



CONSTRUCTION PLANS FOR AVALON PARK BLVD. SAFETY IMPROVEMENTS

ORANGE COUNTY - DISTRICT NO. 4 PROJECT NO: 5142

TERESA JACOBS, COUNTY MAYOR

BOARD OF COUNTY COMMISSIONERS

- | | |
|--------------------------|-------------------|
| BETSY VANDERLEY | DISTRICT 1 |
| ROD A. LOVE | DISTRICT 2 |
| PETE CLARKE | DISTRICT 3 |
| JENNIFER THOMPSON | DISTRICT 4 |
| EMILY BONILLA | DISTRICT 5 |
| VICTORIA P. SIFLIN | DISTRICT 6 |

MARK V. MASSARO, P.E., PUBLIC WORKS DIRECTOR

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS DATED 2017-2018,
AND STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION DATED 2018, AS AMENDED
BY CONTRACT DOCUMENTS.

NOTE: THE SCALE OF THESE PLANS MAY HAVE
CHANGED DUE TO REPRODUCTION.

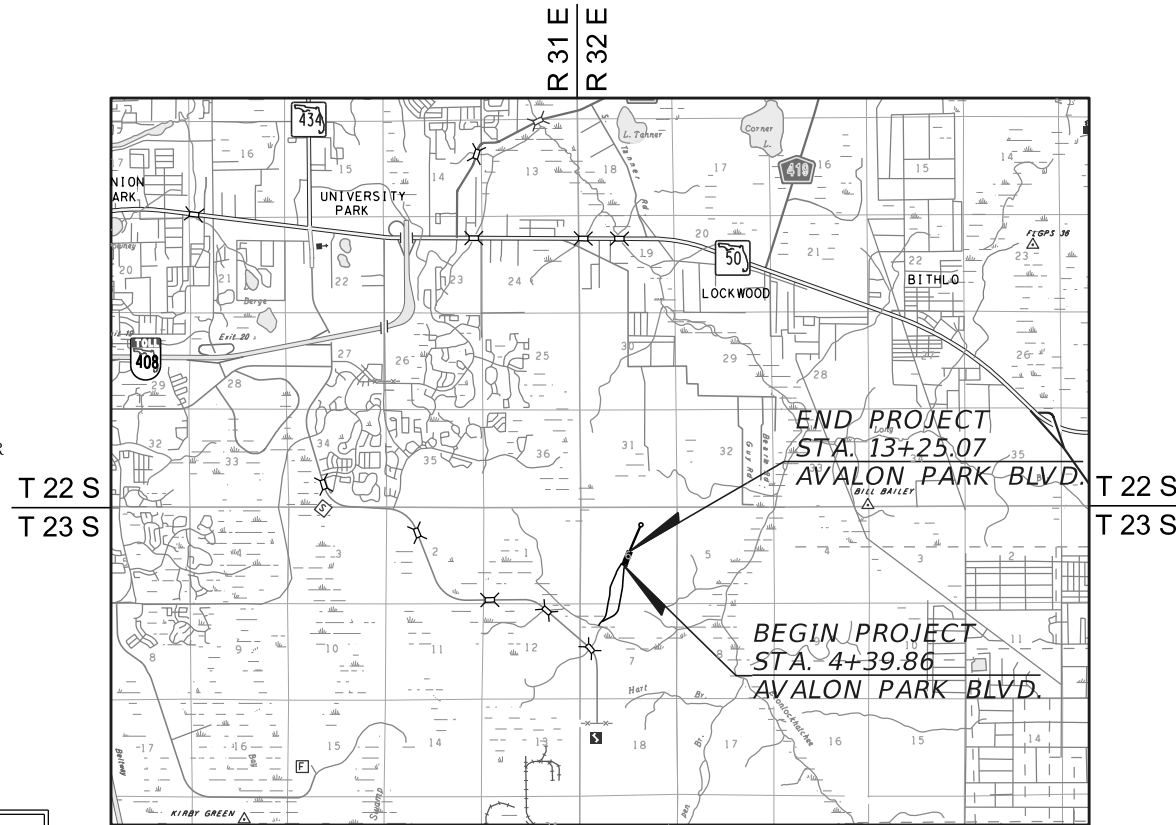
LENGTH OF PROJECT		
	LINEAR FT.	MILES
NET LENGTH OF PROJ.	885.21	0.168
EXCEPTIONS	0.00	0.000
GROSS LENGTH OF PROJ.	885.21	0.168

