

COMMONWEALTH OF KENTUCKY  
DEPARTMENT OF HIGHWAYS

PLANS OF  
PROPOSED PROJECT  
ROCKCASTLE CO. (US.25)  
GRADE, DRAIN, & SURFACE  
STPR 461-1(6)

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE	-	1	104

ITEM # 8-143.0

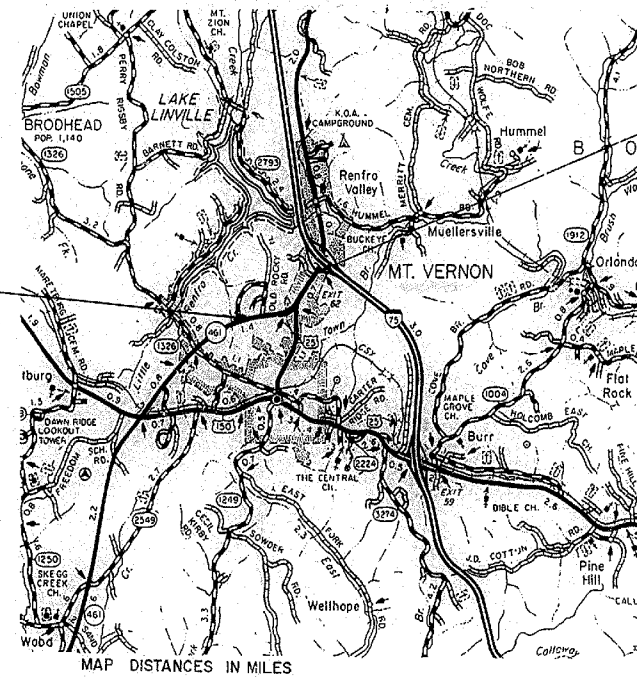
SHEET NO.	DESCRIPTION
1	LAYOUT SHEET
2-22	TYPICAL SECTIONS-SUMMARY OF QUANTITIES
3-14	PLAN AND PROFILE SHEETS
14a-14k	UTILITY PLAN SHEETS
15	RIGHT OF WAY SUMMARY SHEETS
16-18	RIGHT OF WAY STRIP MAP SHEETS
19-24	DETAIL SHEETS
	REFERENCE SHEETS
22-27	SOIL PROFILE SHEETS
28-104	PIPE DRAINAGE SHEETS
	CROSS SECTION SHEETS

SHEETS NOT INCLUDED IN TOTAL SHEETS  
2a-2, 21a-21i, 14a-14k

TOTAL BRIDGE SHEETS N/A

NUMBER	DESCRIPTION
RBI-001-07	RDI-001-05
RBI-002-05	RDI-002
RBR-005-09	RDI-003
RDB-001-10	RDI-020-06
RDB-002-10	RDI-035
RDB-105-04	RDX-001-04
RDB-106-03	RDX-002-02
	TSC-260-10
	TSC-261-07
	RFC-001-06
	RFW-001-03

TOTAL STANDARD DRAWINGS 32



STA. 6+560  
END PROJECT

STA. 4+420  
BEGIN PROJECT

**METRIC**

FROM STA. 4+420 TO STA. 5+564.1 LT. &  
FROM STA. 4+420 TO STA. 5+454.75 RT.  
ACCESS SHALL BE PROVIDED ONLY WHERE  
SPECIFICALLY INDICATED ON PLANS.

FROM STA. 5+564.1 LT. TO 6+332.23 AND  
FROM STA. 5+454.75 RT. TO 6+332.23  
THE CONTROL OF ACCESS ON THIS PROJECT  
SHALL BE BY PERMIT.

**AS-BUILT PLANS**  
*D. Newman*  
District Engineer of Construction  
Date: 12/11/02

ITEM NO. 8-143.0

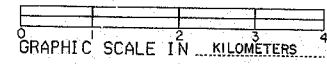
KENTUCKY  
DEPARTMENT OF HIGHWAYS  
ROCKCASTLE COUNTY

MT. VERNON-BEREA ROAD (US 25)

PROJECT STPR 461-1(6)  
NUMBER: FD 52-102-0025-015-016  
LETTING DATE: 4-23-99

DESIGNED BY: 2-24-99 by P.R. Frank  
ASST. DISTRICT ENGINEER FOR PRE-CONSTRUCTION

PLAN APPROVED: 3-22-99 by J.M. Yarnall  
STATE HIGHWAY ENGINEER



LAYOUT MAP

DESIGN CRITERIA	
CLASS OF HIGHWAY	ARTERIAL RURAL
TYPE OF TERRAIN	MOUNTAINOUS
DESIGN SPEED	70 KMPH
REQUIRED NPSD	100
REQUIRED PSD	505
LEVEL OF SERVICE	
ADT PRESENT ( 1996 )	9300
ADT FUTURE ( 2012 )	15,500
DHV (2012)	1600
D %	8
T %	5

GEOGRAPHIC COORDINATES	
LATITUDE	37 DEGREES 22 MINUTES NORTH
LONGITUDE	84 DEGREES 20 MINUTES WEST

DESIGNED	
% RESTRICTED SD	
LEVEL OF SERVICE	
MAX. DISTANCE W/O PASSING	

GROSS LENGTH	NET LENGTH	RAILROAD CROSSINGS NO.	BRIDGES
2,140 METERS 2.14 km	2,140 METERS 2.14 km	NOT INCLUDED	NOT INCLUDED
ADDED FOR EQUALITIES 0 METERS	ADDED FOR EQUALITIES 0 METERS	NOT INCLUDED	NOT INCLUDED
DEDUCTED FOR EQUALITIES 0 METERS	DEDUCTED FOR EQUALITIES 0 METERS	NOT INCLUDED	NOT INCLUDED

NO. SETS \_\_\_\_\_ DATE \_\_\_\_\_

RECORD PLANS \_\_\_\_\_ DATE \_\_\_\_\_

CONSTRUCTION PLANS \_\_\_\_\_ DATE \_\_\_\_\_

REVIEWED BY \_\_\_\_\_ DIVISION OF CONSTRUCTION \_\_\_\_\_ DATE \_\_\_\_\_

PREPARED BY \_\_\_\_\_ CHECKED BY \_\_\_\_\_ APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

Cell Library: mrcodwcy.cel  
Cell Number: 51  
62-JUL-1996 09:28

6-93 FORM NO. 1m

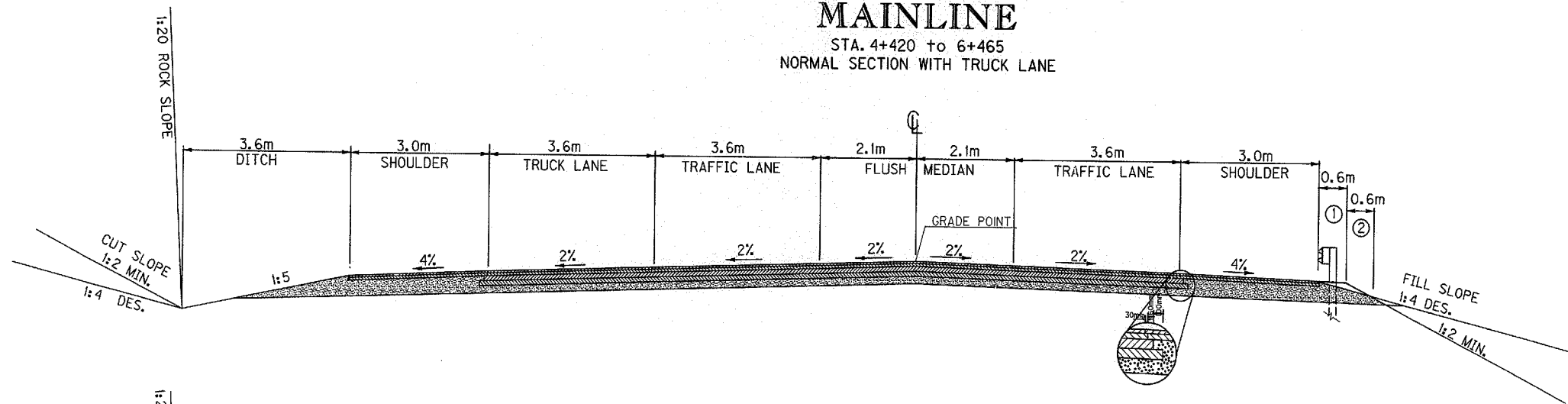
# TYPICAL SECTIONS

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		2	104

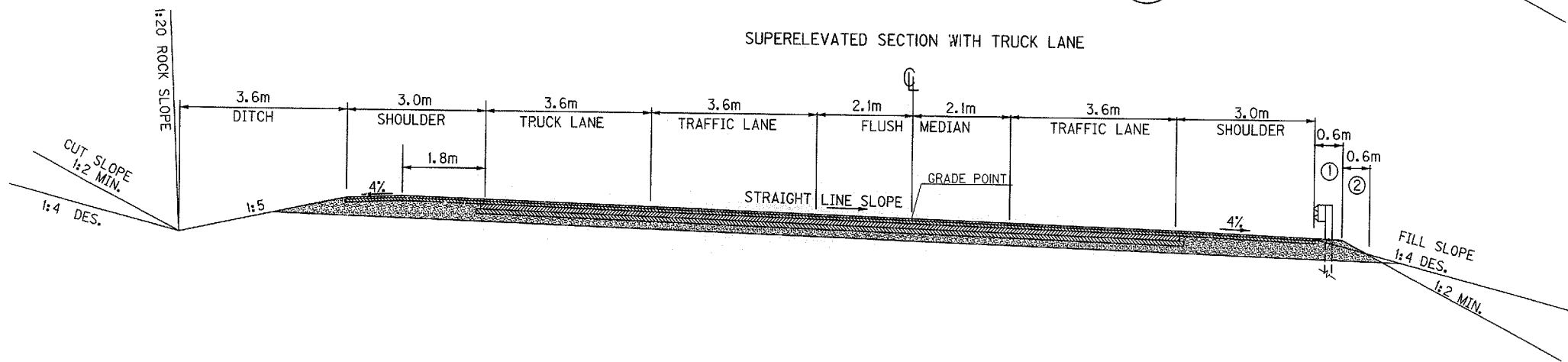
ITEM# 8-143.00

## MAINLINE

STA. 4+420 to 6+465  
NORMAL SECTION WITH TRUCK LANE



## SUPERELEVATED SECTION WITH TRUCK LANE



### MAINLINE TRAFFIC LANES: (WIDENING)

DGA BASE	150mm DEPTH
CL3 ASPHALT BASE 19E (PG 64-22)	260mm DEPTH (100mm + 100mm+60mm)

### (OVERALL)

ASPHALT MIX LEVEL & WEDGE (PG64-22)	M TON (Est. from X-Sept.)
CL4 ASPHALT SURFACE 9.5C (PG 64-22)	30mm DEPTH

### (NEW CONSTRUCTION)

DGA BASE	150mm DEPTH
CL3 ASPHALT BASE 19E (PG 64-22)	260mm DEPTH (100mm + 100mm+60mm)
CL4 ASPHALT SURFACE 9.5C (PG 64-22)	30mm DEPTH

### SHOULDERS:

DGA BASE	FULL DEPTH
ASPHALT BASE CLASS 1 (PG 64-22)	60mm DEPTH
ASPHALT SURFACE CL 1-0 (PG 64-22)	30mm DEPTH

### ASPHALT SEAL (2 APPLICATIONS):

EMULSIFIED ASPHALT RS-2	1.3 KG/SQ M
ASPHALT SEAL AGGREGATE	10.8 KG/SQ M (SIZE NO. 8 OR 9M)

- ① Shoulder Shall Be Widened 0.6m Where Guardrails Required
- ② Asphalt Seal Required From Outside Edge of Paved Shoulder to a Point 0.6m Down the Ditch or Fill Slope.

SEE CROSS SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDER

PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

Cell Librory: mrcodway.ca  
Cell Names: sp  
22-FEB-1999 08:34

6-93  
FORM NO. 2m

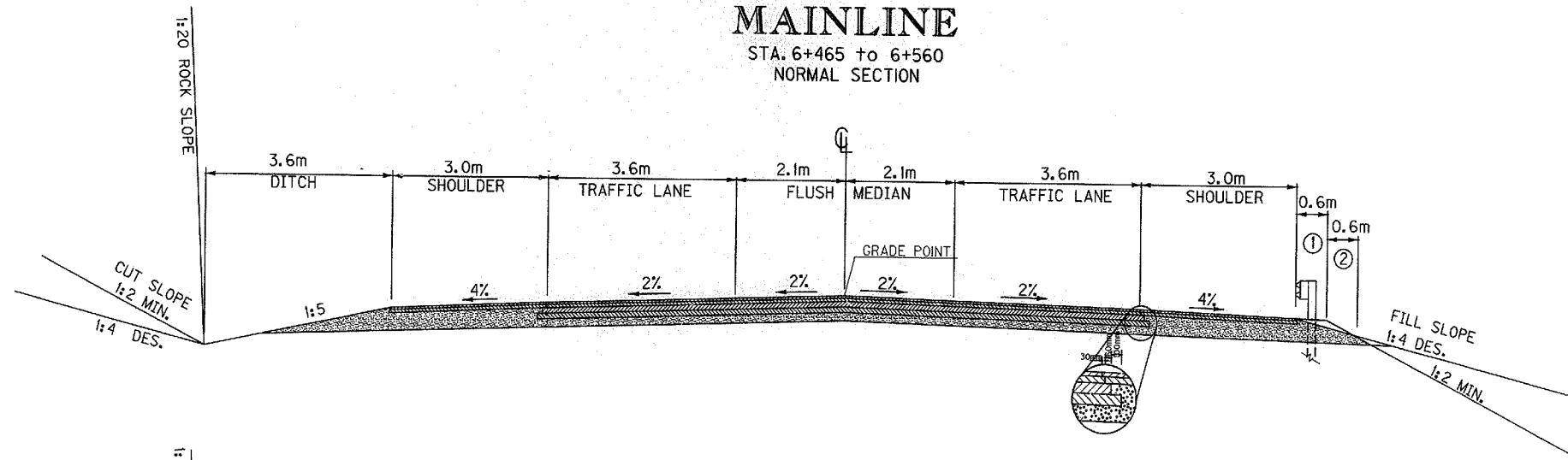
# TYPICAL SECTIONS

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		2a	104

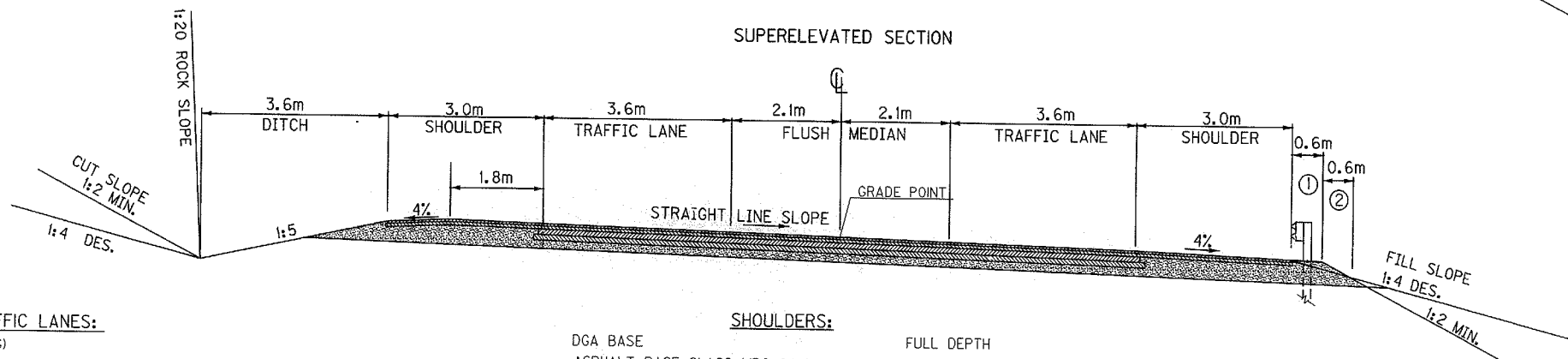
ITEM# 8-143.00

## MAINLINE

STA. 6+465 to 6+560  
NORMAL SECTION



## SUPERELEVATED SECTION



### MAINLINE TRAFFIC LANES: (WIDENING)

DGA BASE	150mm DEPTH
CL3 ASPHALT BASE 19E (PG 64-22)	260mm DEPTH (100mm + 100mm+60mm)

### (OVERALL)

ASPHALT MIX LEVEL & WEDGE (PG64-22)	M TON (Est. from X-Sept.)
CL4 ASPHALT SURFACE 9.5C (PG 64-22)	30mm DEPTH

### (NEW CONSTRUCTION)

DGA BASE	150mm DEPTH
CL3 ASPHALT BASE 19E (PG 64-22)	260mm DEPTH (100mm + 100mm+60mm)
CL4 ASPHALT SURFACE 9.5C (PG 64-22)	30mm DEPTH

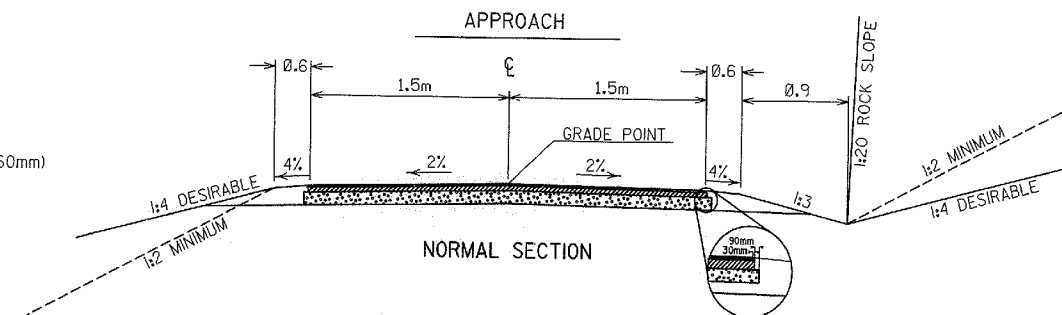
### SHOULDERS:

DGA BASE	FULL DEPTH
ASPHALT BASE CLASS I (PG 64-22)	60mm DEPTH
ASPHALT SURFACE CL I-0 (PG 64-22)	30mm DEPTH

### ASPHALT SEAL (2 APPLICATIONS):

EMULSIFIED ASPHALT RS-2	1.3 KG/SQ M
ASPHALT SEAL AGGREGATE	10.8 KG/SQ M (SIZE NO. 8 OR 9M)

### APPROACH



### NORMAL SECTION

DGA BASE	100mm DEPTH
ASPHALT BASE CLASS I (PG 64-22)	90mm DEPTH
ASPHALT SURFACE CL I-20/30 (PG 64-22)	30mm DEPTH

- ① Shoulder Shall Be Widened 0.6m Where Guardrails Required
- ② Asphalt Seal Required From Outside Edge of Paved Shoulder to a Point 0.6m Down the Ditch or Fill Slope.

SEE CROSS SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDER

3

TYPICAL SECTION SHEET

DATE \_\_\_\_\_  
DATE \_\_\_\_\_  
DATE \_\_\_\_\_  
PREPARED BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
APPROVED BY \_\_\_\_\_

Cell Library: mroadway.cel  
Cell Names: 90  
22-FEB-1999 10:48

6-93  
FORM NO. 2a

## GENERAL SUMMARY

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Rockcastle		2b	104

ITEM NO. 8-143.00

ITEM CODE	ITEM	UNIT	TOTAL PROJECT
2200	ROADWAY EXCAVATION	CU M	(A) 48,922
2545	CLEARING AND GRUBBING (B)	LP SUM	1
2351	GUARDRAIL-STEEL W BEAM-SINGLE FACE	METER	757
2391	GUARDRAIL END TREATMENT TYPE 4A	EACH	2
2360	GUARDRAIL TERMINAL SECT. NO. 1	EACH	2
2434	R/W MARKER RURAL TYPE 1	EACH	7
2726	STAKING	LP SUM	1
2242	WATER (C)	CU M	2,750
2650	MAINTAIN AND CONTROL TRAFFIC	LP SUM	1
2568	MOBILIZATION	LP SUM	1
2569	DEMOBILIZATION	LP SUM	1
6589	PAVEMENT MARKER TYPE V MONO-DIRECTIONAL (WHITE)	EACH	123
6591	PAVEMENT MARKER TYPE V BI-DIRECTIONAL (YELLOW)	EACH	237
2705	SILT CHECKS (D)	EACH	15
	CLEAN SILT CHECKS	EACH	15
2701	SILT FENCE	METER	652
	CLEAN SILT FENCE	METER	652
5985	SEEDING & PROTECTION	SQ. M.	15,000
5966	TOPDRESSING FERTILIZER	M. TON	4
2562	SIGNS	SQ. M.	45.52
6514	PAVEMENT STRIPING-PERM. PAINT 102mm	METER	8775
6510	PAVEMENT STRIPING- TEMPORARY PAINT 102mm	METER	8560
2014	BARRICADES-TYPE III	EACH	2
2381	REMOVING GUARDRAIL	METER	445
1310	REMOVING PIPE	METER	1
2625	REMOVING HEADWALL	EACH	1
5989	SPECIAL SEEDING CROWN VETCH	SQ.M.	15,200

## PAVING SUMMARY

ITEM CODE	ITEM	UNIT	MAINLINE	SHOULDERS	APPROACH	ENTRANCES	TOTAL PROJECT
	CL4 ASPHALT SURFACE 9.5C PG 64-22	M TON	1977				1977
149	ASPH CONC SURFACE CLASS I-0 PG64-22	M TON		906	15	224	1145
		M TON					
190	ASPH. MIX FOR LEVEL & WEDG PG64-22	M TON	3290				3290
	CL3 ASPHALT BASE 19E PG 64-22	M TON	11978				11978
120	ASPH. CONC BASE CLASS I PG64-22	M TON		1810	39	568	14395
1	D G A BASE (1)	M TON	7221	15087	92	819	23219
20	TRAFFIC BOUND BASE (2) (E)	M TON					100
100	ASPHALT SEAL AGGREGATE	M TON		56			56
291	EMULSIFIED ASPHALT RS-2	M TON		7			7

### NOTES

ALL BITUMINOUS CONCRETE MIXTURES SHALL BE ESTIMATED AT 2.35 kg PER sq m PER mm OF DEPTH, UNLESS NOTED OTHERWISE.

- ① ESTIMATED AT 2.45 kg PER sq m PER mm OF DEPTH.
- ② ESTIMATED AT 2.15 kg PER sq m PER mm OF DEPTH.

- (A) INCLUDES EMBANKMENT BENCH
- (B) APPROX. 3.3 HECTARES
- (C) FOR CONTROLLING DUST ONLY
- (D) SILT CHECK TYPE II
- (E) FOR MAINTENANCE OF TRAFFIC ONLY

### TOTAL PROJECT EARTHWORK CALCULATIONS

7,233 CU. M. COMMON  
 34,547 CU. M. COMMON SOLID ROCK  
 + 5,182 +15% CU. M. SWELL SOLID ROCK  
 46,962 TOTAL AVAILABLE EXCAVATION  
 -36,205 TOTAL EMBANKMENT  
 10,757 CU. M. WASTE  
 36,205 CU. M. EMBANKMENT  
 + 3,258 +9% CU. M. SHRINK ON EMB.  
 39,463 TOTAL EMBANKMENT  
 (A) 7,142 CU. M. EMBANKMENT BENCH

## PAVING AREAS

ITEM	MAINLINE	SHOULDERS	APPROACH	ENTRANCES	TOTAL PROJECT
S Q U A R E M E T E R					
30mm CL4 ASPHALT SURFACE 9.5C PG 64-22	28040				28040
BIT. MIX LEVEL & WEDGE PG64-22 (EST. FROM X-SECT.)	1400	CUBIC METERS ESTIMATED FROM XSECTIONS			
60mm CL3 ASPHALT BASE 19E PG 64-22	20850				33690
200mm (2 100m lifts) CL3 ASPHALT BASE 9E PG 64-22	19230				19230
75mm ASPH. CONC. BASE CL I PG64-22			221	3222	3443
100mm DGA BASE			376	3342	3718
150mm DGA BASE	19650	6158 M <sup>2</sup>			
30mm ASPH CONC. SURF CL I-0 PG64-22		12840	217	3175	16232
EMULSIFIED ASPHALT RS-2		2568			2568
ASPHALT SEAL AGGREGATE		2568			2568
60mm ASPHALT BASE CLASS I PG 64-22		12840			

PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

Cell Library: m:roadway.cel  
 Cell Names: sqds  
 22-FEB-1995 16:18  
 6-93  
 FORM NO. 2Fm

### PIPE DRAINAGE SUMMARY

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Rockcastle		2c	104

SHEET NO.	UNIT TO BID ON	SKEW	COVER HEIGHT	DESIGN PH LEVEL	ACCUMULATED QUANTITIES																REMARKS							
					A21	A22	A23	A24	A25	A26	A27	A28	A29	A30	A31	A32	A33	A34	A35									
ITEM CODE			1644	521	522	524	526	466	468	471	1490	1493	1452	8100	8150	2484	441	440	461	464								
UNIT TO BID	METER	EACH	METER																									
22	LT. 5+146.440	45° LT.	4.0	M																								
23	LT. 5+580	0°	0	M							11.6																	
23	LT. 5+580 TO 5+610.190	0°	3.0	M		29.2																						
23	LT. 5+610.190	0°	1.8	M																								
23	LT. 5+610.190 TO LT. 5+637	0°	1.5	M			27.2																					
24	LT. 5+637	0°	1.5	M																								
24	5+860	0°	1.5	M																								
24	6+080	0°	6.0	M																								
25	LT. 6+242	0°	1.0	M																								
25	LT. 6+242 TO LT. 6+276	0°	1.0	M																								
25	RT. 6+252	0°	1.0	M																								
25	RT. 6+252 TO RT. 6+272	0°	1.0	M																								
25	RT. 6+272	0°	1.0	M																								
25	RT. 6+272 TO RT. 6+295	0°	1.0	M																								
25	LT. 6+276	0°	1.0	M																								
25	LT. 6+276 TO LT. 6+308	0°	2.2	M																								
26	RT. 6+295	0°	2.2	M																								
26	LT. 6+308	0°	1.7	M																								
26	RT. 6+295 TO RT. 6+310.5	0°	1.0	M																								
26	LT. 6+308 TO RT. 6+310.5	0°	1.8	M																								
26	RT. 6+310.5 TO RT. 6+420	0°	1.8	M																								
27	RT. 6+420	0°	1.0	M																								
27	RT. 6+420 TO LT. 6+434	0°	1.0	M																								
9	RT. 5+506	0°	1.0	M																								
11	RT. 6+003.50	0°	2.0	M																								
11	RT. 6+068	0°	3.0	M																								
11	LT. 6+015	0°	1.0	M																								
11	LT. 6+100	0°	1.0	M																								
11	LT. 6+142	0°	1.0	M																								
13	LT. 6+252	0°	1.0	M																								
13	LT. 6+290	0°	1.0	M																								
TOTALS																												

PIPE DRAINAGE SUMMARY

PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

Cell Library: mrcrookway.ca  
 Cell Name: spds  
 18-FEB-1999 10:54

6-93  
 FORM NO. 24n

METRIC



## GENERAL NOTES

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		2E	104

8-0143.00

### PROPOSAL ATTACHMENTS

SPECIAL NOTE FOR FABRIC WRAPPED BACKFILL DRAIN MATERIALS (1-1-99)

SPECIAL NOTE FOR MINERAL ADMIXTURES IN PORTLAND CEMENT CONCRETE (1-1-99)

SPECIAL NOTE FOR SUPERPAVE MIXTURES (1-1-99)

THE CONTROL OF ACCESS ON THIS PROJECT SHALL BE BY PERMIT.

### DETAIL SHEETS

ANY STANDARD DRAWINGS REFERRED TO IN THE PLANS OR PROPOSAL THAT ARE NOT ATTACHED AS HALF-SIZE SHEETS HAVE BEEN INCLUDED ELSEWHERE IN THE PLANS AS FULL-SIZE DETAIL SHEETS.

### N. G. S. (U. S. G. S.) BENCH MARKS

THE CONTRACTOR IS NOT TO DISTURB N. G. S. (U. S. G. S.) BENCH MARKS IN ANY MANNER UNLESS DIRECTED TO DO SO BY THE ENGINEER.

### UTILITIES (HAZARDOUS OR FLAMMABLE MATERIALS)

THE CONTRACTOR IS ADVISED TO EXERCISE CAUTION IN HIS OPERATIONS IN AREAS WHERE PLANS INDICATE THE PRESENCE OF A GAS LINE OR OTHER LINES CARRYING HAZARDOUS MATERIAL.

### TRAFFIC CONTROL ITEMS

UNLESS OTHERWISE DIRECTED, ALL SALVAGABLE TRAFFIC CONTROL ITEMS, DEVICES, MATERIALS AND INCIDENTALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR WHEN NO LONGER NEEDED FOR MAINTAINING AND CONTROLLING TRAFFIC DURING CONSTRUCTION.

### NOTICE - CAUTION - CLASSIFICATION

WITHOUT REGARD TO THE MATERIALS ENCOUNTERED, ALL ROADWAY AND DRAINAGE EXCAVATION SHALL BE UNCLASSIFIED AND SHALL BE DESIGNATED AS "ROADWAY EXCAVATION". IT SHALL BE DISTINCTLY UNDERSTOOD THAT ANY REFERENCE TO ROCK, EARTH, OR ANY OTHER MATERIAL ON THE PLANS OR CROSS-SECTIONS, WHETHER IN NUMBERS, WORDS, LETTERS OR LINES, IS SOLELY FOR THE DEPARTMENT'S INFORMATION AND IS NOT TO BE TAKEN AS AN INDICATION OF CLASSIFIED EXCAVATION OR THE QUANTITY OF EITHER ROCK, EARTH OR ANY OTHER MATERIAL INVOLVED. THE BIDDER MUST DRAW HIS OWN CONCLUSION AS TO THE CONDITIONS TO BE ENCOUNTERED. THE DEPARTMENT DOES NOT GIVE ANY GUARANTEE AS TO THE ACCURACY OF THE DATA AND NO CLAIM WILL BE CONSIDERED FOR ADDITIONAL COMPENSATION IF THE MATERIALS ENCOUNTERED ARE NOT IN ACCORD WITH THE CLASSIFICATION SHOWN.

