STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

State of New Jersey
Department of Transportation

PLANS OF

ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE

FROM EAST OF BLOY STREET TO WEST OF HARDING TERRACE

CONTRACT NO. 057009080

BRIDGE REPLACEMENT, PAVING, GRADING AND DRAINAGE

TOWNSHIP OF HILLSIDE **COUNTY OF UNION**

UTILITIES

NUI ELIZABETHTOWN GAS (GAS MAINS)
PUBLIC SERVICE ELECTRIC & GAS (POLE LINES, CONDUIT)
VERIZON OF NEW JERSEY, INC. (POLE LINES AND UNDERGROUND CONDUIT)
COMCAST
NEW JERSEY AMERICAN WATER (WATER MAINS)
HILLSIDE TOWNSHIP (SANITARY SEWER)
CONRAIL (RAILROAD) 24 HOUR EMERGENCY CONTACT 1-800-272-0911
SUNESYS (FIBER OPTIC)

BRIDGES IN THIS CONTRACT

(1) ROUTE 22 OVER LIBERTY AVE./CONRAIL, STRUCTURE NUMBER 2004-164
(2) ROUTE 22 OVER ACCESS ROAD, STRUCTURE NUMBER 2004-163

WALLS IN THIS CONTRACT

(1) RETAINING WALL NO. 1
(2) RETAINING WALL NO. 2
(3) RETAINING WALL NO. 3
(4) RETAINING WALL NO. 4
(5) RETAINING WALL NO. 5
(6) RETAINING WALL NO. 6
(7) RETAINING WALL NO. 7
(8) RETAINING WALL NO. 8

NOISE WALLS IN THIS CONTRACT

[A] NOISE BARRIER A - GROUND MOUNTED
[B] NOISE BARRIER B - PARAPET MOUNTED

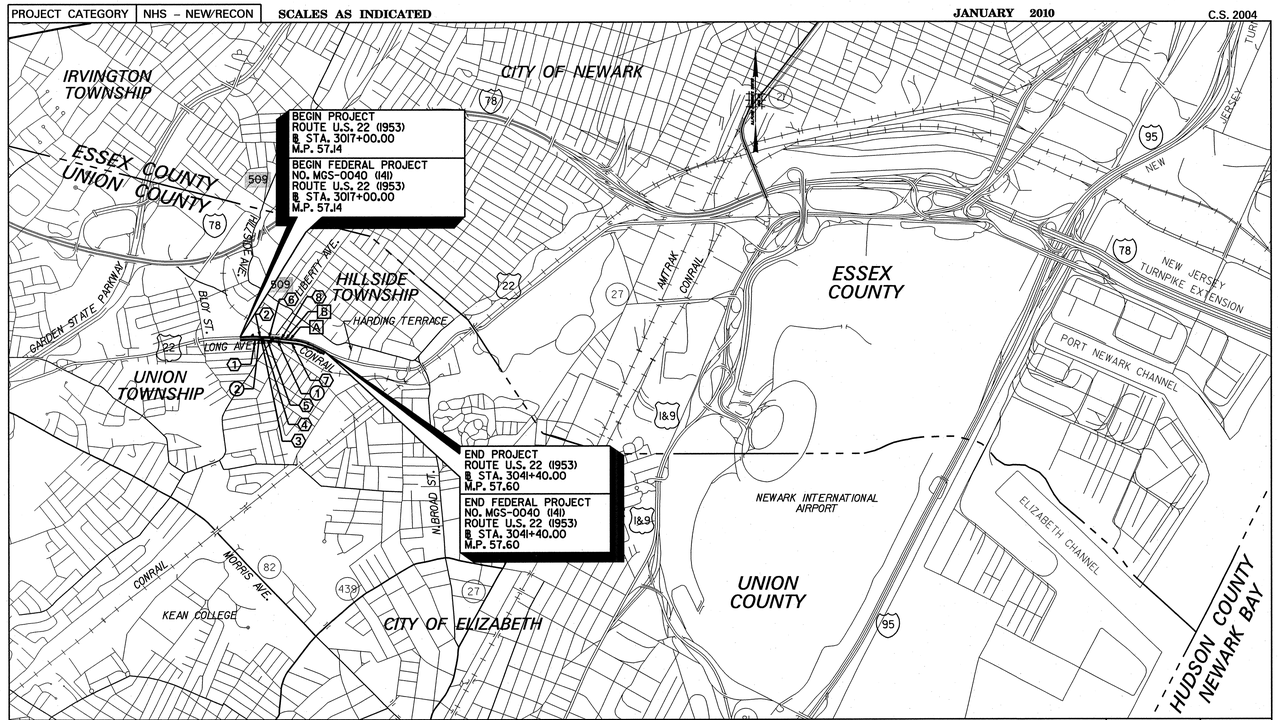
INDEX OF SHEETS

	SHEET NO.	DESCRIPTION
PART 1	1	KEY
	2 - 4	ESTIMATE - DISTRIBUTION OF QUANTITIES
	5 - 8	TYPICAL SECTIONS
	9	PLAN SHEET INDEX AND BORING LOCATION PLAN
	10 - 15	CONSTRUCTION PLANS
	16 - 22	ENVIRONMENTAL AND SOIL EROSION AND SEDIMENT CONTROL PLANS
	23 - 26	DRAINAGE PLANS
	27 - 29	UTILITY RELOCATION PLANS
	30 - 32	PROFILES
	33 - 34	TIES
	35 - 38	GRADES
	39 - 40	TRAFFIC CONTROL DETAILS
	41 - 59	TRAFFIC CONTROL AND STAGING PLANS
	60 - 63	HIGHWAY LIGHTING PLAN
	64 - 73	ITS PLANS
	74 - 75	TRAFFIC SIGNING AND STRIPING PLANS
	76 - 80	LANDSCAPE PLANS
	81	METHOD OF CROSS SECTIONS
	82 - 97	CROSS SECTIONS
	98 - 107	CONSTRUCTION DETAILS
PART 2	108 - 235	BRIDGE PLANS

STANDARD ROADWAY CONSTRUCTION/TRAFFIC CONTROL/BRIDGE CONSTRUCTION DETAILS BOOKLET, 2007 AND STANDARD ELECTRICAL DETAILS BOOKLET, 2007 ARE APPLICABLE TO THIS PROJECT EXCEPT FOR THOSE DETAILS CONTAINED HEREIN.

PROJECT CATEGORY	NHS - NEW/RECON

SCALES AS INDICATED **JANUARY 2010** C.S. 2004



TYPE OF HIGHWAY - D.P. (ROUTE 22) | ROW SECTION RT 22-14

SCALE IN FEET
2000' 1000' 0 2000' 4000'

MID-POINT OF PROJECT
LONGITUDE: 74° 13' 50" W
LATITUDE: 40 °41' 57" N

PART 1 OF 2

DESIGN TRAFFIC DATA

ROUTE U.S. 22

A.D.T. 2010 2 WAY	=	66990 VPD
A.D.T. 2030 2 WAY	=	70420 VPD
D.H.V. 2030 2 WAY	=	6340 VPD
D	=	57%
T	=	10%
V DESIGN SPEED	=	50 MPH
POSTED SPEED	=	45 MPH

"CHANGES MADE TO THESE PLANS SINCE SIGNATURE BY THE CONSULTANT MAY BE DETERMINED BY COMPARISON OF THE PLANS FILED AT THE DEPARTMENT WITH THOSE FILED AT THE OFFICE OF THE CONSULTANT."

PB AMERICAS, INC.

CERTIFICATE OF AUTHORIZATION NO. 24GA28029800

JOSEPH MUMBER

NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE02593700

PARSONS BRINCKERHOFF CADD DATA

OPERATOR	runk	QUEUE	$$$$QUEUE$$$$
PLOT DATE	01-DEC-2009 09:30		
PENTABLE	pentable=keysht.tbl		
DESIGN FILE	T:\0040\Ks.dgn		

KEY MAP

LENGTH OF PROJECT ROUTE U.S. 22 = 2,440 LIN. FT. OR 0.462 MILES
TOTAL LENGTH OF PROJECT = 2,440 LIN. FT. OR 0.462 MILES

TOTAL LENGTH OF FEDERAL PROJECT NO. MGS-0040 (141) = 2,440 LIN. FT. OR 0.462 MILES

2007 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION TO GOVERN

Submitted by _____ Date _____
Director, Division of Project Management

Approved by _____ Date _____
State Transportation Engineer

STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

SEQ. NO.	ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEET TOTALS	IF AND WHERE DIRECTED	AS - BUILT QUANTITY	DISTRIBUTION: PLAN SHEET QUANTITY																					
1	151003M	PERFORMANCE BOND AND PAYMENT BOND	L.S.	L.S.		L.S.																							
2	152003P	OWNER'S AND CONTRACTOR'S PROTECTIVE LIABILITY INSURANCE	L.S.	L.S.		L.S.																							
3	152006P	RAILROAD PROTECTIVE LIABILITY INSURANCE	L.S.	L.S.		L.S.																							
4	152009P	POLLUTION LIABILITY INSURANCE	L.S.	L.S.		L.S.																							
5	153003P	PROGRESS SCHEDULE	L.S.	L.S.		L.S.																							
6	153006P	PROGRESS SCHEDULE UPDATE	UNIT	18		18																							
7	153012P	TRAINEES	HOUR	7,760		7,760																							
8	154003P	MOBILIZATION	L.S.	L.S.		L.S.																							
9	155012M	FIELD OFFICE TYPE D SET UP	UNIT	1		1																							
10	155030M	FIELD OFFICE TYPE D MAINTENANCE	MO.	38		38																							
11	155039M	TELEPHONE SERVICE	L.S.	L.S.		L.S.																							
12	156003M	MATERIALS FIELD LABORATORY SET-UP	UNIT	1		1																							
13	156006M	MATERIALS FIELD LABORATORY MAINTENANCE	MO.	36		36																							
14	156009M	CURING FACILITY SET-UP	UNIT	1		1																							
15	156012M	CURING FACILTIY MAINTENANCE	MO.	36		36																							
16	156015M	NUCLEAR DENSITY GUAGE	UNIT	1		1																							
17	157003M	CONSTRUCTION LAYOUT	L.S.	L.S.		L.S.																							
18	157006M	MONUMENT	UNIT	7	7			C-3 2	C-4 2	C-5 3																			
19	157009M	MONUMENT BOX	UNIT	4	4			C-3 1	C-4 2	C-5 1																			
20	158003M	CAUTION FENCE	L.F.	2,400		2,400																							
21	158009M	HEAVY-DUTY SILT FENCE, ORANGE	L.F.	2,900	2,364	536		EP-4 748	EP-5 555	EP-6 1,061																			
22	158030M	INLET FILTER TYPE 2, 2' X 4'	UNIT	32	32			EP-4 7	EP-5 3	EP-6 16	EP-7 6																		
23	158033M	INLET FILTER TYPE 2, 4' X 4'	UNIT	26	26			EP-4 12	EP-5 1	EP-6 10	EP-7 3																		
24	158060M	CONSTRUCTION DRIVEWAY	TON	62		62																							
25	158063P	CONCRETE WASHOUT SYSTEM	L.S.	L.S.		L.S.																							
26	158072M	OIL ONLY EMERGENCY SPILL KIT, TYPE I	UNIT	2		2																							
27	158084M	EROSION CONTROL SEDIMENT REMOVAL	C.Y.	662		662																							
28	159003M	BREAKAWAY BARRICADE	UNIT	28		28																							
29	159006M	DRUM	UNIT	78		78																							
30	159009M	TRAFFIC CONE	UNIT	30		30																							
31	159012M	CONSTRUCTION SIGNS	S.F.	1,189		1,189																							
32	159015M	CONSTRUCTION IDENTIFICATION SIGN, 4' X 8'	UNIT	2		2																							
33	159021P	CONSTRUCTION BARRIER CURB	L.F.	5,860		5,860																							
34	159027M	FLASHING ARROW BOARD, 4' X 8'	UNIT	2		2																							
35	159030M	PORTABLE VARIABLE MESSAGE SIGN	UNIT	3		3																							
36	159032M	PORTABLE TRAILER MOUNTED CCTV CAMERA ASSEMBLY	UNIT	4		4																							
37	159045M	TEMPORARY CRASH CUSHION, INERTIAL BARRIER SYSTEM, II MODULES	UNIT	2		2																							
38	159063M	TEMPORARY CRASH CUSHION, QUADGUARD 3 BAYS X 24" WIDE	UNIT	6		6																							
39	159108M	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	4		4																							
40	159114M	REMOVABLE BLACK LINE MASKING TAPE, 6"	L.F.	8,000		8,000																							
41	159120M	TEMPORARY PAVEMENT MARKING TAPE, 4"	L.F.	6,230		6,230																							
42	159126M	TEMPORARY TRAFFIC STRIPES, 4"	L.F.	62,300		62,300																							
43	159138M	HMA PATCH	TON	40		40																							
44	159141M	TRAFFIC DIRECTOR, FLAGGER	HOUR	500		500																							
45	159144M	EMERGENCY TOWING SERVICE	UNIT	50		50																							
46	160003M	FUEL PRICE ADJUSTMENT	L.S.	L.S.		L.S.																							
47	160006M	ASPHALT PRICE ADJUSTMENT	L.S.	L.S.		L.S.																							
48	161003P	FINAL CLEANUP	L.S.	L.S.		L.S.																							
49	201003P	CLEARING SITE	L.S.	L.S.		L.S.																							
50	201033M	DEMOLITION (1), PARCEL (19)	UNIT	1	1			C-4 1																					
51	202006M	EXCAVATION, TEST PIT	C.Y.	50		50																							
52	202009P	EXCAVATION, UNCLASSIFIED	C.Y.	5,792	5,792			C-4 92	UR-2 30	TC-6 87	X-16 5,583																		
53	202021P	REMOVAL OF PAVEMENT	S.Y.	15,425	15,425			C-2 85	C-3 4,540	C-4 3,149	C-5 6,796	C-6 247	TC-2 228	TC-3 203	TC-4 177														
54	203009P	I-9 SOIL AGGREGATE	C.Y.	1,750	1,750			X-16 1,750																					
55	203021P	I-14 SOIL AGGREGATE	C.Y.	4,471	4,471			X-16 4,471																					
56	203050M	CONTROLLED LOW STRENGTH MATERIAL	C.Y.	16		16																							
57	301006P	SUBBASE	C.Y.	4,474	4,474			C-3 1,329	C-4 1,116	C-5 2,012	C-6 17																		
58	302036P	DENSE-GRADED AGGREGATE BASE COURSE, 6" THICK	S.Y.	447	447			C-5 238	C-6 209																				
59	302042P	DENSE-GRADED AGGREGATE BASE COURSE, 8" THICK	S.Y.	14,571	14,571			C-3 4,707	C-4 2,675	C-5 7,133	C-6 56																		
60	401009P	HMA MILLING, 3" OR LESS	S.Y.	2,566	2,566			C-3 320	C-4 1,049	C-5 800	C-6 397																		
61	401012P	HMA MILLING, MORE THAN 3" TO 6"	S.Y.	1,979	1,979			C-5 967	C-6 1,012																				
62	401027M	POLYMERIZED JOINT ADHESIVE	L.F.	8,420		8,420																							
63	401030M	TACK COAT	GAL	9,800		9,800																							
64	401036M	PRIME COAT	GAL	4,000		4,000																							
65	401038P	STEEL REINFORCEMENT MESH WITH SLURRY WALL	S.Y.	1,979	1,979			C-5 967	C-6 1,012																				
66	401063M	HOT MIX ASPHALT 12.5H76 SURFACE COURSE	TON	2,950	2,678	272		C-2 10	C-3 612	C-4 409	C-5 989	C-6 172	TC-2 53	TC-3 48	TC-4 41	TC-6 37	TC-10 100	TC-13 207											
67	401093M	HOT MIX ASPHALT 19H76 INTERMEDIATE COURSE	TON	4,140	3,760	380		C-3 1,004	C-4 429	C-5 1,980	C-6 347																		
68	401099M	HOT MIX ASPHALT 25M64 BASE COURSE	TON	6,650	6,042	608		C-2 20	C-3 1,558	C-4 884	C-5 2,892	C-6 176	TC-2 105	TC-3 140	TC-4 122	TC-6 145												
69	401108M	CORE SAMPLES, HOT MIX ASPHALT	UNIT	23		23																							
70	405003P	UNDERLAYER PREPARATION	S.Y.	582	582			C-4 582																					
71	405021M	EXPANSION JOINT ASSEMBLY	UNIT	4	4			C-4 4																					
72	405030P	CONCRETE SURFACE COURSE, REINFORCED, 18" THICK	S.Y.	582	582			C-4 582																					
73	601128P	24" REINFORCED CONCRETE PIPE	L.F.	7	7			D-3 7																					
74	601640P	29" X 45" REINFORCED CONCRETE ELLIPTICAL PIPE, CLSS HE-IV	L.F.	60	60			D-4 60																					
		BEGIN ALTERNATE GROUP ITEMS																											
		ALTERNATE GROUP C - CONCRETE PIPE																											
75	601122P	15" REINFORCED CONCRETE PIPE	L.F.	1,660	1,660			D-1 315	D-2 91	D-3 1,125	D-4 129																		
76	601124P	18" REINFORCED CONCRETE PIPE	L.F.	470	470			D-1 175	D-3 226	D-4 69																			
77	601132P	30" REINFORCED CONCRETE PIPE	L.F.	275	275			D-3 226	D-4 49																				
78	601138P	48" REINFORCED CONCRETE PIPE	L.F.	479	479			D-1 72	D-2 32	D-3 375																			
79	601140P	54" REINFORCED CONCRETE PIPE	L.F.	785	785			D-1 604	D-3 181																				
		ALTERNATE GROUP M - METAL PIPE																											
80	601014P	15" CORRUGATED ALUMINUM ALLOY PIPE	L.F.	1,660	1,660			D-1 315	D-2 91	D-3 1,125	D-4 129																		
81	601016P	18" CORRUGATED ALUMINUM ALLOY PIPE	L.F.	196	196			D-1 175	D-4 21																				
82	601020P	24" CORRUGATED ALUMINUM ALLOY PIPE	L.F.	274	274			D-3 226	D-4 48																				
83	601024P	30" CORRUGATED ALUMINUM ALLOY PIPE	L.F.	275	275			D-3 226	D-4 49																				
84	601032P	48" CORRUGATED ALUMINUM ALLOY PIPE	L.F.	479	479			D-1 72	D-2 32	D-3 375																			
85	601034P	54" CORRUGATED ALUMINUM ALLOY PIPE	L.F.	785	785			D-1 604	D-3 181																				
		END ALTERNATE GROUP ITEMS																											

PARSONS BRINCKERHOFF CADD DATA
OPERATOR brelsford
PLOT DATE 18-DEC-2009
PENTABLE etx.tbl
DESIGN FILE T:\00404\ed01.dgn
QUEUE \\Pr1plot1\Qce_P1
13:14

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ESTIMATE-DISTRIBUTION OF QUANTITIES

PROJECT : ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03811900

EDQ-1 / EDQ-3

2

STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

SEQ. NO.	ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEET TOTALS	IF AND WHERE DIRECTED	AS - BUILT QUANTITY	DISTRIBUTION: PLAN SHEET QUANTITY																									
86	602009M	INLET, TYPE A	UNIT	1	1			D-2	1																								
87	602012M	INLET, TYPE B	UNIT	11	9	2		D-1	1	D-2	1	D-3	5	D-4	2																		
88	602018M	INLET, TYPE E	UNIT	8	6	2		D-1	1	D-3	3	D-4	2																				
89	602019M	INLET, TYPE DOUBLE E	UNIT	1	1			D-1	1																								
90	602024M	INLET, TYPE B-1	UNIT	3	3			D-3	3																								
91	602030M	INLET, TYPE D-1	UNIT	15	15			D-1	6	D-2	1	D-3	7	D-4	1																		
92	602035M	INLET, TYPE D2Y2	UNIT	1	1			D-4	1																								
93	602036M	INLET, TYPE E-1	UNIT	1	1			D-3	1																								
94	602040M	INLET, TYPE E-3	UNIT	3	3			D-1	2	D-2	1																						
95	602041M	INLET, TYPE E-5	UNIT	4	4			D-1	1	D-3	3																						
96	602047M	INLET, TYPE BIR	UNIT	1	1			D-3	1																								
97	602053M	MANHOLE, TYPE MH-1	UNIT	1	1			D-4	1																								
98	602099M	RESET EXISTING CASTING	UNIT	4	4			TC-13	4																								
99	602101M	INLET, TYPE B2Y	UNIT	1	1			D-4	1																								
100	602102M	SET INLET TYPE A, CASTING	UNIT	18	18			TC-3	1	TC-6	2	TC-7	1	TC-8	4	TC-9	3	TC-10	7														
101	602216M	CLEANING DRAINAGE STRUCTURE	UNIT	4		4																											
102	602220M	TRENCH DRAIN	L.F.	105	105			D-1	60	D-4	45																						
103	602229M	MANUFACTURED TREATMENT DEVICE I	UNIT	1	1			D-1	1																								
104	602229M	MANUFACTURED TREATMENT DEVICE II	UNIT	1	1			D-3	1																								
105	602245M	INLET, TYPE E3W	UNIT	3	3			D-1	3																								
106	602246M	INLET, TYPE E3X	UNIT	1	1			D-4	1																								
107	602250M	INLET, TYPE E-4	UNIT	2	2			D-1	2																								
108	602260M	INLET, TYPE E4W	UNIT	2	2			D-1	1	D-3	1																						
109	602266M	INLET, TYPE E5W	UNIT	2	2			D-3	2																								
110	605045P	CHAIN-LINK FENCE, 6' HIGH	L.F.	328	328			C-4	308	C-5	20																						
111	605144M	GATE, CHAIN-LINK FENCE, 8' WIDE	UNIT	2	2			C-4	2																								
112	605183P	TEMPORARY CHAIN-LINK FENCE, 6' HIGH	L.F.	505		505																											
113	605212P	RESET FENCE	L.F.	302	302			C-5	302																								
114	605213P	RESET FENCE, BARRIER CURB MOUNTED	L.F.	1,500	1,500			C-2	380	C-3	900	C-4	220																				
115	605230P	PRIVACY SLATS	S.Y.	337		337																											
116	606003P	HOT MIX ASPHALT SIDEWALK, 2" THICK	S.Y.	268		268																											
117	606012P	CONCRETE SIDEWALK, 4" THICK	S.Y.	2,564	2,564			C-3	481	C-4	1,002	C-5	1,071	C-6	6	HL-2	2	ITS-2	2														
118	606018P	CONCRETE SIDEWALK, 6" THICK	S.Y.	18	18			C-4	18																								
119	606039P	HOT MIX ASPHALT DRIVEWAY, 6" THICK	S.Y.	832	832			C-3	356	C-4	267	C-5	40	C-6	169																		
120	606075P	CONCRETE ISLAND, 4" THICK	S.Y.	2	2			C-6	2																								
121	606084P	DETECTABLE WARNING SURFACE	S.Y.	4	4			C-3	2	C-5	2																						
122	607012P	24" X 41" CONCRETE BARRIER CURB	L.F.	1,414	1,414			C-3	492	C-4	197	C-5	725																				
123	607018P	9" X 16" CONCRETE VERTICAL CURB	L.F.	4,749	4,749			C-3	1,098	C-4	1,196	C-5	1,926	C-6	529																		
124	607021P	9" X 18" CONCRETE VERTICAL CURB	L.F.	514	514			C-4	360	C-5	42	C-6	112																				
125	607066P	24" X VARIABLE HEIGHT CONCRETE BARRIER CURB, DOWELLED	L.F.	1,145	1,145			C-2	380	C-3	400	C-5	175	C-6	190																		
126	607073P	VARIABLE WIDTH X 41" CONCRETE BARRIER CURB	L.F.	50	50			C-3	8	C-4	42																						
127	607076P	BELGIAN BLOCK CURB	L.F.	226	226			C-4	226																								
128	608003P	NONVEGETATIVE SURFACE, HOT MIX ASPHALT	S.Y.	1,160	1,160			C-3	52	C-4	1,108																						
129	609003M	BEAM GUIDE RAIL	L.F.	1,700	1,700			C-3	447	C-4	543	C-5	710																				
130	609021M	RUB RAIL	L.F.	1,331	1,331			C-3	332	C-4	289	C-5	710																				
131	609027M	TANGENT GUIDE RAIL TERMINAL	UNIT	2	2			C-3	1	C-5	1																						
132	609039M	BEAM GUIDE RAIL ANCHORAGE	UNIT	5	5			C-3	2	C-4	3																						
133	609054M	BEAM GUIDE RAIL ELEMENT	L.F.	1,287	1,287			C-3	288	C-4	289	C-5	710																				
134	610003M	TRAFFIC STRIPES, LONG LIFE, EPOXY RESIN 4"	L.F.	16,000		16,000																											
135	610009M	TRAFFIC MARKINGS, THERMOPLASTIC	S.F.	2,835		2,835																											
136	610012M	RPM, MONO-DIRECTIONAL, WHITE LENS	UNIT	90		90																											
137	610018M	RPM, MONO-DIRECTIONAL, AMBER LENS	UNIT	90		90																											
138	610036M	REMOVAL OF TRAFFIC STRIPES	L.F.	6,230		6,230																											
139	610039M	REMOVAL OF TRAFFIC MARKINGS	S.F.	815		815																											
140	611060M	CRASH CUSHIONS, QUADGUARD, 1 BAY, 24" WIDE	UNIT	3	3			C-4	3																								
141	612003P	REGULATORY AND WARNING SIGN	S.F.	73		73																											
142	652004P	8" DUCTILE IRON SEWER PIPE	L.F.	173	173			UR-2	173																								
143	652420M	MANHOLE, SANITARY SEWER	UNIT	2	2			UR-2	2																								
144	652421M	MANHOLE, DOGHOUSE, SANITARY SEWER, 4' DIAMETER	UNIT	2	2			UR-2	2																								
145	701012P	1 1/2" RIGID METALLIC CONDUIT	L.F.	270	270			HL-2	10	HL-3	260																						
146	701015P	2" RIGID METALLIC CONDUIT	L.F.	502	502			HL-2	170	ITS-2	332																						
147	701021P	3" RIGID METALLIC CONDUIT	L.F.	850	850			HL-2	170	ITS-2	680																						
148	701033P	4" RIGID NONMETALLIC CONDUIT	L.F.	440	440			UR-2	440																								
149	701051P	3 - 1 1/4" FLEXIBLE NONMETALLIC CONDUIT	L.F.	1,650	1,650			ITS-1	150	ITS-2	690	ITS-3	810																				
150	701102M	18" X 36" JUNCTION BOX	UNIT	3	3			HL-2	2	HL-3	1																						
151	701105M	8" X 8" X 6" METAL JUNCTION BOX	UNIT	6	6			HL-2	1	HL-3	5																						
152	701153M	FOUNDATION, TYPE IM	UNIT	1	1			ITS-2	1																								
153	701159M	FOUNDATION, TYPE IM-MC	UNIT	1	1			HL-2	1																								
154	701174M	METER CABINET, TYPE IM	UNIT	1	1			ITS-2	1																								
155	701177M	METER CABINET, TYPE IM-MC	UNIT	1	1			HL-2	1																								
156	701192P	GROUND WIRE, NO. 8 AWG	L.F.	1,780	1,780			HL-2	730	HL-3	1,050																						
157	701195P	MULTIPLE LIGHTING WIRE, NO. 2 AWG	L.F.	4,040	4,040			HL-2	2,050	HL-3	1,990																						
158	701204P	MULTIPLE LIGHTING WIRE, NO. 10 AWG	L.F.	940	940			HL-2	90	HL-3	850																						
159	701210P	SERVICE WIRE, NO. 2 AWG	L.F.	170	170			HL-2	170																								
160	701216P	SERVICE WIRE, NO. 8 AWG	L.F.	225	225			ITS-2	225																								
161	703003M	LIGHTING STANDARD, ALUMINUM	UNIT	7	7			HL-2	2	HL-3	5																						
162	703012M	LIGHTING MAST ARM, ALUMINUM	UNIT	7	7			HL-2	2	HL-3	5																						
163	703018M	LUMINAIRE	UNIT	7	7			HL-2	2	HL-3	5																						
164	703024M	UNDERDECK LIGHTING, TYPE W	UNIT	6	6			HL-2	1	HL-3	5																						
165	703033P	TEMPORARY HIGHWAY LIGHTING SYSTEM	L.S.	L.S.		L.S.																											
166	704003M	JUNCTION BOX ITS TYPE A	UNIT	7	7			ITS-1	1	ITS-2	5	ITS-3	1																				
167	704033P	CONTROL CENTER SYSTEM, LOCATION-NORTH	L.S.	L.S.		L.S.																											
168	704039M	FOUNDATION CSS TYPE B	UNIT	1	1			ITS-2	1																								
169	704051M	CAMERA STANDARD TYPE B	UNIT	1	1			ITS-2	1																								
170	704060M	CAMERA	UNIT	1	1			ITS-2	1																								
171	704063M	CONTROLLER, CAMERA	UNIT	1	1			ITS-2	1																								
172	804006P	TOPSOILING, 4" THICK	S.Y.	3,419	3,419			C-4	845	C-6	29	X-16	2,545																				
173	804015P	BORROW TOPSOIL	C.Y.	380	380			X-16	380																								
174	806006P	FERTILIZING AND SEEDING, TYPE A-3	S.Y.	3,419	3,419			C-4	845	C-6	29	X-16	2,545																				
175	806018P	FERTILIZING AND SEEDING, TYPE F	S.Y.	342		342																											
176	807003M	TOPOSOIL STABILIZATION, TYPE 1MAT	S.Y.	100		100																											
177	809003M	STRAW MULCHING	S.Y.	3,761	3,419	342		C-4	845	C-6	29	X-16	2,545																				
178	809015M	SHREDDED HARDWOOD BARK MULCHING	S.Y.	616	616			L-4	616																								

