

05-JAN-2010 07:38
 S:\CONTRACTS\resurfacing\projects\division\N-5159\N-5159-ddc_tsh_121009 (2).dgn
 \$\$\$USERNAME\$\$\$

TIP PROJECT: R-5159
CONTRACT: C202401

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

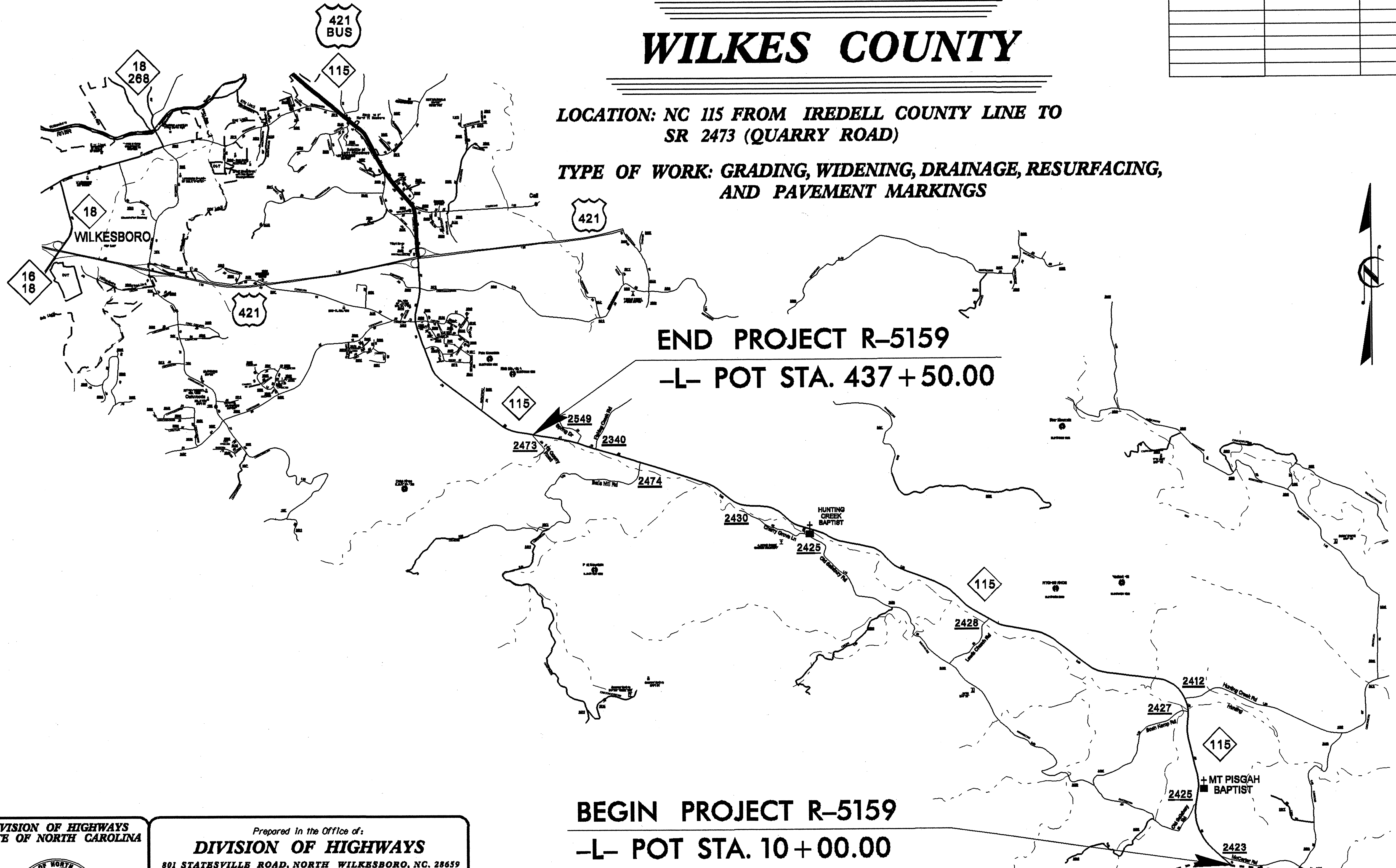
WILKES COUNTY

LOCATION: NC 115 FROM IREDELL COUNTY LINE TO
 SR 2473 (QUARRY ROAD)

TYPE OF WORK: GRADING, WIDENING, DRAINAGE, RESURFACING,
 AND PAVEMENT MARKINGS

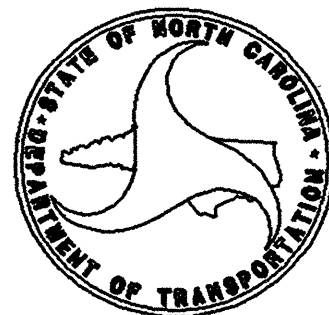
END PROJECT R-5159
 -L- POT STA. 437 + 50.00

BEGIN PROJECT R-5159
 -L- POT STA. 10 + 00.00



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5159	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45106.3.ST1	STM-0115(5)	CONST.	

DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA



P.E.
 STATE HIGHWAY DESIGN ENGINEER

Prepared in the Office of:
DIVISION OF HIGHWAYS
 801 STATESVILLE ROAD, NORTH WILKESBORO, NC. 28659

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: NA	JOE L. LAWS, PE DIVISION PROJECT MANAGER
LETTING DATE: MARCH 16, 2010	MICHAEL A. PETTYJOHN, PE DIVISION ENGINEER

IREDELL

COUNTY

8/17/99

30-DEC-2009 13:30
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PROJECT REFERENCE NO.	SHEET NO.
R-5159	1-A
ROADWAY DESIGN ENGINEER	

EFF. 07-18-06

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
2	TYPICAL SECTION BREAKDOWN
2-A THRU 2-D	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND DETAILS
2-E THRU 2-G	DETAIL FOR METHOD OF PIPE INSTALLATION
2-H	DETAIL FOR ANCHORAGE FOR FRAMES
2-I	DETAIL FOR GUARDRAIL ANCHOR UNIT TYPE III MODIFIED FOR CHURCH RAIL
3	SUMMARY OF QUANTITIES
3-A THRU 3-F	SUMMARY OF DRAINAGE QUANTITIES
3-G	PAVEMENT MARKING AND MARKERS SUMMARY AND SUMMARY OF FENCE RESET
3-H THRU 3-I	GUARDRAIL SUMMARY
4 THRU 75	PLAN SHEETS
EC-1 THRU EC-3	DITCHLINER SUMMARY
EC-4	PAM DETAIL
TCP-1	TRAFFIC CONTROL

GENERAL NOTES: 2006 SPECIFICATIONS
EFFECTIVE: 07-18-06
REVISED:

GRADING AND SURFACING OR RESURFACING AND WIDENING:
THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

SHOULDER CONSTRUCTION:
ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01.

SIDE ROADS:
THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

UNDERDRAINS:
UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.03 AT LOCATIONS DIRECTED BY THE ENGINEER.

GUARDRAIL:
THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

TEMPORARY SHORING:
SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

SUBSURFACE PLANS:
NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

UTILITIES:
UTILITY OWNERS ON THIS PROJECT ARE WILKES TELECOMMUNICATIONS, DUKE ENERGY, CHARTER CABLE, CENTURYLINK COMMUNICATIONS, ENERGY UNITED
ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

2006 ROADWAY STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated July 18, 2006 are applicable to this project and by reference hereby are considered a part of these plans:

STD. NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
DIVISION 3 - PIPE CULVERTS	
310.10	Driveway Pipe Construction
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
815.03	Pipe Underdrain and Blind Drain
840.00	Concrete Base Pad for Drainage Structures
840.18	Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.22	Frames and Wide Slot Sag Grates
840.27	Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.45	Precast Drainage Structure
840.66	Drainage Structure Steps
840.72	Pipe Collar
848.01	Concrete Sidewalk
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
866.02	Woven Wire Fence - with Wood Post
866.04	Barbed Wire Fence with Wood Posts (2 - 7 Strands)
876.01	Rip Rap in Channels
876.02	Guide for Rip Rap at Pipe Outlets

3/15/06

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○
Property Corner	→
Property Monument	⊠
Parcel/Sequence Number	Ⓜ
Existing Fence Line	×-×-×
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	⊠
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	-----
Proposed Wetland Boundary	-----
Existing Endangered Animal Boundary	-----
Existing Endangered Plant Boundary	-----

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	⊙
Well	⊙
Small Mine	⊗
Foundation	⊠
Area Outline	⊠
Cemetery	⊠
Building	⊠
School	⊠
Church	⊠
Dam	⊠

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	⊠
Jurisdictional Stream	JS
Buffer Zone 1	BZ 1
Buffer Zone 2	BZ 2
Flow Arrow	←
Disappearing Stream	→
Spring	○
Wetland	⊗
Proposed Lateral, Tail, Head Ditch	-----
False Sump	⊠

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○
Switch	⊠
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	-----
Proposed Right of Way Line with Concrete or Granite Marker	-----
Existing Control of Access	⊠
Proposed Control of Access	⊠
Existing Easement Line	E
Proposed Temporary Construction Easement	E
Proposed Temporary Drainage Easement	TDE
Proposed Permanent Drainage Easement	PDE
Proposed Permanent Utility Easement	PUE

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	C
Proposed Slope Stakes Fill	F
Proposed Wheel Chair Ramp	WCR
Proposed Wheel Chair Ramp Curb Cut	WCC
Curb Cut for Future Wheel Chair Ramp	CCFR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	⊠

VEGETATION:

Single Tree	⊗
Single Shrub	⊗
Hedge	-----
Woods Line	-----
Orchard	⊗
Vineyard	⊠

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	CONC
Bridge Wing Wall, Head Wall and End Wall	CONC WW
MINOR:	
Head and End Wall	CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	⊙
Storm Sewer	-----

UTILITIES:

POWER:	
Existing Power Pole	⊙
Proposed Power Pole	⊙
Existing Joint Use Pole	⊙
Proposed Joint Use Pole	⊙
Power Manhole	⊙
Power Line Tower	⊠
Power Transformer	⊠
U/G Power Cable Hand Hole	⊠
H-Frame Pole	⊙
Recorded U/G Power Line	-----
Designated U/G Power Line (S.U.E.*)	-----

TELEPHONE:

Existing Telephone Pole	⊙
Proposed Telephone Pole	⊙
Telephone Manhole	⊙
Telephone Booth	⊠
Telephone Pedestal	⊠
Telephone Cell Tower	⊠
U/G Telephone Cable Hand Hole	⊠
Recorded U/G Telephone Cable	-----
Designated U/G Telephone Cable (S.U.E.*)	-----
Recorded U/G Telephone Conduit	-----
Designated U/G Telephone Conduit (S.U.E.*)	-----
Recorded U/G Fiber Optics Cable	-----
Designated U/G Fiber Optics Cable (S.U.E.*)	-----

WATER:

Water Manhole	⊙
Water Meter	⊙
Water Valve	⊙
Water Hydrant	⊙
Recorded U/G Water Line	-----
Designated U/G Water Line (S.U.E.*)	-----
Above Ground Water Line	A/G Water

TV:

TV Satellite Dish	⊠
TV Pedestal	⊠
TV Tower	⊗
U/G TV Cable Hand Hole	⊠
Recorded U/G TV Cable	-----
Designated U/G TV Cable (S.U.E.*)	-----
Recorded U/G Fiber Optic Cable	-----
Designated U/G Fiber Optic Cable (S.U.E.*)	-----

GAS:

Gas Valve	⊙
Gas Meter	⊙
Recorded U/G Gas Line	-----
Designated U/G Gas Line (S.U.E.*)	-----
Above Ground Gas Line	A/G Gas

SANITARY SEWER:

Sanitary Sewer Manhole	⊙
Sanitary Sewer Cleanout	⊙
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	A/G Sanitary Sewer
Recorded SS Forced Main Line	-----
Designated SS Forced Main Line (S.U.E.*)	-----

MISCELLANEOUS:

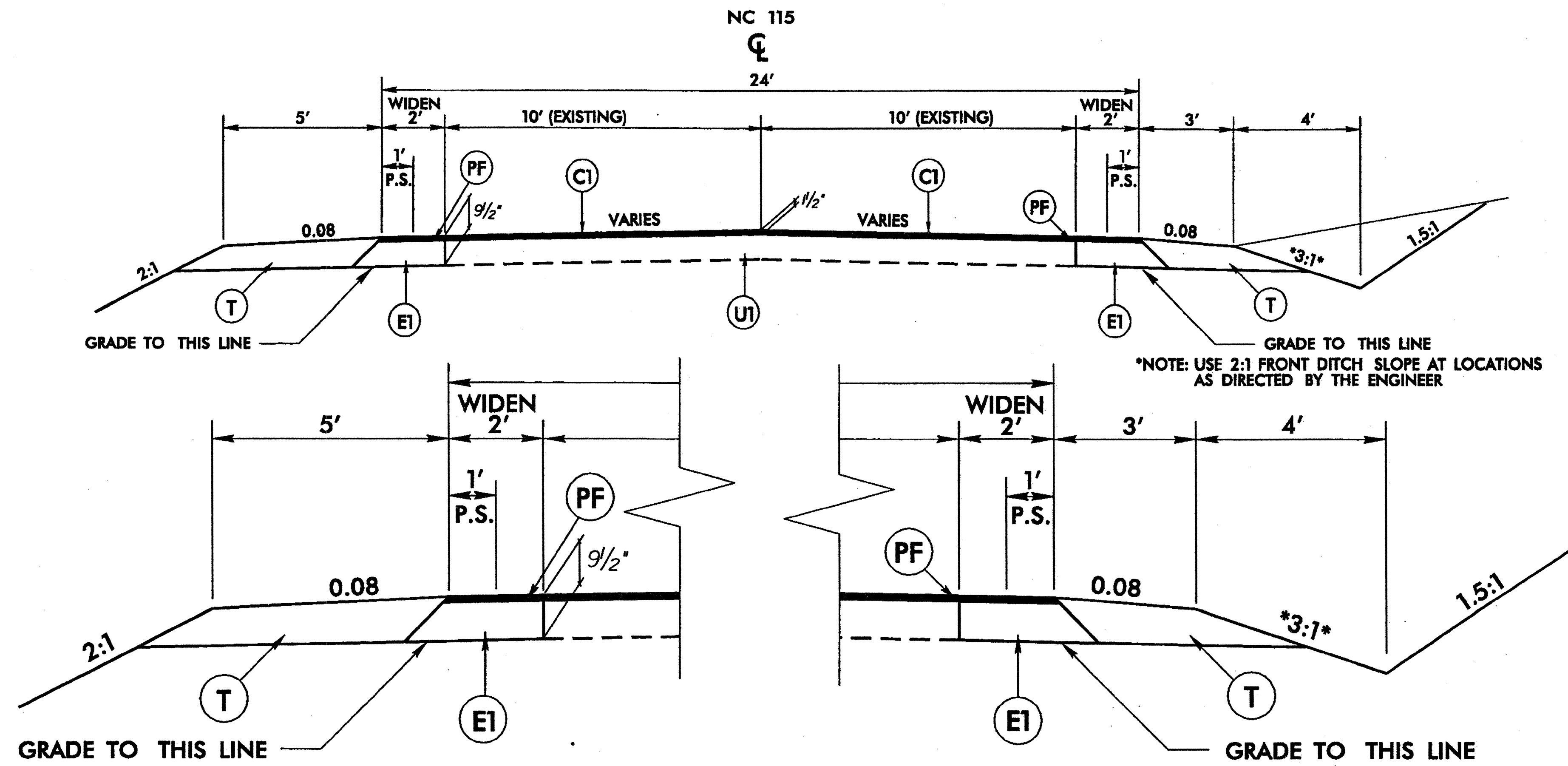
Utility Pole	⊙
Utility Pole with Base	⊠
Utility Located Object	⊙
Utility Traffic Signal Box	⊠
Utility Unknown U/G Line	-----
U/G Tank; Water, Gas, Oil	⊠
AG Tank; Water, Gas, Oil	⊠
U/G Test Hole (S.U.E.*)	⊙
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

TYPICAL SECTION SUMMARY

FROM STATION	TO STATION	LEFT/RIGHT	SECTION DESCRIPTION	SECTION LENGTH (LFT)	TYPICAL SECTION #
10+00	16+50	RIGHT	SHOULDER CONSTRUCTION	650	3
10+00	12+68	LEFT	GRADED CUT	268	1
12+68	14+25	LEFT	4' PAVED DITCH	157	2
14+25	19+00	LEFT	GRADED CUT	475	1
16+50	19+54	RIGHT	CUT/MINIMUM DITCH	304	3
19+00	25+50	LEFT	SHOULDER CONSTRUCTION	650	3
19+54	28+40	RIGHT	4' PAVED DITCH	886	2
25+50	27+00	LEFT	GRADED CUT	150	1
27+00	33+50	LEFT	SHOULDER CONSTRUCTION	650	3
28+40	32+18	RIGHT	GRADED CUT	378	1
32+18	37+27	RIGHT	4' PAVED DITCH	509	2
33+50	36+75	LEFT	GRADED CUT	325	1
36+75	38+25	LEFT	GRADED FILL	150	1
37+27	46+50	RIGHT	SHOULDER CONSTRUCTION	923	3
38+25	46+64	LEFT	GRADED CUT	839	1
46+50	55+80	RIGHT	GRADED CUT	930	1
46+64	49+95	LEFT	4' PAVED DITCH	331	2
49+95	50+50	LEFT	GRADED CUT	55	1
50+50	53+40	LEFT	GRADED FILL	290	1
53+40	56+95	LEFT	CUT/MINIMUM DITCH	355	3
55+80	60+95	RIGHT	SHOULDER CONSTRUCTION	515	3
56+95	62+00	LEFT	GRADED CUT	505	1
60+95	62+00	RIGHT	GRADED CUT	105	1
62+00	68+24	RIGHT	4' PAVED DITCH	624	2
62+00	66+10	LEFT	4' PAVED DITCH	410	2
66+10	67+40	LEFT	GRADED CUT	130	1
67+40	70+16	LEFT	4' PAVED DITCH	276	2
68+24	70+25	RIGHT	GRADED CUT	201	1
70+16	72+50	LEFT	CUT/MINIMUM DITCH	234	3
70+25	73+50	RIGHT	SHOULDER CONSTRUCTION	325	3
72+50	74+70	LEFT	GRADED CUT	220	1
73+50	74+74	RIGHT	GRADED CUT	124	1
74+70	81+25	LEFT	SHOULDER CONSTRUCTION	655	3
74+74	84+70	RIGHT	4' PAVED DITCH	996	2
81+25	85+00	LEFT	GRADED CUT	375	1
84+70	90+30	RIGHT	GRADED CUT	560	1
85+00	85+80	LEFT	GRADED FILL	80	1
85+80	88+35	LEFT	FILL / CURB	255	2
88+35	89+20	LEFT	GRADED CUT	85	1
89+20	91+67	LEFT	GRADED FILL	247	1
90+30	113+50	RIGHT	SHOULDER CONSTRUCTION	2320	3
91+67	118+90	LEFT	SHOULDER CONSTRUCTION	2723	3
113+50	123+30	RIGHT	GRADED CUT	980	1
118+90	122+50	LEFT	GRADED CUT	360	1
122+50	125+00	LEFT	FILL / CURB	250	2
123+30	125+32	RIGHT	FILL / CURB	202	2
125+00	128+93	LEFT	GRADED CUT	393	1
125+32	128+55	RIGHT	4' PAVED DITCH	323	2
128+93	131+35	LEFT	FILL / CURB	242	2
128+55	129+76	RIGHT	GRADED CUT	121	1
129+76	131+35	RIGHT	FILL / CURB	159	2
131+35	136+90	RIGHT	GRADED CUT	555	1
131+35	136+40	LEFT	GRADED CUT	505	1
136+40	139+70	LEFT	FILL / CURB	330	2
136+90	139+40	RIGHT	FILL / CURB	250	2
139+40	154+55	RIGHT	GRADED CUT	1515	1

FROM STATION	TO STATION	LEFT/RIGHT	SECTION DESCRIPTION	LENGTH OF SECTION (LFT)	TYPICAL SECTION #
139+70	148+10	LEFT	GRADED CUT	840	1
148+10	151+75	LEFT	GRADED FILL	365	1
151+75	155+25	LEFT	SHOULDER CONSTRUCTION	350	3
154+55	158+60	RIGHT	4' PAVED DITCH	405	2
155+25	158+25	LEFT	GRADED CUT	300	1
158+25	162+50	LEFT	SHOULDER CONSTRUCTION	425	3
158+60	160+80	RIGHT	SHOULDER CONSTRUCTION	220	3
160+80	161+50	RIGHT	GRADED CUT	70	1
161+50	176+50	RIGHT	4' PAVED DITCH	1500	2
162+50	169+40	LEFT	CUT/MINIMUM DITCH	690	3
169+40	180+75	LEFT	SHOULDER CONSTRUCTION	1135	3
176+50	180+00	RIGHT	SHOULDER CONSTRUCTION	350	3
180+00	183+50	RIGHT	2' PAVED DITCH	350	2
180+75	182+25	LEFT	GRADED CUT	150	1
182+25	188+70	LEFT	SHOULDER CONSTRUCTION	645	3
183+50	188+58	RIGHT	GRADED CUT	508	1
188+58	194+34	RIGHT	CUT/MINIMUM DITCH	576	3
188+70	190+00	LEFT	GRADED CUT	130	1
190+00	247+75	LEFT	SHOULDER CONSTRUCTION	5775	3
194+34	198+85	RIGHT	4' PAVED DITCH	451	2
198+85	205+60	RIGHT	CUT/MINIMUM DITCH	675	3
205+60	208+70	RIGHT	4' PAVED DITCH	310	2
208+70	211+23	RIGHT	GRADED CUT	253	1
211+23	215+44	RIGHT	4' PAVED DITCH	421	2
215+44	216+65	RIGHT	GRADED CUT	121	1
216+65	218+15	RIGHT	SHOULDER CONSTRUCTION	150	3
218+15	222+85	RIGHT	GRADED FILL	470	1
222+85	225+44	RIGHT	4' PAVED DITCH	259	2
225+44	226+96	RIGHT	GRADED CUT	152	1
226+96	229+10	RIGHT	4' PAVED DITCH	214	2
229+10	231+50	RIGHT	GRADED CUT	240	1
231+50	237+85	RIGHT	4' PAVED DITCH	635	2
237+85	239+10	RIGHT	GRADED FILL	125	1
239+10	243+00	RIGHT	GRADED CUT	390	1
243+00	253+50	RIGHT	4' PAVED DITCH	1050	2
247+75	252+97	LEFT	GRADED CUT	522	1
252+97	256+50	LEFT	GRADED FILL	353	1
253+50	256+78	RIGHT	CUT/MINIMUM DITCH	328	3
256+50	262+20	LEFT	GRADED CUT	570	1
256+78	261+20	RIGHT	4' PAVED DITCH	442	2
261+20	267+00	RIGHT	SHOULDER CONSTRUCTION	580	3
262+20	267+00	LEFT	SHOULDER CONSTRUCTION	480	3
267+00	271+75	RIGHT	4' PAVED DITCH	475	2
267+00	270+75	LEFT	GRADED CUT	375	1
270+75	275+00	LEFT	SHOULDER CONSTRUCTION	425	3
271+75	274+00	RIGHT	GRADED CUT	225	1
274+00	277+10	RIGHT	4' PAVED DITCH	310	2
275+00	277+50	LEFT	GRADED CUT	250	1
277+10	278+00	RIGHT	GRADED CUT	90	1
277+50	294+25	LEFT	SHOULDER CONSTRUCTION	1675	3
278+00	284+50	RIGHT	FILL / CURB	650	2
284+50	286+59	RIGHT	GRADED CUT	209	1
286+59	291+13	RIGHT	2' PAVED DITCH	454	2
291+13	297+85	RIGHT	4' PAVED DITCH	672	2
294+25	297+25	LEFT	GRADED CUT	300	1
297+25	298+00	LEFT	SHOULDER CONSTRUCTION	75	3

FROM STATION	TO STATION	LEFT/RIGHT	SECTION DESCRIPTION	LENGTH OF SECTION (LFT)	TYPICAL SECTION #
297+85	298+10	RIGHT	GRADED CUT	25	1
298+00	301+90	LEFT	FILL/CURB	390	2
298+10	299+15	RIGHT	SHOULDER CONSTRUCTION	105	3
299+15	305+50	RIGHT	CUT/MINIMUM DITCH	635	3
301+90	315+80	LEFT	SHOULDER CONSTRUCTION	1390	3
305+50	313+00	RIGHT	2' PAVED DITCH	750	2
313+00	324+00	RIGHT	GRADED CUT	1100	1
315+80	316+90	LEFT	GRADED CUT	110	1
316+90	319+30	LEFT	SHOULDER CONSTRUCTION	240	3
319+30	323+20	LEFT	GRADED CUT	390	1
323+20	359+90	LEFT	SHOULDER CONSTRUCTION	3670	3
324+00	331+15	RIGHT	GRADED FILL	715	1
331+15	332+38	RIGHT	GRADED CUT	123	1
332+38	338+08	RIGHT	2' PAVED DITCH	570	2
338+08	344+50	RIGHT	GRADED CUT	642	1
344+50	351+10	RIGHT	4' PAVED DITCH	660	2
351+10	351+75	RIGHT	GRADED CUT	65	1
351+75	356+00	RIGHT	SHOULDER CONSTRUCTION	425	3
356+00	359+85	RIGHT	GRADED CUT	385	1
359+85	362+00	RIGHT	2' PAVED DITCH	215	2
359+90	365+50	LEFT	GRADED CUT	560	1
362+00	363+50	RIGHT	4' PAVED DITCH	150	2
363+50	366+80	RIGHT	2' PAVED DITCH	330	2
365+50	377+00	LEFT	SHOULDER CONSTRUCTION	1150	3
366+80	370+73	RIGHT	SHOULDER CONSTRUCTION	393	3
370+73	383+50	RIGHT	GRADED CUT	1277	1
377+00	378+40	LEFT	GRADED CUT	140	1
378+40	395+50	LEFT	SHOULDER CONSTRUCTION	1710	3
383+50	385+00	RIGHT	SHOULDER CONSTRUCTION	150	3
385+00	387+90	RIGHT	CUT/MINIMUM DITCH	290	3
387+90	391+95	RIGHT	4' PAVED DITCH	405	2
391+95	421+50	RIGHT	GRADED CUT	2955	1
395+50	401+25	LEFT	GRADED CUT	575	1
401+25	408+00	LEFT	SHOULDER CONSTRUCTION	675	3
408+00	410+00	LEFT	GRADED CUT	200	1
410+00	411+90	LEFT	SHOULDER CONSTRUCTION	190	3
411+90	415+00	LEFT	GRADED CUT	310	1
415+00	419+15	LEFT	SHOULDER CONSTRUCTION	415	3
419+15	424+15	LEFT	GRADED CUT	500	1
421+50	425+86	RIGHT	CUT/MINIMUM DITCH	436	3
424+15	436+00	LEFT	SHOULDER CONSTRUCTION	1185	3
425+86	436+00	RIGHT	SHOULDER CONSTRUCTION	1014	3



PAVEMENT SCHEDULE	
C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S 9.5 B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	VAR. DEPTH ASPHALT CONCRETE LEVELING COURSE, TYPE S 9.5 B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.
E1	8" ASPHALT CONCRETE BASE COURSE, TYPE B 25.0 B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
E2	5" ASPHALT CONCRETE BASE COURSE, TYPE B 25.0 B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
PF	PAVEMENT FABRIC (3' WIDTH) TO BE PLACED CENTERED ON WIDENING JOINT PRIOR TO SURFACE COURSE PLACEMENT.
T	EARTH MATERIAL
U1	EXISTING PAVEMENT.
U2	EXISTING BRIDGE DECK.
V1	0 - 1½" DEPTH MILLING ASPHALT PAVEMENT.

TYPICAL SECTION NO. 1

GRADED FILL SECTION

- STA. 36+75 TO STA. 38+25 LEFT
- STA. 50+50 TO STA. 53+40 LEFT
- STA. 85+00 TO STA. 85+80 LEFT
- STA. 89+20 TO STA. 91+67 LEFT
- STA. 148+10 TO STA. 151+75 LEFT
- STA. 218+15 TO STA. 222+85 RIGHT
- STA. 237+85 TO STA. 239+10 RIGHT
- STA. 252+97 TO STA. 256+50 LEFT
- STA. 324+00 TO STA. 331+15 RIGHT

GRADED CUT SECTION

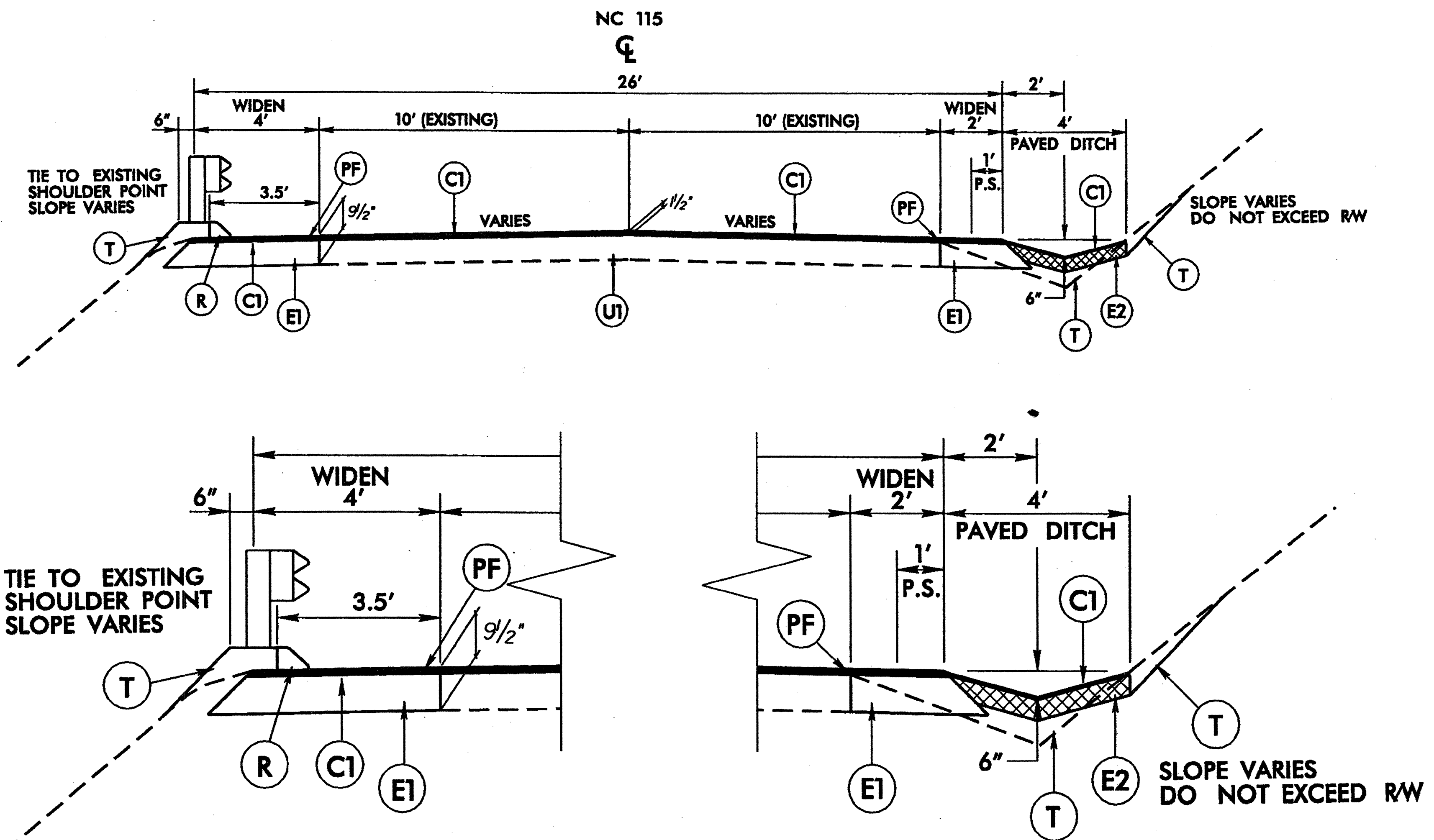
- | | |
|----------------------------------|----------------------------------|
| STA. 10+00 TO STA. 12+68 LEFT | STA. 208+70 TO STA. 211+23 RIGHT |
| STA. 14+25 TO STA. 19+00 LEFT | STA. 215+44 TO STA. 216+65 RIGHT |
| STA. 25+50 TO STA. 27+00 LEFT | STA. 225+44 TO STA. 226+96 RIGHT |
| STA. 28+40 TO STA. 32+18 RIGHT | STA. 229+10 TO STA. 231+50 RIGHT |
| STA. 33+50 TO STA. 36+75 LEFT | STA. 239+10 TO STA. 243+00 RIGHT |
| STA. 38+25 TO STA. 46+64 LEFT | STA. 247+75 TO STA. 252+97 LEFT |
| STA. 46+50 TO STA. 55+80 RIGHT | STA. 256+50 TO STA. 262+20 LEFT |
| STA. 49+95 TO STA. 50+50 LEFT | STA. 267+00 TO STA. 270+75 LEFT |
| STA. 56+95 TO STA. 62+00 LEFT | STA. 271+75 TO STA. 274+00 RIGHT |
| STA. 60+95 TO STA. 62+00 RIGHT | STA. 275+00 TO STA. 277+50 LEFT |
| STA. 66+10 TO STA. 67+40 LEFT | STA. 277+10 TO STA. 278+00 RIGHT |
| STA. 68+24 TO STA. 70+25 RIGHT | STA. 284+50 TO STA. 286+59 RIGHT |
| STA. 72+50 TO STA. 74+70 LEFT | STA. 294+25 TO STA. 297+25 LEFT |
| STA. 73+50 TO STA. 74+74 RIGHT | STA. 297+85 TO STA. 298+10 RIGHT |
| STA. 81+25 TO STA. 85+00 LEFT | STA. 313+00 TO STA. 324+00 RIGHT |
| STA. 84+70 TO STA. 90+30 RIGHT | STA. 315+80 TO STA. 316+90 LEFT |
| STA. 88+35 TO STA. 89+20 LEFT | STA. 319+30 TO STA. 323+20 LEFT |
| STA. 113+50 TO STA. 123+30 RIGHT | STA. 331+15 TO STA. 332+38 RIGHT |
| STA. 118+90 TO STA. 122+50 LEFT | STA. 338+08 TO STA. 344+50 RIGHT |
| STA. 125+00 TO STA. 128+93 LEFT | STA. 351+10 TO STA. 351+75 RIGHT |
| STA. 128+55 TO STA. 129+76 RIGHT | STA. 356+00 TO STA. 359+85 RIGHT |
| STA. 131+35 TO STA. 136+90 RIGHT | STA. 359+90 TO STA. 365+50 LEFT |
| STA. 131+35 TO STA. 136+40 LEFT | STA. 370+73 TO STA. 383+50 RIGHT |
| STA. 139+40 TO STA. 154+55 RIGHT | STA. 377+00 TO STA. 378+40 LEFT |
| STA. 139+70 TO STA. 148+10 LEFT | STA. 391+95 TO STA. 421+50 RIGHT |
| STA. 155+25 TO STA. 158+25 LEFT | STA. 395+50 TO STA. 401+25 LEFT |
| STA. 160+80 TO STA. 161+50 RIGHT | STA. 408+00 TO STA. 410+00 LEFT |
| STA. 180+75 TO STA. 182+25 LEFT | STA. 411+90 TO STA. 415+00 LEFT |
| STA. 183+50 TO STA. 188+58 RIGHT | STA. 419+15 TO STA. 424+15 LEFT |
| STA. 188+70 TO STA. 190+00 LEFT | |

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

6/2/99
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R-5159: NC 115 FROM IREDELL COUNTY LINE TO SR 2473 (QUARRY ROAD)		
DIVISION II WILKES COUNTY		
REVISIONS	INT.	DATE
N.C. DEPARTMENT of TRANSPORTATION DIVISION of HIGHWAYS DIVISION ELEVEN		SCALE: N/A DATE: 12/2009 PREPARED BY: J. L. LAWS REVIEWED BY: REVIEWED BY:

6/2/99

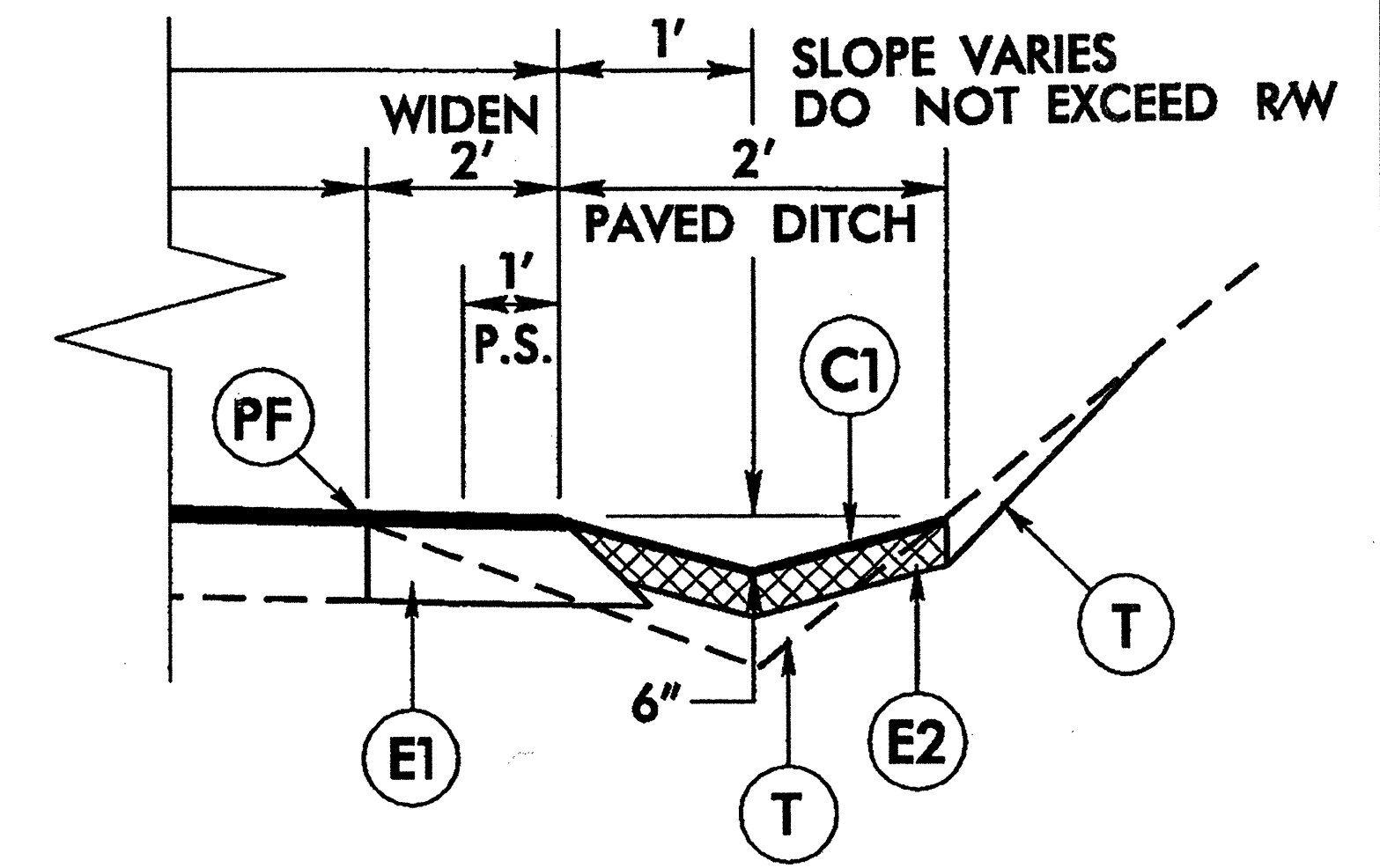


TYPICAL SECTION NO. 2

FILL / CURB SECTION	4' PAVED DITCH SECTION	2' PAVED DITCH SECTION
STA. 85+80 TO STA. 88+35 LEFT	STA. 12+68 TO STA. 14+25 LEFT	STA. 180+00 TO STA. 183+50 RIGHT
STA. 122+50 TO STA. 125+00 LEFT	STA. 19+54 TO STA. 28+40 RIGHT	STA. 286+59 TO STA. 291+13 RIGHT
STA. 123+30 TO STA. 125+32 RIGHT	STA. 32+18 TO STA. 37+27 RIGHT	STA. 305+50 TO STA. 313+00 RIGHT
STA. 128+93 TO STA. 131+35 LEFT	STA. 46+64 TO STA. 49+95 LEFT	STA. 332+38 TO STA. 338+08 RIGHT
STA. 129+76 TO STA. 131+35 RIGHT	STA. 62+00 TO STA. 68+24 RIGHT	STA. 359+85 TO STA. 362+00 RIGHT
STA. 136+40 TO STA. 139+70 LEFT	STA. 62+00 TO STA. 66+10 LEFT	STA. 363+50 TO STA. 366+80 RIGHT
STA. 136+90 TO STA. 139+40 RIGHT	STA. 67+40 TO STA. 70+16 LEFT	
STA. 278+00 TO STA. 284+50 RIGHT	STA. 74+74 TO STA. 84+70 RIGHT	
STA. 298+00 TO STA. 301+90 LEFT	STA. 125+32 TO STA. 128+55 RIGHT	
	STA. 154+55 TO STA. 158+60 RIGHT	
	STA. 161+50 TO STA. 176+50 RIGHT	
	STA. 194+34 TO STA. 198+85 RIGHT	
	STA. 205+60 TO STA. 208+70 RIGHT	
	STA. 211+23 TO STA. 215+44 RIGHT	
	STA. 222+85 TO STA. 225+44 RIGHT	
	STA. 226+96 TO STA. 229+10 RIGHT	
	STA. 231+50 TO STA. 237+85 RIGHT	
	STA. 243+00 TO STA. 253+50 RIGHT	
	STA. 256+78 TO STA. 261+20 RIGHT	
	STA. 267+00 TO STA. 271+75 RIGHT	
	STA. 274+00 TO STA. 277+10 RIGHT	
	STA. 291+13 TO STA. 297+85 RIGHT	
	STA. 344+50 TO STA. 351+10 RIGHT	
	STA. 387+90 TO STA. 391+95 RIGHT	
	STA. 362+00 TO STA. 363+50 RIGHT	

PAVEMENT SCHEDULE	
C1	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S 9.5 B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	VAR. DEPTH ASPHALT CONCRETE LEVELING COURSE, TYPE S 9.5 B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.
E1	8" ASPHALT CONCRETE BASE COURSE, TYPE B 25.0 B, AT AN AVERAGE RATE OF 458 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
E2	5" ASPHALT CONCRETE BASE COURSE, TYPE B 25.0 B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
PF	PAVEMENT FABRIC (3' WIDTH) TO BE PLACED CENTERED ON WIDENING JOINT PRIOR TO SURFACE COURSE PLACEMENT.
T	EARTH MATERIAL
U1	EXISTING PAVEMENT.
U2	EXISTING BRIDGE DECK.
V1	0 - 1 1/2" DEPTH MILLING ASPHALT PAVEMENT.

