

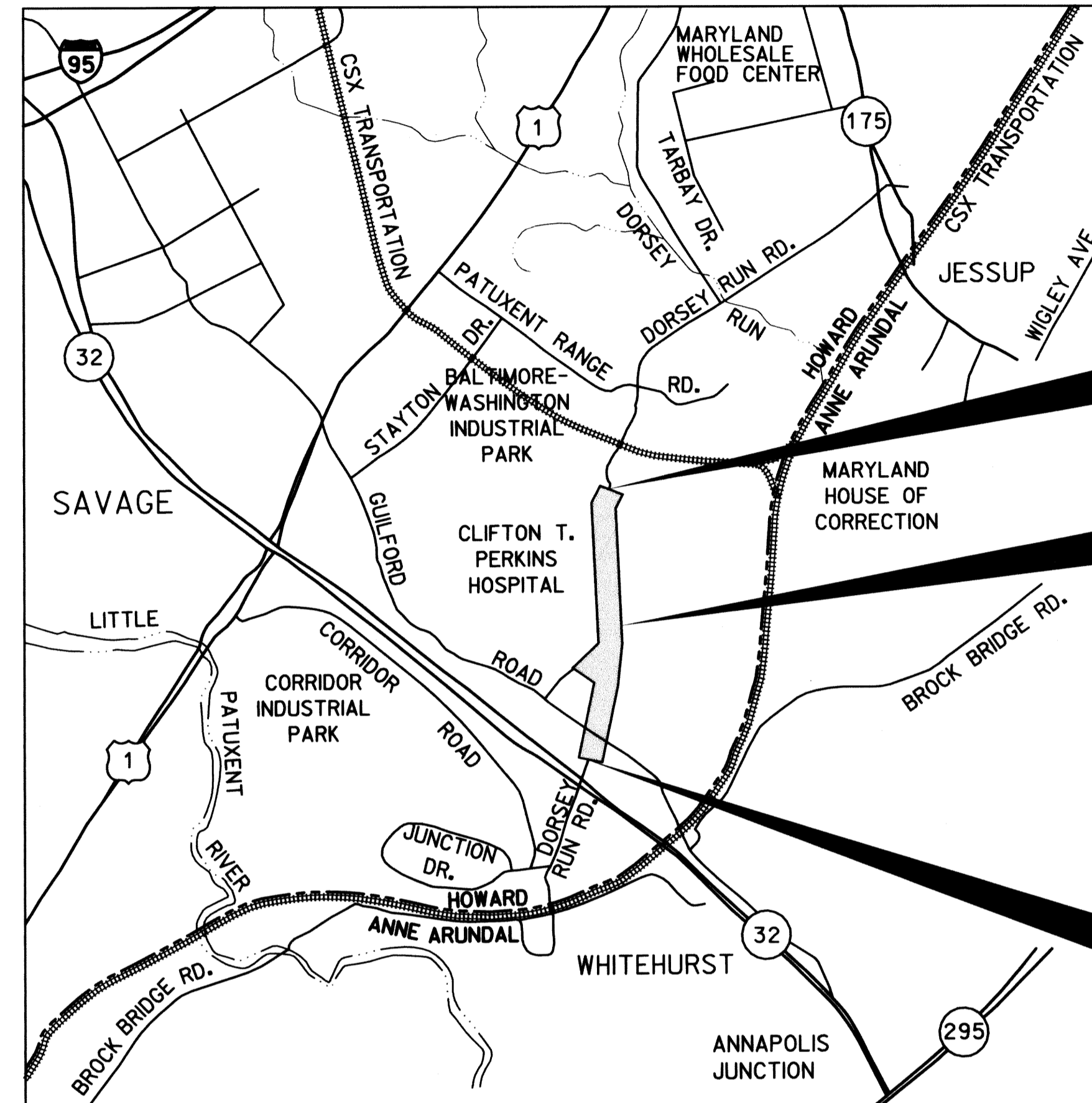
HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

GENERAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MARYLAND STATE HIGHWAY ADMINISTRATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, OCTOBER 1993 AND THE STANDARD DETAILS OF THE MD. S.H.A. AND HOWARD COUNTY.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES, WHERE DIRECTED BY THE ENGINEER, A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS.
- CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES AT LEAST THREE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.

MISS UTILITY	1-800-257-7777
BELL TELEPHONE SYSTEM	393-3649
LONG DISTANCE CABLE DIVISION	393-3553 OR 3554
BALTIMORE GAS AND ELECTRIC	539-8000 EXT. 691
HOWARD COUNTY BUREAU OF UTILITIES	313-2366
HOWARD COUNTY CONSTRUCTION INSPECTION	313-1870
SURVEY DIVISION	313-2417/2418
- INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1991 EDITION.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- HORIZONTAL DATUM: NAD 27. VERTICAL DATUM: NGVD 88. MEAN SEA LEVEL DATUM 1929.
- ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM 95% OF MAXIMUM OBTAINABLE DENSITY DETERMINED BY MARSHALL PROCTOR.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- ELDERLY AND HANDICAP FACILITIES - THE DESIGN OF THIS PROJECT HAS INCORPORATED FACILITIES FOR THE ELDERLY AND HANDICAPPED IN COMPLIANCE WITH STATE AND FEDERAL LEGISLATION.
- FOR ALL WETLAND ISSUES PLEASE SEE MDE TRACKING NO. 02-NT-0354/200265672.

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-3	TYPICAL SECTIONS
4	DETAIL SHEET
5	GEOMETRY SHEET
6-7	ROADWAY PLANS
8-10B	CURB RETURN ELEVATION DETAILS
11-12	EROSION & SEDIMENT CONTROL PLANS
13	EROSION & SEDIMENT DETAILS
14-16	ROAD PROFILES
17-18	STORM DRAIN PROFILES & DETAILS
19-20	STORM WATER MANAGEMENT PLAN & DETAILS
21	DRAINAGE AREA MAP
22-25	MAINTENANCE OF TRAFFIC PLANS
26-27	SIGNING AND STRIPING PLANS
28-29	LIGHTING PLANS
30	WATER PLAN & PROFILE
30A	PAVEMENT ELEVATIONS



LIMIT OF WORK PHASE II
STA 51+00 DORSEY RUN ROAD
CAPITAL PROJECT J-4110

LIMIT OF WORK PHASE I & II
STA 25+50 DORSEY RUN ROAD
CAPITAL PROJECT J-4110

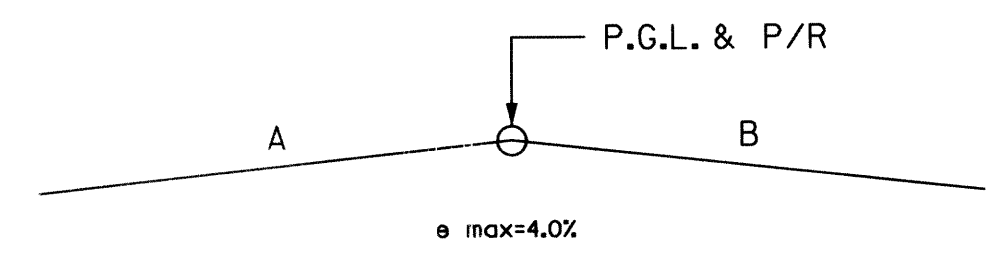
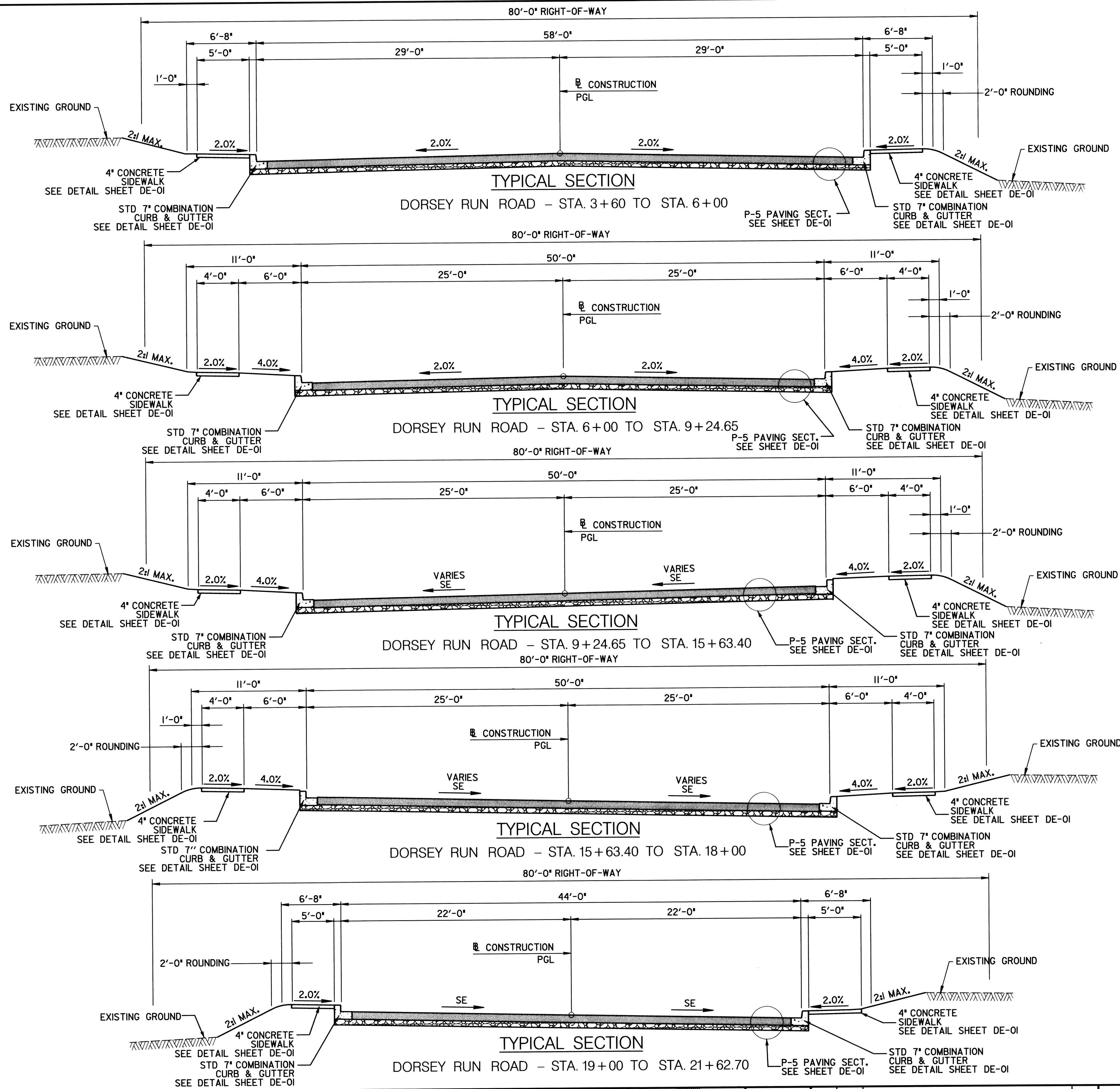
LIMIT OF WORK PHASE I
STA 3+24.45 DORSEY RUN ROAD
CAPITAL PROJECT J-4110

LOCATION MAP
SCALE: 1"=2000'

DORSEY RUN ROAD (SOUTH LINK) ROAD REALIGNMENT

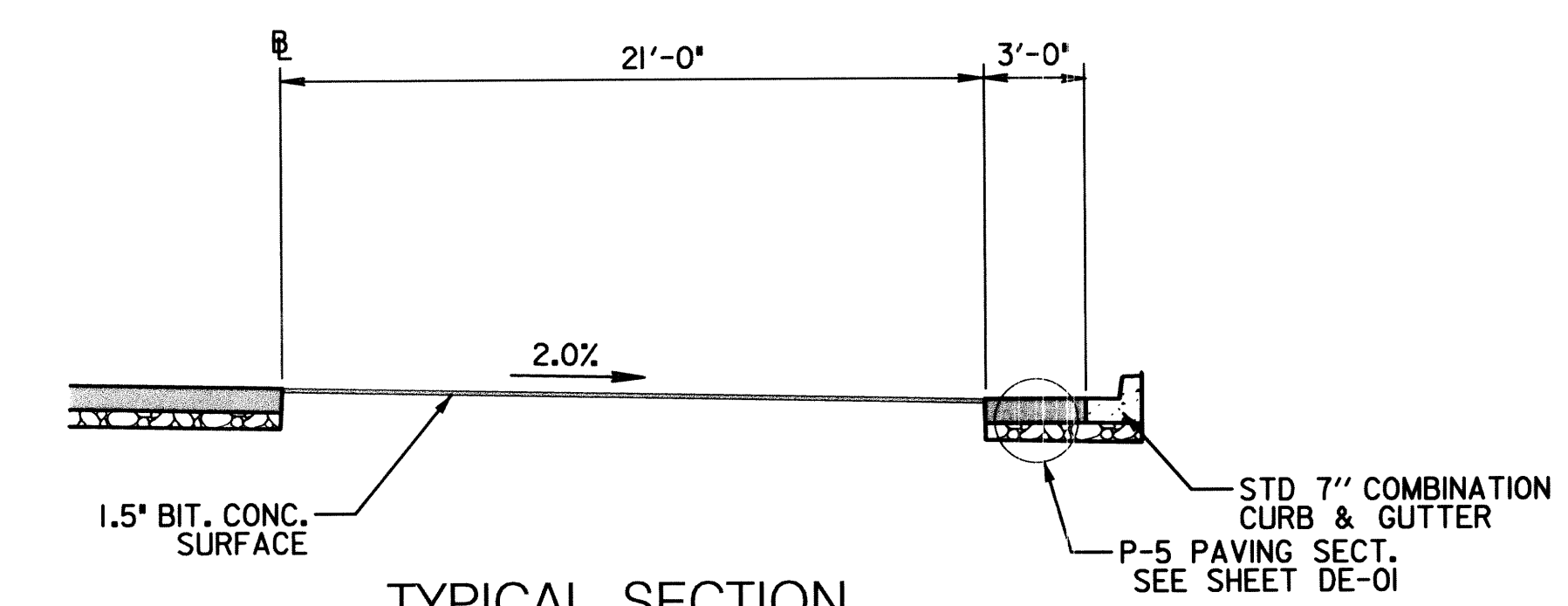
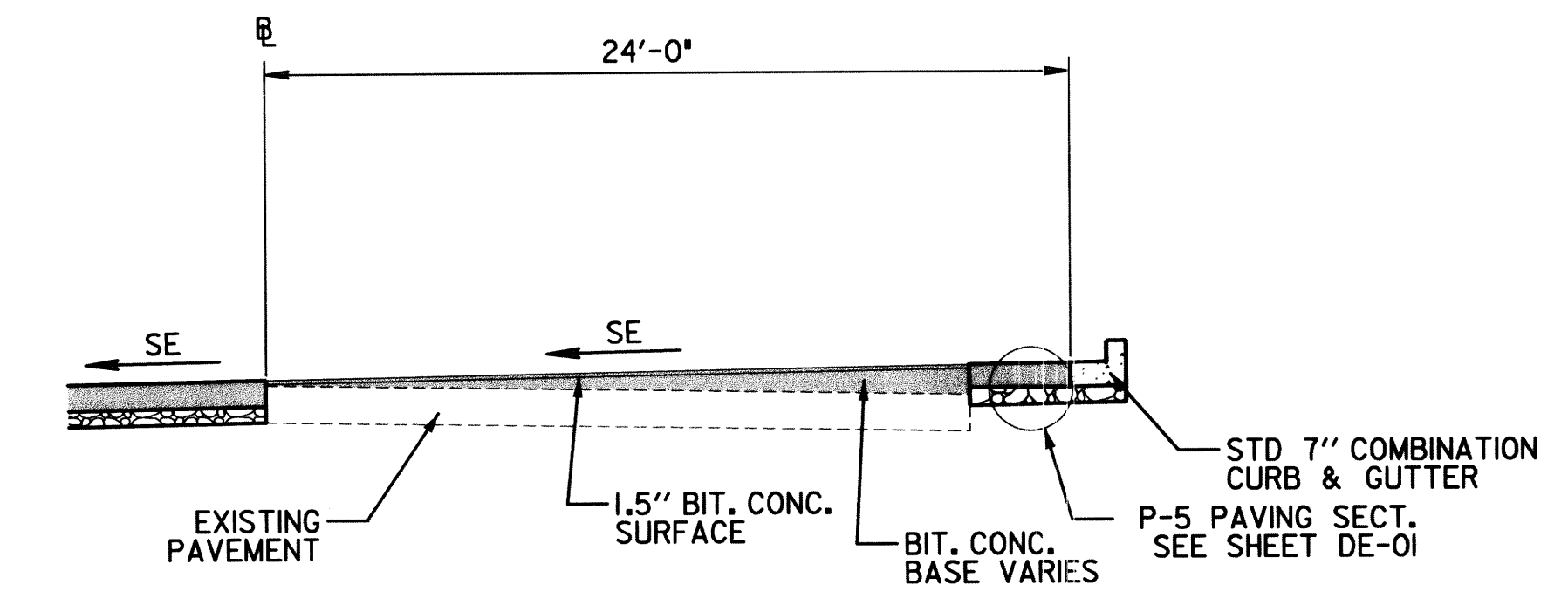
CAPITAL PROJECT J-4110 PHASE 1
ROADWAY CLASSIFICATION : MAJOR COLLECTOR
DESIGN SPEED = 40 MPH

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> 9/1/02 DIRECTOR OF PUBLIC WORKS DATE</p> <p><i>[Signature]</i> 9/4/02 CHIEF, BUREAU OF ENGINEERING DATE</p> <p><i>[Signature]</i> 9/4/02 CHIEF, BUREAU OF HIGHWAYS DATE</p>	<p>Phoenix - Nolan Joint Venture</p> <p>1430-A Jk Avenue Suite A Baltimore, Maryland 21227</p> <p>Phone: (410) 247-8855 Fax: (410) 247-9897</p>	<p>9/4/02</p>	<p>DES: J. R. H. E.M.P. Added IOB and Pavement Elevations 10-7-02</p> <p>DRN: D. R. B.</p> <p>CHK:</p> <p>DATE:</p>	<p>TITLE SHEET</p>	<p>DORSEY RUN ROAD SOUTH LINK</p>	<p>SCALE AS SHOWN</p> <p>SHEET 1 OF 30</p>
<p>600' SCALE MAP NO. BLOCK NO.</p>		<p>CAPITAL PROJECT NO. J-4110</p>				



SUPERELEVATION TABLE

	STATION	CROSS-SLOPE		REMARKS
		A	B	
7° 44' 34" Curve Left	9+24.65	-2%	-2%	NORMAL CROWN
	9+88.75	-2%	0	BEGIN RUNOFF
	11+13.75	-3.9%	3.9	FULL SUPER
	13+73.90	-3.9%	3.9	FULL SUPER
	14+99.00	-2	0	END RUNOFF
6° 44' 27" Curve Right	15+63.40	-2	-2	NORMAL CROWN
	16+30.57	0	-2	BEGIN RUNOFF
	17+55.57	3.7	-2	FULL SUPER
	19+81.65	3.7	-2	FULL SUPER
	21+06.65	0	-2	END RUNOFF
7° 44' 34" Curve Left	21+34.67	0	0	LEVEL
	21+62.70	-2	0	BEGIN RUNOFF
	22+87.70	-3.9%	3.9%	FULL SUPER
	24+67.70	-3.9%	3.9%	FULL SUPER
	25+94.70	-2%	0%	END RUNOFF
10° 25' 03" Curve Right	26+62.70	-2%	-2%	NORMAL CROWN
	44+09.58	-2%	-2%	NORMAL CROWN
	44+72.58	0%	-2%	BEGIN RUNOFF
	45+97.58	4.0%	-4.0%	FULL SUPER
	48+22.10	4.0%	-4.0%	FULL SUPER
49+47.10	0%	-2%	END RUNOFF	
50+10.10	2%	-2%	NORMAL CROWN	

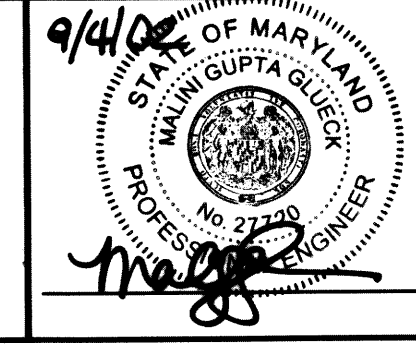


DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]*
 Date: 9/14/02
 Chief, Bureau of Engineering: *[Signature]*
 Date: 9/14/02

Chief, Transportation and Special Projects Division: *[Signature]*
 Date: 9/14/02
 Chief, Bureau of Highways: *[Signature]*
 Date: 9/14/02

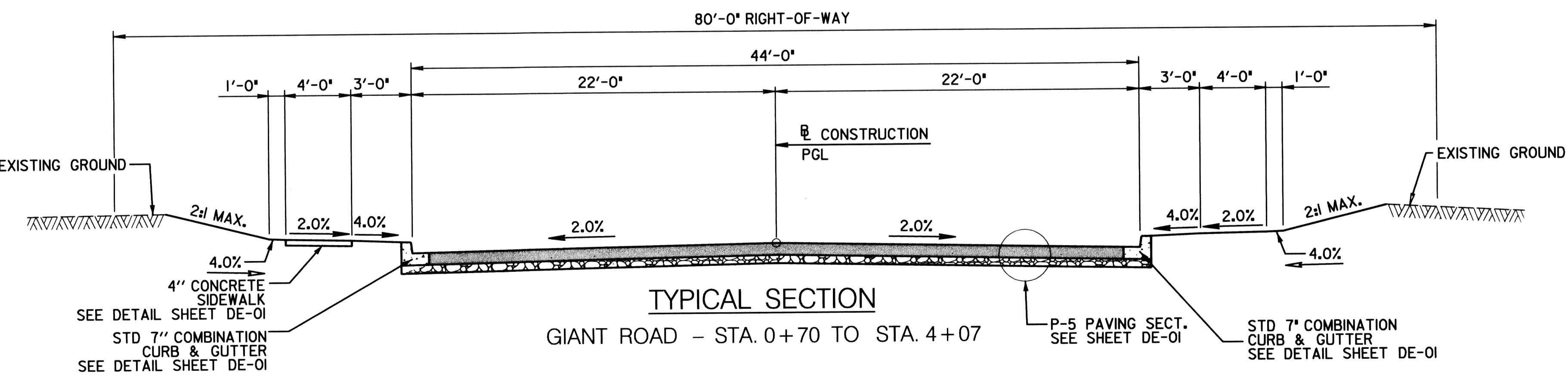
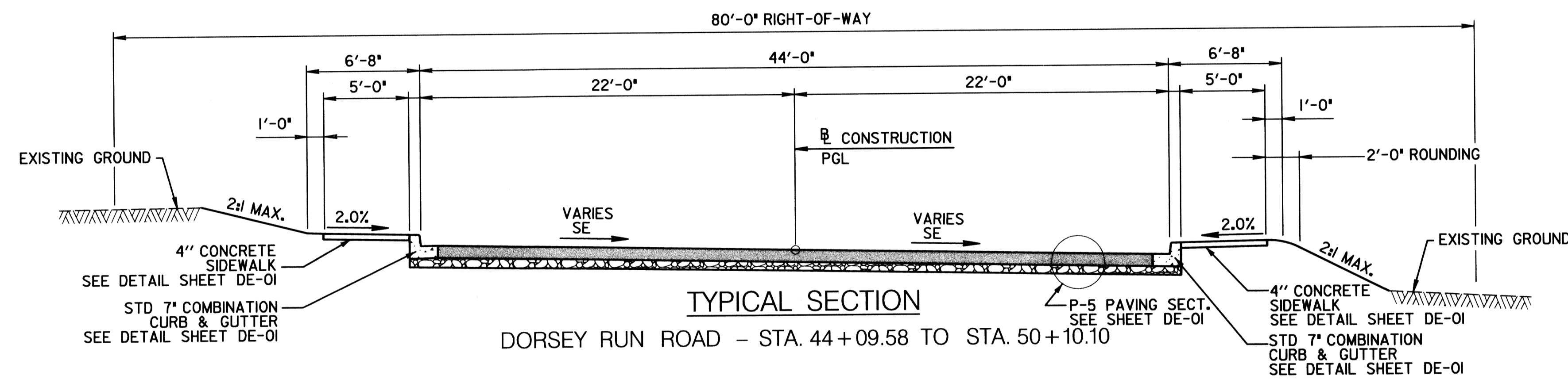
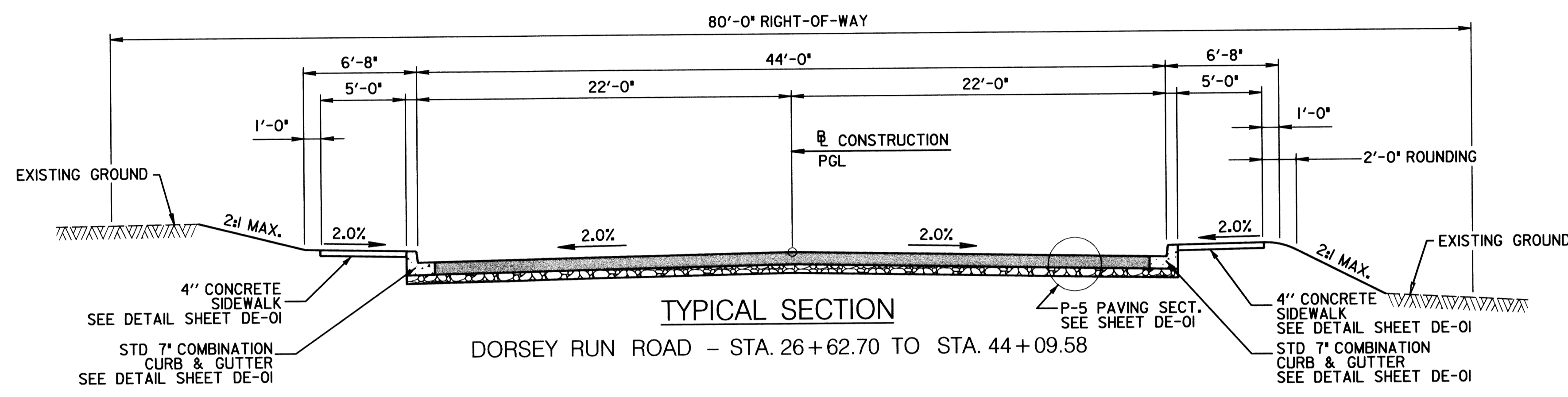
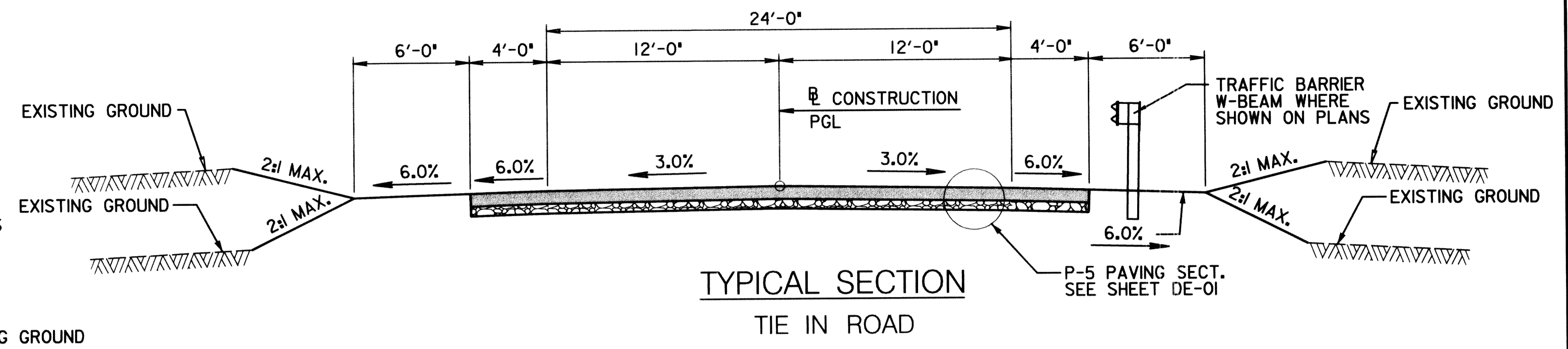
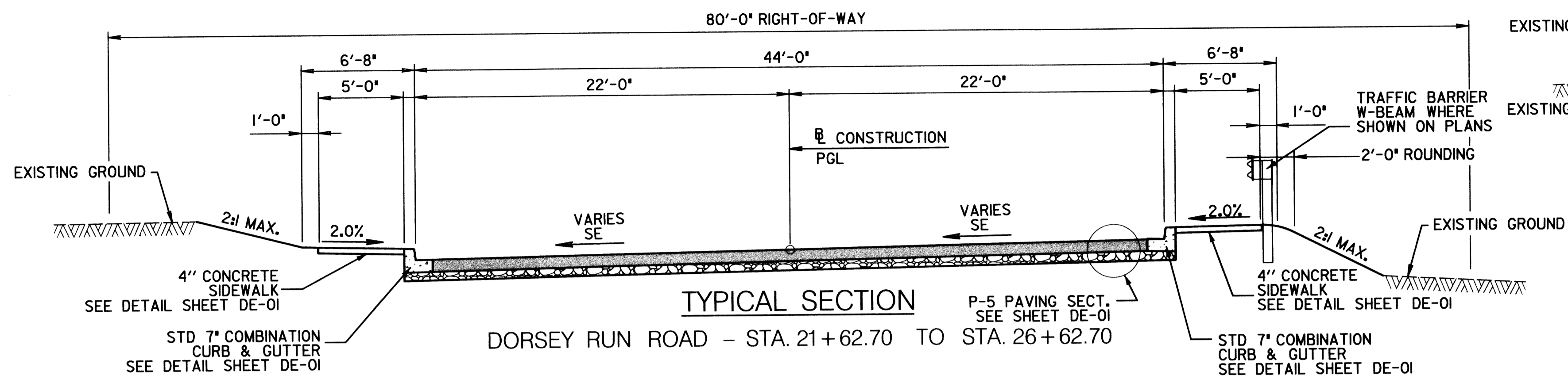
Phoenix - Nolan Joint Venture
 1420-A Jahn Avenue
 Suite A
 Baltimore, Maryland 21227
 Phone: (410) 247-8833 Fax: (410) 247-9897



DES: J.R.H.
 DRN: D.R.B.
 CHK:
 DATE: 2/01

TYPICAL SECTIONS

DORSEY RUN ROAD SOUTH LINK
 CAPITAL PROJECT NO. J-4110
 SCALE AS SHOWN
 SHEET 2 OF 30



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Jan J. Lee 9/1/02 DATE
DIRECTOR OF PUBLIC WORKS

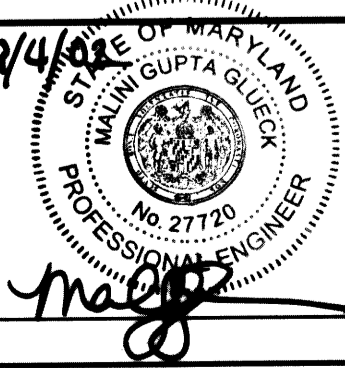
Robert M. Dwyer 9/4/02 DATE
CHIEF, BUREAU OF ENGINEERING

Calvin 9/1/02 DATE
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION

Phoenix - Nolan Joint Venture

1430-A Jahn Avenue
Suite A
Baltimore, Maryland 21227

Phone: (410) 247-8833 Fax: (410) 247-9397



DES:	J.R.H.				
DRN:	D.R.B.				
CHK:					
DATE:	2/01	BY:	NO.	REVISION	DATE

TYPICAL SECTIONS

600' SCALE MAP NO. BLOCK NO.

DORSEY RUN ROAD SOUTH LINK

CAPITAL PROJECT NO. J-4110

SCALE AS SHOWN

SHEET 3 OF 30

BM 48DB

METAL DISK SET 2" BELOW SURFACE ON TOP OF CONCRETE COLUMN, 6' FROM EDGE OF DORSEY RUN RD. PAVING IN FRONT OF BLDG # 8470. DISC IS 29.6' SOUTH OF C&P POLE # 21 AND 16.7' NORTH OF A 3' MAPLE TREE.

N 475826.9 E 858587.3

ELEV. 239.559

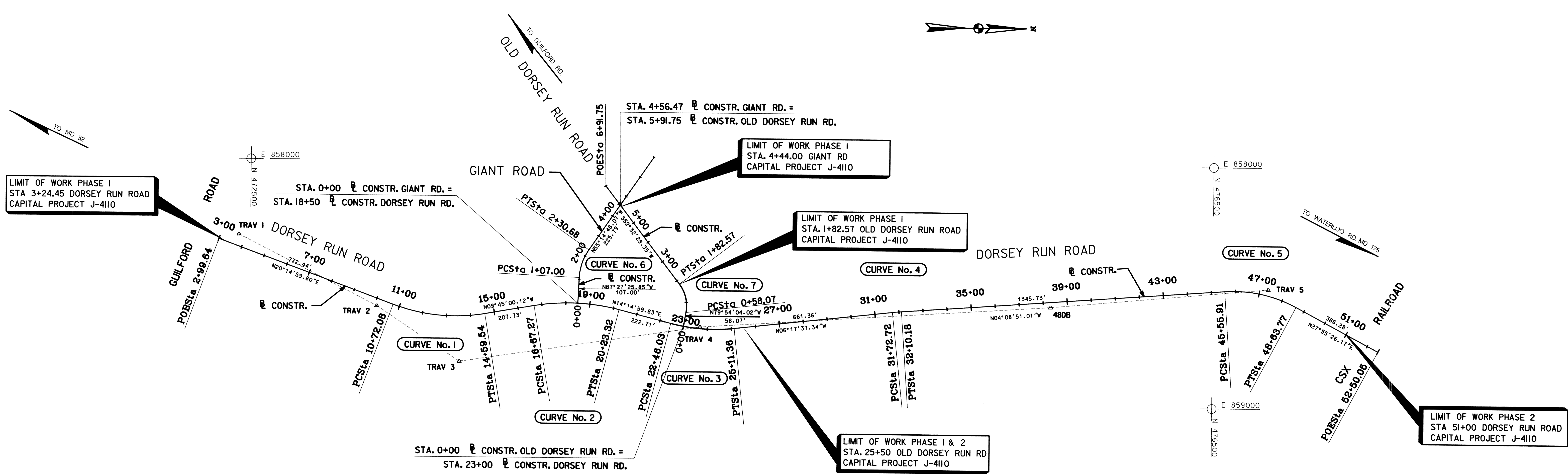
BM 48GB

METAL DISK SET ON TOP OF CONCRETE COLUMN, SET 14.4' FROM SOUTH EDGE OF PAVING OF RAMP FROM RTE #32 WEST. DISC IS 17.1' EAST OF A LIGHT POLE AT DORSEY RUN ROAD.

N 471481.4 E 858205.4

ELEV. 228.580

TRAVERSE COORDINATES				
TRAV NO.	NORTH	EAST	ELEV.	DESCRIPTION
1	472451.846	858312.322	220.91	REBAR & CAP
2	473025.547	858605.075	216.42	REBAR & CAP
3	473371.498	858832.178	207.81	REBAR & CAP
4	474370.559	858681.642	207.81	REBAR
5	476730.465	858504.146	207.55	REBAR & CAP



COORDINATES-OLD DORSEY RUN RD				
POINT TYPE	STATION	BASELINE	NORTH	EAST
POB	0+00.00	CONSTR.	474302.0406	858679.0741
PC	0+58.07	CONSTR.	474312.2227	858621.9062
PI	1+24.16	CONSTR.	474323.8116	858556.8389
PT	1+82.57	CONSTR.	474283.6158	858504.3761
POE	6+91.75	CONSTR.	473973.9420	858100.1950

COORDINATES-GIANT ROAD				
POINT TYPE	STATION	BASELINE	NORTH	EAST
POB	0+00.00	CONSTR.	473862.2710	858587.6330
PC	1+07.00	CONSTR.	473867.0180	858480.7420
PI	1+07.52	CONSTR.	473869.8358	858417.2826
PT	2+30.68	CONSTR.	473906.0458	858365.0925
PI	4+56.47	CONSTR.	474034.7610	858179.5740

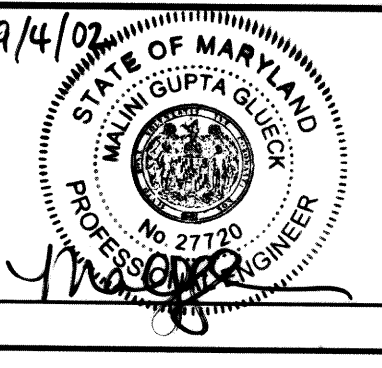
COORDINATES-DORSEY RUN ROAD				
POINT TYPE	STATION	BASELINE	NORTH	EAST
POB	2+99.64	CONSTR.	472369.7416	858331.8490
PC	10+72.08	CONSTR.	473094.4383	858599.2030
PI	12+70.36	CONSTR.	473280.4651	858667.8316
PT	14+59.54	CONSTR.	473475.8834	858634.2525
PC	16+67.27	CONSTR.	473680.6112	858599.0737
PI	18+47.94	CONSTR.	473858.6746	858568.4767
PT	20+23.32	CONSTR.	474033.7884	858612.9498
PC	22+46.03	CONSTR.	474249.6450	858667.7702
PI	23+80.13	CONSTR.	474379.6237	858700.7805
PT	25+11.36	CONSTR.	474512.9204	858686.0792
PC	31+72.72	CONSTR.	475170.2974	858613.5772
PI	31+91.45	CONSTR.	475188.9159	858611.5238
PT	32+10.18	CONSTR.	475207.5981	858610.1691
PC	45+55.91	CONSTR.	476549.8012	858512.8402
PI	47+13.99	CONSTR.	476707.4684	858501.4017
PT	48+63.77	CONSTR.	476847.1441	858575.4363
POE	52+50.05	CONSTR.	477188.4510	858756.3316

CURVE DATA						
CURVE NO.	Δ	Dc	R	L	T	E
1	29° 59' 59.92"	7° 44' 33.62"	740.00'	387.46'	198.28'	26.10'
2	23° 59' 59.95"	6° 44' 26.45"	850.00'	356.05'	180.67'	18.99'
3	20° 32' 37.17"	7° 44' 33.62"	740.00'	265.33'	134.10'	12.05'
4	2° 08' 46.33"	5° 43' 46.48"	1000.00'	37.46'	18.73'	0.18'
5	32° 04' 17.18"	10° 25' 02.69"	550.00'	307.86'	158.08'	22.27'
6	32° 12' 37.55"	26° 02' 36.73"	220.00'	123.68'	63.52'	8.99'
7	47° 33' 26.46"	38° 11' 49.87"	150.00'	124.50'	66.09'	13.91'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *Jan P. Law* 9/4/02
 Chief, Bureau of Engineering: *Robert S. ...* 9/4/02
 Chief, Transportation and Special Projects Division: *Ed ...* 9/4/02
 Chief, Bureau of Highways: *...* 9/4/02

Phoenix - Nolan Joint Venture
 1490-A J&A Avenue
 Suite A
 Baltimore, Maryland 21227
 Phone: (410) 247-8833 Fax: (410) 247-9597



DES: J. R. H.			
DRN: D. R. B.			
CHK:			
DATE:			
BY:	NO.	REVISION	DATE

GEOMETRIC LAYOUT

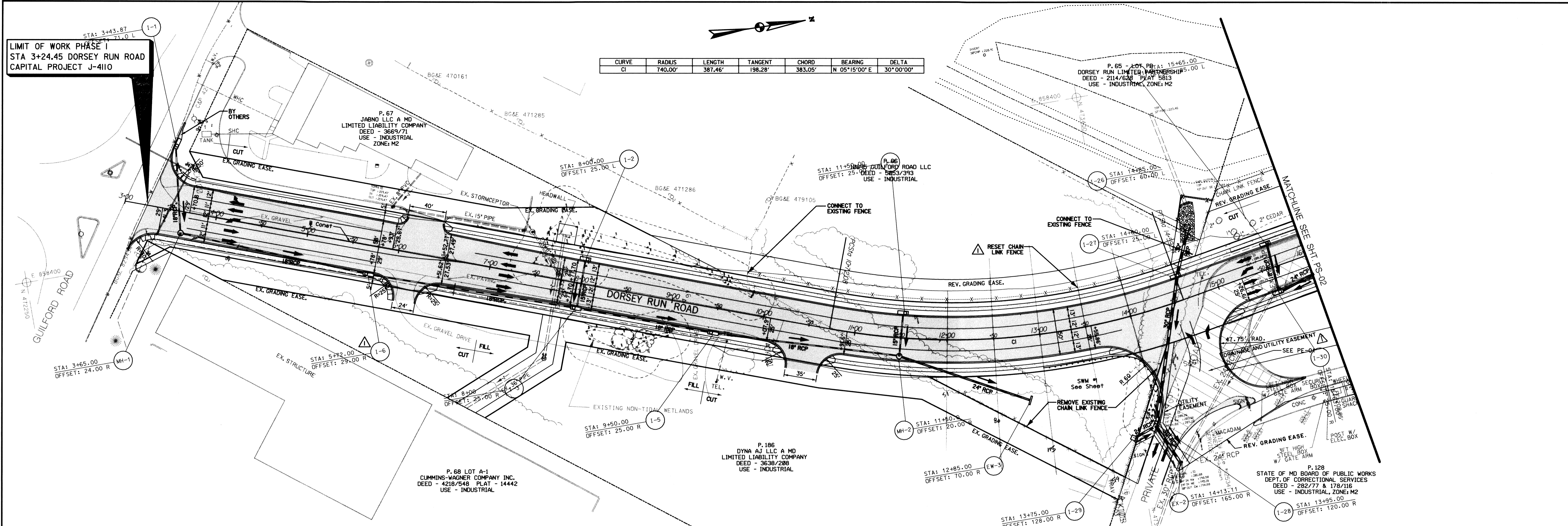
600' SCALE MAP NO. BLOCK NO.

DORSEY RUN ROAD SOUTH LINK

CAPITAL PROJECT NO. J-4110

SCALE 1" = 200'

SHEET 5 OF 30



CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
CI	740.00'	387.46'	198.28'	383.05'	N 05°15'00" E	30°00'00"

LIMIT OF WORK PHASE I
 STA 3+24.45 DORSEY RUN ROAD
 CAPITAL PROJECT J-4110

PLAN
 SCALE: 1"=50'

Grinding H.M.A. Carbide Cutting Bits (0' to 1.5')
 STA. 14+00 to STA. 15+26.6 RT. - 861 S.Y.
 STA. 15+26.6 to STA. 16+00 RT. - 178 S.Y.

- Hot Mix Asphalt For Wedge Level
 STA. 14+85 to STA. 16+53 DRR - 25 TONS
- 1.5" Bituminous Concrete Surface
 STA. 3+24.45 to STA. 16+00 - 723 TONS
- 1.5" Bituminous Concrete Base
 STA. 3+24.45 to STA. 16+00 - 637 TONS
- 5" Bituminous Concrete Base
 STA. 3+24.45 to STA. 16+00 - 2122 TONS

STD. 7" Comb. Curb & Gutter (20' x 8')
 STA. 3+24 to STA. 6+03 LT. - 292 L.F.
 STA. 6+43 to STA. 16+00 LT. - 967 L.F.
 STA. 3+24 to STA. 6+03 RT. - 315 L.F.
 STA. 6+27 to STA. 10+33 RT. - 434 L.F.
 STA. 10+68 to STA. 13+97 RT. - 442 L.F.
 SERVICE RT. to STA. 16+00 RT. - 250 L.F.

5' Concrete Sidewalk
 STA. 3+56 to STA. 5+94 LT. - 132 S.Y.
 STA. 6+52 to STA. 16+00 LT. - 527 S.Y.
 STA. 3+38 to STA. 5+85 RT. - 137 S.Y.
 STA. 6+44 to STA. 10+16 RT. - 207 S.Y.
 STA. 10+85 to STA. 13+68 RT. - 157 S.Y.
 STA. 15+17 to STA. 16+00 RT. - 46 S.Y.

