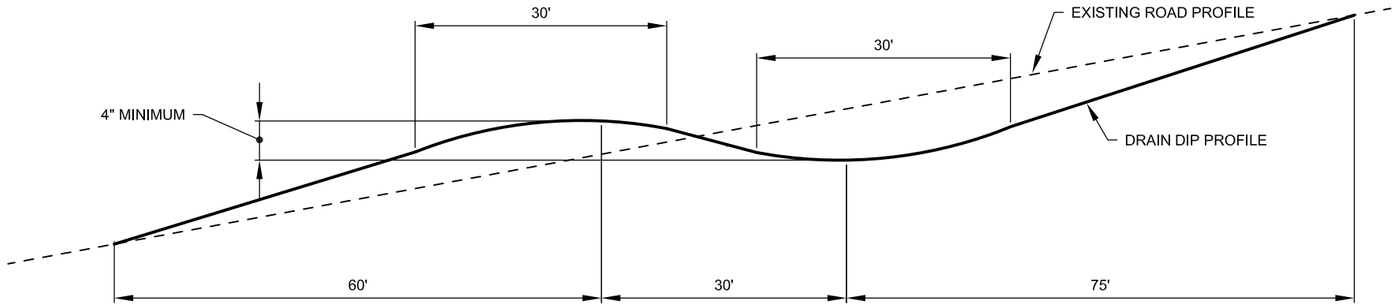
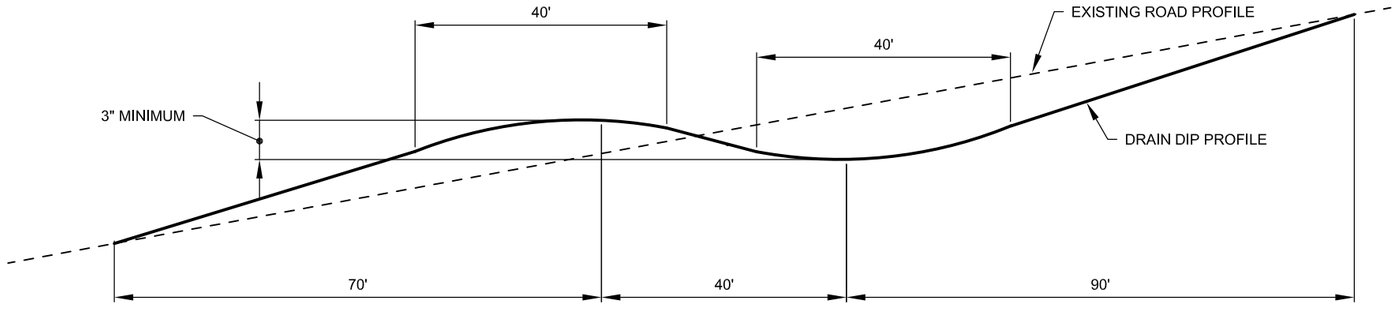


DRAIN DIP - TYPE II

NOT TO SCALE



DRAIN DIP - TYPE I

NOT TO SCALE

NOTES:
1. CROSS SLOPE OF THE LOW POINT DRAINLINE SHALL BE 5%.
2. SKEW OF DRAINLINE SHALL BE 0-25 DEGREES.
3. UNLESS OTHERWISE SPECIFIED IN THE WORKLIST DO NOT INTERCEPT THE ROADWAY DITCH.

9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

United States Department of Agriculture
Forest Service

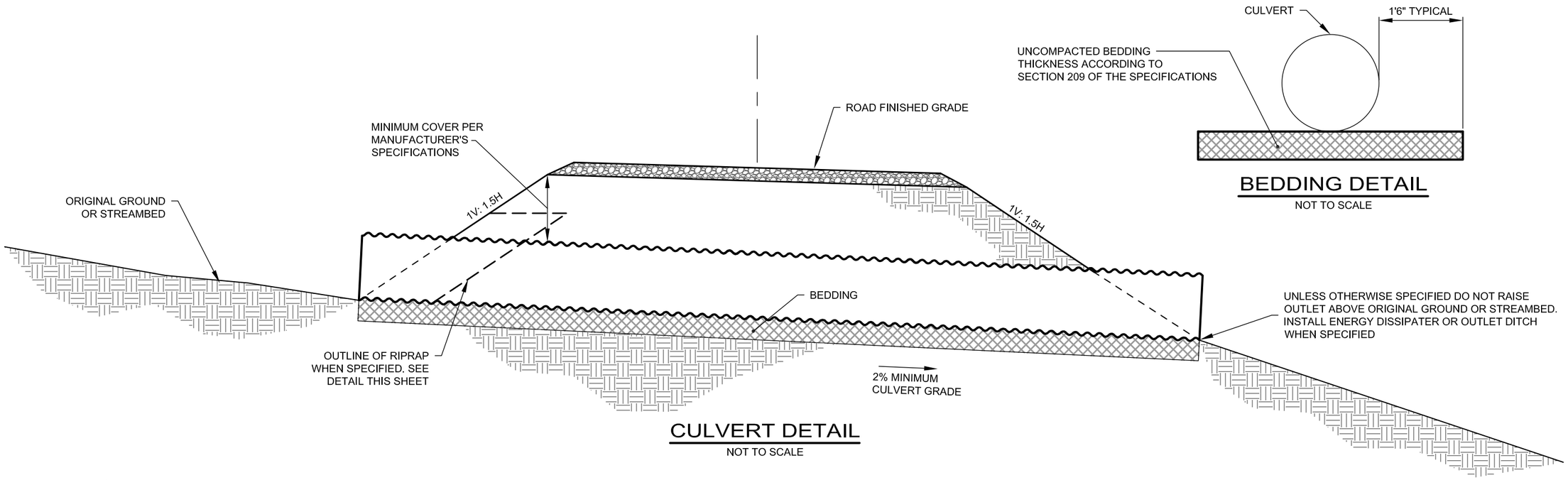
<FILL IN REGION NAME>
<FILL IN REGION NUMBER>

PROJECT NAME
<FILL IN PROJECT NAME>
<FILL IN FOREST>
<FILL IN RANGER DISTRICT>

DRAWING TITLE
DRAIN DIP DETAIL

DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE	<FILL IN>	<FILL IN>	13	13 OF 13

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			

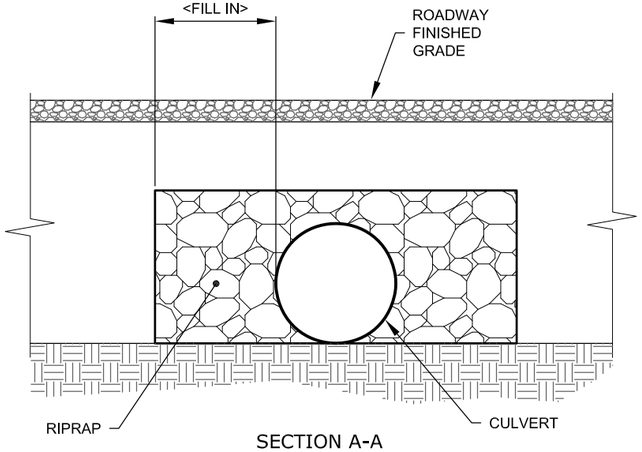


BEDDING DETAIL

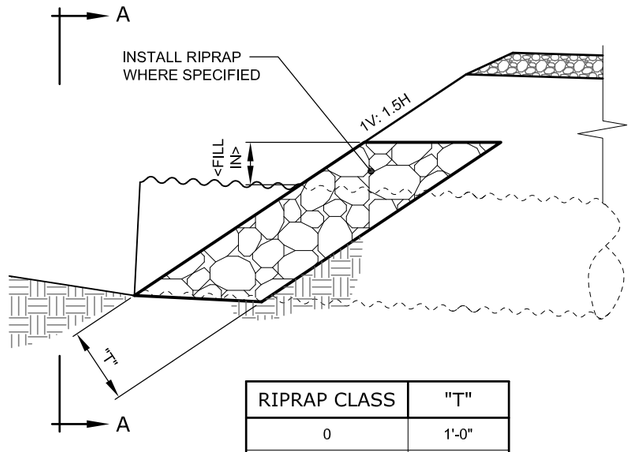
NOT TO SCALE

CULVERT DETAIL

NOT TO SCALE



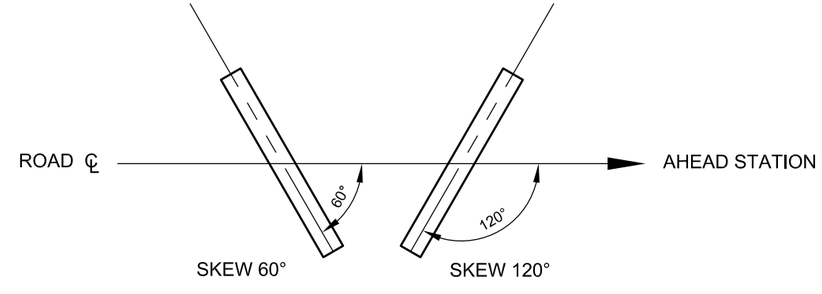
SECTION A-A



RIPRAP CLASS	"T"
0	1'-0"
1	1'-6"
2	2'-6"
3	3'-0"
4	3'-6"

RIPRAP DETAIL

NOT TO SCALE



SKEW DIAGRAM

NOT TO SCALE

9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

United States Department of Agriculture
Forest Service

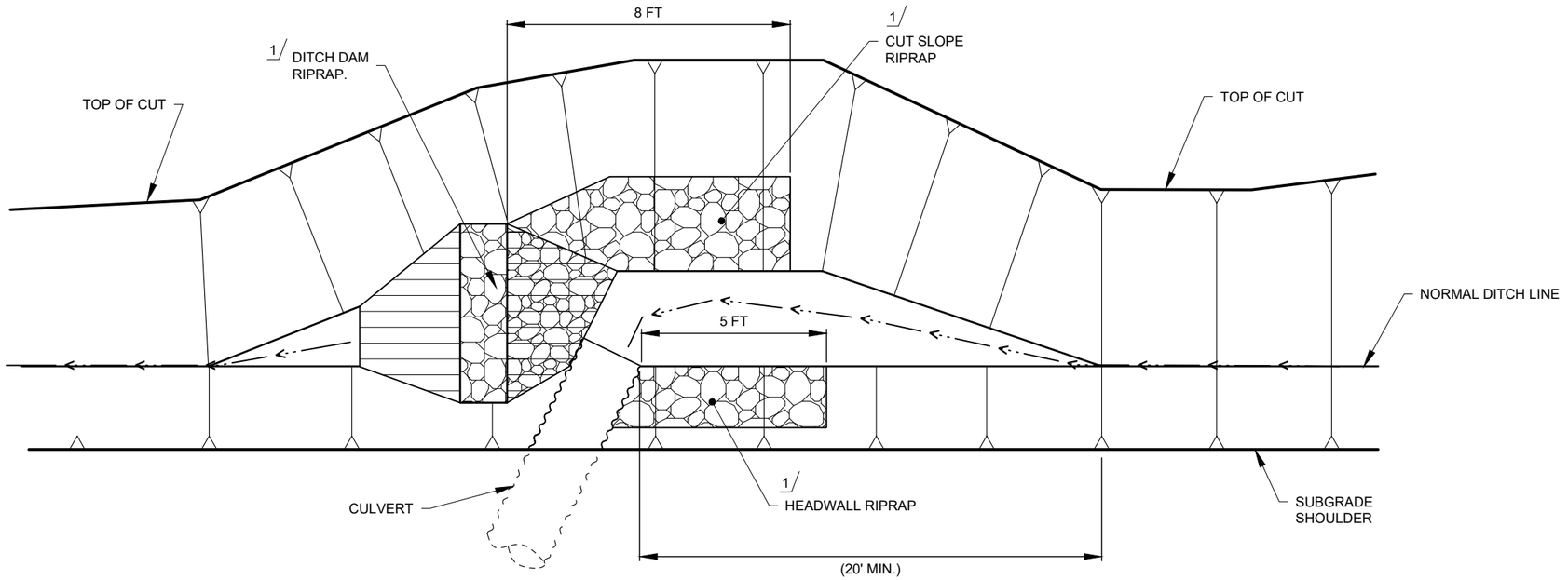
<FILL IN REGION NAME>
<FILL IN REGION NUMBER>

PROJECT NAME
<FILL IN PROJECT NAME>
<FILL IN FOREST>
<FILL IN RANGER DISTRICT>

DRAWING TITLE
CULVERT DETAIL

DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE	<FILL IN>	<FILL IN>	9	9 OF 13