### EROSION CONTROL

SEED MIXTURE NO. 1 SHALL BE USED.

### ASPHALT PAVEMENT RIDEABILITY

PAVEMENT RIDEABILITY REQUIREMENTS, IN ACCORDANCE WITH SECTION 412 OF THE STANDARD SPECIFICATIONS, SHALL APPLY ON THIS PROJECT.

### COMPACTION OF ASPHALT MIXTURES

THE CONTRACTOR IS ADVISED THAT THE COMPACTION OF ASPHALT MIXTURES FURNISHED FOR MAINLINE USAGE AT 25 MM (ONE INCH) OR GREATER ON THIS PROJECT WILL BE ACCEPTED BY OPTION A ACCORDING TO SUBSECTIONS 402.03.02 AND 403.03.10 OF THE STANDARD SPECIFICATIONS. THE COMPACTION OF ALL OTHER ASPHALT MIXTURES WILL BE ACCEPTED BY OPTION B.

### PAVED SHOULDERS AT INTERSECTING ROADS

THE SHOULDERS ON THIS PROJECT WITHIN THE LIMITS SHOWN ON THE CURRENT EDITION OF STANDARD DRAWING RPM-110 SHALL BE PAVED ON THE MAIN LINE, ROAD APPROACHES OR INTERSECTING ROADS IN ACCORDANCE WITH THE PAVED SHOULDER DESIGN SHOWN ELSEWHERE IN THESE PLANS.

### STANDARD DRAWINGS FOR HEADWALLS

STANDARD DRAWINGS FOR HEADWALLS (RDH SERIES) ARE NOT ATTACHED TO THESE PLANS BUT ARE AVAILABLE IN THE SUPPLEMENT TO THE STANDARD DRAWING BOOK, WHICH MAY BE OBTAINED FROM THE MANAGEMENT SERVICES DIVISION OF THE DEPARTMENT OF HIGHWAYS IN FRANKFORT, KENTUCKY AT A COST OF \$5.00 PER COPY.

### PIPE REMOVAL

CONTRARY TO THE STANDARD SPECIFICATIONS, THE REMOVAL OF PIPE, WHETHER SHOWN ON THE PLANS OR NOT, IS INCIDENTAL TO THE CONTRACT.

### GUARDRAIL END TREATMENT TYPE 4A

THE WIDENING OF THE EMBANKMENT TO ACCOMMODATE GUARDRAIL END TREATMENTS TYPE 4A CONSTRUCTED IN ACCORDANCE WITH APPLICABLE PLANS AND STANDARD DRAWINGS SHALL BE COMPLETED WITH ROADWAY EXCAVATION AS SHOWN IN PLANS AND/OR PROPOSAL.

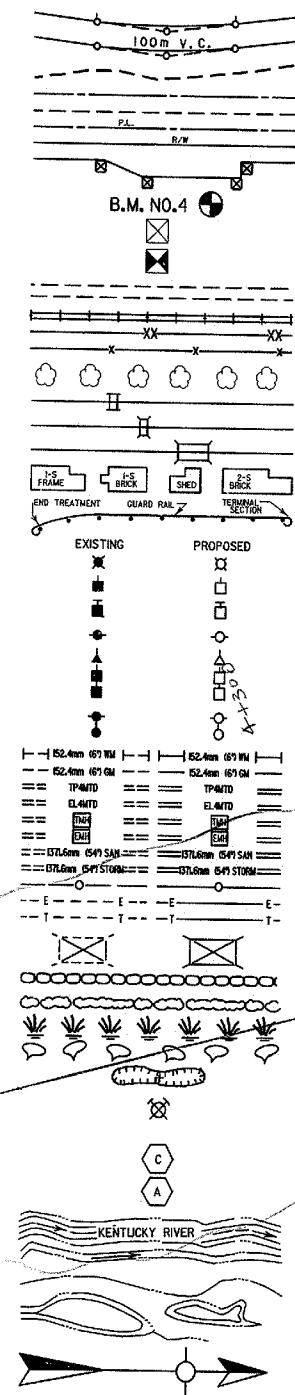
COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		3	104

ITEM # 08-143.00

PCP #	STATION	OFFSET	TYPE OF MONUMENT
1	4+419.871	LT. 123.332	IRON PIN & CAP
2	4+419.682	LT. 78.520	IRON PIN & CAP
3	4+419.528	LT. 39.335	IRON PIN & CAP
4	5+017.174	LT. 152.050	IRON PIN & CAP
5	5+016.971	LT. 112.201	IRON PIN & CAP
6	5+016.714	LT. 62.581	IRON PIN & CAP
7	5+016.462	RT. 9.523	IRON PIN & CAP
8	5+278.451	RT. 34.653	IRON PIN & CAP
9	5+309.971	RT. 47.535	IRON PIN & CAP
10	5+336.257	RT. 62.356	IRON PIN & CAP
11	5+570.496	LT. 37.190	PK NAIL
12	5+584.794	LT. 57.089	PK NAIL
13	5+601.793	LT. 80.756	PK NAIL
14	5+926.058	LT. 31.338	PK NAIL
15	6+017.049	LT. 28.940	PK NAIL
16	6+384.877	RT. 32.106	PK NAIL
17	6+383.371	RT. 53.567	PK NAIL
18	6+382.291	RT. 70.028	PK NAIL
19	6+510.200	RT. 32.602	IRON PIN & CAP
20	6+533.962	RT. 41.660	IRON PIN & CAP
21	6+482.859	RT. 24.114	IRON PIN & CAP
22			

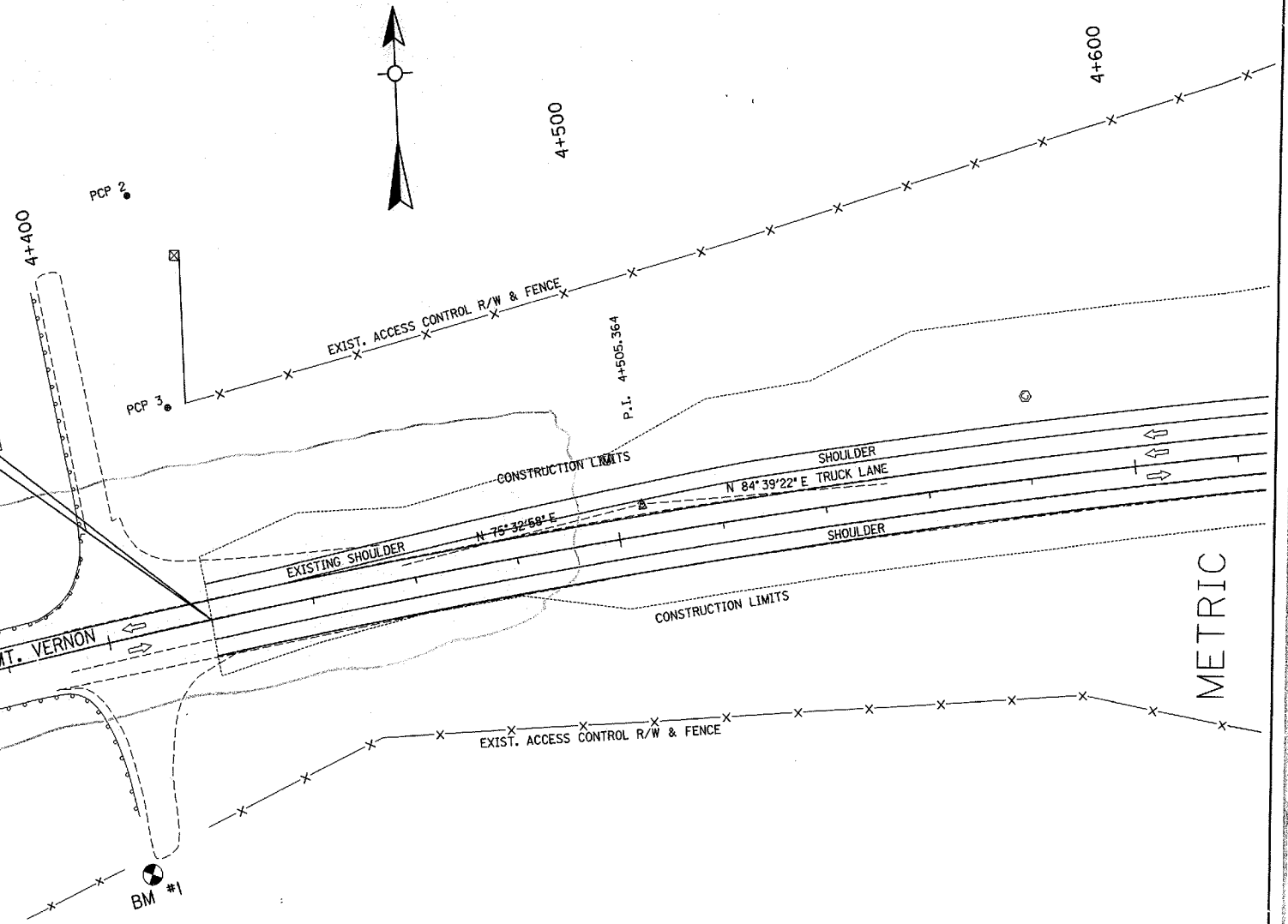
\* LEFT STA. ~~4+434~~ <sup>4+424</sup> BEGIN 9m TAPER  
 \* LEFT STA. ~~4+525~~ <sup>4+340</sup> END TAPER BEGIN TRUCK LANE  
 \* EXTENDED TRAIL LANE  
 (SEE C.O. # 2 & 3A)

- CONVENTIONAL SIGNS**
- SURVEY LINE
  - GRADE LINE
  - GROUND LINE
  - COUNTY LINE
  - CORPORATE LIMITS
  - PROPERTY LINE
  - PROPOSED RIGHT OF WAY
  - RIGHT OF WAY MARKERS
  - BENCH MARK
  - RURAL RIGHT OF WAY MARKER
  - MUNICIPAL RIGHT OF WAY MARKER
  - EXISTING ROAD
  - RAILROAD
  - FENCE (CONTROLLED ACCESS)
  - FENCE (EXCEPT STONE AND HEDGE)
  - TREES
  - PIPE CULVERT
  - CULVERT
  - BRIDGE
  - BUILDINGS
  - GUARDRAIL
  - LIGHTING POLE
  - POWER POLE
  - JOINT POWER & TELEPHONE POLE
  - TELEPHONE & TELEGRAPH POLE
  - ANCHOR, POWER OR TELEPHONE STUB POWER
  - STUB TELEPHONE
  - WATER MAIN
  - GAS MAIN
  - TELEPHONE DUCT
  - ELECTRIC DUCT
  - TELEPHONE MANHOLE
  - ELECTRIC MANHOLE
  - SANITARY SEWER
  - STORM SEWER
  - SEWER MANHOLE
  - DIRECT BURIAL ELECTRIC CABLE
  - DIRECT BURIAL TELEPHONE CABLE
  - TOWER
  - STONE FENCE
  - HEDGE FENCE
  - SWAMP OR MARSH
  - SPRINGS
  - SINKHOLE
  - QUARRY SITE
  - SILT CHECK
  - SILT TRAP
  - LARGE STREAM
  - SMALL STREAM
  - INTERMITTENT STREAM
  - LAKES OR PONDS
  - NORTH POINT



STA. 4+420  
BEGIN PROJECT

See Sheet # 3A



PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

FILE NAME: PLAN1.DGN  
 Cell Library: m:\roadway.cel  
 Cell Number: spt  
 15-FEB-1995 11:12

6-93  
 FORM NO. 36m

CONTEL TELEPHONE  
 719 N. MAIN ST.  
 LONDON, KY. 40741  
 JIM PAINTER, MGR.  
 (606)878-3206

MT. VERNON CITY WATER & SEWER  
 P.O. BOX 516  
 MT. VERNON, KY. 40456  
 DENNIS McCLOURE, SUPERINTENDENT  
 (606)256-2879

KENTUCKY UTILITIES  
 ONE QUALITY STREET  
 LEXINGTON, KY. 40507  
 JOE TAKACS, ENGR.  
 (606)255-1461

JACKSON COUNTY RECC  
 P.O. BOX 307  
 McKEE, KY. 40447  
 LEE ROY COLE, MGR.  
 (606)287-7161

FALCON CLASSIC CABLE  
 4815 S. HWY 27  
 SOMERSET, KY. 42501  
 MARY FOSTER, ACTING MGR.  
 (606)679-1148

BM #1 SPIKE IN POWER POLE  
 42.580m RT. OF STA. 4+398.796  
 ELEV. 359.471

P.I. 4+505.364  
 $\Delta = 9^{\circ} 06' 24''$  Rt.  
 $R = 1800.000m$   
 $T = 143.351m$   
 $L = 286.098m$   
 $E = 5.699m$   
 $\theta = 3.2\%$   
 Runoff = 56  
 Runout = 35

**KENTUCKY**  
**DEPARTMENT OF HIGHWAYS**  
 COUNTY OF  
**ROCKCASTLE**

PROJECT STPR-4611-003  
 NUMBERS FD52-102-0025 015-016

IS \_\_\_\_\_ BY \_\_\_\_\_  
 ASST DIST ENGR FOR PRE-CONST

SCALE 1:500

STA. 4+420 - 4+600

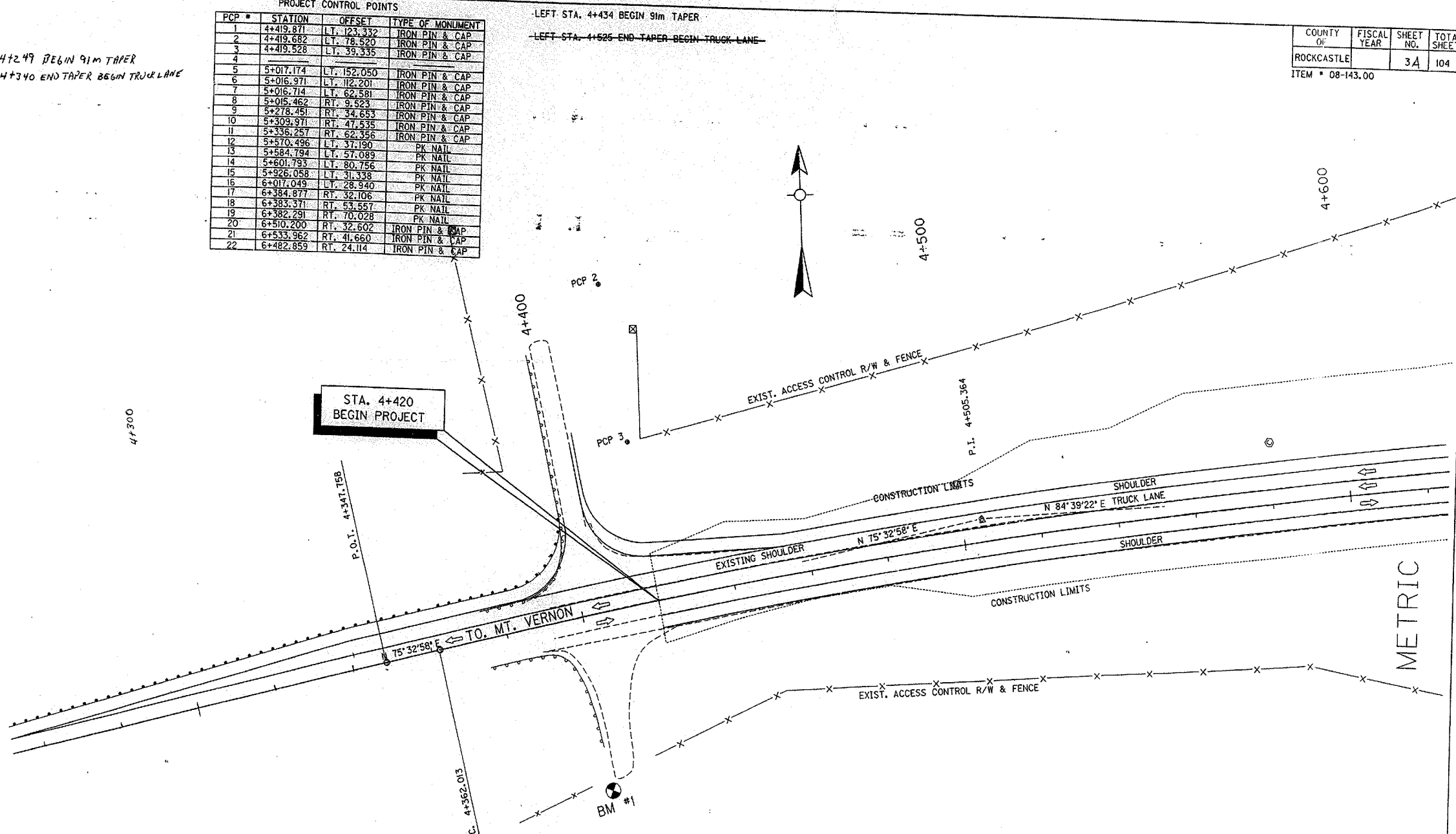


LEFT STA 4+249 BEGIN 91M TAPER  
LEFT STA 4+340 END TAPER BEGIN TRUCK LANE

PCP #	STATION	OFFSET	TYPE OF MONUMENT
1	4+419.871	LT. 123.332	IRON PIN & CAP
2	4+419.662	LT. 78.520	IRON PIN & CAP
3	4+419.528	LT. 39.335	IRON PIN & CAP
4			
5	5+017.174	LT. 152.050	IRON PIN & CAP
6	5+016.971	LT. 112.201	IRON PIN & CAP
7	5+016.714	LT. 62.581	IRON PIN & CAP
8	5+015.462	RT. 9.523	IRON PIN & CAP
9	5+278.451	RT. 34.653	IRON PIN & CAP
10	5+309.971	RT. 47.535	IRON PIN & CAP
11	5+336.257	RT. 62.356	IRON PIN & CAP
12	5+570.496	LT. 37.190	PK NAIL
13	5+584.794	LT. 57.089	PK NAIL
14	5+601.793	LT. 80.756	PK NAIL
15	5+926.058	LT. 31.338	PK NAIL
16	6+017.049	LT. 28.940	PK NAIL
17	6+384.877	RT. 32.106	PK NAIL
18	6+383.371	RT. 53.557	PK NAIL
19	6+382.291	RT. 70.028	PK NAIL
20	6+510.200	RT. 32.602	IRON PIN & CAP
21	6+533.862	RT. 41.660	IRON PIN & CAP
22	6+482.859	RT. 24.114	IRON PIN & CAP

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		3A	104

ITEM # 08-143.00



PREPARED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE

6-93  
FORM NO. 34m

File name: plant.dgn  
Cell Library: nrroadway.cel  
Cell Name: sph  
DD-MMM-YYYY HH:MM

KENTUCKY  
DEPARTMENT OF HIGHWAYS  
COUNTY OF  
ROCKCASTLE

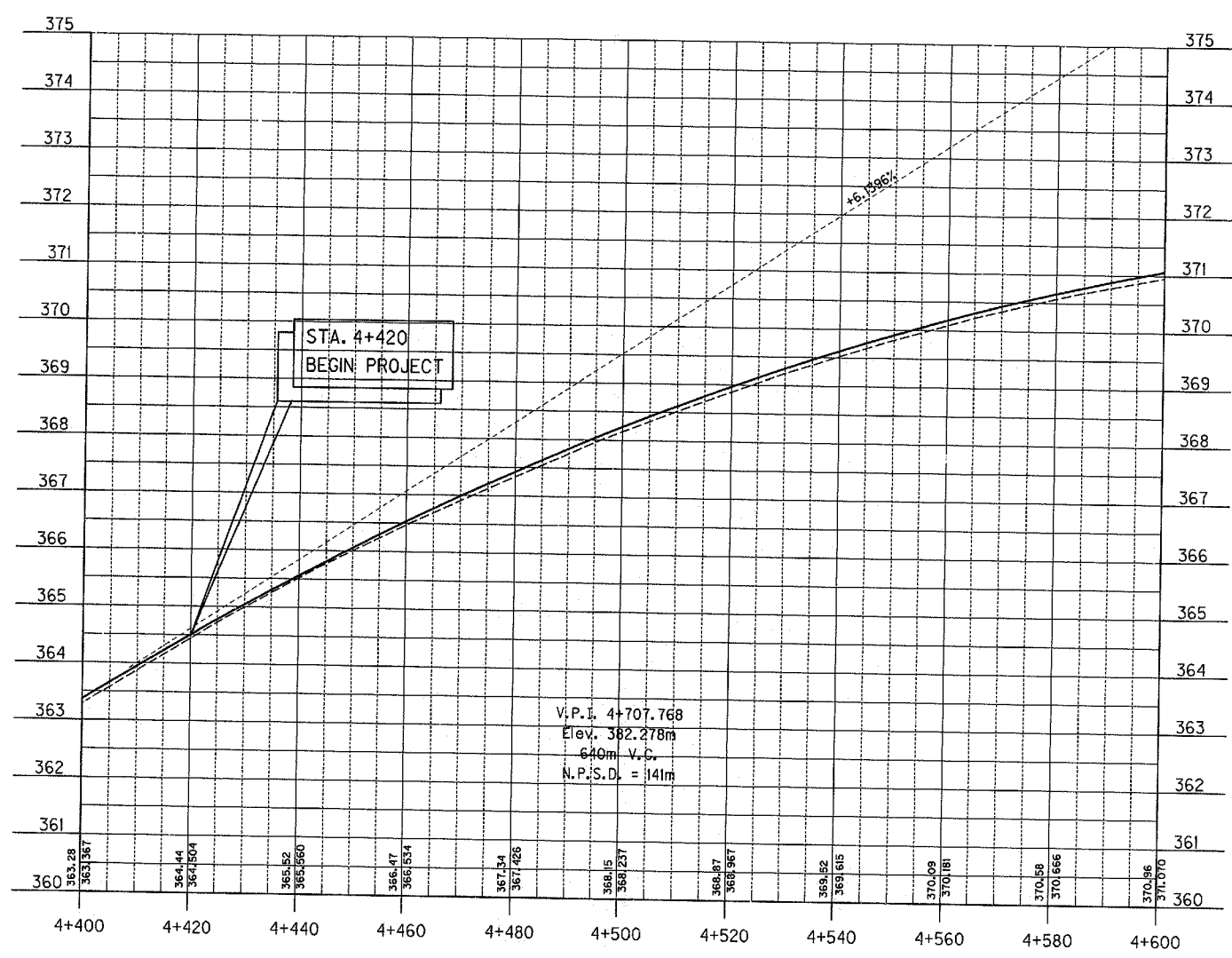
PROJECT STPR-4611-003  
NUMBERS F052-102-0025 015-016

19 BY \_\_\_\_\_  
ASST DIST ENGR FOR PRE-CONS

SCALE 1:500

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		4	104

ITEM # 08-143,00



METRIC

SCALE 1:500 HOR.  
1:50 VERT.

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**  
COUNTY OF  
**ROCKCASTLE**

PROJECT STPR-4611-003  
NUMBERS FD52-102-0025 015-016

19 \_\_\_\_ BY \_\_\_\_  
ASST DIST ENGR FOR PRE-CONST

10

PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

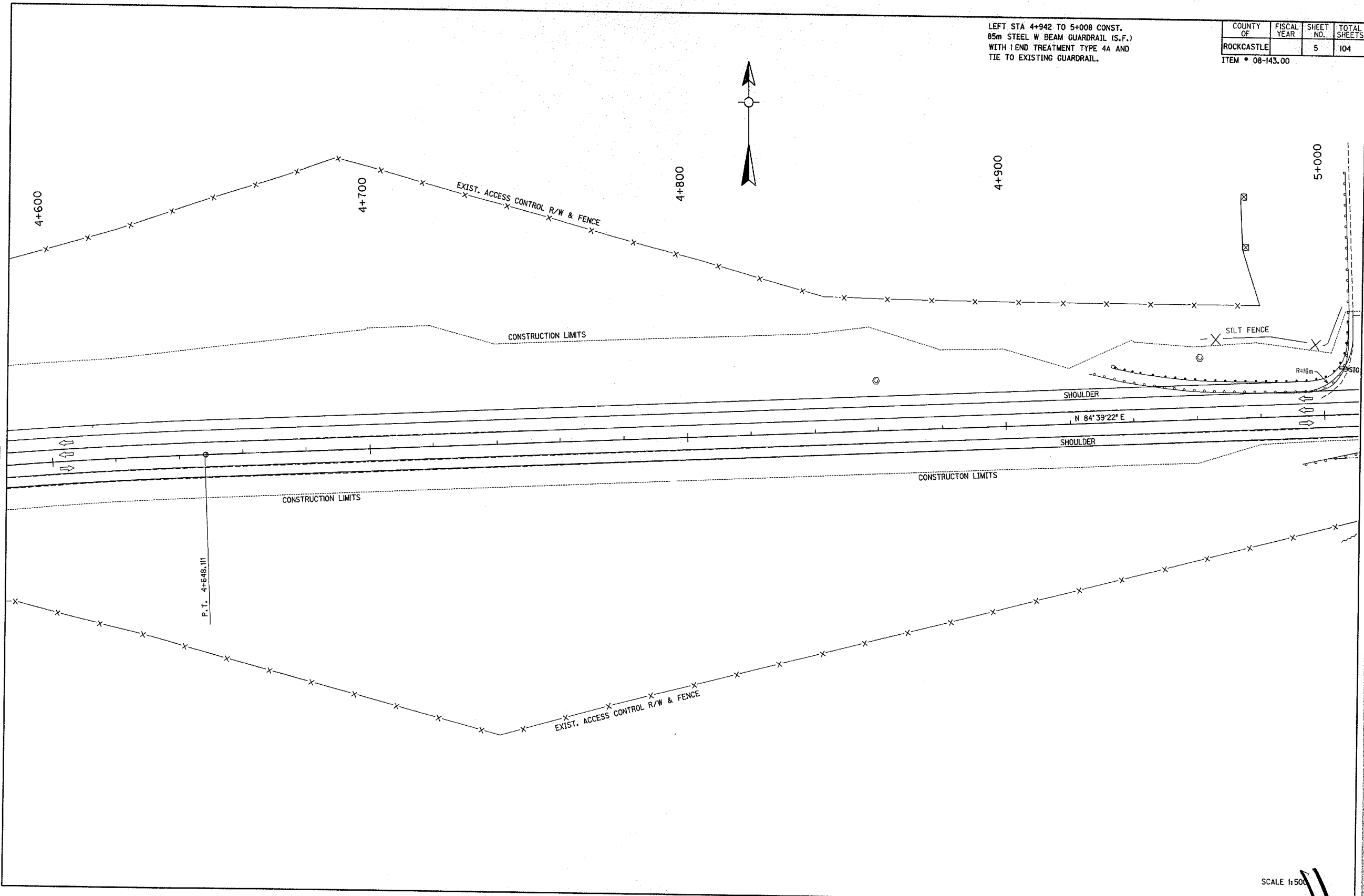
FILE NAME: US26K103N  
VIEWED VIEW: PROJ  
Cell Library: mrockway.cel  
Cell Name: sp  
18-FEB-1999 11:17

6-93  
FORM NO. 2m

LEFT STA 4+942 TO 5+008 CONST.  
 85m STEEL W BEAM GUARDRAIL (S.F.)  
 WITH END TREATMENT TYPE 4A AND  
 TIE TO EXISTING GUARDRAIL.

