

TYPE OF CONSTRUCTION:

RECONSTRUCTION
AND REHABILITATION

DESIGN DESIGNATION:

ADT (2003) 2392 (RTE 332); 1307 (RTE 405)
ADT (2023) 4075 (RTE 332); 2170 (RTE 405)
V 20 MPH (15 MPH, POSTED)
e (max) 0.060

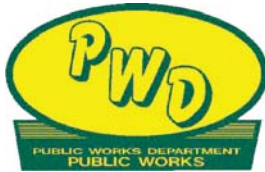
SPECIFICATION:

Standard Specifications for Construction
of Roads and Bridges on Federal Highway
Projects, FP-03 US Customary Units

PLANS PREPARED FOR:



GOVERNMENT OF THE VIRGIN ISLANDS
OF THE UNITED STATES

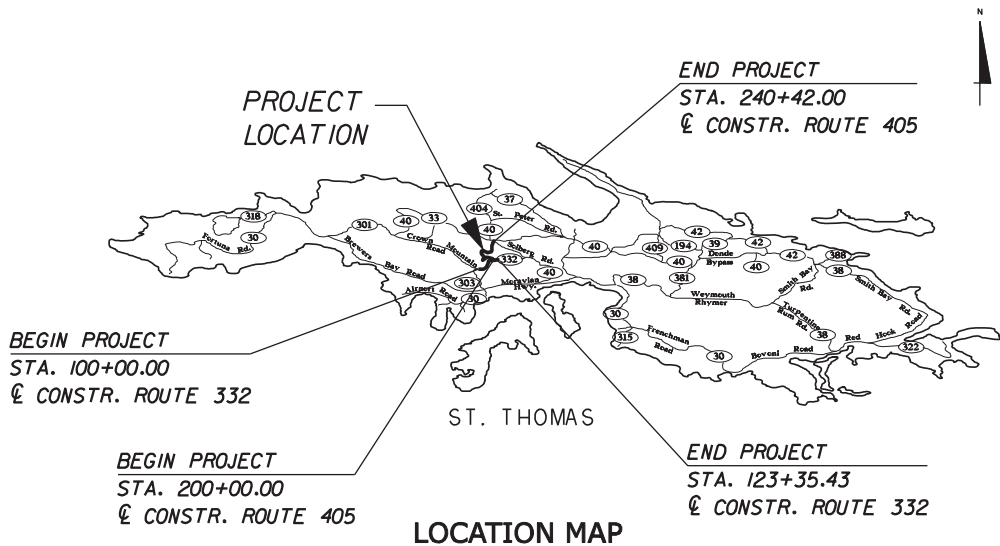


OFFICE OF HIGHWAY ENGINEERING
DEPARTMENT OF PUBLIC WORKS

PLANS PREPARED BY:

PB AMERICAS, INC.
Crown Bay Center
No. 161-B Subbase, 2nd Floor
St. Thomas, USVI 00802
Ph. (340) 779-6142

PLANS FOR PROPOSED PROJECT
FEDERAL AID PROJECT NO. VI-A405(001)
IMPROVEMENTS TO RTE 405
(SCOTT FREE ROAD)
ST THOMAS USVI
IFB CONTRACT PLAN SET
PHASE 1 - BRIDGE REPLACEMNT ACCESS



LENGTH OF PROJECT		
	TOTAL (LF)	ROADWAY (LF)
ROADWAY, RTE 332	2335.43	2325.00
ROADWAY, RTE 405	4242.00	4027.00
ESTATE ROAD	214.00	214.00
NET	6577.43	6352.00
EXCEPTION	0.00	42.88
GROSS	6577.43	6309.12

PROJECT LENGTH IS BASED ON \varnothing OF CONSTRUCTION

APPROVED: _____
GUSTAV JAMES
COMMISSIONER
DEPARTMENT OF PUBLIC WORKS

Engineer of Record: John W. Wyatt, Jr.
PE No. 638TE


























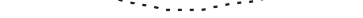


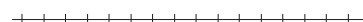
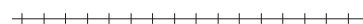



















INDEX TO SHEETS

A. GENERAL INFORMATION		
1	A-001	TITLE SHEET
2	A-002	PLAN SYMBOLS AND ABBREVIATIONS
3	A-003	PROJECT LAYOUT
4	A-004	SURVEY CONTROL
5	A-005	GENERAL NOTES
6	A-013	DEMOLITION SITE PLAN
7	A-015	DEMOLITION SITE PLAN EXISTING BRIDGE
8	A-016	DEMOLITION DETAILS EXISTING BRIDGE
9	A-021	EROSION CONTROL PLAN
B. SUMMARY OF PAY ITEMS		
10	B-001	SUMMARY OF PAY ITEMS
C. ROADWAY		
11-12	C-003	TYPICAL SECTIONS
13-14	C-011	SITE GEOMETRY PLANS
15	C-035	CURVE AND COORDINATE DATA SHEETS
16-17	C-107	ROADWAY PLANS
18-19	C-157	ROADWAY PROFILES
20	C-303	SPECIAL DETAILS - CHAINLINK FENCE
D. DRAINAGE		
21-22	D-001	DRAINAGE KEY MAP
23	D-012	SUMMARY OF DRAINAGE QUANTITIES
24	D-108	DRAINAGE PLANS
25	D-213	DRAINAGE CULVERT - CROSS SECTION
26-28	D-302	DRAINAGE - SPECIAL DETAILS
F. TRAFFIC CONTROL PLAN		
29	F-001	TRAFFIC CONTROL PLAN
30	F-021	PHASING PLAN AND NOTES
G. SIGNING AND PAVEMENT MARKING PLANS		
31	G-108	SIGNING AND PAVEMENT MARKING PLAN
H. STRUCTURAL WALLS		
32-33	H-107	RETAINING WALL - PLANS
34	H-224	RETAINING WALL - ELEVATION-RTE 405
35	H-236	RETAINING WALL - ELEVATION-ESTATE RD
36-37	H-304	RETAINING WALL DETAILS - MSE WALL
J. LIGHTING PLANS		
38	J-013	EXISTING UTILITY SYSTEM LAYOUT PLAN
STANDARD DETAILS		
39	617-11	GUARDRAIL

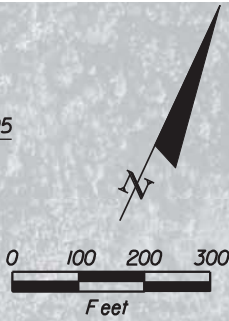
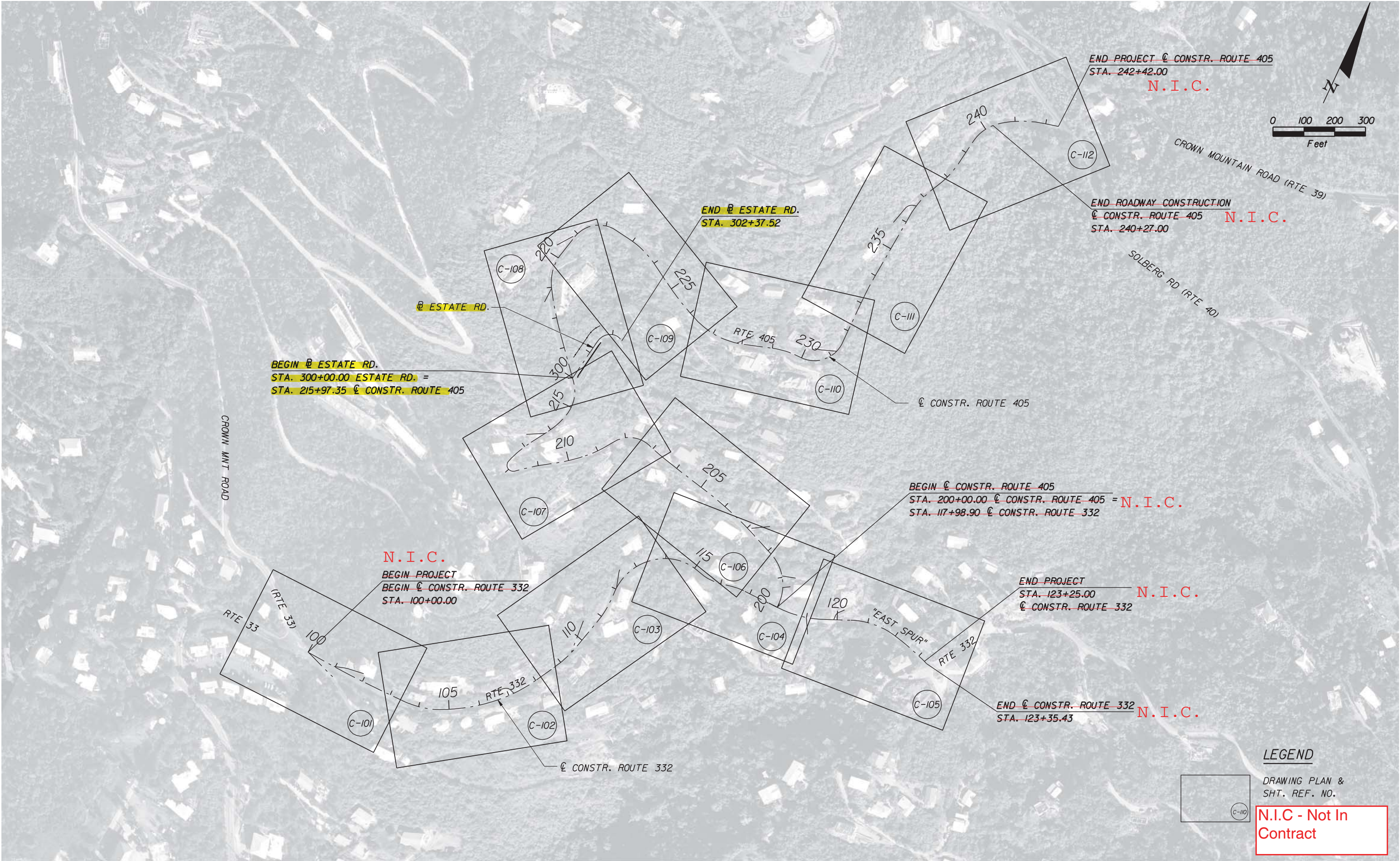
Sheet
Reference

A-001


Sheet 1

ABUTMENT ACRE AGGREGATE AHEAD ALTERNATE AND AND OTHERS AND WIFE AND SO FORTH (ETC.) APPROACH APPROXIMATE ASPHALT AVERAGE DAILY TRAFFIC	ABUT. ACRE AGGR. AH ALT. & ET AL ET UX ETC. APPR. APPROX. ASPH. ADT	LENGTH OF CURVE LITER LONGITUDINAL LOW WATER LUMP SUM	L L LONG. LW LPSM	NATIONAL BOUNDARY STATE BOUNDARY COUNTY BOUNDARY CITY BOUNDARY TOWNSHIP OR RANGE LINE SECTION LINE 1/4 SECTION LINE 1/16 SECTION LINE NATIONAL PARK OR FOREST BOUNDARY PROPERTY LINE	         	FENCE GATE WITH FENCE CATTLEGUARD GUARDRAIL MEDIAN & SIDE BARRIER POST MOUNTED SIGN PORTABLE COMMERCIAL	        	EXISTING PROPOSED	RIGHT-OF-WAY LINE EXISTING PROPOSED	 	RIGHT-OF-WAY LINE WITH MONUMENT EXISTING PROPOSED	 	PARTIAL CONTROL OF ACCESS EXISTING PROPOSED	 	FULL CONTROL OF ACCESS EXISTING PROPOSED	 	EASEMENT (PERMANENT - TEMPORARY) SLOPE STAKE TOP OF CUT TOE OF FILL	   	ROADWAY, EXISTING		RAILROAD SINGLE TRACK MULTIPLE TRACK	 	TRAIL INTERMITTENT DRAINAGE AND SMALL CREEK LARGE CREEK RIVER LAKE, POND OR RESERVOIR; MARSHLAND SPRING TREELINE; TREE MATERIAL SOURCE FOUND PROJECTED	         	SECTION CORNER 1/4 SECTION CORNER 1/16 SECTION or PROPERTY CORNER PROPERTY CORNER PARCEL NUMBER	    	400	NOTE: OTHER SYMBOLS USED IN THE PLANS WILL BE SHOWN IN A LEGEND ON THE APPROPRIATE PLAN SHEET.
BACK BACK TO BACK BALANCE POINT BATTER BEAM BEARING BEGINNING BENCH MARK BRIDGE	BK B. TO B. BP BTR. BM. BRG. BEG. BM BR.	MAGNETIC MAINTENANCE MATERIAL MAXIMUM MILE MILES PER HOUR MILE POST MINUTE(S) (ANGULAR) MINIMUM MISCELLANEOUS MONUMENT MOUNTAIN(S)	MAG. MAINT. MATL. MAX. MI. MPH M.P. MIN. MISC. MON. MTN(S).	ORIGINAL GROUND OUT TO OUT OUTSIDE DIAMETER	OG O. TO O. OD	PAVEMENT PERCENT PERFORATE PLATE POINT OF COMPOUND CURVE POINT OF CURVE POINT ON CURVE POINT OF INTERSECTION POINT OF SPIRAL TO CURVE POINT OF CURVE TO SPIRAL POINT ON SPIRAL POINT OF SPIRAL TO TANGENT POINT ON TANGENT POINT OF TANGENT TO SPIRAL POINT OF TANGENT POUND PRESSURE (POUNDS/SQ. INCH) PROJECT	PVMT. PCT. OR % PERF. PL PCC PC POC PI PSC OR SC PCS OR CS POS PST OR ST POT PS OR TS PT LB PSI PROJ.	QUANTITIES	QUANT.	RADIUS RANGE RECONSTRUCTION REINFORCEMENT REFERENCE REQUIRED RESERVOIR OR RESERVATION RETAINING WALL RIGHT RIGHT-OF-WAY ROAD ROADWAY ROUTE	R R. RECONST. REINF. REF. REQD. RES. RET. WALL RT. R/W RD. RDWY. RTE	SCHOOL SECOND (ANGULAR) SHOULDER SECTION SHEET SOUTH SPACING, SPACES OR SPACED SPECIFICATION SQUARE SQUARE YARD STANDARD STATION STIFFENER STRAIGHT STREET STRINGER STRUCTURAL SUPERELEVATION SYMMETRICAL	SCH. SHLDR SEC. SHT. S SPA. SPEC. SQ YD OR YD2 STD. STA. STIFF. STR. ST. STGR. STRUC. S.E. SYM.	TANGENT TANGENT LENGTH TEMPORARY BENCH MARK THAT IS THREAD TO BE DETERMINED TOWNSHIP TRANSITION TYPICAL	TAN. T TBM I.E. THD. TBD T. TRANS. TYP.	VERTICAL CURVE VERTICAL VERT. POINT OF INTERSECTION	V.C. VERT. VPI	WAREHOUSE WEST	WHS. W									
CENTERLINE CENTER TO CENTER CENTERS CHAIN LINK CLEAR COLUMN CONCRETE CONNECTION CONSTRUCTION CONSTRUCTION JOINT CONTINGENT SUM CONTINUOUS CORRUGATED CORRUGATED METAL PIPE COULOMB COUNTY COUNTERSINK CREEK CUBIC YARD CULVERT CURVE DELTA CURVE LEFT CURVE RIGHT	C CC OR C. TO C CTRS. CL CLR. COL. CONC. CONN. CONSTR. CONSTR. JT. CTSM CONT. CORR. CMP C CO. CTSK. CR YD ³ OR YD3 CULV. Δ LT RT	DEGREE DEGREE CELSIUS DEPT. OF PUBLIC WORK DESIGN HOUR VOLUME DIAGONAL DIAMETER DIAPHRAGM DISTRICT DONATION LAND CLAIM DRAWING(S)	° DEG. ° C DPW DHV DIAG. DIA. OR D DIAPH. DIST. DLC DRWG(S).	EAST EDGE OF PAVEMENT EDGE OF WATER EDGE OF ROAD ELEVATION ELEVATION WITH NUMBER EMBANKMENT ENGINEER(S) EQUATION EXCAVATION EXPANSION JOINT	E EP EW ER ELEV. EL. 400.00 EMB. ENGR(S). EO OR EO. EXC. EXP. JT.	FEDERAL FINISH FLANGE FLOW LINE FOOT FOOTING FOR EXAMPLE	FED. FIN. FLG. FL FT FTG. E.G.	GALVANIZED GAGE (GAUGE)	GALV. GA.	HEADWALL HEXAGON HIGH WATER HIGHWAY HORIZONTAL	HOWL. HEX. HW HWY. HOR																	


REVISIONS			DESIGNED E. MOJENA	<div>JOHN WYATT, P.E. PE No. 6387E</div>	<div><div>PB</div><div>PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.</div><div>7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462</div></div>	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332 PLAN SYMBOLS AND ABBREVIATIONS		Sheet Reference A-002 Sheet 2
DATE	BY	DESCRIPTION	DRAWN M. HINNANT			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	NOTE: OTHER SYMBOLS USED IN THE PLANS WILL BE SHOWN IN A LEGEND ON THE APPROPRIATE PLAN SHEET.		
			CHECKED J. WYATT			RT 332	ST THOMAS	VI-A405 (1)			
			DATE 08/13/07			RT 405					



LEGEND

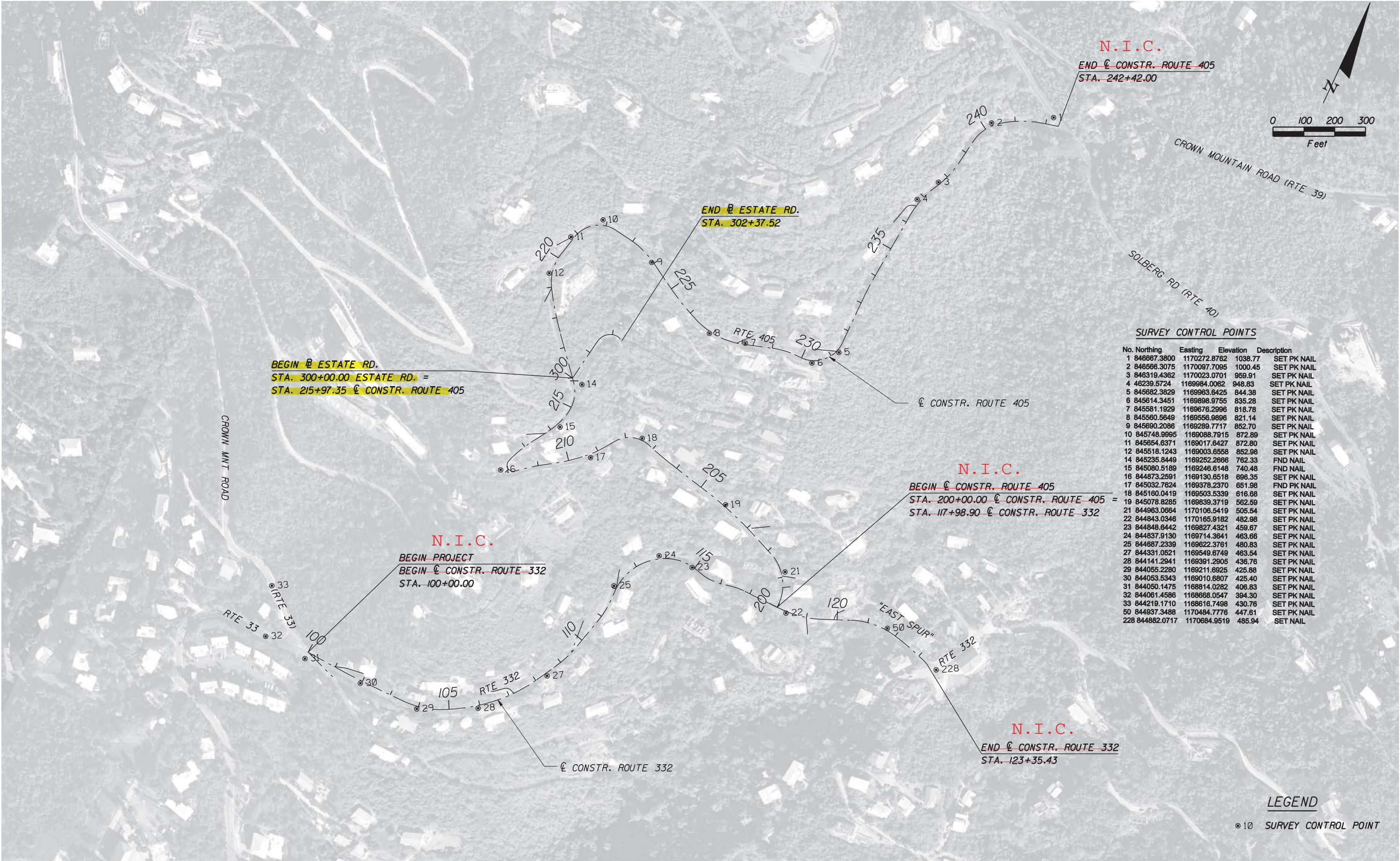


DRAWING PLAN &
SHT. REF. NO.