NO.	REVISION DESCRIPTION	BY	DATE

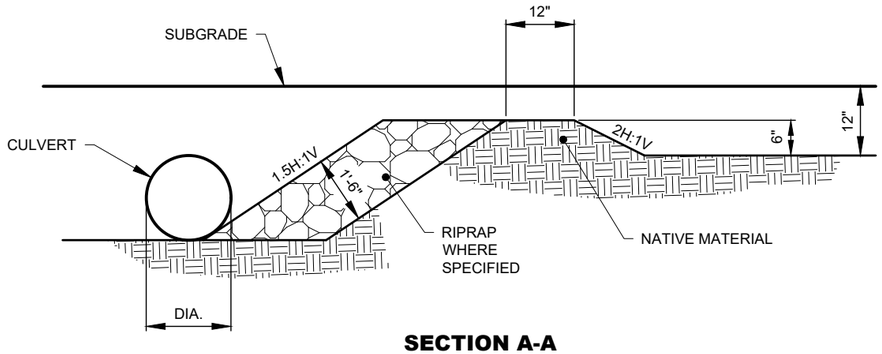


PLAN VIEW

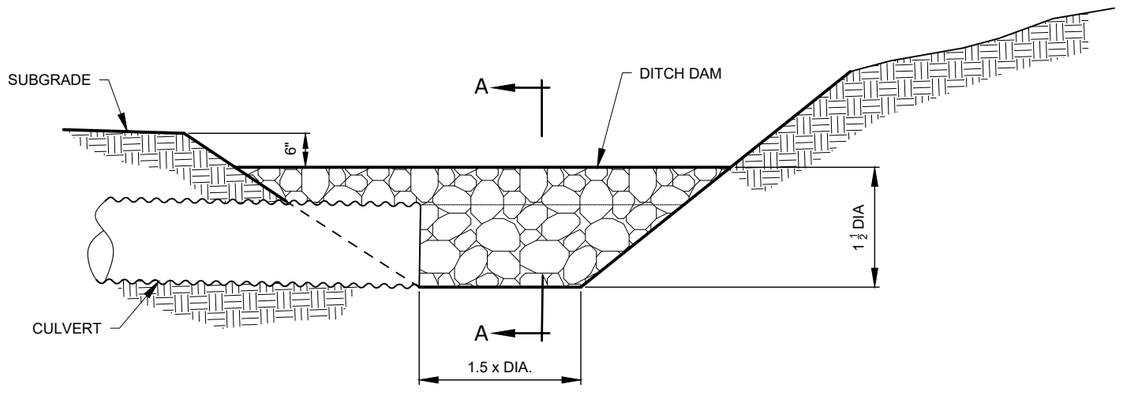
1/ INSTALL RIPRAP WHEN SPECIFIED

CATCH BASIN DETAIL

NOT TO SCALE



SECTION A-A

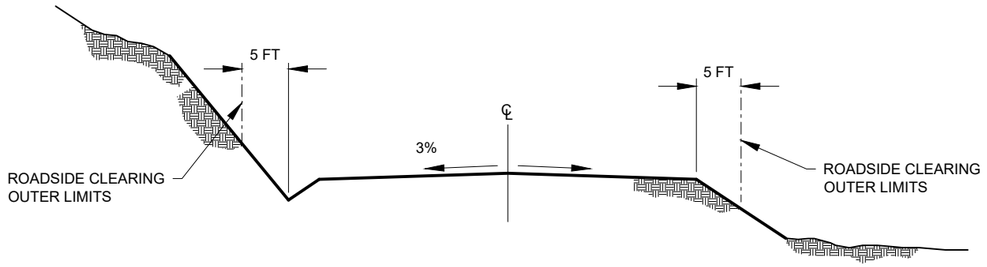


CATCH BASIN ELEVATION

9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

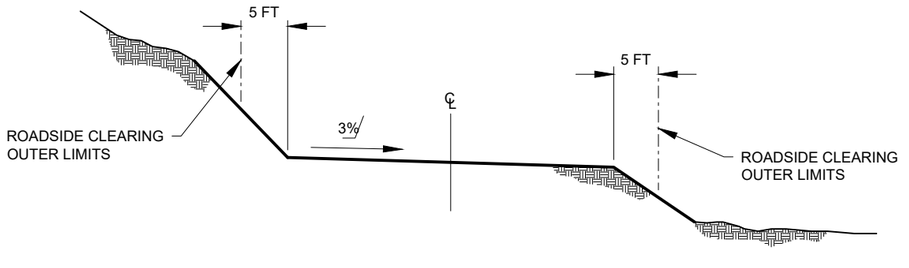
United States Department of Agriculture Forest Service	01 NORTHERN REGION	PROJECT NAME: MCCALLA LARSON BMP PROJECT; BITTERROOT NATIONAL FOREST; STEVENSVILLE RANGER DISTRICT	DRAWING TITLE: CATCH BASIN DETAIL	DATE: DATE; DESIGNER: J.PINTOK; CHECKED: A. RICHARDSON	DWG SHEET NO. 13	SHEET 13 OF 14

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			



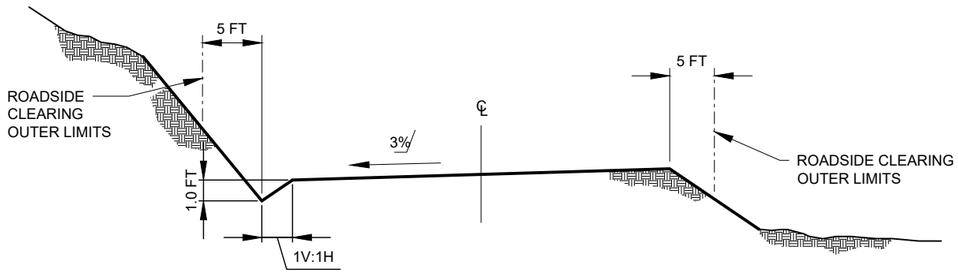
ROAD RECONDITIONING CROWN

NOT TO SCALE



ROAD RECONDITIONING OUTSLOPE

NOT TO SCALE



ROAD RECONDITIONING W/DITCH

NOT TO SCALE

1/ INSLOPE, OUTSLOPE, OR CROWN WHEN SPECIFIED IN THE WORKLIST. OTHERWISE MAINTAIN EXISTING.

9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

United States Department of Agriculture
Forest Service

01
NORTHERN REGION

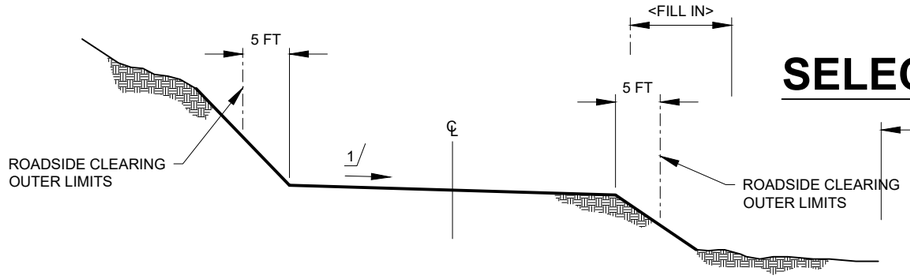
PROJECT NAME
HART TRAP BMP PROJECT
BITTERROOT NATIONAL FOREST
DARBY RANGER DISTRICT

DRAWING TITLE
ROAD RECONDITIONING

DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE 10/15/2025	J.PINTOK	J. STUART	4	4 OF 27

NO.	REVISION DESCRIPTION	BY	DATE
△			
△			
△			

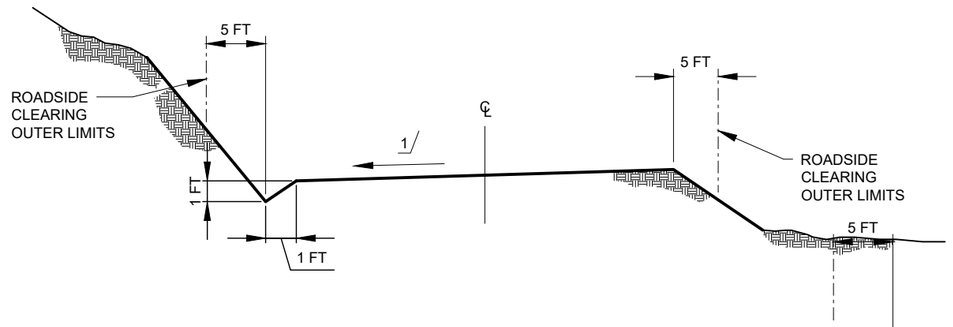
SELECTIVE CLEARING DETAIL
NOT TO SCALE



ROADSIDE CLEARING AND ROAD RECONDITIONING

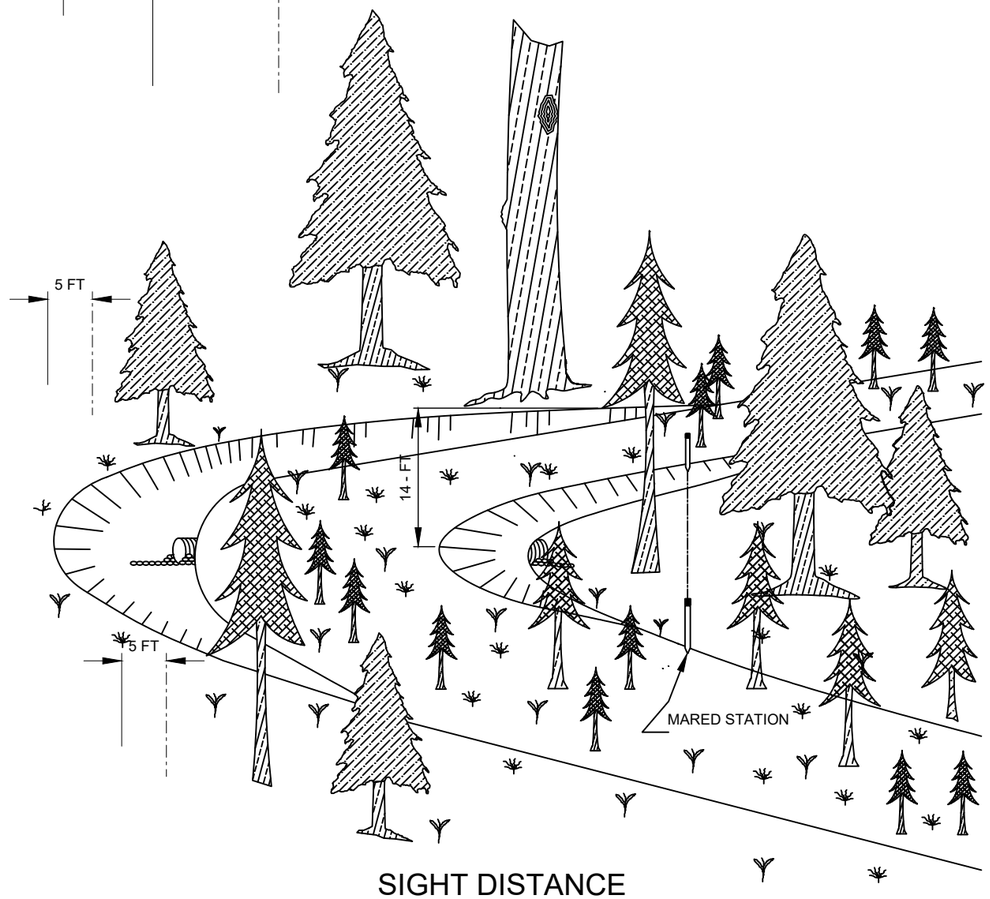
NOT TO SCALE

1/ INSLOPE, OUTSLOPE, OR CROWN WHEN SPECIFIED IN THE WORKLIST. OTHERWISE MAINTAIN EXISTING.



ROADSIDE CLEARING AND ROAD RECONDITIONING W/DITCH

NOT TO SCALE



SIGHT DISTANCE

NOTES:

1. THE AREA OF SIGHT DISTANCE CLEARING WILL BE FROM THE ROADSIDE CLEARING LIMIT TO A LINE OF SIGHT BETWEEN THE BEGINNING AND THE ENDING STATIONS MARKED ON THE GROUND. SIGHT DISTANCE CLEARING IS INCLUDED IN ROADSIDE CLEARING LIMITS AT STAKED LOCATIONS.

