

R-6 New Construction Specifications (Winship Road):

Proposed seasonal road	0.58 miles
Existing seasonal road	0.07 miles
Tree removal	121 trees
Wet area impacted	0 square feet
Ditch relief culverts	6
Stream xing culverts	0
Base rock volume	570 cubic yards
Surface rock volume	190 cubic yards

- 10' rocked road width, 12' subgrade width. Standard clearing width 14' for outslope, 16' where inboard ditches are required.
- Geotextile fabric under entire road length (0.58 miles)
- 100' spacing between drainage features from stations 2200-2900
- 200-300' spacing between drainage features from Stations 0-2200 and 2900-3200
- Slope of road surface (crown/inslope/outslope) 4% minimum
- Intervisible pull outs, additional 10' width x 40' length every 500-1000' in suitable locations
- 6" uncompacted depth base rock (4-8" d50)
 - 6" depth x 10' road width = 978 cubic yards per mile of road of base rock
- 2" uncompacted depth surface rock (<3")
 - 2" depth x 10' road width = 326 cubic yards per mile of surface rock
- Roller packed rock
- Stations 0-2200- road shape will be outsloped with rolling dips
 - out sloped 1" per foot of road width (Table 18)
- Stations 2200-2450 and Stations 2700-2950 road shape will be insloped with inboard ditch due to 15% pitch.
 - Balanced cut and fill, all organics removed from fill
 - Fill shall be compacted in one foot lifts
 - Road will follow alignment of existing road cuts to minimize excavation
 - 16' clearing width, includes room for continuous 3' width Inboard Ditch.
- Road outsloped from Station 2500-2700 where grade is 10%. If road grade exceeds 10% or if outsloping road is not feasible, road shape should be built inslope with IBD.
- Road outsloped from Station 2930-3200, no inboard ditch

Road Station Plan- McKay Community Forest

Road Station Notes

Road Name	Road Station	Road Surface Shape	IBD	IBD Drains to	Road Points	Notes	DRC Tally
Winship_R6	0	crowns	no				
Winship_R6	400	outslope	no			at corner outslope road	
Winship_R6	1300	outslope	no			move OG LWD and Stump for road	
Winship_R6	1350	existing road	no			outslope road from 400-1350	
Winship_R6	1600	outslope	no			construct new road, 1600-1900	
Winship_R6	1950	outslope	no			use RD west of tower, do not fill swale	
Winship_R6	2200					outslope road 1600-2200 w/ RD's every 200', use natural swales where possible	
Winship_R6	2210	inslope	yes	2300		begin inslope with IBD on steep road reach	
Winship_R6	2300	inslope	yes	2400		install DRC 18"x40'	1
Winship_R6	2400	inslope	yes	2500		install DRC 18"x40'	1
Winship_R6	2500	inslope	yes	2500		install DRC 18"x40'	1
Winship_R6	2520	outslope	no			outslope road from 2500-2600 on corner.	
Winship_R6	2600	outslope	no			Fill low spot through corner.	
Winship_R6	2700	outslope	no			install Rolling Dip at end of corner. End outslope	
Winship_R6	2710	inslope	yes	2800		begin inslope with IBD on steep road reach (2710-2920)	
Winship_R6	2800	inslope	yes	2800		install DRC 18"x40'	1
Winship_R6	2920	inslope	yes	2920		install DRC 24"x40' in swale	1
Winship_R6	2930	outslope	no	3000		outslope road no IBD from 2930-3200	
Winship_R6	3000	outslope	no	3000		install Rolling Dip	
Winship_R6	3200	outslope	no			join existing road	
Winship_R6	3300	outslope	yes			outslope road surface maintain existing ditch. Install 18"x40' DRC	1

