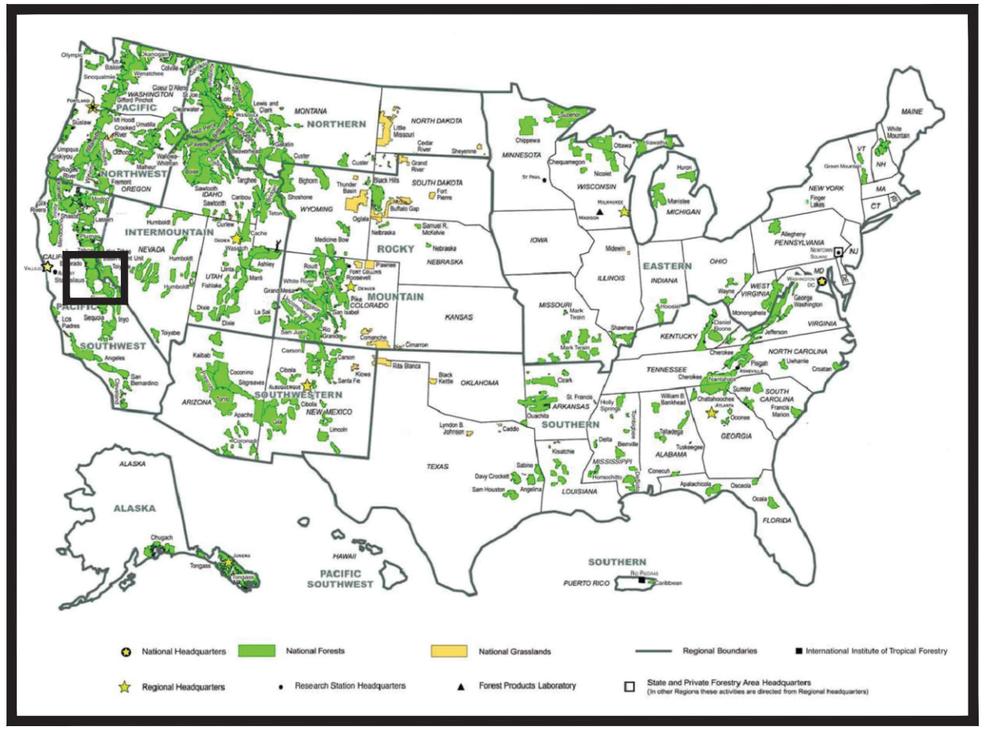
12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO~PS\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

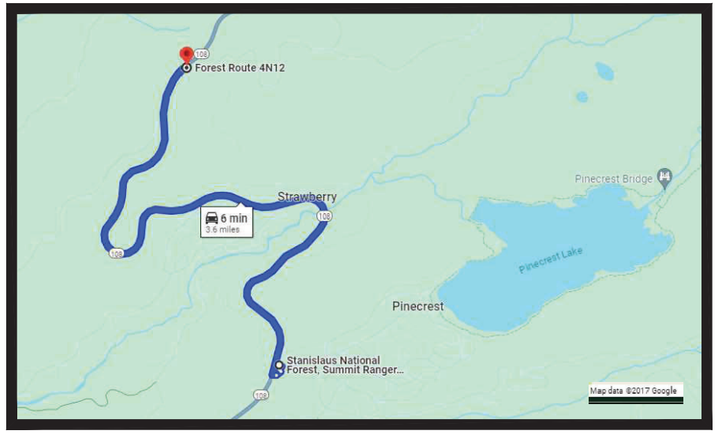
(R05) PACIFIC SOUTHWEST REGION
STANISLAUS NATIONAL FOREST
TUOLUMNE COUNTY, CALIFORNIA

SUMMIT MI-WOK RANGER DISTRICT

BUMBLEBEE REVISED STEWARDSHIP IRSC



FOREST LOCATION MAP



PROJECT LOCATION MAP

TRAVEL DIRECTIONS:

FROM THE SUMMIT RANGER DISTRICT OFFICE
HEAD NORTH ON HWY 108 TOWARD STRAWBERRY
TURN RIGHT ONTO FOREST ROUTE 4N12 (HERRING CREEK ROAD)

LATITUDE: 38°12'35.7"N

LONGITUDE: 120°00'59.1"W

INDEX OF SHEETS

SHEET	SHEET TITLE	DATE
G-01	COVER SHEET	12/13/2024
G-02	OVERVIEW MAP	12/14/2024
G-03	GENERAL NOTES	12/15/2024
G-04	ESTIMATE OF QUANTITIES	12/16/2024
C-01:C-13	WORK LISTS & MAPS	12/17/2024
C-14	STAKING DETAIL	12/18/2024
C-15	CLEARING&GRUBBING / RECON DETAILS	12/13/2024
C-16	ROLLING DIP DETAIL	12/13/2024
C-17	DRAINAGE DETAILS	12/13/2024
C-18	WB / EARTH&LOG BERM DETAILS	12/13/2024
C-19	DI LID / GEOTEXTILE&AB DETAILS	12/13/2024
C-20	DRAFTING DETAILS	12/13/2024
C-21	ASPHALT CONCRETE DETAILS	12/13/2024
C-22	BOULDER BARRICADE DETAIL	12/13/2024

RECOMMENDED BY:

TIMOTHY HUGHES (Affiliate) — Digitally signed by TIMOTHY HUGHES (Affiliate) Date: 2024.12.17 14:24:31 -08'00'

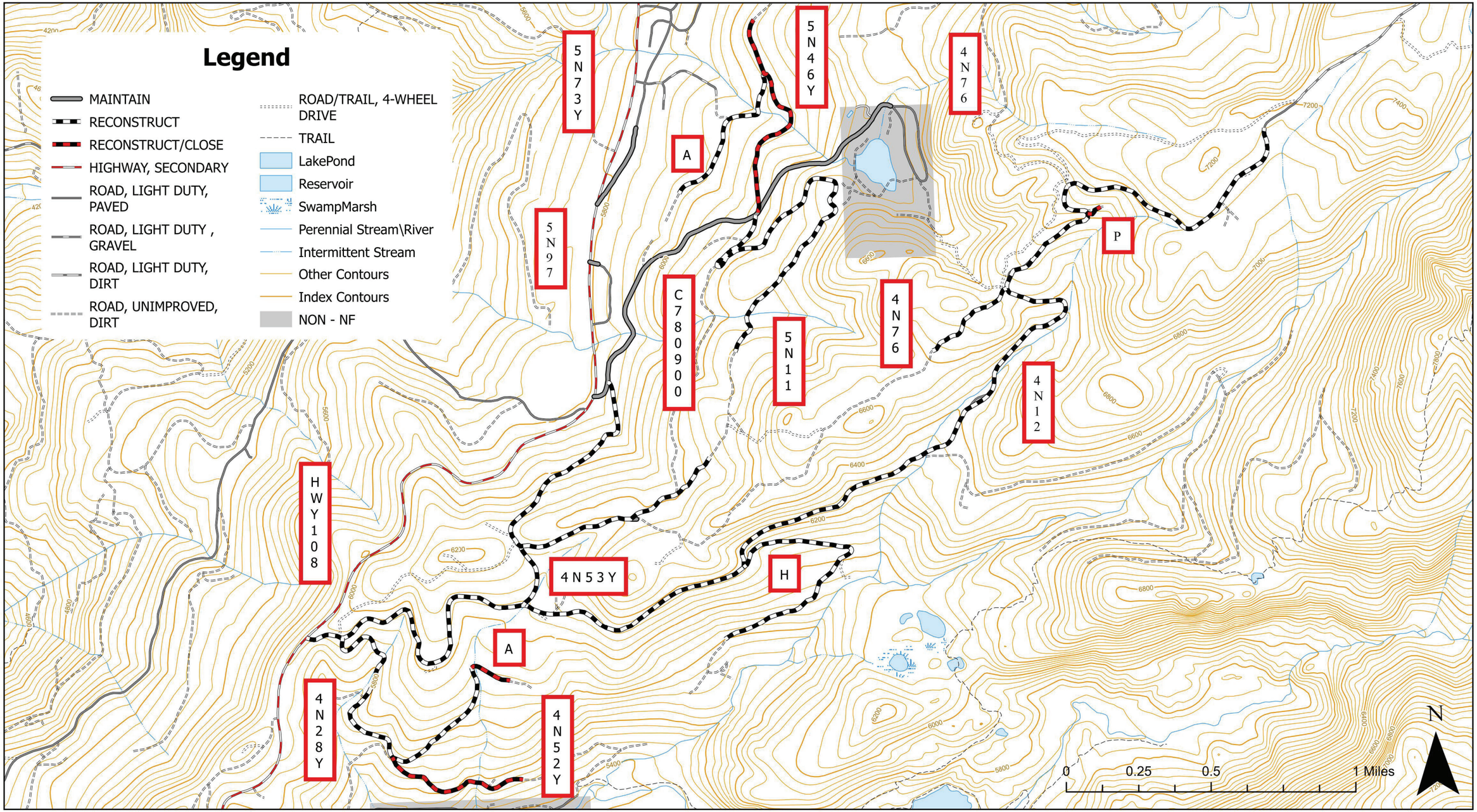
QUALIFIED ENGINEER — DATE

SHAWN WINSTEAD — Digitally signed by SHAWN WINSTEAD Date: 2024.12.19 17:09:14 -08'00'

DISTRICT RANGER — DATE

APPROVED:

FOREST SUPERVISOR — DATE 12/19/24



12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSI\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

DRAWING TITLE
OVERVIEW MAP

DATE	DESIGNER	CHECKED
12/13/2024	KATIE DELISSER	KAT BAKER

NO.	REVISION DESCRIPTION	BY	DATE

DWG SHEET NO.
G-02

SHEET 2 OF 26

BUMBLEBEE STEWARDSHIP IRSC		ROAD NO.	4N12	4N12H	4N12P	4N28Y	4N28YA	4N52Y	4N53Y	4N76 North	5N11 North	5N11 South	5N46Y	5N46YA	Totals
		MILES	5.28	0.99	0.06	1.20	0.16	0.53	0.24	0.36	1.55	1.53	0.79	0.58	13.29
		RECON/CON/MAINT	RECON	RECON	RECON	RECON	RECON	RECON	RECON	RECON	RECON	RECON	RECON	RECON	
ITEM NO	DESCRIPTION	UNITS	ESTIMATE OF QUANTITIES												
15101	Mobilization	LUMP SUM	ALL												1
15201	Construction survey and staking, method <I>, tolerance <B>	LUMP SUM	ALL												1
20103	Clearing and grubbing, disposal method <limbs (g), logs (i), stumps (f)>	MILE					0.04								0.04
20301	Removal of <Culvert Debris>, disposal method <a>	LUMP SUM				1									1
20401	Roadway excavation and embankment, compaction placement method <2>, tolerance class <A>	CUBIC YARD						34							34
20415	Embankment construction, compaction placement method <2>, tolerance class <A>	CUBIC YARD		4		6							20		30
20420	Drainage Excavation, type <Ditch>, tolerance class <A>	FOOT										530			530
20425.1	Drainage Excavation, type <Swale>, compaction method <2>, tolerance class <A>	EACH									1	2			3
20425.2	Drainage Excavation, type <Armored Swale>, compaction method <2>, tolerance class <A>	EACH						1					1	2	4
20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	EACH		4		4			1		1	5			15
20425.5	Drainage Excavation, type <Waterbar, Drivable>, compaction method <2>, tolerance class <A>	EACH		1					2	1	6	2			12
20425.6	Drainage Excavation, type <Lead Of Ditch>, compaction method <2>, tolerance class <A>	EACH				2	1					2	1		6
20701	Earthwork geosynthetics, type <Class2, Nonwoven>	SQUARE YARD				973	389				1684				3046
30113	Aggregate surface course, grading <F>, compaction method <B>	TON		30		177	63				680	159	89		1198
30307	Roadbed reconditioning, compaction method<2>	MILE		0.33	0.06	0.33			0.07	0.25		0.54			1.58
41801.1	Asphalt Concrete Pavement Patching, Type <1> root heaves	TON	20												20
41801.2	Asphalt Concrete Pavement Patching, Type <2> potholes	TON	50												50
60408	Inlet top, type <36" Drop Inlet Lid>	EACH	22												22
60708	Cleaning culverts in place	EACH									1			2	3
63308	Delineator <Boulders>	LUMP SUM									1				1

2/19/25 15:14 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSIENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

DRAWING TITLE
ESTIMATE OF QUANTITIES

DATE	DESIGNER	CHECKED
12/13/2024	KATIE DELISSER	KAT BAKER

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			

DWG SHEET NO.
G-03

ABBREVIATIONS:

AB	Aggregate road base
AC	Asphalt concrete
BMP	Best Management Practices
BOP	Beginning of project
CMP	Corrugated metal pipe
CO	Contracting officer
CONST	Construct or install feature
CY	Cubic yard
EOP	End of project
ER	Engineering representative
LF	Linear foot
LOD	Lead off ditch
LS	Lump sum
MAINT	Maintain existing feature
MP	Milepost
RECONST	Reconstruct existing feature
SF	Square foot
STA	Station
SY	Square yard
TYP	Typical
WB	Waterbar

GENERAL NOTES:

1. The contractor shall submit a roadwork specific construction schedule in accordance with the contract to the C.O. for approval prior to the start of work. The schedule must be in the form of a progress chart showing the expected progress on individual roads.
2. **There are underground utilities running throughout the specified roads area. Before any excavation activities begin, it is the responsibility of the contractor to contact a service to locate any buried utilities.** USA = 1-800-642-2444 , the national 811 number, or the website http://www.usanorth811.org/
3. Georeferenced PDF maps of the project points are available by request.
4. Project specifications: 'Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects FP-14' (FP-14) or its applicable 'Forest Service Supplemental Specification' (FSSS). The FSSS takes precedence over the FP-14.
5. When referred to, State of California specifications shall apply. Download is available at: https://dot.ca.gov/-/media/dot-media/programs/design/documents/2023_stdspecs-a11y.pdf
6. Required work not specified in the schedule of items shall be considered subsidiary to other pay items.
7. Equipment, for this project, if driven on state or county roads shall be currently licensed.
8. All work shall be in compliance with the best management practices described in the Region 5 Forest Service Soil and Water Conservation Handbook, dated December 2011, and the National Best Management Practices for Water Quality Management on National Forest System Lands, dated April 2012.
13. All roads may have motorcycle or OHV traffic. Purchaser is responsible for placing construction signs on roads when operating equipment on this project.
14. All dimensions are in U.S. feet, inches, miles, cubic yards or tons.
15. Contractor is responsible for all project and safety compliance.
16. Material Submittals must be received and approved by the Government prior to use of the material in the Forest.

REQUIRED SUBMITTALS:

1. Letter from Manufacturer to certify aggregate rock source is weed and asbestos free.
2. Aggregate Gradation
3. Aggregate Weight Tickets
4. Geotextile Fabric Product Specifications
5. Additional Product Specs as needed

WORK NOTES:

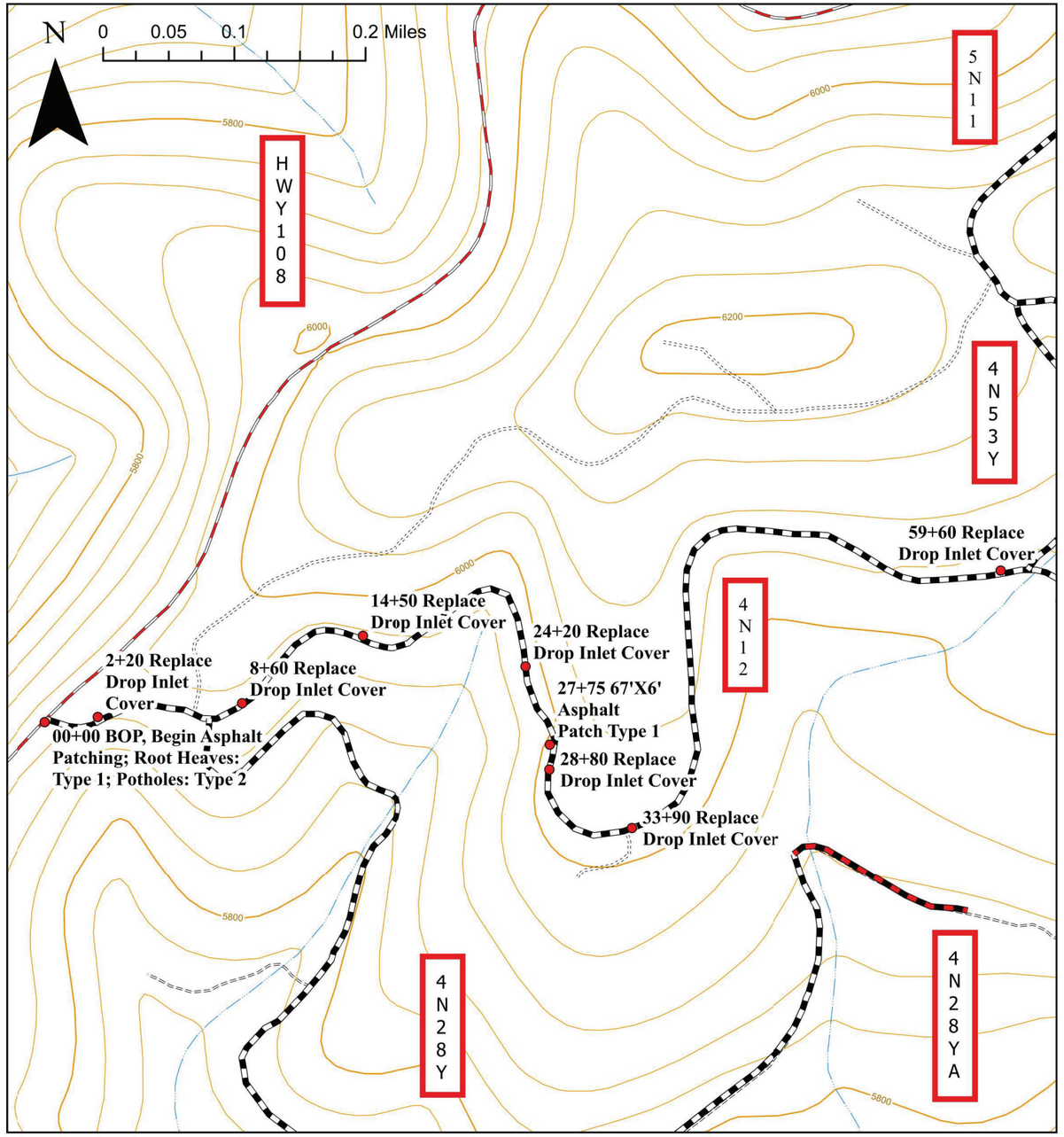
1. All roads used by contractor during road reconstruction shall be maintained by contractor.
2. Provide copies of weight tickets for material delivered to the site from commercial sources. Aggregate shall be obtained from an approved source, certified weed and asbestos free to be in compliance with California Health and Safety Code sections 93105 and 93106.
3. Any disturbance made outside road corridors (such as borrow sites and staging areas) shall be restored. At a minimum, compacted areas shall be de-compacted to a 12" depth, shaped to drain, and covered with slash or erosion control matting or other similar erosion control.
4. The Government will designate borrow sites as needed.
5. Existing culverts that are to be replaced shall be removed from Government land at Contractors expense. Unless shown in the Schedule of Items, disposal is incidental to other Pay Items.
6. Designated water source is located at the Beardsley Day Use Area. Water sources must be approved prior to use. Water sources shall comply with section 891 and with BMPs listed in General Notes: Note 8. Watering is incidental to Sections 201, 202, 204, 301, 303, 607 and T803. See Drafting Detail (C-20).