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NEW JERSEY DEPARTMENT OF TRANSPORTATION

ESTIMATE-DISTRIBUTION OF QUANTITIES

PROJECT : ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03811900

EDQ-2 / EDQ-3

3

STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

SEQ. NO.	ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEET TOTALS	IF AND WHERE DIRECTED	AS - BUILT QUANTITY	DISTRIBUTION: PLAN SHEET QUANTITY					
179	809018M	WOOD MULCHING	S.Y.	177		177							
180	810003M	MOWING	ACRE	2		2							
181	811006M	LARGE DECIDUOUS TREE, 2 - 2 1/2" CALIPER, B&B	UNIT	20	20			L-3	1	L-4	19		
182	811024M	SMALL DECIDUOUS TREE, 2 - 2 1/2" CALIPER, B&B	UNIT	25	25			L-4	25				
183	811036M	EVERGREEN TREE, 8 - 9' HIGH, B&B	UNIT	12	12			L-4	12				
184	811057M	DECIDUOUS SHRUB, 3 - 4' HIGH, B&B	UNIT	72	72			L-3	72				
185	811099M	GROUND COVER OR VINE, #1 CONTAINER	UNIT	73	73			L-2	24	L-3	23	L-4	26
186	811138M	PLANT ESTABLISHMENT PERIOD	L.S.	L.S.		L.S.							

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ESTIMATE-DISTRIBUTION OF QUANTITIES

PROJECT : ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATE OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03811900

EDQ-3 / EDQ-3

4

PARSONS BRINCKERHOFF CADD DATA

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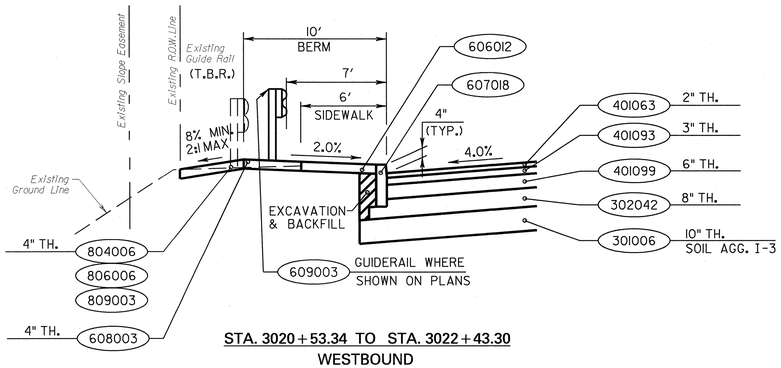
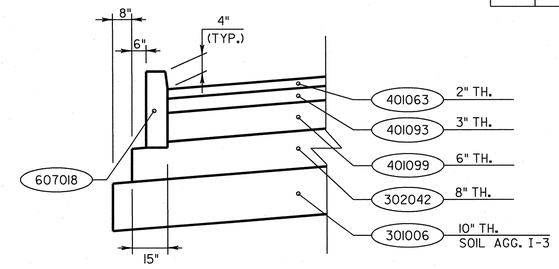
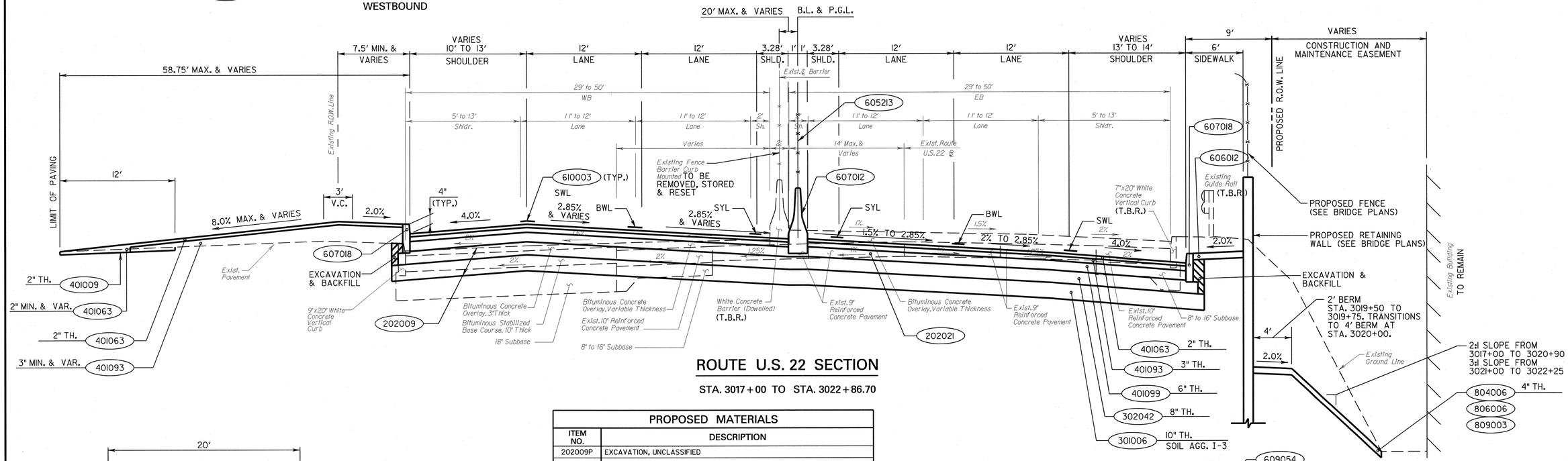
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)



STA. 3020+53.34 TO STA. 3022+43.30
WESTBOUND



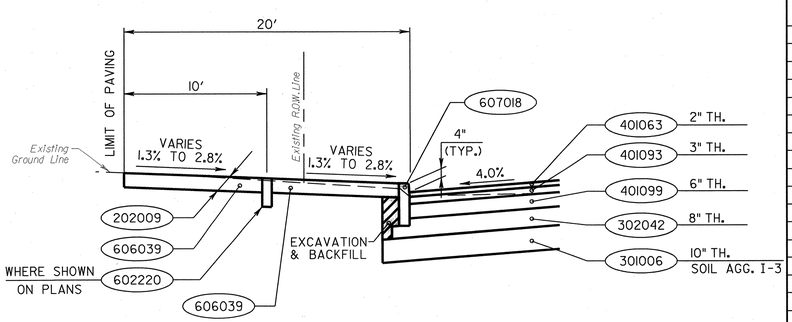
TYPICAL CURB DETAIL
N.T.S.



ROUTE U.S. 22 SECTION

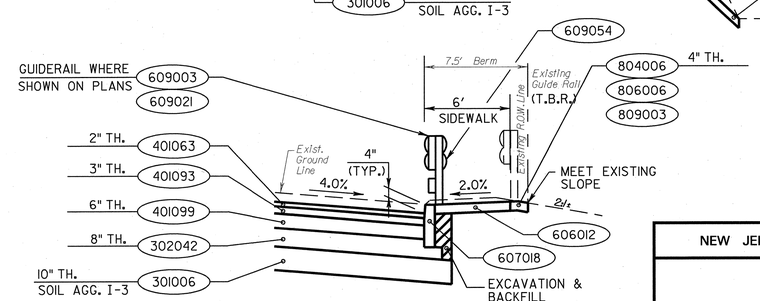
STA. 3017+00 TO STA. 3022+86.70

PROPOSED MATERIALS	
ITEM NO.	DESCRIPTION
202009P	EXCAVATION, UNCLASSIFIED
202021P	REMOVAL OF PAVEMENT
301006P	SUBBASE
302042P	DENSE-GRADED AGGREGATE BASE COURSE, 8" THICK
401009P	HMA MILLING, 3" OR LESS
401063M	HOT MIX ASPHALT I2.5H76 SURFACE COURSE
401093M	HOT MIX ASPHALT I9H76 INTERMEDIATE COURSE
401099M	HOT MIX ASPHALT 25M64 BASE COURSE
602220M	TRENCH DRAIN
605213P	RESET FENCE, BARRIER CURB MOUNTED
606012P	CONCRETE SIDEWALK, 4" THICK
606039P	HOT MIX ASPHALT DRIVEWAY, 6" THICK
607012P	24" X 41" CONCRETE BARRIER CURB
607018P	9" X 16" CONCRETE VERTICAL CURB
608003P	NONVEGETATIVE SURFACE, HOT MIX ASPHALT
609003M	BEAM GUIDE RAIL
609021M	RUB RAIL
609054M	BEAM GUIDE RAIL ELEMENT
610003M	TRAFFIC STRIPES, LONG LIFE, EPOXY RESIN 4"
804006P	TOPSOILING, 4" THICK
806006P	FERTILIZING AND SEEDING, TYPE A-3
809003M	STRAW MULCHING



STA. 3017+00 TO STA. 3018+50
WESTBOUND

NOTE:
SEE GRADING PLANS FOR PROPOSED PAVEMENT ELEVATIONS IN VICINITY OF TRENCH DRAIN.



STA. 3017+00 TO STA. 3019+50
EASTBOUND

VERT. SCALE IN FEET 2.5' 0 2.5' 5'
HORIZ. SCALE IN FEET 5' 0 5' 10'

TS-1 / TS-4

NEW JERSEY DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

ROUTE 22 LIBERTY AVENUE
& CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

5

PARSONS BRINCKERHOFF CADD DATA

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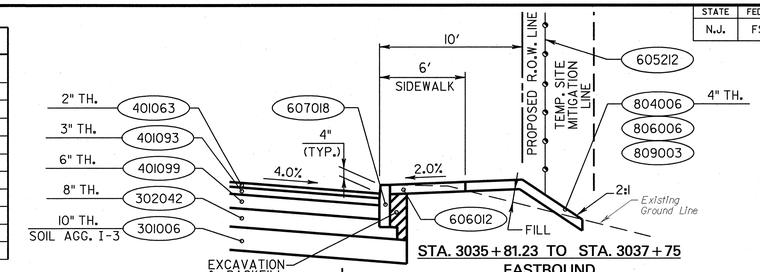
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

PROPOSED MATERIALS

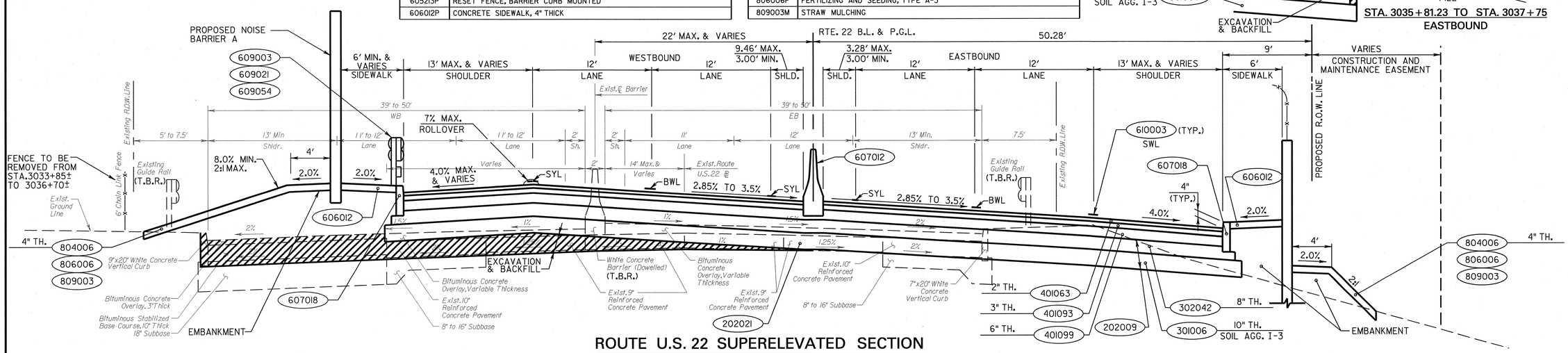
ITEM NO.	DESCRIPTION
202009P	EXCAVATION, UNCLASSIFIED
202021P	REMOVAL OF PAVEMENT
301006P	SUBBASE
302042P	DENSE-GRADED AGGREGATE BASE COURSE, 8" THICK
401063M	HOT MIX ASPHALT 12.5H76 SURFACE COURSE
401093M	HOT MIX ASPHALT 19H76 INTERMEDIATE COURSE
401099M	HOT MIX ASPHALT 25M64 BASE COURSE
605212P	RESET FENCE
605213P	RESET FENCE, BARRIER CURB MOUNTED
606012P	CONCRETE SIDEWALK, 4" THICK

PROPOSED MATERIALS

ITEM NO.	DESCRIPTION
606039P	HOT MIX ASPHALT DRIVEWAY, 6" THICK
607012P	24" X 41" CONCRETE BARRIER CURB
607018P	9" X 16" CONCRETE VERTICAL CURB
609003M	BEAM GUIDE RAIL
609021M	RUB RAIL
609054M	BEAM GUIDE RAIL ELEMENT
610003M	TRAFFIC STRIPES, LONG LIFE, EPOXY RESIN 4"
804006P	TOPSOILING, 4" THICK
806006P	FERTILIZING AND SEEDING, TYPE A-3
809003M	STRAW MULCHING

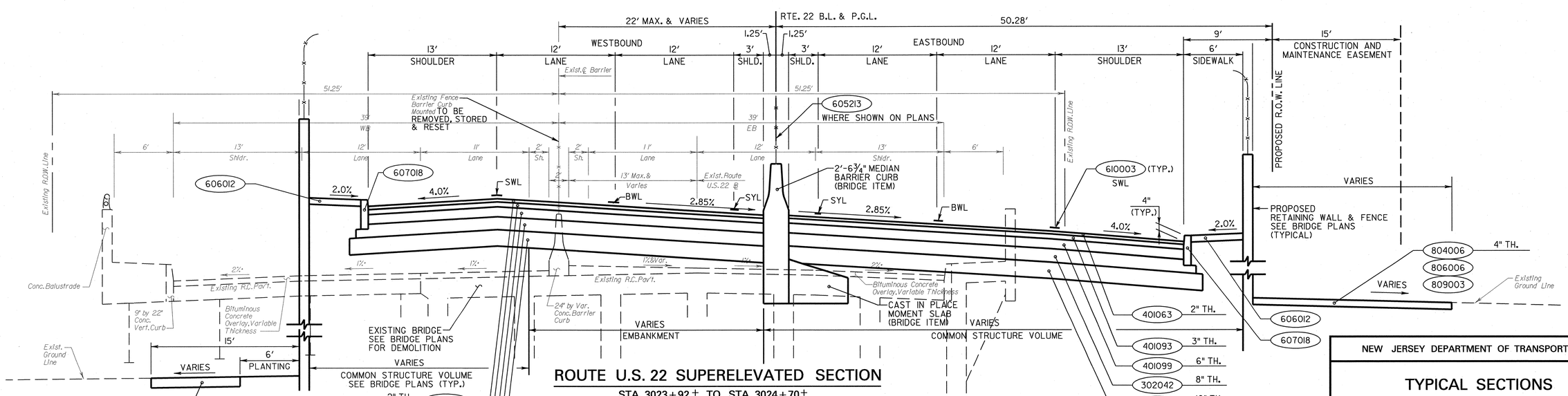


STA. 3035+81.23 TO STA. 3037+75
EASTBOUND



ROUTE U.S. 22 SUPERELEVATED SECTION

STA. 3029+50 ± TO STA. 3037+75



ROUTE U.S. 22 SUPERELEVATED SECTION

STA. 3023+92 ± TO STA. 3024+70 ±

VERT. SCALE IN FEET 2.5' 0 2.5' 5'

HORIZ. SCALE IN FEET 5' 0 5' 10'

TS-2 TS-4

NEW JERSEY DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

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PARSONS BRINCKERHOFF CADD DATA

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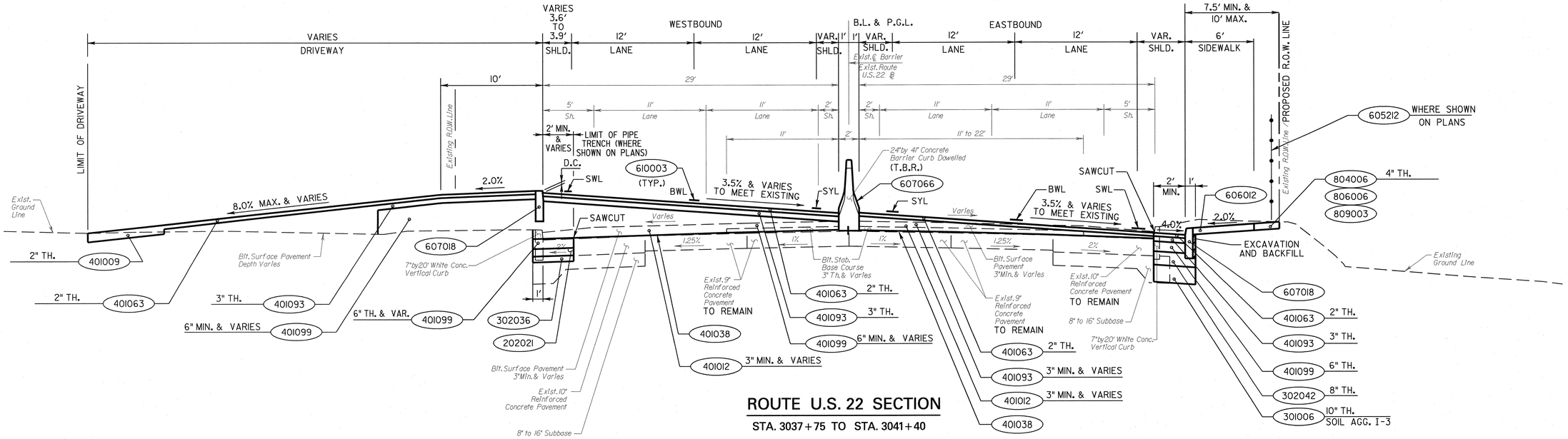
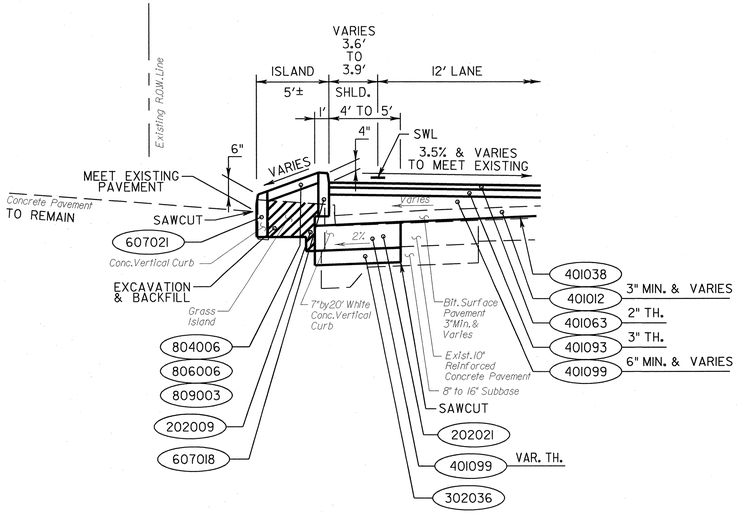
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)



ROUTE U.S. 22 SECTION

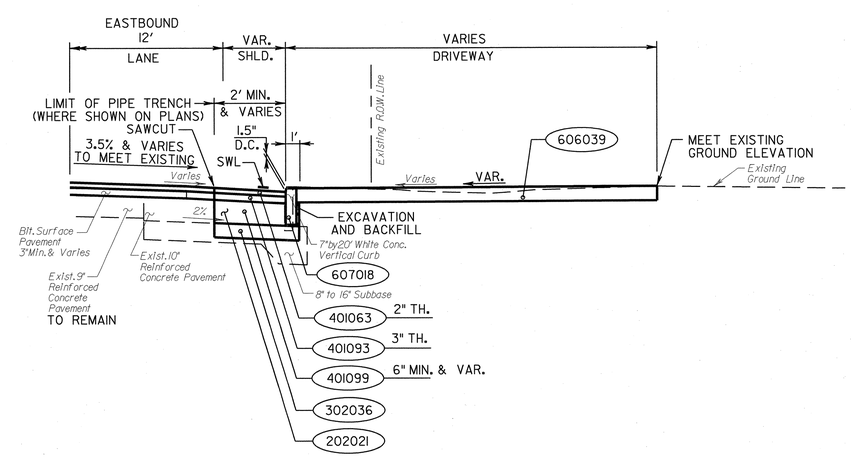
STA. 3037+75 TO STA. 3041+40

PROPOSED MATERIALS	
ITEM NO.	DESCRIPTION
202009P	EXCAVATION, UNCLASSIFIED
202021P	REMOVAL OF PAVEMENT
301006P	SUBBASE
302036P	DENSE-GRADED AGGREGATE BASE COURSE, 6" THICK
302042P	DENSE-GRADED AGGREGATE BASE COURSE, 8" THICK
401009P	HMA MILLING, 3" OR LESS
401012P	HMA MILLING, MORE THAN 3" TO 6"
401038P	STEEL REINFORCEMENT MESH WITH SLURRY WALL
401063M	HOT MIX ASPHALT 12.5H76 SURFACE COURSE
401093M	HOT MIX ASPHALT 19H76 INTERMEDIATE COURSE
401099M	HOT MIX ASPHALT 25M64 BASE COURSE
605212P	RESET FENCE
606012P	CONCRETE SIDEWALK, 4" THICK
606039P	HOT MIX ASPHALT DRIVEWAY, 6" THICK
607018P	9" X 16" CONCRETE VERTICAL CURB
607021P	9" X 18" CONCRETE VERTICAL CURB
607066P	24" X VARIABLE HEIGHT CONCRETE BARRIER CURB, DOWELLED
610003M	TRAFFIC STRIPES, LONG LIFE, EPOXY RESIN 4"
804006P	TOPSOILING, 4" THICK
806006P	FERTILIZING AND SEEDING, TYPE A-3
809003M	STRAW MULCHING