9/28/18 07:07 MARKL F:\ CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

United States Department of Agriculture
Forest Service

01
NORTHERN REGION

PROJECT NAME
HART TRAP BMP PROJECT
BITTERROOT NATIONAL FOREST
DARBY RANGER DISTRICT

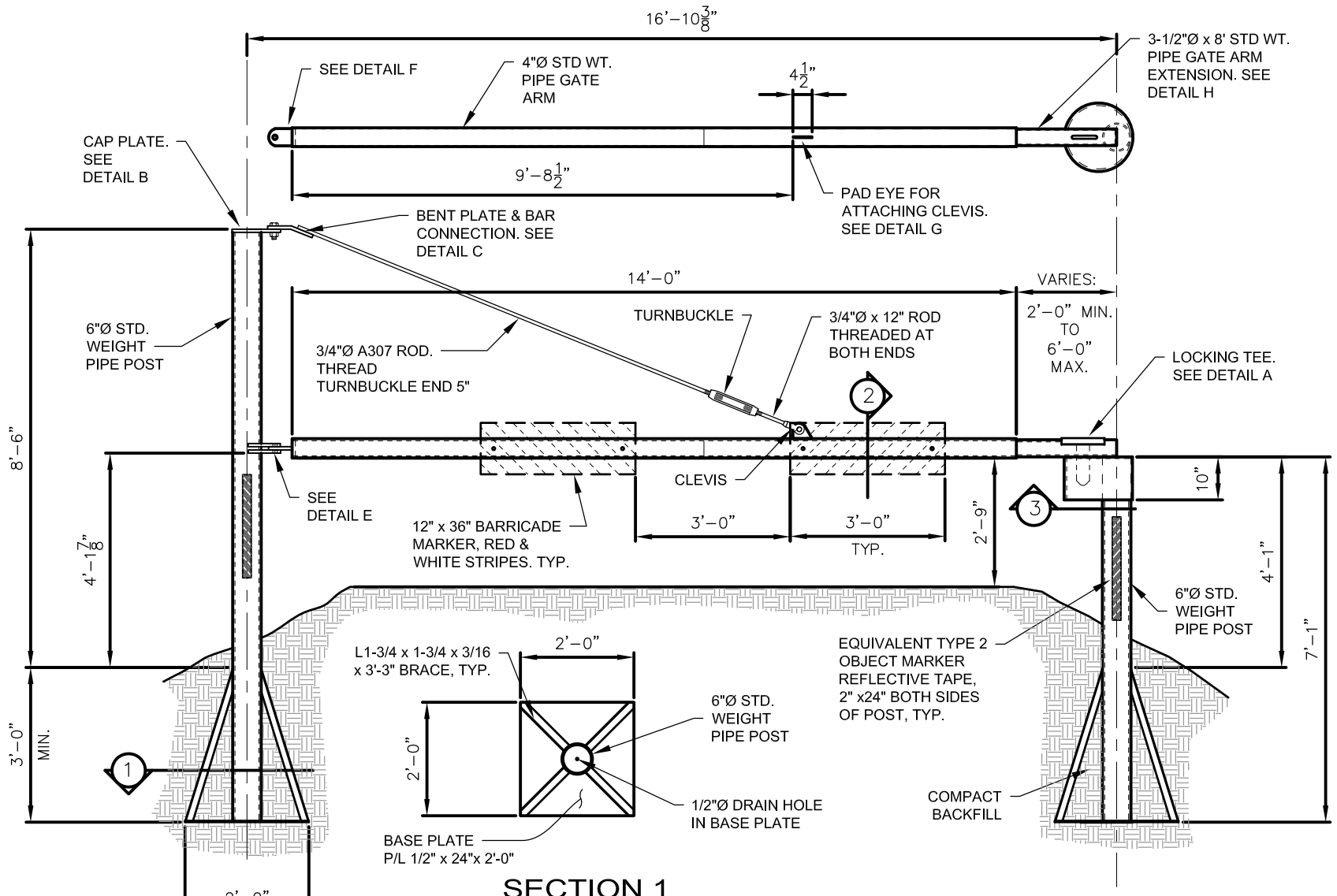
DRAWING TITLE
ROADWAY CLEARING DETAIL

DATE	DESIGNER	CHECKED
DATE 10/15/2025	J.PINTOK	J. STUART

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			

DWG SHEET NO. 5

SHEET 5 OF 27

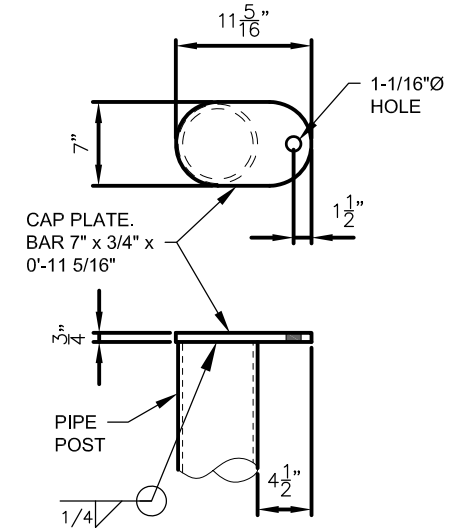


SECTION 1
SCALE: 3/4" = 1'–0"

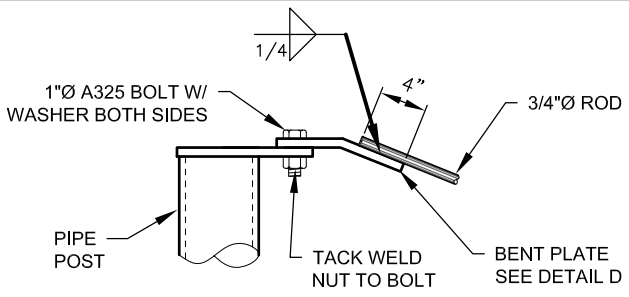
SECTION 2
SCALE: 3/4" = 1'–0"

DETAIL A
SCALE: 3/4" = 1'–0"

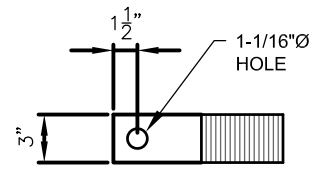
SECTION 3
SCALE: 3/4" = 1'–0"

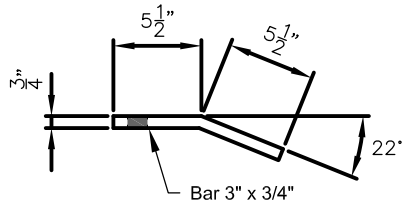


DETAIL B
SCALE: 3/4" = 1'–0"

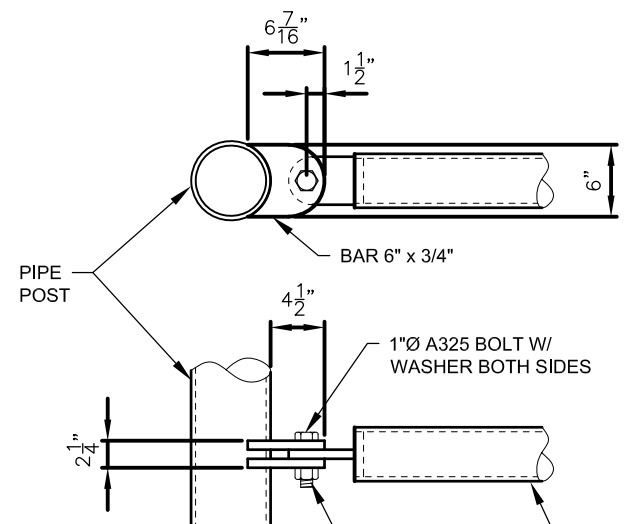


DETAIL C
SCALE: 3/4" = 1'–0"

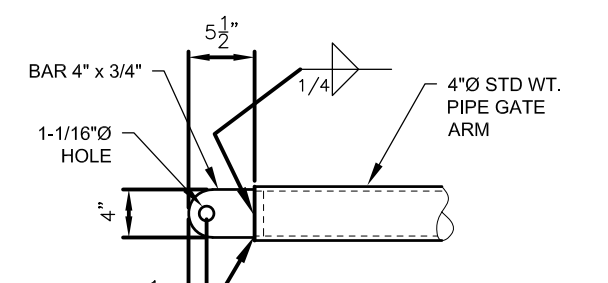




DETAIL D
SCALE: 3/4" = 1'–0"



DETAIL E
SCALE: 3/4" = 1'–0"



DETAIL F
SCALE: 3/4" = 1'–0"

DETAIL G
SCALE: 3/4" = 1'–0"

DETAIL H
SCALE: 3/4" = 1'–0"

9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

United States Department of Agriculture
Forest Service

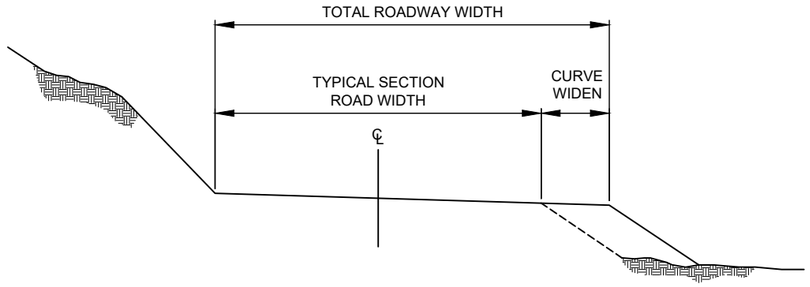
<FILL IN REGION NAME>
<FILL IN REGION NUMBER>

PROJECT NAME
<FILL IN PROJECT NAME>
<FILL IN FOREST>
<FILL IN RANGER DISTRICT>

DRAWING TITLE
##########

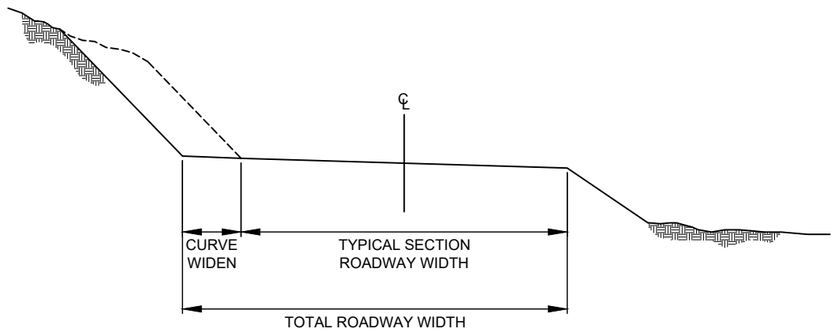
DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE	<FILL IN>	<FILL IN>	#	# OF 13

NO.	REVISION DESCRIPTION	BY	DATE
△			
△			
△			



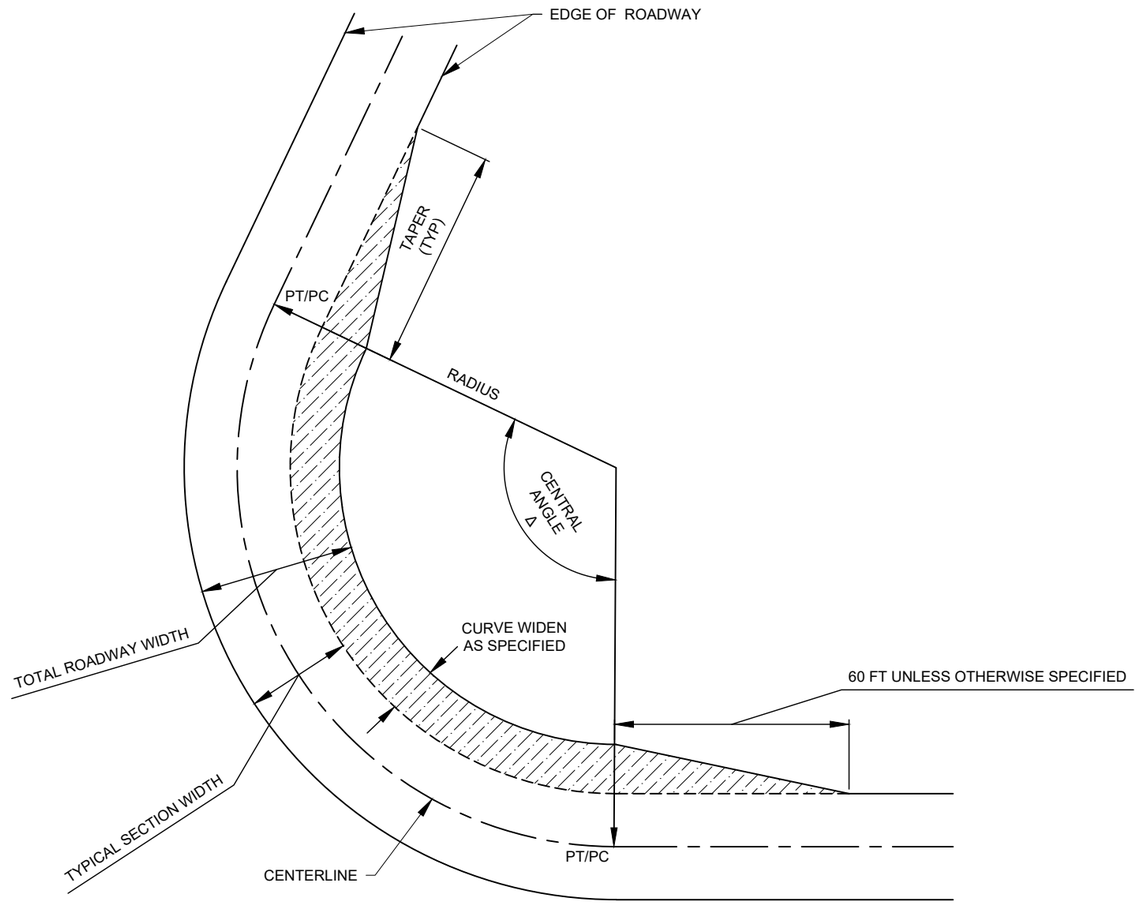
FILL SLOPE CURVE WIDENING

NOT TO SCALE



CUT SLOPE CURVE WIDENING

NOT TO SCALE



NOTES:

1. ADD HORIZONTAL CURVE WIDENING TO THE INSIDE OF CURVES. WIDENING APPLIES TO THE ROADWAY THROUGH THE ENTIRE CURVE FROM PC TO PT.

9/28/18 07:07 MARKL F:\ CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

United States Department of Agriculture
Forest Service

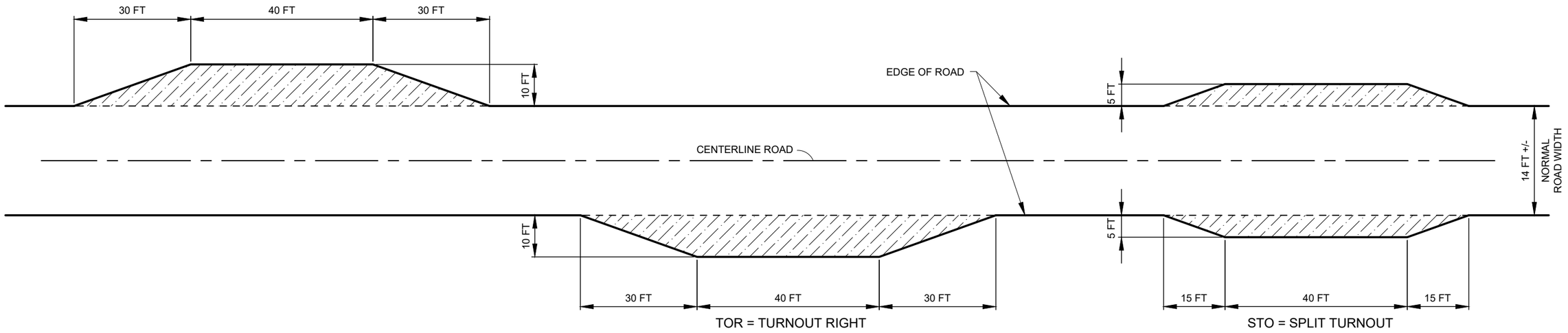
01
NORTHERN REGION

PROJECT NAME
HART TRAP BMP PROJECT
BITTERROOT NATIONAL FOREST
DARBY RANGER DISTRICT

DRAWING TITLE
CURVE WIDEN DETAIL

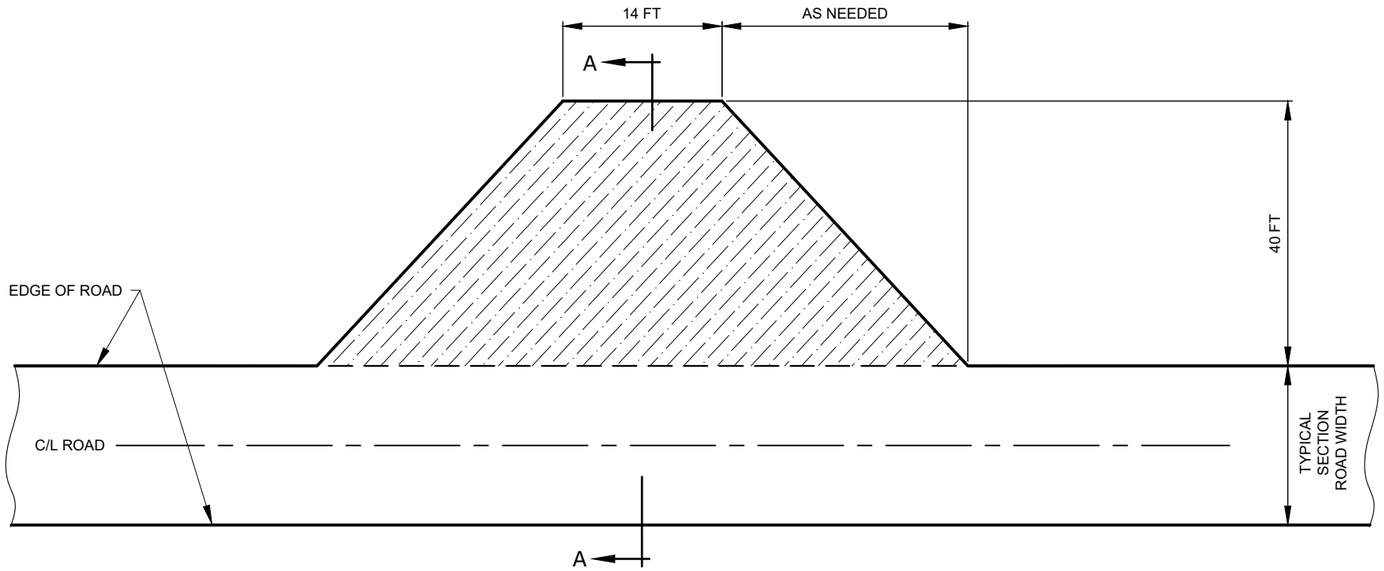
DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE 10/15/2025	J.PINTOK	J. STUART	7	7 OF 27

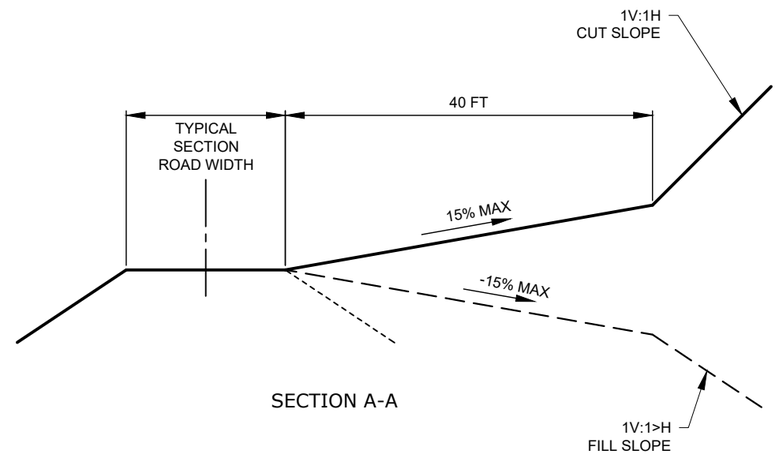
NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			



TURNOUT DETAIL

NOT TO SCALE





TURNAROUND DETAIL

NOT TO SCALE

9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\WFS-CTB.DWG;

United States Department of Agriculture
Forest Service

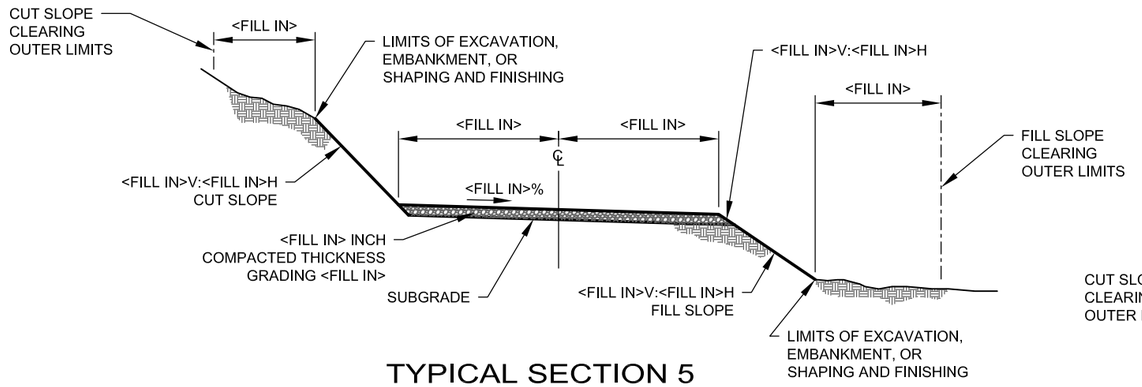
01
NORTHERN REGION

PROJECT NAME
HART TRAP BMP PROJECT
BITTERROOT NATIONAL FOREST
DARBY RANGER DISTRICT

DRAWING TITLE
TURNOUT AND TURNAROUND DETAILS

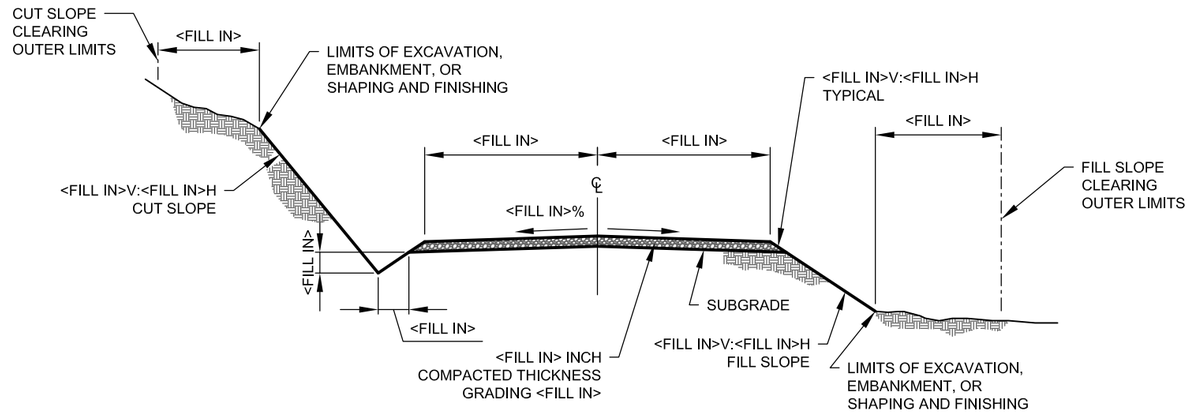
DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE 10/15/2025	J.PINTOK	J. STUART	9	9 OF 27