12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PS\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

WORKLIST					
Road #	4N12				
BEG STA	END STA	PAY ITEM	WORK DESCRIPTION	QTY	UNIT
0			BOP		
0	27900	41801.1	Asphalt Concrete Pavement Patching, Type <1> root heaves	20	TON
0	27900	41801.2	Asphalt Concrete Pavement Patching, Type <2> potholes	31	TON
220		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
860		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
1450		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
2420		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
2775	2842	41801.2	Asphalt Concrete Pavement Patching, Type <2>	10	TON
2880		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
3390		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
5960		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
7445		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
8465		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
9055		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
11795		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
11800		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
12680		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
13900		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
15025		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
18030		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
19050		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
19640		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
20075		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
21200		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
22800		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
23210		60408	Inlet top, type <36" Drop Inlet Lid>	1	EACH
25540	25592	41801.2	52'X7' Pothole, Asphalt Concrete Pavement Patching, Type <2>	9	TON
27900			EOP		

NOTES:

1) SENSITIVE SPECIES IN AREA. ALL ROADWORK AND MUST STAY WITHIN THE ROADWAY. EQUIPMENT ENTERING AND LEAVING THE AREA MUST BE CLEAN AND WEED & SEED FREE.
2) ASPHALT PATCHING INCLUDES REPAIR OF ALL ROOT HEAVES AND POTHOLES BETWEEN THE BOP AND EOP. QUANTITIES IN THE SOI INCLUDES ALL PATCHING NECESSARY AT THE TIME OF SURVEY.
   2)a. ALL DAMAGE CAUSED BY ROOTS UNDER PAVEMENT WILL BE CONSIDERED A ROOT HEAVE AND ADDRESSED AS A TYPE 1 ASPHALT PATCH.
   2)b. ALL OTHER POTHOLE DAMAGE WILL BE ADDRESSED AS A TYPE 2 ASPHALT PATCH.
   2)c. CRUSHED PAVEMENT MAY BE INTEGRATED IN ROAD SUB BASE IF SUITABLE.
   2)d. THE EXTENT OF PATCHING WILL BE MARKED BY THE COR NO LATER THAN 7 DAYS AFTER RECEIPT OF REQUEST. SEE ASPHALT PATCHING DETAIL (C-21).



12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSI\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

DRAWING TITLE
4N12
WORK LIST & MAP

DATE	DESIGNER	CHECKED
12/13/2024	KATIE DELISSER	KAT BAKER

NO.	REVISION DESCRIPTION	BY	DATE

DWG SHEET NO.
C-01

12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSI\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

HWY108

5N11

4N76

5N11

4N12

4N53Y

4N12H

200+75 Replace Drop Inlet Cover

190+50 Replace Drop Inlet Cover

196+40 Replace Drop Inlet Cover

180+30 Replace Drop Inlet Cover

150+25 Replace Drop Inlet Cover

139+00 Replace Drop Inlet Cover

126+80 Replace Drop Inlet Cover

117+95 Replace Drop Inlet Cover

90+55 Replace Drop Inlet Cover

84+65 Replace Drop Inlet Cover

74+45 Replace Drop Inlet Cover

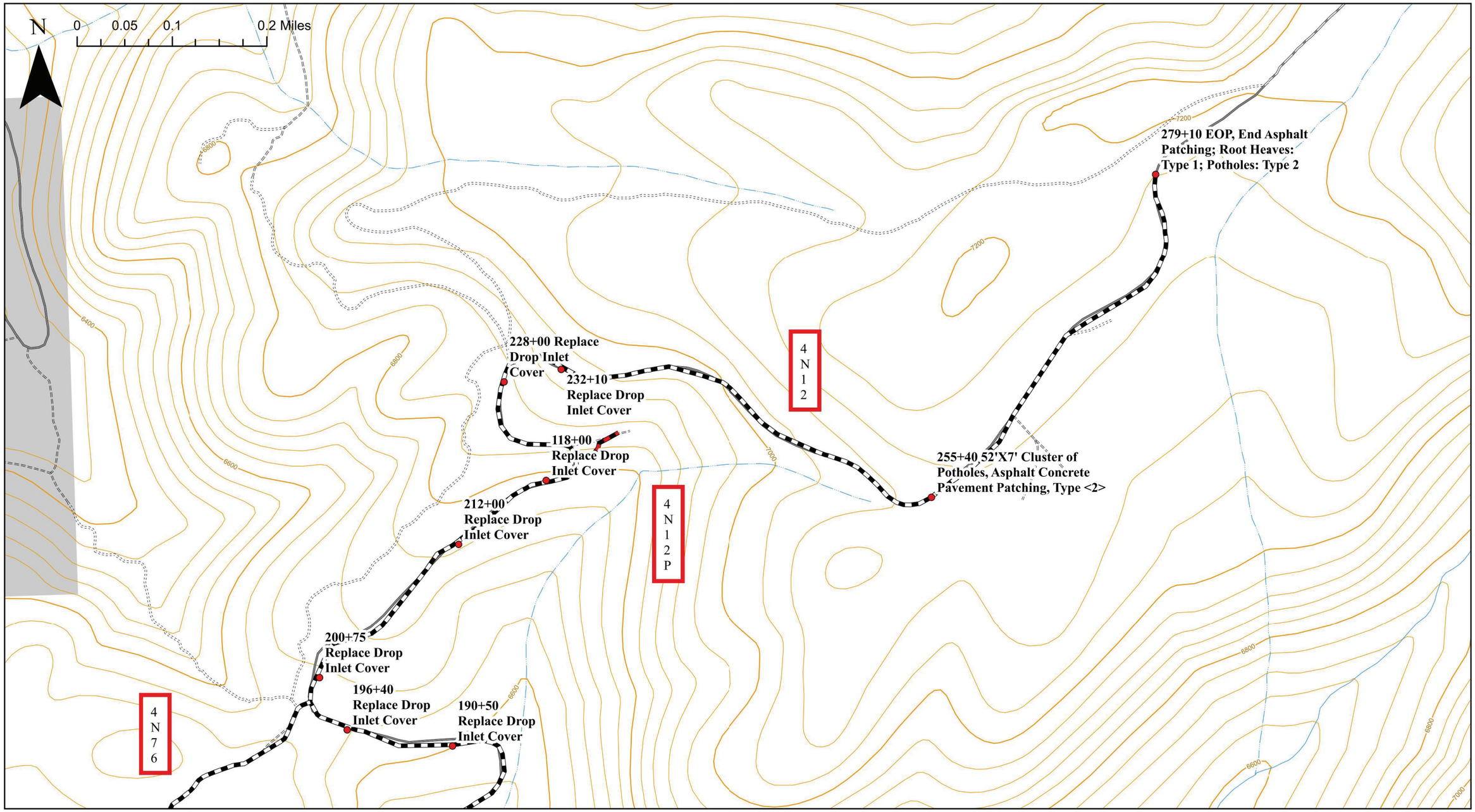
59+60 Replace Drop Inlet Cover

N

0 0.07 0.15 0.3 Miles

United States Department of Agriculture Forest Service	(R5) PACIFIC SOUTHWEST REGION	BUMBLEBEE STEWARDSHIP IRSC STANISLAUS NATIONAL FOREST SUMMIT-MI-WUK RANGER DISTRICT	DRAWING TITLE 4N12 MAP (2)	DATE 12/13/2024 / DESIGNER KATIE DELISSER / CHECKED KAT BAKER	DWG SHEET NO. C-02	SHEET 6 OF 26

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			



12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSI\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

DRAWING TITLE
4N12
MAP (3)

DATE	DESIGNER	CHECKED
12/13/2024	KATIE DELISSER	KAT BAKER

NO.	REVISION DESCRIPTION	BY	DATE

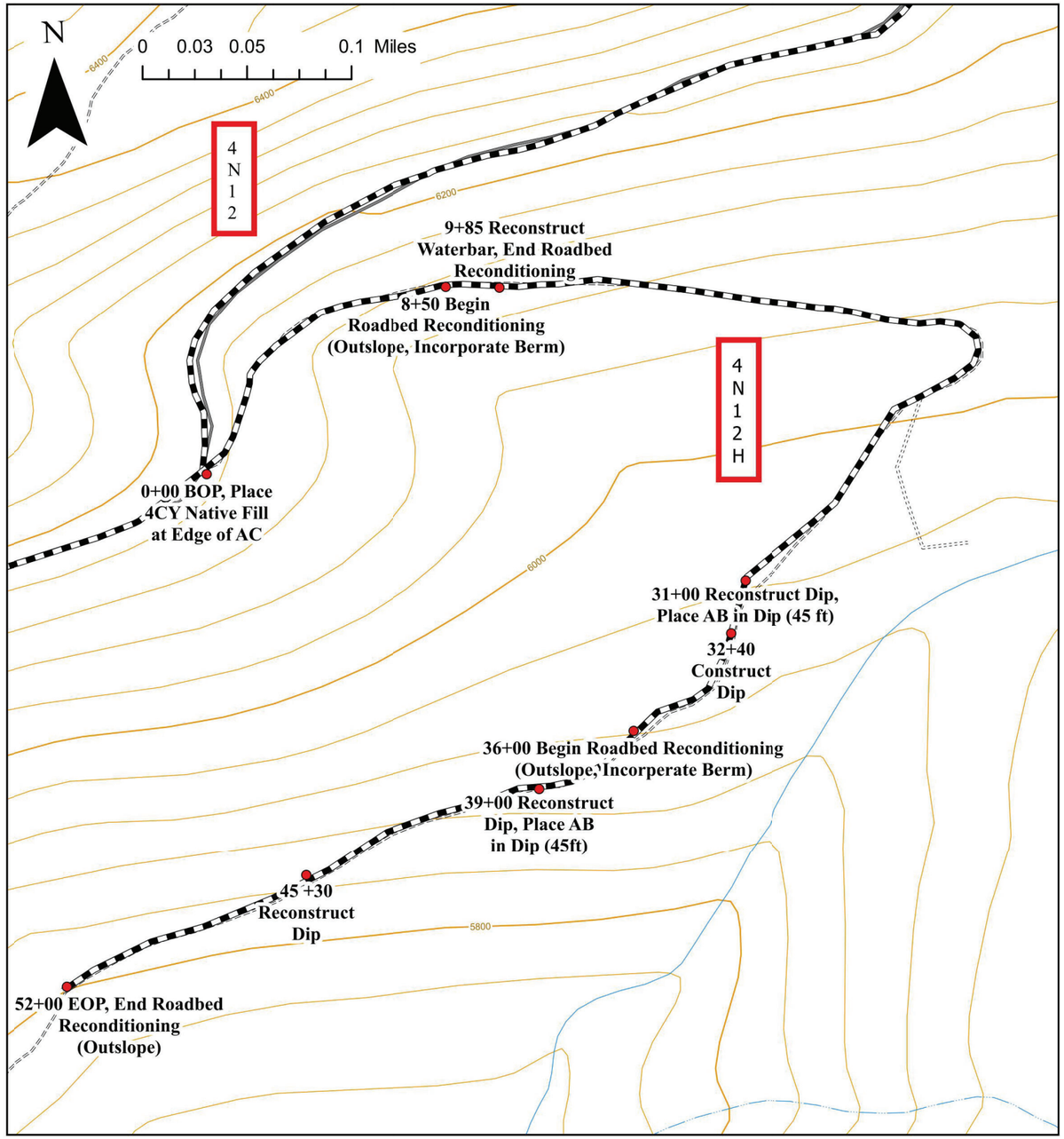
DWG SHEET NO.
C-03

SHEET 7 OF 26

WORKLIST

Road # 4N12H

BEG STA	END STA	PAY ITEM	WORK DESCRIPTION	QTY	UNIT
0			Beginning of Project		
0		20415	Embankment construction, compaction placement method <2>, tolerance class <A>	4	CUBIC YARD
850	985	30307	Roadbed reconditioning, compaction method<2>	0.03	MILE
985		20425.5	Drainage Excavation, type <Waterbar, Drivable>, compaction method <2>, tolerance class <A>	1	EACH
3100		30113	Aggregate surface course, grading <F>, compaction method <B>	15	TON
3100		20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	1	EACH
3240		20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	1	EACH
3600	5200	30307	Roadbed reconditioning, compaction method<2>	0.30	MILE
3900		20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	1	EACH
3900		30113	Aggregate surface course, grading <F>, compaction method <B>	15	TON
4530		20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	1	EACH
5200			End of Project		



12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSI\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

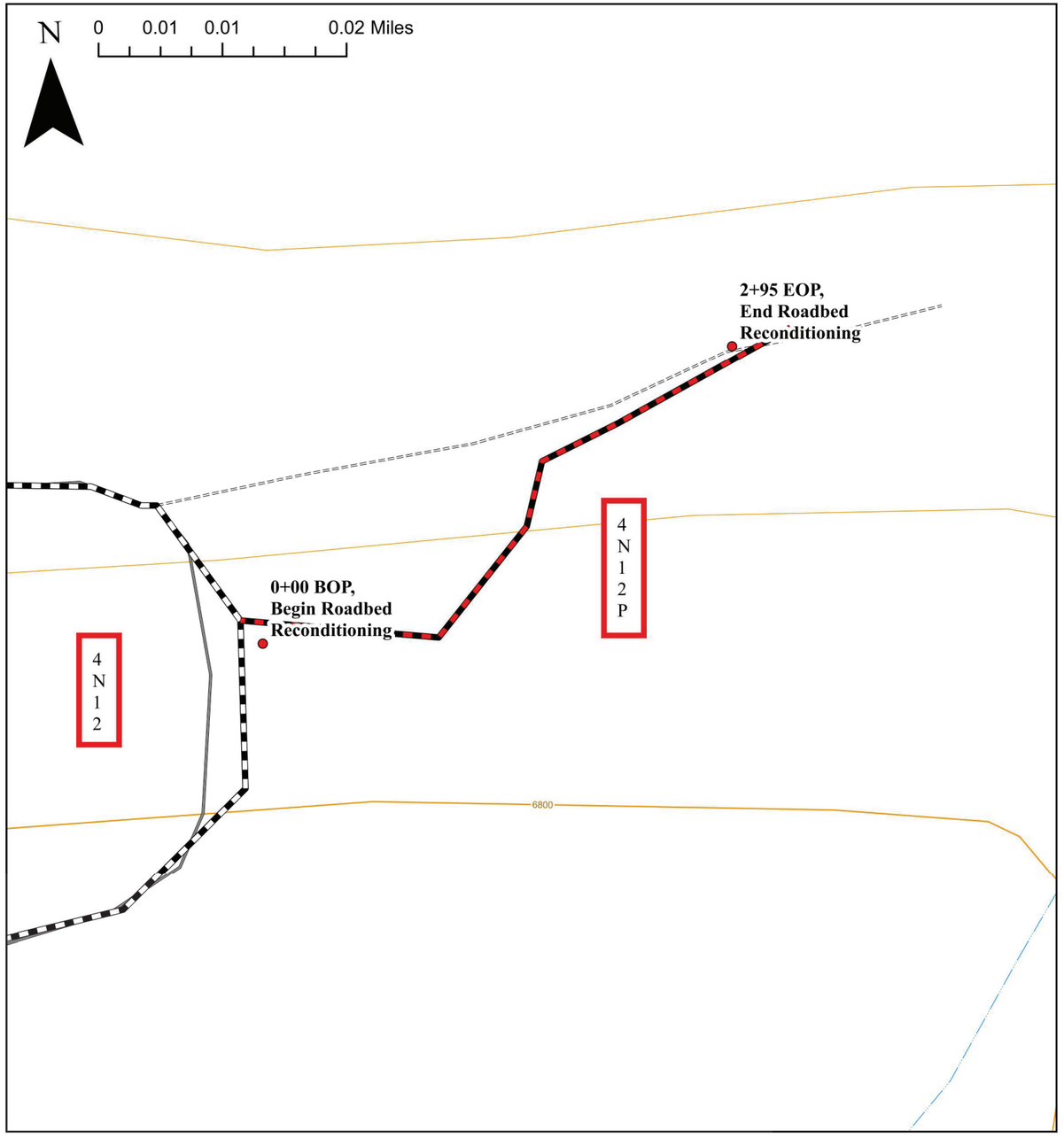
DRAWING TITLE
4N12H
WORK LIST & MAP

DATE	DESIGNER	CHECKED
12/13/2024	KATIE DELISSER	KAT BAKER

NO.	REVISION DESCRIPTION	BY	DATE

DWG SHEET NO.
C-04

WORKLIST					
Road # 4N12P					
BEG STA	END STA	PAY ITEM	WORK DESCRIPTION	QTY	UNIT
0			Beginning of Project		
			Sensitive Species in Area; Roadwork and Equipment must Remain Within the Roadway		
0	295	30307	Roadbed reconditioning, compaction method<2>	0.06	MILE
295			End of Project		



NOTES:

1) SENSITIVE SPECIES IN AREA. ALL ROADWORK AND MUST STAY WITHIN THE ROADWAY. EQUIPMENT ENTERING AND LEAVING THE AREA MUST BE CLEAN AND WEED & SEED FREE.