**N.I.C - Not In
Contract**

REVISIONS			DESIGNED	 PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332		Sheet	
DATE	BY	DESCRIPTION	DRAWN		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT LAYOUT		Reference	
			M. HINNANT		RT 332	ST THOMAS	VI-A405 (1)			A-003	
			CHECKED		RT 405						
			J. WYATT								
			DATE								
			08/13/07	JOHN WYATT, P.E. PE No. 638TE					Sheet 3		



SURVEY CONTROL POINTS				
No.	Northing	Easting	Elevation	Description
1	846867.3800	1170272.8762	1038.77	SET PK NAIL
2	846566.3075	1170097.7095	1000.45	SET PK NAIL
3	846319.4362	1170023.0701	959.91	SET PK NAIL
4	46239.5724	1169984.0062	948.83	SET PK NAIL
5	845682.3829	1169963.6425	844.38	SET PK NAIL
6	845614.3451	1169898.9755	835.28	SET PK NAIL
7	845581.1929	1169676.2996	818.78	SET PK NAIL
8	845560.5649	1169556.9896	821.14	SET PK NAIL
9	845690.2086	1169289.7717	862.70	SET PK NAIL
10	845748.9995	1169088.7915	872.89	SET PK NAIL
11	845654.6371	1169017.6427	872.80	SET PK NAIL
12	845518.1243	1169003.6558	852.98	SET PK NAIL
14	845235.8449	1169252.2666	762.33	FND NAIL
15	845080.5189	1169246.6148	740.48	FND NAIL
16	844873.2591	1169130.6518	696.35	SET PK NAIL
17	845032.7624	1169378.2370	651.98	FND PK NAIL
18	845160.0419	1169503.5339	616.68	SET PK NAIL
19	845078.8285	1169639.3719	562.59	SET PK NAIL
21	844963.0884	1170106.5419	505.54	SET PK NAIL
22	844843.0348	1170165.9182	482.98	SET PK NAIL
23	844848.6442	1169827.4321	459.67	SET PK NAIL
24	844837.9130	1169714.3641	463.66	SET PK NAIL
25	844887.2339	1169622.3761	480.83	SET PK NAIL
27	844331.0521	1169549.6749	463.54	SET PK NAIL
28	844141.2941	1169391.2905	436.76	SET PK NAIL
29	844055.2280	1169211.6925	425.88	SET PK NAIL
30	844053.5343	1169010.6807	425.40	SET PK NAIL
31	844050.1475	1168814.0282	406.83	SET PK NAIL
32	844061.4586	1168668.0547	394.30	SET PK NAIL
33	844219.1710	1168616.7488	430.76	SET PK NAIL
50	844937.3488	1170484.7776	447.61	SET PK NAIL
228	844882.0717	1170684.9519	485.94	SET NAIL

LEGEND
⑩ SURVEY CONTROL POINT

REVISIONS			DESIGNED E. MOJENA	 PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 532			Sheet Reference
DATE	BY	DESCRIPTION	DRAWN M. HINNANT		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	SURVEY CONTROL			A-004 Sheet 4
			CHECKED J. WYATT		RT 332	ST THOMAS	VI-A405 (1)				
			DATE 08/13/07		RT 405						
				JOHN WYATT, P.E. PE No. 638TE							

GENERAL NOTES:

1. THE SCOPE OF THIS PORTION OF THE PROJECT IS TO CONSTRUCT A ROADWAY ON FILL TO REPLACE THE EXISTING BRIDGE. THE NEW ALIGNMENT WILL BE IMMEDIATELY WEST OF THE OLD BRIDGE. ESTATE ROAD TRAFFIC WILL BE MAINTAINED DURING DEMOLITION OF THE EXISTING STRUCTURE VIA THE EXISTING DETOUR ROUTE. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF THE FINAL ALIGNMENT, AS WELL AS FOR REMOVAL OF THE EXISTING STRUCTURE AS PROVIDED FOR HEREIN.
2. THIS SET OF PLANS WAS CREATED BY REVISING THE ORIGINAL PLANS FOR THE "IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332". THE INTENTION OF THIS SET OF PLANS IS TO INCLUDE ONLY THE WORK ASSOCIATED WITH THE DEMOLITION OF THE BRIDGE AND THE CONSTRUCTION OF THE ESTATE ROAD.
3. WORK NOTED AS N.I.C. IS NOT INCLUDED IN THIS CONTRACT.
4. NOTES STRIKED OUT IN RED ARE NOT APPLICABLE TO THIS CONTRACT.
5. CLOUDED AND HIGHLIGHTED NOTES AND DATA INDICATE WORK AND INFORMATION THAT IS RELATED TO THIS CONTRACT.
6. AERIAL IMAGERY IS SHOWN IN BACKGROUND OF PLAN DRAWINGS FOR GENERAL REFERENCE AND IS NOT TO BE USED FOR DESIGN PURPOSES.
7. EXISTING ASPHALT BASE MATERIAL WHICH IS REMOVED MAY BE INCORPORATED IN THE STABILIZATION OF THE SUBGRADE, ALL MATERIAL MUST MEET SPECIFICATIONS FOR FILL.
8. ALL STATIONS AND OFFSETS REFER TO C/L CONSTRUCTION UNLESS OTHERWISE NOTED.
9. ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929, (NGVD-29).
10. EXISTING LAND MARKERS AND MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REFERENCED AND RESET BY SURVEY PARTY ON THE PROJECT.
11. UTILITIES ARE TO BE REMOVED OR ADJUSTED BY OTHERS AS DIRECTED BY THE ENGINEER FIELD REPRESENTATIVE. CONTRACTOR SHALL COORDINATE UTILITY ADJUSTMENT SCHEDULE WITH WAPA.
12. THE CONTRATOR SHALL NOTIFY THE UTILITY OWNERS IN THE AREA OF WORK BEFORE BEGINNING OF CONSTRUCTION. KNOWN UTILITY COMPANY IN THE AREA: WATER AND POWER AUTHORITY (WAPA). CONTACT NUMBER (340-774-3552).
13. ALL TREES AND LANDSCAPING NOT AFFECTED BY GRADING ARE TO REMAIN AS DIRECTED BY THE ENGINEER OR FIELD REPRESENTATIVE.
14. SAWCUT EXISTING PAVEMENT AT ALL MATCH LINES TO PROPOSED PAVEMENT.
15. CONTACTOR SHALL USE PAINT TO MARK ALL LIMITS OF PAVEMENT REMOVAL AS PER PLANS. VERIFY LIMITS WITH THE ENGINEER OR FIELD REPRESENTATIVE PRIOR TO PAVEMENT REMOVAL TO DETERMINE IF AN FIELD ADJUSTMENTS ARE REQUIRED.
16. ALL GUARDRAIL SHALL POST LENGTH SHALL BE MINIMUM 8’ EXCEPT WHEN ROCK IS ENCOUNTERED MINIMUM LENGTH SHALL BE 6’. PAY ITEM 61701-1350 SHALL BE USED FOR ALL GUARDRAIL INSTALLATION.

DESIGN CRITERIA

CRITERIA	VALUE	REFERENCE
FUNCTIONAL CLASSIFICATION	MINOR ARTERIAL	(1)
LEVEL OF SERVICE	LOS D	(2)
DESIGN YEAR	2023	PER HTA "TRAFFIC IMPACT ANALYSIS"
DESIGN SPEED	20 MPH	(1) PG. 444
POSTED SPEED	15 MPH	(1) PG. 72
LANE WIDTHS	10.0'	(1) PGS. 312 AND 472
SHOULDER WIDTHS	0.0	(1) PGS. 314-315
RADIUS (MIN.)	20' (SEE NOTE 3)	(1) PG. 151 (EXHIBIT 3-16)
MAXIMUM SUPERELEVATION	6.0%	(1) PG. 145 (RESTRICTED SPEEDS)
VERTICAL GRADE (MAX.)	32.5% (SEE NOTE 3)	(1) PG. 423 (EXHIBIT 423)
VERTICAL GRADE (MIN.)	0.50%	(1) PG. 236
STOPPING SIGHT DISTANCE (20 MPH, EXISTING CONDITIONS) 12.5% (TYPICAL) 22.5% (NORMAL MAX.) 32.5% (MAXIMUM)	133' 182' 658'	(1) SSD, PGS. 110 TO 115 FORMULA 3-3 (mod) Note: The Formula for Effects on Grade Do Not Appear Plausible For Excessive Grades Such as the Project Maximum (32.5%).

REFERENCES: THE FINAL DESIGN DEVELOPED UTILIZING:

(1) "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS", AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), 2004 FIFTH EDITION.

(2) "HIGHWAY CAPACITY MANUAL 2000", TRANSPORTATION RESEARCH BOARD, 2000

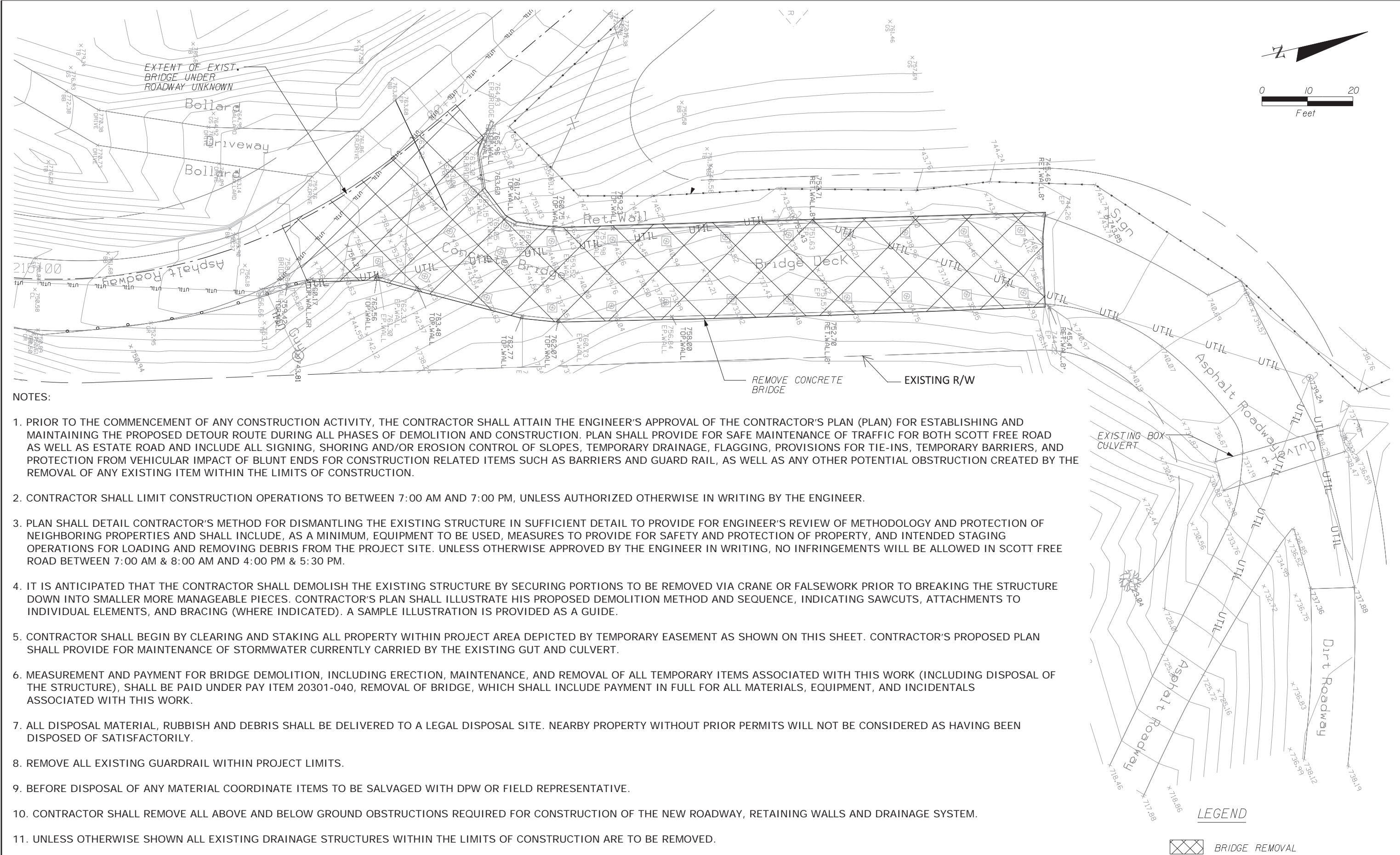
DESIGN CRITERIA NOTES:

1. DUE TO PROJECT CONSTRAINS THERE ARE NO SPECIAL DESIGN ACCOMODATIONS FOR PEDESTRIANS OR BICYCLES.
2. FOR TRAFFIC DESIGN CLASSIFICATIONS SEE TYPICAL SECTIONS (SHT. REFS. C-001 AND C-002).
3. DESIGN EXCEPTIONS ARE REQUIRED TO MATCH EXISTING CONDITIONS.(SEE APPROVED "DESIGN STANDARDS AND EXCEPTIONS").
4. THE ABOVE DESIGN CRITERIA IS ESTABLISHED FOR THE FOR THE ENTIRE "IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332" PROJECT. THE VALUES DO NOT NECESSARILY REFLECT THE CONDITIONS IN THIS PHASE OF THE PROJECT.

RETAINING WALL NOTES:

1. PRIOR TO CONSTRUCTION OF MSE WALLS, CONTRACTOR SHALL SUBMIT TO THE EOR FOR APPROVAL THE WALL SHOP DRAWINGS AND ALL SUPPORTING CALCULATIONS (FROM MSE WALL SUPPLIER) TO DEMONSTRATE THAT WALL INTERNAL STABILITY HAS BEEN SATISFIED FOR STATIC AND SEISMIC LOADINGS.
2. CONTRACTOR SHALL PROVIDE A SHORING AND BRACING PLAN, IF REQUIRED, ALONG WITH THE MSE WALL SHOP DRAWING. ALL COST ASSOCIATED WITH SHORING AND BRACING SHALL BE INCLUDED IN THE COST OF THE MSE WALL.
2. CONTRACTOR SHALL PROVIDE APPROVED CONSTRUCTION DETAIL BETWEEN MSE WALL AND CULVERT HEADWALLS.
3. GENERAL SPECIFICATIONS: "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS", FP-03 (U.S CUSTOMARY UNITS) AS AMENDED BY CONTRACT DOCUMENTS.
4. DESIGN SPECIFICATIONS: AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, CURRENT EDITION WITH APPROVED REVISIONS THERETO.

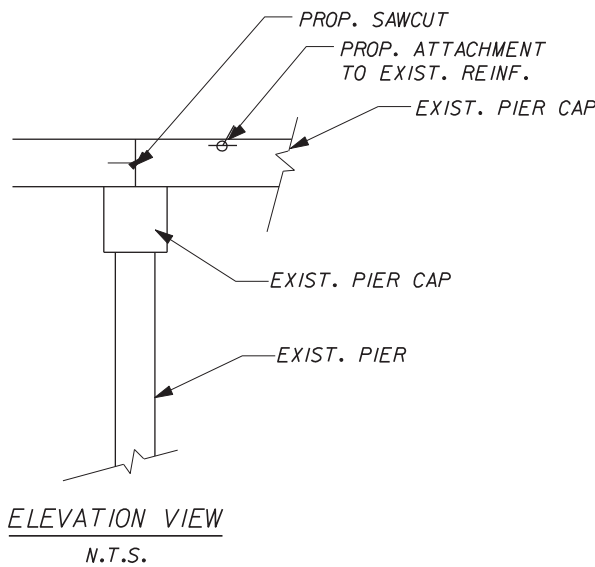
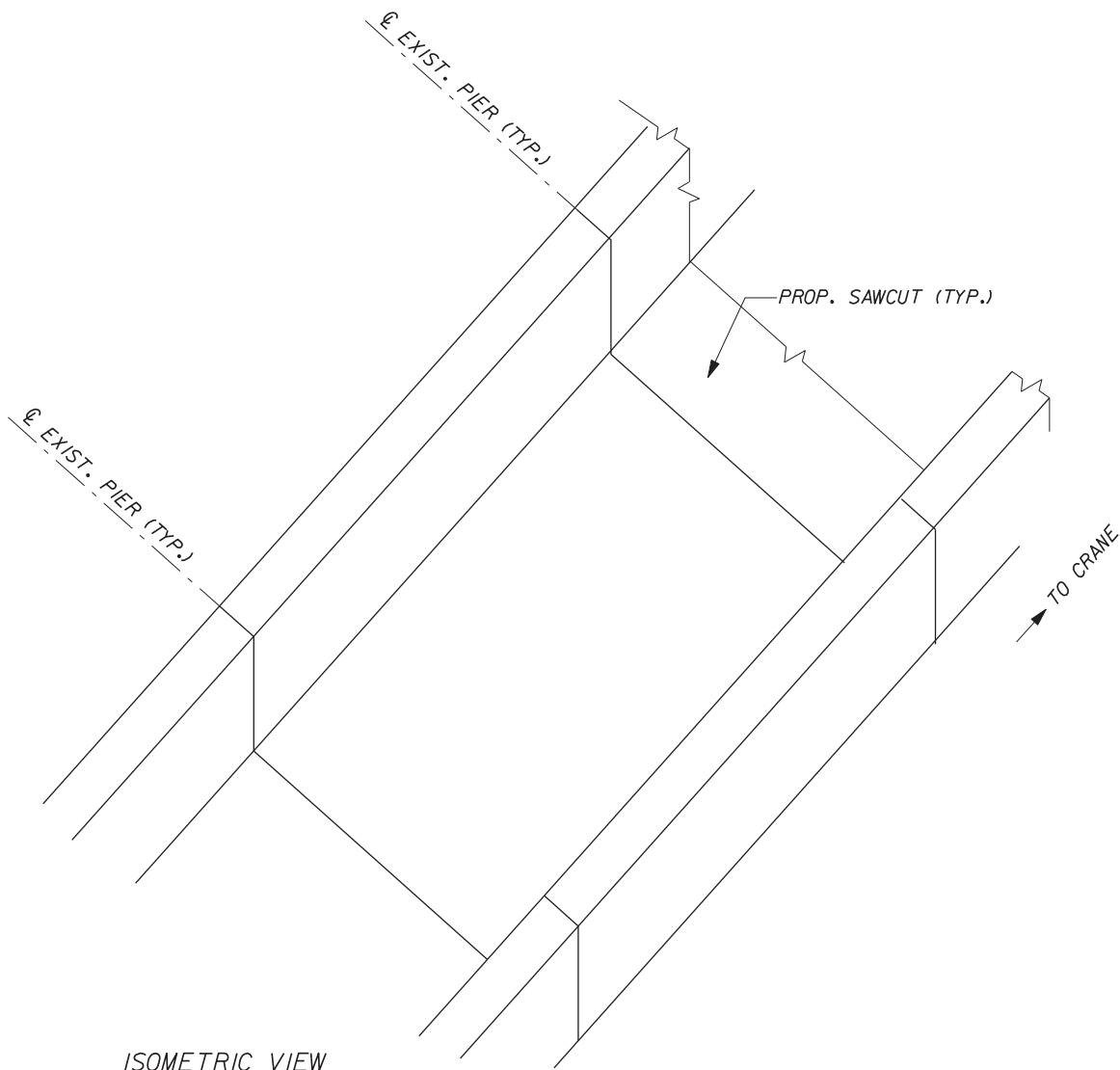
R E V I S I O N S			DESIGNED E. MOJENA	<div><div><div>PB</div><div>182</div></div><div>PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.</div><div>7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462</div></div>	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332 GENERAL NOTES	Sheet Reference A-005 Sheet 5		
DATE	BY	DESCRIPTION	DRAWN M. HINNANT		ROAD NO.	COUNTY	FINANCIAL PROJECT ID				
			CHECKED J. WYATT		RT 332	ST THOMAS	VI-A405 (1)				
			DATE 08/13/07		RT 405						
					USER: oikuch 8/10/2007 1:53:16 PM I:\projects\scott free\Roadway\A-005.dgn						



NOTES:

1. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL ATTAIN THE ENGINEER'S APPROVAL OF THE CONTRACTOR'S PLAN (PLAN) FOR ESTABLISHING AND MAINTAINING THE PROPOSED DETOUR ROUTE DURING ALL PHASES OF DEMOLITION AND CONSTRUCTION. PLAN SHALL PROVIDE FOR SAFE MAINTENANCE OF TRAFFIC FOR BOTH SCOTT FREE ROAD AS WELL AS ESTATE ROAD AND INCLUDE ALL SIGNING, SHORING AND/OR EROSION CONTROL OF SLOPES, TEMPORARY DRAINAGE, FLAGGING, PROVISIONS FOR TIE-INS, TEMPORARY BARRIERS, AND PROTECTION FROM VEHICULAR IMPACT OF BLUNT ENDS FOR CONSTRUCTION RELATED ITEMS SUCH AS BARRIERS AND GUARD RAIL, AS WELL AS ANY OTHER POTENTIAL OBSTRUCTION CREATED BY THE REMOVAL OF ANY EXISTING ITEM WITHIN THE LIMITS OF CONSTRUCTION.
2. CONTRACTOR SHALL LIMIT CONSTRUCTION OPERATIONS TO BETWEEN 7:00 AM AND 7:00 PM, UNLESS AUTHORIZED OTHERWISE IN WRITING BY THE ENGINEER.
3. PLAN SHALL DETAIL CONTRACTOR'S METHOD FOR DISMANTLING THE EXISTING STRUCTURE IN SUFFICIENT DETAIL TO PROVIDE FOR ENGINEER'S REVIEW OF METHODOLOGY AND PROTECTION OF NEIGHBORING PROPERTIES AND SHALL INCLUDE, AS A MINIMUM, EQUIPMENT TO BE USED, MEASURES TO PROVIDE FOR SAFETY AND PROTECTION OF PROPERTY, AND INTENDED STAGING OPERATIONS FOR LOADING AND REMOVING DEBRIS FROM THE PROJECT SITE. UNLESS OTHERWISE APPROVED BY THE ENGINEER IN WRITING, NO INFRINGEMENTS WILL BE ALLOWED IN SCOTT FREE ROAD BETWEEN 7:00 AM & 8:00 AM AND 4:00 PM & 5:30 PM.
4. IT IS ANTICIPATED THAT THE CONTRACTOR SHALL DEMOLISH THE EXISTING STRUCTURE BY SECURING PORTIONS TO BE REMOVED VIA CRANE OR FALSEWORK PRIOR TO BREAKING THE STRUCTURE DOWN INTO SMALLER MORE MANAGEABLE PIECES. CONTRACTOR'S PLAN SHALL ILLUSTRATE HIS PROPOSED DEMOLITION METHOD AND SEQUENCE, INDICATING SAWCUTS, ATTACHMENTS TO INDIVIDUAL ELEMENTS, AND BRACING (WHERE INDICATED). A SAMPLE ILLUSTRATION IS PROVIDED AS A GUIDE.
5. CONTRACTOR SHALL BEGIN BY CLEARING AND STAKING ALL PROPERTY WITHIN PROJECT AREA DEPICTED BY TEMPORARY EASEMENT AS SHOWN ON THIS SHEET. CONTRACTOR'S PROPOSED PLAN SHALL PROVIDE FOR MAINTENANCE OF STORMWATER CURRENTLY CARRIED BY THE EXISTING GUT AND CULVERT.
6. MEASUREMENT AND PAYMENT FOR BRIDGE DEMOLITION, INCLUDING ERECTION, MAINTENANCE, AND REMOVAL OF ALL TEMPORARY ITEMS ASSOCIATED WITH THIS WORK (INCLUDING DISPOSAL OF THE STRUCTURE), SHALL BE PAID UNDER PAY ITEM 20301-040, REMOVAL OF BRIDGE, WHICH SHALL INCLUDE PAYMENT IN FULL FOR ALL MATERIALS, EQUIPMENT, AND INCIDENTALS ASSOCIATED WITH THIS WORK.
7. ALL DISPOSAL MATERIAL, RUBBISH AND DEBRIS SHALL BE DELIVERED TO A LEGAL DISPOSAL SITE. NEARBY PROPERTY WITHOUT PRIOR PERMITS WILL NOT BE CONSIDERED AS HAVING BEEN DISPOSED OF SATISFACTORILY.
8. REMOVE ALL EXISTING GUARDRAIL WITHIN PROJECT LIMITS.
9. BEFORE DISPOSAL OF ANY MATERIAL COORDINATE ITEMS TO BE SALVAGED WITH DPW OR FIELD REPRESENTATIVE.
10. CONTRACTOR SHALL REMOVE ALL ABOVE AND BELOW GROUND OBSTRUCTIONS REQUIRED FOR CONSTRUCTION OF THE NEW ROADWAY, RETAINING WALLS AND DRAINAGE SYSTEM.
11. UNLESS OTHERWISE SHOWN ALL EXISTING DRAINAGE STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE REMOVED.
12. REMOVE ALL BOULDERS WITHIN NEW CONSTRUCTION LIMITS, AS REQUIRED.