SOURCE OF BENCH MARK DATUM

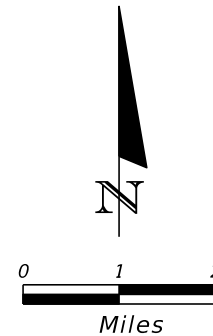
ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AS ESTABLISHED FROM THE FOLLOWING ORANGE COUNTY BENCHMARKS:

S1311014
FOUND 3" ORANGE COUNTY ALUMINUM DISK IN CURB INLET ON EAST SIDE OF AVALON PARK BOULEVARD AT THE NORTH END OF ROAD SPLIT.
PUBLISHED ELEVATION = 67.159 FEET (NAVD88)

S1311019
FOUND SQUARE CUT IN CURB INLET ON EAST SIDE OF AVALON BOULEVARD 300 FEET ± NORTH OF ROUND ABOUT CIRCLE.
PUBLISHED ELEVATION = 66.555 FEET (NAVD88)



VICINITY MAP



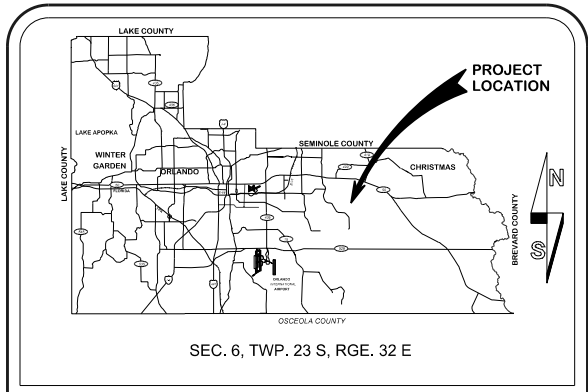
NOTE:

PLANS WERE PREPARED ACCORDING TO AVAILABLE INFORMATION TO ADEQUATELY ADDRESS CONDITIONS AS THEY EXISTED AT THE TIME OF PLANS PREPARATION. NEEDS, CONDITIONS AND OWNERSHIP OF PROPERTIES MAY HAVE CHANGED SINCE PROJECT DESIGN. THE COUNTY'S REPRESENTATIVE WILL ADDRESS CHANGES AND NEEDS WITH THE PROPERTY OWNER OR THEIR REPRESENTATIVES. CONTRACTOR SHALL WORK WITH THE COUNTY'S REPRESENTATIVE IN ADDRESSING AND MEETING NEEDS AND CONDITIONS THAT MAY HAVE CHANGED SINCE PLANS PREPARATION.

CERTIFICATION TO PLANS

I HEREBY CERTIFY that the design for this project and the attached construction plans comply with the requirements of Section 336.045 of the Florida Statutes and are in substantial conformance with the standards contained in the edition of the "Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways" in effect on this date as adopted by the Florida Department of Transportation pursuant to Subsection 336.045(1) of the Florida Statutes.