12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PS\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

DRAWING TITLE
4N12P
WORKLIST AND MAP

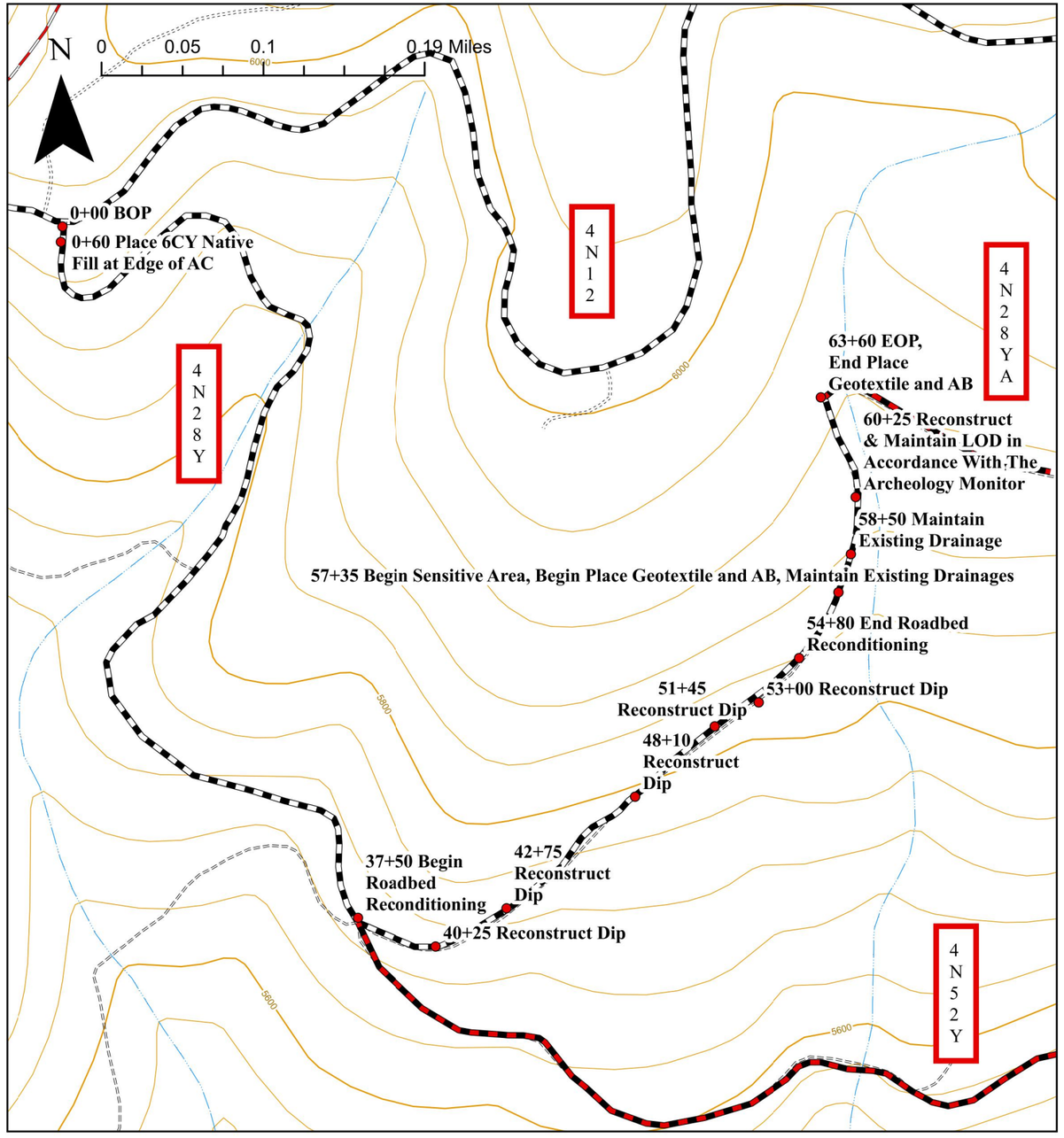
DATE	DESIGNER	CHECKED
12/13/2024	KATIE DELISSER	KAT BAKER

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			

DWG SHEET NO.
C-05

SHEET 9 OF 26

WORKLIST					
Road # 4N28Y					
BEG STA	**END STA**	**PAY ITEM**	**WORK DESCRIPTION**	**QTY**	**UNIT**
0			Beginning of Project		
			Noxious Weeds in the Area. Underground Utilities in the Area.		
60		20415	Embankment construction, compaction placement method <2>, tolerance class <A>	6	CUBIC YARD
3750	5480	30307	Roadbed reconditioning, compaction method<2>	0.33	MILE
4025		20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	1	EACH
4275		20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	1	EACH
5145		20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	1	EACH
5300		20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	1	EACH
5735	6360		**Archeology Monitor Must be Present for Roadwork**		
5735	6360		**Sensitive Area**		
5735	6360	20701	Earthwork geosynthetics, type <Class2, Nonwoven>	973	SQUARE YARD
5735	6360	30113	Aggregate surface course, grading <F>, compaction method <B>	177	TON
5735	6360	20301	Removal of <Culvert Debris>, disposal method <a>	1	LUMP SUM
5850		20425.6	Reconstruct and Maintain LOD in Accordance with the Archeology Monitor	1	EACH
6025		20425.6	Reconstruct and Maintain LOD in Accordance with the Archeology Monitor	1	EACH
6340			End of Project		



NOTES:

1) 4N28Y CONTAINS HISTORICALLY SENSITIVE SITES. **NOTIFY THE GOVERNMENT 14 DAYS PRIOR TO BEGINNING WORK TO ALLOW FOR ARCHAEOLOGICAL MONITORING.**
2) NO ROADWAY OR SHOULDER WIDENING SHALL BE PERFORMED AS PART OF RECONDITIONING UNLESS APPROVED BY THE GOVERNMENT EXPLICITLY. NO BERMS SHALL BE ELIMINATED AS PART OF ROADWAY RECONDITIONING UNLESS APPROVED BY THE GOVERNMENT. ALL DRAINAGE FEATURES SHALL BE CLEANED AND RESHAPED IN THEIR EXISTING LOCATIONS - NO RELOCATION OF DRAINAGE FEATURES SHALL BE PERFORMED.
3) **WITHIN SENSITIVE AREAS, NO GROUND DISTURBING WORK WILL BE PERFORMED DURING CONSTRUCTION NOR DURING PRE, DURING, AND POST HAUL T-SPEC MAINTENANCE.** MAINTENANCE AND CONSTRUCTION ITEMS MAY BE PERFORMED OUTSIDE THIS SECTION AS TYPICAL.
   4N28Y SENSITIVE AREA: BETWEEN STA 57+35 AND THE EOP.
4) REMOVAL OF CULVERT DEBRIS WILL INCLUDE THE REMOVAL AND DISPOSAL OF ALL BROKEN, BENT, AND UNEARTHED CULVERT PIPE IN THE AREA (ESTIMATED 8 PARTS RANGING FROM 3 TO 8 FOOT SECTIONS). THIS WORK MUST BE PERFORMED IN ACCORDANCE WITH THE ARCHAEOLOGICAL MONITOR. DEBRIS TO BE REMOVED WILL BE MARKED BY COR UPON RECEIPT OF NOTIFICATION MENTIONED IN NOTE 1.

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

DRAWING TITLE
4N28Y
WORK LIST & MAP

DATE	DESIGNER	CHECKED	DWG SHEET NO.
12/13/2024	KATIE DELISSER	KAT BAKER	C-06

NO.	REVISION DESCRIPTION	BY	DATE
1	Corrected typo in Worklist, added note 4.	KD	4/10/2024

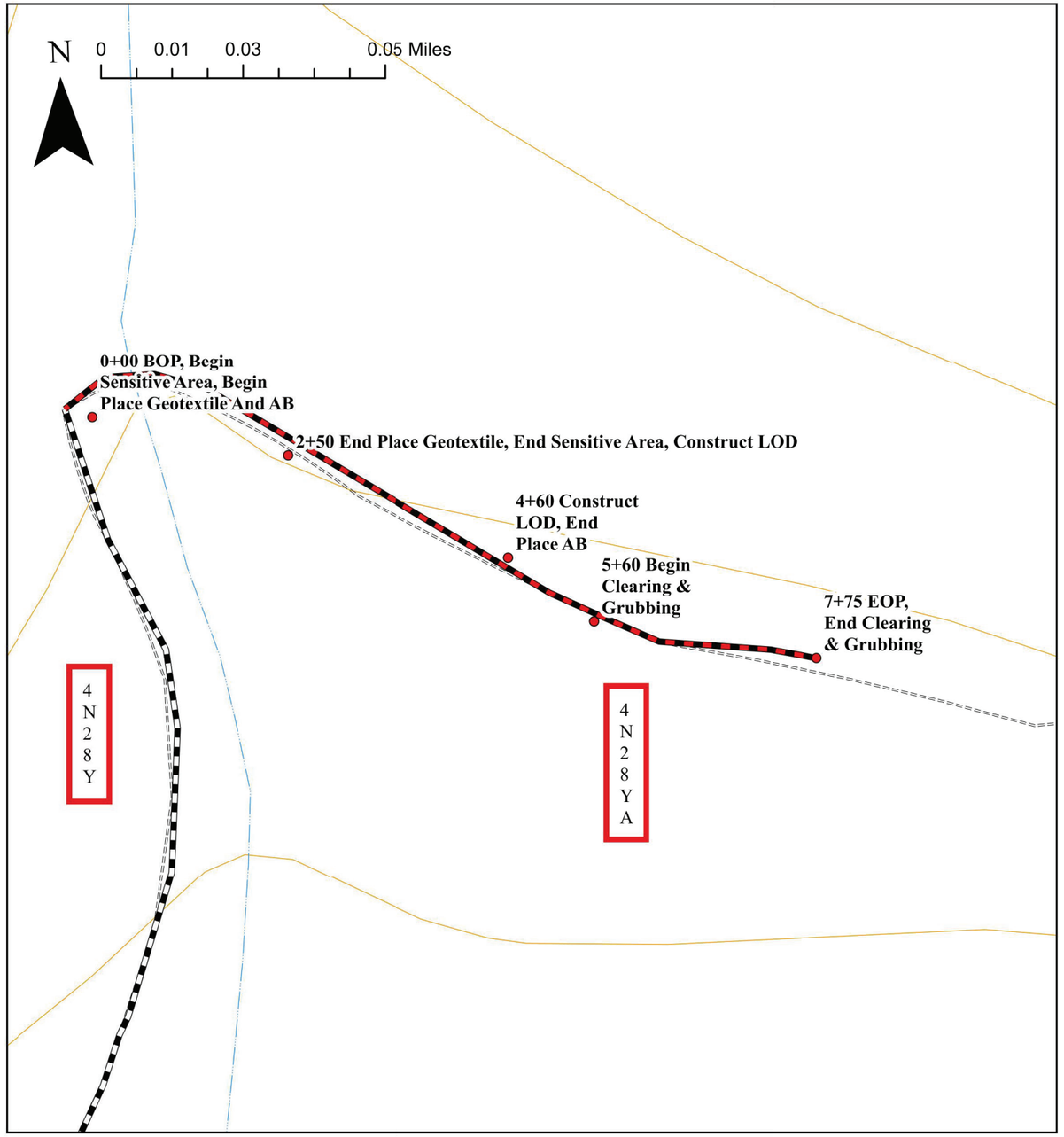
SHEET 10 OF 26

4/10/25 09:13 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOXISO~PS\ENGINEERING\FY 2024 CONTRACTS\BUMBLEBEE\BUMBLEBEE TS ROAD PLANS.DWG;

WORKLIST					
Road # 4N28YA					
BEG STA	END STA	PAY ITEM	WORK DESCRIPTION	QTY	UNIT
0			Beginning of Project		
0	250		**Archeology Monitor Must be Present for Roadwork**		
0	250		**Sensitive Area**		
0	250	20701	Earthwork geosynthetics, type <Class2, Nonwoven>	389	SQUARE YARD
0	225	30113	Aggregate surface course, grading <F>, compaction method <B>	63	TON
250			Begin T-Spec Blading and Brushing		
250		20425.6	Drainage Excavation, type <Lead Of Ditch>, compaction method <2>, tolerance class <A>	1	EACH
560	775	20103	Clearing and grubbing, disposal method <limbs (g), logs (i), stumps (f)>	0.04	MILE
775			End of Project		

NOTES:

1) 4N28YA CONTAINS HISTORICALLY SENSITIVE SITES. **NOTIFY THE GOVERNMENT 14 DAYS PRIOR TO BEGINING WORK TO ALLOW FOR ARCHAEOLOGICAL MONITORING.**
2) NO ROADWAY OR SHOULDER WIDENING SHALL BE PERFORMED AS PART OF RECONDITIONING UNLESS APPROVED BY THE GOVERNMENT EXPLICITLY. NO BERMS SHALL BE ELIMINATED AS PART OF ROADWAY RECONDITIONING UNLESS APPROVED BY THE GOVERNMENT. ALL DRAINAGE FEATURES SHALL BE CLEANED AND RESHAPED IN THEIR EXISTING LOCATIONS - NO RELOCATION OF DRAINAGE FEATURES SHALL BE PERFORMED.
3) **WITHIN SENSITIVE AREAS, NO GROUND DISTURBING WORK WILL BE PERFORMED DURING CONSTRUCTION NOR DURING PRE, DURING, AND POST HAUL T-SPEC MAINTENANCE.** MAINTENANCE AND CONSTRUCTION ITEMS MAY BE PERFORMED OUTSIDE THIS SECTION AS TYPICAL.
4N28YA SENSITIVE AREA: BETWEEN THE BOP AND STA 2+50.