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		5	104

ITEM \* 08-143.00



PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

FILE NAME: PLAN2.DGN  
 Cell Number: m000003.cel  
 16-FEB-1999 11:36

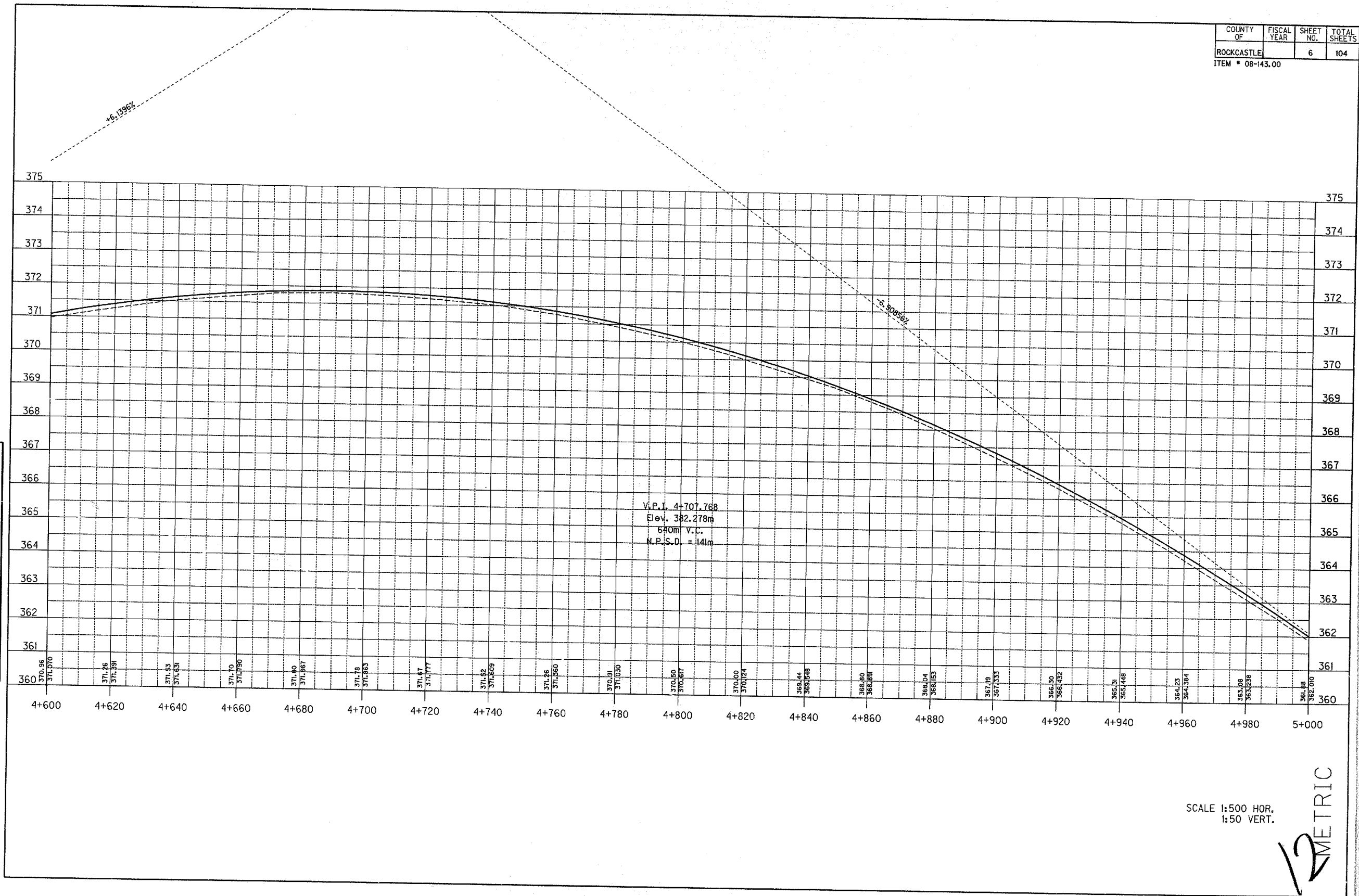
6-93  
 FORM NO. 2m

SCALE 1:500

STA. 4+600 - 5+000

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		6	104

ITEM • 08-143.00



PREPARED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE

PLOT NAME: US29M.DGN  
 SA+ED VIEW: PROF2  
 Cell Library: mroadway.cel  
 Cell Name: sp  
 16-FEB-1999 11:19

6-93  
 FORM NO. 2m

SCALE 1:500 HOR.  
 1:50 VERT.

12 METRIC

LT. STA. 5+012 CONST. 6.6m BIT FNT.

STA. 5+140 BEGIN 210m TAPER FOR FLUSH MEDIAN.

LT. STA. 5+194 CONST. 3.8m BIT. ENT.

STA. 5+350 BEGIN 4.2m FLUSH MEDIAN

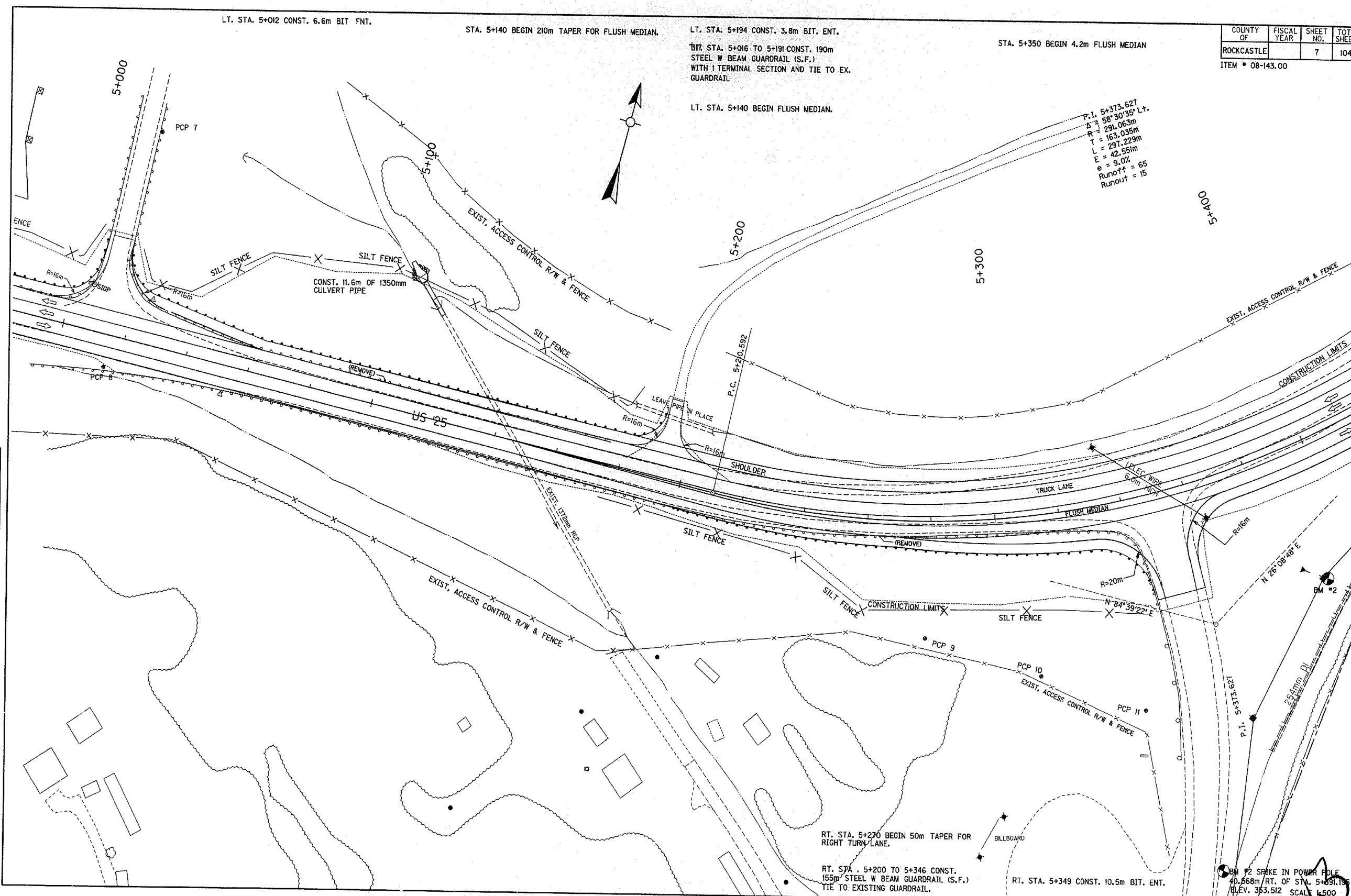
COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		7	104

ITEM \* 08-143.00

BIT STA. 5+016 TO 5+191 CONST. 190m STEEL W BEAM GUARDRAIL (S.F.) WITH 1 TERMINAL SECTION AND TIE TO EX. GUARDRAIL

LT. STA. 5+140 BEGIN FLUSH MEDIAN.

P.I. 5+373.627  
 $\Delta = 58^{\circ}30'35''$  L+  
 $R = 291.063m$   
 $T = 163.029m$   
 $L = 297.229m$   
 $E = 42.551m$   
 $\theta = 9.07^{\circ}$   
 Runoff = 65  
 Runout = 15



CONST. 11.6m OF 1350mm CULVERT PIPE

LEAVE PIPE IN PLACE

RT. STA. 5+270 BEGIN 50m TAPER FOR RIGHT TURN LANE.

RT. STA. 5+200 TO 5+346 CONST. 155m STEEL W BEAM GUARDRAIL (S.F.) TIE TO EXISTING GUARDRAIL.

RT. STA. 5+349 CONST. 10.5m BIT. ENT.

BM #2 SPIKE IN POWER POLE 40.568m/RT. OF STA. 5+391.156 ELEV. 353.512 SCALE 1:500

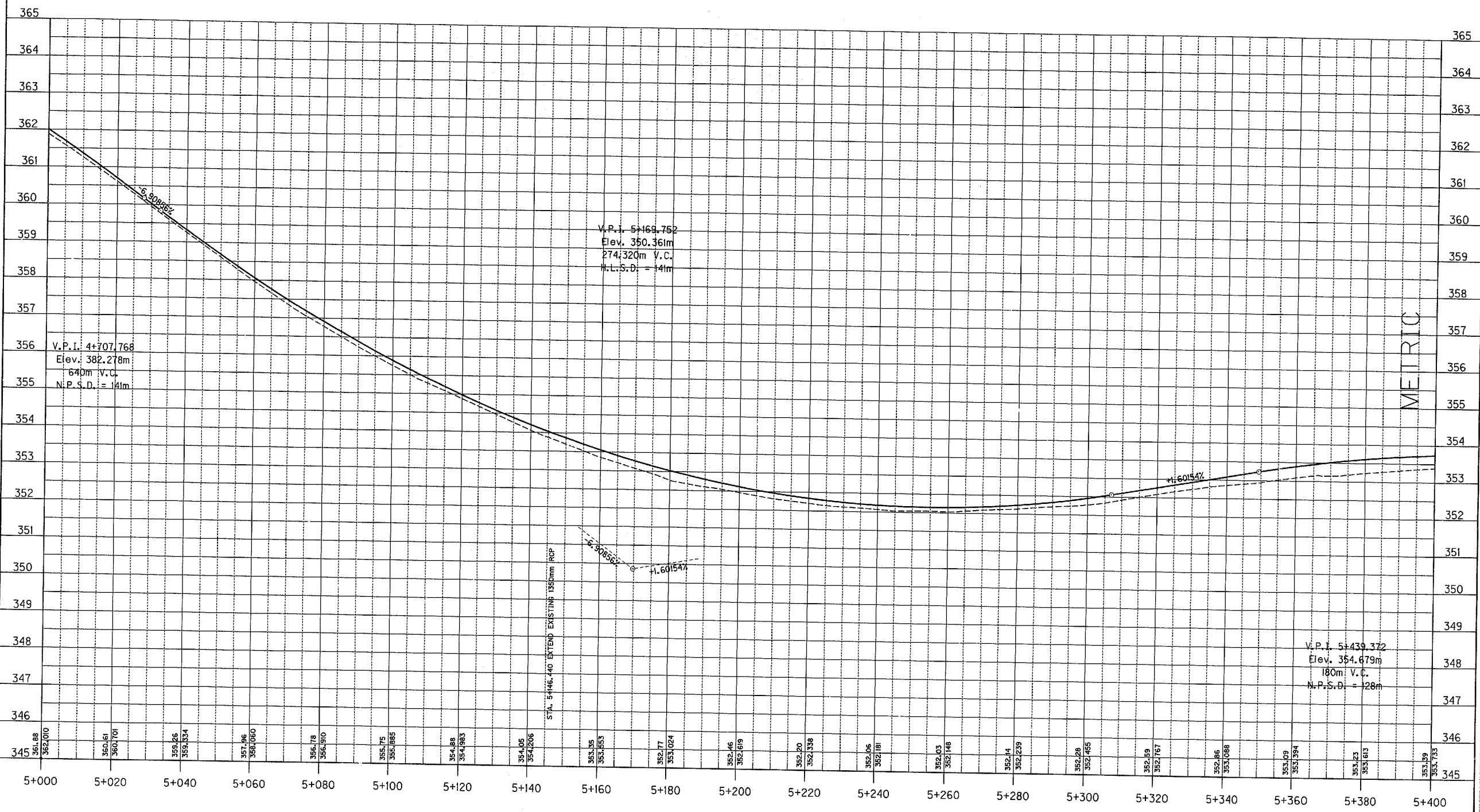
STA. 5+000 - 5+400

PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

FILE NAME: PLAN3.DGN  
 C:\Lib\or24\m\00d\c7\c01  
 16-FEB-1999 11:31

6-93  
 FORM NO. 2m

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		8	104
ITEM # 08-143.00			



PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

FILE NAME: US25M.DGN  
 SHEET VIEW: PROF3  
 Cell Library: mroadway.cel  
 Cell Name: sp  
 16-FEB-1999 11:24

6-93  
 FORM NO. 2m

SCALE 1:500 HOR.  
 1:50 VERT

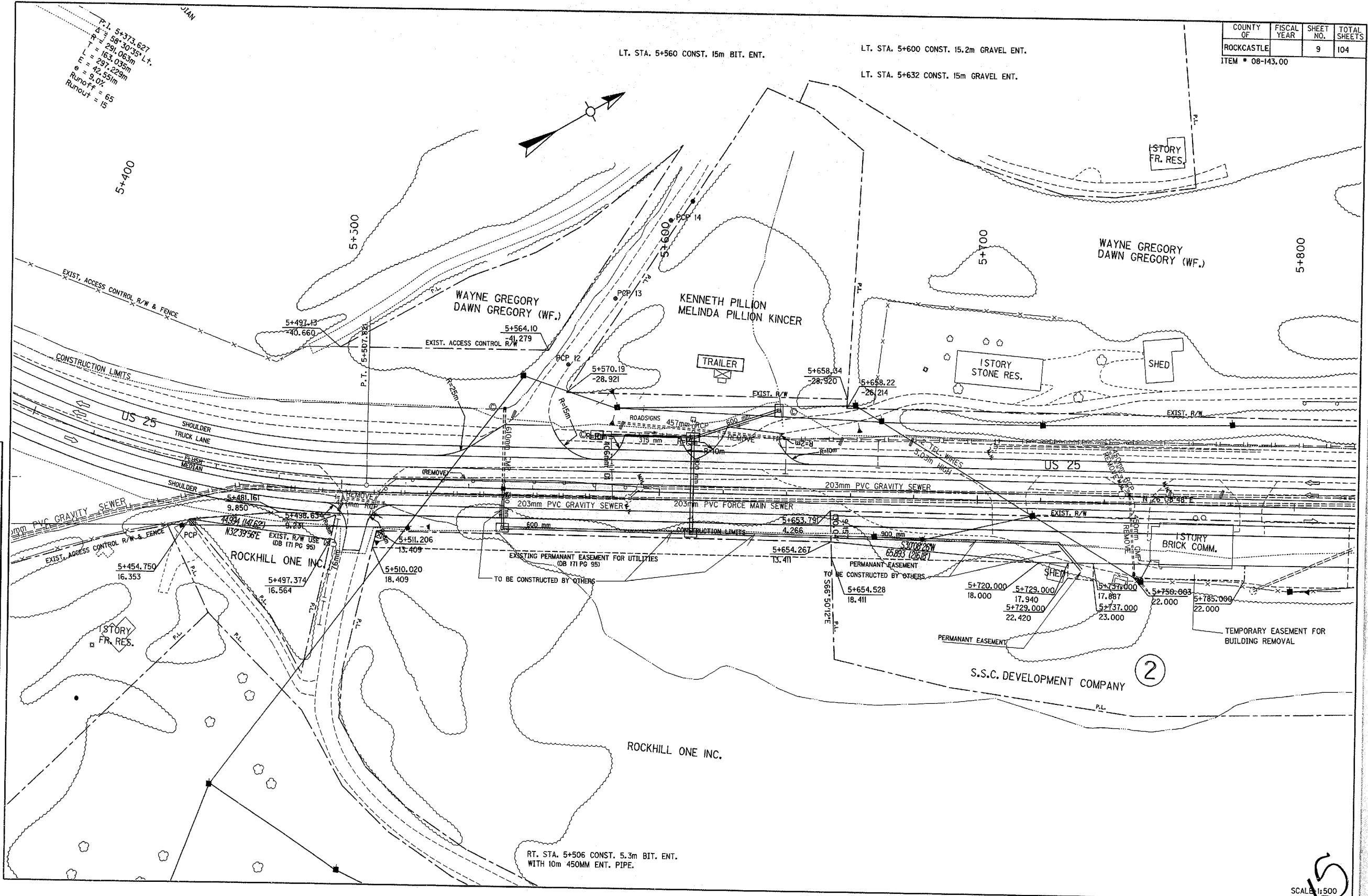
14

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		9	104

ITEM # 08-143.00

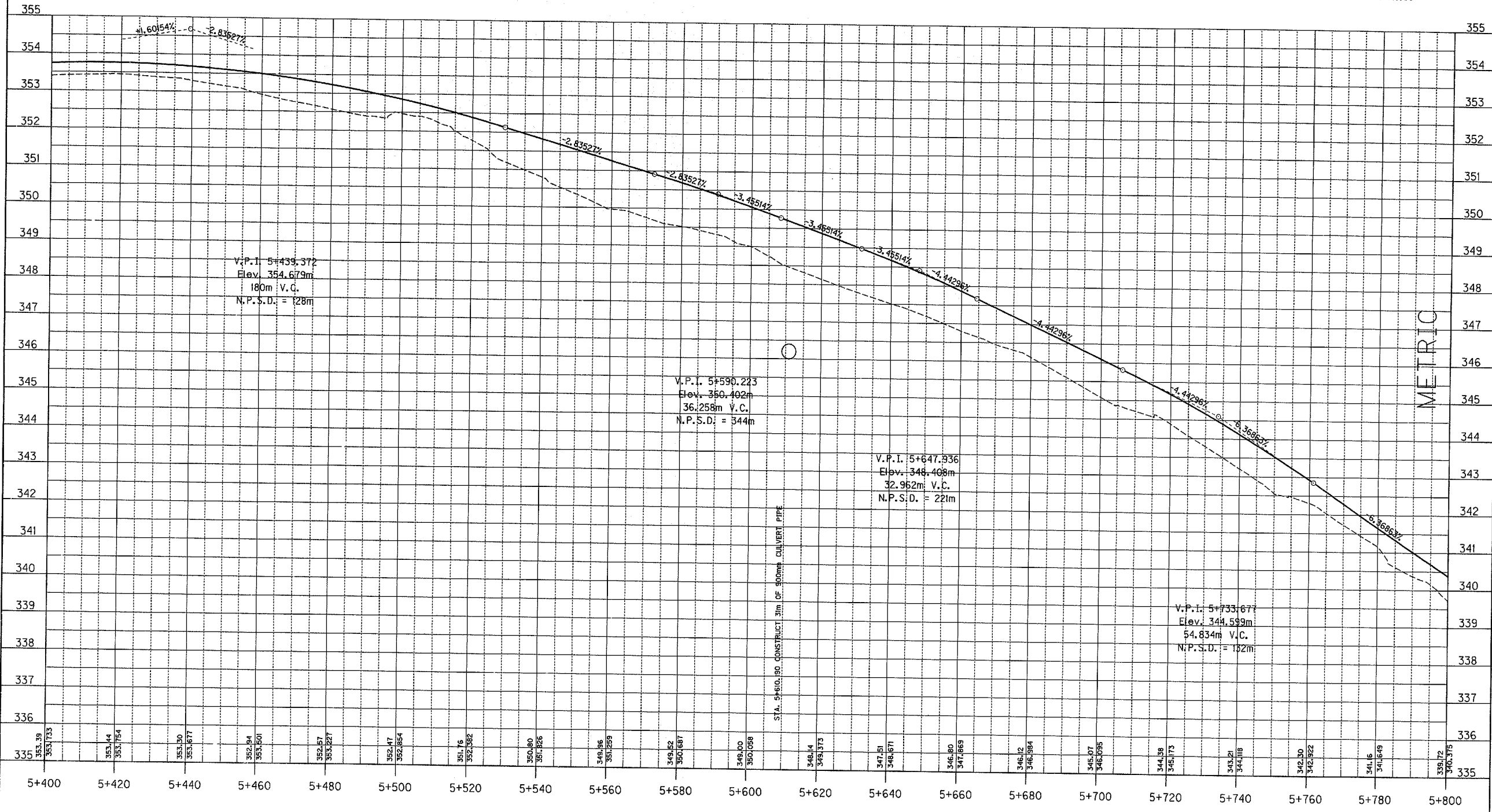
DATE \_\_\_\_\_  
 PREPARED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_

FILE NAME: PLANS.DGN  
 Cell Lib: c:\p1\mrcod\dwg\cel  
 Cell Name: sp  
 22-FEB-1999 16:09  
 6-C  
 FORM NO. 2m



SCALE 1:500  
 STA. 5+400 - 5+800

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		10	104
ITEM 08-143.00			



METRIC

PREPARED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE

PLT: C MAKE: US25M.DGN  
 SAVED VIEW: PRD4  
 Cell Library: mroadway.cel  
 Cell Name: sp  
 16-FEB-1999 11:25

6-93  
 FORM NO. 2m

SCALE 1:500 HOR.  
 1:50 VERT.

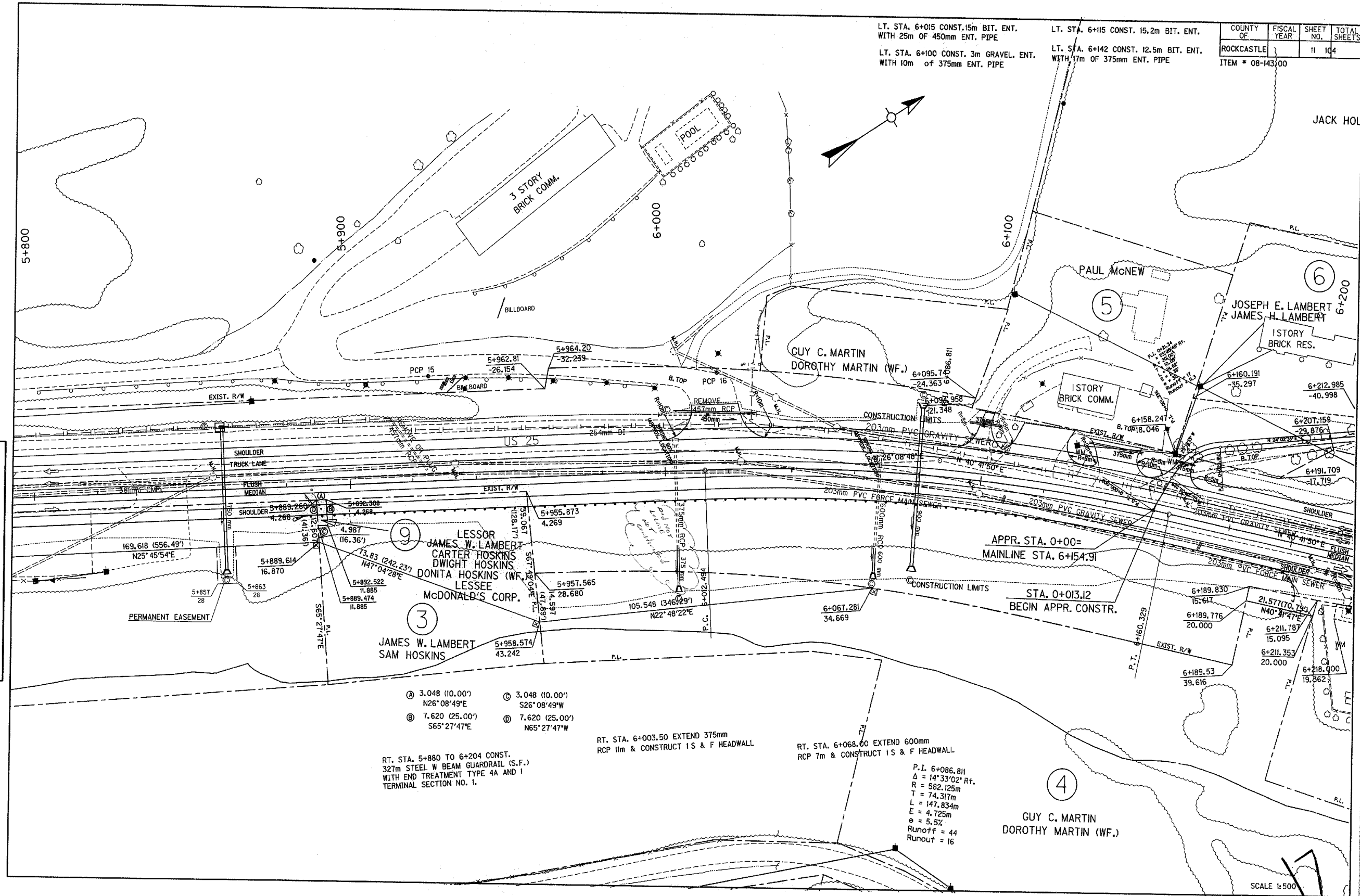
16



LT. STA. 6+015 CONST. 15m BIT. ENT. WITH 25m OF 450mm ENT. PIPE  
 LT. STA. 6+100 CONST. 3m GRAVEL. ENT. WITH 10m OF 375mm ENT. PIPE  
 LT. STA. 6+115 CONST. 15.2m BIT. ENT.  
 LT. STA. 6+142 CONST. 12.5m BIT. ENT. WITH 17m OF 375mm ENT. PIPE

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		11	104

ITEM # 08-143,00



- (A) 3.048 (10.00') N26°08'49"E
- (B) 7.620 (25.00') S65°27'47"E
- (C) 3.048 (10.00') S26°08'49"W
- (D) 7.620 (25.00') N65°27'47"W

RT. STA. 5+880 TO 6+204 CONST. 327m STEEL W BEAM GUARDRAIL (S.F.) WITH END TREATMENT TYPE 4A AND 1 TERMINAL SECTION NO. 1.

RT. STA. 6+003.50 EXTEND 375mm RCP 11m & CONSTRUCT IS & F HEADWALL

RT. STA. 6+068.00 EXTEND 600mm RCP 7m & CONSTRUCT IS & F HEADWALL

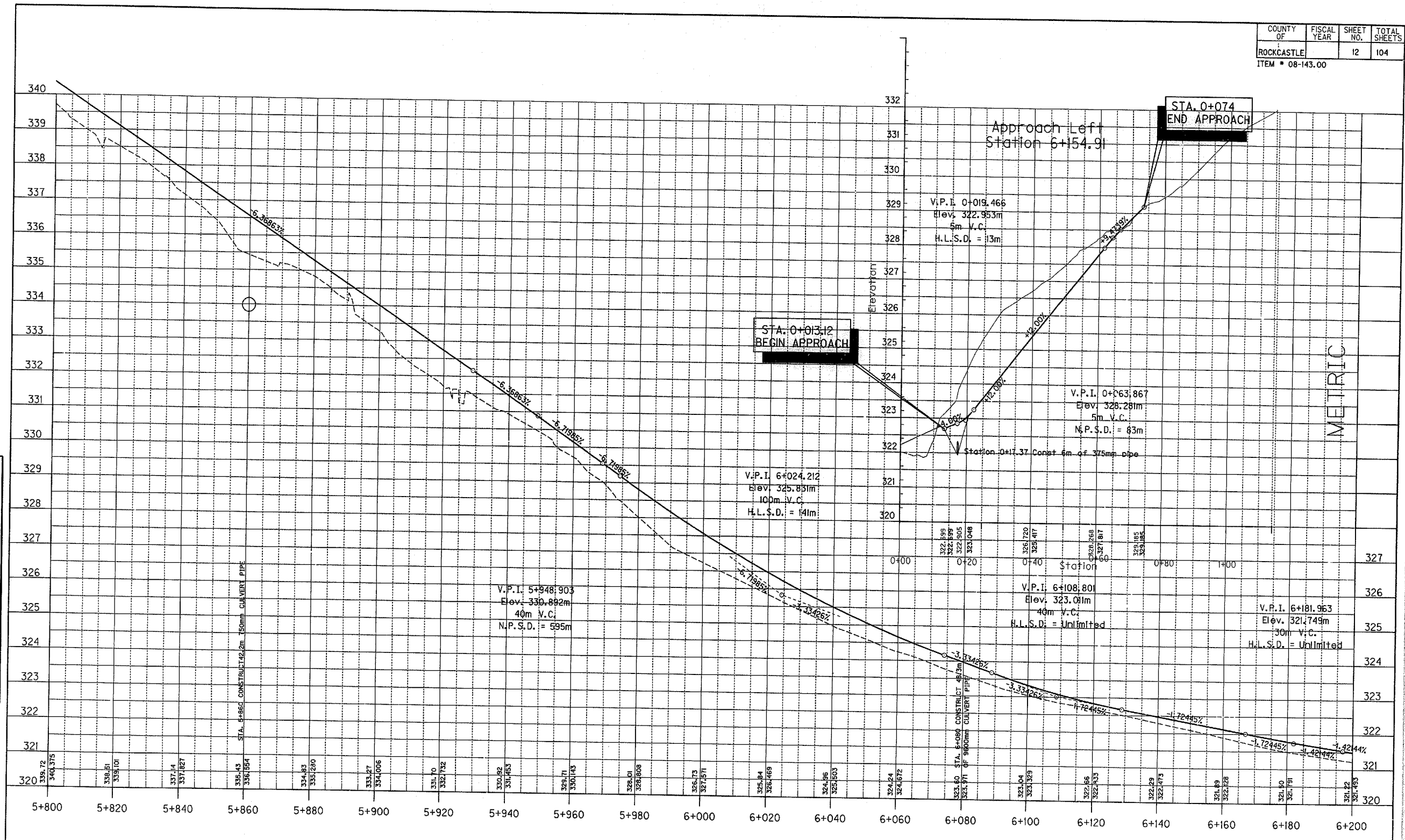
P.I. 6+086.811  
 $\Delta = 14^{\circ}33'02''$  Rt.  
 R = 582.125m  
 T = 74.317m  
 L = 147.834m  
 E = 4.725m  
 $\theta = 5.52$   
 Runoff = 44  
 Runout = 16

SCALE 1:500  
 STA. 5+800 - 6+200

DATE \_\_\_\_\_  
 PREPARED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_

FILE NAME: PLANS.DGN  
 Cell Library: mroadway.cel  
 Cell Name: sp  
 16-FEB-1999 11:34  
 6-93  
 FORM NO. 2m

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		12	104
ITEM * 08-143.00			



METRIC

SCALE 1:500 HOR.  
1:50 VERT.

PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

FILE NAME: US29K.DGN  
 SAVED VIEW: PROF5  
 Cell Library: mroadway.cel  
 Cell Name: sp  
 15-FEB-1995 11:26

6-53  
 FORM NO. 2m

18

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		15	104

ITEM # 08-143.00

LT. STA. 6+252 CONST. 15M BIT. ENT. WITH 18m 450mm ENT. PIPE.  
 LT. STA. 6+290 CONST. 15.2m BIT. ENT. WITH 21m 450mm ENT. PIPE.  
 LT. STA. 6+316 CONST. 6.5m BIT. ENT.