Pedestrian Ramp Locations
 STA. 3+52 LT. - Type 'C' MODIFIED
 STA. 5+98 LT. - Type 'C' MODIFIED
 STA. 6+47 LT. - Type 'A' MODIFIED
 STA. 3+31 RT. - Type 'C' MODIFIED
 STA. 5+94 RT. - Type 'C' MODIFIED
 STA. 6+40 RT. - Type 'A' MODIFIED
 STA. 10+20 RT. - Type 'A' MODIFIED
 STA. 10+80 RT. - Type 'A' MODIFIED
 STA. 13+76 RT. - Type 'A' MODIFIED
 STA. 15+10 RT. - Type 'A' MODIFIED

Remove Existing Curb and Gutter
 STA. 14+77 to 14+90 RT. - 22 L.F.
 STA. 15+50 to SERVICE RD. - 135 L.F.

Remove Existing Pavement
 STA. 14+80 to 15+55 RT - 333 S.Y.

6" Base Course Using Graded Aggregate
 STA. 3+24 to STA. 16+00 - 7638 S.Y.

Saw Cutting
 STA. 3+12 RT. to STA. 3+40 LT. - 120 L.F.
 STA. 6+00 to STA. 6+45 LT. - 45 L.F.
 STA. 14+85 to STA. 16+00 - 115 L.F.
 SERVICE RD. to STA. 16+00 - RT. - 280 L.F.

Remove & Reset Existing Fence
 STA. 9+74 to 14+84 LT. DORSEY RUN RD. - 487 L.F.
 STA. 14+77 to 15+24 LT. DORSEY RUN RD. - 72 L.F.

Traffic Barrier 'W' Beam
 STA. 13+00 to STA. 13+97 RT. Dorsey Run - 122 L.F.

Type 'I' Traffic Barrier End Treatment
 STA. 13+97 RT. Dorsey Run Rd. - 1 EA.

Type 'C' Traffic Barrier End Treatment
 STA. 13+00 RT. Dorsey Run Rd. - 1 EA.

LEGEND

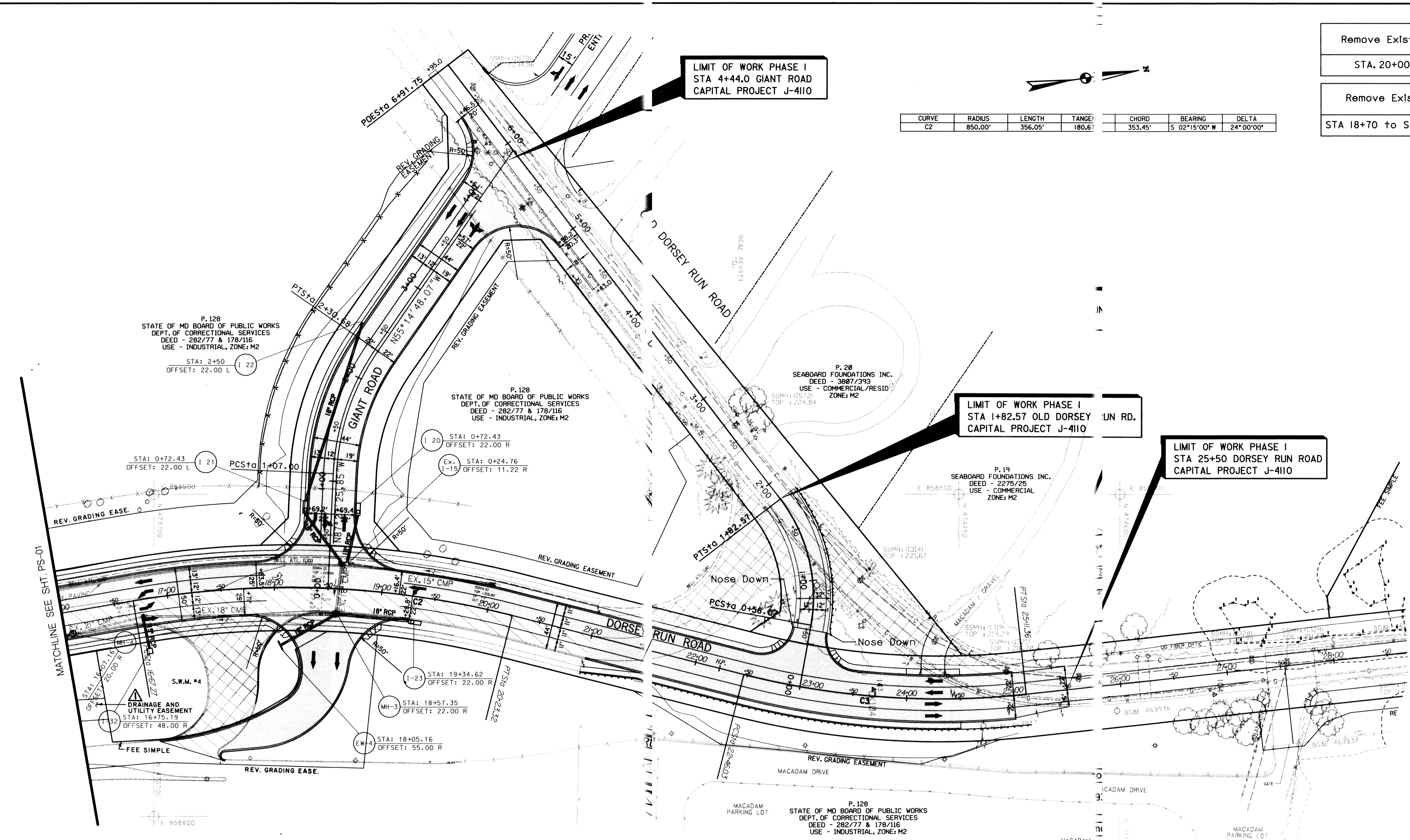
[Pattern]	BITUMINOUS PAVEMENT
[Pattern]	1.5" CARBIDE GRINDING & RESURFACING
[Pattern]	REMOVE EXISTING PAVEMENT
[Pattern]	CONCRETE SIDEWALK

Structure Schedule							
Structure	Baseline	Station	Offset	Type	TOP Elev	INV Out	STD. No.
I-1	Dorsey	3+43.87	71.0 L	STD. A-10 INLET	221.78*	218.61	SD-4.02
I-2	Dorsey	8+00	25.0 L	STD. A-10 INLET	216.47*	210.26	SD-4.02
I-3	Dorsey	8+00	25.0 R	STD. A-10 INLET	216.47*	209.10	SD-4.02
I-4	Dorsey	11+50	25.0 L	STD. A-10 INLET	212.91*	207.60	SD-4.02
I-5	Dorsey	9+50	25.0 R	STD. A-10 INLET	215.37*	207.60	SD-4.02
I-6	Dorsey	5+72.39	29.0 R	STD. A-10 INLET	218.37*	210.44	SD-4.02
I-26	Dorsey	14+85	60.0 L	STD. 'D' INLET	217.00	204.05	SD-4.11
I-27	Dorsey	14+60	25.0 L	STD. A-10 INLET	208.94*	203.35	SD-4.02
I-28	Dorsey	13+95	120.0 R	STD. A-10 INLET	206.81*	198.26	SD-4.02
I-29	Dorsey	13+75	70.0 R	STD. 'D' INLET	204.50	199.58	SD-4.11
I-30	Dorsey	15+63	25.0 R	STD. A-10 INLET	208.30*	203.70	SD-4.02
I-31	Dorsey	15+65	25.0 L	STD. A-10 INLET	208.30*	204.55	SD-4.02
MH-1	Dorsey	3+65	24.0 R	STD. 4'-0" Manhole	219.70	213.55	G5.01
MH-2	Dorsey	11+50	20.0 R	STD. 4'-0" Manhole	214.08	205.48	G5.01
EW-3	Dorsey	12+85	70.0 R	Type 'C' Endwall	N/A	204.01	SD-5.21

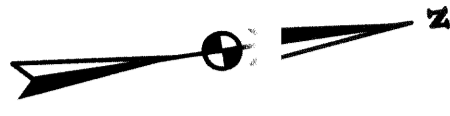
Pipe Schedule							
Structure to Structure	Size	Type	Length	Invert OUT	Invert IN	Remark	
I-1 to MH-1	18"	RCP	90'	214.20	213.30	Class 4	
MH-1 to I-6	18"	RCP	200'	213.20	211.13	Class 4	
I-6 to I-3	18"	RCP	215'	210.44	209.30	Class 4	
I-3 to I-5	18"	RCP	150'	209.20	207.70	Class 4	
I-5 to MH-2	18"	RCP	202'	207.60	205.58	Class 4	
MH-2 to EW-3	24"	RCP	145'	205.48	204.01	Class 4	
I-2 to I-3	15"	RCP	48'	210.26	209.30	Class 4	
I-4 to MH-2	15"	RCP	48'	207.60	205.68	Class 4	
I-26 to I-27	30"	RCP	52'	204.83	203.53	Class 4	
I-27 to I-28	30"	RCP	163'	203.35	198.46	Class 4	
I-28 to EX-2	30"	RCP	51'	198.26	195.20	Class 4	
I-31 to I-30	18"	RCP	50'	204.55	203.80	Class 4	
MH-4 to I-30	24"	RCP	40'	204.20	203.80	Class 4	

* Elevation @ Top Of The Curb - @ Of Inlet

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director: <i>Jan J. Van</i> 10/15/02 Chief, Bureau of Engineering: <i>Robert S. Johnson</i> 10/15/02 Chief, Transportation and Special Projects Division: <i>Sheikh Anderson</i> 10/15/02 Chief, Bureau of Highways: <i>William A. Mahan</i> 10-16-02		Phoenix - Nolan Joint Venture 1430-A Jd. Avenue Suite A Baltimore, Maryland 21227 Phone: (410) 247-8855 Fax: (410) 247-9897		DES: J. R. H. V.S. Add A-10 Inlet and Remove & Reset Existing Fence 10-7-02 E.M.P. Add Drainage and Utility Easement 10-7-02 DRN: D. R. B. CHK: DATE:		PLAN DORSEY RUN ROAD SOUTH LINK PHASE 1 CAPITAL PROJECT NO. J-4110		SCALE AS SHOWN SHEET 6 OF 30
600' SCALE MAP NO.		BLOCK NO.		REVISION		DATE		



CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C2	850.00'	356.05'	180.6'	353.45'	S 02°15'00" W	24°00'00"



Remove Existing Inlet STA. 20+00 LT. 1 Each	1.5" Bituminous Concrete Surface STA. 16+00 to STA. 25+50 D.R.R.S - 500 Tons STA. 0+24 to STA. 4+44 Giant Rd. - 203 Tons
Remove Existing 15" CMP STA 18+70 to STA 20+00 130 LF	1.5" Bituminous Concrete Base STA. 16+00 to STA. 25+50 - 398 Tons STA. 0+44 to STA. 4+44 - 203 Tons
	5" Bituminous Concrete Base STA. 16+00 to STA. 25+50 - 1,326 Tons STA. 0+24 to STA. 4+44 - 676 Tons
	Traffic Barrier 'W' Beam STA. 0+50 to STA. 1+83 RT. Old Dorsey Run - 90 L.F. STA. 21+00 to STA. 25+12 RT. Dorsey Run - 360 L.F.
	Type 'A' Traffic Barrier End Treatment STA. 1+83 RT. Old Dorsey Run Rd. - 1 EA. STA. 25+12 RT. Dorsey Run Rd. - 1 EA.
	Type 'C' Traffic Barrier End Treatment STA. 0+50 RT. Old Dorsey Run Rd. - 1 EA. STA. 21+00 RT. Dorsey Run Rd. - 1 EA.
	6" Base Course Using Graded Aggregate (GAB) STA. 16+00 to STA. 25+50 D.R.R.S. - 4,772 S.Y. STA. 0+24 to STA. 4+44 - Giant Rd. - 2,432 S.Y.
	Adjust Existing Inlet I-15 (see detail sht. 18) Sta. 18+60 Lt. D.R.R.S. 1-Ea
	Std. 7" Comb. Curb & Gutter (R-3.0I 20"x8") STA. 16+00 to STA. 17+83 LT. - 183 L.F. STA. 19+16 to STA. 22+83 LT. - 379 L.F. STA. 23+18 to STA. 25+00 LT. - 200 L.F. STA. 0+25 to STA. 4+35 LT. Giant Rd. - 470 L.F. STA. 0+25 to STA. 4+35 RT. Giant Rd. - 456 L.F. STA. 16+00 to STA. 17+71 RT. - 171 L.F. SERVICE RD. at STA. 18+00 RT. - 240 L.F. SERVICE RD. at STA. 19+00 RT. - 280 L.F. STA. 21+00 to STA. 25+00 RT. - 400 L.F.
	5' Concrete Sidewalk STA. 16+00 to STA. 18+10 LT. - 117 S.Y. STA. 18+90 to STA. 22+60 LT. - 206 S.Y. STA. 23+40 to STA. 24+50 LT. - 62 S.Y. STA. 0+50 to STA. 4+30 LT. Giant Rd. - 212 S.Y. STA. 4+40 to STA. 4+50 LT. Giant Rd. - 13 S.Y. STA. 16+00 to STA. 18+00 RT. - 111 S.Y. STA. 21+00 to STA. 24+50 RT. - 195 S.Y.

PLAN
SCALE: 1"=50'

Structure to Structure	Size	Type	Length	Invert OUT	Invert IN	Remark
I-22 I-21	18"	R.C.P.	175'	219.86	211.11	Class 4
I-21 Ex I-15	18"	R.C.P.	57'	210.67	208.96	Class 4
I-23 MH-3	18"	R.C.P.	61'	208.89	208.28	Class 4
I-20 Ex I-15	18"	R.C.P.	45'	211.21	208.96	Class 4
MH-3 EW-4	18"	R.C.P.	56'	206.53	205.97	Class 4
I-32 EX-MH	18"	R.C.P.	34'	205.09	204.92	Class 4

STA. 16+00 to STA. 21+00	30 L.F.
STA. 16+00 to STA. 16+80 RT.	30 L.F.
STA. 18+35 to STA. 19+30 RT.	15 L.F.
STA. 21+00 From @ to Curb	22 L.F.
STA. 4+43 to STA. 6+95 LT. Old Dorsey Run Rd.	- 270 L.F.
STA. 1+82.57 LT. to RT. Old Dorsey Run Rd.	- 32 L.F.
STA. 24+14 (40' LT. Entr. RD.)	0 L.F.
STA. 24+36 (25' LT. Entr. RD.)	0 L.F.
STA. 25+50 LT. to RT.	- 38 L.F.

STA. 18+13 LT.	- Type 'C' MODIFIED
STA. 18+75 LT.	- Type 'C' MODIFIED
STA. 22+70 LT.	- Type 'C' MODIFIED
STA. 23+25 LT.	- Type 'C' MODIFIED
STA. 18+07 RT.	- Type 'C' MODIFIED
STA. 18+93 RT.	- Type 'C' MODIFIED
STA. 4+33 LT.	- Type 'C' MOD.

Structure	Baseline	Station	Offset	Type	TOP Elev	Invert OUT	STD. No.
I-20	Giant	0+72.43	22.0 RT	A-10	216.57*	211.21	SD-4.02
I-21	Giant	0+72.43	22.0 LT	A-10	216.57*	210.67	SD-4.02
I-22	Giant	2+50.00	22.0 LT	A-10	225.45*	219.86	SD-4.02
I-23	Dorsey	19+34.62	22.0 RT	A-10	215.50*	208.89	SD-4.02
I-32	Dorsey	16+75.19	48.0 RT	"D"	208.20	205.09	SD-4.11
MH-3	Dorsey	18+57.35	22.0 RT	STD 4'-0" MANHOLE	212.96	208.89	GS.01
MH-4	Dorsey	16+07	19.0 RT	STD 4'-0" MANHOLE	207.98	204.02	GS.01
EW-4	Dorsey	18+05	55.0 RT	TYPE 'C' ENDWALL	N/A	205.97	SD-5.21

* Elevation @ Top Of The Curb - C of Inlet

Remove & Reset Existing Fence STA. 1+93 to 4+00 LT. GIANT RD. - 348 L.F.	Grinding H.M.A. Carbide Cutting Bits (0" to 1.5") STA. 16+00 to Sta. 21+00 RT. D.R.R.S. - 1222 S.Y.
Remove Existing Curb & Gutter STA. 16+85 to SERVICE RD. - 157 L.F. STA. 18+05 to SERVICE RD. - 138 L.F.	
Remove Existing Pavement SERVICE RD. at STA. 17+50 RT. - 722 S.Y. STA. 1+37 to STA. 22+77 LT. - 779 S.Y. STA. 1+73+00 to STA. 24+15 LT. - 556 S.Y. STA. 4+35 to STA. 25+00 LT. - 69 S.Y.	
Remove Existing Sidewalk STA. 1+00 to STA. 21+00 LT. - 115 S.Y.	
7" Cement Concrete Driveway Entrance Centerline at STA. 24+25 LT. - 47 S.Y.	

LEGEND

[Pattern]	BITUMINOUS PAVEMENT
[Pattern]	1.5" CARBIDE GRINDING & RESURFACING
[Pattern]	REMOVE EXISTING PAVEMENT
[Pattern]	CONCRETE SIDEWALK

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

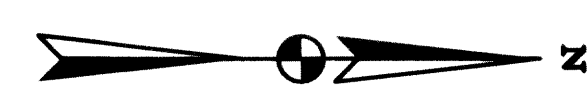
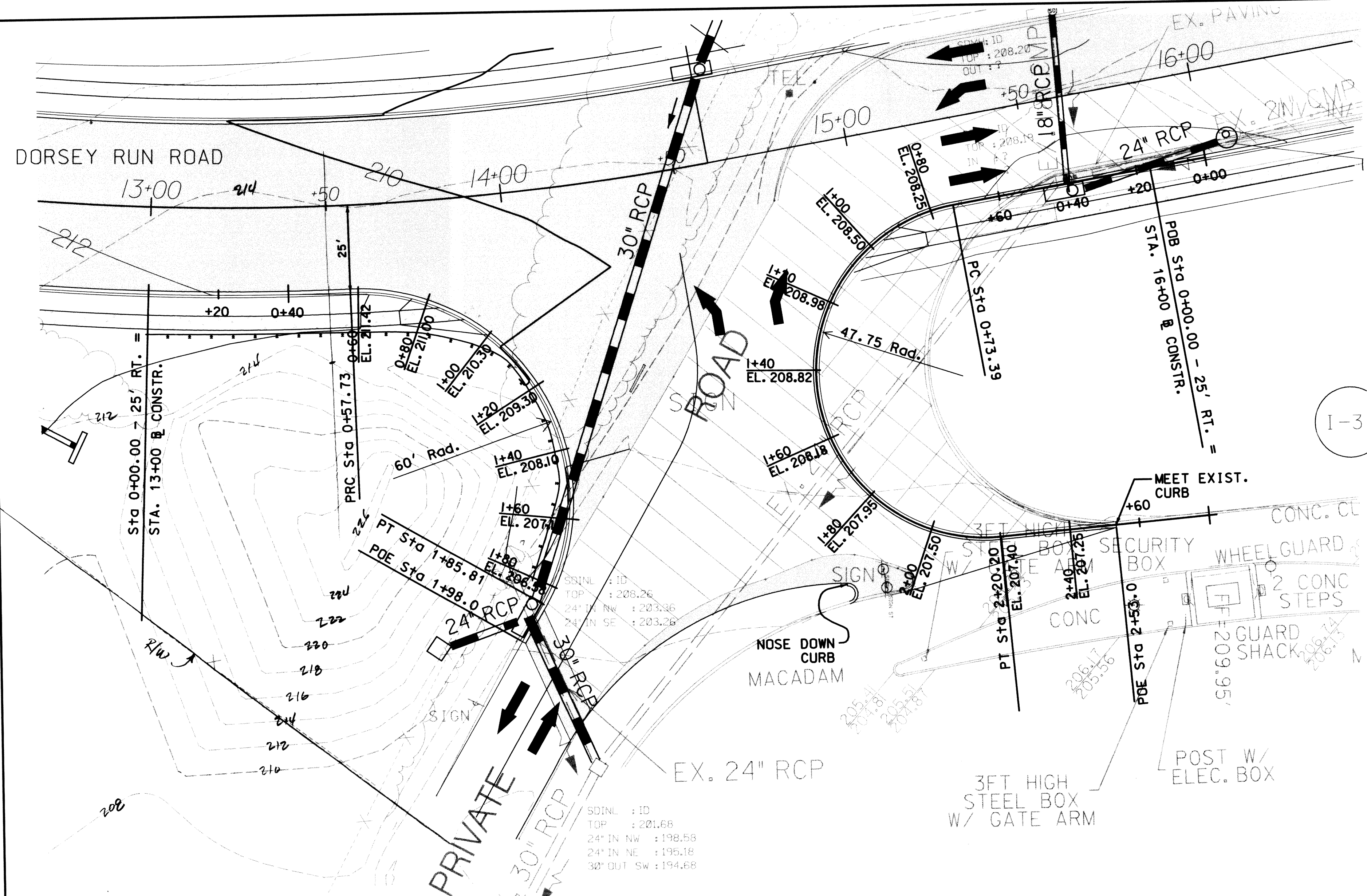
Director of Public Works: *[Signature]* 9/4/02
 Chief, Bureau of Engineering: *[Signature]* 9/4/02
 Chief, Transportation and Special Projects Division: *[Signature]* 9/4/02

Phoenix - Nolan Joint Venture
1420-A Jek Avenue
Suite A
Baltimore, Maryland 21227
Phone: (410) 247-8833 Fax: (410) 247-9897

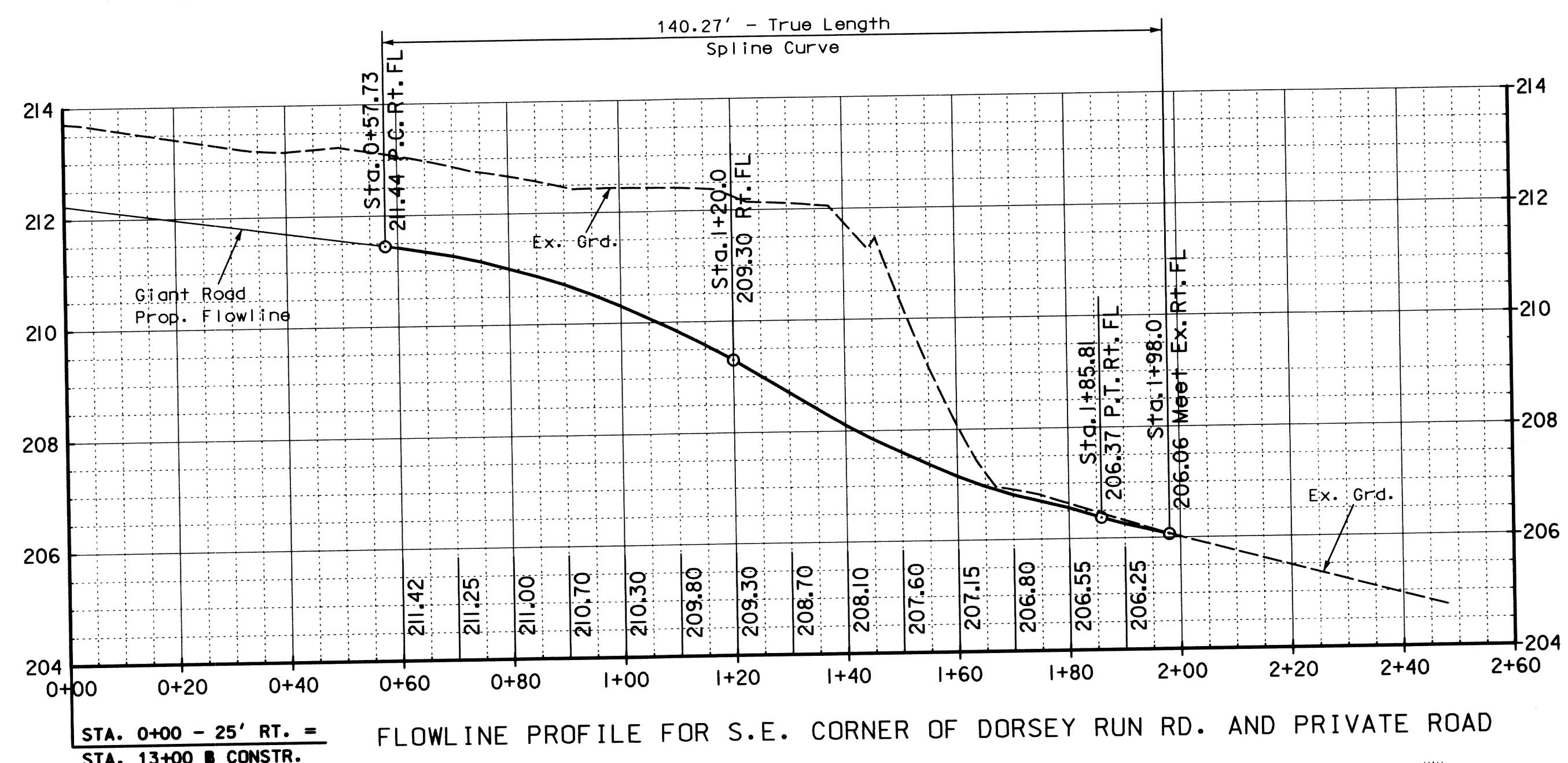
DES: J. R. H. E.M.P. Add Drainage and Utility Easement, Fee Simple & Rev. Grading Easement
 DRN: D. R. B.
 CHK:
 DATE: BY NO. REVISION

PLAN
600" SCALE MAP NO. BLOCK NO.

PHASE I
DORSEY RUN ROAD SOUTH LINK
CAPITAL PROJECT NO. J-4110
SCALE AS SHOWN
SHEET 7 OF 30

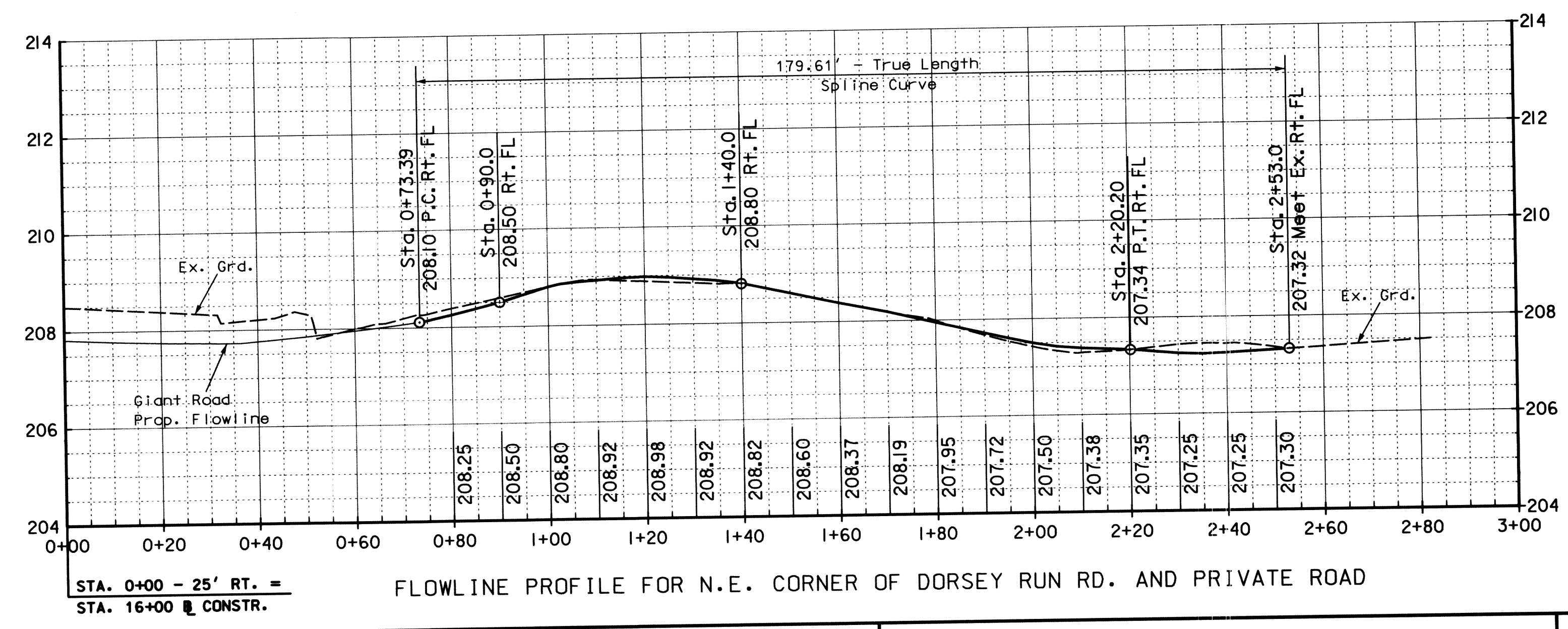


I-3



PROFILES

HORZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 2'



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

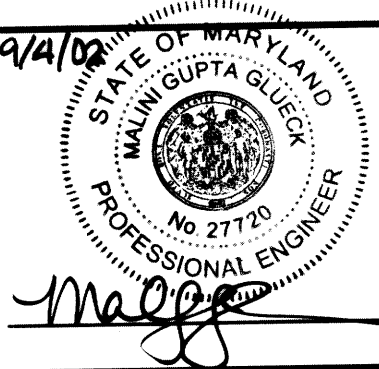
Director of Public Works
9/14/02
9/14/02

Chief, Bureau of Engineering
9/14/02

Chief, Bureau of Highways
9/14/02

Special Projects Division

Phoenix - Nolan Joint Venture
1420-A Jahn Avenue
Suite A
Baltimore, Maryland 21227
Phone: (410) 247-8833 Fax: (410) 247-9597



DES: J.R.H.			
DRN: D.R.B.			
CHK:			
DATE:	BY:	NO.	REVISION

CURB RETURN ELEVATION DETAIL

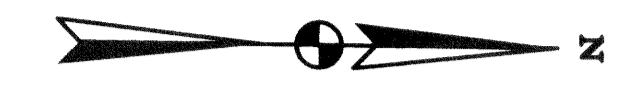
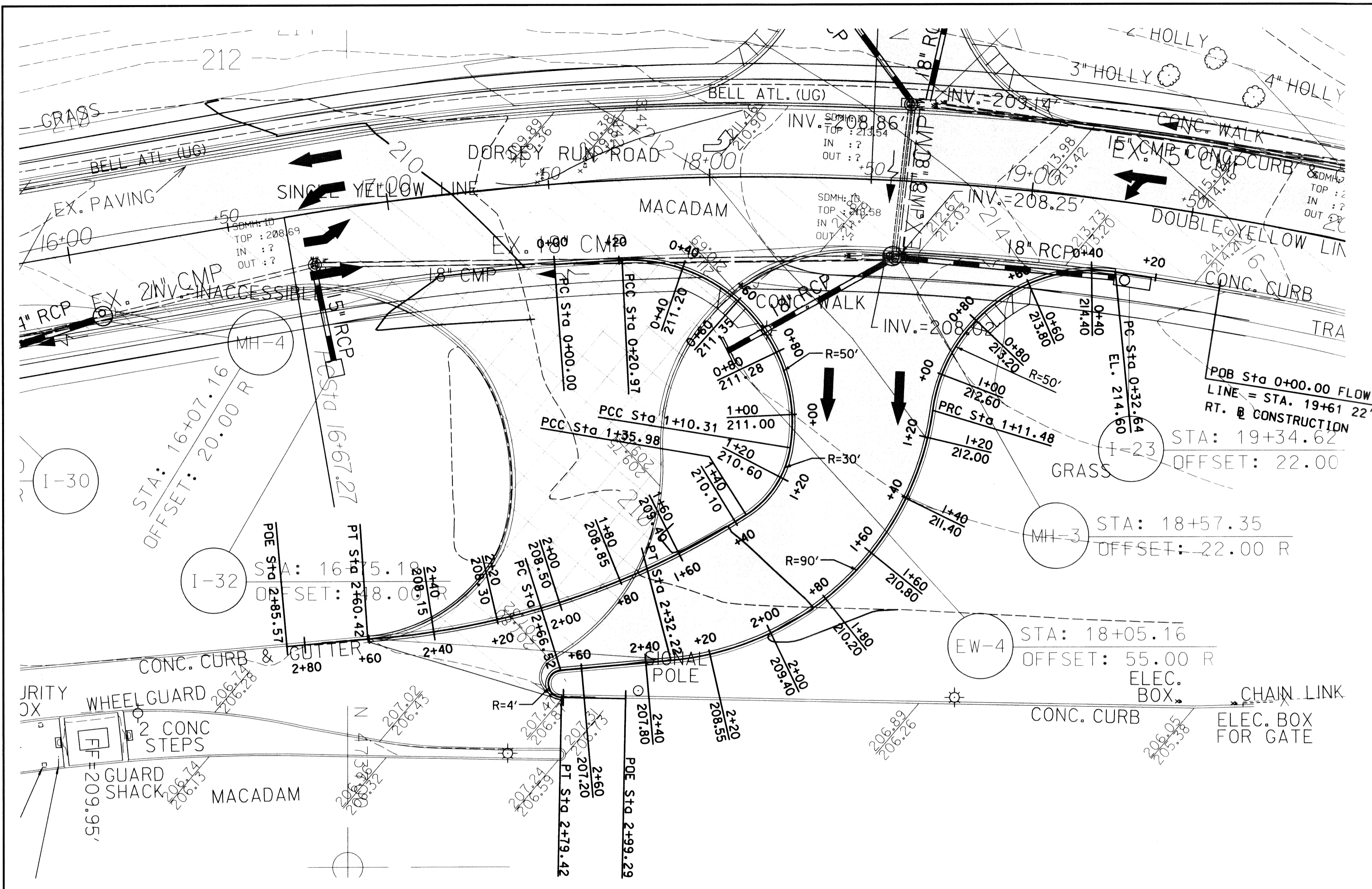
600' SCALE MAP NO. BLOCK NO.

DORSEY RUN ROAD SOUTH LINK

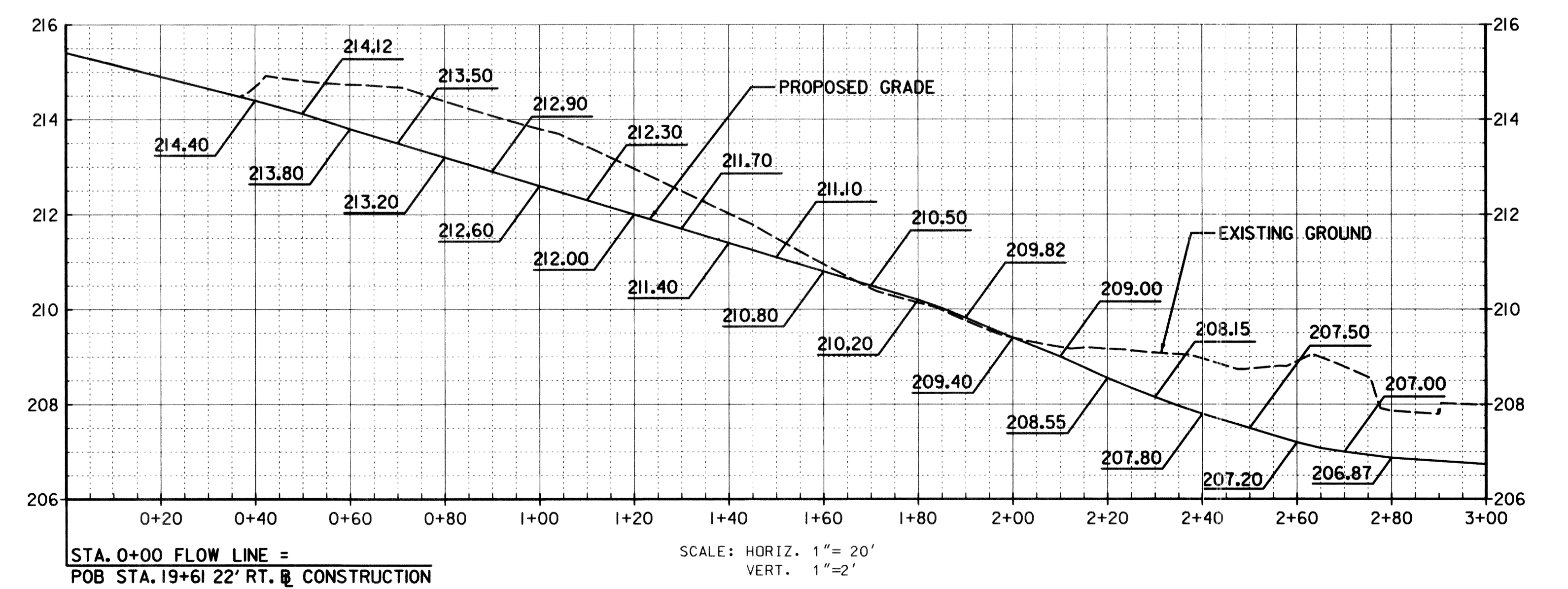
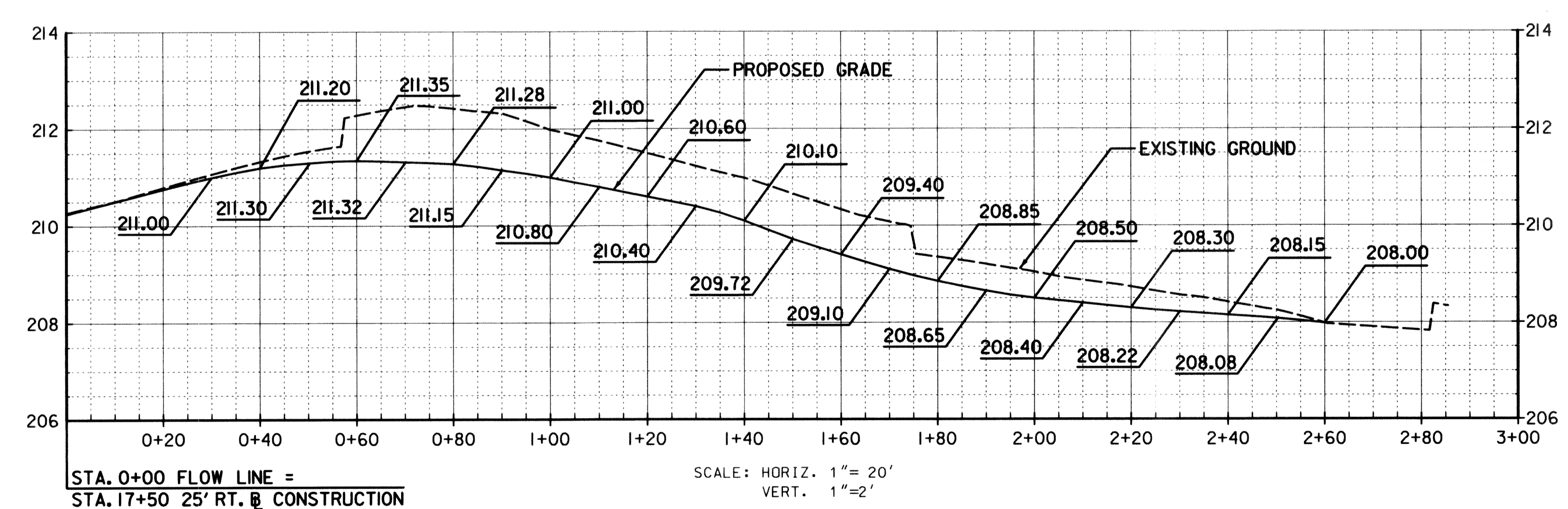
CAPITAL PROJECT NO. J-4110

SCALE AS SHOWN

SHEET 8 OF 30



PLAN
SCALE: 1" = 20'



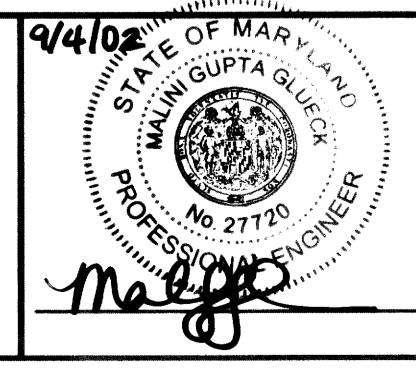
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James J. ... 9/4/02
DIRECTOR OF PUBLIC WORKS
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION

Robert ... 9/4/02
CHIEF, BUREAU OF ENGINEERING

Robert ... 9/4/02
CHIEF, BUREAU OF HIGHWAYS

Phoenix - Nolan Joint Venture
1430-A Jek Avenue
Suite A
Baltimore, Maryland 21227
Phone: (410) 247-8855 Fax: (410) 247-9897



DES:	J. R. H.
DRN:	D. R. B.
CHK:	
DATE:	
BY:	
NO.:	
REVISION:	
DATE:	