Tree Removal by Station

Road	Station (feet)	Species	Diameter (inches)	Tally
Winship_R6	0	RW	36	7
Winship_R6	0	SS	16	1
Winship_R6	0	OG_RWStump	60	1
Winship_R6	400	RW	20	1
Winship_R6	600	RW	22	2
Winship_R6	600	RW	20	4
Winship_R6	900	SS	16	1
Winship_R6	900	SS	8	1
Winship_R6	900	SS	20	1
Winship_R6	900	SS	10	1
Winship_R6	900	SS	6	1
Winship_R6	900	DF	20	1
Winship_R6	900	RW	16	1
Winship_R6	900	DF	22	1
Winship_R6	900	DF	18	1
Winship_R6	900	GF	20	1
Winship_R6	900	SS	16	1
Winship_R6	900	RW	34	1
Winship_R6	900	RW	18	1
Winship_R6	900	RW	14	1
Winship_R6	900	SS	14	1
Winship_R6	900	RW	18	1
Winship_R6	900	SS	24	1
Winship_R6	900	SS	10	1
Winship_R6	900	SS	12	1
Winship_R6	900	SS	10	1
Winship_R6	900	DF	18	1
Winship_R6	900	SS	10	1
Winship_R6	900	RW	32	1
Winship_R6	900	SS	24	1
Winship_R6	1000	SS	10	1
Winship_R6	1000	SS	14	1
Winship_R6	1000	SS	12	1
Winship_R6	1000	SS	10	1
Winship_R6	1000	SS	18	1
Winship_R6	1000	DF	16	1
Winship_R6	1000	GF	10	1
Winship_R6	1100	SS	16	1
Winship_R6	1100	SS	22	1
Winship_R6	1100	SS	8	1
Winship_R6	1100	DF	20	1
Winship_R6	1100	DF	8	1
Winship_R6	1100	DF	18	1
Winship_R6	1100	DF	10	1
Winship_R6	1100	DF	16	1
Winship_R6	1200	DF	10	2
Winship_R6	1350	DF	10	1
Winship_R6	2150	DF	28	1
Winship_R6	2150	SS	34	1
Winship_R6	2200	DF	32	1
Winship_R6	2200	SS	12	1
Winship_R6	2200	SS	18	1
Winship_R6	2200	SS	28	1
Winship_R6	2200	SS	26	1