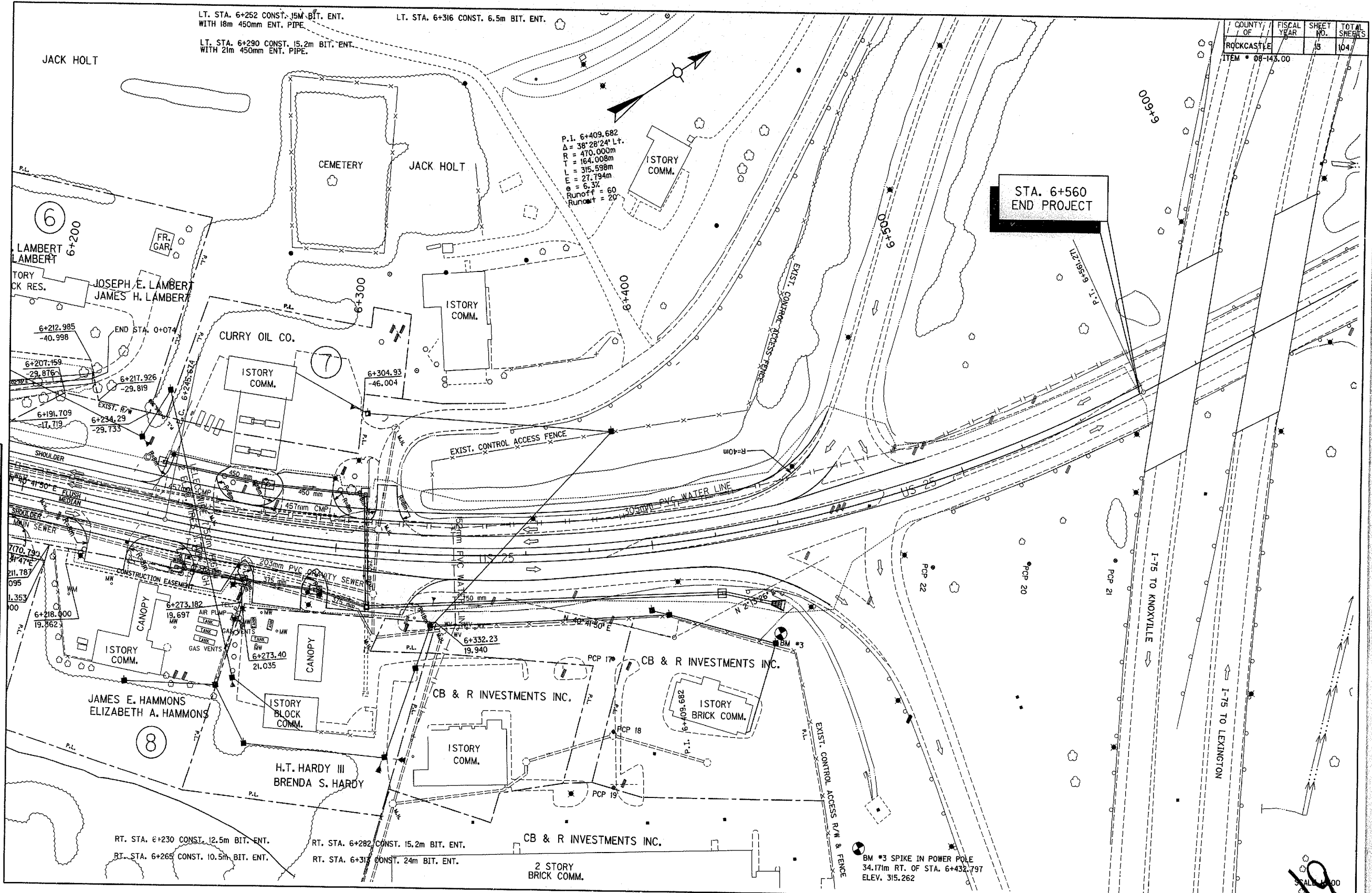
P.I. 6+409.682  
 $\Delta = 38^{\circ}28'24''$  Lt.  
 $R = 470.000m$   
 $T = 164.008m$   
 $L = 315.598m$   
 $E = 27.794m$   
 $\theta = 6.3\%$   
 Runoff = 60  
 Runout = 20

STA. 6+560  
 END PROJECT

DATE \_\_\_\_\_ DATE \_\_\_\_\_  
 PREPARED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_

FILE NAME: PLANG.DGN  
 Cell Library: mroadway.cel  
 Cell Names: 8D  
 16-FEB-1995 11:36

6-93  
 FORM NO. 2m



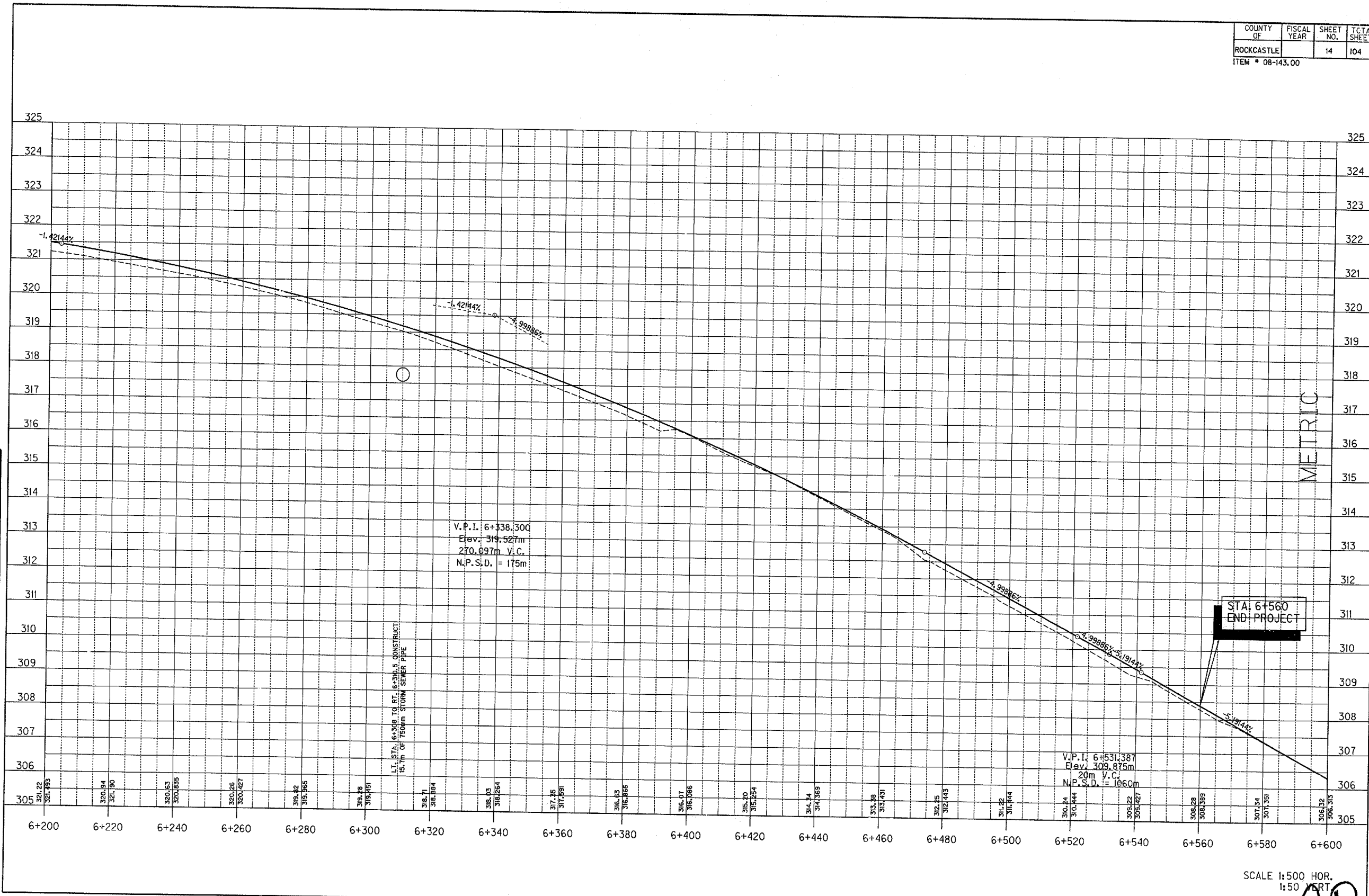
RT. STA. 6+230 CONST. 12.5m BIT. ENT.  
 RT. STA. 6+265 CONST. 10.5m BIT. ENT.  
 RT. STA. 6+282 CONST. 15.2m BIT. ENT.  
 RT. STA. 6+316 CONST. 24m BIT. ENT.

STA. 6+200 - 6+560

19

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		14	104

ITEM # 08-143.00



PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

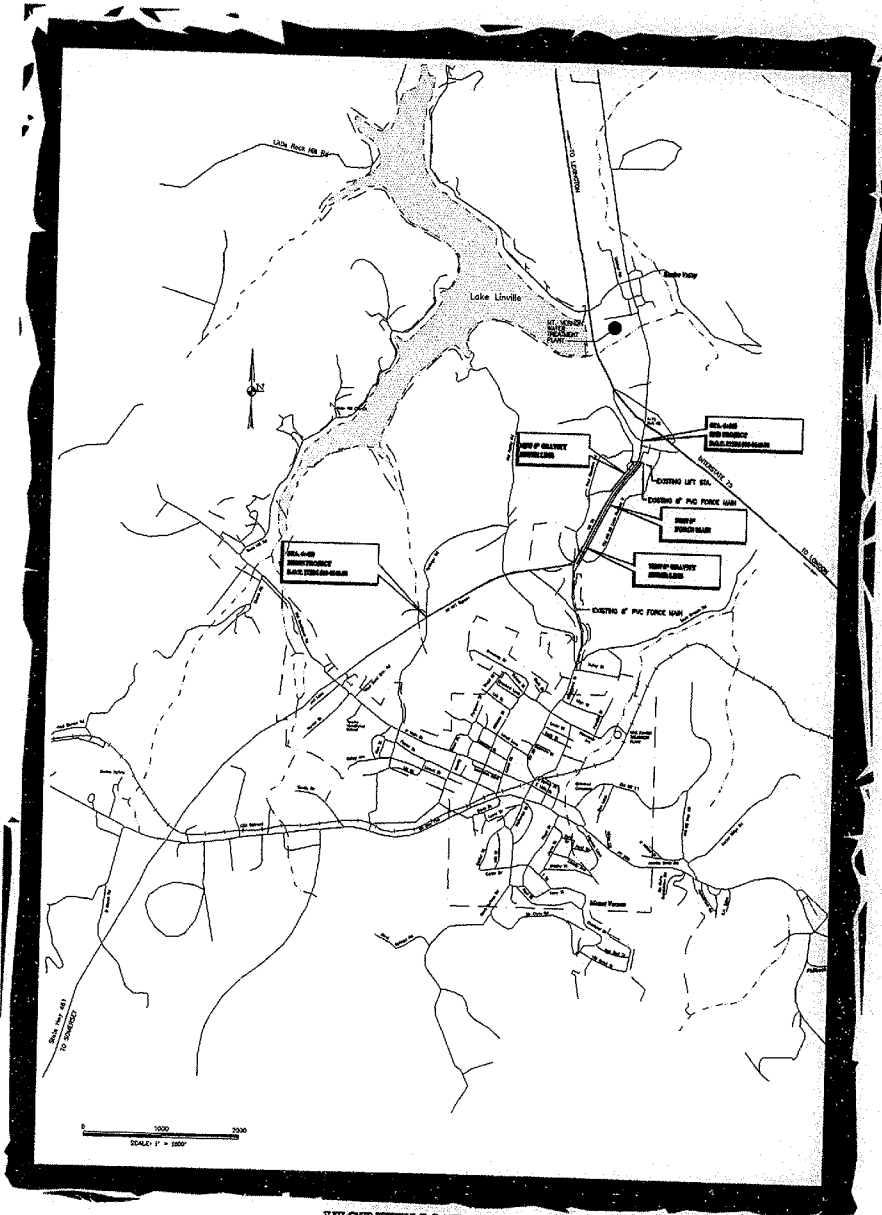
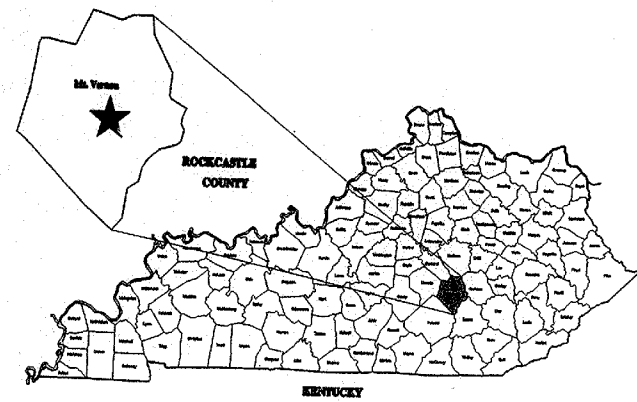
FILE NAME: US25M.DGN  
 SAVED VIEW: PROF  
 Cell Library: mroadway.cel  
 Cell Name: SP  
 16-FEB-1999 11:28

6-93  
 FORM NO. 2m

METRIC

20

ROCKCASTLE 14A 104  
 8-143.00



VICINITY MAP  
 SCALE: 1" = 1000'

**GENERAL NOTES:**

1. DIMENSIONS OF EXISTING STRUCTURES, EQUIPMENT, ETC. SHALL BE FIELD CONFIRMED BY THE CONTRACTOR. WHERE CRITICAL DIMENSIONS FOR INSTALLATION OF PROPOSED EQUIPMENT ARE INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL CONFIRM THESE DIMENSIONS FOR ACTUAL EQUIPMENT FURNISHED. ALL KNOWN DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
2. THE CONTRACTOR SHALL USE ALL POSSIBLE CARE DURING EXCAVATION ON THIS PROJECT SO AS NOT TO DISTURB ANY EXISTING UTILITY WHETHER SHOWN ON PLANS OR NOT. ANY UTILITY DISTURBED OR DAMAGED BY THE CONTRACTOR DURING HIS CONSTRUCTION OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
3. THE CONTRACTOR SHALL CONFINED ALL CONSTRUCTION ACTIVITY TO THE AREA WITHIN EXISTING EASEMENTS AND CONSTRUCTION LIMITS, UNLESS OTHERWISE APPROVED IN WRITING BY THE OWNER.
4. THE CONTRACTOR WILL BE SOLELY LIABLE FOR ANY WORK HE PERFORMS OUTSIDE OF LEGAL EASEMENTS OR CONSTRUCTION LIMITS.
5. THE CONTRACTOR MUST CONTACT ALL UTILITY OWNERS AND HAVE THEM FIELD LOCATE THEIR EXISTING LINES PRIOR TO ANY CONSTRUCTION ACTIVITY.
6. THE CONTRACTOR SHALL OBTAIN PERMISSION OF THE OWNER PRIOR TO BEGINNING ANY CONSTRUCTION THAT MAY RESULT IN INTERRUPTING OPERATIONS OF EXISTING UTILITIES.
7. ALL EXPOSED SURFACES DISTURBED BY DEMOLITION SHALL BE RESTORED TO MATCH EXISTING SURROUNDING SURFACE.

**ABBREVIATIONS**

A.F.F.	ABOVE FINISHED FLOOR	M.J.	MECHANICAL JOINT
ALUM	ALUMINUM	MIN.	MINIMUM
APPROX.	APPROXIMATE	MTD.	MOUNTED
BIT	BITUMINOUS	MAX.	MAXIMUM
BLDG	BUILDING	NO.	NUMBER
BLK	BLOCK	N.P.T.	NATIONAL PIPE THREAD
B.M.	BENCH MARK	NRS	NONRISING STEM
B'FLY	BUTTERFLY	N.T.S.	NOT TO SCALE
BOIT	BOTTOM	O.C.	ON CENTER
CHEM	CHEMICAL	O.D.	OVERALL DIMENSION
C.I.	CAST IRON	OPER	OPERATOR
C.I.S.P.	CAST IRON SOIL PIPE	OP'NG	OPENING
C	CENTERLINE	PE	POLYETHYLENE
CONC.	CONCRETE	P.E.	PLAIN END
CHLOR	CHLORINE	PL	PLATE
CL	CLEARANCE	PROP	PROPOSED
C.W.	COLD WATER	PVC	POLYVINYL CHLORIDE
CU	COPPER	PRV	PRESSURE RELIEF VALVE
C.O.	CLEANOUT	PRESS	PRESSURE
CONT	CONTINUATION	REDUC	REDUCING
DGA	DENSE GRADED AGGREGATE	RED	REDUCER
D.I.	DUCTILE IRON	REINF.	REINFORCING
DISCH	DISCHARGE	REFRIG.	REFRIGERATOR
D.I.M.J.	DUCTILE IRON MECHANICAL JOINT	RM	ROOM
D.I.P.E.	DUCTILE IRON PLAIN END	SAH	SANITARY
D.I.P.	DUCTILE IRON PIPE	SCH	SCHEDULE
DEMO	DEMOLITION	SECT	SECTION
DIAG	DIAGONAL	SED	SEDIMENTATION
EFFL	EFFLUENT	SEW	SEWER
E.F.	EACH FACE	SHT	SHEET
ELC	ELECTRICAL	SOL	SOLUTION
EL	ELEVATION	SPEC'S	SPECIFICATIONS
EQUIP	EQUIPMENT	SQ.	SQUARE
E.W.	EACH WAY	S.S.	STAINLESS STEEL
EXIST	EXISTING	ST	STEEL TUBE
EXT	EXTERIOR	STL	STEEL
F.D.	FLOOR DRAIN	STM	STAINLESS
F.F.	FINISHED FLOOR	SURF	SURFACE
F.L.	FLANGE	SVCS	SERVICES
FL	FENCELINE	T	THICK
FLOC	FLOODGATE	T.O.C.	TOP OF CONCRETE
GD	GRADE	TY.	TYPICAL
DIP	DUCTILE IRON PIPE	TRANS	TRANSITION
H.B.	HOSE BIB	VAC	VACUUM
H	HEIGHT	VAL	VALVE
H.W.	HOT WATER	VR	VENT THRU ROOF
INFL	INFLUENT	VERT	VERTICAL
INV.	INVERT	WD	WOOD
LAV	LAVATORY	W.C.	WATER CLOSET
L	LENGTH	W/	WITH
LOAD'G	LOADING	W.L.	WATER LEVEL
LNG	LONG	W.S.E.	WATER SURFACE ELEVATION
		WWF	WOVEN WIRE FENCE

21

LT. STA. 5+012 CONST. 6.6m BIT. ENT.

STA. 5+140 BEGIN 210m TAPER FOR FLUSH MEDIAN.

LT. STA. 5+184 CONST. 3.6m BIT. ENT.

BIT STA. 5+016 TO 5+191 CONST. 190m STEEL W BEAM GUARDRAIL (S.F.) WITH 1 TERMINAL SECTION AND TIE TO E GUARDRAIL

LT. STA. 5+140 BEGIN FLUSH MEDIAN.

Item Code	Action	Item	Estimated Quantity	Unit	Previous Sheet	Cumulative Total
9089	INSTALL	1.2m (4) DIA. PRECAST MANHOLE, FRAME & LID		EACH		
3385	INSTALL	150mm (6") PVC SDR36 LATERAL LINE & CAP		METER		
1095	INSTALL	200mm (8") D.I. RESTRAINED JOINT GRAVITY LINE		METER		
1099	INSTALL	200mm (8") D.I. RESTRAINED JOINT GRAVITY LINE		METER		
3389	INSTALL	250mm (10") PVC SDR21 FORCE MAIN		METER		
3387	INSTALL	200mm (8") PVC SDR36 GRAVITY LINE		METER		
3391	INSTALL	300mm (12") PVC SDR36 GRAVITY LINE		METER		
1071	INSTALL	350mm (14") DIA. STEEL CASING PIPE, TRENCH		METER		
1073	INSTALL	400mm (16") DIA. STEEL CASING PIPE, TRENCH		METER		
1075	INSTALL	400mm (16") DIA. STEEL CASING PIPE, TRENCH		METER		
1081	INSTALL	610mm (24") DIA. STEEL CASING PIPE, TRENCH		METER		
1081	INSTALL	610mm (24") DIA. STEEL CASING PIPE, BORE & PLUG	33	METER		33
9079	INSTALL	RECONNECT EXISTING SERVICE INCLUDING LATERAL		EACH		
3468	INSTALL	TIE TO EX. 200mm (8") PVC FORCE MAIN (Dry Connection)		EACH		
9014	INSTALL	TIE TO EX. MH W/200mm (8") GRAVITY (Dry Connection)		EACH		
9074	INSTALL	1" COMBINATION AIR/VACUUM RELIEF VALVE ASSEMBLY		EACH		
1792	INSTALL	GRADE RING, ADJUST MANHOLE		EACH		
72	INSTALL	TRENCH BACKFILL, #57 STONE OR		m <sup>3</sup>		
2220	INSTALL	FLOWABLE FILL		m <sup>3</sup>		
	INSTALL	WATER-RESISTANT SOLID MH LID		EACH		
1787	REMOVE	EXISTING GREASE TRAP, TRAPPED MANHOLE		EACH		
3528	INSTALL	200mm (8") GATE VALVE & BOX		EACH		
9261	INSTALL	PAVEMENT RESTORATION		m <sup>2</sup>		
2256	INSTALL	REMOVE & RESET RIGHT OF WAY FENCE		m		
1787	ABANDON	1.2m (4) DIA. MANHOLE		METER		
	ABANDON	150mm (6") PVC LATERAL LINE		METER		
	ABANDON	200mm (8") PVC GRAVITY LINE		METER		
	ABANDON	200mm (8") PVC FORCE MAIN		METER		

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		142	104

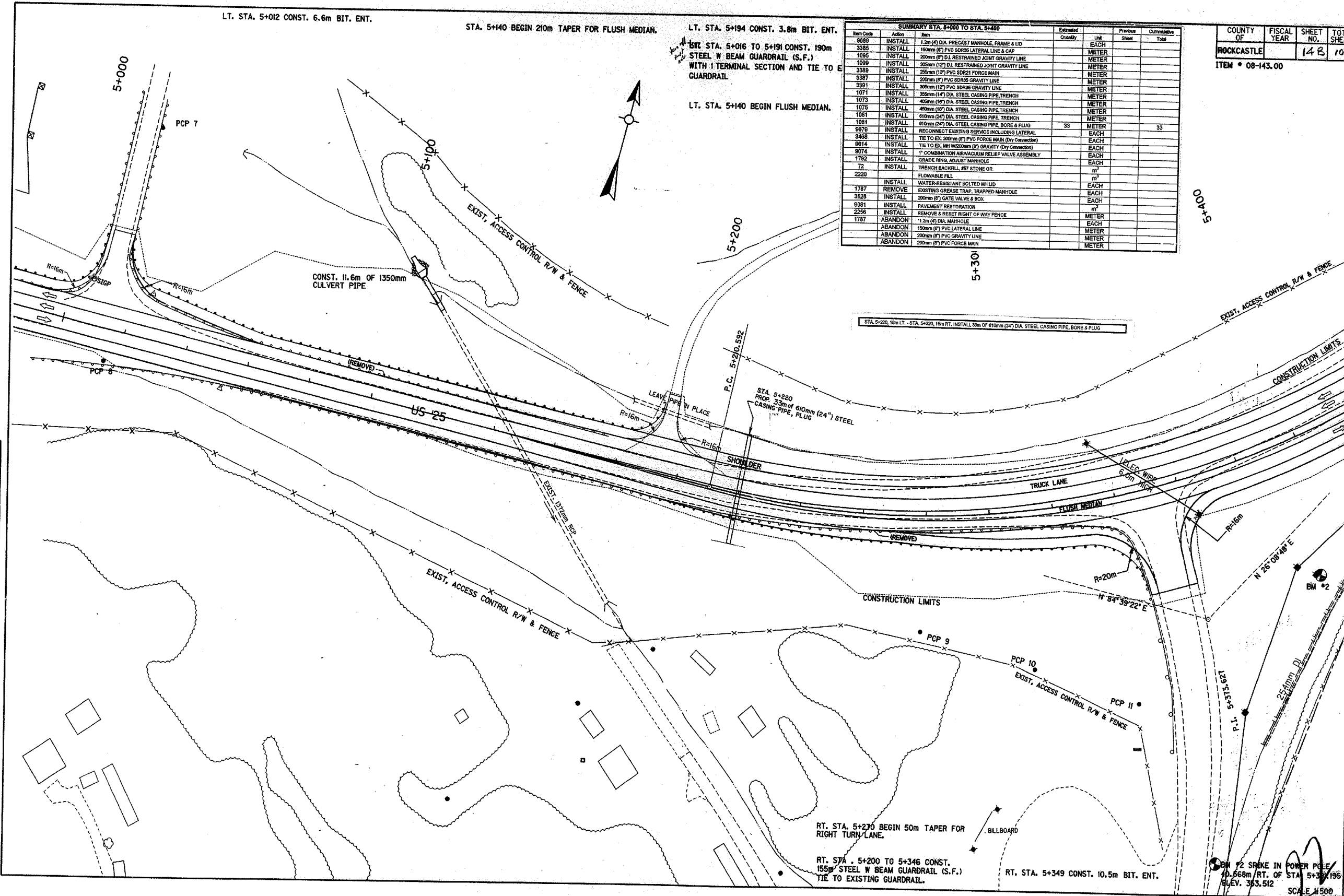
ITEM # 08-143.00

00+5

5+30

5+200

5+000



STA. 5+220, 15m LT. - STA. 5+200, 15m RT. INSTALL 33m OF 610mm (24") DIA. STEEL CASING PIPE, BORE & PLUG

STA. 5+220 PROP. 33m OF 610mm (24") STEEL CASING PIPE, PLUG

RT. STA. 5+270 BEGIN 50m TAPER FOR RIGHT TURN LANE.

RT. STA. 5+200 TO 5+346 CONST. 155m STEEL W BEAM GUARDRAIL (S.F.) TIE TO EXISTING GUARDRAIL.

RT. STA. 5+349 CONST. 10.5m BIT. ENT.

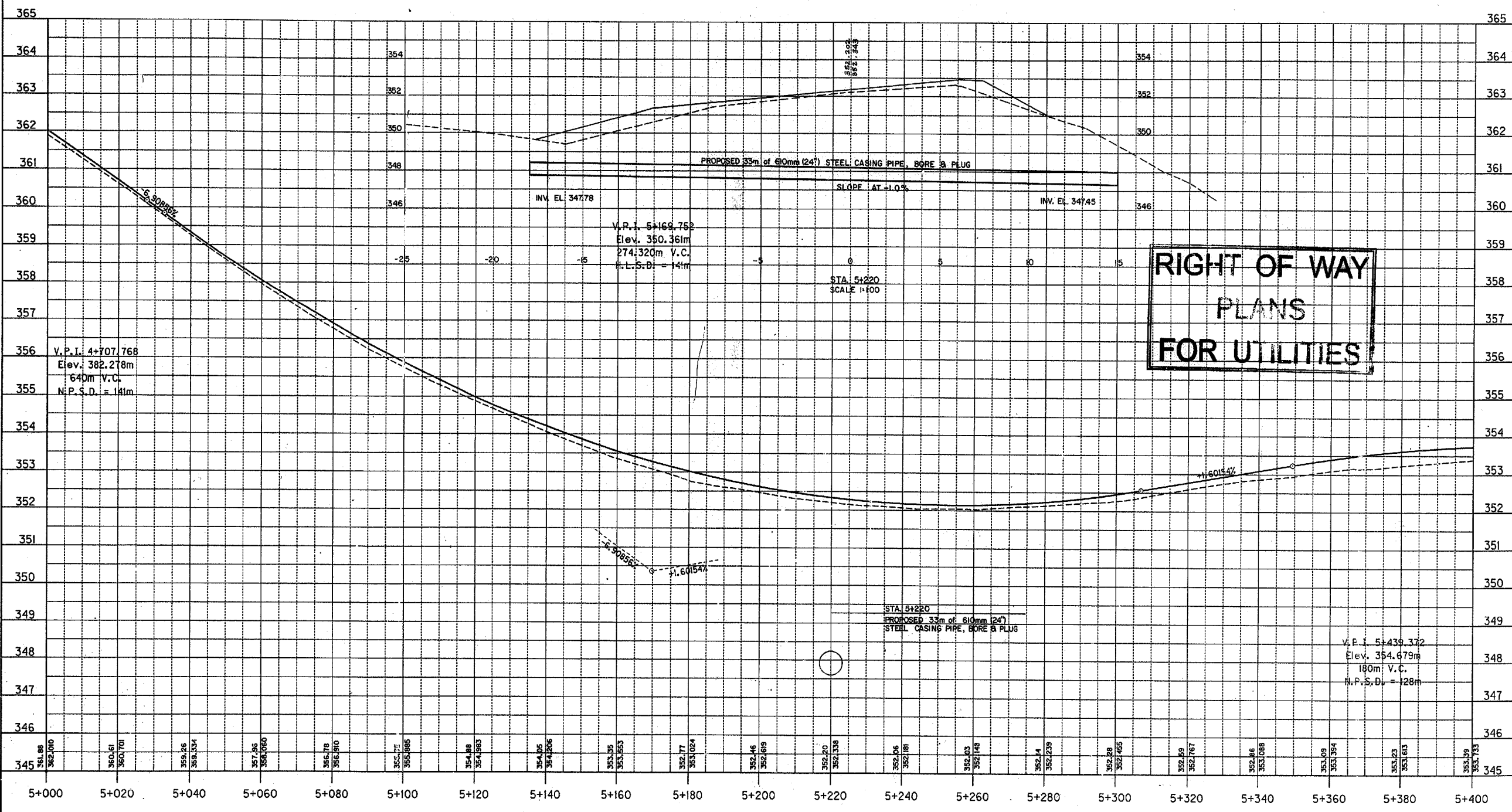
BM #2 SPIKE IN POWER POLE 40.668m RT. OF STA. 5+349.195 ELEV. 363.512 SCALE H500

PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

FILE NAME: PLANS.DGN  
 Cell Library: mroadwgy.cel  
 Cell Name: sp  
 22-APR-1998 11:39

6-93  
 FORM NO. 2m

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		14c	104
S/PR-4611-003			
FD52-102-0025 015-016D			



DATE	DATE	DATE
_____	_____	_____
IP, JD BY	CHECKED BY	APPROVED BY

Cell Library: m:\roadwcy.cel  
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93  
 #RM NO. 2m

SCALE 1:500 HOR.  
 1:50 VERT.