CURB RETURN ELEVATION DETAIL

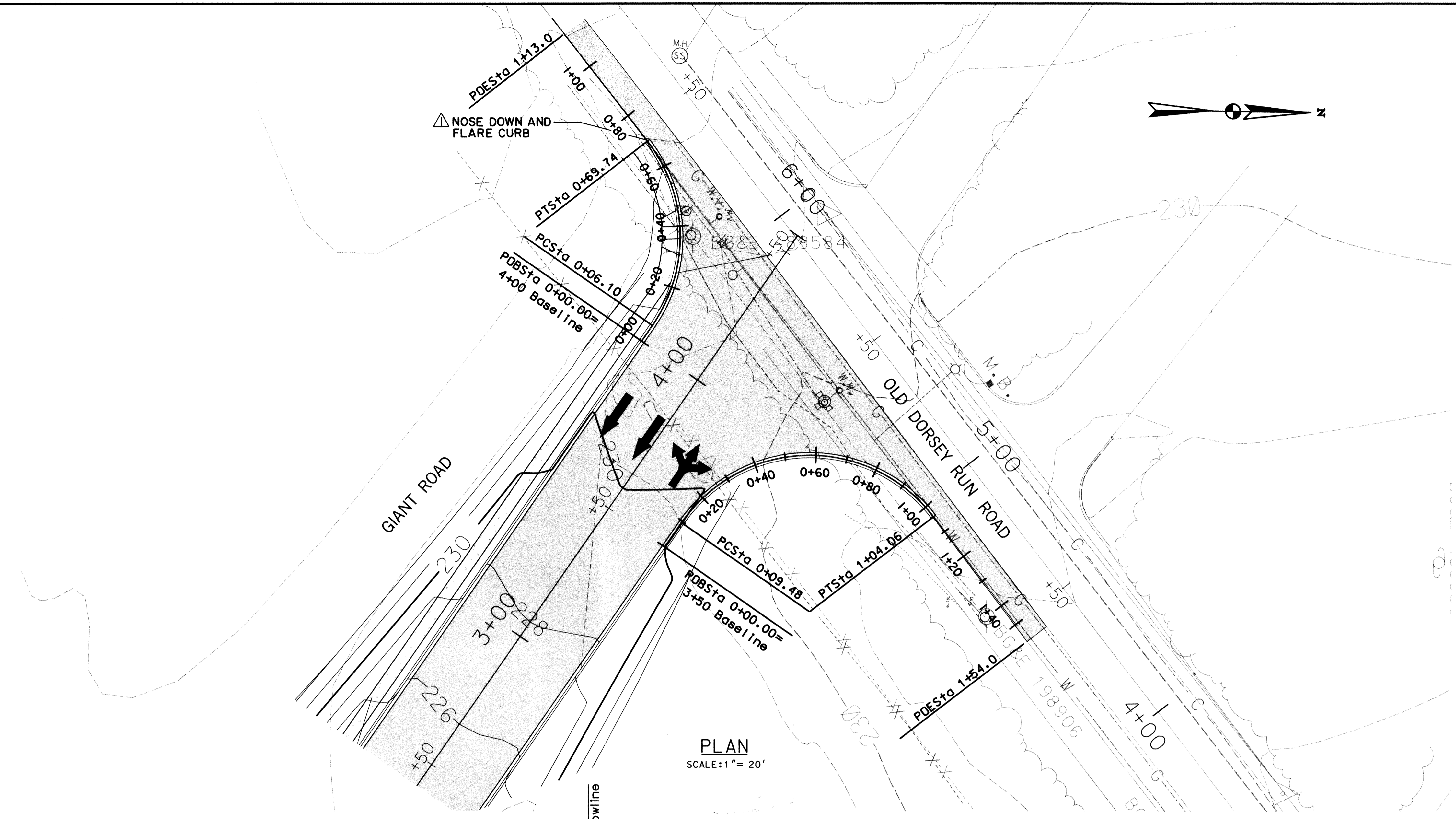
DORSEY RUN ROAD SOUTH LINK

CAPITAL PROJECT NO. J-4110

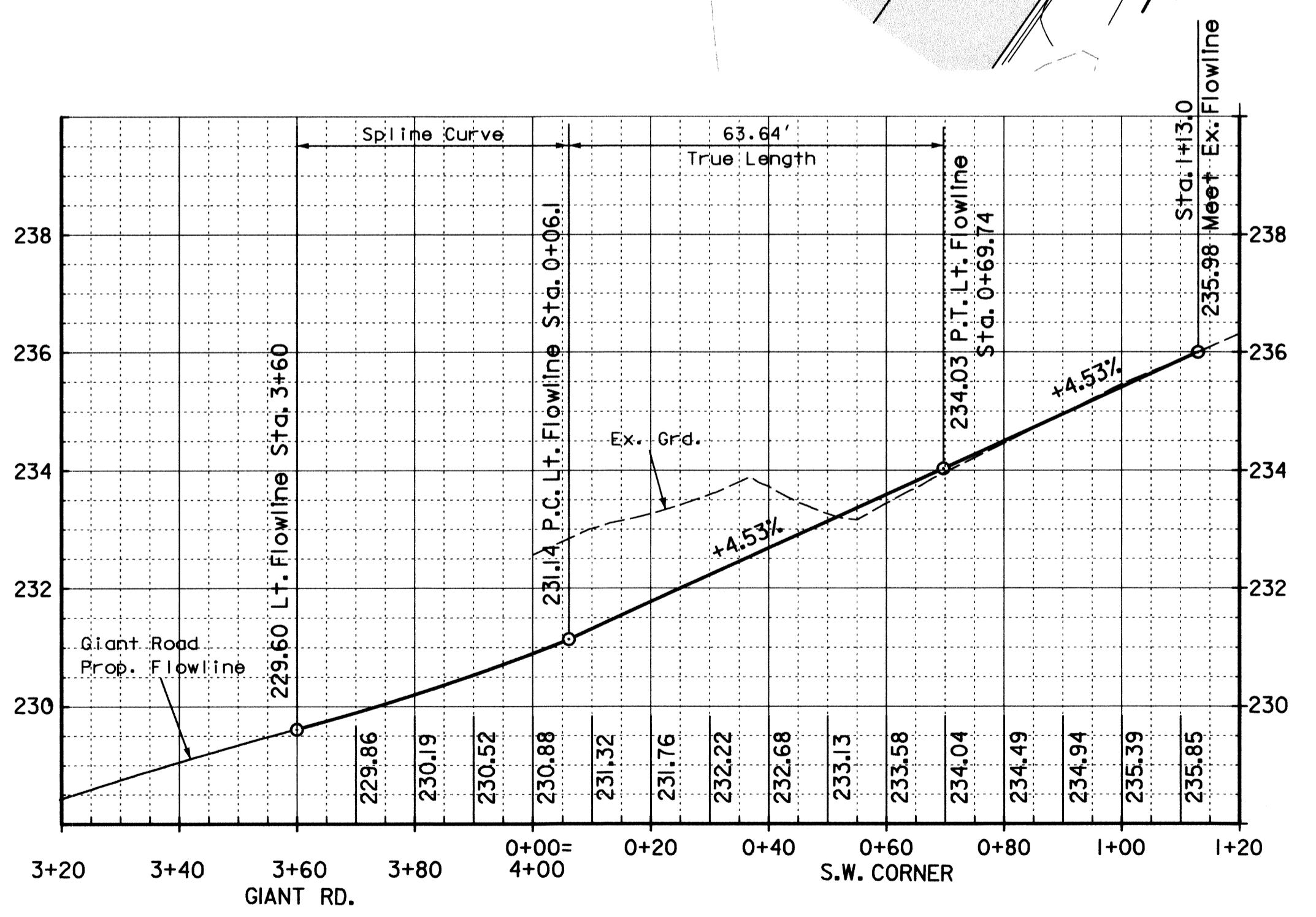
SCALE AS SHOWN

SHEET 9 OF 30

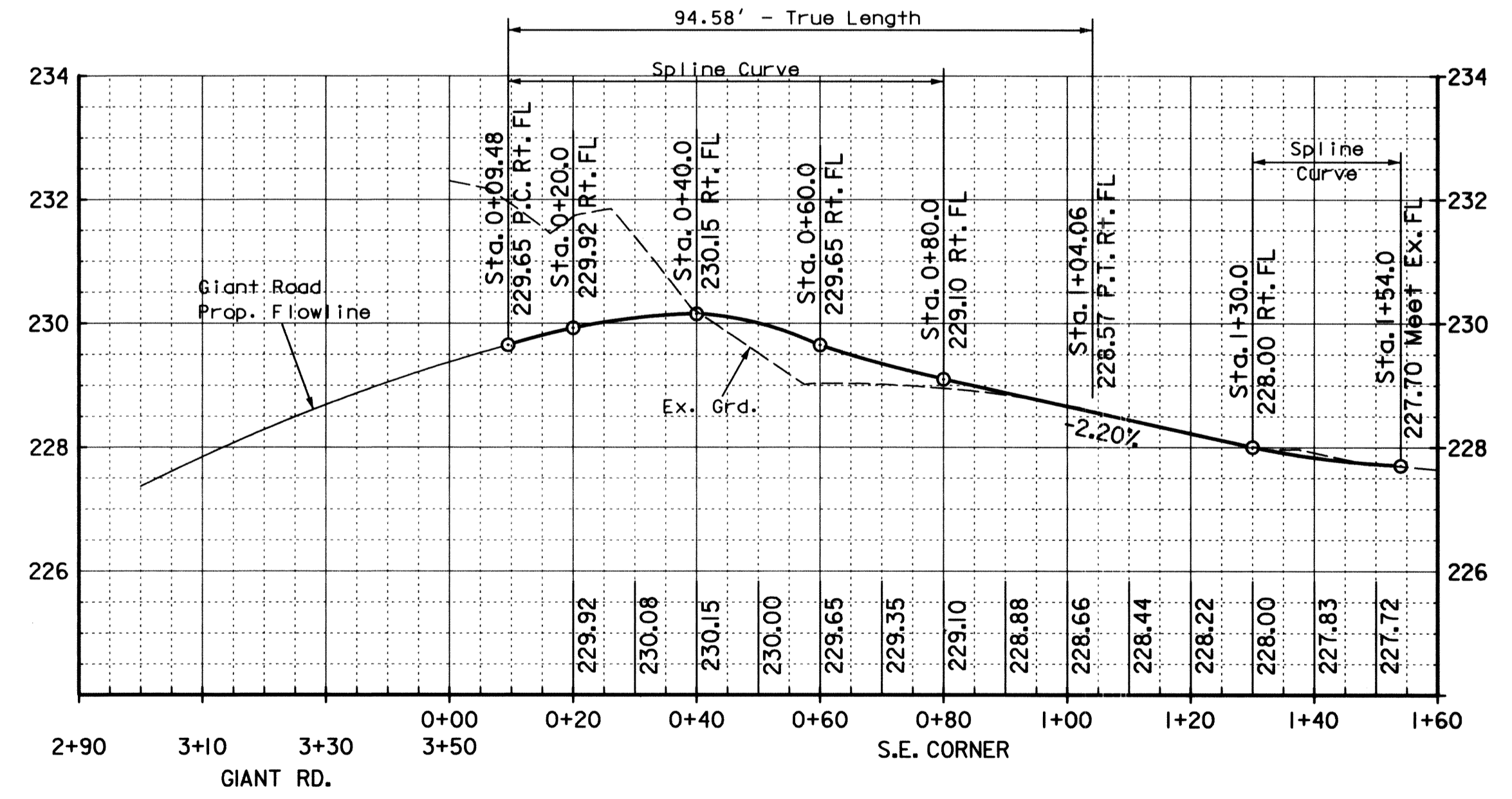
PE-02



PLAN
SCALE: 1" = 20'



FLOWLINE PROFILE FOR S.W. CORNER OF GIANT RD. AND OLD DORSEY RUN RD.



FLOWLINE PROFILE FOR S.E. CORNER OF GIANT RD. AND OLD DORSEY RUN RD.

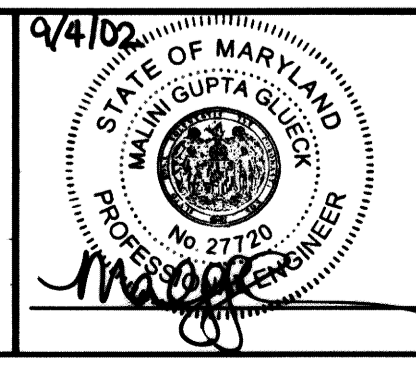
PROFILES
HORZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 2'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 9/4/02
DIRECTOR OF PUBLIC WORKS DATE
[Signature] 9/4/02
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE

Phoenix - Nolan Joint Venture

1420-A Jek Avenue
Suite A
Baltimore, Maryland 21227
Phone: (410) 247-8855 Fax: (410) 247-9397



DES: J. R. H.	E.M.P.	Added Note	0-7-02
DRN: D. R. B.			
CHK:			
DATE:	BY:	NO.	REVISION

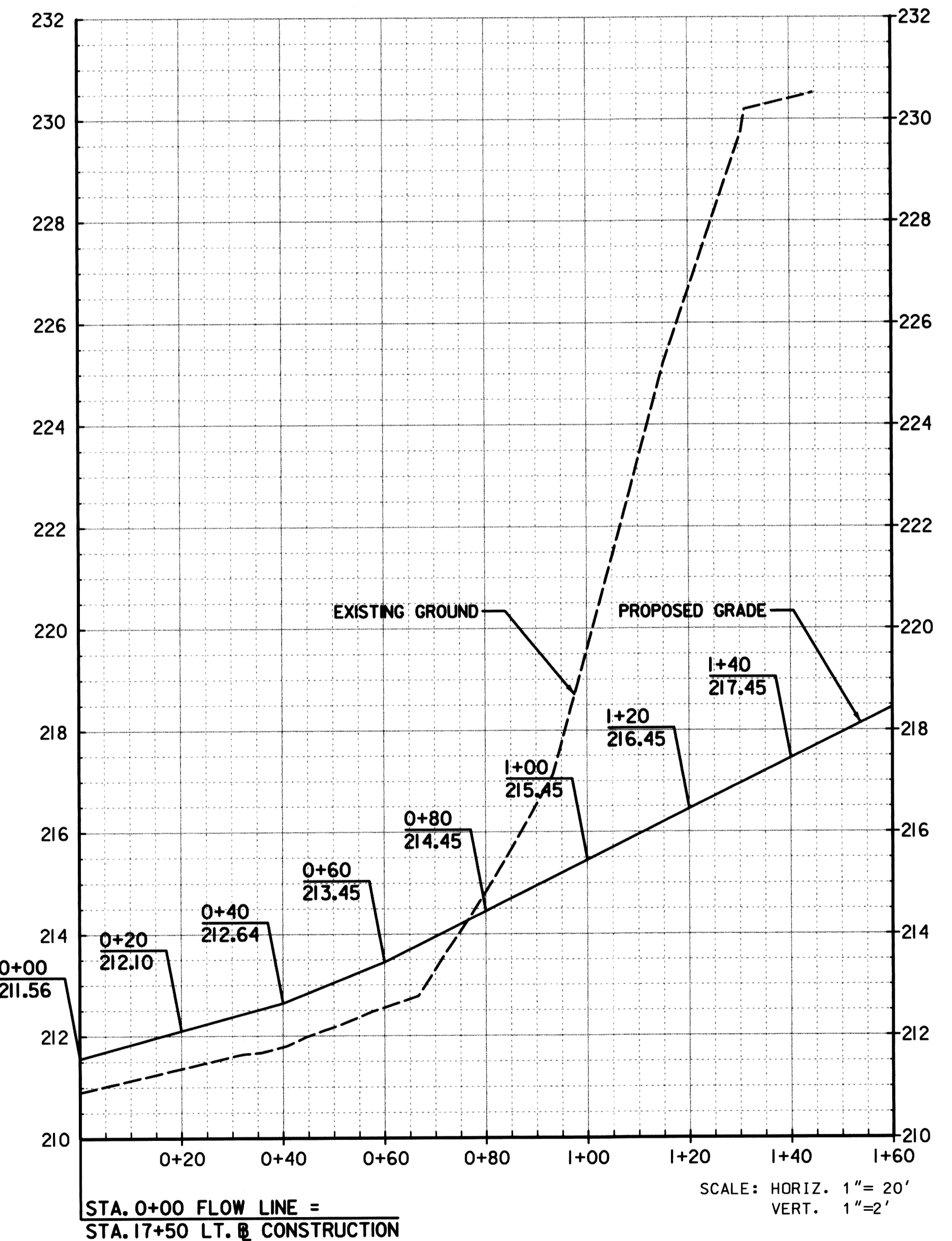
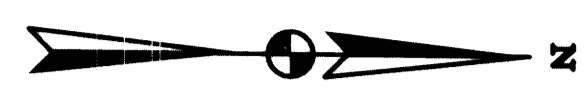
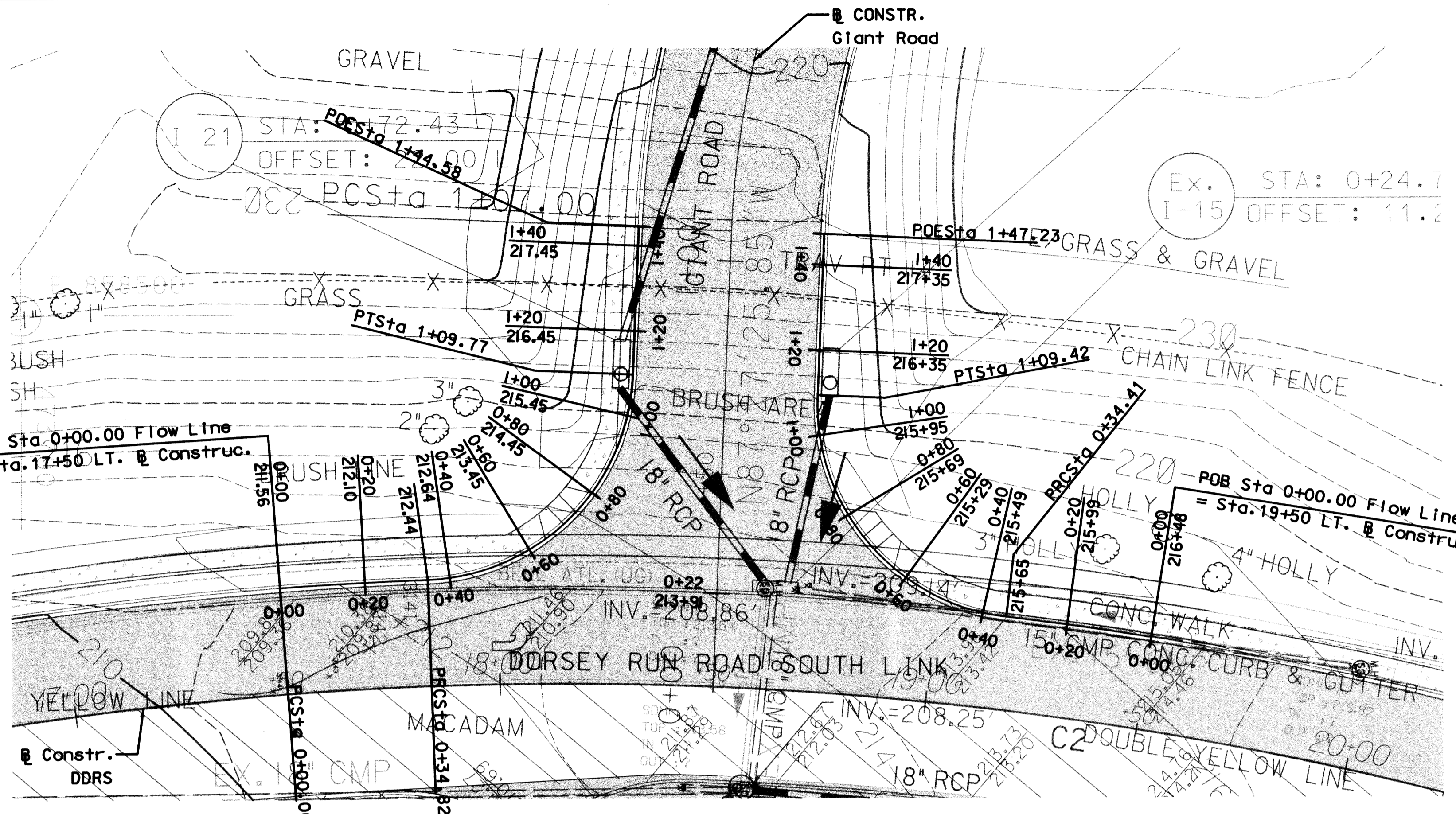
CURB RETURN ELEVATION DETAIL

600' SCALE MAP NO. BLOCK NO.

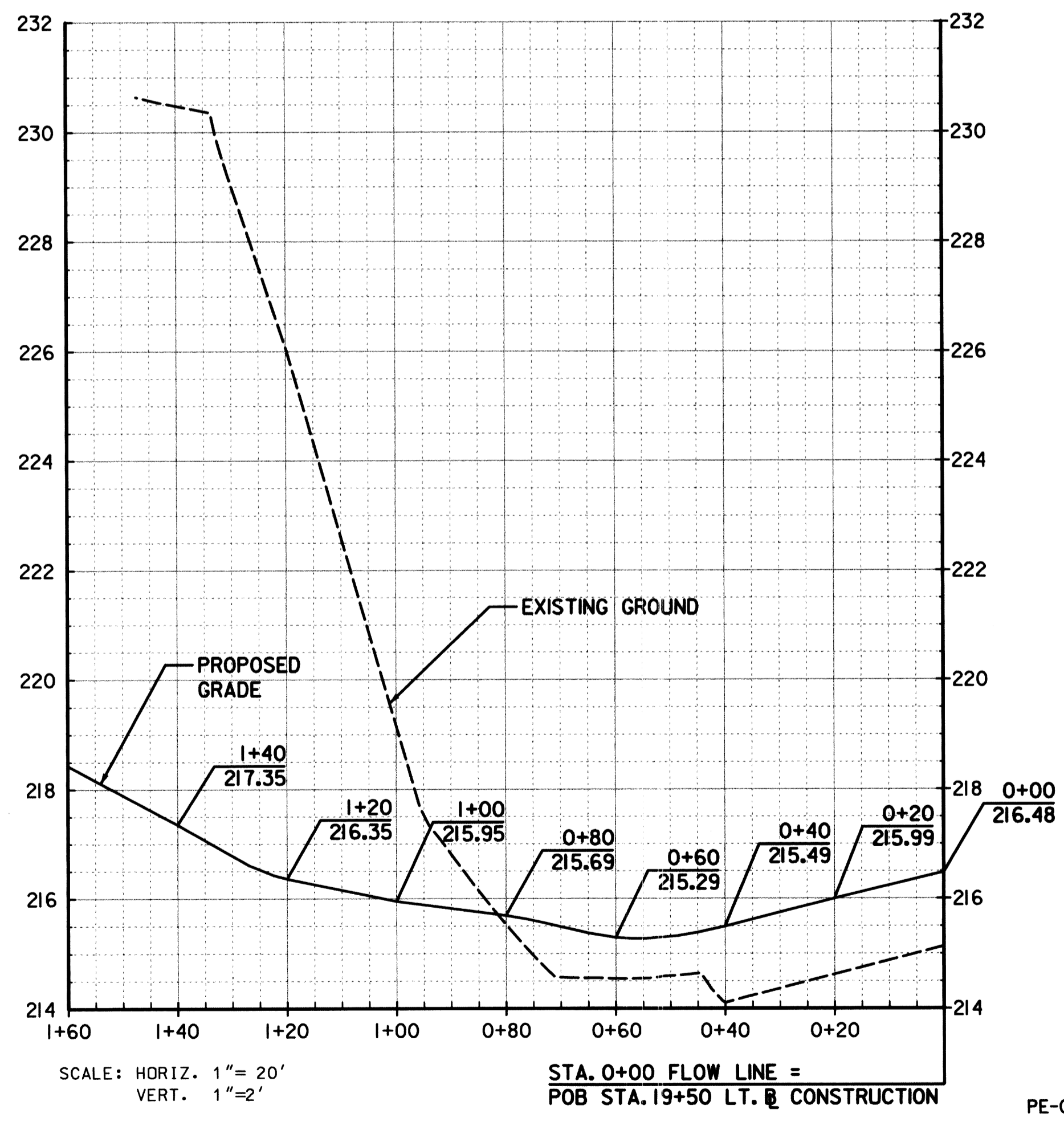
DORSEY RUN ROAD SOUTH LINK
PHASE 1

CAPITAL PROJECT NO. J-4110

PE-03
SCALE AS SHOWN
SHEET 10 OF 30



PLAN
SCALE: 1"=20'



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James W. Smith 10/15/02
DIRECTOR OF PUBLIC WORKS DATE

Paul R. Sporn 10/15/02
CHIEF, BUREAU OF ENGINEERING DATE

Shirahell A. Calver 10/15/02
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE

William Z. Smith 10-16-02
CHIEF, BUREAU OF HIGHWAYS DATE

Phoenix - Nolan Joint Venture

1400-A Jak Avenue
Suite A
Baltimore, Maryland 21287

Phone: (410) 247-8833 Fax: (410) 247-9397



DES: J.R.H.	SEW	ADD NEW SHEET	10-9-02
DRN: D.R.B.			
CHK:			
DATE:	BY:	NO.	REVISION

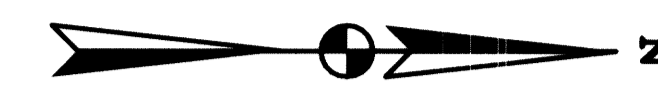
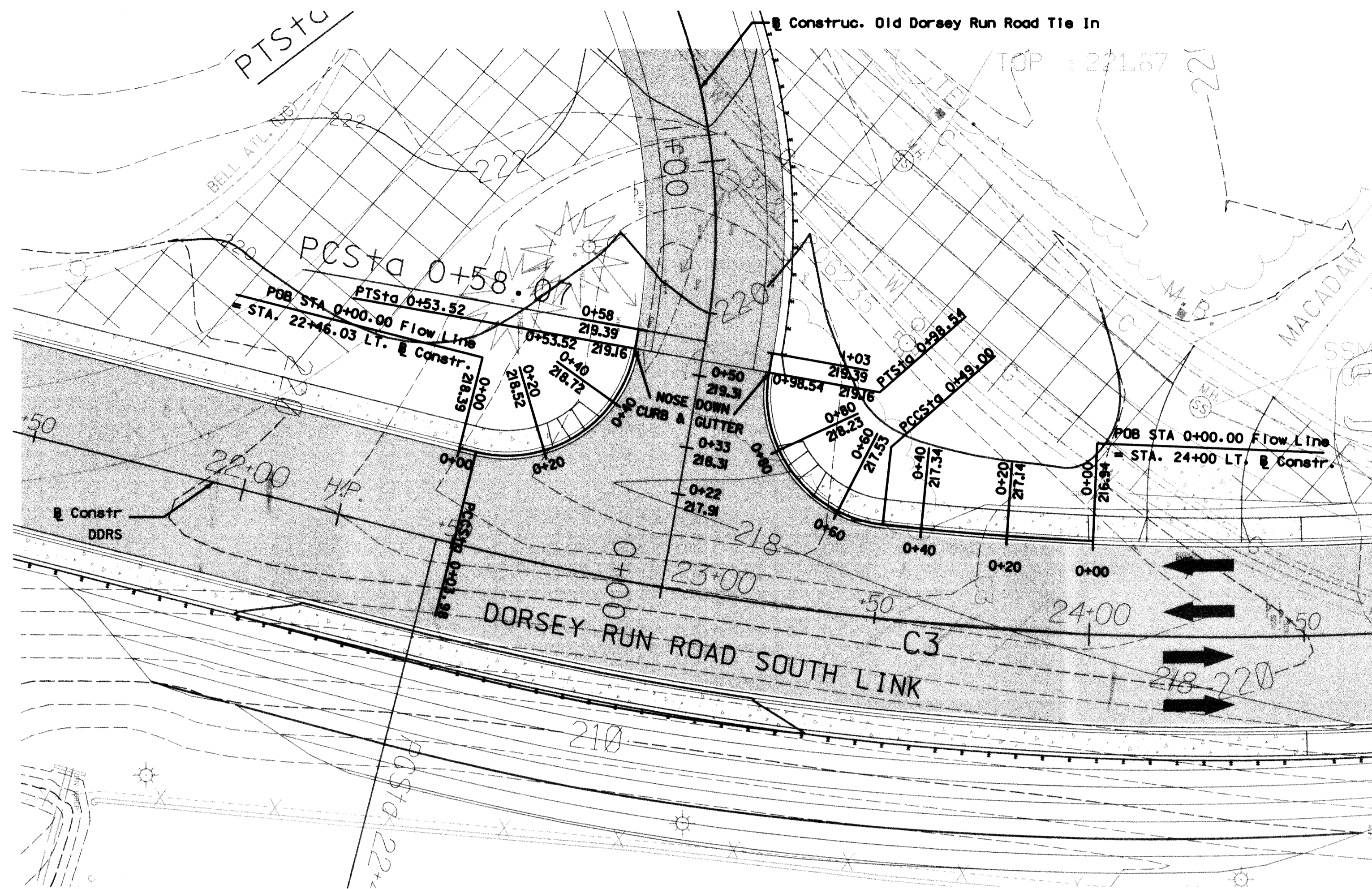
CURB RETURN ELEVATION DETAIL

600' SCALE MAP NO. BLOCK NO.

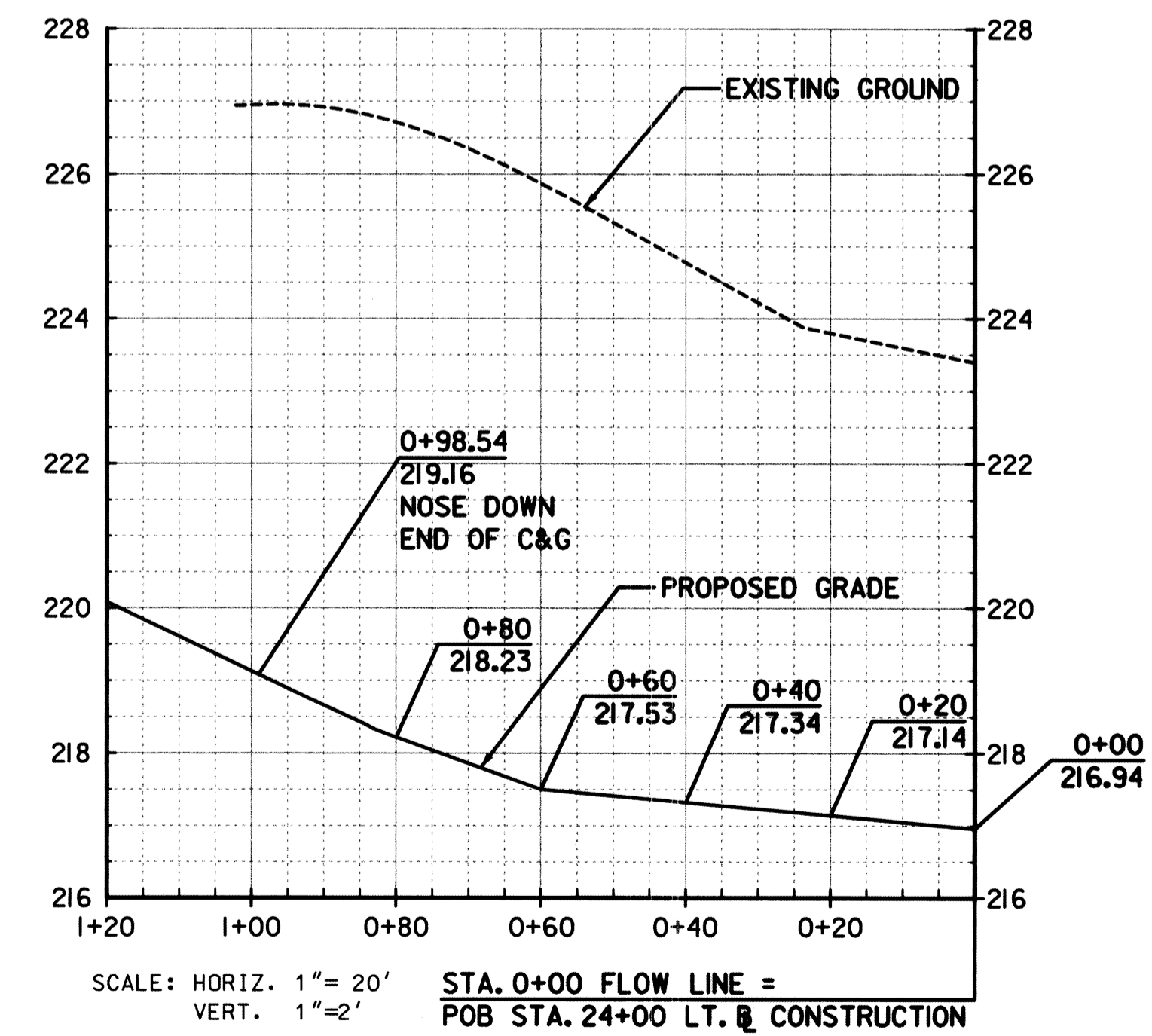
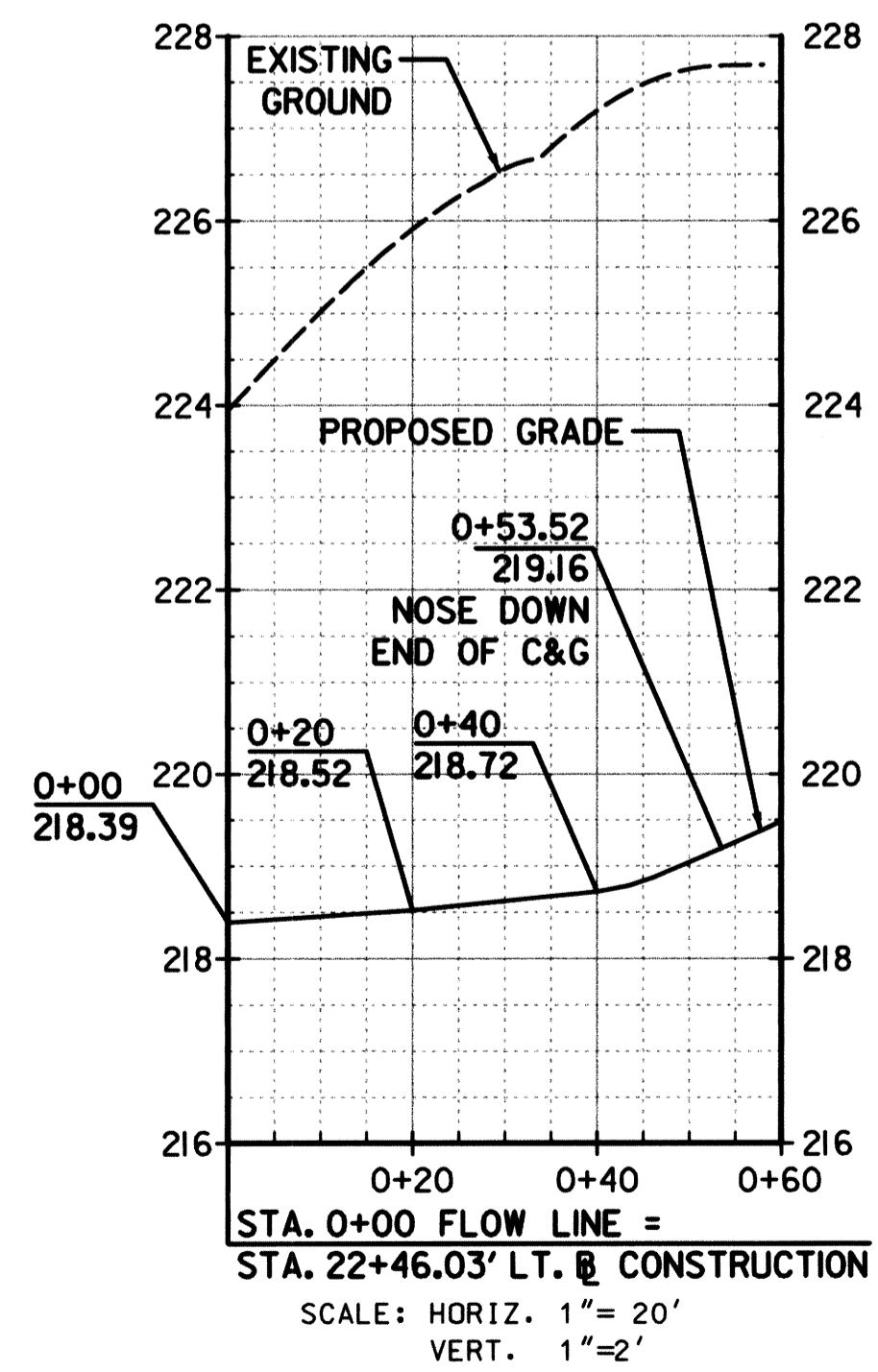
DORSEY RUN ROAD SOUTH LINK
PHASE 1

CAPITAL PROJECT NO. J-4110

SCALE AS SHOWN
SHEET 10A OF 30



PLAN
SCALE: 1" = 20'



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Jan J. [Signature] 10/15/02 *Paul [Signature]* 10/15/02
DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF ENGINEERING DATE
E. O. [Signature] 10/15/02 *[Signature]* 10-16-02
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE CHIEF, BUREAU OF HIGHWAYS DATE

Phoenix - Nolan Joint Venture

1480-A Job Avenue
Suite A
Baltimore, Maryland 21227

Phone: (410) 247-8855

Fax: (410) 247-9397



DES: J. R. H.	SEW	ADD NEW SHEET	10-9-02
DRN: D. R. B.			
CHK:			
DATE:	BY	NO.	REVISION

CURB RETURN ELEVATION DETAIL
OLD DORSEY RUN ROAD TIE IN

600' SCALE MAP NO. BLOCK NO.

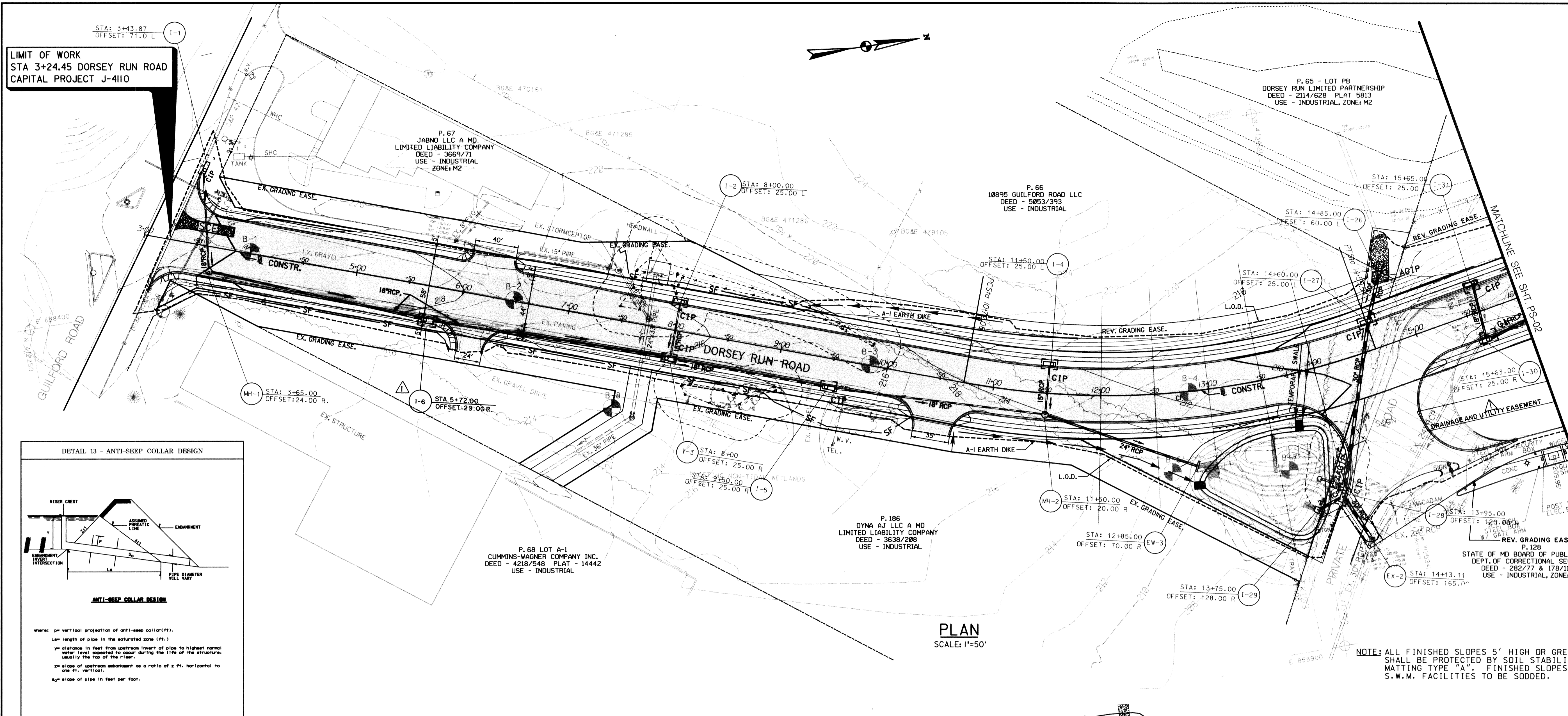
DORSEY RUN ROAD SOUTH LINK
PHASE 1

CAPITAL PROJECT NO. J-4110

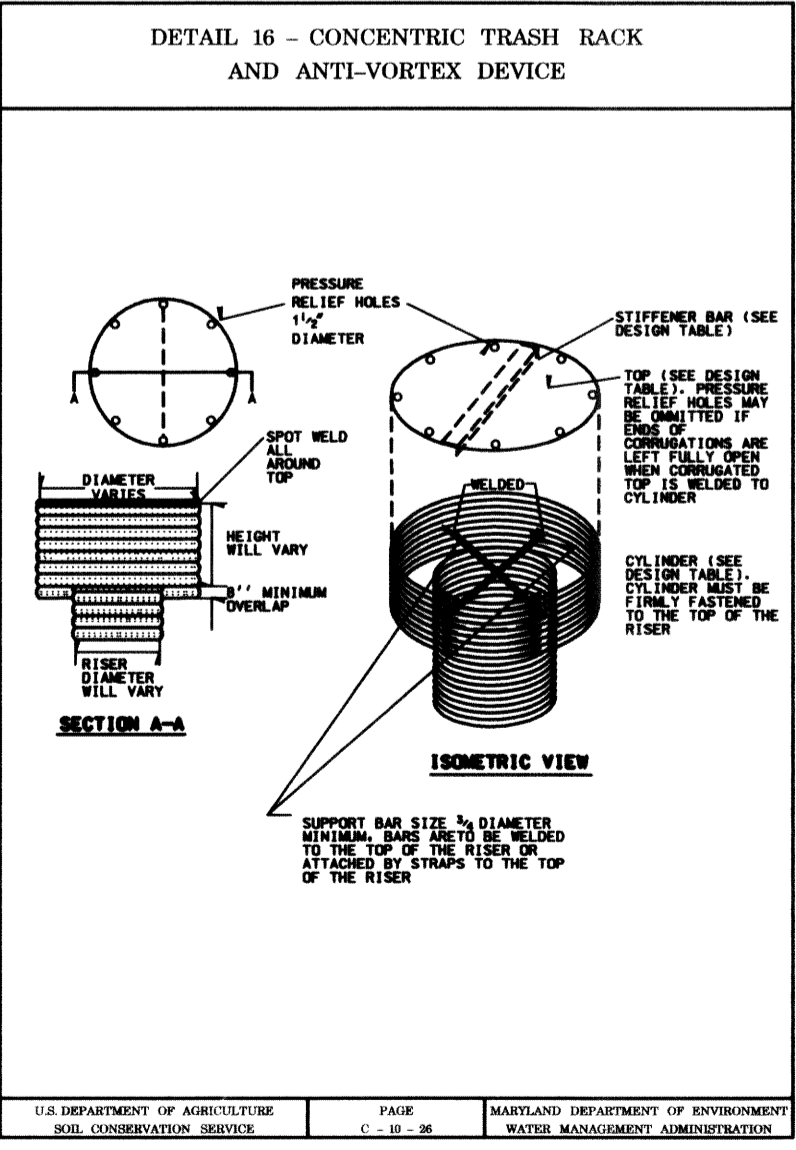
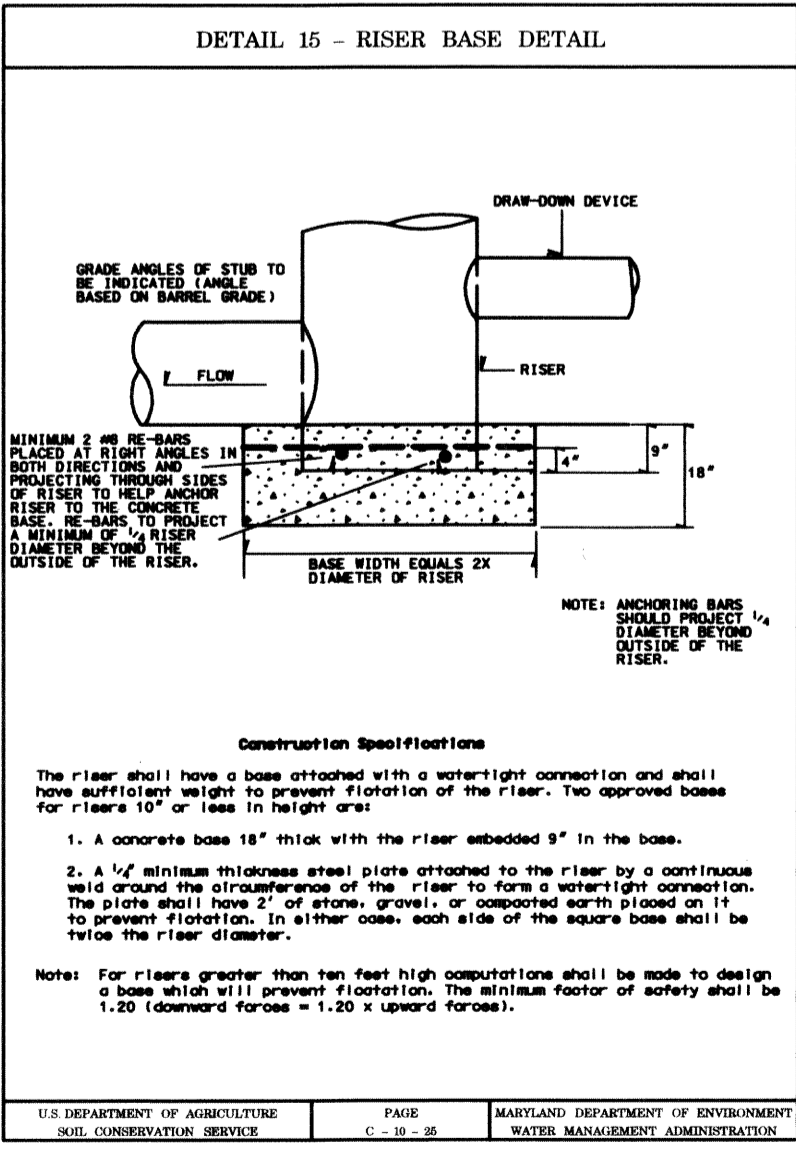
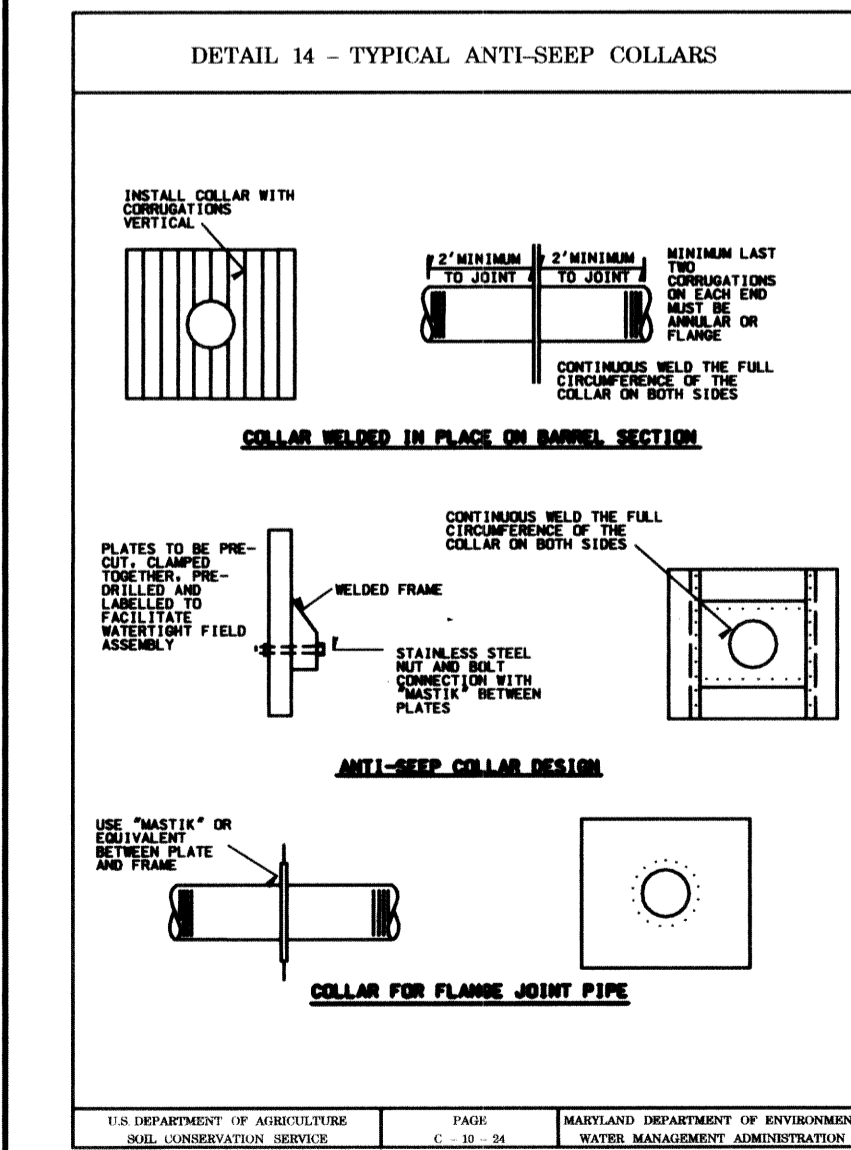
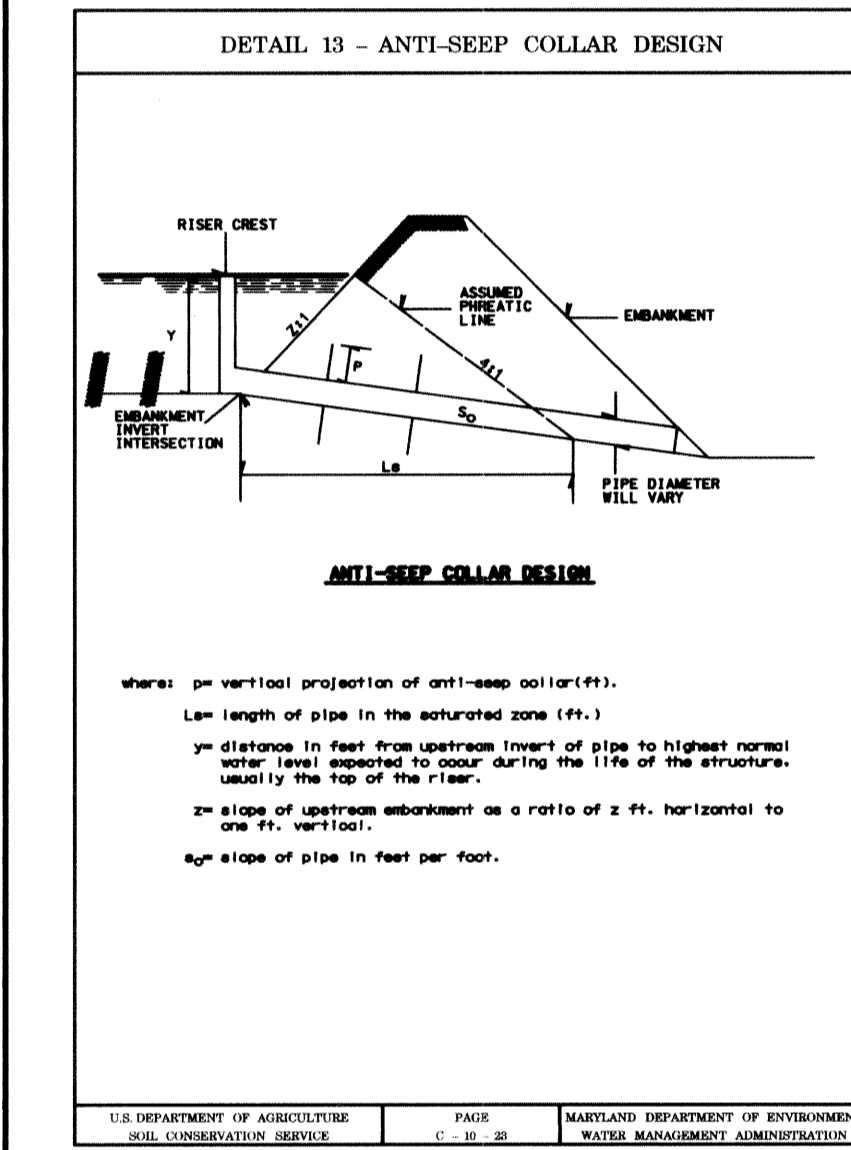
PE-05