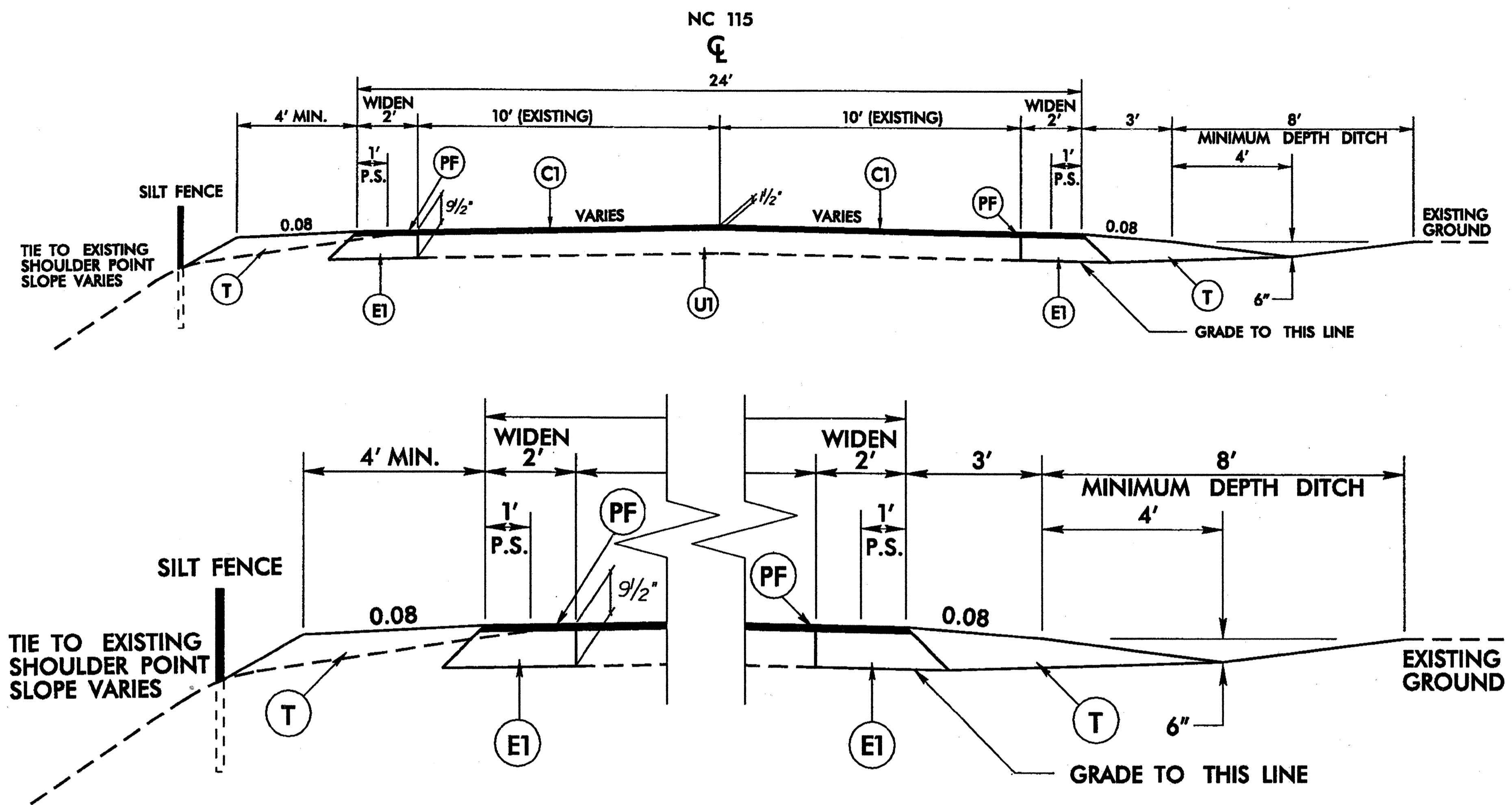
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



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R-5159: NC 115 FROM IREDELL COUNTY LINE TO SR 2473 (QUARRY ROAD)		
DIVISION II WILKES COUNTY		
REVISIONS	INT.	DATE
N.C. DEPARTMENT of TRANSPORTATION DIVISION of HIGHWAYS DIVISION ELEVEN		SCALE: N/A DATE: 12/2009 PREPARED BY: J. L. LAWS REVIEWED BY: REVIEWED BY:

6/2/99



TYPICAL SECTION NO. 3

SHOULDER CONSTRUCTION SECTION

- STA. 10+00 TO STA. 16+50 RIGHT
- STA. 19+00 TO STA. 25+50 LEFT
- STA. 27+00 TO STA. 33+50 LEFT
- STA. 37+27 TO STA. 46+50 RIGHT
- STA. 55+80 TO STA. 60+95 RIGHT
- STA. 70+25 TO STA. 73+50 RIGHT
- STA. 74+70 TO STA. 81+25 LEFT
- STA. 90+30 TO STA. 113+50 RIGHT
- STA. 91+67 TO STA. 118+90 LEFT
- STA. 151+75 TO STA. 155+25 LEFT
- STA. 158+25 TO STA. 162+50 LEFT
- STA. 158+60 TO STA. 160+80 RIGHT
- STA. 169+40 TO STA. 180+75 LEFT
- STA. 176+50 TO STA. 180+00 RIGHT
- STA. 182+25 TO STA. 188+70 LEFT
- STA. 190+00 TO STA. 247+75 LEFT
- STA. 216+65 TO STA. 218+15 RIGHT
- STA. 261+20 TO STA. 267+00 RIGHT

- STA. 262+20 TO STA. 267+00 LEFT
- STA. 270+75 TO STA. 275+00 LEFT
- STA. 277+50 TO STA. 294+25 LEFT
- STA. 297+25 TO STA. 298+00 LEFT
- STA. 298+10 TO STA. 299+15 RIGHT
- STA. 301+90 TO STA. 315+80 LEFT
- STA. 316+90 TO STA. 319+30 LEFT
- STA. 323+20 TO STA. 359+90 LEFT
- STA. 351+75 TO STA. 356+00 RIGHT
- STA. 365+50 TO STA. 377+00 LEFT
- STA. 366+80 TO STA. 370+73 RIGHT
- STA. 378+40 TO STA. 395+50 LEFT
- STA. 383+50 TO STA. 385+00 RIGHT
- STA. 401+25 TO STA. 408+00 LEFT
- STA. 410+00 TO STA. 411+90 LEFT
- STA. 415+00 TO STA. 419+15 LEFT
- STA. 424+15 TO STA. 436+00 LEFT
- STA. 425+86 TO STA. 436+00 RIGHT


MINIMUM DEPTH DITCH SECTION

- STA. 16+50 TO STA. 19+54 RIGHT
- STA. 53+40 TO STA. 56+95 LEFT
- STA. 70+16 TO STA. 72+50 LEFT
- STA. 162+50 TO STA. 169+40 LEFT
- STA. 188+58 TO STA. 194+34 RIGHT
- STA. 198+85 TO STA. 205+60 RIGHT
- STA. 253+50 TO STA. 256+78 RIGHT
- STA. 299+15 TO STA. 305+50 RIGHT
- STA. 385+00 TO STA. 387+90 RIGHT
- STA. 421+50 TO STA. 425+86 RIGHT

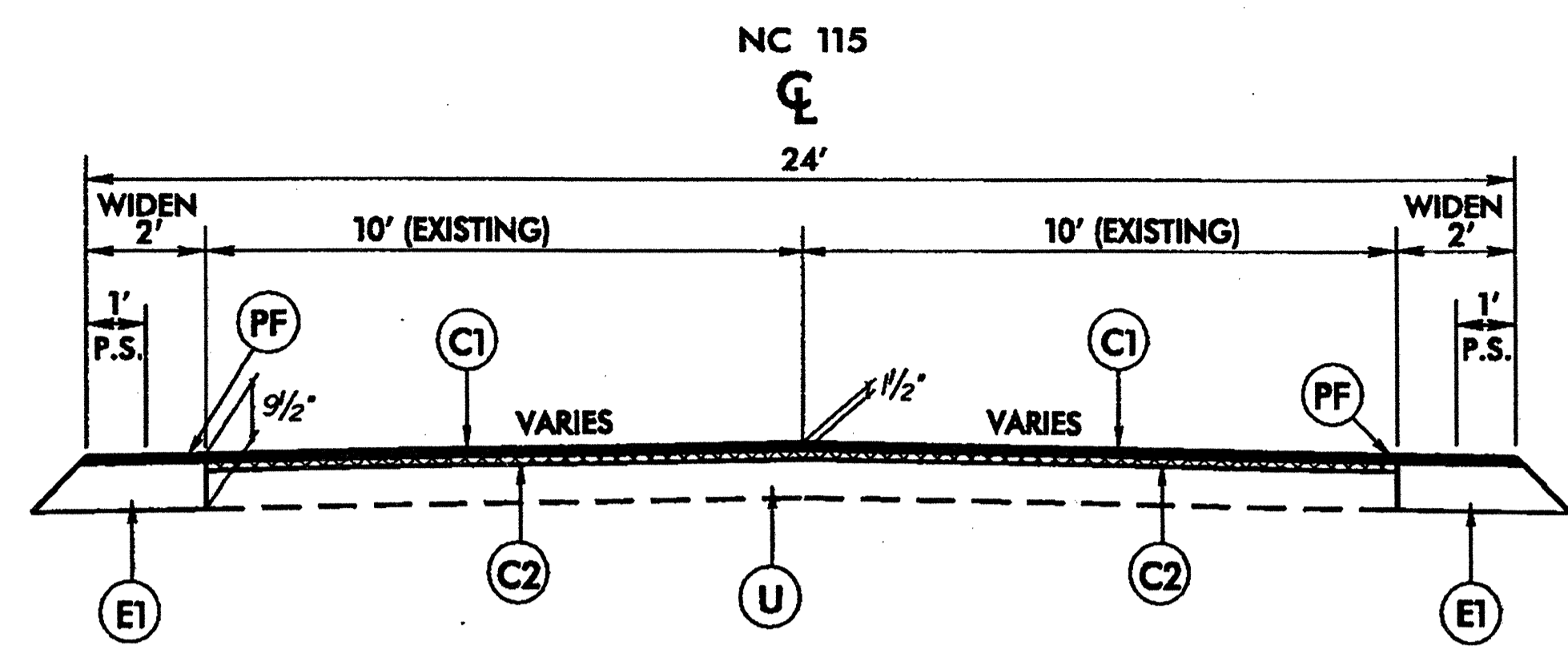
PAVEMENT SCHEDULE	
C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S 9.5 B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	VAR. DEPTH ASPHALT CONCRETE LEVELING COURSE, TYPE S 9.5 B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.
E1	8" ASPHALT CONCRETE BASE COURSE, TYPE B 25.0 B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
E2	5" ASPHALT CONCRETE BASE COURSE, TYPE B 25.0 B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
PF	PAVEMENT FABRIC (3' WIDTH) TO BE PLACED CENTERED ON WIDENING JOINT PRIOR TO SURFACE COURSE PLACEMENT.
T	EARTH MATERIAL
U1	EXISTING PAVEMENT.
U2	EXISTING BRIDGE DECK.
V1	0 - 1½" DEPTH MILLING ASPHALT PAVEMENT.

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

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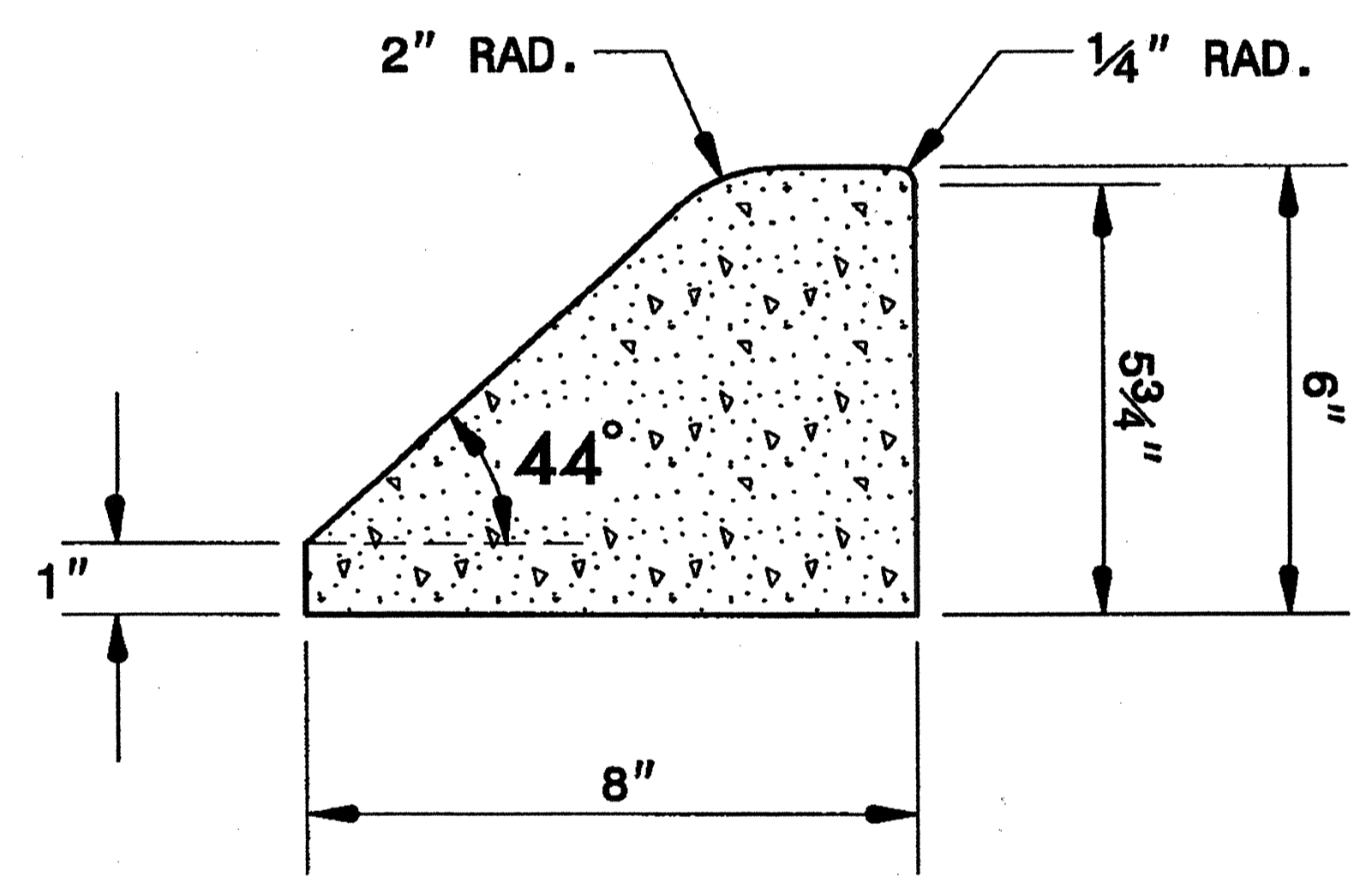
R-5159: NC 115 FROM IREDELL COUNTY LINE TO SR 2473 (QUARRY ROAD)		
DIVISION II WILKES COUNTY		
REVISIONS	INT.	DATE
N.C. DEPARTMENT of TRANSPORTATION DIVISION of HIGHWAYS DIVISION ELEVEN		SCALE: N/A DATE: 12/2009 PREPARED BY: J. L. LAWS REVIEWED BY:

6/2/99



TYPICAL SECTION FOR LEVELING COURSE

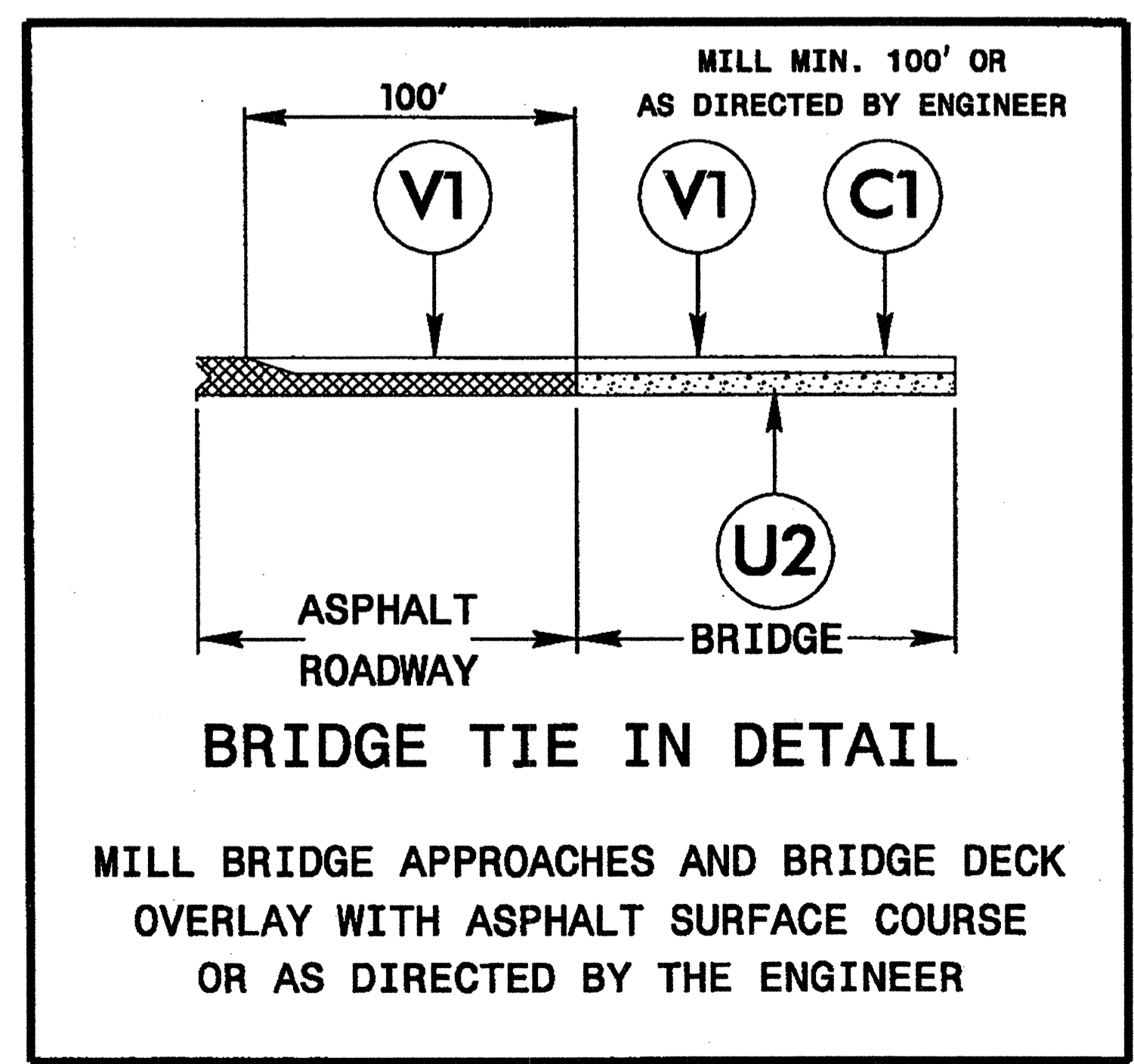
STA. 178+89 TO STA. 182+89
 SEE TYPICAL SECTIONS 1, 2, & 3 FOR SHOULDERS AND DITCHES.



8" X 6" ASPHALT CURB
 DENOTED BY (R) ON TYPICAL SECTIONS

PAVEMENT SCHEDULE	
C1	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S 9.5 B, AT AN AVERAGE RATE OF 188 LBS. PER SQ. YD.
C2	VAR. DEPTH ASPHALT CONCRETE LEVELING COURSE, TYPE S 9.5 B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.
E1	8" ASPHALT CONCRETE BASE COURSE, TYPE B 25.0 B, AT AN AVERAGE RATE OF 468 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
E2	6" ASPHALT CONCRETE BASE COURSE, TYPE B 25.0 B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
PF	PAVEMENT FABRIC (3' WIDTH) TO BE PLACED CENTERED ON WIDENING JOINT PRIOR TO SURFACE COURSE PLACEMENT.
T	EARTH MATERIAL
U1	EXISTING PAVEMENT.
U2	EXISTING BRIDGE DECK.
V1	0 - 1 1/2" DEPTH MILLING ASPHALT PAVEMENT.

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



R-5159: NC 115 FROM IREDELL COUNTY LINE TO SR 2473 (QUARRY ROAD)		
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N.C. DEPARTMENT of TRANSPORTATION DIVISION of HIGHWAYS DIVISION ELEVEN		SCALE: N/A DATE: 12/2009 PREPARED BY: J. L. LAWS REVIEWED BY: REVIEWED BY:

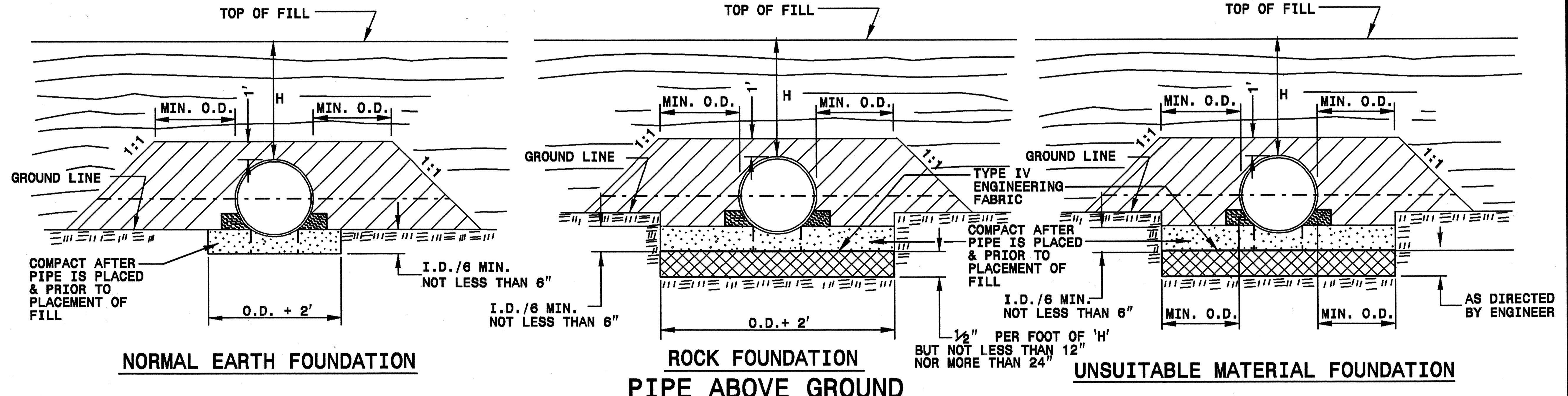
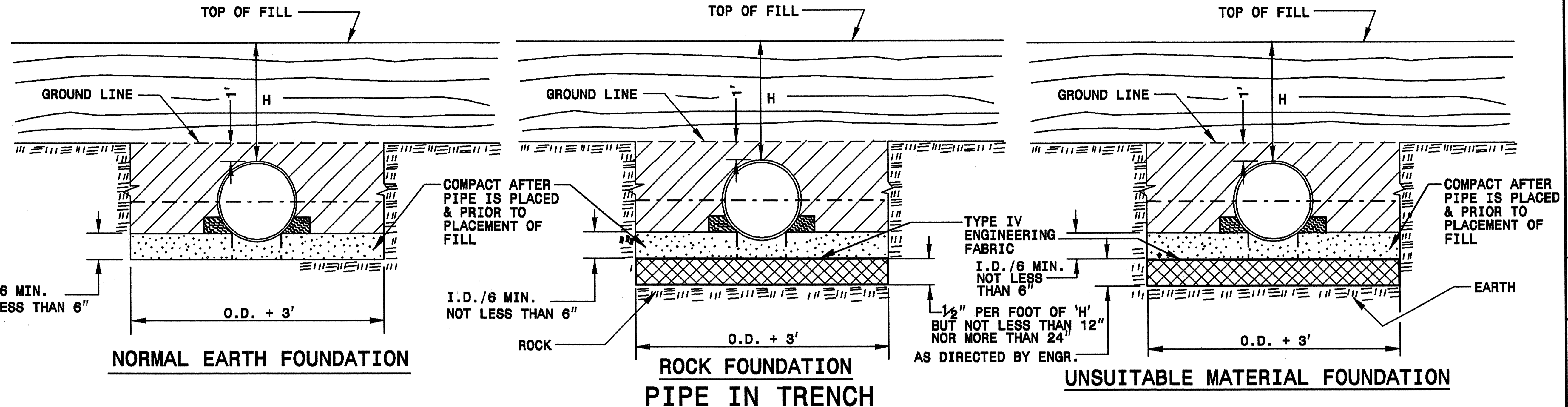
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 J.L. Laws

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

7-06

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

7-06



GENERAL NOTES:

- I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.
- O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.
- H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.
- TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.
- LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

- DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.
- SPRINGLINE OF PIPE
- SELECT BACKFILL MATERIAL CLASS III OR CLASS II, TYPE 1 ABOVE AND BELOW SPRINGLINE.
- APPROVED SUITABLE LOCAL MATERIAL.
- UNDISTURBED EARTH MATERIAL
- SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH ENGINEERING FABRIC AS DIRECTED BY THE ENGINEER.

ENGLISH DETAIL DRAWING FOR
METHOD OF PIPE INSTALLATION
FLEXIBLE PIPE

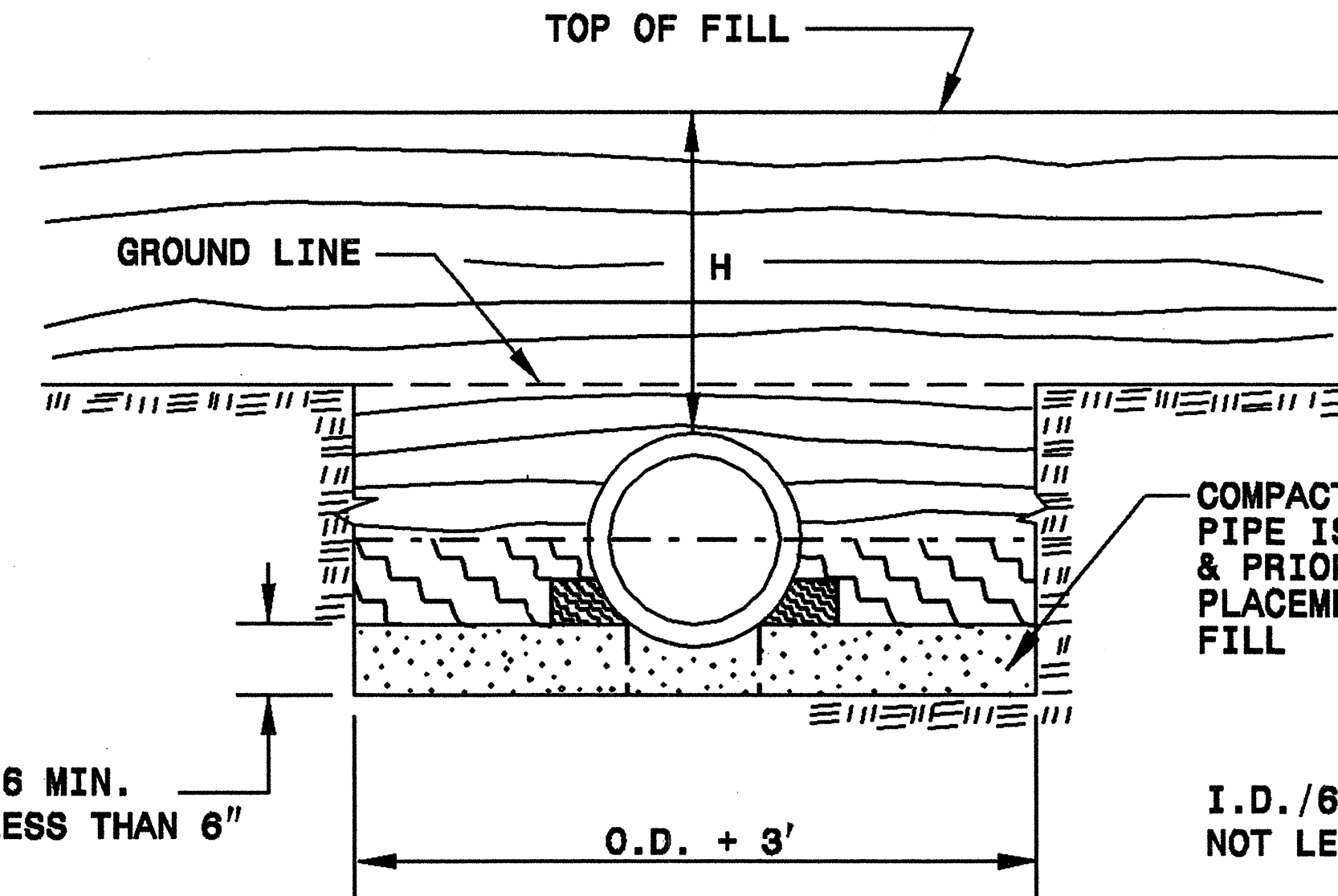
ENGLISH DETAIL DRAWING FOR
METHOD OF PIPE INSTALLATION
FLEXIBLE PIPE

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

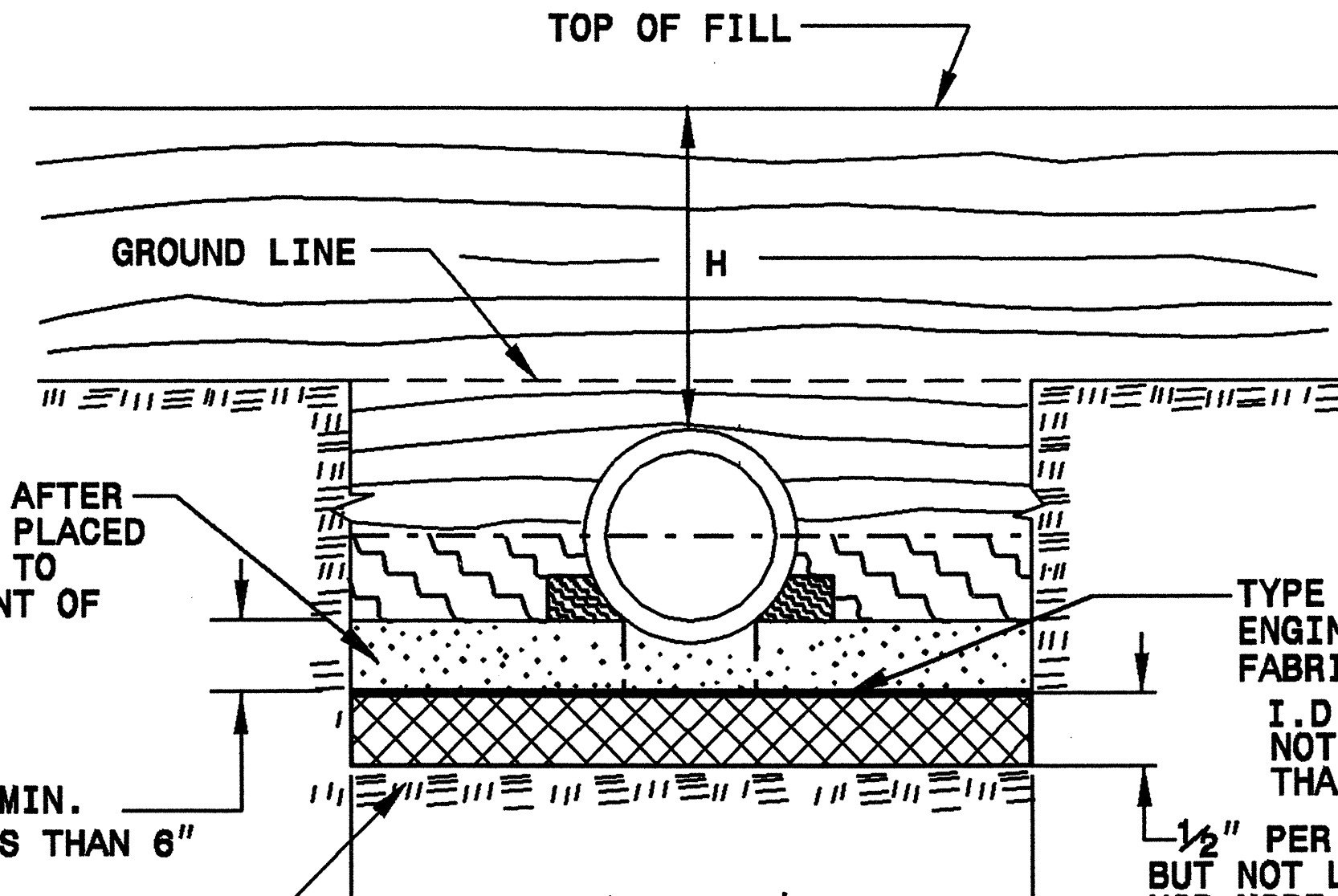
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STATE OF NORTH CAROLINA
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RALEIGH, N.C.

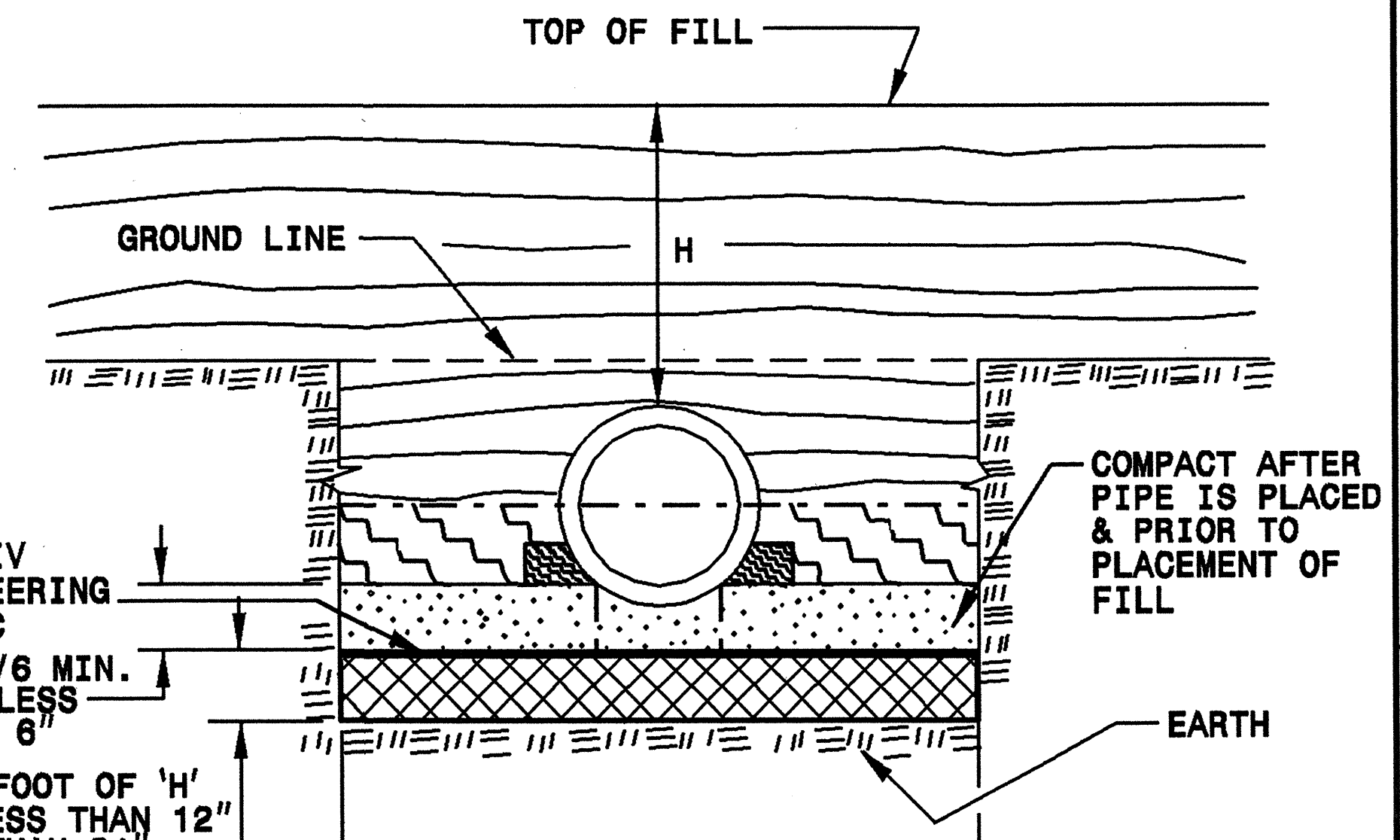
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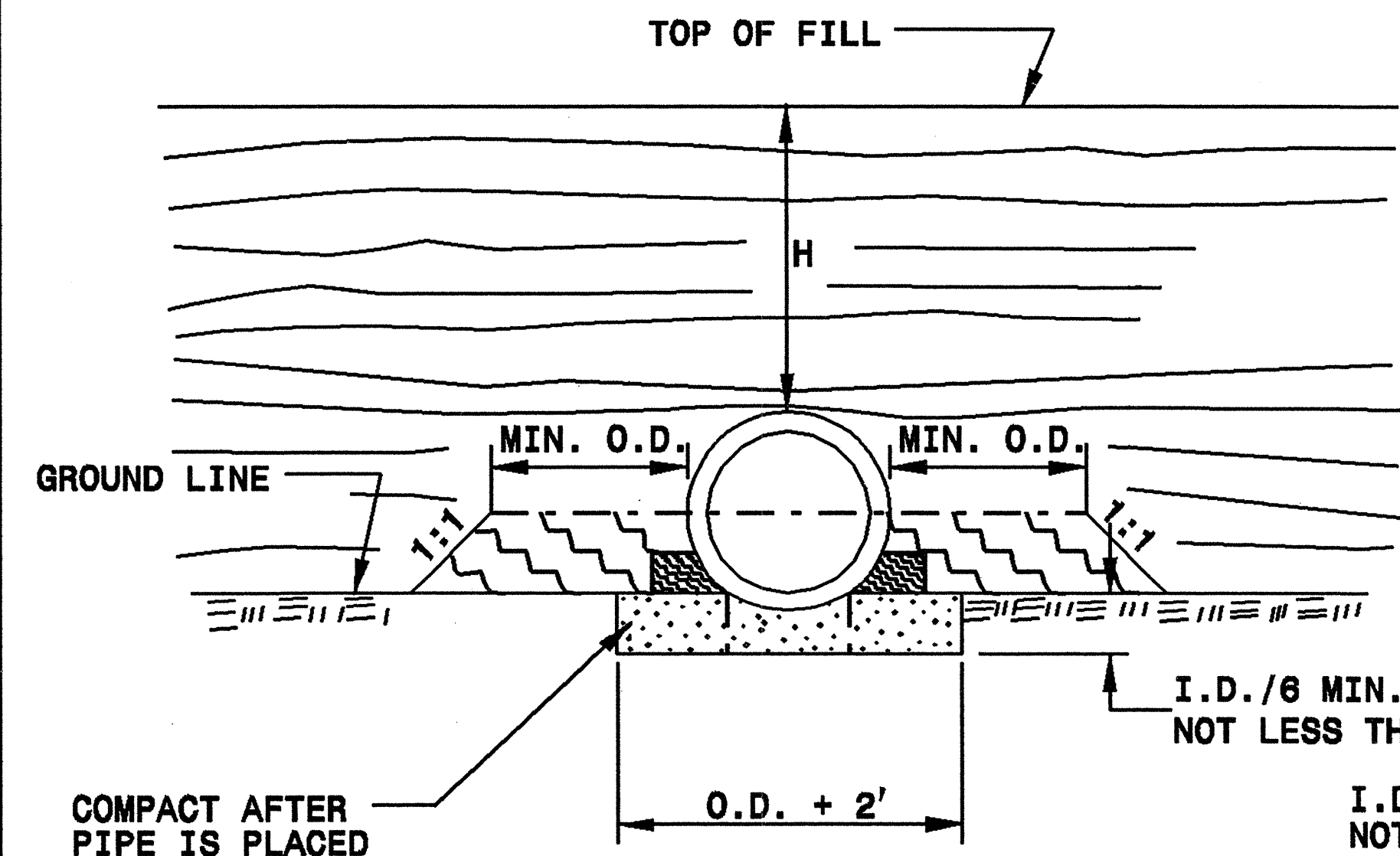
NORMAL EARTH FOUNDATION



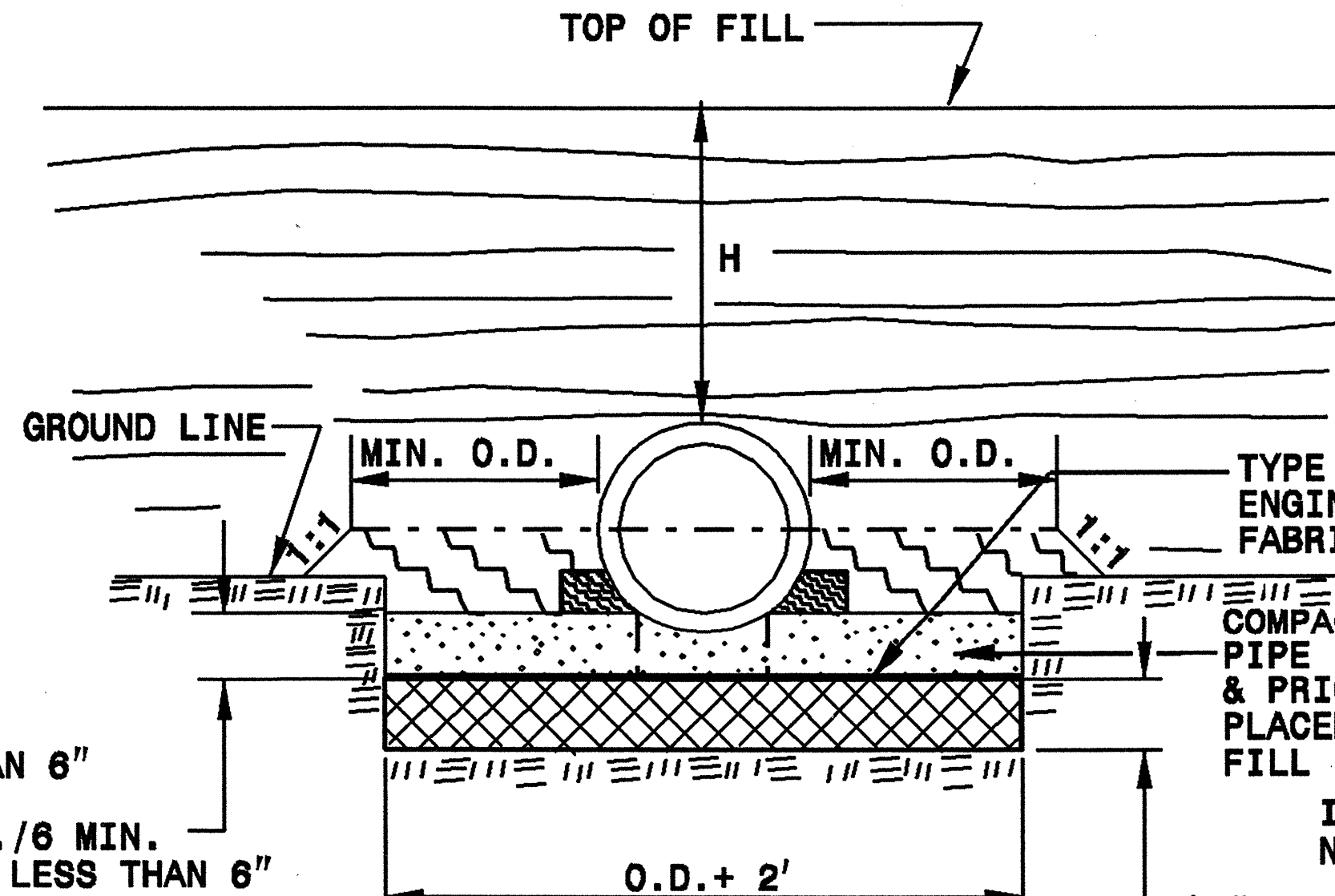
**ROCK FOUNDATION
PIPE IN TRENCH**



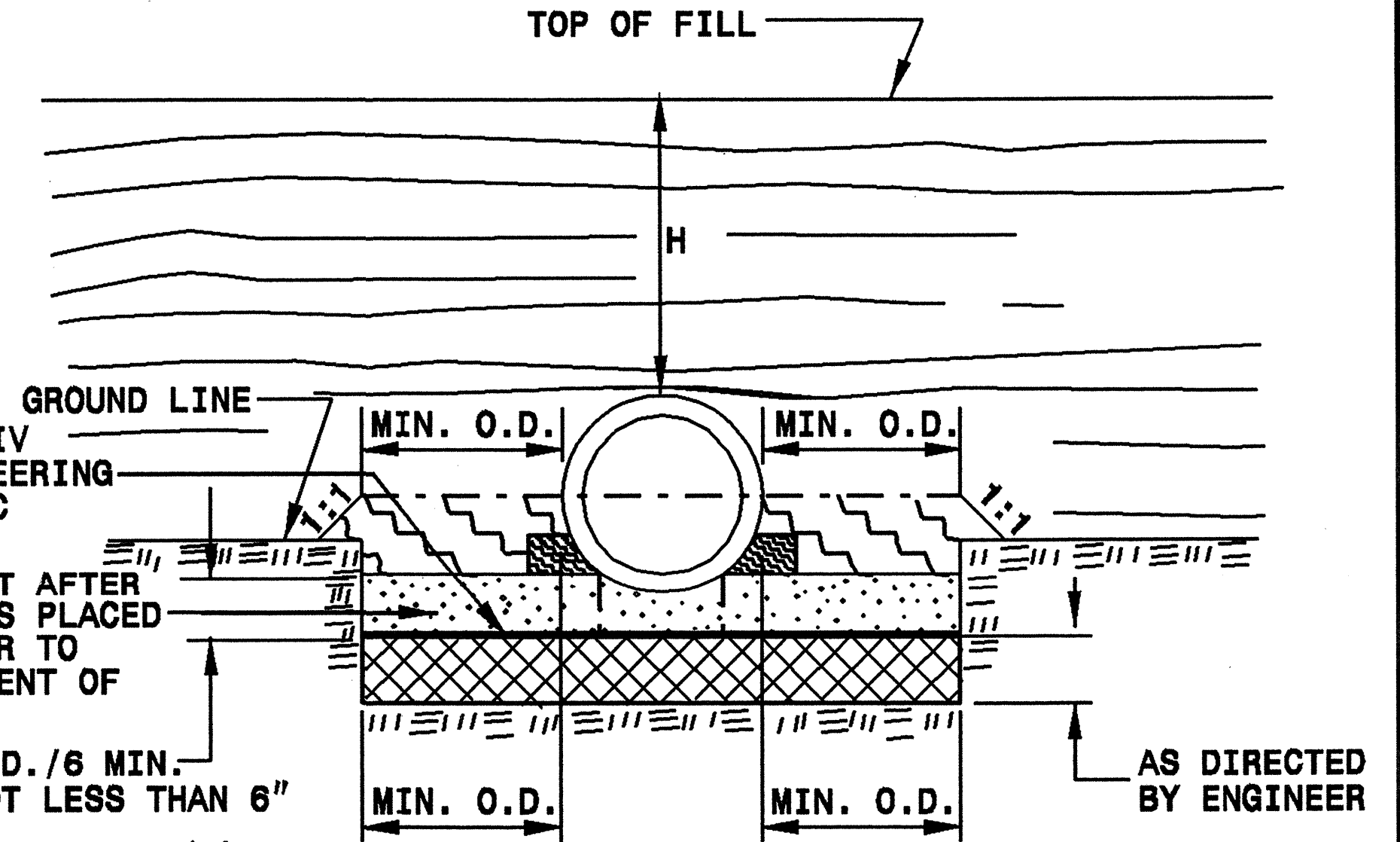
UNSUITABLE MATERIAL FOUNDATION



NORMAL EARTH FOUNDATION



**ROCK FOUNDATION
PIPE ABOVE GROUND**



UNSUITABLE MATERIAL FOUNDATION

ENGLISH DETAIL DRAWING FOR
METHOD OF PIPE INSTALLATION
RIGID PIPE

ENGLISH DETAIL DRAWING FOR
METHOD OF PIPE INSTALLATION
RIGID PIPE

GENERAL NOTES:

- I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.
- O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.
- H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.
- TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.
- LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

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- APPROVED SUITABLE LOCAL MATERIAL ABOVE SPRINGLINE.
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STATE OF NORTH CAROLINA
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ENGLISH DETAIL DRAWING FOR
METHOD OF PIPE INSTALLATION
FILL HEIGHT TABLES