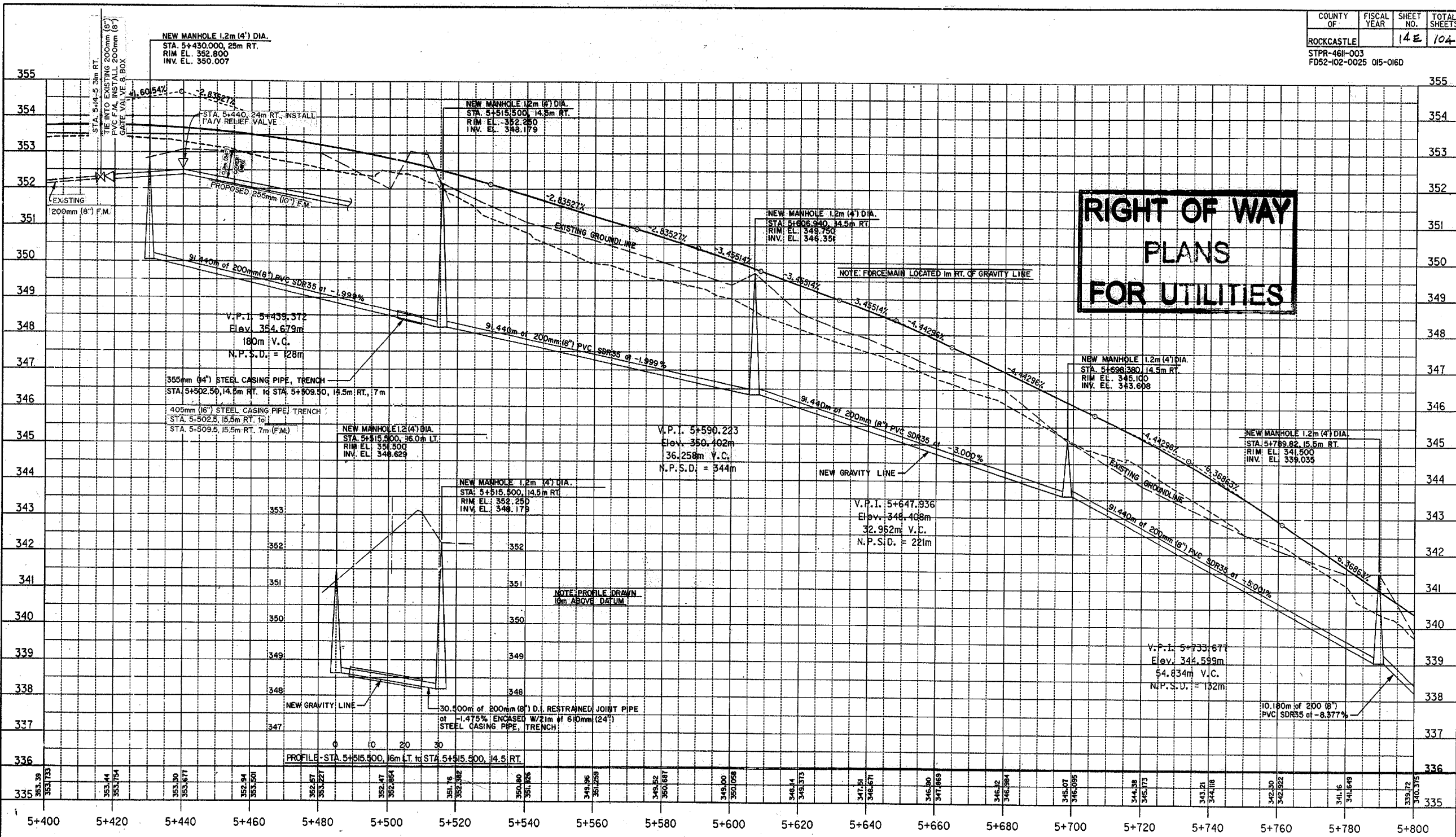
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COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		14E	104
STPR-46II-003			
FD52-102-0025 015-016D			

# RIGHT OF WAY PLANS FOR UTILITIES



DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_  
 DATE \_\_\_\_\_

Cell Library: mroadway.cel  
 Cell Name: sp  
 02-AUG-1996 13:05  
 L-93  
 ORM ND. 2m

SCALE 1:500 HOR.  
 1:50 VERT.  
25





Item Code	Action	Unit	Estimated Quantity	Unit	Previous Sheet	Current Sheet
9089	INSTALL	1.2m (4') DIA. PRECAST MANHOLE FRAME & LID	3	EACH	12	15
3385	INSTALL	150mm (6") PVC SD36 LATERAL LINE & CAP	3	METER	20	20
1095	INSTALL	200mm (8") D.I. RESTRAINED JOINT GRAVITY LINE	36	METER	31	31
1099	INSTALL	300mm (12") D.I. RESTRAINED JOINT GRAVITY LINE	36	METER	38	38
3387	INSTALL	200mm (8") PVC SD36 FORCE MAIN	115	METER	784	899
3389	INSTALL	300mm (12") PVC SD36 FORCE MAIN	251	METER	926	1187
1071	INSTALL	300mm (12") DIA. STEEL CASING PIPE, TRENCH	106	METER	56	24
1073	INSTALL	400mm (16") DIA. STEEL CASING PIPE, TRENCH	40	METER	7	47
1075	INSTALL	400mm (16") DIA. STEEL CASING PIPE, TRENCH	8	METER	7	6
1081	INSTALL	600mm (24") DIA. STEEL CASING PIPE, TRENCH	22	METER	21	43
9079	INSTALL	RECONNECT EXISTING SERVICE INCLUDING LATERAL	3	METER	33	33
3488	INSTALL	TIE TO EX. 200mm (8") PVC FORCE MAIN (DRY CONNECTION)	1	EACH	2	5
9074	INSTALL	TIE TO EX. 200mm (8") GRAVITY (DRY CONNECTION)	2	EACH	1	2
9074	INSTALL	1" COMBINATION AIR/VACUUM RELIEF VALVE ASSEMBLY	1	EACH	1	1
1782	INSTALL	TRENCH BACKFILL #57 STONE OR FLOWABLE FILL	207.5	m <sup>3</sup>	76.2	283.7
72	INSTALL	WATER-RESISTANT BOLTED MH LID	207.5	m <sup>2</sup>	76.2	283.7
1787	REMOVE	EXISTING GREASE TRAP, TRAPPED MANHOLE	1	EACH	1	1
3528	INSTALL	200mm (8") GATE VALVE & BOX	1	EACH	1	2
9081	INSTALL	PAVEMENT RESTORATION	20.3	m <sup>2</sup>	0.0	20.3
2256	INSTALL	REMOVE & RESET RIGHT OF WAY FENCE	5	METER	0	5
1787	ABANDON	1.2m (4') DIA. MANHOLE	5	EACH	12	17
	ABANDON	150mm (6") PVC LATERAL LINE	121	METER	62	62
	ABANDON	200mm (8") PVC GRAVITY LINE	60	METER	570	630
	ABANDON	300mm (12") PVC FORCE MAIN	60	METER	755	815

LT. STA. 6+316 CONST. 6.5m BIT. ENT.

P.I. 6+409.682  
 $\Delta = 38^{\circ}28'24''$  L.T.  
 $R = 470.000m$   
 $T = 164.008m$   
 $L = 315.598m$   
 $E = 27.794m$   
 $\theta = 6.3\%$   
 Runoff = 60  
 Runoff = 20

STA. 6+200.00, 14m LT. - STA. 6+250.00, 13.75m LT. INSTALL 83.5m OF 200mm (8") PVC SD36 GRAVITY LINE  
 STA. 6+250.00, 14m LT. - STA. 6+260.00, 13.5m LT. INSTALL 10m 200mm (8") DIA. STEEL CASING PIPE, TRENCH  
 STA. 6+260.00, 13.75m LT. - STA. 6+280.00, 14m LT. PRECAST CONCRETE MANHOLE  
 STA. 6+280.00, 14m LT. - STA. 6+300.00, 14m LT. INSTALL 20m OF 200mm (8") PVC SD36 GRAVITY LINE  
 STA. 6+300.00, 14.5m LT. - STA. 6+310.00, 14.5m LT. INSTALL 10m OF 300 (14") DIA. STEEL CASING PIPE, TRENCH  
 STA. 6+310.00, 14.5m LT. - STA. 6+316.00, 14m LT. INSTALL 24m OF 300mm (12") PVC SD36 GRAVITY LINE  
 STA. 6+316.00, 37m LT. - STA. 6+318.00, 30.5m LT. INSTALL 7.5m OF 400mm (16") DIA. STEEL CASING PIPE, TRENCH  
 STA. 6+318.00, 37m LT. - STA. 6+318.00, 30.5m LT. INSTALL 7.5m OF 400mm (16") DIA. STEEL CASING PIPE, TRENCH  
 STA. 6+318.00, 37m LT. TIE TO EXISTING MANHOLE WITH NEW 200mm (8") PVC GRAVITY LINE (DRY CONNECTION)  
 STA. 6+318.00, 14m LT. - STA. 6+318.00, 14m LT. PRECAST CONCRETE MANHOLE  
 STA. 6+318.00, 14m LT. - STA. 6+340.00, 22.5m RT. INSTALL 22m OF 300mm (12") DIA. STEEL CASING PIPE, TRENCH  
 STA. 6+340.00, 14m LT. - STA. 6+340.00, 22.5m RT. INSTALL 3m OF 200mm (8") DIA. RESTRAINED JOINT GRAVITY LINE  
 STA. 6+340.00, 12.5m LT. - STA. 6+340.00, 6.5m RT. INSTALL 22m OF 810mm (24") DIA. STEEL CASING PIPE, TRENCH  
 STA. 6+340.00, 6.5m LT. ABANDON EXISTING 1.2m (4") DIA. MANHOLE  
 STA. 6+340.00, 6.5m LT. ABANDON EXISTING 1.2m (4") DIA. MANHOLE  
 STA. 6+340.00, 6.5m LT. - STA. 6+340.00, 6.5m LT. ABANDON 50m OF 200mm (8") PVC GRAVITY LINE  
 STA. 6+340.00, 6.5m LT. - STA. 6+340.00, 6.5m LT. ABANDON 50m OF 200mm (8") PVC GRAVITY LINE  
 CURRY OIL CO. RECONNECT EXISTING SERVICE INCLUDING LATERAL  
 H.T. HARDY III BRENDA S. HARDY, RECONNECT EXISTING SERVICE INCLUDING LATERAL  
 PARCEL #6, RECONNECT EXISTING SERVICE INCLUDING LATERAL

REVISED PLANS DATE 10-26-98

FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	13	18

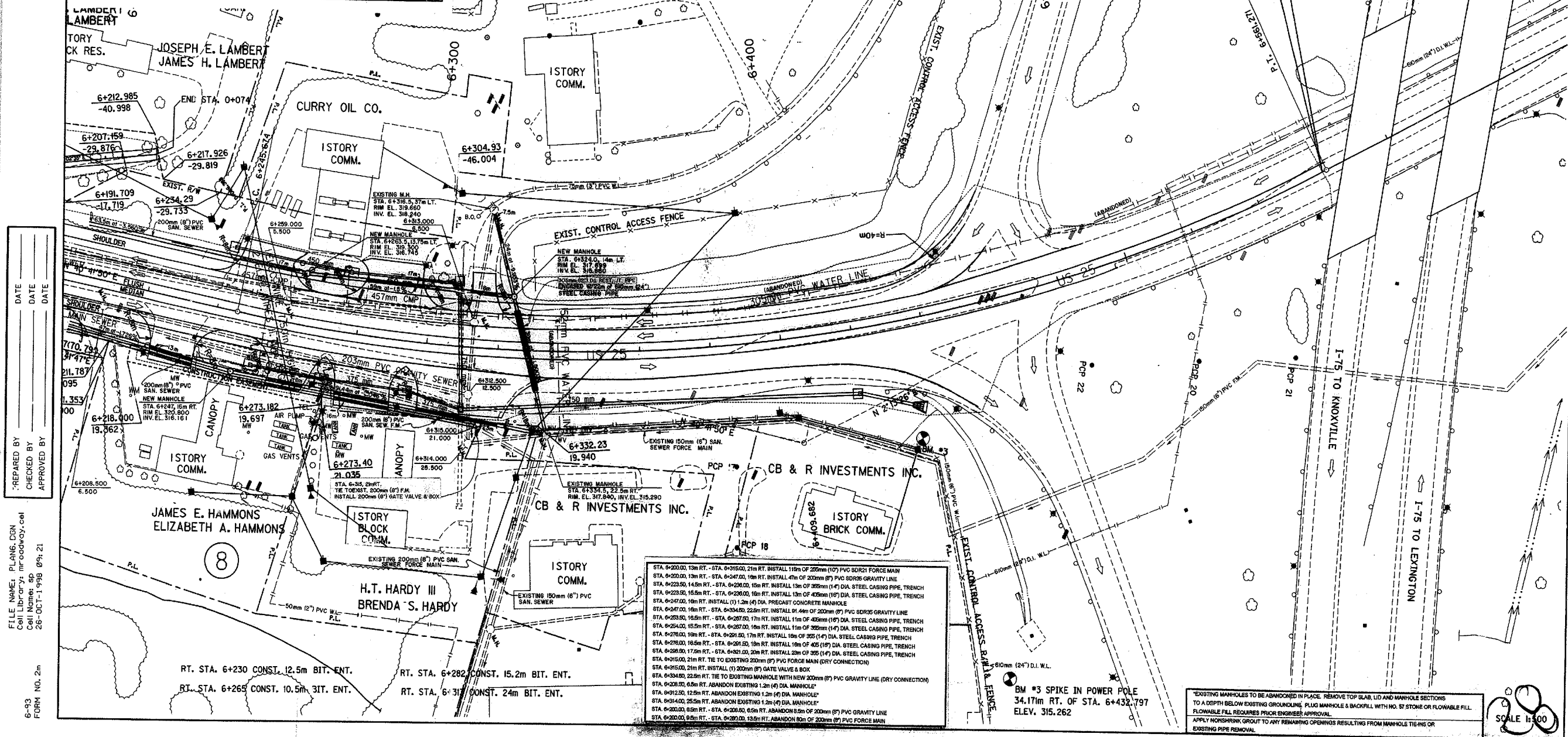
PROJECT NO. ITEM # 08-143.00

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		13	18

ITEM # 08-143.00

**RIGHT OF WAY  
 PLANS  
 FOR UTILITIES**

**STA. 6+560  
 END PROJECT**



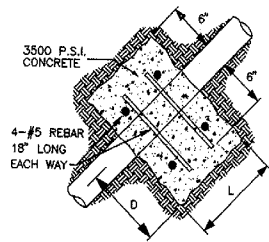
STA. 6+200.00, 13m RT. - STA. 6+315.00, 21m RT. INSTALL 115m OF 200mm (8") PVC SD36 GRAVITY LINE  
 STA. 6+200.00, 13m RT. - STA. 6+247.00, 19m RT. INSTALL 47m OF 200mm (8") PVC SD36 GRAVITY LINE  
 STA. 6+247.00, 14.5m RT. - STA. 6+250.00, 15m RT. INSTALL 3m OF 300mm (14") DIA. STEEL CASING PIPE, TRENCH  
 STA. 6+250.00, 14.5m RT. - STA. 6+260.00, 14m LT. INSTALL 10m OF 200mm (8") DIA. STEEL CASING PIPE, TRENCH  
 STA. 6+260.00, 14m LT. - STA. 6+280.00, 14m LT. PRECAST CONCRETE MANHOLE  
 STA. 6+280.00, 14m LT. - STA. 6+300.00, 14m LT. INSTALL 20m OF 200mm (8") PVC SD36 GRAVITY LINE  
 STA. 6+300.00, 14.5m LT. - STA. 6+310.00, 14.5m LT. INSTALL 10m OF 300 (14") DIA. STEEL CASING PIPE, TRENCH  
 STA. 6+310.00, 14.5m LT. - STA. 6+316.00, 14m LT. INSTALL 24m OF 300mm (12") PVC SD36 GRAVITY LINE  
 STA. 6+316.00, 37m LT. - STA. 6+318.00, 30.5m LT. INSTALL 7.5m OF 400mm (16") DIA. STEEL CASING PIPE, TRENCH  
 STA. 6+318.00, 37m LT. - STA. 6+318.00, 30.5m LT. INSTALL 7.5m OF 400mm (16") DIA. STEEL CASING PIPE, TRENCH  
 STA. 6+318.00, 37m LT. TIE TO EXISTING MANHOLE WITH NEW 200mm (8") PVC GRAVITY LINE (DRY CONNECTION)  
 STA. 6+318.00, 14m LT. - STA. 6+318.00, 14m LT. PRECAST CONCRETE MANHOLE  
 STA. 6+318.00, 14m LT. - STA. 6+340.00, 22.5m RT. INSTALL 22m OF 300mm (12") DIA. STEEL CASING PIPE, TRENCH  
 STA. 6+340.00, 14m LT. - STA. 6+340.00, 22.5m RT. INSTALL 3m OF 200mm (8") DIA. RESTRAINED JOINT GRAVITY LINE  
 STA. 6+340.00, 12.5m LT. - STA. 6+340.00, 6.5m RT. INSTALL 22m OF 810mm (24") DIA. STEEL CASING PIPE, TRENCH  
 STA. 6+340.00, 6.5m LT. ABANDON EXISTING 1.2m (4") DIA. MANHOLE  
 STA. 6+340.00, 6.5m LT. ABANDON EXISTING 1.2m (4") DIA. MANHOLE  
 STA. 6+340.00, 6.5m LT. - STA. 6+340.00, 6.5m LT. ABANDON 50m OF 200mm (8") PVC GRAVITY LINE  
 STA. 6+340.00, 6.5m LT. - STA. 6+340.00, 6.5m LT. ABANDON 50m OF 200mm (8") PVC GRAVITY LINE  
 CURRY OIL CO. RECONNECT EXISTING SERVICE INCLUDING LATERAL  
 H.T. HARDY III BRENDA S. HARDY, RECONNECT EXISTING SERVICE INCLUDING LATERAL  
 PARCEL #6, RECONNECT EXISTING SERVICE INCLUDING LATERAL

EXISTING MANHOLES TO BE ABANDONED IN PLACE. REMOVE TOP SLAB, LID AND MANHOLE SECTIONS TO A DEPTH BELOW EXISTING GROUNDLINE. PLUG MANHOLE & BACKFILL WITH NO. 57 STONE OR FLOWABLE FILL. FLOWABLE FILL REQUIRES PRIOR ENGINEER APPROVAL.  
 APPLY NONSHRINK GROUT TO ANY REMAINING OPENINGS RESULTING FROM MANHOLE TIERS OR EXISTING PIPE REMOVAL.

SCALE 1:500

DATE \_\_\_\_\_ DATE \_\_\_\_\_ DATE \_\_\_\_\_  
 PREPARED BY \_\_\_\_\_ CHECKED BY \_\_\_\_\_ APPROVED BY \_\_\_\_\_  
 FILE NAME: PLANS.C3N  
 Call Library: m:080403.cdl  
 6-93 FORM NO. 2m 28-OCT-1998 09h.21





**STRAIGHT PIPE**

NOTE: DEPTH (D) MAY NOT BE SMALLER THAN SPECIFIED TO ALLOW FOR WORKING SPACE. PIERS SHALL BE PLACED AGAINST UNDISTURBED SOIL. PLACE CONCRETE ANCHORS 16'-0" C/C.

DIMENSIONS FOR ANCHOR BLOCKS		PIPE SIZE	
3"	4"	6"	8"
10"	12"	14"	14"
STRAIGHT PIPE		D	
12"	12"	15"	18"
18"	18"	24"	30"
L		D	
18"	18"	24"	30"
		30"	32"

NOTE: SEE PLAN SHEETS FOR SIZE AND LOCATION OF PIPE

**CONCRETE ANCHOR BLOCKS**

**NEW SEWER LINE TIE TO EXISTING MANHOLE**

CUT HOLE IN EXISTING MANHOLE AT THE ELEVATION AND ANGLE SHOWN IN PLAN AND PROFILE SUCH THAT THE OPENING WILL BE A MINIMUM OF 2" LARGER IN DIAMETER THAN THE OUTSIDE DIAMETER OF THE PIPE.

CUT AWAY EXISTING MANHOLE BENCH AS REQUIRED TO PROVIDE ROOM FOR FORMING A TROUGH BETWEEN THE NEW SEWER AND THE EXISTING MANHOLE TROUGH, SUCH AS THAT SHOWN IN THE TYPICAL JUNCTION MANHOLE DETAIL.

IF THE NEW SEWER LINE INVERT ELEVATION IS ABOVE THE EXISTING MANHOLE BENCH, FORM A NEW TRENCH WITH NON-SHRINK GROUT ON TOP OF THE BENCH TO PROVIDE A SMOOTH CONTINUOUS FLOW STREAM TO THE EXISTING TROUGH.

IF THE INVERT ELEVATION OF THE NEW SEWER LINE IS 2'-0" OR GREATER FROM THE BOTTOM OF THE EXISTING MANHOLE TROUGH, INSTALL A DROP FROM THE NEW SEWER LINE OUTSIDE THE MANHOLE THROUGH THE BOTTOM OF THE MANHOLE WALL AND BENCH AS DESCRIBED ABOVE AND AS SHOWN IN THE TYPICAL DROP MANHOLE DETAIL.

PLUG EXISTING SEWER LINES THROUGH MANHOLE TO STOP FLOW UNTIL TIE-IN AND REPAIR WORK IS COMPLETE AND GROUT HAS SET-UP SUCH THAT THE MANHOLE MAY BE PUT BACK INTO SERVICE. PROVIDE BY-PASS PUMPING OF SEWAGE CONTINUOUSLY, DURING THE TIME THAT THE MANHOLE IS PLUGGED, TO THE DOWNSTREAM MANHOLE IN ORDER TO MAINTAIN SEWER SERVICE.

CLEAN ANY OIL OR GREASE FROM THE CONTACT AREA OF WALL AND/OR BENCH OPENINGS USING SOLVENT AND DETERGENT. WIPE CLEAN AND DRY. ROUGHEN SURFACE WITH SCARIFIER OR OTHER TOOL.

COAT ENTIRE AREA OF EXISTING CONCRETE, WHICH IS TO RECEIVE GROUT, WITH EPOXY BONDING COMPOUND.

EPOXY BONDING COMPOUND SHALL BE SIKADUR HIMOD, 100% SOLIDS, MOISTURE INSENSITIVE (OR ENGINEER APPROVED EQUAL), MIXED AND APPLIED AS PER MANUFACTURER'S INSTRUCTIONS.

MIX MASTERFLOW #928 NON-SHRINK GROUT (AS MANUFACTURED BY MASTER BUILDERS OR ENGINEER APPROVED EQUAL), TO A "DAMP" CONSISTENCY. ENOUGH WATER TO HYDRATE SHALL BE USED, BUT MIX SHALL REMAIN STIFF ENOUGH TO BE FIRMLY PACKED INTO OPENINGS. MANUFACTURER'S REPRESENTATIVE SHALL BE CONTACTED IN ADVANCE FOR ASSISTANCE IN MIXING AND PLACING THE GROUT. THE GROUT SHALL BE APPLIED WHILE THE EPOXY BONDING COMPOUND IS STILL "TACKY". FINISH FLUSH WITH FACE OF WALL, BENCH OR TROUGH AS SHOWN IN THE TYPICAL MANHOLE DETAILS.

**MANHOLE NOTES**

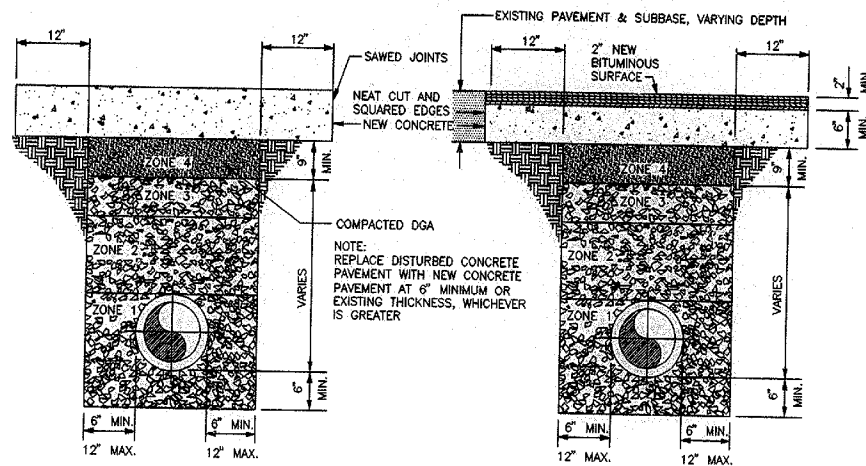
COAT OUTSIDE OF ADJUSTING RINGS WITH SEMI-FIBRATED ASPHALT DAMPROOFING COMPOUND APPLIED BY BRUSH OR SPRAY.

ALL BARREL JOINTS ARE TO HAVE 2" MASTIC SEALS. INSTALL SEALING COMPOUND IN ALL MANHOLE JOINTS TO INCLUDE BENEATH FRAME. AFTER SETTING ALL JOINTS SHALL BE FILLED AND FINISHED SMOOTH WITH NON-SHRINK GROUT.

AFTER INSTALLING STAINLESS STEEL PIPE CLAMP, PACK KOR-N-SEAL GASKET WITH NON-SHRINK GROUT & FINISH SUCH THAT GROUT IS EVEN WITH THE INVERT OF THE PIPE AND FORMS A SMOOTH CONTINUOUS SURFACE TO THE MANHOLE CHANNEL AND WALLS.

PROVIDE A MINIMUM FALL OF 0.1 FOOT FROM DROP MANHOLE OUTLET.

A DIFFERENCE OF FLOW ELEVATION MORE THAN 24" REQUIRES AN OUTSIDE DROP.



**CONCRETE PAVEMENT**

**ORIGINAL BITUMINOUS SURFACING OVER 2"**

**NOTES:**

1. COVER UP TO AND INCLUDING ZONE 4 SHALL BE ESTABLISHED BEFORE TRENCH EXCAVATION.

2. ZONE 4 - 6" MIN. CONSOLIDATION EARTH BACKFILL INCLUDING TOPSOIL, NO ROCK ALLOWED.

3. ZONE 3 - CONSOLIDATED SOIL (NO ROCK GREATER THAN 6" DIAMETER) NO. 9, 57 OR 78 STONE

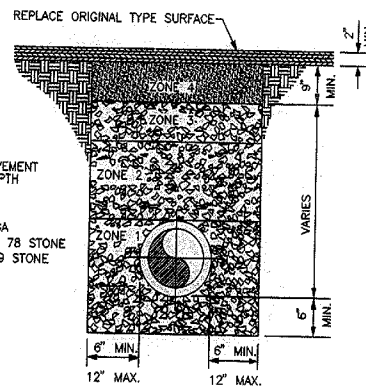
4. ZONE 2 - FROM THE SPRINGLINE OF THE PIPE TO A DISTANCE 12 INCHES ABOVE THE PIPE, THE CONTRACTOR SHALL USE THE SAME MATERIAL AS SPECIFIED FOR BEDDING. COMPACTION IS REQUIRED IN AREAS SUBJECT TO TRAFFIC.

5. ZONE 1 - BEDDING MATERIAL, IN EARTH EXCAVATION AREAS, SHALL BE CLEAN EARTH, FREE FROM ROCKS, DEBRIS OR OTHER FOREIGN MATERIAL. THE CONTRACTOR SHALL USE CRUSHED STONE, SAND OR GRAVEL AS BEDDING MATERIAL WHERE ROCK EXCAVATION IS ENCOUNTERED.