DATE: _____ ENGINEER: CLAUDE L. CASSAGNOL, P.E. REG. NO. 35490
State of Florida



LOCATION MAP

INDEX OF SHEETS

SHEET	DESCRIPTION
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7	TYPICAL SECTIONS
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S-1 TO S-3	SIGNING & PAVEMENT MARKINGS PLANS
SC-1 TO SC-4	SURVEY CONTROL SHEETS

UTILITIES ENCOUNTERED

ORLANDO TELEPHONE COMPANY	407-996-1149
BRIGHT HOUSE NETWORKS	407-532-8509
COMCAST	352-516-3824
TECO PEOPLES GAS	407-420-2678
ORANGE COUNTY UTILITES	407-254-9706
AT&T DISTRIBUTION	321-695-6049
ORLANDO UTILITIES COMMISSION	407-434-2569

GTC Engineering Corporation

98 South Semoran Blvd, Orlando, FL 32807
Phone Number - 407.380.0402

Certificate of Authorization Claude L. Cassagnol, P.E.
Number 6758 P.E. Number 35490

REVISIONS	DATE	BY

DESIGNED BY: CLC/AM	DATE: 5/30/2018
DRAWN BY: AM	DATE: 5/30/2018
CHECKED BY: CLC	DATE: 5/30/2018
APPROVED BY: CLC	DATE: 5/30/2018
PROJECT NO: 5142	

