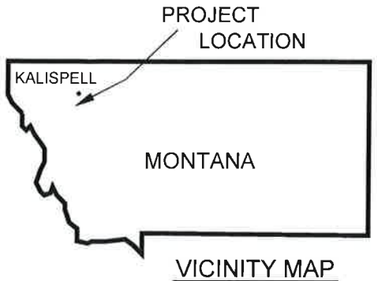
FLATHEAD NATIONAL FOREST

CONSTRUCTION DRAWINGS FOR:

HUEY TIMBER SALE ROAD CONSTRUCTION



VICINITY MAP

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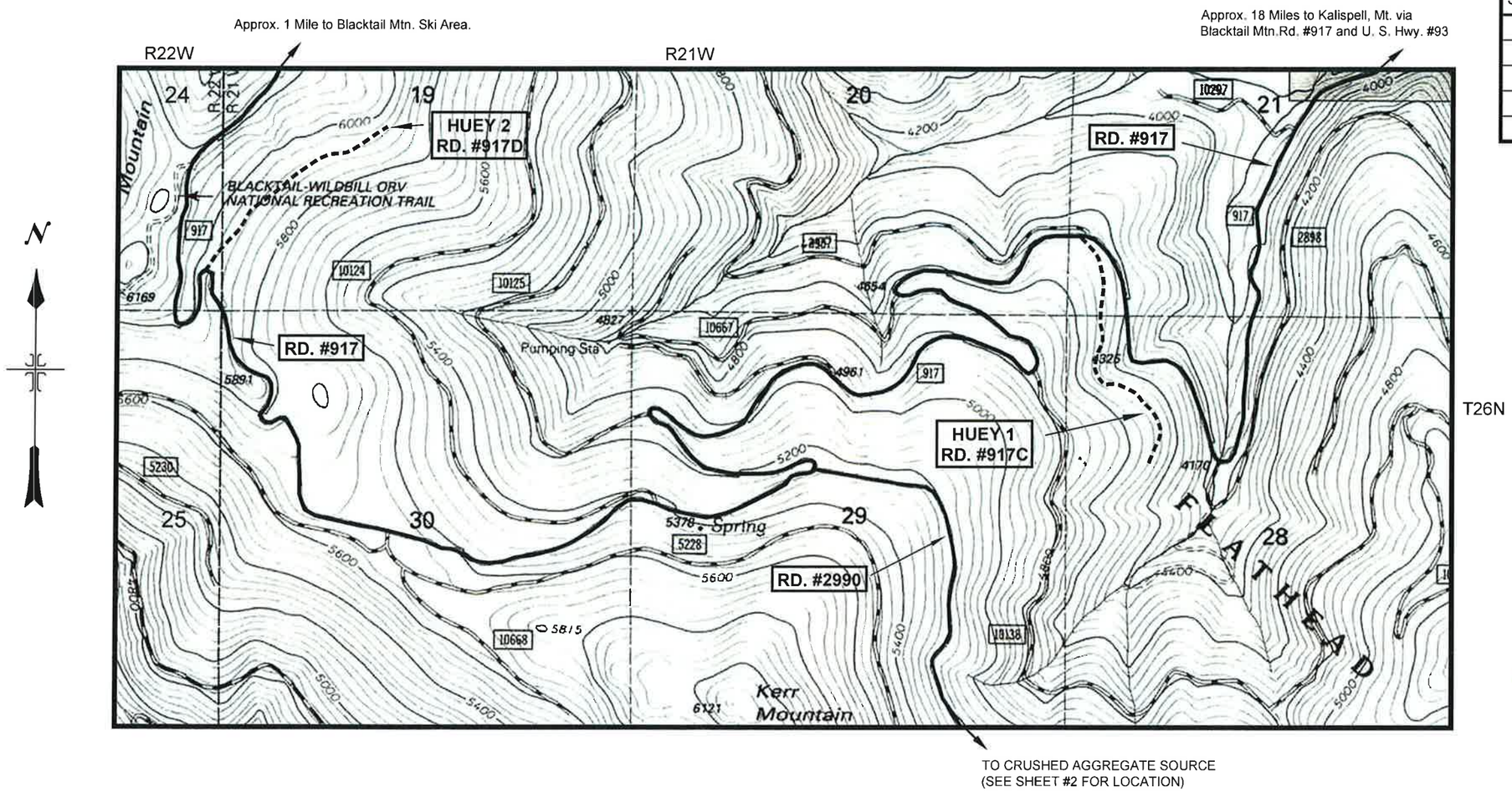

Submitted By:
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Recommended By:
7/21/14
Swan Lake District Ranger Date

Reviewed By:
7/30/14
Forest Engineer Date

Approved By:
7/31/14
Forest Supervisor Date

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R-1
NORTHERN REGION

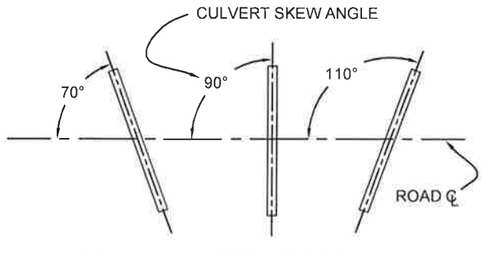
HUEY ROADS

SUMMARY OF ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	MEASUREMENT METHOD	MEASUREMENT UNIT	HUEY 1 - RD. #917C (0.63 Mi.)	HUEY 2 - RD. #917D (0.57 Mi.)	TOTAL ESTIMATED QUANTITIES
201(01)	CLEARING & GRUBBING	DQ	ACRE	3.25	2.50	5.75
203(01)	EXCAVATION, PLACEMENT METHOD 1	DQ	CU.YDS.	3842	2015	5857
203(17)	DRAINAGE EXCAVATION, TYPE DRAIN DIP	AQ	EACH	2	4	6
304(13)	CRUSHED AGGREGATE SURFACING, COMPACTION A -- GOV'T-FURNISHED -- (LOOSE C.Y.)	VQ	CU.YDS.	60	20	80
601(01)	MOBILIZATION	LSQ	LUMP SUM	1	1	ALL REQ'D.
603(01)	18-INCH CORRUGATED STEEL PIPE, 0.064-INCH THICKNESS	AQ	LIN.FT.	126	60	186
625(01)	SEEDING, DRY METHOD (WITHOUT MULCH)	DQ	ACRE	1.40	0.75	2.15