REVISIONS			DESIGNED	<div><div><div>PB</div><div>PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.</div><div>7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462</div></div><div>JOHN WYATT, P.E. PE No. 638TE</div></div>	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332		Sheet Reference
DATE	BY	DESCRIPTION	DRAWN		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	DEMOLITION SITE PLAN EXISTING BRIDGE	A-015 Sheet 7	
			M. HINNANT							
			CHECKED J. WYATT							
			DATE 08/13/07	RT 332 RT 405	ST THOMAS	VI-A405 (1)				



R E V I S I O N S			DESIGNED	 PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332		Sheet Reference
DATE	BY	DESCRIPTION	DRAWN		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	DEMOLITION DETAILS EXISTING BRIDGE	A-016 Sheet 8	
			M. HINNANT		RT 332	ST THOMAS	VI-A405(1)			
			CHECKED		RT 405					
			J. WYATT							
			DATE	JOHN WYATT, P.E. PE No. 638TE						
			08/13/07							

EROSION CONTROL NOTES

I. SITE DESCRIPTION

A. NATURE OF CONSTRUCTION ACTIVITIES: PROJECT SCOPE INCLUDES HIGHWAY RECONSTRUCTION AND THOSE ACTIVITIES CONSISTING OF BRIDGE STRUCTURE DEMOLITION, PAVING, GRADING, RETAINING WALL CONSTRUCTION, AND DRAINAGE SYSTEM IMPROVEMENTS. THE PROJECT LOCATION BEGINS AT ROUTE 405 (SCOTT FREE ROAD), AT THE INTERSECTION WITH ESTATE ROAD, AND CONTINUES EAST APPROXIMATELY 240 LF.

B. SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES: THE MAJOR SOIL DISTURBING ACTIVITIES INCLUDE THE DEMOLITION OF THE EXISTING BRIDGE. SUBSEQUENTLY, GRADING OF THE NEW ROADWAY WILL OCCUR AS WELL AS THE CONSTRUCTION OF A NEW STORM SEWER SYSTEM. OTHER SOIL DISRUPTION ACTIVITIES ARE ANTICIPATED FROM INCIDENTAL CONSTRUCTION ACTIVITIES SUCH AS WORK SITE MOBILIZATION, MOVEMENT OF HEAVY EQUIPMENT, TEMPORARY MATERIAL/EQUIPMENT STORAGE, ETC.

II. CONTROLS

THIS PROJECT IS SUBJECT TO ALL RELATED ENVIRONMENTAL REQUIREMENTS AND INCLUDES AN EROSION AND SEDIMENTATION CONTROL PLAN AS FOLLOWS. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY AND ADEQUATE MEASURES FOR THE PROPER CONTROL OF EROSION AND SEDIMENT RUN-OFF FROM THE PROJECT SITE. PRIOR TO CONSTRUCTION OPERATIONS IN A PARTICULAR AREA, ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED. FIELD ADJUSTMENTS WITH RESPECT TO AREA LOCATIONS AND DIMENSIONS MAY BE NECESSARY. EXISTING DRAINAGE WITHIN THE PROJECT LIMITS NOT IMPACTED BY PROPOSED CONSTRUCTION MUST BE MAINTAINED OPERATIONAL AND PROTECTED THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.

A. EROSION AND SEDIMENT CONTROLS:

1) STABILIZATION PRACTICES: FOLLOWING CONTROLS SHALL BE IMPLEMENTED AS SOON AS PRACTICABLE TO PREVENT EROSION AND SEDIMENTATION FROM STORM WATER RUN-OFF:

- ARTIFICIAL COVERING / GEOTEXTILE MAT
- PERMAMENT PLANTING, SEEDING, OR SOD

2) STRUCTURAL PRACTICES: THE FOLLOWING PRACTICES WILL DIVERT AND REDUCE RUNOFF FLOW FROM EXPOSED SOIL AREAS TO PREVENT SEDIMENTATION AND DISCHARGE OF POLLUTANTS FROM THE WORK SITE:

- SILT FENCE
- SAND BAG
- STORM DRAIN INLET PROTECTION
- DIVERSION OR INTERCEPTOR
- REINFORCEMENT SOIL RETAINING SYSTEMS
- HAY BALES
- STORM SEWERS

3) PHASING OF CONTROLS:

PHASE I: PREPARATION OF EROSION CONTROL PLAN
THE CONTRACTOR SHALL PREPARE A SITE SPECIFIC EROSION CONTROL PLAN CONCURRENT WITH A
SPECIFIC CONSTRUCTION SCHEDULE AND SEQUENCE FOR IMPLEMENTATION.

PHASE II: INSTALLATION OF ENVIRONMENTAL CONTROL FEATURES
ENVIRONMENTAL CONTROLS AS LISTED SHALL BE INSTALLED THROUGHOUT THE CLEARING AND GRUBBING LIMITS AS SPECIFIED IN PROJECT PLANS AND WITHIN ANY OTHER AREAS OF EXPOSED SOIL.

PHASE III: DRAINAGE SYSTEM AND ENVIRONMENTAL CONTROL FEATURES
TEMPORARY AND PERMANENT ENVIRONMENTAL CONTROLS THAT INCLUDE SILT FENCES, HAY BALES, AND OTHER CONTROLS AS DEEMED APPROPRIATE SHALL BE IMPLEMENTED PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITY AND IN ACCORDANCE WITH FLH PROJECT DEVELOPMENT AND DESIGN MANUAL, SECTION 7.3.8, EROSION CONTROL. THE ENVIRONMENTAL CONTROLS AS IDENTIFIED IN THE PLANS SHALL BE INSTALLED PRIOR TO ANY CLEARING, GRUBBING, AND EXCAVATION ACTIVITIES. EXISTING AND NEW STORM INLETS RECEIVING STORM WATER RUN-OFF FROM THE CONSTRUCTION SITE SHALL BE COVERED WITH FILTER FABRIC TO PREVENT SEDIMENT IN THE DRAINAGE SYSTEMS. SUCH FILTER FABRIC SHALL BE IN GOOD CONDITIONS AND REPLACED AS NEEDED. WHEN CONSTRUCTION ACTIVITIES TEMPORARILY CEASE, STABILIZATION PRACTICES MAY INCLUDE TEMPORARY SEEDING OR SOD, MULCHING, VEGETATIVE BUFFERING, AND OTHER APPROPRIATE MEASURES TO BE IMPLEMENTED THAT PREVENT EROSION AND SEDIMENTATION.

PHASE IV: PERMANENT CONTROL FEATURES

WITHIN 14 DAYS OF PERMANENT COMPLETION OF CONSTRUCTION ACTIVITIES, THE INSTALLATION OF PERMANENT CONTROL FEATURES SHALL OCCUR AND INCLUDE LANDSCAPING OF ALL EXPOSED SOIL WITH PLANTING OF TREES, SEED AND/OR SOD COVERED WITH MULCH OR HAY WHERE NECESSARY.

B. STORM WATER MANAGEMENT

ANY DESIGN OF STORM WATER MANAGEMENT SYSTEMS THAT ARE INSTALLED DURING PROJECT CONSTRUCTION WILL ABIDE BY LOCAL AND FEDERAL WATER QUANTITY AND QUALITY CRITERIA.

C. OTHER CONTROLS

1) WASTE DISPOSAL: NO SOLID MATERIALS, INCLUDING CONSTRUCTION MATERIALS AS WELL AS SANITARY WASTE SHALL BE DISPOSED OF AND/OR DISCHARGED INTO RECEIVING WATERS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROPERLY DISPOSE ALL PROJECT GENERATED MATERIALS WASTE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

2) OFF-SITE VEHICLE TRACKING: ALL CONSTRUCTION EXITS AS SPECIFIED IN THE PROJECT CONSTRUCTION STAGING PLANS SHALL BE MAINTAINED TO PREVENT THE TRACKING OF SOIL OR MUD.

- EXCESS SOIL ON ROADWAYS REMOVED DAILY
- LOADED TRUCKS TO BE COVERED WITH TARPAULIN

3) LOCAL REGULATIONS: THE CONTRACTOR SHALL ENSURE COMPLIANCE WITH APPLICABLE LOCAL WASTE DISPOSAL AND SANITARY SEWER REGULATIONS.

4) APPLICATION OF FERTILIZERS AND PESTICIDES:
FERTILIZERS: WILL BE APPLIED ACCORDING TO THE PROPER APPLICATION RATE SPECIFICATIONS.
PESTICIDES: NOT APPLICABLE.

5) TOXIC SUBSTANCES: TOXIC MATERIALS THAT ARE STORED ON-SITE FOR CONSTRUCTION ACTIVITY PURPOSES SHALL BE PROPERLY STORED IN ACCORDANCE WITH FEDERAL AND LOCAL REGULATIONS. ANY DISCOVERY OR ENCOUNTER OF CONTAMINATED MATERIALS SHALL WARRANT NOTIFICATION OF THE APPROPRIATE LOCAL AGENCY FOLLOWED BY AN IMMEDIATE WORK STOPPAGE WITHIN THE VICINITY OF THE CONTAMINATED AREA.

6) DUST RESULTING FROM PROPOSED DEMOLITION ACTIVITIES MUST BE PREVENTED FROM INTRUSION INTO THE STORMWATER CONVEYANCE SYSTEM. APPROPRIATE DUST CONTROL TECHNIQUES (WATER OR SLURRY) MUST BE RETAINED ON SITE. THE USE OF CALCIUM CHLORIDE, OILS OR OTHER CHEMICAL DUST CONTROL AGENTS MUST BE AVOIDED.

III. MAINTENANCE


THE CONTRACTOR SHALL MAINTAIN ALL TEMPORARY AND PERMANENT ENVIRONMENTAL CONTROLS AND OTHER PROTECTIVE MEASURES AT ALL TIMES TO ENSURE THESE REMAIN IN AN EFFECTIVE OPERATING CONDITION. ADDITIONAL EROSION AND SEDIMENT CONTROLS WILL BE INSTALLED IF DEEMED NECESSARY BY THE ON-SITE INSPECTOR.

IV. INSPECTION

DAILY INSPECTION OF ALL ENVIRONMENTAL CONTROLS AND PROTECTIVE MEASURES SHALL OCCUR. IN ADDITION, THE VEHICLE ENTRANCE/EXIT AREA, UNSTABILIZED DISTURBED CONSTRUCTION AREAS, DISCHARGE AREAS THAT ENTER STORM SEWER SYSTEM OR SURFACE WATERS, AND AREAS INSTALLED WITH TEMPORARY CONTROL MEASURES SHALL BE INSPECTED DAILY AND WITHIN 24 HOURS OF A STORM EVENT. ALL AREAS OF MATERIAL STORAGE SHALL BE INSPECTED FOLLOWING A STORM TO ENSURE THAT NO POLLUTANTS ARE ENTERING THE STORM WATER SYSTEM. ANY DAMAGED OR INEFFECTIVE CONTROLS SHALL BE REPAIRED AND REPLACED BY THE CONTRACTOR IMMEDIATELY.

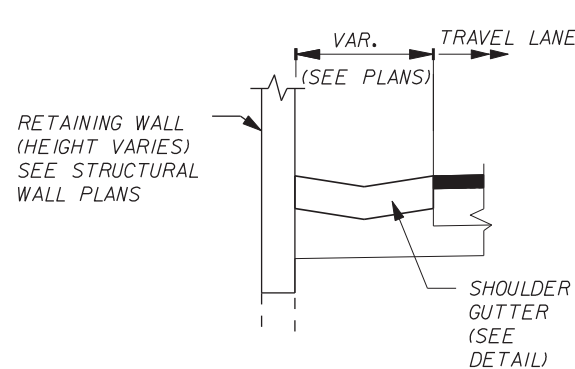
V. NON-STORM WATER DISCHARGES

IF HAZARDOUS OR TOXIC SUBSTANCES ARE SPILLED OR DISCHARGED WITHIN OR IN THE VICINITY OF THE CONSTRUCTION AREA, THE CONTRACTOR SHALL REPORT THE ACCIDENT/SPILL TO THE APPROPRIATE LOCAL AND FEDERAL AGENCY. THE CONTRACTOR SHALL PROMPTLY REMOVE ALL MATERIALS SPILLED, DROPPED, OR TRACKED.

REVISIONS			DESIGNED	 <div>PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.</div> <div>7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462</div>	U.S.V.I			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332		Sheet			
DATE	BY	DESCRIPTION	E. MOJENA		DEPARTMENT OF PUBLIC WORKS				Reference				
			DRAWN										
			M. HINNANT										
			CHECKED										
			J. WYATT										
			DATE	08/13/07	JOHN WYATT, P.E. PE No. 638TE	RT 332 RT 405			ST THOMAS	VI-A405(1)	EROSION CONTROL PLAN	A-021	
													Sheet 9

Bid Item Section	FP-03 Ref. Pay Item No.	Item Description	Estimated Quantity	Unit
DIVISION 150 PROJECT REQUIREMENTS				
151	15101-0000	MOBILIZATION	1	LS
152	15201-0000	CONSTRUCTION SURVEY AND STAKING	1	LS
154	15401-0000	CONTRACTOR TESTING	1	LS
155	15501-0000	CONSTRUCTION SCHEDULE	1	LS
157	15703-1001	SOIL EROSION CONTROL, SOIL STABILIZATION	100	SY
157	15705-0100	SOIL EROSION CONTROL, SILT FENCE	250	LF
157	15706-0100	SOIL EROSION CONTROL, STRAW BALE	15	EA
157	15706-1000	SOIL EROSION CONTROL, INLET PROTECTION	1	EA
158	15801-0000	WATERING FOR DUST CONTROL	20	MGAL
DIVISION 200 EARTHWORKS				
203	20301-0400	REMOVAL OF BRIDGE	1	EA
203	20302-0700	REMOVAL OF FENCE	300	LF
203	20302-1200	REMOVAL OF GUARDRAIL	125	LF
204	20401-1000	EXCAVATION	2000	CY
207	20701-1000	EARTHWORK GEOTEXTILE, TYPE III-A	40	SY
207	20701-1200	EARTHWORK GEOTEXTILE, TYPE IV-A	300	SY
DIVISION 250 STRUCTURAL EMBANKMENTS				
251	25101-3000	PLACED RIPRAP, CLASS 3	13	CY
251	25101-6000	PLACED RIPRAP, CLASS 6	16	CY
251	25110-6000	GROUTED RIPRAP, CLASS 6	12	CY
255	25501-1001	MECHANICALLY STABILIZED EARTH WALL, WELDED WIRE FACE (MOD.)	2,880	SF
DIVISION 300 AGGREGATE COURSES				
301	30103-1000	AGGREGATE BASE GRADING C	110	CY
301	30106-0400	SUBBASE GRADING A, 10' DEPTH	170	CY
DIVISION 400 ASPHALT PAVEMENT AND SURFACE TREATMENTS				
402	40201-0800	HOT ASPHALT CONC. PAVEMENT, CL. B, GR. C	100	TN
412	41102-0000	PRIME COAT	25	GAL
413	41301-0000	ASPHALT PAVEMENT MILLING, VARIABLE DEPTH	150	SY

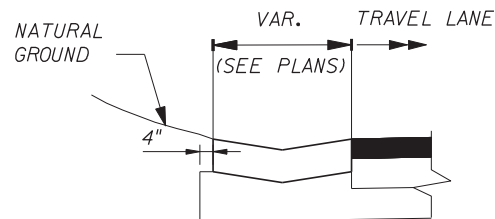
Bid Item Section	FP-03 Ref. Pay Item No.	Item Description	Estimated Quantity	Unit
DIVISION 600 INCIDENTAL CONSTRUCTION - DRAINAGE				
601	60103-0100	CONCRETE, HEADWALL FOR 18" RCP CULVERT	1	EA
601	60103-0140	CONCRETE, HEADWALL FOR 24" RCP CULVERT	1	EA
602	60201-0800	24" RCP CULVERT	30	LF
602	60201-0600	18" RCP CULVERT	27	LF
604	60403-1901	INLET, TYPE 6B (MOD)	2	EA
GUARDRAIL AND FENCING				
617	61701-1350	GUARDRAIL SYSTEM G4, TYPE 2, CLASS B STEEL POSTS	300	LF
617	61703-2000	TERMINAL END, TYPE ROUND END SECTION (LST)	2	EA
619	61901-2000	FENCE, CHAIN LINK, 72-INCH HEIGHT	140	LF
LANDSCAPING				
625	62502-0000	TURF ESTABLISHMENT, BAHIA GRASS MIX, SEED	400	SY
626	62601-0007	FICUS PUMILA, CREEPING FIG, 3 GAL	20	EA
SIGNING AND PAVEMENT MARKING				
633	63304-0900	SIGNS, ALUMINUM PANELS, TYPE 3 SHEETING (STOP)	1	EA
634	63401-1501	PAVEMENT MARKINGS, TYPE H, SOLID (4" WHITE)	422	LF
634	63401-1502	PAVEMENT MARKINGS, TYPE H, SOLID (24" WHITE)	10	LF
634	63401-1503	PAVEMENT MARKINGS, TYPE H, SOLID (4" DOUBLE YELLOW)	208	LF
TEMPORARY TRAFFIC CONTROL				
634	63304-1000	TEMPORARY TRAFFIC CONTROL, CONSTRUCTION SIGN	12	SF
635	63502-0600	TEMPORARY TRAFFIC CONTROL, BARRICADES (TYPE 3)	6	EA
635	63502-1300	TEMPORARY TRAFFIC CONTROL, DRUMS	10	EA
635	63502-1700	TEMPORARY TRAFFIC CONTROL, WARNING LIGHT TYPE C	12	EA



RTE 332 - LEFT
 STA 100+00 TO STA 104+65
 STA 105+90 TO STA 108+30
 STA 109+30 TO STA 110+55
 STA 112+48 TO STA 113+30
 STA 120+02 TO STA 120+40
 STA 121+80 TO STA 122+13

RTE 405 - RIGHT
 STA 205+90 TO STA 207+60
 STA 208+00 TO STA 210+80

RTE 405 - LEFT
 STA 201+30 TO STA 202+60
 STA 205+70 TO STA 206+00
 STA 212+12 TO STA 212+80
 STA 214+40 TO STA 215+40
 STA 220+20 TO STA 220+46
 STA 228+19 TO STA 231+80
 STA 235+30 TO STA 236+67

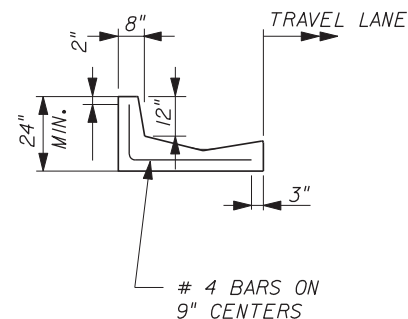


RTE 332 - RIGHT
 STA 111+80 TO STA 112+60

RTE 332 - LEFT
 STA 111+95 TO STA 112+48
 STA 113+30 TO STA 120+02
 STA 120+40 TO STA 121+20
 STA 121+48 TO STA 121+80
 STA 121+13 TO STA 123+25

RTE 405 - RIGHT
 STA 200+15 TO STA 205+00
 STA 207+60 TO STA 208+00
 STA 211+30 TO STA 212+55

RTE 405 - LEFT
 STA 200+15 TO STA 201+30
 STA 212+80 TO STA 213+64
 STA 216+90 TO STA 219+25
 STA 220+46 TO STA 220+90
 STA 221+30 TO STA 223+85
 STA 224+10 TO STA 226+25
 STA 226+50 TO STA 227+60
 STA 227+92 TO STA 228+19
 STA 232+40 TO STA 235+30
 STA 236+67 TO STA 237+30
 STA 238+05 TO STA 240+27



RTE 332 - LEFT
 STA 104+65 TO STA 105+90
 STA 108+30 TO STA 109+30
 STA 110+55 TO STA 111+95

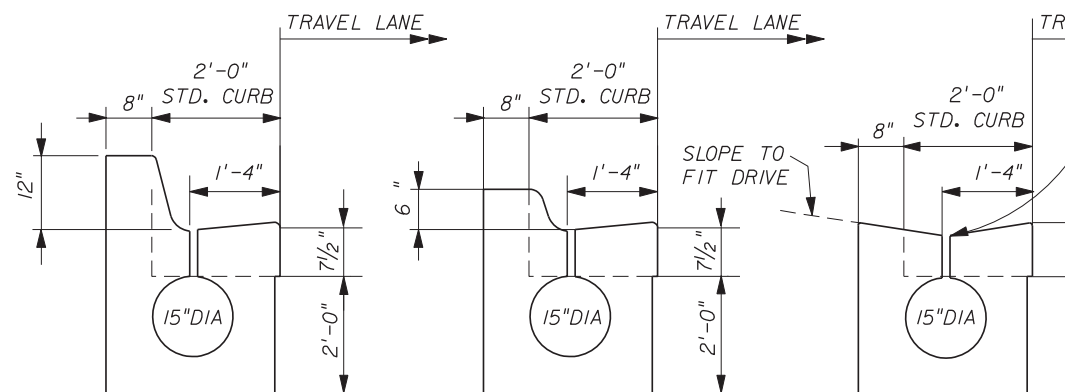
RTE 405 - RIGHT
 STA 205+00 TO STA 205+90
 STA 210+80 TO STA 211+30