SCALE AS SHOWN

SHEET 10B OF 30



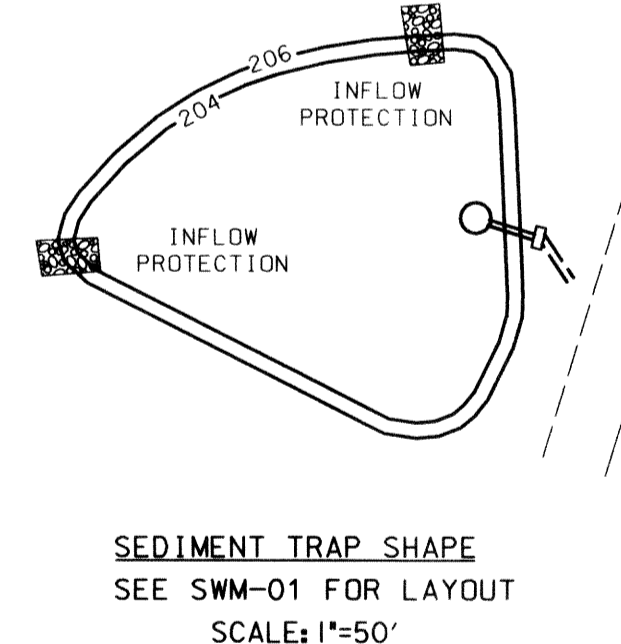
LIMIT OF WORK
 STA 3+24.45 DORSEY RUN ROAD
 CAPITAL PROJECT J-4110



DETAIL 16 CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE (continued)

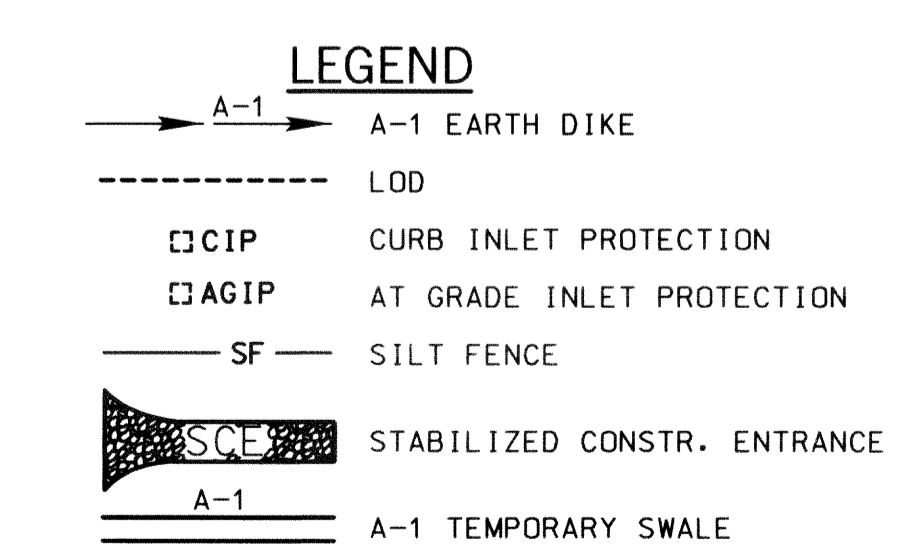
Riser Dia. (in.)	Trash Rack Dia. (in.)	Trash Rack Thickness (in.)	Minimum Spacing (ft.)	Minimum Top Clearance (ft.)
12	18	1/4	4	10
18	21	1/4	4	10
18	27	1/4	4	10
21	30	1/4	4	10
24	36	1/4	4	10
27	42	1/4	4	10
36	54	1/4	4	10
42	60	1/4	4	10
48	72	1/4	4	10
60	90	1/4	4	10
60	90	1/2	4	10
66	96	1/2	4	10
72	108	1/2	4	10
78	114	1/2	4	10
84	120	1/2	4	10

Note: The above trash rack and anti-vortex device information is only for corrugated metal pipe. Concrete risers must meet the requirements of MD 276.



PIPE/RIPRAP OUTLET SEDIMENT TRAP #1 ST-1

PIPE OUTLET SEDIMENT TRAP ST-1
 DRAINAGE AREA=2.55 AC.
 DISTURBED AREA=2.15 AC.
 DRY STORAGE PROVIDED=4,590 CU. FT.
 WET STORAGE PROVIDED @ ELEV. 206.00=8,655 CU. FT.
 WET STORAGE PROVIDED @ ELEV. 205.00=7,957 CU. FT.
 TOTAL STORAGE PROVIDED=16,612
 18" BARREL - 21" RISER - 36" TRASH RACK
 TOP OF RISER=206.00
 BOTTOM OF TRAP=204.00
 CLEAN OUT ELEV.=204.50
 DEPTH OF TRAP=2'-0"
 BOTTOM DIMENSIONS=IRREGULAR
 SIDE SLOPES = INSIDE=2:1
 OUTSIDE=N/A
 TOP OF EMBANKMENT ELEV. =207.50
 WEIR LENGTH=N/A
 EMBANKMENT HEIGHT=N/A
 (TIE OUTLET PIPE INTO EXISTING INLET)
 EX. INV.=103.25



RIPRAP INFLOW PROTECTION MSHA CLASS I RIPRAP
STA. 14+80 RT. 7 CY. STA. 12+75 RT. 7 CY.
CLASS I RIPRAP
STA. 12+85 RT. 4'x15' D.R.R.S. 10 CY. 12'x10'
STA. 14+95 LT. 42'x15' D.R.R.S. 37 CY.
A-1 TEMPORARY SWALE @ MINIMUM GRADE
STA. 13+90 - 60 LF.
A-1 EARTH DIKE
STA. 9+15 TO 11+00 LT. 185 LF. STA. 10+75 TO 12+80 RT. 220 LF.
STABILIZED CONSTR. ENTRANCE
1 EA. STA. 3+24 LT. - 25 Tons
SILT FENCE
STA. 3+50 TO 9+00 RT. 550 LF. STA. 7+25 TO 9+25 LT. 200 LF
AGIP
1 EA. STA. 13+95 RT. 1 EA. STA. 14+85 LT.
PIPE OUTLET SEDIMENT TRAP
1 EA. STA. 13+00 RT.
CURB INLET PROTECTION CIP
1 EA. STA. 3+44 LT. 1 EA. STA. 5+72 RT. 1 EA. STA. 8+00 LT. 1 EA. STA. 8+00 RT. 1 EA. STA. 9+50 RT. 1 EA. STA. 11+50 LT. 1 EA. STA. 14+60 LT. 1 EA. STA. 14+00 RT. 1 EA. STA. 15+60 LT. 1 EA. STA. 15+60 RT.
SOIL STABILIZATION MATTING TYPE-A
657 S.Y.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works: *John R. Robertson* 9/14/02
 Chief, Bureau of Engineering: *Richard J. Sisson* 9/14/02
 Chief, Transportation and Special Projects Division: *Elizabeth A. Calia* 9/4/02
 Chief, Bureau of Highways: *Thomas M. Sweeney* 9/4/02

Phoenix - Nolan Joint Venture

1400-A Jahn Avenue
 Suite A
 Baltimore, Maryland 21227

Phone: (410) 247-8855 Fax: (410) 247-9297

DESIGNED BY: J. R. H. V.S. Added Curb Inlet Protection CIP 10-7-02
 E.M.P. Added Drainage and Utility Easement 10-7-02

DRN: D. R. B.

CHK:

DATE:

SEDIMENT & EROSION CONTROL PLAN

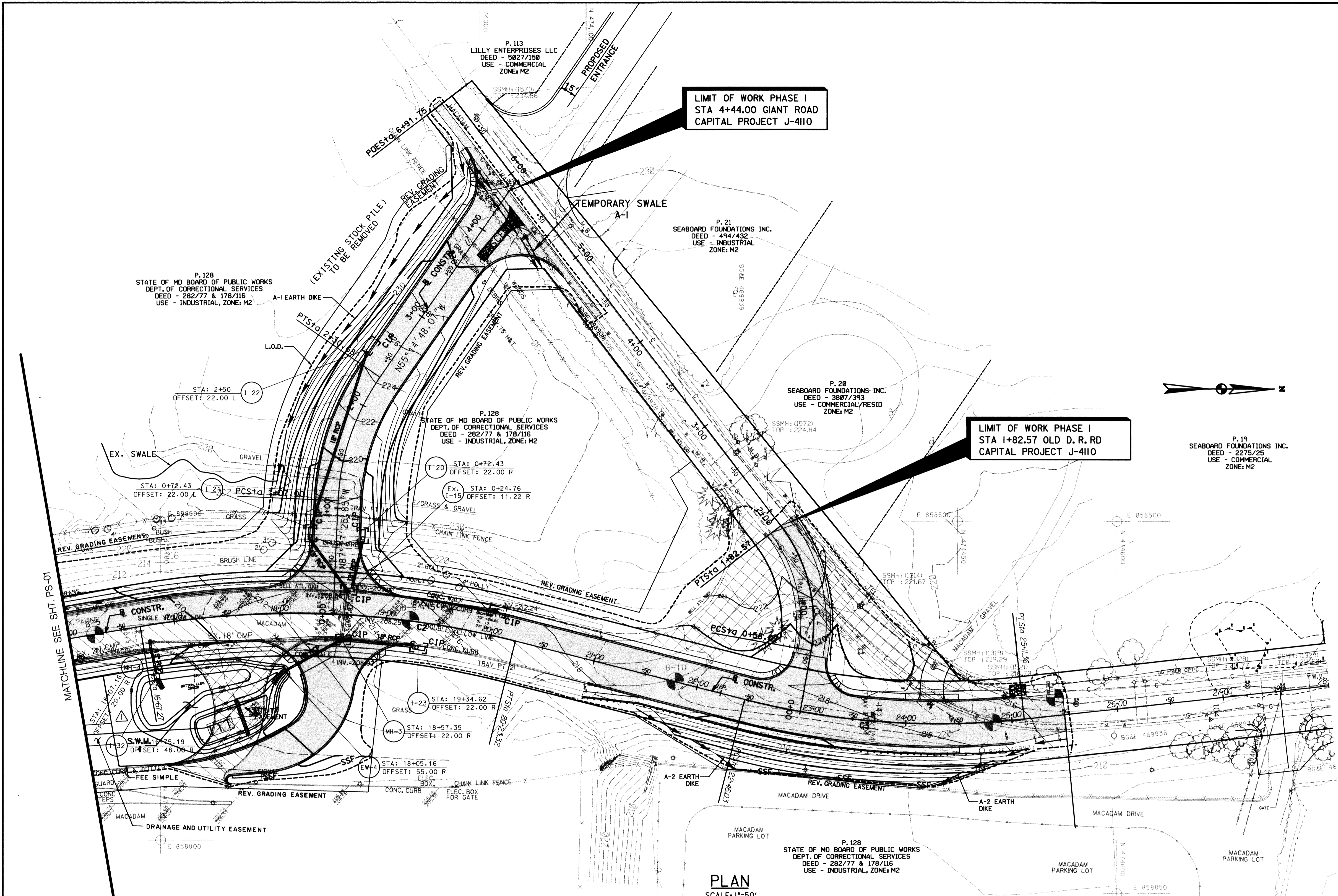
600' SCALE MAP NO. BLOCK NO.

DORSEY RUN ROAD SOUTH LINK PHASE 1

CAPITAL PROJECT NO. J-4110

SCALE AS SHOWN

SHEET 11 OF 30



LIMIT OF WORK PHASE I
STA 4+44.00 GIANT ROAD
CAPITAL PROJECT J-4110

LIMIT OF WORK PHASE I
STA 1+82.57 OLD D.R. RD
CAPITAL PROJECT J-4110

NOTE: ALL FINISHED SLOPES 5' HIGH OR GREATER SHALL BE PROTECTED BY SOIL STABILIZATION MATTING TYPE "A". FINISHED SLOPES IN S.W.M. FACILITIES TO BE SODED.



PLAN
SCALE: 1"=50'

SOIL STABILIZATION MATTING
TYPE-"A"
1,972 S.Y.

A-1 EARTH DIKE
STA. 1+20 TO STA. 4+30 GIANT LT 310 L.F.

A-1 TEMPORARY SWALE
STA. 6+45 TO STA. 5+10 OLD D.R.RD. LT 135 L.F.

CURB INLET PROTECTION
CIP
STA. 18+60 LT. DRRS - 1 EA.
STA. 18+60 RT. DRRS - 1 EA.
STA. 19+35 RT. DRRS - 1 EA.
STA. 20+00 LT. DRRS - 1 EA.
STA. 0+75 LT. GIANT - 1 EA.
STA. 0+75 RT. GIANT - 1 EA.
STA. 2+50 LT. GIANT - 1 EA.

SUPER SILT FENCE
STA. 22+45 TO STA. 24+45 RT. DRRS - 200 L.F.

SILT FENCE
STA. 17+45 TO STA. 18+80 RT. DRRS - 135 L.F.

CLASS I RIPRAP
STA. 25+00 LT. 10' X 15' DRRS - 9 C.Y.
STA. 18+05 RT. 15' X 5' DRRS - 5 C.Y.

A-2 EARTH DIKE
STA. 21+50 TO STA. 22+55 RT. DRRS - 105 L.F.
STA. 24+35 TO STA. 25+50 RT. DRRS - 115 L.F.

LEGEND

- LOD
- CIP CURB INLET PROTECTION
- SSF SUPER SILT FENCE
- EARTH DIKES A-1 AND A-2
- SCSCE STABILIZED CONSTR. ENTRANCE

BY THE ENGINEER:
"I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT."
M. Gupta 9/4/02
ENGINEER: MALINI GUPTA GUJECK, PE NO. 27720
PHOENIX ENGINEERS, INC.

BY THE DEVELOPER:
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT."
Elizabeth A. Gabe 9/5/02
ELIZABETH A. GABE, CHIEF
TRANSPORTATION AND SPECIAL PROJECTS DIVISION

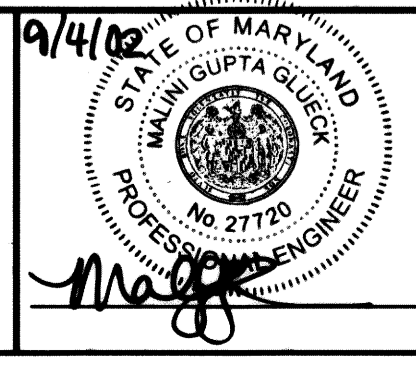
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
John K. Robertson 9/5/02
HOWARD S.C.D.

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
Jim Meyer 9/15/02
NATURAL RESOURCES CONSERVATION SERVICES

EP-02

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Jan A. Chu 9/4/02
DIRECTOR OF PUBLIC WORKS
Carolyn 9/4/02
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION

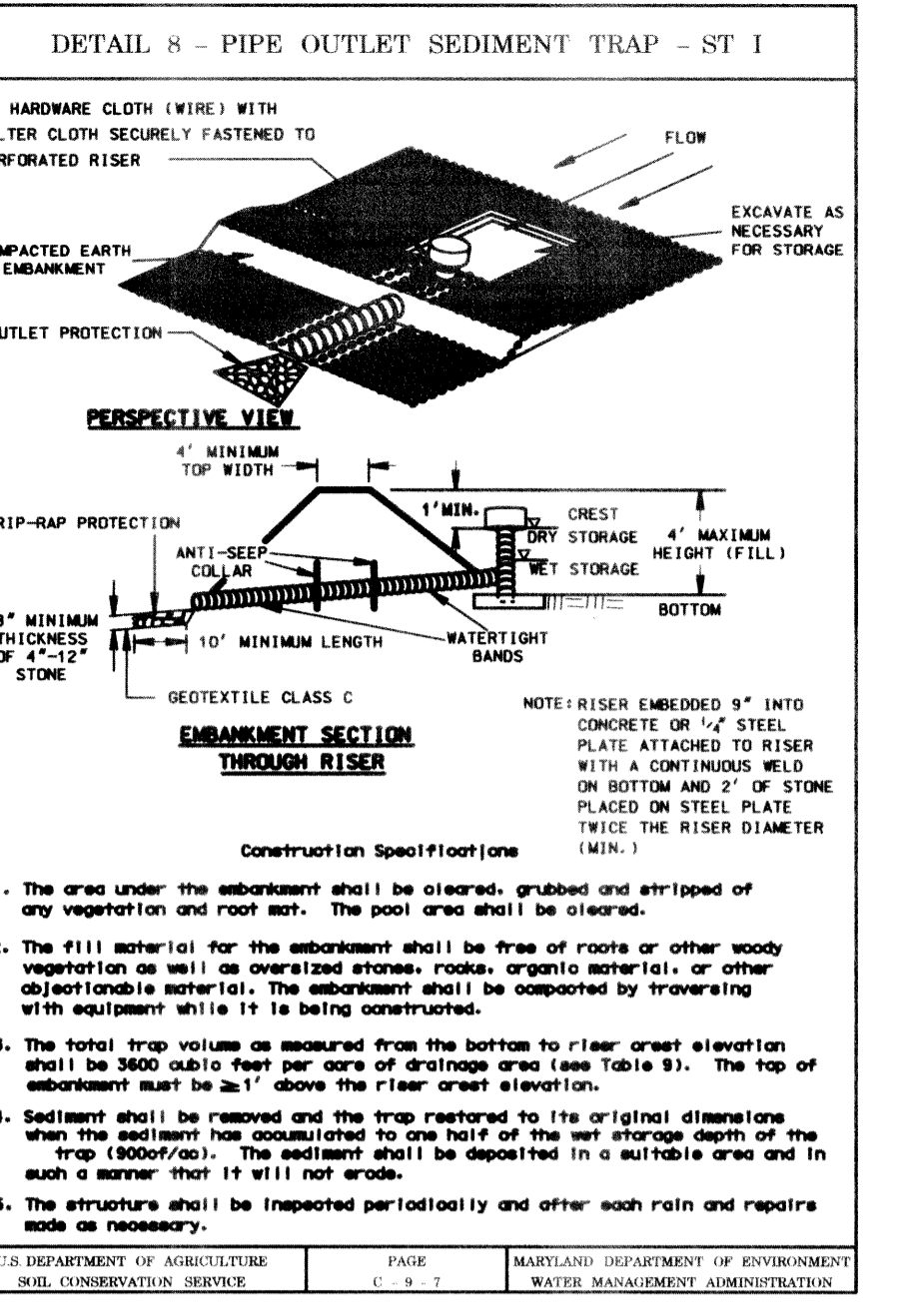
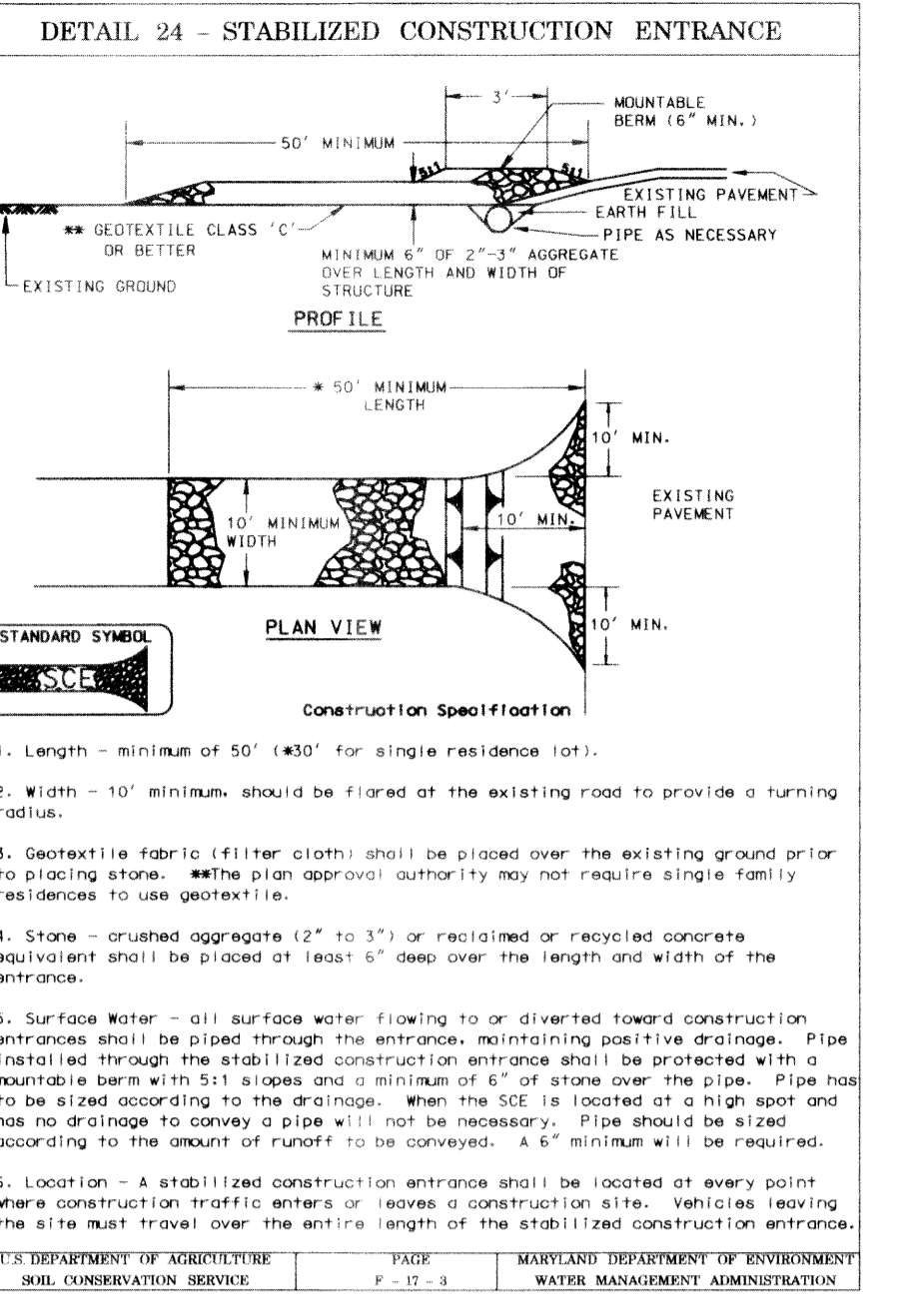
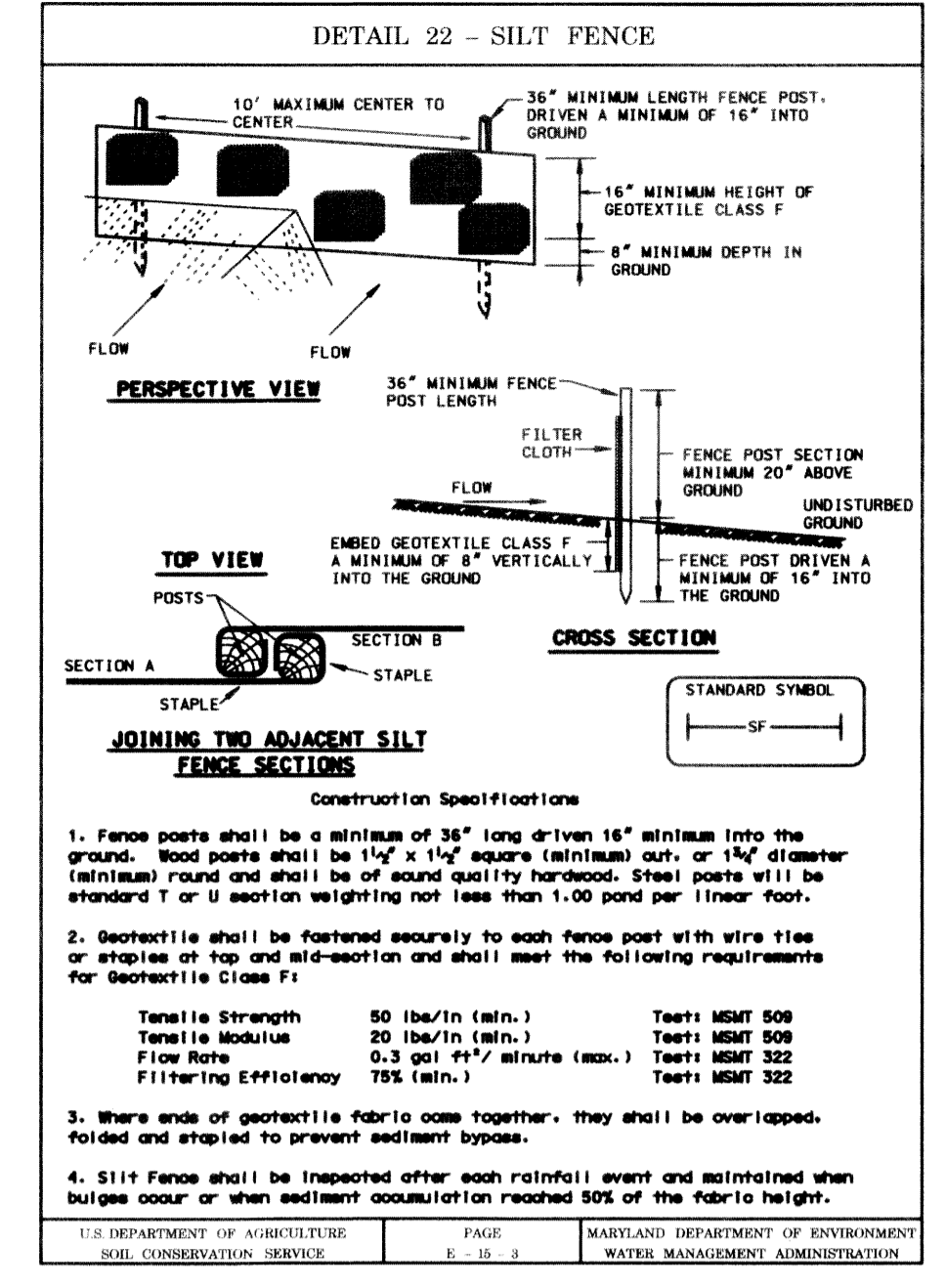
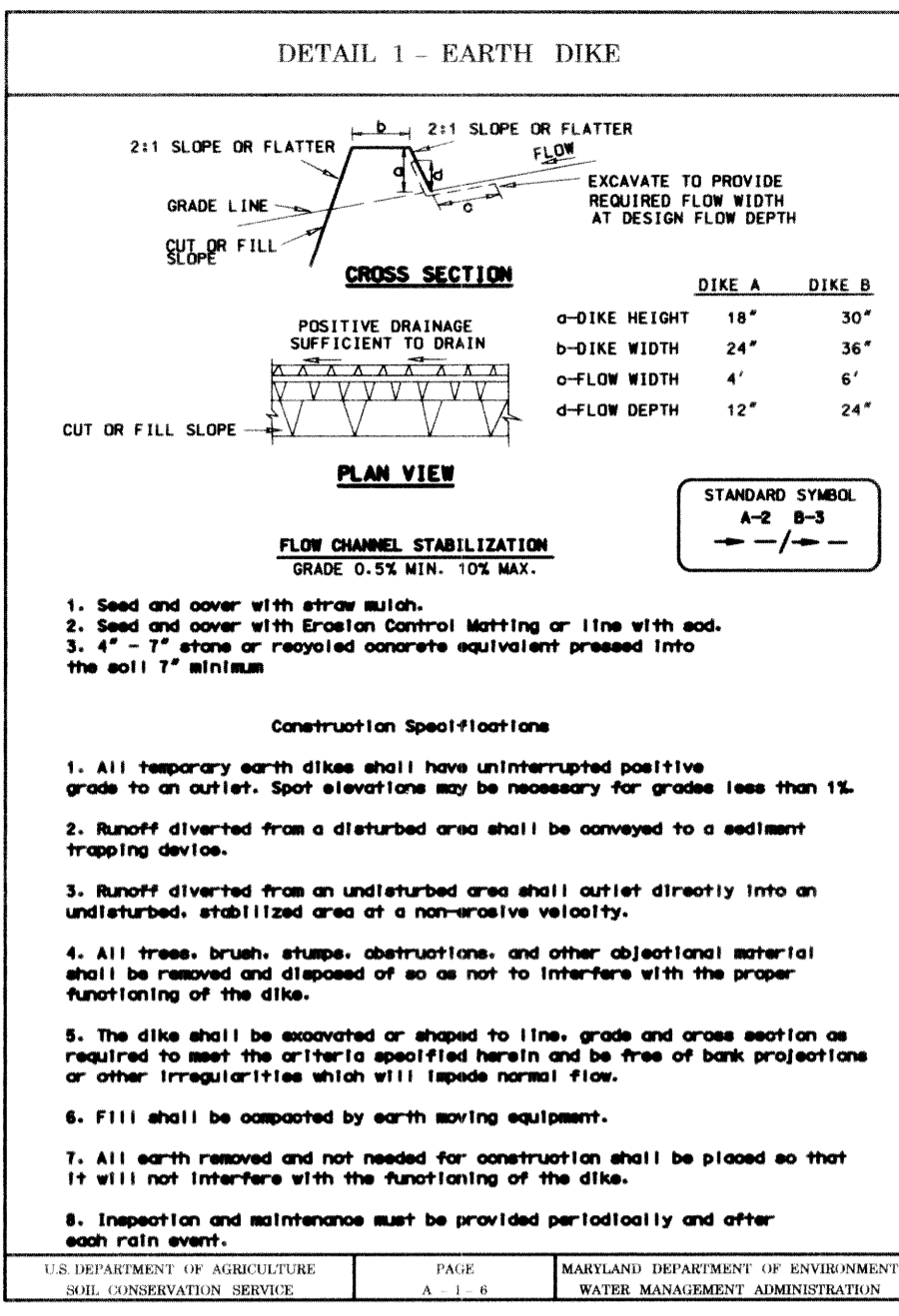
Phoenix - Nolan Joint Venture
1420-A Jck Avenue
Suite A
Baltimore, Maryland 21227
Phone: (410) 947-8855 Fax: (410) 947-9397



DES:	J. R. H.	E.M.P.	△	Add Drainage and Utility Easement, Fee Simple & Rev. Grading Easement	10-702
DRN:	D. R. B.				
CHK:					
DATE:					
	BY	NO.	REVISION	DATE	

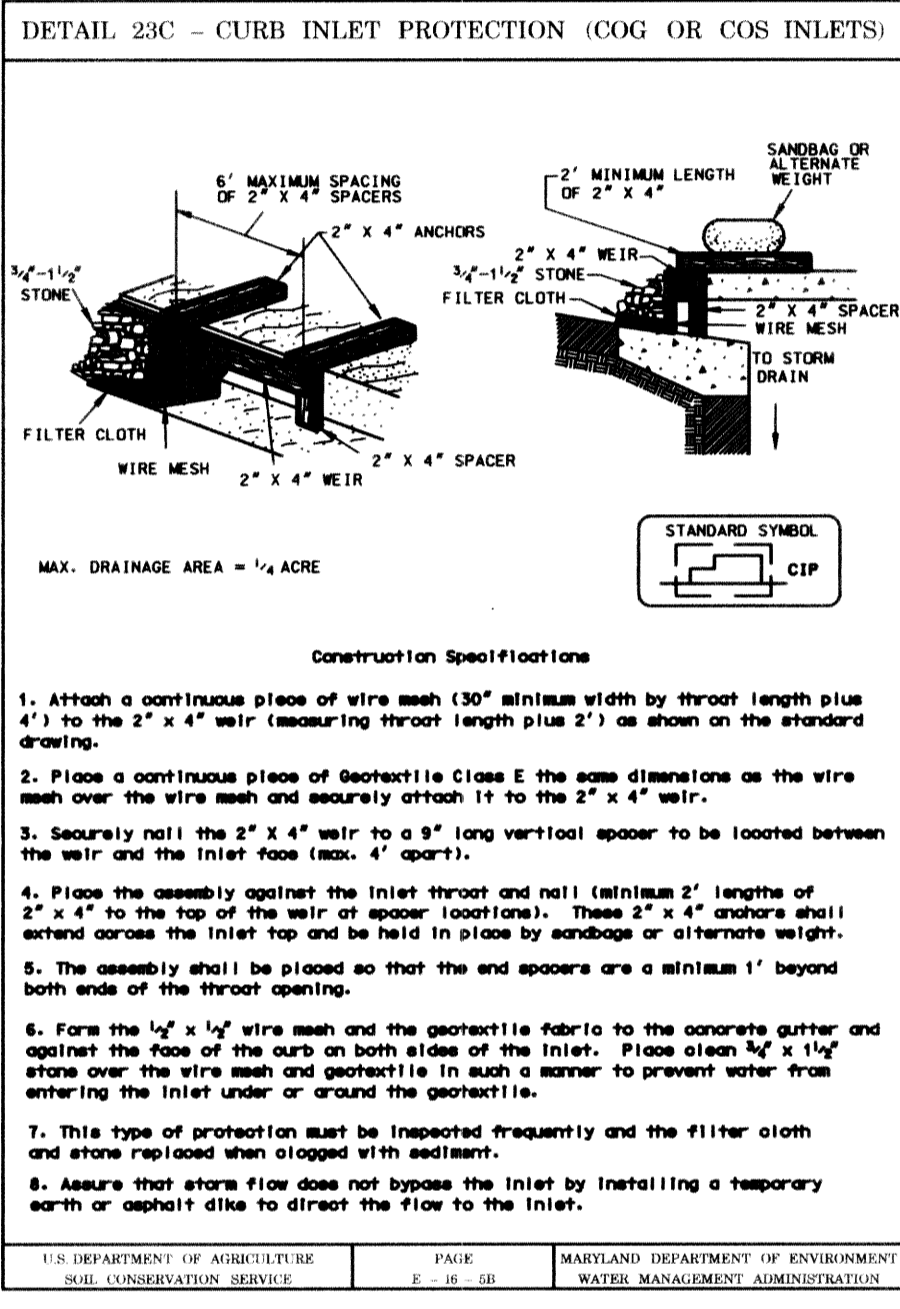
EROSION & SEDIMENT CONTROL PLAN
600' SCALE MAP NO. BLOCK NO.

DORSEY RUN ROAD SOUTH LINK PHASE 1
CAPITAL PROJECT NO. J-4110
SCALE AS SHOWN
SHEET 12 OF 30



SEQUENCE OF CONSTRUCTION

DAY 1	OBTAIN A GRADING PERMIT AND ALL OTHER APPLICABLE PERMITS NECESSARY TO COMMENCE CONSTRUCTION ACTIVITIES.
DAY 2 - DAY 4	CONTACT THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR AT 410-313-1855 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
DAY 5 - DAY 12	CLEAR WHERE NECESSARY TO INSTALL REQUIRED EROSION AND SEDIMENT CONTROL PRACTICES.
DAY 13 - DAY 20	INSTALL PERIMETER SEDIMENT CONTROL DEVICES, STABILIZED CONSTRUCTION ENTRANCES, SILT FENCE, SUPER SILT FENCE, PERIMETER DIKES AND INLET PROTECTION ON EXISTING INLET.
DAY 20 - DAY 50	UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, BEGIN GRADING FOR STAGE I CONSTRUCTION. GRADE STAGE ONE TO SUBGRADE IN SUCH A WAY THAT INSURES POSITIVE DRAINAGE TO THE SEDIMENT TRAP AND SUPER SILT FENCE. AS THE GRADE OF THE ROADWAY PROGRESSES, INSTALL A TEMPORARY SWALE NEAR STA 14+00 TO DIRECT FLOW TO THE TRAP.
DAY 50 - DAY 55	STABILIZE ALL SIDE SLOPES IN ACCORDANCE WITH THE TOPSOIL & PERMANENT SEEDING NOTES AS SOON AS POSSIBLE AFTER FINAL GRADE IS ACHIEVED.
DAY 56 - DAY 77	INSTALL STORM DRAIN, INLETS, CURB & GUTTER, AND REQUIRED INLET PROTECTION.
DAY 77 - DAY 87	WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE THE TEMPORARY SWALE AND INSTALL THE STAGE I BASE COURSES FOR THE ROADWAY PAVING.
DAY 85 - DAY 110	GRADE STAGE II AREA TO SUBGRADE, INSTALL CURB & GUTTER, AND INSTALL ROADWAY BASE COURSES. STABILIZE SIDE SLOPES IN ACCORDANCE WITH TOPSOIL & PERMANENT SEEDING NOTES AS SOON AS POSSIBLE.
DAY 110 - DAY 140	REMOVE REMAINING EXISTING PAVING, FINISH REMAINING CONSTRUCTION, PERFORM FINE GRADING AND STABILIZE ALL REMAINING DISTURBED AREAS IN ACCORDANCE WITH TOPSOIL & PERMANENT SEEDING NOTES AS SOON AS POSSIBLE.
DAY 140 - DAY 165	WHEN THE WORK AREA IS COMPLETELY STABILIZED, INSTALL SPLITTER DEVICES AND PERFORM FINAL GRADING AND CONSTRUCTION OF THE WATER QUALITY FACILITIES.
DAY 165 - DAY 175	STABILIZE REMAINING DISTURBED AREAS IN ACCORDANCE WITH TOPSOIL & PERMANENT SEEDING NOTES AS SOON AS POSSIBLE.
DAY 175 - DAY 180	WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING AREAS.