FLEXIBLE PIPE

<u>Round Corrugated Steel Pipe</u> 2 2/3 x 1/2 corrugation **						
Diameter (inches)	Minimum cover (inches)	(Ga)	Maximum Height of Cover (feet)			
			16	14	12	10
12	12	204	256			
15	12	162	204			
18	12	135	169	239		
21	12	115	145	204		
24	12	100	126	178		
30	12	79	100	142		
36	12	65	83	117	152	
42	12	55	70	100	130	160
48	12	48	61	87	113	139
54	12		54	77	100	123
60	12			69	90	111
66	12				81	100
72	12				74	91
78	12					81
84	12					69

<u>Round Corrugated Aluminum Pipe</u> 2 2/3 x 1/2 corrugation **						
Diameter (inches)	Minimum cover (inches)	(Ga)	Maximum Height of Cover (feet)			
			16	14	12	10
12	12	123	155	218	281	344
15	12	98	123	174	224	275
18	12	81	102	144	187	228
21	12	69	87	123	160	195
24	12	60	76	108	139	171
27	12		67	95	123	151
30	12		60	85	111	136
36	12		50	71	92	113
42	12			60	78	96
48	12			52	68	84
54	12			46	50	74
60	12				50	62
66	12					51
72	12					41

** FOR DIFFERENT CORRUGATIONS AND ARCH PIPES REFER TO ROADWAY DESIGN MANUAL OR MANUFACTURERS SPECIFICATION.

REFER TO THE FOLLOWING FOR PIPE SPECIFICATIONS

- CSP - AASHTO M36
- CAAP - AASHTO M196
- HDPE - AASHTO M294
- PVC - ASTM F949 or AASHTO M304

NOTES: FILL HEIGHTS SHOWN WERE CALCULATED USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

1' MINIMUM COVER FOR ALL SIDE DRAIN PIPE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS

- HDPE - * (Minimum fill) 2' for pipe diameters ≥ 12" and ≤ 60"
- * (Maximum fill) 20' for pipe diameters ≤ 24"
- 17' for pipe diameters ≥ 30" and ≤ 60"

- PVC - * (Minimum fill) 2' for pipe diameters ≥ 12" and ≤ 36"
- * (Maximum fill) 30' for pipe diameters ≥ 12" and ≤ 36"

* FILL HEIGHT IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT STRUCTURE

RIGID PIPE

- RCP - * (Minimum fill) 1' for Class IV & CLASS V
- 2' for Class III & Class II

- * (Maximum fill) 10' - Class II pipe
- 20' - Class III pipe
- 30' - Class IV pipe
- 40' - Class V pipe

(For fills > 40' & < 80' use LRFD Direct Design Method)

* FILL HEIGHT IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT STRUCTURE

REFER TO THE FOLLOWING FOR PIPE SPECIFICATIONS

- RCP - AASHTO M170

NOTES: FILL HEIGHTS SHOWN WERE CALCULATED USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

1' MINIMUM COVER FOR ALL SIDE DRAIN PIPE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS

STATE OF NORTH CAROLINA
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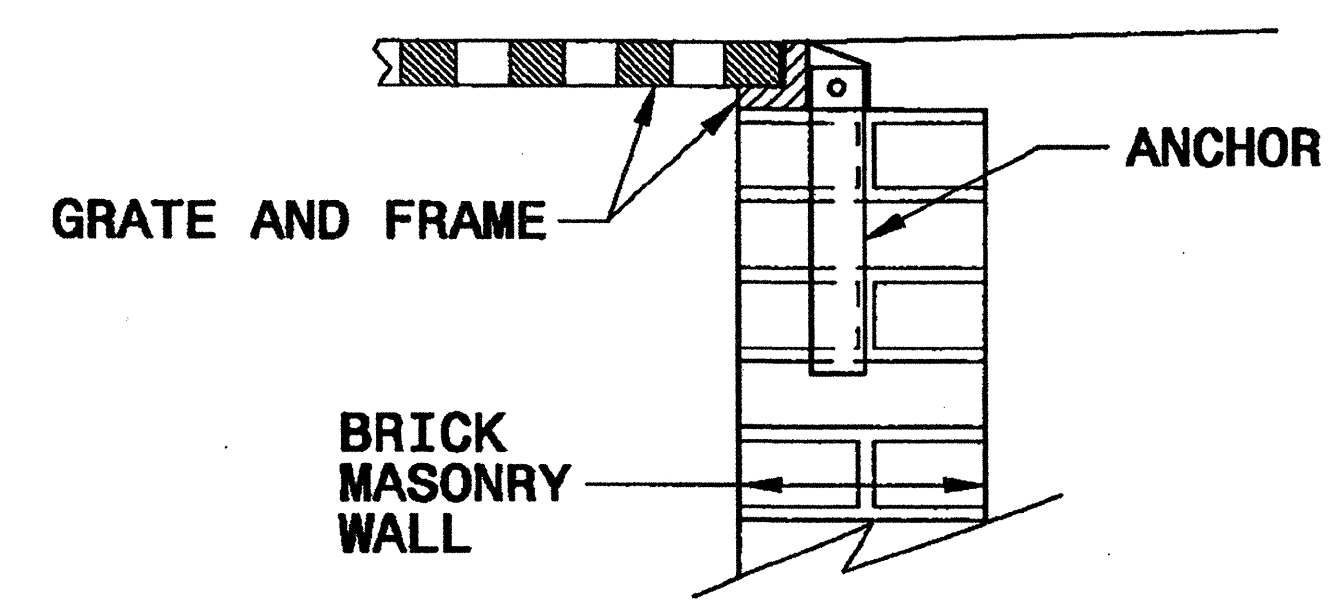
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ENGLISH DETAIL DRAWING FOR
METHOD OF PIPE INSTALLATION
FILL HEIGHT TABLES

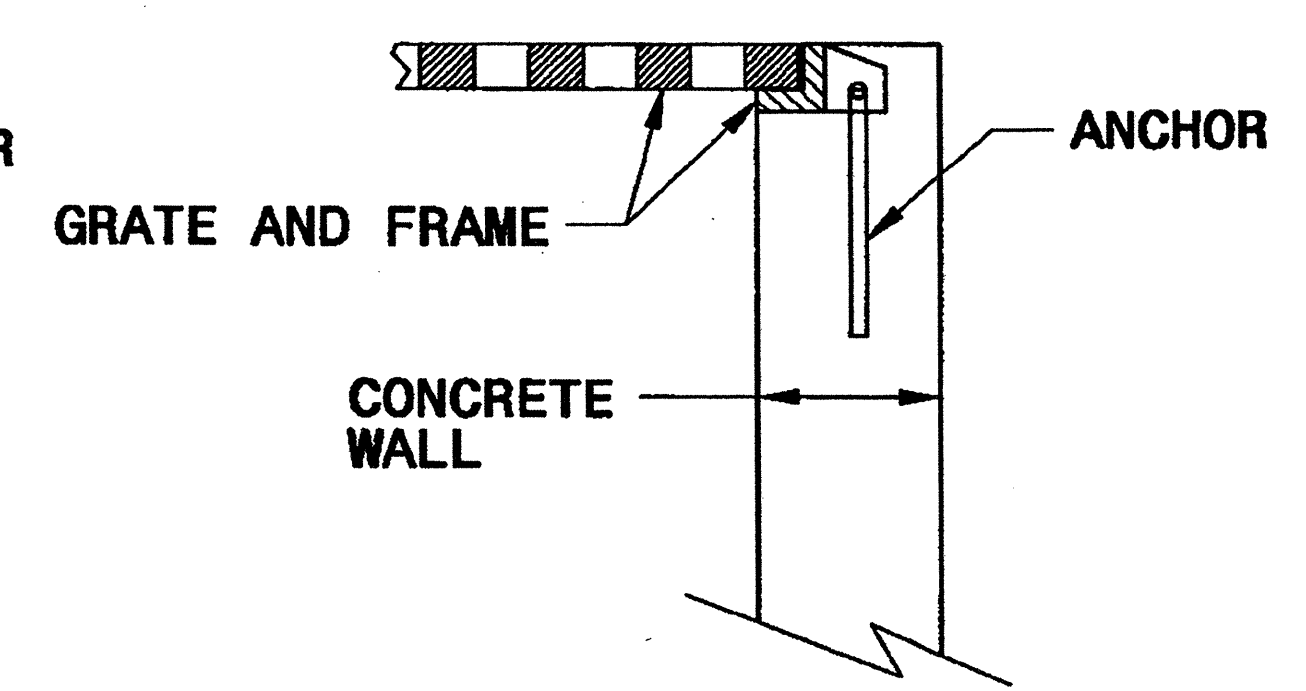
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NORTH CAROLINA
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DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
ANCHORAGE FOR FRAMES
BRICK/CONCRETE/PRECAST CONCRETE

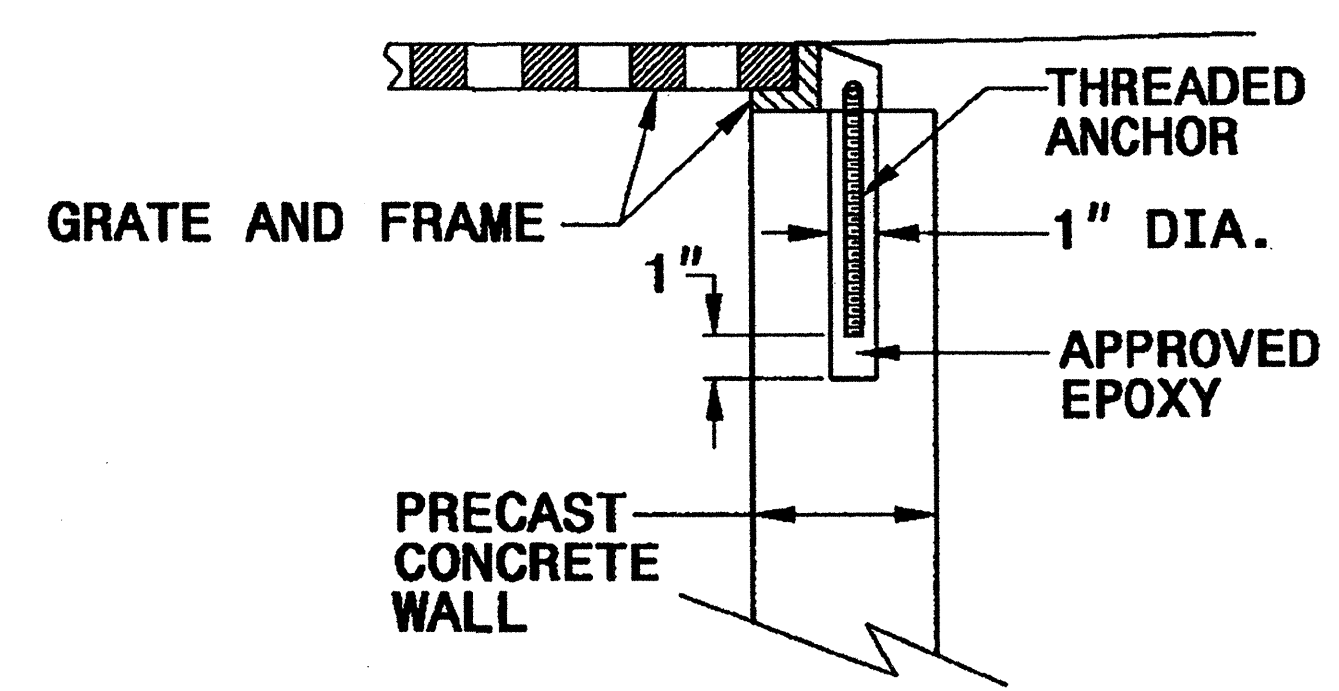
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840D25



**BRICK MASONRY
CONSTRUCTION**



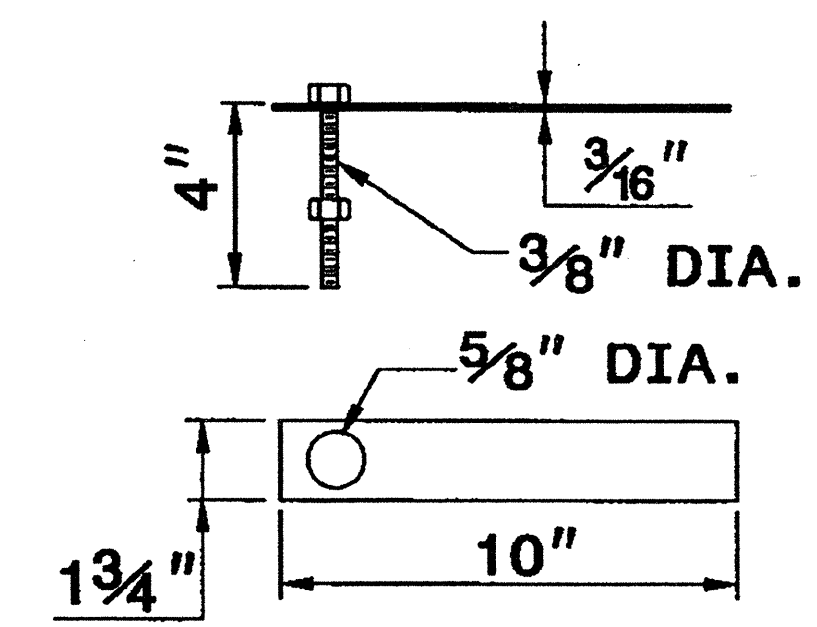
**CONCRETE
CONSTRUCTION**



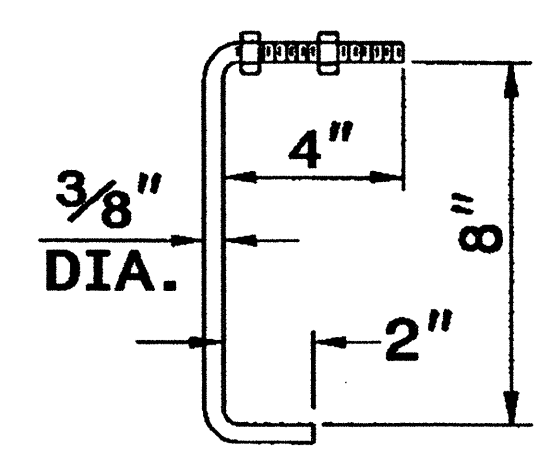
**PRECAST CONCRETE
CONSTRUCTION**

**DETAIL SHOWING ANCHORAGE OF
FRAME FOR GRATED DROP INLET**

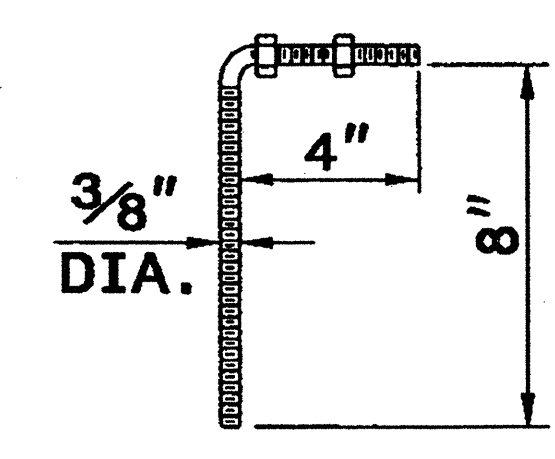
NOTE:
CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL
OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.



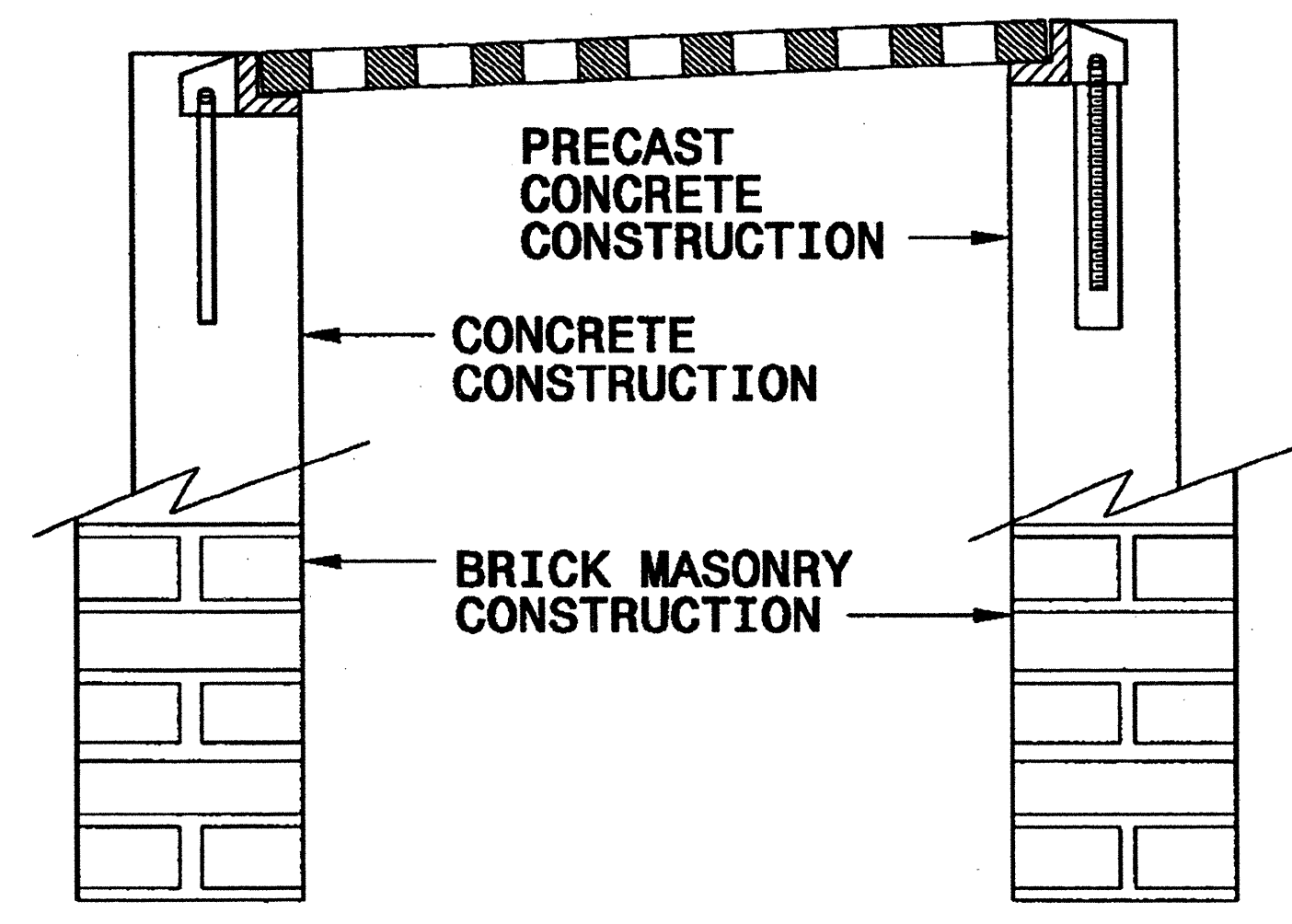
MASONRY ANCHOR
3/8" DIA. BOLT WITH PLATE



CONCRETE ANCHOR
3/8" DIA. BENT BAR



**PRECAST
CONCRETE ANCHOR**
3/8" DIA. BENT BAR



**FRAME AND GRATE INSTALLATION
FOR NORMAL CROWN AND
SUPERELEVATED SECTIONS**

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
ANCHORAGE FOR FRAMES
BRICK/CONCRETE/PRECAST CONCRETE

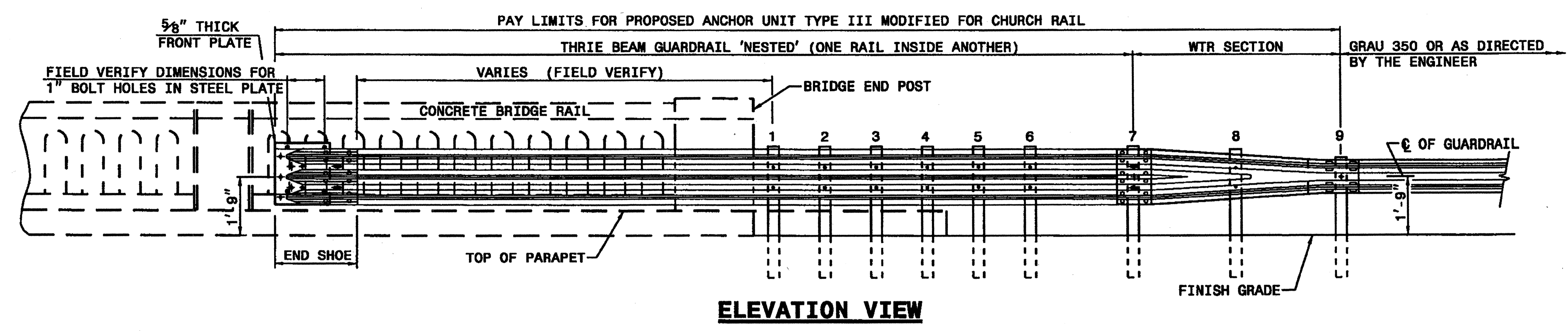
SHEET 1 OF 1
840D25

27-SEP-2006 09:59
C:\com\pacta\1\p5222233
Special Details\vertical\stds\06\Std to Special Details\840D25 Anchorage for Frames\0840d25.dgn

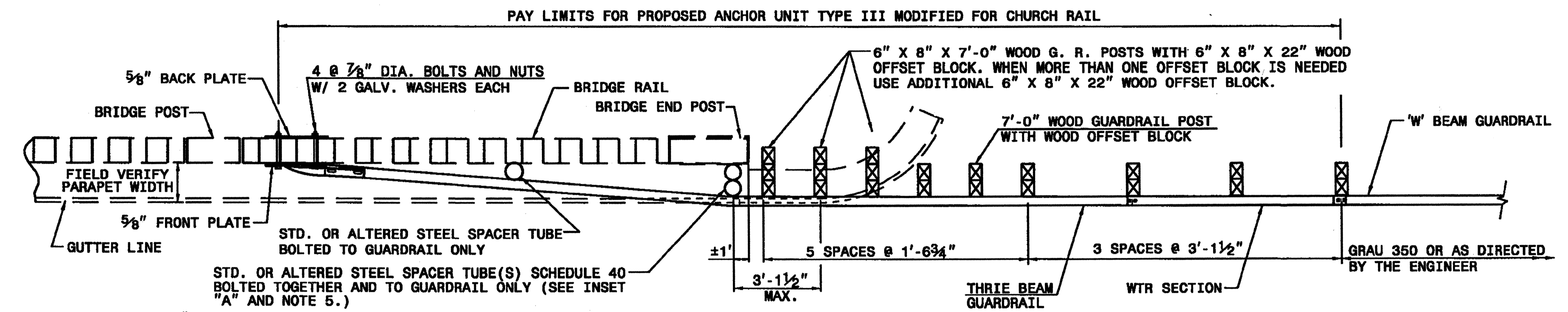
PROJECT SERVICES UNIT
STANDARDS AND SPECIAL DESIGN
Office 919-250-4128 FAX 919-250-4119

SEE PLATE FOR TITLE

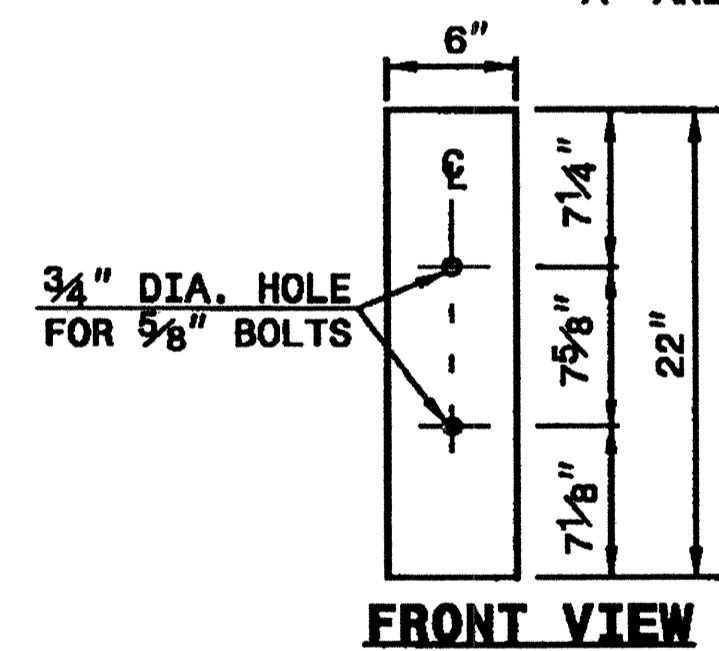
ORIGINAL BY: 2006 STD 840.25 DATE: 07/18/06
MODIFIED BY: E.E. WARD DATE: 9/25/06
CHECKED BY: DATE:
FILE SPEC.:



ELEVATION VIEW

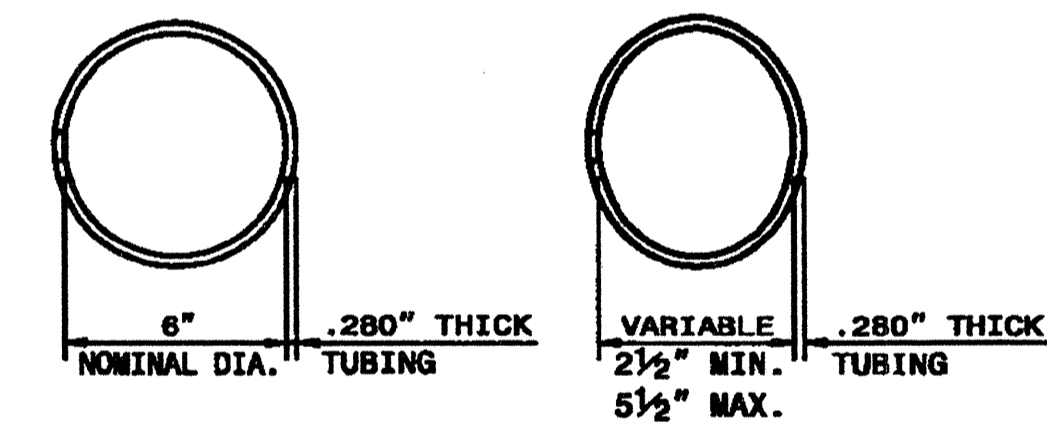


PLAN VIEW

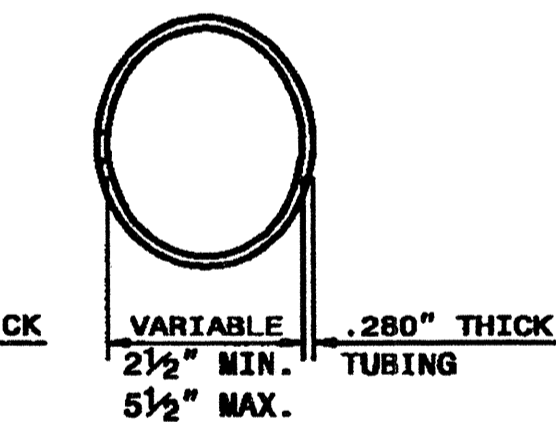


FRONT VIEW

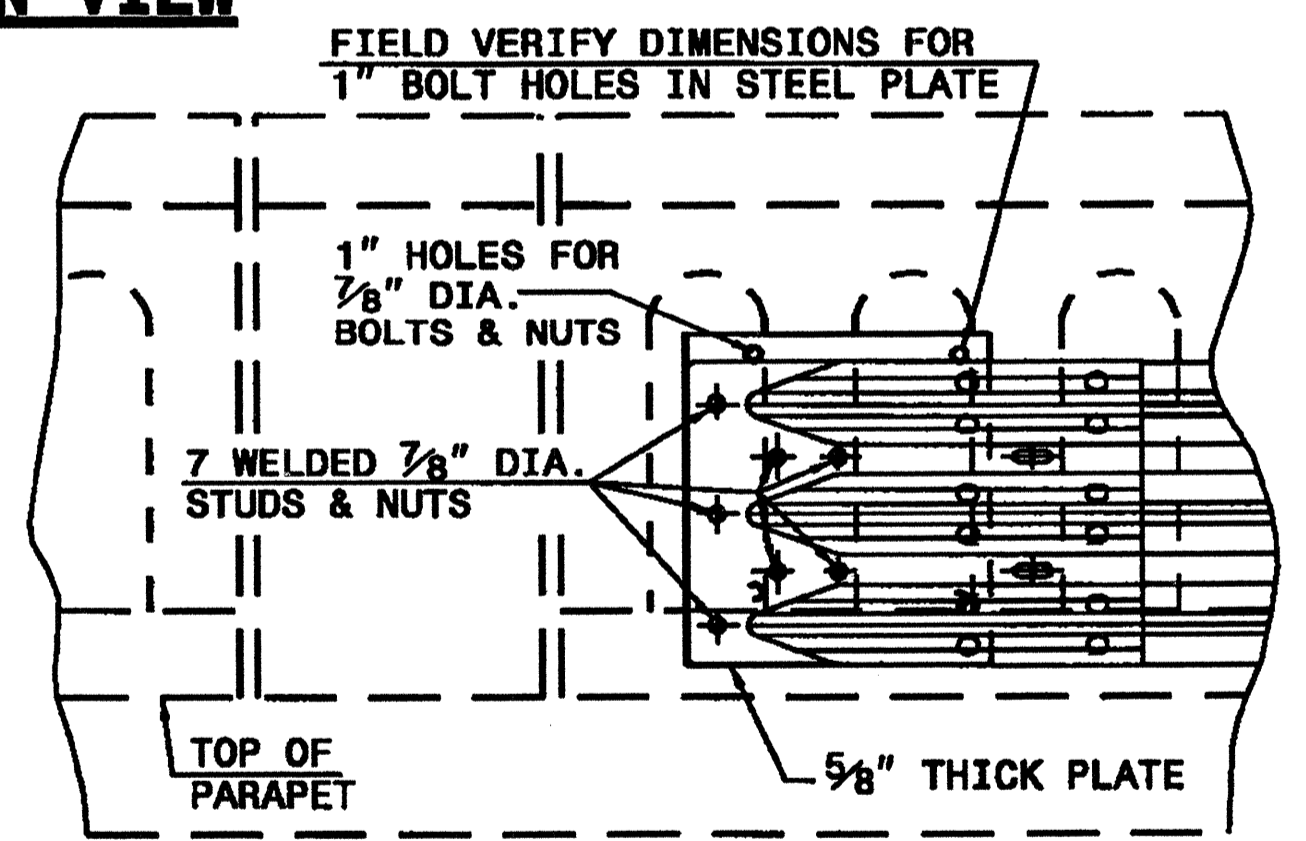
STEEL SPACER TUBE



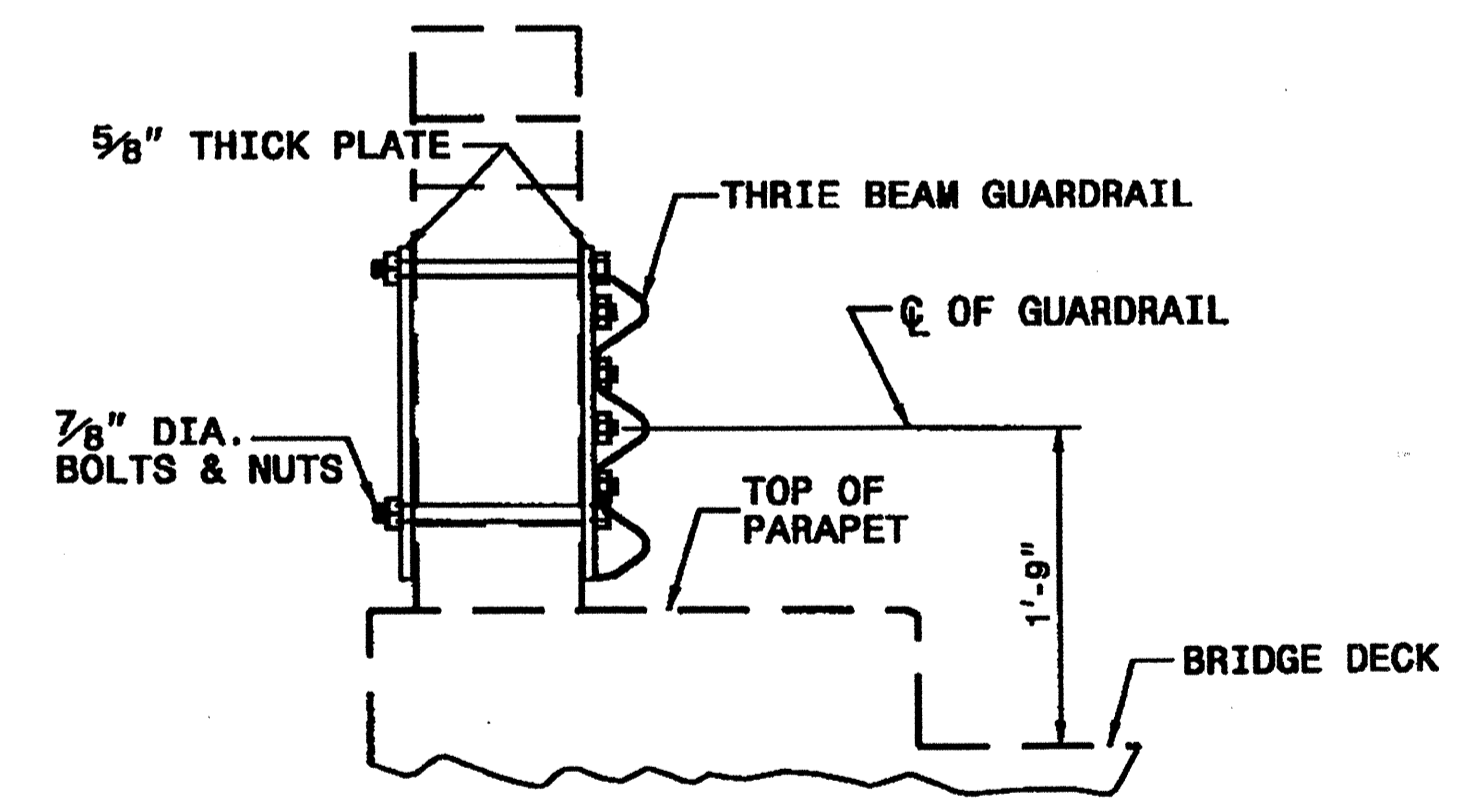
PLAN VIEW



**PLAN VIEW
INSET "A"**

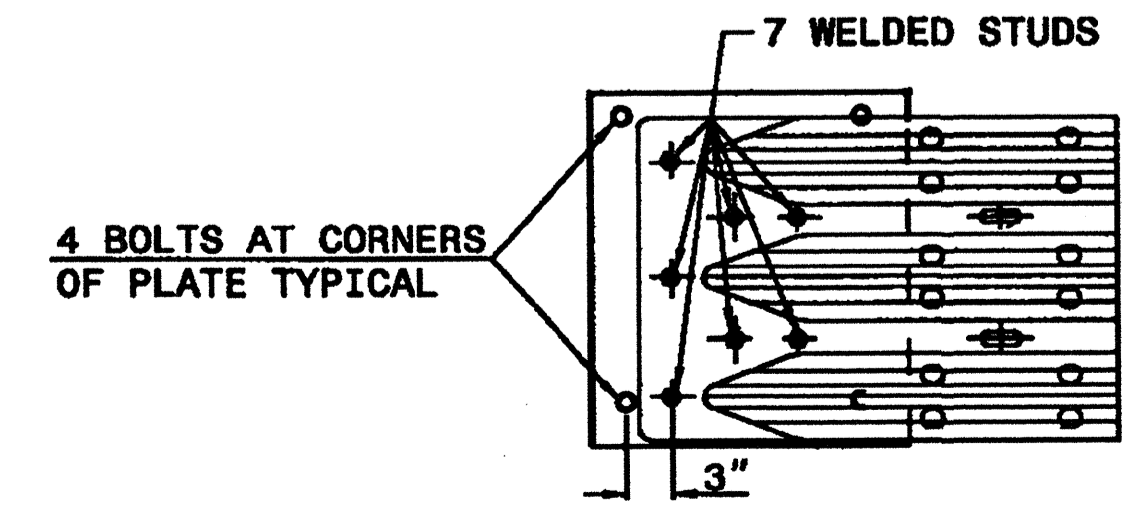


ELEVATION VIEW



SECTION VIEW

**GUARDRAIL ATTACHMENT
TO BRIDGE POST**



- GENERAL NOTES:**
1. USE NUTS, BOLTS, AND WASHERS CONFORMING TO THE REQUIREMENTS OF A.S.T.M. A-307 AND GALVANIZED IN ACCORDANCE WITH SECTION 1076 OF STAND. SPECS.
 2. TAP NUTS FOR THE 7/8" DIA. STUDS AND BOLTS AFTER GALVANIZING SEE A.S.T.M. A-563.
 3. USE PLATES AND TUBES CONFORMING TO THE REQUIREMENTS OF A.S.T.M. A-36 AND GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH SECTION 1076 OF STAND. SPECS.
 4. ADDITIONAL FIELD HOLES MAY BE DRILLED IN STEEL RAIL AS DIRECTED BY THE ENGINEER.
 5. INSTALL FACE OF GUARDRAIL AS NEAR AS POSSIBLE TO PLUMB WITH THE PARAPET FACE AT BRIDGE END POST SPACER TUBE LOCATION BY USING STANDARD OR ALTERED SPACER TUBES OR A COMBINATION THEREOF OR AS DIRECTED BY THE ENGINEER. FOR VERY SMALL PARAPET WIDTHS, GUARDRAIL MAY BE INSTALLED AGAINST BRIDGE RAIL WITHOUT SPACER TUBES.
 6. DO NOT DRILL BRIDGE RAIL IN ORDER TO INSTALL GUARDRAIL ANCHOR UNIT.
 7. ATTACH THREADED STUDS TO PLATE WITH 1/4" WELDS ALL AROUND.
 8. PROVIDE SHOP DRAWINGS OF THE PLATES TO THE ENGINEER FOR APPROVAL BEFORE FABRICATING THE PLATES.
 9. LAP JOINTS IN THE DIRECTION OF TRAFFIC FLOW.
 10. SEE 2002 ROADWAY STANDARD DRAWING 862.03 SHEET 4 FOR ADDITIONAL INFORMATION ON THE TYPE III ANCHOR UNIT.

 SYSTEMS ENGINEERING

PROJECT SERVICES UNIT STANDARDS AND SPECIAL DESIGN Office 919-250-4128 FAX 919-250-4119	
GUARDRAIL ANCHOR UNIT TYPE III MODIFIED FOR CHURCH RAIL	
ORIGINAL BY: C.O. CUEVAS	DATE: 12-00
MODIFIED BY: E.E. WARD	DATE: 02-04
CHECKED BY:	DATE:
FILE SPEC.: \\usr\details\stand\bp11.dgn	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C202401

ItemNumber	Sec #	Quantity	Unit	Description	ItemNumber	Sec #	Quantity	Unit	Description	ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION	2044000000-E	815	100	LF	6" PERFORATED SUBDRAIN PIPE	3649000000-E	876	850	TON	RIP RAP, CLASS B
0043000000-N	226	Lump Sum		GRADING	2055000000-E	815	3	EA	6" SUBDRAIN PIPE WYES, TEES, & ELBOWS	3656000000-E	876	1,210	SY	FILTER FABRIC FOR DRAINAGE
0320000000-E	SP	990	SY	FOUNDATION CONDITIONING FABRIC	2066000000-N	815	1	EA	CONCRETE PAD FOR SUBDRAIN PIPE OUTLET	4589000000-N	SP	Lump Sum		GENERIC TRAFFIC CONTROL ITEM TRAFFIC CONTROL
0330000000-E	SP	320	TON	GENERIC DRAINAGE ITEM FOUNDATION CONDITIONING MATERIAL, MINOR STRS	2077000000-E	815	6	LF	6" OUTLET PIPE (SUBDRAINS)	4685000000-E	1205	86,100	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)
0335200000-E	SP	1,912	LF	15" DRAINAGE PIPE	2253000000-E	840	14.5	CY	PIPE COLLARS	4686000000-E	1205	72,549	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS)
0335300000-E	SP	796	LF	18" DRAINAGE PIPE	2286000000-N	840	39	EA	MASONRY DRAINAGE STRUCTURES	4710000000-E	1205	180	LF	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)
0335400000-E	SP	60	LF	24" DRAINAGE PIPE	2365000000-N	840	39	EA	FRAME WITH TWO GRATES, STD 840.22	4810000000-E	1205	3,000	LF	PAINT PAVEMENT MARKING LINES (4")
0986000000-E	SP	144	LF	GENERIC PIPE ITEM 18" RC PIPE CULVERTS, CLASS III	2591000000-E	848	10	SY	4" CONCRETE SIDEWALK	4905000000-N	1253	533	EA	SNOWPLOWABLE PAVEMENT MARKERS
0986000000-E	SP	40	LF	GENERIC PIPE ITEM 24" RC PIPE CULVERTS, CLASS III	2612000000-E	848	75	SY	6" CONCRETE DRIVEWAY	6000000000-E	1605	37,150	LF	TEMPORARY SILT FENCE
0986000000-E	SP	4	LF	GENERIC PIPE ITEM 30" RC PIPE CULVERTS, CLASS III	2752000000-E	SP	3,178	LF	GENERIC PAVING ITEM 8" X 6" ASPHALT CURB	6009000000-E	1610	453	TON	STONE FOR EROSION CONTROL, CLASS B
0995000000-E	340	1,795	LF	PIPE REMOVAL	3030000000-E	862	14,300	LF	STEEL BM GUARDRAIL	6012000000-E	1610	214	TON	SEDIMENT CONTROL STONE
0996000000-N	350	36	EA	PIPE CLEAN-OUT	3045000000-E	862	750	LF	STEEL BM GUARDRAIL, SHOP CURVED	6015000000-E	1615	2	ACR	TEMPORARY MULCHING
1220000000-E	545	968	TON	INCIDENTAL STONE BASE	3150000000-N	862	25	EA	ADDITIONAL GUARDRAIL POSTS	6018000000-E	1620	500	LB	SEED FOR TEMPORARY SEEDING
1308000000-E	607	634	SY	MILLING ASPHALT PAVEMENT, **** TO ***** DEPTH (0" TO 1-1/2")	3180000000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE ***** (III MOD)	6021000000-E	1620	2	TON	FERTILIZER FOR TEMPORARY SEEDING
1489000000-E	610	11,120	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B	3195000000-N	862	26	EA	GUARDRAIL ANCHOR UNITS, TYPE AT-1	6030000000-E	1630	2,450	CY	SILT EXCAVATION
1519000000-E	610	10,810	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	3270000000-N	SP	96	EA	GUARDRAIL ANCHOR UNITS, TYPE 350	6036000000-E	1631	9,500	SY	MATting FOR EROSION CONTROL
1520000000-E	SP	200	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5B (LEVELING COURSE)	3360000000-E	863	226	LF	REMOVE EXISTING GUARDRAIL	6038000000-E	SP	5,600	SY	PERMANENT SOIL REINFORCEMENT MAT
1560000000-E	620	1,140	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22	3435000000-N	SP	8	EA	GENERIC GUARDRAIL ITEM 25' CLEAR SPAN GUARDRAIL SECTIONS	6042000000-E	1632	1,200	LF	1/4" HARDWARE CLOTH
1693000000-E	654	20	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR	3435000000-N	SP	14	EA	GENERIC GUARDRAIL ITEM ANCHOR GUARDRAIL POST ON BOX CULVERT	6071020000-E	SP	170	LB	POLYACRYLAMIDE (PAM)
1891000000-E	SP	28,400	SY	GENERIC PAVING ITEM PAVEMENT FABRIC	3435000000-N	SP	325	EA	GENERIC GUARDRAIL ITEM EXTRA LENGTH GUARDRAIL POST (9" STEEL)	6071030000-E	SP	1,200	LF	COIR FIBER BAFFLES
2022000000-E	815	35	CY	SUBDRAIN EXCAVATION	3566000000-E	867	500	LF	WOVEN WIRE FENCE RESET	6084000000-E	1660	24	ACR	SEEDING & MULCHING
2033000000-E	815	20	CY	SUBDRAIN FINE AGGREGATE	3569000000-E	867	2,200	LF	BARBED WIRE FENCE RESET	6090000000-E	1661	500	LB	SEED FOR REPAIR SEEDING
					3574000000-E	867	384	LF	GENERIC FENCING ITEM MISC FENCE RESET	6093000000-E	1661	2	TON	FERTILIZER FOR REPAIR SEEDING
										6117000000-N	SP	10	EA	RESPONSE FOR EROSION CONTROL

30-DEC-2009 09:24
 S:\30101\PROJECTS\STATE OF NORTH CAROLINA\2009\122309.dgn
 5/28/99

COMPUTED BY: David Wayne, PE

DATE: 12/21/2009

CHECKED BY: Joe L. Laws, PE

DATE: 12/21/2009

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

PROJECT NO.

SHEET NO.

R-5159

3-F

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

Main data table with columns for STATION, LOCATION, DRAINAGE PIPE, C.S. PIPE, R.C. PIPE CLASS II, R.C. PIPE CLASS IV, ENDWALLS, QUANTITIES FOR DRAINAGE STRUCTURES, FRAME, GRATES, AND HOOD STANDARD, and ABBREVIATIONS. Includes sub-totals and project totals.

