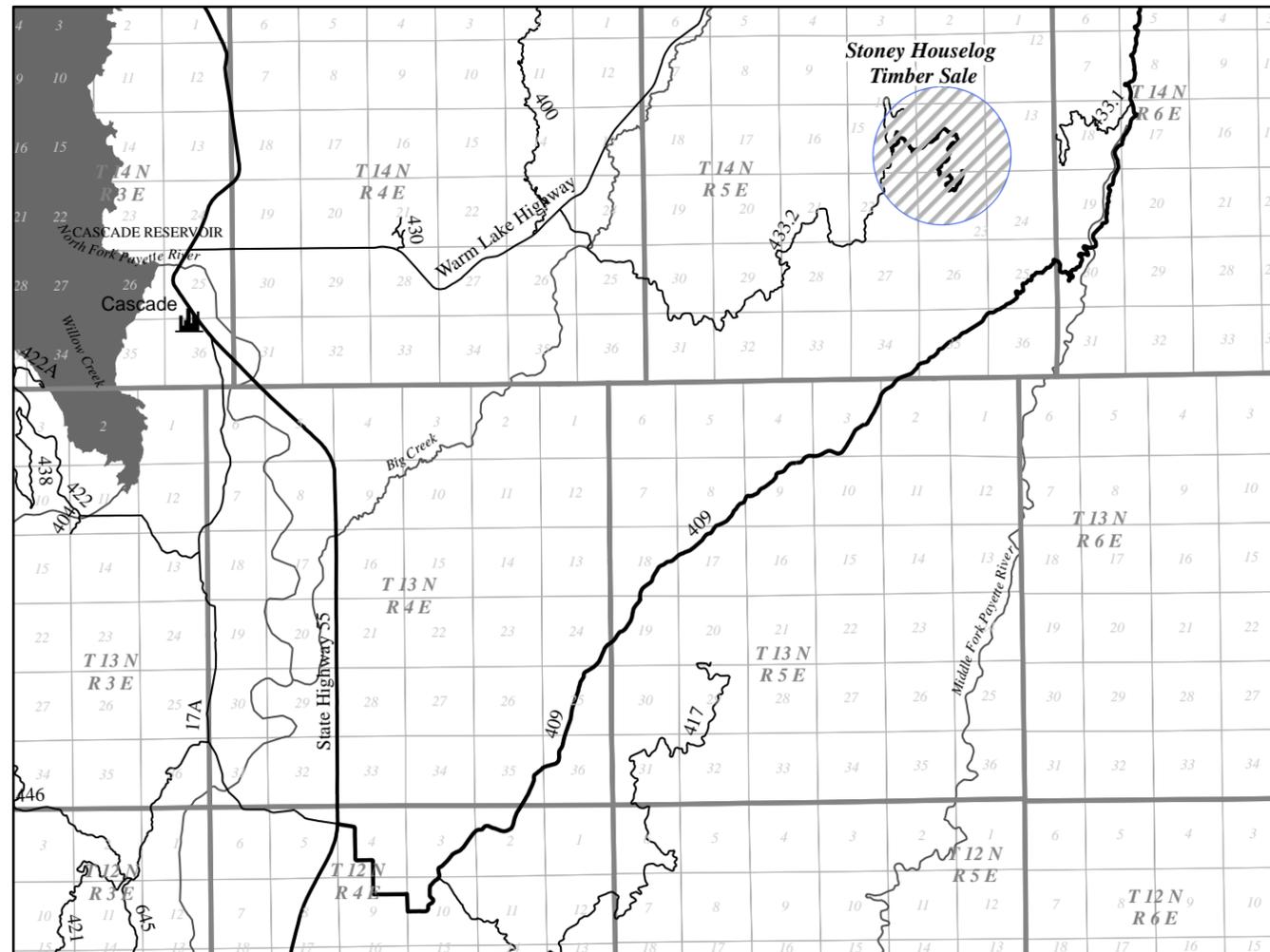


IDAHO MAP

PROJECT DESCRIPTION

This project consists of reconstruction of a National Forest System Road (NFSR) #433D near Cascade Idaho. Major items of work include, roadside clearing, installation of culverts, and Road Reconditioning.