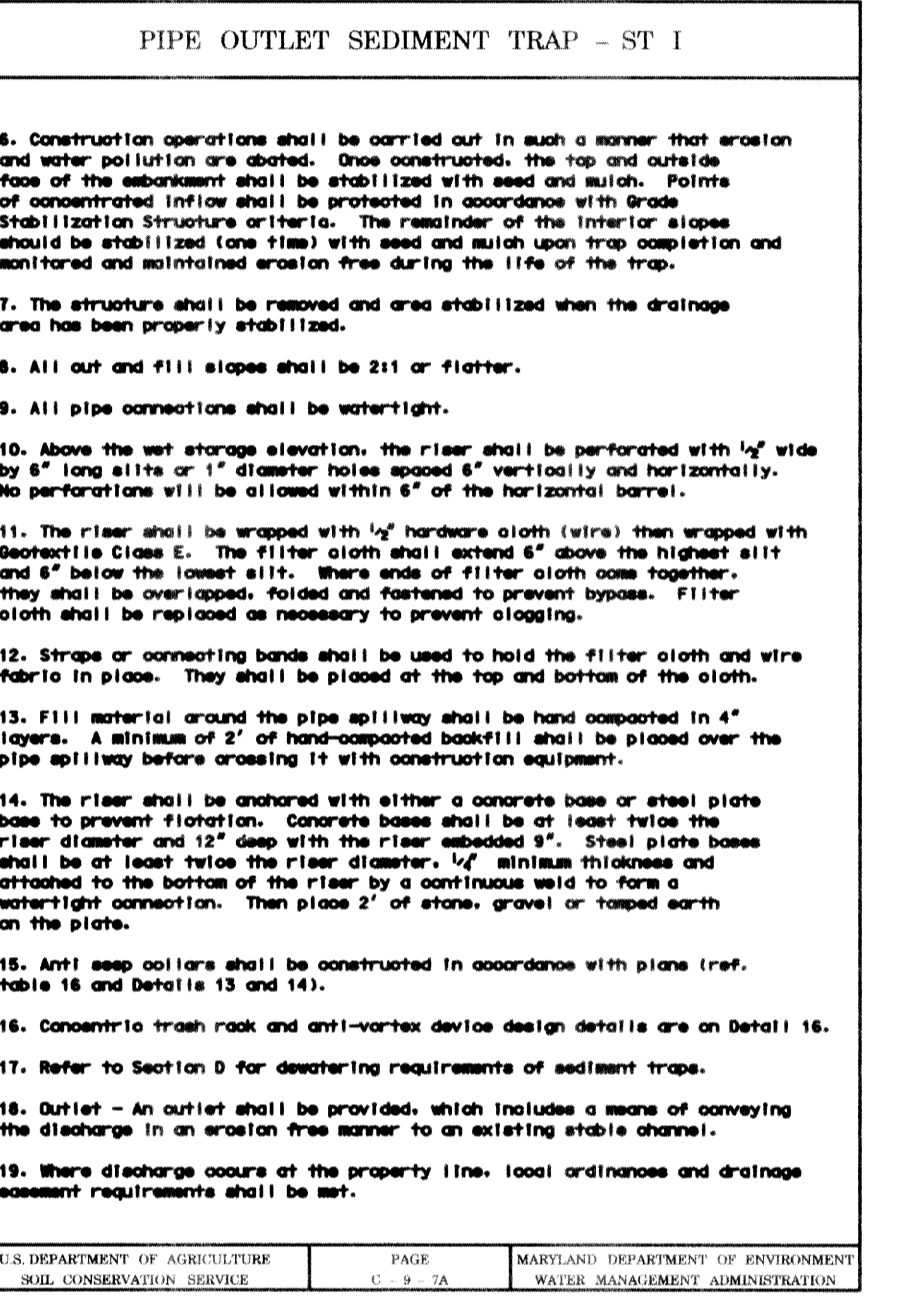
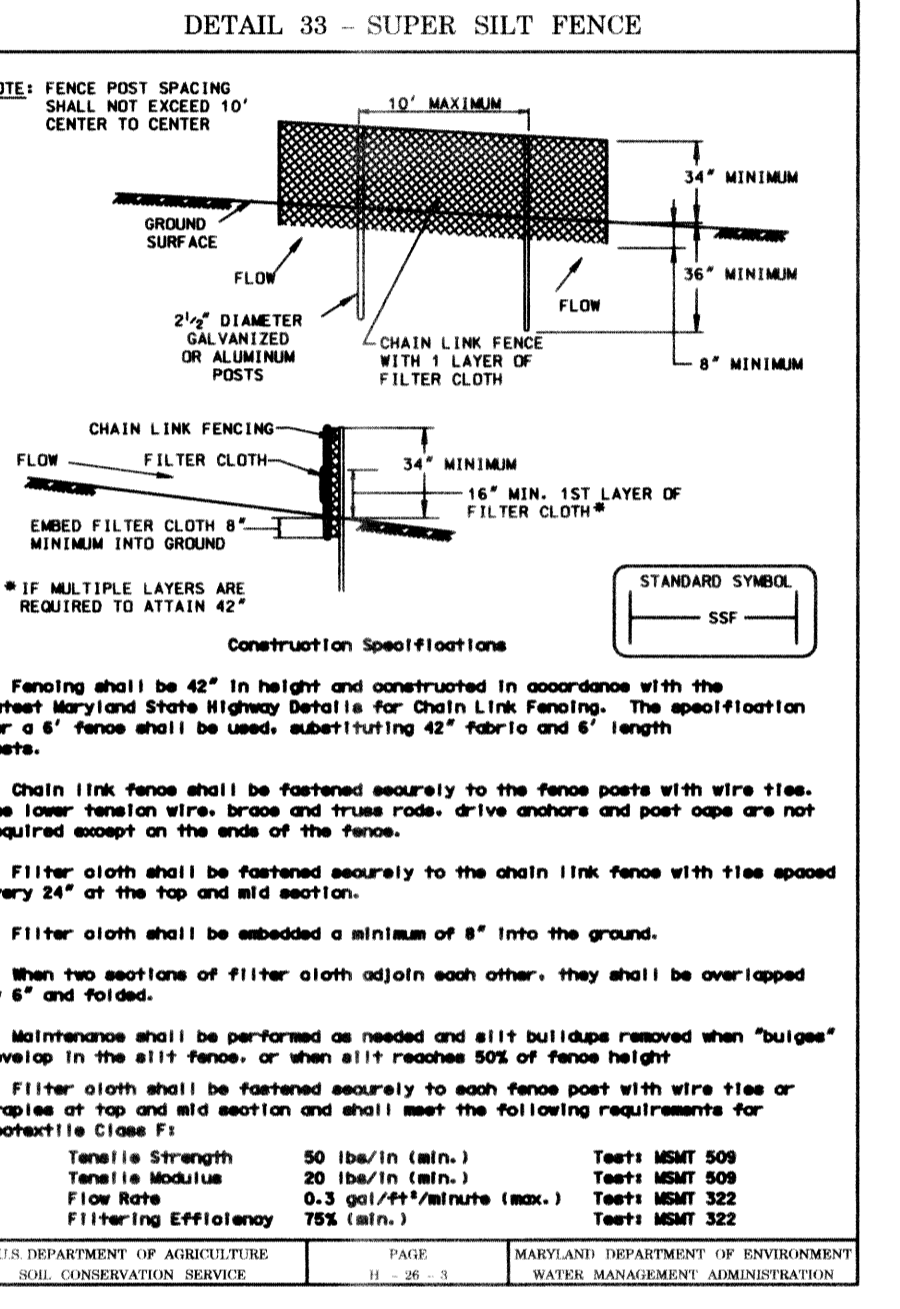


SILT FENCE

Silt Fence Design Criteria

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	Unlimited	Unlimited
50:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In areas of silt fence may be the only perimeter control required.



PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED -- APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQUARE FT) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (19 LBS/1000 SQ FT.)
- ACCEPTABLE -- APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15. SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05 LBS/1000 SQ FT) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOU. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GALLON/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (18 GAL/1000 SQ FT) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.).

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15. SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ FT). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOU.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT OR HIGHER, USE 348 GAL PER ACRE (18 GAL/1000 SQ FT) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

CLASS I EXCAVATION

CUT PLUS:

TOTAL CLASS I EXCAVATION	24,536 C.Y.
TOTAL CLASS I EXCAVATION UNDER FILL	140 C.Y.
TOTAL CLASS I EXCAVATION	24,676 C.Y.

CLASS 2 EXCAVATION

CUT PLUS:

TOTAL CLASS 2 EXCAVATION	25 C.Y.
TOTAL CLASS 2 EXCAVATION UNDER FILL	140 C.Y.
UNSEASONABLE EXCAVATION DORSEY RUN RD. S. LINK CUT ADJUSTED	12,466 C.Y.
CUT DENSIIFIED (85%)	10,596 C.Y.
TOTAL CLASS 2 EXCAVATION AVAILABLE FOR EMBANKMENT	0 C.Y.
TOTAL EXCAVATION AVAILABLE FOR EMBANKMENT	12,466 C.Y.

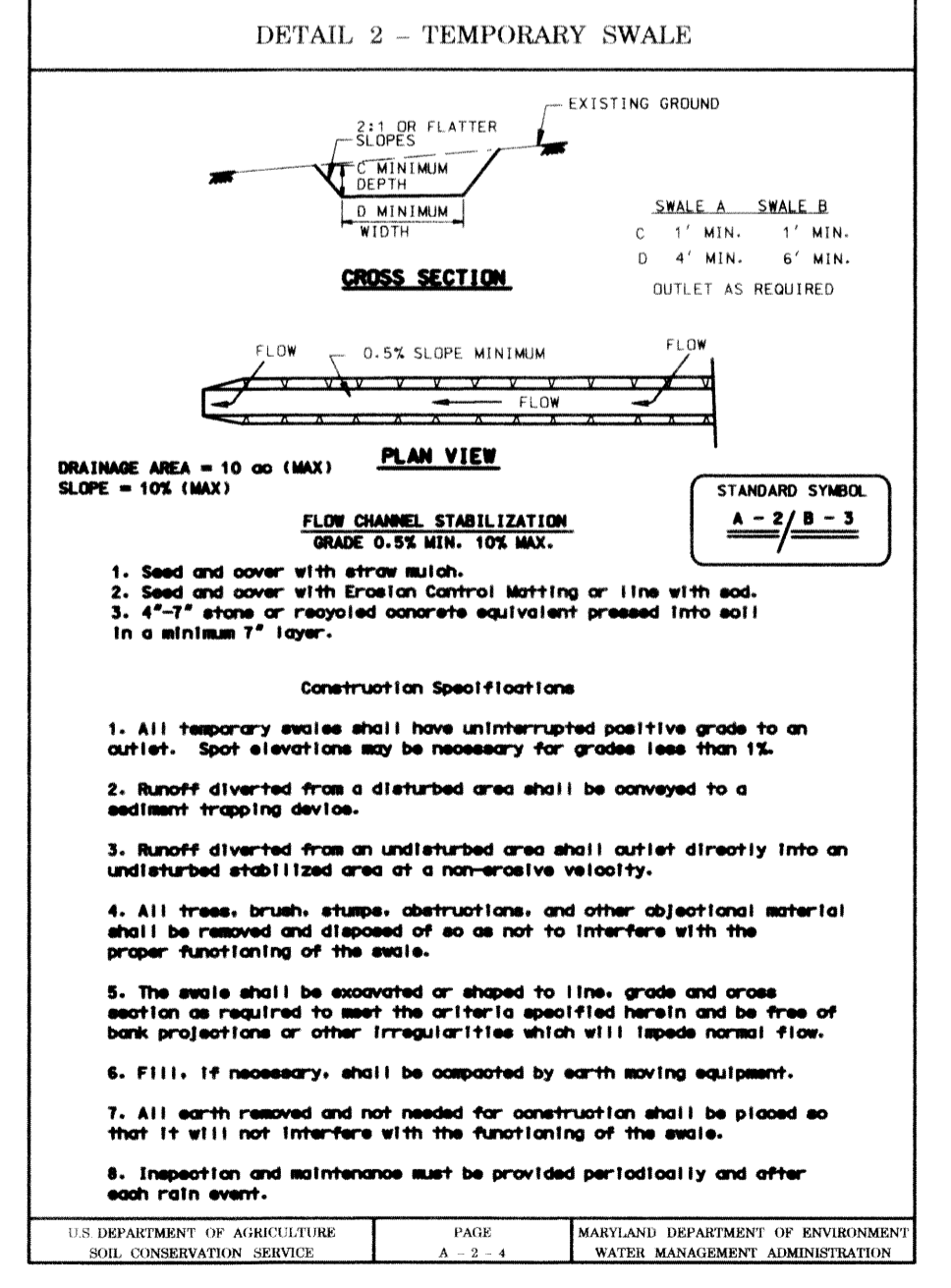
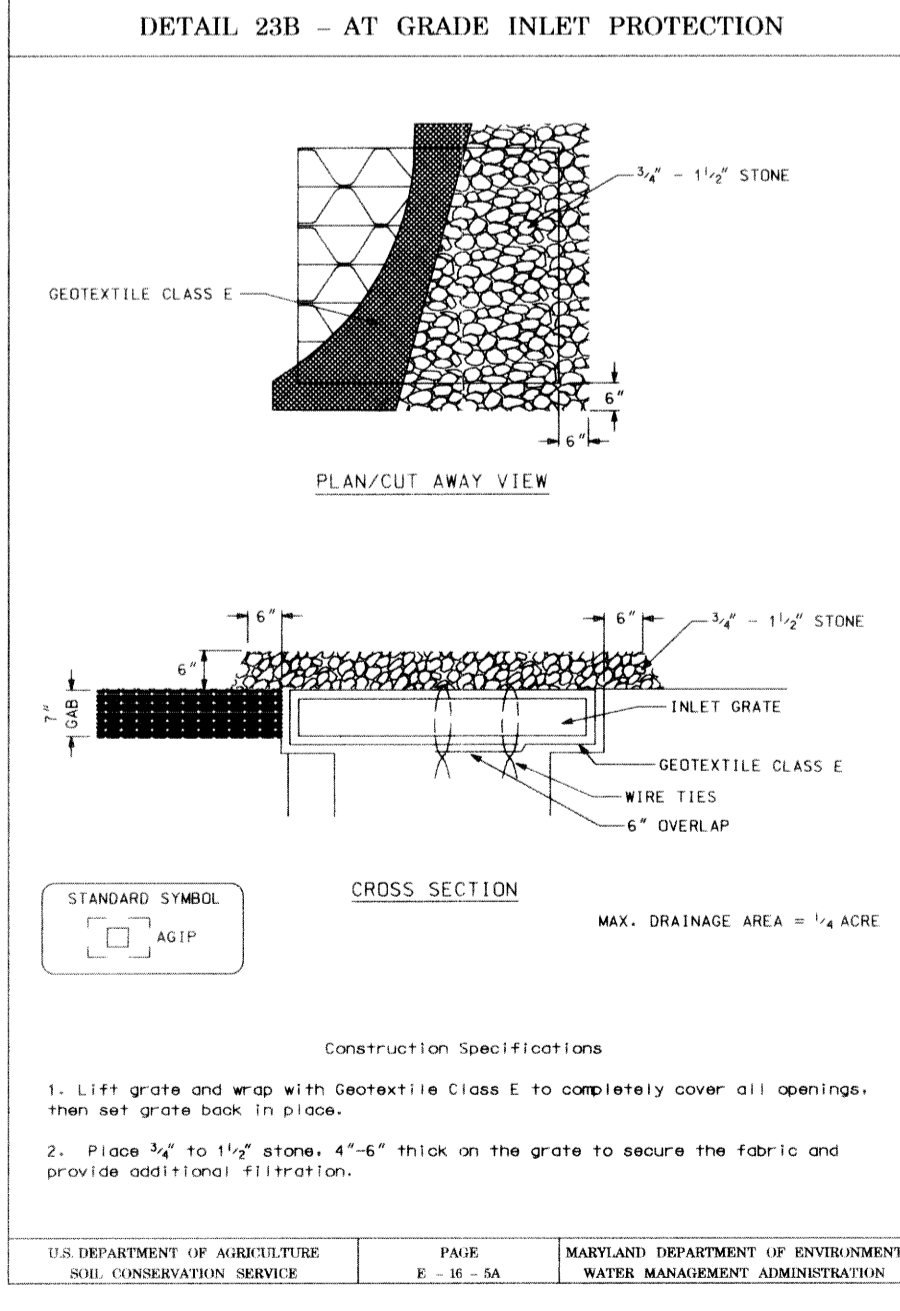
EMBANKMENT REQUIRED

EMBANKMENT - INCLUDING TEMPORARY ROAD PLUS:

TOTAL EMBANKMENT REQUIRED EXCAVATION AVAILABLE FOR EMBANKMENT COMMON BORROW REQUIRED	2,038 C.Y.
TOTAL EMBANKMENT REQUIRED EXCAVATION AVAILABLE FOR EMBANKMENT COMMON BORROW	140 C.Y.
TOTAL EMBANKMENT REQUIRED EXCAVATION AVAILABLE FOR EMBANKMENT COMMON BORROW	2,178 C.Y.
TOTAL EMBANKMENT REQUIRED EXCAVATION AVAILABLE FOR EMBANKMENT COMMON BORROW	12,466 C.Y.
TOTAL EMBANKMENT REQUIRED EXCAVATION AVAILABLE FOR EMBANKMENT COMMON BORROW	0 C.Y.

SUMMARY OF QUANTITIES

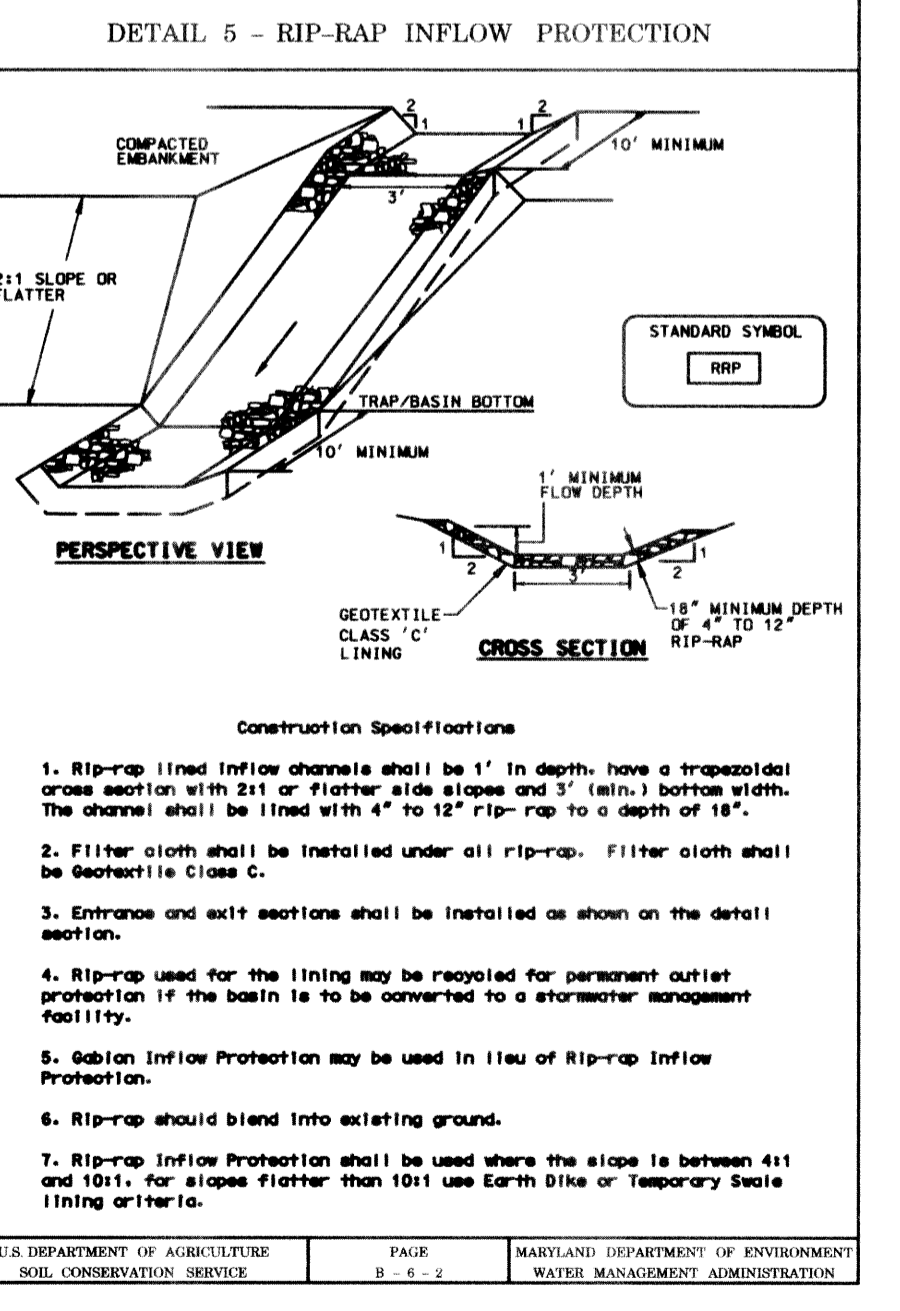
CLASS I EXCAVATION	24,536 C.Y.
CLASS 2 EXCAVATION	25 C.Y.
COMMON BORROW	0 C.Y.



SUPER SILT FENCE

Design Criteria

Slope	Slope Steepness	Slope Length (Maximum)	Silt Fence Length (Maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	1,000 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet



BY THE ENGINEER:

"I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT."

Malgorzata Malinowska 9/4/02
ENGINEER MALGORZATA G. GUECK PE 27720
PROJECT ENGINEER

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Elizabeth A. Glavin 9/5/02
PROJECT ENGINEER
TRANSPORTATION PROJECTS & WATERSHED MANAGEMENT DIVISION

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

John R. Robertson 9/5/02
HOWARD COUNTY SOIL CONSERVATION DISTRICT

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jim Mayes 9/5/02
NATURAL RESOURCES CONSERVATION SERVICE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Phoenix - Nolan Joint Venture

1420-A Jk Avenue
Suite A
Baltimore, Maryland 21227

9/4/02
STATE OF MARYLAND
MALGORZATA G. GUECK
PROFESSIONAL ENGINEER
NO. 27720

DES: J.R.H.
DRN: D.R.B.
CHK:
DATE:

BY NO. REVISION DATE

600' SCALE MAP NO. BLOCK NO.

SEDIMENT CONTROL DETAILS

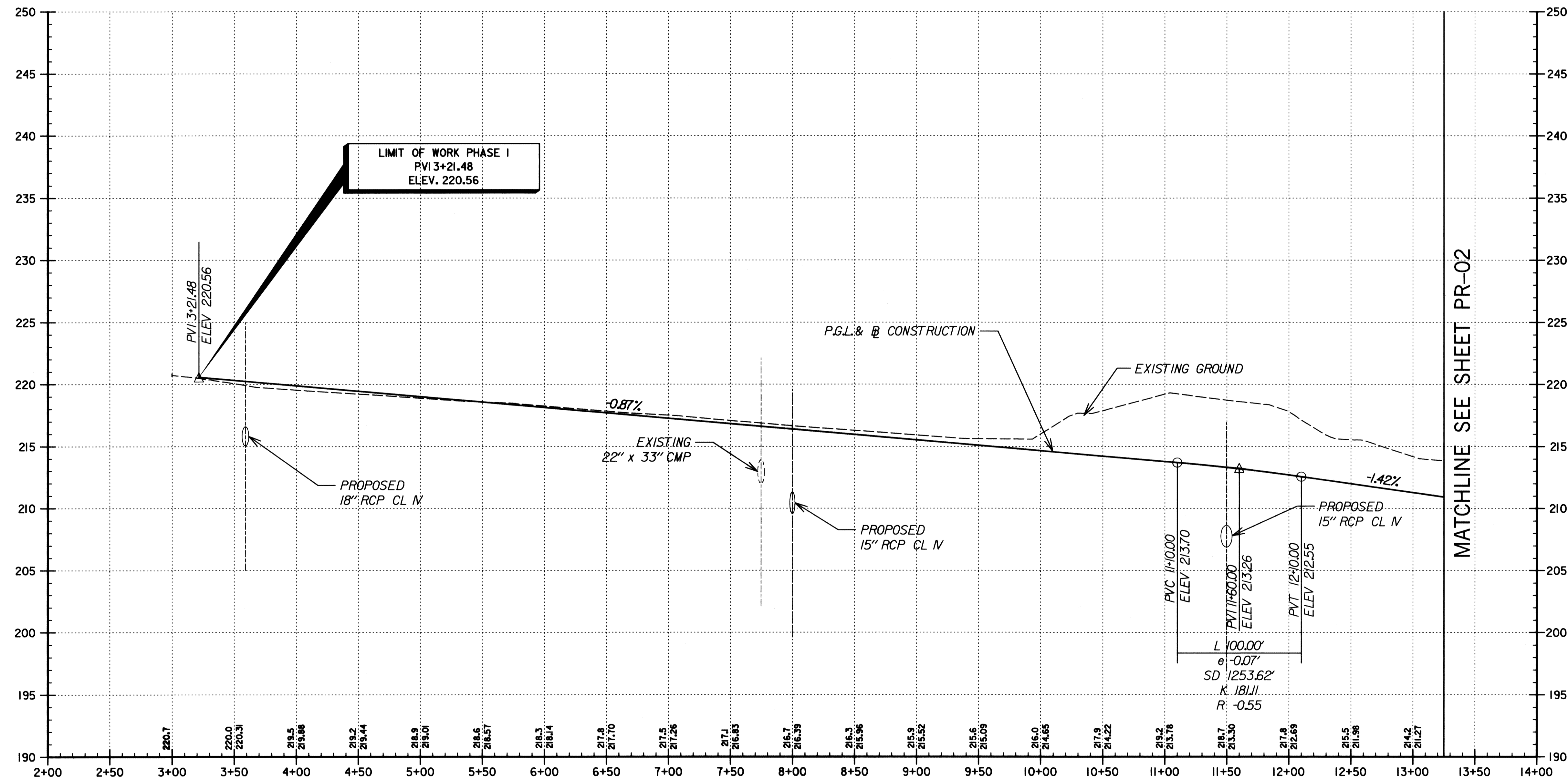
DORSEY RUN ROAD SOUTH LINK

CAPITAL PROJECT NO. J-4110

SCALE AS SHOWN

SHEET 13 OF 30

Director of Public Works: *Jan P. Chen* 9/4/02
Chief, Transportation and Special Projects Division: *Elisaveta* 9/4/02
Chief, Bureau of Highways: *Robert M. Swales* 9/4/02



MATCHLINE SEE SHEET PR-02

LIMIT OF WORK PHASE I
PVI 3+21.48
ELEV. 220.56

PROFILE OF DRRS

**DORSEY RUN ROAD SOUTH LINK
PHASE 1**

CAPITAL PROJECT NO. J-4110

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 9/1/02
DIRECTOR OF PUBLIC WORKS DATE

[Signature] 9/4/02
CHIEF, BUREAU OF ENGINEERING DATE

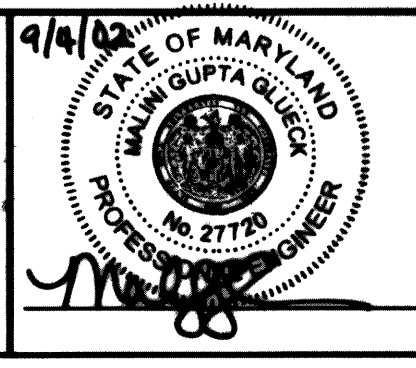
[Signature] 9/4/02
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE

[Signature] 9/4/02
CHIEF, BUREAU OF HIGHWAYS DATE

Phoenix - Nolan Joint Venture

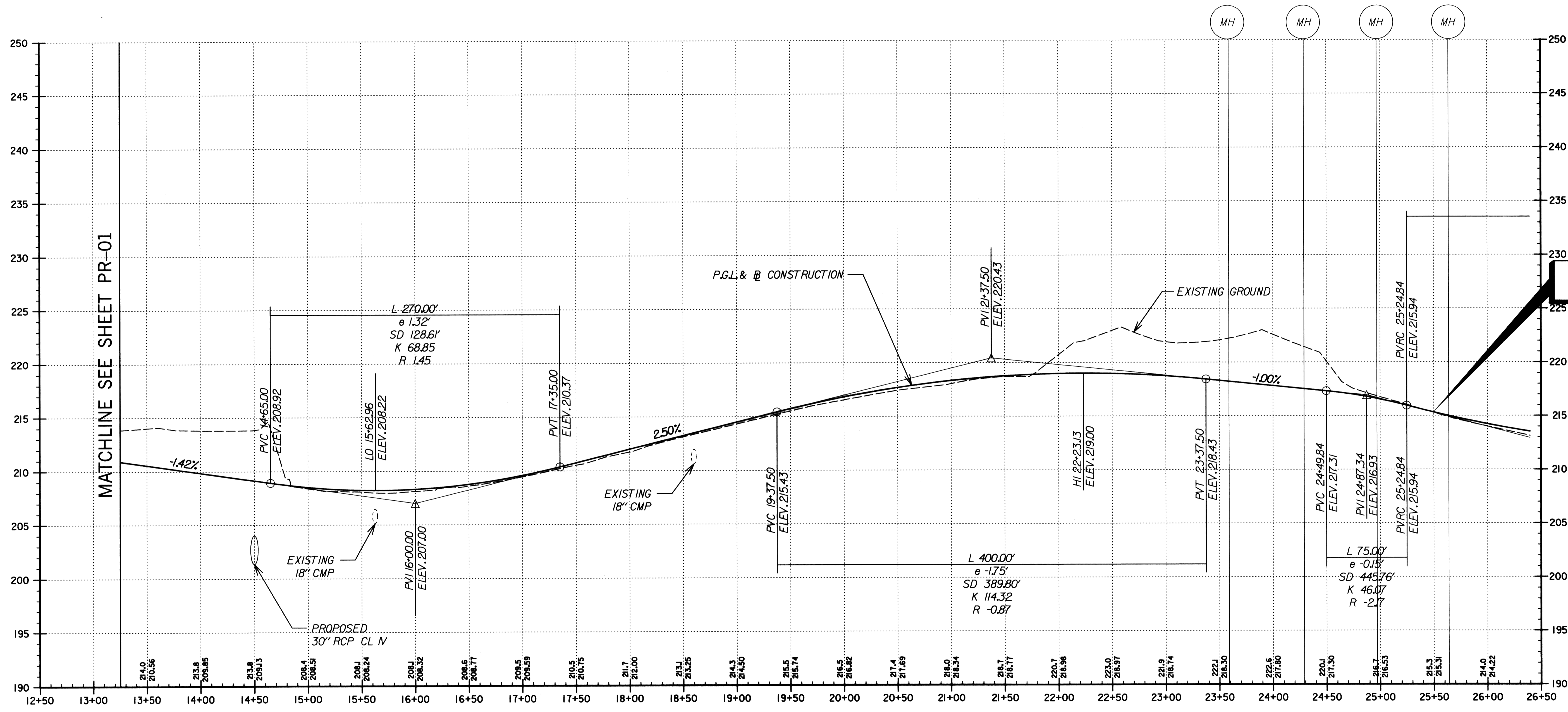
1420-A J.J. Avenue
Suite A
Baltimore, Maryland 21227

Phone: (410) 247-8855 Fax: (410) 247-9897



DES:	J. R. H.			
DRN:	D. R. B.			
CHK:				
DATE:				
BY:		NO.	REVISION	DATE

600' SCALE MAP NO.	BLOCK NO.
--------------------	-----------



MATCHLINE SEE SHEET PR-01

LIMIT OF WORK PHASE I
STA. 25+50

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 9/4/02 DATE
DIRECTOR OF PUBLIC WORKS

[Signature] 9/4/02 DATE
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION

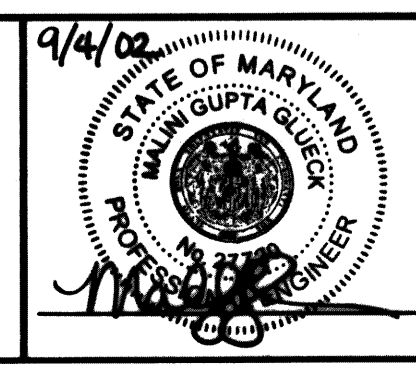
[Signature] 9/4/02 DATE
CHIEF, BUREAU OF ENGINEERING

[Signature] 9-9-02 DATE
CHIEF, BUREAU OF HIGHWAYS

Phoenix - Nolan Joint Venture

1400-A Jfk Avenue
Suite A
Baltimore, Maryland 21227

Phone: (410) 347-8833 Fax: (410) 347-7977



DES:	J. R. H.
DRN:	D. R. B.
CHK:	
DATE:	
BY:	
NO.:	
REVISION:	
DATE:	

PROFILE OF DRRS

600' SCALE MAP NO. _____ BLOCK NO. _____

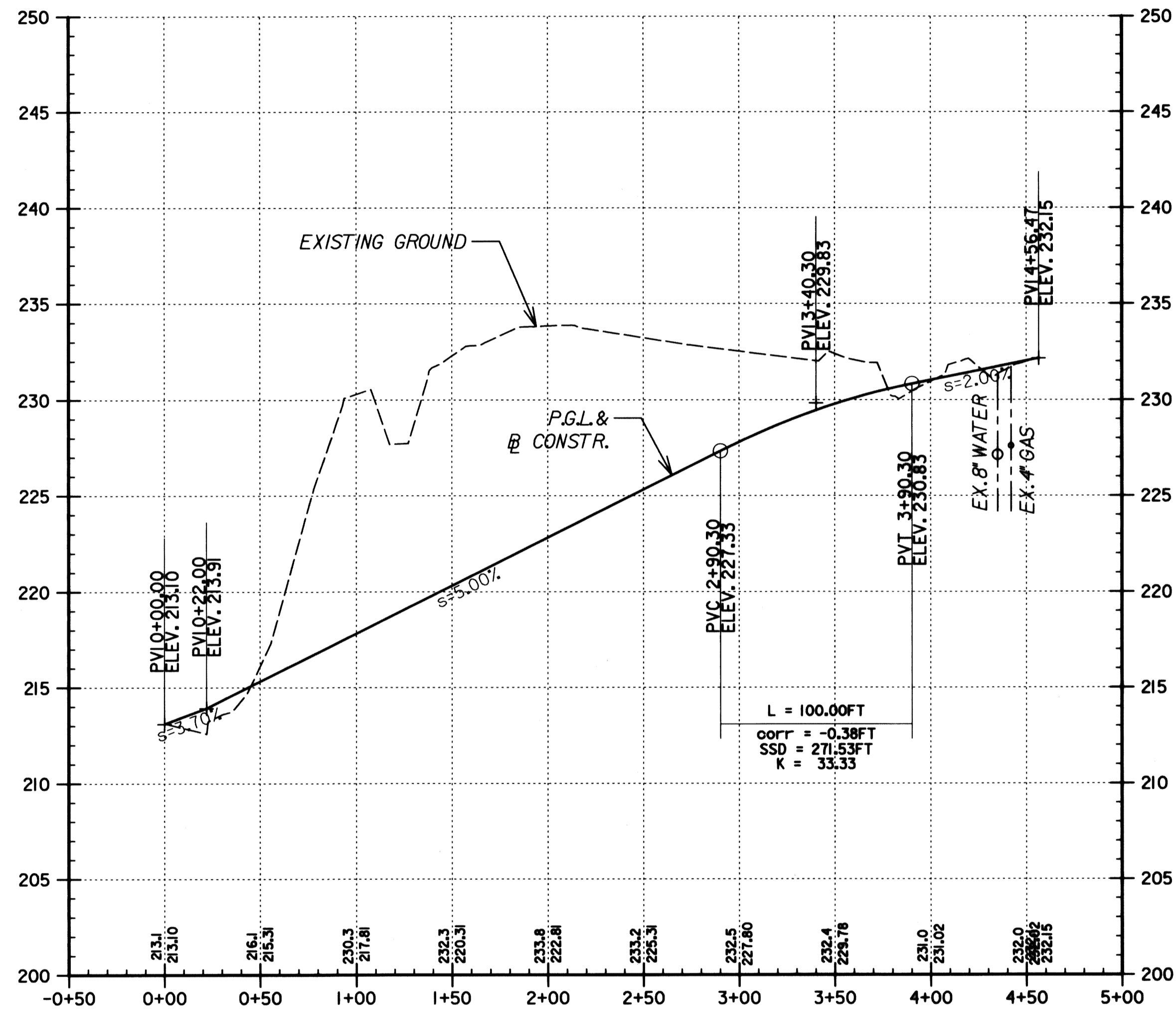
DORSEY RUN ROAD SOUTH LINK
PHASE 1

CAPITAL PROJECT NO. J-4110

PR-02

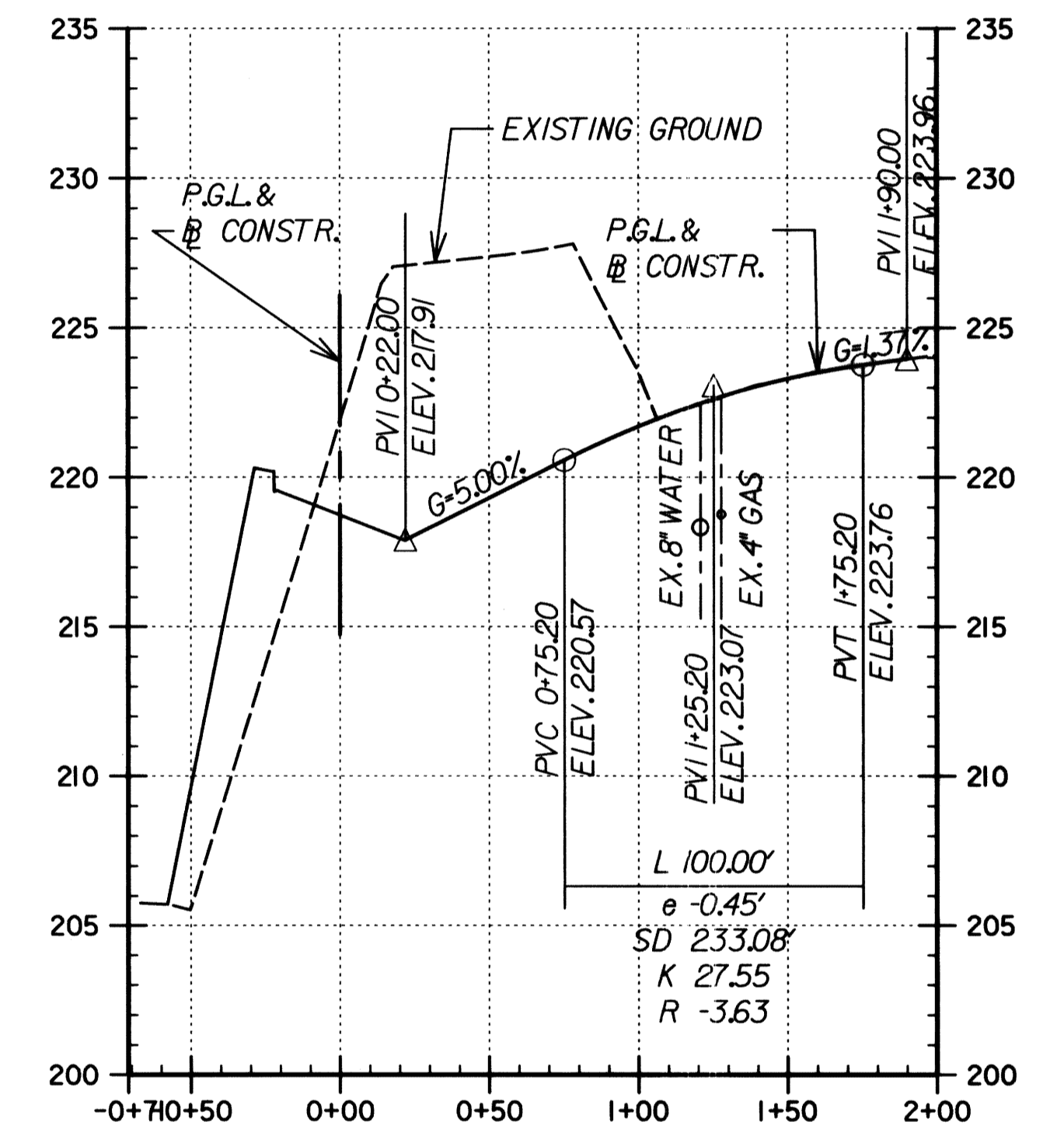
SCALE AS SHOWN

SHEET 15 OF 30



GIANT ROAD ENTRANCE

SCALE: HORIZ: 1" = 50'
VERT: 1" = 5'



OLD DORSEY RUN ROAD

SCALE: HORIZ: 1" = 50'
VERT: 1" = 5'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Jan P. Lee 9/10/02
DIRECTOR OF PUBLIC WORKS DATE

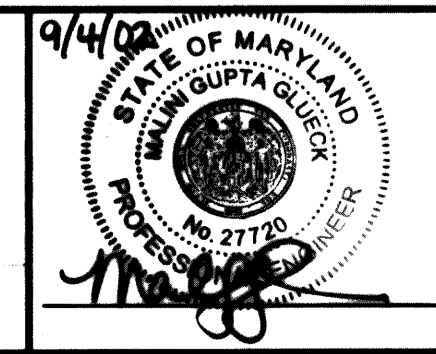
Paul J. Span 9/10/02
CHIEF, BUREAU OF ENGINEERING DATE

Robert M. ... 9/10/02
CHIEF, BUREAU OF HIGHWAYS DATE

Phoenix - Nolan Joint Venture

1400-A, 1st Avenue
Suite A
Baltimore, Maryland 21207

Phone: (410) 247-9855 Fax: (410) 247-9977



DES: J. R. H.					
DRN: D. R. B.					
CHK:					
DATE:	BY	NO.	REVISION	DATE	

PROFILE OF GIANT ROAD
AND OLD DORSEY RUN ROAD

600' SCALE MAP NO. BLOCK NO.