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			



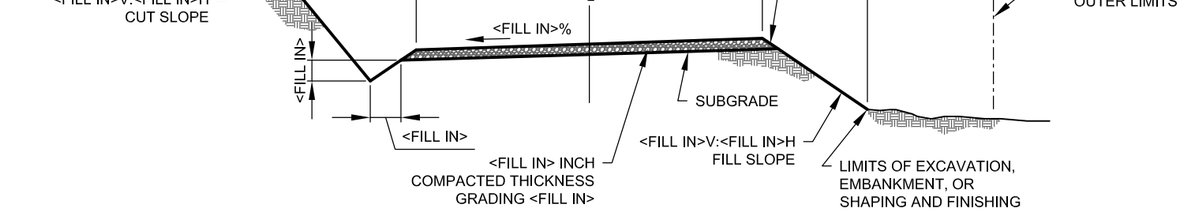
TYPICAL SECTION 5

NOT TO SCALE



TYPICAL SECTION 7

NOT TO SCALE



TYPICAL SECTION 6

NOT TO SCALE

ROADSIDE CLEARING AND ROAD RECONDITIONING W/DITCH

NOT TO SCALE

NEW CONSTRUCTION			
ROAD NUMBER	BEGINNING STATION	ENDING STATION	TYPICAL SECTION

9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

United States Department of Agriculture
Forest Service

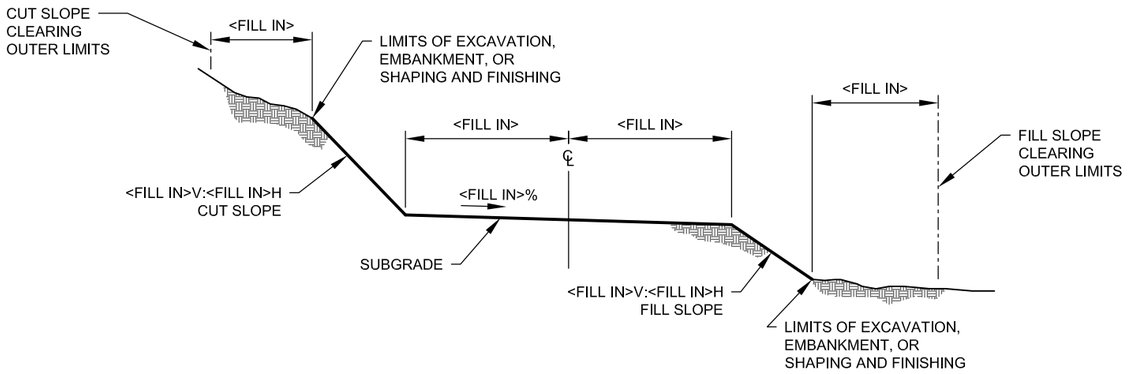
<FILL IN REGION NAME>
<FILL IN REGION NUMBER>

PROJECT NAME
<FILL IN PROJECT NAME>
<FILL IN FOREST>
<FILL IN RANGER DISTRICT>

DRAWING TITLE
TYPICAL SECTIONS

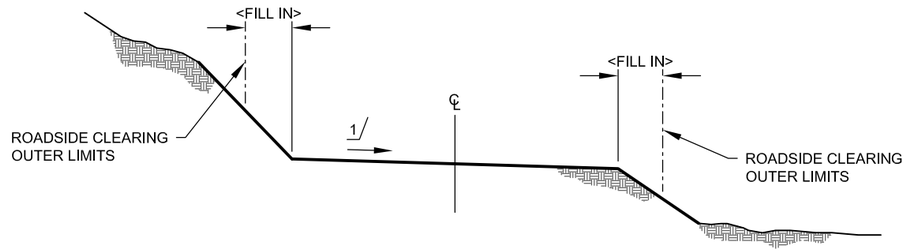
DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE	<FILL IN>	<FILL IN>	4	4 OF 13

NO.	REVISION DESCRIPTION	BY	DATE
△			
△			
△			



TYPICAL SECTION 1

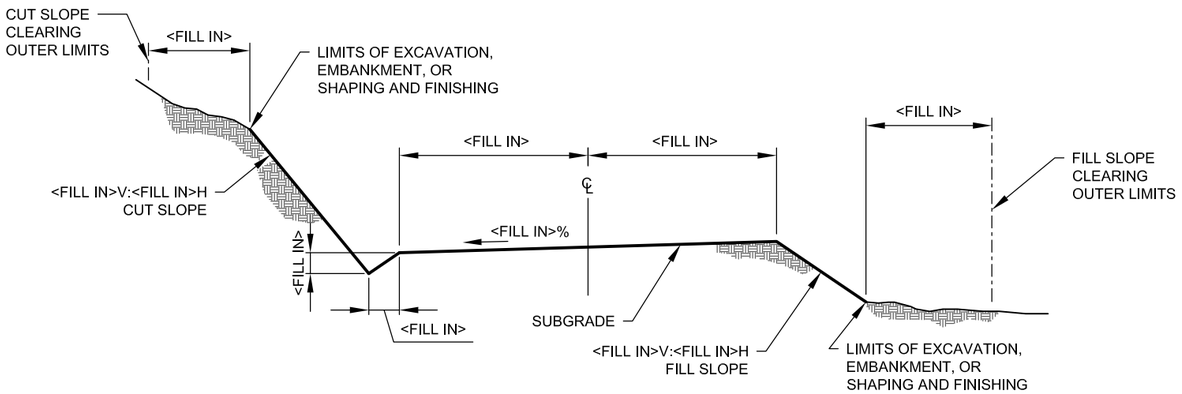
NOT TO SCALE



ROADSIDE CLEARING AND ROAD RECONDITIONING

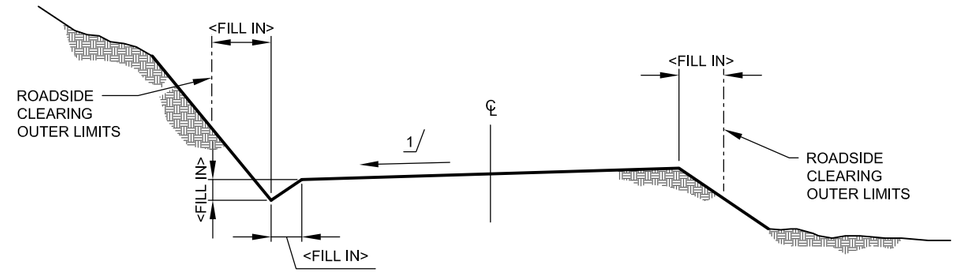
NOT TO SCALE

1/ INSLOPE, OUTSLOPE, OR CROWN WHEN SPECIFIED IN THE WORKLIST. OTHERWISE MAINTAIN EXISTING.



TYPICAL SECTION 2

NOT TO SCALE



ROADSIDE CLEARING AND ROAD RECONDITIONING W/DITCH

NOT TO SCALE

NEW CONSTRUCTION			
ROAD NUMBER	BEGINNING STATION	ENDING STATION	TYPICAL SECTION

9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

United States Department of Agriculture
Forest Service

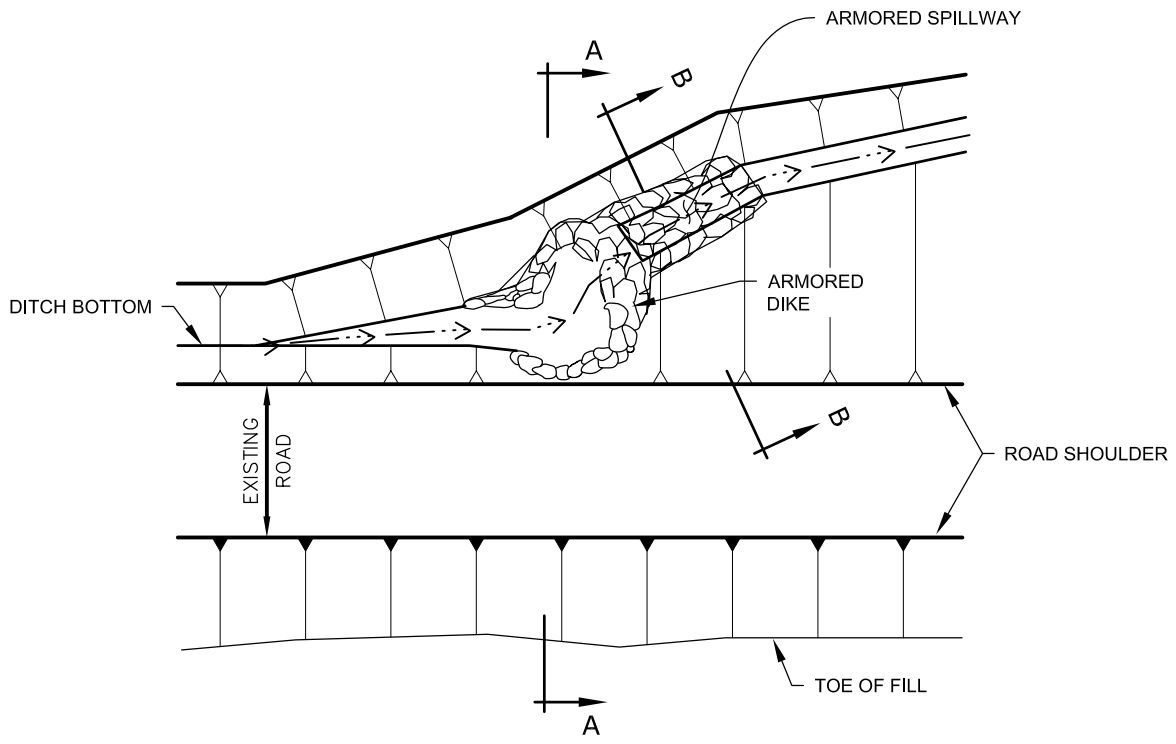
<FILL IN REGION NAME>
<FILL IN REGION NUMBER>

PROJECT NAME
<FILL IN PROJECT NAME>
<FILL IN FOREST>
<FILL IN RANGER DISTRICT>

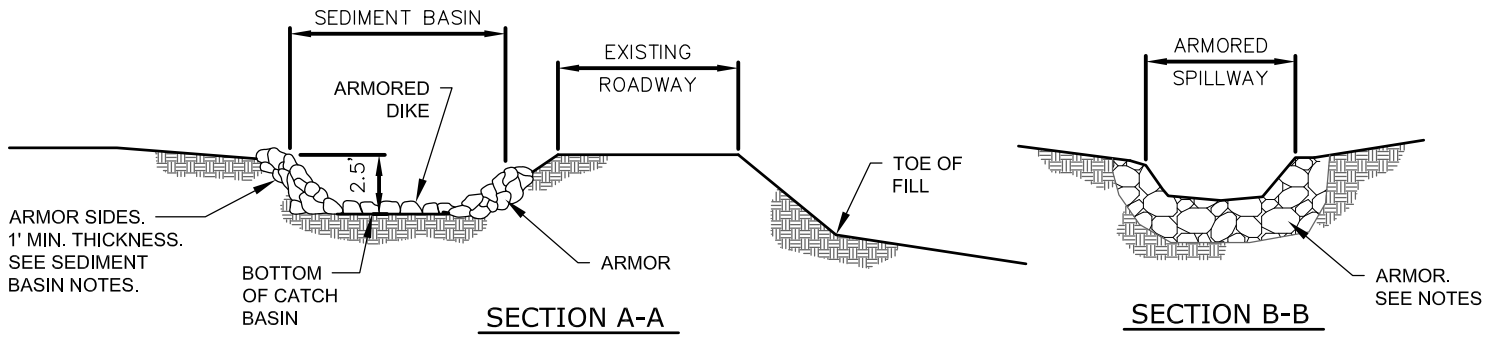
DRAWING TITLE
TYPICAL SECTIONS

DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE	<FILL IN>	<FILL IN>	4	4 OF 13