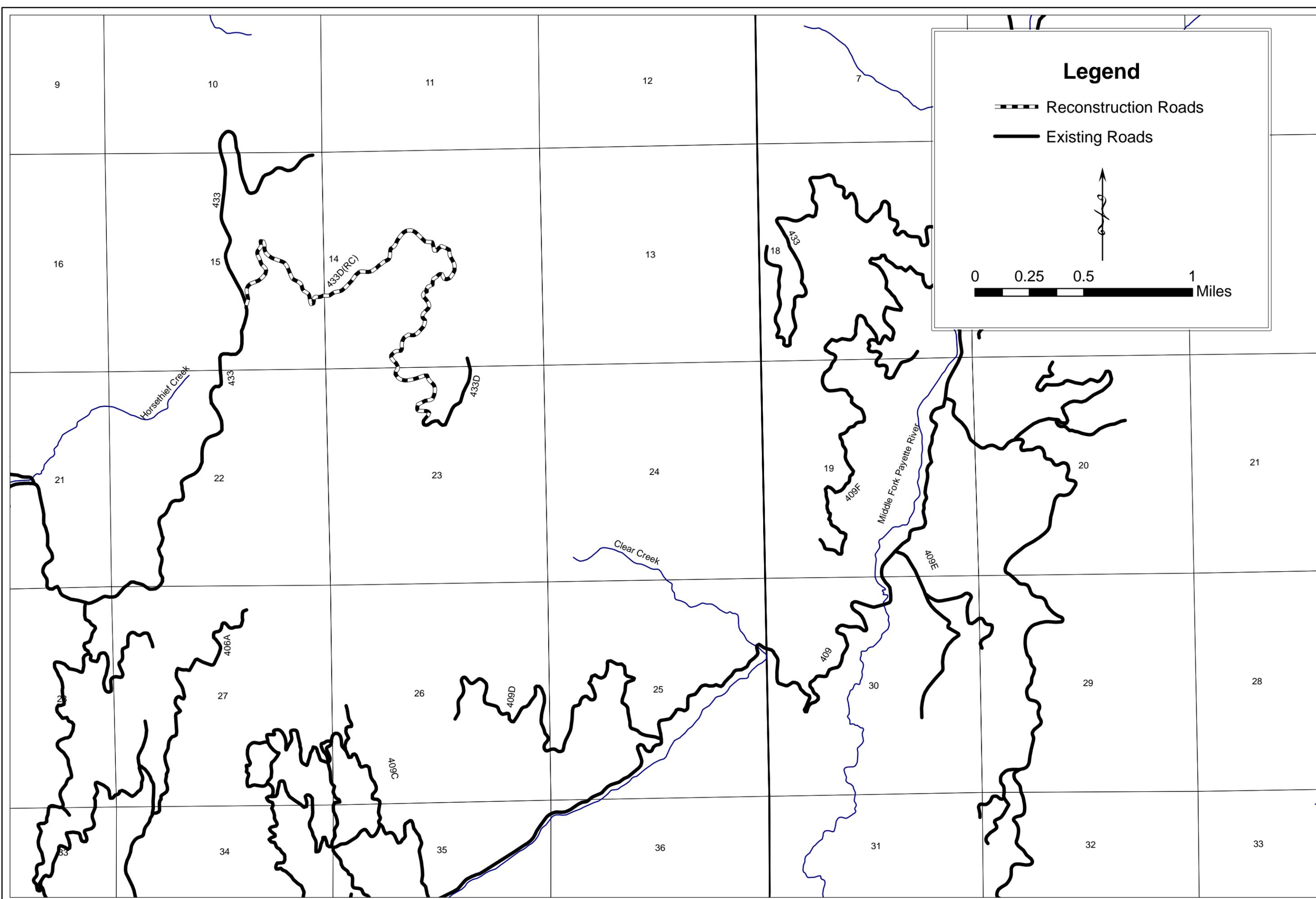
SPECIFICATION:
Standard Specifications for Construction of
Roads and Bridges on Federal Highway
Projects, FP-03, U.S. Customary Units
www.wfl.fha.dot.gov/design/specs/fp03.htm



INDEX TO SHEETS	
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Vicinity Map	2
Estimated Quantities & Description	3
Typical Sections & Construction Notes	4
Standard Details – Grade Dip - Outslope	5
Standard Details – Corrugated Metal Pipe	6
Standard Details – Stock Gate	7
Description of Work – 433D(R)	8

APPROVED: _____ DATE: _____
DISTRICT RANGER

APPROVED: _____ DATE: _____
FOREST ENGINEER



Legend

- Reconstruction Roads
- Existing Roads

0 0.25 0.5 1 Miles

U.S. Department of Agriculture
FOREST SERVICE
 Boise National Forest
 REGION 4
 Engineering

DESIGN	BY: R. Smith
CHECK	D. VanBuren
DRAWING	BY: R. Smith
CHECK	E. Barry
DRAWING NUMBER:	

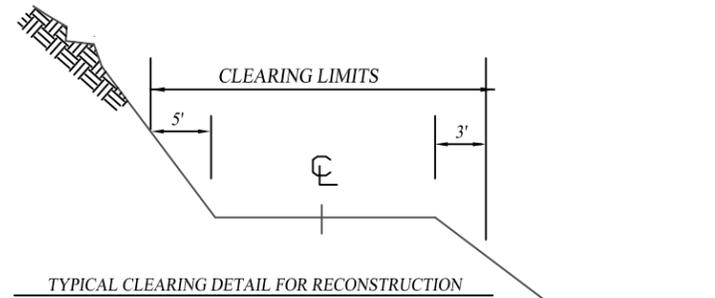
Vicinity Map
 Stoney Houselog Timber Sale