Stump

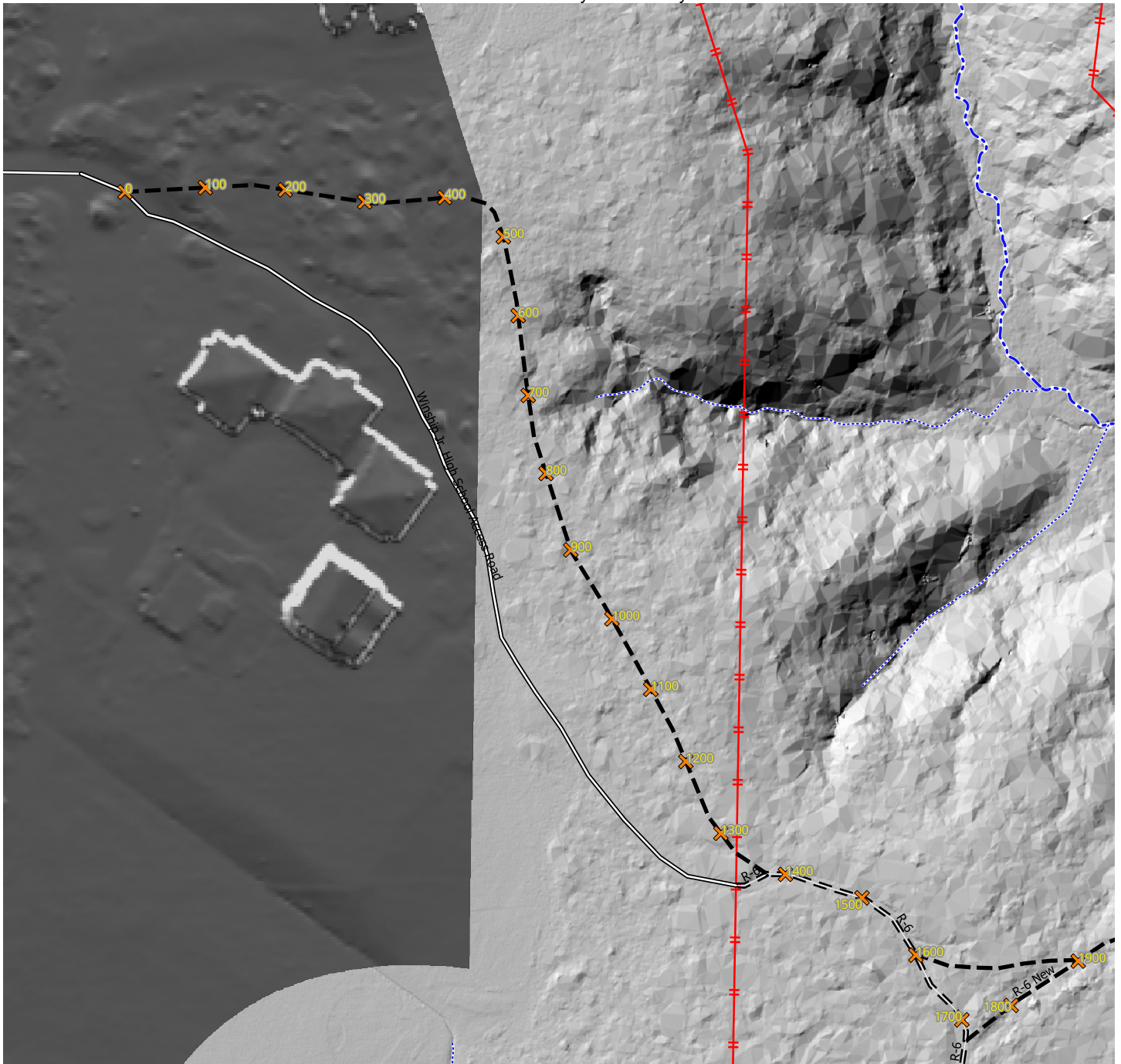
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Winship_R6	2200	SS	16	1
Winship_R6	2200	SS	26	1
Winship_R6	2200	SS	18	1
Winship_R6	2200	SS	22	1
Winship_R6	2200	SS	20	1
Winship_R6	2200	SS	10	1
Winship_R6	2200	SS	18	1
Winship_R6	2200	DF	16	1
Winship_R6	2200	DF	18	1
Winship_R6	2200	DF	16	1
Winship_R6	2300	RW	36	1
Winship_R6	2300	RW	18	1
Winship_R6	2300	RW	10	5
Winship_R6	2300	SS	14	1
Winship_R6	2400	RW	32	1
Winship_R6	2400	RW	28	1
Winship_R6	2400	RW	30	1
Winship_R6	2400	RW	32	1
Winship_R6	2400	RW	50	1
Winship_R6	2400	RW	16	1
Winship_R6	2400	RW	24	1
Winship_R6	2400	SS	28	1
Winship_R6	2400	SS	26	1
Winship_R6	2500	RW	48	1
Winship_R6	2500	RW	50	1
Winship_R6	2500	RW	18	1
Winship_R6	2500	RW	20	1
Winship_R6	2500	RW	20	1
Winship_R6	2500	RW	18	4
Winship_R6	2500	SS	18	1
Winship_R6	2600	SS	20	1
Winship_R6	2600	RW	20	1
Winship_R6	2600	RW	22	1
Winship_R6	2600	RW	32	1
Winship_R6	2600	RW	32	1
Winship_R6	2600	RW	28	1
Winship_R6	2600	RW	32	1
Winship_R6	2600	RW	18	1
Winship_R6	2700	RW	12	4
Winship_R6	2700	RW	30	1
Winship_R6	2700	RW	10	1
Winship_R6	2700	RW	28	1
Winship_R6	2700	RW	10	2
Winship_R6	2700	RW	10	1
Winship_R6	2700	RW	18	1
Winship_R6	2700	RW	16	1
Winship_R6	2700	RW	12	1
Winship_R6	2700	RW	18	1
Winship_R6	2700	RW	18	1
Winship_R6	2800	RW	20	1
Winship_R6	2800	RW	22	1
Winship_R6	2800	RW	24	1
Winship_R6	2800	RW	26	1
Winship_R6	2800	RW	10	1
Winship_R6	2800	RW	26	1
Winship_R6	2800	RW	20	1
Winship_R6	2800	RW	20	1
Winship_R6	2800	SS	34	1
Winship_R6	2920	RW	24	1