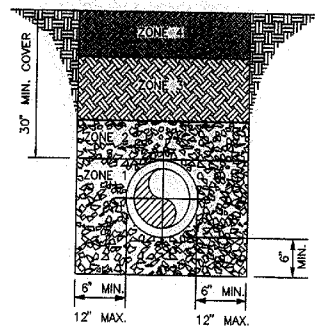
**NOTE:**

REPLACE BITUMINOUS PAVEMENT WITH SAME TYPE AND DEPTH AS EXISTING PAVEMENT

ZONE 4 - COMPACTED DGA  
ZONE 3 - NO. 9, 57, OR 78 STONE  
ZONE 2 - 12" MIN. NO. 9 STONE  
ZONE 1 - NO. 9 STONE



**ORIGINAL BITUMINOUS SURFACING 2" OR LESS AND TRAFFIC BOUND MACADAM**



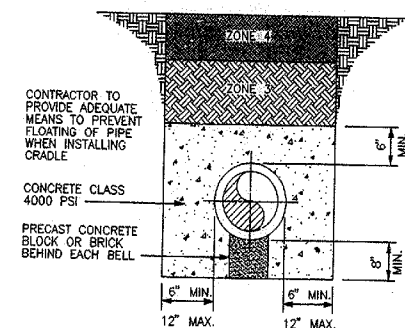
**PIPE LAID IN ROCK OR EARTH TRENCH**

NOTE: COVER UP TO AND INCLUDING ZONE 4 SHALL BE ESTABLISHED BEFORE TRENCH EXCAVATION

ZONE 4 - 6" MIN. CONSOLIDATION EARTH BACKFILL INCLUDING TOPSOIL, NO ROCK ALLOWED

ZONE 3 - CONSOLIDATED SOIL (NO ROCK GREATER THAN 6" DIAMETER) NO. 9, 57 OR 78 STONE

ZONE 2 - 12" MIN., NO. 9 STONE  
ZONE 1 - NO. 9 STONE

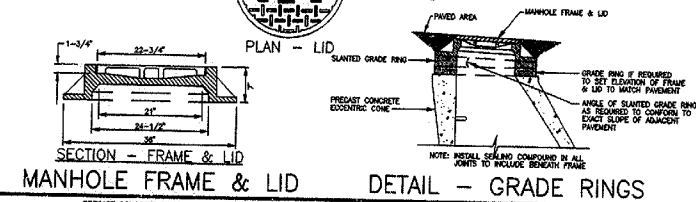


**STANDARD CONCRETE ENCASEMENT (NOTE: AS REQUIRED BY DESIGN)**



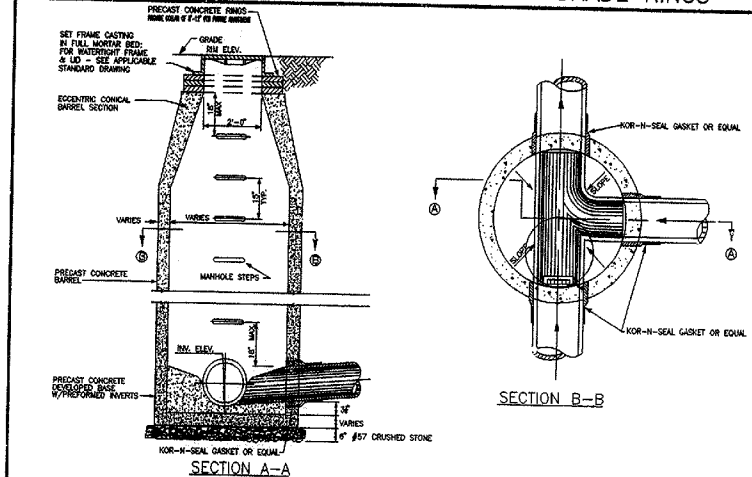
COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		143	104

ITEM #08-143.00

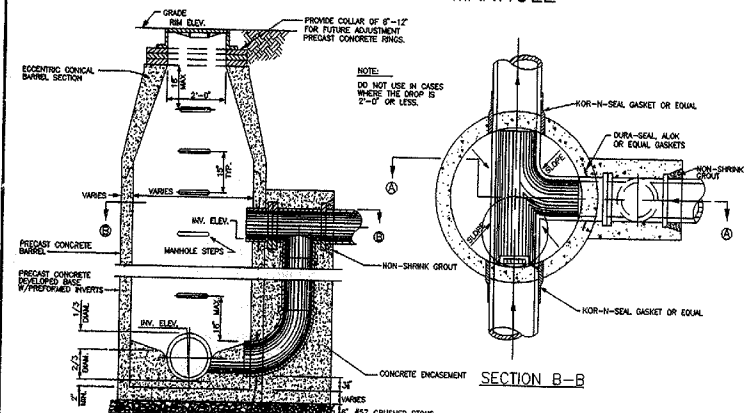


**SECTION - FRAME & LID**

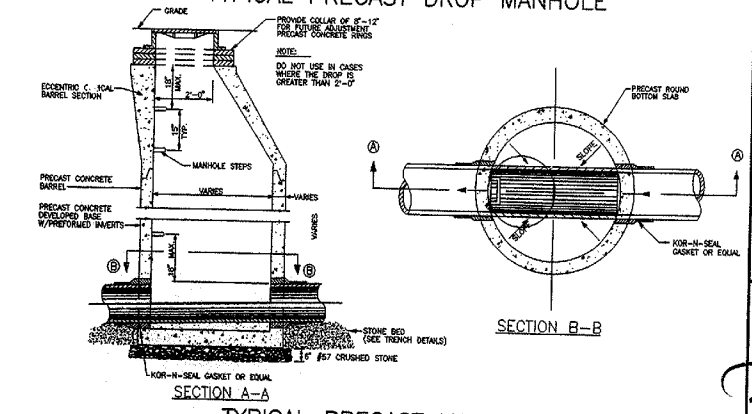
**DETAIL - GRADE RINGS**



**TYPICAL JUNCTION MANHOLE**



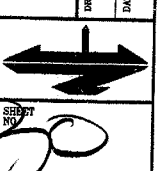
**TYPICAL PRECAST DROP MANHOLE**



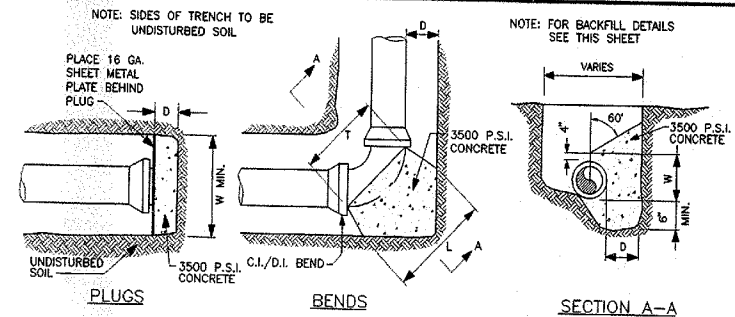
**TYPICAL PRECAST MANHOLE**

PROFESSIONAL  
**CITY OF MT. VERNON**  
**ROCKCASTLE COUNTY, KENTUCKY**  
**US 25 SANITARY SEWER RELOCATION**  
 STANDARD DETAILS

**NESBITT ENGINEERING, INC.**  
 ENGINEERS - SURVEYORS - SCIENTISTS  
 418 PARK PLACE, LEONINGTON, KENTUCKY 40311  
 SCALE: NOT TO SCALE  
 DRAWN BY: JCM  
 DATE: JANUARY, 1999  
 DISK/FILE NAME:



COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		14 K	104
ITEM #08-143.00			



3500 P.S.I. CONCRETE

4-#5 REBAR 18" LONG EACH WAY

STRAIGHT PIPE

NOTE: DEPTH (D) MAY NOT BE SMALLER THAN SPECIFIED TO ALLOW FOR WORKING SPACE. PIERS SHALL BE PLACED AGAINST UNDISTURBED SOIL. PLACE CONCRETE ANCHORS 25'-0" c/c.

NOTE: SEE PLAN SHEETS FOR SIZE AND LOCATION OF PIPE

3/4" DIAM. S.S. ANCHOR BOLTS W/NUTS WITH 1/4" x 3" STEEL STRAP AROUND PIPE. 2 REQ'D EACH BEND

#6 TIE BAR

3500 P.S.I. CONCRETE

UNDISTURBED SOIL

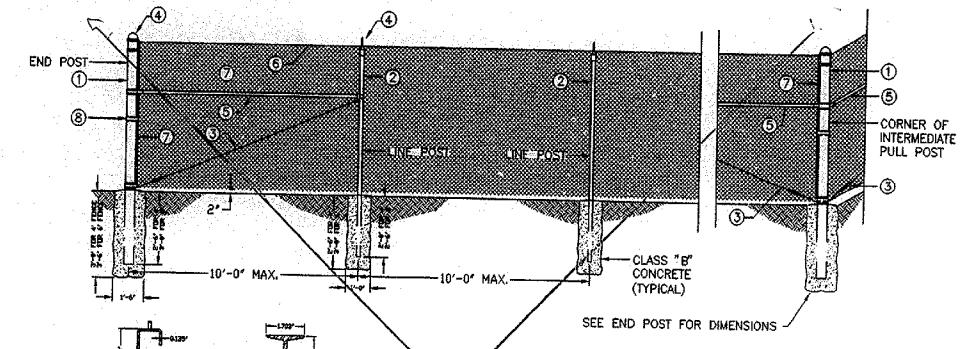
3500 P.S.I. CONCRETE

VERTICAL BENDS

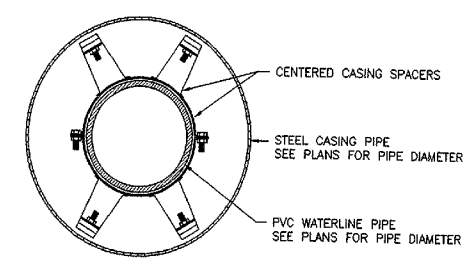
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CONCRETE ANCHOR BLOCKS

PIPE SIZE	3"	4"	6"	8"	10"	12"	14"
PLUGS							
D	6"	6"	6"	6"	6"	6"	6"
L&W	18"	18"	20"	22"	24"	26"	28"
EIGHT BEND (45°), 1/16 BEND (22-1/2°)							
D	6"	6"	6"	6"	6"	6"	6"
L	14"	16"	18"	20"	22"	24"	26"
T	12"	14"	16"	18"	20"	22"	24"
W	6"	8"	12"	14"	16"	18"	20"
QUARTER BEND (90°)							
D	6"	6"	6"	10"	10"	10"	12"
L	18"	21"	24"	27"	30"	33"	36"
T	12"	14"	16"	18"	20"	22"	24"
W	6"	8"	12"	16"	18"	20"	22"
VERTICAL BEND & STRAIGHT PIPE							
D	12"	12"	15"	15"	18"	18"	20"
L	18"	18"	24"	24"	30"	30"	32"
T	12"	14"	16"	18"	20"	22"	24"

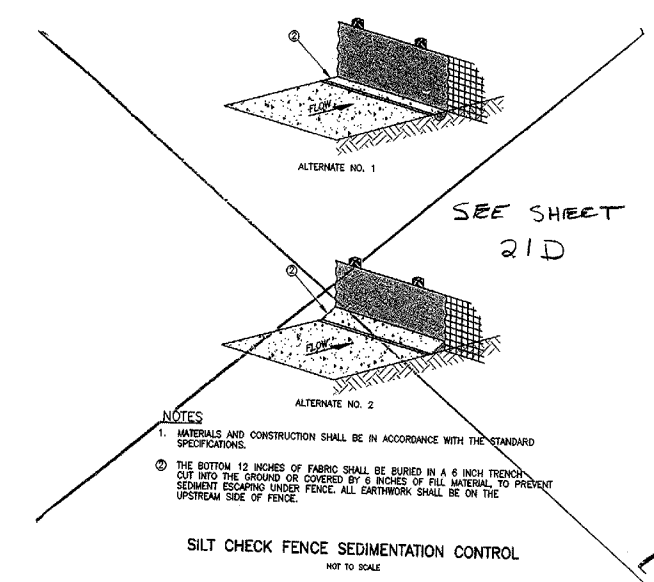
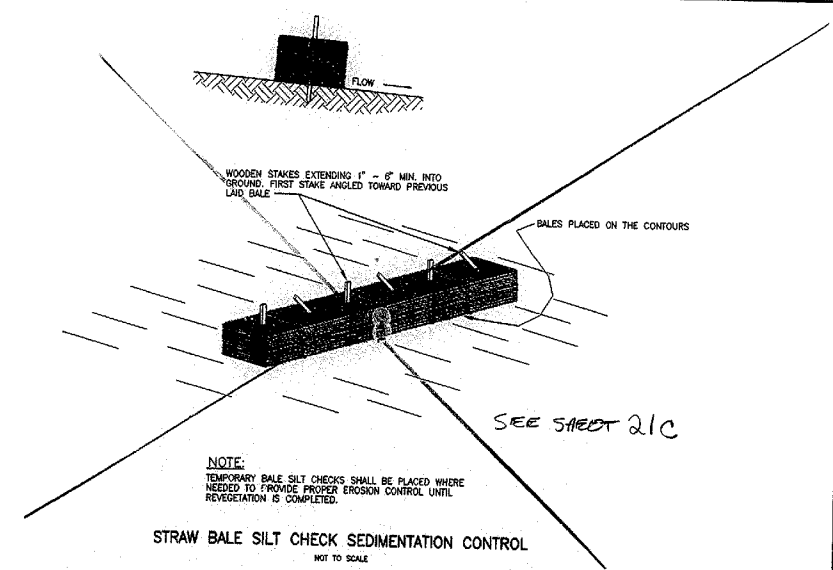


CHAIN LINK FENCE DETAIL  
SEE STANDARD DRAWINGS  
RFC-001-06 & RFW-001-03



NOTE: CARRIER PIPE SHALL BE INSERTED WITHIN CASING BY USE OF MODEL C05 STAINLESS STEEL CASING SPACERS AS MANUFACTURED BY CASCADE WATERWORKS MFG. CO. OR ENGINEER APPROVED EQUAL. INSTALL A MINIMUM OF THREE (3) 8" WIDE CASING SPACERS PER PIPE LENGTH PLACED ON SIX (6) FOOT CENTERS.

CASING SPACER DETAIL



CITY OF MT. VERNON  
ROCKCASTLE COUNTY, KENTUCKY  
US 25 SANITARY SEWER RELOCATION  
STANDARD DETAILS

NESBITT ENGINEERING, INC.  
ENGINEERS - SURVEYORS - SCIENTISTS  
418 PARK PLACE, LEXINGTON, KENTUCKY 40511

SCALE: NOT TO SCALE

JOB NO.: 706.18

DATE: JANUARY, 1999

31

# RIGHT OF WAY SUMMARY

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		15	104

ITEM # 08-143.00

PARCEL NO.	NAME	TOTAL AREA OF TRACT		EASEMENTS			AREA SEVERED		EXCESS PURCHASED HECTARE ACRE	PORTION REMAINING HECTARE ACRE	SEWER SYSTEM TYPE	SEWER SYSTEM AFFECTED BY PROJECT		BUILDINGS ACQUIRED NUMBER					HAZARDOUS WASTE	REMARKS
		HECTARE	ACRE	PERMANENT	TEMPORARY	CONSTRUCTION	LEFT	RIGHT				YES	NO	C	R	F	S			
		sq m	sq m	sq m	sq m	sq m	HECTARE	HECTARE				ACRE	ACRE	ACRE	ACRE					
1	NOT USED																			
2	S.S.C. DEVELOPMENT COMPANY	1.238 3.060 C	0.299 0.738	268 2881	151 1626			0.912 2.256		0.912 2.256		1			1				DEED BOOK 114 PAGE 43-45	
3	JAMES LAMBERT CARTER HOSKINS	0.361 0.894 C	0.170 0.421					0.191 0.473		0.191 0.473									DEED BOOK 135 PAGE 346 DEED BOOK 83 PAGE 469	
4	GUY MARTIN DOROTHY " (wf.)	9.308 23.000 C	0.104 0.258					9.204 22.742		9.203 22.742									DEED BOOK 135 PAGE 402	
5	NOT USED																			
6	JOSEPH LAMBERT JAMES LAMBERT	0.486 1.200 D			954 10269														DEED BOOK 109 PAGE 459	
7	NOT USED																			
8	H. T. HARDY BRENDA S. HARDY(wf.)	0.370 0.915 D			302 3248														DEED BOOK 162 PAGE 565	
9	LESSEE-McDONALD'S CORP. LESSOR-JAMES LAMBERT CARTER HOSKINS	0.002 0.006 D	0.002 0.006							0 0									LEASE BOOK 23 PAGE 444	
	DWIGHT HOSKINS DONITA " (wf.)																			
10	NOT USED																			

PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

FILE NAME: US25M.DGN  
 SAVED VIEW: R/W SUM  
 Cell Library: m:\odg\w\cbl  
 Cell Name: s\w\w  
 18-FEB-1999 11:57  
 6-93  
 FORM NO. 7m

NOTE: PERMANENT R/W ACQUIRED + PERMANENT EASEMENT  
+ AREA SEVERED = TOTAL AREA OF TRACT.

D DENOTES DEED  
C CALCULATED AREA

TYPE SEWER SYSTEM  
 1. PRIVATE - INDIVIDUAL  
 2. PRIVATE - MULTI PARTY  
 3. PUBLIC  
 4. NONE  
 5. NOT APPLICABLE

BUILDINGS ACQUIRED CODE  
 C - COMMERCIAL  
 R - RESIDENTIAL  
 F - FARM  
 S - STORAGE

HAZARDOUS WASTE  
 UST - UNDERGROUND STORAGE TANK

RIGHT OF WAY SUMMARY



COUNTY	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		16	24

115M 8-143 00

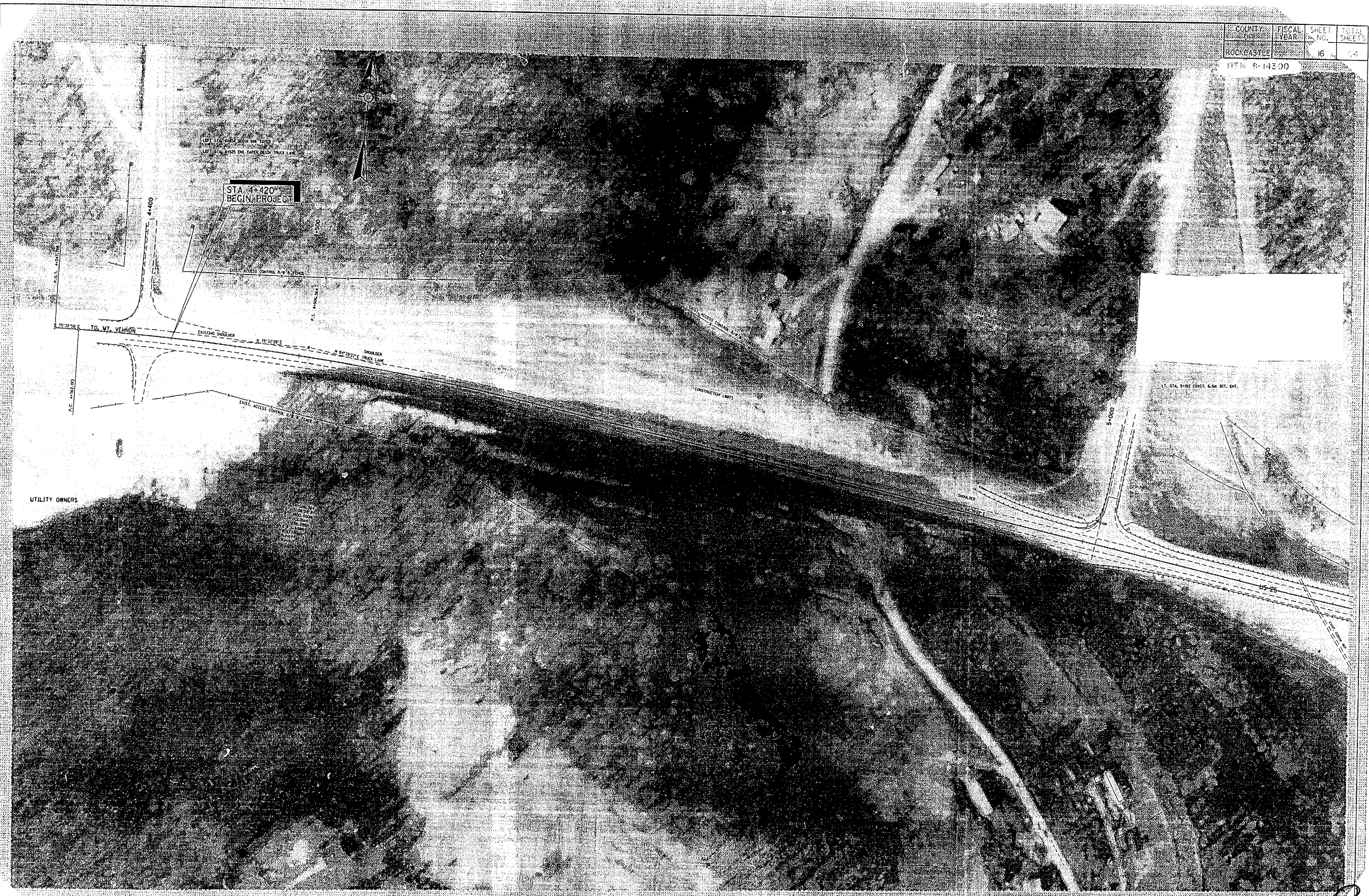
STA. 4+420  
BEGIN PROJECT



1. STA. 4+02 CONST. 6.5m INT. ENT.

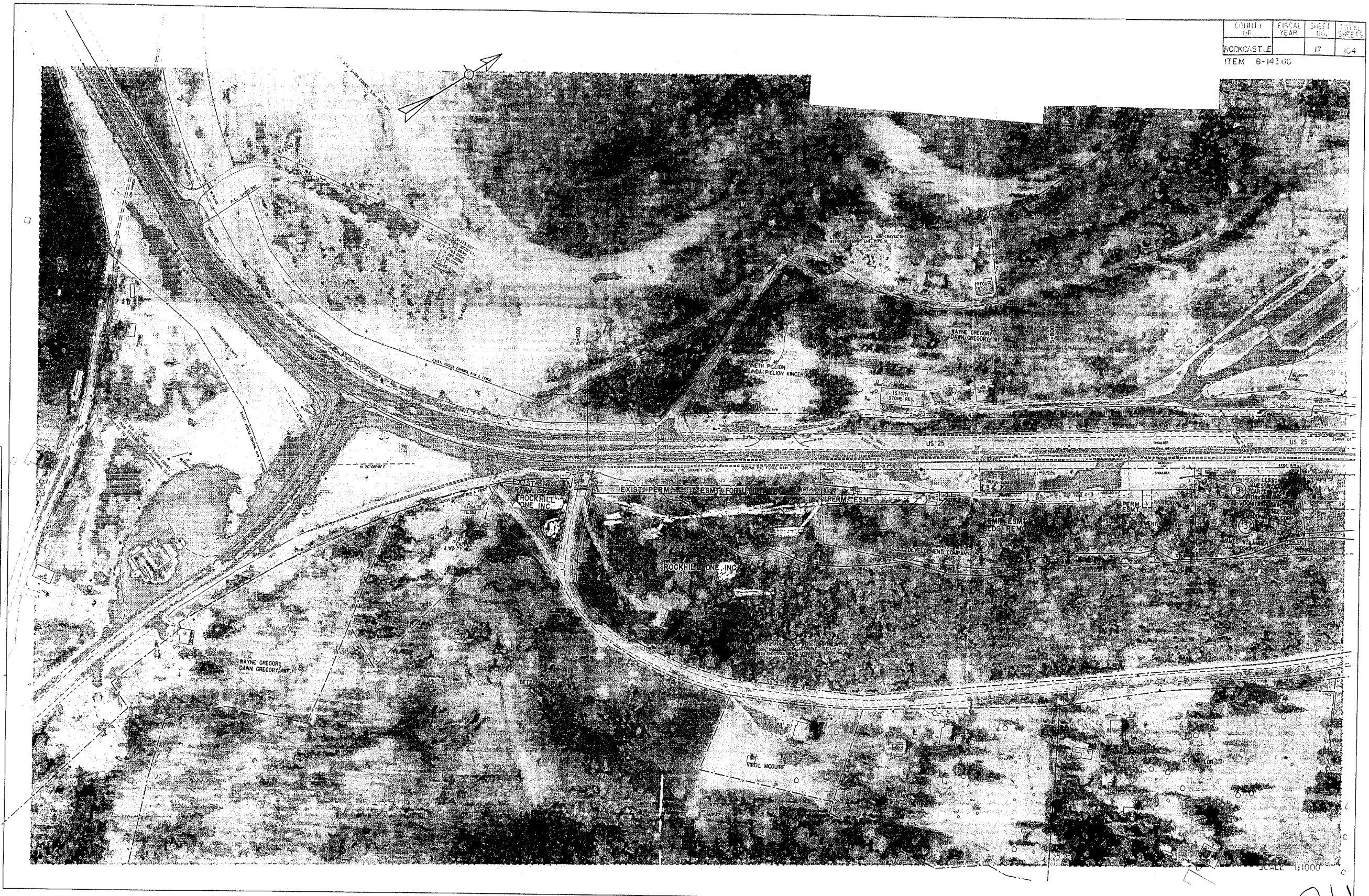
UTILITY OWNERS

SCALE: 33



COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		17	104

ITEM 8-14300



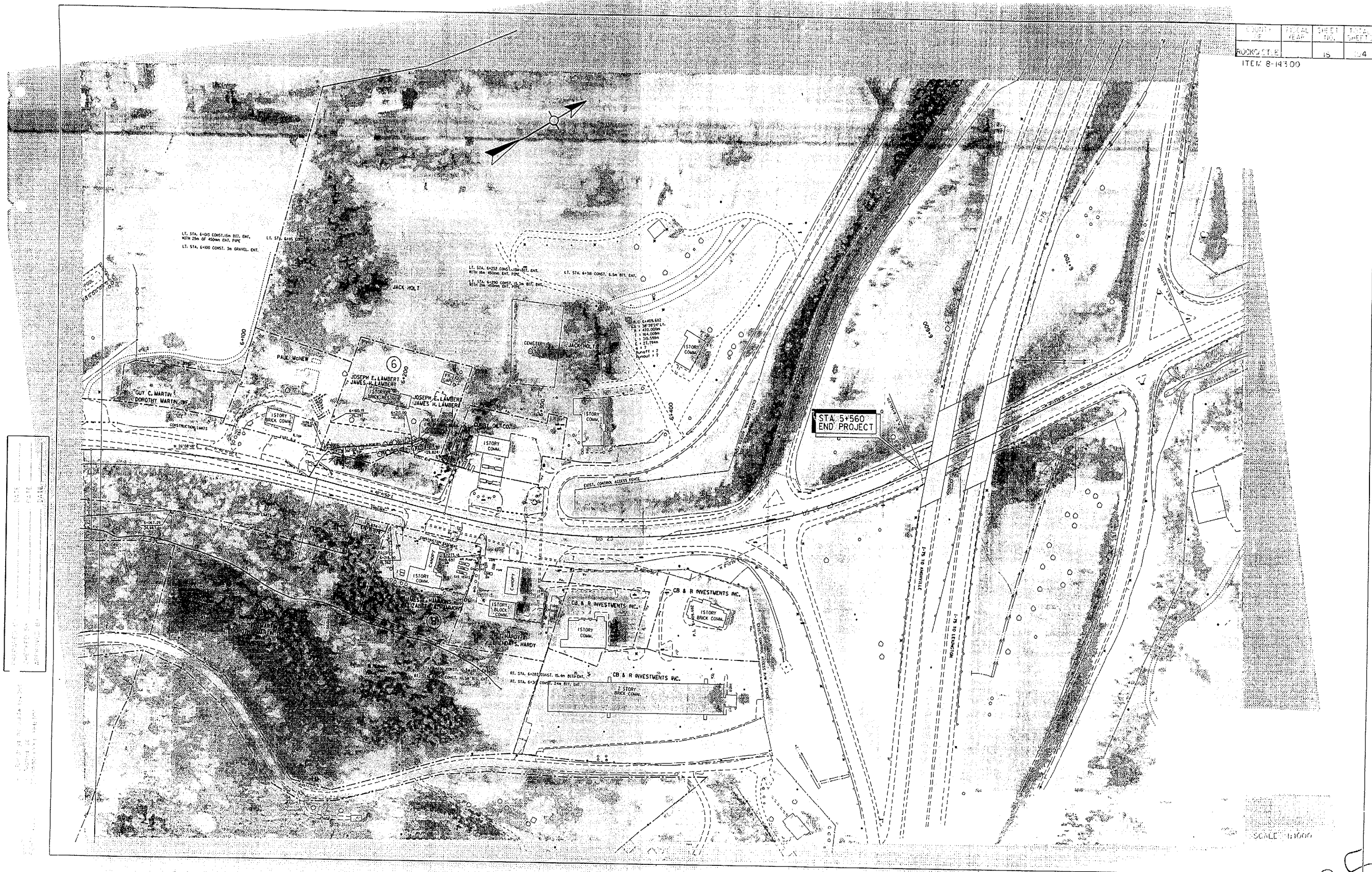
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 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

34

COUNTY	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKY MOUNTAIN	15	4	4

ITEM 8-14300



DATE: \_\_\_\_\_  
 PREPARED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_