PROJECT ESTIMATED QUANTITIES

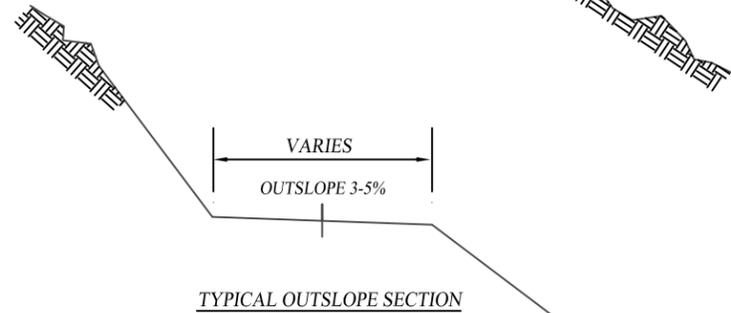
ROAD NUMBER	Mobilization Lump Sum	Clearing and grubbing, disposal of tops and limbs f, logs f, stumps fMile	Removal of culvert, disposal method a Lump Sum	Graded Dips Outslope Each	Road reconditioning, compaction method AMile	18 inch corrugated steel pipe, 0.064 inch thickness, method A Linear Foot	24 inch corrugated steel pipe, 0.064 inch thickness, method A Linear Foot	30 inch corrugated steel pipe, 0.064 inch thickness, method A Linear Foot	Furnish and install road closure device, type stock gate, size 16 footEach
	15101	20103	20301	20426	30322	60265A	60265B	60265C	65001
433D (R)	1	2.47	1	1	2.47	154	28	52	1
Totals	1	2.47	1	1	2.47	154	28	52	1

PROJECT DESCRIPTION

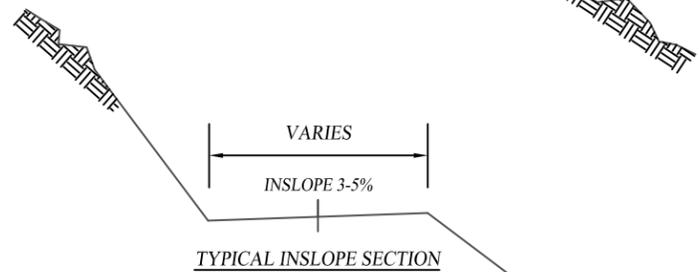
ROAD NO.	ROAD NAME	CONSTRUCTION TOLERANCE FSSS 204 Table 204-2	STATIONING		LENGTH (mile)		LEGAL DESCRIPTION PROJECT BEGINNING		
			FROM	TO	RECONST	CONST	T.	R.	SEC.
433D(R)	Stony South Rd.	K	0+00	130+40	2.47		14N	5E	15
Totals					2.47				



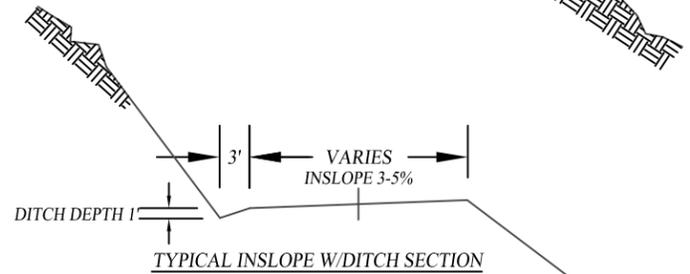
TYPICAL CLEARING DETAIL FOR RECONSTRUCTION



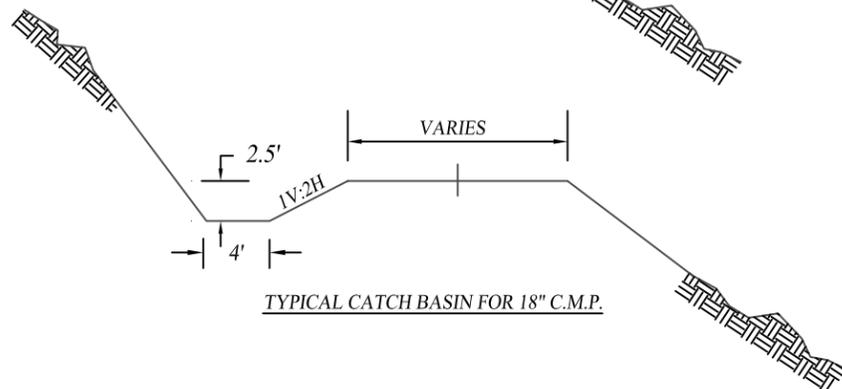
TYPICAL OUTSLOPE SECTION



TYPICAL INSLOPE SECTION



TYPICAL INSLOPE W/DITCH SECTION



TYPICAL CATCH BASIN FOR 18" C.M.P.

CONSTRUCTION NOTES

ITEM 20103 CLEARING : For all reconstruction roads see the clearing limits typical drawing to the left. For all roads with ditches, the clearing limit for the cutslope is 5 feet beyond the bottom of ditch.

USE OF PUMPS: Portable pumps must be placed in a secondary containment vessel, with sufficient volume to contain the contents of the fuel tank. All pumps used on the project must be outfitted with a suction screen that has a maximum opening size of 3/32". The only approved water sources are designated on the Sale Area Map.

FUEL STORAGE AND REFUELING: Storage of fuel and other toxicants within Riparian Conservation Areas (RCA) is prohibited. Definition of RCA - an area within a slope distance of 300 feet of perennial streams or within a slope distance of 150 feet of intermittent streams. Refueling of equipment may be done within the RCA only at approved locations. Service trucks may not be parked overnight within RCA's, and must carry spill containment kits that are designed for the type of contaminants present and the potential spill volume. Before beginning any work, submit a hazardous spill plan per FSSS 107.10.