NO.	REVISION DESCRIPTION	BY	DATE
△			
△			
△			

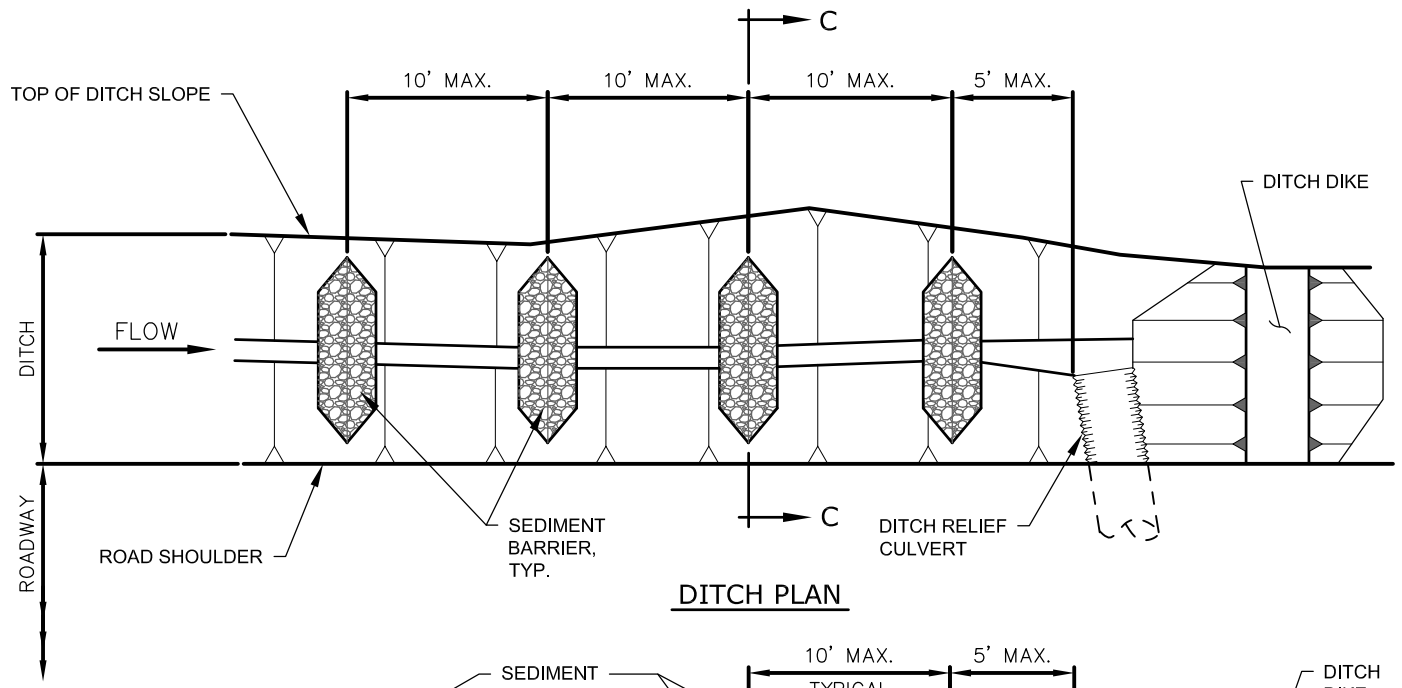


PLAN

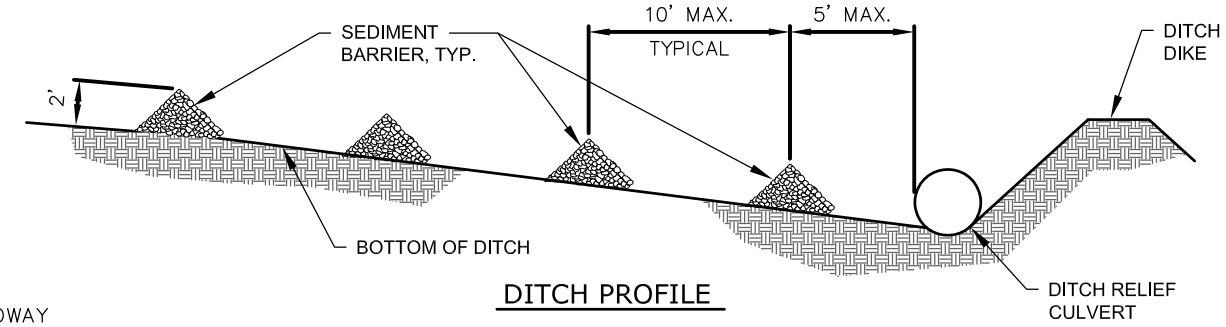


SEDIMENT BASIN

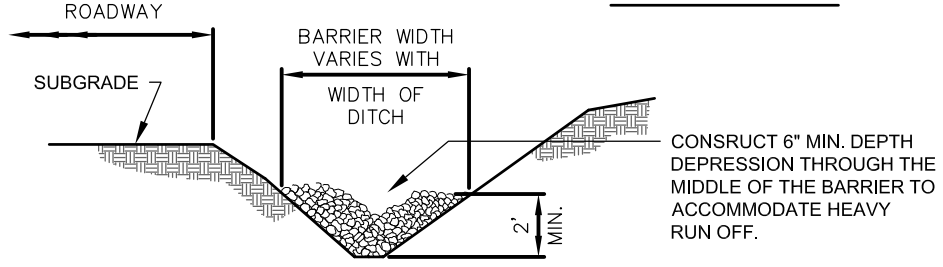
ITEM 157(52)



DITCH PLAN



DITCH PROFILE



SECTION C-C

SEDIMENT TRAPS

ITEM 157(08)

SEDIMENT BASIN NOTES:

SEDIMENT TRAP NOTES:

1.) CONSTRUCT SEDIMENT BARRIERS USING ROCK THAT RANGES IN SIZE FROM 2" MINIMUM TO 5" MAXIMUM.

2.) DO NOT CONSTRUCT BARRIERS HIGHER THAN THE THE ADJACENT SUBGRADE ELEVATION.

3.) DISPOSE OF EXCESS MATERIAL EXCAVATED FOR ROCK PLACEMENT AT A LOCATION DESIGNATED BY THE CO.

4.) DO NOT HAUL AND PLACE SEDIMENT BARRIER MATERIAL UNTIL THE SOURCE AND SIZE HAS BEEN APPROVED BY THE CO.

United States Department of Agriculture
Forest Service

<FILL IN REGION NAME>
<FILL IN REGION NUMBER>

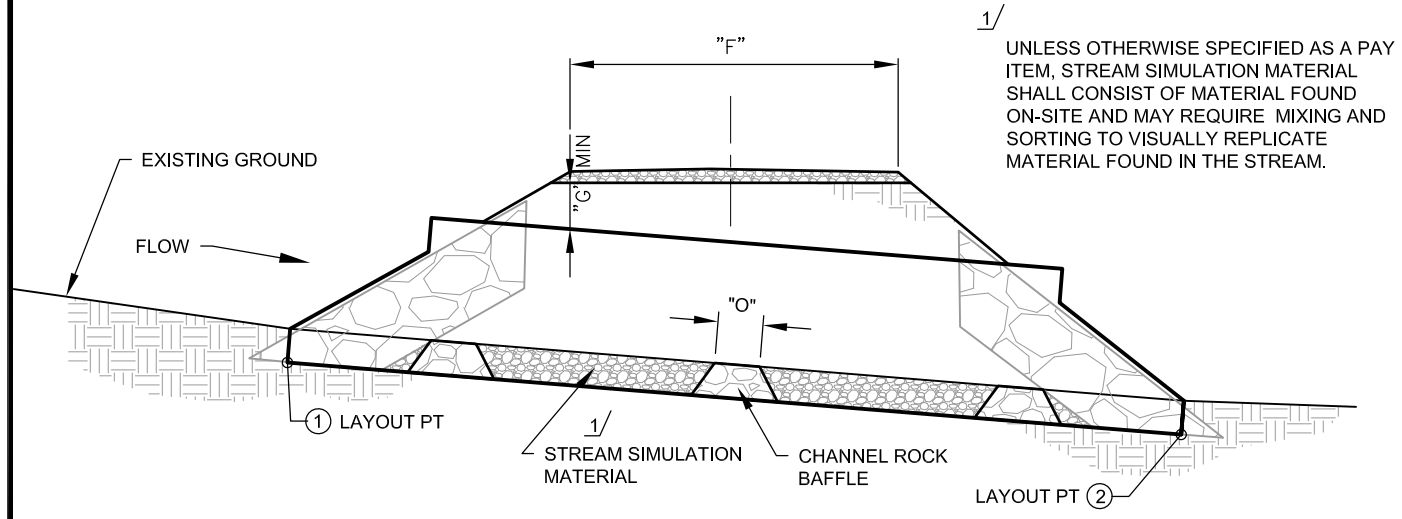
PROJECT NAME
<FILL IN PROJECT NAME>
<FILL IN FOREST>
<FILL IN RANGER DISTRICT>

DRAWING TITLE
##########

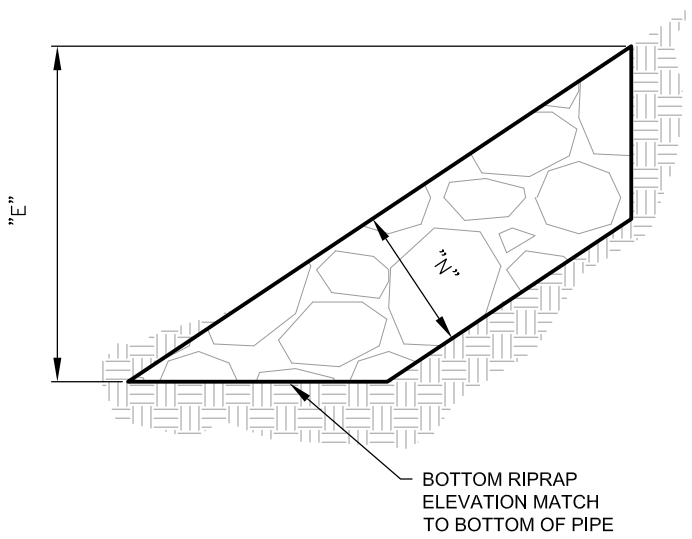
DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE	**<FILL IN>**	**<FILL IN>**	**#**	# OF 13

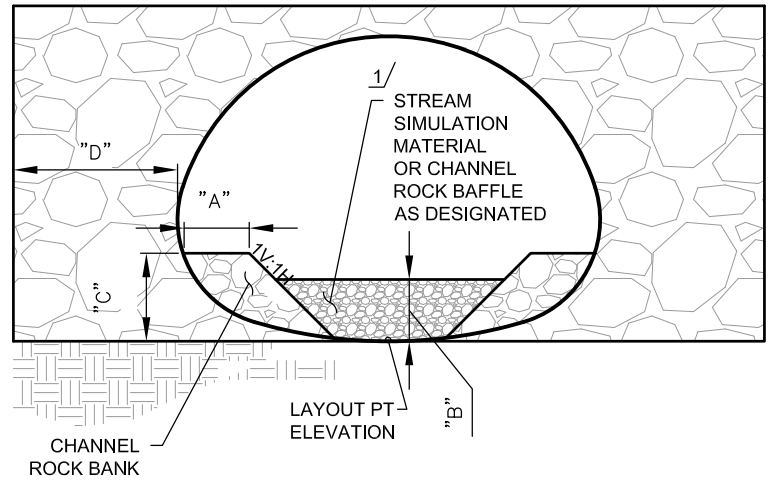
NO.	REVISION DESCRIPTION	BY	DATE
△			
△			
△			

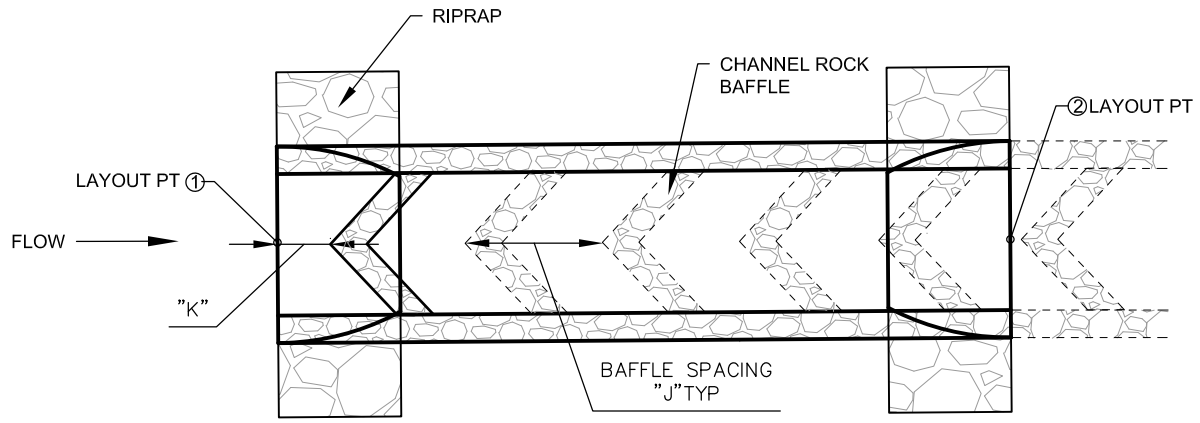
9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;



1/ UNLESS OTHERWISE SPECIFIED AS A PAY ITEM, STREAM SIMULATION MATERIAL SHALL CONSIST OF MATERIAL FOUND ON-SITE AND MAY REQUIRE MIXING AND SORTING TO VISUALLY REPLICATE MATERIAL FOUND IN THE STREAM.