CULVERT LISTING

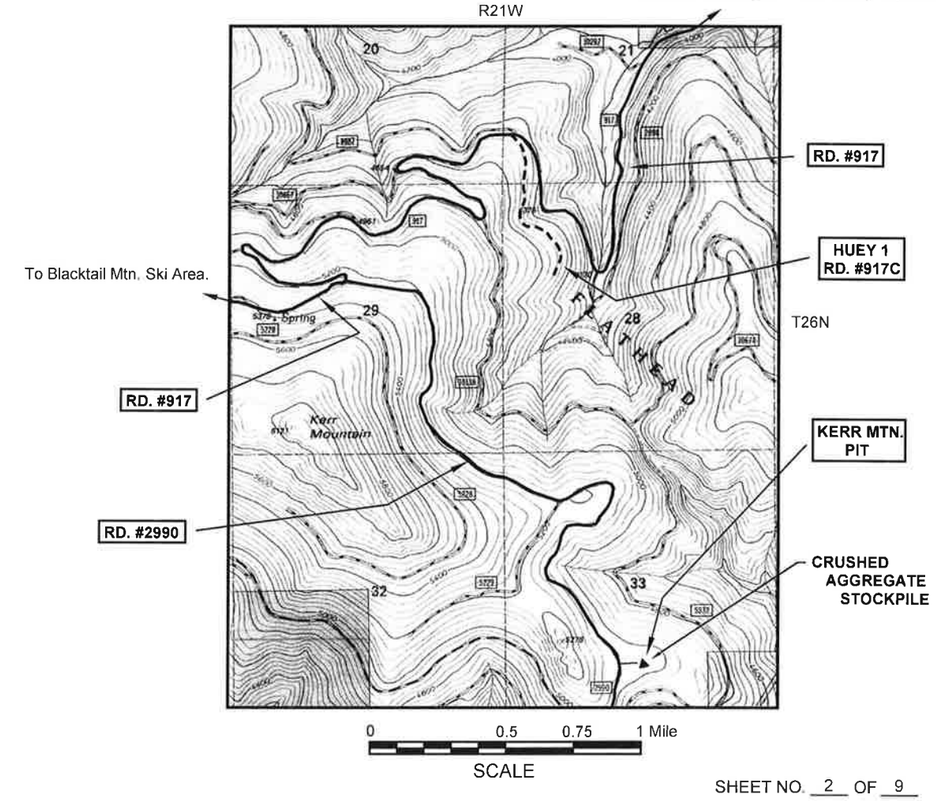
ROAD NO.	STATION	LENGTH FEET	STEEL --- 2-⅔" X ½" CORRUGATIONS SIZE	STEEL --- 2-⅔" X ½" CORRUGATIONS THICKNESS	SKEW	CATCH BASIN	DITCH BLOCK	REMARKS
917C	1+21	24'	18"	0.064"	90°	X		Drain into Rd. #917 Ditch
917C	18+19	48'	18"	0.064"	With Draw	X		Dry Draw
917C	19+92	54'	18"	0.064"	With Draw	X		Dry Draw
917D	0+25	34'	18"	0.064"	With Ditch			Install in Rd. #917 Ditch Line
917D	17+49	26'	18"	0.064"	90°	X		Cross Drain



FOR ALL PIPE INSTALLATIONS, CONSERVE ROCK FROM THE PIPE AND/OR CATCH BASIN EXCAVATION AND PLACE AS RIPRAP AT PIPE INLETS & OUTLETS. ARMOR CATCH BASINS WHEN SHOWN ON THE DRAWINGS. (CONSERVING & PLACING RIPRAP IS CONSIDERED INCIDENTAL TO PIPE INSTALLATION).

CRUSHED AGGREGATE SOURCE

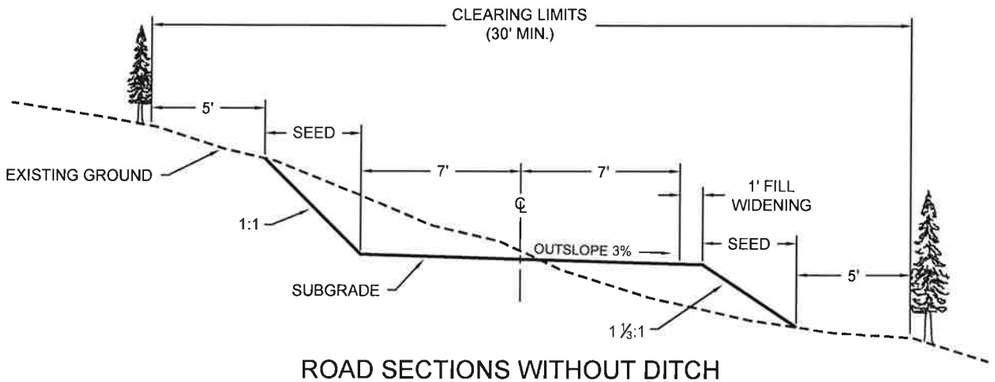
Approx. 18 Miles to Kalispell, Mt. via Blacktail Mtn.Rd. #917 and U. S. Hwy. #93