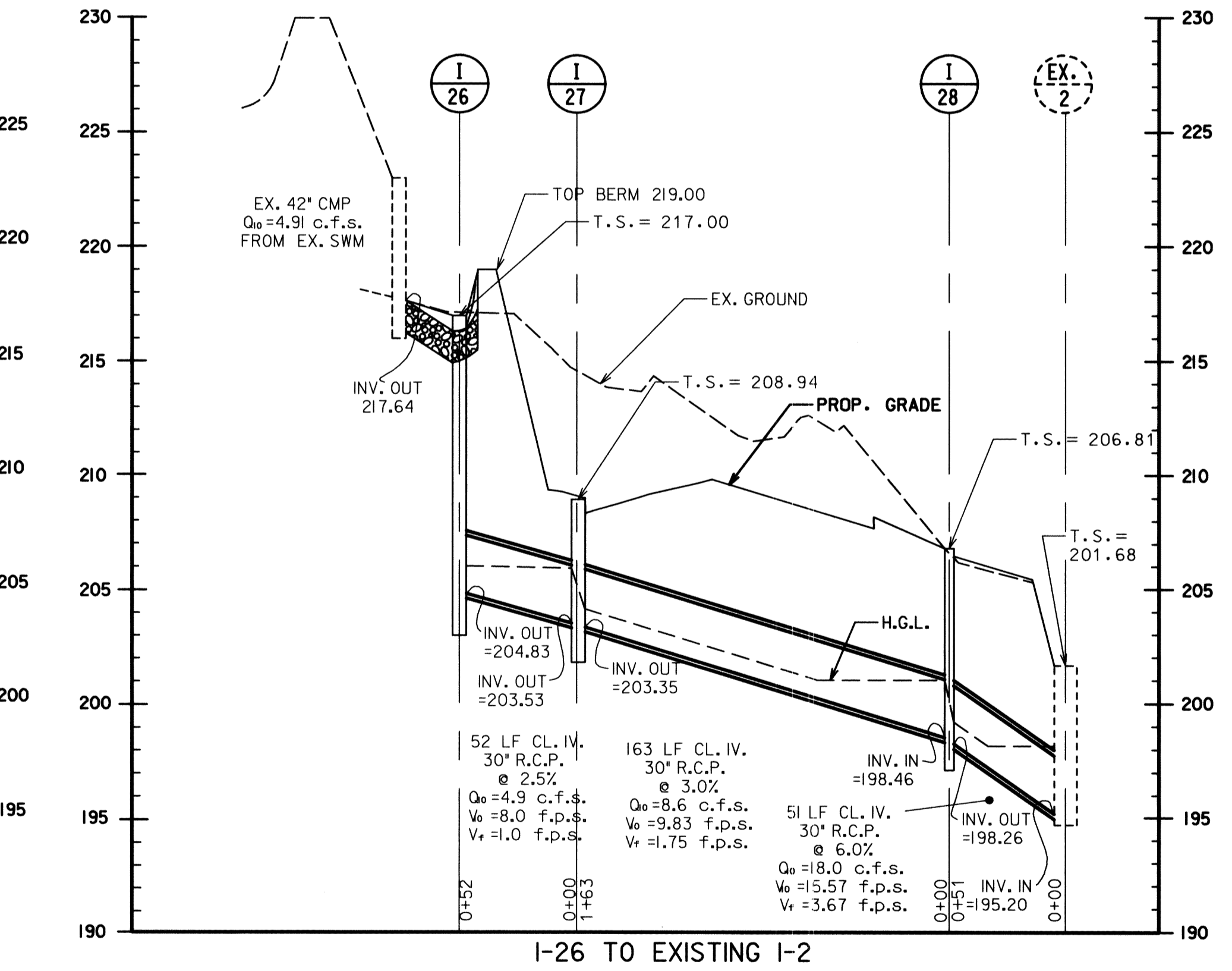
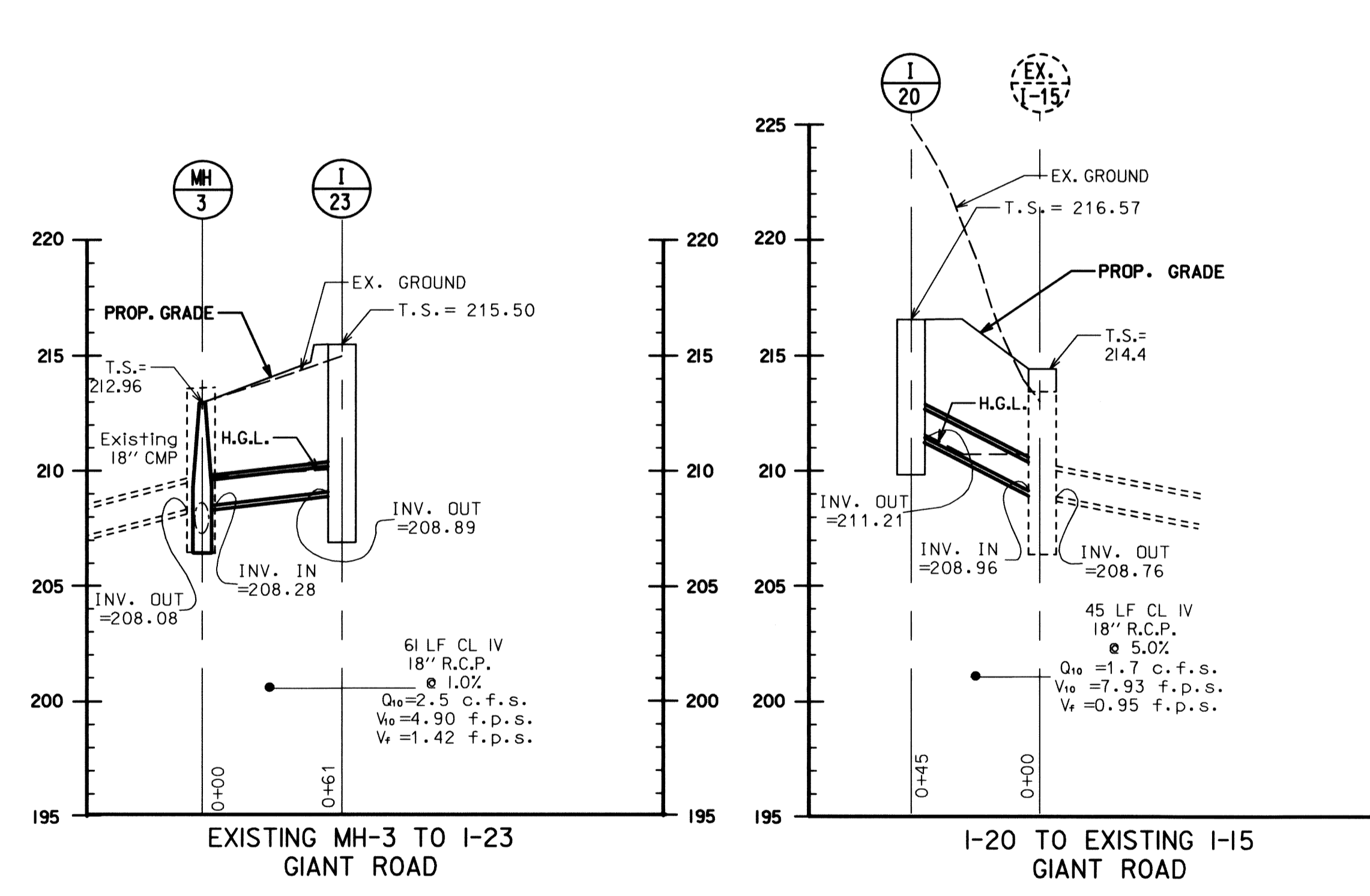
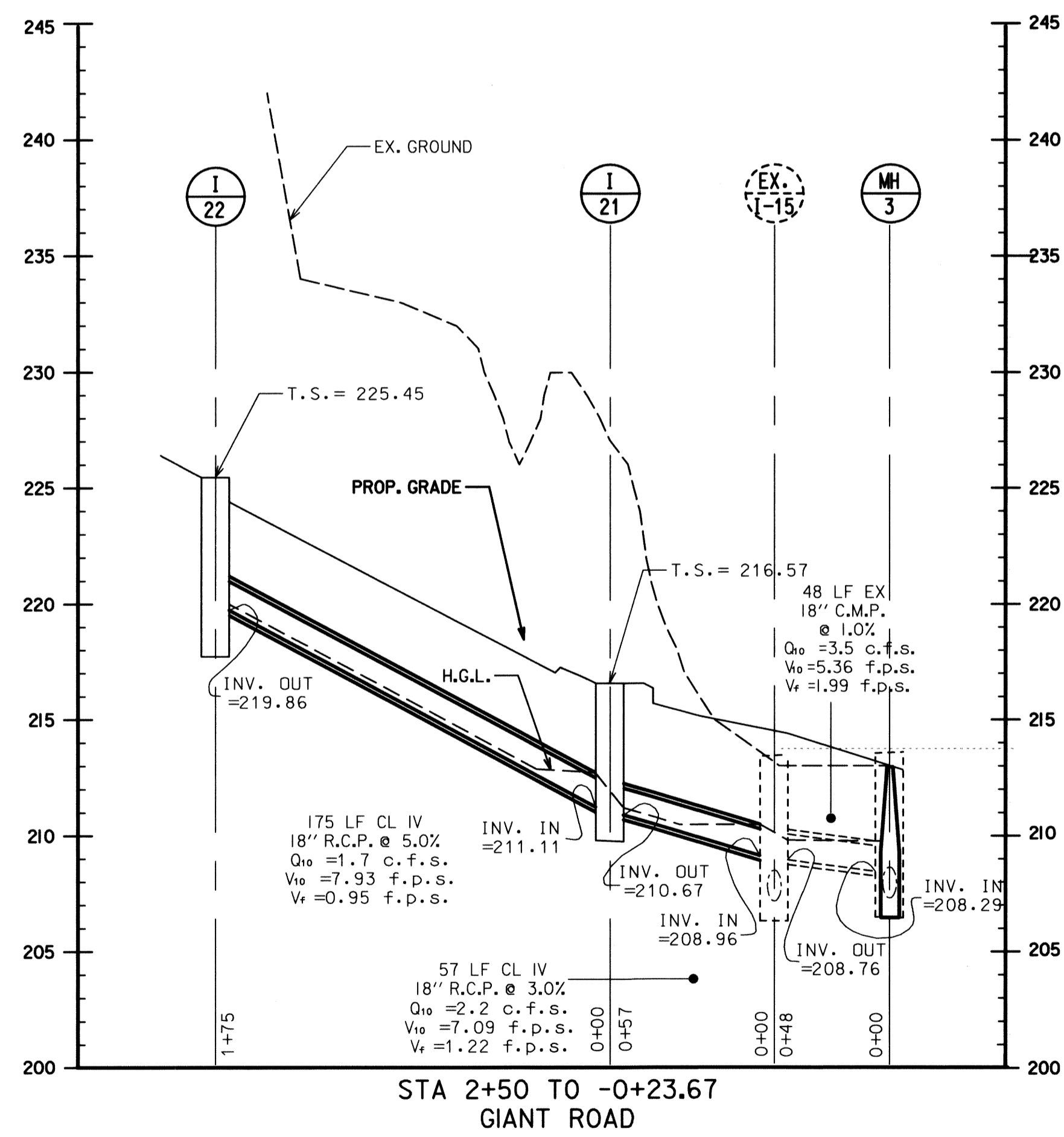
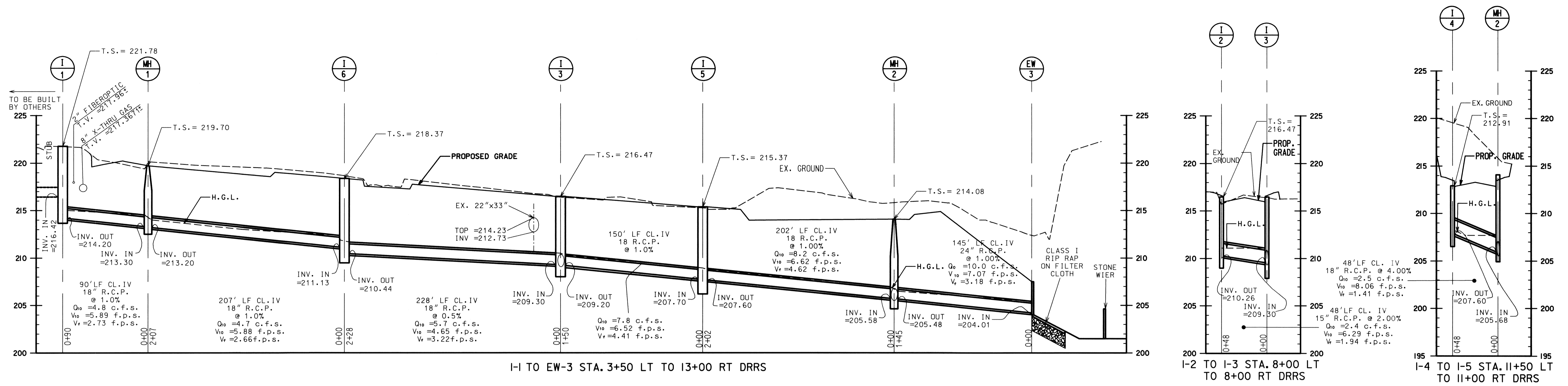
DORSEY RUN ROAD SOUTH LINK

CAPITAL PROJECT NO. J-4110

PR-03

SCALE AS SHOWN

SHEET 16 OF 30



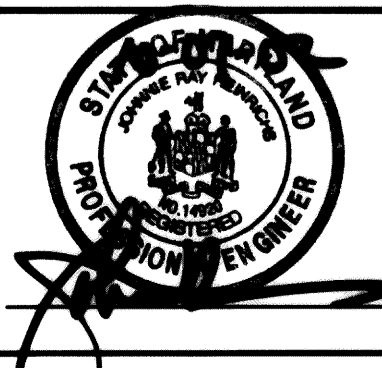
Pipe Profile-DRRS
 Scale: Horz: 1" = 50'
 Vert: 1" = 5'

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works: *Jan 7*
 Chief, Transportation and Special Projects Division: *Ed Calca* 10/15/02

Chief, Bureau of Engineering: *W. Nolan* 10/15/02
 Chief, Bureau of Highways: *W. Nolan* 10/15/02

Phoenix - Nolan Joint Venture
 1450-A Juh Avenue
 Suite A
 Baltimore, Maryland 21227
 Phone: (410) 947-8855 Fax: (410) 947-9977



DES: J. R. H.	REPLACE OLD SD-01 WITH THIS SHEET
DRN: D. R. B.	
CHK:	
DATE:	
BY:	
NO.:	
REVISION:	
DATE:	

STORM DRAIN PROFILE

600' SCALE MAP NO. _____ BLOCK NO. _____

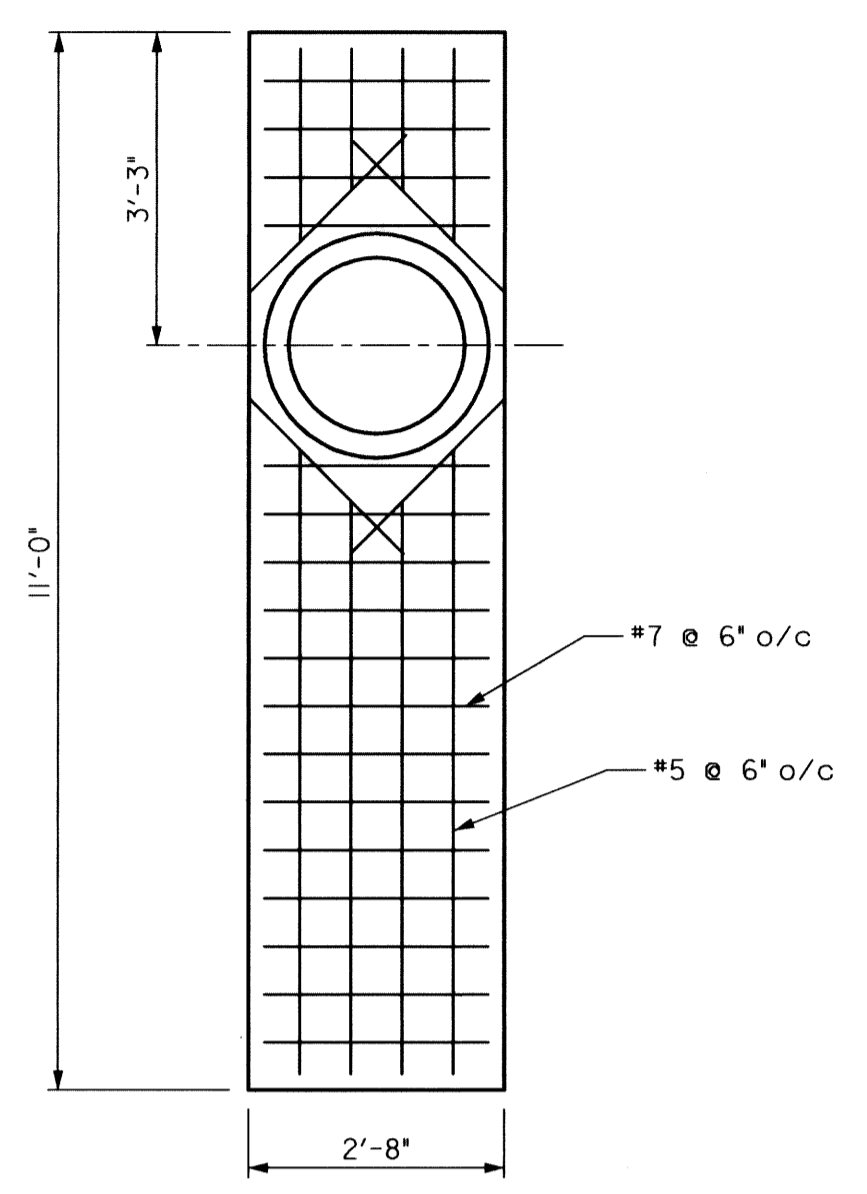
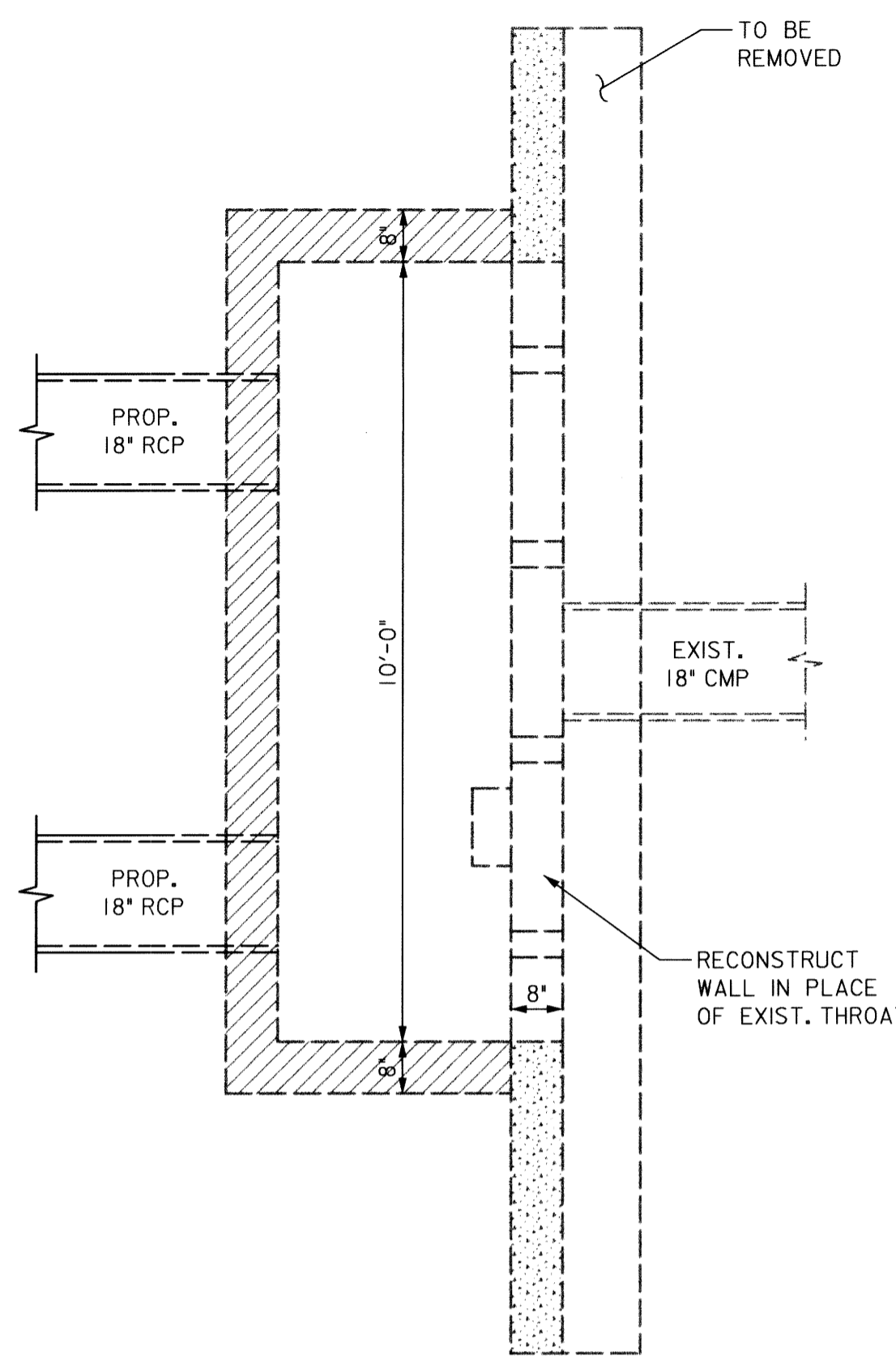
DORSEY RUN ROAD SOUTH LINK PHASE 1

CAPITAL PROJECT NO. J-4110

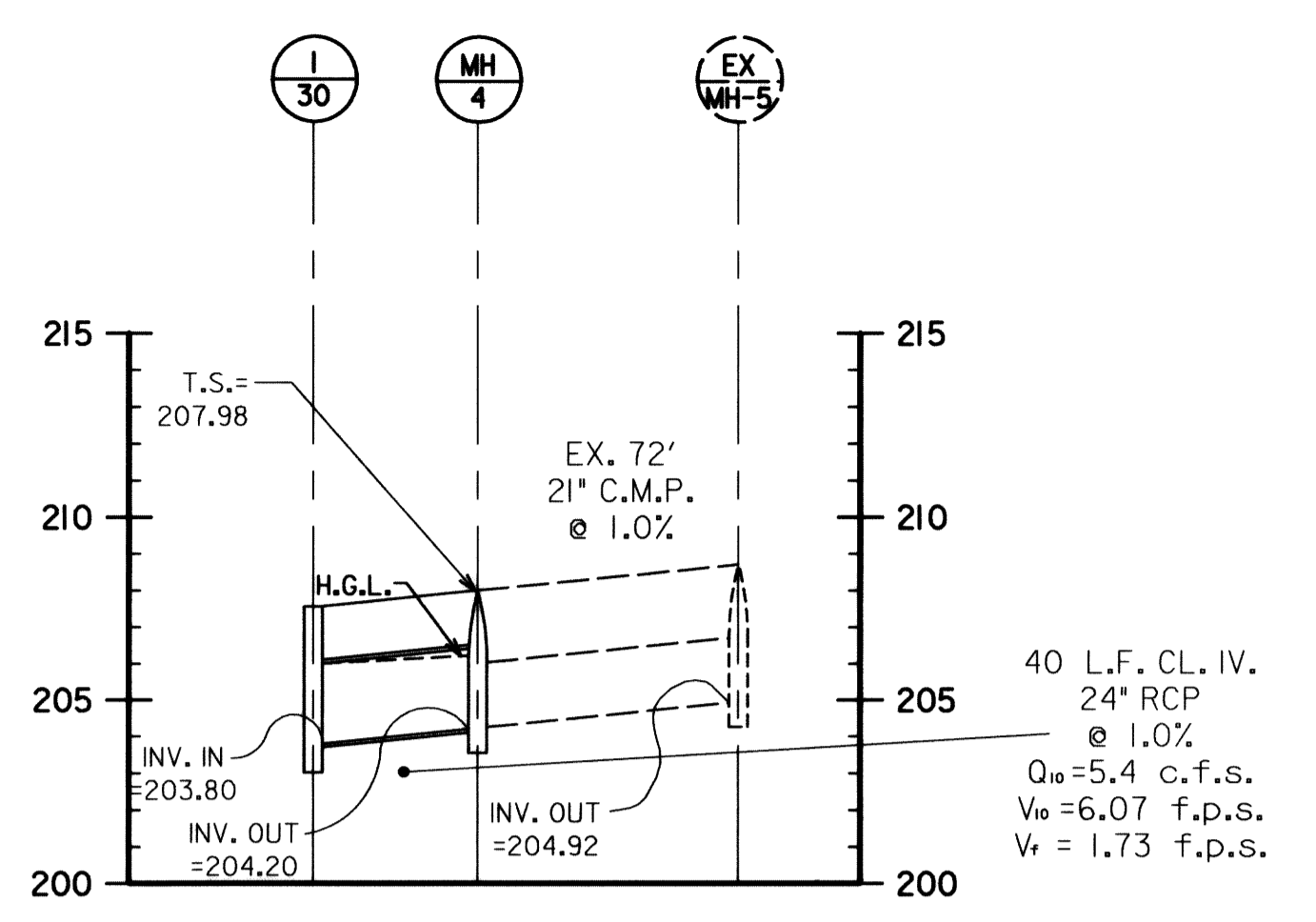
SCALE AS SHOWN

SHEET 17 OF 30

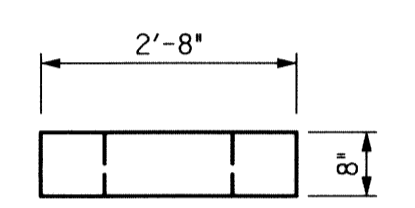
SD-01



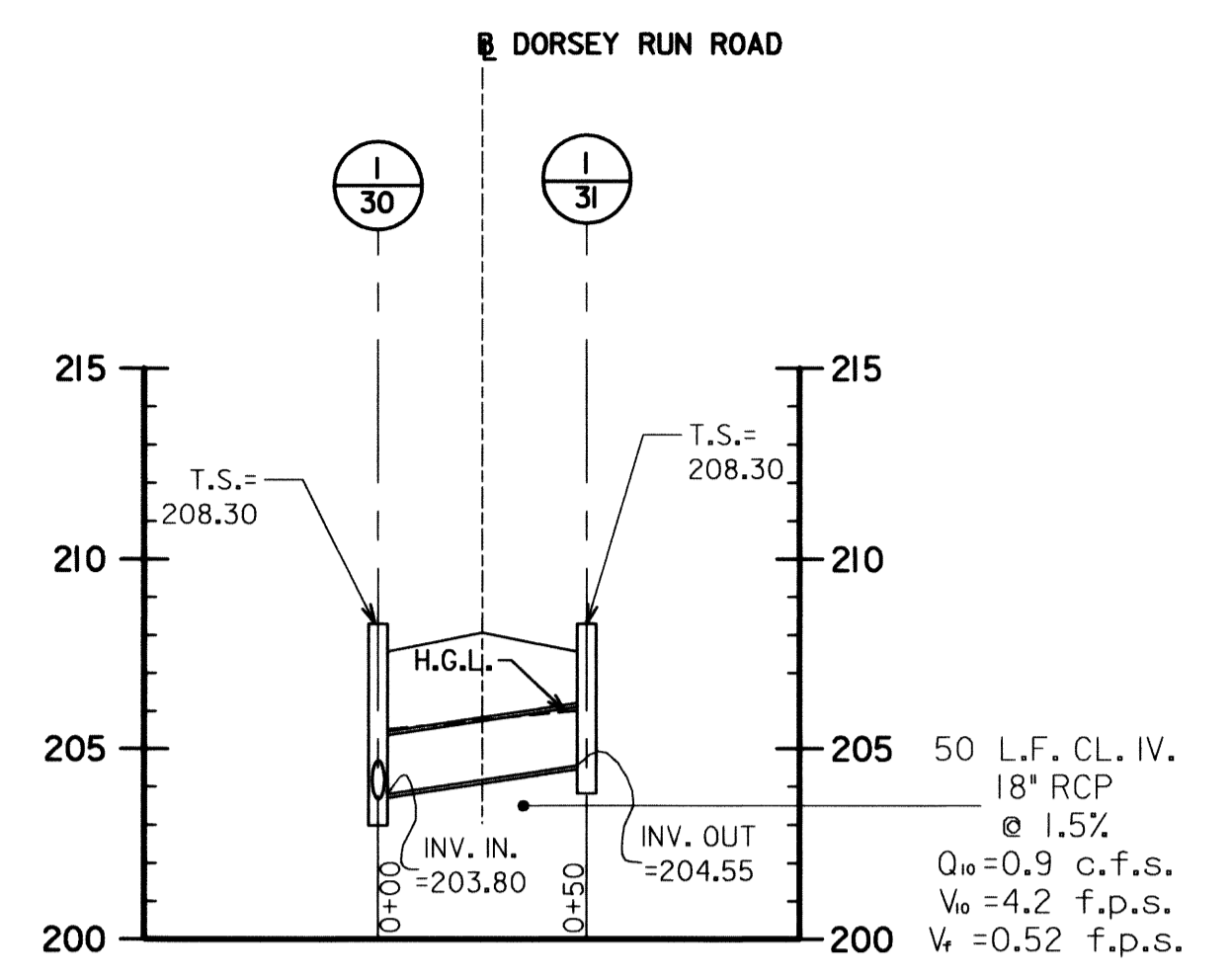
SLAB DETAIL



I-30 TO EXISTING MH-5



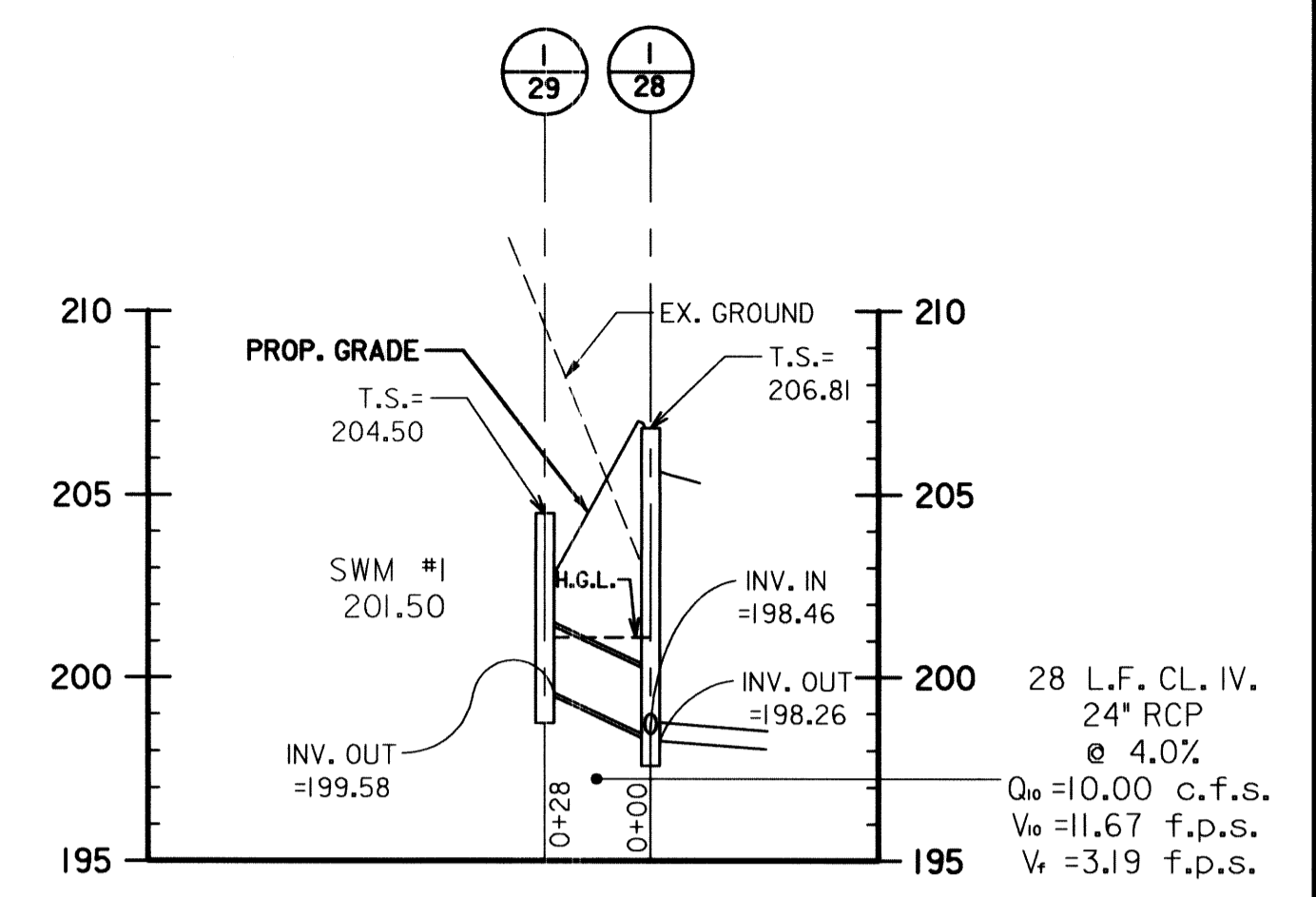
END DETAIL



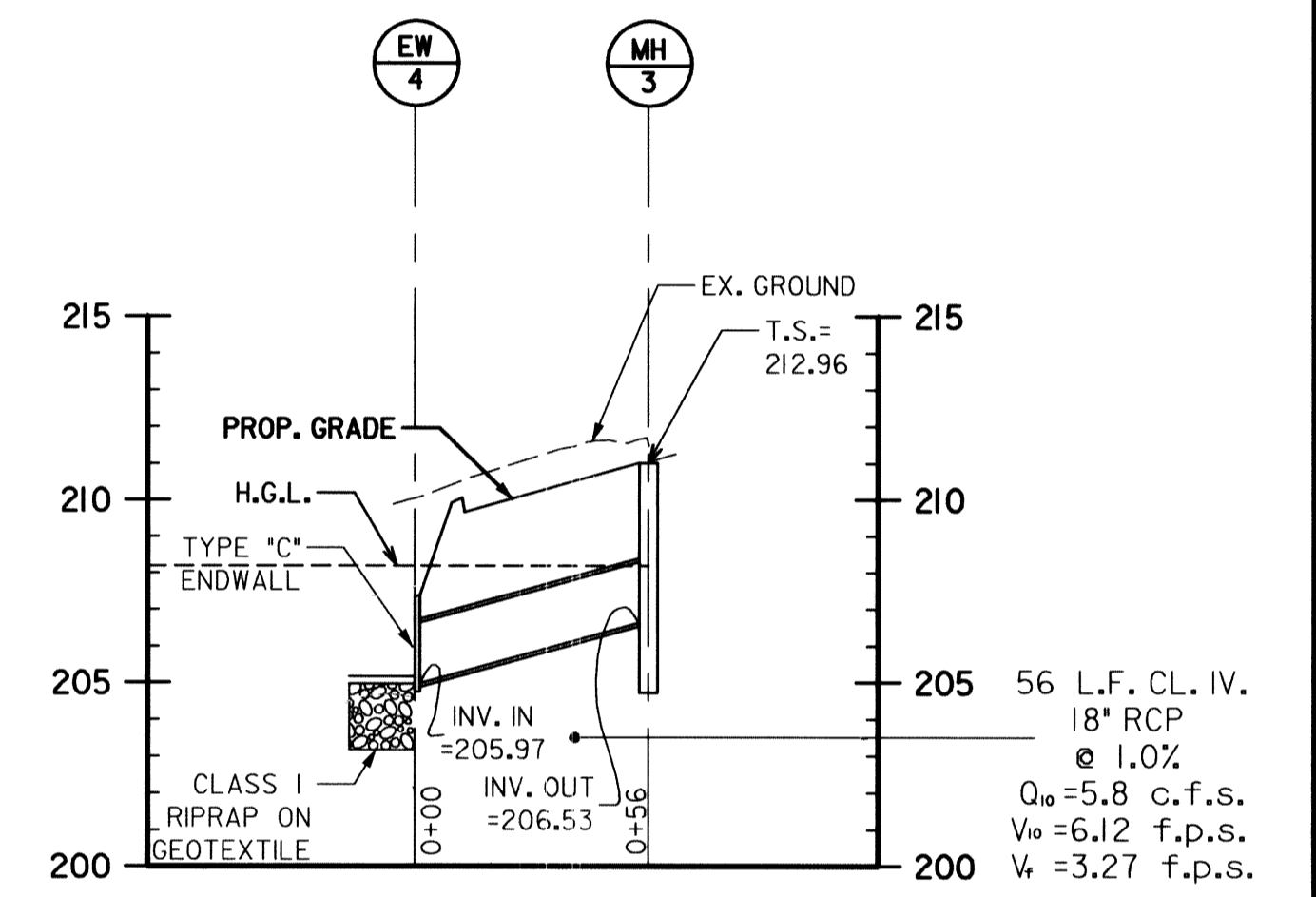
I-30 TO I-31

Pipe Profile-DRRS

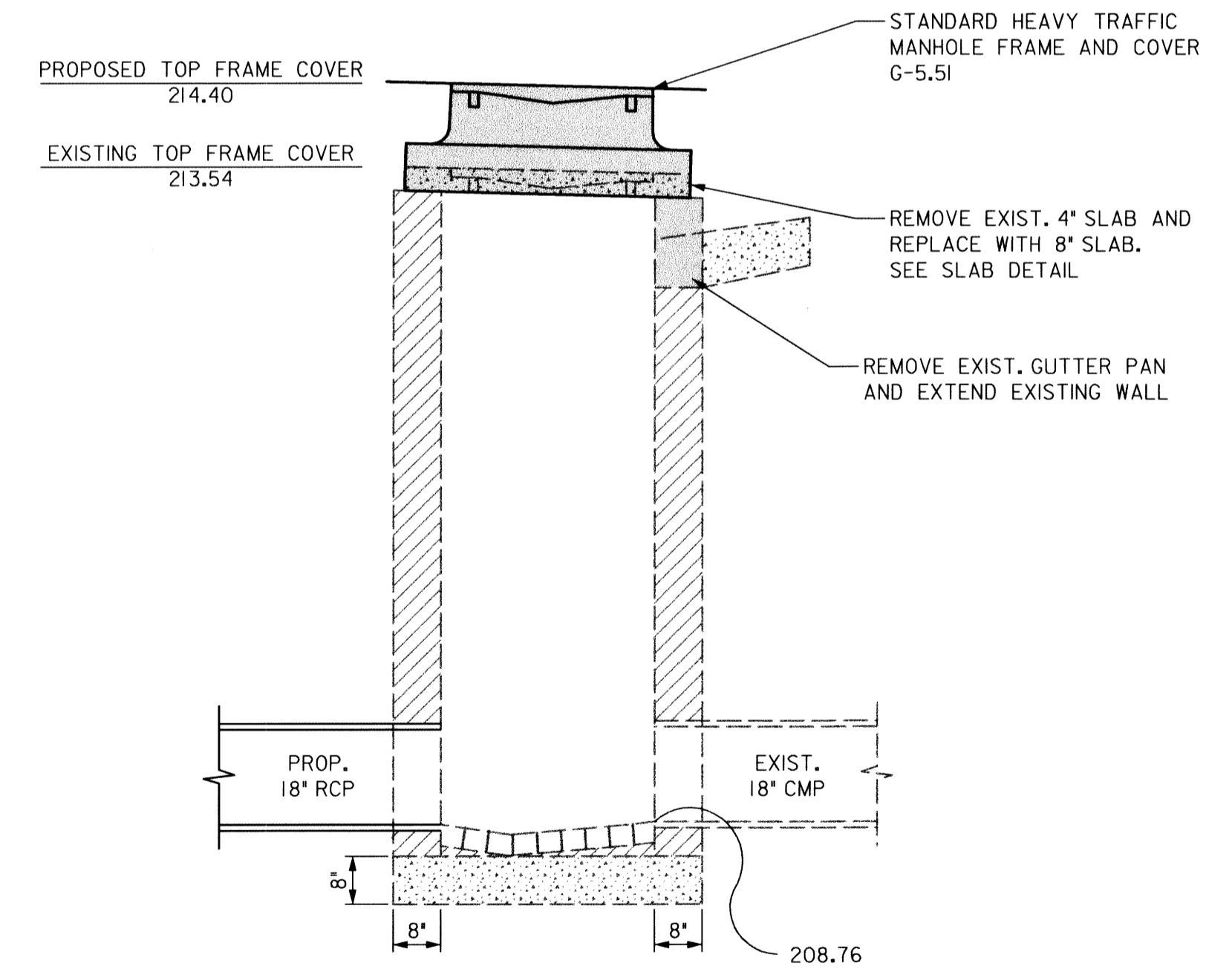
Scale: Horiz: 1"=50
Vert: 1"=5'



I-29 TO I-28



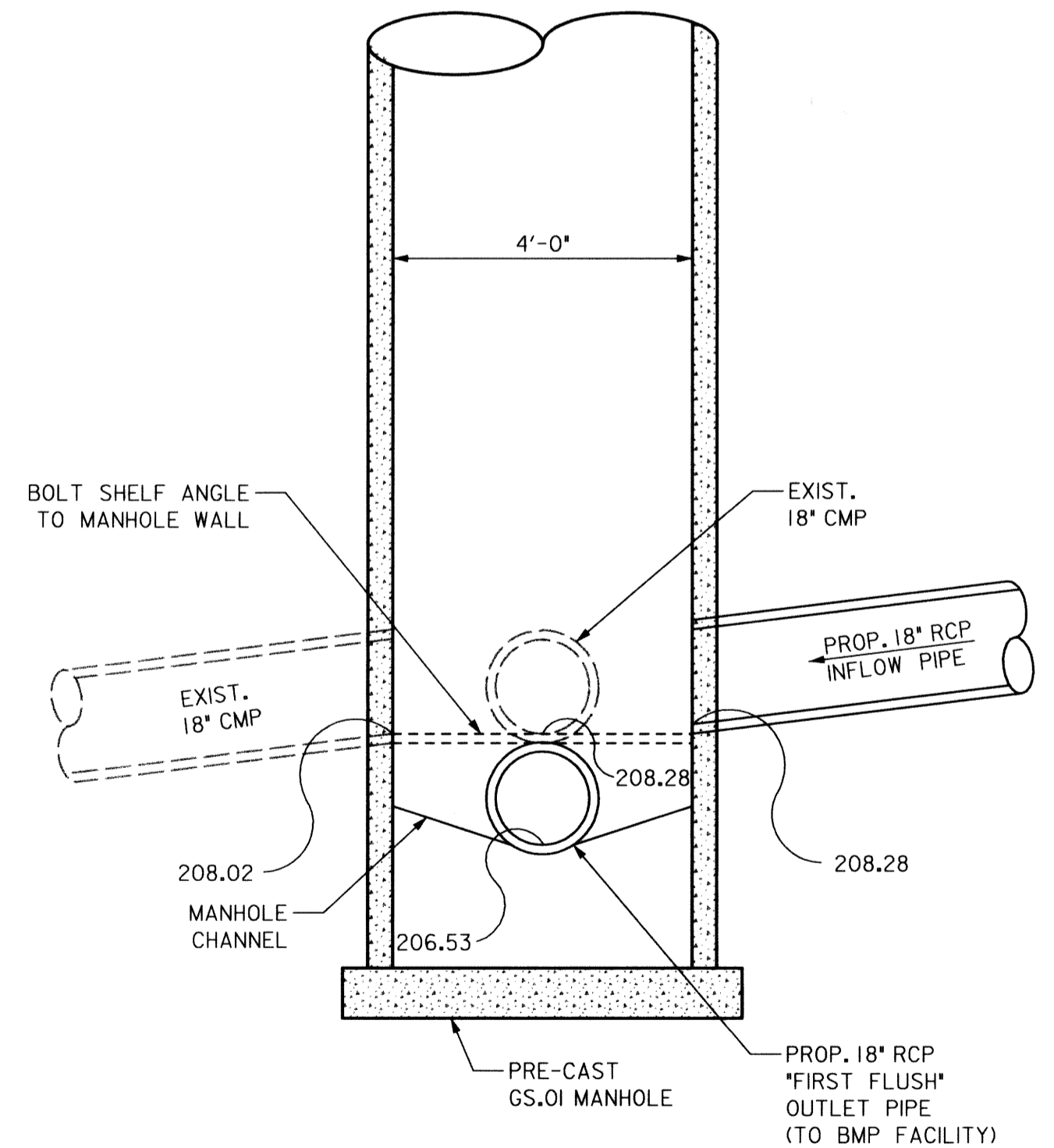
MH-3 TO EW-4



SECTION

MODIFIED A-10 INLET

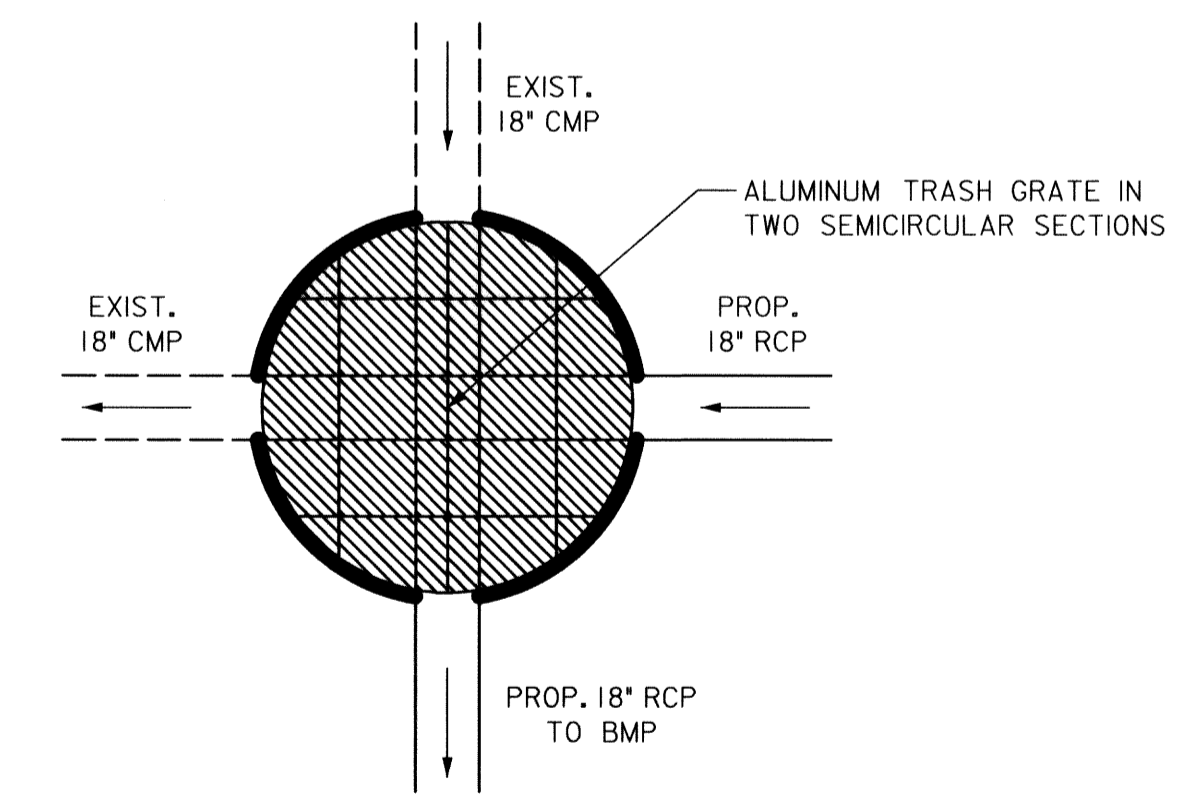
Scale: N.T.S.