LAYOUT POINTS					
ROAD #	MP	AOP PT 1		AOP PT 2	
		HORIZONTAL	ELEVATION	HORIZONTAL	ELEVATION

ROAD #	MP	STRUCTURE DETAILS					DIMENSIONS															
		SIZE	CORRUGATION	LENGTH	GRADE	END TREATMENT (ie BEVEL TYPE & SLOPE)	ROAD SURFACE SLOPE (ie 2% crown)	FILL SLOPE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O

9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

United States Department of Agriculture
Forest Service

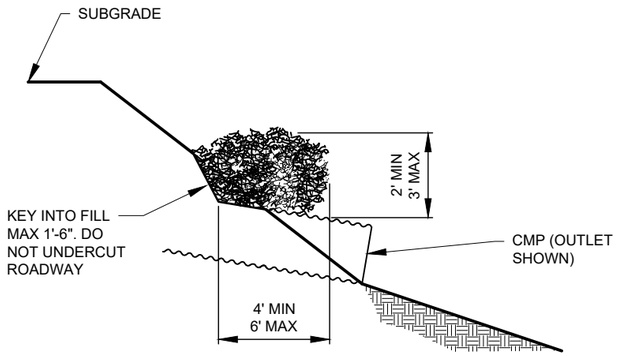
<FILL IN REGION NAME>
<FILL IN REGION NUMBER>

PROJECT NAME
<FILL IN PROJECT NAME>
<FILL IN FOREST>
<FILL IN RANGER DISTRICT>

DRAWING TITLE
####

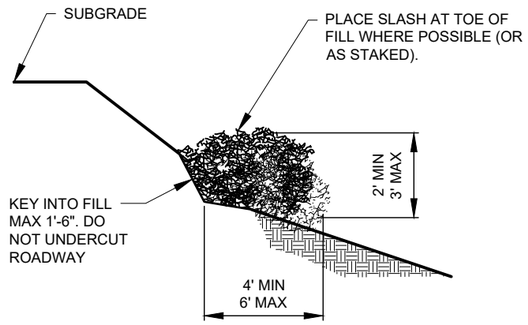
DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE	<FILL IN>	<FILL IN>	#	# OF 13

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			



SLASH FILTER (SEDIMENT RETENTION BARRIER) AT OUTLET

NOT TO SCALE



SLASH FILTER (SEDIMENT RETENTION BARRIER) AT TOE OF FILL

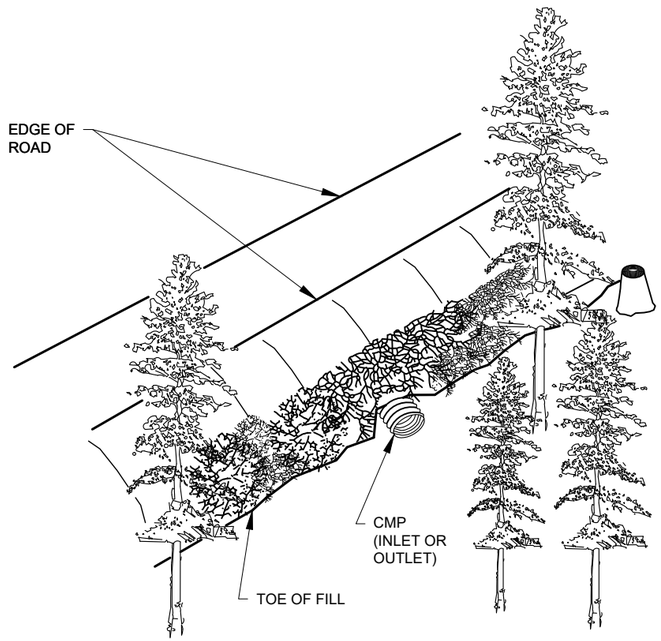
NOT TO SCALE

GENERAL NOTES:

INSTALL SLASH FILTERS TO THE LENGTH SHOWN IN THE WORKLISTS OR 60 LF WITH THE HALF WAY POINT ABOVE THE CMP. MINIMUM INSTALL LENGTH AT DRAIN DIPS IS 30 LF CENTERED AT LOW POINT OF THE DIP.

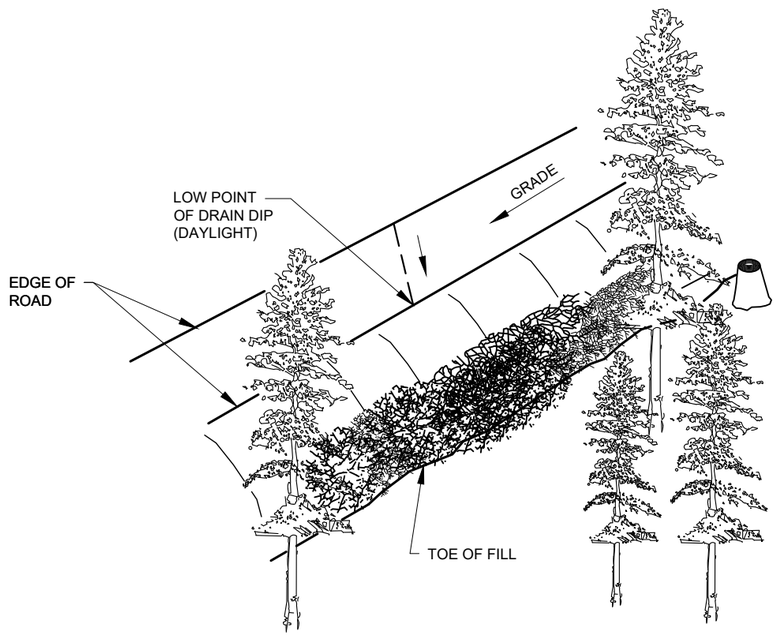
IF NO SLASH GENERATED FROM ROADSIDE CLEARING OR CLEARING AND GRUBBING OPERATIONS IS READILY AVAILABLE ON SITE THE C.O. SHALL DESIGNATE AN AREA WITHIN 4 MILES OF LOCATION SITE TO GENERATE SLASH DEPENDING ON SITE CONDITIONS.

CONSTRUCT SLASH FILTERS AT THE TOE OF THE SLOPE OR THE ELEVATION OF THE CULVERT TOP. BREAK DOWN AIR GAPS IN THE SLASH BY USING THE EXCAVATOR BUCKET. MATERIAL USED CANNOT BE BURNT/BLACK



SLASH FILTER (SEDIMENT RETENTION BARRIER) AT CMP

NOT TO SCALE



SLASH FILTER (SEDIMENT RETENTION BARRIER) AT DRAIN DIP

NOT TO SCALE

9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

United States Department of Agriculture
Forest Service

01
NORTHERN REGION

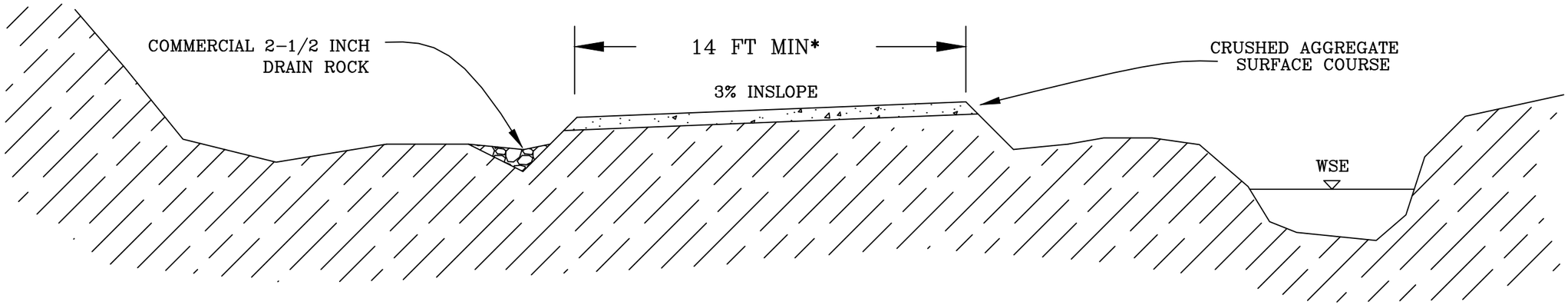
PROJECT NAME
DEADHEAD TIMBER SALE
BITTERROOT NATIONAL FOREST
STEVENSVILLE RANGER DISTRICT

DRAWING TITLE
SLASH WINDROW

DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
1/19/2022	J.PINTOK	A. RICHARDSON	10	10 OF 54

NO.	REVISION DESCRIPTION	BY	DATE
1	ORIGINAL PROJECT DOCUMENTS	JP	8/17/20

ROCK LINED DITCH TYPICAL



9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

United States Department of Agriculture
Forest Service

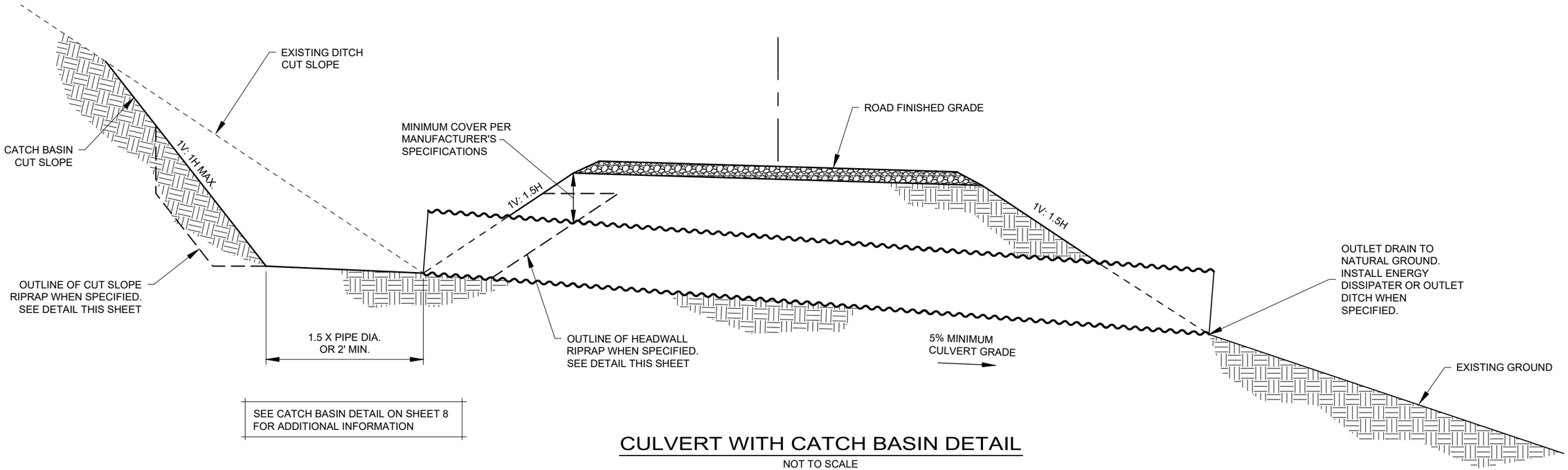
01
NORTHERN REGION

PROJECT NAME
WILLOW CREEK BMP PROJECT
BITTERROOT NATIONAL FOREST
STEVENSVILLE RANGER DISTRICT

DRAWING TITLE
ROCK LINED DITCH DETAIL

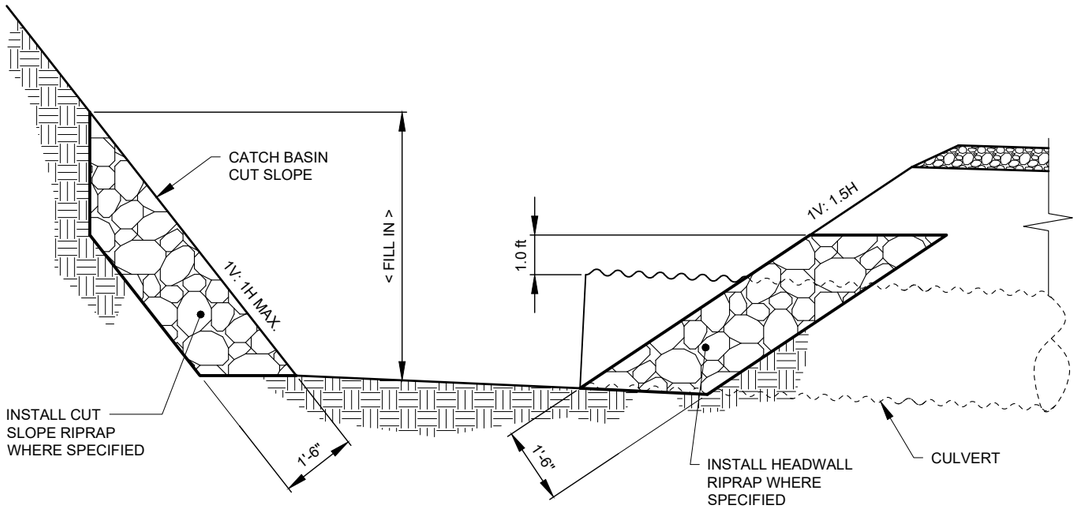
DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
4/9/2020	J.PINTOK	J.STUART	10	10 OF 17