SHEET 1
OF 46

**FINAL SUBMITTAL
MAY, 2018**

GENERAL NOTES

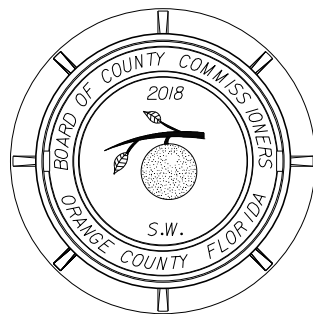
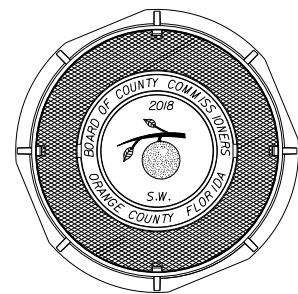
- 1 ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH AND CONFORM TO THE MOST STRINGENT REQUIREMENT OF THE PROJECT SPECIFICATIONS, THE YEAR 2018 EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (FDOT), AND SUPPLEMENTS THERETO, AND ORANGE COUNTY ROAD CONSTRUCTION SPECIFICATIONS.
- 2 SUBSURFACE INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FOR USE IN ESTABLISHING DESIGN CRITERIA FOR THE PROJECT. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED AND IS NOT TO BE CONSTRUED AS PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INQUIRE OF THE ENGINEER IF ADDITIONAL INFORMATION IS AVAILABLE, TO MAKE ARRANGEMENTS TO REVIEW SAME PRIOR TO BIDDING, AND TO MAKE HIS OWN DETERMINATION AS TO ALL SUBSURFACE CONDITIONS.
- 3 ALL PERSONAL PROPERTY, EXCEPT MAIL BOXES, WITHIN THE RIGHT-OF-WAY NOT RELOCATED BY THE PROPERTY OWNER SHALL BE REMOVED BY THE CONTRACTOR AS NECESSARY TO CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE PLANS. MAIL BOXES SHALL BE RELOCATED BY THE CONTRACTOR IN ACCORDANCE WITH FDOT DESIGN STANDARD 532. PAYMENT WILL BE INCLUDED IN THE PAY ITEM NO. 110-1 (CLEARING & GRUBBING).
- 4 THE DISPOSAL OF EXCESS EARTHWORK MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. APPROVALS OF DISPOSAL SITES SHALL BE OBTAINED FROM ORANGE COUNTY PRIOR TO DISPOSAL. ALL EXCESS MATERIAL IS THE PROPERTY OF THE CONTRACTOR.
- 5 ALL EXISTING TREES WITHIN THE LIMITS OF CONSTRUCTION ARE TO REMAIN UNLESS OTHERWISE NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. ANY TREE REMOVAL TO BE PERFORMED UNDER CLEARING AND GRUBBING.
- 6 SOD ALL DISTURBED AREAS UNLESS OTHERWISE SHOWN ON THE PLANS. SOD SHALL MATCH EXISTING TYPE SOD UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 7 INSTALL TOPSOIL TREATMENT ON ALL PERMANENT GRASS AREAS. COST TO BE INCLUDED IN CONTRACT UNIT PRICE FOR SOD.
- 8 PEGGED SOD TO BE PLACED ON ALL SLOPES 3:1 OR STEEPER.
- 9 ALL PAVEMENT OFFSETS SHOWN ARE FROM PROPOSED CENTERLINE OF CONSTRUCTION; ALL RADII AND DIMENSIONS ARE TO PROPOSED EDGE OF PAVEMENT.
- 10 FOR STABILIZATION AT TURNOUTS AND DRIVEWAY CONNECTIONS, SEE STANDARD INDEX No. 515 AND TYPICAL SECTIONS FOR DEPTH AND LBR.