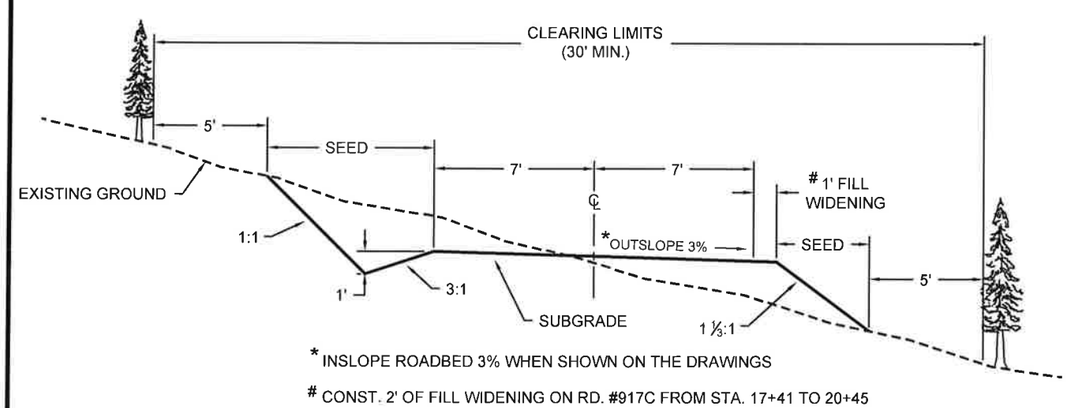
TYPICAL SECTIONS & GENERAL NOTES

TYPICAL CLEARING & GRUBBING LIMITS

Not to Scale



ROAD SECTIONS WITHOUT DITCH



* INSLOPE ROADBED 3% WHEN SHOWN ON THE DRAWINGS

CONST. 2' OF FILL WIDENING ON RD. #917C FROM STA. 17+41 TO 20+45

ROAD SECTIONS WITH DITCH

GENERAL NOTES

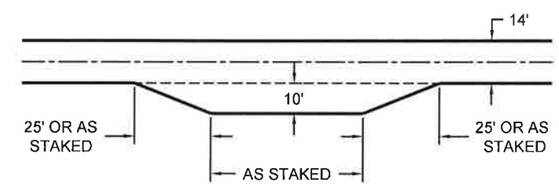
1. INITIAL CLEARING LIMITS AND CONSTRUCTION STAKES WILL BE SET BY THE GOVERNMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND PRESERVE ALL STAKES AND OTHER MARKS SET BY THE GOVERNMENT.

2. ITEM 201(01) --- CLEARING & GRUBBING --- {UTILIZATION OF TIMBER - METHOD (1) --- DISPOSE OF MERCHANTABLE TIMBER IN ACCORDANCE WITH THE PROVISIONS OF THE TIMBER SALE CONTRACT} --- {SLASH TREATMENT - METHOD (11) PILING --- ALL TOPS & LIMBS, STUMPS, CULL LOGS, AND OTHER VEGETATIVE MATERIAL WITHIN THE CLEARING LIMITS SHALL BE CLEARED, GRUBBED, REMOVED, AND PILED IN CLEAN PILES ADJACENT TO THE CLEARING LIMITS AT DESIGNATED LOCATIONS FOR LATER BURNING BY THE FOREST SERVICE. PLACE AND CONSTRUCT PILES SO FUTURE BURNING WILL NOT DAMAGE REMAINING TREES}.

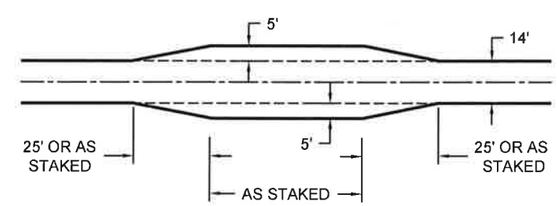
3. ITEM 203(01) --- EXCAVATION, EMBANKMENT, & HAUL --- TOLERANCE CLASS G --- ROADBED FINISHING METHOD A - (SHAPE AND FINISH THE ROADBED TO A "MOTOR GRADER FINISH". ROCK PROTRUSIONS LESS THAN 1" ABOVE THE FINISHED ROAD SURFACE WILL BE ALLOWED. GRADE ALL DRAIN DIPS AND DRAIN SAGS TO EFFECTIVELY DRAIN WATER FROM THE ROAD SURFACE). --- EMBANKMENT PLACEMENT METHOD (1) --- SIDE CASTING & END DUMPING.

4. ITEM 304(13) --- AGGREGATE BASE OR SURFACE COURSE --- CRUSHED AGGREGATE SURFACING SHALL BE OBTAINED FROM THE EXISTING STOCKPILE LOCATED IN THE KERR MTN. PIT (T.26N., R19W., SEC. 33). MEASUREMENT WILL BE MADE IN THE HAULING VEHICLE AND SHALL BE PLACED TO THE WIDTH AND DEPTH DIRECTED BY THE ENGINEER AT THE APPROXIMATE LOCATIONS SHOWN ON THE DRAWINGS. REMOVE THE EXISTING EARTH BERM BLOCKING THE PIT ACCESS ROAD AND REPLACE AFTER AGGREGATE REMOVAL.

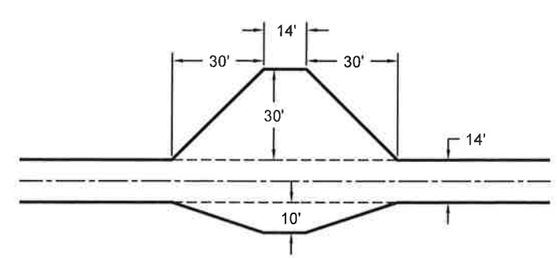
5. ITEM 625(01) --- SEEDING & MULCHING --- APPLY SEED AND FERTILIZER AT THE RATES SPECIFIED TO ALL DISTURBED AREAS OUTSIDE OF THE ROAD SHOULDERS (INCLUDES FILL SLOPES, CUT SLOPES, DRAIN DIP OUTLETS, ETC.).