RTE 405 - LEFT
 STA 213+00 TO STA 213+40
 STA 213+75 TO STA 214+40
 STA 215+50 TO STA 217+00
 STA 219+25 TO STA 220+20
 STA 220+90 TO STA 221+30
 STA 223+85 TO STA 224+10
 STA 226+25 TO STA 226+50
 STA 227+57 TO STA 227+92
 STA 231+80 TO STA 232+40
 STA 237+30 TO STA 238+05

DETAIL A - SHOULDER GUTTER WITH WALL

DETAIL B - SHOULDER GUTTER

DETAIL C - SHOULDER GUTTER WITH TOE WALL



CURB SECTION
 (HIGH CURB)

STA 206+00 TO STA 207+32

CURB SECTION
 (LOW CURB)

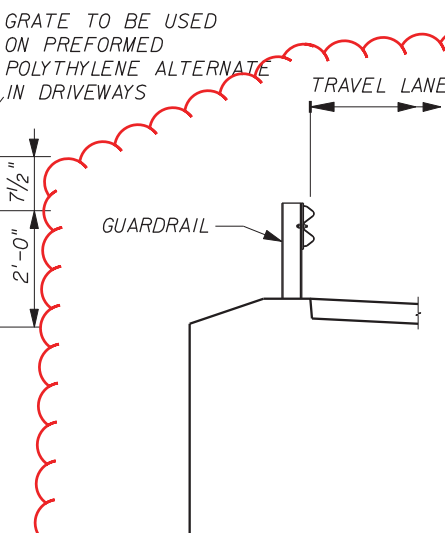
STA 203+07 TO STA 205+70

CURB AT
 DRIVEWAY

RTE 405 - LEFT

(USE HIGH CURB WHERE
 FENCE ATTACHMENT IS
 REQUIRED. SEE DETAIL C-303)

DETAIL D - CURB WITH TRENCH DRAIN

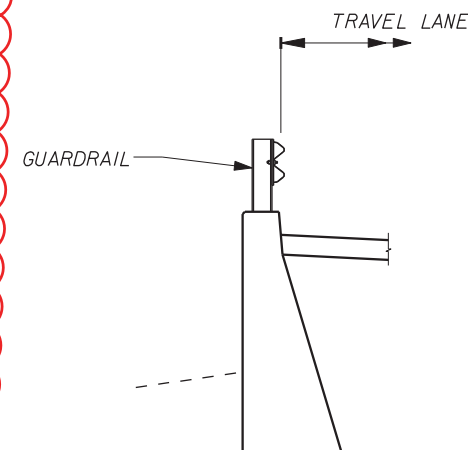


RTE 332 - RIGHT
 STA 100+85 TO STA 104+70
 STA 105+49 TO STA 105+87
 STA 107+26 TO STA 107+97
 STA 108+91 TO STA 109+90
 STA 110+22 TO STA 111+10
 STA 114+05 TO STA 115+16
 STA 116+11 TO STA 117+02
 STA 120+04 TO STA 120+40

RTE 405 - RIGHT
 STA 214+50 TO STA 215+42
 STA 216+56 TO STA 226+35
 STA 230+30 TO STA 231+65
 STA 232+80 TO STA 236+10

RTE 405 - LEFT
 STA 208+82 TO STA 211+96

DETAIL E - MSE WITH STABILIZATION



RTE 332 - RIGHT
 STA 108+26 TO STA 108+64
 STA 121+20 TO STA 121+48
 STA 122+90 TO STA 123+70


RTE 332 - LEFT
 STA 121+20 TO STA 121+51

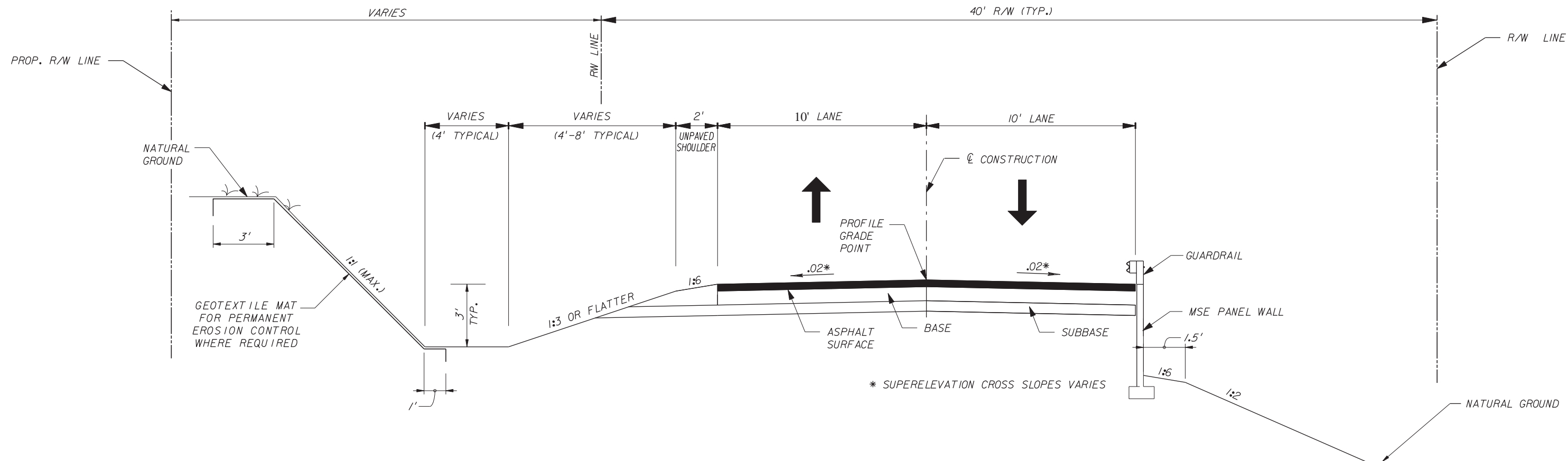
RTE 405 - RIGHT
 STA 212+55 TO STA 212+75

DETAIL F - CIP GRAVITY WALL WITH GUARDRAIL

NOTES:

1. EXCLUDE DRIVEWAYS FROM STATION LIMITS.
2. SEE PLANS FOR EXACT LIMITS OF EACH DETAIL.

REVISIONS			DESIGNED	 PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462	U.S.V.I. DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332 TYPICAL SECTIONS (SHEET 3 OF 5)	Sheet Reference C-003 Sheet 11
DATE	BY	DESCRIPTION	DRAWN		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			M. HINNANT		RT 332	ST THOMAS	VI-A405(1)		
			J. WYATT		RT 405				
			DATE 08/13/07	JOHN WYATT, P.E. PE No. 638TE	USER: oikuch			8/10/2007 3:05:32 PM I:\projects\scott free\roadway\C-003.dgn	



TYPICAL SECTION

ESTATE ROAD


STA. 300+13.11 TO STA. 302+37.52

NEW CONSTRUCTION

SUBBASE: 10" GRADING A

BASE COURSE: 6" GRADING C

STRUCTURAL COURSE: 2" HMA, CLASS B, GRADING E

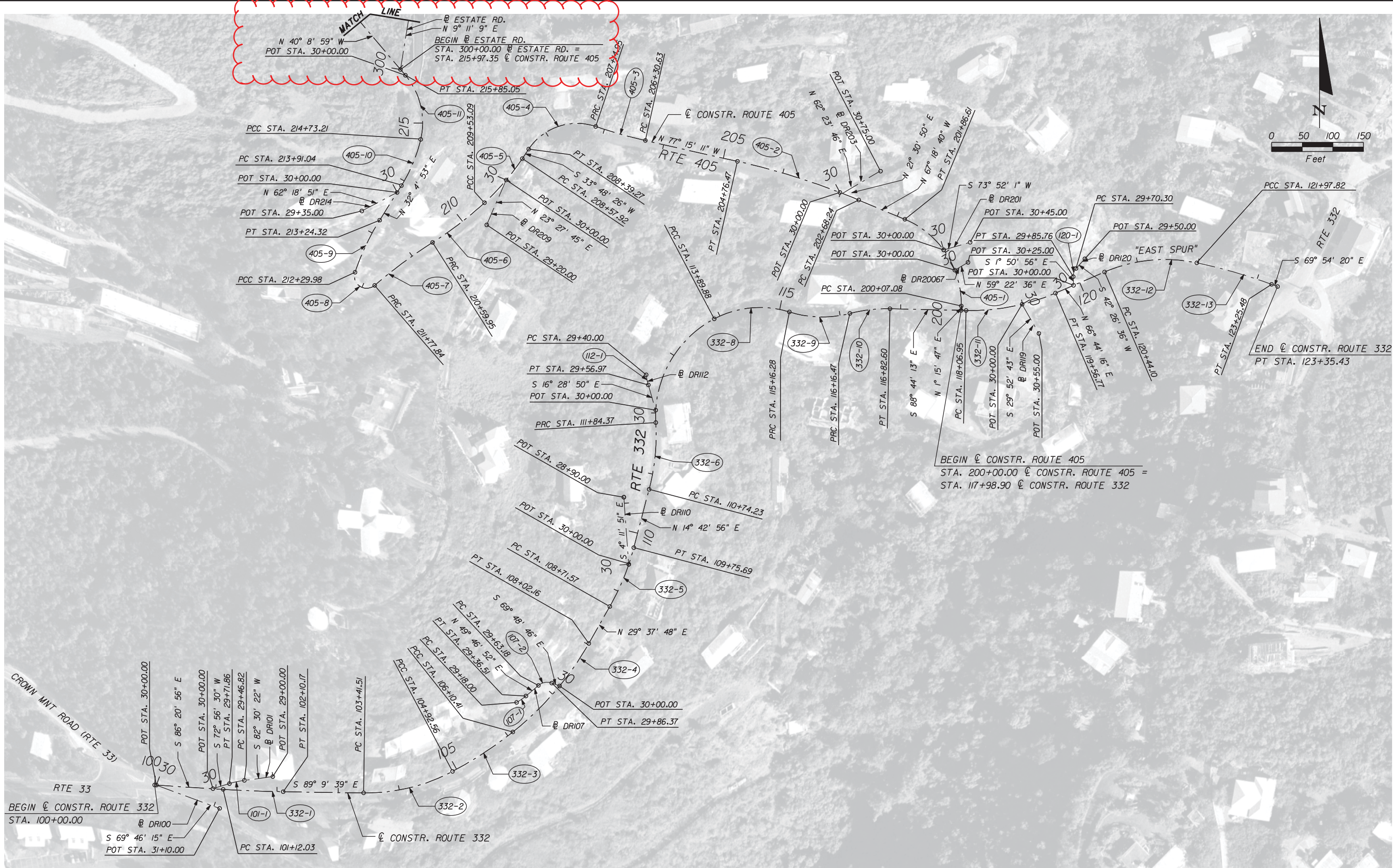
REVISIONS			DESIGNED	 PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. <small>7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462</small>	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332 TYPICAL SECTIONS (SHEET 5 OF 5)	Sheet Reference C-005 Sheet 12
DATE	BY	DESCRIPTION	DRAWN		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			M. HINNANT		RT 332	ST THOMAS	VI-A405 (1)		
			CHECKED		RT 405				
			J. WYATT						
			DATE	JOHN WYATT, P.E. PE No. 6387E					
			08/13/07						

USER: oikuch

8/10/2007

3:05:46 PM

I:\projects\scott free\Roadway\C-005.dgn



REVISIONS		
DATE	BY	DESCRIPTION

DESIGNED E. MOJENA
DRAWN M. HINNANT
CHECKED J. WYATT
DATE 08/13/07

JOHN WYATT, P.E.
PE No. 638TE



PARSONS BRINCKERHOFF
QUADE & DOUGLAS, INC.
7300 Corporate Center Drive, Suite 600
Miami, Florida 33126 Ph. (305) 261-4785
Certificate of Authorization No. 00001462

U.S.V.I DEPARTMENT OF PUBLIC WORKS		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
RT 332 RT 405	ST THOMAS	VI-A405 (1)

**IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD)
AND A PORTION OF RTE 332**
SITE GEOMETRY PLAN
(SHEET 1 OF 2)

Sheet
Reference
C-011
Sheet 13


USER: oikuch

8/10/2007


3:05:50 PM

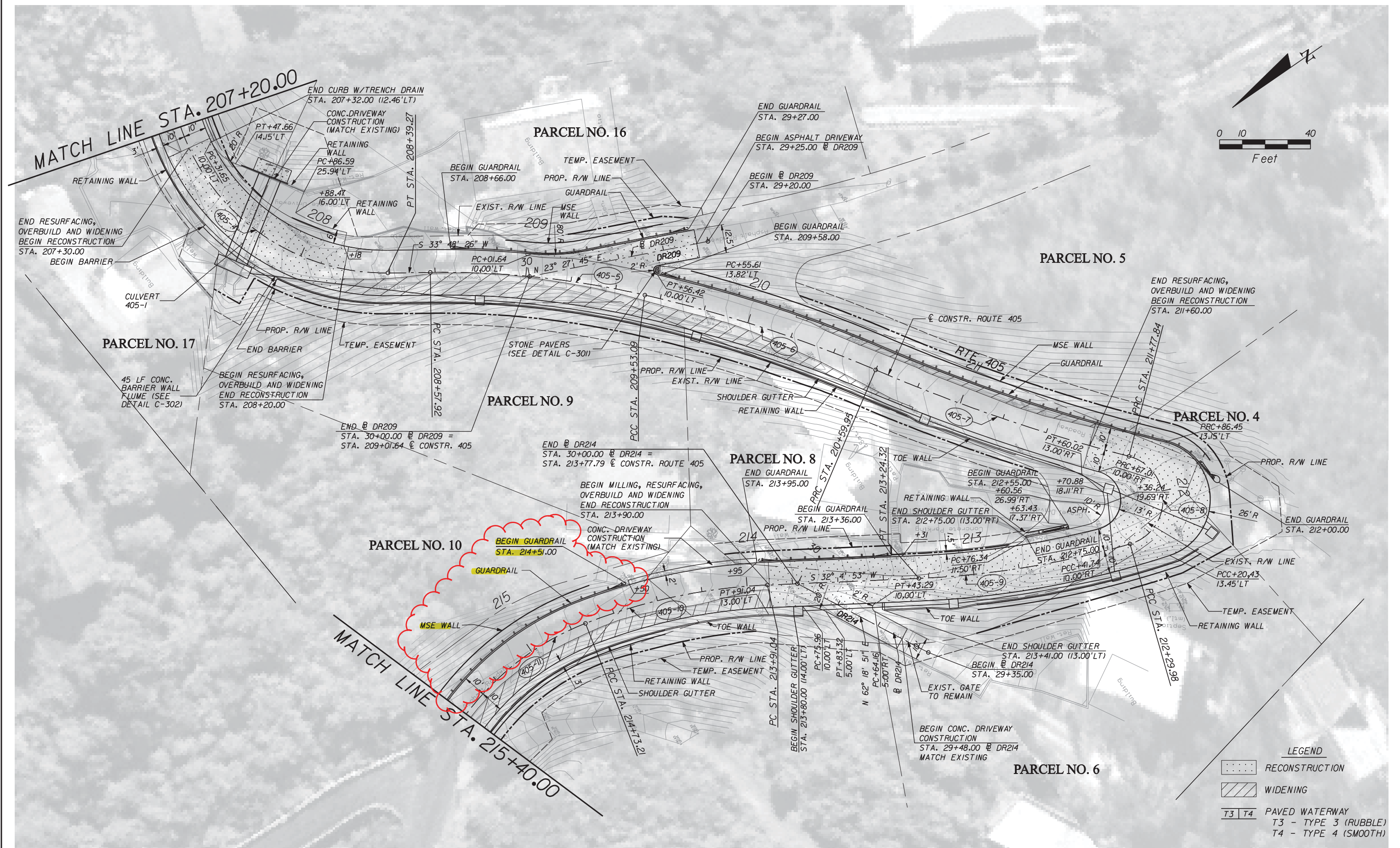
I:\projects\scott1 free\Roadway\C-011.dgn



REVISIONS			DESIGNED	 PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332 SITE GEOMETRY PLAN (SHEET 2 OF 2)	Sheet Reference C-012 Sheet 14
DATE	BY	DESCRIPTION	DRAWN		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			M. HINNANT		RT 332	ST THOMAS	VI-A405 (1)		
			CHECKED						
			J. WYATT						
			DATE 08/13/07	JOHN WYATT, P.E. PE No. 638TE					

[illegible]


REVISIONS			DESIGNED E. MOJENA	 <div>PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462</div> <div>JOHN WYATT, P.E. PE No. 638TE</div>	USVI DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332		Sheet Reference
DATE	BY	DESCRIPTION	DRAWN M. HINNANT		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	CURVE & COORDINATE DATA (SHEET 5 OF 5)	C-035 Sheet 15	
			CHECKED J. WYATT		RT 332	ST THOMAS	VI-A405 (1)			
			DATE 08/13/07		RT 405					



REVISIONS		
DATE	BY	DESCRIPTION

DESIGNED E. MOJENA
DRAWN M. HINNANT
CHECKED J. WYATT
DATE 08/13/07

JOHN WYATT, P.E.
PE No. 638TE

**PARSONS BRINCKERHOFF
QUADE & DOUGLAS, INC.**

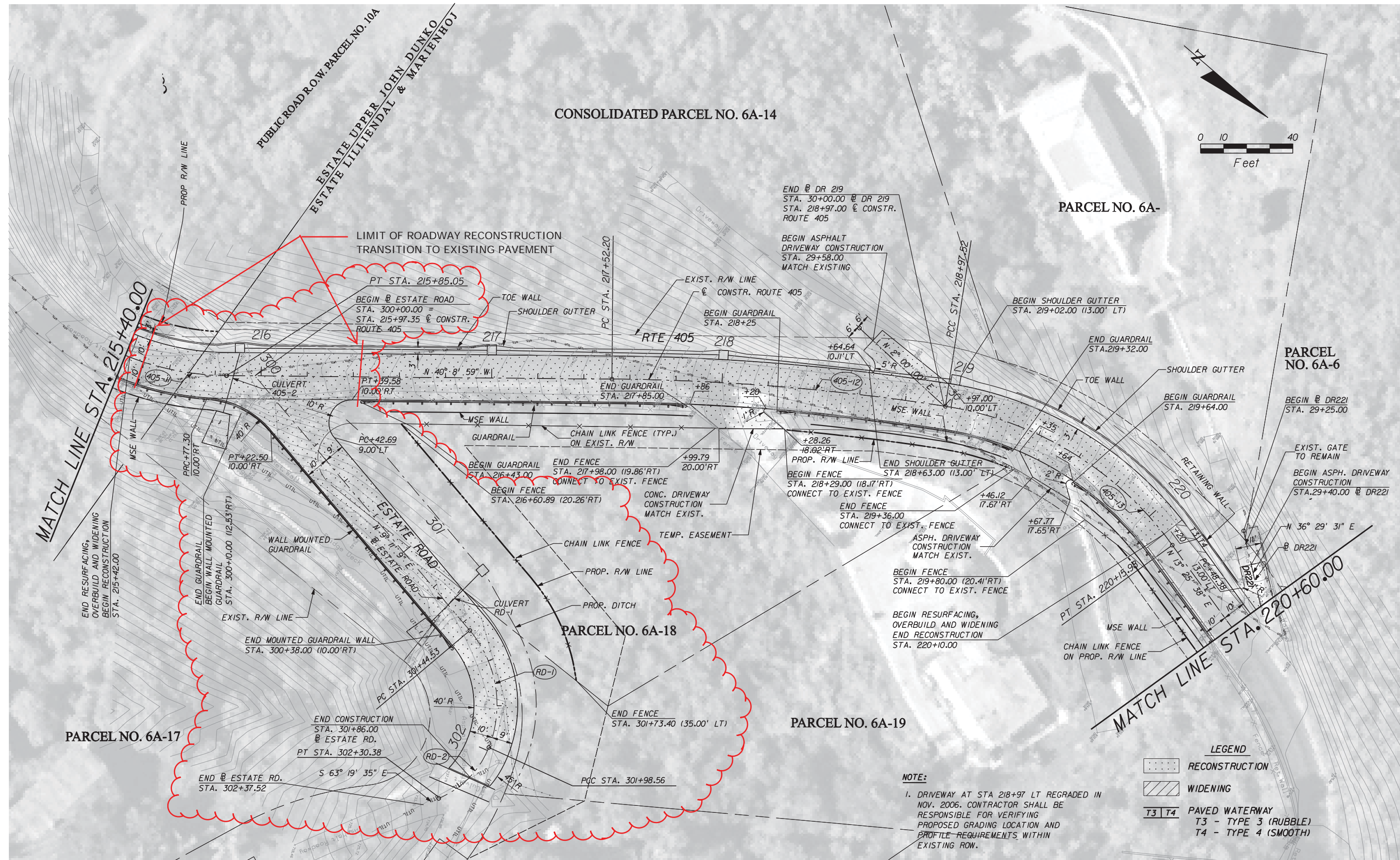
7300 Corporate Center Drive, Suite 600
Miami, Florida 33126 Ph. (305) 261-4785
Certificate of Authorization No. 00001462

U.S.V.I DEPARTMENT OF PUBLIC WORKS		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
RT 332 RT 405	ST THOMAS	VI-A405 (1)

IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD)
AND A PORTION OF RTE 332