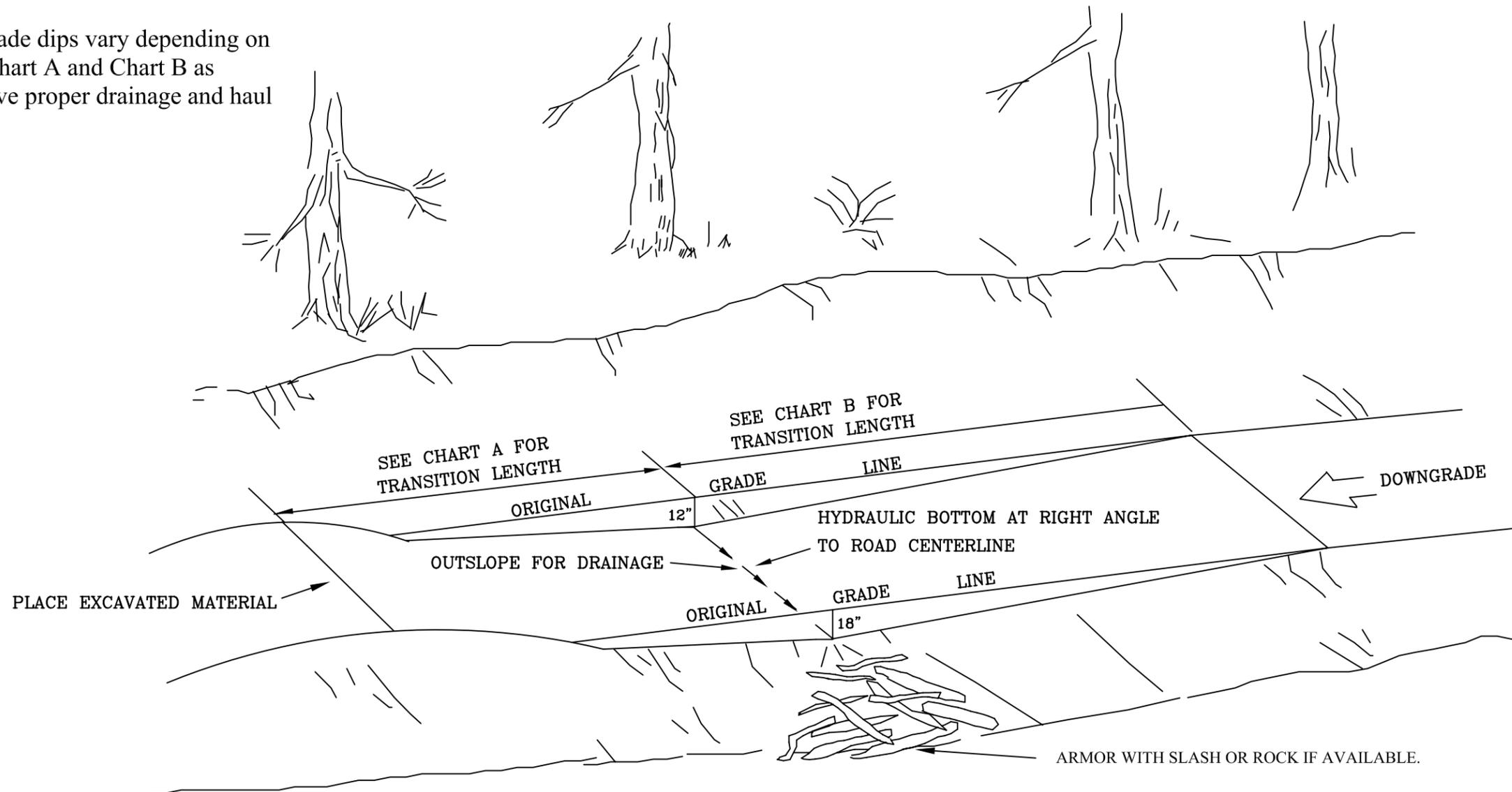
DESIGN	BY: R. Smith
DRAWING	CHECK: D. Vambiren
DRAWING NUMBER:	BY: R. Smith
	CHECK: B. Barry

NOTE:

1. For **Outslope** section direct outflow to fill side of roadway.
2. Armor outfall of grade dip with slash or rock, if available at the work site. Armor is considered an indirect work item of grade dip construction and will not be paid for separately.
3. Cut grade dip 12" deep on the cut slope side and 18" deep on the fill slope side.
4. Transition lengths for grade dips vary depending on original road grade. Use Chart A and Chart B as general guidelines to achieve proper drainage and haul truck drivability.