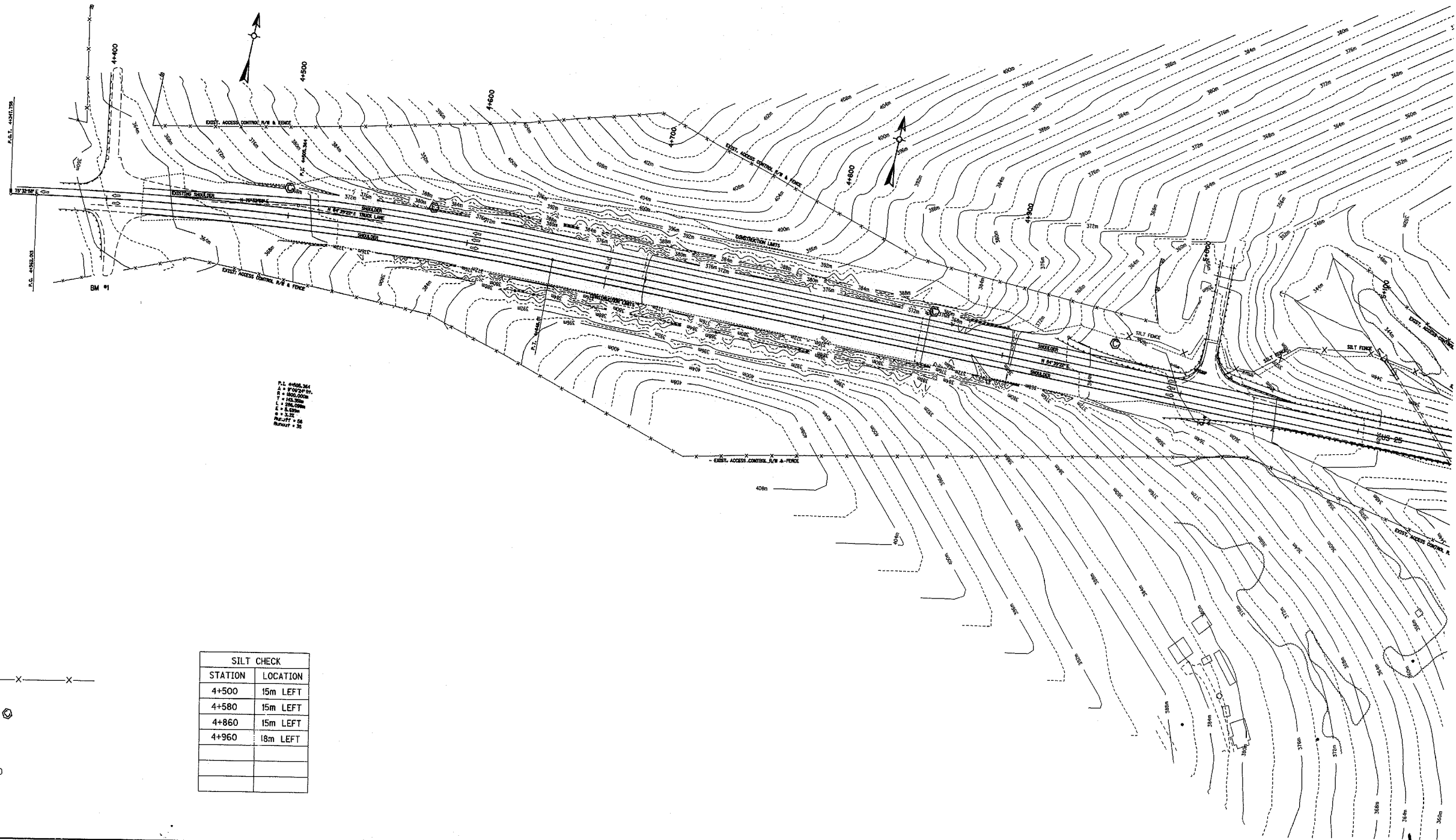
SCALE 1:1000

35

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		19	104

ITEM # 8-143.00

# EROSION CONTROL PLAN



P.L. #1000.000  
 S. # 1000.000  
 L. # 1000.000  
 A. # 1000.000  
 P. # 1000.000  
 R. # 1000.000  
 S. # 1000.000

PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

Cell Librar'y: mroodkoy.cel  
 Cell Number: sp  
 16-FEB-1999 13:19  
 6-93  
 FORM NO. 2m

## LEGEND

SILT FENCE —X—X—

SILT CHECK (Symbol)

SCALE 1:1000

SILT CHECK	
STATION	LOCATION
4+500	15m LEFT
4+580	15m LEFT
4+860	15m LEFT
4+960	18m LEFT

76  
 EROSION CONTROL PLAN

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		20	104

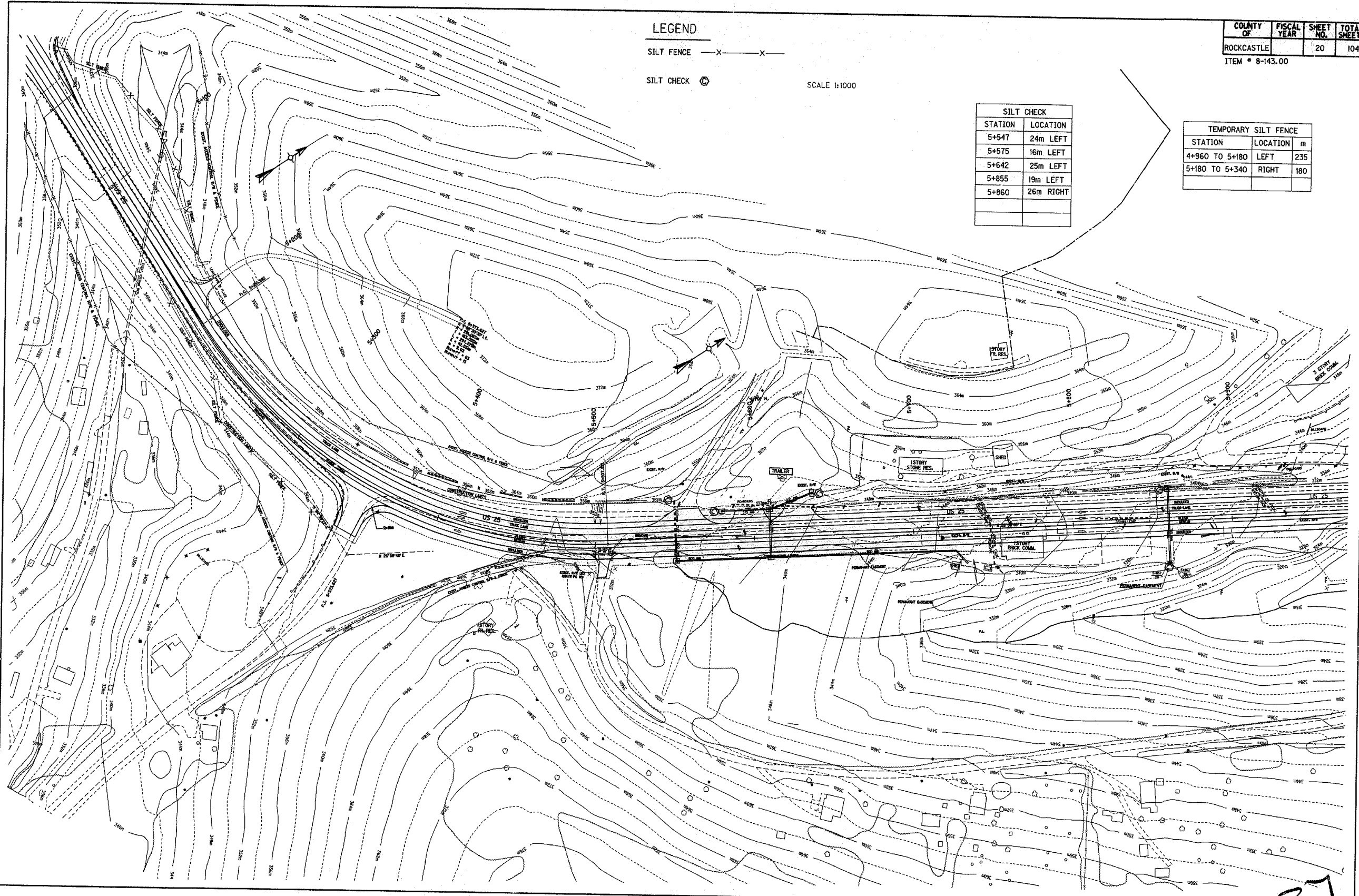
ITEM # 8-143.00

**LEGEND**  
 SILT FENCE — X — X —  
 SILT CHECK ⊙

SCALE 1:1000

SILT CHECK	
STATION	LOCATION
5+547	24m LEFT
5+575	16m LEFT
5+642	25m LEFT
5+855	19m LEFT
5+860	26m RIGHT

TEMPORARY SILT FENCE		
STATION	LOCATION	m
4+960 TO 5+180	LEFT	235
5+180 TO 5+340	RIGHT	180



PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

Cell Library: mroadwoy.cel  
 Cell Name: Sp  
 16-FEB-1999 13:26  
 6-93  
 FORM No. 2m

27  
 EROSION CONTROL PLAN

# EROSION CONTROL PLAN

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		21	104
ITEM # 8-143.00			

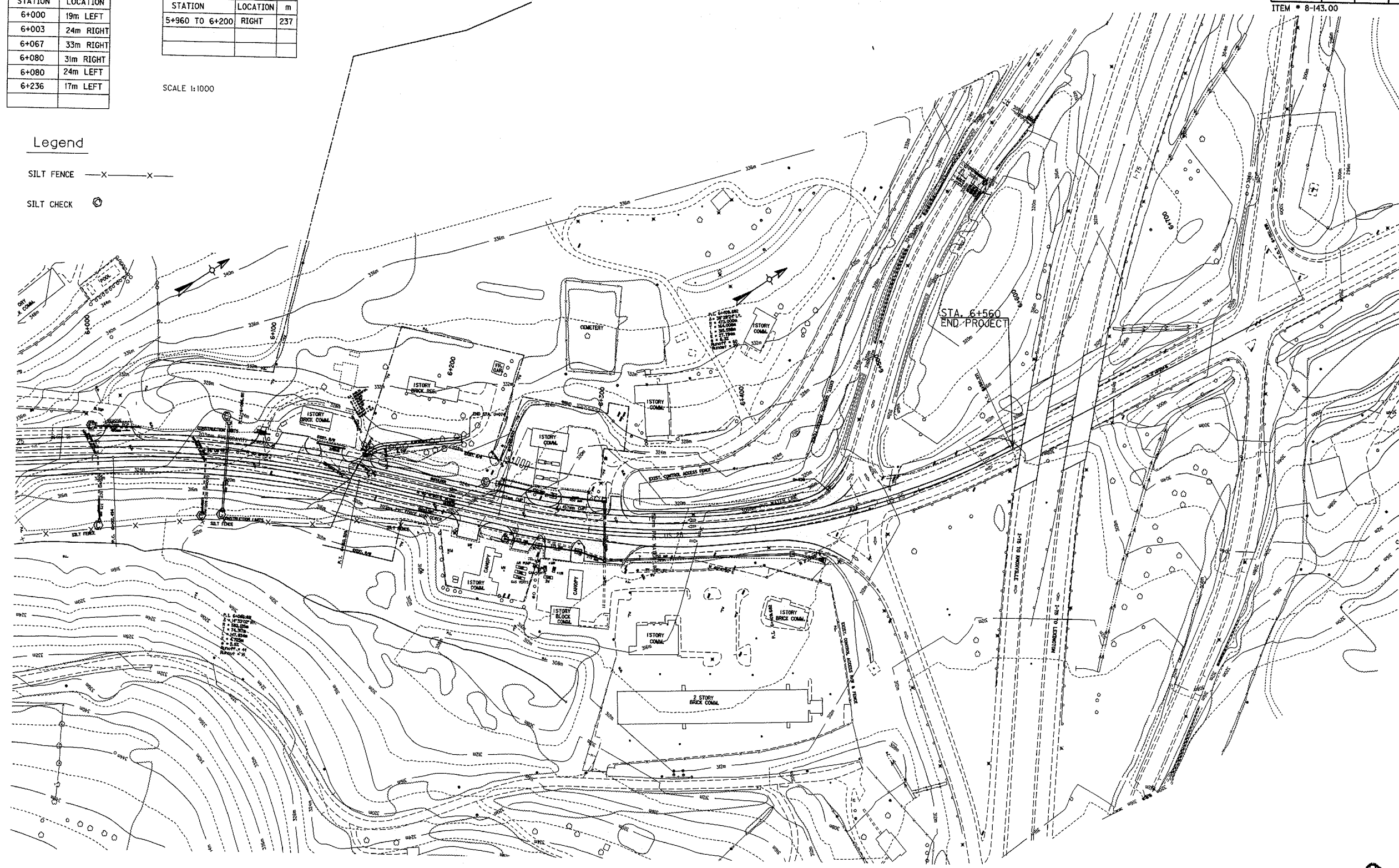
SILT CHECK	
STATION	LOCATION
6+000	19m LEFT
6+003	24m RIGHT
6+067	33m RIGHT
6+080	31m RIGHT
6+080	24m LEFT
6+236	17m LEFT

TEMPORARY SILT FENCE		
STATION	LOCATION	m
5+960 TO 6+200	RIGHT	237

SCALE 1:1000

## Legend

- SILT FENCE — X — X —
- SILT CHECK ⊙



PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

Cell Library: m:\rockwoy.cel  
 Cell Name: sd  
 16-FEB-1999 13:28  
 5-93 PUNCH NO. 2m

30  
 EROSION CONTROL PLAN

# TRAFFIC CONTROL NOTE SHEET

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		21a	104

ITEM# 8-143.00

## TRAFFIC CONTROL NOTES

### LANE WIDTH

THE CONTRACTOR SHALL MAINTAIN A TWO-LANE TRAVELED WAY WITH A MINIMUM LANE WIDTH OF 3.3 METERS; HOWEVER, DURING WORKING HOURS, ONE-WAY TRAFFIC MAY BE ALLOWED AT THE DISCRETION OF THE ENGINEER, PROVIDED ADEQUATE SIGNING AND A FLAGPERSON ARE AT THE LOCATION.

### BLASTING

DURING BLASTING OPERATIONS, TRAFFIC MAY BE HALTED A MAXIMUM OF 20 MINUTES PER HOUR TO ALLOW THE EXECUTION OF THE "SHOT" AND TO ALLOW FOR THE REMOVAL OF ROCK FRAGMENTS AND DEBRIS. BLASTING WILL NOT BE PERMITTED BETWEEN THE HOURS OF 7:30 AM AND 8:30 AM AND BETWEEN THE HOURS OF 3:30 PM AND 5:00 PM.

## PROJECT PHASING

### PHASE 1

TRAFFIC SHALL BE MAINTAINED ON THE EXISTING ROADWAY FROM STA. 4+420 TO STA. 6+560. CONSTRUCT THE ROCK CUT FROM STA. 4+420 TO STA. 5+000. CONSTRUCT THE FILLS FROM STA. 5+000 TO 6+560. CONSTRUCT THE PAVEMENT THROUGH THE BASE COURSE IN THE AREAS THAT HAVE BEEN WIDENED.

### PHASE 2

SHIFT TRAFFIC TO THE NEW LANES FROM STA. 5+300 TO STA. 6+560 AND COMPLETE CONSTRUCTION ALONG THE EXISTING ROADWAY. THE FINAL SURFACE COURSE SHALL BE COMPLETED UNDER TRAFFIC USING PART-WIDTH CONSTRUCTION.

PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

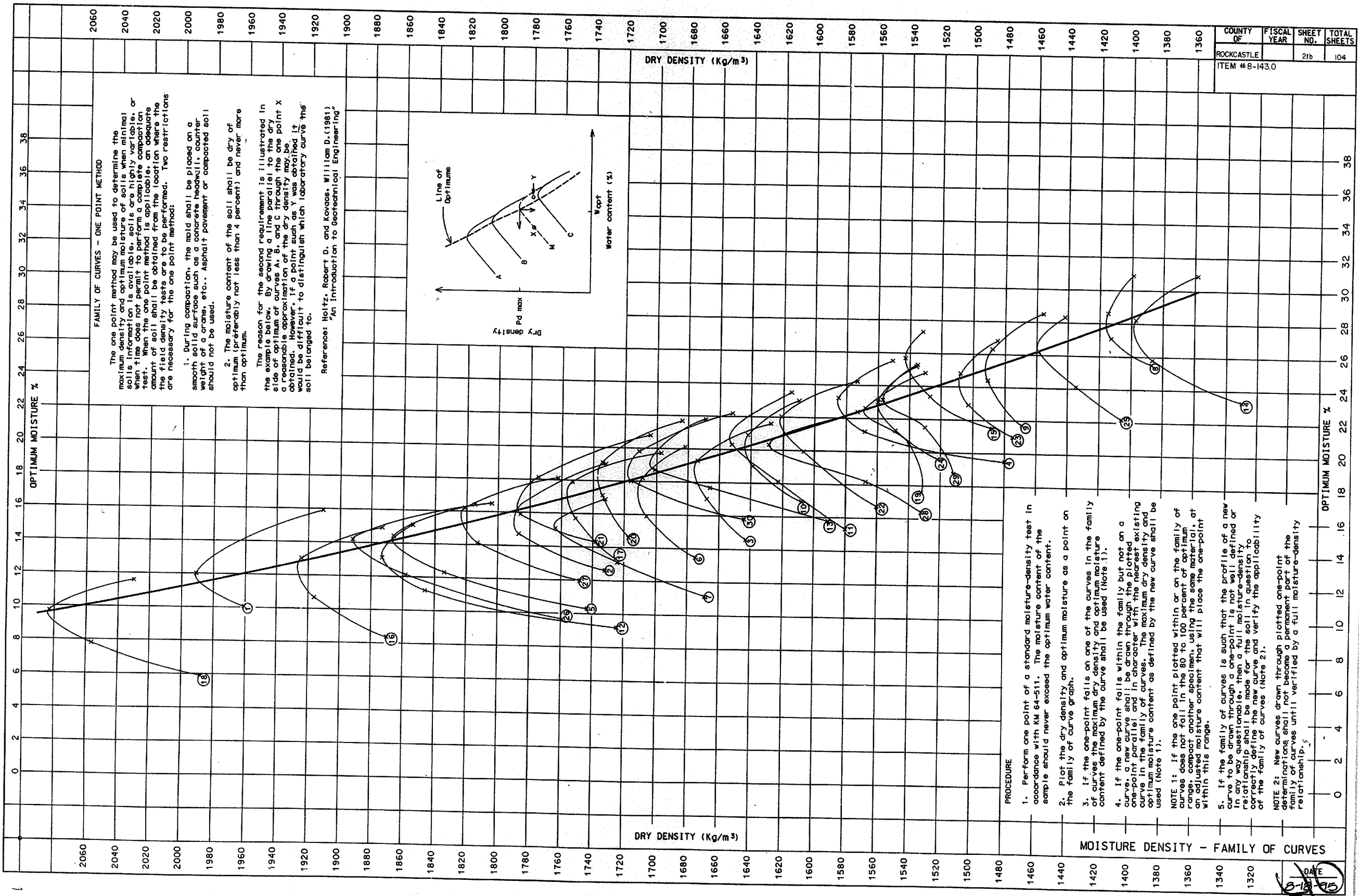
Cell Library: mroadway.cel  
Cell Name: sp  
19-FEB-1999 14:09

6-93  
FORM NO. 2a

METRIC

TRAFFIC CONTROL NOTE SHEET

39



**FAMILY OF CURVES - ONE POINT METHOD**

The one point method may be used to determine the maximum density and optimum moisture of soils when minimal soil information is available. Soils are highly variable, or when time does not permit to perform a complete compaction test. When the one point method is applicable, an adequate amount of soil shall be obtained from the location where the field density tests are to be performed. Two restrictions are necessary for the one point method:

1. During compaction, the mold shall be placed on a smooth soil surface such as a concrete headwall, counter weight of a curb, etc.. Asphalt pavement or compacted soil should not be used.
2. The moisture content of the soil shall be dry of optimum (preferably not less than 4 percent) and never more than optimum.

The reason for the second requirement is illustrated in the example below. By drawing a line parallel to the dry side of optimum of curves A, B, and C through the one point X a reasonable approximation of the dry density may be obtained. However, if a point such as Y was obtained it would be difficult to distinguish which laboratory curve the soil belonged to.

Reference: Holtz, Robert D. and Kovacs, William D. (1981), "An Introduction to Geotechnical Engineering"

- PROCEDURE**
1. Perform one point of a standard moisture-density test in accordance with RM 64-511. The moisture content of the sample should never exceed the optimum water content.
  2. Plot the dry density and optimum moisture as a point on the family of curve graph.
  3. If the one-point falls on one of the curves in the family of curves the maximum dry density and optimum moisture content defined by the curve shall be used (Note 1).
  4. If the one-point falls within the family but not on a curve, a new curve shall be drawn through the plotted one-point parallel and in character with the nearest existing curve in the family of curves. The maximum dry density and optimum moisture content as defined by the new curve shall be used (Note 1).
  - NOTE 1: If the one point plotted within or on the family of curves does not fall in the 80 to 100 percent optimum range, compact another specimen, using the same maximum at an adjusted moisture content that will place the one-point within this range.
  5. If the family of curves is such that the profile of a new curve to be drawn through a one-point is not well defined or in any way questionable, then a full moisture-density relationship shall be made for the soil in question to correctly define the new curve and verify the applicability of the family of curves (Note 2).
- NOTE 2: New curves drawn through plotted one-point determinations shall not become a permanent part of the family of curves until verified by a full moisture-density relationship.

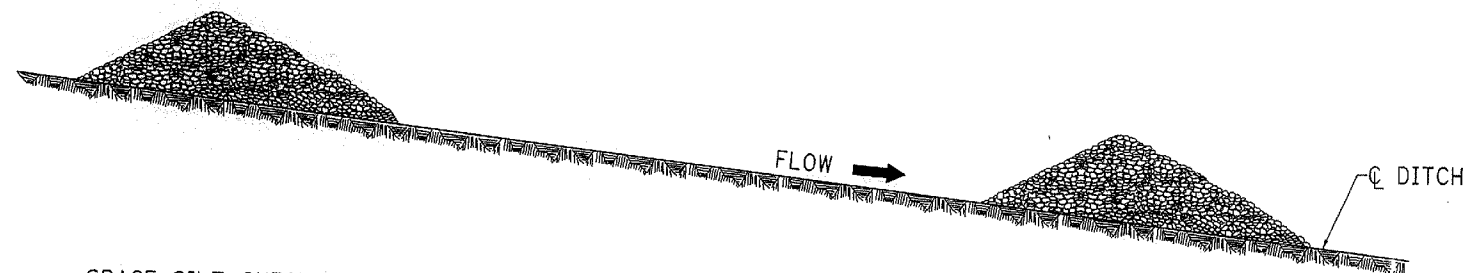
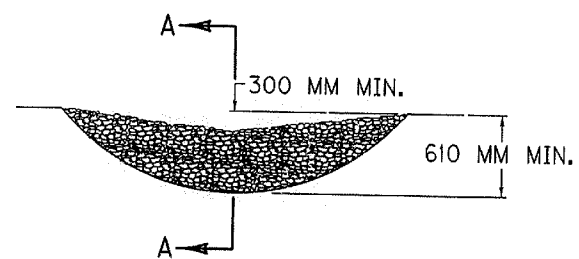
COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		21b	104

ITEM #8-143.0

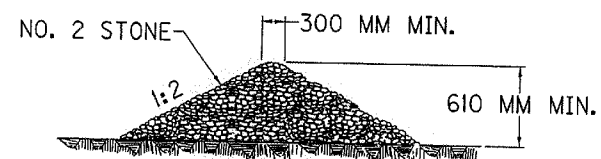
DATE  
8-13-95



COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		24	104
ITEM # 8-143.0			



SPACE SILT CHECKS AT INTERVALS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

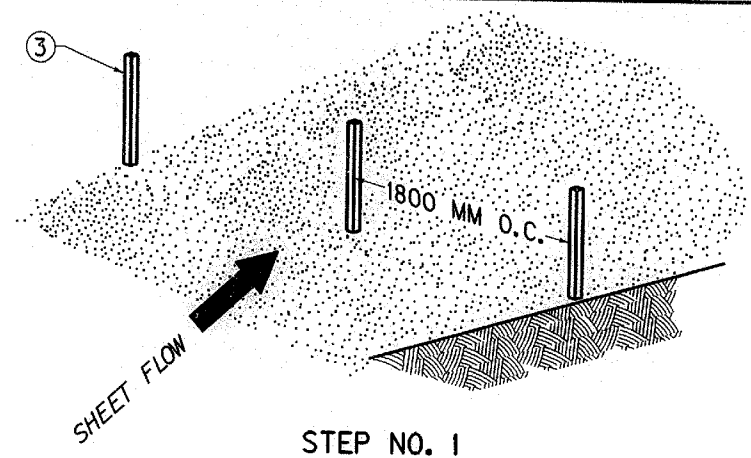


SECTION "A"

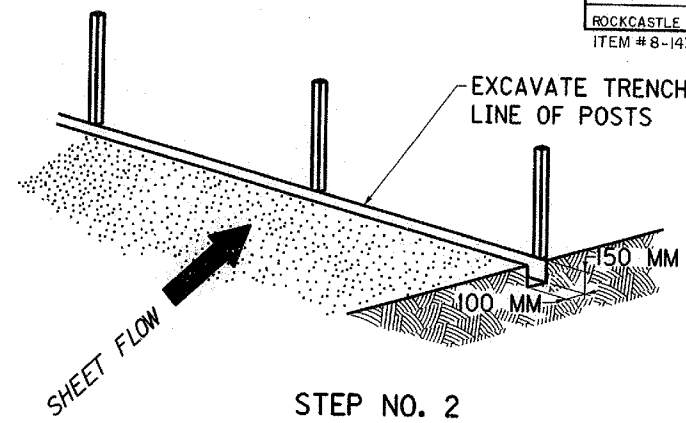
DATE 12-96  
 DRAWN I. S. GATEWOOD  
 CHECKED D.H. McALLISTER  
 RECOMMENDED  
 APPROVED F.H.W.A.

KENTUCKY DEPARTMENT OF HIGHWAYS	
SILT CHECK TYPE II & III CRUSHED STONE	
SUBMITTED <i>William S. Hales</i>	9-17-98
ASST. DIRECTOR DIVISION OF DESIGN	DATE
APPROVED	DATE
STATE HIGHWAY ENGINEER	

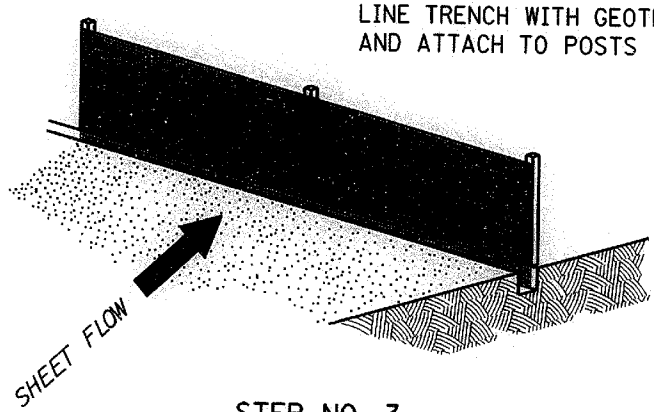
COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		21d	104
ITEM # 8-143.0			



STEP NO. 1

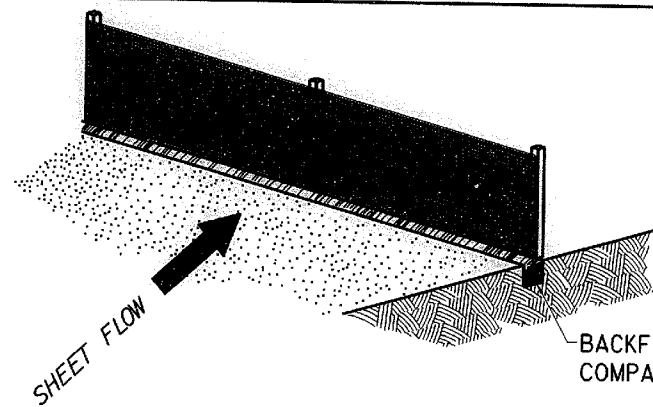


STEP NO. 2



STEP NO. 3

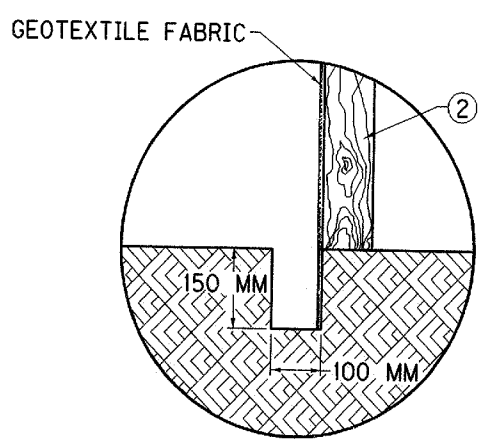
LINE TRENCH WITH GEOTEXTILE FABRIC AND ATTACH TO POSTS



STEP NO. 4

BACKFILL AND COMPACT EXCAVATED SOIL

DATE 12-96  
 DRAWN I. S. GATEWOOD  
 CHECKED D.H. MCALISTER  
 RECOMMENDED  
 APPROVED F.H.W.A.



SECTIONAL DETAIL

NOTES

1. SEE STANDARD SPECIFICATIONS FOR POST SIZE, GEOTEXTILE FABRIC, WIRE STAPLES AND ALL OTHER PERTINENT INFORMATION.
- ② POSTS MAY BE WOODEN OR METAL T-SECTION.
- ③ POSTS SHALL BE SET 400 MM DEEP.