PLAN
ROUTE 405


Sheet
Reference
C-107
Sheet 16



REVISIONS		
DATE	BY	DESCRIPTION

DESIGNED E. MOJENA
DRAWN M. HINNANT
CHECKED J. WYATT
DATE 08/13/07

JOHN WYATT, P.E.
PE No. 6387E

**PARSONS BRINCKERHOFF
QUADE & DOUGLAS, INC.**

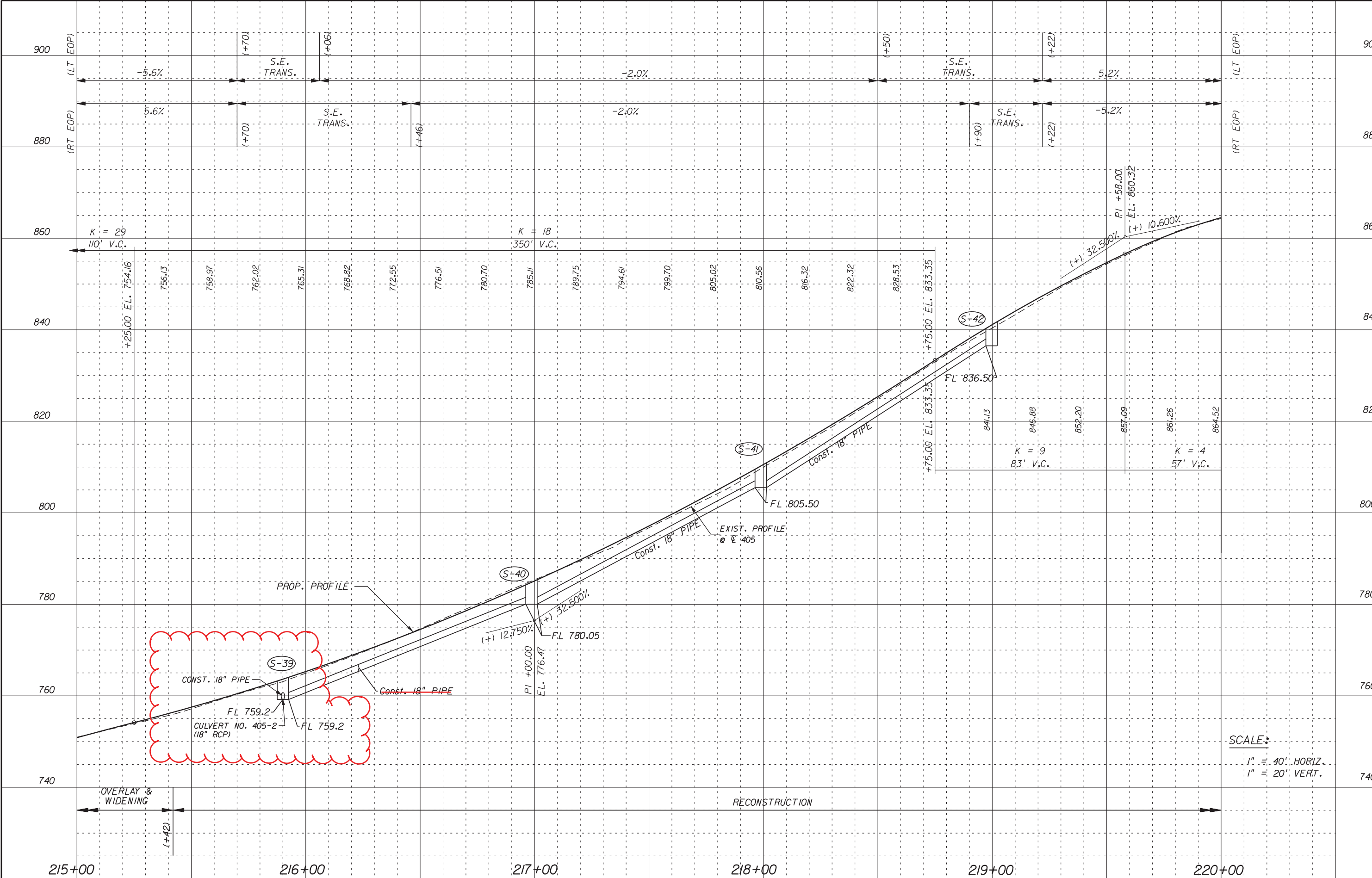
7300 Corporate Center Drive, Suite 600
Miami, Florida 33126 Ph. (305) 261-4785
Certificate of Authorization No. 00001462


U.S.V.I DEPARTMENT OF PUBLIC WORKS		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
RT 332 RT 405	ST THOMAS	VI-A405(1)

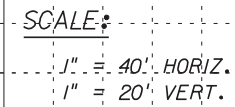
IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD)
AND A PORTION OF RTE 332

PLAN
ROUTE 405

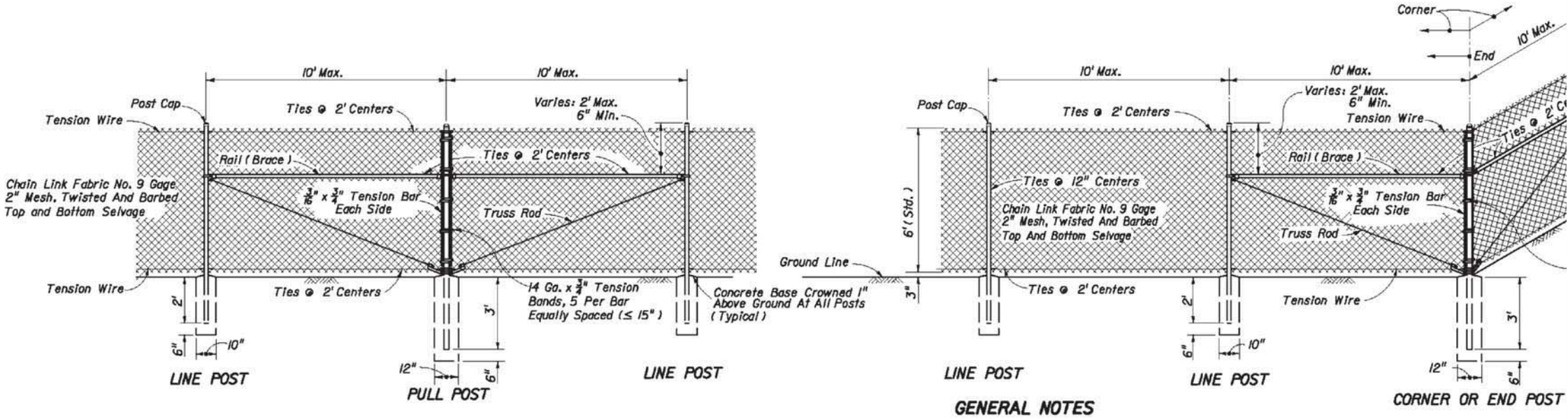
Sheet
Reference
C-108
Sheet 17



REVISIONS			DESIGNED	 PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332		S Ref C She
DATE	BY	DESCRIPTION	DRAWN		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROFILE ROUTE 405		
			M. HINNANT		RT 332	ST THOMAS	VI-A405 (1)			
			CHECKED		RT 405					
			J. WYATT							
			DATE							
			08/13/07	JOHN WYATT, P.E. PE No. 638TE						



USER: olkuch 8/10/2007 3:08:04 PM I:\projects\scott free\Roadway\C-162.dgn



GENERAL NOTES

1. This fence to be used generally in urban areas.
2. Chain link fabric, posts, rails, truss rods, tension wires, tie wires, stretcher bars, gates and all miscellaneous fittings and hardware shall meet the requirements of AASHTO M181 unless otherwise specified by this Index. Stipulated AASHTO and ASTM signify current reference.
3. Fence Component Options:

A. Line post options:

- (1) Galvanized steel pipe, Schedule 40- 1/2" nominal dia. zinc galvanized at the rate of 1.8 oz/sf: ASTM A53 Table X 2, ASTM F1083, and AASHTO M111.
- (2) Aluminum coated steel pipe: ASTM A53, X 2 Tables Schedule 40; 1/2" nominal dia., 1.90" OD; coated at the rate 0.40 oz/sf: AASHTO M111.
- (3) Aluminum alloy pipe- 2" nominal dia.: ASTM B241 or B221, Alloy 6063, T6.
- (4) Steel H-Beam- 1/8" x 1 1/2": Zinc Galv. 1.8 oz/sf: AASHTO M111 and Detail.
- (5) Aluminum alloy H-Beam- 1/8" x 1 1/2": Detail.
- (6) Steel C- 1/8" x 1 1/2": Galv.: 1.8 oz/sf zinc: AASHTO M111; or, 0.9 oz/sf zinc- 5% aluminumschmetel: ASTM F1043 and Detail.
- (7) Resistance welded steel pipe; 50,000 psi min. yield strength ASTM A569/A569M, A653/A653M or undepleted stock of discontinued A446/A446M base materials; ASTM F669 Group IV (Alternative Design); fence industry 2" OD, 1/2" NPS, 1.900" dec. equiv., 0.120" min. wall thick. and min. wt. 2.28 lb/ft; with ASTM F1043 metric equivalent internal coating Types A, B, C or D and external coating Types A, B, or C; the chromate conversion coating of external Type B shall have a thickness of 15µg/in² min. and the polymer film topcoat shall have a thickness of 0.0003" min.; internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.

B. Corner, end, and pull post options:

- (1) Galvanized steel pipe, Schedule 40- 2" nominal dia. zinc galvanized at the rate of 1.8 oz/sf: ASTM A53 Table X 2, ASTM F1083, and AASHTO M111.
- (2) Aluminum coated steel pipe: ASTM A53 steel, X 2 Tables Schedule 40; 2" nominal dia., 2.375" OD; coated at the rate 0.40 oz/sf: AASHTO M111.
- (3) Aluminum alloy pipe- 2 1/2" nominal dia.: ASTM B241 or B221, Alloy 6063, T6.
- (4) Resistance welded steel pipe; 50,000 psi min. yield strength ASTM A569/A569M, A653/A653M or undepleted stock of discontinued A446/A446M base materials; ASTM F669 Group IV (Alternative Design); fence industry 2 1/2" OD, 2" NPS, 2.375" dec. equiv., 0.130" min. wall thick. and min. wt. 3.17 lb/ft; with ASTM F1043 metric equivalent internal coating Types A, B, C or D and external coating Types A, B, or C; the chromate conversion coating of external Type B shall have a thickness of 15µg/in² min. and the polymer film topcoat shall have a thickness of 0.0003" min.; internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.

C. Rail options:

- (1) Galvanized steel pipe, Schedule 40- 1/4" nominal dia. zinc galvanized at the rate of 1.8 oz/sf: ASTM A53 Table X 2, ASTM F1083, and AASHTO M111.
- (2) Aluminum coated steel pipe: ASTM A53 steel, X 2 Tables Schedule 40; 1/4" nominal dia., 1.660" OD; coated at the rate 0.40 oz/sf: AASHTO M111.
- (3) Aluminum alloy pipe- 1/4" nominal dia.: ASTM B241 or B221, Alloy 6063, T6.
- (4) Resistance welded steel pipe; 50,000 psi min. yield strength ASTM A569/A569M, A653/A653M or undepleted stock of discontinued A446/A446M base materials; ASTM F669 Group IV (Alternative Design); fence industry 1/8" OD, 1/4" NPS, 1.660" dec. equiv., 0.111" min. wall thick. and min. wt. 1.836 lb/ft; with ASTM F1043 metric equivalent internal coating Types A, B, C or D and external coating Types A, B, or C; the chromate conversion coating of external Type B shall have a thickness of 15µg/in² min. and the polymer film topcoat shall have a thickness of 0.0003" min.; internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.

- D. Chain link fabric options (2" mesh with twisted and barbed selvage top and bottom for all options except as described in Note No. 10):

- (1) AASHTO M181 Type I - Zinc Coated Steel, No. 9 gage (coated wire diameter), coated at the rate of 1.8 oz/sf (M181 Class D 2.0 oz/sf modified to 1.8 oz/sf).
- (2) AASHTO M181 Type II - Aluminum Coated Steel, No. 9 gage (coated wire diameter), coated at the rate of 0.40 oz/sf.
- (3) AASHTO M181 Type IV- Polyvinyl Chloride (PVC) Coated Steel, No. 9 gage (coated core wire diameter), core wire-zinc coated steel. PVC coating: M181 Class A (either extruded or extruded and bonded) or Class B (bonded). Unless the plans call for M181 standard colors medium green, dark green or black the coating color shall be soft gray matching that of No. 36622 of Federal Standard 595a.

E. Tension wire options:

- (1) Steel wire No. 7 gage zinc galvanized at the rate of 1.2 oz/sf: AASHTO M181.
- (2) Aluminum alloy wire with a diameter of 0.1875" or larger conforming to the requirements of ASTM B211, Alloy 5056 Temper H38, or, Alclad Alloy 5056 Temper H192.
- (3) Aluminum coated steel wire No. 7 gage coated at the rate of 0.40 oz/sf: AASHTO M181.

F. Tie wire and hog ring options:

- (1) Steel wire No. 9 gage zinc galvanized at the rate of 1.2 oz/sf.
- (2) Aluminum alloy wire with a diameter of 0.1443" or larger conforming to the requirements of ASTM B211, Alloy 5056 Temper H38, or, Alclad Alloy 5056 Temper H192.
- (3) Aluminum coated steel wire No. 7 gage coated at the rate of 0.40 oz/sf.

4. Unless a specific material is called for in the plans the Contractor may elect to use either a single type of material or a combination of material types from the component options listed above. Combinations of optional materials are restricted as follows: (a) Only one fabric optional material will be permitted between corner and/or end post assemblies. (b) Only one line post optional material will be permitted between corner and/or end post assemblies. (c) Pull post assemblies shall be optional materials identical to either the line post optional material or the corner and end post assembly optional material; but, pull post assemblies shall be the same optional material between any set of corner and/or end post assemblies.


5. Concrete for bases shall be Class I concrete as specified in Section 347 of the Standard Specifications or a packaged, dry material meeting the requirements of a concrete under ASTM C-387. Materials for Class I concrete may be proportioned by volume and/or by weight.

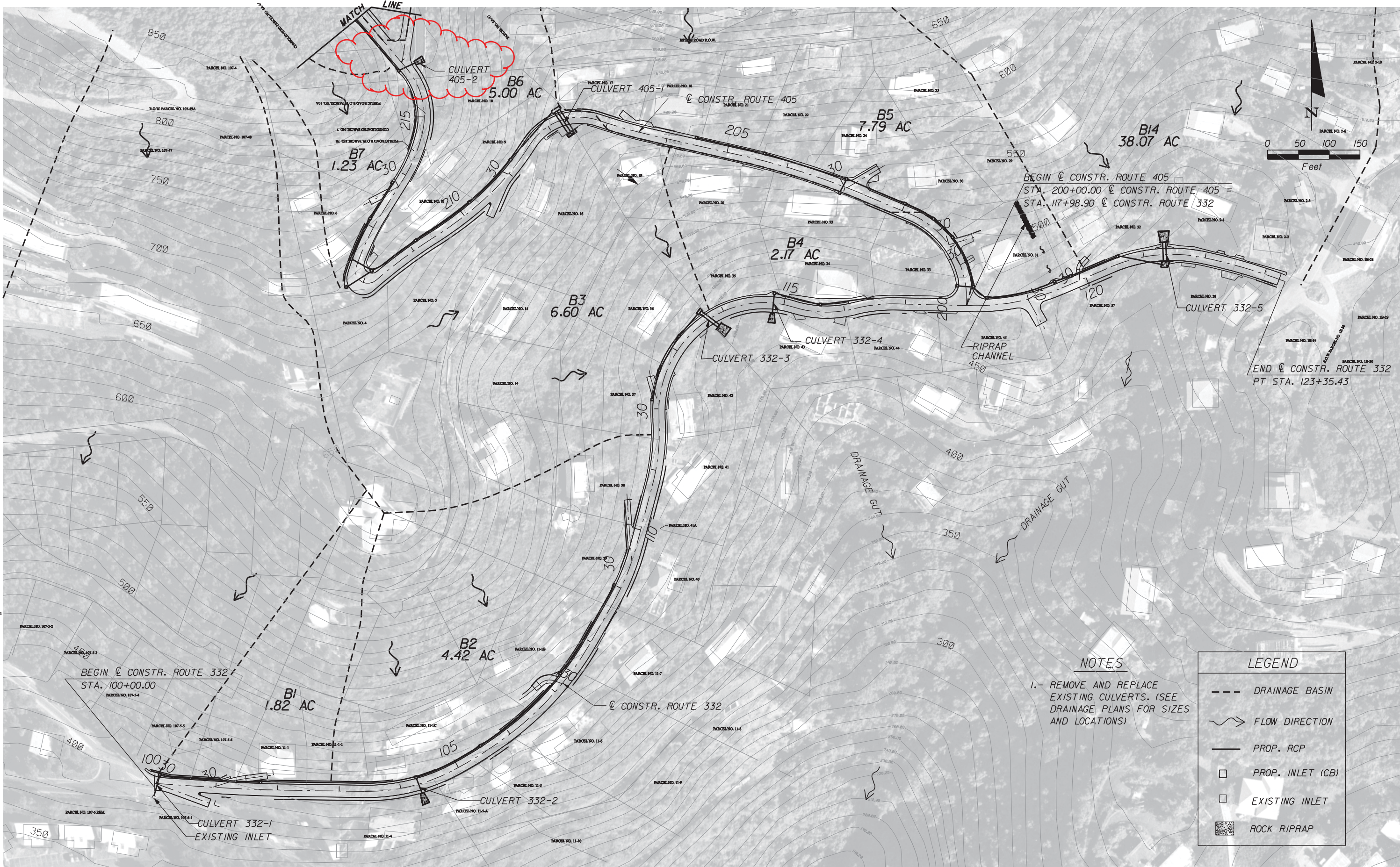
6. Line posts are to be set in concrete as detailed above or by the following methods:

- (a) In accordance with special details and/or as specifically described in the contract plans and specifications.
- (b) In accordance with ASTM F567 Subsections 5.4 through 5.7 and 5.9 and 5.10 as approved by the Engineer.
- (c) Posts mounted on concrete structure or solid rock shall be mounted in accordance with the base plate detail "Fence Mounting On Concrete Endwalls And Retaining Wall", Sheet 24 or, by embedment in accordance with ASTM F567 Subsection 5.5.

End, pull and corner post assemblies shall be set in concrete as detailed above for all soil conditions other than solid rock. Posts within assemblies that are located on concrete structures or solid rock shall be set by base plate or by embedment as prescribed under (b) above for line posts.

Line and assembly posts set in concrete bases shall be set an additional 3" in depth for each 1' of fence height greater than 6'.


REVISIONS			DESIGNED	 PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332	FENCE DETAIL	Sheet Reference C-303 Sheet 20
DATE	BY		J. WYATT		ROAD NO.	COUNTY	FINANCIAL PROJECT ID			
			DRAWN		RT 332	ST THOMAS	VI-A405 (1)			
			M. HINNANT		RT 405					
			CHECKED							
			J. ROSAS							
			DATE	08/24/06						
				JOSE ROSAS, P.E. PE No. 48000						



REVISIONS		
DATE	BY	DESCRIPTION

DESIGNED E. MOJENA
DRAWN M. HINNANT
CHECKED J. WYATT
DATE 08/13/07

JOHN WYATT, P.E.
PE No. 638TE

**PARSONS BRINCKERHOFF
QUADE & DOUGLAS, INC.**

7300 Corporate Center Drive, Suite 600
Miami, Florida 33126 Ph. (305) 261-4785
Certificate of Authorization No. 00001462

U.S.V.I DEPARTMENT OF PUBLIC WORKS		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
RT 332 RT 405	ST THOMAS	VI-A405(1)

**IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD)
AND A PORTION OF RTE 332**
DRAINAGE KEY MAP
(SHEET 1 OF 2)

Sheet
Reference
D-001
Sheet 21



REVISIONS		
DATE	BY	DESCRIPTION

DESIGNED E. MOJENA
DRAWN M. HINNANT
CHECKED J. WYATT
DATE 08/13/07

JOHN WYATT, P.E.
PE No. 638TE

PB PARSONS BRINCKERHOFF
QUADE & DOUGLAS, INC.
7300 Corporate Center Drive, Suite 600
Miami, Florida 33126 Ph. (305) 261-4785
Certificate of Authorization No. 00001462

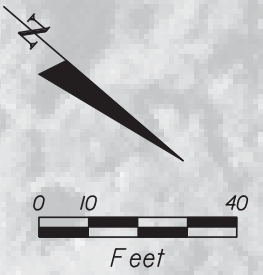
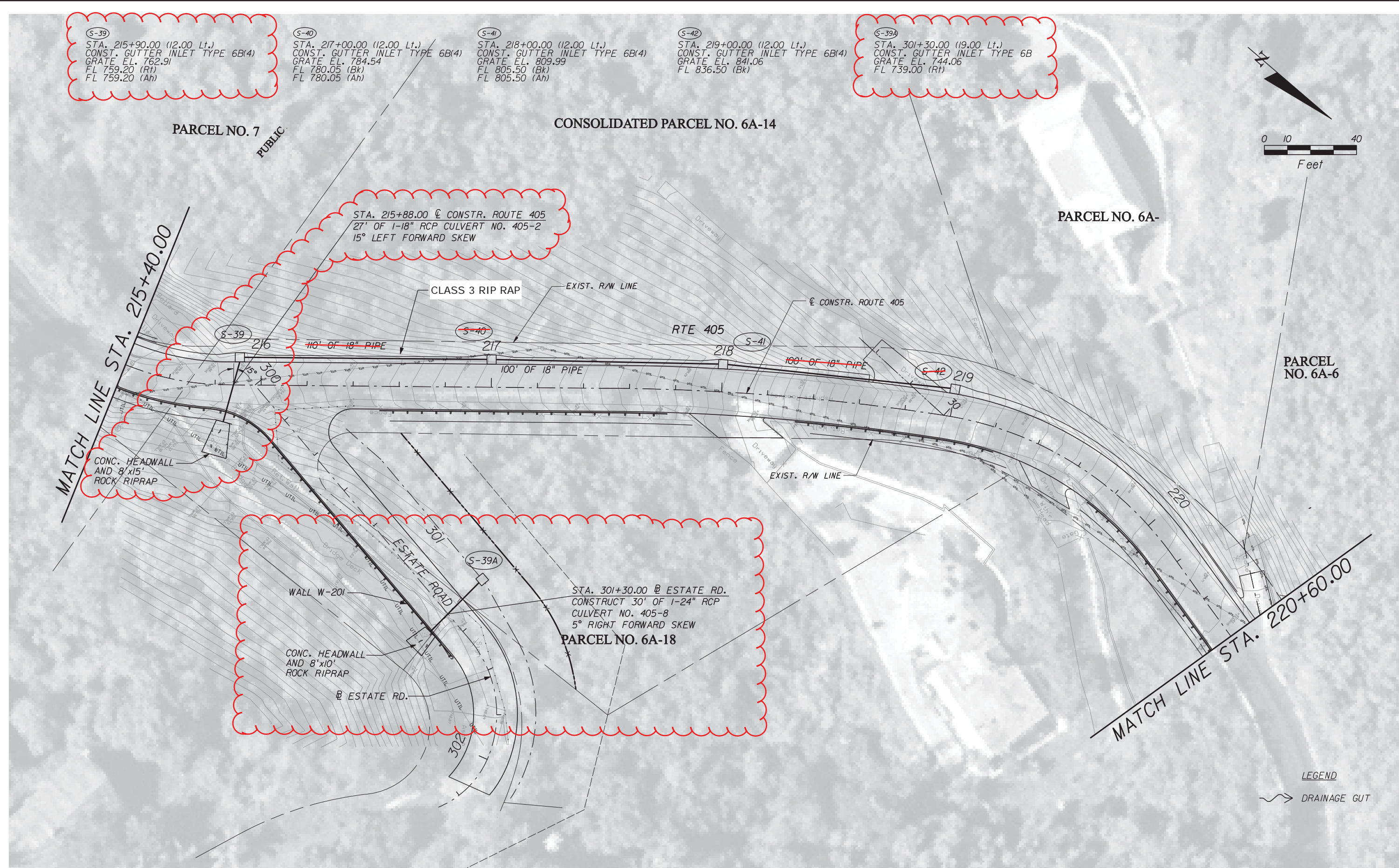
U.S.V.I DEPARTMENT OF PUBLIC WORKS		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
RT 332 RT 405	ST THOMAS	VI-A405(1)


IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD)
AND A PORTION OF RTE 332
DRAINAGE KEY MAP
(SHEET 2 OF 2)

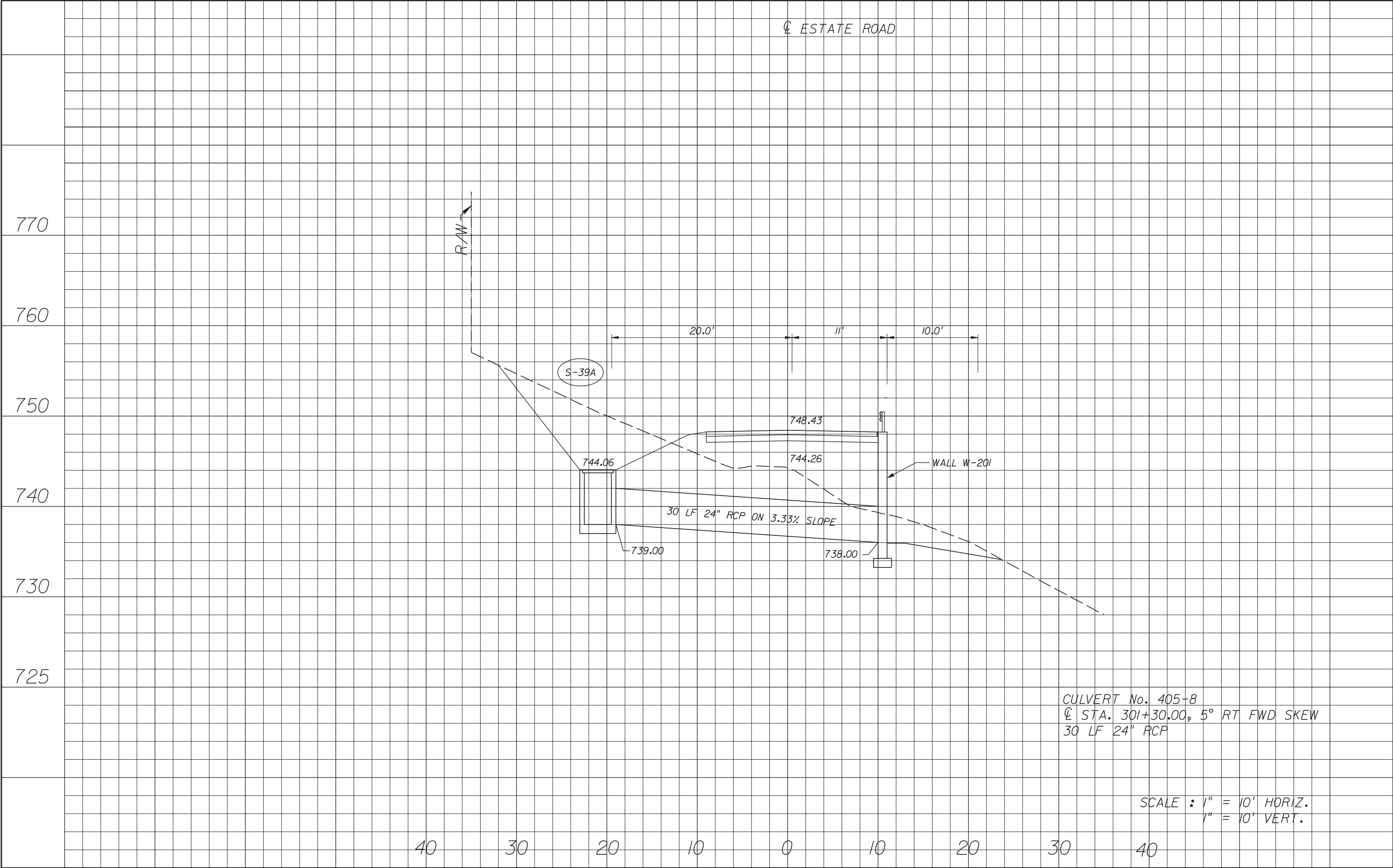
Sheet
Reference
D-002
Sheet 22

Drainage Quantities

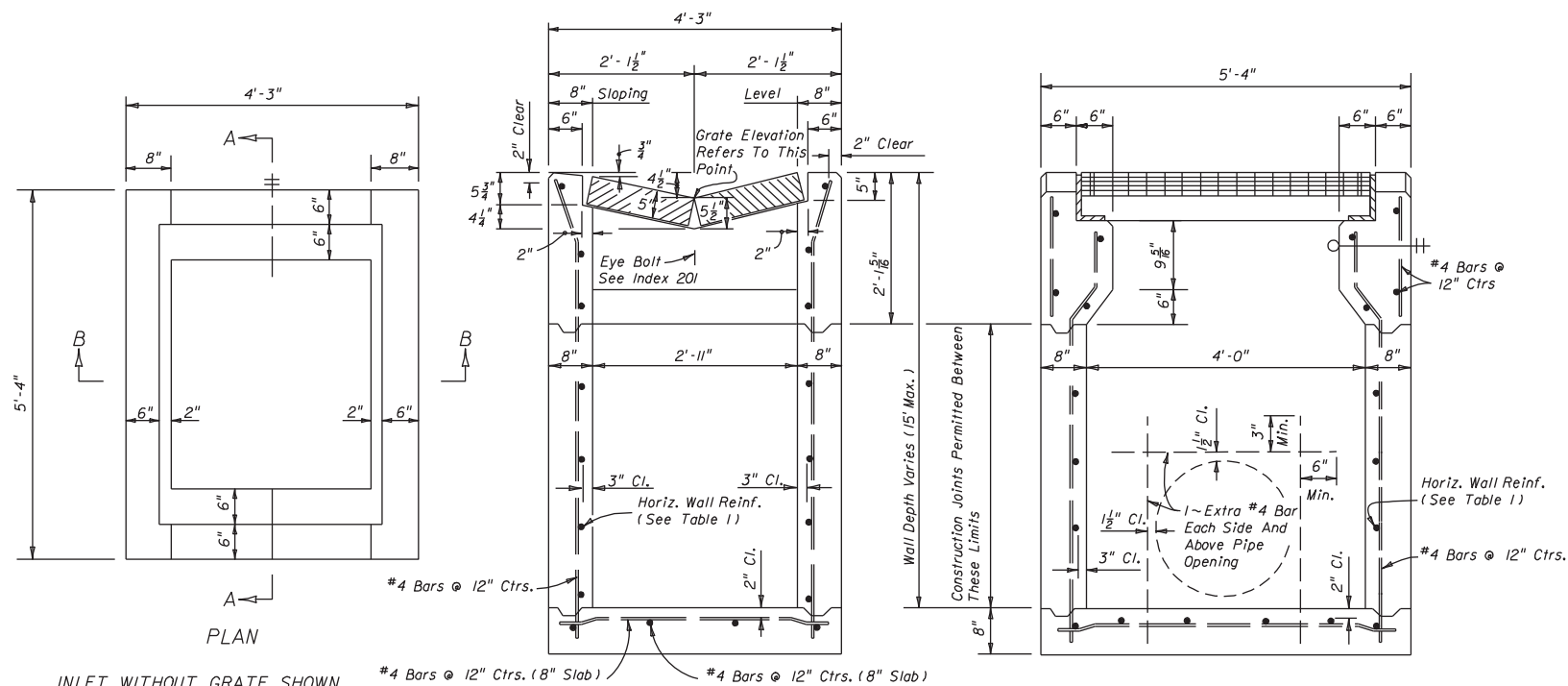
PAY ITEM NUMBER			25101		25110		60201				60102	60403		60103					
			-3000	-6000	-3000	-6000	-0600	-0800	-0900	-1000	-0001	-1900	-1901	-0100	-0140	-0160	0640	-0660	-1260
STATION or INLET TO INLET	EST MAX COVER (ft)	STR EXC (CUYD)	Placed Riprap, energy dissapator (CUYD)		Grouted Riprap, energy dissapator (CUYD)		RCP Pipe Culvert (LNFT)				Conc. Drain Structure (CUYD)	Inlet Type 6B (Each)	Inlet Type 6B (MOD) (Each)	Conc. Headwall for 18" Pipe (Each)	Conc. Headwall for 24" Pipe (Each)	Conc. Headwall for 30" Pipe (Each)	Conc. Headwall for Double 30" Pipe (Each)	Conc. Headwall for Double 36" Pipe (Each)	Conc. Headwall for Triple 36" Pipe (Each)
DIAMETER or SPAN x RISE (inch)			Class 3	Class 6	Class 3	Class 6	18"	24"	30"	36"									
ROUTE 405																			
405-2	S-39		13	8		6	27						1	1					
S-39	S-40						110												
S-40	S-41						100					1							
S-41	S-42						100					1							
405-3				14.3		9.0			84		1						1		
S-43	S-44						37					2							
S-44	405-4							28			1								
405-4				10.1		5.7		38							1				
S-46	S-47						96					2							
S-47	S-48						56					1							
S-48	S-49						54					1							
S-49	S-50						75					1							
S-49	405-5			5.9		6.3			30							1			
S-50	S-51						75					1							
S-51	S-52						77					1							
405-6	S-53			12.6		5.8	28					1		1					
S-53	S-54						39					1							
S-54	S-55						155					1							
S-55	S-56						115					1							
S-57	S-58						78					1							
S-58	405-7			5.6		5.1		36				1			1				
S-58	S-60							105				1							
S-60	S-61						105					1							
S-61	S-62						109					1							
ESTATE RD																			
S-39A	405-8			8		6		30					1		1				
PARCEL 31																			
GUT			32.7		11.1														
Subtotal (P 2)			32.7	55.4	11.1	37.1	1436	237	114	0	2	22	1	2	3	1	1	0	0
Subtotal (P 1)			0.0	40.9	0.0	28.7	1218	804	510	266	2	33	0	0	2	1	0	3	0
TOTALS			33.0	97.0	12.0	66.0	2654	1041	624	266	4	55	1	2	5	2	1	3	0



REVISIONS			DESIGNED E. MOJENA	 PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332 DRAINAGE PLAN ROUTE 405	Sheet Reference	
DATE	BY	DESCRIPTION	DRAWN M. HINNANT		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		D-108	
			CHECKED J. WYATT		RT 332	ST THOMAS	VI-A405(1)			Sheet 24
			DATE 08/13/07		RT 405					
			JOHN WYATT, P.E. PE No. 6387E							



REVISIONS			DESIGNED	<div><div><div>PB</div><div>182</div></div><div>PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462</div></div>	U.S.V.I			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332		Sheet Reference D-213 Sheet 25		
DATE	BY	DESCRIPTION	DRAWN		ROAD NO.	COUNTY	FINANCIAL PROJECT ID					
			M. HINNANT		RT 332	ST THOMAS	V1-A405 (1)					
			CHECKED		RT 405							
			J. WYATT									
			DATE	JOHN WYATT, P.E. PE No. 638TE								
			08/13/07									
SCALE : 1" = 10' HORIZ. 1" = 10' VERT.												
CULVERT No. 405+8 EST. STA. 301+30.00, 5° RT FWD SKEW 30 LF 24" RCP												
DRAINAGE CULVERT CROSS SECTIONS												



INLET WITHOUT GRATE SHOWN

#4 Bars @ 12" Ctrs. (8" Slab) #4 Bars @ 12" Ctrs. (8" Slab)

(Pipe Opening Not Shown)

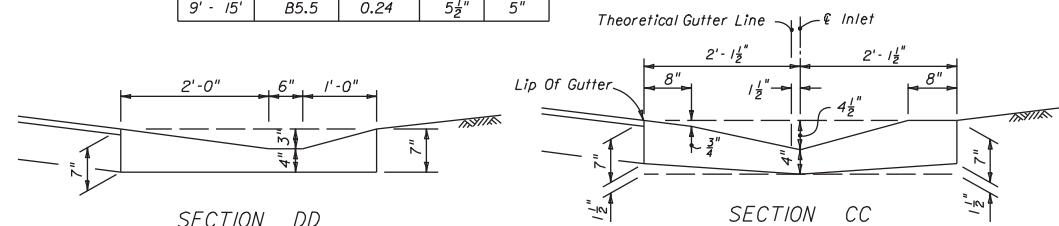
SECTION BB

(Pipe Opening Shown)

SECTION AA

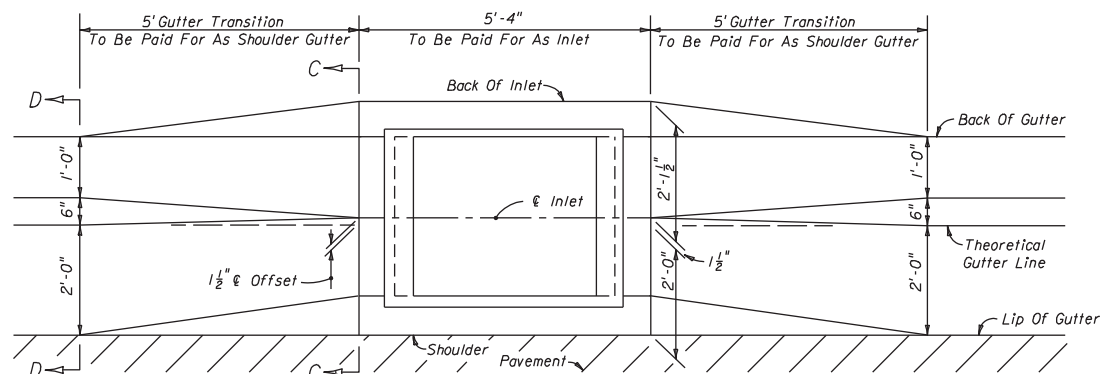
HORIZONTAL WALL REINFORCING SCHEDULE (TABLE 1)

WALL DEPTH	SCHEDULE	AREA (in ² /ft)	MAX. SPACING	
			BARS	WWF
0' - 5'	A/2	0.20	12"	8"
5' - 9'	A6	0.20	6"	5"
9' - 12'	A4	0.20	4"	3"
9' - 15'	B5.5	0.24	5 1/2"	5"

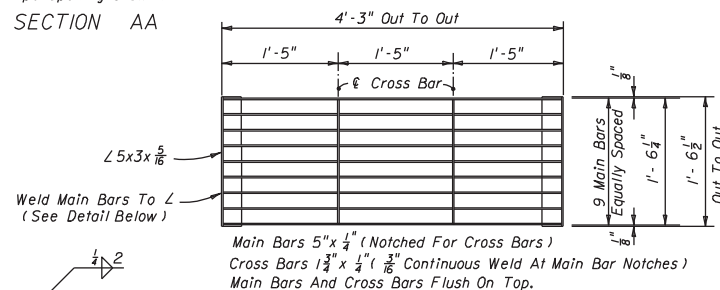


SECTION DD

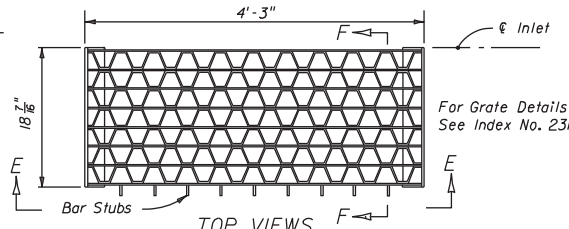
SECTION CC



SHOULDER GUTTER TRANSITION



DETAIL



TOP VIEWS

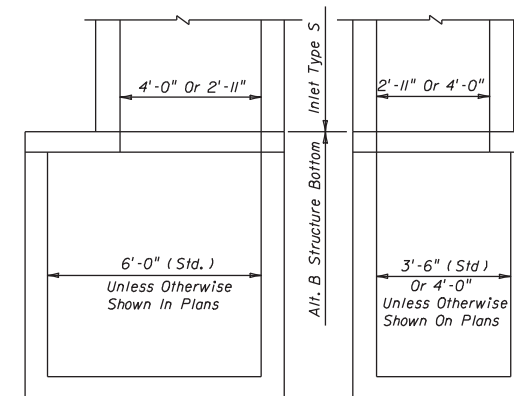
SECTION EE

SECTION FF

STEEL GRATE

RECOMMENDED MAXIMUM PIPE SIZES		
INLET	INSIDE WIDTH	PIPE SIZE
	2'-11" or 3'-3"	24"
	4'-0" or 3'-10"	30"

Note: Recommended sizes are for concrete pipe. Sizes for other types of pipe must be verified for fit in accordance with Index No. 201. For larger pipe see bottom detail below and Index No. 200.




NOTE: Alt. B Structure Bottom Only.

INLET WITH STRUCTURE BOTTOM

GENERAL NOTES

1. This inlet is intended for use in shoulder gutter on facilities subject to heavy wheel loads. The parallel bar grate shall be used on limited access facilities. On other facilities the reticulate grate shall be used. Locate inlet outside of designated pedestrian travel way.
2. All reinforcing Grade 60 bars with 2" min. cover unless otherwise noted. Bars to be cut or bent for 1 1/2" minimum clearance around pipe.
3. All exposed outside edges and corners shall be chamfered or tooled to 3/4" radius.

DRAINAGE STRUCTURE TYPE 6B(4)

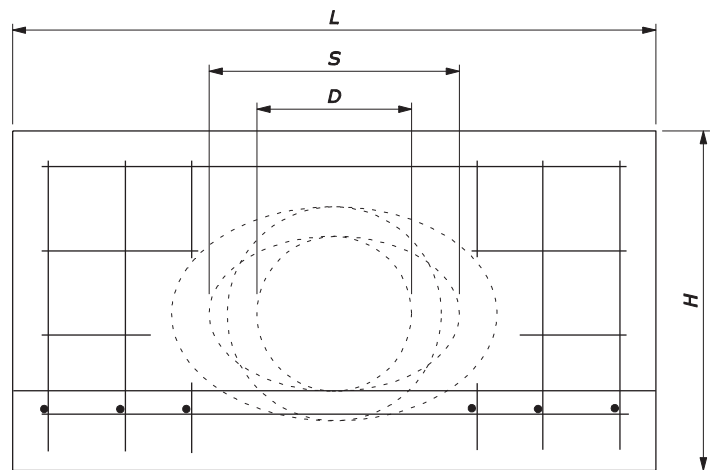
REVISIONS			DESIGNED	 <div>PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462</div>	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332 DRAINAGE INLET DETAILS	Sheet
DATE	BY	DESCRIPTION	DRAWN		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		Reference
			M. HINNANT		RT 332	ST THOMAS	VI-A405 (1)		D-302
			CHECKED		RT 405				
			J. WYATT						
			DATE 08/13/07	JOHN WYATT, P.E. PE No. 638TE			Sheet 26		

USER: alkuch

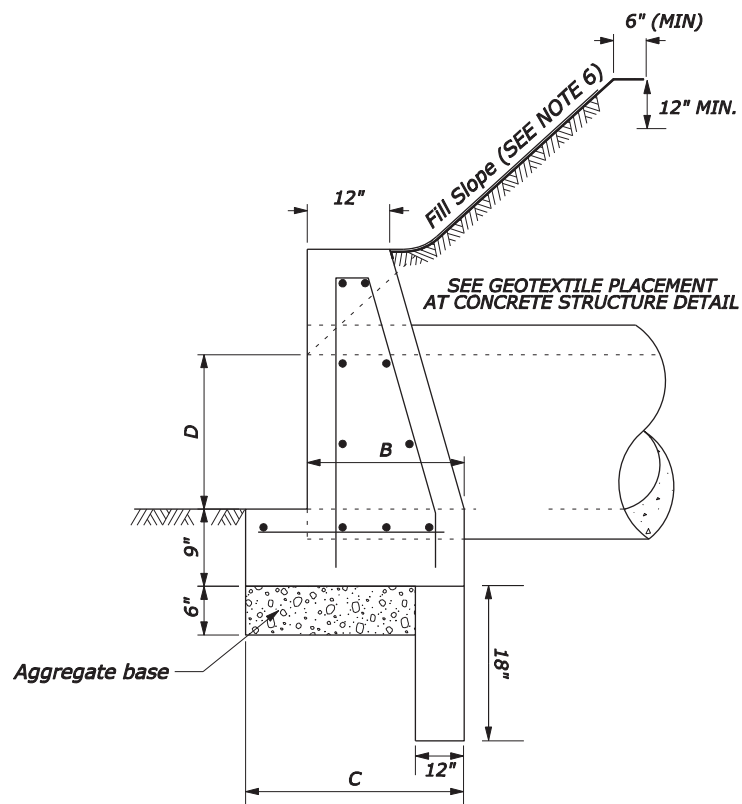
8/10/2007

11/19/06 AM

I:\projects\scott1 free\Drainage\D-302.dgn

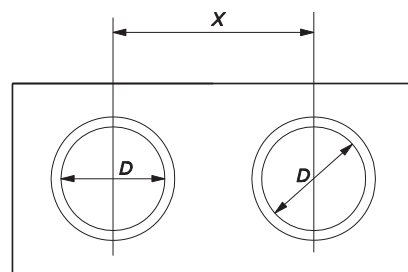


FRONT ELEVATION



SIDE ELEVATION

HEADWALL FOR CIRCULAR PIPE				
DIAMETER OF PIPE CULVERT				
	18"	24"	30"	36"
B	1'-6"	1'-8"	1'-9"	2'-0"
C	3'-6"	4'-2"	4'-9"	5'-0"
D	1'-6"	2'-0"	2'-6"	3'-0"
H	3'-9"	4'-3"	4'-9"	5'-3"
L	6'-0"	8'-0"	10'-0"	12'-0"