TURNOUT RIGHT OR LEFT



SPLIT TURNOUT

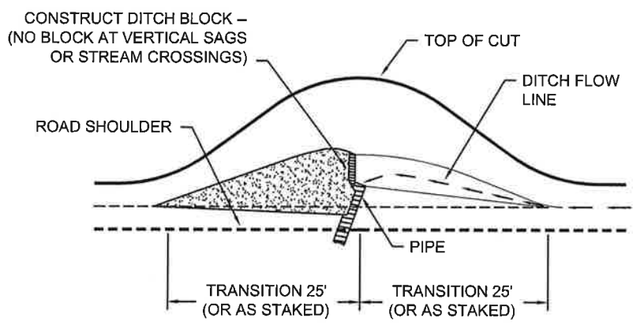


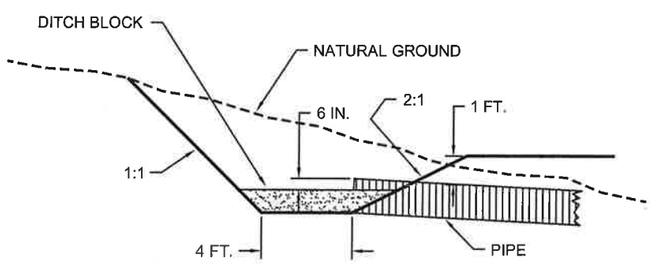
TURN-A-ROUND

TYPICAL SECTIONS & GENERAL NOTES

CATCH BASIN & DITCH BLOCK TYPICAL

Not to Scale





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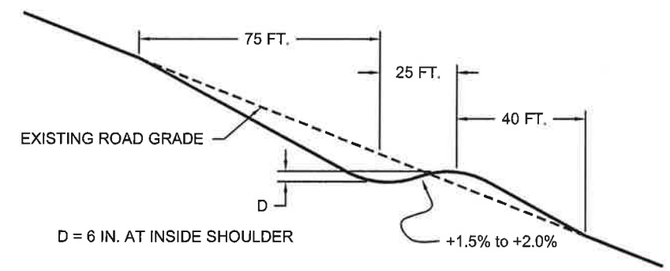
DRAIN DIP

Not to Scale



1. CONSTRUCTED DRAIN DIPS SHALL NOT HAVE PROTRUSIONS OR DEPRESSIONS GREATER THAN 2 IN. FROM THE TYPICAL SECTION --- (MOTOR GRADER FINISH).

2. SKEW TROUGH AND CREST OF THE DIP 10 DEGREES FROM PERPENDICULAR TO THE ROAD CENTERLINE.

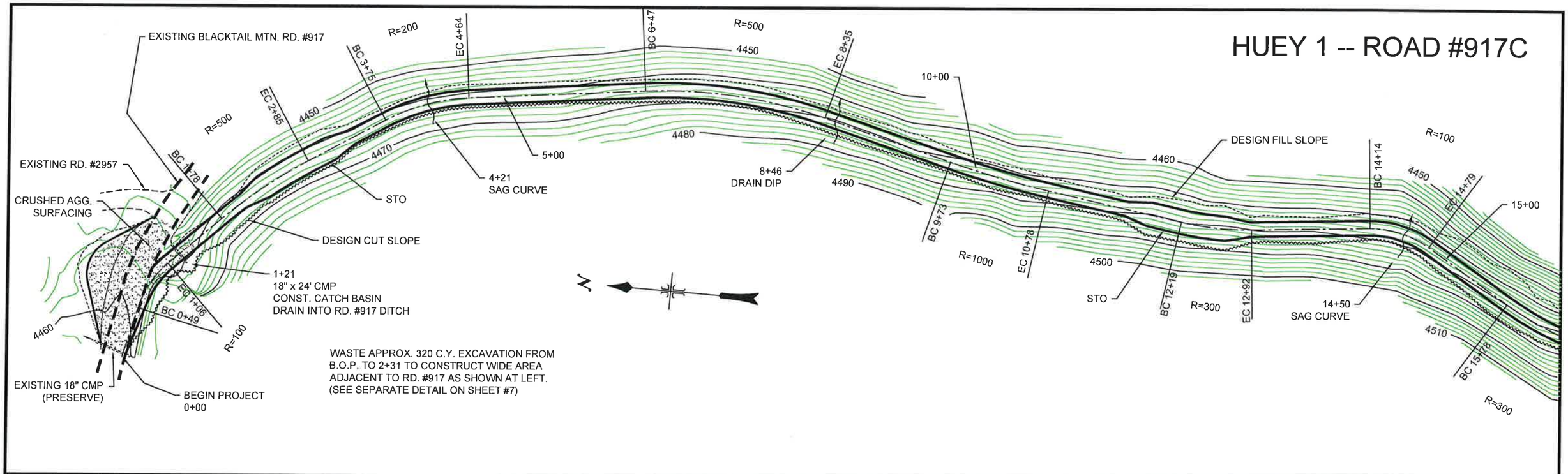
3. CROSS DRAIN SLOPE OF THE DIP SHALL BE OUTSLOPED 5% TO 8%.