12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSIENGINEERINGIFY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

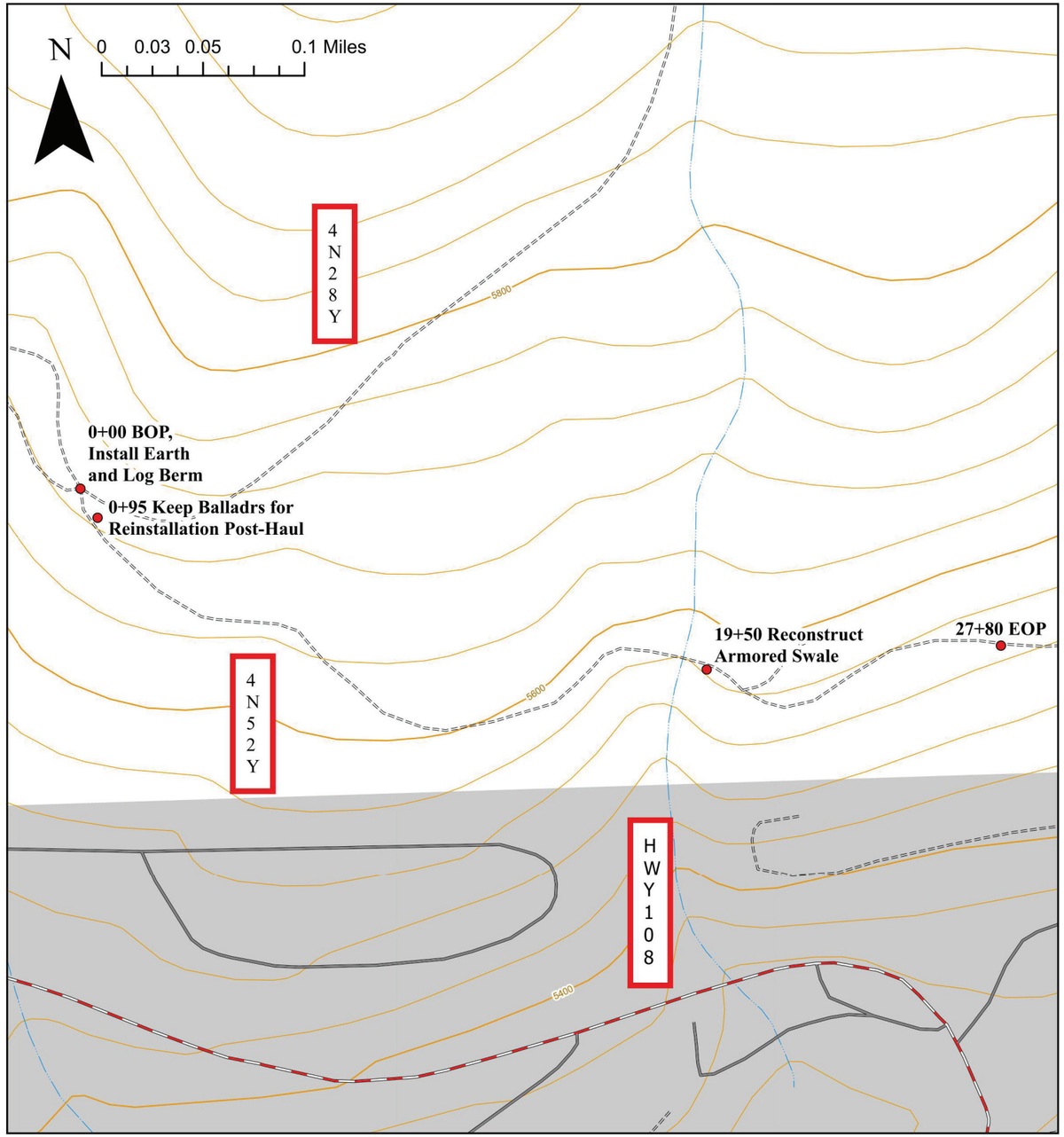
DRAWING TITLE
4N28YA
WORK LIST & MAP

DATE	DESIGNER	CHECKED
12/13/2024	KATIE DELISSER	KAT BAKER

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			

DWG SHEET NO.
C-07

WORKLIST					
Road # 4N52Y					
BEG STA	END STA	PAY ITEM	WORK DESCRIPTION	QTY	UNIT
0			Beginning of Project		
0		20401	Construct Earth and Log Berm	34	CUBIC YARD
95			Keep Ballards for Reinstillation Post-Haul		
1950		20425.2	Drainage Excavation, type <Armored Swale>, compaction method <2>, tolerance class <A>	1	EACH
2780			End of Project		



12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSIENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

DRAWING TITLE
4N52Y
WORK LIST & MAP

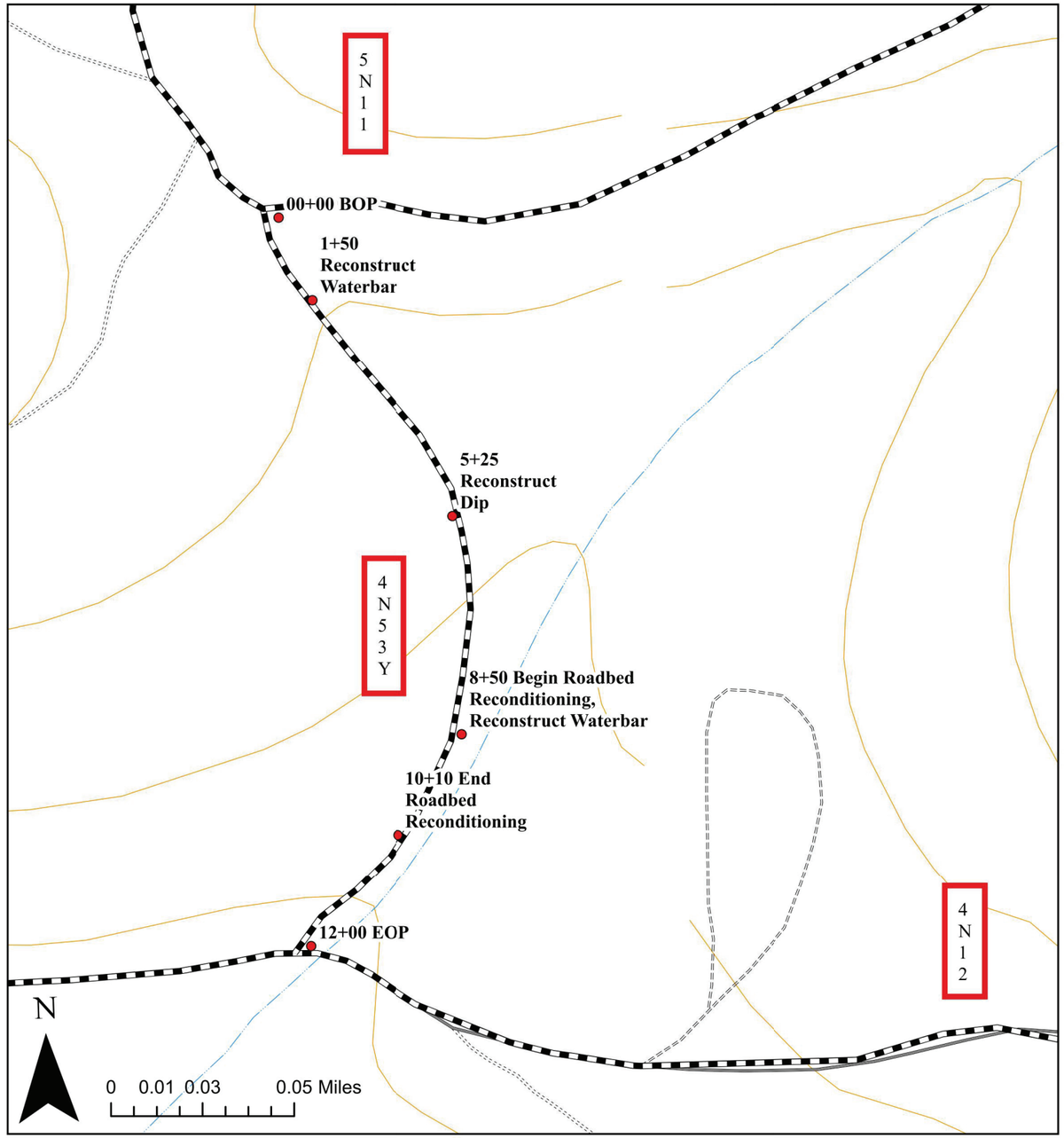
DATE	DESIGNER	CHECKED
12/13/2024	KATIE DELISSER	KAT BAKER

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			

DWG SHEET NO.
C-08

SHEET 12 OF 26

WORKLIST					
Road # 4N53Y					
BEG STA	END STA	PAY ITEM	WORK DESCRIPTION	QTY	UNIT
0			Begining of Project		
			Underground Utilities in the Area		
150		20425.5	Drainage Excavation, type <Waterbar, Drivable>, compaction method <2>, tolerance class <A>	1	EACH
525		20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	1	EACH
850		20425.5	Drainage Excavation, type <Waterbar, Drivable>, compaction method <2>, tolerance class <A>	1	EACH
850	1200	30307	Roadbed reconditioning, compaction method<2>	0.07	MILE
1200			End of Project		



12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO~PS\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

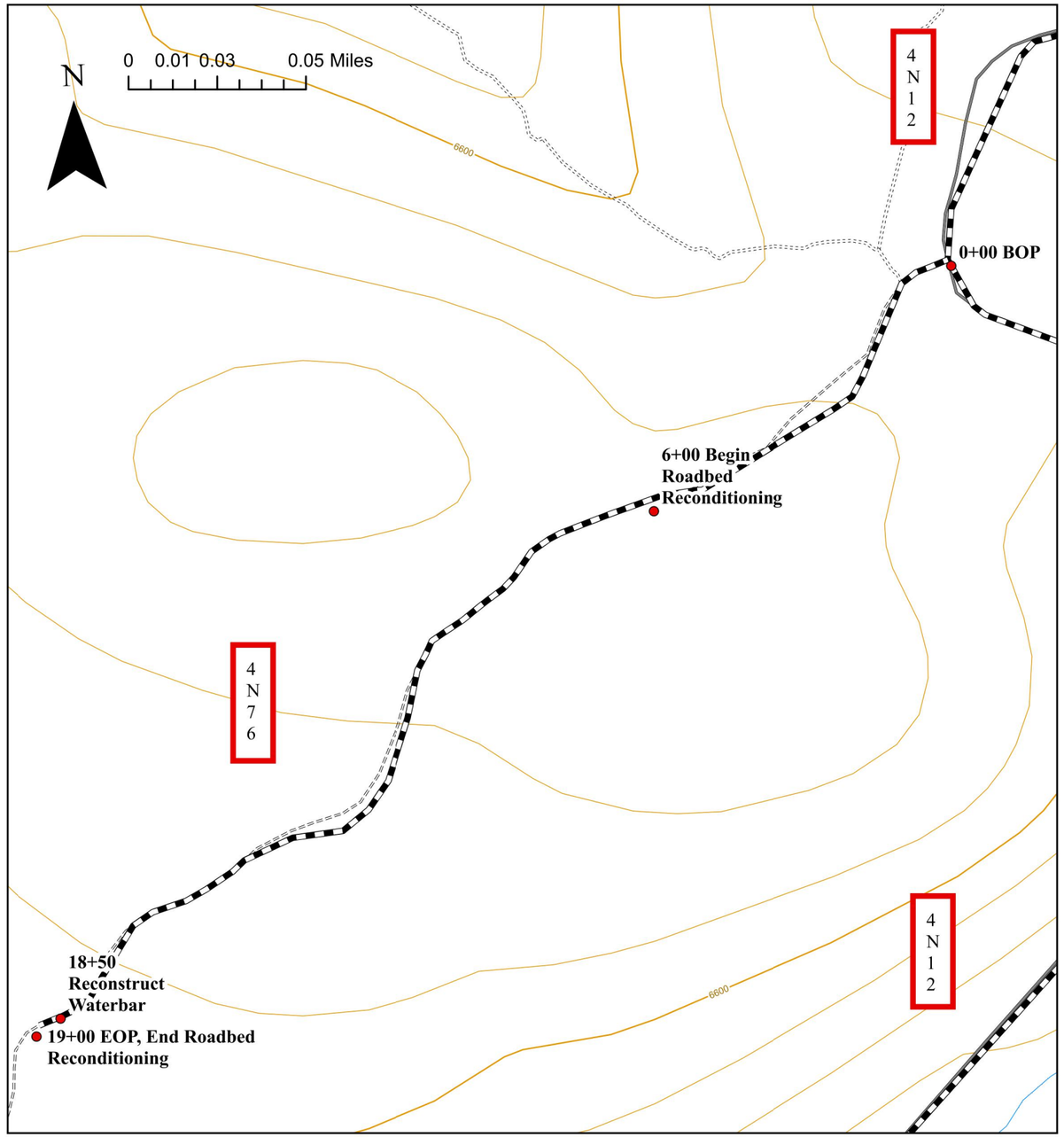
DRAWING TITLE
4N53Y
WORK LIST & MAP

DATE	DESIGNER	CHECKED
12/13/2024	KATIE DELISSER	KAT BAKER

NO.	REVISION DESCRIPTION	BY	DATE

DWG SHEET NO.
C-09

WORKLIST					
Road # 4N76 North					
BEG STA	END STA	PAY ITEM	WORK DESCRIPTION	QTY	UNIT
0			Beginning of Project		
600	1900	30307	Roadbed reconditioning, compaction method<2>	0.25	MILE
1850		20425.5	Drainage Excavation, type <Waterbar, Drivable>, compaction method <2>, tolerance class <A>	1	EACH
1900			End of Project		



2/19/25 15:14 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO~PS\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

DRAWING TITLE
4N76 North
WORK LIST & MAP

DATE	DESIGNER	CHECKED
12/13/2024	KATIE DELISSER	KAT BAKER

NO.	REVISION DESCRIPTION	BY	DATE

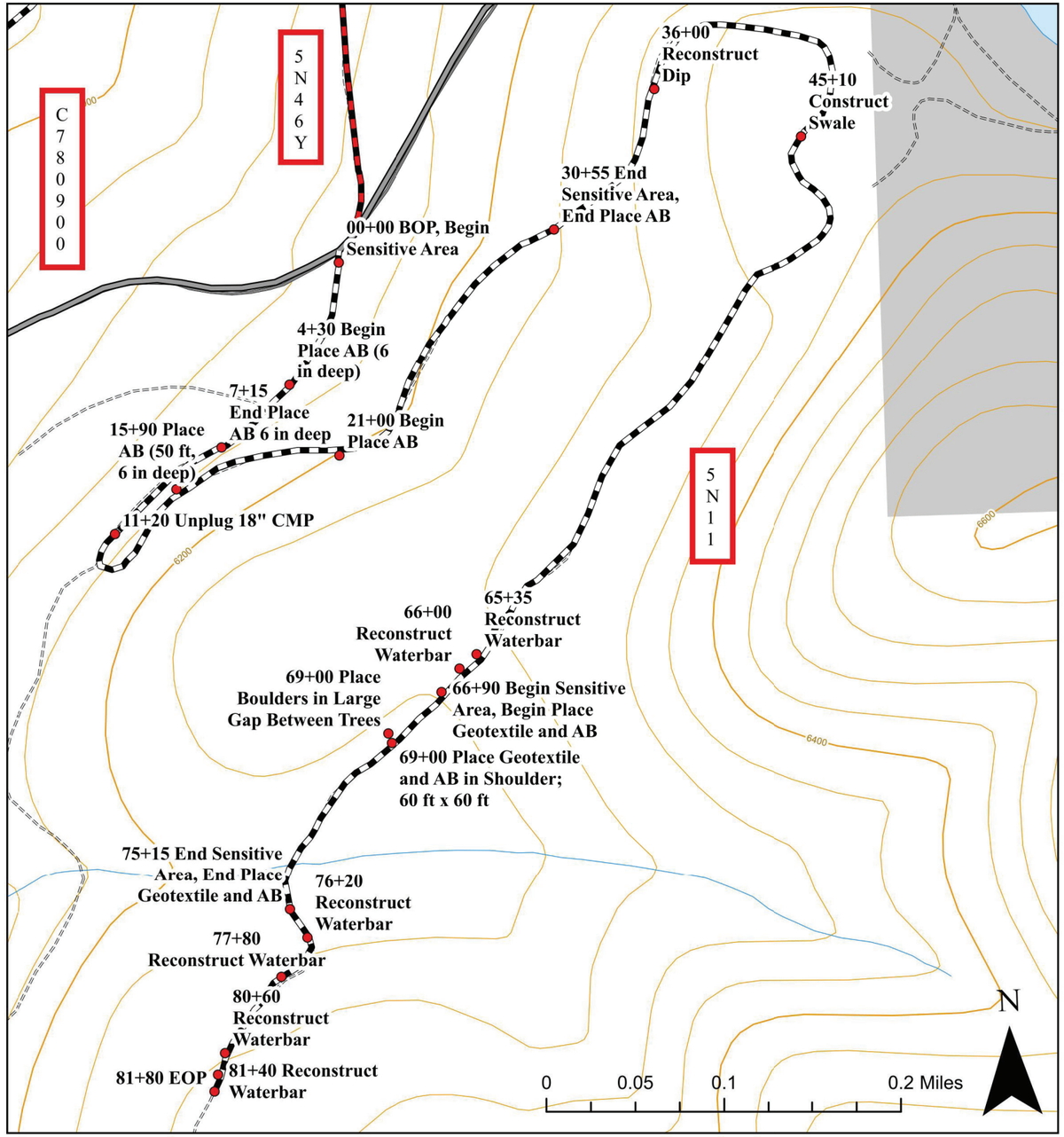
DWG SHEET NO.
C-10

SHEET 14 OF 26

WORKLIST					
Road # 5N11 North					
BEG STA	END STA	PAY ITEM	WORK DESCRIPTION	QTY	UNIT
0			Beginning of Project just brushing		
			Underground Cables in Area. Call 511 before beginning construction		
0	3055		**Sensitive Area**		
430	715	30113	Aggregate surface course, grading <F>, compaction method <B>	111	TON
1120		60708	Cleaning culverts in place	1	EACH
1565	1615	30113	Aggregate surface course, grading <F>, compaction method <B>	20	TON
2100	3055	30113	Aggregate surface course, grading <F>, compaction method <B>	248	TON
3600		20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	1	EACH
4510		20425.1	Drainage Excavation, type <Swale>, compaction method <2>, tolerance class <A>	1	EACH
6535		20425.5	Drainage Excavation, type <Waterbar, Drivable>, compaction method <2>, tolerance class <A>	1	EACH
6600		20425.5	Drainage Excavation, type <Waterbar, Drivable>, compaction method <2>, tolerance class <A>	1	EACH
6690	7515		**Archeology Monitor Must be Present for Roadwork**		
6690	7515		**Sensitive Area**		
6690	7515	20701	Earthwork geosynthetics, type <Class2, Nonwoven>	1284	SQUARE YARD
6690	7515	30113	Aggregate surface course, grading <F>, compaction method <B>	229	TON
6900		20701	Earthwork geosynthetics, type <Class2, Nonwoven>	400	SQUARE YARD
6900		30113	Aggregate surface course, grading <F>, compaction method <B>	72	TON
6900		63308	Delineator <Boulders>, roughly 3 boulders needed	1	LUMP SUM
7620		20425.5	Drainage Excavation, type <Waterbar, Drivable>, compaction method <2>, tolerance class <A>	1	EACH
7780		20425.5	Drainage Excavation, type <Waterbar, Drivable>, compaction method <2>, tolerance class <A>	1	EACH
8060		20425.5	Drainage Excavation, type <Waterbar, Drivable>, compaction method <2>, tolerance class <A>	1	EACH
8140		20425.5	Drainage Excavation, type <Waterbar, Drivable>, compaction method <2>, tolerance class <A>	1	EACH
8180			End of Project		