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Winship_R6	2920	RW	30	1
Winship_R6	2920	SS	18	1
Winship_R6	3100	WF	32	1
Winship_R6	3100	RW	10	1
Winship_R6	3100	RW	12	1
Winship_R6	3100	RW	18	1
Winship_R6	3100	DF	18	1
Winship_R6	3100	DF	12	1

Road Station Plan- McKay Community Forest



Road Stations- Map I

Map Points

- ▲ Timber CSDS
- △ Timber
- Trail CSDS
- 🌿 Spring/Seep

Wet Areas

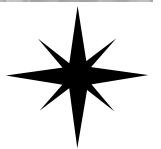
Road Class

- Public
- Permanent
- = = Seasonal
- - Proposed Seasonal
- - Reconstruct Seasonal
- *** Abandonment
- Trail
- - Proposed Permanent
- ▬ Reconstruct Permanent

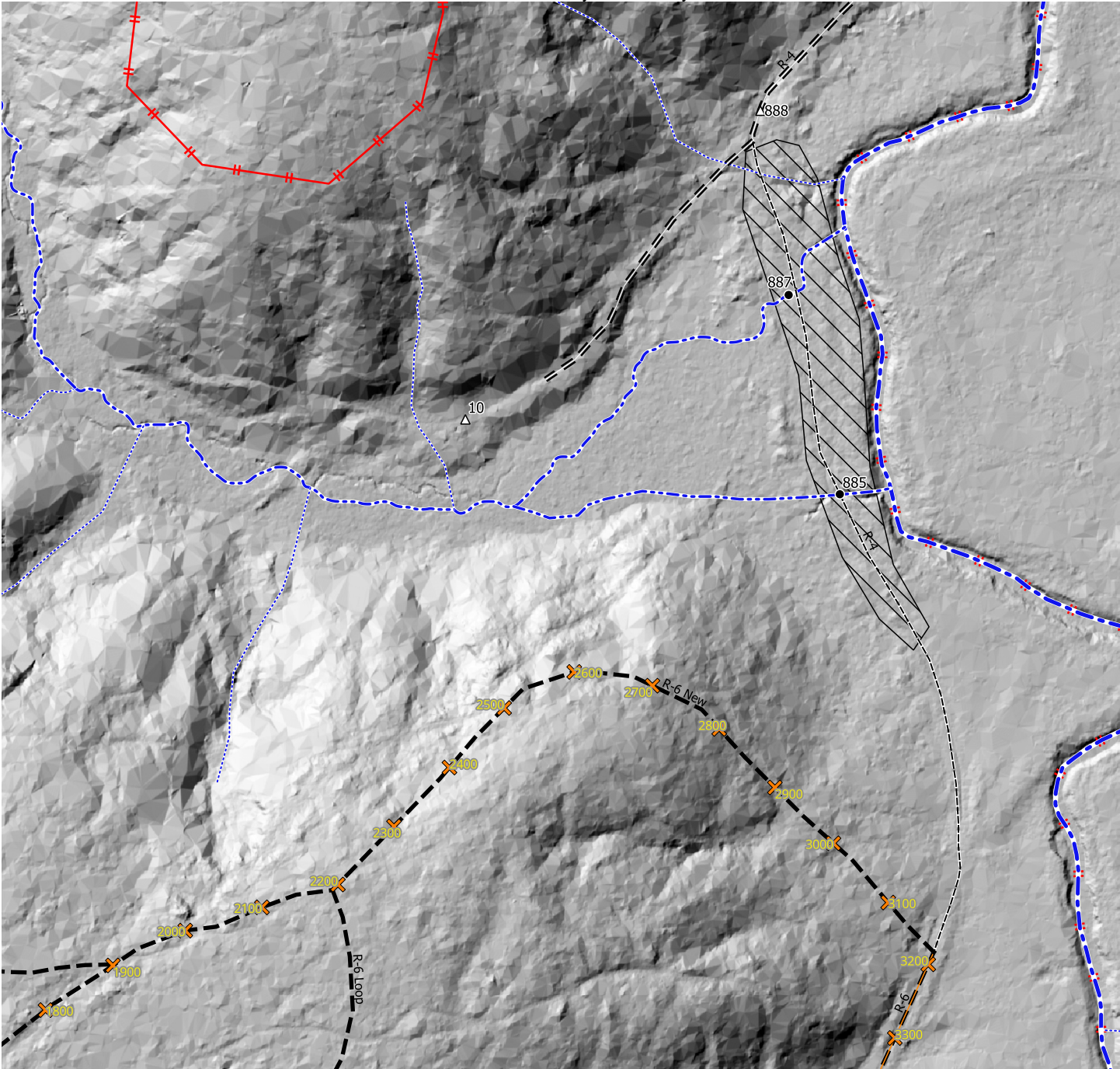
Watercourses

- - - 1
- - - 2
- ⋯ 3
- ⋯ 4

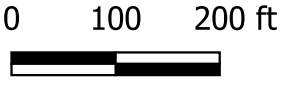
0 100 200 ft



Road Station Plan- McKay Community Forest



Road Stations- Map 2



Map Points

- ▲ Timber CSDS
- △ Timber
- Trail CSDS
- 🌿 Spring/Seep

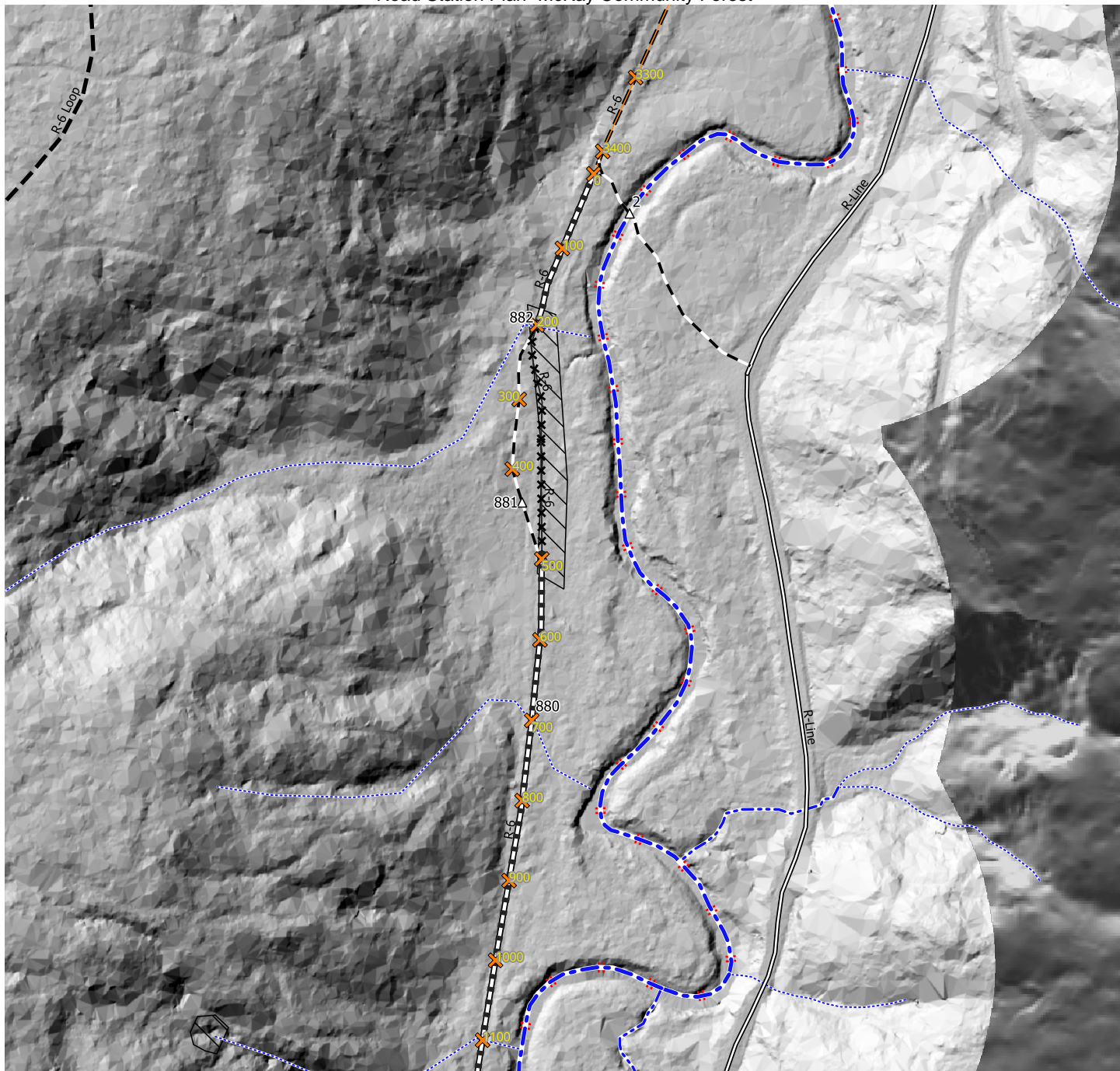
Road Class

- Public
- Permanent
- = = Seasonal
- - Proposed Seasonal
- - Reconstruct Seasonal
- *** Abandonment
- Trail
- - Proposed Permanent
- ▬ Reconstruct Permanent

Watercourses

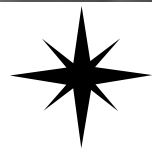
- 1
- 2
- ... 3
- ... 4





Road Stations- Map 3

0 100 200 ft



Map Points	Road Class	Watercourses
▲ Timber CSDS	— Public	--- 1
△ Timber	== Permanent	--- 2
● Trail CSDS	= = Seasonal	... 3
🌿 Spring/Seep	- - Proposed Seasonal	--- 4
▨ Wet Areas	- - - Reconstruct Seasonal	
	*** Abandonment	
	---- Trail	
	- - Proposed Permanent	
	▬ Reconstruct Permanent	

TABLE 18. Outsloping “pitch” for roads up to 8% grade¹

Road grade	Outslope “pitch” for unsurfaced roads	Outslope “pitch” for surfaced roads
≤ 4%	3/8” per foot	1/2” per foot
5%	1/2” per foot	5/8” per foot
6%	5/8” per foot	3/4” per foot
7%	3/4” per foot	7/8” per foot
≥ 8%	1” per foot	1 ¼” per foot