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D11CAD-230212

COMPUTED BY: J.L. LAWS DATE: 12/11/2009
 CHECKED BY: DATE:

PROJECT NO.	SHEET NO.
R-5159	3-G

**STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS**

EARTHWORK SUMMARY

Station	Station	Uncl. Excav.	Embank. + %	Borrow	Waste
No Earthwork Quantities are available for this project. The Contractor shall make his/her own investigation of existing site conditions.					
Clearing and Grubbing, Unclassified Excavation, Borrow Excavation, Embankments, Removal of Existing Pavement, Fine Grading, and Shoulder Construction will be paid for at the contract lump sum price for "Grading".					
SUBTOTALS:		N/A	N/A	N/A	N/A
PROJECT TOTALS:		N/A	N/A	N/A	N/A
GRAND TOTALS:		N/A	N/A	N/A	N/A

PAVEMENT MARKING AND MARKERS SUMMARY

Line	From Station	To Station	Type	4" Yellow 120 mil Length	4" White 90 mil Length	Snowplowable Pavement Markers
-L-	10+00.00	12+75.00	PZone LT	344	550	3.44
-L-	12+75.00	65+50.00	DBL Yellow	10,550	10,550	65.94
-L-	65+50.00	72+18.00	PZone RT	835	1,336	8.35
-L-	72+18.00	74+62.00	DBL Yellow	488	488	3.05
-L-	74+62.00	81+27.00	PZone LT	831	1,330	8.31
-L-	81+27.00	111+85.00	DBL Yellow	6,116	6,116	38.23
-L-	111+85.00	120+10.00	PZone RT	1,031	1,650	10.31
-L-	120+10.00	121+00.00	DBL Yellow	180	180	1.13
-L-	121+00.00	129+25.00	PZone LT	1,031	1,650	10.31
-L-	129+25.00	148+80.00	DBL Yellow	3,910	3,910	24.44
-L-	148+80.00	154+35.00	PZone RT	694	1,110	6.94
-L-	154+35.00	157+75.00	DBL Yellow	680	680	4.25
-L-	157+75.00	163+35.00	PZone LT	700	1,120	7.00
-L-	163+35.00	175+80.00	DBL Yellow	2,490	2,490	15.56
-L-	175+80.00	180+50.00	PZone RT	588	940	5.88
-L-	180+50.00	184+60.00	DBL Yellow	820	820	5.13
-L-	184+60.00	189+67.00	PZone LT	634	1,014	6.34
-L-	189+67.00	214+15.00	DBL Yellow	4,896	4,896	30.60
-L-	214+15.00	223+00.00	PZone RT	1,106	1,770	11.06
-L-	223+00.00	242+30.00	Pass Zone	483	3,860	24.13
-L-	242+30.00	251+40.00	PZone LT	1,138	1,820	11.38
-L-	251+40.00	267+90.00	DBL Yellow	3,300	3,300	20.63
-L-	267+90.00	276+90.00	PZone RT	1,125	1,800	11.25
-L-	276+90.00	278+10.00	Pass Zone	30	240	1.50
-L-	278+10.00	287+05.00	PZone LT	1,119	1,790	11.19
-L-	287+05.00	389+98.00	DBL Yellow	20,586	20,586	128.66
-L-	389+98.00	398+75.00	PZone RT	1,096	1,754	10.96
-L-	398+75.00	401+70.00	Pass Zone	74	590	3.69
-L-	401+70.00	410+95.00	PZone LT	1,156	1,850	11.56
-L-	410+95.00	423+45.00	DBL Yellow	2,500	2,500	15.63
-L-	423+45.00	432+20.00	PZone RT	1,094	1,750	10.94
-L-	432+20.00	436+00.00	PZone LT	475	760	4.75
-L- SUBTOTAL:				72,099	85,200	533
-Y- LINES SUBTOTAL:				450	900	
PROJECT TOTAL:				72,549	86,100	533

SUMMARY OF FENCE RESET

Line	From Station	To Station	Length of Section	Left/Right	Description
-L-	37+38.00	37+62.00	24	Right	3 Rail Plastic
-L-	34+80.00	45+80.00	1,100	Left	2 Strand Barbed Wire
-L-	119+30.00	122+90.00	360	Right	2 Rail Wooden Split Rail
-L-	131+50.00	136+50.00	500	Right	Woven Wire W/ Wood Posts
-L-	140+00.00	142+90.00	290	Left	3 Strand Barbed Wire
-L-	275+00.00	277+00.00	200	Left	5 Strand Barbed Wire
-L-	313+80.00	319+30.00	550	Left	3 Strand Barbed Wire & 1 Strand Electric
-L-	322+60.00	323+20.00	60	Left	3 Strand Barbed Wire
TOTAL:			3084		

COMPUTED BY: D. A. WAYNE DATE: 11-09-2009
 CHECKED BY: J. L. LAWS DATE: 12-10-2009

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA GUARDRAIL SUMMARY

PROJECT REFERENCE NO. R-5159 SHEET NO. 3-H

DIICAD-2

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL
 TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
 FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL
 W = TOTAL WIDTH OF FLARE FROM BEGIN

G = GATING IMPACT ATTENUATOR TYPE 350
 NG = NON-GATING IMPACT ATTENUATOR TYPE 350

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS				IMPACT ATTENUATOR TYPE 350		EXTRA LENGTH GUARDRAIL POSTS (9')	REMOVE EXISTING GUARDRAIL	REMARKS		
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	GRAU 350	AT-1	TYPE III MOD. FOR CHURCH RAIL	25.0' CLEAR SPAN FOR SHALLOW FILL CULVERTS	ANCHORAGE FOR GUARDRAIL POST ON BOX CULVERTS	G				NG	
-L-	10+00.00	13+75.00	RIGHT	375.00			10+00.00	13+75.00		VAR.	50	50	1	1	2	0									
-L-	19+00.00	25+50.00	LEFT	650.00			25+50.00	19+00.00		VAR.	50	50	1	1	2	0							5		
-L-	28+90.00	31+30.00	LEFT	240.00			31+30.00	28+90.00		VAR.	50	50	1	1	2	0							30		
-L-	55+80.00	60+80.00	RIGHT	500.00			55+80.00	60+80.00		VAR.	50	50	1	1	2	0							5		
-L-	70+16.00	72+75.00	RIGHT	259.00			70+16.00	72+75.00		VAR.	50	50	1	1	2	0									
-L-	74+50.00	79+50.00	LEFT	500.00			79+50.00	74+50.00		VAR.	50	50	1	1	2	0									
-L-	85+27.00	88+35.00	LEFT	308.00			88+35.00	85+27.00		VAR.	50	50	1	1	2	0							40		EXTRA LENGTH POST REQUIRED
-L-	90+40.00	91+85.00	RIGHT	145.00			90+40.00	91+85.00		VAR.	50	50	1	1	1	0	1								
-L-	91+35.00	91+85.00	LEFT	100.00	25		91+85.00	91+35.00		VAR.	50	50	1	1	1	0	1								WRAP TRAILING END UNIT INTO BOSH KEMP ROAD
-L-	92+21.00	95+30.00	LEFT	309.00			95+30.00	92+21.00		VAR.	50	50	1	1	1	0	1								
-L-	92+21.00	97+00.00	RIGHT	479.00			92+21.00	97+00.00		VAR.	50	50	1	1	1	0	1								
-L-	98+00.00	108+20.00	RIGHT	1068.75	37.5		98+00.00	108+20.00		VAR.	50	50	1	1	2	0									WRAP APPROACH END UNIT INTO HUNTING CREEK ROAD
-L-	115+40.00	117+50.00	LEFT	210.00			117+50.00	115+40.00		VAR.	50	50	1	1	2	0		1							
-L-	116+10.00	116+49.00	RIGHT	37.50	50		116+10.00	116+49.00		VAR.	VAR.	VAR.	VAR.	VAR.	0	2			1						CULVERT IS 4'-8" WIDE/TRY 1 POST ANCHOR WHEN LAYING OUT
-L-	122+53.00	124+75.00	LEFT	222.00			124+75.00	122+53.00		VAR.	50	50	1	1	2	0							20		CURB SECTION
-L-	123+19.00	125+00.00	RIGHT	182.25	25		123+19.00	125+00.00		VAR.	VAR.	50	VAR.	1	1	1							20		CURB SECTION
-L-	128+78.00	131+50.00	LEFT	272.00			131+50.00	128+78.00		VAR.	50	50	1	1	2	0							25		CURB SECTION
-L-	129+60.00	131+50.00	RIGHT	190.00			129+60.00	131+50.00		VAR.	50	50	1	1	2	0							15		CURB SECTION
-L-	136+50.00	139+50.00	LEFT	300.00			139+50.00	136+50.00		VAR.	50	50	1	1	2	0							30		CURB SECTION/NO BOX CULVERT ANCHORAGE NEEDED
-L-	137+00.00	139+50.00	RIGHT	250.00			137+00.00	139+50.00		VAR.	50	50	1	1	2	0							25		CURB SECTION/NO BOX CULVERT ANCHORAGE NEEDED
-L-	152+15.00	156+10.00	LEFT	395.00			156+10.00	152+15.00		VAR.	50	50	1	1	2	0									
-L-	158+40.00	162+00.00	LEFT	360.00			162+00.00	158+40.00		VAR.	50	50	1	1	2	0		1							
-L-	158+70.00	160+80.00	RIGHT	210.00			158+70.00	168+80.00		VAR.	50	50	1	1	2	0		1							
-L-	169+00.00	178+55.00	LEFT	955.00			178+55.00	169+00.00		VAR.	50	50	1	1	2	0									
-L-	176+60.00	179+90.00	RIGHT	330.00			176+60.00	179+90.00		VAR.	50	50	1	1	2	0									
-L-	201+97.00	202+33.00	LEFT	25.00	50		202+33.00	201+97.00		VAR.	VAR.	VAR.	VAR.	VAR.	0	2			1						CULVERT IS 4'-8" WIDE/TRY 1 POST ANCHOR WHEN LAYING OUT
-L-	201+97.00	202+33.00	RIGHT	25.00	50		201+97.00	202+33.00		VAR.	VAR.	VAR.	VAR.	VAR.	0	2			1						CULVERT IS 4'-8" WIDE/TRY 1 POST ANCHOR WHEN LAYING OUT
-L-	215+85.00	218+00.00	LEFT	215.00			218+00.00	215+85.00		VAR.	50	50	1	1	2	0									
-L-	216+75.00	218+10.00	RIGHT	131.25	25		216+75.00	218+10.00		VAR.	50	VAR.	1	VAR.	1	1									
-L-	230+54.00	230+82.00	LEFT	25.00	50		230+82.00	230+54.00		VAR.	VAR.	VAR.	VAR.	VAR.	0	2			1						CULVERT IS 7'-9" WIDE/TRY 1 POST ANCHOR WHEN LAYING OUT
-L-	230+47.00	230+86.00	RIGHT	37.50	50		230+47.00	230+86.00		VAR.	VAR.	VAR.	VAR.	VAR.	0	2			1						CULVERT IS 7'-9" WIDE/TRY 1 POST ANCHOR WHEN LAYING OUT
-L-	231+00.00	235+23.00	LEFT	423.00			235+23.00	231+00.00		VAR.	50	50	1	1	2	0									
-L-	237+85.00	239+10.00	RIGHT	125.00			237+85.00	239+10.00		VAR.	50	50	1	1	2	0									
-L-	239+50.00	245+00.00	LEFT	546.25	25		245+00.00	239+50.00		VAR.	VAR.	50	VAR.	1	1	1									AT1 NEEDS TO TURN OUT AT WOODLINE
-L-	253+25.00	256+00.00	LEFT	275.00			256+00.00	253+25.00		VAR.	50	50	1	1	2	0							30		
SHEET 1 SUBTOTAL				10675.50	387.50	0.00									53.00	13.00	4.00	3.00	5.00			245.00	0.00		

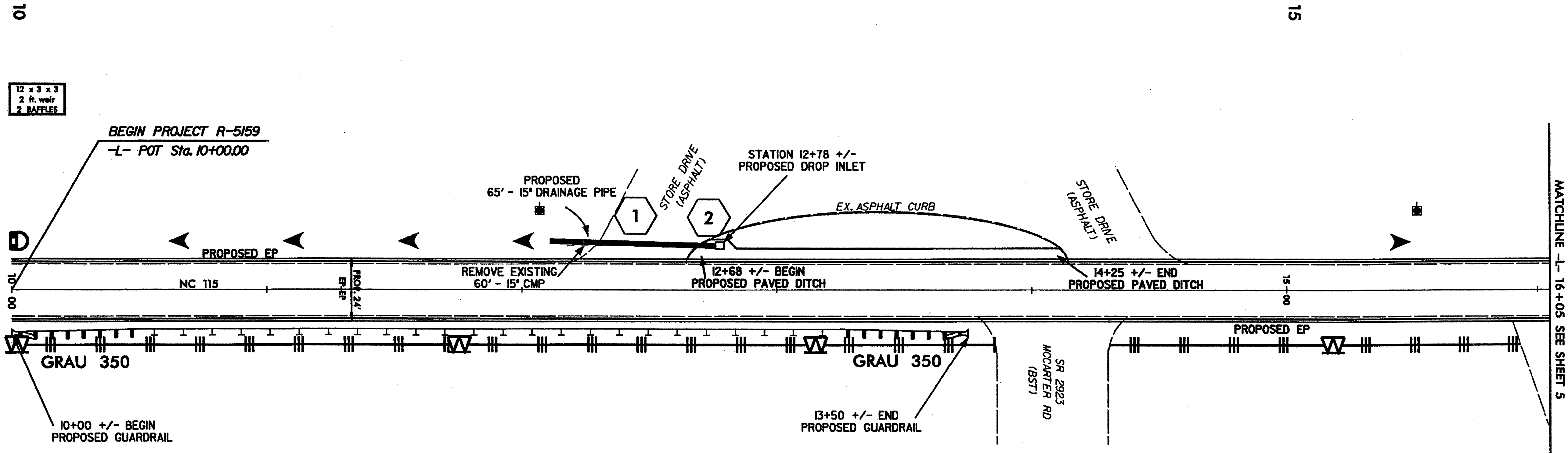
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PROJECT REFERENCE NO. R-5159		SHEET NO. 4	
RAW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



12 x 3 x 3
2 ft. weir
2 BAFFLES

10
10
00

15

PROPOSED EDGE OF PAVEMENT ———
EXISTING EDGE OF PAVEMENT - - - - -
PROPOSED 6" ASPHALT CURB ———

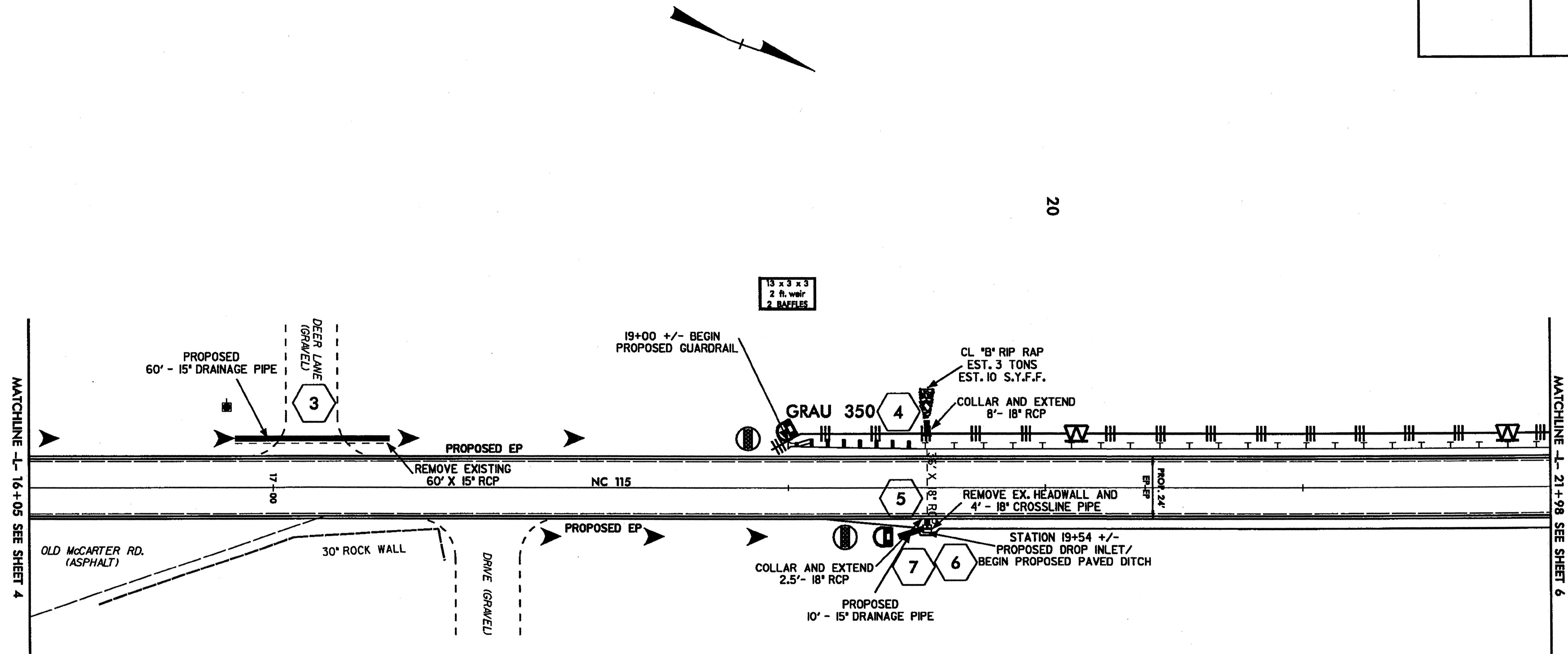
*NOT TO SCALE - PROJECT NOT SURVEYED

EROSION AND SEDIMENT CONTROL MEASURES

Seq. #	Description	Symbol
1605.01	Temporary Silt Fence	— — — — —
1606.01	Special Sediment Control Fence	— — — — —
1622.01	Temporary Berms and Slope Drains	— — — — —
1630.02	Silt Basin Type B	— — — — —
1630.03	Temporary Silt Ditch	— — — — —
1630.05	Temporary Diversion	— — — — —
1630.06	Special Stilling Basin	— — — — —
1632.05	Rock Inlet Sediment Trap Type C	— — — — —
1633.01	Temporary Rock Silt Check Type-A	— — — — —
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	— — — — —
	Temporary Rock Silt Check Type-B	— — — — —
	Wattle	— — — — —
	Wattle with Polyacrylamide (PAM)	— — — — —
1634.02	Temporary Rock Sediment Dam Type-B	— — — — —
1635.01	Rock Pipe Inlet Sediment Trap Type-A	— — — — —

PROJECT REFERENCE NO. R-5159	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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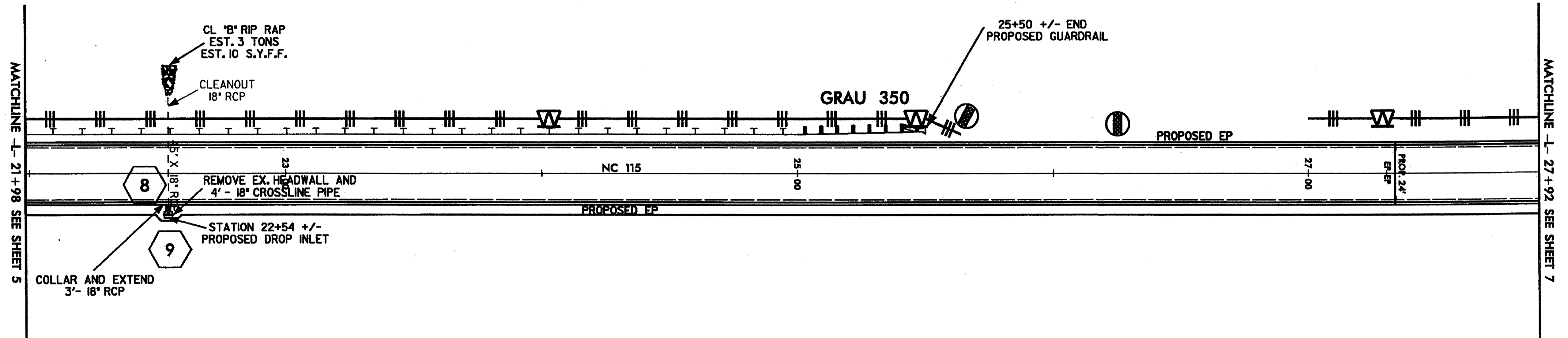


PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. <i>R-5159</i>	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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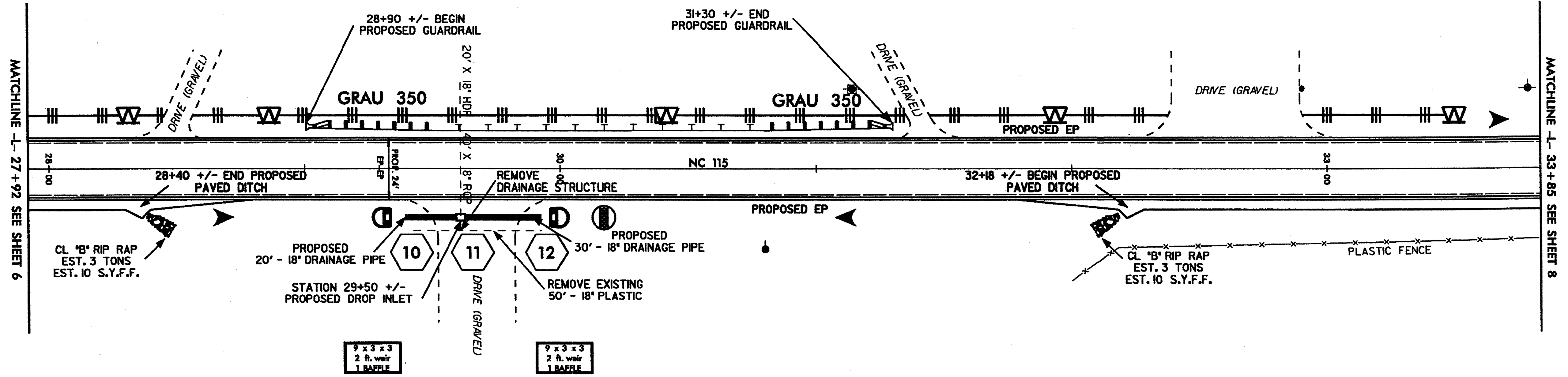


PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	-----
PROPOSED 6" ASPHALT CURB	-----

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. R-5159	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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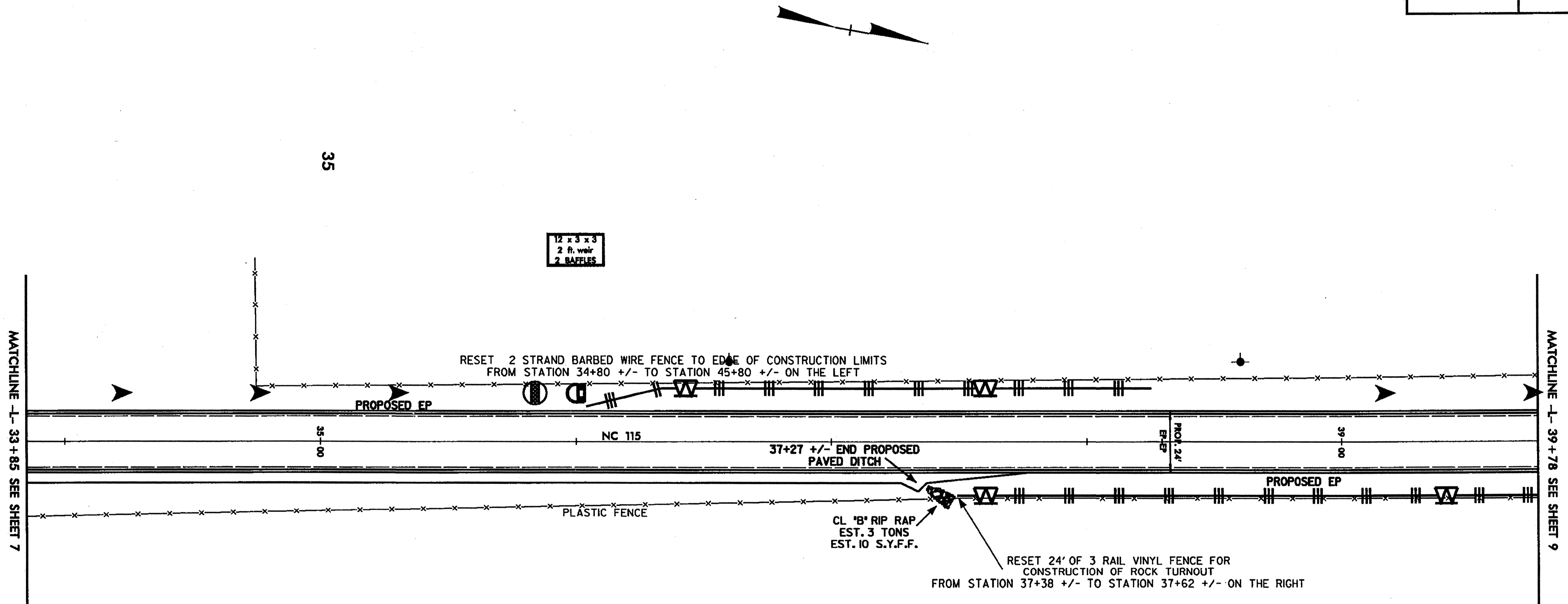


PROPOSED EDGE OF PAVEMENT ———
 EXISTING EDGE OF PAVEMENT - - - -
 PROPOSED 6" ASPHALT CURB ———

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. R-5159	SHEET NO. 8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

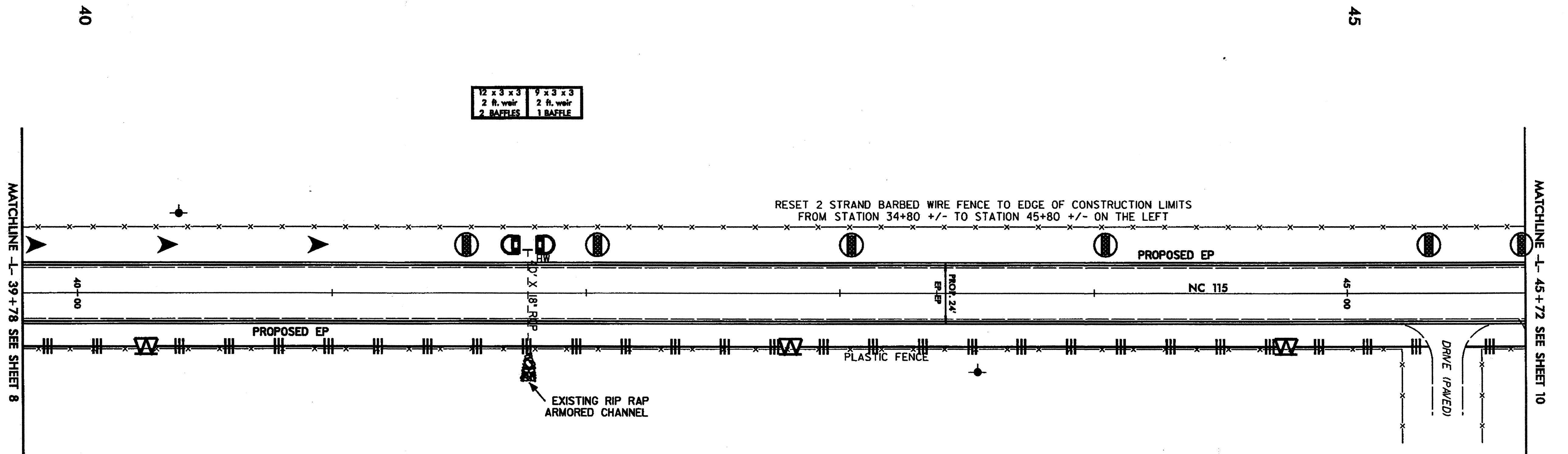
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PROJECT REFERENCE NO. R-5159	SHEET NO. 9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



12 x 3 x 3	9 x 3 x 3
2 ft. weir	2 ft. weir
2 BAFFLES	1 BAFFLE

PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	———

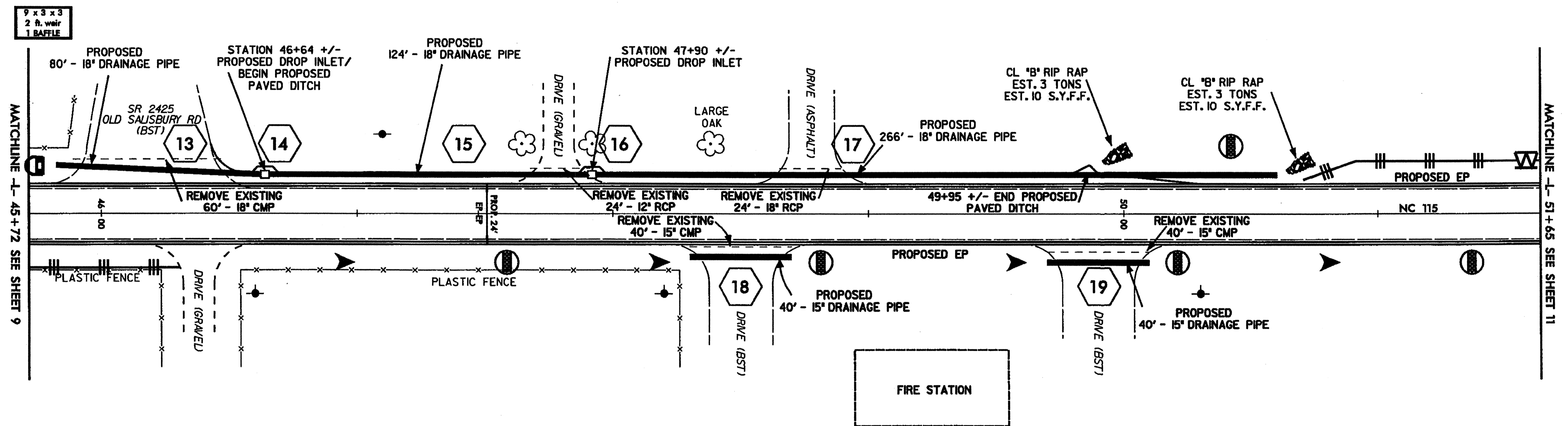
*NOT TO SCALE - PROJECT NOT SURVEYED

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	△△△
1622.01	Temporary Berms and Slope Drains	—▲—
1630.02	Silt Basin Type B	▨
1630.03	Temporary Silt Ditch	—▲—
1630.05	Temporary Diversion	—▲—
1630.06	Special Stilling Basin	—▲—
1632.03	Rock Inlet Sediment Trap Type C	□
1633.01	Temporary Rock Silt Check Type-A	▨
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	▨
	Temporary Rock Silt Check Type-B	▲
	Wattle	—▲—
	Wattle with Polyacrylamide (PAM)	—▲—
1634.02	Temporary Rock Sediment Dam Type-B	▨
1635.01	Rock Pipe Inlet Sediment Trap Type-A	—▲—

PROJECT REFERENCE NO. <i>R-5159</i>	SHEET NO. <i>10</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99



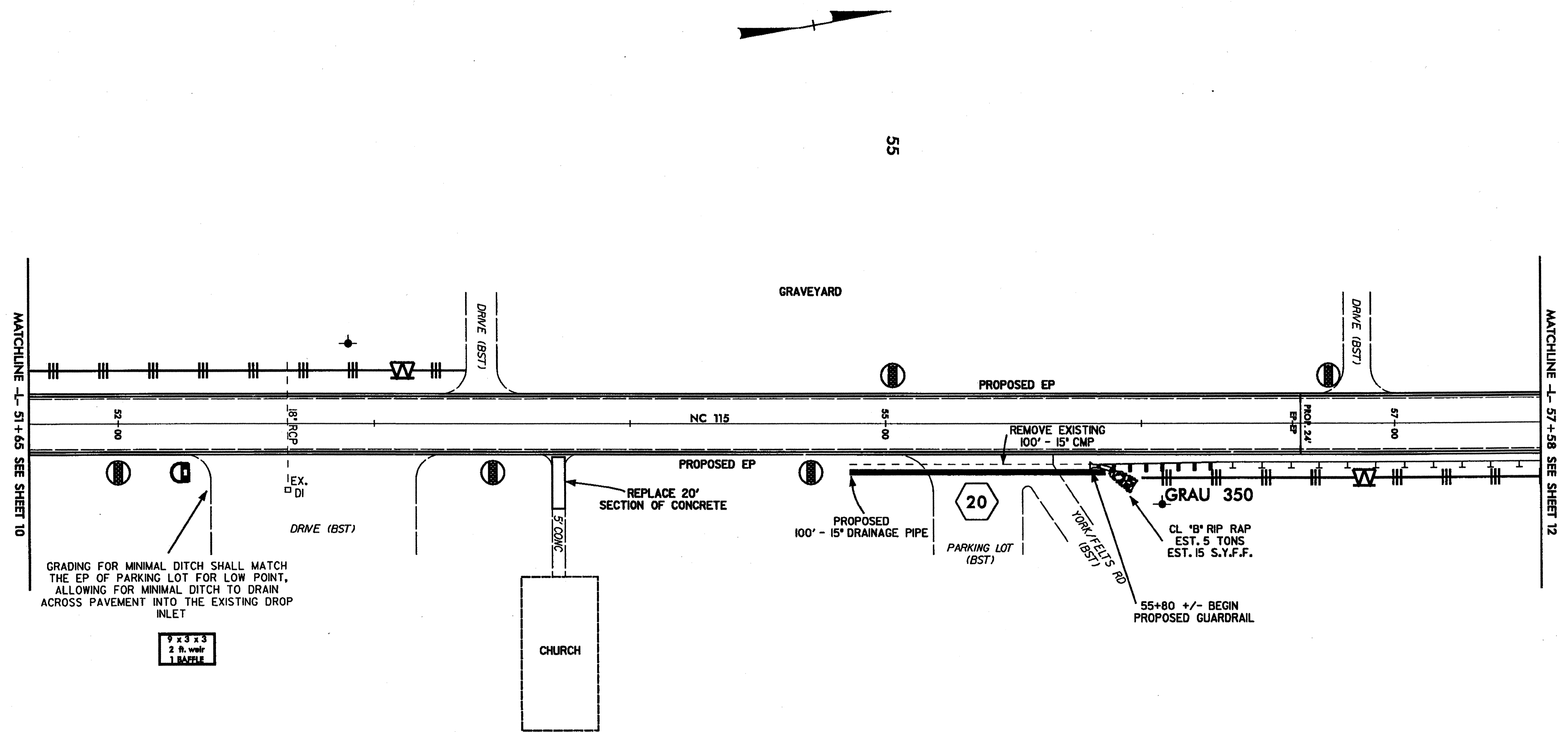
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PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. <i>R-5159</i>		SHEET NO. <i>11</i>	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

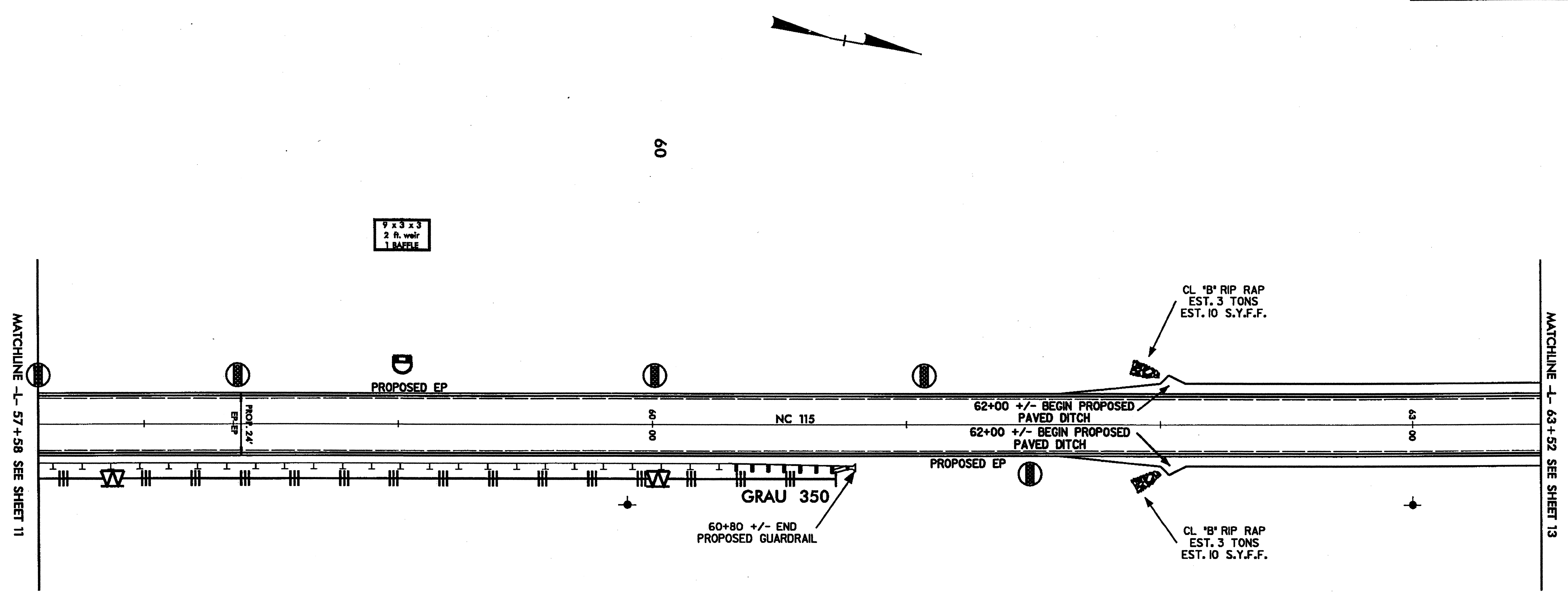
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PROPOSED EDGE OF PAVEMENT ———
 EXISTING EDGE OF PAVEMENT - - - -
 PROPOSED 6" ASPHALT CURB - - - -
 *NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. <i>R-5159</i>		SHEET NO. <i>12</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

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PROPOSED EDGE OF PAVEMENT ———
 EXISTING EDGE OF PAVEMENT - - - -
 PROPOSED 6" ASPHALT CURB ———

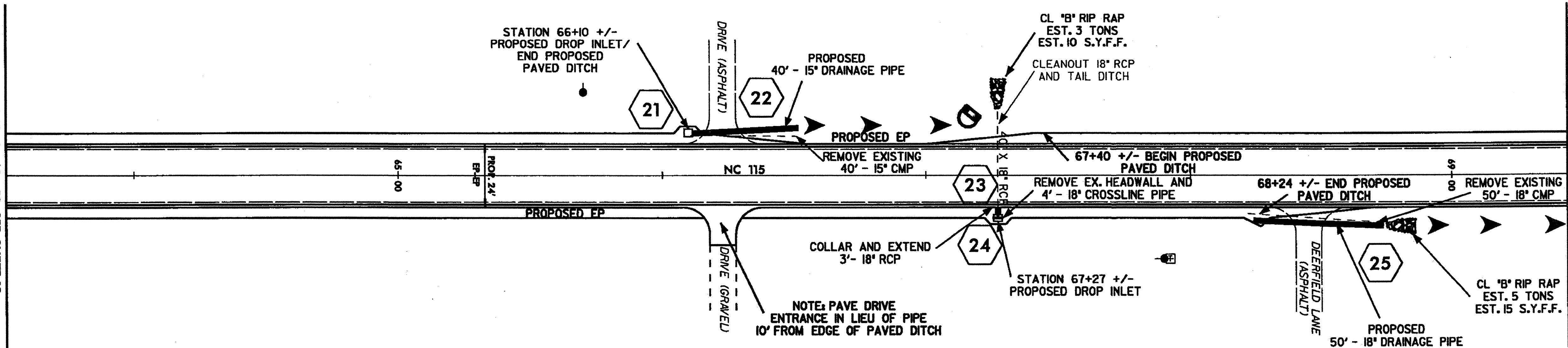
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PROJECT REFERENCE NO. R-5159	SHEET NO. 13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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MATCHLINE 1-63+52 SEE SHEET 12



MATCHLINE 1-69+45 SEE SHEET 14

PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	-----
PROPOSED 6" ASPHALT CURB	-----

*NOT TO SCALE - PROJECT NOT SURVEYED

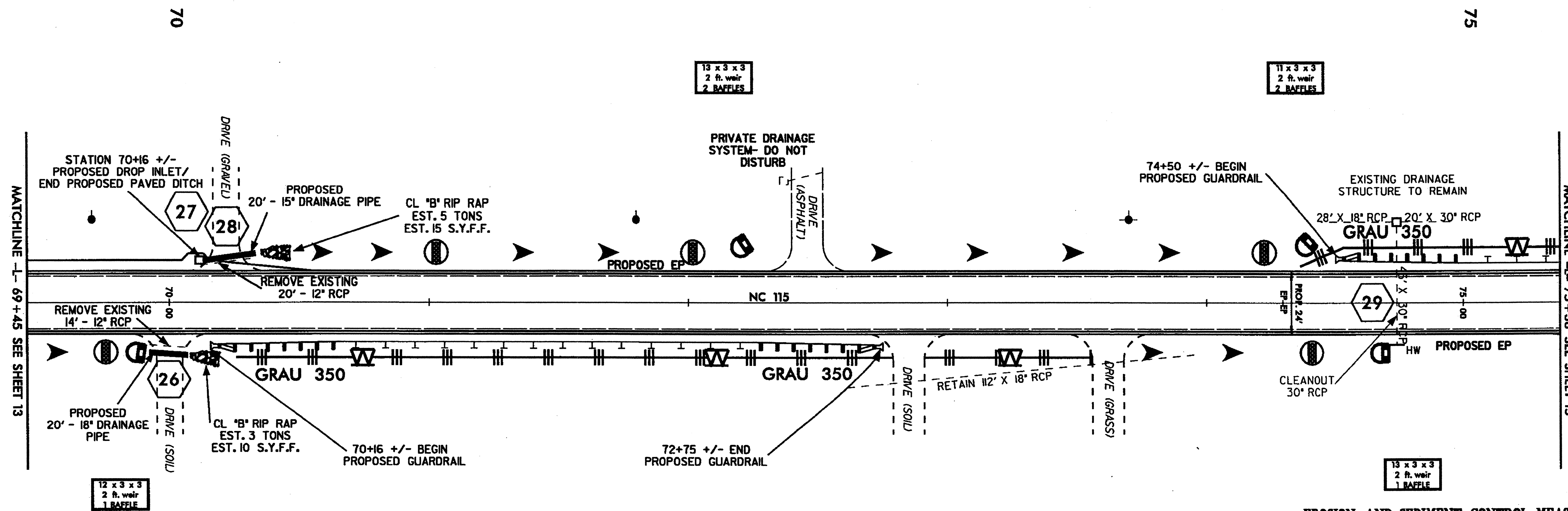
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PROJECT REFERENCE NO. R-5159		SHEET NO. 14	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



EROSION AND SEDIMENT CONTROL MEASURES

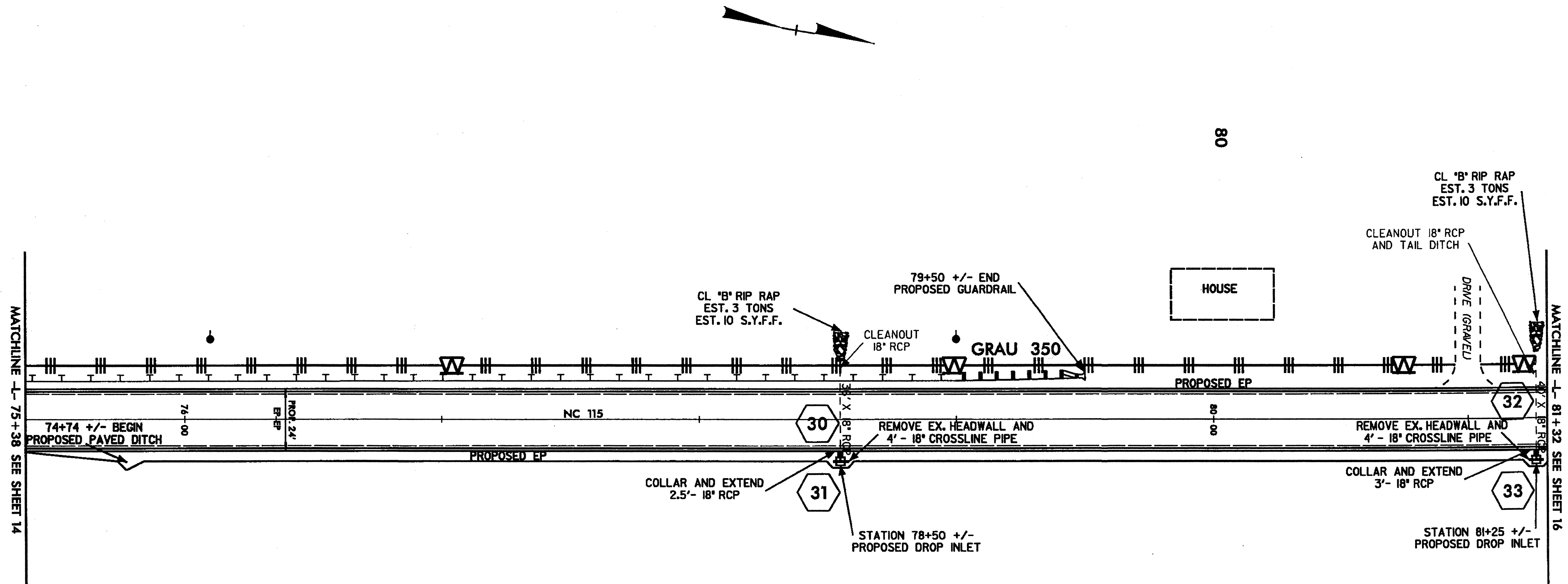
Std. #	Description	Symbol
1605.01	Temporary Silt Fence	--- --- ---
1606.01	Special Sediment Control Fence	--- --- ---
1622.01	Temporary Berms and Slope Drains	--- --- ---
1630.02	Silt Basin Type B	--- --- ---
1630.03	Temporary Silt Ditch	--- --- ---
1630.05	Temporary Diversion	--- --- ---
1630.06	Special Stilling Basin	--- --- ---
1632.03	Rock Inlet Sediment Trap Type C	--- --- ---
1633.01	Temporary Rock Silt Check Type-A	--- --- ---
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	--- --- ---
	Temporary Rock Silt Check Type-B	--- --- ---
	Wattle	--- --- ---
	Wattle with Polyacrylamide (PAM)	--- --- ---
1634.02	Temporary Rock Sediment Dam Type-B	--- --- ---
1636.01	Rock Pipe Inlet Sediment Trap Type-A	--- --- ---