NOTES:

1) 5N11 CONTAINS HISTORICALLY SENSITIVE SITES. **NOTIFY THE GOVERNMENT 14 DAYS PRIOR TO BEGINING WORK TO ALLOW FOR ARCHAEOLOGICAL MONITORING.**
2) NO ROADWAY OR SHOULDER WIDENING SHALL BE PERFORMED AS PART OF RECONDITIONING UNLESS APPROVED BY THE GOVERNMENT EXPLICITLY. NO BERMS SHALL BE ELIMINATED AS PART OF ROADWAY RECONDITIONING UNLESS APPROVED BY THE GOVERNMENT. ALL DRAINAGE FEATURES SHALL BE CLEANED AND RESHAPED IN THEIR EXISTING LOCATIONS - NO RELOCATION OF DRAINAGE FEATURES SHALL BE PERFORMED.
3) **WITHIN SENSITIVE AREAS, NO GROUND DISTURBING WORK WILL BE PERFORMED DURING CONSTRUCTION NOR DURING PRE, DURING, AND POST HAUL T-SPEC MAINTENANCE.** MAINTENANCE AND CONSTRUCTION ITEMS MAY BE PERFORMED OUTSIDE THIS SECTION AS TYPICAL.
   5N11 NORTH SENSITIVE AREAS: BETWEEN THE BOP AND STA 30+55 & BETWEEN STA 66+90 AND STA 75+15.
4) STA 69+00: SEE BOULDER BARRICADE DETAIL (C-22). BOULDERS ARE GOVERNMENT FURNISHED. APPROXIMATELY 3 BOULDERS NEEDED, CONTRACTOR TO VERIFY AMOUNTS AT TIME OF WORK.



United States Department of Agriculture Forest Service	(R5) PACIFIC SOUTHWEST REGION	BUMBLEBEE STEWARDSHIP IRSC STANISLAUS NATIONAL FOREST SUMMIT-MI-WUK RANGER DISTRICT	DRAWING TITLE 5N11 (NORTH) WORK LIST & MAP	DATE 12/13/2024 / DESIGNER KATIE DELISSER / CHECKED KAT BAKER NO. / REVISION DESCRIPTION / BY / DATE	DWG SHEET NO. C-11 / SHEET 15 OF 26

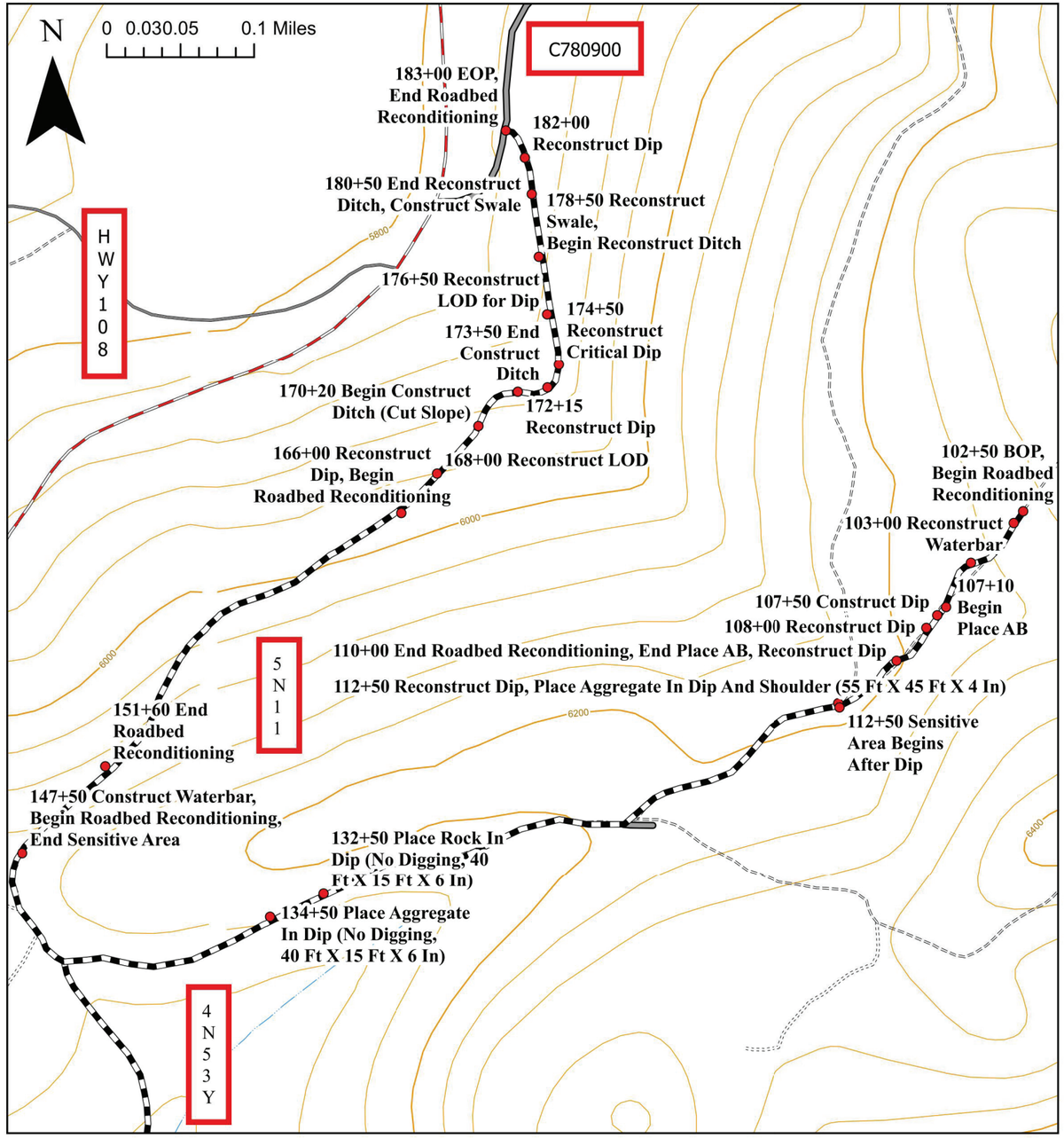
12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSI\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

WORKLIST					
Road # 5N11 South					
BEG STA	END STA	PAY ITEM	WORK DESCRIPTION	QTY	UNIT
10250			Beginning of Project		
10250	11000	30307	Roadbed reconditioning, compaction method<2>	0.14	MILE
10520		20425.5	Drainage Excavation, type <Waterbar, Drivable>, compaction method <2>, tolerance class <A>	1	EACH
10710	11000	30113	Aggregate surface course, grading <F>, compaction method <B>	76	TON
11250		20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	1	EACH
11250	14750		**Sensitive Area**		
11250		30113	Aggregate surface course, grading <F>, compaction method <B>	49	TON
13250		30113	Aggregate surface course, grading <F>, compaction method <B>	17	TON
13450		30113	Aggregate surface course, grading <F>, compaction method <B>	17	TON
14750		20425.5	Drainage Excavation, type <Waterbar, Drivable>, compaction method <2>, tolerance class <A>	1	EACH
14750	15160	30307	Roadbed reconditioning, compaction method<2>	0.08	MILE
16600		20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	1	EACH
16600	18300	30307	Roadbed reconditioning, compaction method<2>	0.32	MILE
16800		20425.6	Drainage Excavation, type <Lead Of Ditch>, compaction method <2>, tolerance class <A>	1	EACH
17020	17350	20420	Drainage Excavation, type <Ditch>, tolerance class <A>	330	FOOT
17215		20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	1	EACH
17450		20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	1	EACH
17650		20425.6	Drainage Excavation, type <Lead Of Ditch>, compaction method <2>, tolerance class <A>	1	EACH
17850		20425.1	Drainage Excavation, type <Swale>, compaction method <2>, tolerance class <A>	1	EACH
17850	18050	20420	Drainage Excavation, type <Ditch>, tolerance class <A>	200	FOOT
18050		20425.1	Drainage Excavation, type <Swale>, compaction method <2>, tolerance class <A>	1	EACH
18200		20425.3	Drainage Excavation, type <Rolling Dip>, compaction method <2>, tolerance class <A>	1	EACH
18300			End of Project		

NOTES:

1) NO ROADWAY OR SHOULDER WIDENING SHALL BE PERFORMED AS PART OF RECONDITIONING UNLESS APPROVED BY THE GOVERNMENT EXPLICITLY. NO BERMS SHALL BE ELIMINATED AS PART OF ROADWAY RECONDITIONING UNLESS APPROVED BY THE GOVERNMENT EXPLICITLY. ALL DRAINAGE FEATURES SHALL BE CLEANED AND RESHAPED IN THEIR EXISTING LOCATIONS - NO RELOCATION OF DRAINAGE FEATURES SHALL BE PERFORMED.

3) **WITHIN SENSITIVE AREAS, NO GROUND DISTURBING WORK WILL BE PERFORMED DURING CONSTRUCTION NOR DURING PRE, DURING, AND POST HAUL T-SPEC MAINTENANCE.** MAINTENANCE AND CONSTRUCTION ITEMS MAY BE PERFORMED OUTSIDE THIS SECTION AS TYPICAL.
5N11 SOUTH SENSITIVE AREAS: BETWEEN STA 112+50 AND THE STA 147+50.



United States Department of Agriculture Forest Service	(R5) PACIFIC SOUTHWEST REGION	BUMBLEBEE STEWARDSHIP IRSC STANISLAUS NATIONAL FOREST SUMMIT-MI-WUK RANGER DISTRICT	DRAWING TITLE 5N11 (SOUTH) WORK LIST & MAP	DATE 12/13/2024 / DESIGNER KATIE DELISSER / CHECKED KAT BAKER NO. / REVISION DESCRIPTION / BY / DATE	DWG SHEET NO. C-12

SHEET 16 OF 26

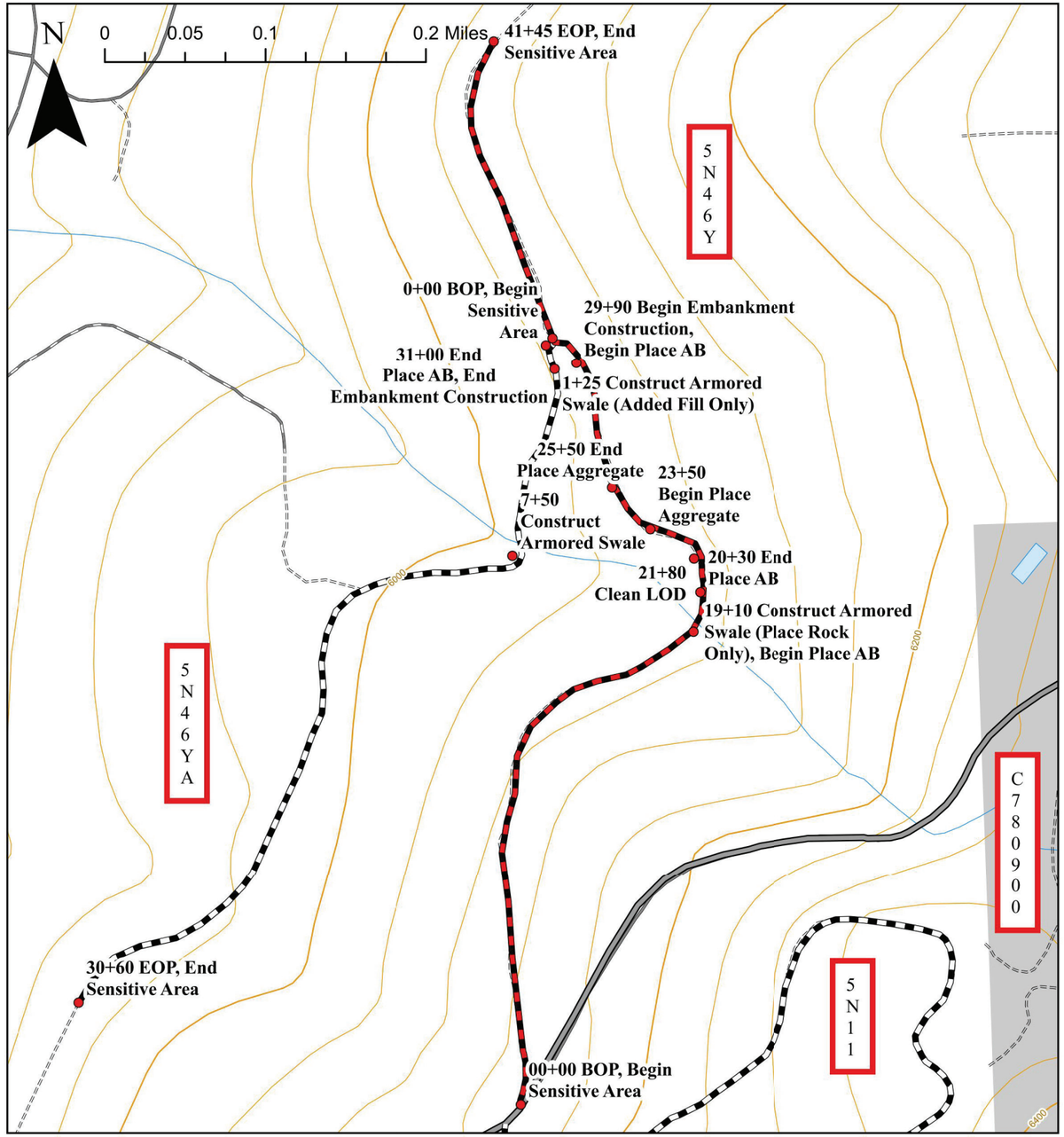
12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSIENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

WORKLIST					
Road # 5N46Y					
BEG STA	END STA	PAY ITEM	WORK DESCRIPTION	QTY	UNIT
0			Beginning of Project		
0	4145		**Sensitive Area**		
1910		20425.2	Drainage Excavation, type <Armored Swale>, compaction method <2>, tolerance class <A>	1	EACH
1910	2030	30113	Aggregate surface course, grading <F>, compaction method <B>	34	TON
2180		20425.6	Drainage Excavation, type <Lead Of Ditch>, compaction method <2>, tolerance class <A>	1	EACH
2350	2550	30113	Aggregate surface course, grading <F>, compaction method <B>	55	TON
2990	3100	20415	Embankment construction, compaction placement method <2>, tolerance class <A>	20	CUBIC YARD
4145			End of Project		

WORKLIST					
Road # 5N46YA					
BEG STA	END STA	PAY ITEM	WORK DESCRIPTION	QTY	UNIT
0			Beginning of Project		
0	3055		**Sensitive Area**		
125		20425.2	Drainage Excavation, type <Armored Swale>, compaction method <2>, tolerance class <A>	1	EACH
870		60708	Cleaning culverts in place	1	EACH
980		20425.2	Drainage Excavation, type <Armored Swale>, compaction method <2>, tolerance class <A>	1	EACH
2570		60708	Cleaning culverts in place	1	EACH
3055			End of Project		