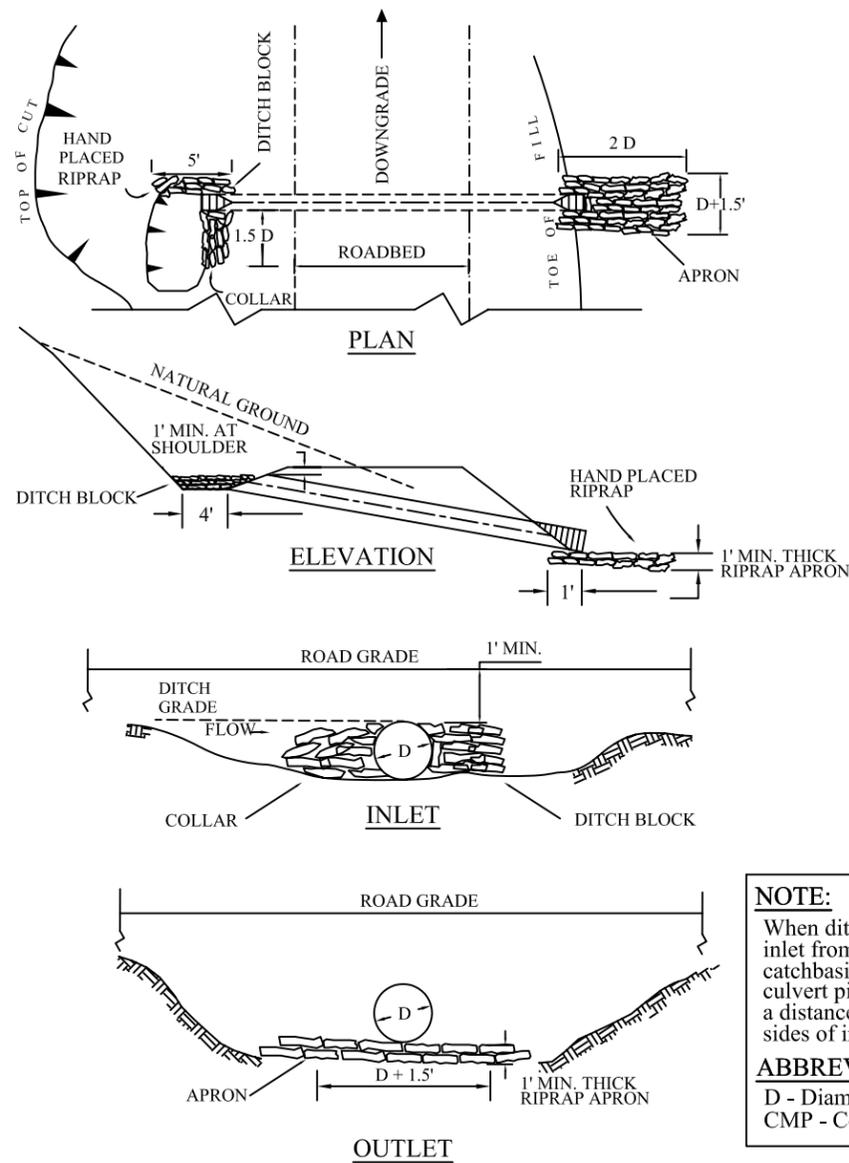
CHART A	
ROAD GRADE	LENGTH
UP TO 3%	35'
4% TO 6%	25'
OVER 6%	15'

CHART B	
ROAD GRADE	LENGTH
UP TO 3%	65'
4% TO 6%	75'
OVER 6%	85'



DESIGN	BY: R. Smith
DRAWING	CHECK: D. VanBuren
	BY: R. Smith
	CHECK: B. Barry
DRAWING NUMBER:	