- 11 THE CONTRACTOR SHALL PERFORM HIS WORK IN ACCORDANCE WITH REQUIREMENTS OF THE VARIOUS PERMITS INCLUDED IN THE BID SPECIFICATIONS. PAYMENT IS INCLUDED IN THE BID PRICE FOR PAY ITEM 104-14; "PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION (LS)", EXCLUDING ITEMS SPECIFIED ELSEWHERE. ENVIRONMENTAL CONTROLS SHALL BE USED AT LOCATIONS DESIGNATED IN THE PLANS AND/OR DESIGNATED BY THE ENGINEER.
- 12 THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON AVAILABLE RECORDS AND SURVEYS BUT IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO AND IS RESPONSIBLE FOR COORDINATING UTILITY RELOCATION WITH PROJECT CONSTRUCTION. PRIOR TO ORDERING DRAINAGE STRUCTURES, THE CONTRACTOR SHALL DETERMINE IF DRAINAGE/UTILITY CONFLICTS EXIST. INFORMATION ON CONFLICTS IS TO BE SUBMITTED TO THE ENGINEER AS SOON AS POSSIBLE AFTER DISCOVERY FOR RESOLUTION. SUNSHINE STATE ONE CALL MUST BE NOTIFIED FOR LOCATES AT 1-800-432-4770.
- 13 UTILITIES ARE TO BE ADJUSTED BY OTHERS OR AS DIRECTED BY THE ENGINEER.
- 14 THE CONTRACTOR SHALL NOTIFY ALL GAS UTILITY COMPANIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATION AS REQUIRED BY CHAPTER 553.851 AND 556.105 OF THE FLORIDA STATUTES.
- 15 ALL DRAINAGE PIPES SHALL BE STEEL REINFORCED CONCRETE PIPE, CLASS III, UNLESS OTHERWISE NOTED.
- 16 MEASUREMENT OF DRAINAGE PIPE FOR PAYMENT SHALL BE DETERMINED FROM ACTUAL LENGTHS INSTALLED.
- 17 ALL MANHOLE COVERS SHALL INCLUDE THE ORANGE COUNTY LOGO AND BE IDENTIFIED AS "ORANGE COUNTY SANITARY", "ORANGE COUNTY STORM", OR "ORANGE COUNTY WATER", AS APPROPRIATE. (SEE STANDARD DRAWINGS AND DETAILS SHEET)
- 18 ALL INLET/MANHOLE - PIPE JOINTS SHALL BE FILLED WITH NON-SHRINK GROUT, COVERED WITH AN ASPHALTIC MASTIC COATING, AND WRAPPED WITH A FILTER FABRIC MATERIAL PER SECTION 13.07 OF THE ORANGE COUNTY ROAD CONSTRUCTION SPECIFICATIONS.
- 19 ALL CURB INLETS, DITCH BOTTOM INLETS, AND MANHOLES SHALL HAVE TRAFFIC BEARING FRAMES AND COVERS OR GRATES MEETING HS-20 LOADING REQUIREMENTS.
- 20 DESIGN CHANGES OF PIPE INVERTS NOT EXCEEDING PLUS OR MINUS ONE FOOT WILL NOT BE CONSIDERED AS A BASIS FOR ADDITIONAL COMPENSATION FOR THE PERTINENT PIPE BID ITEM OR FOR MODIFICATION OF PRECAST STRUCTURES.
- 21 ALL (P.R.M.'s) IRONS AND MONUMENTS SHOWN ON PLANS, OR FOUND, SHALL BE PRESERVED. THOSE SHOWN IN PROPOSED PAVEMENT SHALL BE PROTECTED WITH A CAST IRON VALVE BOX.
- 22 ANY U.S.C. AND G.S. MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, ORANGE COUNTY SURVEY SECTION AT 407-836-7940, AND BOTH SHALL NOTIFY:

STATE GEODETIC ADVISOR, BUREAU OF SURVEY AND MAPPING MS 105 3800 COMMONWEALTH BLVD. TALLAHASSEE, FL 32399-3000 PHONE: (850) 245-2555 FAX: (850) 245-2645	ORANGE COUNTY SURVEYOR ENGINEERING DIVISION, PUBLIC WORKS DEPT. 4200 S. JOHN YOUNG PARKWAY ORLANDO, FL 32839-9205 PHONE: (407) 836-7940 FAX: (407) 836-8024
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- 23 PUBLIC LAND CORNERS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED OR DISTURBED, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE COUNTY SURVEYOR, WITHOUT DELAY, BY TELEPHONE (407-836-7940). THE CONTRACTOR SHALL PROVIDE WRITTEN FOLLOW UP CONFIRMATION WITHIN 48 HOURS OF TELEPHONE NOTIFICATION.
- 24 PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO ORANGE COUNTY HIGHWAY CONSTRUCTION DIVISION A SET OF FIELD NOTES VERIFYING THE BENCHMARK ELEVATIONS AND THE REFERENCE POINT TIES SHOWN ON THE TITLE SHEET, SURVEY CONTROL SHEET, AND PLAN/PROFILE SHEETS, AND/OR A SET OF FIELD NOTES FOR ALL ADDITIONAL BENCHMARK AND REFERENCE POINT TIES PROPOSED TO BE USED IN CONSTRUCTING THE PROJECT WITH THEIR LOCATION, DESCRIPTION AND ELEVATION, BASED ON ORANGE COUNTY DATUM. ALL SUBMITTALS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA.
- 25 WITHIN 21 CALENDAR DAYS AFTER NOTICE TO PROCEED, THE CONTRACTOR SHALL STAKE THE RIGHT-OF-WAY AT 100' INTERVALS AND AT RIGHT-OF-WAY BREAKS WITH STATIONING SHOWN ON THE STAKES. NO INVOICE FOR PAYMENT WILL BE PROCESSED UNTIL THE RIGHT-OF-WAY HAS BEEN STAKED TO THE SATISFACTION OF THE ENGINEER. PAYMENT IS INCLUDED IN THE PRICE BID FOR ITEM NO. 101-1 "MOBILIZATION".
- 26 EXISTING TRAFFIC SIGNS SHALL REMAIN IN PLACE OR BE RELOCATED AS NEEDED BY THE CONTRACTOR UNTIL THE NEW SIGNS ARE INSTALLED. ONCE THE NEW SIGNS HAVE BEEN INSTALLED, THE EXISTING SIGNS SHALL BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE ORANGE COUNTY SIGN SHOP AT 4200 SOUTH JOHN YOUNG PARKWAY. COST OF RELOCATION, MAINTENANCE, REMOVAL, AND DELIVERY SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.
- 27 ALL EXISTING DRAINAGE PIPE AND STRUCTURES AND UTILITIES WITHIN THE LIMITS OF CONSTRUCTION ARE TO REMAIN UNLESS OTHERWISE NOTED.
- 28 INLET ELEVATIONS SHOWN IN THE PLANS REFER TO THE EDGE OF PAVEMENT AT THE CENTER OF CURB INLETS AND TOP OF THE GRATE FOR DITCH BOTTOM INLETS.
- 29 ALL EXCAVATIONS SHALL BE REQUIRED TO CONFORM WITH THE PROVISIONS OF TITLE XXXIII, PART III OF CHAPTER 553, F.S., ALSO KNOWN AS THE "TRENCH SAFETY ACT", TO PROTECT EXISTING PAVEMENT, STRUCTURES, FOUNDATIONS, AND CONSTRUCTION PERSONNEL DURING CONSTRUCTION OF THE PROJECT.
- 30 THE CONTRACTOR SHALL PROTECT EXISTING TREES THAT ARE TO REMAIN, INCLUDING MAINTAINING MINIMUM UNDISTURBED AREAS. WHEN NECESSARY TO CUT ROOTS OVER 1-1/2" DIA., THE CUT MUST BE CLEAN. TEMPORARILY COVER EXPOSED ROOTS WITH WET BURLAP TO PREVENT DRYING AND COVER WITH EARTH AS SOON AS POSSIBLE. INTERFERING BRANCHES MAY BE REMOVED AT THE DIRECTION OF A QUALIFIED TREE SURGEON. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF TREES DAMAGED BEYOND REPAIR WITH 3 TREES OF SIMILAR QUALITY AND SPECIES SIZED AT THE DIRECTION OF THE COUNTY. ALL TREES THAT ARE TO REMAIN, AS INDICATED IN THE PLANS, SHALL BE PROTECTED WITH A "TREE PROTECTION BARRICADE" PER FDOT INDEX NO. 544. THIS WORK IS TO BE PAID FOR AND INCLUDED UNDER CLEARING AND GRUBBING.
- 31 EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA EROSION AND SEDIMENT CONTROL MANUAL, LATEST EDITION, PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. SILT FENCE, ROCK BAGS, TURBIDITY BARRIERS, SYNTHETIC BALES, AND ALL OTHER EROSION AND SEDIMENT CONTROL DEVICES MUST REMAIN IN PLACE AND IN GOOD CONDITION AT ALL LOCATIONS SHOWN IN PLANS OR AS REQUIRED UNTIL THE CONTRACT IS COMPLETED AND SOILS ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED. MEASURES SHOWN ARE THE MINIMUM REQUIRED, AND THE CONTRACTOR WILL ENSURE THAT THERE IS NO DIRECT OR INDIRECT DISCHARGE OF CONSTRUCTION MATERIALS IN TURBID WATERS, WATERWAYS, OR OFFSITE AREAS.
- 32 CONTRACTOR IS TO MAINTAIN UNINTERRUPTED ACCESS TO ALL DRIVEWAYS AND SIDESTREETS AT ALL TIMES AND TO NOTIFY PROPERTY OWNERS FIVE DAYS PRIOR TO STARTING CONSTRUCTION.
- 33 ALL NEW SIDEWALKS AND CURB RAMPS ARE TO COMPLY WITH THE AMERICANS WITH DISABILITES ACT (ADA) DESIGN STANDARDS, "2010 ADA STANDARDS FOR ACCESSIBLE DESIGN".