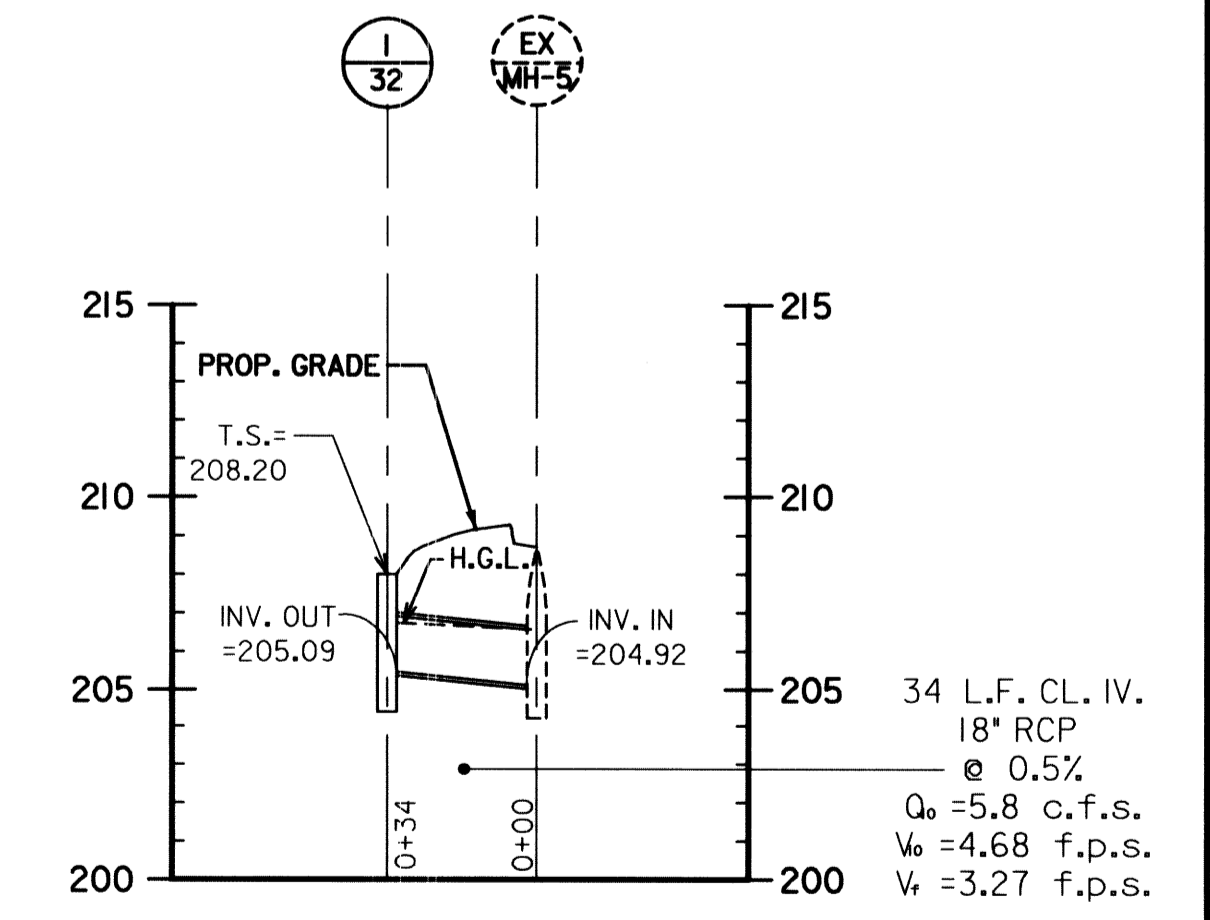
TYPICAL ISOLATION DIVERSION MANHOLE

DETAIL OF MH-3

Scale: N.T.S.



PLAN

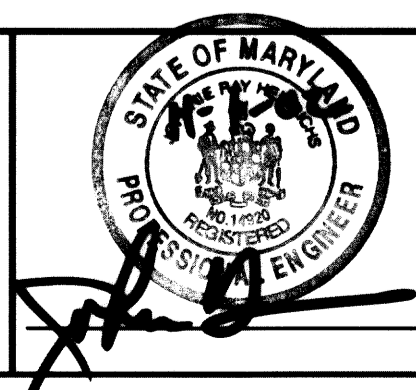


I-32 TO EX-MH-5

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *Janet A. Calia* 11/5/02
Chief, Bureau of Engineering: *Paul D. Brown* 11/4/02
Chief, Transportation and Special Projects Division: *Elizabeth A. Calia* 11/4/02
Chief, Bureau of Highways: *Robert M. Conley* 11-5-02

Phoenix - Nolan Joint Venture
1420-A Jahn Avenue, Suite A, Baltimore, Maryland 21227
Phone: (410) 247-8833 Fax: (410) 247-9397



DES: J.R.H.	REPLACE OLD SD-02 WITH THIS SHEET	DATE:
DRN: D.R.B.		BY:
CHK:		NO.:
DATE:		REVISION:
		DATE:

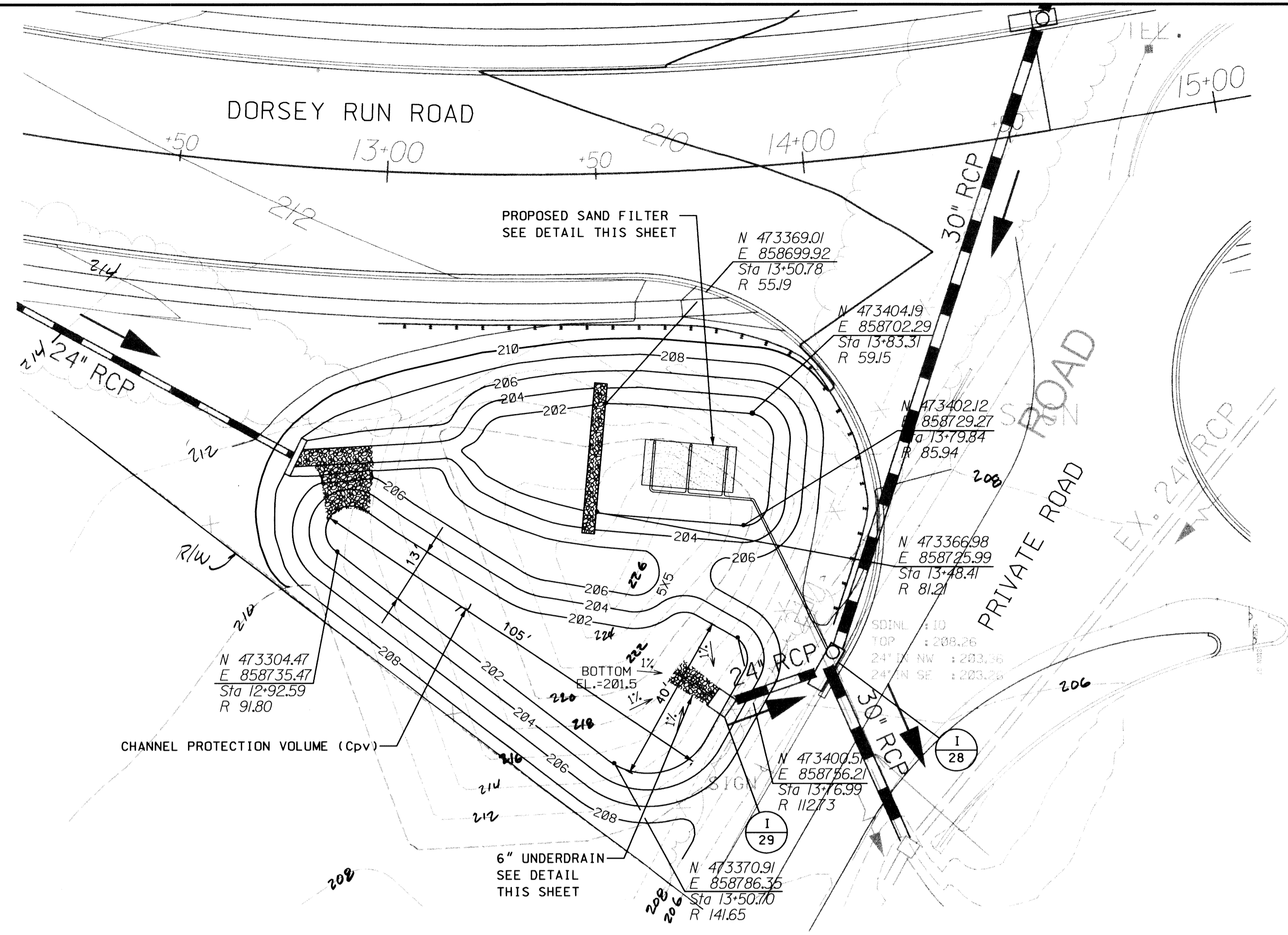
STORM DRAIN PROFILE & DETAILS

600' SCALE MAP NO. BLOCK NO.

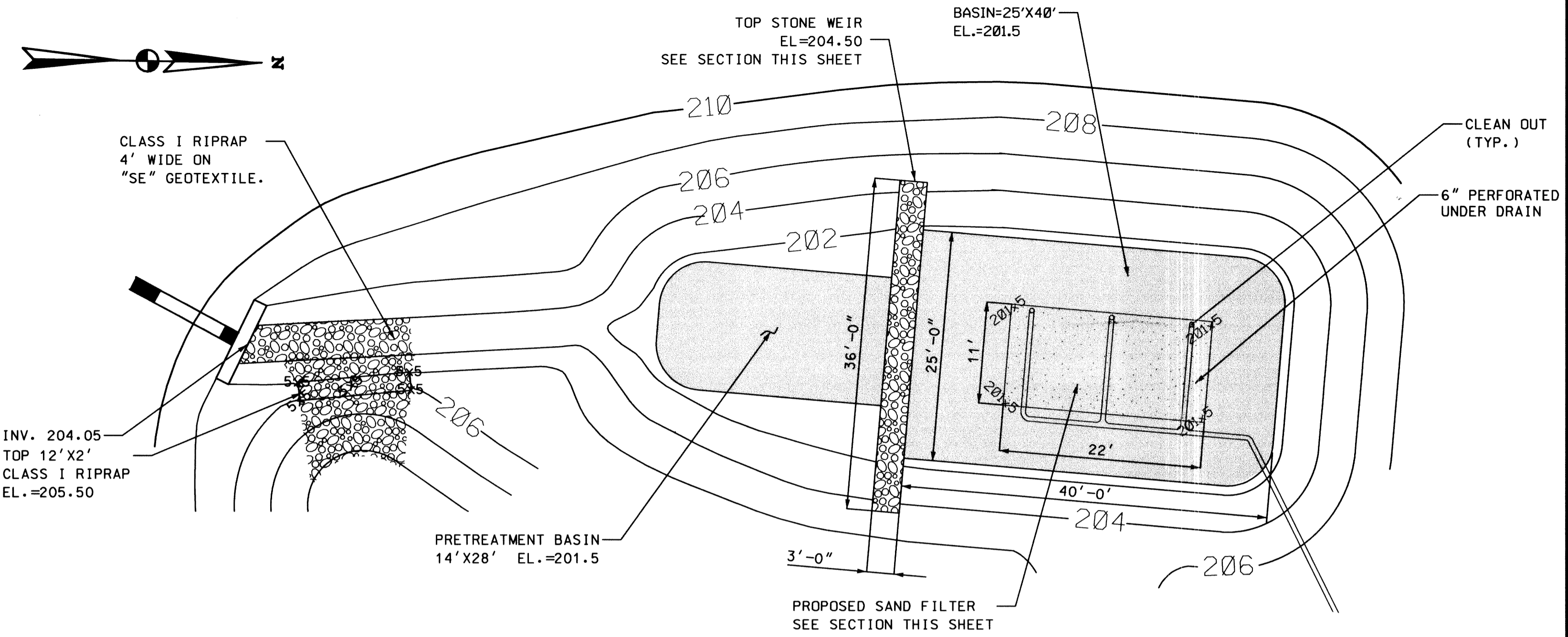
DORSEY RUN ROAD SOUTH LINK PHASE 1

CAPITAL PROJECT NO. J-4110

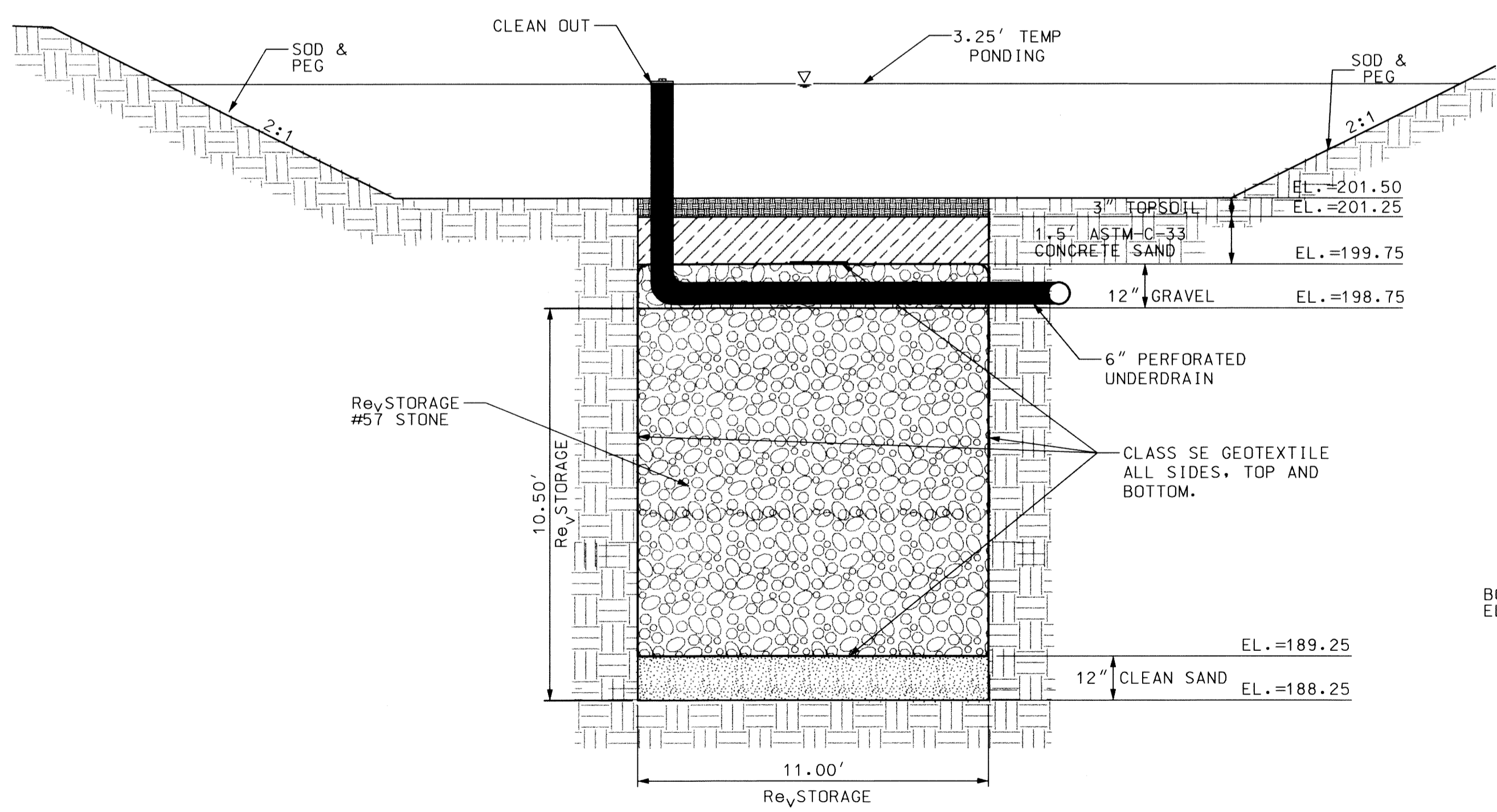
SD-02
SCALE AS SHOWN
SHEET 18 OF 30



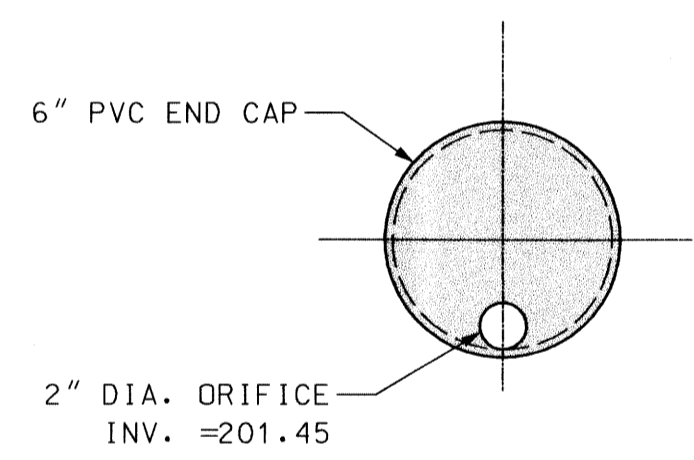
PLAN SWM-01
SCALE: 1" = 20'



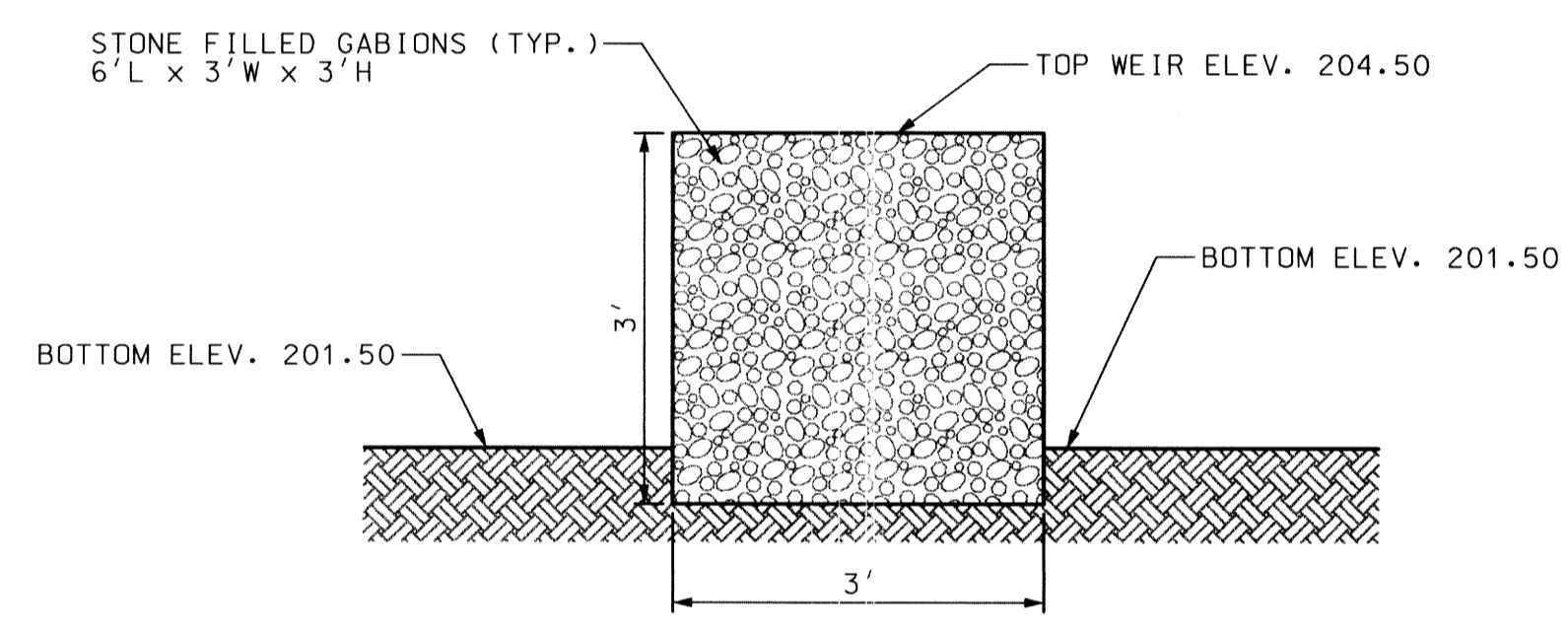
SAND FILTER DETAIL
SCALE: 1" = 10'



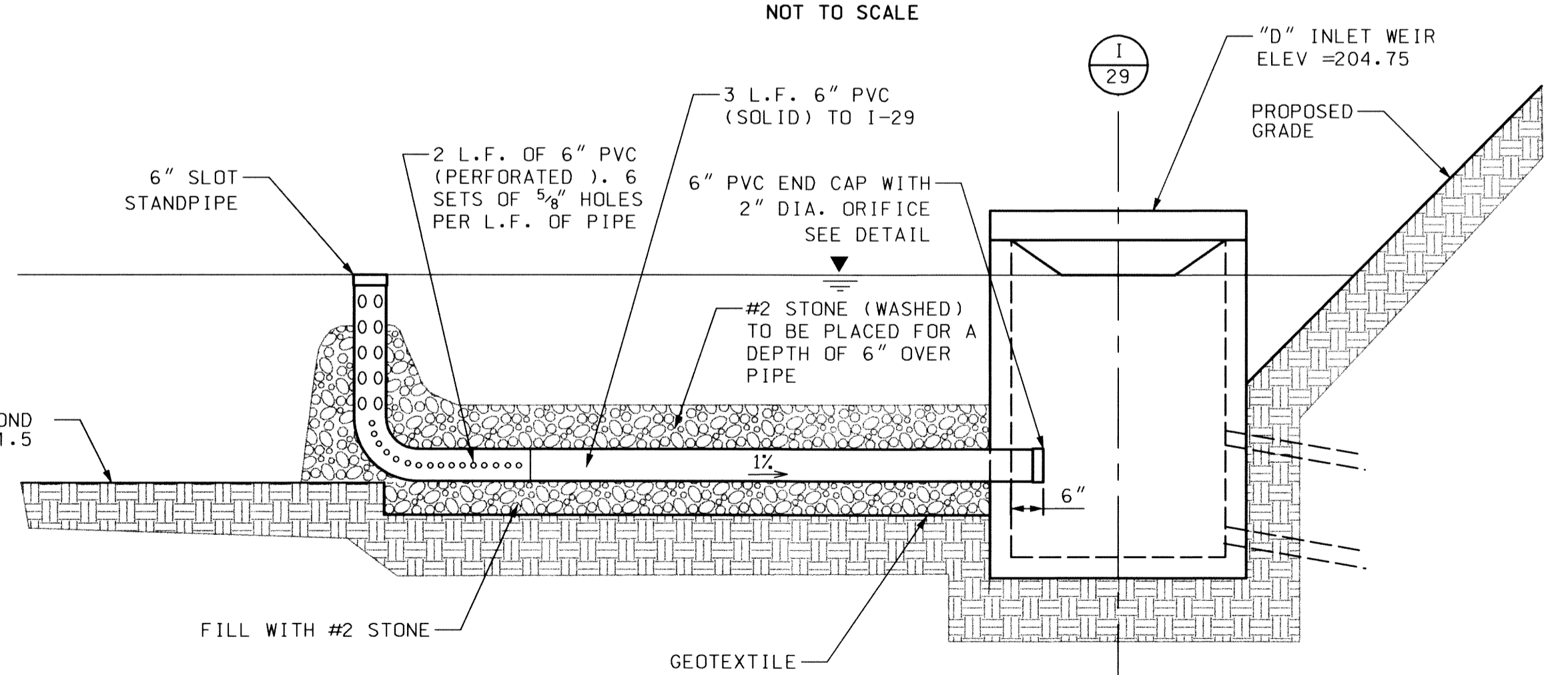
SAND FILTER SECTION
NOT TO SCALE



ORIFICE DETAIL
NOT TO SCALE



STONE WEIR SECTION
N.T.S.



UNDERDRAIN DETAIL
NOT TO SCALE

AS BUILT CERTIFICATION
I hereby certify that the stormwater management facility shown on the plan has been constructed in accordance with the plans approved by the Maryland Department of the Environment, except as noted in red on the 'AS BUILT' drawings.

Reg. P.E. # _____ Signature _____
Date _____
MDE No. _____ Facility Identification (number and/or type) _____

*Certify means to state or declare a professional opinion based on sufficient and appropriate onsite inspections and material tests conducted during construction.

DESIGN CERTIFICATION:
I hereby certify that this plan has been designed in accordance with the 1994 Standards and Specifications for Soil Erosion and Sediment Control, the 2000 Maryland Stormwater design Manual, Volume 1 & 2 and The Maryland Department of the Environment Stormwater Management Regulations.

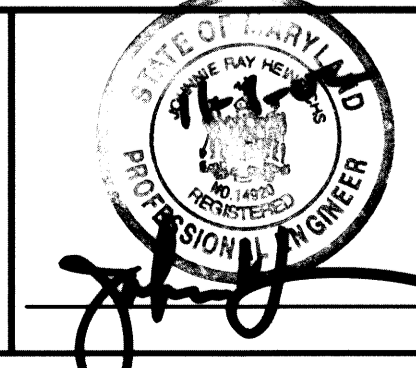
John R. Heinrichs
Reg. P.E. #14920
Signature _____
Date 11/1/02

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Jan 7, 2012 11/5/12
DIRECTOR OF PUBLIC WORKS DATE
Elizabeth A. Poliv 11/4/12
CHIEF OF TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE

Paul J. Segan 11/4/12
CHIEF, BUREAU OF ENGINEERING DATE
Andrew M. Daniels 11-5-12
CHIEF, BUREAU OF HIGHWAYS DATE

Phoenix - Nolan Joint Venture
1420-A Jib Avenue
Suite A
Baltimore, Maryland 21227
Phone: (410) 247-8855 Fax: (410) 247-9397



DES: J.R.H.	REPLACE OLD SWM-01 WITH THIS SHEET	11-1-12
DRN: D.R.B.		
CHK:		
DATE:	BY:	NO. REVISION

S.W.M. FACILITY #1

600' SCALE MAP NO. _____ BLOCK NO. _____

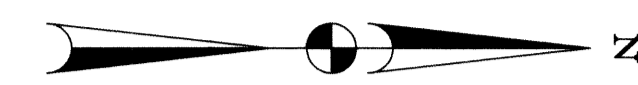
DORSEY RUN ROAD SOUTH LINK PHASE 1

CAPITAL PROJECT NO. J-4110

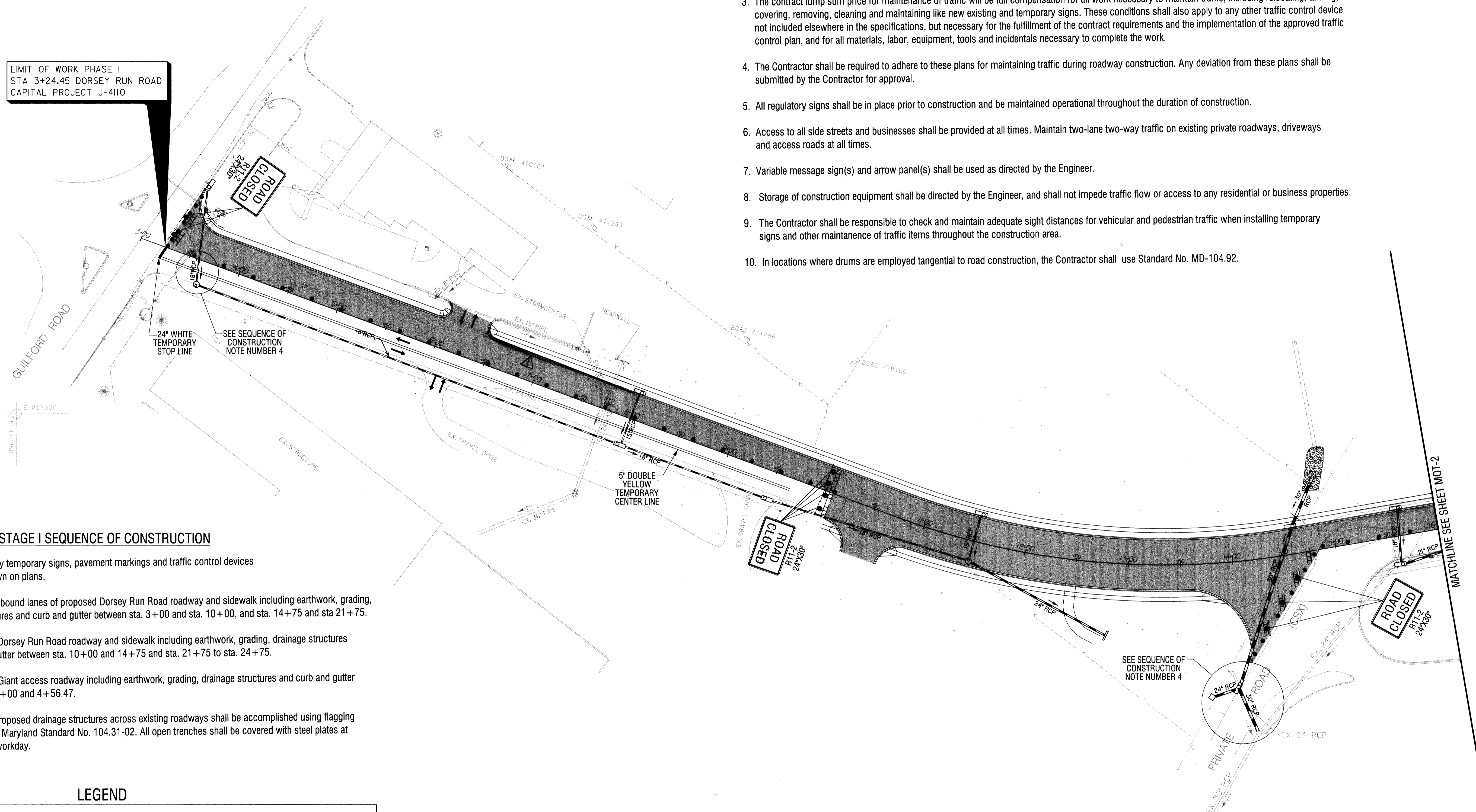
SWM-01
SCALE AS SHOWN
SHEET 19 OF 30

GENERAL CONSTRUCTION NOTES

1. All lane closures and maintenance of traffic operations shall be performed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), 2000 Edition, and Maryland State Highway Administration Standards.
2. It is the responsibility of the Contractor to supply, install, and maintain all traffic control devices for the duration of the contract.
3. The contract lump sum price for maintenance of traffic will be full compensation for all work necessary to maintain traffic, including relocating, turning, covering, removing, cleaning and maintaining like new existing and temporary signs. These conditions shall also apply to any other traffic control device not included elsewhere in the specifications, but necessary for the fulfillment of the contract requirements and the implementation of the approved traffic control plan, and for all materials, labor, equipment, tools and incidentals necessary to complete the work.
4. The Contractor shall be required to adhere to these plans for maintaining traffic during roadway construction. Any deviation from these plans shall be submitted by the Contractor for approval.
5. All regulatory signs shall be in place prior to construction and be maintained operational throughout the duration of construction.
6. Access to all side streets and businesses shall be provided at all times. Maintain two-lane two-way traffic on existing private roadways, driveways and access roads at all times.
7. Variable message sign(s) and arrow panel(s) shall be used as directed by the Engineer.
8. Storage of construction equipment shall be directed by the Engineer, and shall not impede traffic flow or access to any residential or business properties.
9. The Contractor shall be responsible to check and maintain adequate sight distances for vehicular and pedestrian traffic when installing temporary signs and other maintenance of traffic items throughout the construction area.
10. In locations where drums are employed tangential to road construction, the Contractor shall use Standard No. MD-104.92.



LIMIT OF WORK PHASE I
STA 3+24.45 DORSEY RUN ROAD
CAPITAL PROJECT J-4110



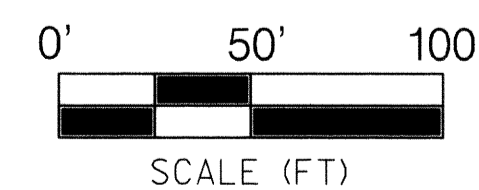
STAGE I SEQUENCE OF CONSTRUCTION

Install all necessary temporary signs, pavement markings and traffic control devices for stage I as shown on plans.

1. Construct southbound lanes of proposed Dorsey Run Road roadway and sidewalk including earthwork, grading, drainage structures and curb and gutter between sta. 3+00 and sta. 10+00, and sta. 14+75 and sta 21+75.
2. Construct new Dorsey Run Road roadway and sidewalk including earthwork, grading, drainage structures and curb and gutter between sta. 10+00 and 14+75 and sta. 21+75 to sta. 24+75.
3. Construct new Giant access roadway including earthwork, grading, drainage structures and curb and gutter between sta. 0+00 and 4+56.47.
4. Trenching for proposed drainage structures across existing roadways shall be accomplished using flagging operations, see Maryland Standard No. 104.31-02. All open trenches shall be covered with steel plates at the end of the workday.

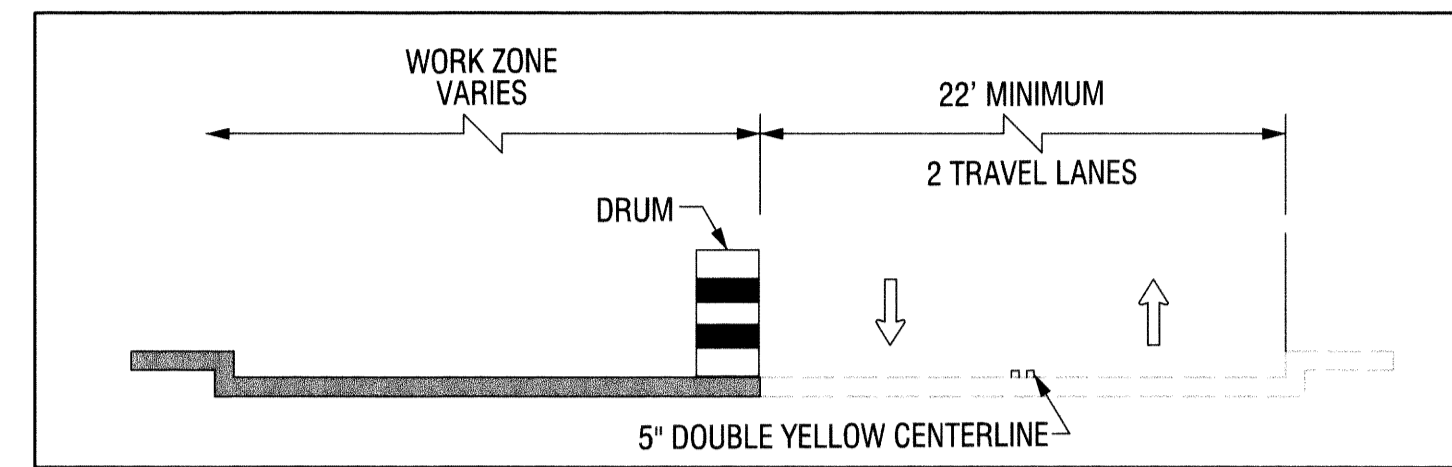
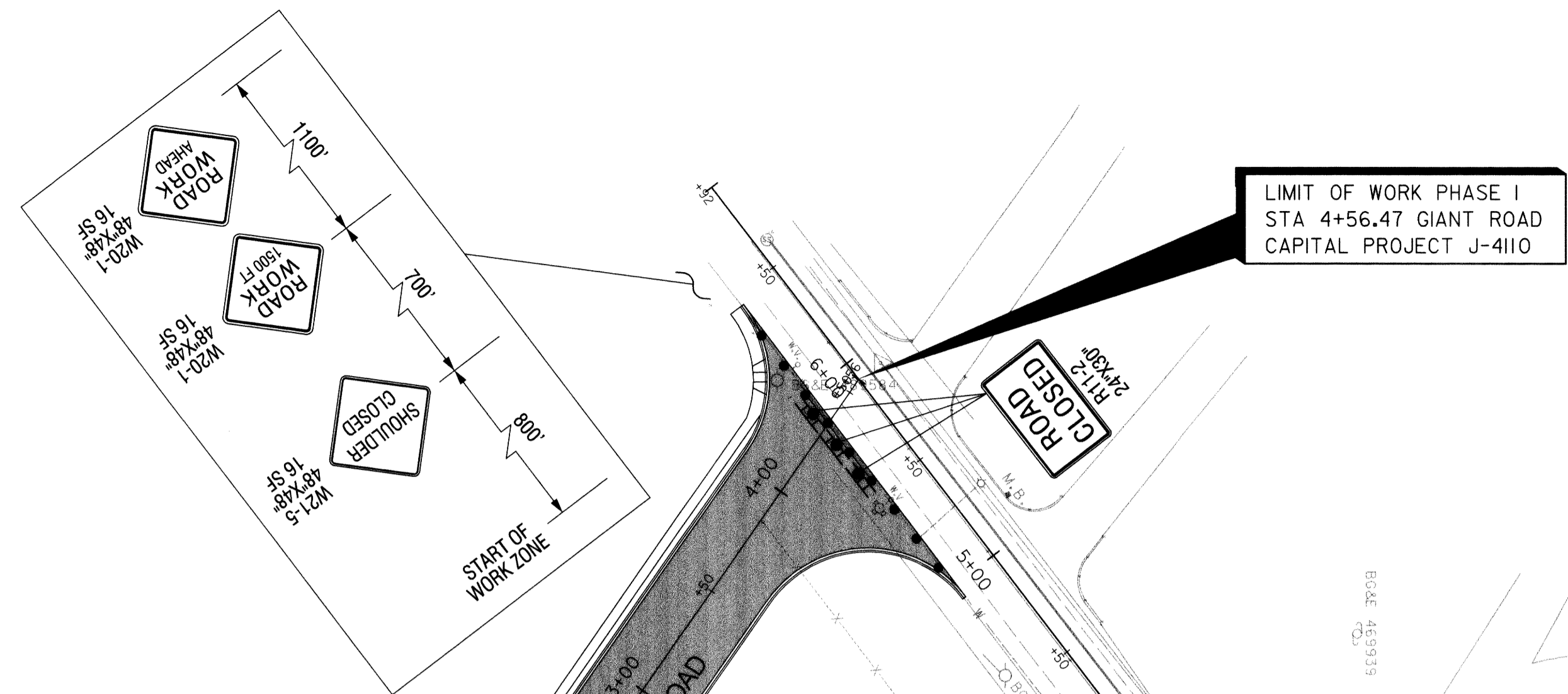
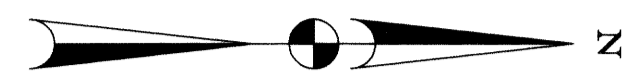
LEGEND

ROADWAY TO BE REMOVED	CRASH CUSHION (ATTENUATOR) 45 mph
ROADWAY UNDER CONSTRUCTION	VARIABLE MESSAGE SIGN
TRAFFIC BARRIER	LANE MOVEMENT
SIGN AND POST	TYPE III BARRICADE
CHANNELIZATION DEVICE	

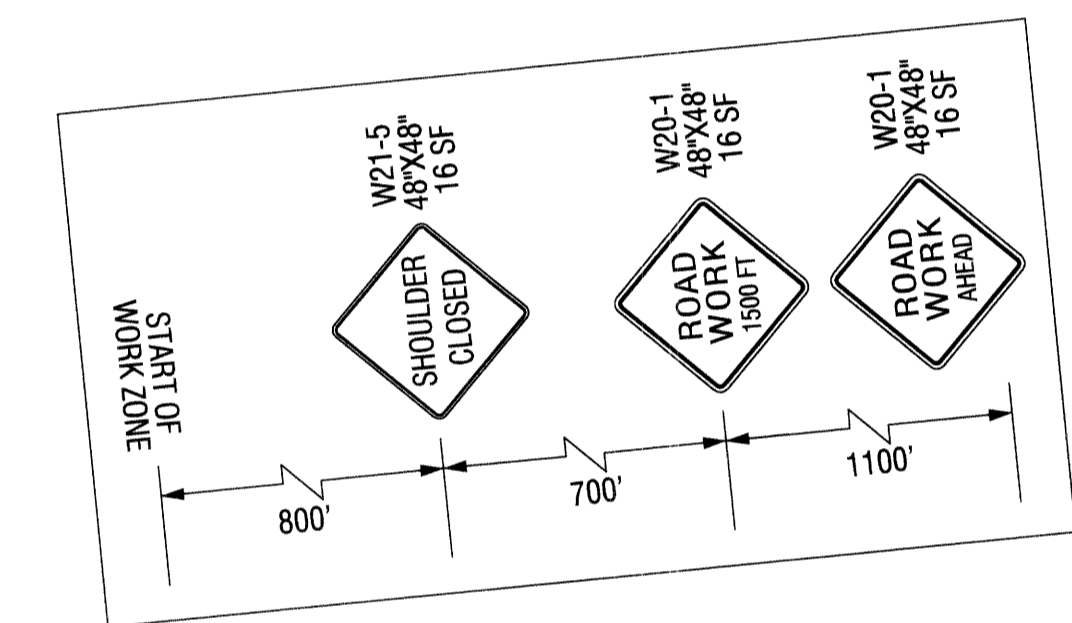


MOT-1 OF MOT-4

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND		Phoenix - Nolan Joint Venture 4785 Dorney Hall Drive Suite 124 Ellicott City, Maryland 21042 Phone: (410) 995-3651 Fax: (410) 995-1363				DES: J. R. H. E.M.R. Added Taper Sta. 6+52.77 To Sta. 7+77.70 10-7-02		DORSEY RUN ROAD SOUTH LINK MAINTENANCE OF TRAFFIC PLAN STAGE I CAPITAL PROJECT NO. J-4110		SCALE AS SHOWN	
DIRECTOR OF PUBLIC WORKS DATE <i>9/14/02</i> CHIEF, BUREAU OF ENGINEERING DATE <i>9/14/02</i>		CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE <i>9/14/02</i> CHIEF, BUREAU OF HIGHWAYS DATE <i>9/14/02</i>				DRN: D. R. B.				SHEET 22 OF 30	
				CHK:		DATE:					
				BY: NO. REVISION DATE		600' SCALE MAP NO. BLOCK NO.					