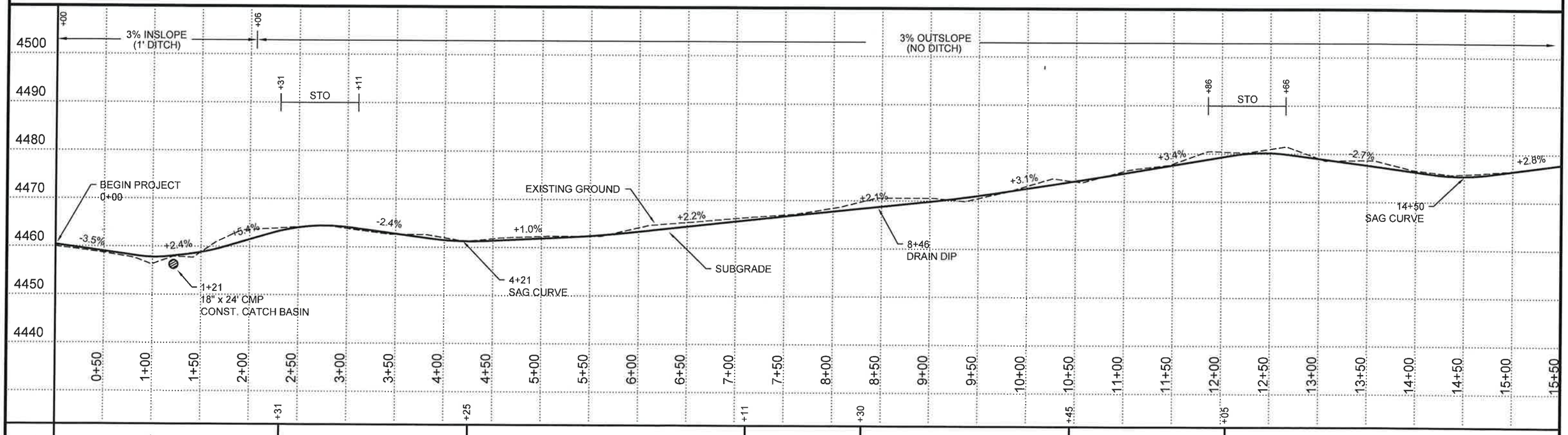
4. ALL DIP TRANSITIONS SHALL BE SHAPED SMOOTH AND UNIFORM AS DIRECTED.

5. CONSERVE ROCK FROM DIP EXCAVATION AND PLACE AT DIP OUTFALL TO SERVE AS ENERGY DISSIPATER.

6. UNLESS SHOWN OTHERWISE ON THE DRAWINGS, ON DITCHED ROADS DO NOT INTERCEPT THE DITCH LINE WITH THE DRAIN DIPS.

HUEY 1 -- ROAD #917C

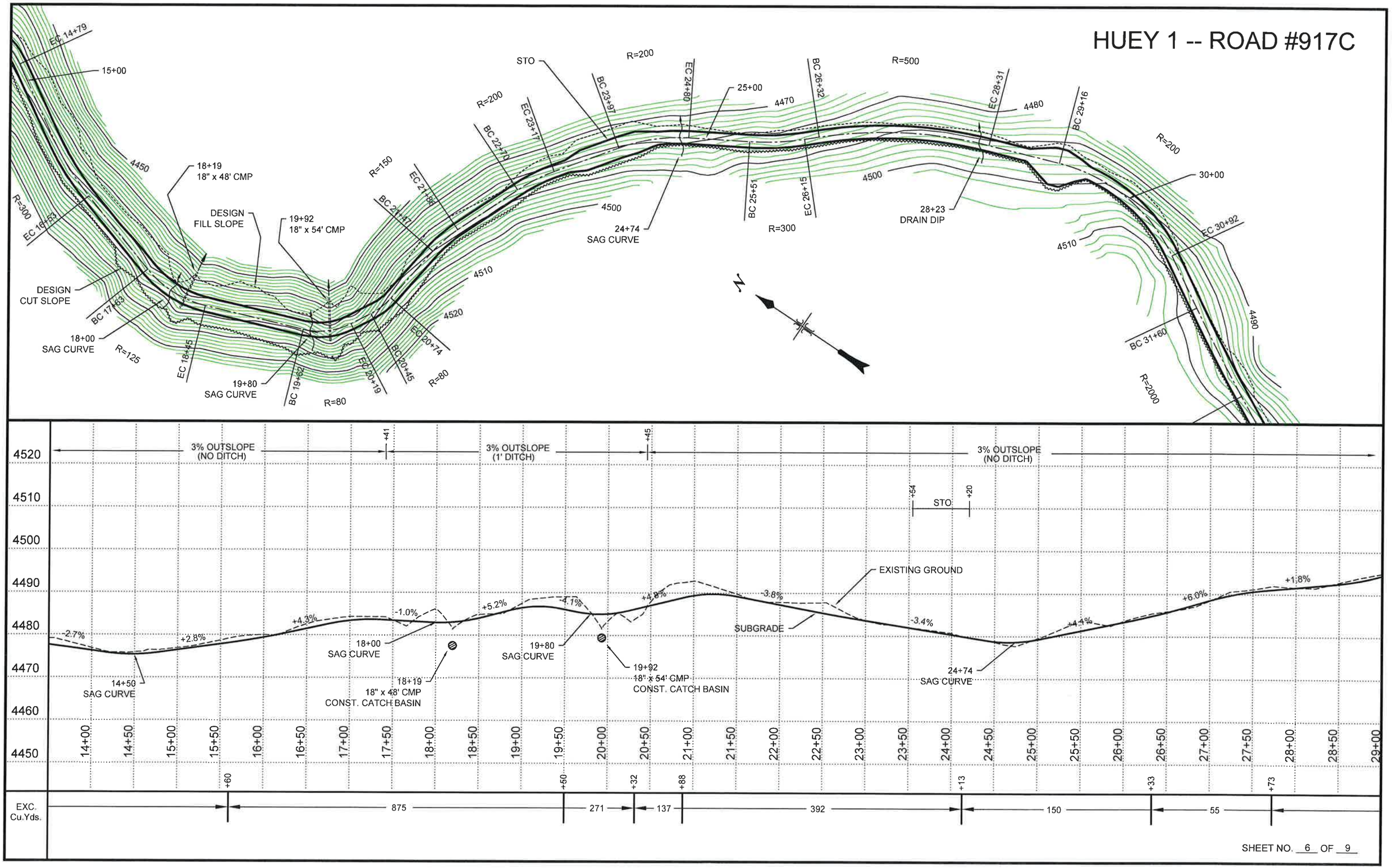




* WASTE APPROX. 320 C.Y. EXCAVATION FROM B.O.P. TO 2+31 TO CONSTRUCT WIDE AREA ADJACENT TO RD. #917 AS SHOWN ON SHEET #7.