REVISIONS				GTC Engineering Corporation		ORANGE COUNTY PUBLIC WORKS		GENERAL NOTES	SHEET NO. 2
DATE	DESCRIPTION	DATE	DESCRIPTION	GTC PROJECT NO.	AVALON PARK BLVD. SAFETY IMPROVEMENTS	OCPW PROJECT NO.			
				98 South Semoran Blvd, Orlando, FL 32807 Phone Number - 407.380.0402	FLO 20.15	5142			

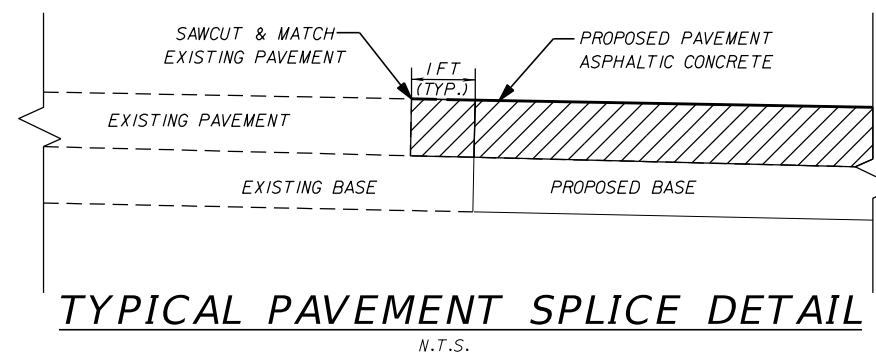
Certificate of Authorization Number 6758	Claude L. Cassagnol, P.E. P.E. Number 35490
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STANDARD MANHOLE COVER

N.T.S.



REVISIONS				GTC Engineering Corporation 98 South Semoran Blvd, Orlando, FL 32807 Phone Number - 407.380.0402 Certificate of Authorization Number 6758 Claude L. Cassagnol, P.E. P.E. Number 35490		ORANGE COUNTY PUBLIC WORKS		STANDARD DRAWINGS AND DETAILS		SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			GTC PROJECT NO.	AVALON PARK BLVD. SAFETY IMPROVEMENTS			OCPW PROJECT NO.
					FLO 20.15	5142				

SUMMARY OF PAY ITEMS

ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY TOTAL	
			PLANS	FINAL
101-1	MOBILIZATION	LS	1	
102-1	MAINTENANCE OF TRAFFIC	LS	1	
104-14	PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION	LS	1	
110-1-1	CLEARING & GRUBBING	LS	1	
120-9	EXCAVATION, EMBANKMENT AND GRADING	LS	1	
160-4	TYPE "B" STABILIZATION (12") (MIN. LBR 40)	SY	3,899	
270-12	12" SOIL CEMENT BASE COURSE (300 PSI)	SY	2,780	
334-1-13	TYPE SP-12.5 ASPHALTIC CONCRETE (2.5") (TRAFFIC LEVEL C)	SY	2,780	
337-7-43	ASPHALTIC CONCRETE FRICTION COURSE (1.5" FC-12.5) (TRAFFIC LEVEL C) (INCL. TACK COAT)	SY	2,780	
425-1-332	INLETS, CURB, TYPE P-3, >10'	EA	1	
425-1-341	INLETS, CURB, TYPE P-4, <10'	EA	3	
425-2-61	MANHOLES, P-8, <10'	EA	1	
425-2-63	MANHOLES, P-8, PARTIAL	EA	1	
430-94-1	DESILTING PIPE, 0 - 24" (INCLUDES VIDEO)	LF	430	
430-175-115	PIPE CULVERT, STEEL REINFORCED CONCRETE, CLASS III, ROUND, 15"	LF	8	
430-175-118	PIPE CULVERT, STEEL REINFORCED CONCRETE, CLASS III, ROUND, 18"	LF	98	
430-175-124	PIPE CULVERT, STEEL REINFORCED CONCRETE, CLASS III, ROUND, 24"	LF	293	
520-1-7	CONCRETE CURB & GUTTER (TYPE E)	LF	864	
520-1-10	CONCRETE CURB & GUTTER (TYPE F)	LF	1,016	
522-1	SIDEWALK CONCRETE, 4" THICK	SY	577	
536-73	GUARDRAIL - REMOVAL	LF	136	
570-1-2	PERFORMANCE TURF (SOD)	SY	4,817	
700-1-60	SINGLE POST SIGN, REMOVE	AS	6	
700-3-101	SIGN PANEL, FURNISH & INSTALL GROUND MOUNT, UP TO 12 SF	EA	1	
700-3-601	SIGN PANEL, REMOVE, UP TO 12 SF	EA	2	
706-3	REFLECTIVE PAVEMENT MARKERS (W/R)	EA	36	
710-90	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	LS	1	
711-11-124	THERMOPLASTIC, WHITE, SOLID FOR DIAGONALS AND CHEVRONS, 18"	LF	41	
711-14-160	THERMOPLASTIC, PREFORMED, MESSAGE (BIKE SYMBOL)	EA	1	
711-14-170	THERMOPLASTIC, PREFORMED, ARROWS (BIKE THRU ARROW)	EA	1	
711-16-101	THERMOPLASTIC, STD - OTHER SURFACES, WHITE, SOLID, 6"	GM	0.167	
711-16-102	THERMOPLASTIC, STD - OTHER SURFACES, WHITE, SOLID, 8"	GM	0.023	
711-16-131	THERMOPLASTIC, WHITE, SKIP/DOTTED, 6" (10/30)	GM	0.183	
711-16-201	THERMOPLASTIC, STD - OTHER SURFACES, YELLOW, SOLID, 6"	GM	0.182	
900-1	AS-BUILT PLANS	LS	1	
900-2	INDEMNIFICATION	LS	1	