ROUTE U.S. 22 WB PIPE TRENCH SECTION

STA. 3039+30 TO STA. 3040+00



ROUTE U.S. 22 EB PIPE TRENCH SECTION

STA. 3038+84 TO STA. 3040+20

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HORIZ. SCALE IN FEET 5' 0 5' 10'

TS-3 / TS-4

NEW JERSEY DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800

STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

7

PARSONS BRINCKERHOFF CADD DATA

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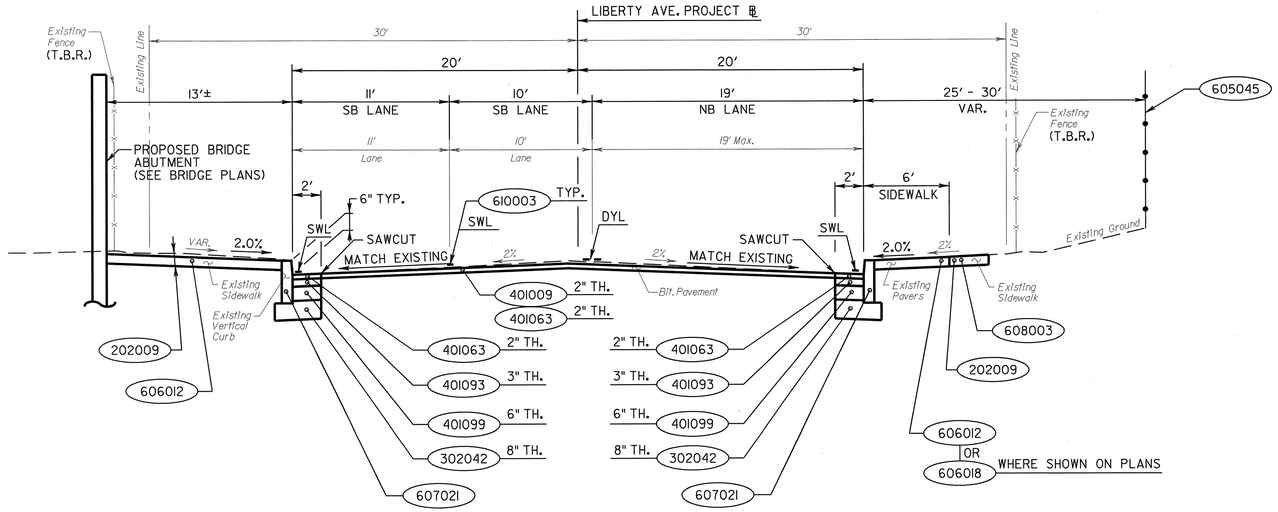
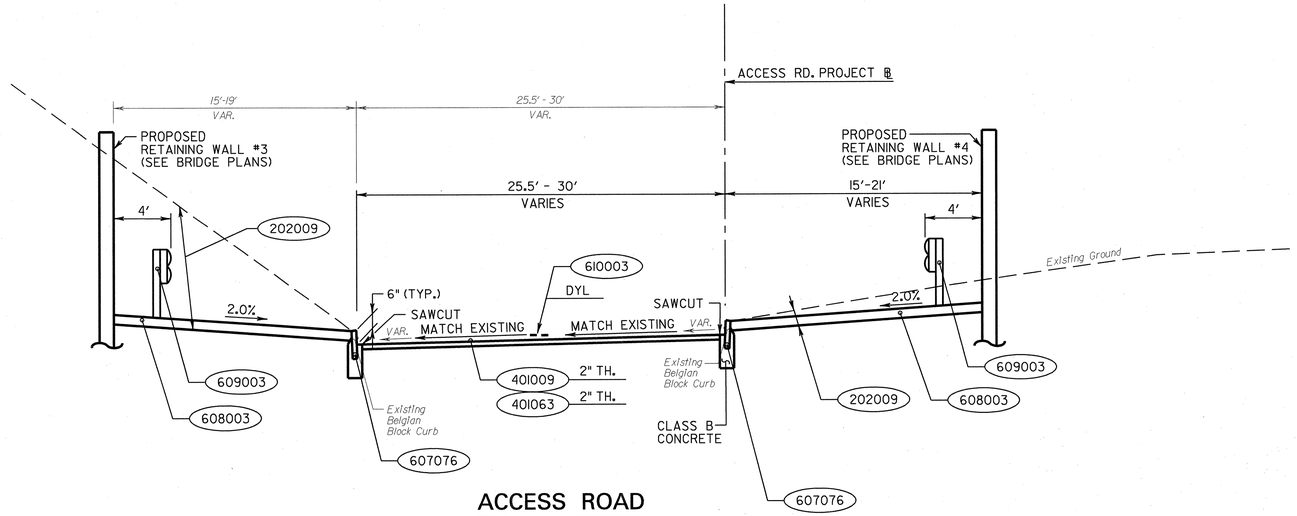
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)



LIBERTY AVE

STA. 19+00 TO STA. 20+80



ACCESS ROAD

STA. 29+50 TO STA. 30+55

PROPOSED MATERIALS	
ITEM NO.	DESCRIPTION
202009P	EXCAVATION, UNCLASSIFIED
302042P	DENSE-GRADED AGGREGATE BASE COURSE, 8" THICK
401009P	HMA MILLING, 3" OR LESS
401063M	HOT MIX ASPHALT 12.5H76 SURFACE COURSE
401093M	HOT MIX ASPHALT 19H76 INTERMEDIATE COURSE
401099M	HOT MIX ASPHALT 25M64 BASE COURSE
605045P	CHAIN-LINK FENCE, 6' HIGH
606012P	CONCRETE SIDEWALK, 4" THICK
606018P	CONCRETE SIDEWALK, 6" THICK
607021P	9" X 18" CONCRETE VERTICAL CURB
607076P	BELGIAN BLOCK CURB
608003P	NONVEGETATIVE SURFACE, HOT MIX ASPHALT
609003M	BEAM GUIDE RAIL
610003M	TRAFFIC STRIPES, LONG LIFE, EPOXY RESIN 4"

VERT. SCALE IN FEET 2.5' 0 2.5' 5'

HORIZ. SCALE IN FEET 5' 0 5' 10'

PARSONS BRINCKERHOFF CADD DATA

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TS-4 / TS-4

NEW JERSEY DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

ROUTE 22 LIBERTY AVENUE
& CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

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STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

TOWNSHIP OF HILLSIDE COUNTY OF UNION

TABLE 1: LOCATIONS OF BORINGS PERFORMED IN 1960						
BORING NO.	EXISTING BASELINE	STATION	OFFSET	PROPOSED BASELINE	STATION	OFFSET
60-640-A	ROUTE 22	184+96	56' RT.	ROUTE 22	3026+08	64' LT.
60-640-B	ROUTE 22	184+55	36' RT.	ROUTE 22	3026+49	44' LT.
60-640-C	ROUTE 22	184+34	72' RT.	ROUTE 22	3026+70	80' LT.
60-640-D	ROUTE 22	184+10	56' RT.	ROUTE 22	3026+94	64' LT.
60-640-E	ROUTE 22	183+73	36' RT.	ROUTE 22	3027+31	44' LT.
60-640-F	ROUTE 22	183+50	65' RT.	ROUTE 22	3027+54	73' LT.
60-640-G	ROUTE 22	182+90	60' RT.	ROUTE 22	3028+14	68' LT.
60-640-H	ROUTE 22	182+30	60' RT.	ROUTE 22	3028+74	68' LT.
60-640-I	ROUTE 22	185+96	36' RT.	ROUTE 22	3025+08	43' LT.
60-640-J	ROUTE 22	185+96	56' RT.	ROUTE 22	3025+08	63' LT.
60-640-K	ROUTE 22	186+55	36' RT.	ROUTE 22	3024+49	43' LT.
60-640-L	ROUTE 22	185+06	36' RT.	ROUTE 22	3025+98	44' LT.
60-640-M	ROUTE 22	187+17	36' RT.	ROUTE 22	3023+87	43' LT.
60-640-N	ROUTE 22	186+55	56' RT.	ROUTE 22	3024+49	63' LT.
60-640-O	ROUTE 22	187+17	56' RT.	ROUTE 22	3023+87	63' LT.
60-640-P	ROUTE 22	187+79	36' RT.	ROUTE 22	3023+24	43' LT.
60-640-Q	ROUTE 22	188+79	56' RT.	ROUTE 22	3023+24	63' LT.
60-640-R	ROUTE 22	188+44	70' RT.	ROUTE 22	3022+57	74' LT.
60-640-S	ROUTE 22	188+29	45' RT.	ROUTE 22	3022+73	50' LT.

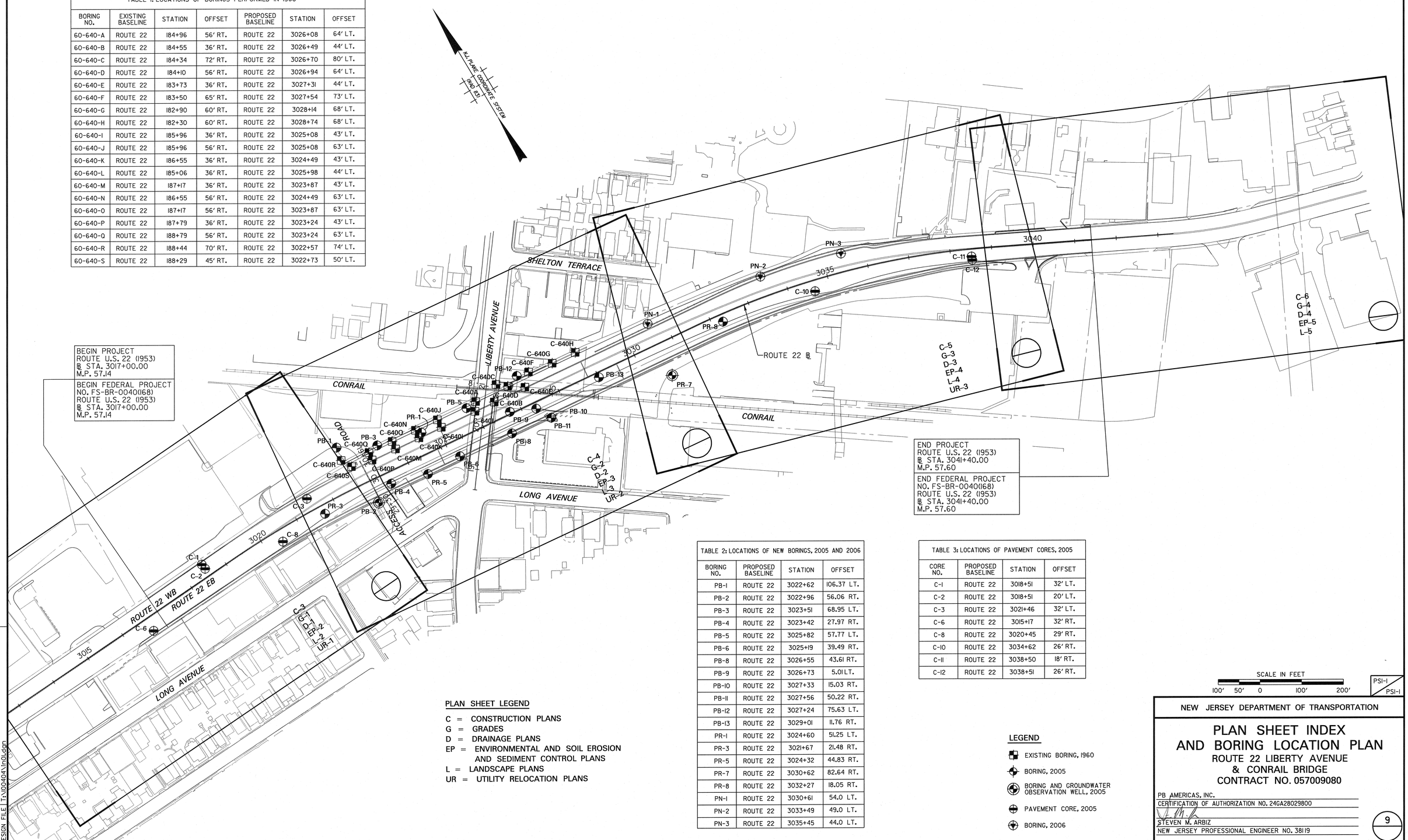

TABLE 2: LOCATIONS OF NEW BORINGS, 2005 AND 2006			
BORING NO.	PROPOSED BASELINE	STATION	OFFSET
PB-1	ROUTE 22	3022+62	106.37 LT.
PB-2	ROUTE 22	3022+96	56.06 RT.
PB-3	ROUTE 22	3023+51	68.95 LT.
PB-4	ROUTE 22	3023+42	27.97 RT.
PB-5	ROUTE 22	3025+82	57.77 LT.
PB-6	ROUTE 22	3025+19	39.49 RT.
PB-8	ROUTE 22	3026+55	43.61 RT.
PB-9	ROUTE 22	3026+73	5.01 LT.
PB-10	ROUTE 22	3027+33	15.03 RT.
PB-11	ROUTE 22	3027+56	50.22 RT.
PB-12	ROUTE 22	3027+24	75.63 LT.
PB-13	ROUTE 22	3029+01	11.76 RT.
PR-1	ROUTE 22	3024+60	51.25 LT.
PR-3	ROUTE 22	3021+67	21.48 RT.
PR-5	ROUTE 22	3024+32	44.83 RT.
PR-7	ROUTE 22	3030+62	82.64 RT.
PR-8	ROUTE 22	3032+27	18.05 RT.
PN-1	ROUTE 22	3030+61	54.0 LT.
PN-2	ROUTE 22	3033+49	49.0 LT.
PN-3	ROUTE 22	3035+45	44.0 LT.

TABLE 3: LOCATIONS OF PAVEMENT CORES, 2005			
CORE NO.	PROPOSED BASELINE	STATION	OFFSET
C-1	ROUTE 22	3018+51	32' LT.
C-2	ROUTE 22	3018+51	20' LT.
C-3	ROUTE 22	3021+46	32' LT.
C-6	ROUTE 22	3015+17	32' RT.
C-8	ROUTE 22	3020+45	29' RT.
C-10	ROUTE 22	3034+62	26' RT.
C-11	ROUTE 22	3038+50	18' RT.
C-12	ROUTE 22	3038+51	26' RT.

PLAN SHEET LEGEND

C = CONSTRUCTION PLANS
G = GRADES
D = DRAINAGE PLANS
EP = ENVIRONMENTAL AND SOIL EROSION AND SEDIMENT CONTROL PLANS
L = LANDSCAPE PLANS
UR = UTILITY RELOCATION PLANS

LEGEND

- EXISTING BORING, 1960
- BORING, 2005
- BORING AND GROUNDWATER OBSERVATION WELL, 2005
- PAVEMENT CORE, 2005
- BORING, 2006

SCALE IN FEET
100' 50' 0 100' 200'

PSI-1
PSI-1

NEW JERSEY DEPARTMENT OF TRANSPORTATION

PLAN SHEET INDEX AND BORING LOCATION PLAN

ROUTE 22 LIBERTY AVENUE
& CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

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PARSONS BRINCKERHOFF CADD DATA

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NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD LEGEND

STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

Linear Features

Existing	PROPOSED	
W	W	Water Main (Size)
G	G	Gas Main (Size)
T	T	Telephone Conduit
E	E	Electric Conduit (Highway or Utility)
CTV	CTV	Cable TV
FO	FO	Fiber Optic
(Size & Type) (Over 30" - Draw to Size)	(SIZE & TYPE) (OVER 30" - DRAW TO SIZE)	Sanitary Sewers or Storm Drains
		Pavements (Concrete or Bituminous)
		Shoulders
		Curbs
(F) (C)	(C) (F)	Slopes (Cut & Fill)
5+00 ℄	℄ 10+00	Base Line
		Twp., City, County Lines
Existing R.O.W. Line	PROPOSED R.O.W. LINE	Right of Way Lines (Access Permitted)
Existing R.O.W. & No Access Line	PROP. R.O.W. & NO ACCESS LINE	Right of Way Lines (No Access)
		Easements
℄		Property Line
		Fence (Size & Type)
		Reset Fence
		Beam Guide Rail
		Reset Beam Guide Rail
		Noise Walls
		Wetland Limit Line
		Silt Fence
Ditch	DITCH	Ditches
		Railroad Tracks
		Tree Line

Topographical Features

Existing	PROPOSED	
		Inlets (Label Type)
"ES"	"ES"	Inlets (Type ES)
		Inlets (Label Type)
		Manholes (Label Type or Utility)
		Trench Drain
		Manufactured Treatment Devices
		Reset (Inlets or Manholes)
		Reconstructed (Inlets or Manholes)
		Cast Iron Extension (Frame or Ring) (Inlet or Manhole)
		New Manhole Casting, Square Frame, Circular Cover
		R.C. End Section or C.M. Headwall
		Headwalls
		Headwalls & Aprons
W		Water Gate Valves
		Reset Water Gate Valves
G		Gas Gate Valves
		Reset Gas Gate Valves
Hyd.		Hydrants
		Reset Hydrants
		Utility Pole (Type & Number)
	TEMP	Temporary Utility Pole
		Traffic Signal
J.B.	J.B.	Junction Box
F	F	Fiber Optic Junction Box
J.B. & Light		Junction Box Foundation
		Signs
		Vertical Panels

Topographical Features

Existing	PROPOSED	
		Guide Rail End Terminals
		Beam Guide Rail Anchorages
		Guide Rail Extruder Terminal
Mon.		Monuments
		ROW Monument (ROW Control Points)
	TEST PIT NUMBER	Test Pit
Boring Number	BORING NUMBER	Borings (Boring Number)
		Deciduous Tree (Size, Kind)
		Evergreens
		Bush
		Hedges
		Swamp

Double Reference Codes

EQOR - ESTIMATE AND DISTRIBUTION OF QUANTITIES - ROADWAY
TS - TYPICAL SECTIONS
PSI - PLAN SHEET INDEX & BORING LOCATION PLAN
C - CONSTRUCTION PLANS
EP - ENVIRONMENTAL & SOIL EROSION & SEDIMENT CONTROL PLANS
D - DRAINAGE PLANS
UR - UTILITY RELOCATION PLANS
P - PROFILES
T - TIES
G - GRADES
TC - TRAFFIC CONTROL AND STAGING PLANS
TSP - TRAFFIC SIGNAL PLANS
HL - HIGHWAY LIGHTING PLANS
E - ELECTRICAL PLANS
SL - SIGN LOCATION PLANS
TSS - TRAFFIC SIGNING AND STRIPING PLANS
STD - SIGN TEXT DETAILS
L - LANDSCAPE PLANS
MS - METHOD OF CROSS SECTIONS
X - CROSS SECTIONS
DTL - CONSTRUCTION DETAILS
EQB - ESTIMATE OF QUANTITIES - BRIDGE
B - BRIDGE PLANS

Miscellaneous Symbols

Items With No Alternate

Alternate Items OR

For Alternate Pipe Items
(C) = Concrete
(M) = Metal

Milling

Building to be Demolished

Removal of Concrete Base Course & Concrete Surface Courses

Rip Rap

Building to be Removed & Paid for Under Clearing Site

PARCEL — Demolition No. & Parcel No. of Building to be Demolished

PROFILE — LEVEL LINE

High Point

Low Point

B.M. — Bench Mark

Proposed Bridge

Bridge Appoach Slabs and Transition Slabs

ABBREVIATIONS USED IN THIS CONTRACT

AH., BK.	AHEAD, BACK
AUX.	AUXILARY
℄, B.L.	BASELINE
B.M.	BENCH MARK
B.G.R.A.	BEAM GUIDE RAIL ANCHORAGE
BIT., BITUM.	BITUMINOUS
BLDG.	BUILDING
℄, C.L.	CENTERLINE
C.I.P.	CAST IRON PIPE
C.M.P.	CORRUGATED METAL PIPE
CONC.	CONCRETE
C.R.	COUNTY ROUTE
C.T.	CURB TRANSITION
CULV.	CULVERT
D, DIA.	DIAMETER
D.C.	DEPRESSED CURB
DE	DITCH EXCAVATION
DH	DRILL HOLE
DWY	DRIVEWAY
E.B., W.B., N.B., S.B.	EASTBOUND, WESTBOUND NORTHBOUND, SOUTHBOUND
EL., ELEV.	ELEVATION
EXIST.	EXISTING
EXT.	EXTENSION
F.G.R.T.	FLARED GUIDE RAIL TERMINAL
FM	FORCE MAIN
GR.	GRATE
HT.	HEIGHT
H.W.	HEADWALL
HYD.	HYDRANT
INV.	INVERT
IP	IRON PIN
J.B.	JUNCTION BOX
LT., RT.	LEFT, RIGHT
L.O.D.	LIMIT OF DISTURBANCE
L.O.E.	LIMIT OF EXCAVATION
L.O.P.	LIMIT OF PAVEMENT (PAVING)
L.O.M.	LIMIT OF MILLING
M.B.	MAILBOX
M.P.	MILE POST
MAX.	MAXIMUM
M.E.C.	MEET EXISTING CURB
M.E.P.	MEET EXISTING PAVEMENT
MIN.	MINIMUM
MTD	MANUFACTURED TREATMENT DEVICE
NO.	NUMBER
N.T.S.	NOT TO SCALE
N.V.S.	NONVEGETATIVE SURFACE
PAV'T.	PAVEMENT
PERF.	PERFORATED
P.G.L.	PROFILE GRADE LINE
ℙ, P.L.	PROPERTY LINE, PROFILE LINE
PK	PARKER KAYLON MASONRY NAIL
POC, P.O.C.	POINT ON CURVE
POL, P.O.L.	POINT ON LINE
POT, P.O.T.	POINT ON TANGENT
PRC, P.R.C.	POINT OF REVERSE CURVE
PROP.	PROPOSED
PT, P.T.	POINT OF TANGENCY
PVC, P.V.C.	POLYVINYL CHLORIDE PIPE, POINT OF VERTICAL CURVATURE
PVI, P.V.I.	POINT OF VERTICAL INTERSECTION
PVT, P.V.T.	POINT OF VERTICAL TANGENCY, PAVEMENT
R	RADIUS
RCCP, R.C.C.P.	REINFORCED CONCRETE CULVERT PIPE
RCP, R.C.P.	REINFORCED CONCRETE PIPE
RMC, R.M.C.	RIGID METALLIC CONDUIT
RNMC, R.N.M.C.	RIGID NON-METALLIC CONDUIT
ROW, R.O.W.	RIGHT OF WAY
R.R.	RAILROAD
RTE., RT.	ROUTE
SAN.	SANITARY
SDWK.	SIDEWALK
S.H.D.	STATE HIGHWAY DEPARTMENT
SHLD.	SHOULDER
$, S.L.	SURVEY LINE
S.O.D.	SUBBASE OUTLET DRAIN
STY.	STORY
T	TANGENT
TBA	TO BE ABANDONED
TBR	TO BE REMOVED
TEL.	TELEPHONE
TEMP.	TEMPORARY
T.G.R.T.	TANGENT GUIDE RAIL TERMINAL
THK., TH.	THICK
TYP.	TYPICAL
U.D.	UNDERDRAIN
UP, U.P.	UTILITY POLE
VAR.	VARIABLE, VARIES
W.C.V.C.	WHITE CONCRETE VERTICAL CURB
WM	WATER METER
X-SECT	CROSS SECTION

GENERAL NOTES:

N.J. PLANE COORDINATE SYSTEM (NAD 83)

North Arrow To Be Used On Standard Construction Sheets Where Bearings Refer To N. J. Plane Coordinate System

N.T.S.