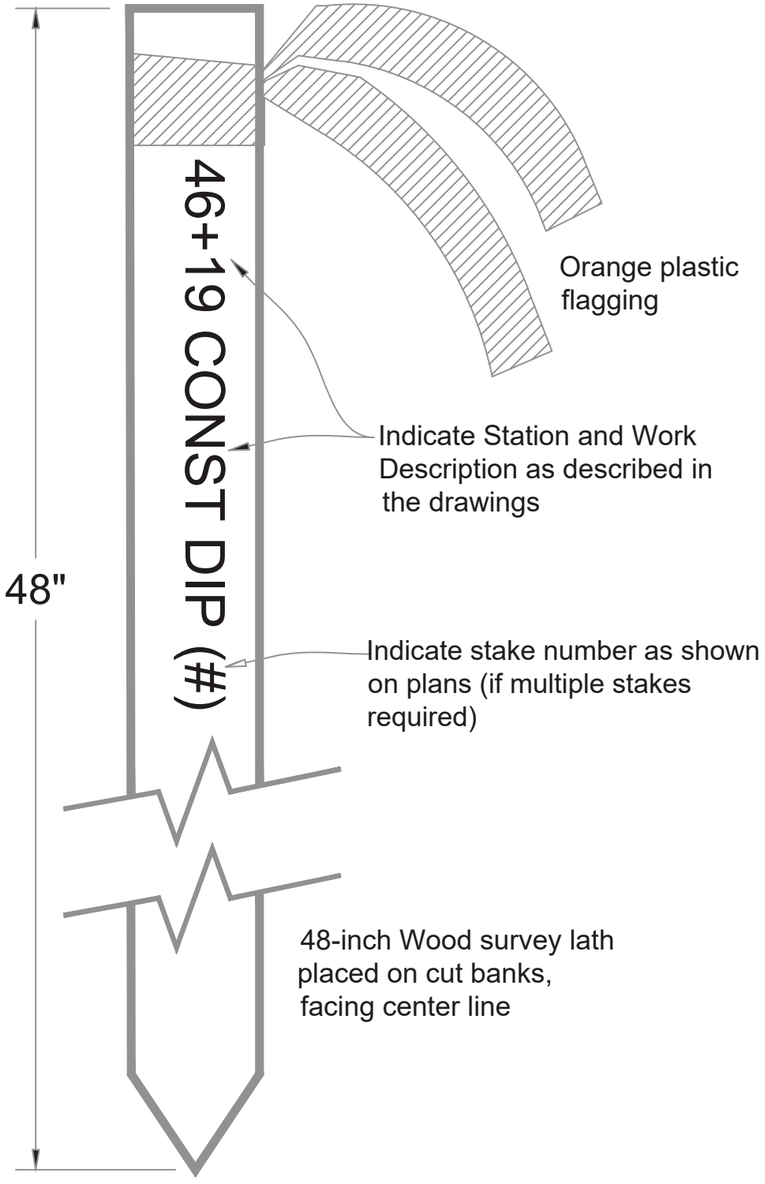
NOTES:

1) NO ROADWAY OR SHOULDER WIDENING SHALL BE PERFORMED AS PART OF RECONDITIONING UNLESS APPROVED BY THE GOVERNMENT EXPLICITLY. NO BERMS SHALL BE ELIMINATED AS PART OF ROADWAY RECONDITIONING UNLESS APPROVED BY THE GOVERNMENT. ALL DRAINAGE FEATURES SHALL BE CLEANED AND RESHAPED IN THEIR EXISTING LOCATIONS - NO RELOCATION OF DRAINAGE FEATURES SHALL BE PERFORMED.
3) **WITHIN SENSITIVE AREAS, NO GROUND DISTURBING WORK WILL BE PERFORMED DURING CONSTRUCTION NOR DURING PRE, DURING, AND POST HAUL T-SPEC MAINTENANCE.** THE ENTIRETY OF 5N46Y AND 5N46YA ARE SENSITIVE AREAS.
4) WORK FOR ARMORED SWALES WILL CONSIST ONLY OF PLACING BASE GRADE AB AND SURFACE GRADE AB AS NECESSARY TO CREATE A FUNCTIONAL ARMORED SWALE AS SPECIFIED BY THE ARMORED SWALE DETAIL.
5) THE ARMORED SWALE AT STA 7+50 ON 5N46YA MAY BE CONSTRUCTED AS TYPICAL.



United States Department of Agriculture Forest Service	(R5) PACIFIC SOUTHWEST REGION	BUMBLEBEE STEWARDSHIP IRSC STANISLAUS NATIONAL FOREST SUMMIT-MI-WUK RANGER DISTRICT	DRAWING TITLE 5N46Y & 5N46YA WORK LISTS & MAP	DATE 12/13/2024 / DESIGNER KATIE DELISSER / CHECKED KAT BAKER NO. / REVISION DESCRIPTION / BY / DATE	DWG SHEET NO. C-13	SHEET 17 OF 26

12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSI\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;



1 Construction Staking Detail

Staking Notes:

- Staking of roads shall be performed using a GPS device capable of using georefrenced PDFs.

- Painting of rocks, trees, or other natural landmarks is strictly prohibited.

- The Government will provide GPS data and georeferenced road plans for staking purposes.

- Stake Approval & Maintenance: Do not begin construction work within a roadway segment until the stakes, marks, and controls established have been approved in writing by the CO or designated representative. The minimum segment for approval shall be 10,000 feet or the length of the project, whichever is less.

- Approval of construction staking shall not relieve the Contractor of responsibility for maintaining the survey work until construction has been completed, and for correcting errors, whether the errors are discovered during the performance of survey or in subsequent phases of the project. Stakes shall be maintained during construction and shall be removed after road work has been completed.

- Work Items shall be staked as shown in the table below. Stake locations are indicated by number on work item detail drawings. Work items not included in the table shall require a single stake at the marked location.

STAKING SCHEDULE	
WORK ITEM	**STAKE LOCATIONS**
Clearing and grubbing	Beginning, end, lower limits, upper limits
Roadway excavation and embankment (Mile)	Beginning, end, centerline at 50 ft intervals
Roadway excavation and embankment (CY)	As shown on plans (D–12, D–13)
Drainage excavation, type <Armored Dip>	Beginning, trough, crest, end
Drainage excavation, type <Roadside Ditch>	Beginning, end
Drainage excavation, type <Rocked Swale>	Beginning, trough, end
Drainage excavation, type <Swale>	Beginning, trough, end
Drainage excavation, type <Rolling Dip>	Beginning, trough, crest, end
Drainage excavation, type <Water Bar, Driveable>	Beginning, trough, crest
Aggregate surface course	Beginning, end
Ditch reconditioning	Beginning, end
Roadbed reconditioning, Roadway reconditioning	Beginning, end
Full depth reclamation	Beginning, end
Asphalt concrete	Beginning, end
Separation and stabilization geotextile	Beginning, end

1

Typical stake location callout

NOT TO SCALE

12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\ISO-PSI\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

DRAWING TITLE
STAKING DETAIL

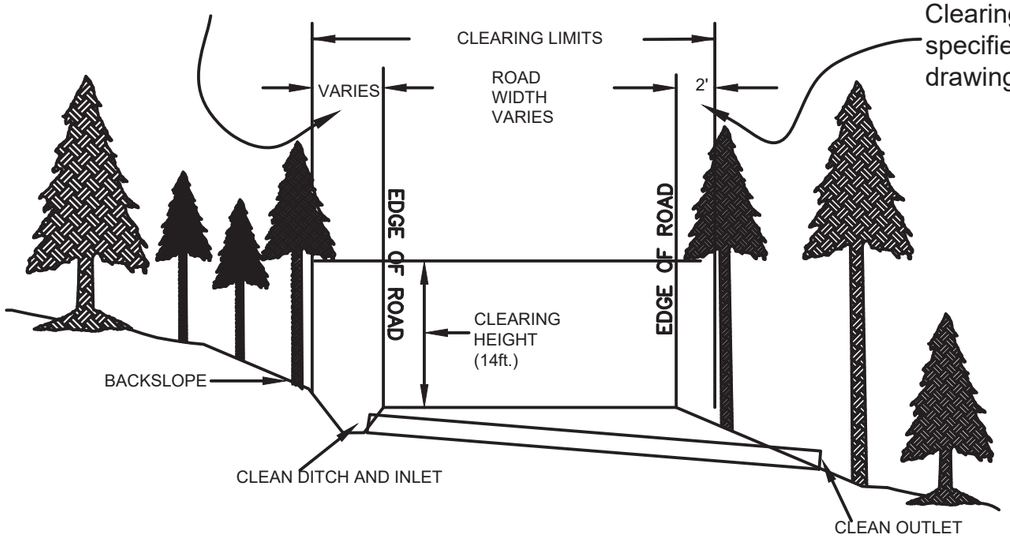
DATE	DESIGNER	CHECKED
12/13/2024	**STANDARD DETAIL**	**KAT BAKER**

NO.	REVISION DESCRIPTION	BY	DATE
△			
△			
△			

DWG SHEET NO.
C-14

1 Clearing and Grubbing Details

NOT TO SCALE



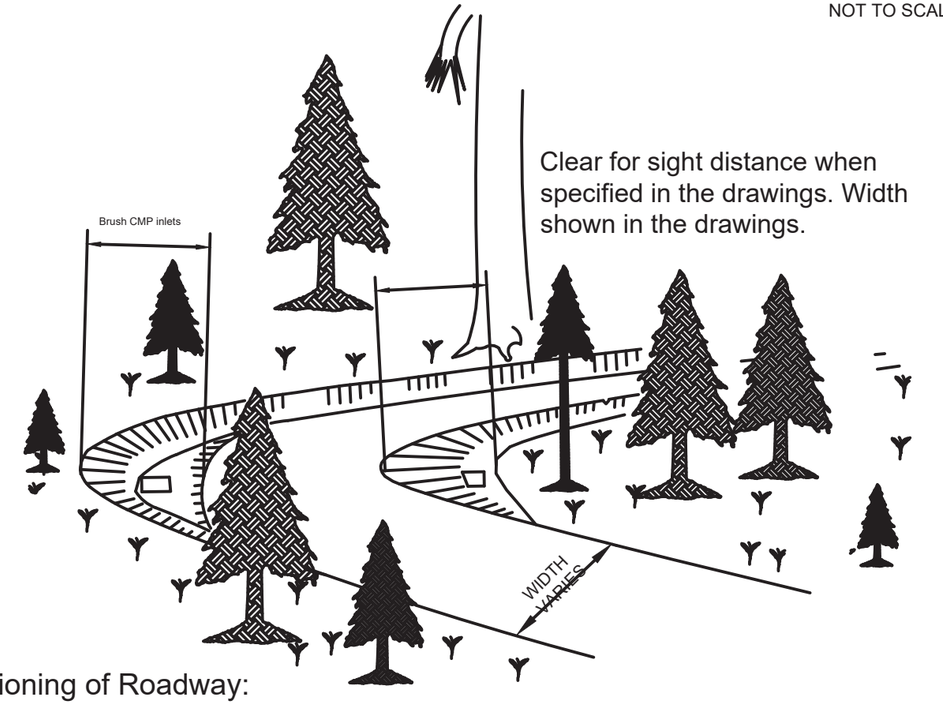
Clearing Notes:

1. Unless noted otherwise, mastication may be substituted for chipping of road side slash. When mastication is used, side cast all masticated material onto fill slopes. Remove masticated material from all drainages, inlets and ditches. Masticated material shall be no longer than 36" length. Concentrations of chip material shall be scattered as directed by the FS. Flush cut stobs greater than 2".

2. Clearing limits shall be minimum 22' total width on all roads.

2 Roadway Reconditioning Details

NOT TO SCALE



Reconditioning of Roadway:

DITCH RECONDITIONING:

1. Perform ditch reconditioning in accordance with FP-14 Subsection 303.03.
2. Incorporate suitable material from ditch and culvert shaping into roadway. Dispose of unsuitable material and waste at designated sites or according to FP-14 Subsection 204.14.

ROADBED RECONDITIONING:

1. Perform roadbed reconditioning in accordance with FP-14 Subsection 303.05.
2. Outslope road bed 3% whenever possible where a cut slope ditch is not present. Remove all outside berms. When this is impractical due to trees greater than 10"dbh or berms greater than 4' wide and greater than 18"in height, then relieve berm every 50 linear feet.
3. Clean inlets and outlets of all existing metal pipes.
4. Clean and reshape drainage features to provide adequate drainage.
5. Drain all low points, ponds, swales.

AGGREGATE SURFACE RECONDITIONING:

1. Perform aggregate surface reconditioning in accordance with FP-14 Subsection 303.06.
2. Where additional surface course aggregate is specified, work new aggregate into reconditioning process consistently to provide a uniform road surface.

ROADWAY RECONDITIONING:

1. Perform roadbed reconditioning in accordance with FP-14 Subsection 303.07, including Ditch, Shoulder, Roadbed, and Aggregate Surface Reconditioning as applicable.

NOTE: Maintain all roads to a minimum width of 14'.

12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO~PS\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

DRAWING TITLE
CLEARING & GRUBBING, RECONSTRUCTION DETAILS

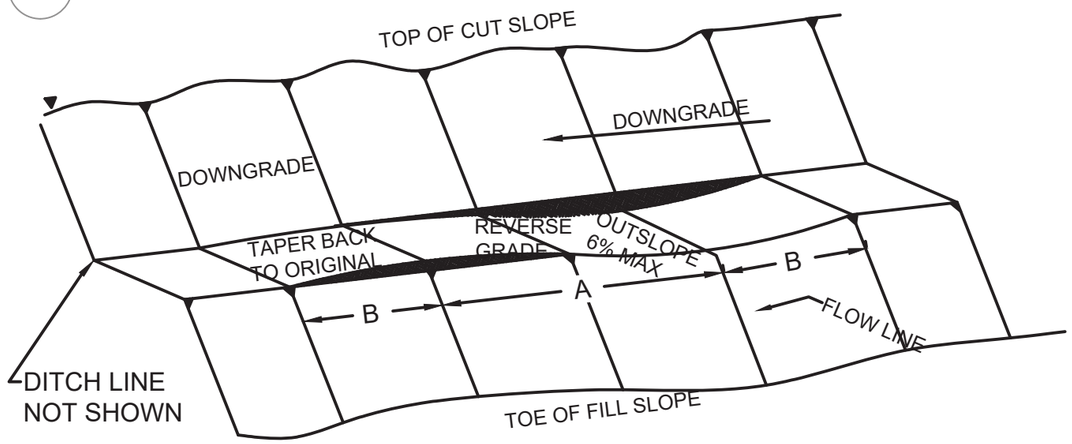
DATE	DESIGNER	CHECKED
12/13/2024	STANDARD DETAIL	KAT BAKER

NO.	REVISION DESCRIPTION	BY	DATE
△			
△			
△			

DWG SHEET NO.
C-15

1 Rolling Dip Details

NOT TO SCALE

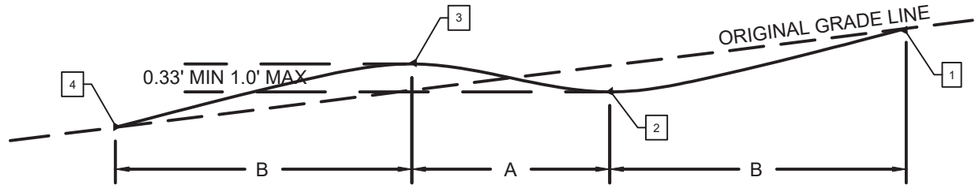


TYPICAL ROLLING DIP

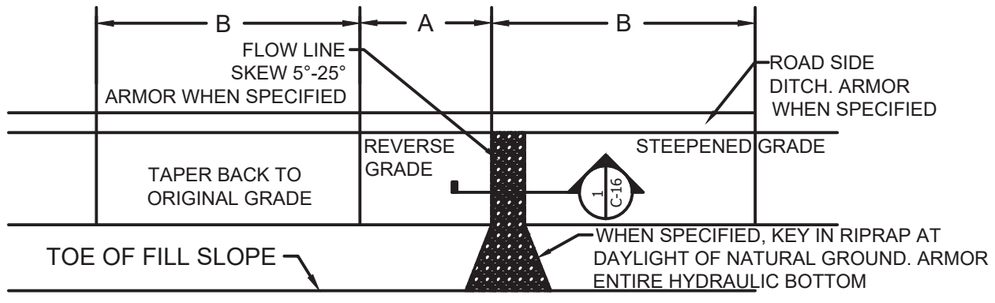
ROLLING DIP LAYOUT (LOG TRUCK)		
ROAD GRADE %	HORIZONTAL DISTANCE (FT)	
	A	B
0-5	20	25
6-8	20	40

NOTES:

1. CONSTRUCT DIP IN ACCORDANCE WITH FSSS 204.06(d). COMPACT IN ACCORDANCE WITH 204.11 (b).
2. WHERE CALLED FOR MATCH DIP FLOW LINE INLET ELEVATION WITH THE DITCH ELEVATION, OTHERWISE DO NOT INTERCEPT EXISTING DITCHES.
3. WHEN FLOW LINE ARMORING IS REQUIRED, LINE DIP FLOW LINE WITH GEOTEXTILE FABRIC AS SHOWN AND IN ACCORDANCE WITH FP14 SECTION 207. FABRIC SHALL CONFORM TO SECTION 714, TABLE 714-1 CLASS 2 NONWOVEN. EXTEND FABRIC ONTO FILL SLOPE LINING THE ENTIRE DRAINAGE PATH.
4. WHEN FLOW LINE ARMORING IS REQUIRED PLACE RIPRAP IN ACCORDANCE WITH FP14 251.04. USE RIP RAP IN ACCORDANCE WITH FSSS 705. CLASS 0 (6" MINUS). EXTEND RIP RAP DOWN FILL SLOPE TO TOE OR TO AN EROSIVE HINGE POINT. ENSURE POSITIVE DRAINAGE.
5. MAINTENANCE OF EXISTING ROLLING DIPS ARE INCIDENTAL TO PAY ITEM 303.15 ROADWAY RECONDITIONING.