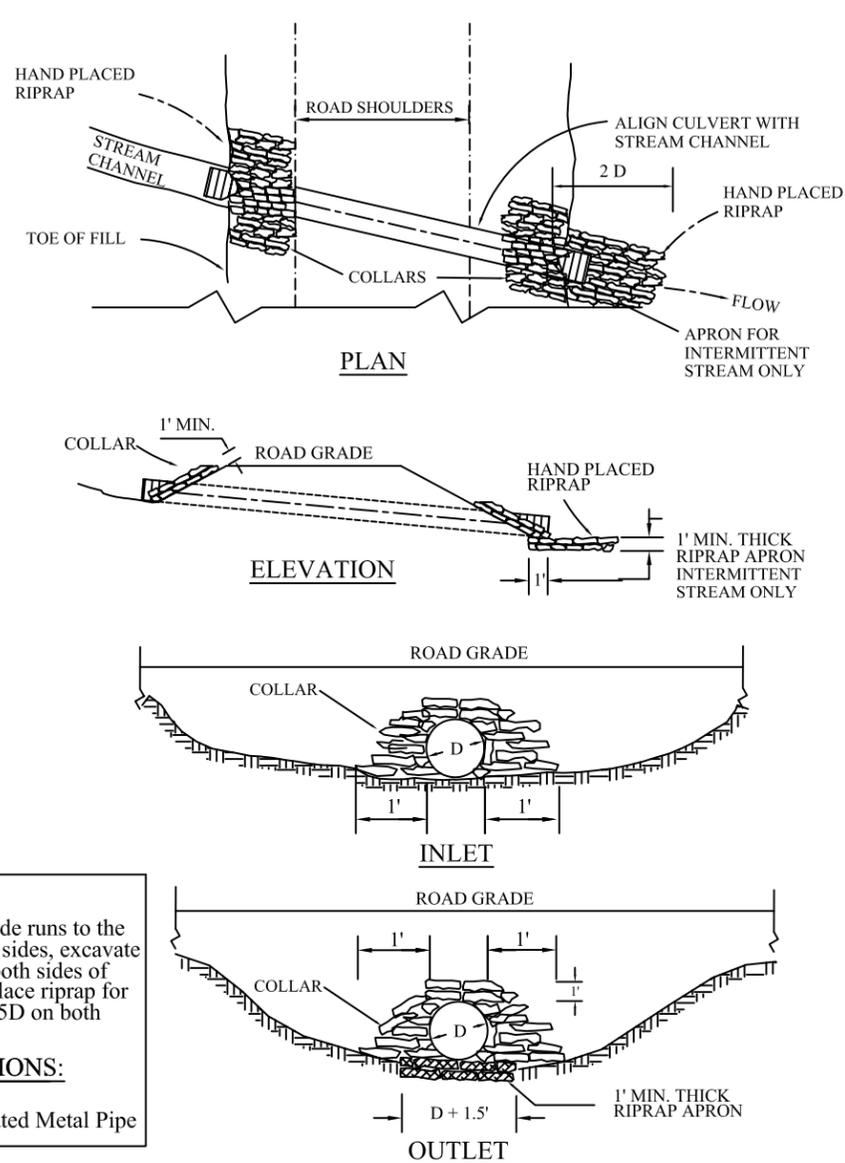
DITCH RELIEF CULVERT



NOTE:
When ditch grade runs to the inlet from both sides, excavate catchbasin on both sides of culvert pipe. Place riprap for a distance of 1.5D on both sides of inlet.

ABBREVIATIONS:
D - Diameter
CMP - Corrugated Metal Pipe

THROUGH FILL CULVERT



GENERAL NOTES

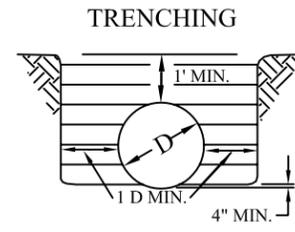
Indirect Work Items: Hand placed riprap, catchbasin construction and pipe culvert excavation are considered indirect work items to corrugated metal pipe installations. The cost of indirect items will not be paid for separately.

Hand Placed Riprap: Construct riprap collars and aprons where specified in the work description sheets. Construct riprap collars to lay on the fill slope as shown in the elevation view. Riprap collars are not vertical walls. Furnish stone used for Hand Placed Riprap that is hard, durable, angular rock and is resistant to weathering and water action and free of organic or other unsuitable material. There is no gradation requirement for Hand Placed Riprap. Individual stones shall weigh approximately 20 to 50 pounds.

Flow Grade: Install pipe with a minimum flow grade of 2%. Preferred flow grade is 8% where possible.

Damaged Spelter: Remove the damaged or corroded ends of existing galvanized corrugated metal pipe to be extended. If the damaged end is flame cut, wire brush the burned spelter down to clean metal and paint the area with two coats of high zinc content paint.

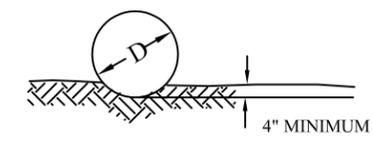
Live Stream Culvert Installations: Prior to the start of construction, submit a written plan that provides permanent and temporary erosion control measures to minimize erosion and sedimentation during and after construction. Do not begin work until the necessary controls for that particular phase of work have been implemented. Do not modify the type, size, or location of any control. An alternate erosion control plan with all necessary permits may be submitted 30 days before intended use. Incorporate all permanent erosion control features into the project at the earliest practicable time, as outlined in the approved plan. When erosion control measures are not functioning as intended, immediately take corrective action. Use temporary channels, temporary culverts, earth berms, pumps, sandbags, or other methods to divert the flow of live streams. Use a minimum of 2 sedimats or other approved products downstream of the installation to minimize sedimat transport.



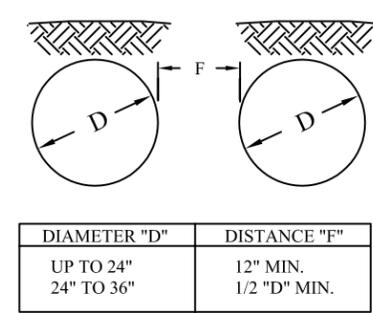
OUTLET DITCH NOTES

Construct V-shaped outlet ditch with 1V:3H side slopes. Round tops of slopes to blend with natural ground.

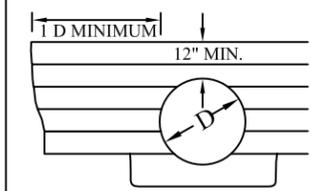
TYPICAL BEDDING DETAIL



DUAL INSTALLATION

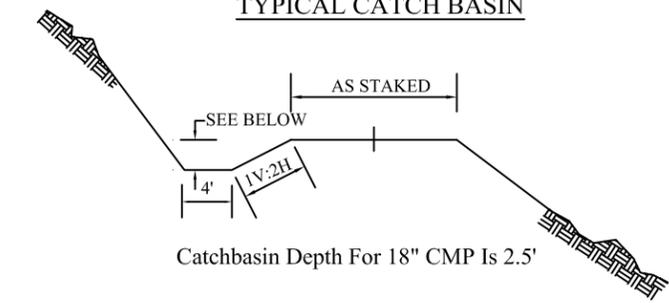


TYPICAL BACKFILL DETAIL



Place suitable material in six inch layers to density called for in the specifications and compact uniformly. Shape the material to fit the bottom of the pipe.