**KENTUCKY  
DEPARTMENT OF HIGHWAYS**

**TEMPORARY  
SILT FENCE**

SUBMITTED *William S. Gentry* 2-17-98  
ASST. DIRECTOR DIVISION OF DESIGN DATE

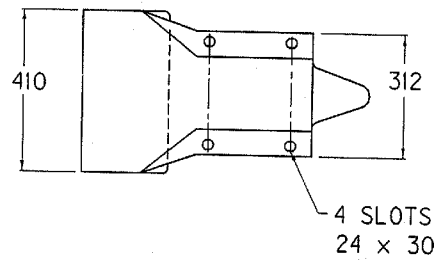
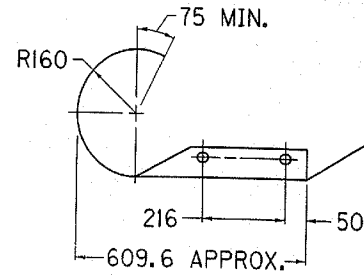
APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
STATE HIGHWAY ENGINEER

DRAWING SCALE:

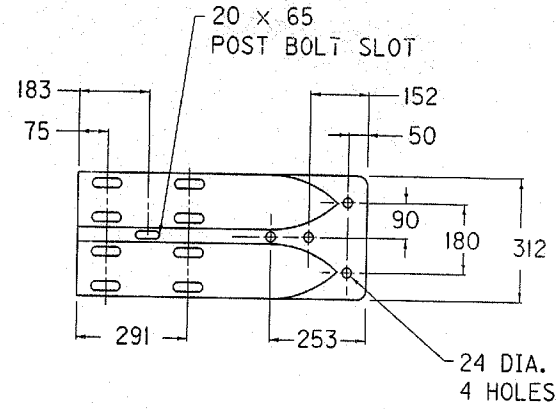
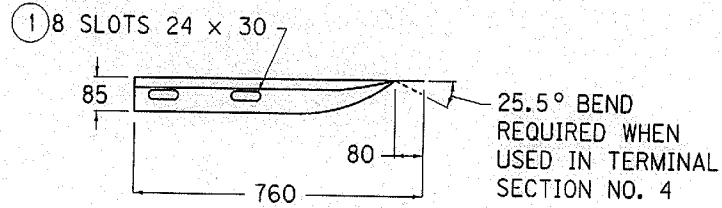
DIAPHRAGM PLATE PLAN VIEW: 1/2" = 1'-0"  
 SECTION "A-A", "B-B"  
 DETAIL BREAKAWAY LINE POST: FULL SIZE  
 TERMINAL SECTION NO. 1: 1/2" = 1'-0"  
 TERMINAL SECTION NO. 2: 1/2" = 1'-0"  
 TERMINAL SECTION NO. 3 FLAT PLATE LAYOUT: 1/2" = 1'-0"  
 TERMINAL SECTION NO. 4: 1/2" = 1'-0"

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		21e	104

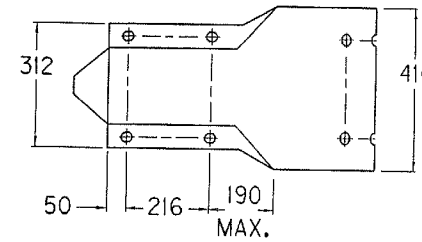
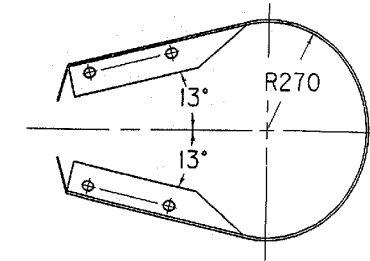
ITEM # 8-143.0



TERMINAL SECTION NO. 1



TERMINAL SECTION NO. 2



TERMINAL SECT. NO. 3

NOTES

TERMINAL SECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID EACH COMPLETE AND INSTALLED, EXCEPT WHEN INCIDENTAL TO OTHER BID ITEMS.

TERMINAL SECTIONS SHALL COMPLY WITH AASHTO M-180 AS FOLLOWS:

- a. TERMINAL SECTIONS NO. 1, 3, -CLASS A OR B, TYPE 2
- b. TERMINAL SECTION NO. 2-CLASS B, TYPE 2

① WHEN SLOTTED HOLES ARE EXPOSED (8) EIGHT RECTANGULAR FLAT WASHERS SHALL BE REQUIRED-50 MM SPLICE BOLTS ARE TO BE USED IF NEEDED.

2. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SHOWN OTHERWISE.

KENTUCKY  
DEPARTMENT OF HIGHWAYS

GUARDRAIL  
TERMINAL SECTIONS

SUBMITTED *William S. Galbraith* 10-1-98  
ASSIST. DIRECTOR DIVISION OF DESIGN DATE

DATE: 10-1-98  
 DRAWN: J. S. GALBRAITH  
 CHECKED: D.H. MCALISTER  
 RECOMMENDED: *[Signature]*  
 APPROVED: F.M.W.A.

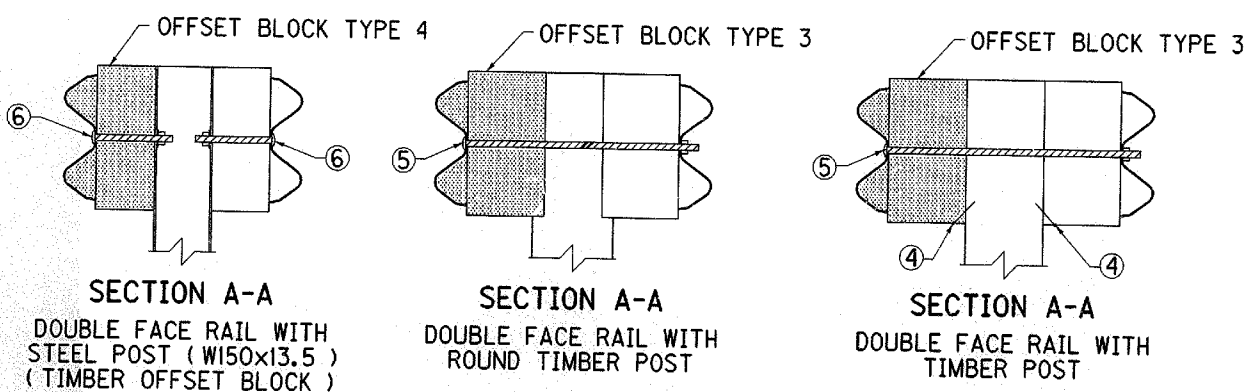
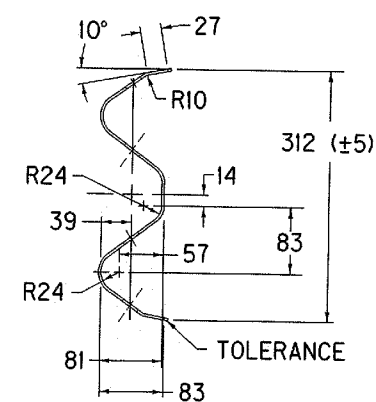
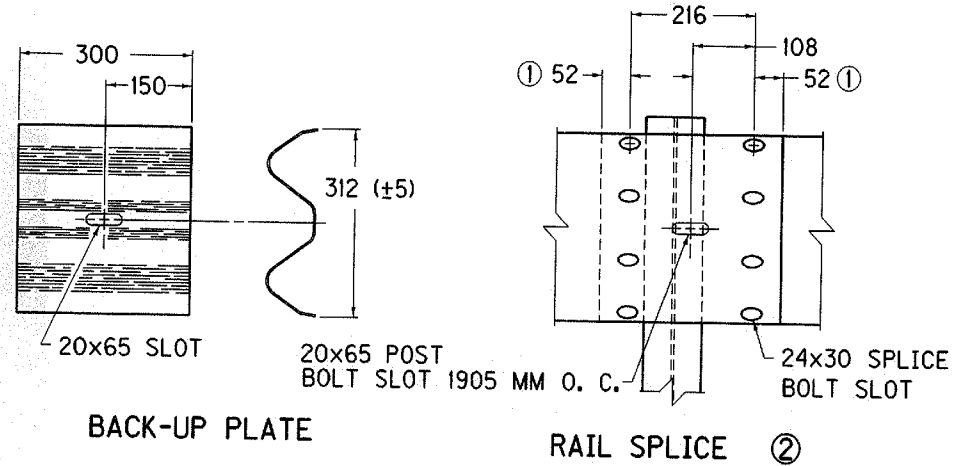
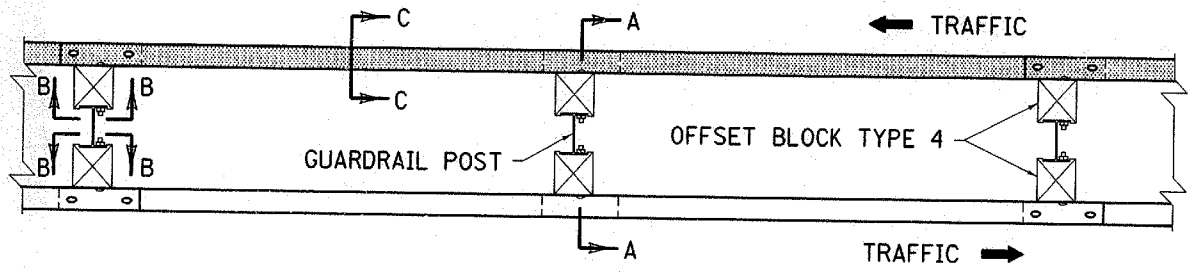
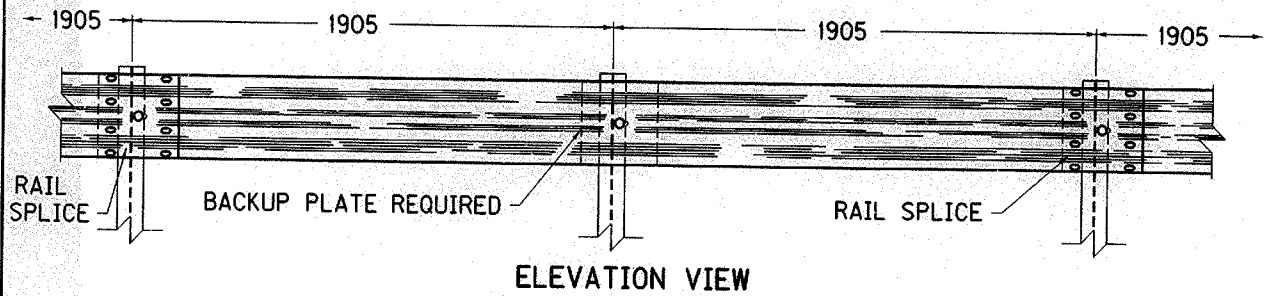
DATE: 5-1-97  
FORM NO. 10

24

DRAWING SCALE:  
 ELEVATION & PLAN VIEW 1" = 1'  
 BACK-UP PLATE & RAIL SPLICE 1/8" = 1"  
 SECTION A-A 1/2" = 1'  
 SECTION B-B & SECTION C-C 3" = 1'

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		211	104

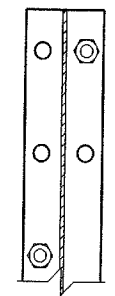
ITEM # 8-143.0



**NOTES**  
 THE CONTRACT UNIT PRICE BID SHALL BE:  
 GUARDRAIL-STEEL W BEAM-SINGLE FACE  
 OR  
 GUARDRAIL-STEEL W BEAM-DOUBLE FACE  
 DIMENSIONAL TOLERANCES NOT SHOWN OR IMPLIED ARE INTENDED TO BE THOSE CONSISTENT WITH THE PROPER FUNCTIONING OF THE PART, INCLUDING ITS APPEARANCE AND ACCEPTED MANUFACTURING PRACTICES.  
 THE RAIL ELEMENT SHALL COMPLY WITH AASHTO M-180 -CLASS A, TYPE II.  
 ALL LAPS SHALL BE PLACED IN THE DIRECTION OF TRAFFIC FLOW.  
 ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SHOWN OTHERWISE.

- ① TOLERANCE - 6, +30
- ② 8 - M16x35 LONG BUTTON HEAD BOLTS AND HEX HEAD RECESS NUTS REQUIRED FOR EACH RAIL SPLICE.
- ③ LENGTH EQUALS POST AND BLOCK WIDTH PLUS: 50 MM FOR BOLT OR 55 MM FOR THREADED ROD.
- ④ GALVANIZED STEEL 10d COMMON COATED NAIL (DRIVE NAIL AT THE TOP OR BOTTOM CENTER OF BLOCK AND POST AFTER BOLT IS INSTALLED).
- ⑤ 16x ③ STEEL THREADED ROD AND TWO (2) HEX HEAD NUTS OR M16x ③ BUTTON OR HEX HEAD BOLT AND HEX HEAD NUT.
- ⑥ M16x205 BUTTON HEAD BOLT, HEX HEAD RECESS NUT AND ONE 16 MM ROUND WASHER (TYP.). BOLT SHALL HAVE A MINIMUM THREAD LENGTH OF 50 MM.

■ REQUIRED FOR DOUBLE RAIL



USE WITH CUR. STD. DWG. RBR-005

KENTUCKY  
 DEPARTMENT OF HIGHWAYS

STEEL BEAM  
 GUARDRAIL  
 ("W" BEAM)

SUBMITTED *William S. Galt* 10-1-98  
 ASSIST. DIRECTOR DIVISION OF DESIGN

44

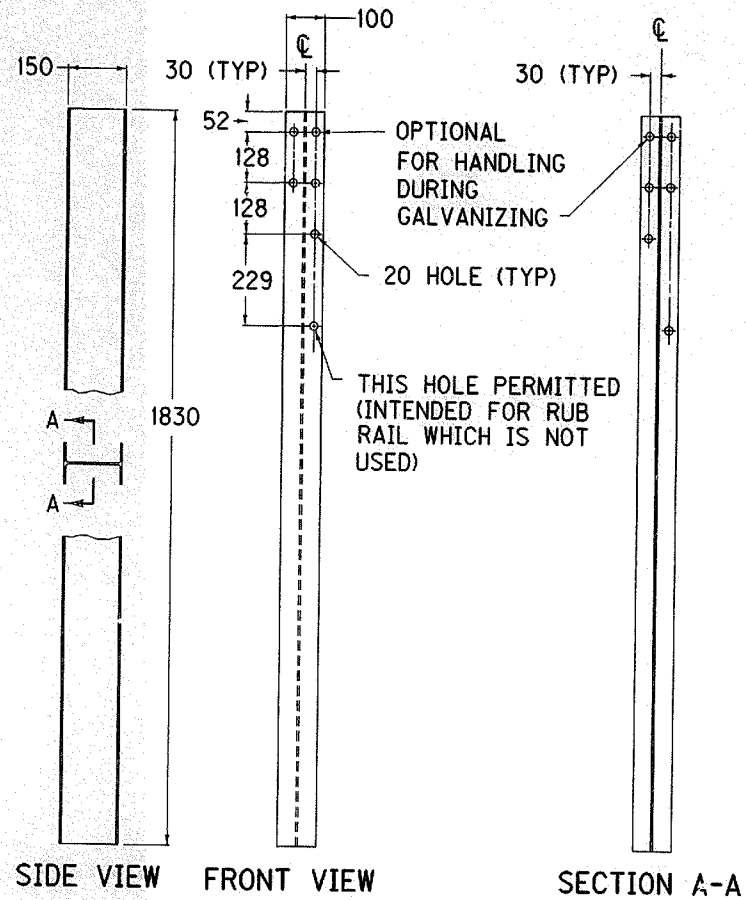
DATE: APRIL 1994  
 METRIC: T. GATEWOOD

DATE: 8-5-98  
 DRAWN: D. H. MCALISTER  
 CHECKED: D. H. MCALISTER  
 RECOMMENDED: [Signature]  
 APPROVED: F.H.W.A.

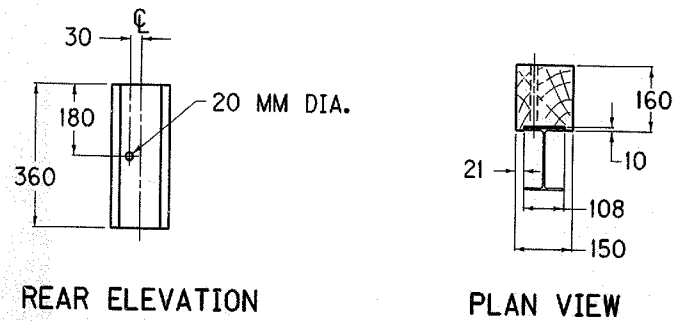
DRAWING SCALE:  
 POST W6X9.0 1/2" = 1" ALL VIEWS  
 POST 6C 1/2" = 1" PLAN = 1/2" = 1"  
 OFFSET W6X9.0 3" = 1" ALL VIEWS  
 ANCHOR PLATE 1/4" = 1" ALL VIEWS  
 DETAIL "A" 1/2" = 1"

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		21a	104

ITEM # 8-143.0



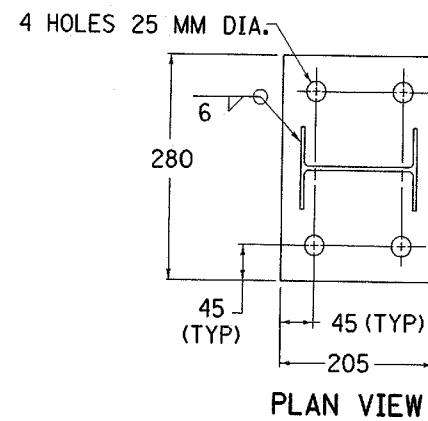
~ W150 X 13.5 STEEL POST ② ~



REAR ELEVATION

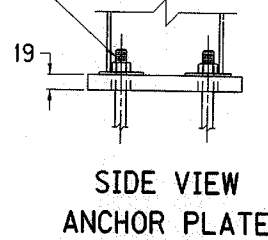
PLAN VIEW

OFFSET BLOCK TYPE 4  
 (TIMBER)  
 (FOR USE WITH STEEL POST ONLY)

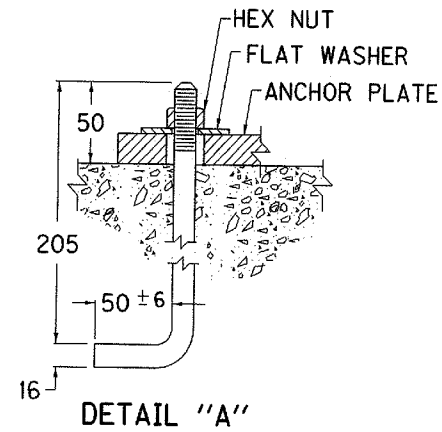


PLAN VIEW

SEE DETAIL "A"



SIDE VIEW  
 ANCHOR PLATE



DETAIL "A"

~ NOTES ~

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SHOWN OTHERWISE.

② W150 X 12.6 IS AN ACCEPTABLE ALTERNATE.

USE WITH CUR. STD. DWG. RBR-016

KENTUCKY  
 DEPARTMENT OF HIGHWAYS

GUARDRAIL POSTS

SUBMITTED *William S. Hallock* 10-98  
 ASSIST. DIRECTOR DIVISION OF DESIGN DATE

DATE  
 APRIL 1994

METRIC T. GATEWOOD

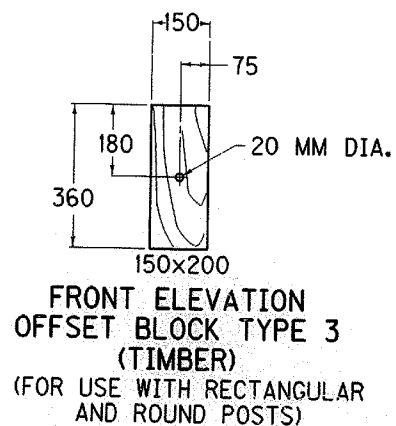
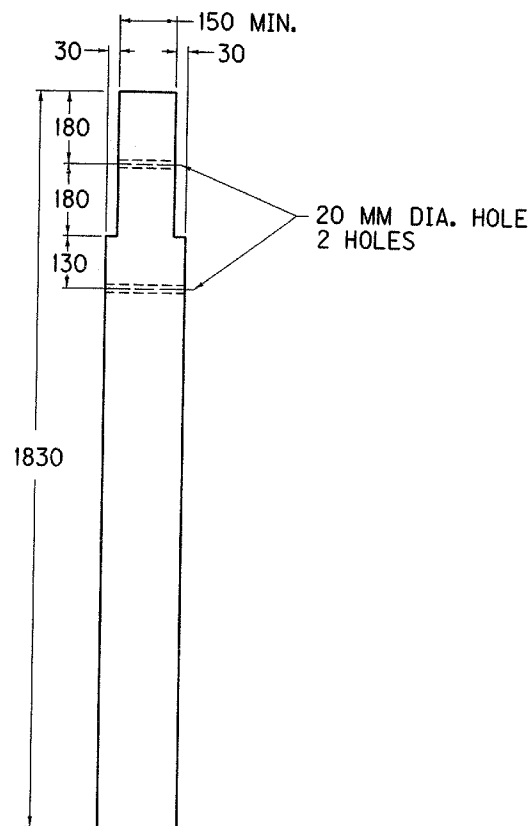
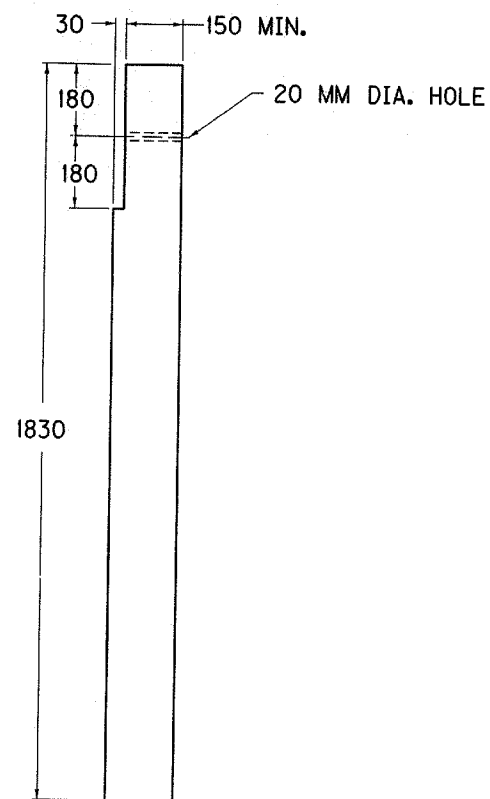
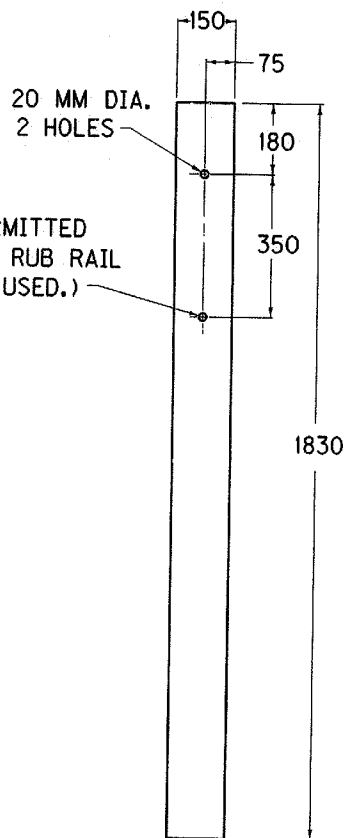
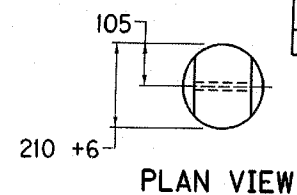
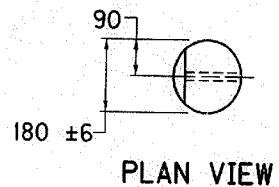
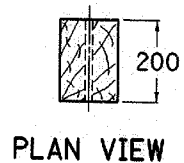
DATE  
 8-6-98

DRAWN D. H. MCGALLISTER  
 CHECKED D. H. MCGALLISTER  
 RECOMMENDED *[Signature]*  
 APPROVED F.H.W.A.

DRAWING SCALE:  
ALL VIEWS 1/2" = 1'-0"

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		214	104

ITEM #B-143.0



NOTE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SHOWN OTHERWISE.

DATE 8-6-98  
DRAWN T. S. GATEWOOD  
CHECKED D.H. MCALISTER  
RECOMMENDED 8-6-98  
APPROVED F.H.W.A.

USE WITH CUR. STD. DWG. RBR-015

KENTUCKY  
DEPARTMENT OF HIGHWAYS

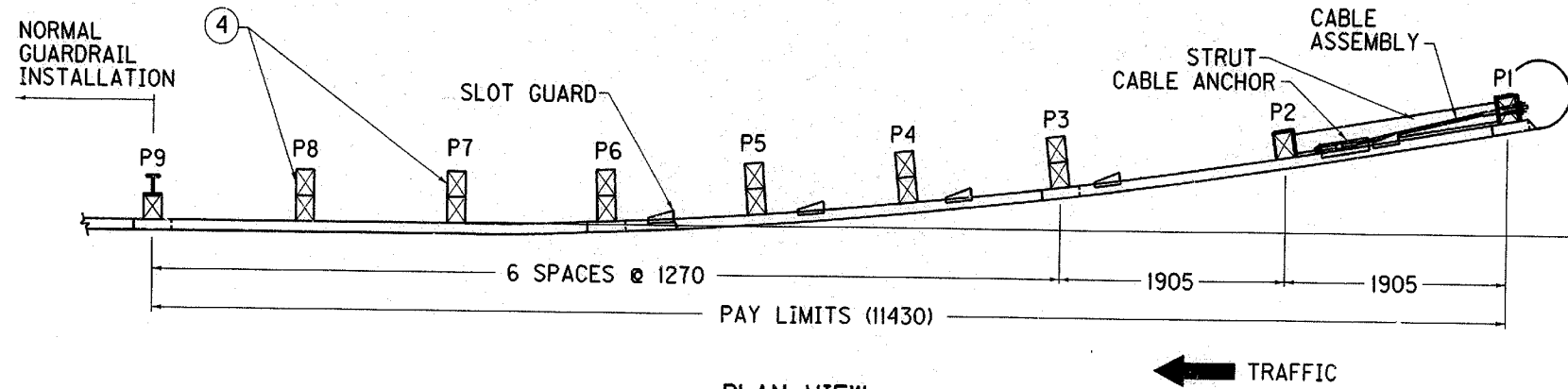
GUARDRAIL POSTS

SUBMITTED *William S. Galt* 10-1-98  
ASSIST. DIRECTOR DIVISION OF DESIGN DATE

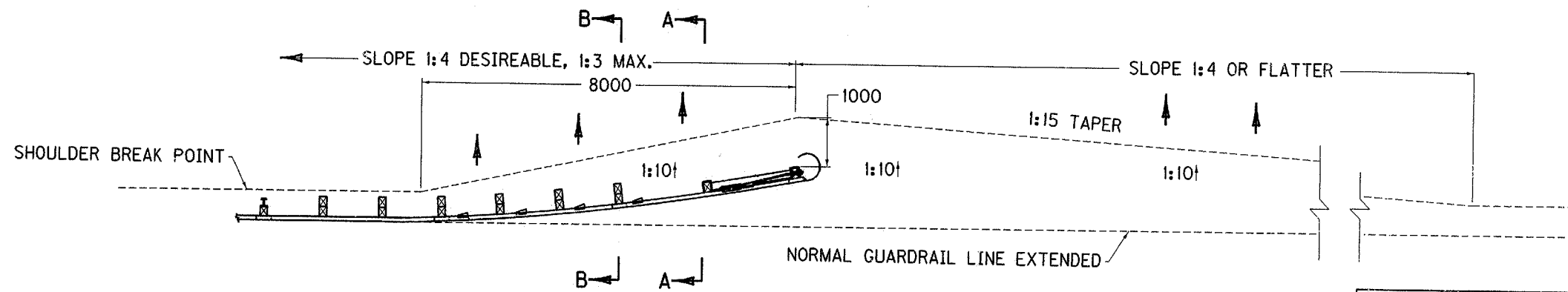
DRAWING SCALE:

COUNTY OF	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ROCKCASTLE		211	104

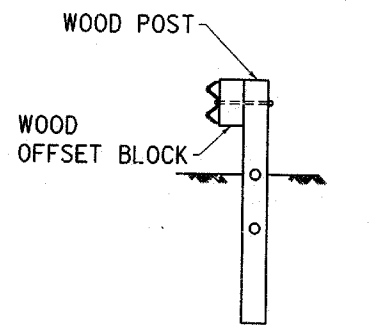
ITEM # 8-143.0



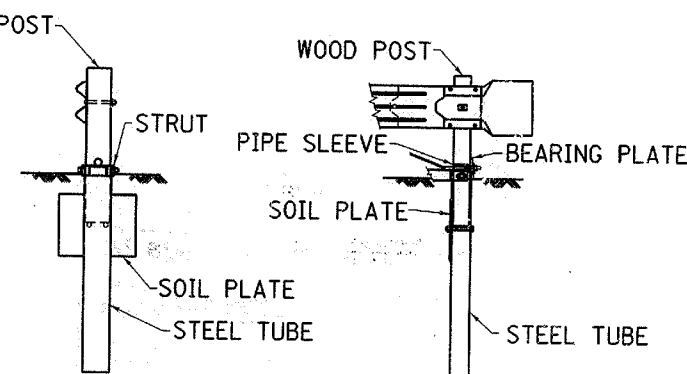
PLAN VIEW



SLOPE LAYOUT AND GRADING DETAIL



SECTION B-B  
(POSTS P3 THRU P8)



SECTION A-A  
(POST P2)

ENLARGED VIEW P1

POSTS	OFFSETS ⑦
P1	915
P2	565
P3	300
P4	170
P5	75
P6	20
P7	0
P8	0
P9	0

1. BID ITEMS AND UNIT TO BID:
  - A. GUARDRAIL END TREATMENT TYP 4A - EACH
  - B. MATERIAL USED TO CONSTRUCT WIDENING SHALL BE BID AS ROADWAY OR BORROW EXCAVATION OR EMBANKMENT-IN-PLACE AT THE CONTRACT UNIT PRICE PER CUBIC METER.
2. INTENDED USE: FILLS WITH ADEQUATE VEHICLE RECOVERY ZONE BEHIND GUARDRAIL.
3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SHOWN OTHERWISE.
- ④ GUARDRAIL SHALL NOT BE ATTACHED TO OFFSET BLOCK AND POST AT THIS LOCATION.
5. GUARDRAIL END TREATMENT TYPE 4A IS A PATENTED (ONE SOURCE) PRODUCT MANUFACTURED BY SYRO STEEL OF GIRARD, OHIO.
6. THE MANUFACTURER SHALL FURNISH TWO (2) SETS OF SHOP PLANS TO THE CONTRACTOR WITH EACH INSTALLATION.
- ⑦ PARABOLIC OFFSET SHALL BE MEASURED FROM FACE OF OFFSET BLOCK AT NORMAL GUARDRAIL SECTION TO FACE OF OFFSET BLOCK (FACE OF POST AT P1 AND P2) IN PARABOLIC SECTION.

KENTUCKY  
DEPARTMENT OF HIGHWAYS

**GUARDRAIL  
END TREATMENT  
TYPE 4A**

SUBMITTED *William S. Gabel* 10-1-98  
ASSIST. DIRECTOR DIVISION OF DESIGN DATE

DATE 8-98  
DRAWN I. S. GATEWOOD  
CHECKED D. H. McALISTER  
RECOMMENDED  
APPROVED F.H.W.A.