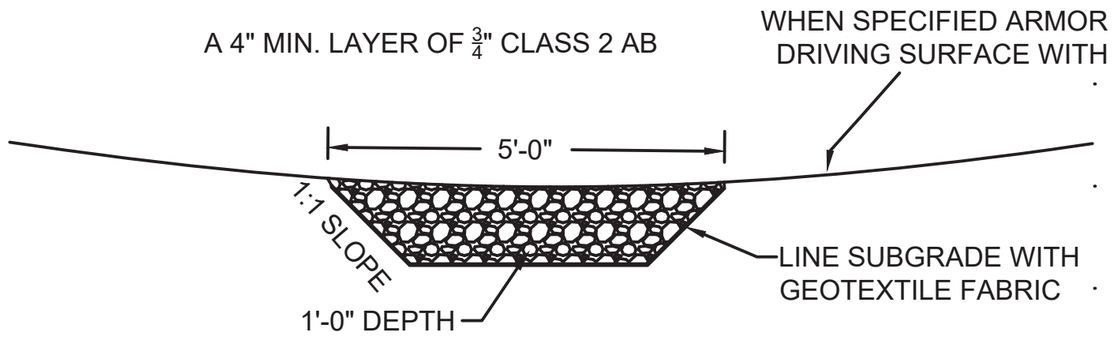
ROLLING DIP SECTION TYPICAL



ROLLING DIP PLAN VIEW

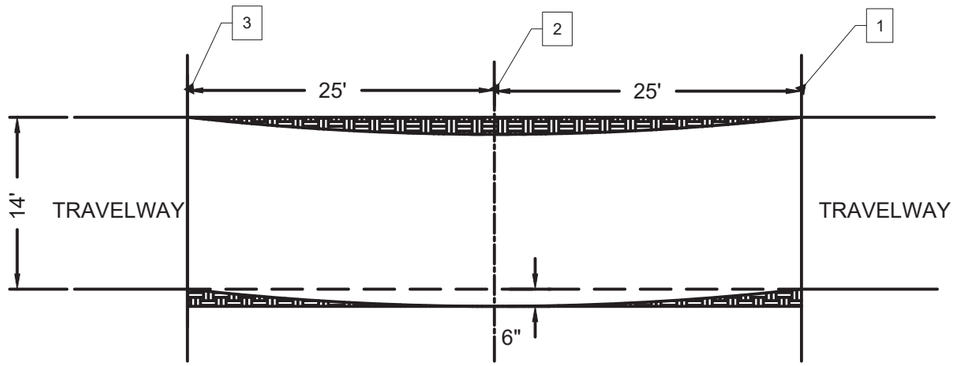
2 Armored Flow Line Section

NOT TO SCALE



United States Department of Agriculture Forest Service	(R5) PACIFIC SOUTHWEST REGION	BUMBLEBEE STEWARDSHIP IRSC STANISLAUS NATIONAL FOREST SUMMIT-MI-WUK RANGER DISTRICT	DRAWING TITLE: ROLLING DIP DETAILS	DATE: 12/13/2024	DESIGNER: STANDARD DETAIL	CHECKED: KAT BAKER
				NO. / REVISION DESCRIPTION / BY / DATE		DWG SHEET NO.: C-16
						SHEET 20 OF 26

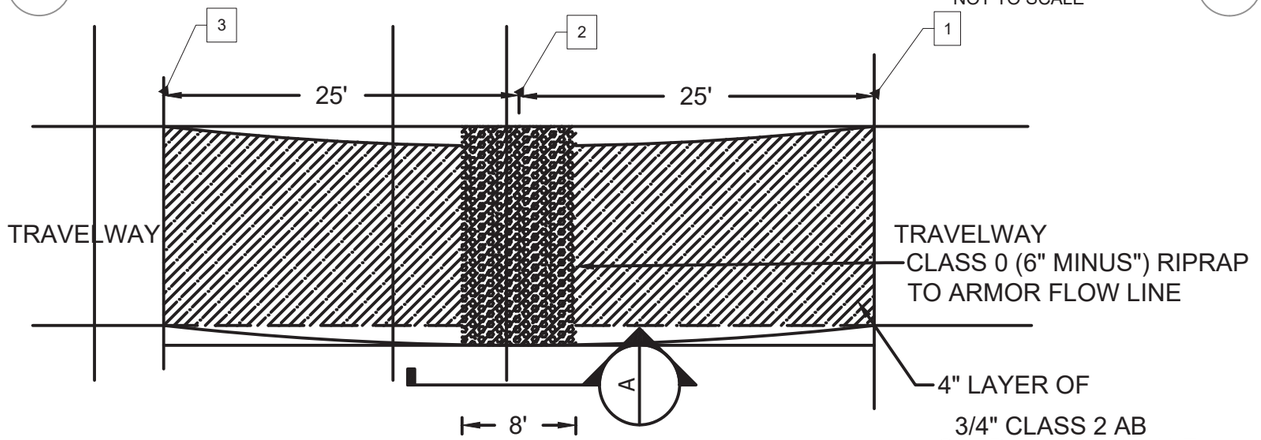
12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PS\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;



NOTE:
1. ENTIRE LENGTH OF SWALE SHALL BE OUTSLOPED 3%
2. SWALES SHALL HAVE FREE FLOWING OUTLETS. CONSTRUCTION OF LEAD OFF DITCHES ARE INCIDENTAL TO SWALE CONSTRUCTION.

1 Swale Detail

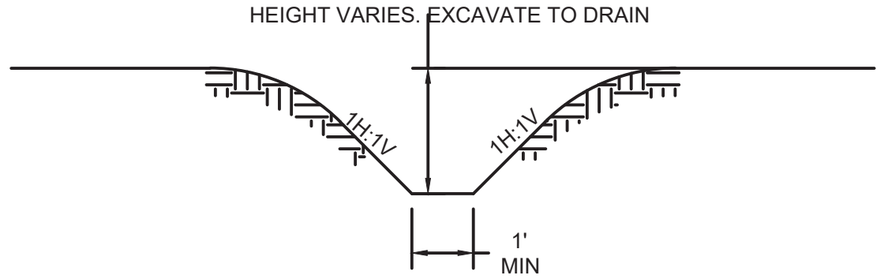
NOT TO SCALE



NOTE:
1. THE COST OF GEOFABRIC, RIPRAP & AGGREGATE BASE IS INCIDENTAL TO ROCK SWALE PAYITEM. THE ESTIMATED QUANTITIES FOR RIPRAP IS 7 TONS AND FOR AB, 16 TONS.

2 Armored Swale Detail

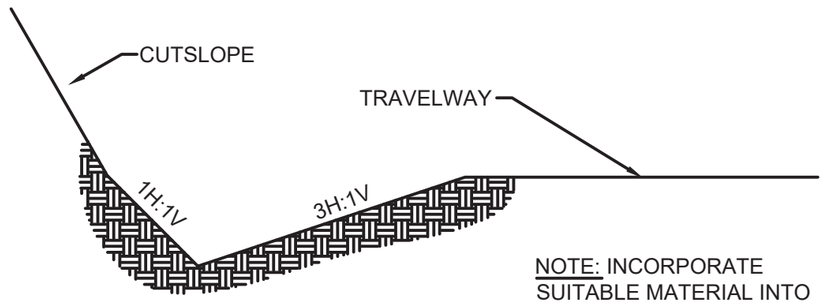
NOT TO SCALE



NOTE: LEADOFFS ARE INCIDENTAL TO OTHER PAY ITEMS UNLESS SPECIFICALLY CALLED OUT AS "RECONSTRUCT LOD" OR "CONSTRUCT LOD".

3 Lead Off Ditch Detail

NOT TO SCALE



NOTE: INCORPORATE SUITABLE MATERIAL INTO TRAVEWAY.

4 Road Side Ditch Detail

NOT TO SCALE

12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSIENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

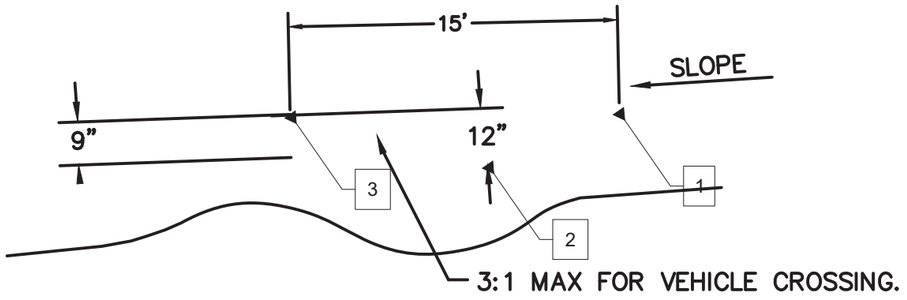
DRAWING TITLE
DRAINAGE DETAILS

DATE	DESIGNER	CHECKED
12/13/2024	STANDARD DETAIL	KAT BAKER

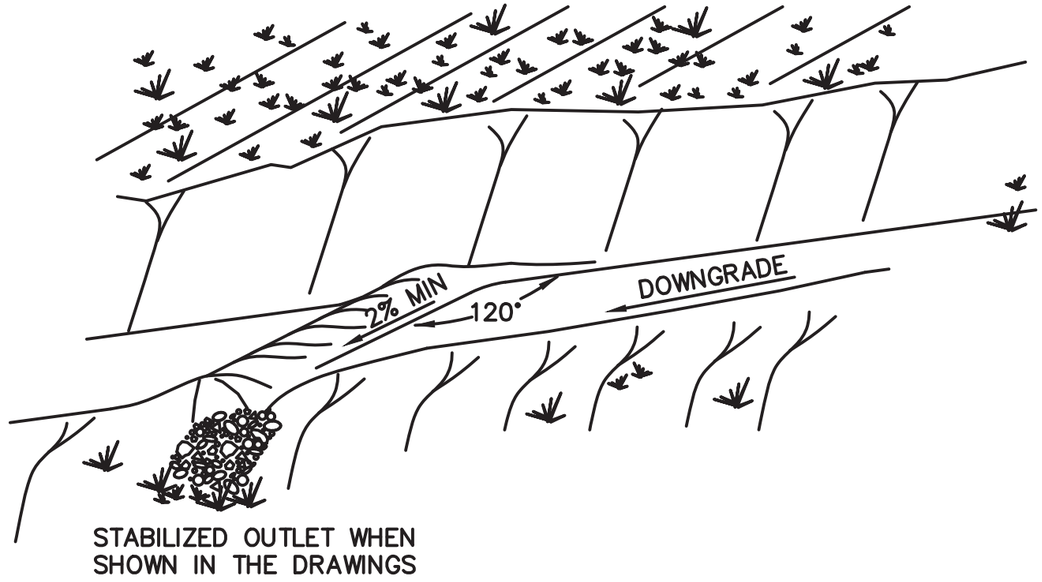
NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			

DWG SHEET NO.
C-17

SHEET 21 OF 26

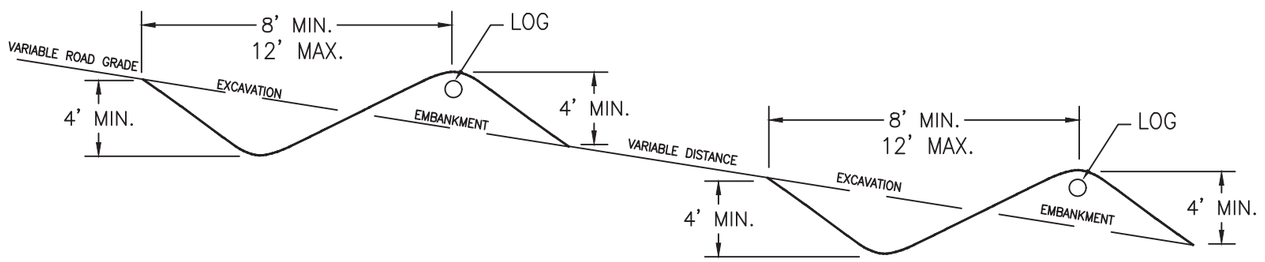


NOTES:
1. ALL WATER BARS SHALL BEGIN AT THE INTERSECTION OF THE ROAD BED WITH THE BACK SLOPE AND RUN ACROSS THE ENTIRE WIDTH OF THE ROAD BED.
2. ALL WATER BARS SHALL HAVE FREE FLOWING OUTLETS. CONSTRUCTION OF LEAD-OFF DITCHES ARE INCIDENTAL TO WATER BAR CONSTRUCTION
3. NON-DRIVABLE WATERBARS ARE DESIGNATED ON ALL CLOSED AND DECOMMISSIONED ROADS.



1 Drivable Waterbar Detail

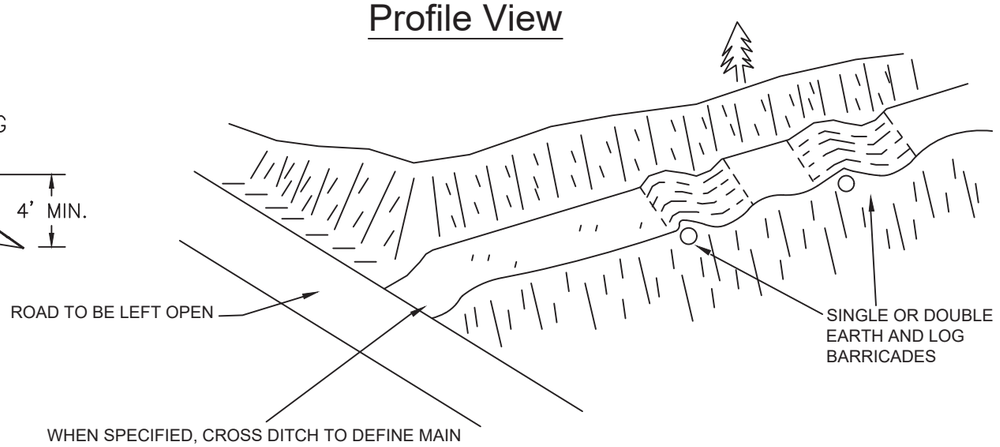
NOT TO SCALE



NOTES:

1. PLACE 20" X 12' LOG IN EMBANKMENT AND COVER WITH AT LEAST ONE FOOT OF EMBANKMENT MATERIAL. BOULDERS MAY BE USED IN LIEU OF LOGS WITH WRITTEN APPROVAL BY THE ENGINEER.
2. ROAD BARRICADES SHALL BE CONSTRUCTED AT LOCATIONS STAKED BY THE ENGINEER.
3. UNLESS INDICATED OTHERWISE ALL LOG BARRICADES ARE SINGLE LOG TYPE.

Profile View



2 Earth and Log Barricade Detail

NOT TO SCALE

United States Department of Agriculture Forest Service	(R5) PACIFIC SOUTHWEST REGION	BUMBLEBEE STEWARDSHIP IRSC STANISLAUS NATIONAL FOREST SUMMIT-MI-WUK RANGER DISTRICT	DRAWING TITLE WATERBAR, EARTH & LOG BARRICADE DETAILS	DATE 12/13/2024	DESIGNER STANDARD DETAIL	CHECKED KAT BAKER
				NO.	REVISION DESCRIPTION	BY / DATE

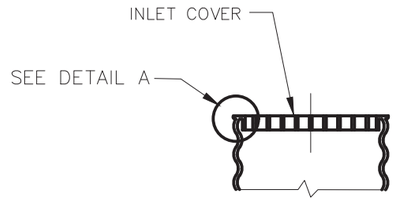
DWG SHEET NO. C-18

SHEET 22 OF 26

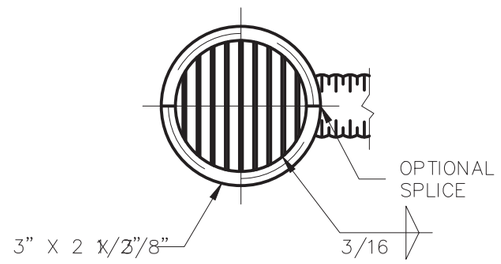
12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSI\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

NOTES:

1) WHEN NECESSARY, REPAIR END OF EXISTING PIPE BY RESHAPING TO NEAR ORIGINAL DIMENSIONS

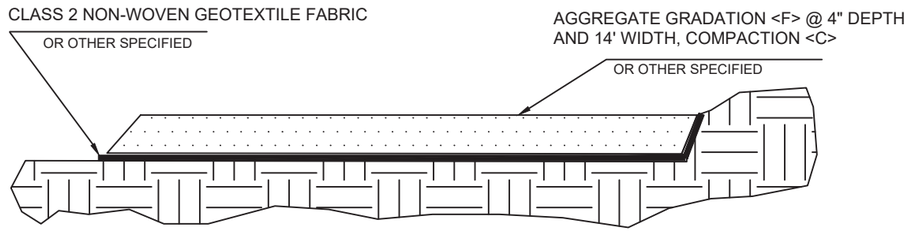


INLET



PLAN

TO BE USED WITHIN SENSITIVE AREAS AND OTHER INDICATED SITES

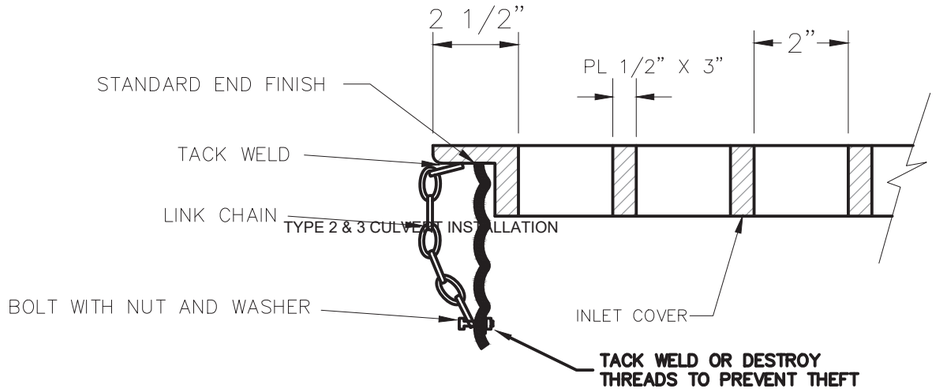


PAYMENT:

PAY ITEM 30116 INCLUDES ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO COMPLETE THE WORK. THE QUANTITY LISTED IN PAY ITEM IS THE AGGREGATE BASE. THE GEOTEXTILE IS UNDER ITS OWN PAY ITEM, 20701.