TYPICAL CATCH BASIN

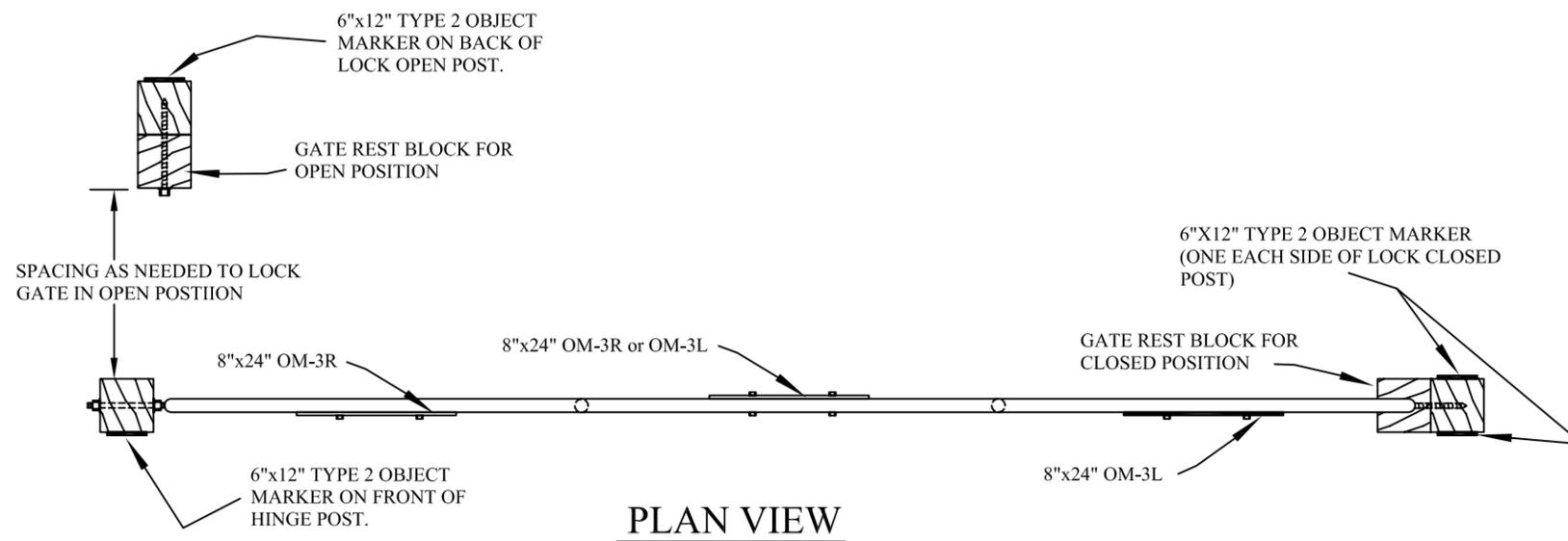
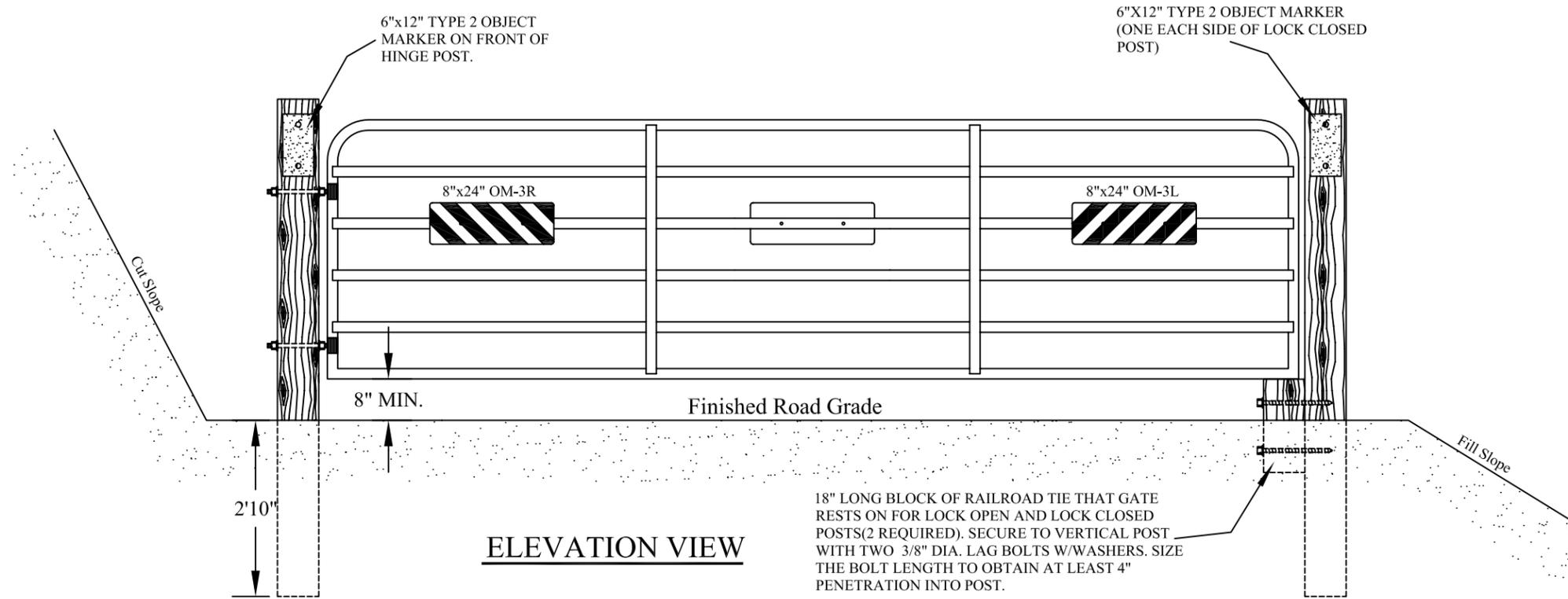