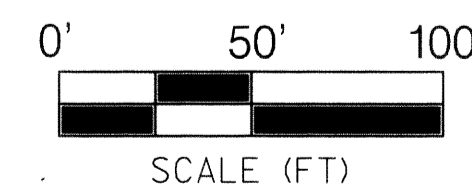


STAGE I-TYPICAL SECTION
 STA. 3+00 TO STA. 10+00
 STA. 14+75 TO STA. 21+75



LEGEND

- | | | | |
|--|----------------------------|--|----------------------------|
| | ROADWAY TO BE REMOVED | | CRASH CUSHION (ATTENUATOR) |
| | ROADWAY UNDER CONSTRUCTION | | VARIABLE MESSAGE SIGN |
| | TRAFFIC BARRIER | | LANE MOVEMENT |
| | SIGN AND POST | | TYPE III BARRICADE |
| | CHANNELIZATION DEVICE | | |



MOT-2 OF MOT-4

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

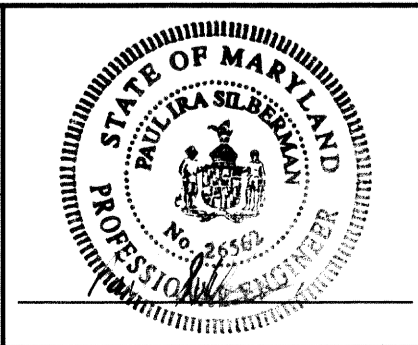
9/4/02 DATE
 Director of Public Works

9/4/02 DATE
 Chief, Transportation and Special Projects Division

Phoenix - Nolan Joint Venture
 4785 DORNER HALL DRIVE
 SUITE 124
 ELLICOTT CITY, MARYLAND 21042

Phone: (410) 995-3651 Fax: (410) 995-1363

SABRA WANG & ASSOCIATES, INC.
 1508 JONAS AVENUE
 BALTIMORE, MD 21207
 (410) 737-8564
 WWW.SABRA-WSNG.COM



DES:	J.R.H.			
DRN:	D.R.B.			
CHK:				
DATE:	BY	NO.	REVISION	DATE

600' SCALE MAP NO. _____

BLOCK NO. _____

DORSEY RUN ROAD SOUTH LINK
 MAINTENANCE OF TRAFFIC PLAN
 STAGE I

CAPITAL PROJECT NO. J-4110

SCALE AS SHOWN

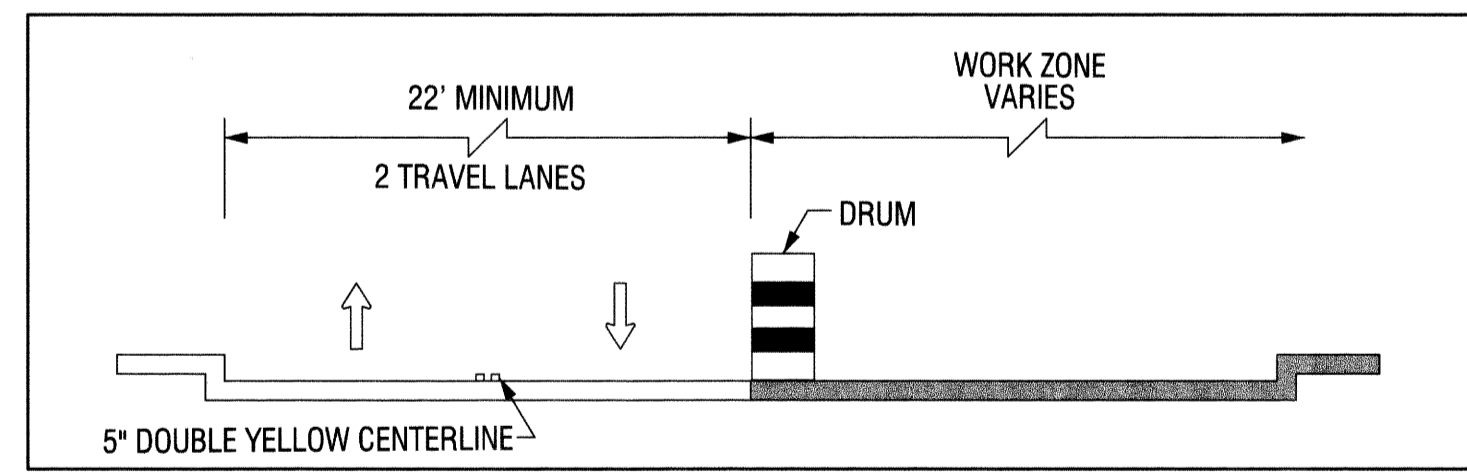
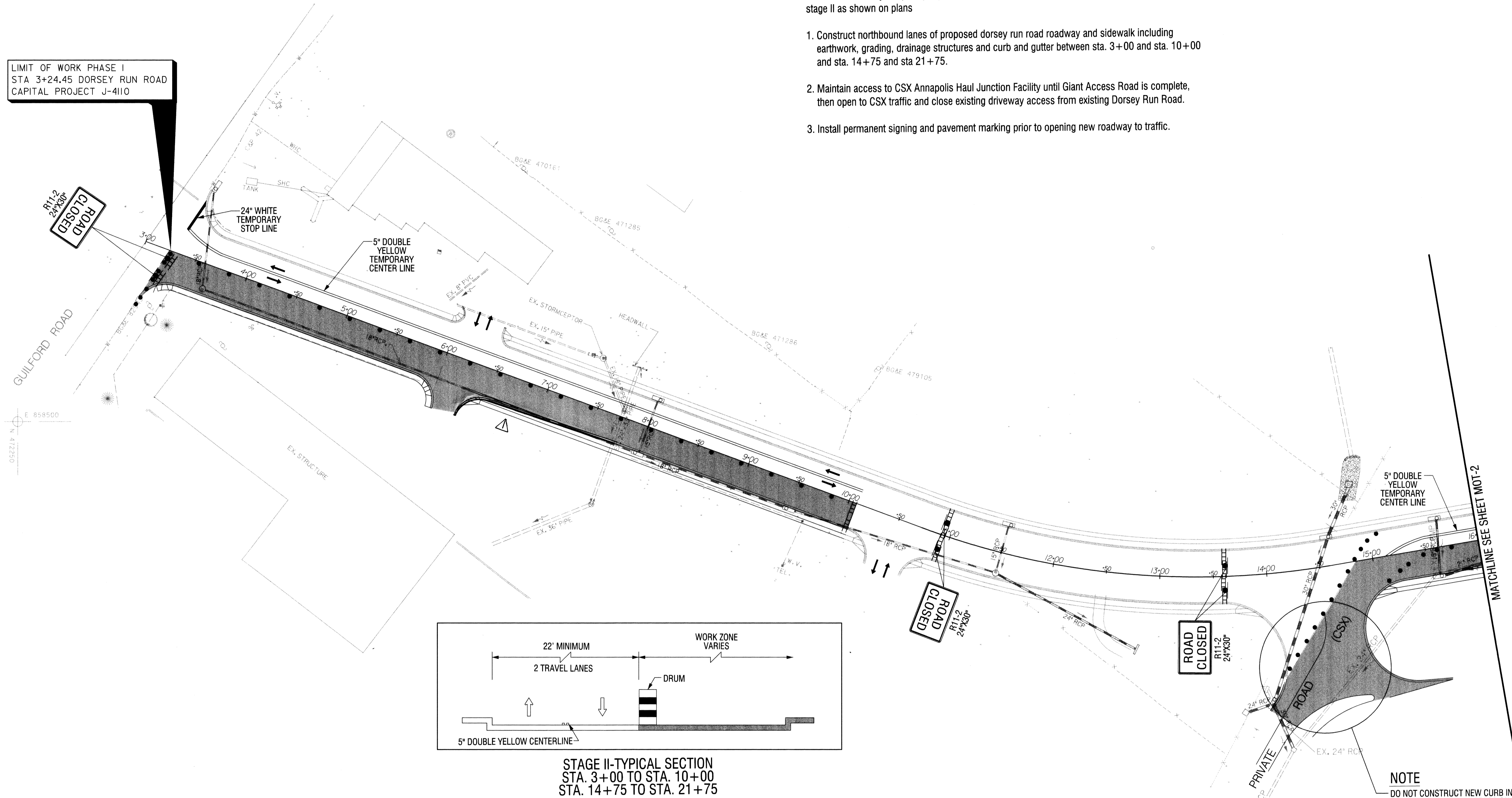
SHEET 23 OF 30



STAGE II SEQUENCE OF CONSTRUCTION

Install all necessary temporary signs, pavement markings and traffic control devices for stage II as shown on plans

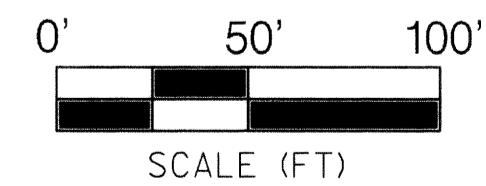
1. Construct northbound lanes of proposed dorsey run roadway and sidewalk including earthwork, grading, drainage structures and curb and gutter between sta. 3+00 and sta. 10+00 and sta. 14+75 and sta 21+75.
2. Maintain access to CSX Annapolis Haul Junction Facility until Giant Access Road is complete, then open to CSX traffic and close existing driveway access from existing Dorsey Run Road.
3. Install permanent signing and pavement marking prior to opening new roadway to traffic.



STAGE II-TYPICAL SECTION
STA. 3+00 TO STA. 10+00
STA. 14+75 TO STA. 21+75

LEGEND

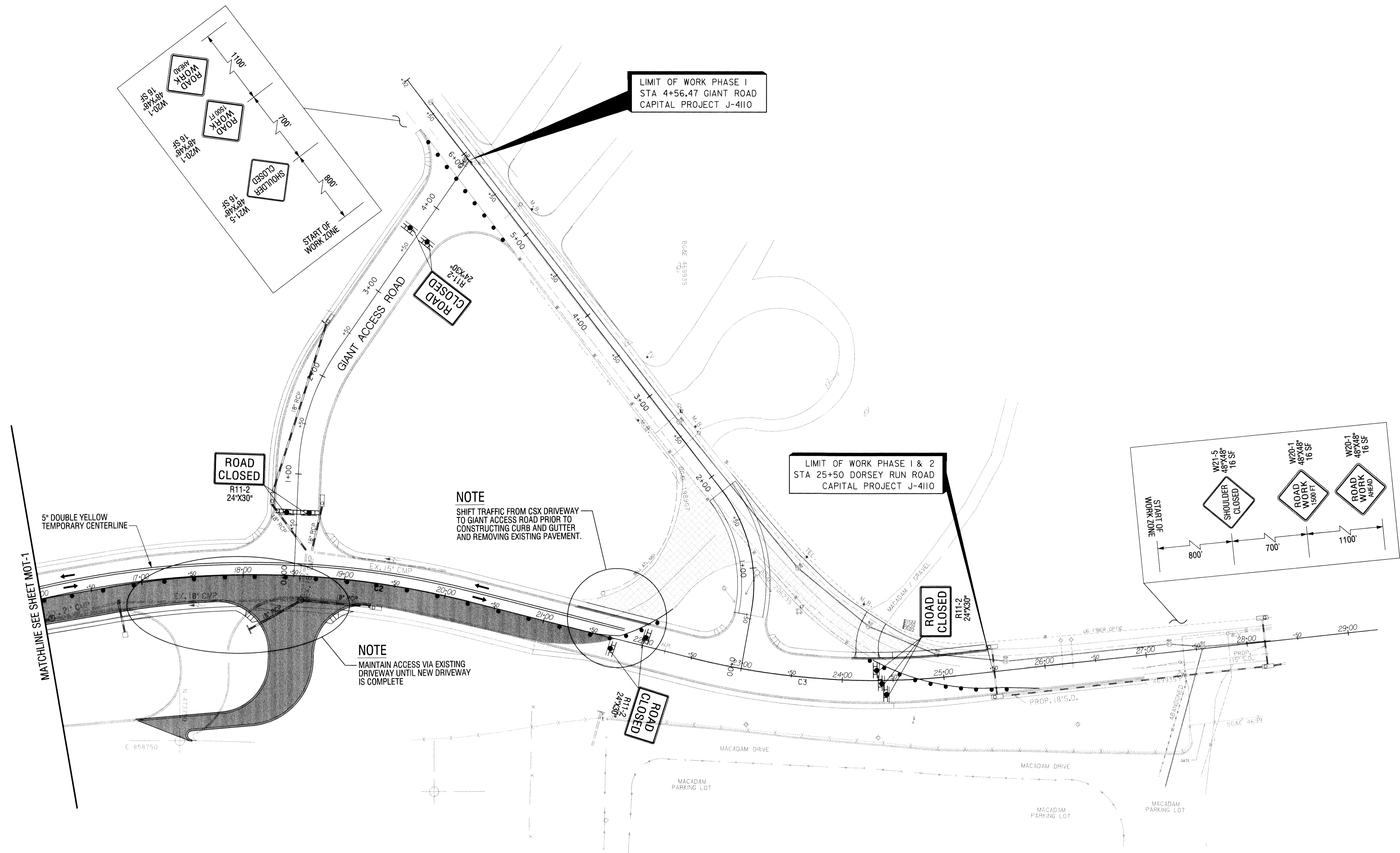
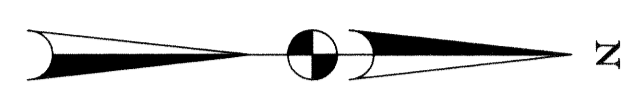
	ROADWAY TO BE REMOVED		CRASH CUSHION (ATTENUATOR)
	ROADWAY UNDER CONSTRUCTION		VARIABLE MESSAGE SIGN
	TRAFFIC BARRIER		LANE MOVEMENT
	SIGN AND POST		TYPE III BARRICADE
	CHANNELIZATION DEVICE		



NOTE
DO NOT CONSTRUCT NEW CURB IN THIS AREA, MAINTAIN ACCESS ON EXISTING ROAD CONSTRUCT NEW PAVEMENT DURING NIGHT TIME OPERATIONS USING FLAGGING OPERATIONS AS NECESSARY

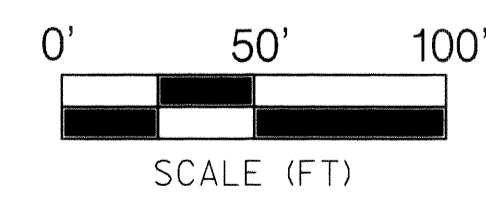
MOT-3 OF MOT-4

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 9/4/02 CHIEF, BUREAU OF ENGINEERING		Phoenix - Nolan Joint Venture 4785 Denny Hall Drive Suite 124 Ellicott City, Maryland 21042 Phone: (410) 995-3651 Fax: (410) 995-1365				DES: J. R. H. E.M.P. Added Taper Sta. 6+52.77 To Sta. 7+77.70 10-7-02 DRN: D. R. B. CHK: DATE:		DORSEY RUN ROAD SOUTH LINK MAINTENANCE OF TRAFFIC PLAN STAGE II CAPITAL PROJECT NO. J-4110		SCALE AS SHOWN SHEET 24 OF 30
DIRECTOR OF PUBLIC WORKS DATE: 9/4/02 CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION		SABRA, WANG & ASSOCIATES, INC. 1508 JON AVENUE SUITE 105 BALTIMORE, MD 21227 (410) 727-8554 WWW.SABRA-WANG.COM		STATE OF MARYLAND PROFESSIONAL ENGINEER No. 25662		BY NO. REVISION DATE 600' SCALE MAP NO. BLOCK NO.		SCALE AS SHOWN SHEET 24 OF 30		



LEGEND

- | | |
|----------------------------|----------------------------|
| ROADWAY TO BE REMOVED | CRASH CUSHION (ATTENUATOR) |
| ROADWAY UNDER CONSTRUCTION | 45 mph |
| TRAFFIC BARRIER | VARIABLE MESSAGE SIGN |
| SIGN AND POST | LANE MOVEMENT |
| CHANNELIZATION DEVICE | TYPE III BARRICADE |



MOT-4 OF MOT-4

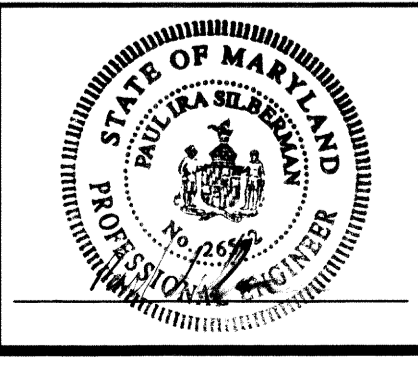
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Paula Seppan 9/4/02 *Paula Seppan* 9/4/02
DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF ENGINEERING DATE

Salvatore 9/4/02 *Christopher W. Penick* 9-4-02
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE CHIEF, BUREAU OF HIGHWAYS DATE

Phoenix - Nolan Joint Venture
4785 Dorsey Hall Drive
Suite 124
Ellicott City, Maryland 21042
Phone: (410) 995-3651 Fax: (410) 995-1365

SABRA WANG & ASSOCIATES, INC.
1506 10th AVENUE
SUITE 100
BALTIMORE, MD 21227
(410) 757-6664
WWW.SABRA-WANG.COM



DES:	J.R.H.			
DRN:	D.R.B.			
CHK:				
DATE:	BY	NO.	REVISION	DATE

600' SCALE MAP NO.	BLOCK NO.
--------------------	-----------

DORSEY RUN ROAD SOUTH LINK
MAINTENANCE OF TRAFFIC PLAN
STAGE II

CAPITAL PROJECT NO. J-4110

SCALE AS SHOWN

SHEET 25 OF 30

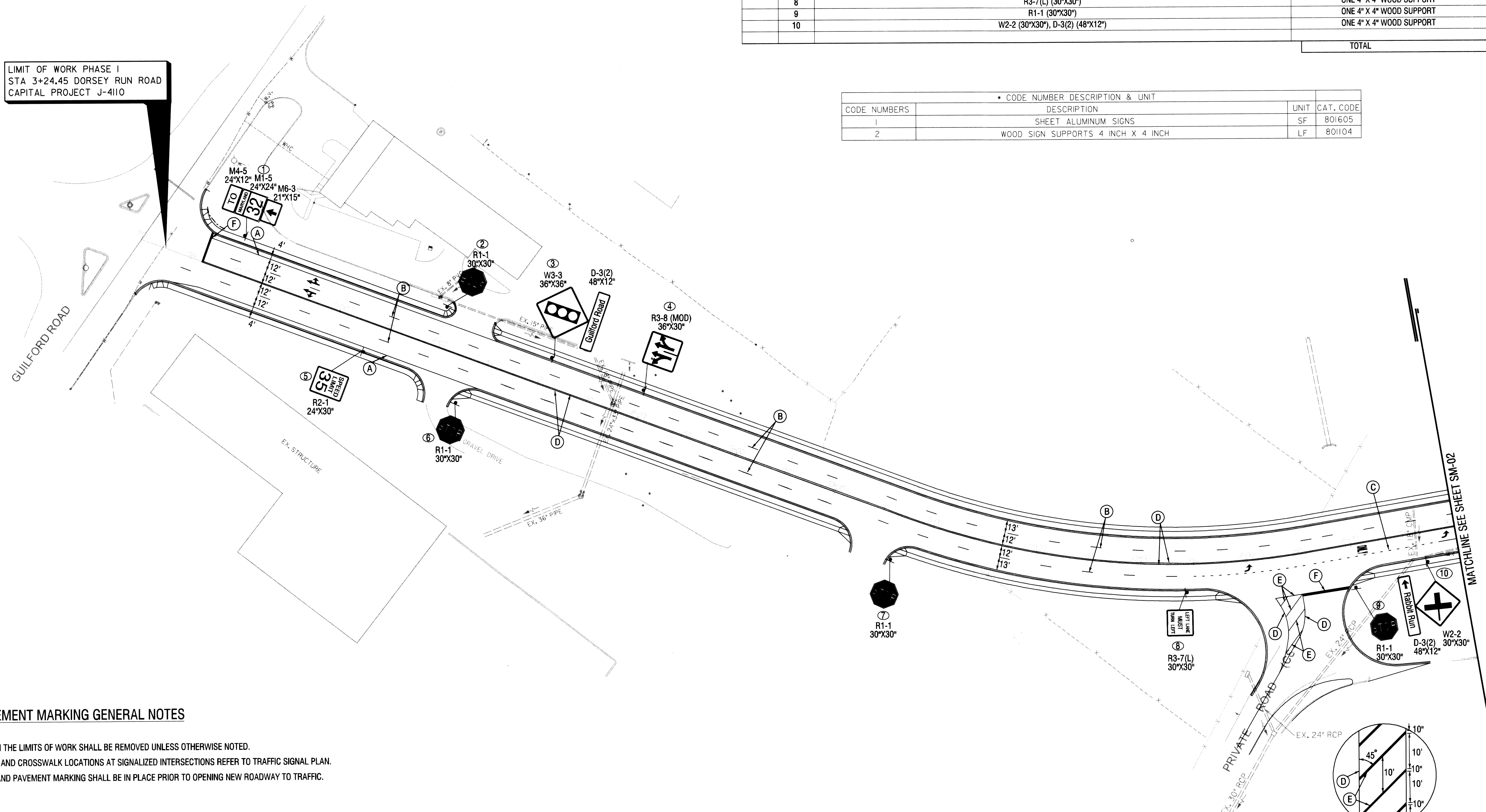
INDEX OF QUANTITIES

SHEET NO.	SIGN NO.	REMARKS	SUPPORTS		CODE NUMBERS	
			1	2	1	2
SM-01	1	M4-5 (24"x12"), M1-5 (24" X 24"), M6-3 (21"x15")	ONE 4" X 4" WOOD SUPPORT	8.2		17
	2	R1-1 (30"x30")	ONE 4" X 4" WOOD SUPPORT	6.25		15
	3	W3-3 (36"x36"), D-3(2) (48"x12")	ONE 4" X 4" WOOD SUPPORT	13		18
	4	R3-8 (MOD) (36"x30")	ONE 4" X 4" WOOD SUPPORT	6.25		15
	5	R2-1 (24"x30")	ONE 4" X 4" WOOD SUPPORT	7.5		15
	6	R1-1 (30"x30")	ONE 4" X 4" WOOD SUPPORT	5		15
	7	R1-1 (30"x30")	ONE 4" X 4" WOOD SUPPORT	6.25		15
	8	R3-7(L) (30"x30")	ONE 4" X 4" WOOD SUPPORT	6.25		15
	9	R1-1 (30"x30")	ONE 4" X 4" WOOD SUPPORT	6.25		15
	10	W2-2 (30"x30"), D-3(2) (48"x12")	ONE 4" X 4" WOOD SUPPORT	10.25		18
TOTAL				75.2		168

CODE NUMBERS	DESCRIPTION	UNIT	CAT. CODE
1	SHEET ALUMINUM SIGNS	SF	801605
2	WOOD SIGN SUPPORTS 4 INCH X 4 INCH	LF	801104



LIMIT OF WORK PHASE I
STA 3+24.45 DORSEY RUN ROAD
CAPITAL PROJECT J-4110

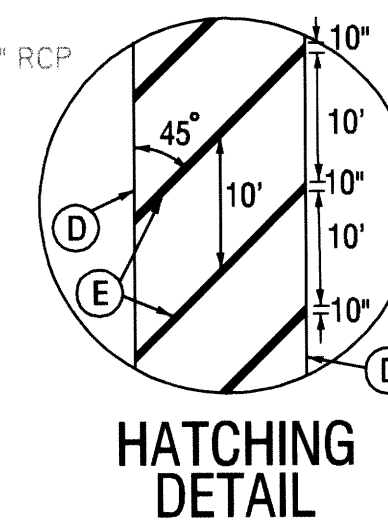
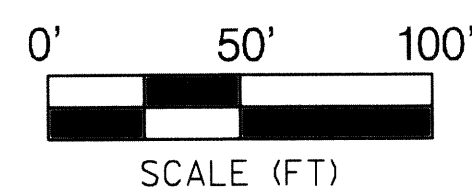


SIGNING AND PAVEMENT MARKING GENERAL NOTES

1. ALL EXISTING SIGNS WITHIN THE LIMITS OF WORK SHALL BE REMOVED UNLESS OTHERWISE NOTED.
2. FOR DETAILS ON STOP BAR AND CROSSWALK LOCATIONS AT SIGNALIZED INTERSECTIONS REFER TO TRAFFIC SIGNAL PLAN.
3. ALL PERMANENT SIGNING AND PAVEMENT MARKING SHALL BE IN PLACE PRIOR TO OPENING NEW ROADWAY TO TRAFFIC.

SIGNING AND PAVEMENT MARKING LEGEND

<p>EXISTING SIGN POST</p> <p>PROPOSED SIGN POST</p> <p>PROPOSED SIGN</p> <p>EXISTING SIGN</p> <p>EXISTING SIGN TO BE REMOVED</p>	<p>(A) 5 INCH WHITE (LEAD FREE) REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS - SOLID</p> <p>(B) 5 INCH WHITE (LEAD FREE) REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS - 10' LINE WITH 30' GAP</p> <p>(C) 5 INCH WHITE (LEAD FREE) REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS - 2' LINE WITH 6' GAP</p> <p>(D) 5 INCH YELLOW (LEAD FREE) REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS - SOLID</p> <p>(E) 10 INCH YELLOW (LEAD FREE) REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS - SOLID</p> <p>(F) 24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS</p> <p>PAVEMENT MARKING ARROW HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PVT MKGS</p>
----------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



SM-01

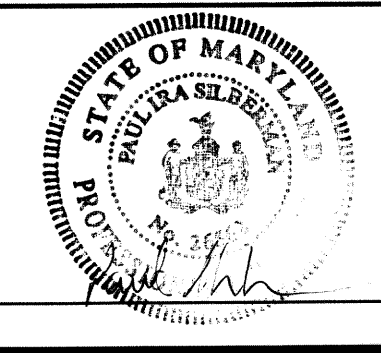
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *John A. ...* 4/29/03
 Chief, Transportation and Special Projects Division: *Edmund ...* 4/29/03

Chief, Bureau of Engineering: *Paul ...* 4/29/03
 Chief, Bureau of Highways: *Charles ...* 4-30-03

Phoenix - Nolan Joint Venture
4785 Dorsey Hall Drive, Suite 124, Ellicott City, Maryland 21042
Phone: (410) 998-3661 Fax: (410) 998-1265

SABRA, WANG & ASSOCIATES, INC.
1504 JOHN AVENUE, SUITE 100, BALTIMORE, MD 21287
410-757-8564 www.SABRA-WANG.COM



DES: P.S.					
DRN: M.R.					
CHK: Z.S.					
DATE: APR/03	BY:	NO.:	REVISION:	DATE:	600' SCALE MAP NO. BLOCK NO.

DORSEY RUN ROAD SOUTH LINK
SIGNING AND PAVEMENT MARKING PLAN

CAPITAL PROJECT NO. J-4110

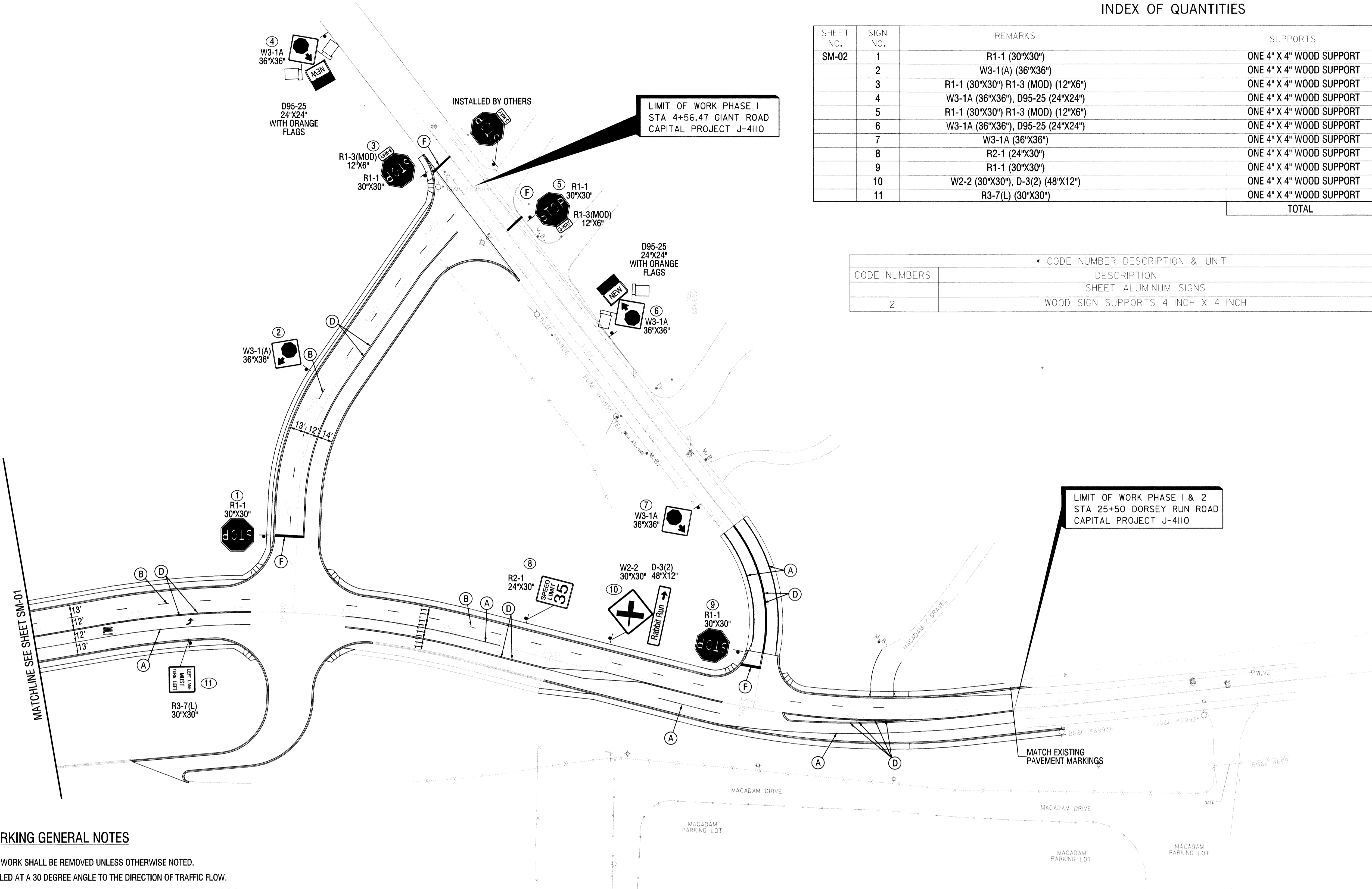
SCALE AS SHOWN

SHEET 26 OF 30

INDEX OF QUANTITIES

SHEET NO.	SIGN NO.	REMARKS	SUPPORTS	CODE NUMBERS	
				1	2
SM-02	1	R1-1 (30"x30")	ONE 4" X 4" WOOD SUPPORT	6.25	15
	2	W3-1(A) (36"x36")	ONE 4" X 4" WOOD SUPPORT	9	17
	3	R1-1 (30"x30") R1-3 (MOD) (12"x6")	ONE 4" X 4" WOOD SUPPORT	6.75	15
	4	W3-1A (36"x36"), D95-25 (24"x24")	ONE 4" X 4" WOOD SUPPORT	13	19
	5	R1-1 (30"x30") R1-3 (MOD) (12"x6")	ONE 4" X 4" WOOD SUPPORT	6.75	15
	6	W3-1A (36"x36"), D95-25 (24"x24")	ONE 4" X 4" WOOD SUPPORT	13	19
	7	W3-1A (36"x36")	ONE 4" X 4" WOOD SUPPORT	9	17
	8	R2-1 (24"x30")	ONE 4" X 4" WOOD SUPPORT	5	15
	9	R1-1 (30"x30")	ONE 4" X 4" WOOD SUPPORT	6.25	15
	10	W2-2 (30"x30"), D-3(2) (48"x12")	ONE 4" X 4" WOOD SUPPORT	10.25	17
	11	R3-7(L) (30"x30")	ONE 4" X 4" WOOD SUPPORT	6.25	15
TOTAL			91.5	179	

* CODE NUMBER DESCRIPTION & UNIT			
CODE NUMBERS	DESCRIPTION	UNIT	CAT. CODE
1	SHEET ALUMINUM SIGNS	SF	801605
2	WOOD SIGN SUPPORTS 4 INCH X 4 INCH	LF	801104

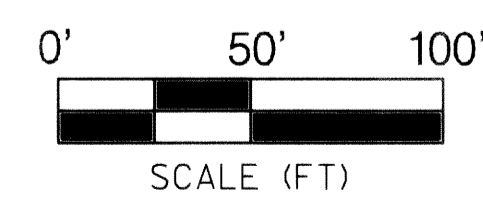


SIGNING AND PAVEMENT MARKING GENERAL NOTES

1. ALL EXISTING SIGNS WITHIN THE LIMITS OF WORK SHALL BE REMOVED UNLESS OTHERWISE NOTED.
2. ALL "NO PARKING" SIGNS SHALL BE INSTALLED AT A 30 DEGREE ANGLE TO THE DIRECTION OF TRAFFIC FLOW.
3. FOR DETAILS ON STOP BAR AND CROSSWALK LOCATIONS AT SIGNALIZED INTERSECTIONS REFER TO TRAFFIC SIGNAL PLAN.
4. ALL PERMANENT SIGNING AND PAVEMENT MARKING SHALL BE IN PLACE PRIOR TO OPENING NEW ROADWAY TO TRAFFIC.

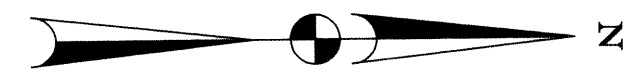
SIGNING AND PAVEMENT MARKING LEGEND

EXISTING SIGN POST	(A) 5 INCH WHITE (LEAD FREE) REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS - SOLID
PROPOSED SIGN POST	(B) 5 INCH WHITE (LEAD FREE) REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS - 10' LINE WITH 30' GAP
PROPOSED SIGN	(C) 5 INCH WHITE (LEAD FREE) REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS - 2' LINE WITH 6' GAP
EXISTING SIGN	(D) 5 INCH YELLOW (LEAD FREE) REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS - SOLID
EXISTING SIGN TO BE REMOVED	(E) 10 INCH YELLOW (LEAD FREE) REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS - SOLID
	(F) 24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
	(G) PAVEMENT MARKING ARROW HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PVT MKGS

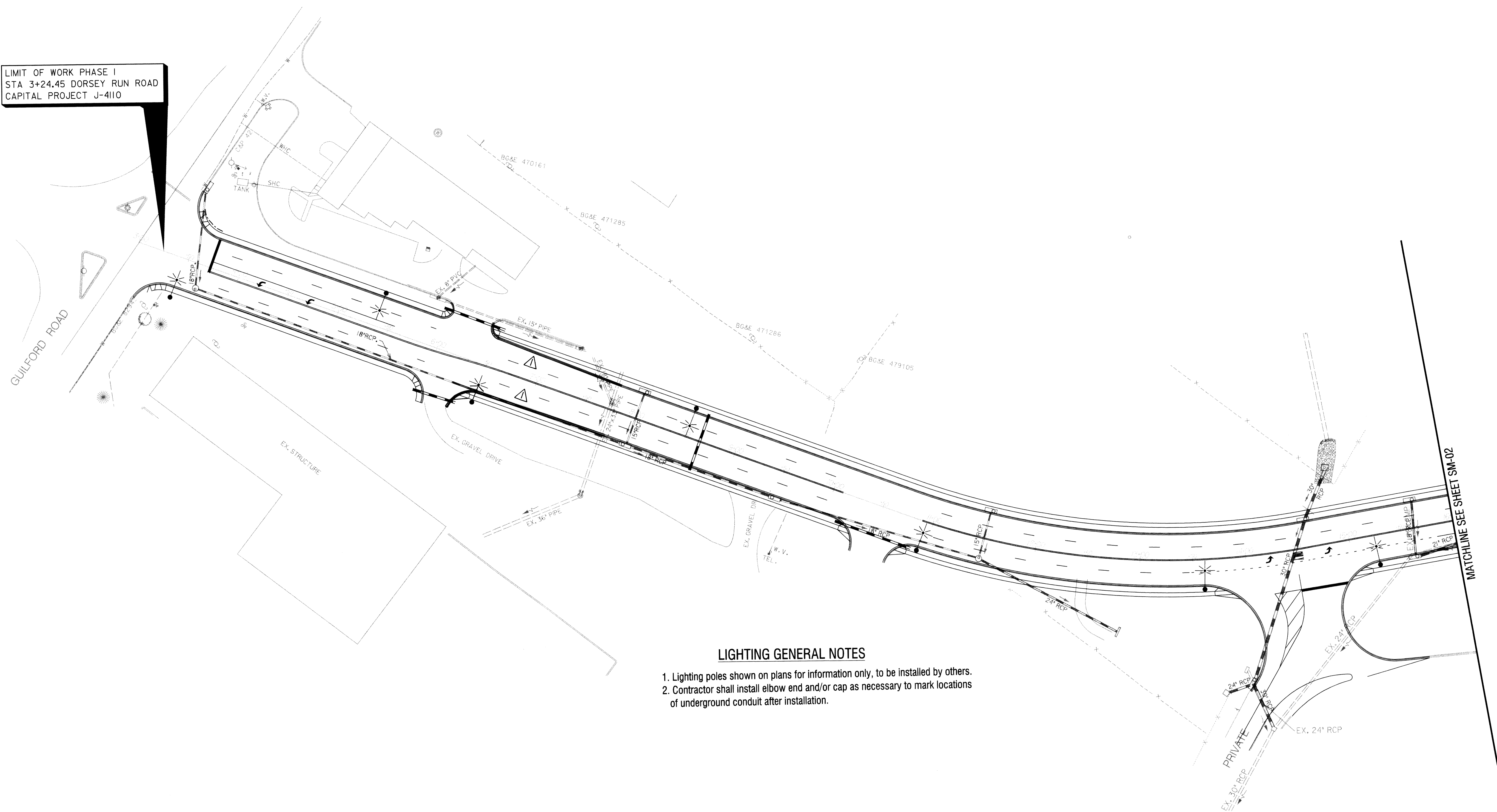


SM-02

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>[Signature]</i> 4/20/03 Chief, Bureau of Engineering: <i>[Signature]</i> 4/29/03 Chief, Transportation and Special Projects Division: <i>[Signature]</i> 4/20/03 Chief, Bureau of Highways: <i>[Signature]</i> 4-30-03		Phoenix - Nolan Joint Venture 4785 Dorsey Hall Drive Suite 124 Ellicott City, Maryland 21042 Phone: (410) 995-5651 Fax: (410) 995-1263		DES: P.S. DRN: M.R. CHK: Z.S. DATE: APR/03		SCALE AS SHOWN SHEET 27 OF 30	
SABRA WANG & ASSOCIATES, INC. 1504 JON AVENUE SUITE 100 BALTIMORE, MD 21287 410-757-8586 WWW.SABRAWANG.COM		600' SCALE MAP NO. _____ BLOCK NO. _____		DORSEY RUN ROAD SOUTH LINK SIGNING AND PAVEMENT MARKING PLAN CAPITAL PROJECT NO. J-4110		SCALE AS SHOWN SHEET 27 OF 30	



LIMIT OF WORK PHASE I
 STA 3+24.45 DORSEY RUN ROAD
 CAPITAL PROJECT J-4110

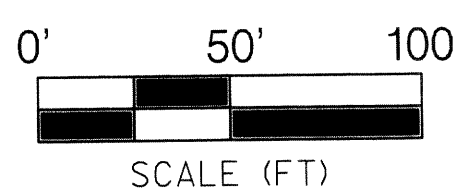


LIGHTING GENERAL NOTES

1. Lighting poles shown on plans for information only, to be installed by others.
2. Contractor shall install elbow end and/or cap as necessary to mark locations of underground conduit after installation.

LEGEND

- PROPOSED LIGHT POLE, MAST ARM, AND LUMINAIRE (TO BE INSTALLED BY OTHERS)
- PROPOSED 3" PVC



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS 9/4/02 DATE

CHIEF, BUREAU OF ENGINEERING 9/4/02 DATE

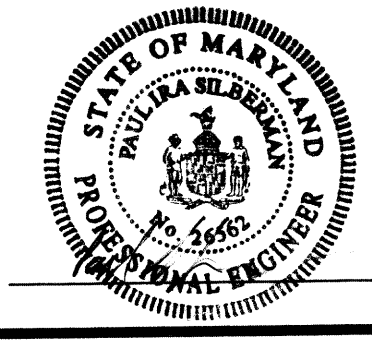
CHIEF, BUREAU OF HIGHWAYS 9-4-02 DATE

CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION

Phoenix - Nolan Joint Venture
 4785 Dorsey Hall Drive
 Suite 124
 Ellicott City, Maryland 21042

Phone: (410) 995-3651 Fax: (410) 995-1563

SABRA WANG & ASSOCIATES, INC.
 1506 JOHNS AVENUE
 SUITE 100
 BALTIMORE, MD 21207
 (410) 757-8564
 WWW.SABRA-WANG.COM



DES:	J. R. H.	E.M.P.	Added Taper Sta. 6+52.77 To Sta. 7+77.70	10-7-02
DRN:	D. R. B.			
CHK:				
DATE:	BY	NO.	REVISION	DATE
				600' SCALE MAP NO.
				BLOCK NO.

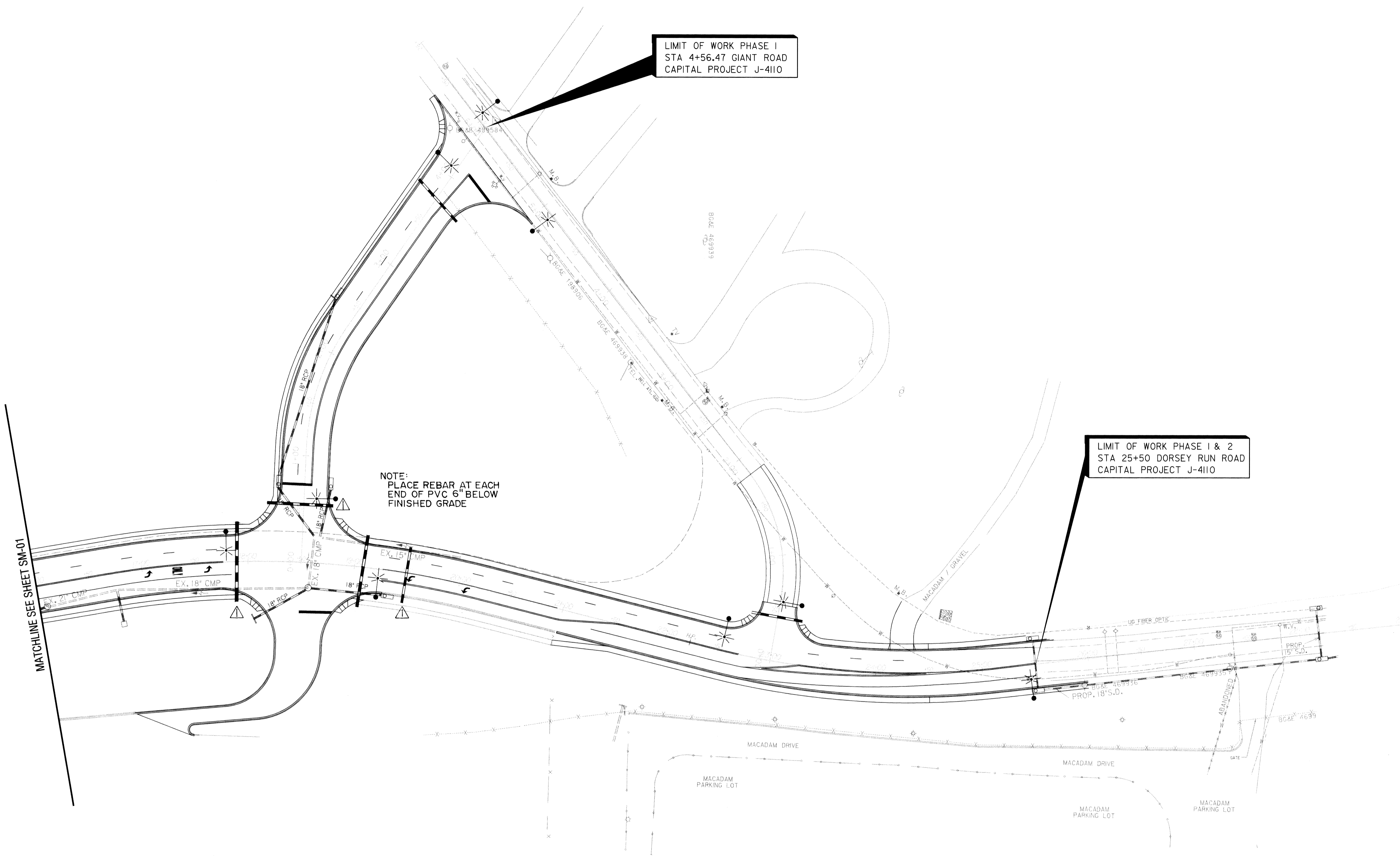
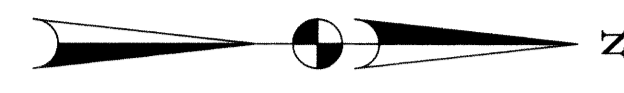
DORSEY RUN ROAD SOUTH LINK
LIGHTING PLAN

CAPITAL PROJECT NO. J-4110

LP-01

SCALE AS SHOWN

SHEET 28 OF 30



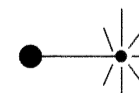

NOTE:
PLACE REBAR AT EACH
END OF PVC 6" BELOW
FINISHED GRADE

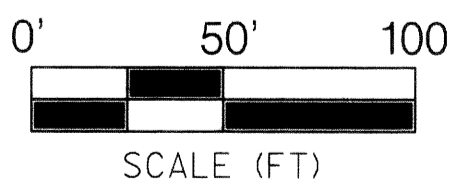
LIMIT OF WORK PHASE I
STA 4+56.47 GIANT ROAD
CAPITAL PROJECT J-4110



LIMIT OF WORK PHASE I & 2
STA 25+50 DORSEY RUN ROAD
CAPITAL PROJECT J-4110

MATCHLINE SEE SHEET SM-01

LEGEND

-  PROPOSED LIGHT POLE, MAST ARM, AND LUMINAIRE (TO BE INSTALLED BY OTHERS)
-  PROPOSED 3" PVC



<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> DIRECTOR OF PUBLIC WORKS</p> <p><i>[Signature]</i> 9/4/02 CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION</p>	<p>Phoenix - Nolan Joint Venture 4785 Dorsey Hall Drive Suite 124 Ellicott City, Maryland 21042 Phone: (410) 995-3651 Fax: (410) 995-1363</p> <p><i>[Logo]</i> SABRA WANG & ASSOCIATES, INC. 1506 JOB AVENUE SUITE 100 BALTIMORE, MD 21227 410.797.6564 WWW.SABRA-WANG.COM</p>		<p>DES: J. R. H. E.M.P.  ADDED 3" PVC SCHEDULE 80 10-9-02</p> <p>DRN: D. R. B.</p> <p>CHK:</p> <p>DATE:</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>BY</th> <th>NO.</th> <th>REVISION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	BY	NO.	REVISION	DATE					<p style="text-align: center;">DORSEY RUN ROAD SOUTH LINK LIGHTING PLAN</p> <p>CAPITAL PROJECT NO. J-4110</p>	<p>LP-02</p> <p>SCALE AS SHOWN</p> <p>SHEET 29 OF 30</p>
BY	NO.	REVISION	DATE											