PROPOSED EDGE OF PAVEMENT ————
 EXISTING EDGE OF PAVEMENT - - - -
 PROPOSED 6" ASPHALT CURB ————

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. R-5159	SHEET NO. 15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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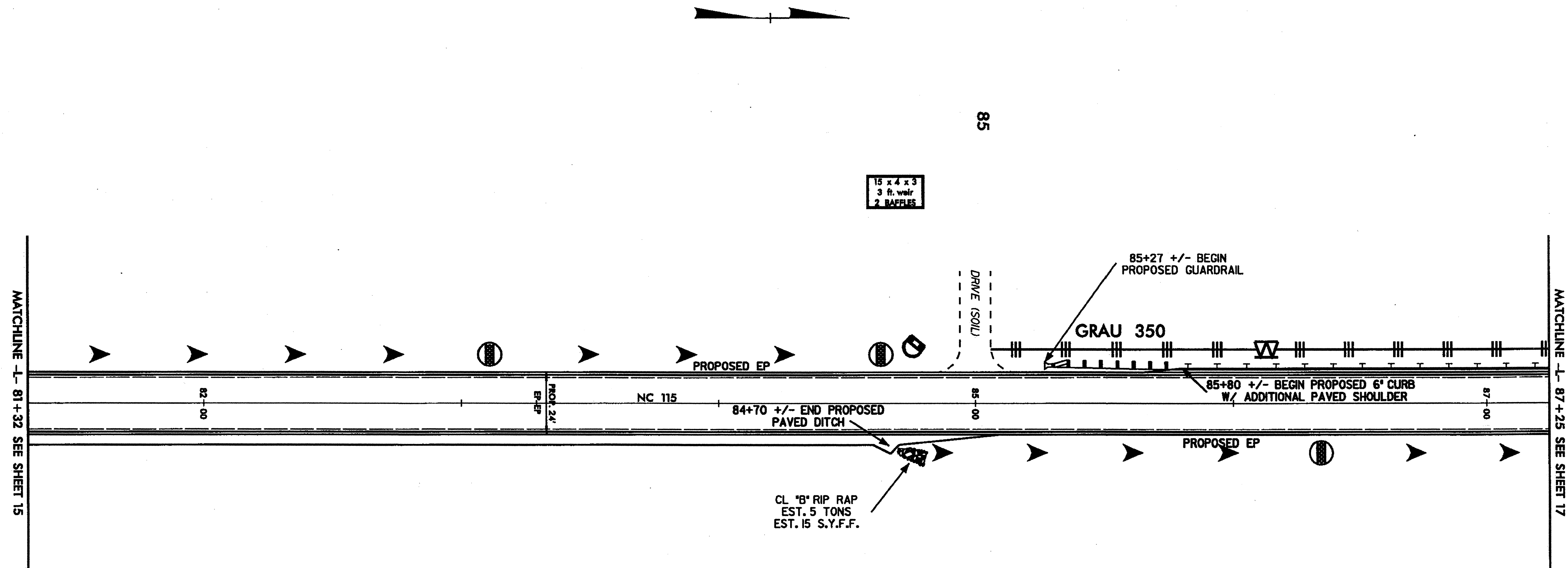
PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO.		SHEET NO.	
R-5159		16	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

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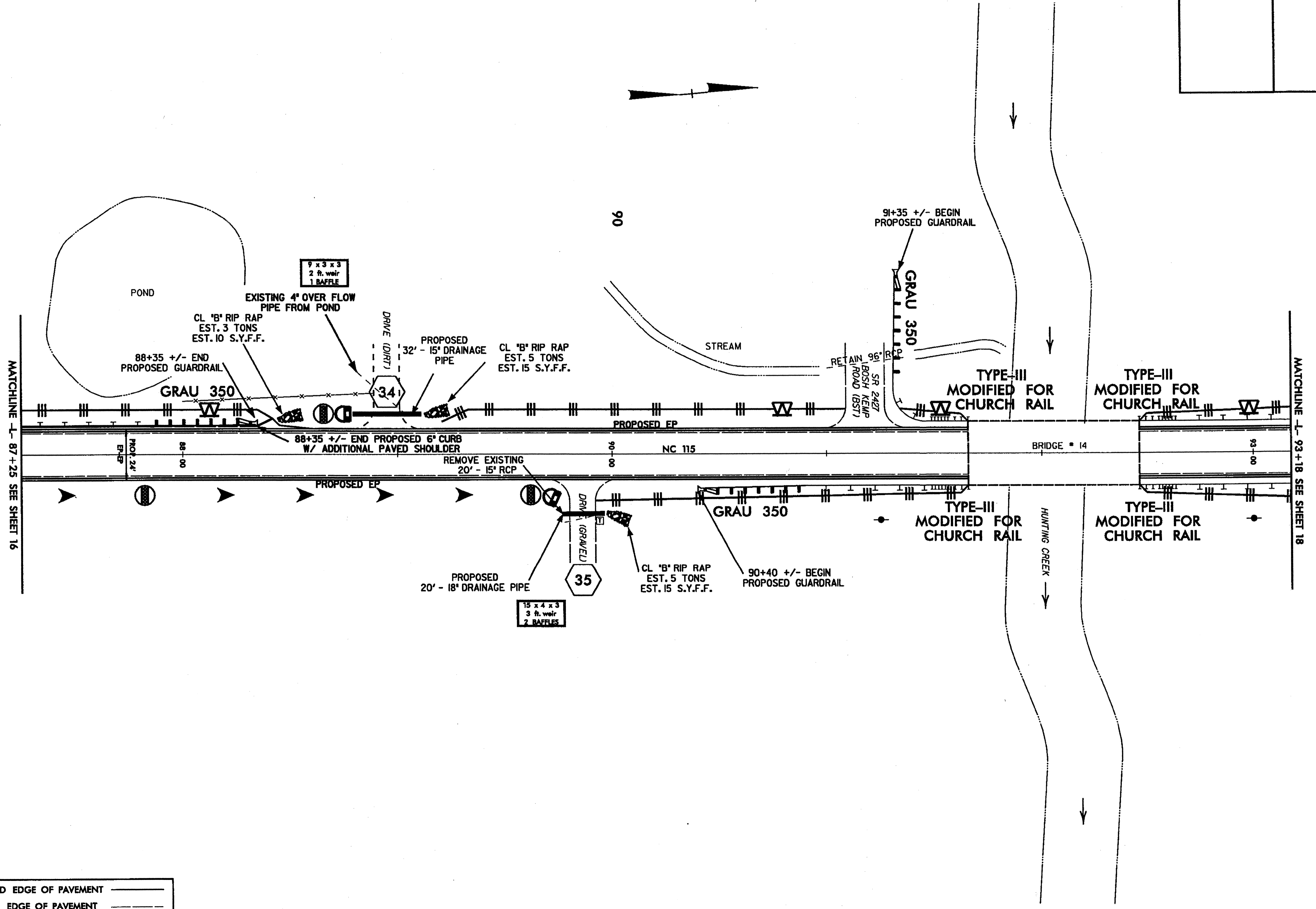
PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	- - - - -

*NOT TO SCALE - PROJECT NOT SURVEYED

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PROJECT REFERENCE NO. R-5159	SHEET NO. 17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

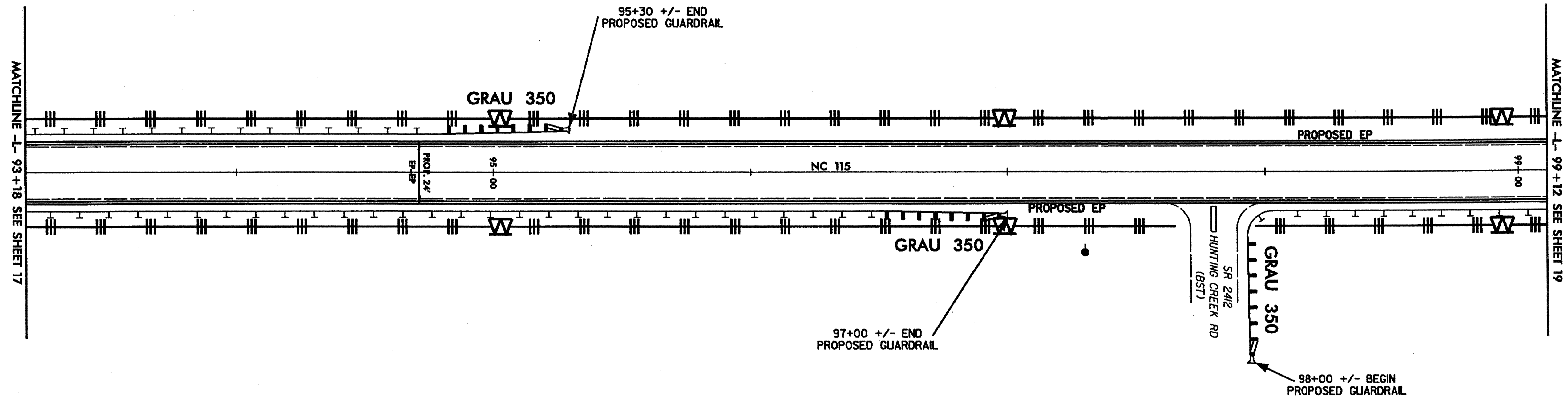


PROPOSED EDGE OF PAVEMENT	—————
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	—————

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. <i>R-5159</i>	SHEET NO. <i>18</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

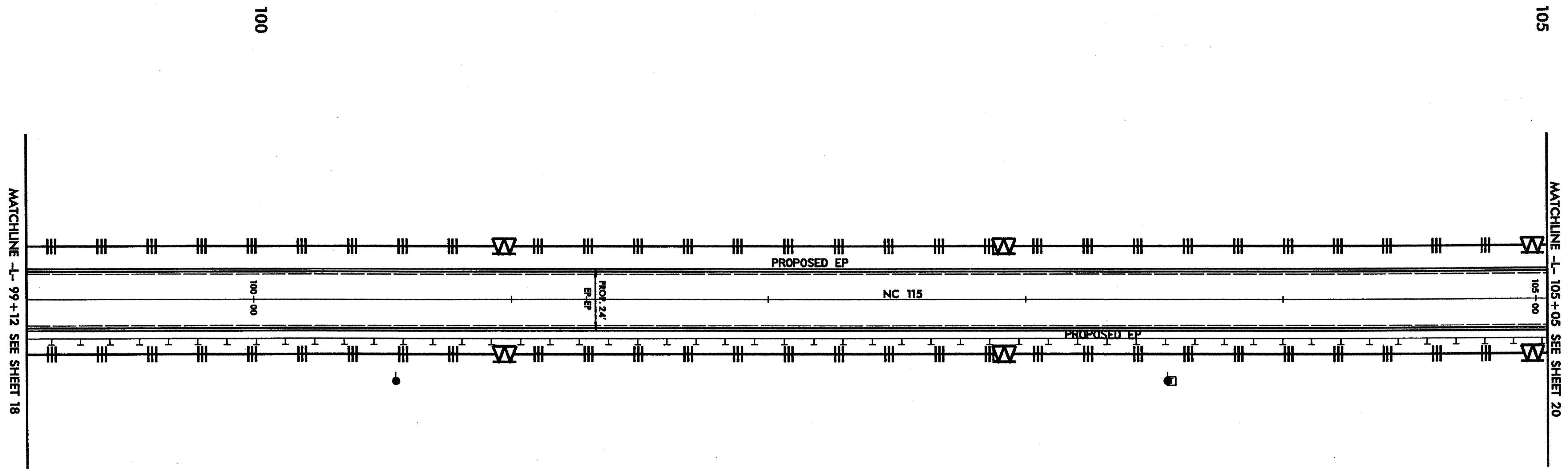
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PROJECT REFERENCE NO. R-5159	SHEET NO. 19
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



MATCHLINE -L- 99+12 SEE SHEET 18

MATCHLINE -L- 105+05 SEE SHEET 20

PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

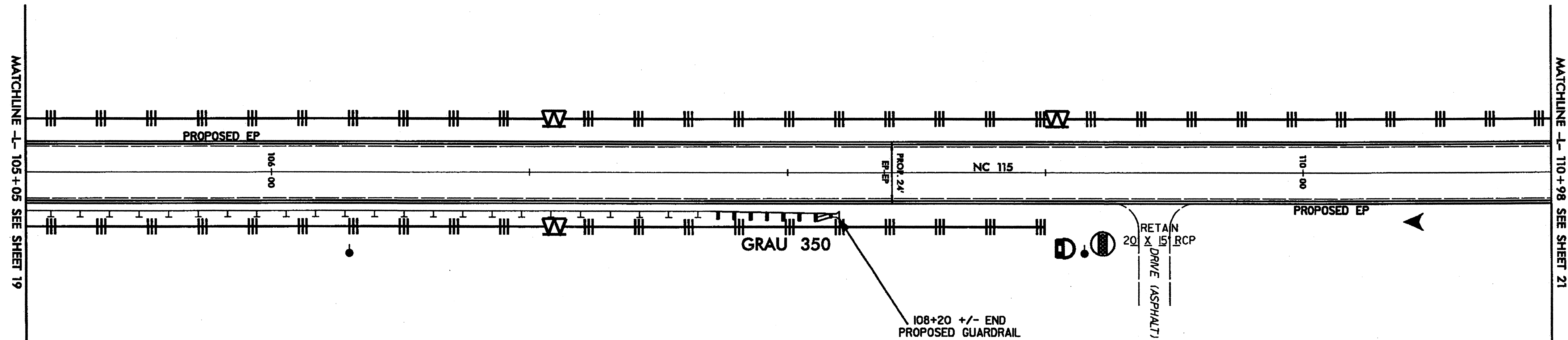
EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	— — — — —
1606.01	Special Sediment Control Fence	— — — — —
1622.01	Temporary Berms and Slope Drains	— — — — —
1630.02	Silt Basin Type B	▨
1630.03	Temporary Silt Ditch	— — — — —
1630.05	Temporary Diversion	— — — — —
1630.06	Special Stilling Basin	— — — — —
1632.05	Rock Inlet Sediment Trap Type C	□
1633.01	Temporary Rock Silt Check Type-A	▨
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	▨
	Temporary Rock Silt Check Type-B	▶
	Wattle	— — — — —
	Wattle with Polyacrylamide (PAM)	— — — — —
1634.02	Temporary Rock Sediment Dam Type-B	▨
1635.01	Rock Pipe Inlet Sediment Trap Type-A	◐

PROJECT REFERENCE NO.		SHEET NO.	
R-5159		20	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

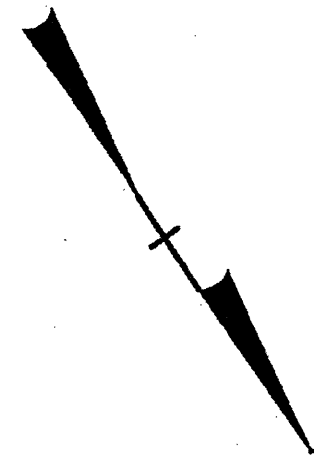
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PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	-----
PROPOSED 6" ASPHALT CURB	=====

*NOT TO SCALE - PROJECT NOT SURVEYED



110

MATCHLINE -L- 105+05 SEE SHEET 19

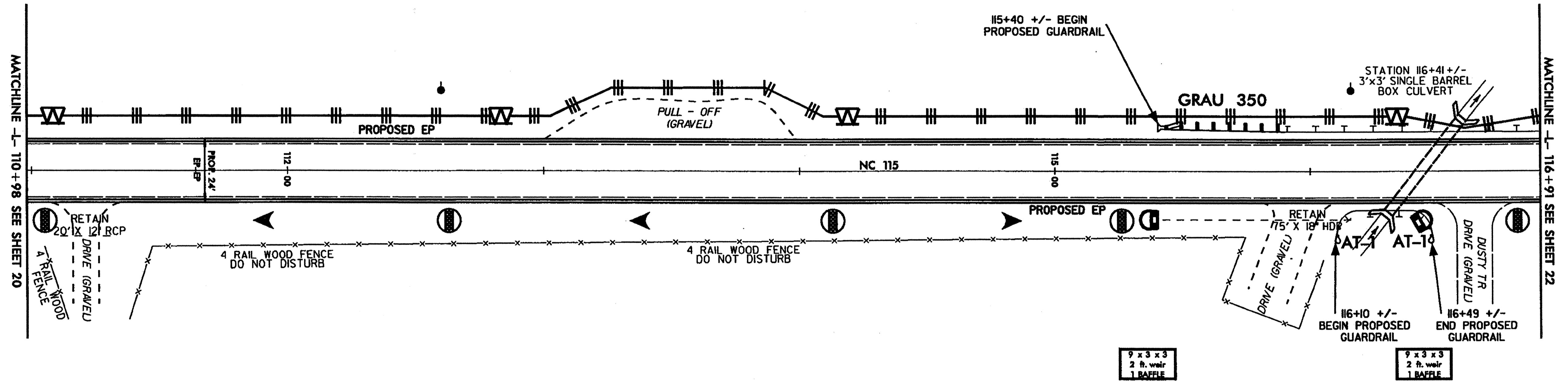
MATCHLINE -L- 110+98 SEE SHEET 21

9 x 3 x 3
 2 ft. weir
 1 BAFFLE

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PROJECT REFERENCE NO. R-5159		SHEET NO. 21	
RW SHEET NO.		HYDRAULICS	
ROADWAY DESIGN ENGINEER		ENGINEER	

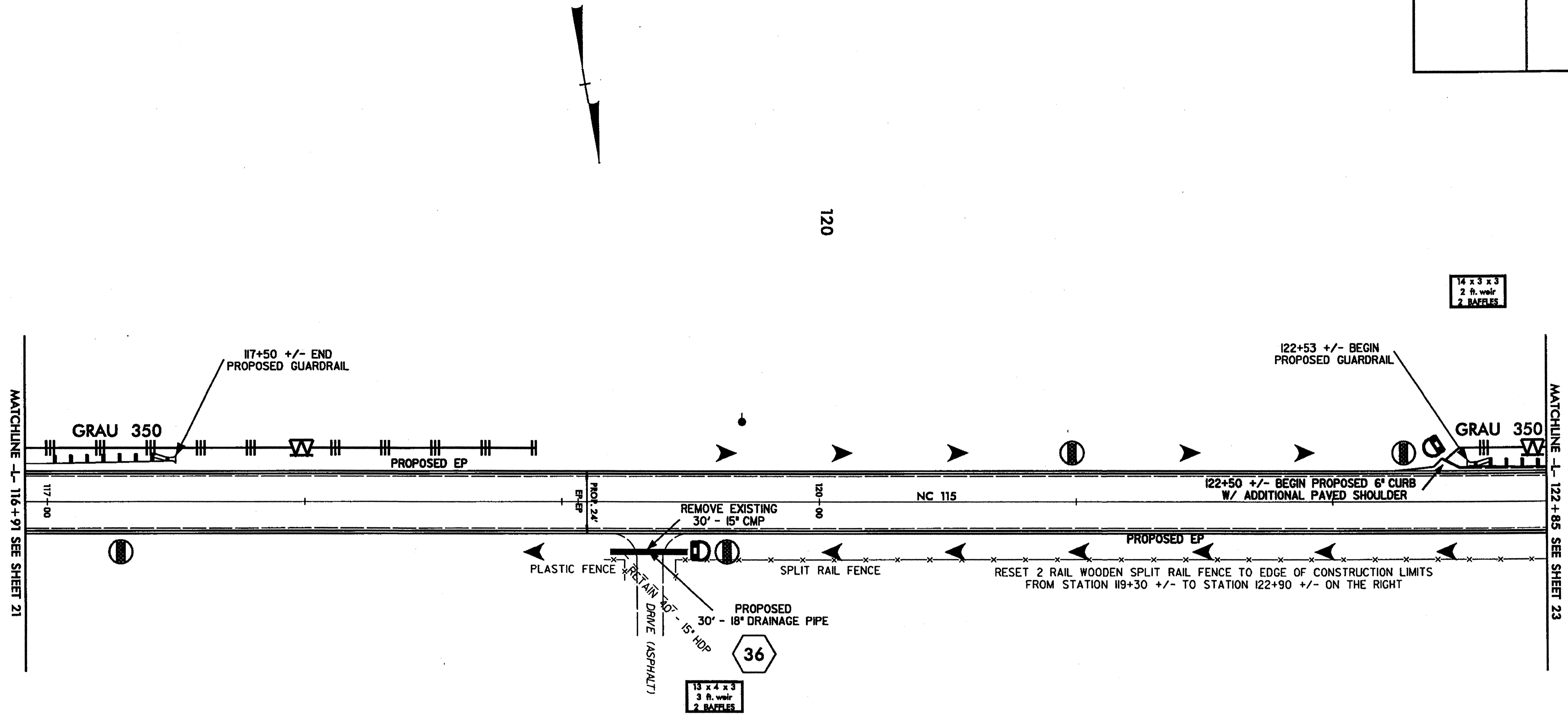


PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	-----
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

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115-5159-001.dwg

PROJECT REFERENCE NO. <i>R-5159</i>	SHEET NO. <i>22</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

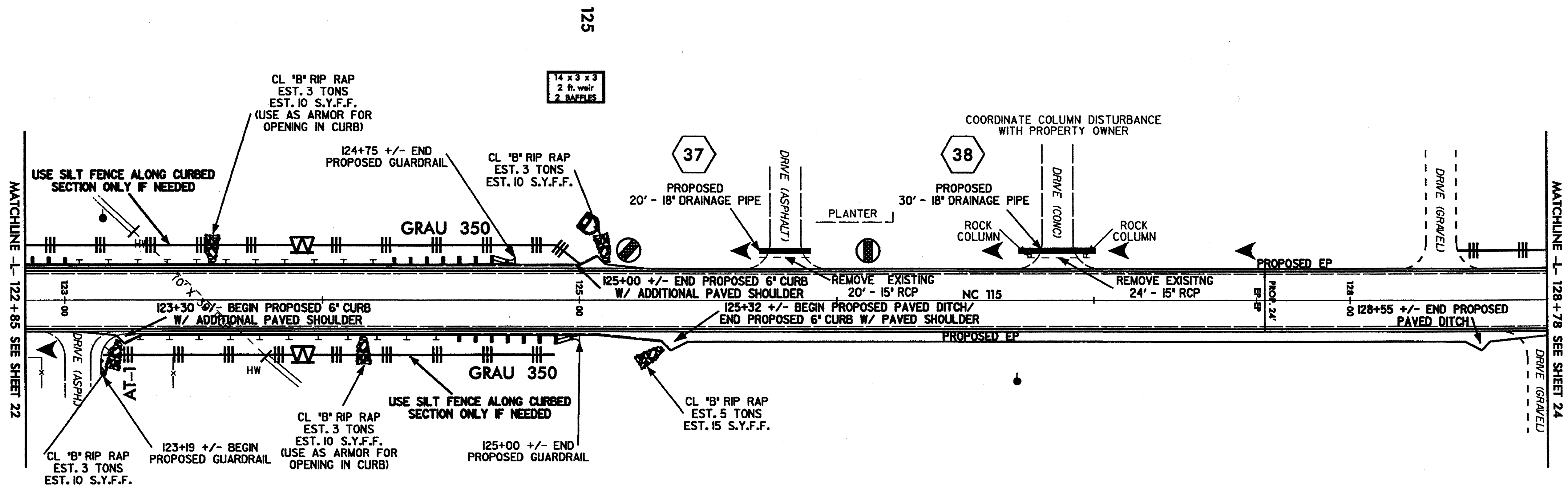


PROPOSED EDGE OF PAVEMENT	—————
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	—————

*NOT TO SCALE - PROJECT NOT SURVEYED

8/17/99

PROJECT REFERENCE NO. R-5159		SHEET NO. 23	
HW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

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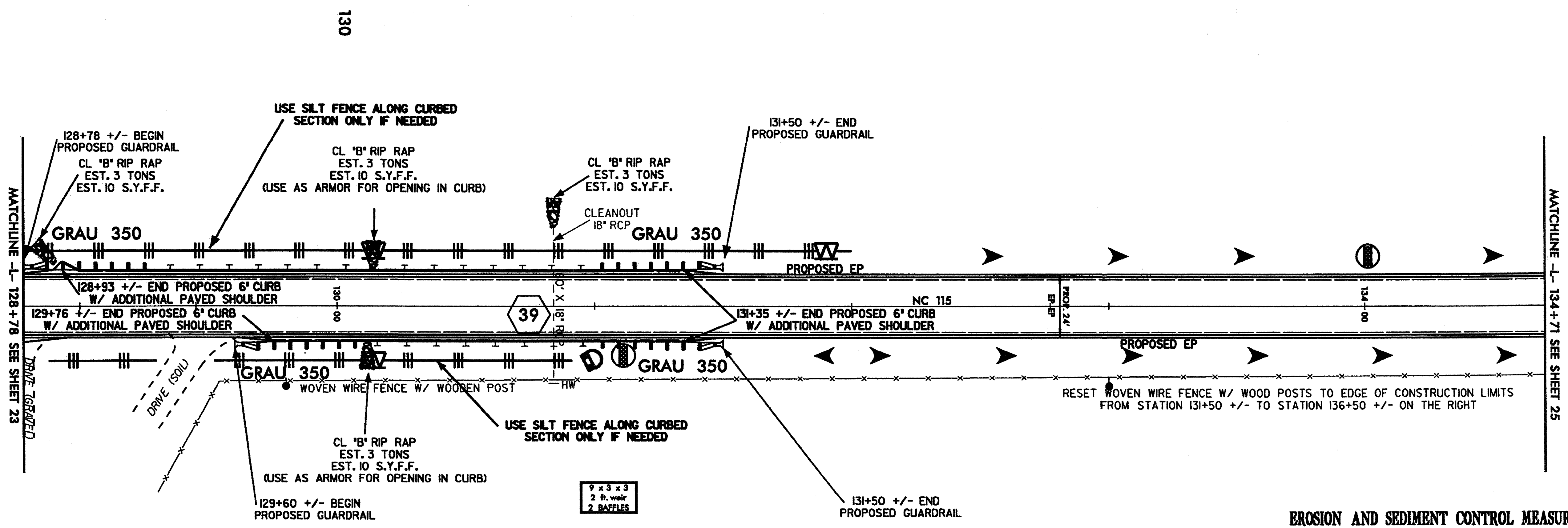
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PROJECT REFERENCE NO. R-5159	SHEET NO. 24
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



PROPOSED EDGE OF PAVEMENT	—————
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	=====

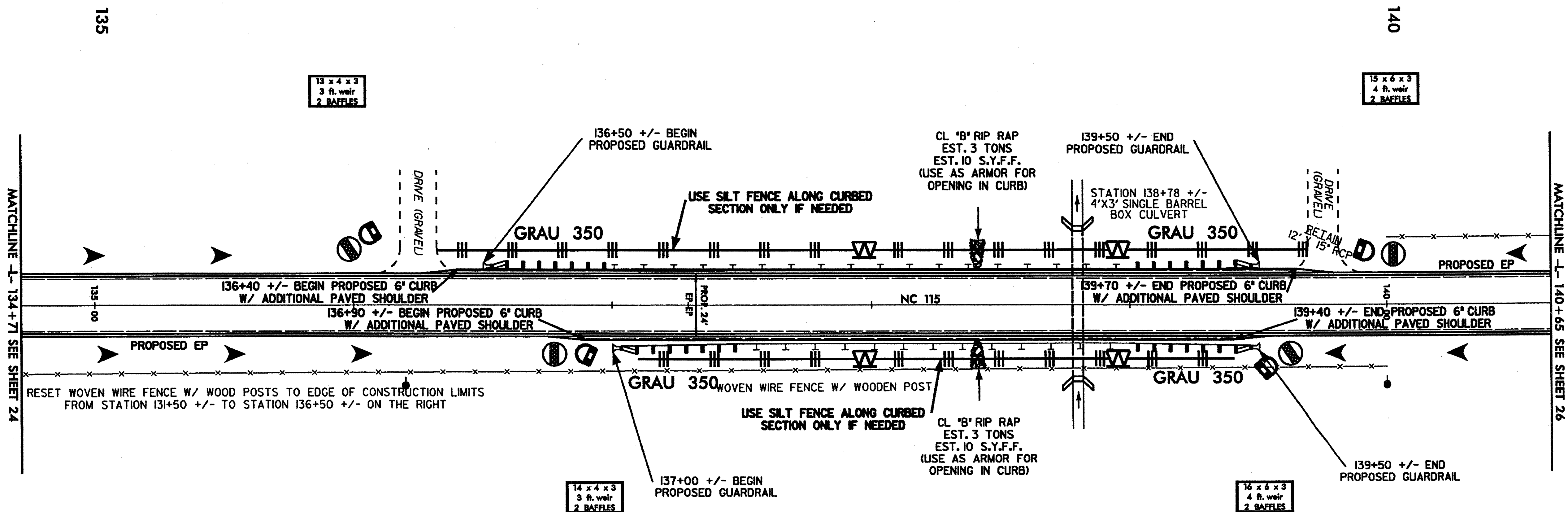
*NOT TO SCALE - PROJECT NOT SURVEYED

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	— — — — —
1606.01	Special Sediment Control Fence	— — — — —
1622.01	Temporary Berms and Slope Drains	— — — — —
1630.02	Silt Basin Type B	— — — — —
1630.05	Temporary Silt Ditch	— — — — —
1630.06	Temporary Diversion	— — — — —
1630.06	Special Stilling Basin	— — — — —
1632.05	Rock Inlet Sediment Trap Type C	— — — — —
1633.01	Temporary Rock Silt Check Type-A	— — — — —
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	— — — — —
	Temporary Rock Silt Check Type-B	— — — — —
	Wattle	— — — — —
	Wattle with Polyacrylamide (PAM)	— — — — —
1634.02	Temporary Rock Sediment Dam Type-B	— — — — —
1635.01	Rock Pipe Inlet Sediment Trap Type-A	— — — — —

PROJECT REFERENCE NO. R-5159	SHEET NO. 25
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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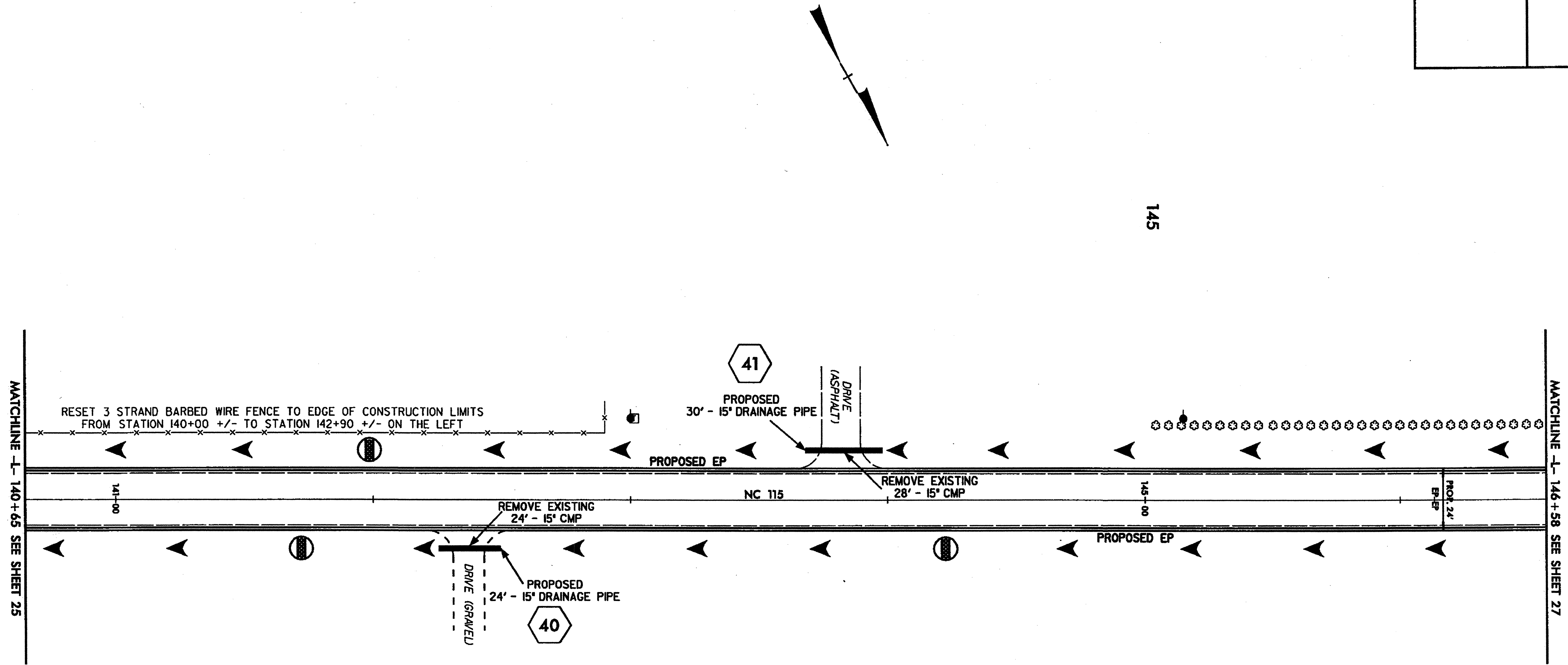
PROPOSED EDGE OF PAVEMENT	—————
EXISTING EDGE OF PAVEMENT	-----
PROPOSED 6" ASPHALT CURB	=====

*NOT TO SCALE - PROJECT NOT SURVEYED

8/17/99

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PROJECT REFERENCE NO. R-5159	SHEET NO. 26
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

MATCHLINE L-140+65 SEE SHEET 25

MATCHLINE L-146+58 SEE SHEET 27

145

41

40

RESET 3 STRAND BARBED WIRE FENCE TO EDGE OF CONSTRUCTION LIMITS FROM STATION 140+00 +/- TO STATION 142+90 +/- ON THE LEFT

PROPOSED 30' - 15" DRAINAGE PIPE

DRIVE (ASPHALT)

PROPOSED EP

REMOVE EXISTING 28' - 15" CMP

NC 115

REMOVE EXISTING 24' - 15" CMP

PROPOSED 24' - 15" DRAINAGE PIPE

DRIVE (GRAVEL)

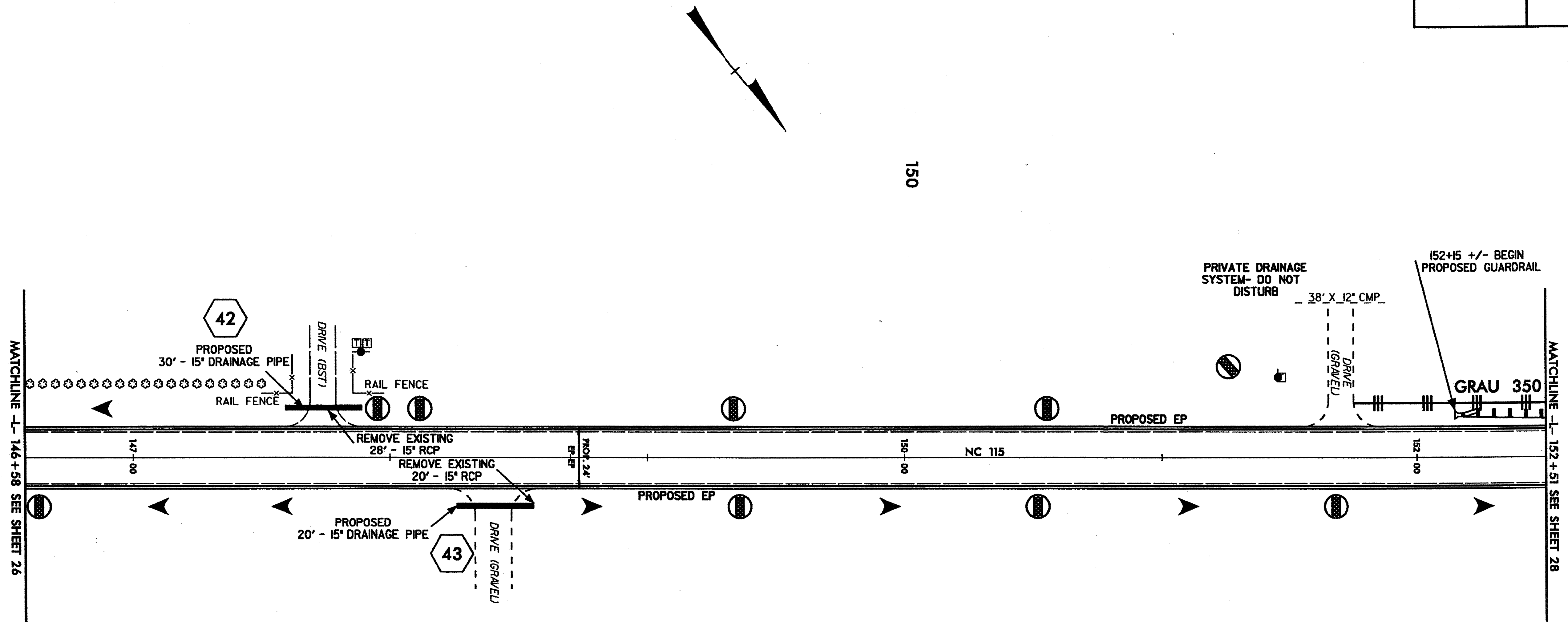
PROPOSED EP

PROJ 24'

EXISTING EP

PROJECT REFERENCE NO. R-5159	SHEET NO. 27
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 20091223.dwg
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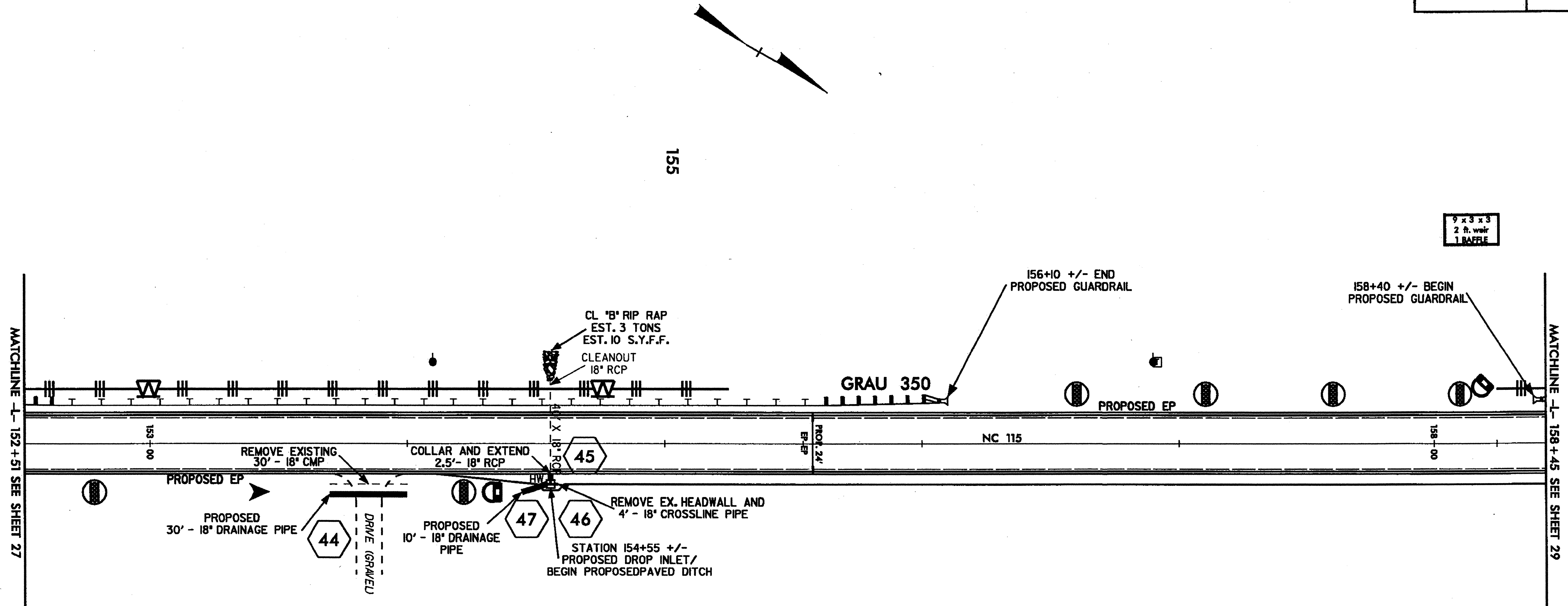
PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

8/17/99

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PROJECT REFERENCE NO. <i>R-5159</i>	SHEET NO. <i>28</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

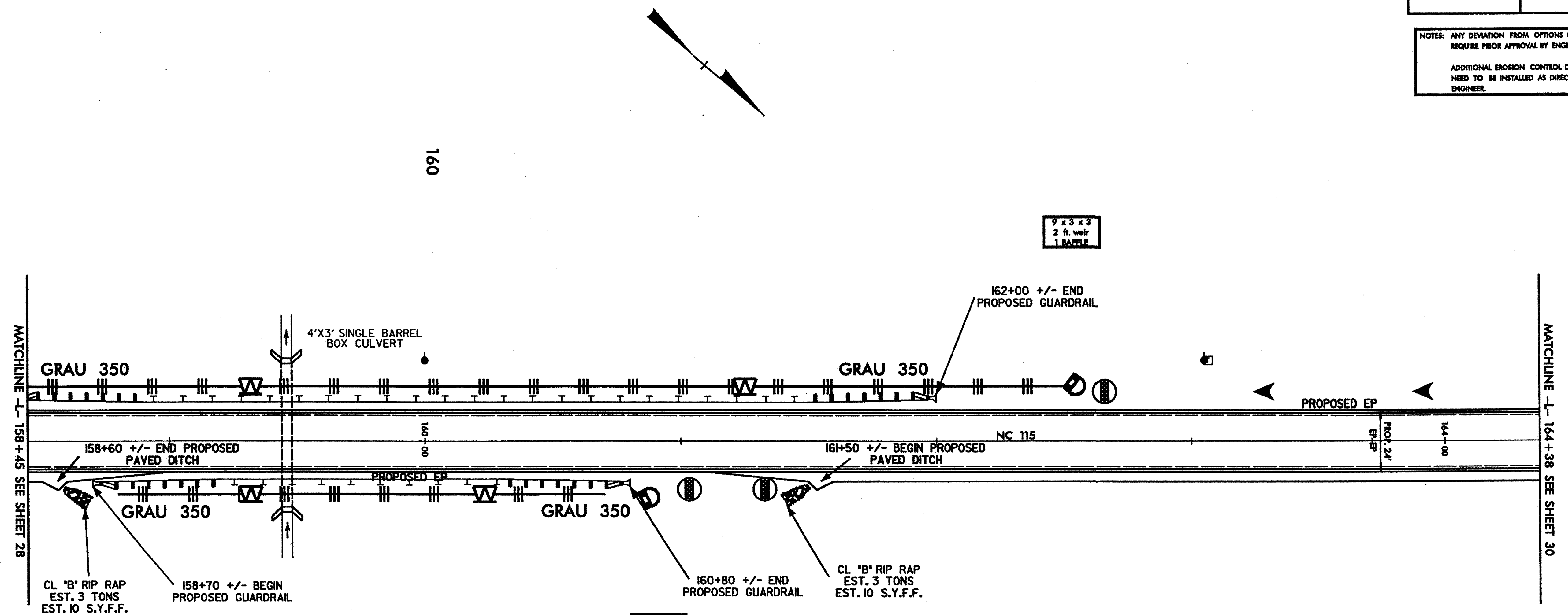
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8/17/99

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 User: wilkes

PROJECT REFERENCE NO. R-5159	SHEET NO. 29
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.
 ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



PROPOSED EDGE OF PAVEMENT	—————
EXISTING EDGE OF PAVEMENT	-----
PROPOSED 6" ASPHALT CURB	=====

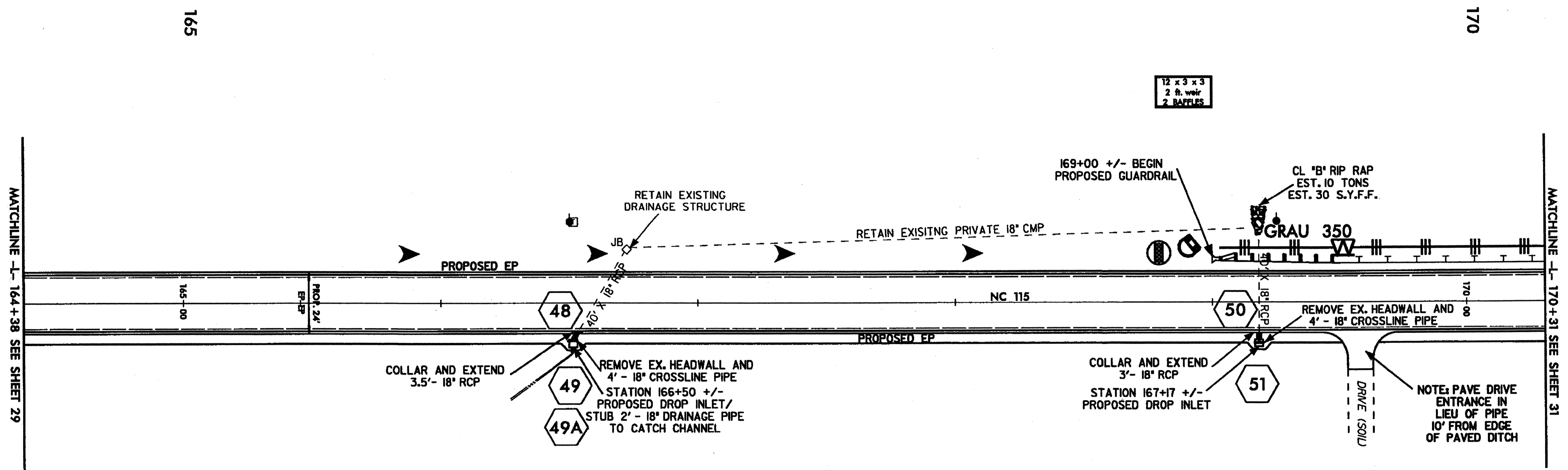
*NOT TO SCALE - PROJECT NOT SURVEYED

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	— T —
1630.02	Silt Basin Type B	▨
1630.03	Temporary Silt Ditch	—
1630.05	Temporary Diversion	—
1630.06	Special Stilling Basin	—
1632.05	Rock Inlet Sediment Trap Type C	□
1633.01	Temporary Rock Silt Check Type-A	▨
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	▨
	Temporary Rock Silt Check Type-B	▶
	Wattle	⌒
	Wattle with Polyacrylamide (PAM)	⌒
1634.02	Temporary Rock Sediment Dam Type-B	⌒
1635.01	Rock Pipe Inlet Sediment Trap Type-A	⌒