These drawings and details are standard for corrugated metal pipe up to 36" diameter.

DESIGN	BY: I. Baldwin
DRAWING	CHECK: D. Woros
	BY: I. Baldwin
	CHECK: D. Woros
	DRAWING NUMBER:

NOTES:

1. FURNISH GATE, RAILROAD TIES, SIGNS, AND ALL HARDWARE NECESSARY FOR THE INSTALLATION OF THE GATE.
2. TYPE 2 OBJECT MARKERS(4 required) ARE 6"x12" YELLOW REFLECTORIZED ALUMINUM. ATTACH TO THE POSTS USING TWO 3/8" DIA. X 3" LONG LAG BOLTS W/WASHERS.
3. TYPE 3 OBJECT MARKERS ARE 8"x24" RED AND WHITE REFLECTORIZED ALUMINUM. ATTACH TO THE GATE RAILS USING 3/8" BOLTS W/NUTS AND WASHERS.
4. STOCK GATE IS 16' LONG HEAVY DUTY TYPE, WITH FRAME AND HORIZONTAL FILLER TUBES CONSTRUCTED WITH 2" DIA. 16 GAUGE STEEL TUBING , 6 RAIL DESIGN , 50" TALL, GREEN COLOR.
5. FURNISH 8' LONG RAILROAD TIES(3 required), AND 18" LONG RAILROAD TIE BLOCKS(2 required) THAT ARE IN GOOD CONDITION, FREE OF LARGE CRACKS AND OTHER DEFECTS



DESIGN	BY: D. Voras CHECK: I. Baldwin
DRAWING	BY: D. Voras CHECK: I. Baldwin
DRAWING NUMBER:	

<u>Station</u>	<u>UNIT</u>	<u>DESCRIPTION OF WORK</u>	<u>REMARKS</u>
			Begin Reconstruction
0 - 130+40	Mile	Clear vegetation	Lop and Scatter Slash
0 - 130+40	Mile	Recondition road - do not scarify	Maintain existing template unless otherwise noted
		Remove Berms from Roadway	Indirect to Road Reconstruction
130+40	Lump Sum	Remove Misc. Culvert Section From Roadway	Dispose of culvert by removal from National Forest land
1+00	Each	Install 16' Gate	Final Location will be designated by the Engineer
3+70	Linear Foot	Install 18" x 26' CMP	Place riprap on inlet and outlet – indirect to 602 Pay Item
15+10	Linear Foot	Install 30" x 26' CMP	Place riprap on inlet and outlet – indirect to 602 Pay Item
20+20	Linear Foot	Install 30" x 26' CMP	Place riprap on inlet and outlet – indirect to 602 Pay Item
		Reconstruct 100' of ditch line	Indirect to Culvert Installation
21+30	Each	Install Graded Dip - Outslope	
29+10	Linear Foot	Install 18" x 24' CMP	Place riprap on inlet and outlet – indirect to 602 Pay Item
49+50	Linear Foot	Install 18" x 24' CMP	Place riprap on inlet and outlet – indirect to 602 Pay Item
61+20	Linear Foot	Install 18" x 30' CMP	Place riprap on inlet and outlet – indirect to 602 Pay Item
		Reconstruct 100' of ditch line	Indirect to Culvert Installation
101+40	Linear Foot	Install 18" x 24' CMP	Place riprap on inlet and outlet – indirect to 602 Pay Item
108+80	Linear Foot	Install 24" x 28' CMP	Place riprap on inlet and outlet – indirect to 602 Pay Item
		Reconstruct 100' of ditch line	Indirect to Culvert Installation
127+65	Linear Foot	Install 18" x 26' CMP	Place riprap on inlet and outlet – indirect to 602 Pay Item
130+40			End of Project

U. S. Department of Agriculture
FOREST SERVICE
Boise National Forest
Engineering
REGION 4



BY: R. Smith	DESIGN
CHECK: D. Vanburen	DRAWING
BY: R. Smith	DRAWING NUMBER:
CHECK: B. Barry	

Reconstruction Rd. NFSR #433D
STONE HOUSELOG T.S.