C-1 / C-6

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN

ROUTE 22 LIBERTY AVENUE
& CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

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PARSONS BRINCKERHOFF CADD DATA

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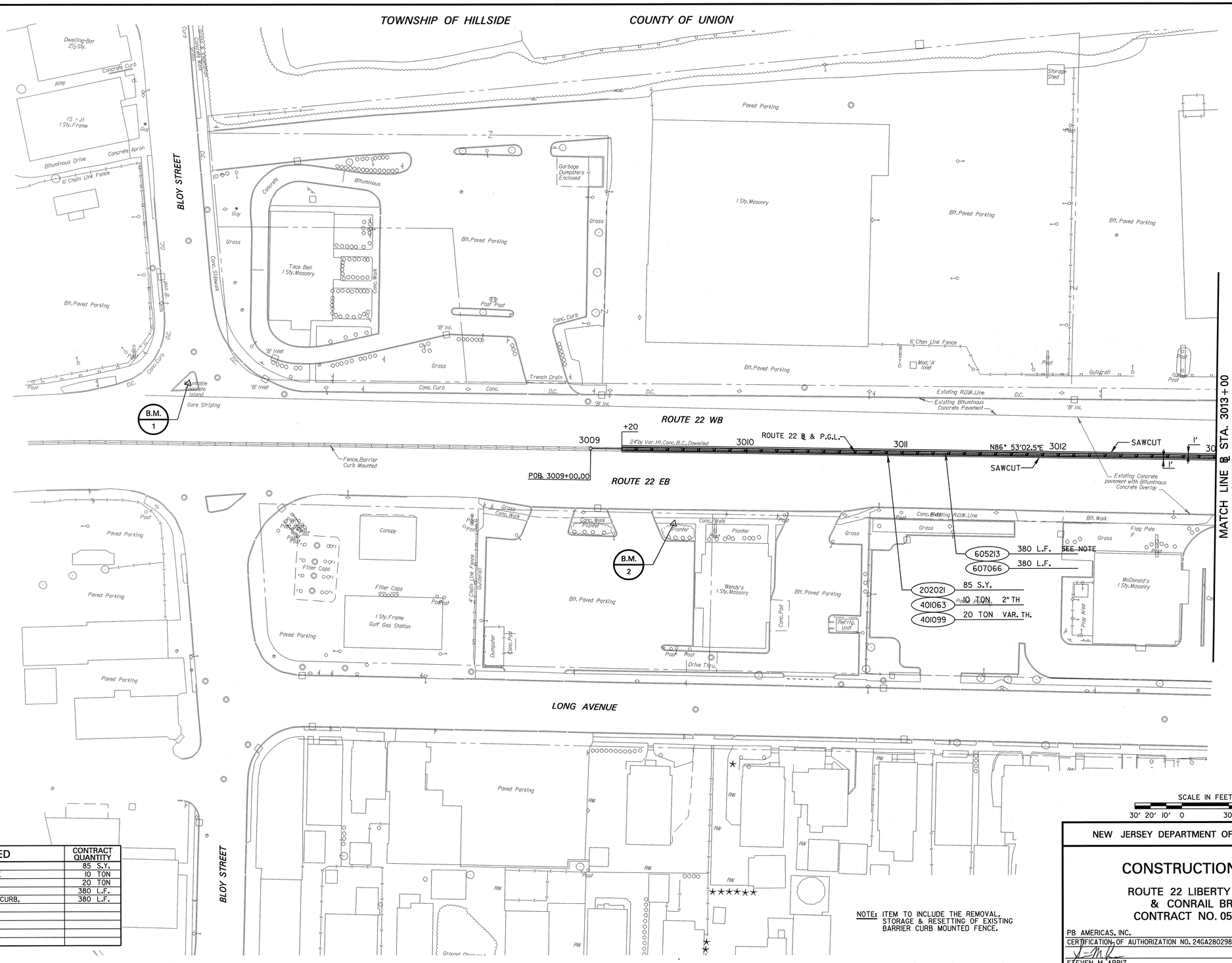
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
202021P	REMOVAL OF PAVEMENT	85 S.Y.
401063M	HOT MIX ASPHALT 12.5H76 SURFACE COURSE	10 TON
401099M	HOT MIX ASPHALT 25M64 BASE COURSE	20 TON
605213P	RESET FENCE, BARRIER CURB MOUNTED	380 L.F.
607066P	24" X VARIABLE HEIGHT CONCRETE BARRIER CURB, DOWELLED	380 L.F.

BENCHMARKS
B.M. 1- PK SET IN CENTER OF CONCRETE ISLAND, ELEV. = 48.40
B.M. 2 - REBAR AND DISC, ELEV. = 49.66

NOTE: ITEM TO INCLUDE THE REMOVAL, STORAGE & RESETTING OF EXISTING BARRIER CURB MOUNTED FENCE.

SCALE IN FEET
30' 20' 10' 0 30' 60'

C-2 / C-6

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN

ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

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PARSONS BRINCKERHOFF CADD DATA

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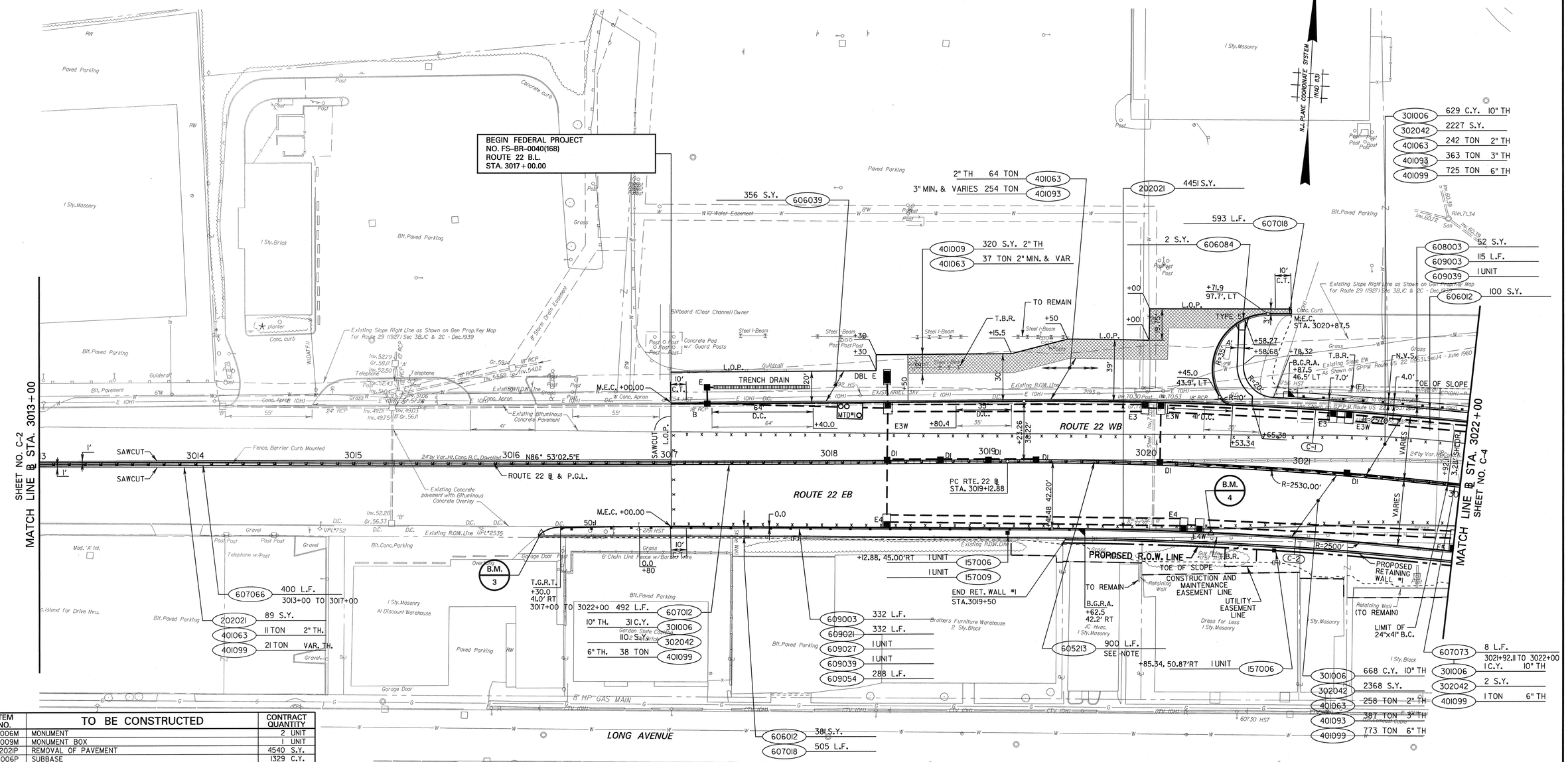
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

TOWNSHIP OF HILLSIDE

COUNTY OF UNION



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
157006M	MONUMENT	2 UNIT
157009M	MONUMENT BOX	1 UNIT
202021P	REMOVAL OF PAVEMENT	4540 S.Y.
301006P	SUBBASE	1329 C.Y.
302042P	DENSE-GRADED AGGREGATE BASE COURSE, 8" THICK	4707 S.Y.
401009P	HMA MILLING, 3" OR LESS	320 S.Y.
401063M	HOT MIX ASPHALT 12.5H76 SURFACE COURSE	612 TON
401093M	HOT MIX ASPHALT 19H76 INTERMEDIATE COURSE	1004 TON
401099M	HOT MIX ASPHALT 25M64 BASE COURSE	1558 TON
605213P	RESET FENCE, BARRIER CURB MOUNTED	900 L.F.
606012P	CONCRETE SIDEWALK, 4" THICK	481 S.Y.
606039P	HOT MIX ASPHALT DRIVEWAY, 6" THICK	356 S.Y.
606084P	DETECTABLE WARNING SURFACE	2 S.Y.
607012P	24" X 41" CONCRETE BARRIER CURB	492 L.F.
607018P	9" X 16" CONCRETE VERTICAL CURB	1098 L.F.
607066P	24" X VARIABLE HEIGHT CONCRETE BARRIER CURB, DOWELLED	400 L.F.
607073P	VARIABLE WIDTH X 41" CONCRETE BARRIER CURB	8 L.F.
608003P	NONVEGETATIVE SURFACE, HOT MIX ASPHALT	52 S.Y.
609003M	BEAM GUIDE RAIL	447 L.F.
609021M	RUB RAIL	332 L.F.
609027M	TANGENT GUIDE RAIL TERMINAL	1 UNIT
609039M	BEAM GUIDE RAIL ANCHORAGE	2 UNIT
609054M	BEAM GUIDE RAIL ELEMENT	288 L.F.

BENCHMARKS
B.M. 3 - REBAR AND DISC, ELEV. = 60.54
B.M. 4 - REBAR AND DISC, ELEV. = 79.61

CURVE DATA

CURVE	Δ	R	L	T	E
C-1	9°-03'-03.0"	2570.00	405.97	203.41	8.04
C-2	8°-19'-25.3"	2500.00	363.19	181.92	6.61

NOTE: ITEM TO INCLUDE THE REMOVAL, STORAGE & RESETTING OF EXISTING BARRIER CURB MOUNTED FENCE.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN

ROUTE 22 LIBERTY AVENUE
& CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800

STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

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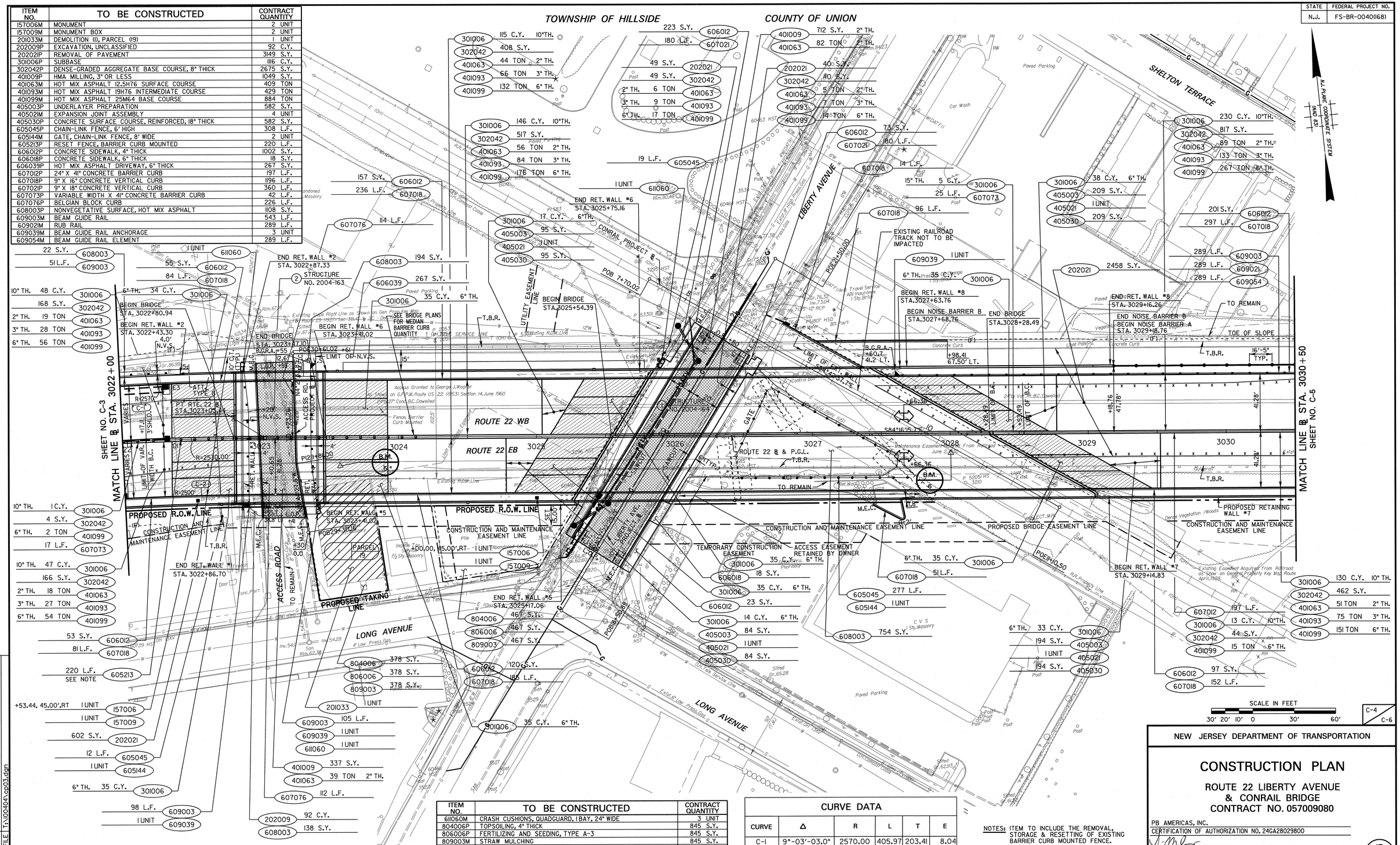
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
157006M	MONUMENT	2 UNIT
157009M	MONUMENT BOX	2 UNIT
201033M	DEMOLITION (1), PARCEL (19)	1 UNIT
202009P	EXCAVATION, UNCLASSIFIED	92 C.Y.
202021P	REMOVAL OF PAVEMENT	3149 S.Y.
301006P	SUBBASE	1116 C.Y.
302042P	DENSE-GRADED AGGREGATE BASE COURSE, 8" THICK	2675 S.Y.
401009P	HMA MILLING, 3" OR LESS	1049 S.Y.
401063M	HOT MIX ASPHALT 12.5H76 SURFACE COURSE	409 TON
401093M	HOT MIX ASPHALT 19H76 INTERMEDIATE COURSE	429 TON
401099M	HOT MIX ASPHALT 25M64 BASE COURSE	884 TON
405003P	UNDERLAYER PREPARATION	582 S.Y.
405021M	EXPANSION JOINT ASSEMBLY	4 UNIT
405030P	CONCRETE SURFACE COURSE, REINFORCED, 18" THICK	582 S.Y.
605045P	CHAIN-LINK FENCE, 6' HIGH	308 L.F.
605144M	GATE, CHAIN-LINK FENCE, 8' WIDE	2 UNIT
605213P	RESET FENCE, BARRIER CURB MOUNTED	220 L.F.
606012P	CONCRETE SIDEWALK, 4" THICK	1002 S.Y.
606018P	CONCRETE SIDEWALK, 6" THICK	18 S.Y.
606039P	HOT MIX ASPHALT DRIVEWAY, 6" THICK	267 S.Y.
607012P	24" X 41" CONCRETE BARRIER CURB	197 L.F.
607018P	9" X 16" CONCRETE VERTICAL CURB	1196 L.F.
607020P	9" X 18" CONCRETE VERTICAL CURB	360 L.F.
607073P	VARIABLE WIDTH X 41" CONCRETE BARRIER CURB	42 L.F.
607076P	BELGIAN BLOCK CURB	226 L.F.
608003P	NONVEGETATIVE SURFACE, HOT MIX ASPHALT	1108 S.Y.
609003M	BEAM GUIDE RAIL	543 L.F.
609021M	RUB RAIL	289 L.F.
609039M	BEAM GUIDE RAIL ANCHORAGE	3 UNIT
609054M	BEAM GUIDE RAIL ELEMENT	289 L.F.



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
611060M	CRASH CUSHIONS, QUADGUARD, 1 BAY, 24" WIDE	3 UNIT
804006P	TOPSOILING, 4" THICK	845 S.Y.
806006P	FERTILIZING AND SEEDING, TYPE A-3	845 S.Y.
809003M	STRAW MULCHING	845 S.Y.

CURVE DATA					
CURVE	Δ	R	L	T	E
C-1	9°-03'-03.0"	2570.00	405.97	203.41	8.04
C-2	8°-19'-25.3"	2500.00	363.19	181.92	6.61

NOTES: ITEM TO INCLUDE THE REMOVAL, STORAGE & RESETTING OF EXISTING BARRIER CURB MOUNTED FENCE.

BENCHMARKS
B.M. 5 - RAILROAD SPIKE IN SIDEWALK, ELEV. = 93.54
B.M. 6 - PK SET IN SHOULDER, ELEV. = 102.28

PARSONS BRINCKERHOFF CADD DATA

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NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN

ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

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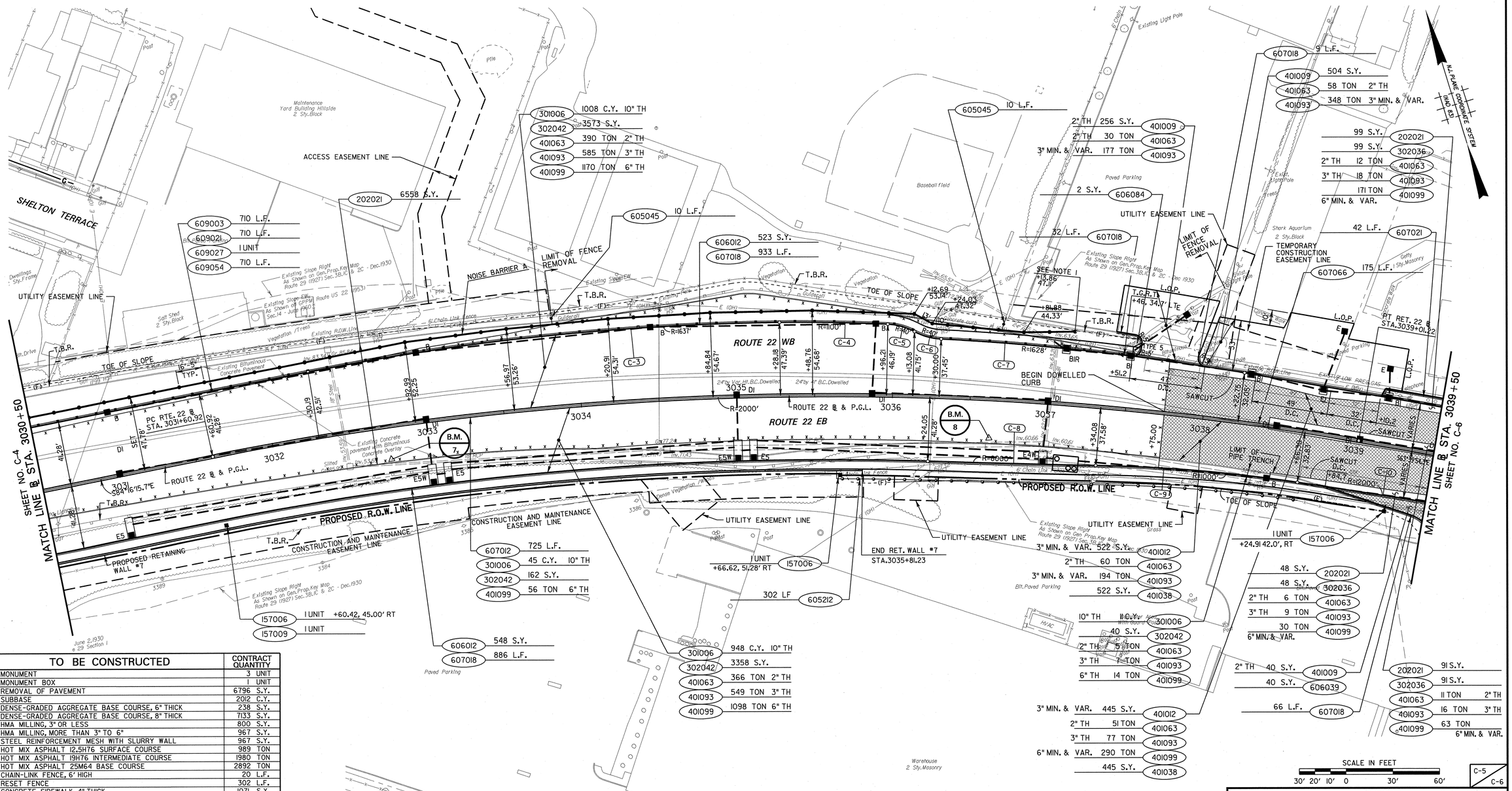
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

TOWNSHIP OF HILLSIDE COUNTY OF UNION



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
157006M	MONUMENT	3 UNIT
157009M	MONUMENT BOX	1 UNIT
202021P	REMOVAL OF PAVEMENT	6796 S.Y.
301006P	SUBBASE	2012 C.Y.
302036P	DENSE-GRADED AGGREGATE BASE COURSE, 6" THICK	238 S.Y.
302042P	DENSE-GRADED AGGREGATE BASE COURSE, 8" THICK	7133 S.Y.
401009P	HMA MILLING, 3" OR LESS	800 S.Y.
401012P	HMA MILLING, MORE THAN 3" TO 6"	967 S.Y.
401038P	STEEL REINFORCEMENT MESH WITH SLURRY WALL	967 S.Y.
401063M	HOT MIX ASPHALT 12.5H76 SURFACE COURSE	989 TON
401093M	HOT MIX ASPHALT 19H76 INTERMEDIATE COURSE	1980 TON
401099M	HOT MIX ASPHALT 25M64 BASE COURSE	2892 TON
605045P	CHAIN-LINK FENCE, 6' HIGH	20 L.F.
605212P	RESET FENCE	302 L.F.
606012P	CONCRETE SIDEWALK, 4" THICK	1071 S.Y.
606039P	HOT MIX ASPHALT DRIVEWAY, 6" THICK	40 S.Y.
606084P	DETECTABLE WARNING SURFACE	2 S.Y.
607012P	24" X 41" CONCRETE BARRIER CURB	725 L.F.
607018P	9" X 16" CONCRETE VERTICAL CURB	1926 L.F.
607021P	9" X 18" CONCRETE VERTICAL CURB	42 L.F.
607066P	24" X VARIABLE HEIGHT CONCRETE BARRIER CURB, DOWELLED	175 L.F.
609003M	BEAM GUIDE RAIL	710 L.F.
609021M	RUB RAIL	710 L.F.
609027M	TANGENT GUIDE RAIL TERMINAL	1 UNIT
609054M	BEAM GUIDE RAIL ELEMENT	710 L.F.