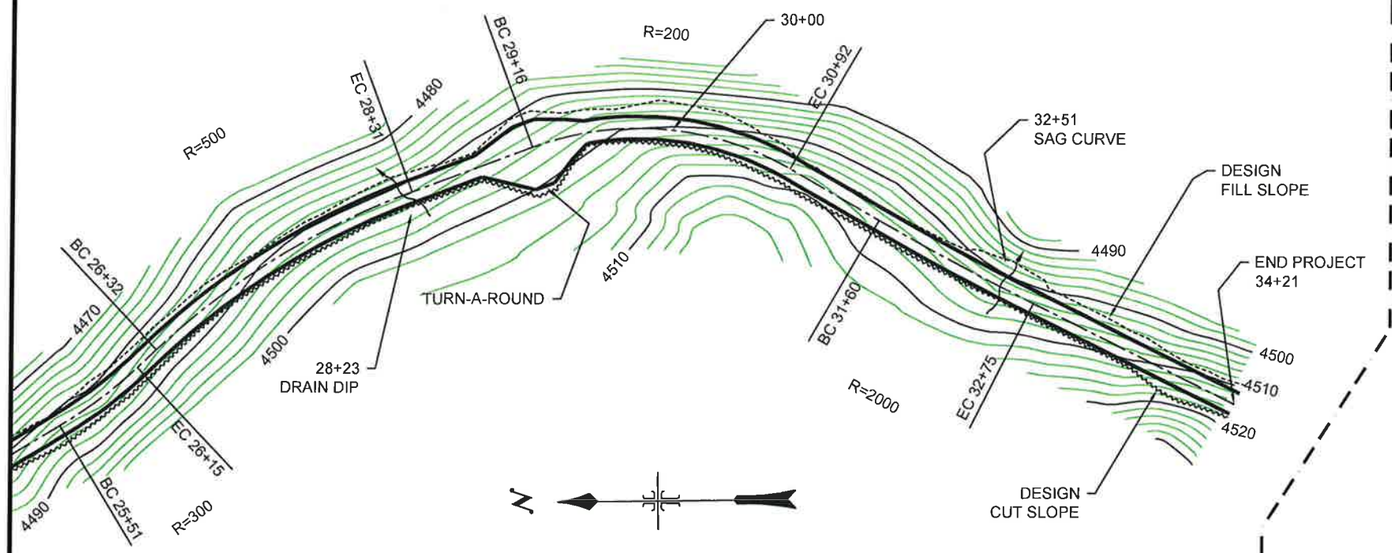
SHEET NO. 5 OF 9

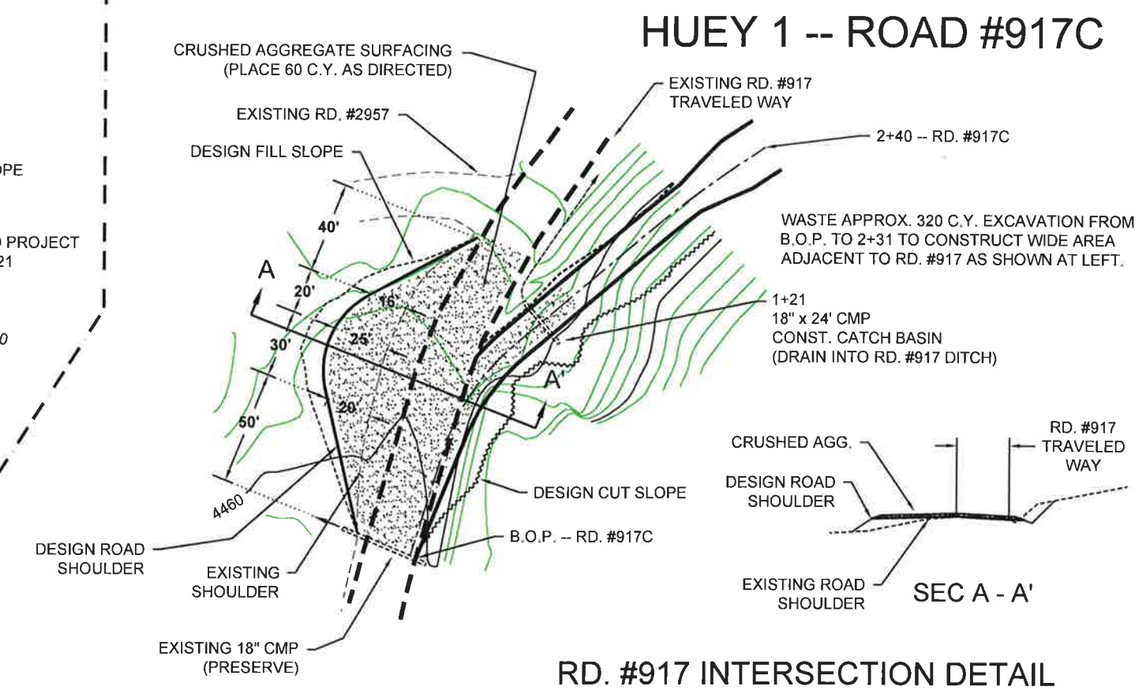
HUEY 1 -- ROAD #917C



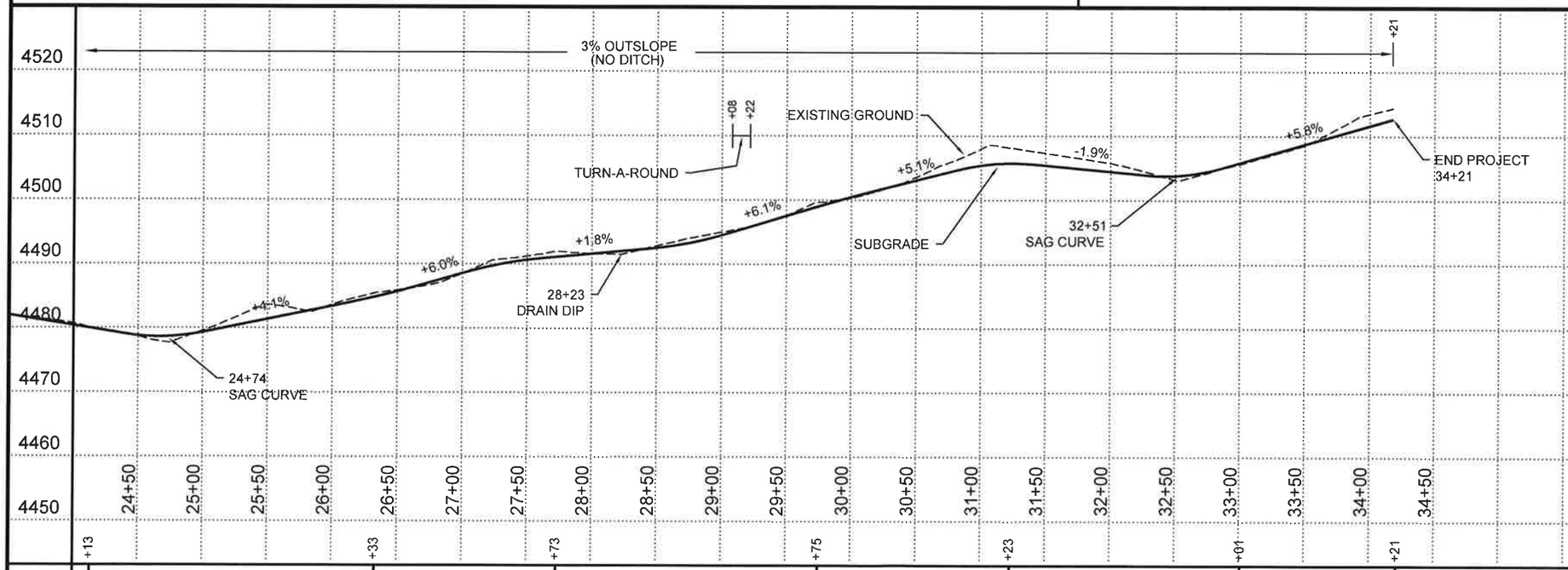
SHEET NO. 6 OF 9

HUEY 1 -- ROAD #917C





RD. #917 INTERSECTION DETAIL



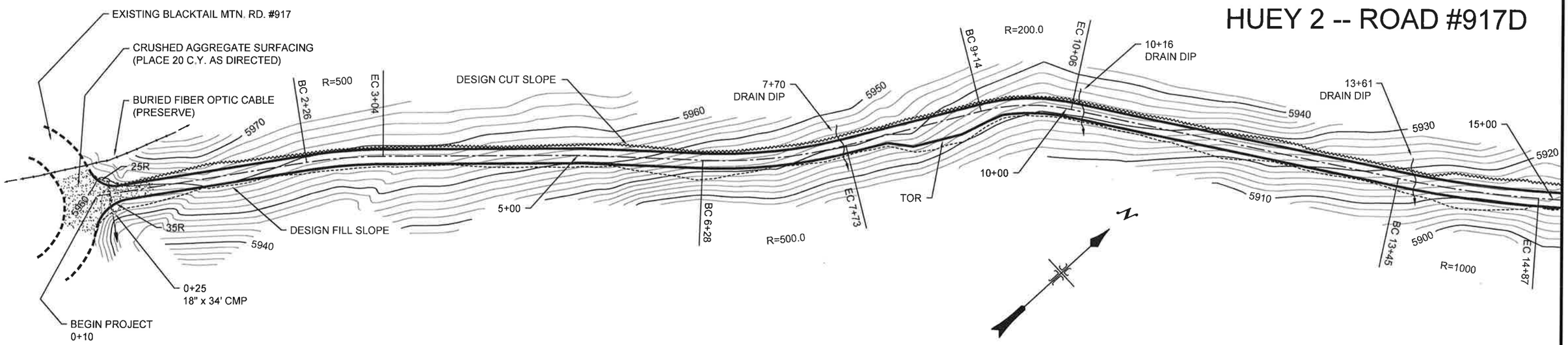
EXC. Cu.Yds.	*	*	146	106	103	88