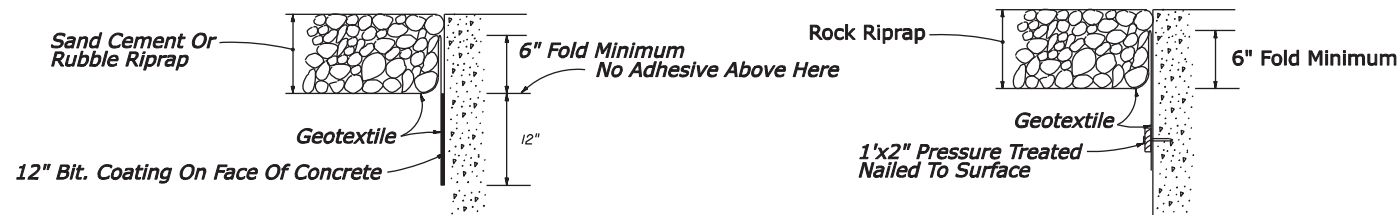


D	X		
	0°	15°	30°
18"	2'-10"	2'-11"	3'-3"
24"	3'-5"	3'-6"	3'-11"
30"	4'-3"	4'-5"	4'-11"
36"	5'-1"	5'-3"	5'-10"

DETAILS FOR MULTIPLE PIPES

NOTES:


1. All headwalls are oriented parallel to the roadway centerline unless otherwise indicated in the plans or by the CO.
2. When pipes are on a skew, adapt and lengthen headwalls as directed.
3. Chamfer all exposed corners not rounded to $\frac{3}{4}$ ".
4. Quantities shown are for one headwall with pipe at right angles.
5. Construct headwalls using dimensions shown under values for IV:1.5H slope, unless otherwise designated by the CO.
6. Geotextile fabric for permanent erosion control required for all slopes steeper the 2.5:1. Maximum grade is 1.5:1

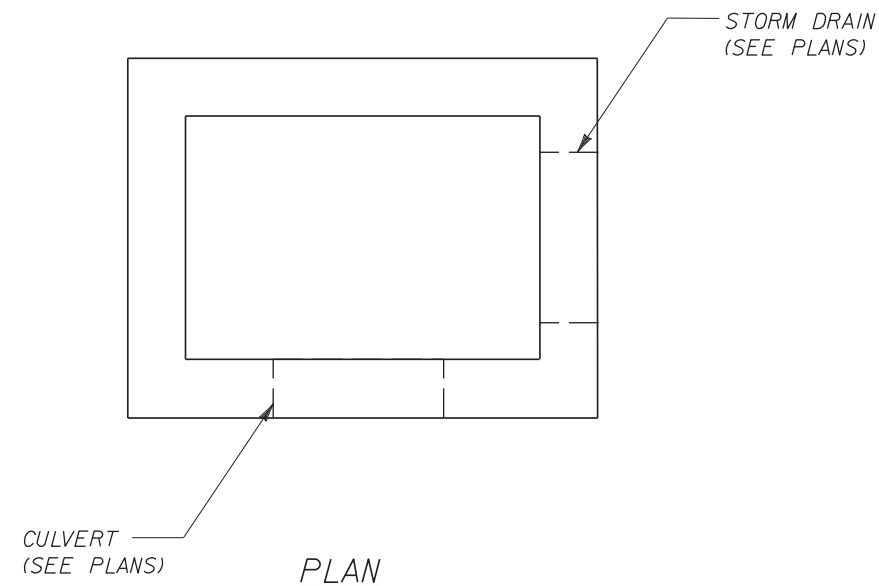


BONDED OPTION

NAILED OPTION

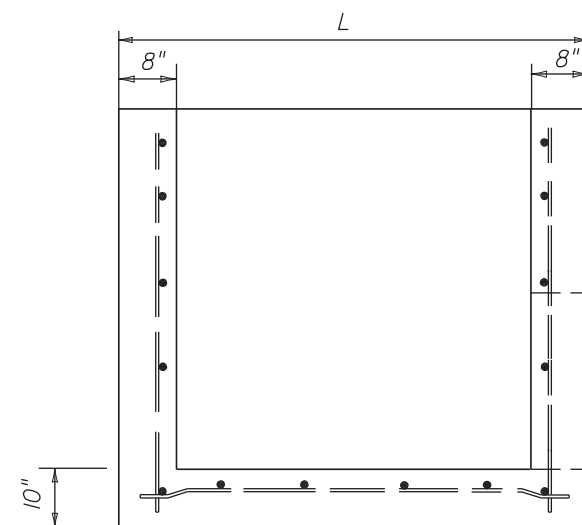
GEOTEXTILE PLACEMENT AT CONC. STRUCTURE

REVISIONS			DESIGNED	 PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. <small>7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462</small>	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332 DRAINAGE CULVERT HEADWALL DETAILS	Sheet Reference D-303 Sheet 27
DATE	BY	DESCRIPTION	DRAWN		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			M. HINNANT		RT 332	ST THOMAS	VI-A405 (1)		
			CHECKED		RT 405				
			J. WYATT						
			DATE	JOHN WYATT, P.E. PE No. 638TE					
			08/13/07						

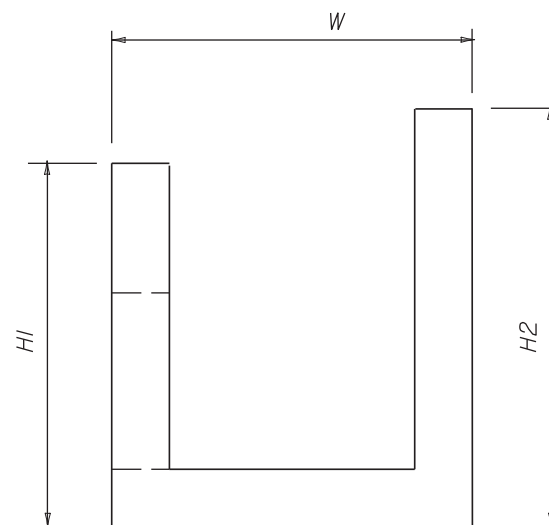


NOTES:


1. SEE PLANS FOR INFALL STRUCTURE DIMENSIONS
- H1= FRONT WALL HEIGHT
- H2= BACK WALL HEIGHT
- L= LENGTH
- W= WIDTH



FRONT ELEVATION



SIDE ELEVATION

REVISIONS			DESIGNED	 PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. <small>7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462</small>	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332 DRAINAGE INFALL STRUCTURE DETAILS	Sheet Reference D-304 Sheet 28
DATE	BY	DESCRIPTION	DRAWN		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			M. HINNANT		RT 332	ST THOMAS	VI-A405(1)		
			J. WYATT		RT 405				
			DATE 08/13/07	JOHN WYATT, P.E. PE No. 638TE	USER: olkuch			8/10/2007	11:19:13 AM

GENERAL NOTES

1. TEMPORARY TRAFFIC CONTROL AND FLAGGING SHALL CONFORM TO CHAPTERS 5 & 6 OF THE MUTCD.

2. USE FLAGGING FOR SAFE TRAFFIC CONTROL OPERATION.

3. FLAGGING OPERATION TO BE PAID AS AN INCIDENTAL COST TO THE TRAFFIC CONTROL DURING CONSTRUCTION.

4. SPEED THROUGH CONSTRUCTION ZONE SHALL BE 10 MPH.

5. DAILY INSPECTIONS SHALL BE CONDUCTED TO ASSURE THAT NO ADVERSE CONDITIONS EXIST ALONG TEMPORARY TRAVEL WAYS. ANY DEFICIENCIES SHALL BE REPAIRED IMMEDIATELY.

6. ALONG ALL TRAVEL WAYS MAINTAIN EXISTING, PLACE TEMPORARY OR INSTALL PERMANENT GUARDRAIL FOR PROTECTION AT STEEP SLOPES.

7. ACCESS TO ALL RESIDENCES TO BE MAINTAINED FOR AS LONG AS POSSIBLE DURING CONSTRUCTION. PROVIDE SCHEDULED CLOSURES TO DPW FOR APPROVAL AT LEAST 14 DAYS PRIOR TO IMPLEMENTATION.

8. SINGAGE SHOULD INDICATE "LOCAL TRAFFIC ONLY" AT THE ENTRANCE TO RT 332 AND RT 405 FOR THE DURATION OF THE ROAD CLOSURE.
9. SUBMIT DETOUR AND ROAD CLOSURE PLAN FOR EACH PHASE TO DPW FOR APPROVAL AT LEAST 14 DAYS PRIOR TO IMPLEMENTATION.

10. COVER OR REMOVE CONFLICTING SIGNS DURING CONSTRUCTION PHASING.

11. MAINTAIN EXISTING DRAINAGE FACILITIES OPERATIONAL DURING EACH PHASE AND PROVIDE EROSION PROTECTION AS PER FLH STANDARD DRAWINGS FOR EROSION CONSTROL (SECTION 157).

12. SUBPHASE TRAFFIC SHIFTS DURING PHASES AND BETWEEN PHASES AS NECESSARY TO MAINTAIN TRAFFIC.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING STAGING AREAS FOR THE PROJECT WORK.

14. UTILITY AND MULTI-USE POLE RELOCATIONS WILL BE PERFORMED BY WAPA.

15. KEEP ONE LANE OF TRAFFIC OPEN (FOR LOCAL ACCESS). CONTRACTOR SHALL MAINTAIN TRAFFIC CONTROL DEVICES FOR DURATION OF CONSTRUCTION.

CONSTRUCTION / PHASING NOTES:

- RT 405
1. CLEARING AND GRUBBING

2. CLOSE RT 405, LOCAL TRAFFIC ONLY

3. CONSTRUCT MSE WALL AND DRAINAGE

4. INSTALL GUARDRAIL

5. RESTORE PAVEMENT TO MATCH EXISTING

6. OPEN ROADWAY TO THROUGH TRAFFIC
- ESTATE ROAD
1. DEMOLISH EXISTING BRIDGE

2. CLEARING AND GRUBBING

3. KEEP TRAFFIC FLOWING ON TEMPORARY ROAD

4. CONSTRUCT MSE WALL, EMBANKMENT, AND DRAINAGE ON PERMANENT ROAD

5. INSTALL GUARDRAIL

6. SUBPHASE TO MOVE TRAFFIC TO COMPLETED SECTION OF PERMANENT ROAD

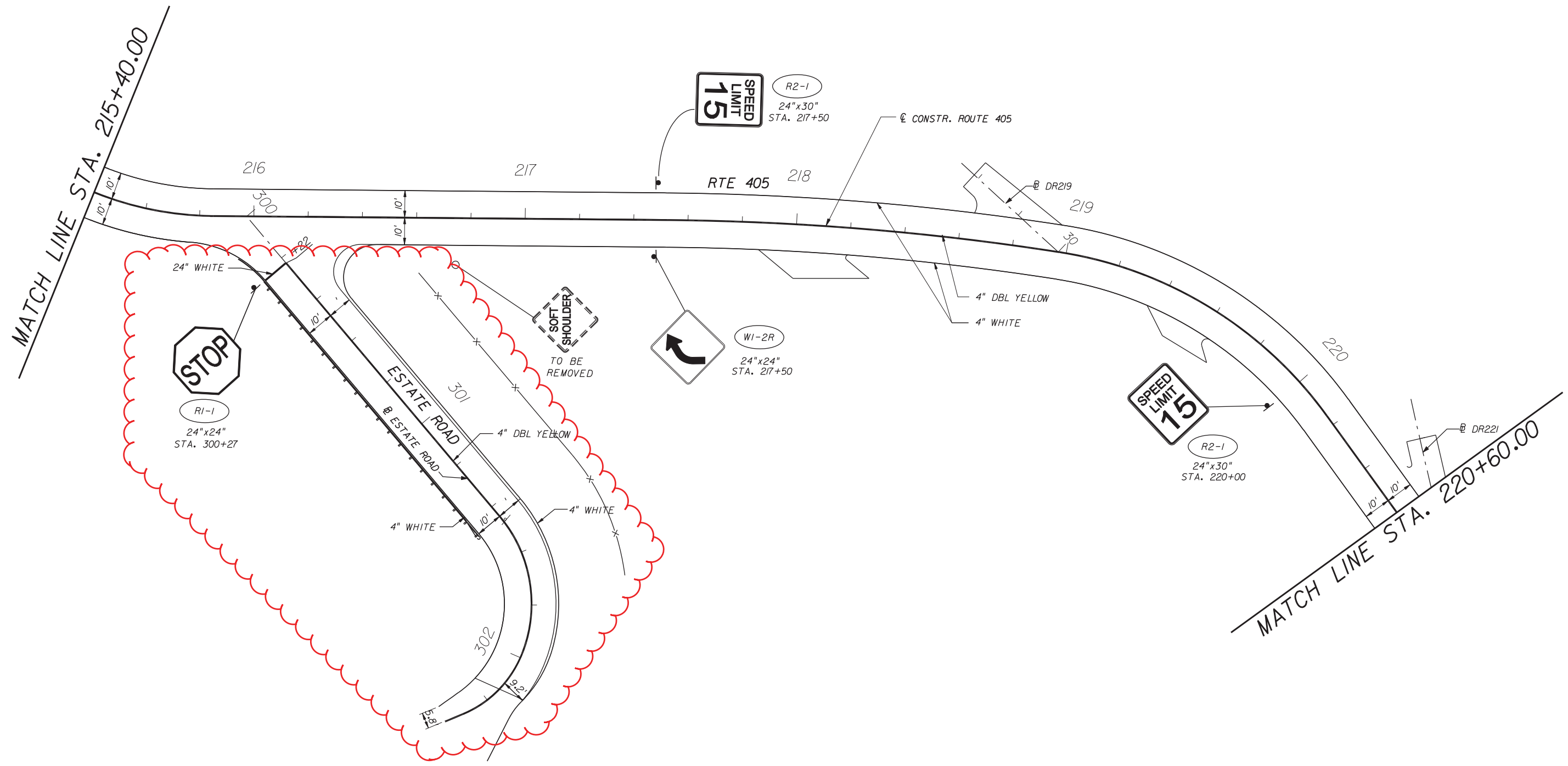
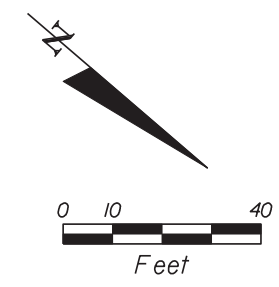
7. COMPLETE PERMANENT ROAD, CONSTRUCT DRAINAGE DITCH


8. CONSTRUCT FENCE AND RESTORE RESTORE VEGETATION & SOD

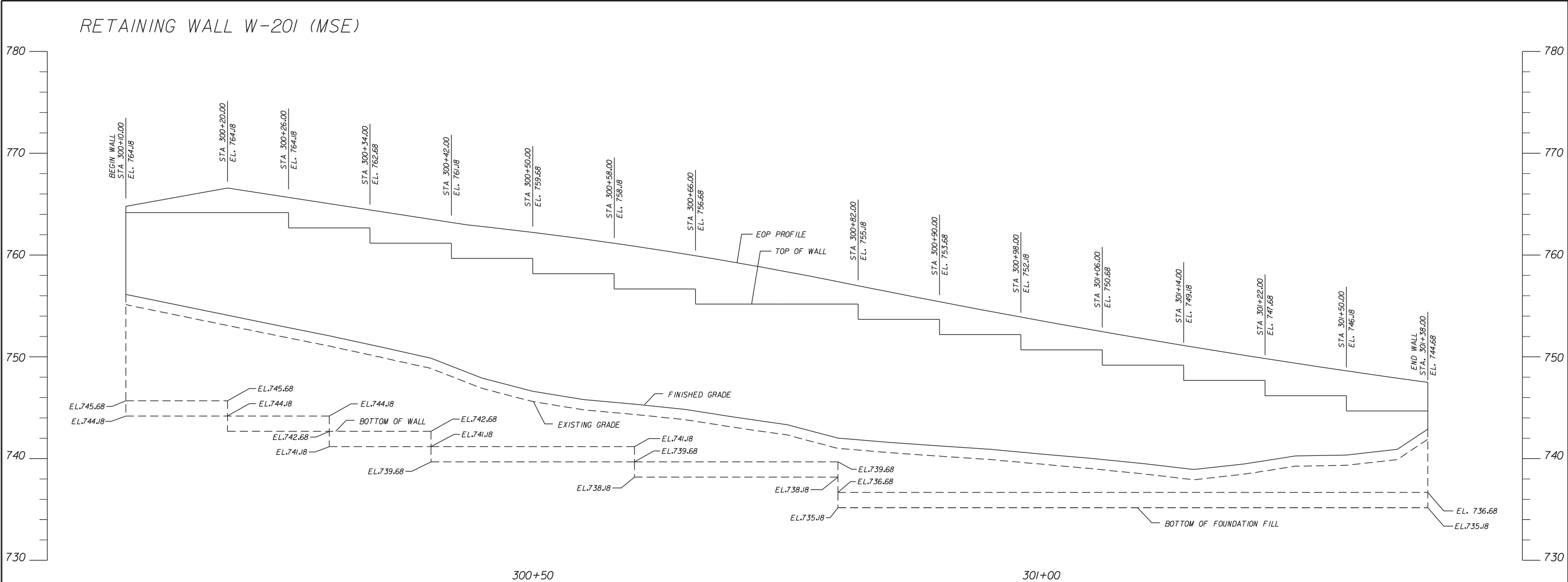
9. SIGNING AND PAVEMENT MARKINGS

REVISIONS			DESIGNED	<div><div><div>PB</div><div>100</div></div><div>PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462</div></div>	U.S.V.I DEPARTMENT OF PUBLIC WORKS			<div>IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332</div> <div>TRAFFIC CONTROL PLANS</div> <div>GENERAL NOTES</div>	Sheet Reference
DATE	BY	DESCRIPTION	DRAWN		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		F-001
			M. HINNANT		RT 332	ST THOMAS	VI-A405 (1)		
			CHECKED		RT 405				
			J. WYATT						
			DATE	JOHN WYATT, P.E. PE No. 638TE			Sheet 29		
			08/13/07						

USER: olkuch8/13/20074:50:30 PMI:\projects\scott1 free\Roadway\F-001.dgn



REVISIONS			DESIGNED E. MOJENA	 PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332		Sheet Reference
DATE	BY	DESCRIPTION	DRAWN M. HINNANT		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	SIGNING AND PAVEMENT MARKINGS PLANS ROUTE 405		G-108 Sheet 31
			CHECKED J. WYATT		RT 332	ST THOMAS	VI-A405(1)			
			DATE 08/13/07		JOHN WYATT, P.E. PE No. 638TE	RT 405				



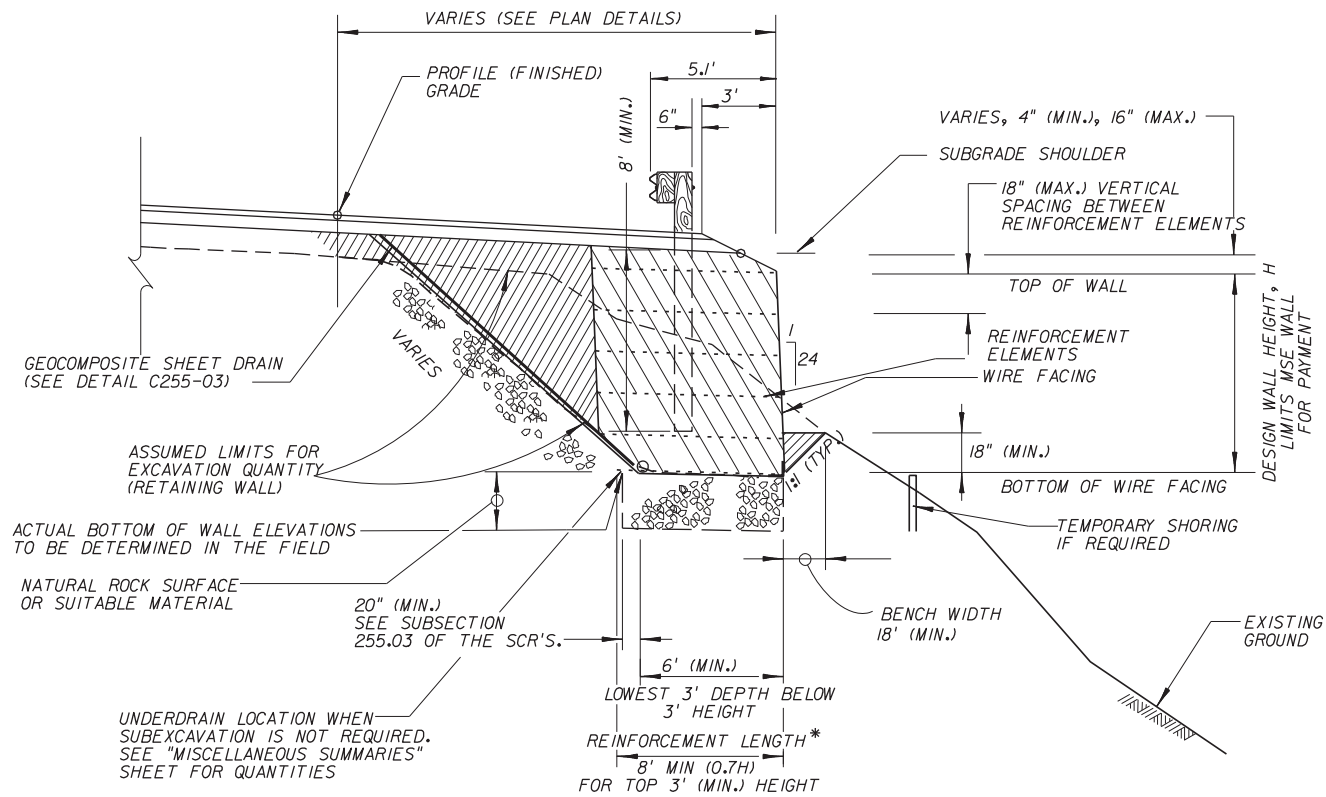
LEGEND

EJ : EXPANSION JOINT
CJ : CONSTRUCTION JOINT

SCALE:

1" = 10' HORIZ.
1" = 10' VERT.