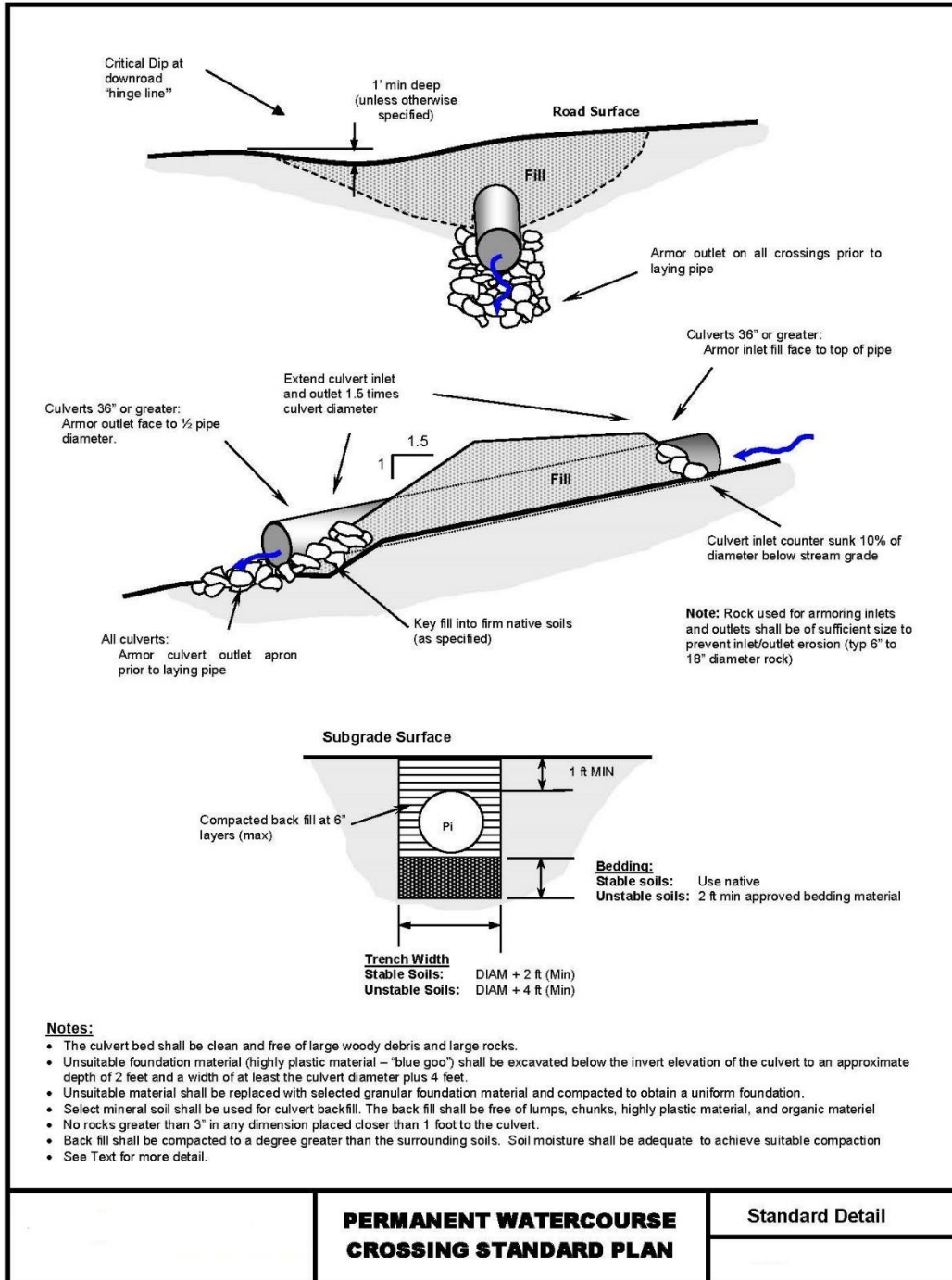
¹California Department of Forestry and Fire Protection (2008)