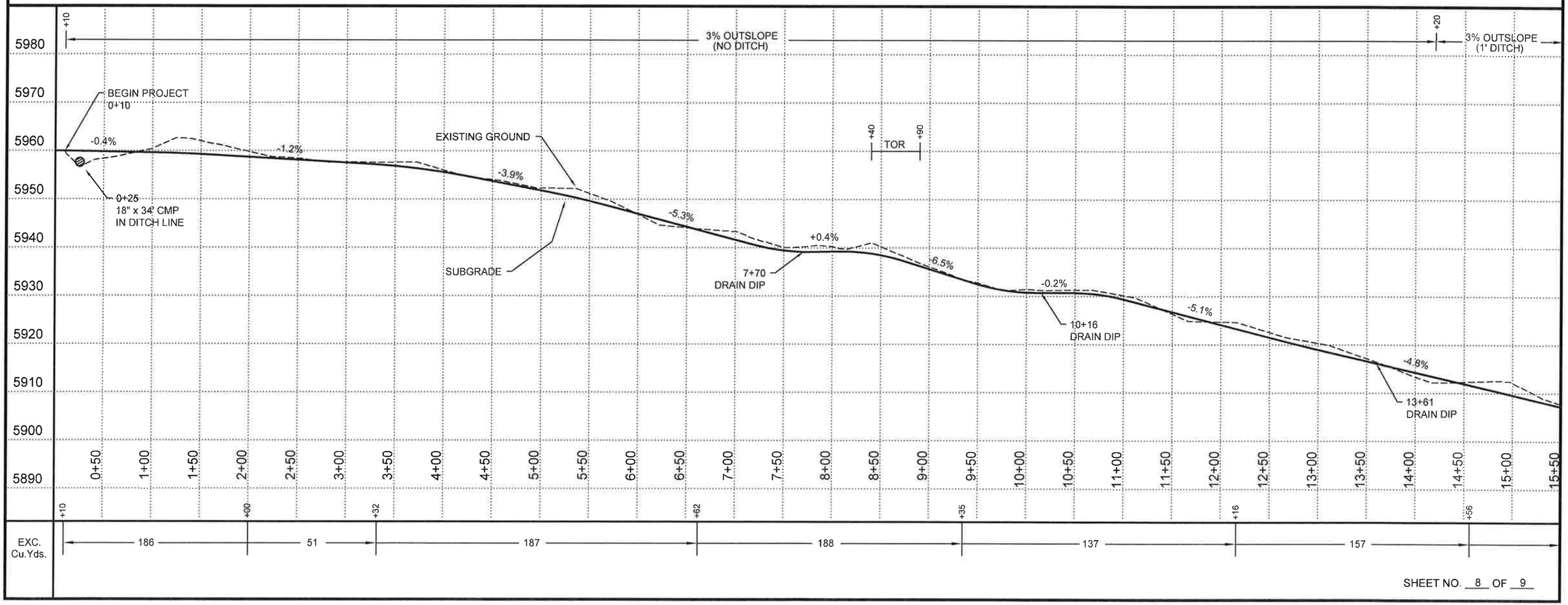
*SEE PREVIOUS SHEET FOR EXC. QUANTITIES

ESTIMATED QUANTITIES

201(01)	CLEARING & GRUBBING	3.25 Acres
203(01)	EXCAVATION	3842 Cu.Yds.
203(17)	DRAIN DIPS	2 Each
304(13)	CRUSHED AGGREGATE SURFACING	60 Cu. Yds.
603(04)	18" CMP	126 L.F.
625(01)	SEEDING w/o MULCH	1.40 Acres

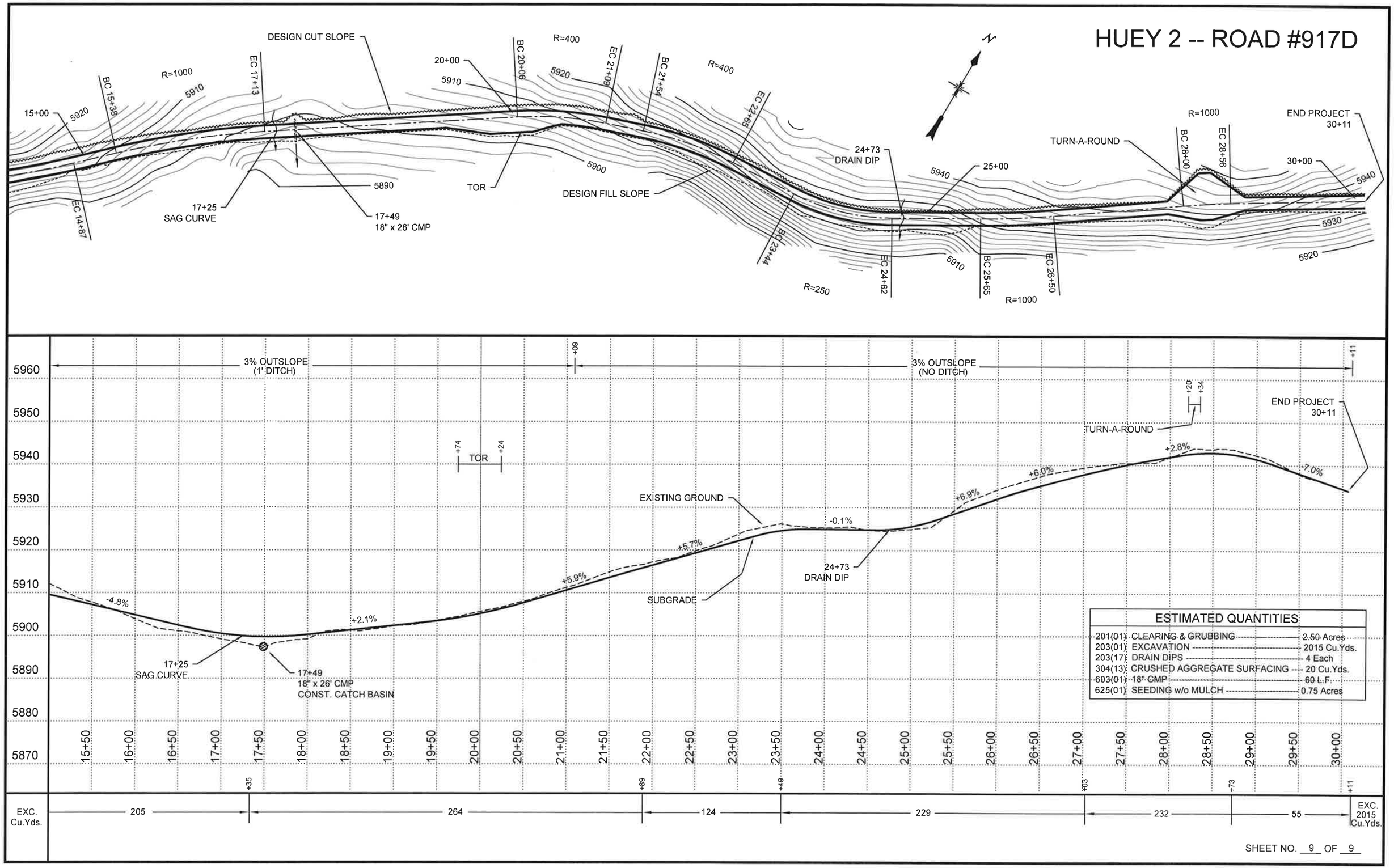
HUEY 2 -- ROAD #917D





SHEET NO. 8 OF 9

HUEY 2 -- ROAD #917D



ESTIMATED QUANTITIES

201(01)	CLEARING & GRUBBING	2.50 Acres
203(01)	EXCAVATION	2015 Cu.Yds.
203(17)	DRAIN DIPS	4 Each
304(13)	CRUSHED AGGREGATE SURFACING	20 Cu.Yds.
603(01)	18" CMP	60 L.F.
625(01)	SEEDING w/o MULCH	0.75 Acres

SHEET NO. 9 OF 9