PROJECT REFERENCE NO. R-5159	SHEET NO. 30
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 Drawn by: JTB



PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

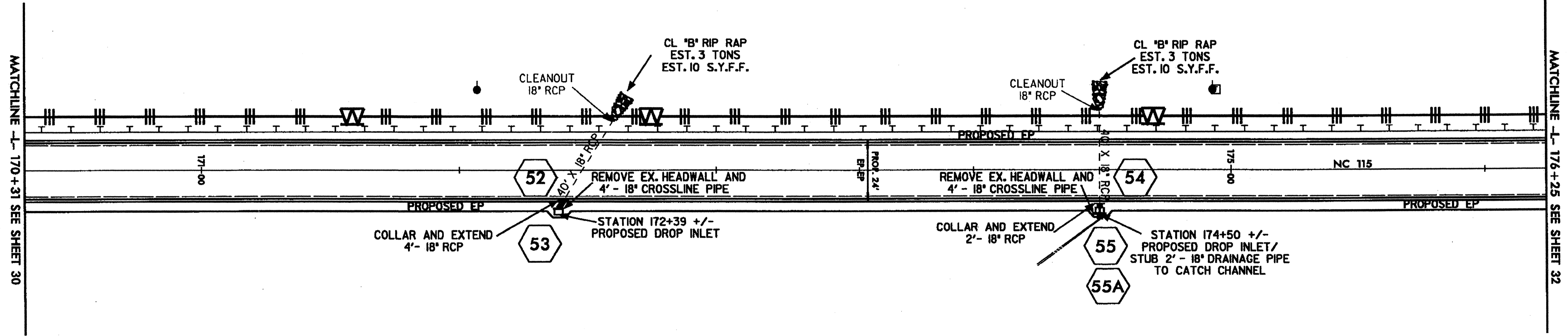
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PROJECT REFERENCE NO. R-5159		SHEET NO. 31	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

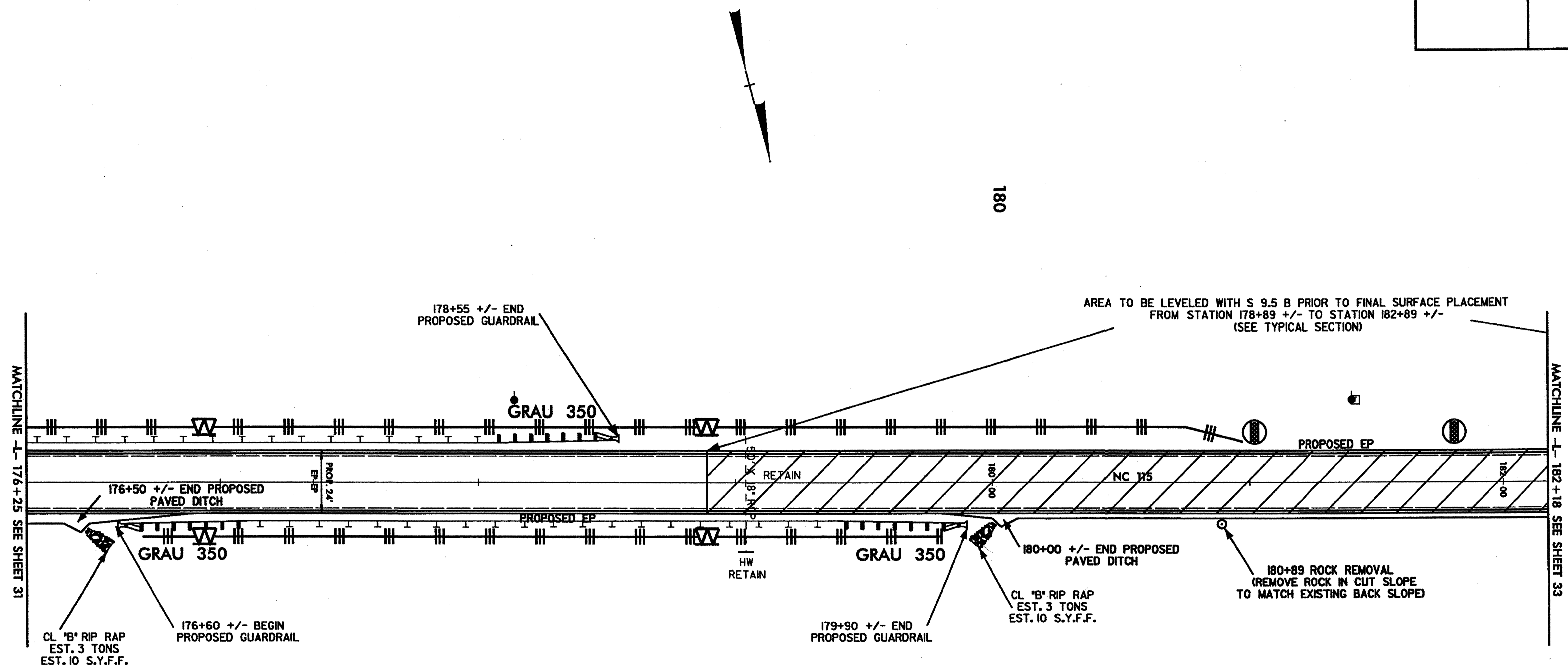
175



PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO.	SHEET NO.
R-5159	32
HW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	-----
PROPOSED 6" ASPHALT CURB	=====

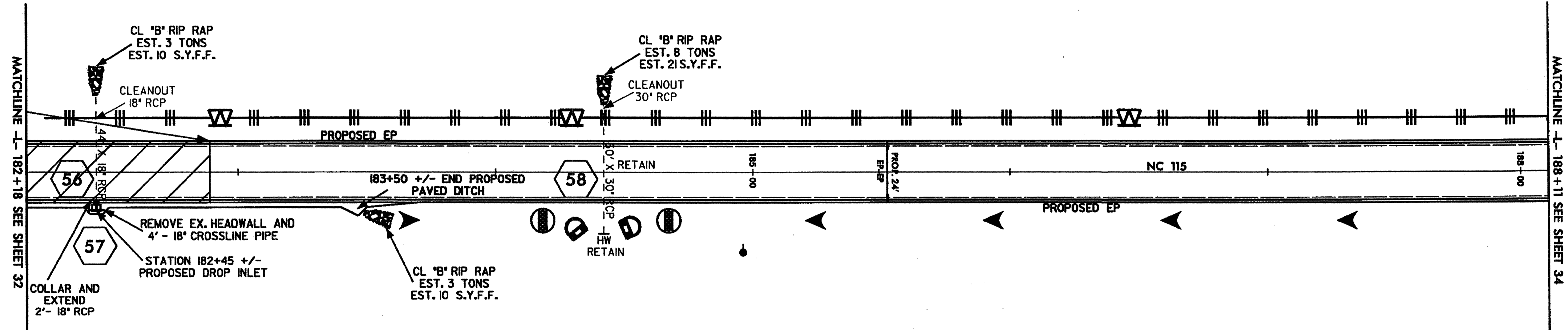
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 User: dwg 81 D:\C:\

PROJECT REFERENCE NO. R-5159	SHEET NO. 33
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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9 x 3 x 3 2 ft. weir 1 BAFFLE	12 x 3 x 3 2 ft. weir 1 BAFFLE
-------------------------------------	--------------------------------------

PROPOSED EDGE OF PAVEMENT ———
 EXISTING EDGE OF PAVEMENT - - - -
 PROPOSED 6" ASPHALT CURB ———

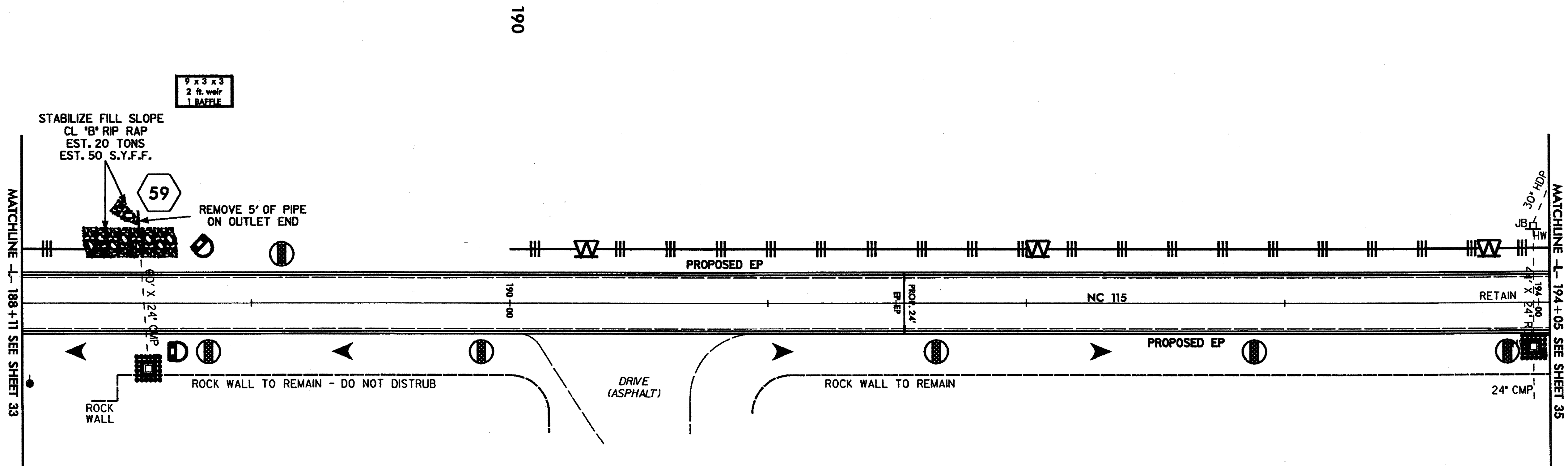
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PROJECT REFERENCE NO. <i>R-5159</i>		SHEET NO. <i>34</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	———

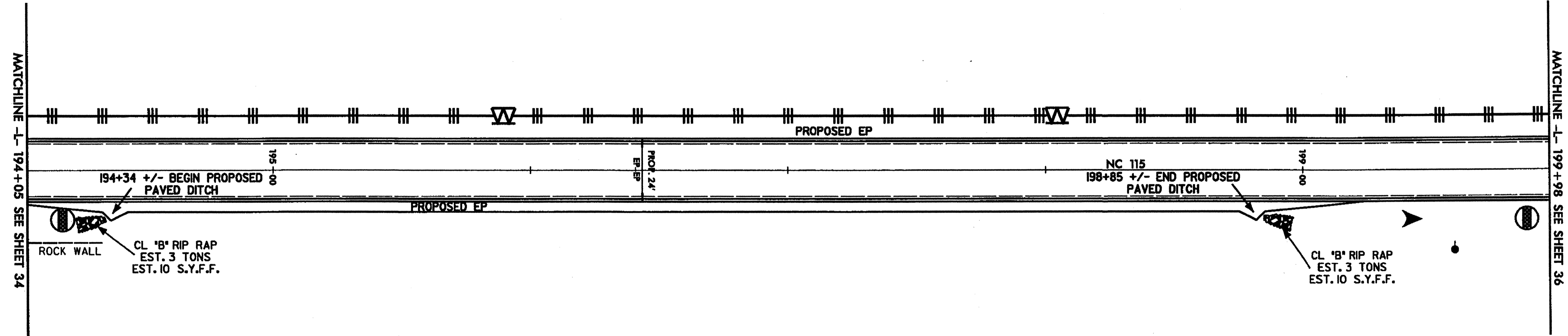
*NOT TO SCALE - PROJECT NOT SURVEYED

EROSION AND SEDIMENT CONTROL MEASURES

Seq #	Description	Symbol
1605.01	Temporary Silt Fence	— — — — —
1606.01	Special Sediment Control Fence	— X — X — X — X — X —
1622.01	Temporary Berms and Slope Drains	— — — — —
1630.02	Silt Basin Type B	▨
1630.03	Temporary Silt Ditch	— — — — —
1630.05	Temporary Diversion	— — — — —
1630.06	Special Stilling Basin	— — — — —
1632.03	Rock Inlet Sediment Trap Type C	□
1633.01	Temporary Rock Silt Check Type-A	▨
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	▨
	Temporary Rock Silt Check Type-B	▶
	Wattle	— — — — —
	Wattle with Polyacrylamide (PAM)	— — — — —
1634.02	Temporary Rock Sediment Dam Type-B	▨
1635.01	Rock Pipe Inlet Sediment Trap Type-A	◡

PROJECT REFERENCE NO. <i>R-5159</i>	SHEET NO. 35
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PROPOSED EDGE OF PAVEMENT	----
EXISTING EDGE OF PAVEMENT	_____
PROPOSED 6" ASPHALT CURB	=====

*NOT TO SCALE - PROJECT NOT SURVEYED

MATCHLINE -1- 194+05 SEE SHEET 34

MATCHLINE -1- 199+98 SEE SHEET 36

195

PROPOSED EP

PROPOSED EP

NC 115
198+85 +/- END PROPOSED
PAVED DITCH

ROCK WALL

CL "B" RIP RAP
EST. 3 TONS
EST. 10 S.Y.F.F.

CL "B" RIP RAP
EST. 3 TONS
EST. 10 S.Y.F.F.

PROJ. 24'

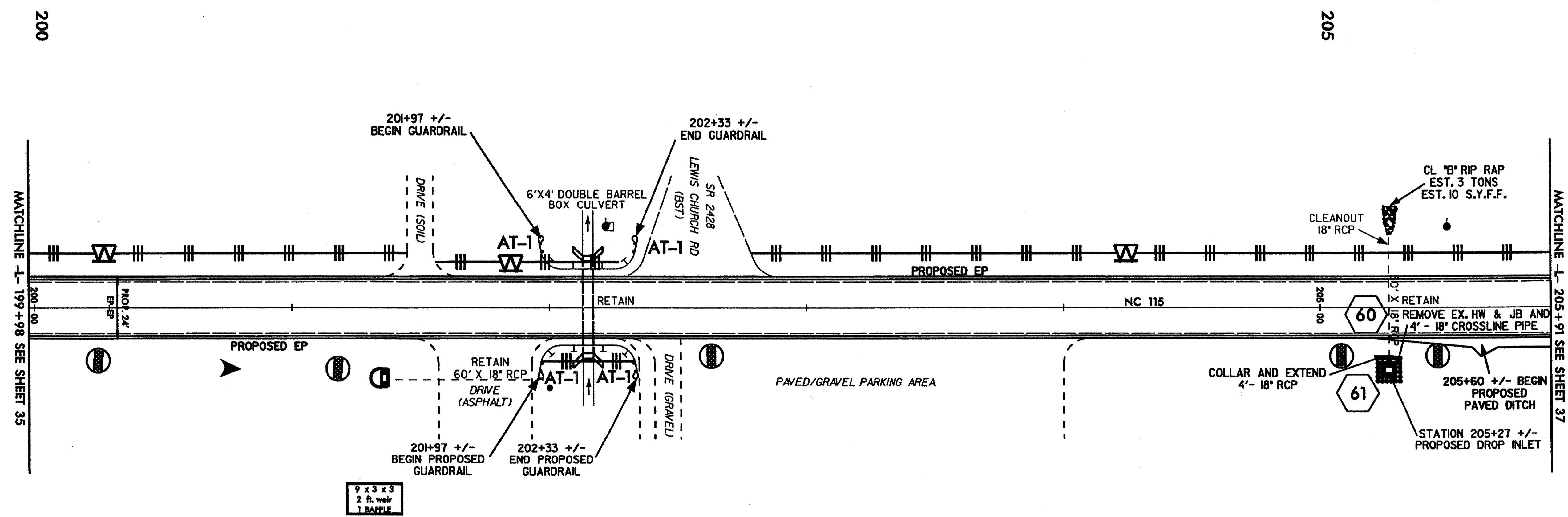
ER. EP

195+00

199+00

PROJECT REFERENCE NO. R-5159	SHEET NO. 36
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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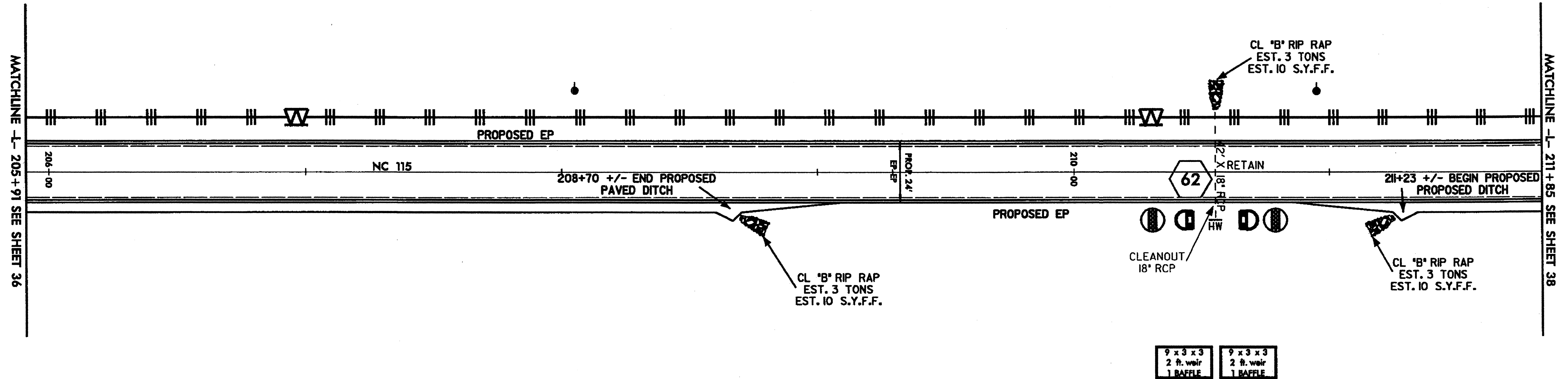
PROPOSED EDGE OF PAVEMENT	—————
EXISTING EDGE OF PAVEMENT	-----
PROPOSED 6" ASPHALT CURB	=====

*NOT TO SCALE - PROJECT NOT SURVEYED

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PROJECT REFERENCE NO. R-5159		SHEET NO. 37	
HW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

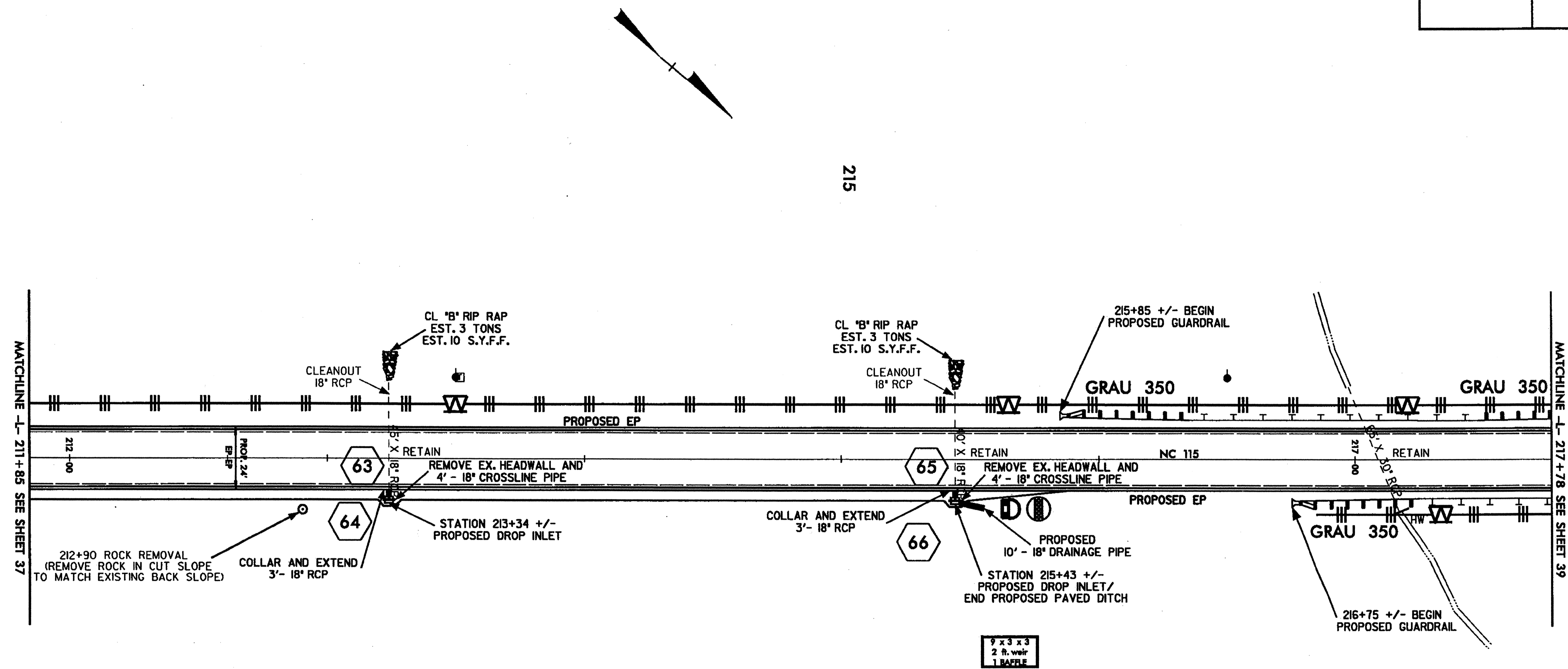


PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. R-5159		SHEET NO. 38	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

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PROPOSED EDGE OF PAVEMENT ———
 EXISTING EDGE OF PAVEMENT - - - -
 PROPOSED 6" ASPHALT CURB - - - -

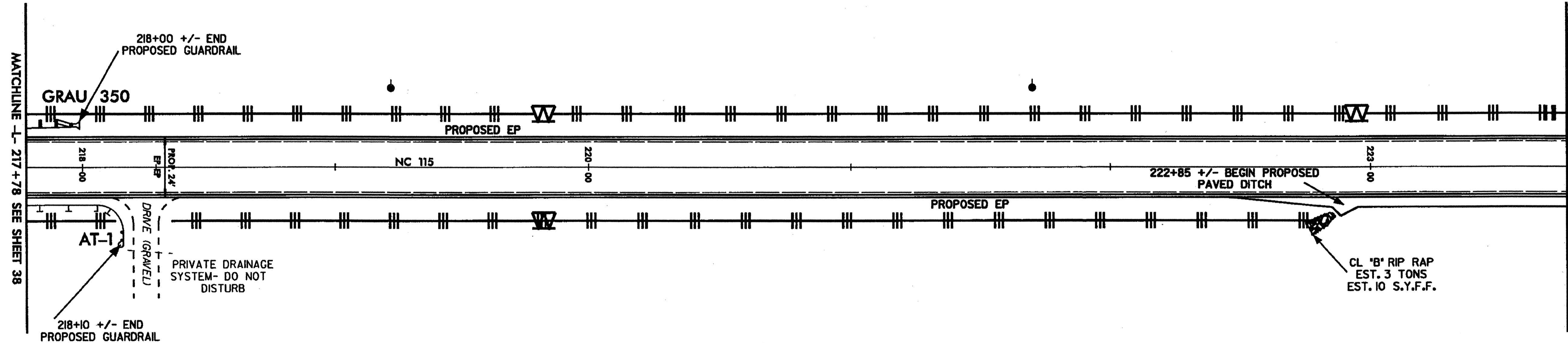
*NOT TO SCALE - PROJECT NOT SURVEYED

8/17/99

PROJECT REFERENCE NO.		SHEET
R-5159		3
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULIC ENGINEER	

NOTES: ANY DEVIATION FROM OPTIONS GIVEN REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES NEED TO BE INSTALLED AS DIRECTED BY ENGINEER.



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PROPOSED EDGE OF PAVEMENT	
EXISTING EDGE OF PAVEMENT	
PROPOSED 6" ASPHALT CURB	

*NOT TO SCALE - PROJECT NOT SURVEYED

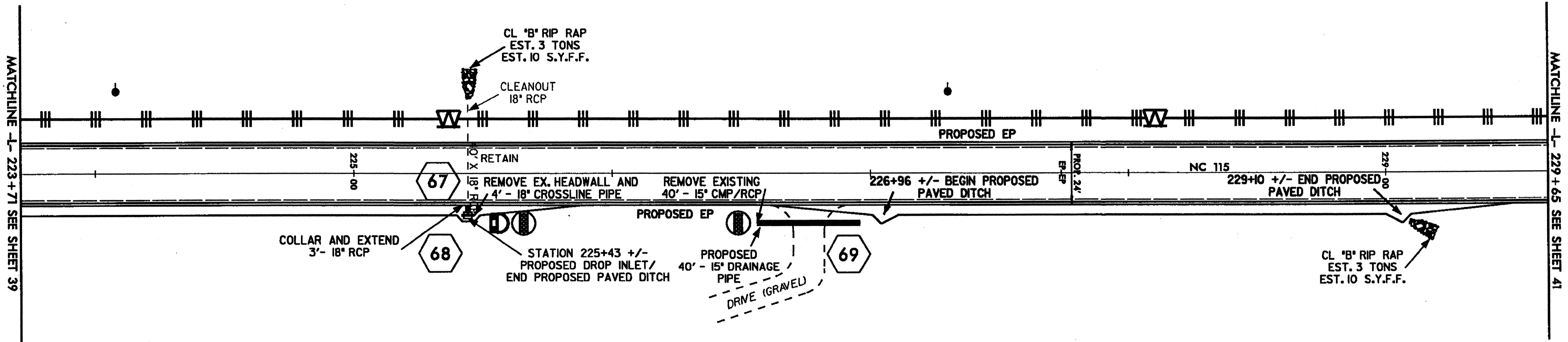
EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1604.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1630.03	Temporary Silt Ditch	
1630.05	Temporary Diversion	
1630.06	Special Stilling Basin	
1632.03	Rock Inlet Sediment Trap Type C	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
	Temporary Rock Silt Check Type-B	
	Wattle	
	Wattle with Polyacrylamide (PAM)	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	

PROJECT REFERENCE NO.		SHEET NO.	
R-5159		40	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

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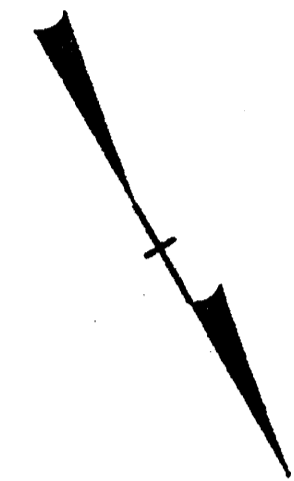
PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	-----
PROPOSED 6" ASPHALT CURB	-----

*NOT TO SCALE - PROJECT NOT SURVEYED

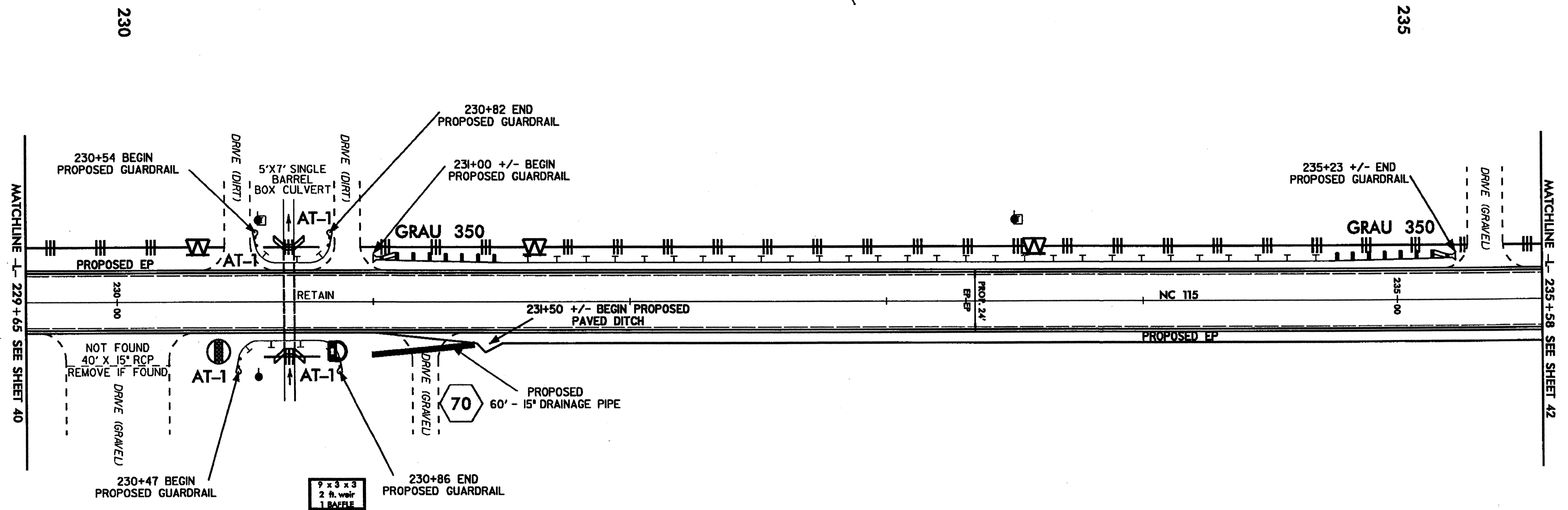
225

MATCHLINE -L- 223+71 SEE SHEET 39

MATCHLINE -L- 229+65 SEE SHEET 41



PROJECT REFERENCE NO. <i>R-5159</i>	SHEET NO. <i>41</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE L- 229+65 SEE SHEET 40

MATCHLINE L- 235+58 SEE SHEET 42

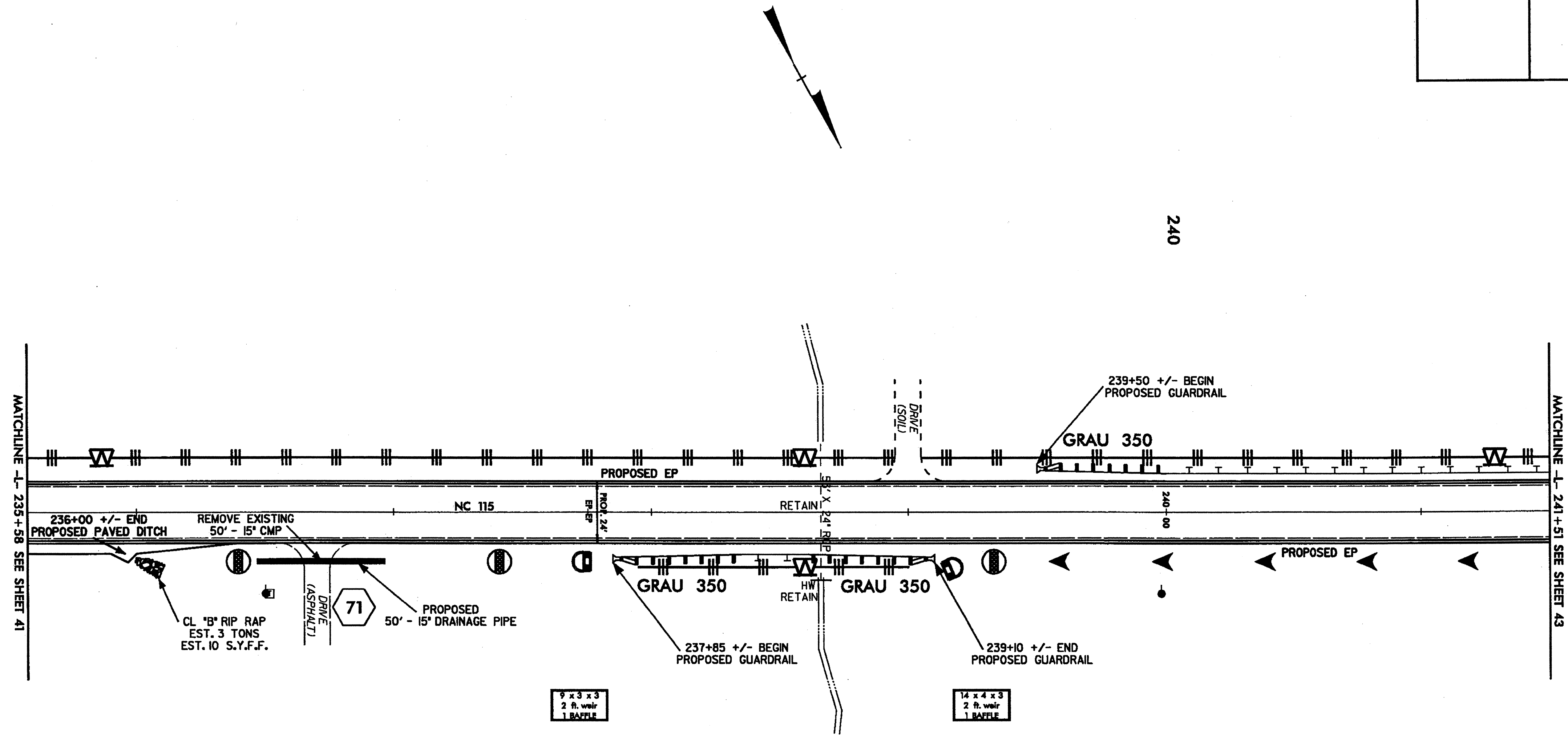
PROPOSED EDGE OF PAYEMENT	———
EXISTING EDGE OF PAYEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

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PROJECT REFERENCE NO.		SHEET NO.	
R-5159		42	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

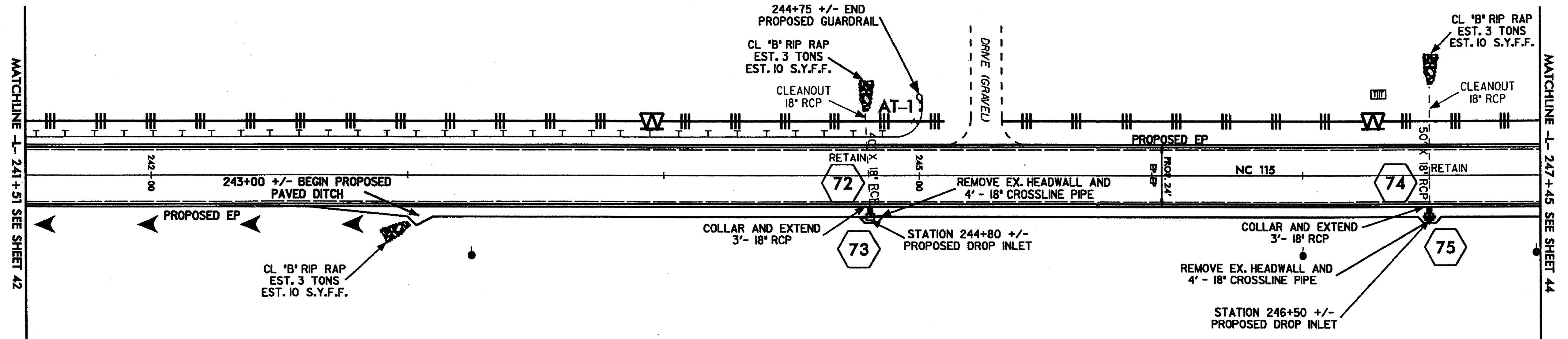


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PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. R-5159		SHEET NO. 43	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

8/17/99

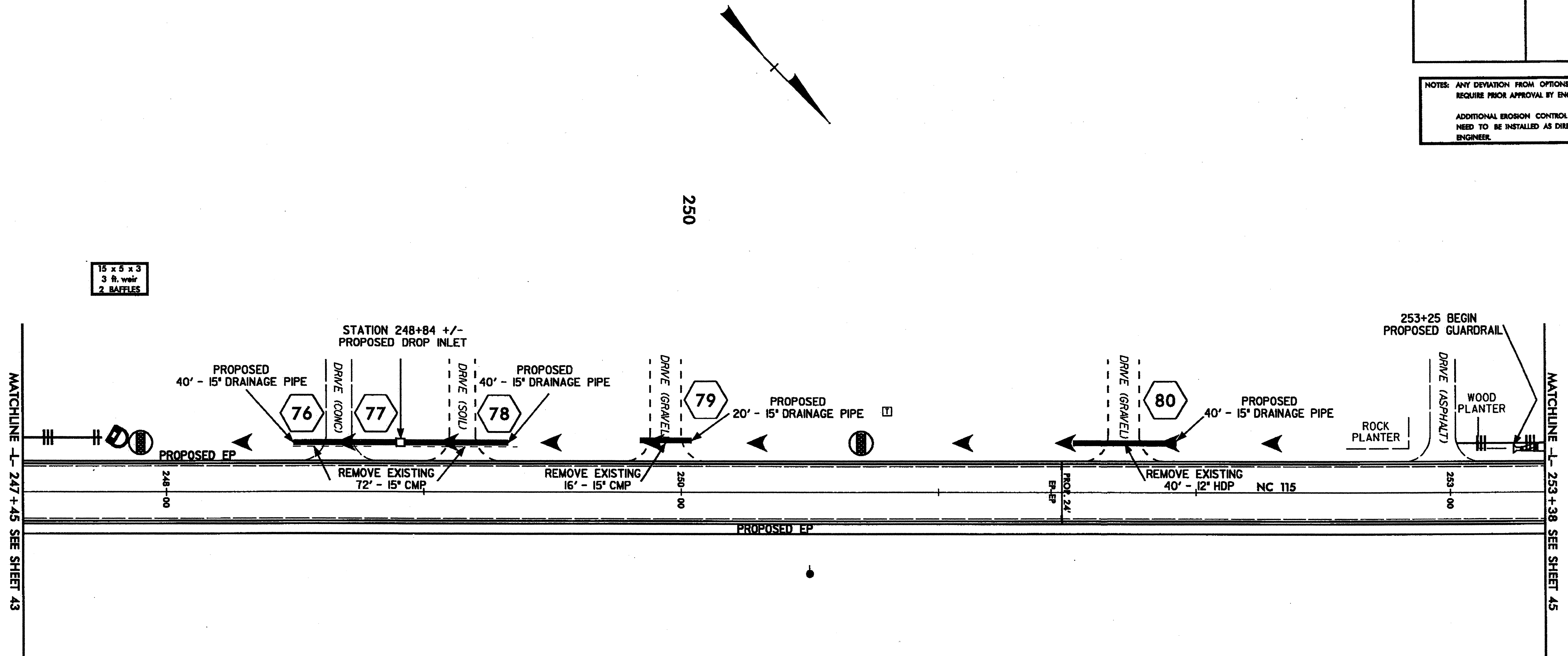
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PROJECT REFERENCE NO. R-5159		SHEET NO. 44	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



15 x 6 x 3
3 ft. wattle
2 Baffles

MATCHLINE - 247+45 SEE SHEET 43

MATCHLINE - 253+38 SEE SHEET 45

22-DEC-2009 11:21
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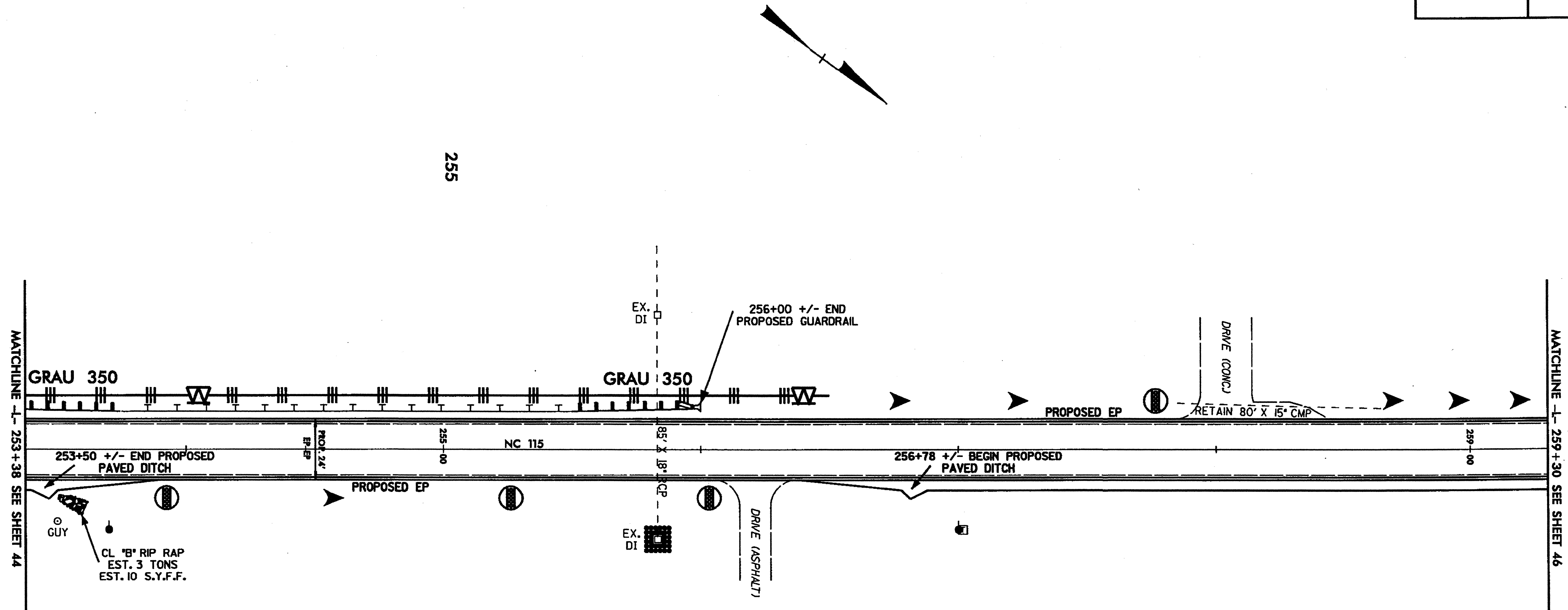
PROPOSED EDGE OF PAVEMENT ———
EXISTING EDGE OF PAVEMENT - - - - -
PROPOSED 6" ASPHALT CURB ———

*NOT TO SCALE - PROJECT NOT SURVEYED

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	— — — — —
1606.01	Special Sediment Control Fence	— — — — —
1622.01	Temporary Berms and Slope Drains	— — — — —
1630.02	Silt Basin Type B	— — — — —
1630.03	Temporary Silt Ditch	— — — — —
1630.06	Temporary Diversion	— — — — —
1630.06	Special Stilling Basin	— — — — —
1632.03	Rock Inlet Sediment Trap Type C	— — — — —
1633.01	Temporary Rock Silt Check Type-A	— — — — —
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	— — — — —
	Temporary Rock Silt Check Type-B	— — — — —
	Wattle	— — — — —
	Wattle with Polyacrylamide (PAM)	— — — — —
1634.02	Temporary Rock Sediment Dam Type-B	— — — — —
1635.01	Rock Pipe Inlet Sediment Trap Type-A	— — — — —

PROJECT REFERENCE NO. R-5159	SHEET NO. 45
HW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	-----
PROPOSED 6" ASPHALT CURB	————

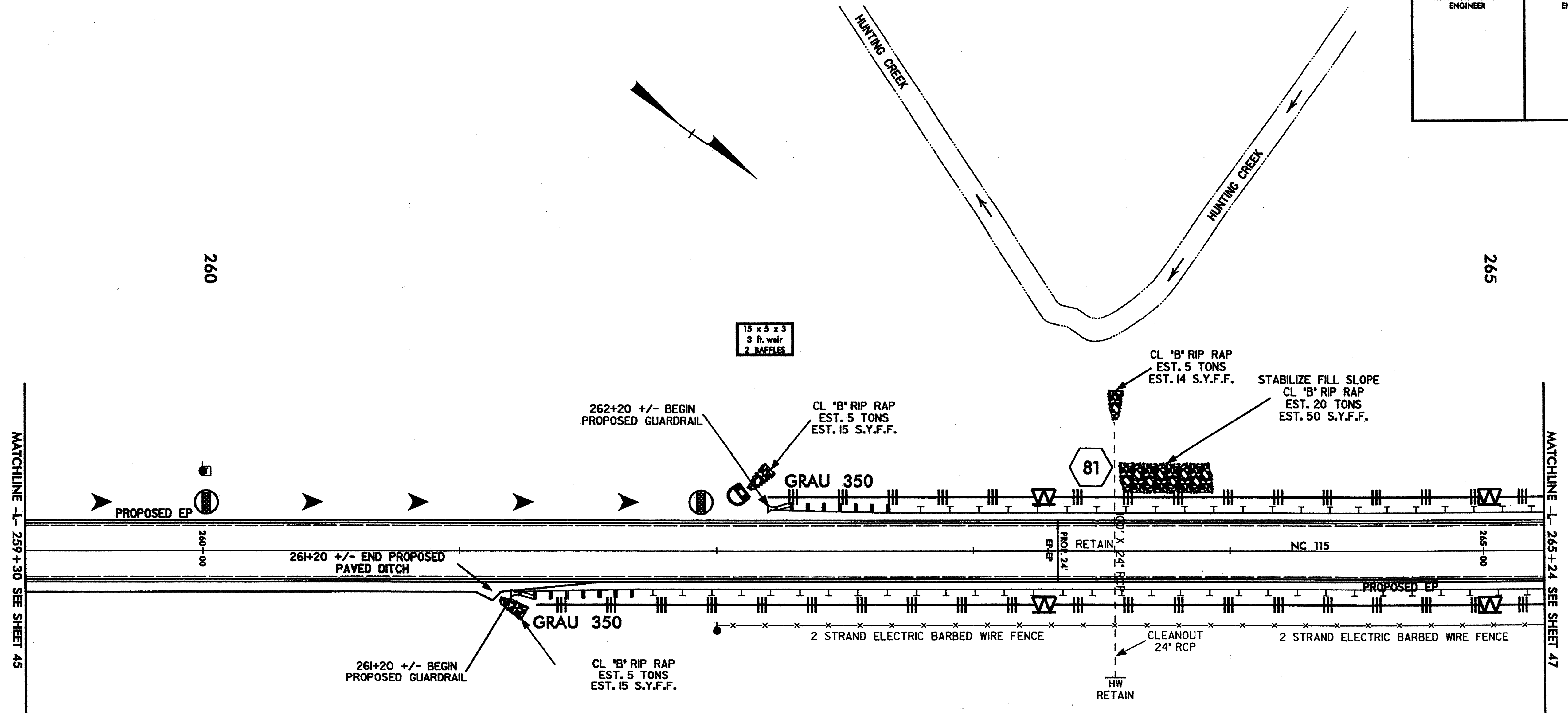
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PROJECT REFERENCE NO. R-5159		SHEET NO. 46	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