REVISIONS			DESIGNED	 PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332 RETAINING WALL - ELEVATION ESTATE ROAD	Sheet Reference H-236 Sheet 35
DATE	BY		J. WYATT		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			M. HINNANT		RT 332	ST THOMAS	VI-A405(1)		
			J. ROSAS		RT 405				
			DATE 08/24/06	JOSE ROSAS, P.E. PE No. 48000					

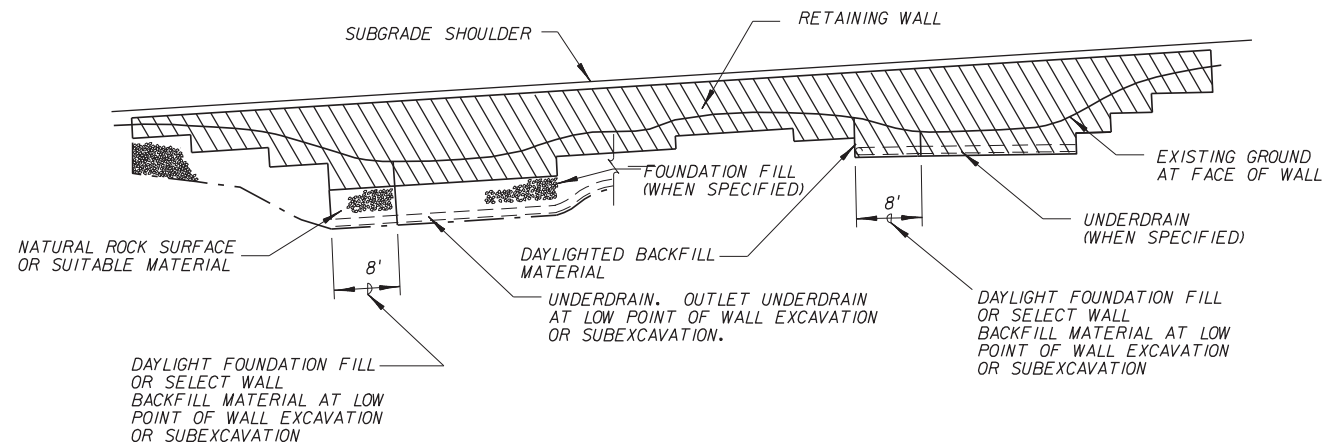


* REQUIRED REINFORCEMENT LENGTH SHALL BE AS SHOWN IN TABLE ON SHEET H-305 UNDER COLUMN "TOTAL REQUIRED". THIS LENGTH WOULD ONLY ENSURE EXTERNAL STABILITY FOR STATIC AND SEISMIC LOADING CONDITIONS. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND CALCULATIONS SHOWING THAT INTERNAL STABILITY IS REQUIRED.



TYPICAL SECTION

N.T.S.



TYPICAL ELEVATION

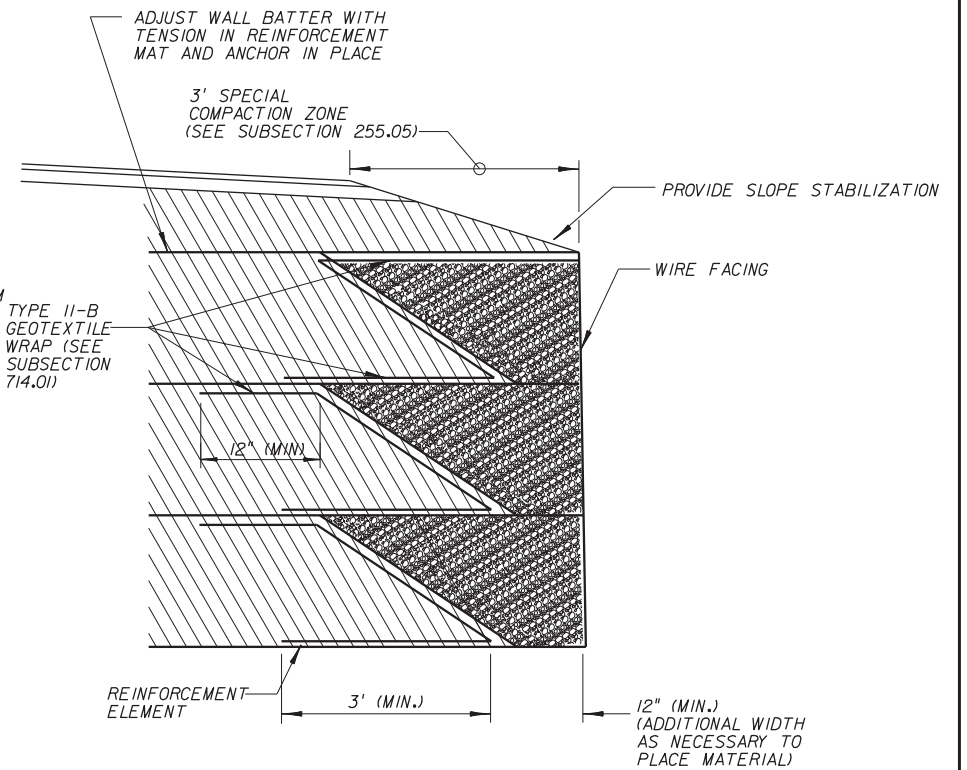
N.T.S.

MECHANICALLY STABILIZED EARTH WALL - WELDED WIRE FACE

NOTES: TEMPORARY CUT SLOPE

- CONTRACTOR AS INSTRUCTED BY THE ENGINEER SHALL MONITOR THE ACTUAL SLOPE INCLINATION AND ADJUST THE RATE OF EXCAVATION TO ENSURE STABILITY DURING THE WALL CONSTRUCTION.
- THE FOLLOWING SLOPE CUT RATES ARE GENERAL RECOMMENDATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSESS THE LOCAL CONDITIONS, AND DETERMINE THE ADEQUATE RATE OF SLOPE AS INDICATED ON NOTE No.1 FOR WALL BACK-FILL USE:

- 1.5:1 (H:V)
- WEATHERED-FRACTURE ROCK AND RESIDUAL ROCK 1:1 (H:V)
- FRACTURED ROCK, RELATIVELY UN-WEATHERED RANGE FROM 1:1.5 AND 1:3
- SOUND ROCK 1:3 (H:V) TO VERTICAL.




MSE WALL FACING DETAIL

N.T.S.

NOTES:

- TOP OF WALL WILL BE AS SHOWN ON WALL LAYOUT DRAWINGS. NO STEPS WILL BE ALLOWED.
- SURVEY MSE WALL LOCATIONS ACCORDING TO SECTION 152 TO ACQUIRE CURRENT TERRAIN DATA. PREPARE AND SUBMIT FOR APPROVAL PRELIMINARY DRAWINGS ACCORDING TO 104.03. SEE SUBSECTION 255.03
- FURNISH SELECT WALL BACKFILL CONSISTING OF SOIL MEETING THE REQUIREMENTS OF SUBSECTION 704.13(A).
- FURNISH WALL BACKFILL CONSISTING OF BACKFILL SOIL MEETING THE REQUIREMENTS OF SUBSECTION 704.13(B).
- FURNISH WALL FACING FILL CONFORMING TO THE REQUIREMENTS OF SUBSECTION 704.13(C).
- INSTALL GUARDRAIL POSTS PER SUBSECTION 617.03.
- DESIGN DATA:
UNIT WEIGHT OF SELECT WALL BACKFILL = 125 LB/FT³
EQUIVALENT FLUID PRESSURE (LATERAL) = 36 LB/FT³
 $\phi = 34^\circ$ FOR SELECT WALL BACKFILL.
USE THE MAXIMUM COVER DIMENSION FOR ALL DESIGN CALCULATIONS.
- SEE STANDARD DETAIL C255-03 FOR DRAINAGE DETAILS.
- PLACE HARDWARE CLOTH ACCORDING TO SUBSECTION 255.04.
- TERMINATE WIRE-FACE WALL AT THE BEGINNING AND END OF EACH LIFT WITH A RETURN OF THE WALL FACING MATERIAL (BACKING MAT & HARDWARE CLOTH) A MINIMUM OF 4 FEET INTO THE BACKFILL. THE RETURNS SHALL NOT BE MEASURED FOR PAYMENT AND ARE SUBSIDIARY TO THE MSE WALL.

REVISIONS			DESIGNED	 PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332 MSE WALL DETAILS	Sheet Reference H-304 Sheet 36
DATE	BY	DESCRIPTION	DRAWN		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			M. HINNANT		RT 332	ST THOMAS	VI-A405(1)		
			J. WYATT		RT 405				
			DATE 08/13/07	JOHN WYATT, P.E. PE No. 638TE	USER: oikuch			8/10/2007 2:16:49 PM I:\projects\scott free\Structures\H-304.dgn	

Wall No.	Wall Maximum Height (ft)	Reinforcement Length (ft)		
		Static	Seismic	Total Required
W-3A	10	8	10	10
W-3B	12	9	11	11
W-4	7	6	7	7
W-7	7	6	7	7
W-9	6	6	7	7
W-11B	7	6	7	7
W-13	12	9	11	11
W-16	8	7	8	8
W-20	5	5	6	6
W-109	10	8	10	10
W-110B	4	5	5	5
W-114	11	9	11	11
W-115	8	7	8	8
W-116	11	9	11	11
W-117	11	9	11	11
W-121	10	8	10	10
W-125	7	6	7	7
W-201	22	16	20	20

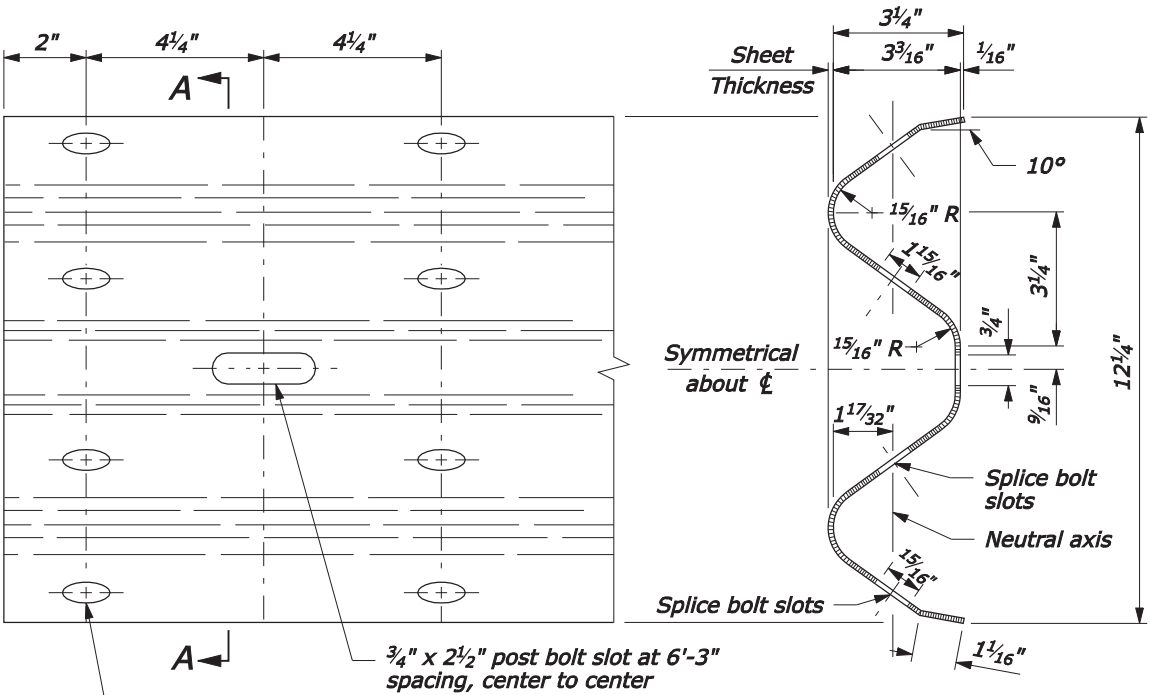
REQUIRED LENGTH OF REINFORCEMENT



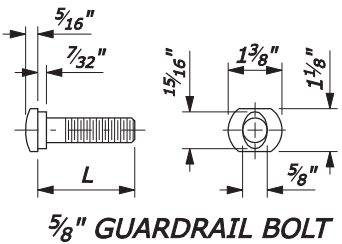
- LEGEND
- EXISTING UTILITY POLE (TO REMAIN)
 - EXISTING UTILITY POLE (TO BE RELOCATED)
 - OVERHEAD WIRE

REVISIONS			DESIGNED E. MOJENA	DRAWN M. HINNANT	CHECKED J. WYATT	DATE 08/13/07	JOHN WYATT, P.E. PE No. 638TE	 PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. 7300 Corporate Center Drive, Suite 600 Miami, Florida 33126 Ph. (305) 261-4785 Certificate of Authorization No. 00001462	U.S.V.I DEPARTMENT OF PUBLIC WORKS			IMPROVEMENTS TO RTE 405 (SCOTT FREE ROAD) AND A PORTION OF RTE 332 EXISTING UTILITY SYSTEM LAYOUT PLAN (SHEET 3 OF 4)			Sheet Reference J-013 Sheet 38
DATE	BY	DESCRIPTION							ROAD NO.	COUNTY	FINANCIAL PROJECT ID				
									RT 332	ST THOMAS	VI-A405 (1)				
									RT 405						

USER: olkuch 8/10/2007 11:38:39 AM I:\projects\scott Free\Lighting\J-013.dgn

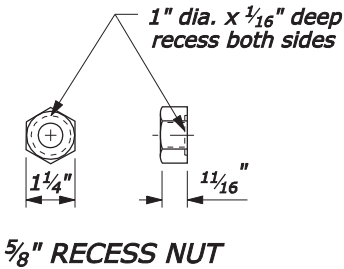


W BEAM RAIL MEMBERS

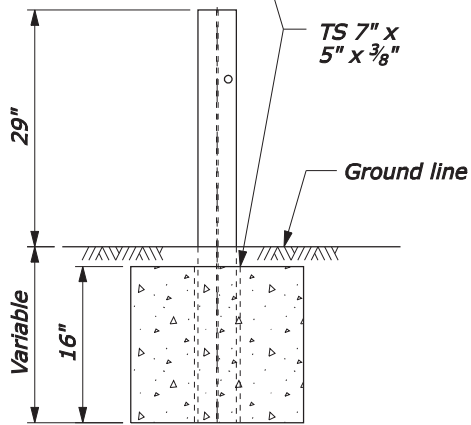


L	Thread Length
1 3/8"	1 1/8" minimum
2"	1 3/4" minimum
10"	4" minimum
18"	4" minimum
25"	4" minimum

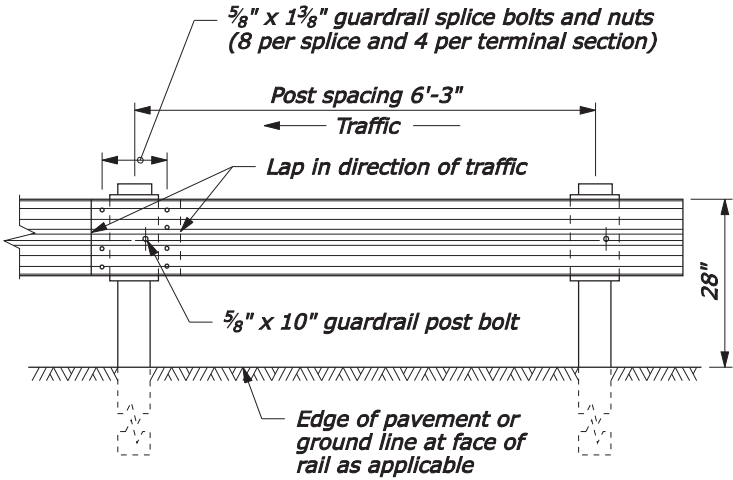
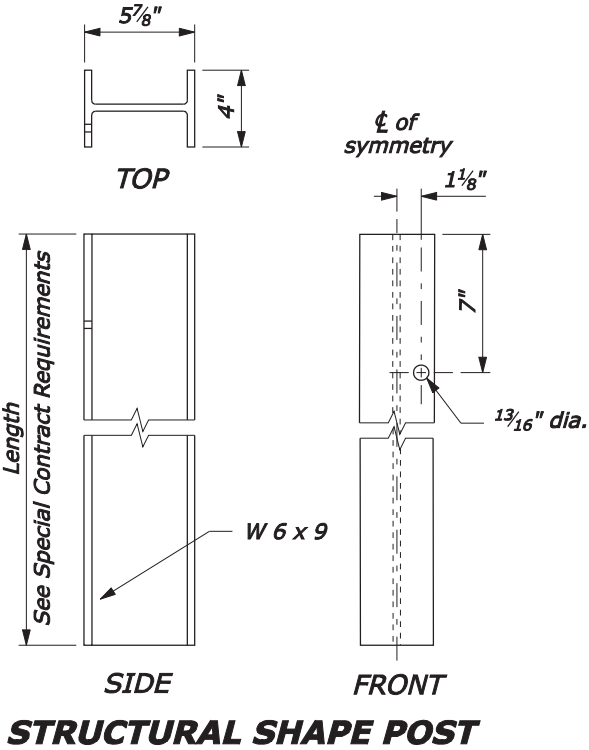
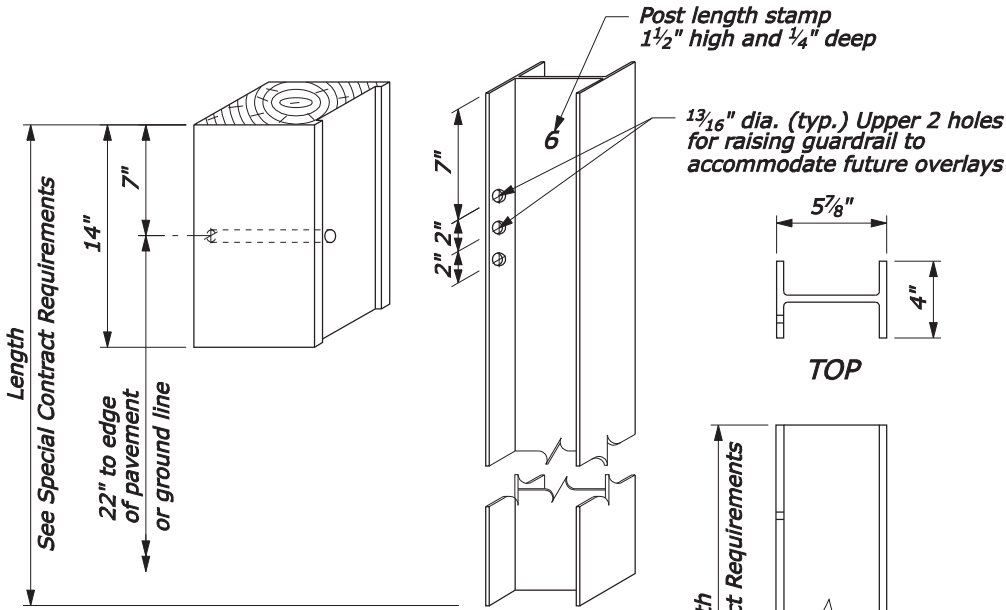
GUARDRAIL BOLT AND RECESS NUT



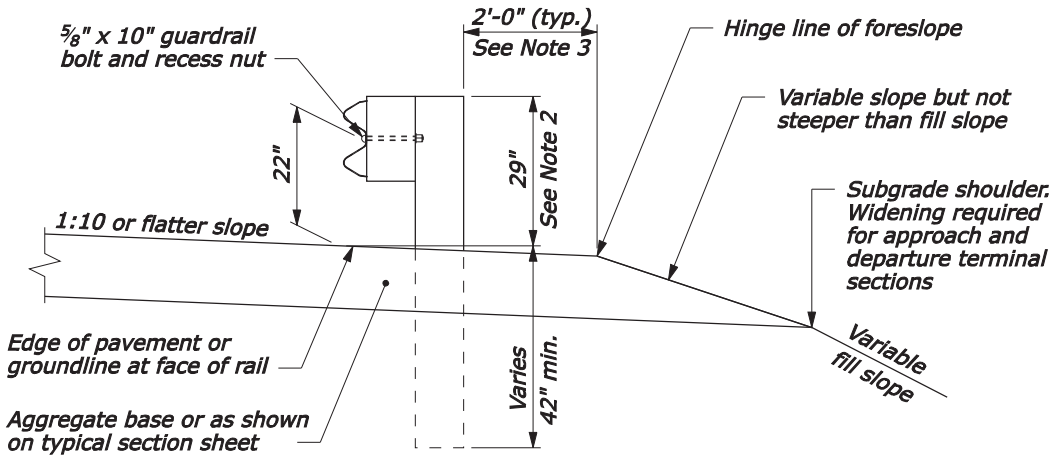
CONCRETE ANCHOR FOR SHORT GUARDRAIL POST
(See Note 1 and 2)



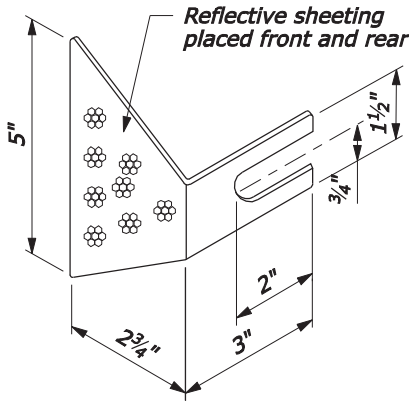
ALTERNATE HOLE ARRANGEMENT
POST AND BLOCK DETAIL



POST SPACING
STANDARD POST SECTION



TYPICAL GUARDRAIL CROSS SECTION



REFLECTOR TAB
(See Note 4)

NO SCALE

NOTE:

1. Use no more than 3 short guardrail posts in a row.
2. If directed to use alternate hole arrangement, post above ground shall be 33 inches tall.
3. See Special Contract Requirements when 7'-0" or longer posts are specified.
4. Install reflector tab between post bolt and rail, every fourth post. Alternate reflector tab shapes are acceptable.
5. Dimensional tolerances not shown or implied are intended to be those consistent with the proper functioning of the part, including its appearance, and accepted manufacturing practices.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL LANDS HIGHWAY

U.S. CUSTOMARY STANDARD

G4 W-BEAM GUARDRAIL
STEEL POSTS

STANDARD APPROVED FOR USE 1/1994
REVISED: 4/1994 6/2005
DRAFT: 3/2007

STANDARD
617-11