BENCHMARKS
B.M. 7 - RAILROAD SPIKE IN SHOULDER, ELEV. = 85.07
B.M. 8 - MON. SPIKE IN SHOULDER, ELEV. = 69.41

CURVE DATA

CURVE	Δ	R	L	T	E
C-3	10°-40'-16.5"	1637.00	304.89	152.89	7.12
C-4	3°-37'-38.0"	1100.00	69.64	34.83	0.55
C-5	25°-43'-03.1"	40.00	17.95	9.13	1.03
C-6	25°-41'-31.3"	40.00	17.94	9.12	1.03
C-7	6°-54'-19.5"	1628.00	196.21	98.22	2.96
C-8	0°-46'-22.3"	8000.00	107.91	53.96	0.18
C-9	7°-27'-04.1"	1000.00	130.05	65.12	2.12
C-10	1°-15'-39.5"	12000.00	264.10	132.06	0.73

NOTES
1. CAISSON TO BE INSTALLED PRIOR TO EXTENDING DRAINAGE. CUT RCP TO PROVIDE ADEQUATE CLEARANCE FOR CAISSON CONSTRUCTION.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN

ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

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PARSONS BRINCKERHOFF CADD DATA
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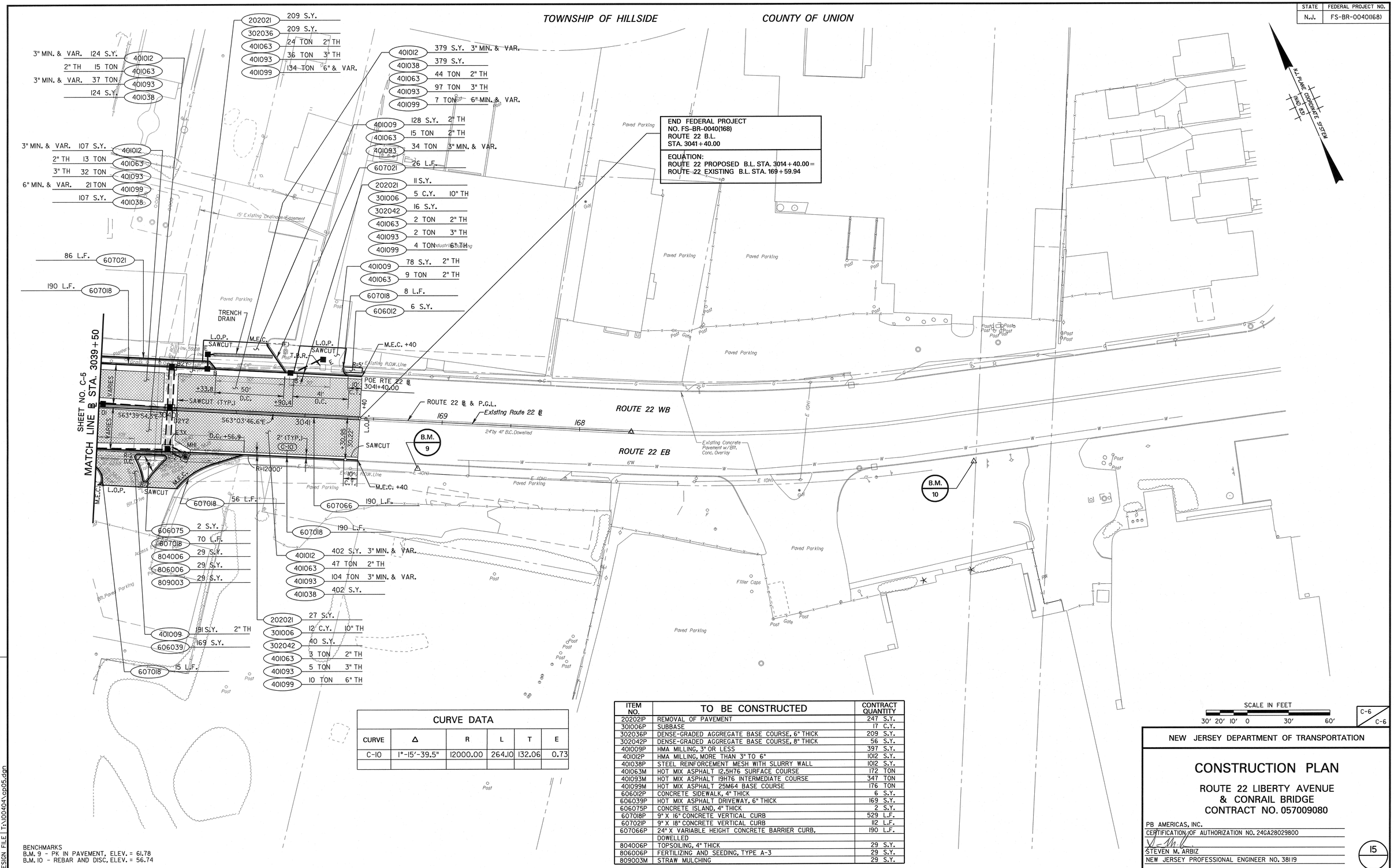
N.J.	FS-BR-0040(168)



CURVE DATA					
CURVE	Δ	R	L	T	E
C-10	1°-15'-39.5"	12000.00	264.10	132.06	0.73

ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
202021P	REMOVAL OF PAVEMENT	247 S.Y.
301006P	SUBBASE	17 C.Y.
302036P	DENSE-GRADED AGGREGATE BASE COURSE, 6" THICK	209 S.Y.
302042P	DENSE-GRADED AGGREGATE BASE COURSE, 8" THICK	56 S.Y.
401009P	HMA MILLING, 3" OR LESS	397 S.Y.
401012P	HMA MILLING, MORE THAN 3" TO 6"	1012 S.Y.
401038P	STEEL REINFORCEMENT MESH WITH SLURRY WALL	1012 S.Y.
401063M	HOT MIX ASPHALT 12.5H76 SURFACE COURSE	172 TON
401093M	HOT MIX ASPHALT 19H76 INTERMEDIATE COURSE	347 TON
401099M	HOT MIX ASPHALT 25M64 BASE COURSE	176 TON
606012P	CONCRETE SIDEWALK, 4" THICK	6 S.Y.
606039P	HOT MIX ASPHALT DRIVEWAY, 6" THICK	169 S.Y.
606075P	CONCRETE ISLAND, 4" THICK	2 S.Y.
607018P	9" X 16" CONCRETE VERTICAL CURB	529 L.F.
607021P	9" X 18" CONCRETE VERTICAL CURB	112 L.F.
607066P	24" X VARIABLE HEIGHT CONCRETE BARRIER CURB, DOWELLED	190 L.F.
804006P	TOPSOILING, 4" THICK	29 S.Y.
806006P	FERTILIZING AND SEEDING, TYPE A-3	29 S.Y.
809003M	STRAW MULCHING	29 S.Y.

BENCHMARKS
B.M. 9 - PK IN PAVEMENT, ELEV. = 61.78
B.M. 10 - REBAR AND DISC, ELEV. = 56.74

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN

ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

15

PARSONS BRINCKERHOFF CADD DATA

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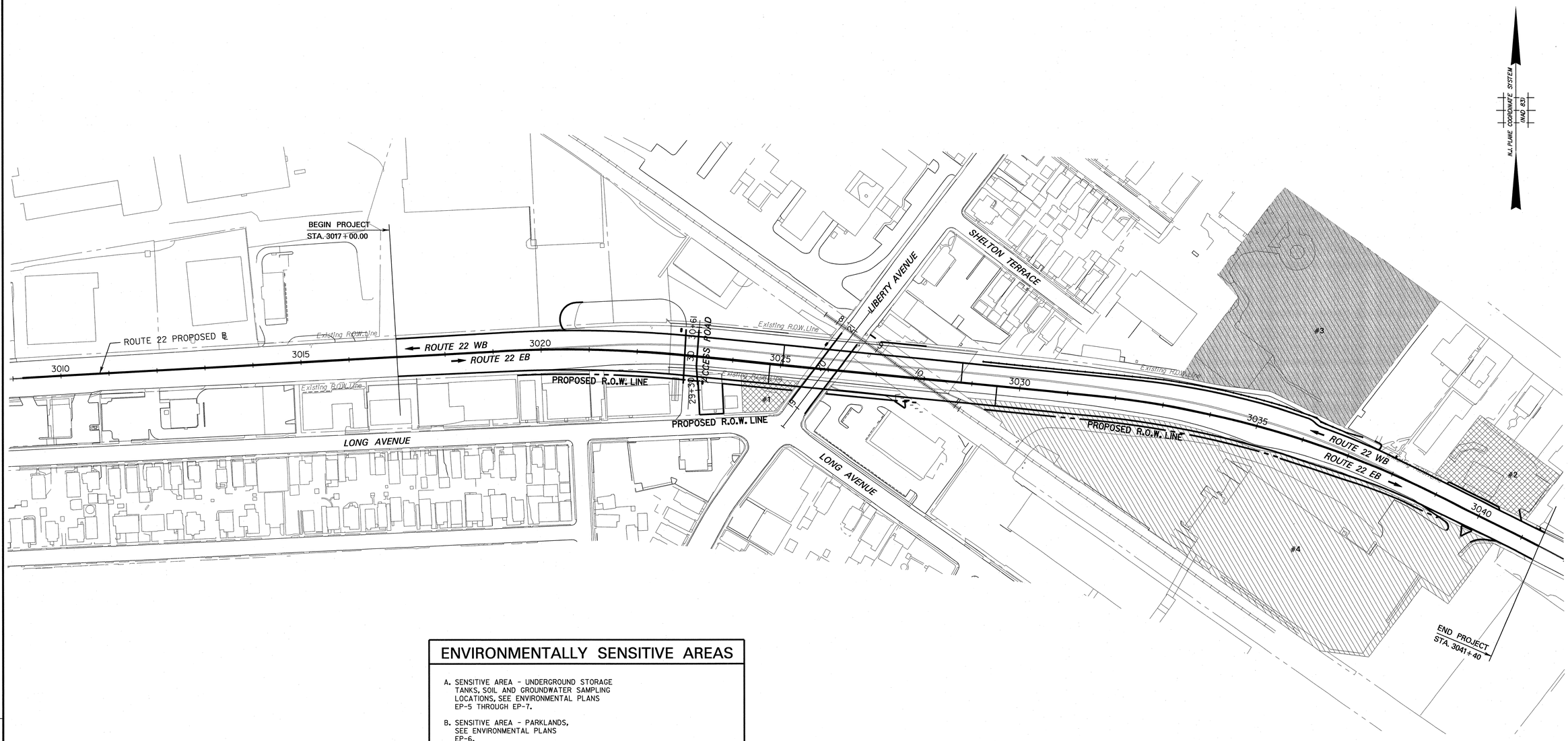
TOWNSHIP OF HILLSIDE COUNTY OF UNION

STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)



ENVIRONMENTALLY SENSITIVE AREAS

A. SENSITIVE AREA - UNDERGROUND STORAGE TANKS, SOIL AND GROUNDWATER SAMPLING LOCATIONS, SEE ENVIRONMENTAL PLANS EP-5 THROUGH EP-7.

B. SENSITIVE AREA - PARKLANDS, SEE ENVIRONMENTAL PLANS EP-6.

C. SENSITIVE AREA-HISTORIC PROPERTIES, SEE ENVIRONMENTAL PLANS EP-5 THROUGH EP-7.

SENSITIVE AREAS SITE INFORMATION

SENSITIVE AREA SITE NUMBER	SENSITIVE AREA SITE DESCRIPTION	BLOCK & LOT	SOIL AND/OR GROUNDWATER SAMPLING	SOIL CONTAMINATION	GROUNDWATER CONTAMINATION	SHEET NUMBER
1	FORMER HILLSIDE CITGO	BLOCK 606, LOT 15	SEPTEMBER 12, 2006	YES	YES	EP-5
2	GETTY SERVICE STATION	BLOCK 1108, LOT 43	SEPTEMBER 12, 2006	YES	YES	EP-6 & EP-7
3	NORMAN L. SANFORD PARK (GREEN ACRES)	BLOCK 1108, LOT 35 & 36	N/A	N/A	N/A	EP-6
4	BRISTOL-MYERS COMPANY	BLOCK 1110, LOT 1 & 17.01	N/A	N/A	N/A	EP-5, EP-6 & EP-7

PERMITS

PERMIT TYPE	ISSUED	EXPIRES	CONDITIONS
NO ENVIRONMENTAL PERMITS ARE REQUIRED			

LEGEND

- #1-#2 — SENSITIVE AREA - UNDERGROUND STORAGE TANKS, SOIL AND GROUNDWATER SAMPLING LOCATIONS, SEE ENVIRONMENTALLY SENSITIVE AREA A
- #3 — SENSITIVE AREA - PARKLANDS, SEE ENVIRONMENTALLY SENSITIVE AREA B
- #4 — SENSITIVE AREA-HISTORIC PROPERTIES, SEE ENVIRONMENTALLY SENSITIVE AREA C
- SOIL BORING LOCATION
- HEAVY DUTY SILT FENCE, ORANGE
- INLET FILTERS

SCALE IN FEET
100' 50' 0 100' 200'

EP-1 / EP-7

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL & SOIL EROSION & SEDIMENT CONTROL PLANS

ROUTE 22 LIBERTY AVENUE
& CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

16

PARSONS BRINCKERHOFF CADD DATA
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STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

ENVIRONMENTAL NOTES AND COMMITMENTS

1. SENSITIVE AREAS - DO NOT ENCROACH UPON OR STORE ANY EQUIPMENT/VEHICLE/MATERIALS IN SOIL/GROUNDWATER CONTAMINATION SITES, PARKLAND, AND HISTORIC PROPERTIES BEYOND THE HEAVY DUTY ORANGE SILT FENCE OR CAUTION FENCE AS SHOWN ON THE PLANS. ADHERE TO THE LOCATIONS OF THE SILT FENCE AND CAUTION FENCE. THE ENVIRONMENTAL PERMITS DO NOT ALLOW FOR ENCROACHMENT BEYOND THE FENCING LOCATIONS. IN ADDITION, DO NOT LOCATE STOCKPILES, VEHICLES, CONCRETE WASHOUT FACILITIES, AND/OR EQUIPMENT WITHIN 50 FEET, IF FEASIBLE, OF A SOIL/GROUNDWATER CONTAMINATION SITE, PARKLAND, HISTORIC PROPERTY, OR OTHER ENVIRONMENTALLY SENSITIVE AREA. PROTECT STOCKPILE BASES WITH A HAY BALE BARRIER OR SILT FENCE.

2. MAKE NO CHANGES IN PLANS OR SPECIFICATION EXCEPT WITH THE PRIOR WRITTEN PERMISSION OF THE NJDEP. ANY CONSTRUCTION, GRADING, REMOVAL OR VEGETATION, OR OTHER ACTIVITY AT THIS SITE THAT AFFECTS A REGULATED AREA, OTHER THAN SPECIFICALLY APPROVED BY THE ENVIRONMENTAL PERMITS OR AS DETAILED BY THE APPROVED DRAWINGS, REQUIRES ADDITIONAL WRITTEN APPROVALS FROM THE NJDEP. THE COMMENCEMENT OF SUCH REGULATED ACTIVITIES WITHOUT THE APPROPRIATE APPROVALS IS IN VIOLATION OF STATE LAW. CONSULT WITH THE NJDOT BUREAU OF LANDSCAPE ARCHITECTURE AND ENVIRONMENTAL SOLUTIONS' ENVIRONMENTAL TEAM REGARDING POTENTIAL PERMIT MODIFICATIONS.

3. PERFORM THE WORK IN ACCORDANCE WITH THE NJDOT STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL AND AS SPECIFIED IN THE CURRENT NJDOT SPECIFICATIONS.

4. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES AND CAUTION FENCE ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAIN UNTIL PERMANENT PROTECTION IS ESTABLISHED. CORRECT NON-FUNCTIONING SOIL EROSION AND SEDIMENT CONTROL MEASURES AND SITE WASTE CONTROL MEASURES WITHIN 24 HOURS AND AS SPECIFIED IN SECTION 158 OF THE SPECIFICATIONS. ALL ORANGE FENCE WILL REMAIN IN PLACE FOR THE DURATION OF CONSTRUCTION. THE COLOR OF THE SILT FENCE INDICATED ON THE PLANS MUST BE ADHERED TO. BLACK SILT FENCE CAN NOT BE SUBSTITUTED FOR ORANGE AND VICE VERSA.

5. THE RE MAY LIMIT CLEARING, GRADING, OR OTHER SOIL DISTURBING ACTIVITIES TO A MAXIMUM OF 17 ACRES BASED ON SITE CONDITIONS AND THE CONTRACTOR'S ABILITY TO INSTALL AND MAINTAIN SOIL EROSION AND SEDIMENT CONTROL MEASURES.

6. DUST/DIRT CONTROL/TRACKING: EMPLOY CONSTRUCTION METHODS THAT MINIMIZE AIRBORNE DUST AND PREVENT SOILS AND OTHER MATERIALS FROM BEING DEPOSITED ON EXISTING ROADWAYS. APPLY WATER OR OTHER RE APPROVED MATERIALS TO UNPAVED AREAS TO CONTROL DUST CAUSED BY HAULING OR OTHER CONSTRUCTION OPERATIONS. IMMEDIATELY REMOVE ALL SOIL OR OTHER MATERIALS WASHED, DROPPED, SPILLED OR TRACKED OUTSIDE OF THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAY AND DISPOSE OF IT AS SPECIFIED IN 202.03.07.B OF THE SPECIFICATIONS. PAVED ROADS AND DRIVEWAYS MUST BE KEPT CLEAN AT ALL TIMES.

7. DURING SAWCUTTING, MILLING, CORE SAMPLING, INSTALLING LONGITUDINAL JOINT TIES, DIAMOND GRINDING, SLIP-FORM PAVING, PLACEMENT OF PERMANENT ROADWAY REFLECTIVE MARKERS, AND SIMILAR OPERATIONS THAT COULD CAUSE DUST, SLURRY, AND STORMWATER RUNOFF PROBLEMS, DO NOT CREATE A DUST HAZARD AND ENSURE THAT DEBRIS AND SLURRY DO NOT ENTER INLETS OR ENVIRONMENTALLY SENSITIVE AREAS, SUCH AS WETLANDS AND WATERBODIES. THIS INCLUDES, BUT IS NOT LIMITED TO, BRIDGE DECK, APPROACH SLAB, AND TRANSITION SLAB SAWCUTTING. PROVIDE FOR CONTINUOUS REMOVAL OF GRINDING RESIDUE FROM THE PAVEMENT SURFACE BEFORE IT IS BLOWN ABOUT BY TRAFFIC MOTION, WIND, OR PRECIPITATION. CONTAIN THE CONCRETE SLURRY AND DISPOSE OF IT AS SPECIFIED IN 202.03.07.B OF THE SPECIFICATION. THE CONTRACTOR MAY MANAGE THE SLURRY IN A CONCRETE WASHOUT FACILITY IF THAT ITEM IS PART OF THE CONTRACT.

8. ACID-PRODUCING SOIL: ACID PRODUCING SOIL IS TO BE TREATED ACCORDING TO THE NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL AS IS SPECIFIED IN 202.03.05 OF THE SPECIFICATIONS. ENSURE THE CLEANING OF EQUIPMENT USED TO MOVE ACID-PRODUCING SOIL IS CONDUCTED AT A MINIMUM OF 50 FEET, IF FEASIBLE, FROM A WATERBODY, WETLAND, OR OTHER ENVIRONMENTALLY SENSITIVE AREA. THE PROJECT AREA IS LOCATED WITHIN THE PASSAIC FORMATION WHICH IS NOT ASSOCIATED WITH ACID-PRODUCING SOILS.

9. EXCAVATED MATERIAL THAT WILL NOT BE USED AS BACKFILL MUST BE DISPOSED OF IN A LAWFUL MANNER OUTSIDE OF ANY REGULATED FLOODPLAIN, OPEN WATER, WETLAND, OR TRANSITION AREA, AND IN SUCH A WAY AS NOT TO INTERFERE WITH THE POSITIVE DRAINAGE OF THE RECEIVING AREA.

10. ENSURE ALL VEGETATION OUTSIDE LIMITS OF DISTURBANCE IS PRESERVED.

11. UPON COMPLETION OF THE PROJECT, ALL TEMPORARILY DISTURBED AREAS, INCLUDING UPLANDS, STATE OPEN WATER, WETLANDS, AND TRANSITION AREAS, MUST BE RESTORED TO THEIR PRE-CONSTRUCTION GRADES USING NATIVE SOILS AND PLANTED WITH INDIGENOUS NON-INVASIVE VEGETATION AS DIRECTED BY THE RE IN CONSULTATION WITH THE BUREAU OF LANDSCAPE ARCHITECTURE AND ENVIRONMENTAL SOLUTIONS' ENVIRONMENTAL TEAM.

12. ENSURE TIMBER MATTING IS USED UNDER EQUIPMENT IN AREAS TO PREVENT SOIL COMPACTIONS.

13. IF AN ARCHAEOLOGY SITE OR UNDERGROUND STORAGE TANKS ARE UNEXPECTEDLY DISCOVERED DURING CONSTRUCTION, CEASE OPERATIONS IMMEDIATELY AND CONTACT THE BUREAU OF LANDSCAPE ARCHITECTURE AND ENVIRONMENTAL SOLUTIONS THROUGH THE RE.

14. ENSURE A SITE SPECIFIC HEALTH AND SAFETY PLAN IS SUBMITTED AND IMPLEMENTED IN ACCORDANCE WITH ALL APPLICABLE HEALTH AND SAFETY REQUIREMENTS FOR WORK IN AND WITH CONTAMINATED SOIL, SEDIMENT, WASTE AND WATER AND THE MAJOR LANDFILL DISRUPTION APPROVAL. THE PLAN GOVERNS ALL HEALTH AND SAFETY FACETS OF THE PROJECT CONSTRUCTION AND ENCOMPASSES THE ACTIVITIES OF ALL PERSONS WHO ENTER THE SITE.

15. ENSURE ALL PERSONNEL, EQUIPMENT, AND ANCILLARY SERVICES ARE PROVIDED TO COLLECT, ANALYZE, AND TRANSPORT ENVIRONMENTAL SAMPLES REQUIRED TO CHARACTERIZE CONTAMINATED MATERIAL IN ACCORDANCE WITH THE CURRENT VERSIONS OF THE NJDEP FIELD SAMPLING PROCEDURES MANUAL, NJDEP MANAGEMENT OF EXCAVATED SOILS GUIDELINES, APPENDIX I OF THE NJDEP WASTE CLASSIFICATION FORM, AND ACCORDING TO THE RECYCLING OR DISPOSAL FACILITY ACCEPTING THE WASTE.

16. ENSURE ALL PERSONNEL, MATERIALS AND EQUIPMENT ARE PROVIDED TO PROPERLY STORE AND PROTECT CONTAMINATED MATERIAL AT THE EXCAVATION AND IN TEMPORARY STOCKPILES. LOCATE TEMPORARY STOCKPILES IN DRY AREAS SELECTED BY THE CONTRACTOR AND APPROVED BY THE RE. PLACE STOCKPILES ON PLASTIC SHEETING TO PREVENT MIGRATION OF CONTAMINANT INTO ADJACENT SOILS, SURFACE WATER, AND GROUNDWATER.

17. ENSURE A POLLUTION PREVENTION AND CONTROL PLAN IS DEVELOPED AND IMPLEMENTED TO MANAGE CONTAMINATED WATER AND GROUNDWATER. DO NOT DISCHARGE CONTAMINATED STORMWATER, GROUNDWATER, SEDIMENTS OR FREE PRODUCT TO LOCAL STORM SEWER SYSTEMS OR WATERWAYS EXCEPT AS AUTHORIZED BY A DISCHARGE APPROVAL OR PERMIT.

18. ENSURE A MATERIAL HANDLING PLAN IS DEVELOPED AND IMPLEMENTED TO MANAGE CONTAMINATED SOIL.

19. STORE PESTICIDES, FERTILIZERS, FUELS, LUBRICANTS, PETROLEUM PRODUCTS, ANTI-FREEZE, PAINTS AND PAINT THINNERS, CLEANING SOLVENTS AND ACIDS, DETERGENTS, CHEMICAL ADDITIVES, AND CONCRETE CURING COMPOUNDS IN CONTAINERS IN A DRY COVERED AREAS. ENSURE MANUFACTURERS$^{5}/_{32}$ RECOMMEND APPLICATION RATES, USES, AND METHODS ARE STRICTLY FOLLOWED TO THE EXTENT NECESSARY TO PREVENT OR MINIMIZE THE PRESENCE OF WASTE FROM SUCH MATERIALS IN THE STORMWATER DISCHARGE/RUNOFF FROM THE PROJECT LIMITS. STORE PRODUCTS AT A MINIMUM OF 50 FEET, IF FEASIBLE, FROM A WATERBODY, WETLAND, OR OTHER ENVIRONMENTALLY SENSITIVE AREA.

20. ENSURE THE HANDLING OF WASTE BUILDING MATERIAL, RUBBLE AND OTHER CONSTRUCTION SITE WASTES, INCLUDING LITTER AND HAZARDOUS AND SANITARY WASTES, IS IN ACCORDANCE WITH THE STATE SOLID WASTE MANAGEMENT ACT, N.J.S.A. 13:1E-1 ET SEQ., AND ITS IMPLEMENTING RULES AT N.J.A.C 7:26, 7:26A, AND 7:26G; THE NEW JERSEY PESTICIDE CONTROL CODE AT N.J.A.C. 7:30; THE STATE LITTER STATUTE (N.J.S.A. 13: 1E-99.3); AND OSHA REQUIREMENTS FOR SANITATION AT 29 C.F.R. 1926.

21. ENSURE THE PROJECT LIMITS ARE KEPT CLEAN AND FREE OF DEBRIS, TRASH, AND LITTER. CONTAIN LITTER AND WASTE THAT HAS THE POTENTIAL TO BE TRANSPORTED BY STORMWATER DISCHARGE/RUNOFF. ENSURE THE PROJECT LIMITS HAVE ONE OR MORE DESIGNATED WASTE COLLECTION AREAS ONSITE OR ADJACENT TO THE SITE, AND AN ADEQUATE NUMBER OF CONTAINERS (WITH LIDS OR COVERS) FOR WASTE. ENSURE WASTE IS COLLECTED FROM SUCH CONTAINERS BEFORE THEY OVERFLOW. IMMEDIATELY CLEANUP SPILLS AT SUCH CONTAINERS SHOULD THEY OCCUR.

22. CONCRETE WASHOUT SYSTEM: CONCRETE WASHOUT WITHIN THE PROJECT LIMITS IS PROHIBITED OUTSIDE OF DESIGNATED AREAS. PROVIDE CONCRETE WASHOUT FACILITY(IES) AS SPECIFIED IN THE CONCRETE WASHOUT SYSTEM SPECIFICATION IN SECTION 158. MORE THAN ONE DESIGNATED CONCRETE WASHOUT FACILITY LOCATION MAY BE NECESSARY DEPENDING ON EASE OF ACCESS AND THE AMOUNT OF CONCRETE BEING POURED AT ONE TIME.