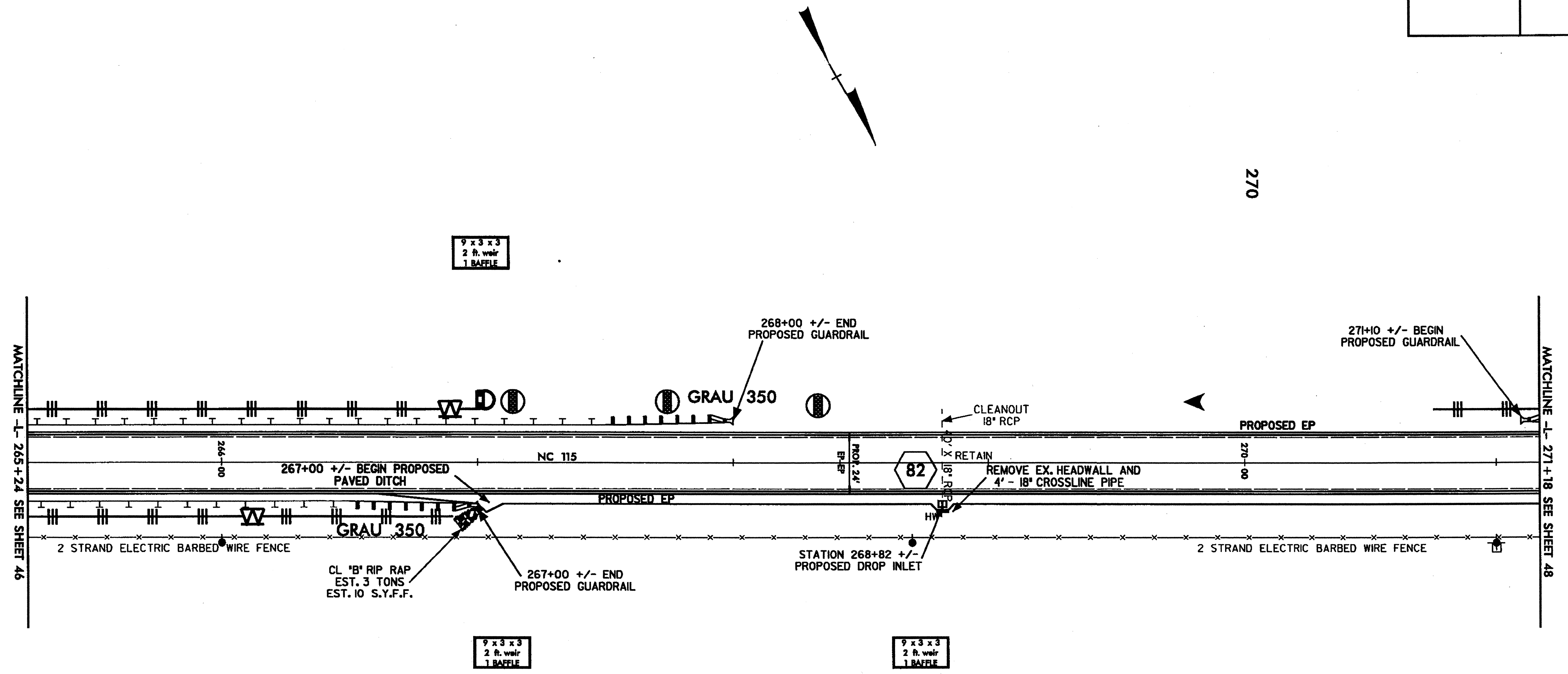


PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

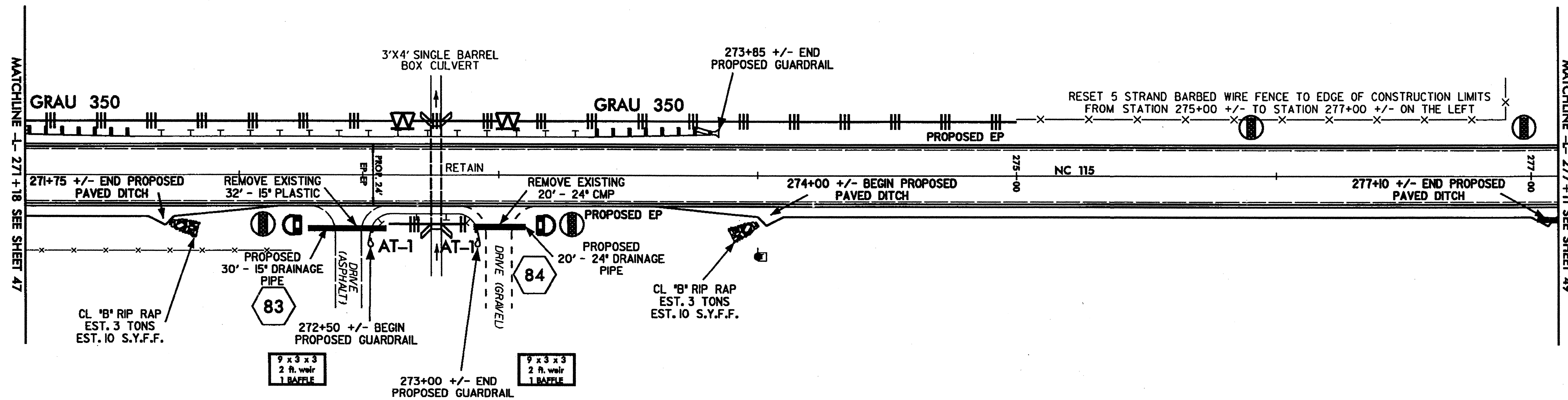
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PROJECT REFERENCE NO.		SHEET NO.	
R-5159		47	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



PROPOSED EDGE OF PAVEMENT ———
 EXISTING EDGE OF PAVEMENT - - - -
 PROPOSED 6" ASPHALT CURB - - - -
 *NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. R-5159	SHEET NO. 48
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE - 271 + 18 SEE SHEET 47

MATCHLINE - 277 + 11 SEE SHEET 49

275

PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

8/17/99

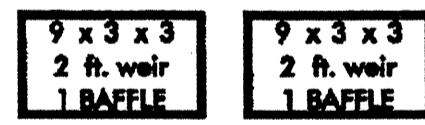
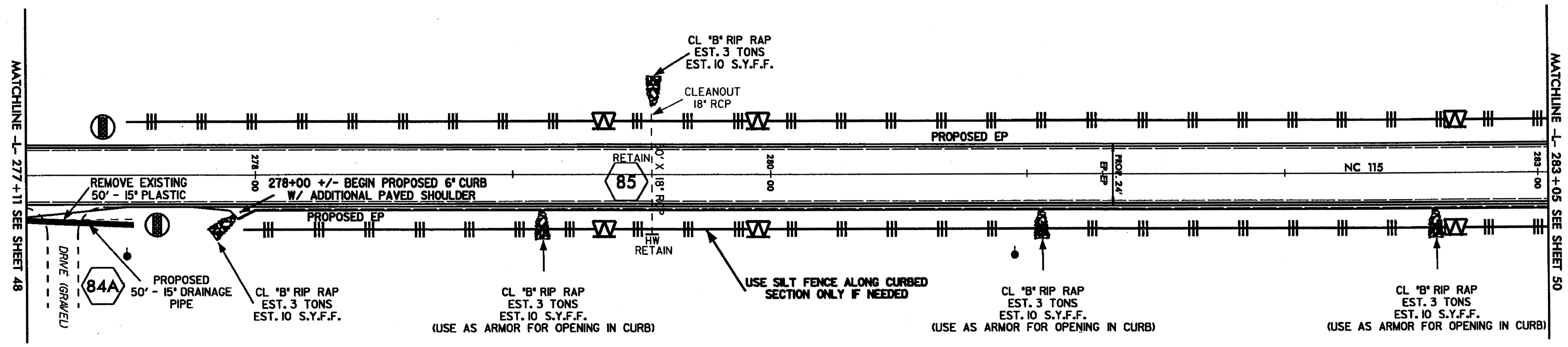
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PROJECT REFERENCE NO. R-5159	SHEET NO. 49
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.
 ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



EROSION AND SEDIMENT CONTROL MEASURES

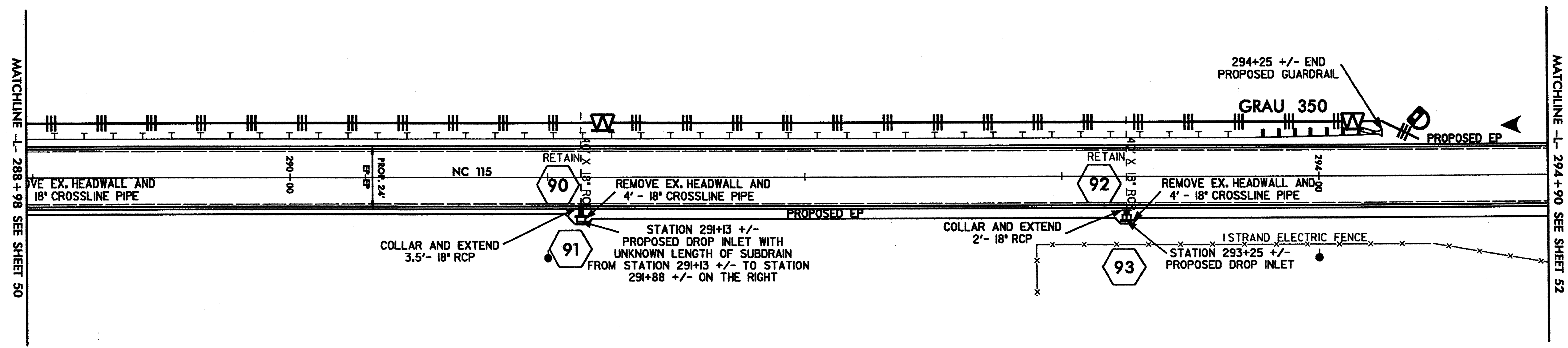
Sel. #	Description	Symbol
1605.01	Temporary Silt Fence	--- --- ---
1606.01	Special Sediment Control Fence	--- --- ---
1622.01	Temporary Berms and Slope Drains	--- --- ---
1630.02	Silt Basin Type B	--- --- ---
1630.03	Temporary Silt Ditch	--- --- ---
1630.05	Temporary Diversion	--- --- ---
1650.06	Special Stilling Basin	--- --- ---
1632.03	Rock Inlet Sediment Trap Type C	--- --- ---
1633.01	Temporary Rock Silt Check Type-A	--- --- ---
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	--- --- ---
	Temporary Rock Silt Check Type-B	--- --- ---
	Wattle	--- --- ---
	Wattle with Polyacrylamide (PAM)	--- --- ---
1634.02	Temporary Rock Sediment Dam Type-B	--- --- ---
1635.01	Rock Pipe Inlet Sediment Trap Type-A	--- --- ---

PROPOSED EDGE OF PAVEMENT
 EXISTING EDGE OF PAVEMENT
 PROPOSED 6" ASPHALT CURB

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. <i>R-5159</i>	SHEET NO. <i>51</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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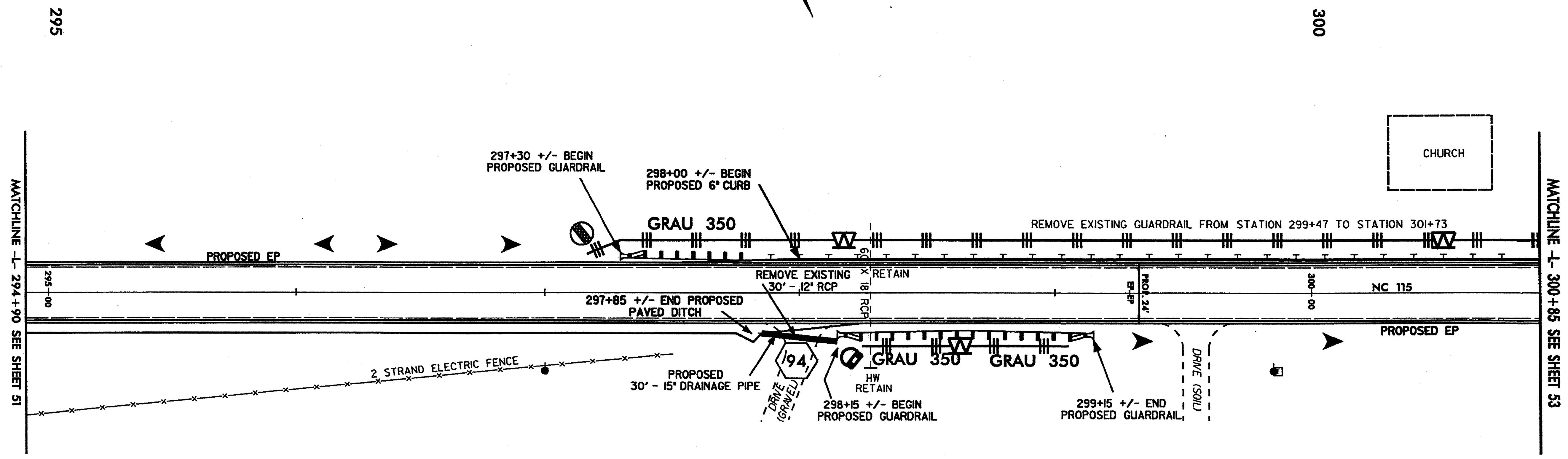
9 x 3 x 3
2 ft. weir
1 BAFFLE

PROPOSED EDGE OF PAVEMENT ———
EXISTING EDGE OF PAVEMENT - - - - -
PROPOSED 6" ASPHALT CURB - · - · - ·

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO.		SHE
R-5159		
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAU ENGINI	

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PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

9 x 3 x 3
2 ft. weir
1 Baffle

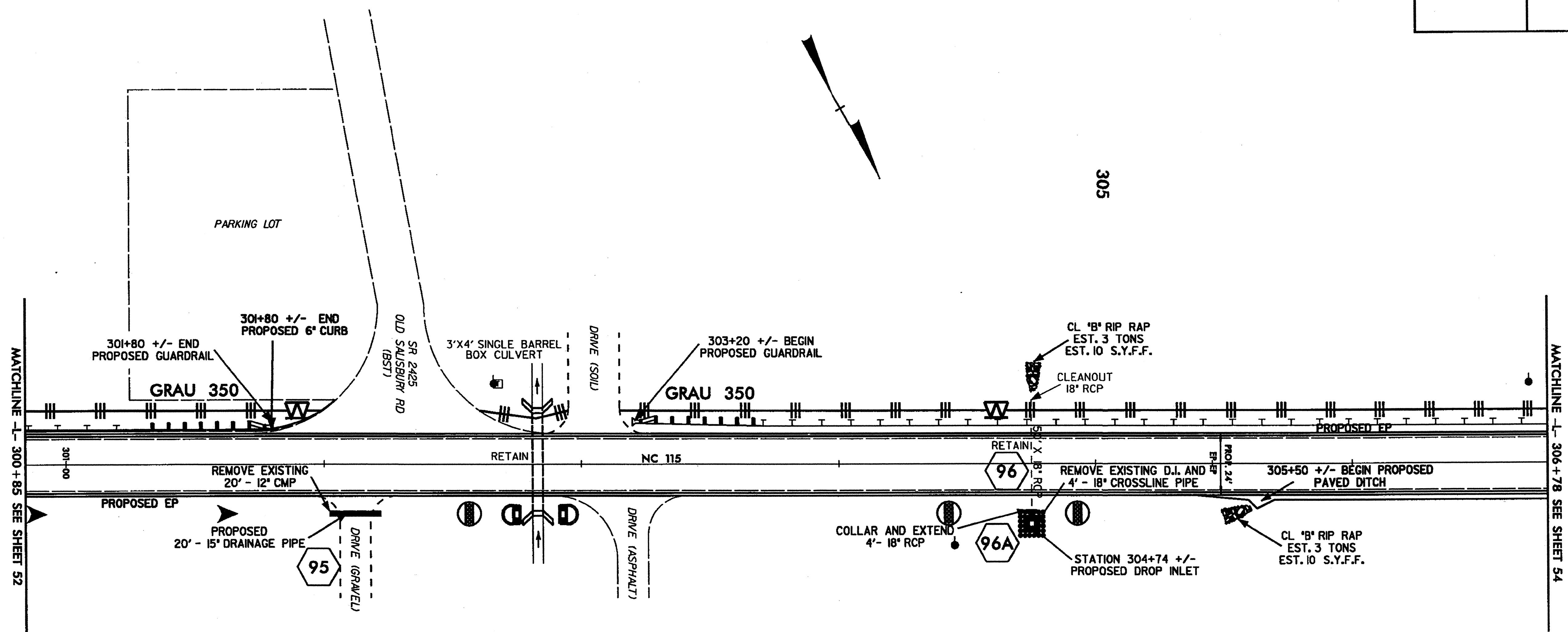
MATCHLINE -L- 294+90 SEE SHEET 51

MATCHLINE -L- 300+85 SEE SHEET 53

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PROJECT REFERENCE NO. R-5159	SHEET NO. 53
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



11 x 3 x 3 2 ft. weir 1 BAFFLE	9 x 3 x 3 2 ft. weir 1 BAFFLE
--------------------------------------	-------------------------------------

PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

MATCHLINE - 306 + 78 SEE SHEET 54

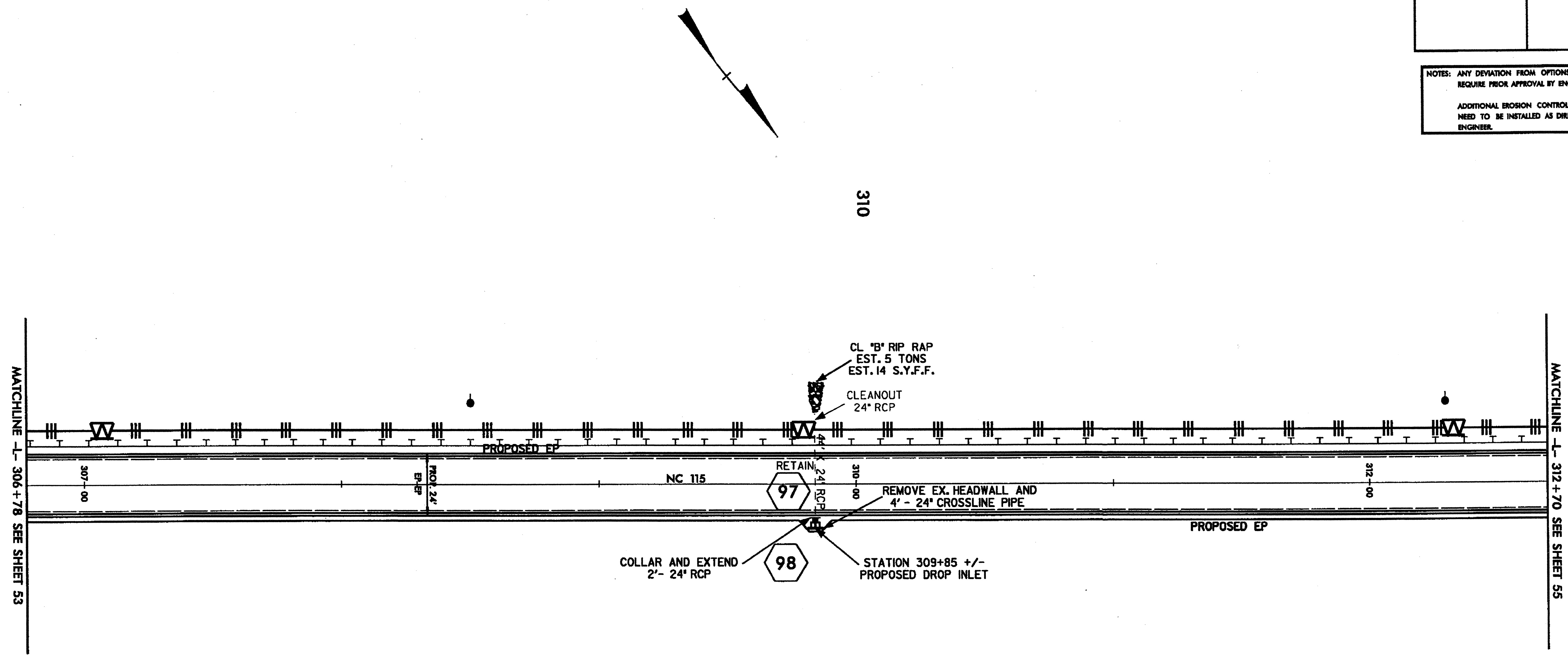
MATCHLINE - 300 + 85 SEE SHEET 52

8/17/99

PROJECT REFERENCE NO.		SHEET NO.	
R-5159		54	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



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PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	---
PROPOSED 6" ASPHALT CURB	---

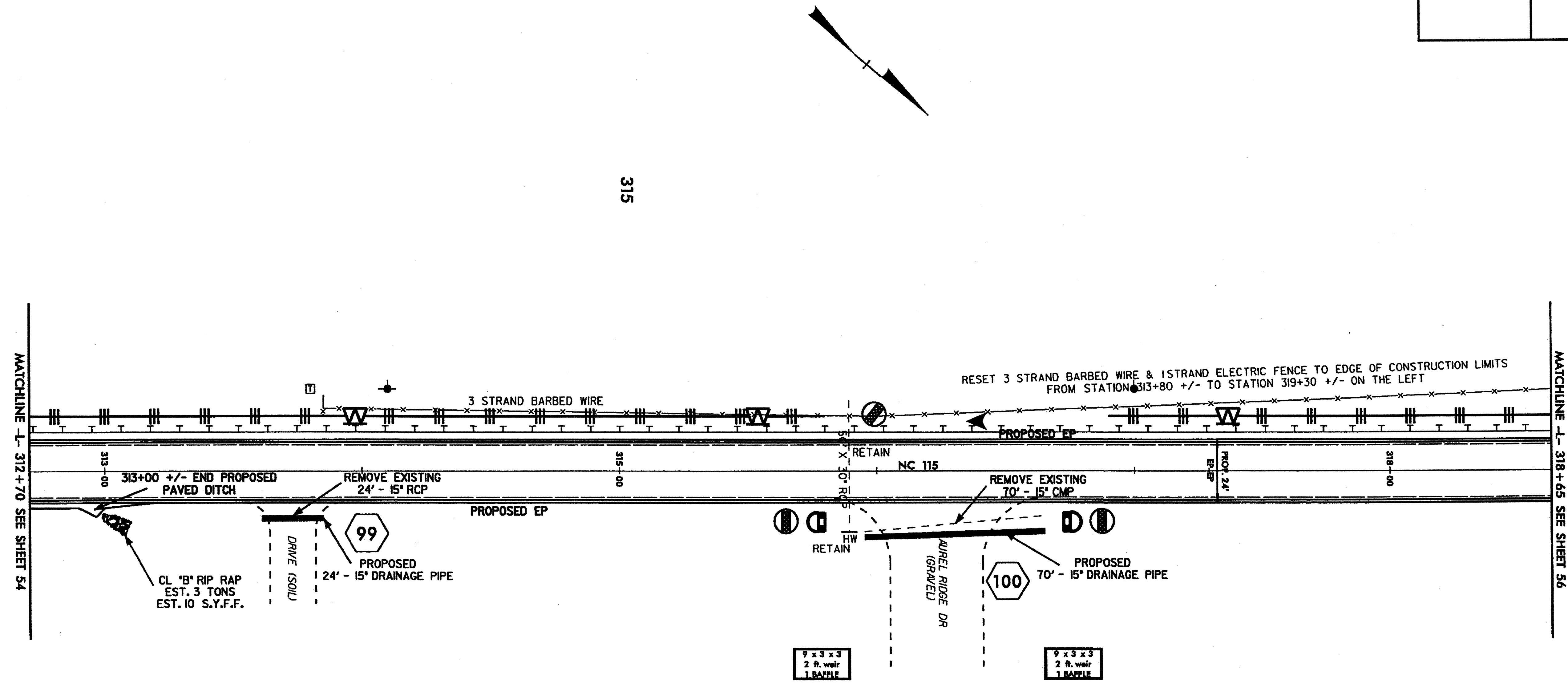
*NOT TO SCALE - PROJECT NOT SURVEYED

EROSION AND SEDIMENT CONTROL MEASURES

Seq. #	Description	Symbol
1604.01	Temporary Silt Fence	— — — —
1606.01	Special Sediment Control Fence	—△△△△△—
1632.01	Temporary Berms and Slope Drains	—T—
1630.02	Silt Basin Type B	—▨—
1630.03	Temporary Silt Ditch	—V—
1630.05	Temporary Diversion	— —
1630.06	Special Stilling Basin	—
1633.03	Rock Inlet Sediment Trap Type C	—□—
1633.01	Temporary Rock Silt Check Type-A	—▨—
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	—○—
	Temporary Rock Silt Check Type-B	—△—
	Wattle	—○—
	Wattle with Polyacrylamide (PAM)	—○—
1634.02	Temporary Rock Sediment Dam Type-B	—D—
1635.01	Rock Pipe Inlet Sediment Trap Type-A	—C—

PROJECT REFERENCE NO. R-5159		SHEET NO. 55	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

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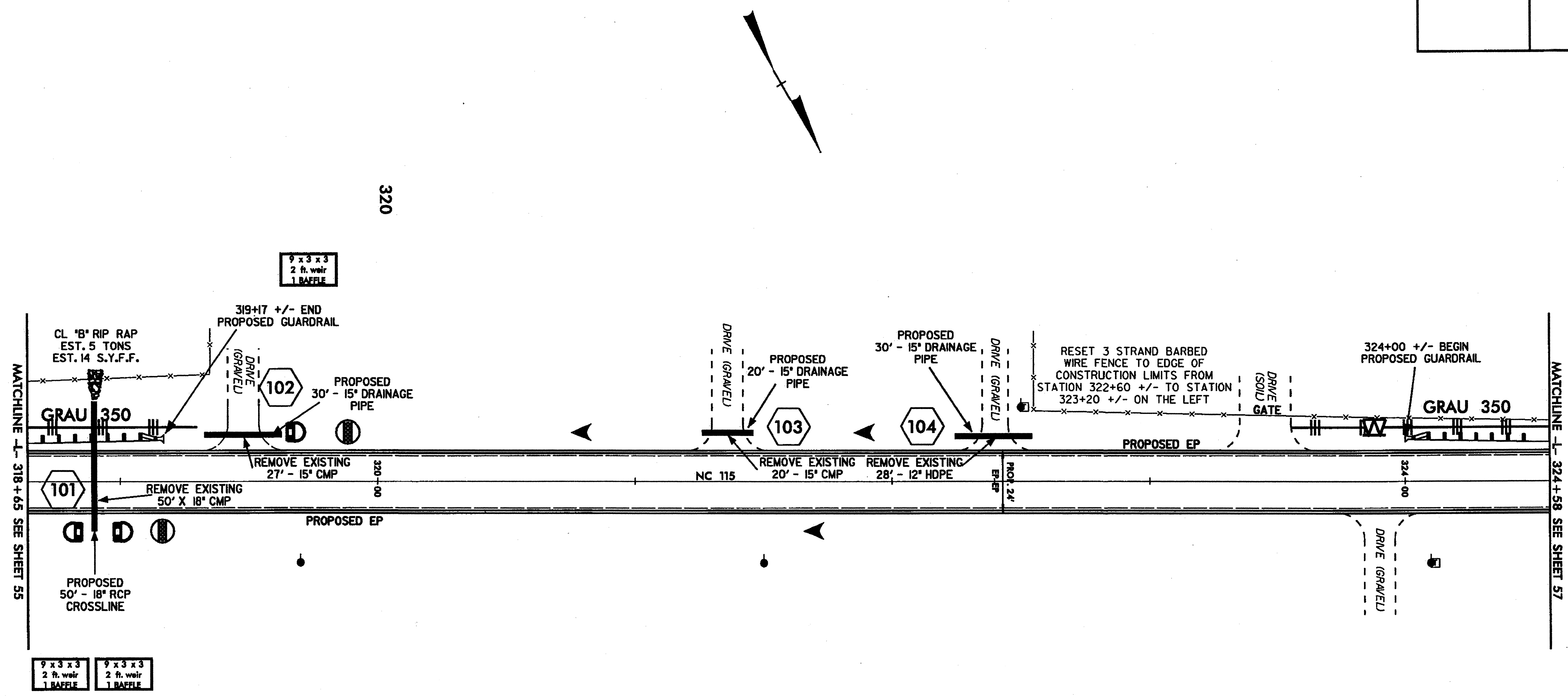


PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. R-5159		SHEET NO. 56	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

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22-DEC-2008 17:37
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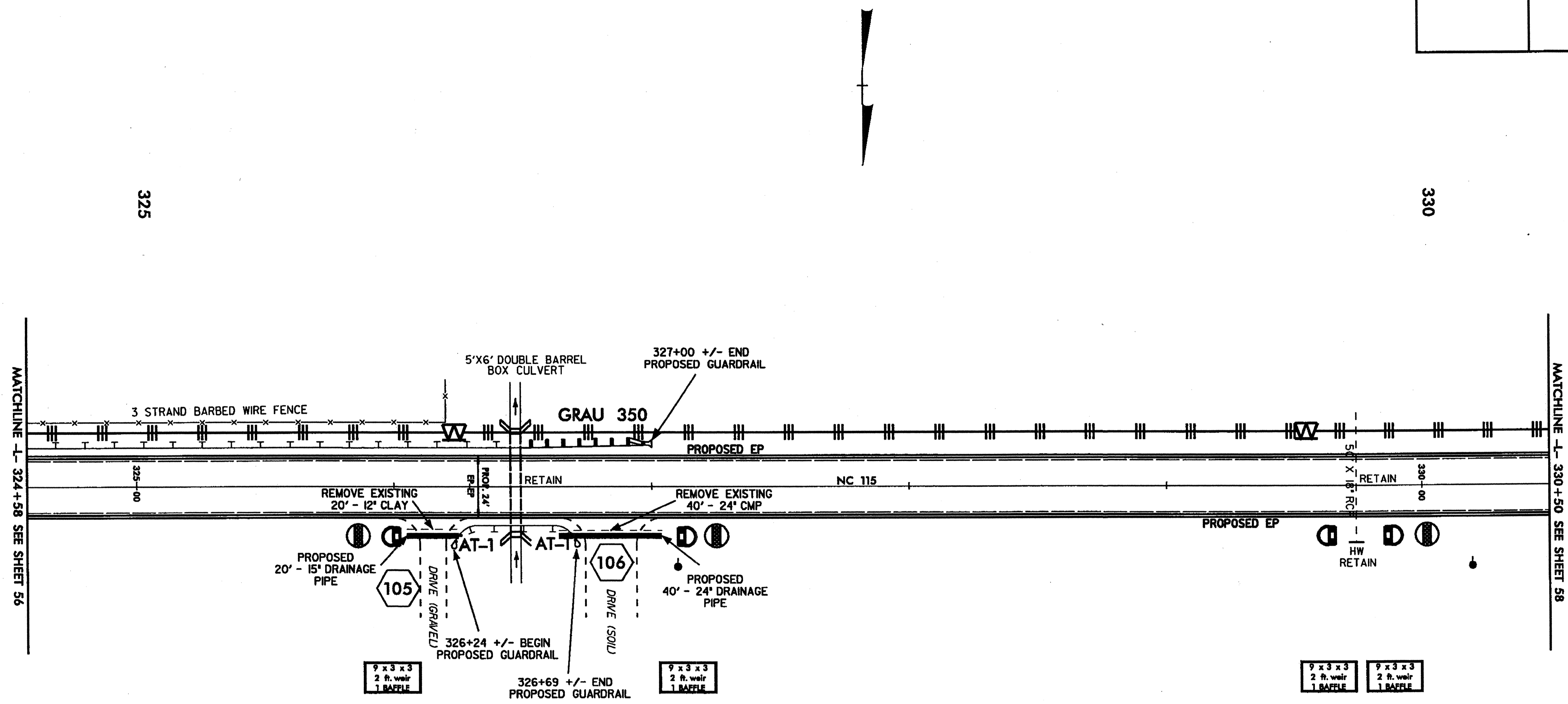


PROPOSED EDGE OF PAVEMENT ———
 EXISTING EDGE OF PAVEMENT - - - -
 PROPOSED 6" ASPHALT CURB ———
 *NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO.		SHEET NO.	
R-5159		57	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

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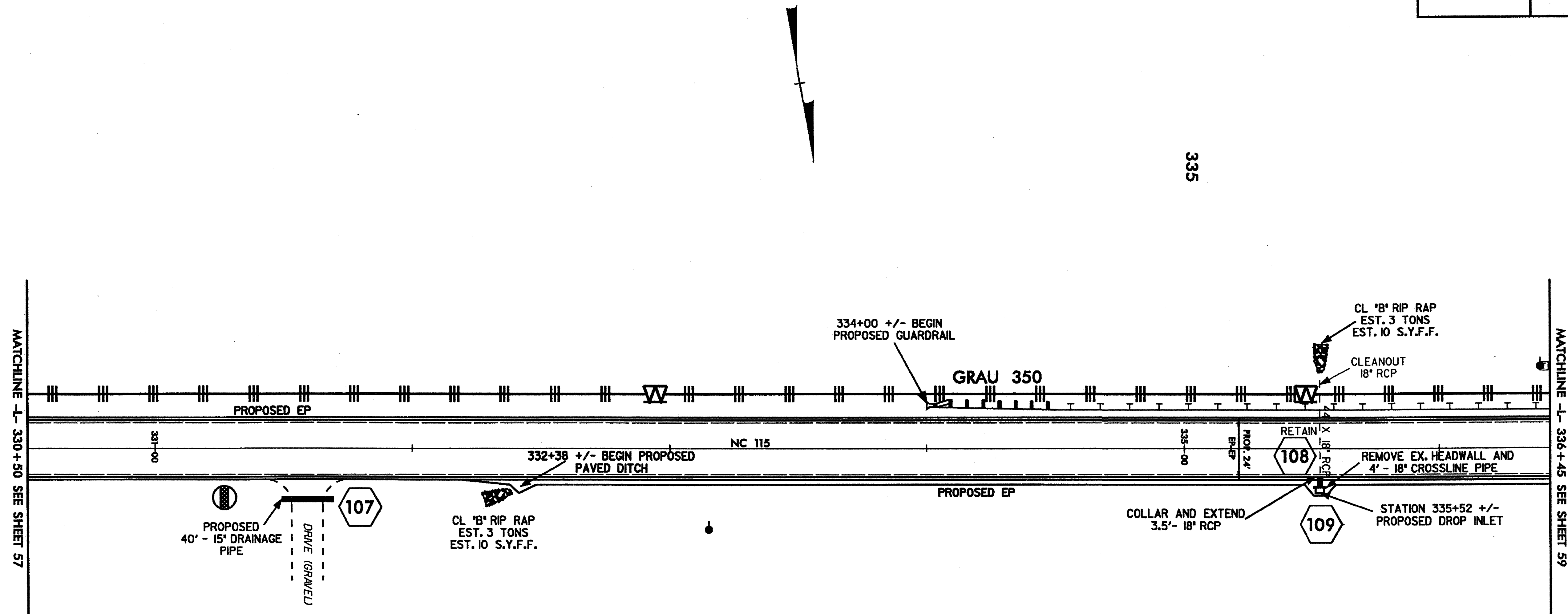
PROPOSED EDGE OF PAVEMENT	—————
EXISTING EDGE OF PAVEMENT	—————
PROPOSED 6" ASPHALT CURB	—————

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. <i>R-5159</i>		SHEET NO. <i>58</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

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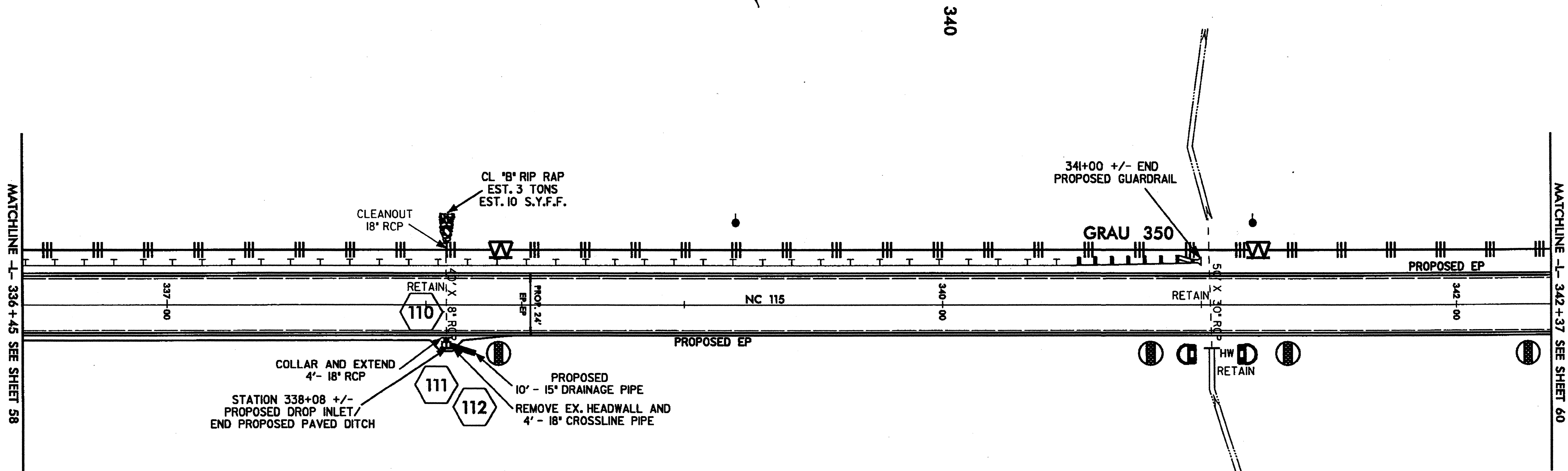
PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. <i>R-5159</i>		SHEET NO. <i>59</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



9' x 3' x 3'	9' x 3' x 3'
2 ft. weir	2 ft. weir
1 BAFFLE	1 BAFFLE

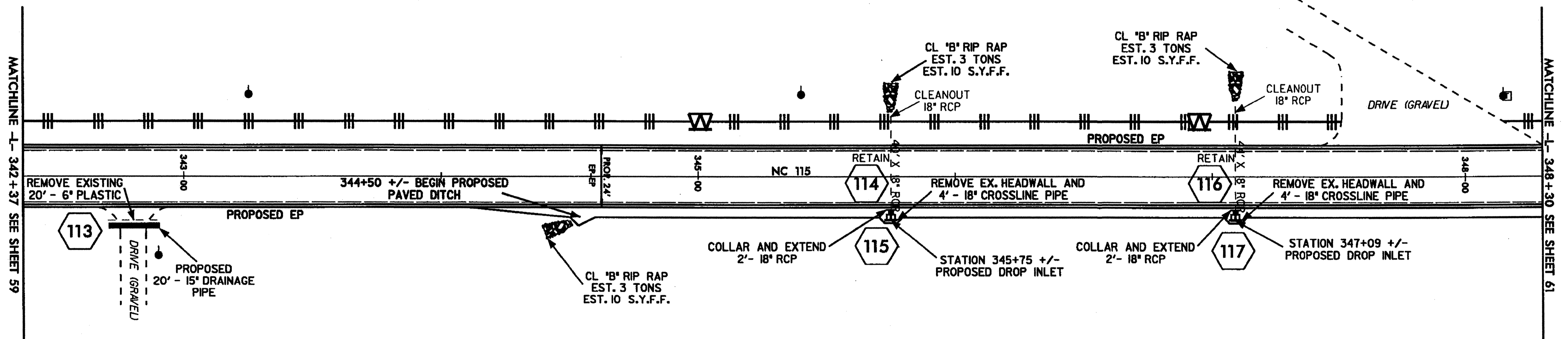
EROSION AND SEDIMENT CONTROL MEASURES

Set #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	T-shaped symbol
1630.02	Silt Basin Type B	Rectangular symbol with internal lines
1630.03	Temporary Silt Ditch	Line with arrow
1630.05	Temporary Diversion	Line with arrow
1630.06	Special Stilling Basin	Rectangular symbol with internal lines
1632.03	Rock Inlet Sediment Trap Type C	Square symbol
1633.01	Temporary Rock Silt Check Type-A	Rectangular symbol with internal lines
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	Rectangular symbol with internal lines and dots
	Temporary Rock Silt Check Type-B	Rectangular symbol with internal lines and dots
	Wattle	Curved line symbol
	Wattle with Polyacrylamide (PAM)	Curved line symbol with dots
1634.02	Temporary Rock Sediment Dam Type-B	Rectangular symbol with internal lines
1635.01	Rock Pipe Inlet Sediment Trap Type-A	Rectangular symbol with internal lines and dots

PROPOSED EDGE OF PAVEMENT	—————
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	=====

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. <i>R-5159</i>	SHEET NO. 60
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PROPOSED EDGE OF PAVEMENT	
EXISTING EDGE OF PAVEMENT	
PROPOSED 6" ASPHALT CURB	

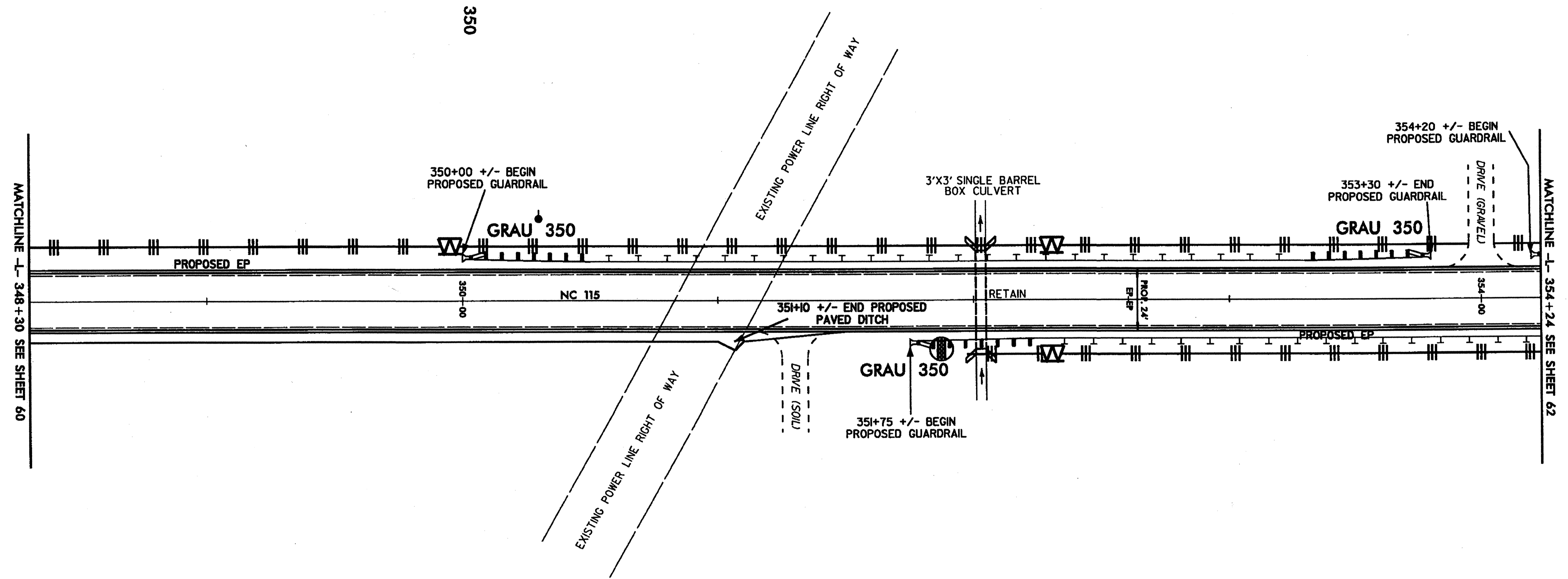
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PROJECT REFERENCE NO. <i>R-5159</i>	SHEET NO. <i>61</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PROPOSED EDGE OF PAVEMENT	—————
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	=====