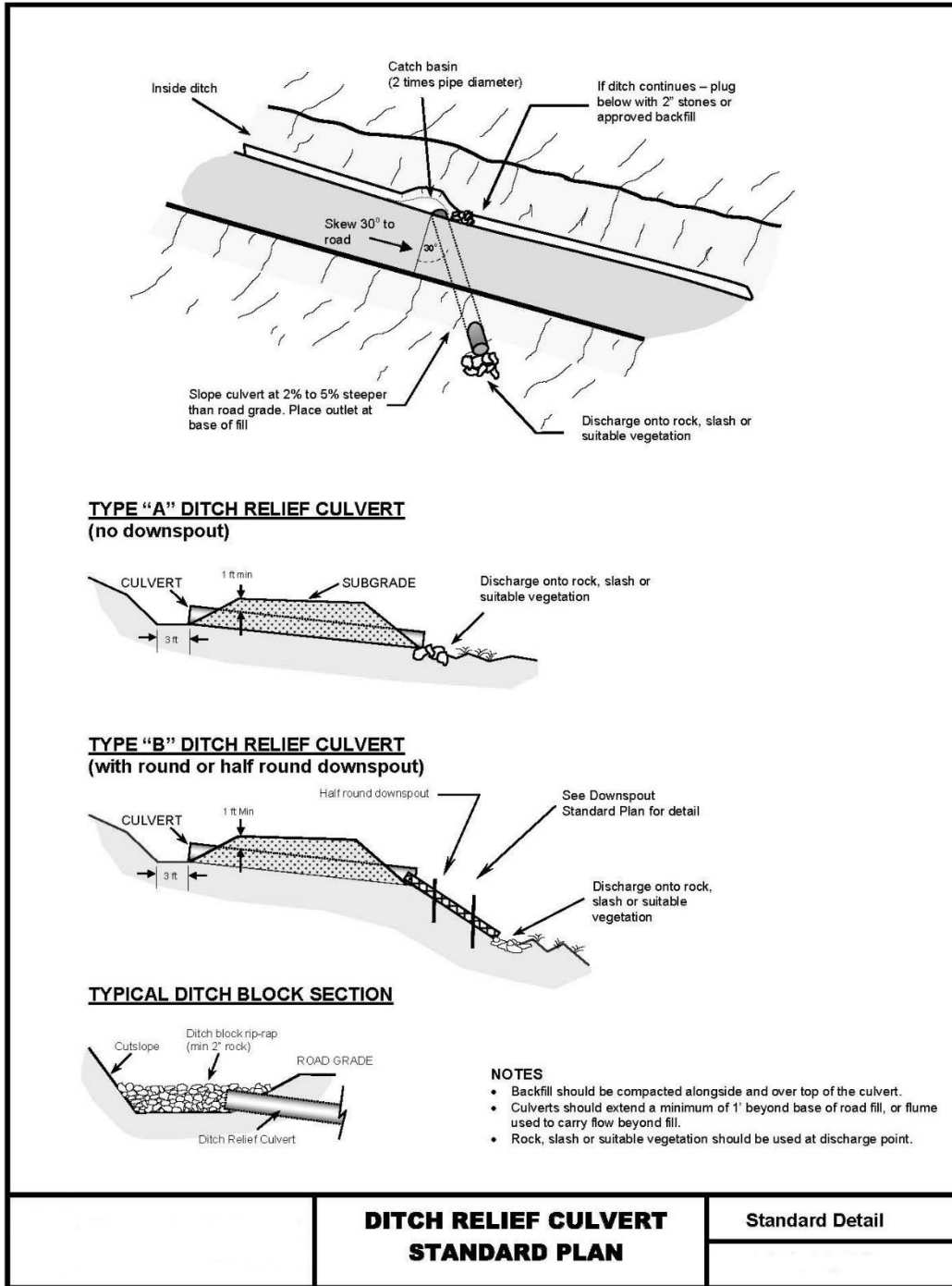
HANDBOOK FOR FOREST, RANCH AND RURAL ROADS

TABLE 33. Aggregate (yd³) required to surface or armor one mile of road¹

Road width (ft)	Depth of uncompacted rock (in)					
	2”	4”	6”	8”	10”	12”
10’	326	652	978	1,304	1,630	1,956
12’	391	782	1,174	1,564	1,956	2,348
14’	456	913	1,369	1,826	2,282	2,738
16’	522	1,043	1,565	2,086	2,608	3,130
18’	587	1,174	1,760	2,348	2,934	3,520
20’	652	1,304	1,956	2,608	3,260	3,912

¹USDA Forest Service (1978). Uncompacted 16.3 yd³ equals 1 in deep by 1 ft wide by 1 mi long. When aggregate is compacted, increase volumes required by 15-30%, depending on type and gradation of material.





**DITCH RELIEF CULVERT
STANDARD PLAN**

Standard Detail