2 Aggregate Base & Geotextile Detail

NOT TO SCALE



NOTE: STEEL SHALL CONFORM TO A36 STEEL
CHAIN SHALL BE ATTACHED ON SIDE OPPOSITE ROADWAY

Detail A

1 Drop Inlet Lid Detail

NOT TO SCALE

12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSI\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

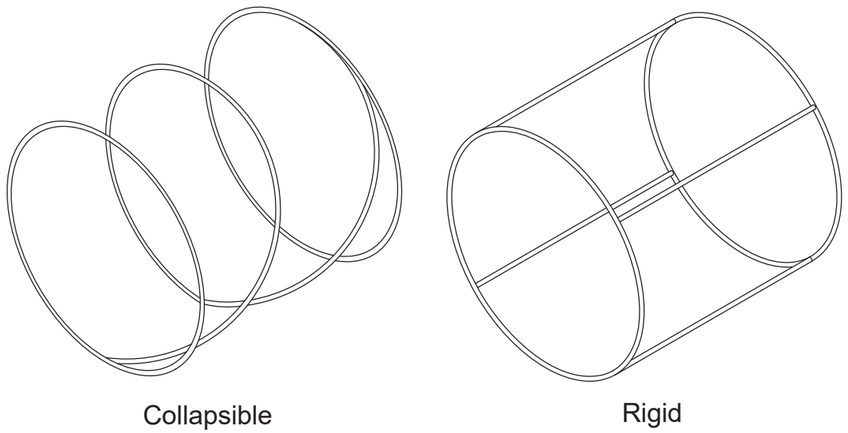
DRAWING TITLE
DROP INLET LID, AB & GEOTEXTILE DETAIL

DATE	DESIGNER	CHECKED
12/13/2024	STANDARD DETAIL	KAT BAKER

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			

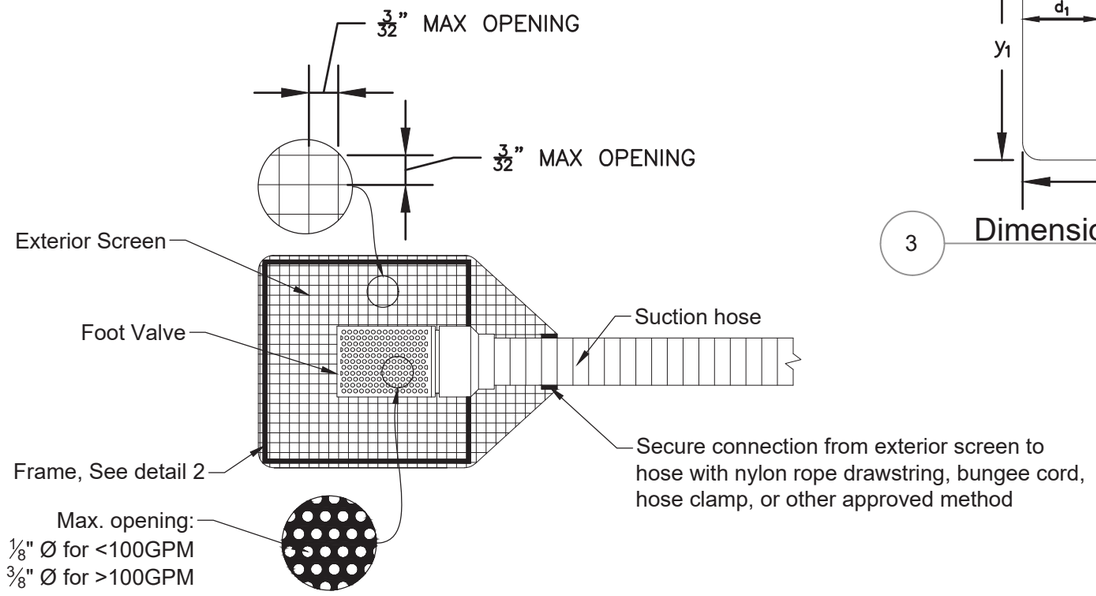
DWG SHEET NO. **C-19**

SHEET 23 OF 33



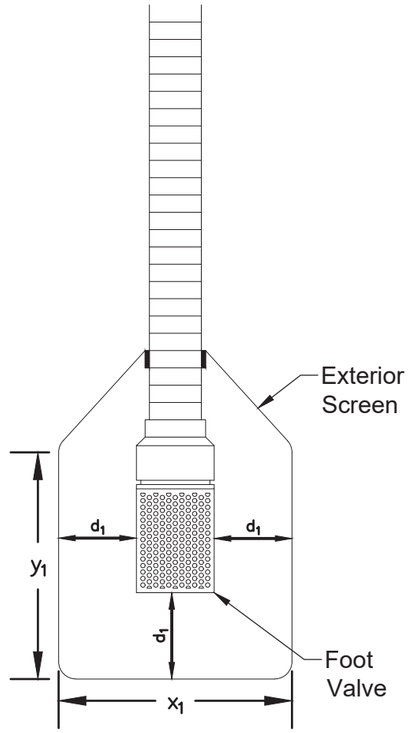
1 Frame Detail

NOT TO SCALE



2 Section View

NOT TO SCALE



3 Dimension View

NOT TO SCALE

Required Minimum Dimensions		
	Drafting Condition	
Dimension	*Fish Bearing Steam [1]*	*Non-Fish Bearing Stream and drafting can't exceed 100GPM [2]*
x_1	15”	9”
y_1	19”	9”
d_1	5”	3”

REQUIREMENTS:

1. THE FRAME MAY BE COLLAPSIBLE OR RIGID. POSSIBLE MATERIALS ARE STEEL, HDPE, OR OTHER DURABLE MATERIALS THAT CAN MAINTAIN RIGIDITY. THE FRAME MUST BE POSITIONED AND SECURED TO MAINTAIN THE REQUIRED SPACING BETWEEN THE FOOT VALVE AND THE EXTERIOR SCREEN AT ALL TIMES (d_1).

2. THE EXTERIOR SCREEN MESH MAY BE EITHER RIGID OR FLEXIBLE AND MADE FROM DURABLE MATERIAL.

3. STOP USE OF THE SCREEN IF ANY HOLES LARGER THAN $\frac{1}{2}$" DIAMETER DEVELOP IN THE EXTERIOR SCREEN. USE CAN BE RESUMED AFTER REPAIR.

4. THE LARGER DIMENSION SCREEN SHALL BE USED IN ALL FISH BEARING STREAMS. THE DRAFTING RATE SHALL BE DETERMINED BY THE DRAFTING TABLE, ATTACHED SEPARATELY.

5. THE SMALLER DIMENSION SCREEN MAY ONLY BE USED IF A STEAM IS NON FISH BEARING AND THE REQUIRED DRAFTING RATE IS LESS THAN 100 GPM. THE DRAFTING RATE SHALL BE DETERMINED BY THE DRAFTING TABLE, ATTACHED SEPARATELY.

6. FOR WATER DRAFTING ON FISH-BEARING STREAMS: DO NOT EXCEED 350 GALLONS PER MINUTE.

7. FOR STREAMFLOW GREATER THAN OR EQUAL TO 4.0 CUBIC FEET PER SECOND (CFS); DO NOT EXCEED 20% OF SURFACE FLOWS BELOW 4.0 CFS; AND, CEASE DRAFTING WHEN BYPASS SURFACE FLOW DROPS BELOW 1.5 CFS.

12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSI\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

DRAWING TITLE
DRAFTING DETAILS

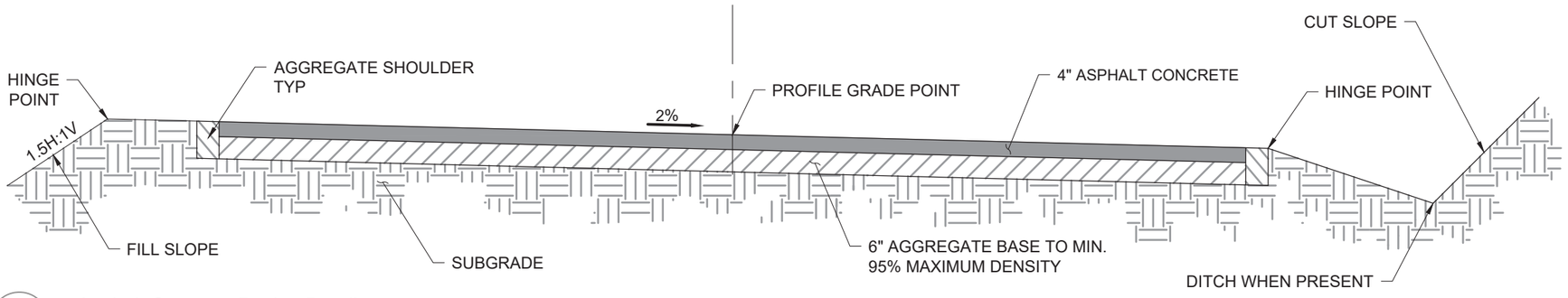
DATE	DESIGNER	CHECKED
12/13/2024	**STANDARD DETAIL**	**KAT BAKER**

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			

DWG SHEET NO.
C-20

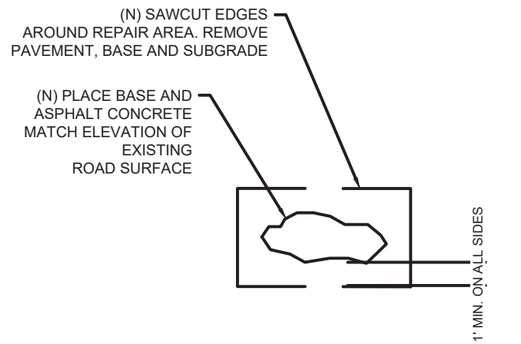
WORK NOTES:

1. PLACED ASPHALT WIDTH SHALL BE EXISTING TRAVELWAY WIDTH, NO WIDTH CHANGES PERMITTED.
2. SAWCUT EXISTING ASPHALT AND FORM A SMOOTH JOINT BETWEEN NEW AND EXISTING ASPHALT COURSES.
3. ASPHALT CONCRETE, CALIFORNIA STATE DOT, $\frac{1}{2}$ IN. TYPE A HMA, PG 64-16.



1 Asphalt Concrete Paving Detail

NOT TO SCALE



WORK NOTES:

1. PERFORM PAVEMENT PATCHING IN ACCORDANCE WITH FP-14 SUBSECTION 418.03.

2. SAWCUT REPAIR LIMITS TO PROVIDE VERTICAL SIDES IN REASONABLY SOUND PAVEMENT. DISPOSE OF ASPHALT OFF PROJECT.

3. CLEAN THE PATCH AREA BY SWEEPING OR OTHER ACCEPTABLE METHODS. REMOVE WATER AND DEBRIS FROM POTHOLE.

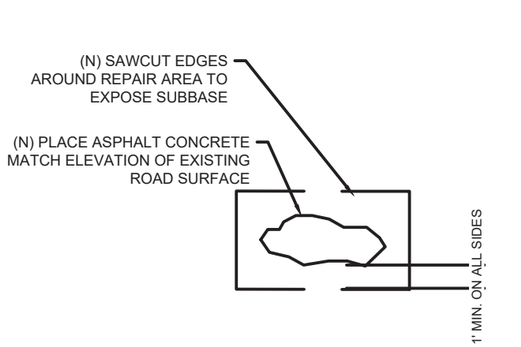
4. CROWN TOP OF NEW ASPHALT ABOVE EXISTING ROAD SURFACE TO PREVENT WATER POOLING.

5. ASPHALT SAWCUT, REMOVAL, TACK COAT, BASE, AND NEW ASPHALT CONCRETE FOR PATCHING ARE INCIDENTAL TO THE PAVEMENT PATCH LINE ITEM.

6. THE LIMITS OF THE PAVEMENT PATCHING WILL BE MARKED BY THE COR DURING CONSTRUCTION, WITHIN 7 DAYS AFTER A REQUEST IS RECEIVED FROM THE CONTRACTOR'S REPRESENTATIVE.

2 Asphalt Pavement, Base, & Subgrade Full Depth Patch, Type 1 Detail

NOT TO SCALE



WORK NOTES:

1. PERFORM PAVEMENT PATCHING IN ACCORDANCE WITH FP-14 SUBSECTION 418.04.

2. SAWCUT REPAIR LIMITS TO PROVIDE VERTICAL SIDES IN REASONABLY SOUND PAVEMENT. DISPOSE OF ASPHALT OFF PROJECT.

3. CLEAN THE PATCH AREA BY SWEEPING OR OTHER ACCEPTABLE METHODS. REMOVE WATER AND DEBRIS FROM POTHOLE.

4. CROWN TOP OF NEW ASPHALT ABOVE EXISTING ROAD SURFACE TO PREVENT WATER POOLING.

5. ASPHALT SAWCUT, REMOVAL, TACK COAT, AND NEW ASPHALT CONCRETE FOR PATCHING ARE INCIDENTAL TO THE PAVEMENT PATCH LINE ITEM.

6. THE LIMITS OF THE PAVEMENT PATCHING WILL BE MARKED BY THE COR DURING CONSTRUCTION, WITHIN 7 DAYS AFTER A REQUEST IS RECEIVED BY THE CONTRACTOR'S REPRESENTATIVE.

3 Asphalt Pavement Full Depth Patch, Type 2 Detail

NOT TO SCALE

12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PSIENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

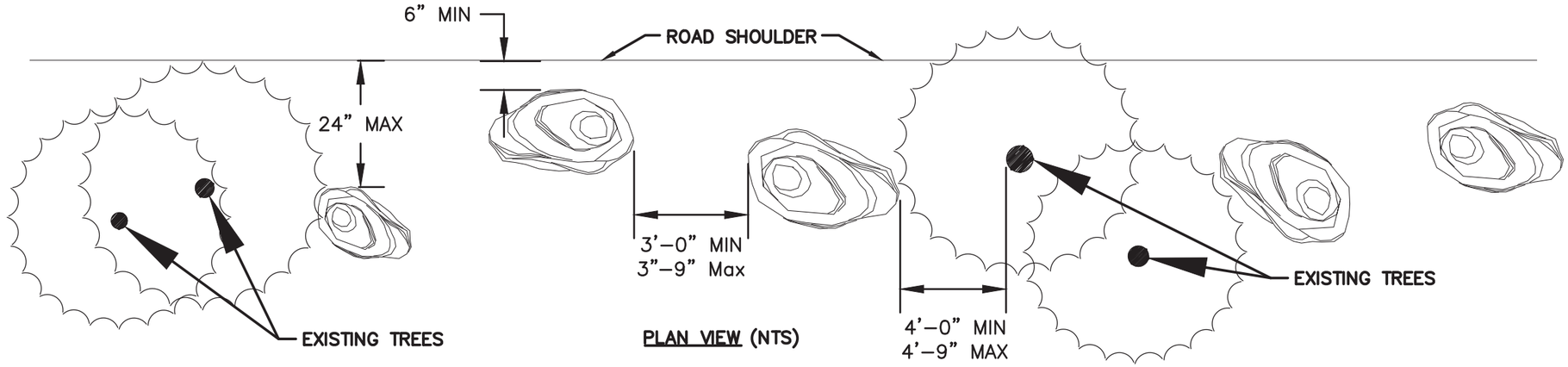
BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

DRAWING TITLE
ASPHALT CONCRETE DETAILS

DATE	DESIGNER	CHECKED
12/13/2024	STANDARD DETAIL	KAT BAKER

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			

DWG SHEET NO.
C-21



NOTES:

1. SET BOULDERS ON TOP OF SOIL. DO NOT BURY ANY PORTION OF THE ROCK.
2. PLACE BARRIER ROCKS SO THEY APPEAR NATURAL. AVOID PLACING IN LONG ROWS WITH EQUAL SPACING.
3. ROCKS MAY BE HARVESTED OUTSIDE THE SENSITIVE AREA. SENSITIVE AREA WILL BE FLAGGED AROUND THE PERIMETER.
4. SELECT BARRIER ROCKS THAT ARE AT LEAST 24" WHEN MEASURED IN SMALLEST SECTION.

1 5N11 Boulder Barrier Placement Detail

NOT TO SCALE

12/17/24 13:00 KAITLYNDELISSER C:\USERS\KAITLYNDELISSER\BOX\SO-PS\ENGINEERING\FY 2024 CONTRACTS\HERRING BEE\BUMBLEBEE TS ROAD PLANS.DWG;

United States Department of Agriculture
Forest Service

(R5)
PACIFIC SOUTHWEST REGION

BUMBLEBEE STEWARDSHIP IRSC
STANISLAUS NATIONAL FOREST
SUMMIT-MI-WUK RANGER DISTRICT

DRAWING TITLE

DATE	DESIGNER	CHECKED
12/13/2024	STANDARD DETAIL	KAT BAKER

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			

DWG SHEET NO. **C-22**

SHEET 26 OF 26