*NOT TO SCALE - PROJECT NOT SURVEYED

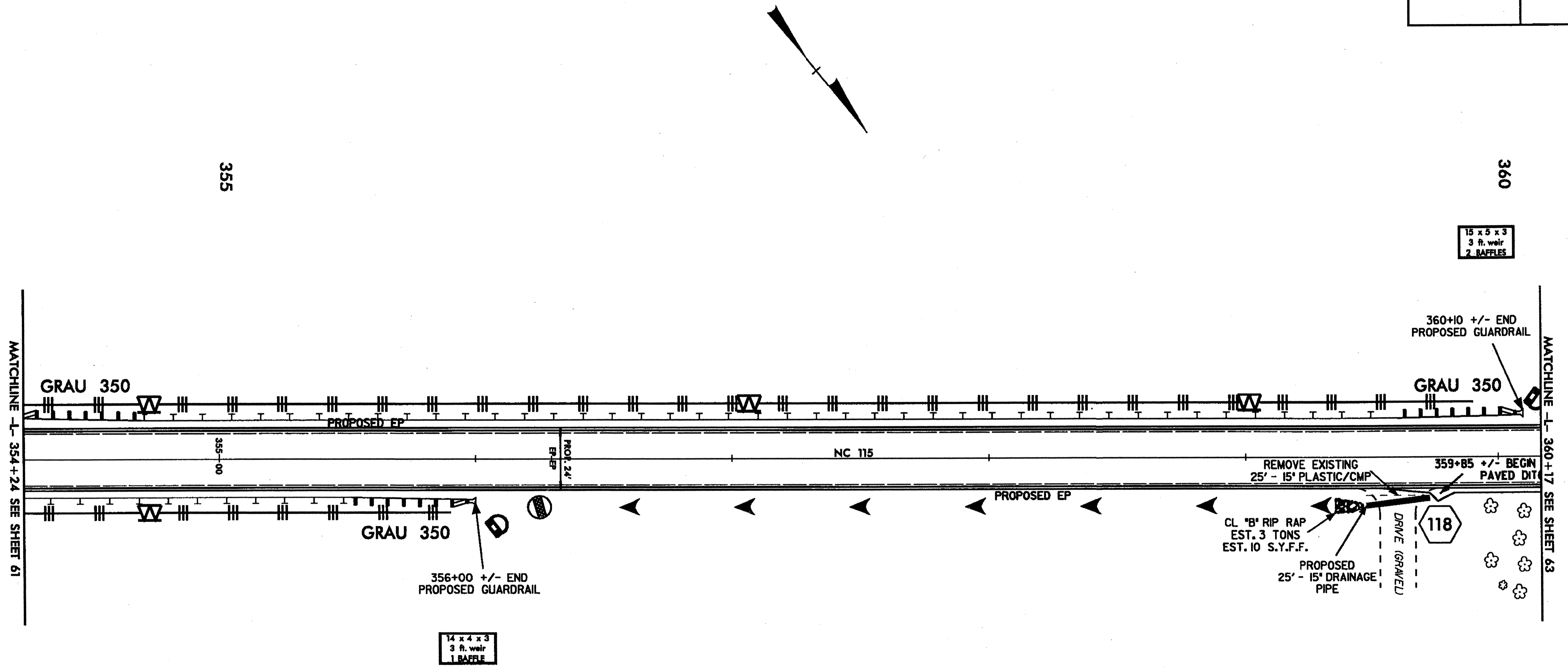
MATCHLINE -L- 348+30 SEE SHEET 60

MATCHLINE -L- 354+24 SEE SHEET 62

PROJECT REFERENCE NO. R-5159		SHEET NO. 62
RW SHEET NO.		HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER		

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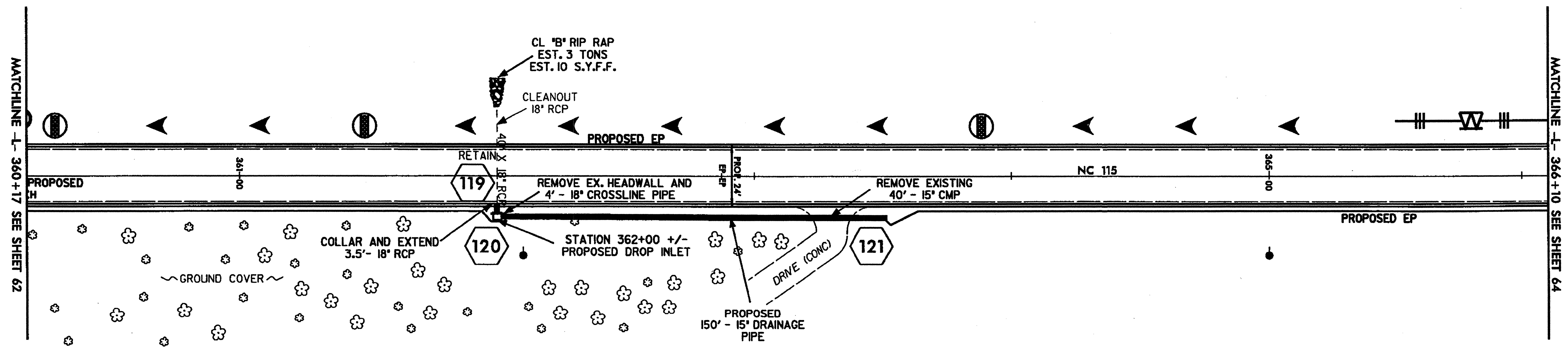
PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

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PROJECT REFERENCE NO. R-5159	SHEET NO. 63
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

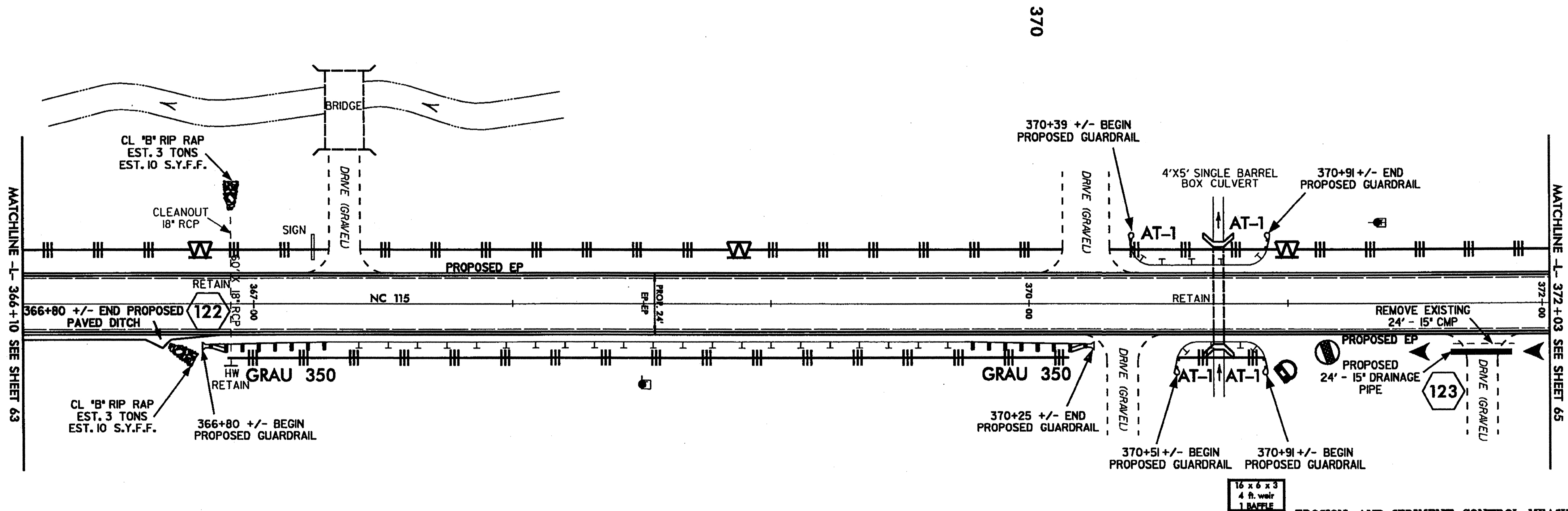
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PROJECT REFERENCE NO. R-5159		SHEET NO. 64	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	-----
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

EROSION AND SEDIMENT CONTROL MEASURES

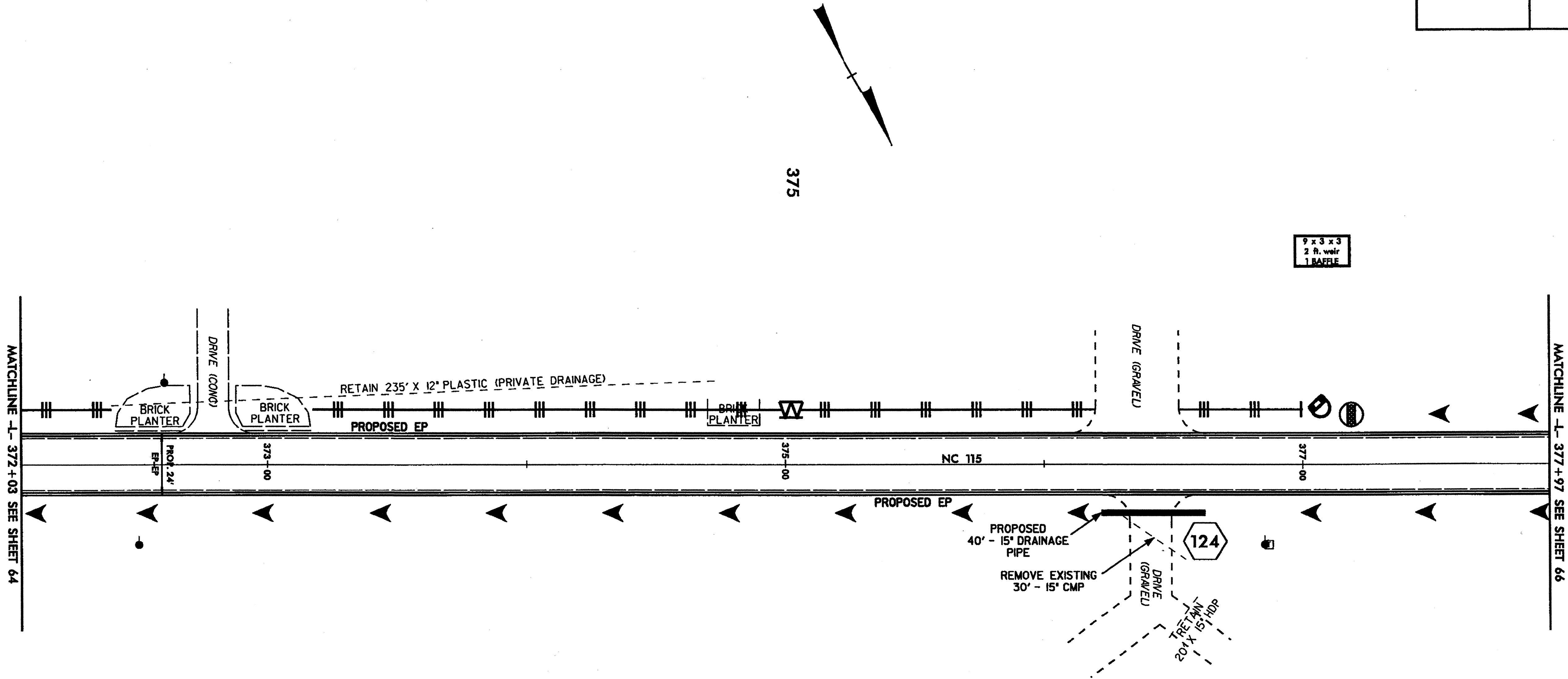
Set #	Description	Symbol
1606.01	Temporary Silt Fence	———
1606.01	Special Sediment Control Fence	———
1622.01	Temporary Berms and Slope Drains	———
1630.02	Silt Basin Type B	———
1630.03	Temporary Silt Ditch	———
1630.05	Temporary Diversion	———
1630.06	Special Stilling Basin	———
1632.03	Rock Inlet Sediment Trap Type C	———
1633.01	Temporary Rock Silt Check Type-A	———
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	———
	Temporary Rock Silt Check Type-B	———
	Wattle	———
	Wattle with Polyacrylamide (PAM)	———
1634.02	Temporary Rock Sediment Dam Type-B	———
1635.01	Rock Pipe Inlet Sediment Trap Type-A	———

16 x 6 x 3
4 ft. weir
1 BAFFLE

PROJECT REFERENCE NO. <i>R-5159</i>	SHEET NO. 65
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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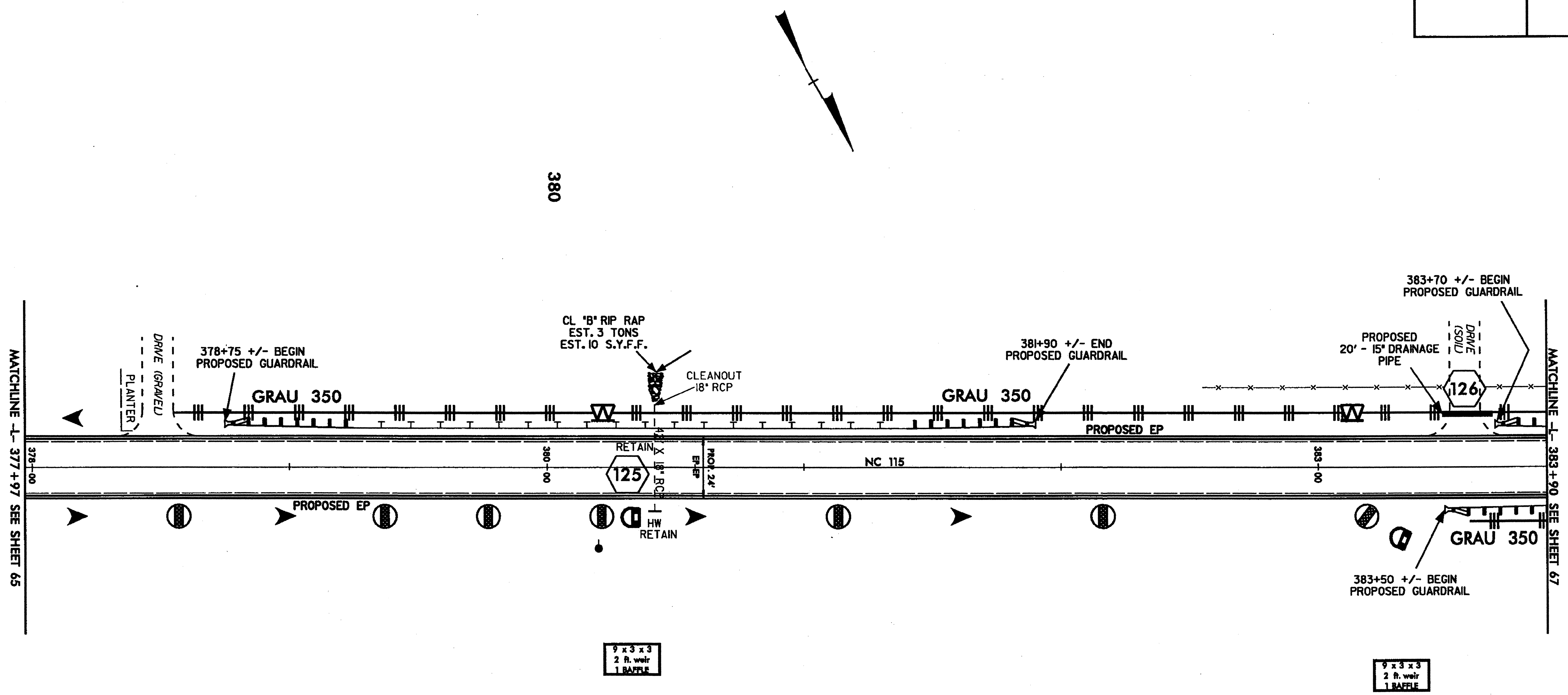
PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

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PROJECT REFERENCE NO. <i>R-5159</i>	SHEET NO. 66
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

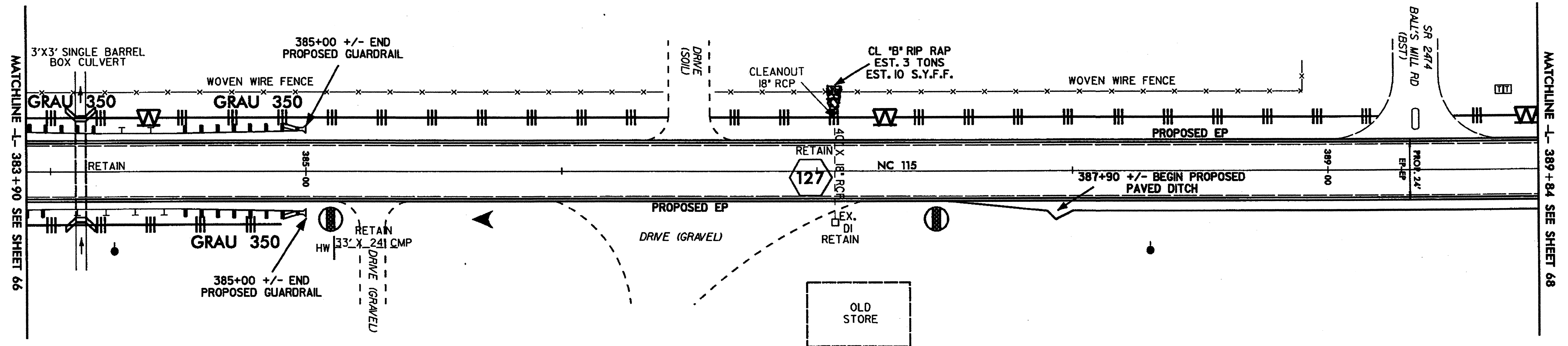


PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

8/17/99

PROJECT REFERENCE NO. R-5159	SHEET NO. 67
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	- - - -
PROPOSED 6" ASPHALT CURB	- - - - -

*NOT TO SCALE - PROJECT NOT SURVEYED

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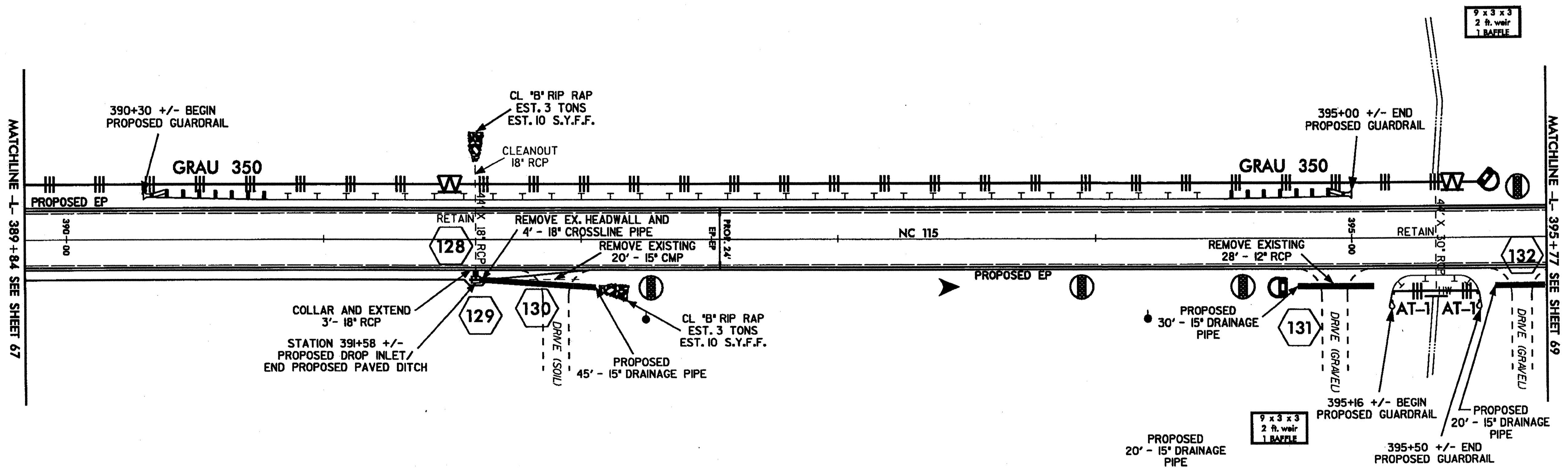
MATCHLINE - 389 + 84 SEE SHEET 68

MATCHLINE - 383 + 90 SEE SHEET 66

PROJECT REFERENCE NO. R-5159	SHEET NO. 68
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

390

395



MATCHLINE L-389+84 SEE SHEET 67

MATCHLINE L-395+77 SEE SHEET 69

PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	-----
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

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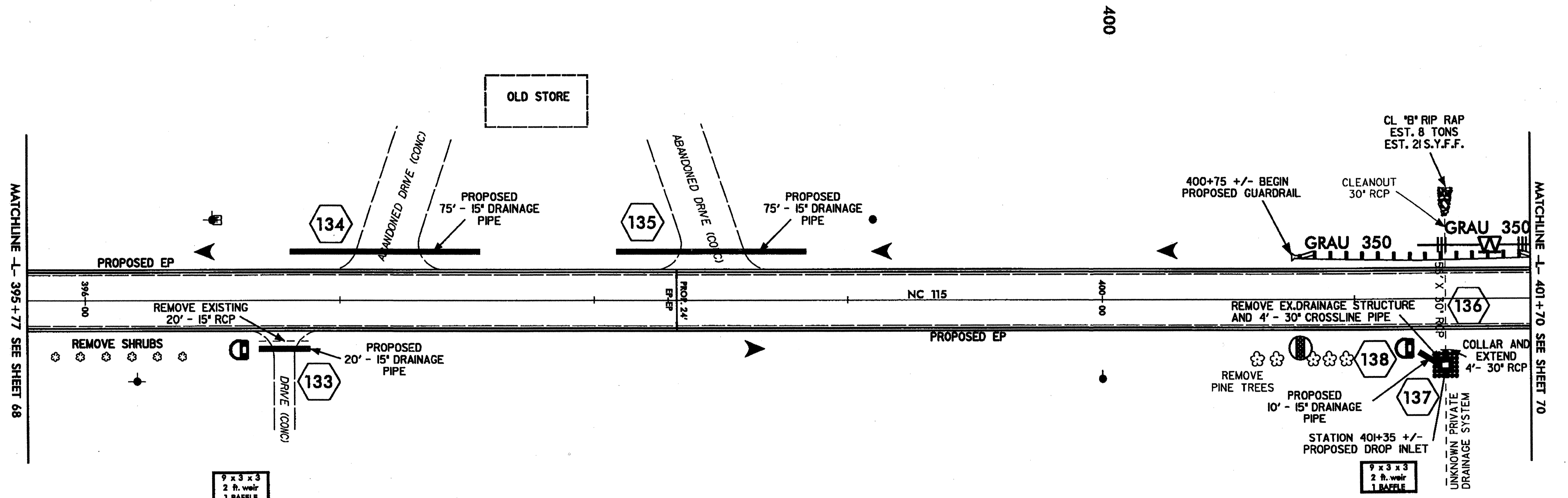
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PROJECT REFERENCE NO. R-5159		SHEET NO. 69	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



PROPOSED EDGE OF PAVEMENT	—————
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	- · - · - ·

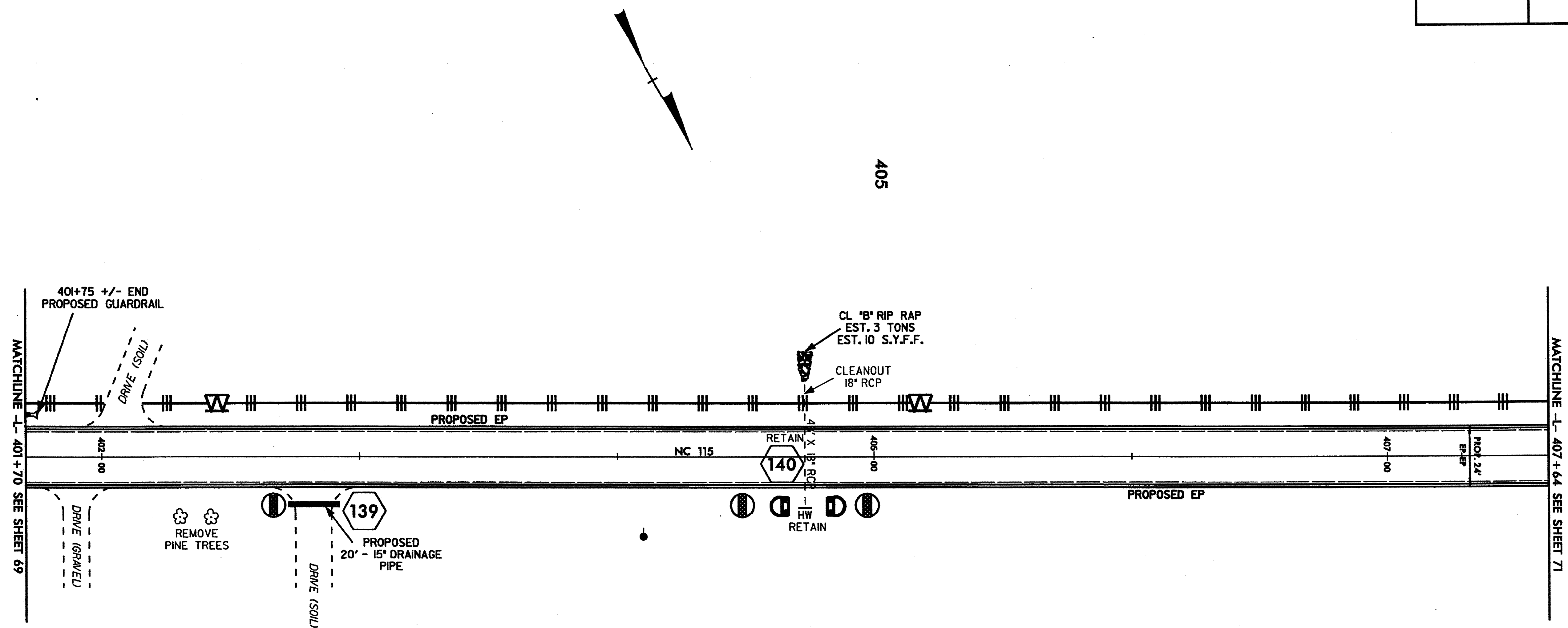
*NOT TO SCALE - PROJECT NOT SURVEYED

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	— — — — —
1606.01	Special Sediment Control Fence	— — — — —
1622.01	Temporary Berms and Slope Drains	— — — — —
1630.02	Silt Basin Type B	▨
1630.03	Temporary Silt Ditch	— — — — —
1630.05	Temporary Diversion	— — — — —
1630.06	Special Stilling Basin	— — — — —
1632.03	Rock Inlet Sediment Trap Type C	□
1633.01	Temporary Rock Silt Check Type-A	▨
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	▨
	Temporary Rock Silt Check Type-B	▨
	Wattle	— — — — —
	Wattle with Polyacrylamide (PAM)	— — — — —
1634.02	Temporary Rock Sediment Dam Type-B	▨
1635.01	Rock Pipe Inlet Sediment Trap Type-A	— — — — —

PROJECT REFERENCE NO. R-5159	SHEET NO. 70
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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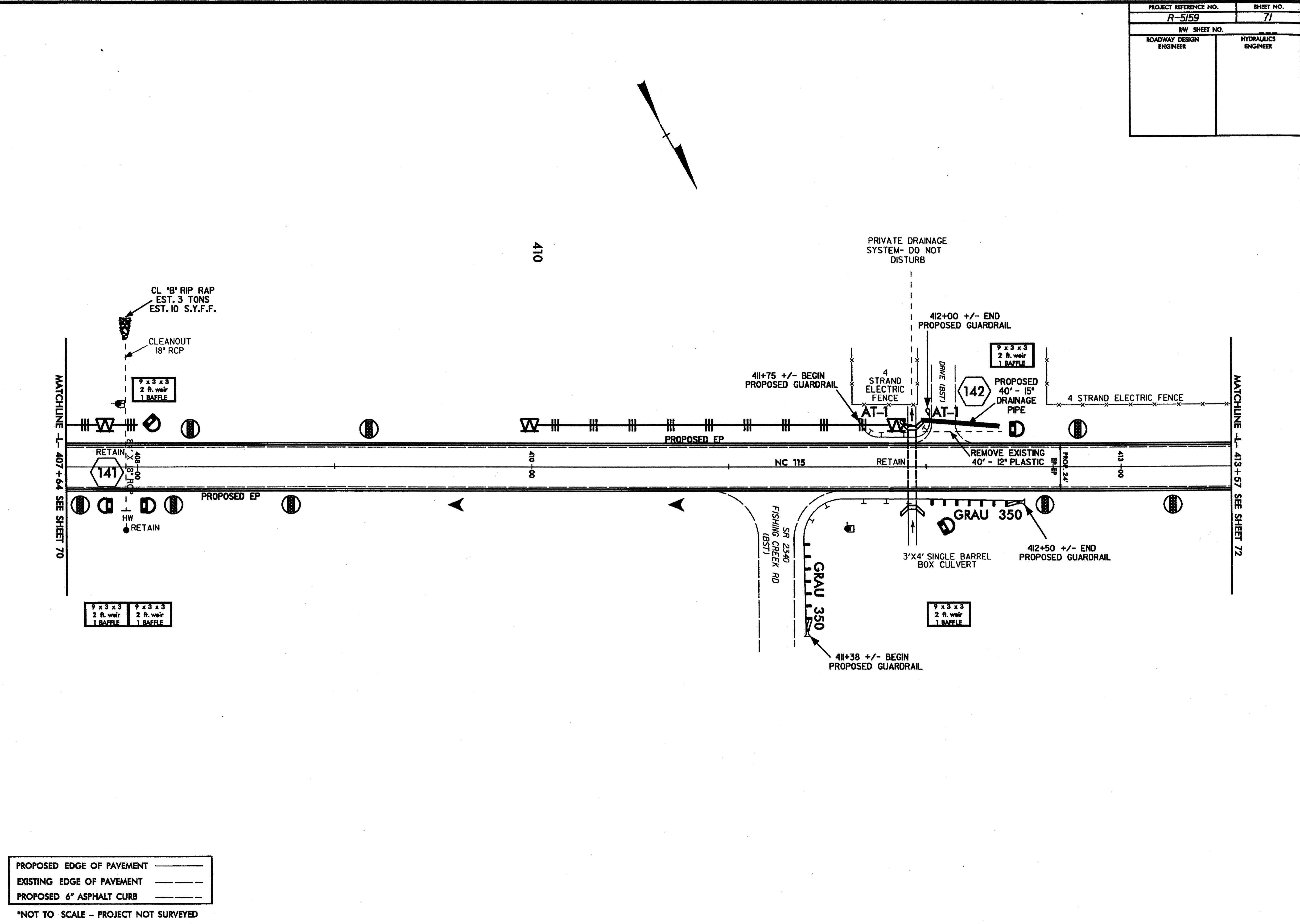
9 x 3 x 3	9 x 3 x 3
2 ft. weir	2 ft. weir
1 BAFFLE	1 BAFFLE

PROPOSED EDGE OF PAVEMENT ———
 EXISTING EDGE OF PAVEMENT - - - -
 PROPOSED 6" ASPHALT CURB ———
 *NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. R-5159	SHEET NO. 71
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	-----
PROPOSED 6" ASPHALT CURB	-----

*NOT TO SCALE - PROJECT NOT SURVEYED

MATCHLINE - 407+64 SEE SHEET 70

MATCHLINE - 413+57 SEE SHEET 72

410

PRIVATE DRAINAGE SYSTEM- DO NOT DISTURB

CL 'B' RIP RAP
EST. 3 TONS
EST. 10 S.Y.F.F.

CLEANOUT
18" RCP

9 x 3 x 3
2 ft. weir
1 BAFFLE

141

9 x 3 x 3
2 ft. weir
1 BAFFLE

RETAIN

PROPOSED EP

PROPOSED EP

NC 115

RETAIN

9 x 3 x 3
2 ft. weir
1 BAFFLE

142

PROPOSED
40' - 15"
DRAINAGE
PIPE

GRAU 350

3'x4' SINGLE BARREL
BOX CULVERT

9 x 3 x 3
2 ft. weir
1 BAFFLE

412+50 +/- END
PROPOSED GUARDRAIL

411+75 +/- BEGIN
PROPOSED GUARDRAIL

412+00 +/- END
PROPOSED GUARDRAIL

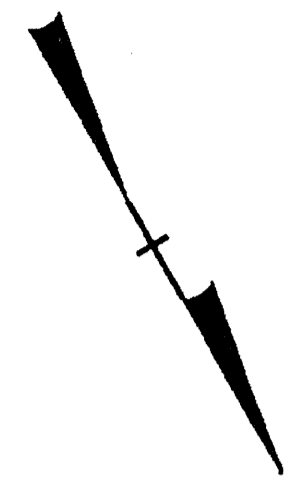
4 STRAND
ELECTRIC
FENCE

4 STRAND ELECTRIC FENCE

FISHING CREEK RD
SR 2340
18ST7

GRAU 350

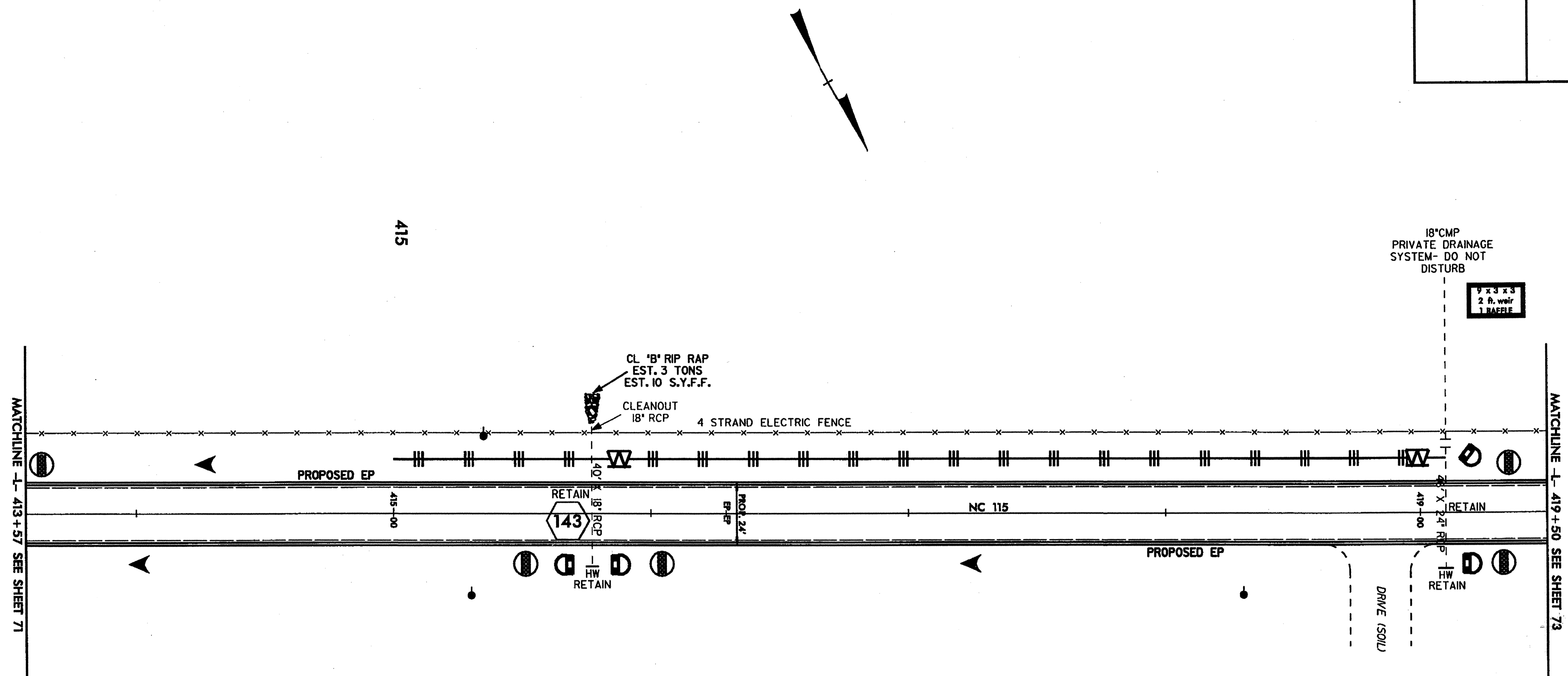
411+38 +/- BEGIN
PROPOSED GUARDRAIL



PROJECT REFERENCE NO. R-5159	SHEET NO. 72
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

22-DEC-2009 11:50
 C:\pwworkspace\stimulus\projects\nc 115 wilkes\dgn\5159_dde.dsn-121009.dgn
 11/17/09 11:50 AM



9 x 3 x 3
2 ft. weir
1 BAFFLE

9 x 3 x 3
2 ft. weir
1 BAFFLE

9 x 3 x 3
2 ft. weir
1 BAFFLE

PROPOSED EDGE OF PAVEMENT ———

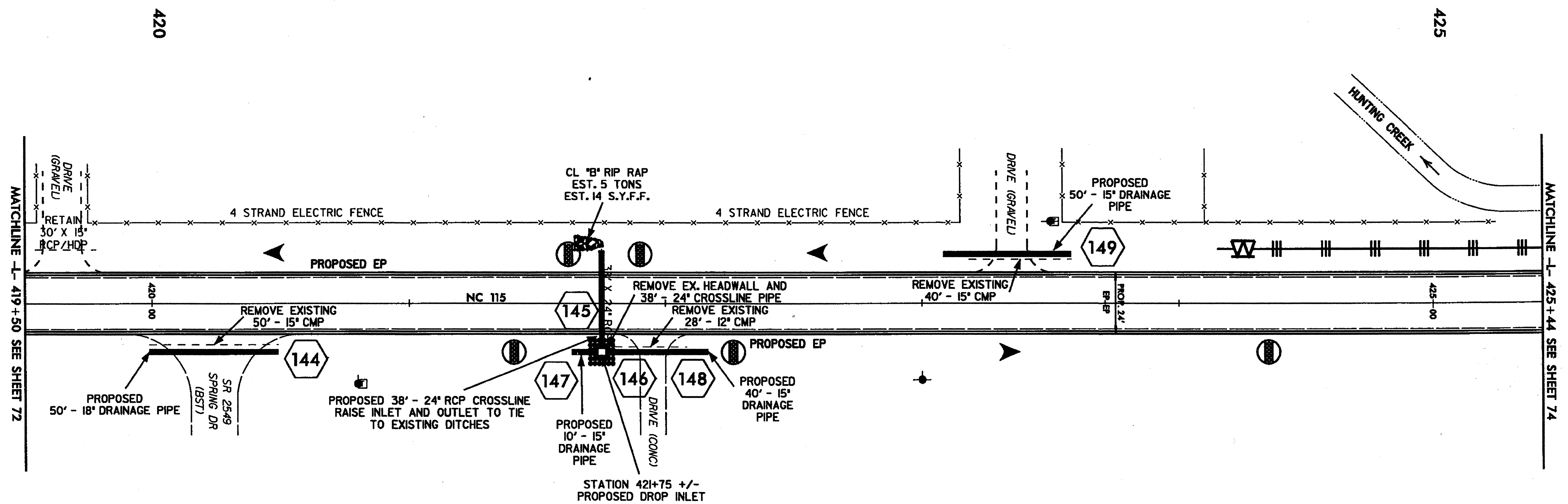
EXISTING EDGE OF PAVEMENT - - - - -

PROPOSED 6" ASPHALT CURB ———

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO. R-5159	SHEET NO. 73
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99
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manager\economic stimulus projects\nc 115 wilkes\dwg\nc 115\5159.dwg
2525215



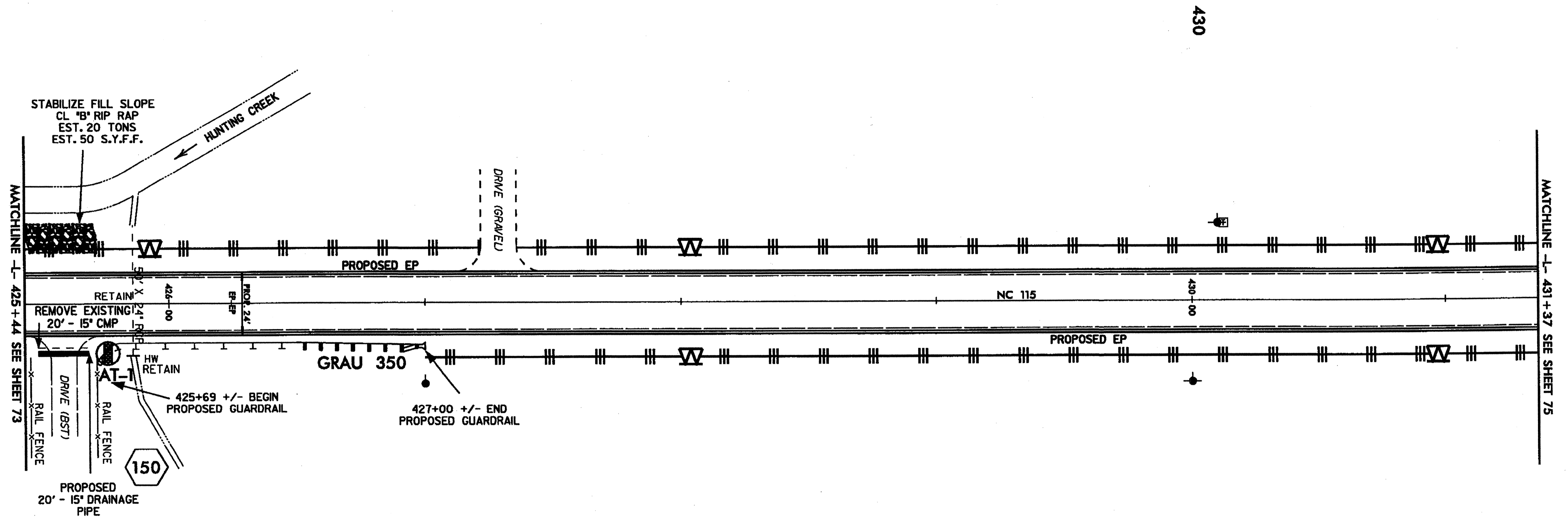
PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	- - - - -

*NOT TO SCALE - PROJECT NOT SURVEYED

PROJECT REFERENCE NO.	SHEET NO.
R-5159	74
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

22-DEC-2009 17:50
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 2009/12/22 17:50:00
 2009/12/22 17:50:00



PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	———
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

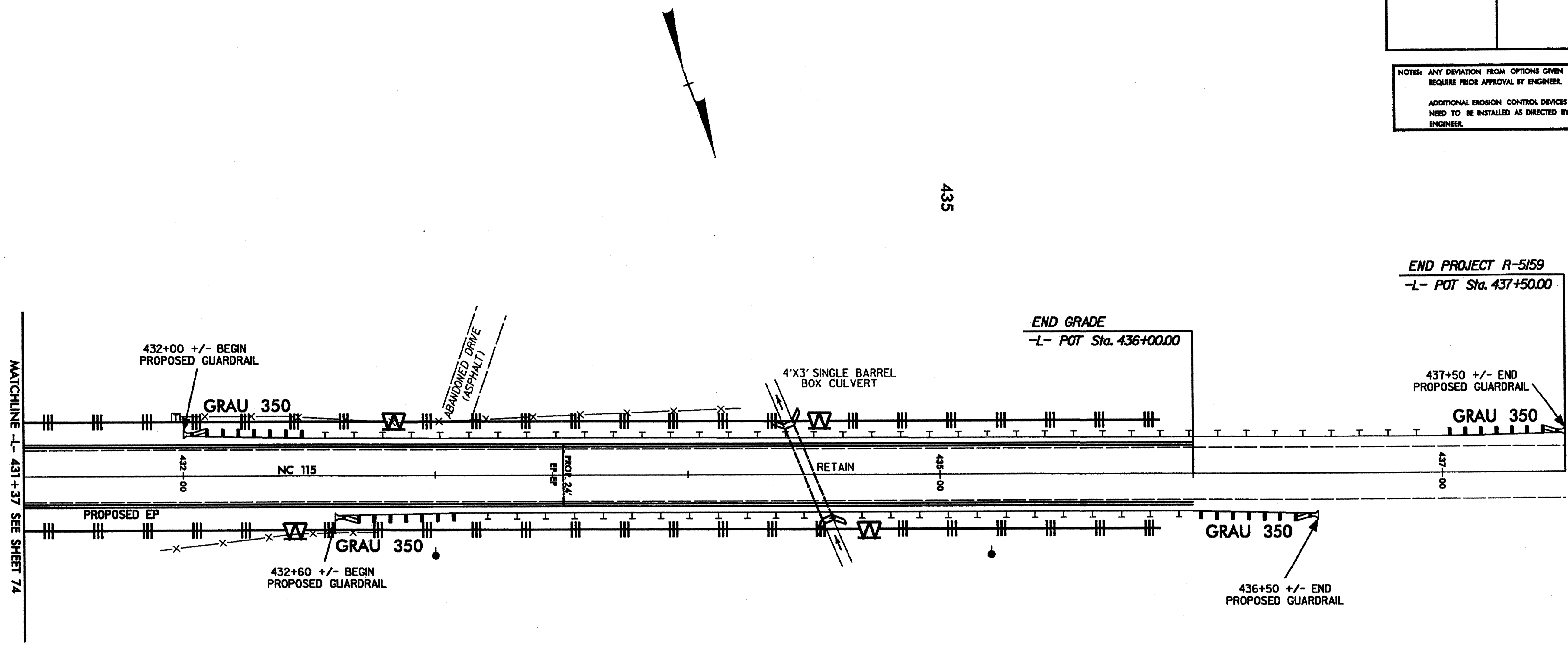
8/17/99

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AT 11/16/09

PROJECT REFERENCE NO. <i>R-5159</i>	SHEET NO. 75
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



END PROJECT R-5159
-L- POT Sta. 437+50.00

END GRADE
-L- POT Sta. 436+00.00

MATCHLINE -L- 431+37 SEE SHEET 74

PROPOSED EDGE OF PAVEMENT	———
EXISTING EDGE OF PAVEMENT	- - - - -
PROPOSED 6" ASPHALT CURB	———

*NOT TO SCALE - PROJECT NOT SURVEYED

EROSION AND SEDIMENT CONTROL MEASURES

St. #	Description	Symbol
1605.01	Temporary Silt Fence	— — — — —
1606.01	Special Sediment Control Fence	— — — — —
1622.01	Temporary Berms and Slope Drains	— — — — —
1630.02	Silt Basin Type B	— — — — —
1630.03	Temporary Silt Ditch	— — — — —
1630.05	Temporary Diversion	— — — — —
1630.06	Special Stilling Basin	— — — — —
1633.03	Rock Inlet Sediment Trap Type C	— — — — —
1633.01	Temporary Rock Silt Check Type-A	— — — — —
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	— — — — —
	Temporary Rock Silt Check Type-B	— — — — —
	Wattle	— — — — —
	Wattle with Polyacrylamide (PAM)	— — — — —
1634.02	Temporary Rock Sediment Dam Type-B	— — — — —
1635.01	Rock Pipe Inlet Sediment Trap Type-A	— — — — —