23. SANITARY SEWAGE/SEPTAGE DISPOSAL: DISCHARGES OF RAW SANITARY SEWAGE OR SEPTAGE ONSITE ARE STRICTLY PROHIBITED. ENSURE PROPER DISPOSAL OF SANITARY SEWAGE/SEPTAGE. PROVIDE AND MAINTAIN ADEQUATE FACILITIES ADJACENT TO THE WORK SITE FOR ALL WORKERS AND OTHER SANITARY NEEDS.

24. BEFORE THE START OF CONSTRUCTION OPERATIONS, PROVIDE A MINIMUM OF TWO (2) OIL-ONLY EMERGENCY SPILL KITS, WITH EACH KIT CAPABLE OF CLEANING UP AT LEAST 95 GALLONS OF SPILL, WHICH ARE READILY AVAILABLE WITHIN THE PROJECT LIMITS. ENSURE THE KITS ARE AS SPECIFIED IN THE OIL-ONLY EMERGENCY SPILL KIT SPECIFICATION IN SECTION 158. IMMEDIATELY CONTAIN AND CLEAN UP ALL SPILLS. ENSURE CLEANED UP MATERIALS ARE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS AND AS SPECIFIED IN 202.03.08 OF THE SPECIFICATIONS. REPLACE COMPONENTS OF SPILL KITS AS USED.

25. IF A SPILL OCCURS, IMMEDIATELY CONTAIN IT AND IMMEDIATELY CONTACT THE NJDEP HOTLINE AT 1-877-WARN DEP (1-877-927-6337), AS WELL AS THE RE. CLEAN UP AND REMEDIATE THE SPILL AS DIRECTED BY NJDEP. SUBMIT AN INCIDENT REPORT TO THE RE AS SPECIFIED IN THE OIL-ONLY EMERGENCY SPILL KIT SPECIFICATION IN SECTION 158.

26. DISCHARGES OF HAZARDOUS SUBSTANCES (AS DEFINED IN N.J.A.C. 7:1E-1.6) IN CONSTRUCTION SITE WASTES ARE SUBJECT TO THE PROVISIONS OF THE SPILL COMPENSATION AND CONTROL ACT, N.J.S.A. 58:10-23.11 ET SEQ., AND OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION RULES FOR DISCHARGES OF PETROLEUM AND OTHER HAZARDOUS SUBSTANCES AT N.J.A.C. 7:1E.

27. ENVIRONMENTAL COMPLIANCE INSPECTIONS (INCLUDING, BUT NOT LIMITED TO, SOIL EROSION AND SEDIMENT CONTROL MEASURES, WATER QUALITY MEASURES, AND SITE WASTE CONTROL OPERATIONS) ARE TO BE PREFORMED BY THE CONTRACTOR AND THE RE AS SPECIFIED IN SECTION 158 OF THE SPECIFICATIONS. COMPLETE THE NJDOT ENVIRONMENTAL COMPLIANCE CHECKLIST AND INSPECTION FORM FOR EACH INSPECTION AND RETAIN THE ORIGINAL WITHIN THE PROJECT LIMITS. MAKE THE FORM AVAILABLE UPON REQUEST.

NJDOT SOIL EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE "NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" AND SECTION 158 (201) OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES OR CONSTRUCTION OPERATION IN THEIR PROPER SEQUENCE. AREAS OF PROPOSED CONSTRUCTION SHALL BE CLEARED ONLY AS REQUIRED. CAUTION (SNOW) AND SILT FENCES ARE TO BE INSTALLED PRIOR TO ANY GRUBBING, CLEARING, GRADING OR OTHER EARTH DISTURBING OR CONSTRUCTION OPERATION. ALL INLETS SHALL BE PROTECTED WITH AN INLET FILTER IMMEDIATELY AFTER INITIAL SITE DISTURBANCE; A CONSTRUCTION DRIVEWAY SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH SECTION 158 (201) OF THE STANDARD SPECIFICATIONS. SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND INSPECTED ON A REGULAR BASIS UNTIL PERMANENT PROTECTION IS ESTABLISHED.

3. DURING CONSTRUCTION, ANY ADDITIONAL CONTROL MEASURES AS DEEMED NECESSARY TO PREVENT EROSION OR CONTROL SEDIMENT BEYOND THOSE MEASURES SHOWN ON THE APPROVED PLAN SHALL BE INSTALLED OR EMPLOYED AT THE DIRECTION OF THE ENGINEER. ADDITIONAL STABILIZATION MEASURES SHALL BE REQUIRED IF EROSION OCCURS ALONG THE EDGES OF THE PAVEMENT.

4. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN FOURTEEN (14) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT.

5. AT THE TIME WHEN PREPARING THE SITE FOR PERMANENT VEGETATIVE STABILIZATION INCLUDE PERMANENT GRASS SEEDING AND PROVISION FOR TEMPORARY SEEDING AS NECESSARY. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATIONS WILL HAVE TO BE EMPLOYED.

6. PERMANENT VEGETATION SHALL BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH SHALL BE USED FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.

7. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS SHALL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO NJDOT. THE REVISED PLANS MUST MEET ALL CURRENT NJDOT SOIL EROSION AND SEDIMENT CONTROL STANDARDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMEDIATING ANY EROSION OR SEDIMENT PROBLEMS THAT ARISE AS A RESULT OF THE ONGOING CONSTRUCTION.

8. CONTRACTOR IS RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORM-WATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT. DEWATERING SHALL NOT BE DISCHARGED DIRECTLY INTO ANY WATERWAY.

9. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A LAYER OF LIME STONE AND A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE PRIOR TO SEEDBED PREPARATION.

SCALE IN FEET

100' 50' 0 100' 200'

EP-2 / EP-7

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL & SOIL EROSION & SEDIMENT CONTROL PLANS

ROUTE 22 LIBERTY AVENUE
& CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

PARSONS BRINCKERHOFF CADD DATA

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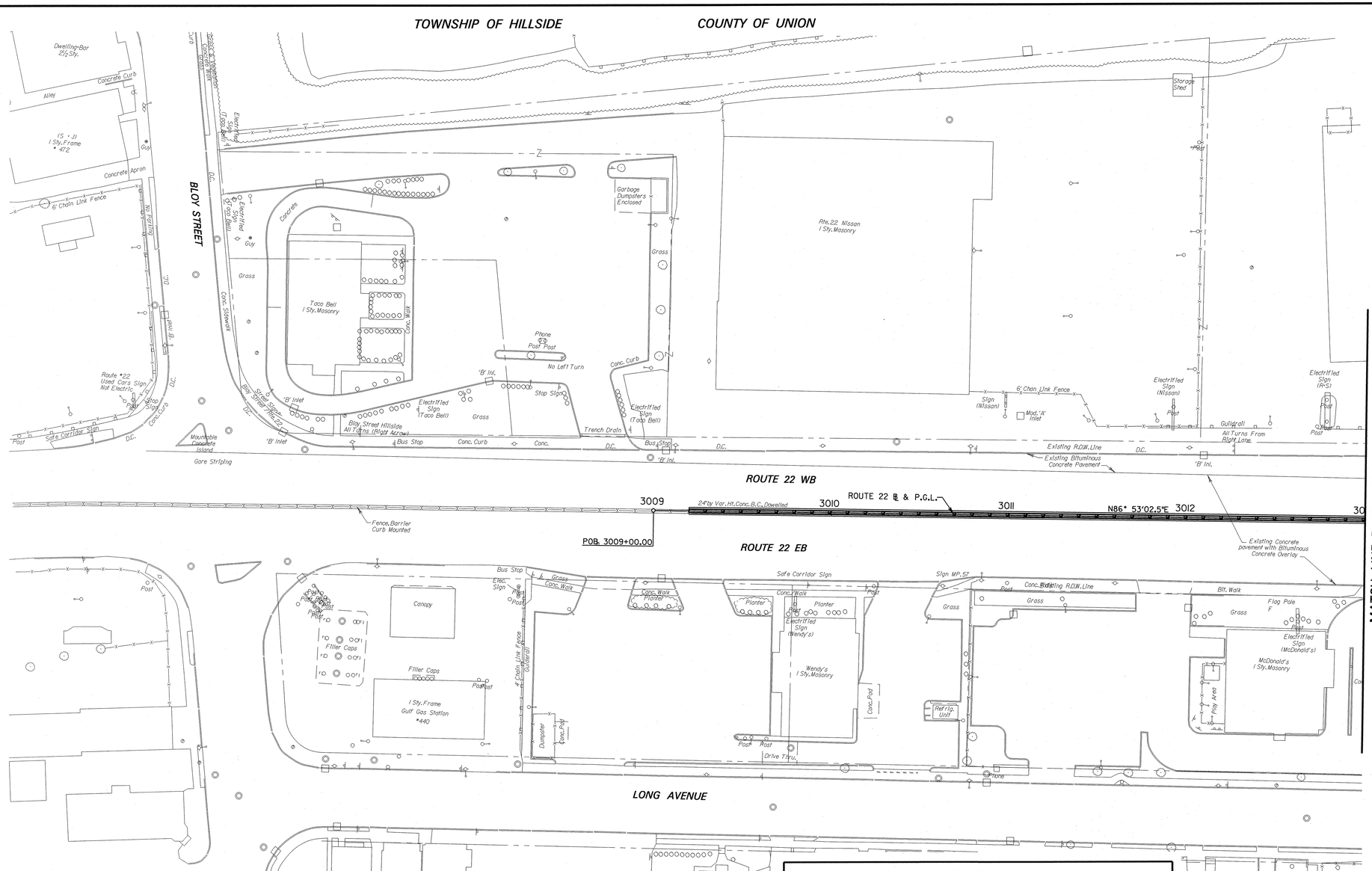
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)



NO PROPOSED ITEMS ON THIS PLAN SHEET

LEGEND

#1-#2	SENSITIVE AREA - UNDERGROUND STORAGE TANKS, SOIL AND GROUNDWATER SAMPLING LOCATIONS, SEE ENVIRONMENTAL COMMITMENT A
#3	SENSITIVE AREA - PARKLANDS, SEE ENVIRONMENTAL COMMITMENT B
#4	SENSITIVE AREA-HISTORIC PROPERTIES, SEE ENVIRONMENTAL COMMITMENT C
	SOIL BORING LOCATION
	HEAVY DUTY SILT FENCE, ORANGE
	INLET FILTERS

SCALE IN FEET
30' 20' 10' 0 30' 60'

EP-3 / EP-7

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL & SOIL EROSION & SEDIMENT CONTROL PLANS

ROUTE 22 LIBERTY AVENUE
& CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
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STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

18

PARSONS BRINCKERHOFF CADD DATA

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STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

TOWNSHIP OF HILLSIDE COUNTY OF UNION

LEGEND

	*1-*2	SENSITIVE AREA - UNDERGROUND STORAGE TANKS, SOIL AND GROUNDWATER SAMPLING LOCATIONS, SEE ENVIRONMENTAL COMMITMENT A
	*3	SENSITIVE AREA - PARKLANDS, SEE ENVIRONMENTAL COMMITMENT B
	*4	SENSITIVE AREA-HISTORIC PROPERTIES, SEE ENVIRONMENTAL COMMITMENT C
		SOIL BORING LOCATION
		HEAVY DUTY SILT FENCE, ORANGE
		INLET FILTERS

ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
158009M	HEAVY-DUTY SILT FENCE, ORANGE	748 L.F.
158030M	INLET FILTER TYPE 2, 2' X 4'	7 UNIT
158033M	INLET FILTER TYPE 2, 4' X 4'	12 UNIT

SCALE IN FEET
30' 20' 10' 0 30' 60'

EP-4 / EP-7

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL & SOIL EROSION & SEDIMENT CONTROL PLANS

ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE
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PARSONS BRINCKERHOFF CADD DATA	
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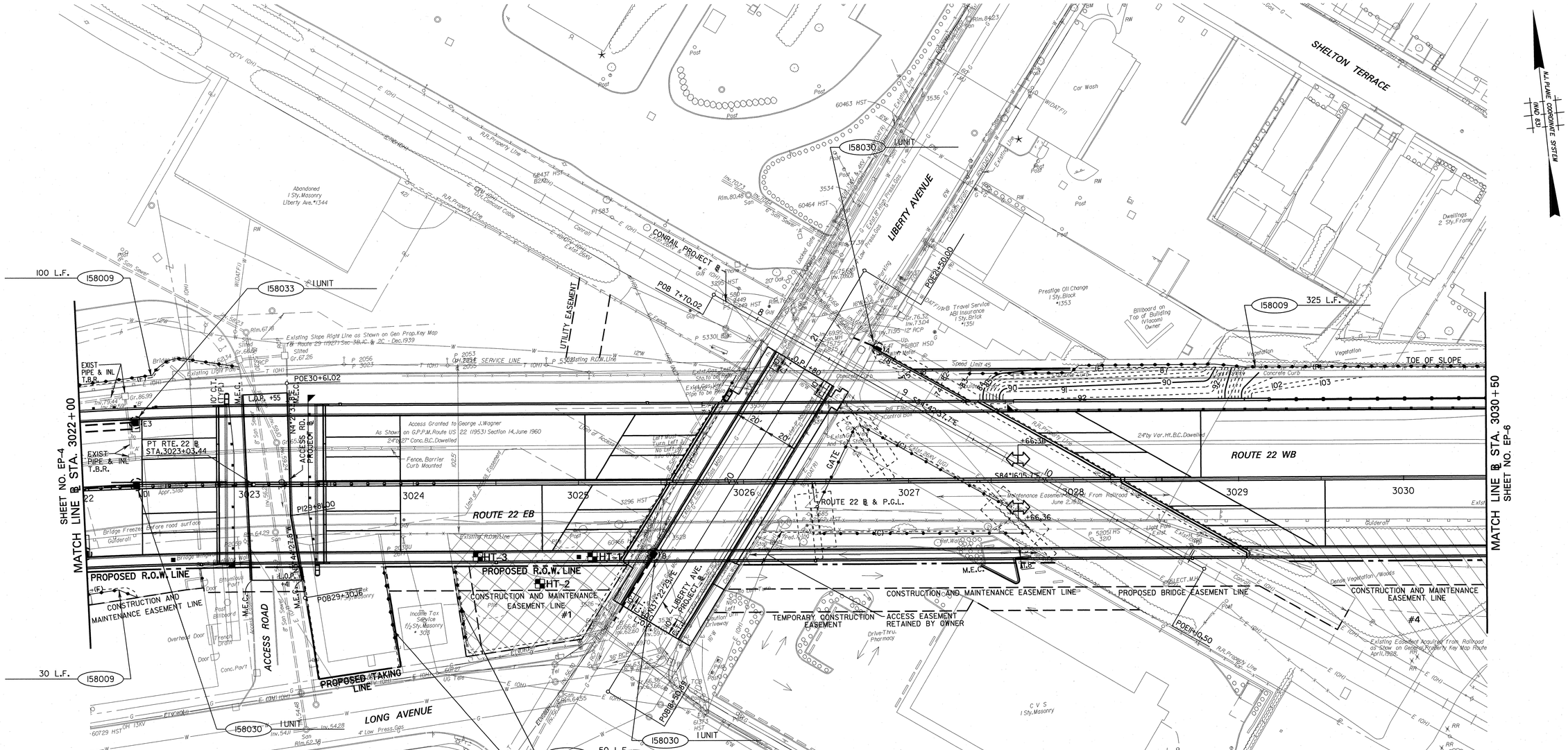
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

TOWNSHIP OF HILLSIDE COUNTY OF UNION



SOIL SAMPLING RESULTS

SAMPLE	HT-1	HT-2	HT-3	NJDEP STANDARD*
DEPTH OF SAMPLE (FEET)	11.5-12.0	7.0-7.5	7.0-5.5	
TPHC's	ND	ND	ND	1000-10000*
Benzene	ND	ND	ND	1
Naphthalene	ND	ND	ND	100
Ethylbenzene	ND	ND	ND	100
Xylenes (Total)	ND	ND	ND	67
TIC's (Total)	29.23	1.58	1.40	1000
Lead	7.05	8.71	8.87	400

*NJDEP Standard-Residential Direct Contact soil Cleanup Criteria (RDCSCC); 1,000 parts per million (ppm) is the action level; 10,000 ppm is the maximum allowable level; TPHCs-Total Petroleum Hydrocarbons; ND-Not detected; TICs-Tentatively-identified Compounds.

ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
158009M	HEAVY-DUTY SILT FENCE, ORANGE	555 L.F.
158030M	INLET FILTER TYPE 2, 2' X 4'	3 UNIT
158033M	INLET FILTER TYPE 2, 4' X 4'	1 UNIT

LEGEND

- #1-#2 — SENSITIVE AREA - UNDERGROUND STORAGE TANKS, SOIL AND GROUNDWATER SAMPLING LOCATIONS, SEE ENVIRONMENTAL COMMITMENT A
- #3 — SENSITIVE AREA - PARKLANDS, SEE ENVIRONMENTAL COMMITMENT B
- #4 — SENSITIVE AREA-HISTORIC PROPERTIES, SEE ENVIRONMENTAL COMMITMENT C
- SOIL BORING LOCATION
- HEAVY DUTY SILT FENCE, ORANGE
- INLET FILTERS

SCALE IN FEET
30' 20' 10' 0 30' 60'

EP-5 / EP-7

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL & SOIL EROSION & SEDIMENT CONTROL PLANS

ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

20

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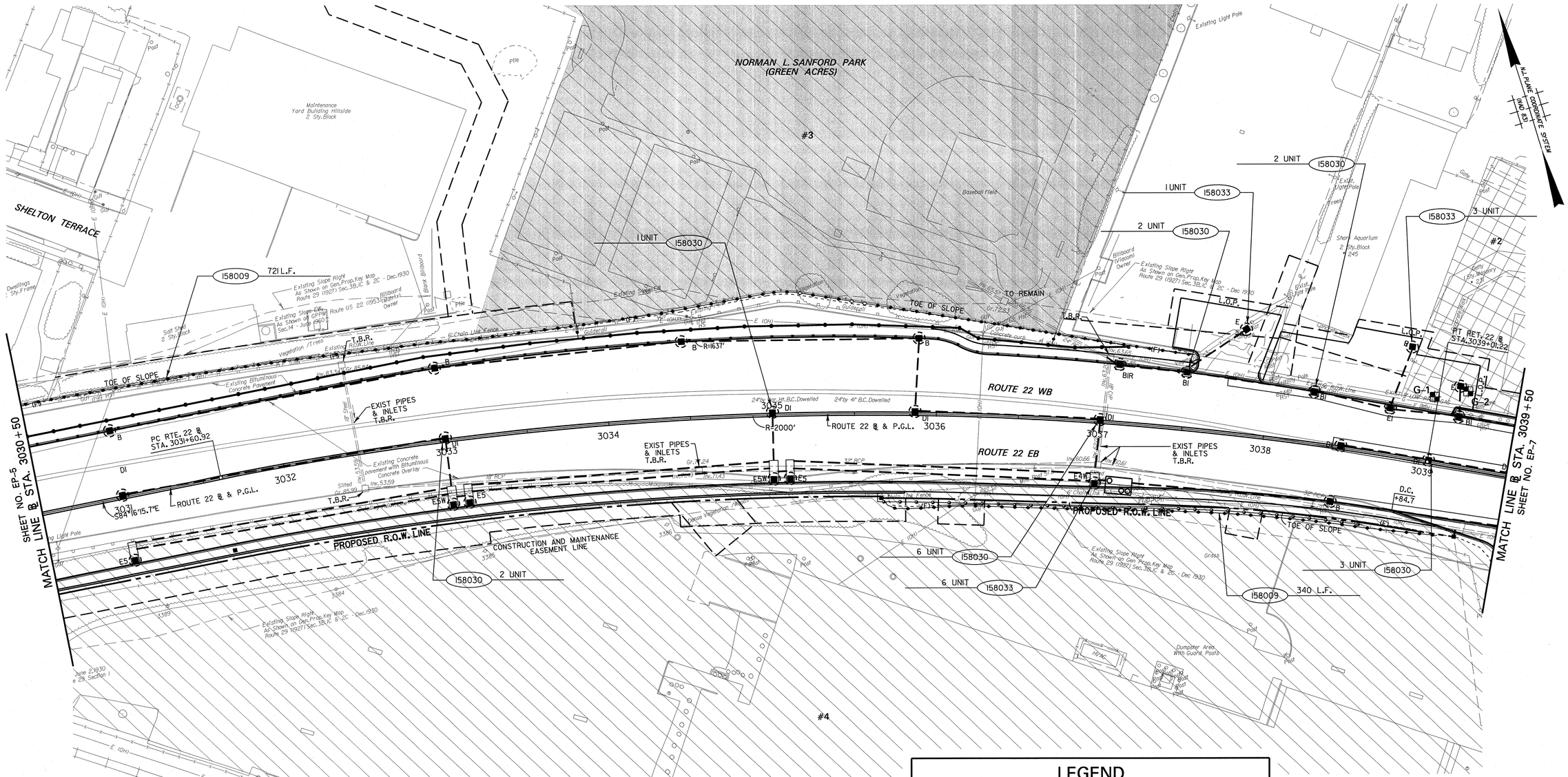
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

TOWNSHIP OF HILLSIDE COUNTY OF UNION



SOIL SAMPLING RESULTS

SAMPLE	G-1	G-2	G-3	G-4	NJDEP STANDARD*
DEPTH OF SAMPLE (FEET)	5.0-5.5	5.0-5.5	5.0-5.5	5.0-5.5	
TPHC's	ND	ND	ND	ND	1000-10000*
Benzene	ND	ND	ND	ND	1
Ethylbenzene	ND	ND	ND	ND	100
Xylenes (Total)	ND	ND	ND	ND	67
TIC's (Total)	1.5	1.91	0.93	1.55	500

*NJDEP Standard-Impact to Groundwater Soil Cleanup Criteria (IGWSCC); metals use a most restrictive standard since NJDEP IGWSCC has no standards for metals; 1,000 parts per million (ppm) is the action level; 10,000 ppm is the maximum allowable level; TPHCs-Total Petroleum Hydrocarbons; ND-Not detected; TICs-Tentatively-Identified Compounds.

ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
158009M	HEAVY-DUTY SILT FENCE, ORANGE	1061 L.F.
158030M	INLET FILTER TYPE 2, 2' X 4'	16 UNIT
158033M	INLET FILTER TYPE 2, 4' X 4'	10 UNIT

LEGEND

- #1-#2 — SENSITIVE AREA - UNDERGROUND STORAGE TANKS, SOIL AND GROUNDWATER SAMPLING LOCATIONS, SEE ENVIRONMENTAL COMMITMENT A
- #3 — SENSITIVE AREA - PARKLANDS, SEE ENVIRONMENTAL COMMITMENT B
- #4 — SENSITIVE AREA-HISTORIC PROPERTIES, SEE ENVIRONMENTAL COMMITMENT C
- SOIL BORING LOCATION
- HEAVY DUTY SILT FENCE, ORANGE
- INLET FILTERS

SCALE IN FEET
30' 20' 10' 0 30' 60'

EP-6 / EP-7

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL & SOIL EROSION & SEDIMENT CONTROL PLANS

ROUTE 22 LIBERTY AVENUE
& CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

21

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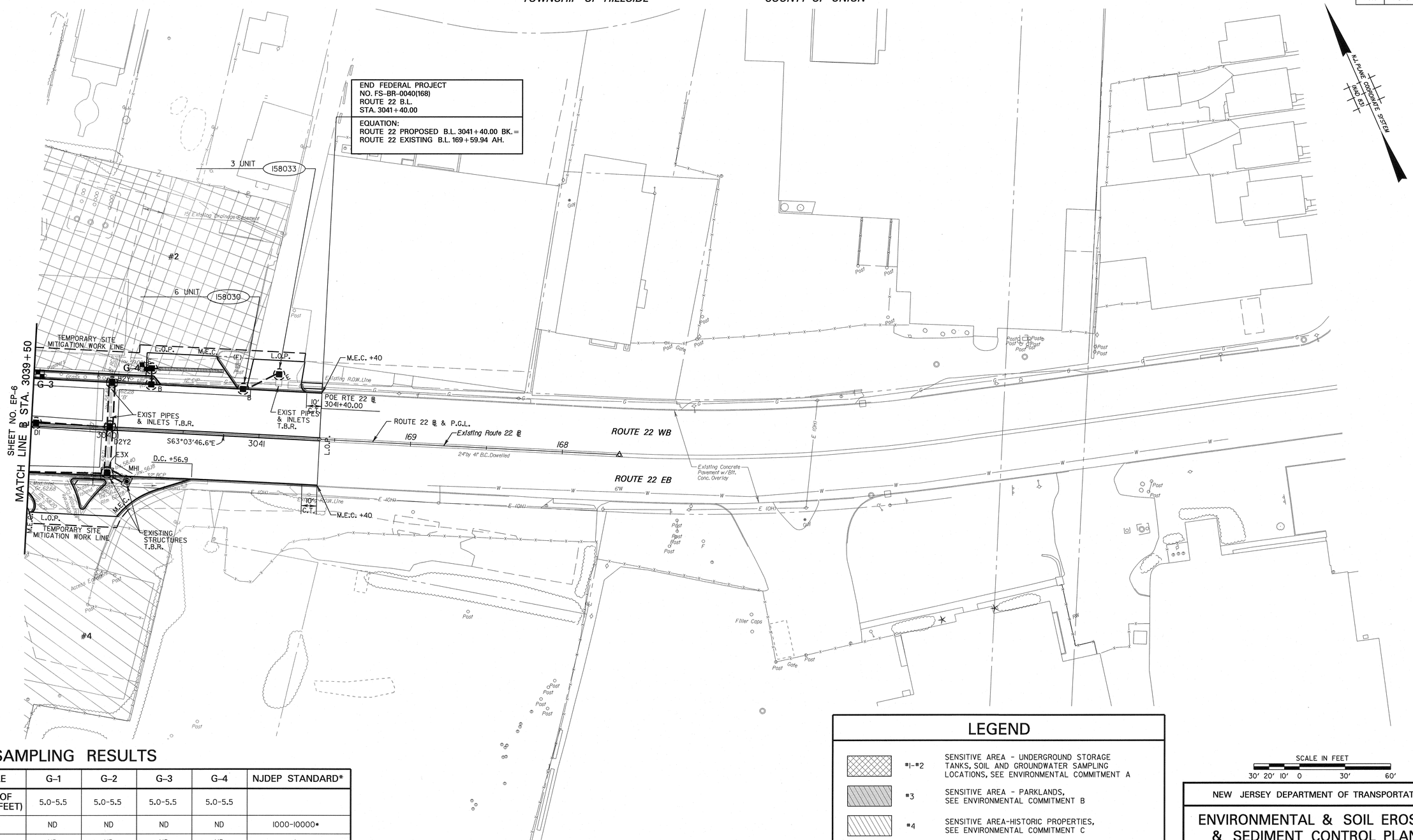
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

TOWNSHIP OF HILLSIDE

COUNTY OF UNION

END FEDERAL PROJECT
NO. FS-BR-0040(168)
ROUTE 22 B.L.
STA. 3041+40.00

EQUATION:
ROUTE 22 PROPOSED B.L. 3041+40.00 BK. =
ROUTE 22 EXISTING B.L. 169+59.94 AH.