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			



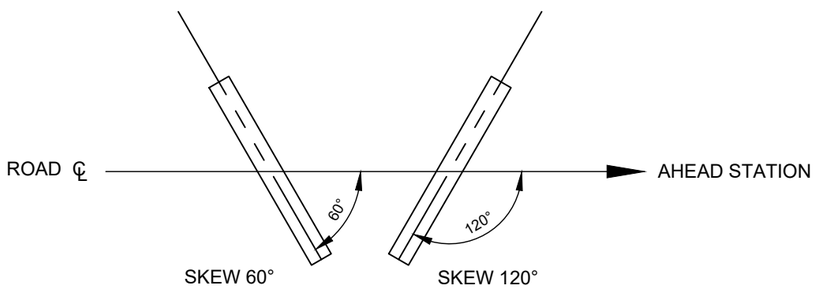
CULVERT WITH CATCH BASIN DETAIL

NOT TO SCALE



RIPRAP DETAIL

NOT TO SCALE



SKEW DIAGRAM

NOT TO SCALE

9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

United States Department of Agriculture
Forest Service

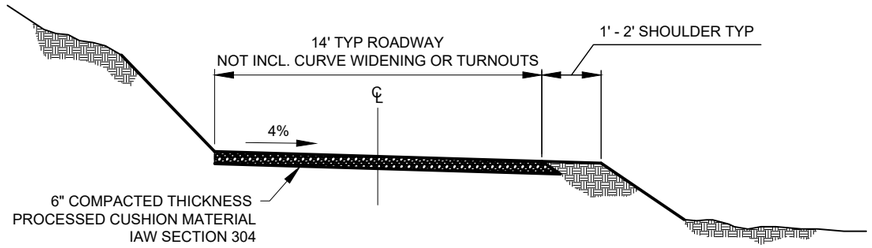
01
NORTHERN REGION

PROJECT NAME
BEARTRAP TIMBER SALE
BITTERROOT NATIONAL FOREST
STEVENSVILLE RANGER DISTRICT

DRAWING TITLE
CULVERT WITH CATCH BASIN DETAIL

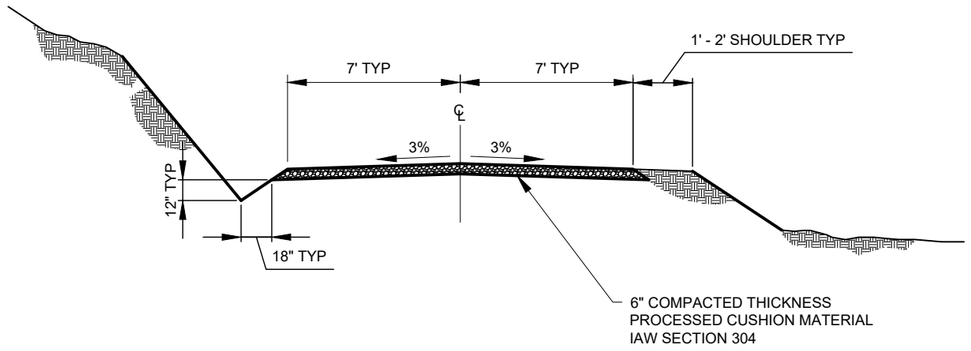
DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
4/26/2022	J.PINTOK	A RICHARDSON	8	8 OF 18

NO.	REVISION DESCRIPTION	BY	DATE



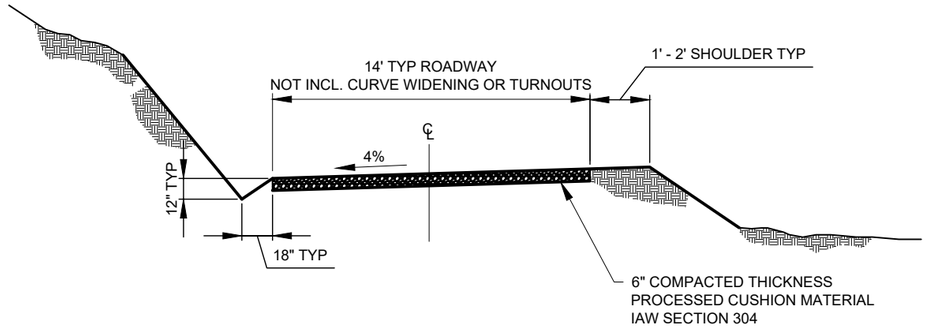
TYPICAL OUTSLOPE SECTION

NOT TO SCALE



TYPICAL CROWN SECTION

NOT TO SCALE



TYPICAL INSLOPE SECTION

NOT TO SCALE

9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

United States Department of Agriculture
Forest Service

NORTHERN REGION
REGION 1

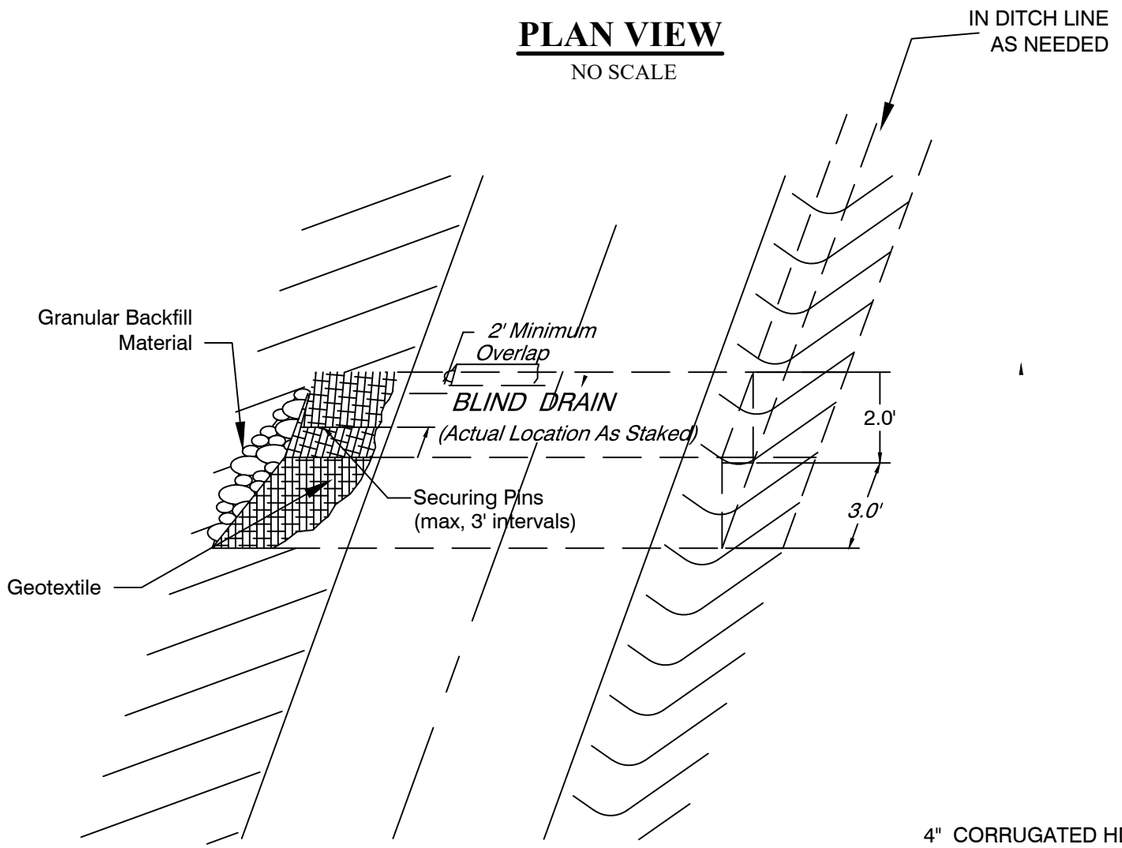
PROJECT NAME
FULL DEPTH RECLAMATION
BITTERROOT NATIONAL FOREST

DRAWING TITLE
TYPICAL SECTIONS

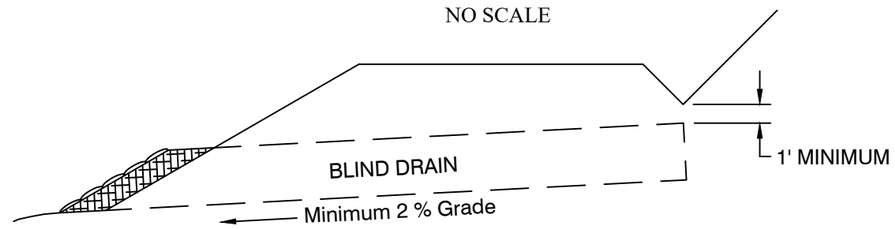
DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
6/20/19	N/A	N/A	2	2 OF 6

NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			

PLAN VIEW
NO SCALE

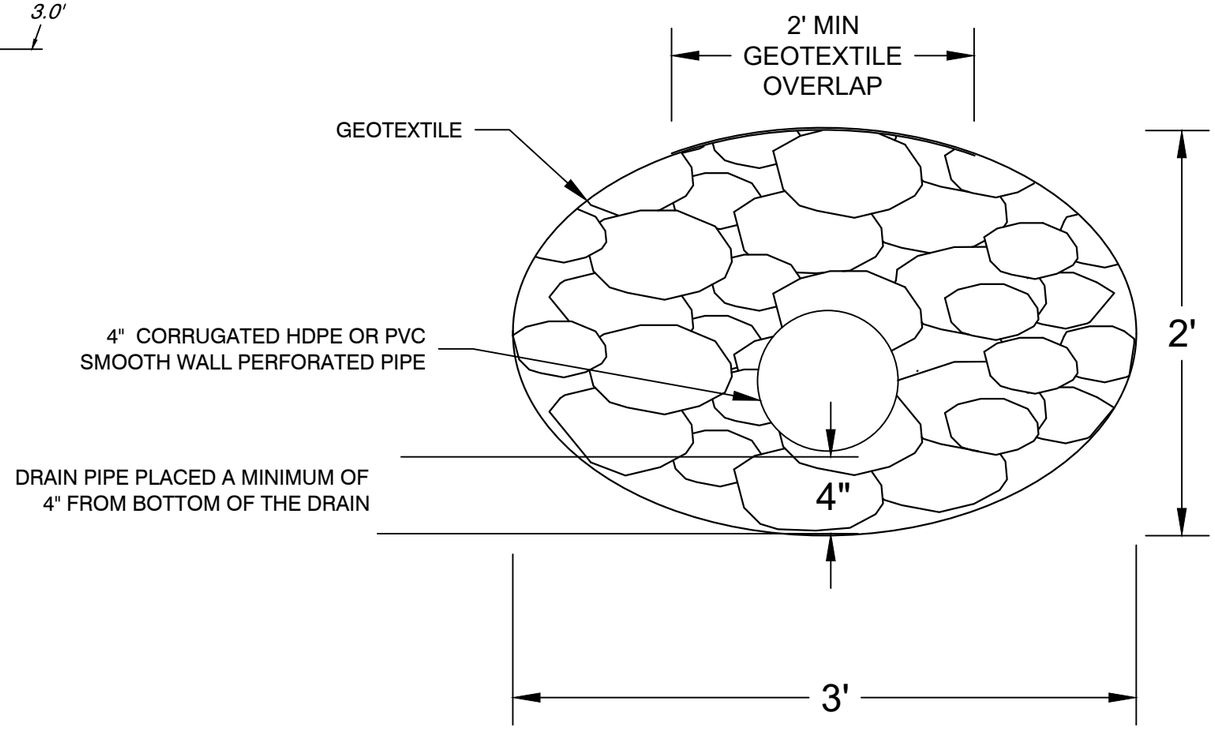


CROSS SECTION VIEW
NO SCALE



PROFILE VIEW

END VIEW
NO SCALE



9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

United States Department of Agriculture
Forest Service

01
NORTHERN REGION

PROJECT NAME
BITTERROOT NATIONAL FOREST

DRAWING TITLE
STANDARD UNDERDRAIN DETAIL

DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
1/19/2022	J.PINTOK	A. RICHARDSON	17	17 OF 54

NO.	REVISION DESCRIPTION	BY	DATE
1	ORIGINAL PROJECT DOCUMENTS	JP	8/17/20