SOIL SAMPLING RESULTS

SAMPLE	G-1	G-2	G-3	G-4	NJDEP STANDARD*
DEPTH OF SAMPLE (FEET)	5.0-5.5	5.0-5.5	5.0-5.5	5.0-5.5	
TPHC's	ND	ND	ND	ND	1000-10000*
Benzene	ND	ND	ND	ND	1
Ethylbenzene	ND	ND	ND	ND	100
Xylenes (Total)	ND	ND	ND	ND	67
TIC's (Total)	1.5	1.91	0.93	1.55	500

*NJDEP Standard-Impact to Ground Water Soil Cleanup Criteria (IGWSCC); metals use a most restrictive standard since NJDEP IGWSCC has no standards for metals; 1,000 parts per million (ppm) is the action level; 10,000 ppm is the maximum allowable level; TPHCs-Total Petroleum Hydrocarbons; ND-Not detected; TICs-Tentatively-identified Compounds.

ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
158030M	INLET FILTER TYPE 2, 2' X 4'	6 UNIT
158033M	INLET FILTER TYPE 2, 4' X 4'	3 UNIT

LEGEND

- #1-#2 — SENSITIVE AREA - UNDERGROUND STORAGE TANKS, SOIL AND GROUNDWATER SAMPLING LOCATIONS, SEE ENVIRONMENTAL COMMITMENT A
- #3 — SENSITIVE AREA - PARKLANDS, SEE ENVIRONMENTAL COMMITMENT B
- #4 — SENSITIVE AREA-HISTORIC PROPERTIES, SEE ENVIRONMENTAL COMMITMENT C
- SOIL BORING LOCATION
- HEAVY DUTY SILT FENCE, ORANGE
- INLET FILTERS

SCALE IN FEET
30' 20' 10' 0 30' 60'

EP-7 / EP-7

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL & SOIL EROSION & SEDIMENT CONTROL PLANS

ROUTE 22 LIBERTY AVENUE
& CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800

STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

22

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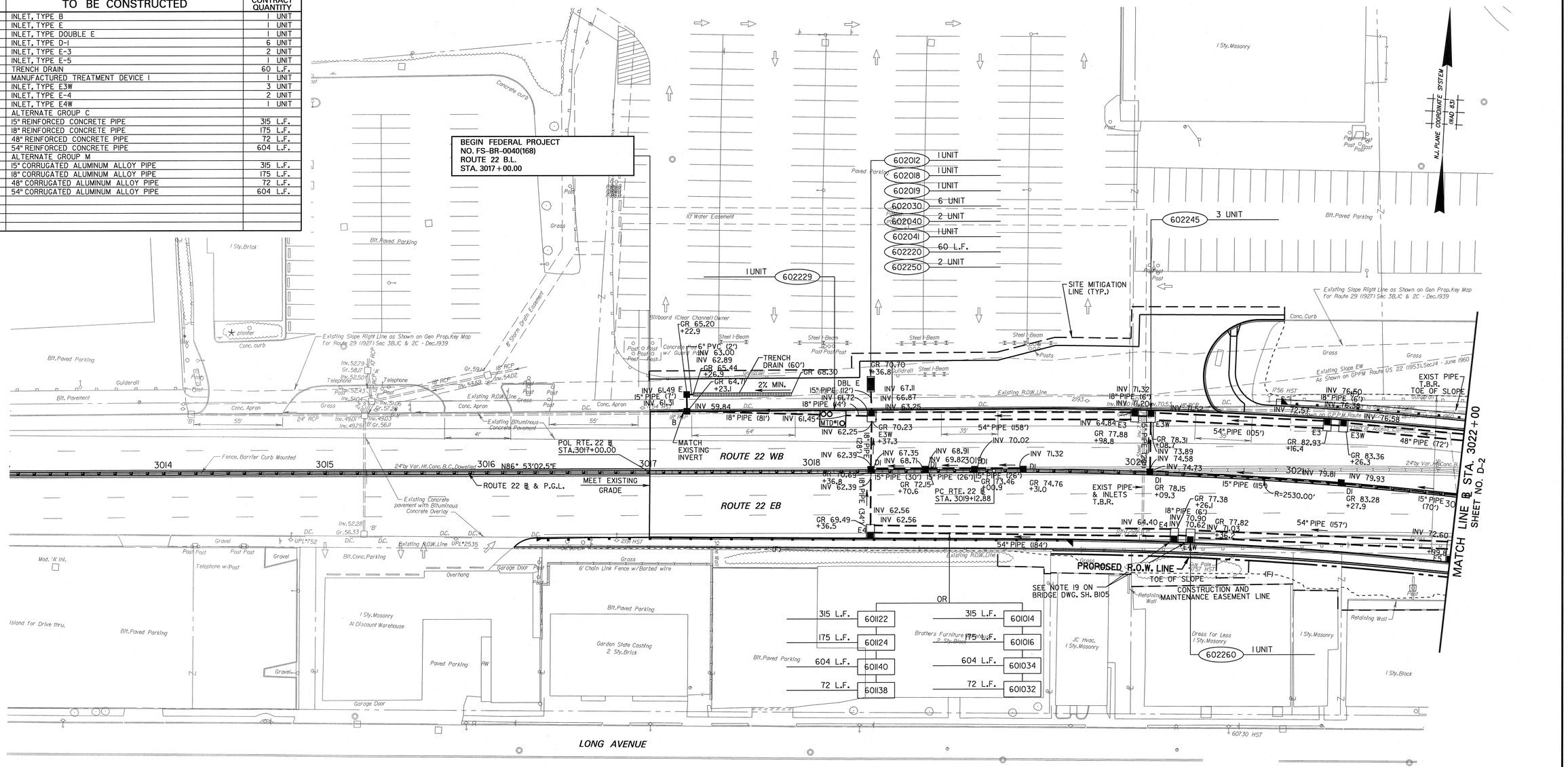
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)

ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
602012M	INLET, TYPE B	1 UNIT
602018M	INLET, TYPE E	1 UNIT
602019M	INLET, TYPE DOUBLE E	1 UNIT
602030M	INLET, TYPE D-1	6 UNIT
602040M	INLET, TYPE E-3	2 UNIT
602041M	INLET, TYPE E-5	1 UNIT
602220M	TRENCH DRAIN	60 L.F.
602229M	MANUFACTURED TREATMENT DEVICE 1	1 UNIT
602245M	INLET, TYPE E3W	3 UNIT
602250M	INLET, TYPE E-4	2 UNIT
602260M	INLET, TYPE E4W	1 UNIT
	ALTERNATE GROUP C	
601122P	15" REINFORCED CONCRETE PIPE	315 L.F.
601124P	18" REINFORCED CONCRETE PIPE	175 L.F.
601138P	48" REINFORCED CONCRETE PIPE	72 L.F.
601140P	54" REINFORCED CONCRETE PIPE	604 L.F.
	ALTERNATE GROUP M	
601014P	15" CORRUGATED ALUMINUM ALLOY PIPE	315 L.F.
601016P	18" CORRUGATED ALUMINUM ALLOY PIPE	175 L.F.
601032P	48" CORRUGATED ALUMINUM ALLOY PIPE	72 L.F.
601034P	54" CORRUGATED ALUMINUM ALLOY PIPE	604 L.F.



D-1
D-4

NEW JERSEY DEPARTMENT OF TRANSPORTATION

DRAINAGE PLANS

ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800

STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

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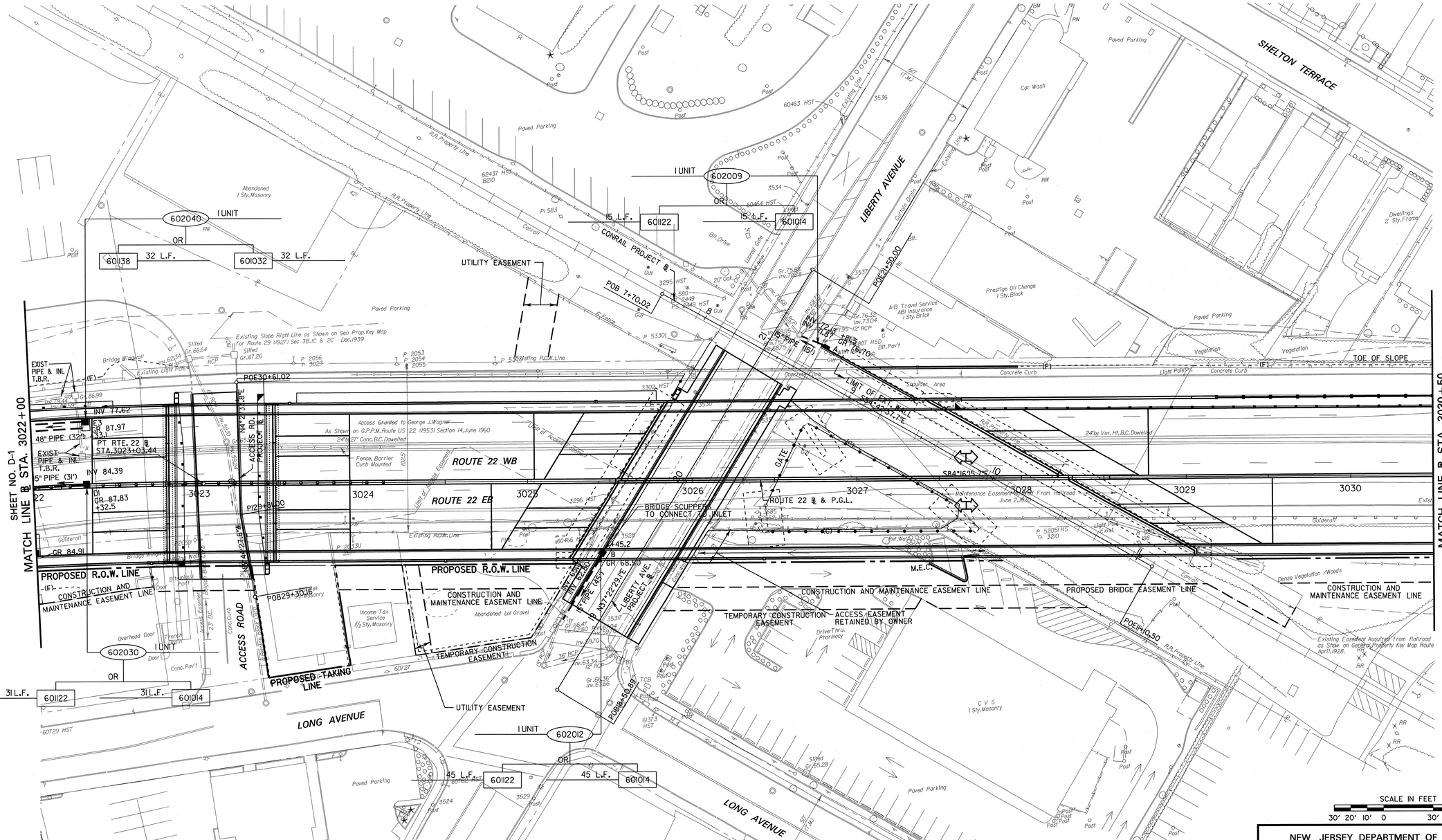
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
602009M	INLET, TYPE A	1 UNIT
602012M	INLET, TYPE B	1 UNIT
602030M	INLET, TYPE D-1	1 UNIT
602040M	INLET, TYPE E-3	1 UNIT
	ALTERNATE GROUP C	
601122P	15" REINFORCED CONCRETE PIPE	91 L.F.
601138P	48" REINFORCED CONCRETE PIPE	32 L.F.
	ALTERNATE GROUP M	
601014P	15" CORRUGATED ALUMINUM ALLOY PIPE	91 L.F.
601032P	48" CORRUGATED ALUMINUM ALLOY PIPE	32 L.F.

SCALE IN FEET

30' 20' 10' 0 30' 60'

D-2 / D-4

NEW JERSEY DEPARTMENT OF TRANSPORTATION

DRAINAGE PLANS

ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800

STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

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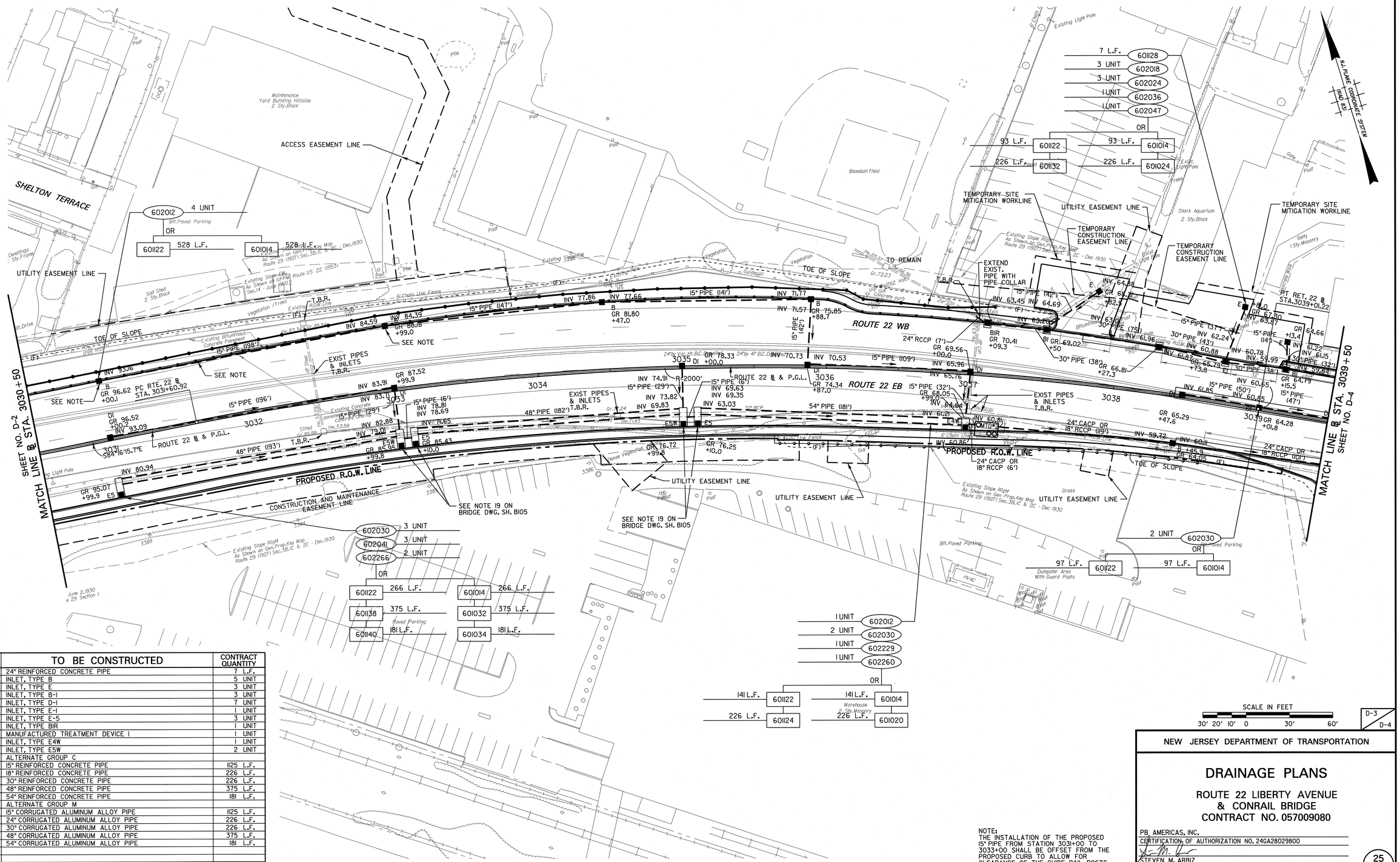
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
601128P	24" REINFORCED CONCRETE PIPE	7 L.F.
602012M	INLET, TYPE B	5 UNIT
602018M	INLET, TYPE E	3 UNIT
602024M	INLET, TYPE B-1	3 UNIT
602030M	INLET, TYPE D-1	7 UNIT
602036M	INLET, TYPE E-1	1 UNIT
602041M	INLET, TYPE E-5	3 UNIT
602047M	INLET, TYPE BIR	1 UNIT
602229M	MANUFACTURED TREATMENT DEVICE 1	1 UNIT
602260M	INLET, TYPE E4W	1 UNIT
602266M	INLET, TYPE E5W	2 UNIT
	ALTERNATE GROUP C	
601122P	15" REINFORCED CONCRETE PIPE	1125 L.F.
601124P	18" REINFORCED CONCRETE PIPE	226 L.F.
601132P	30" REINFORCED CONCRETE PIPE	226 L.F.
601138P	48" REINFORCED CONCRETE PIPE	375 L.F.
601140P	54" REINFORCED CONCRETE PIPE	181 L.F.
	ALTERNATE GROUP M	
601014P	15" CORRUGATED ALUMINUM ALLOY PIPE	1125 L.F.
601020P	24" CORRUGATED ALUMINUM ALLOY PIPE	226 L.F.
601024P	30" CORRUGATED ALUMINUM ALLOY PIPE	226 L.F.
601032P	48" CORRUGATED ALUMINUM ALLOY PIPE	375 L.F.
601034P	54" CORRUGATED ALUMINUM ALLOY PIPE	181 L.F.

NOTE:
THE INSTALLATION OF THE PROPOSED 15" PIPE FROM STATION 3031+00 TO 3033+00 SHALL BE OFFSET FROM THE PROPOSED CURB TO ALLOW FOR CLEARANCE OF THE GUIDE RAIL POSTS.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

DRAINAGE PLANS

ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

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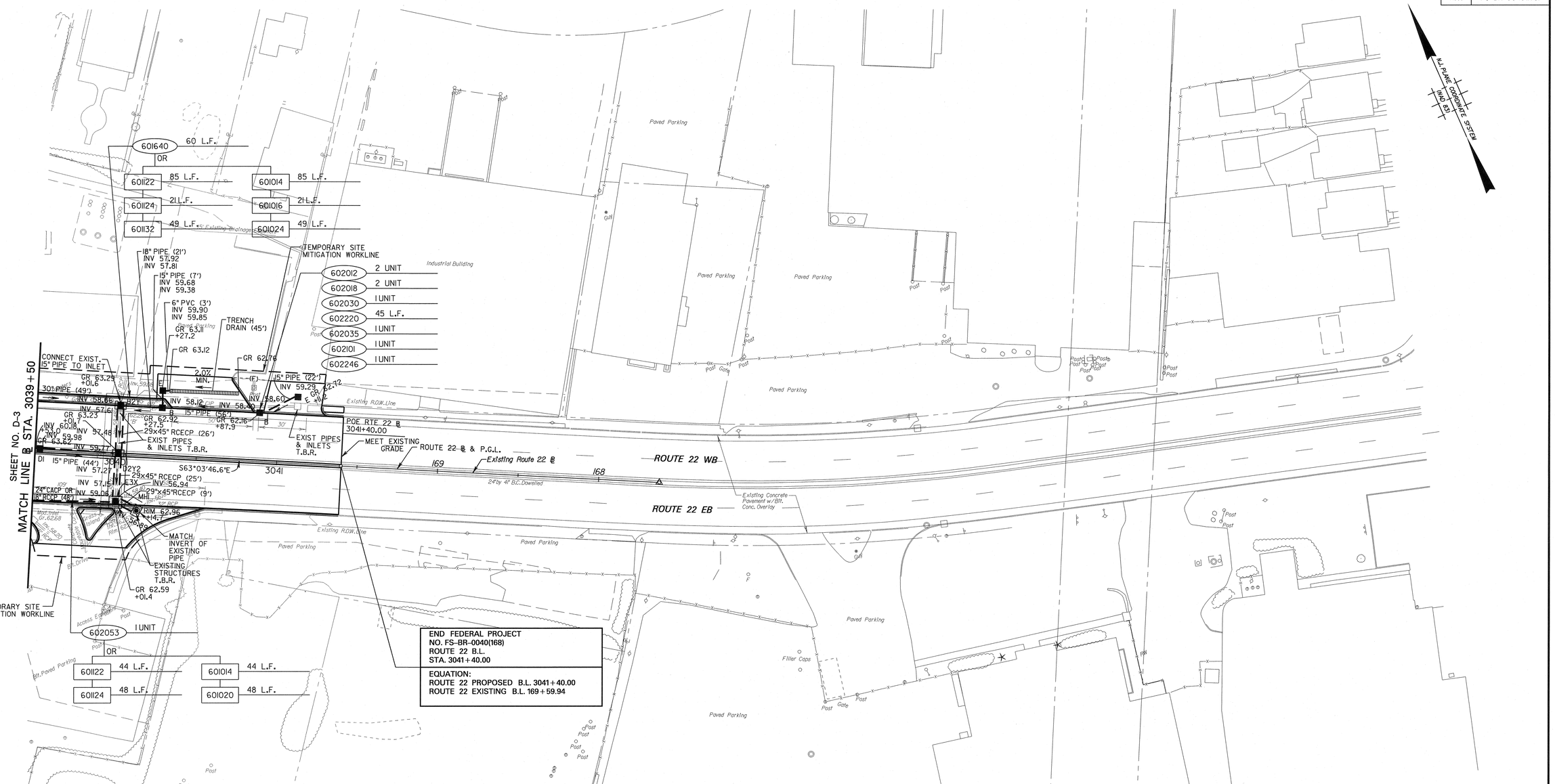
N.J.	FS-BR-0040(168)



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
601640P	29" X 45" REINFORCED CONCRETE ELLIPTICAL PIPE,	60 L.F.
	CLSS HE-V	
602012M	INLET, TYPE B	2 UNIT
602018M	INLET, TYPE E	2 UNIT
602030M	INLET, TYPE D-1	1 UNIT
602035M	INLET, TYPE D2Y2	1 UNIT
602053M	MANHOLE, TYPE MH-1	1 UNIT
602101M	INLET, TYPE B2Y	1 UNIT
602220M	TRENCH DRAIN	45 L.F.
602246M	INLET, TYPE E3X	1 UNIT
	ALTERNATE GROUP C	
601122P	15" REINFORCED CONCRETE PIPE	129 L.F.
601124P	18" REINFORCED CONCRETE PIPE	69 L.F.
601132P	30" REINFORCED CONCRETE PIPE	49 L.F.
	ALTERNATE GROUP M	
601014P	15" CORRUGATED ALUMINUM ALLOY PIPE	129 L.F.
601016P	18" CORRUGATED ALUMINUM ALLOY PIPE	21 L.F.
601020P	24" CORRUGATED ALUMINUM ALLOY PIPE	48 L.F.
601024P	30" CORRUGATED ALUMINUM ALLOY PIPE	49 L.F.

SCALE IN FEET
30' 20' 10' 0 30' 60'

D-4 / D-4

NEW JERSEY DEPARTMENT OF TRANSPORTATION

DRAINAGE PLANS

ROUTE 22 LIBERTY AVENUE & CONRAIL BRIDGE CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

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STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040 (168)

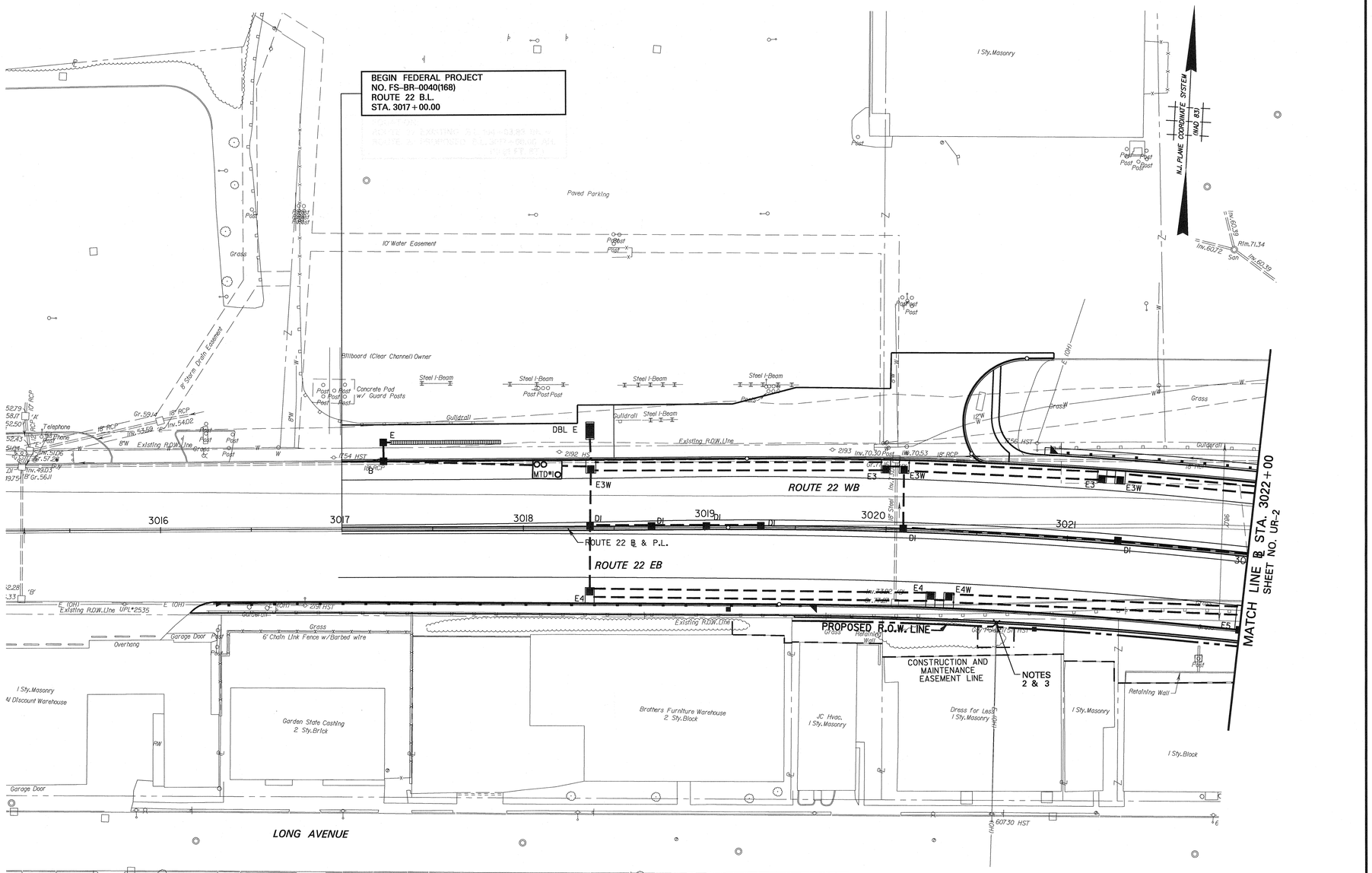
TOWNSHIP OF HILLSIDE COUNTY OF UNION

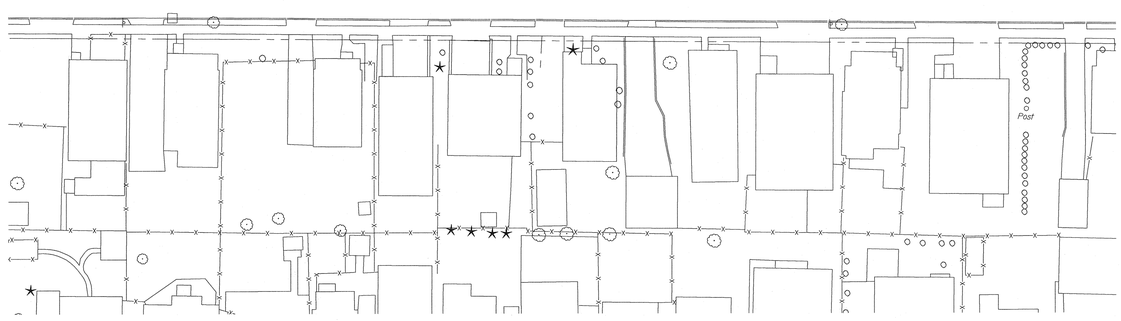
GENERAL NOTES:

1. RELOCATION OF THE RAILROAD CROSSING CONTROLLER AND ASSOCIATED CONDUIT AND SIGNAL WIRE WORK SHALL BE PERFORMED BY CONRAIL AND COMPLETED PRIOR TO COMMENCEMENT OF WORK BY THE STATE'S CONTRACTOR. CONRAIL SHALL RESTORE ALL DISTURBED AREAS TO ORIGINAL CONDITION.
2. ALL ELECTRICAL WORK SHOWN ON PLAN SHALL BE PERFORMED BY PSE&G AND COMPLETED PRIOR TO COMMENCEMENT OF WORK BY THE STATE'S CONTRACTOR UNLESS OTHERWISE NOTED. PSE&G SHALL RESTORE ALL DISTURBED AREAS TO ORIGINAL CONDITION.
3. ALL NEW POLES, INCLUDING GUY POLES & WIRES, SHALL BE PLACED BY PSE&G UNLESS OTHERWISE NOTED. PSE&G SHALL BE RESPONSIBLE TO COORDINATE POLE REMOVALS AS INDICATED ON THE PLAN.
4. THE STATE'S CONTRACTOR SHALL COORDINATE THE BRIDGE FOUNDATION EXCAVATION WITH PSE&G. THE STATE'S CONTRACTOR SHALL UNCOVER, SUPPORT AND PROTECT THE PSE&G DUCT BANK DURING CONSTRUCTION. THE STATE'S CONTRACTOR SHALL SUBMIT FOR APPROVAL A SHOP DRAWING SHOWING MEANS AND METHODS OF EXCAVATION AND SUPPORT OF PSE&G 26 KV FACILITY WITHIN THE PROPOSE FOOTING LIMITS. PSE&G SHALL SUPPLY AN INSPECTOR DURING CONSTRUCTION. THE APPROXIMATE SIZE OF THE CONCRETE ENCASED ELECTRIC FACILITY THRU THE FOOTING LIMITS (2 LOCATIONS) IS 2'X2' BY 28' LONG. PSE&G SHALL BE NOTIFIED 2 WEEKS PRIOR TO START OF WORK.
5. THE STATE'S CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE NOISE WALL AT AROUND STA. 3033+75, LEFT WITH PSE&G'S RELOCATION OF THE AERIAL FACILITIES.
6. ALL GAS MAIN WORK SHOWN ON PLAN SHALL BE PERFORMED BY ELIZABETHTOWN GAS AND COMPLETED PRIOR TO COMMENCEMENT OF WORK BY THE STATE'S CONTRACTOR. THEY SHALL RESTORE ALL DISTURBED AREAS TO ORIGINAL CONDITION.
7. THE STATE'S CONTRACTOR SHALL COORDINATE THE BRIDGE FOUNDATION EXCAVATION WITH VERIZON. THE STATE'S CONTRACTOR SHALL UNCOVER THE TOP OF 2 WOOD DUCTS FROM LIBERTY AVE. STA. 19+20, LEFT TO STA. 20+50 LEFT. VERIZON SHALL BE NOTIFIED 4 WEEKS PRIOR TO THE START OF WORK.
8. VERIZON SHALL PERFORM THE REMAINDER OF EXCAVATION TO COMPLETELY EXPOSE AND SUPPORT THEIR FACILITY. THE STATE'S CONTRACTOR SHALL COORDINATE WITH VERIZON TO PROTECT THE FACILITY DURING THE CONSTRUCTION ACTIVITIES.
9. VERIZON SHALL REMOVE THE 2 EXISTING CREOSOTED WOOD DUCTS AND INSTALL ONE NEW 4" PVC SPLIT DUCT AROUND THEIR EXISTING UNDERGROUND FACILITY AND INSTALL ONE 4" PVC FOR FUTURE USE. THE CONTRACTOR SHALL BACKFILL TO THE BOTTOM OF THE PVC DUCTS. VERIZON SHALL COMPLETE THE BACKFILLING AROUND THEIR DUCTS TO THE SUBBASE.
10. NEW SANITARY MANHOLES SHALL BE CAST-IN-PLACE OR BRICK PER NJDOT STANDARD SANITARY MANHOLES.
11. THE SANITARY MANHOLE CASTINGS SHALL BE BY CAMPBELL FOUNDRY COMPANY, CASTING NO. 1202B ROUND FLANGE, OR APPROVED EQUAL. THE RIM ELEVATION SHALL MATCH ADJACENT EXISTING GROUND, TOP OF SIDEWALK OR TOP OF ROADWAY.
12. THE REMOVAL OF THE EXISTING SANITARY SEWER FACILITIES WITHIN THE FOOTING LIMITS SHALL BE PAID FOR UNDER "CLEARING SITE, BRIDGE".
13. FOR ROADWAY, SIDEWALK AND CURB RECONSTRUCTION SEE SHEETS C-4 AND G-3.
14. PRIOR TO CLEARING SITE, BRIDGE FOR THE WEST ABUTMENT FOOTING THE CONTRACTOR SHALL INSTALL TWO – 4" RIGID NONMETALLIC CONDUITS IN THE ROADWAY AND POLE RISERS FOR COMCAST AND SUNESYS AS INDICATED ON THE PLAN. COMCAST AND SUNESYS SHALL REMOVE THEIR AERIAL FACILITIES AND PLACE NEW CABLE INTO THE DUCTS.
15. UTILITY POLES UNDER THE ROUTE 22 STRUCTURE SHALL BE REMOVED BY THE STATE'S CONTRACTOR UNDER "CLEARING SITE, BRIDGE" AFTER COMCAST AND SUNESYS HAVE REMOVED THEIR FACILITIES.

LEGEND:

- ✕ EXISTING POLE REMOVED
- ◆ PROPOSED POLE
- ▨ ROADWAY EXCAVATION TO UNCOVER VERIZON DUCTS





SCALE IN FEET
30' 20' 10' 0 30' 60'

UR-1 / UR-3

ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
	NO PROPOSED ITEMS ON THIS PLAN SHEET	

UTILITY
KS ENGINEERS, P.C.
JACK PERLMUTTER
N.J. P.E. LIC. NO. 37648

NEW JERSEY DEPARTMENT OF TRANSPORTATION

UTILITY RELOCATION PLANS

ROUTE 22 LIBERTY AVENUE
& CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

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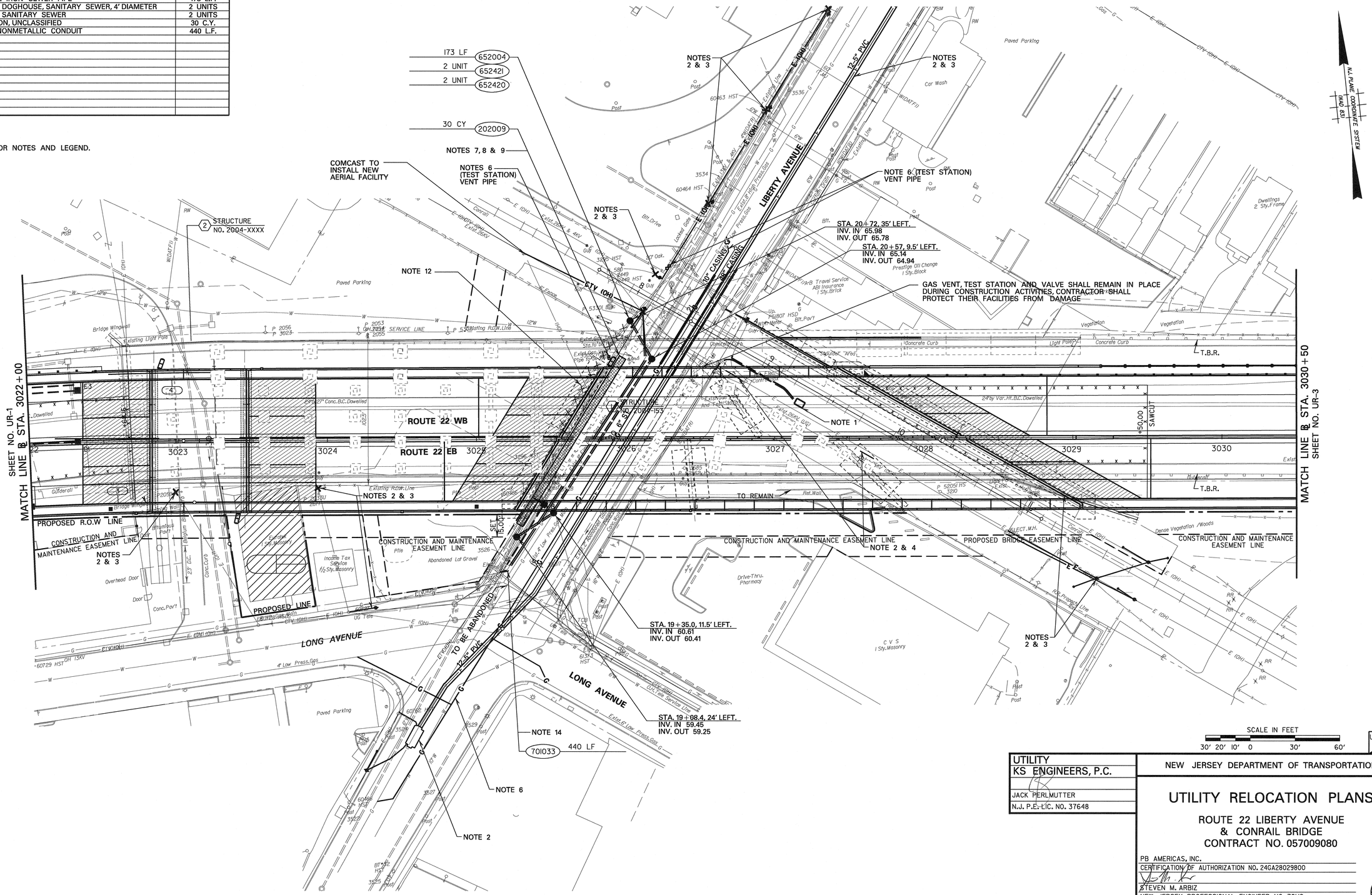
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040 (168)

ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
652004P	8" DUCTILE IRON SEWER PIPE	173 L.F.
652421M	MANHOLE, DOGHOUSE, SANITARY SEWER, 4' DIAMETER	2 UNITS
652420M	MANHOLE, SANITARY SEWER	2 UNITS
202009P	EXCAVATION, UNCLASSIFIED	30 C.Y.
701033P	4" RIGID NONMETALLIC CONDUIT	440 L.F.

NOTES:
SEE SHEET UR-1 FOR NOTES AND LEGEND.

TOWNSHIP OF HILLSDIE

COUNTY OF UNION



UTILITY
KS ENGINEERS, P.C.
JACK PERLMUTTER
N.J. P.E. LIC. NO. 37648

NEW JERSEY DEPARTMENT OF TRANSPORTATION

UTILITY RELOCATION PLANS

ROUTE 22 LIBERTY AVENUE
& CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

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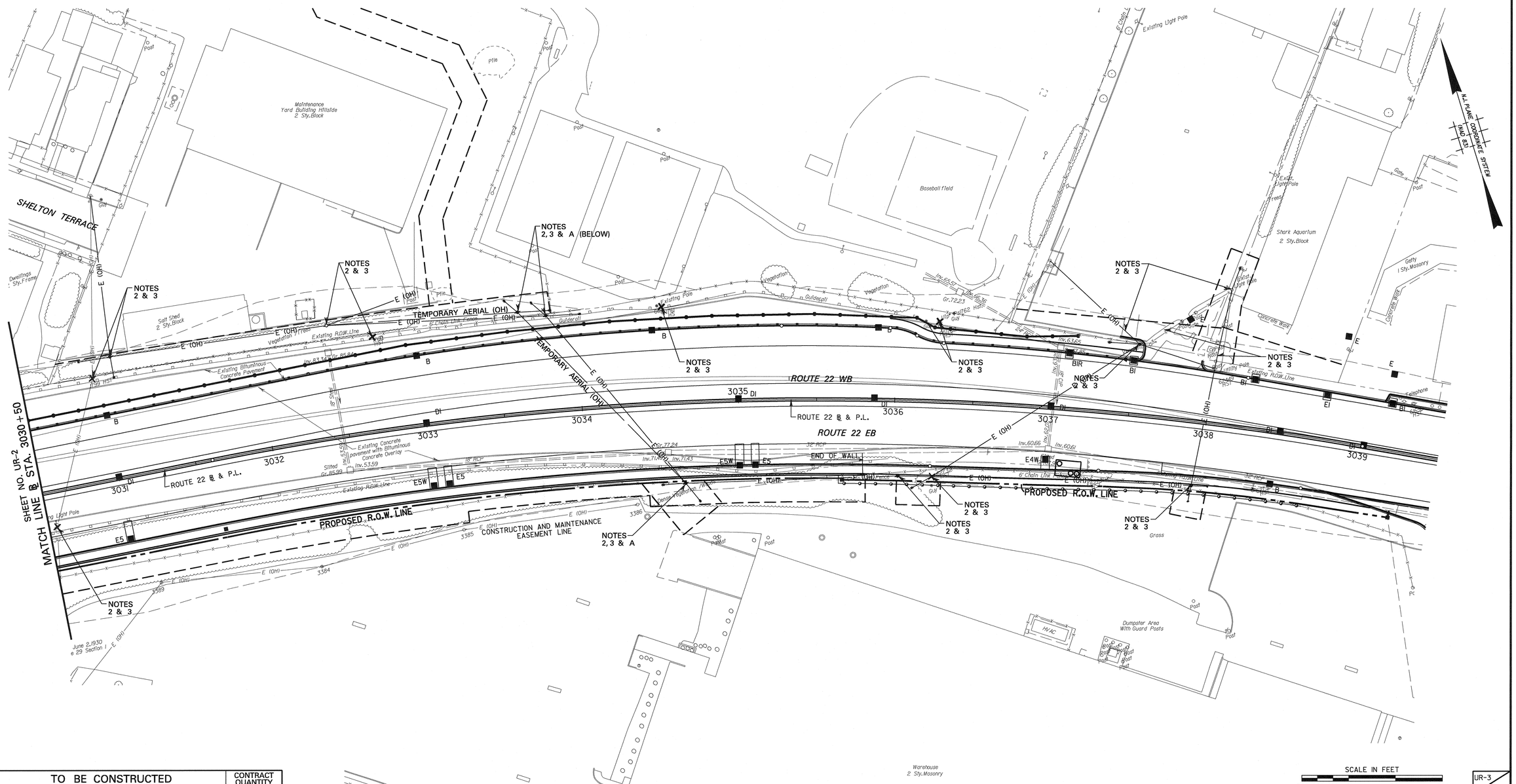
STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040 (168)

TOWNSHIP OF HILLSIDE COUNTY OF UNION



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
	NO PROPOSED ITEMS ON THIS PLAN SHEET	

NOTES:

A. COORDINATE WITH PSE&G DURING CONSTRUCTION OF THE NOISE WALL. CONTRACTOR TO POSTPONE INSTALLATION OF ONE POST SOUTH OF THE NEW TEMPORARY POLE AT STA.3033+64.3, 64.2' LEFT. WHEN ADJACENT POSTS ARE INSTALLED, PSE&G IS TO RELOCATE THE EXISTING AERIAL FACILITY FROM THE TEMPORARY POLE TO NEW POLE AT STA. 3033+82.5, 60.2' LEFT. REMAINING POST CAN THEN BE INSTALLED AND WALL COMPLETED.

B. FOR ADDITIONAL NOTES SEE UR-1.

UTILITY
KS ENGINEERS, P.C.
JACK PERLMUTTER
N.J. P.E. LIC. NO. 37648

NEW JERSEY DEPARTMENT OF TRANSPORTATION

UTILITY RELOCATION PLANS

ROUTE 22 LIBERTY AVENUE
& CONRAIL BRIDGE
CONTRACT NO. 057009080

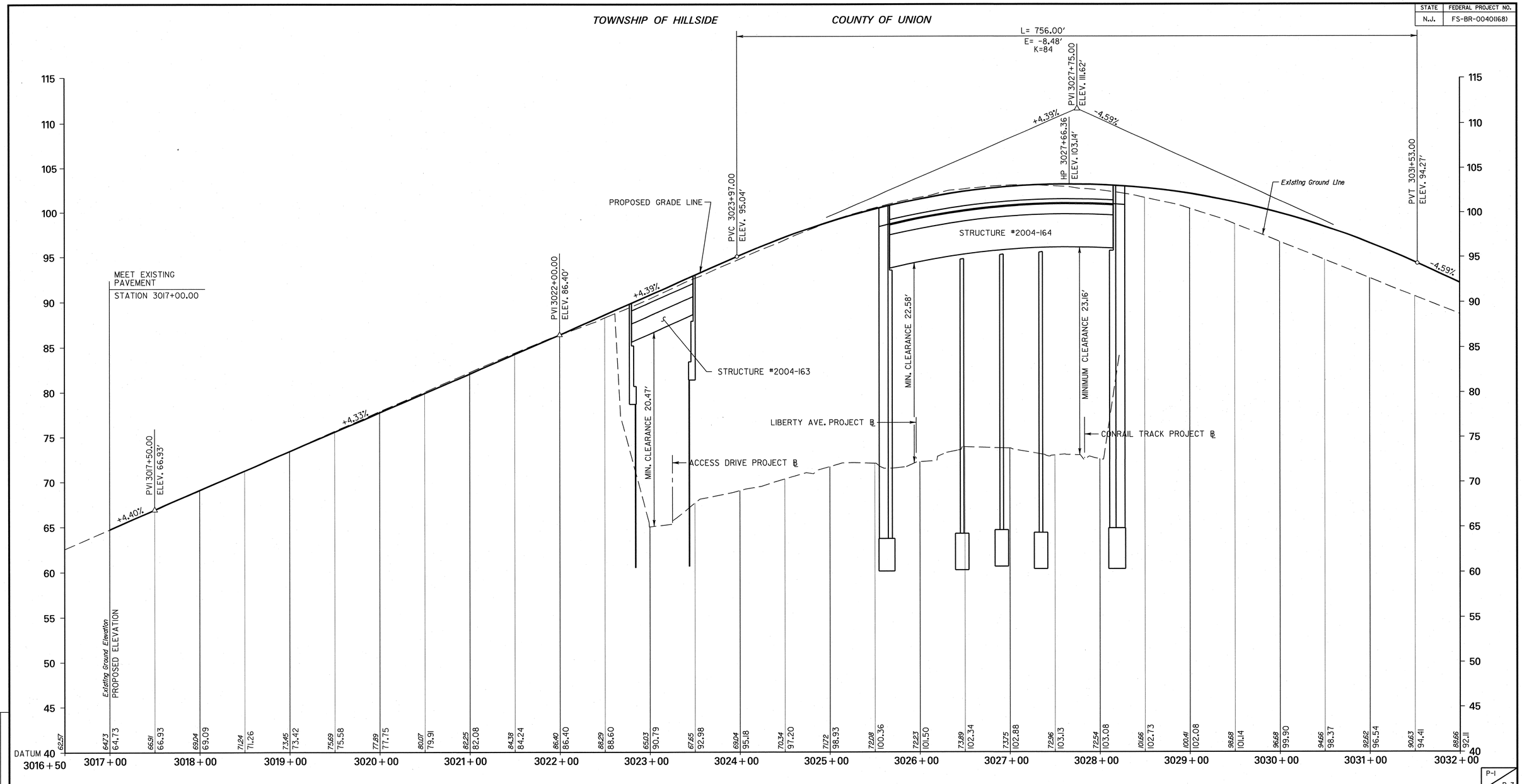
PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800
STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

UR-3 / UR-3

29

PARSONS BRINCKERHOFF CADD DATA
OPERATOR mbpatel QUEUE Adobe PDF
PLOT DATE 02-DEC-2009 16:41
PENTABLE ehx.tbl
DESIGN FILE Z:\2003-0329\FOR UTILITY RELO PLANS\UR04.dgn

STATE	FEDERAL PROJECT NO.
N.J.	FS-BR-0040(168)



P-1 / P-3

ROUTE 22 – DESIGN SPEED 50 MPH

VERT. SCALE IN FEET 5' 0 5' 10'

HORIZ. SCALE IN FEET 50' 0 50' 100'

NOTE:

E = DIFFERENCE BETWEEN THE P.V.I. ELEVATION AND THE VERTICAL CURVE ELEVATION AT THE P.V.I. STATION.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

PROFILES

ROUTE 22 LIBERTY AVENUE
& CONRAIL BRIDGE
CONTRACT NO. 057009080

PB AMERICAS, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA28029800

STEVEN M. ARBIZ
NEW JERSEY PROFESSIONAL ENGINEER NO. 38119

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PARSONS BRINCKERHOFF CADD DATA

OPERATOR	runk	QUEUE	\\Pr1plot1\Qce_Pl
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PENTABLE	ehx.tbl		
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