PAY ITEM FOOTNOTES

102-1 INCLUDES ALL ITEMS OF MAINTENANCE OF TRAFFIC INCLUDING, BUT NOT LIMITED TO, THE DESIGN OF THE MAINTENANCE OF TRAFFIC PLAN BY THE CONTRACTOR AND APPROVAL OF THE PLANS BY ORANGE COUNTY TRAFFIC ENGINEERING AND HIGHWAY CONSTRUCTION. ALSO INCLUDES ALL TEMPORARY STRIPING, REMOVAL OF EXISTING AND TEMPORARY STRIPING VIA HYDRO BLASTING, SIGNING, FLAGGERS, ETC. REQUIRED TO MAINTAIN TRAFFIC DURING CONSTRUCTION IN ACCORDANCE WITH THE MUTCD AND THE FDOT ROADWAY AND DESIGN STANDARDS, 2018 EDITION. ATTENTION IS DIRECTED TO THE 600 SERIES INDEX NUMBERS. NOTE THAT THE MAINTENANCE OF TRAFFIC PLAN SHOWN IN THE CONSTRUCTION PLANS IS FOR INFORMATION ONLY, FINAL PLAN TO BE SUBMITTED TO AND APPROVED BY THE COUNTY. THE MAINTENANCE OF TRAFFIC PLAN DONE BY THE CONTRACTOR SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.

104-14 INCLUDES THE COST OF ALL ITEMS REQUIRED FOR EROSION CONTROL INCLUDING, BUT NOT LIMITED TO SYNTHETIC BALES, TURBIDITY BARRIERS, SILT FENCES AND TEMPORARY GRASSING AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

110-1-1 INCLUDES, BUT IS NOT LIMITED TO, THE COST OF REMOVAL AND DISPOSAL OF CONCRETE CURBS, DRIVEWAYS, STRUCTURES, WALLS, BRICK WALLS, VARIOUS TYPES OF FENCES, CAPPING WELLS, REMOVAL AND DISPOSAL OF SEPTIC TANKS AND DRAIN FIELDS, UNDERGROUND STORAGE TANKS, PAVEMENT, BASE, AND TRIMMING OF TREES AND SHRUBS AS REQUIRED TO CONSTRUCT THE PROJECT. ALSO INCLUDES THE COST FOR SAWCUTTING EXISTING PAVEMENT OR CONCRETE, TREE PROTECTION BARRICADES AND REMOVAL AND PLUGGING OF EXISTING 48" RCP PIPE.

430-175-115
430-175-118
430-175-124 INCLUDES THE COST OF CONCRETE COLLARS PER FDOT INDEX 280.

522-1 INCLUDES THE COST OF CURB RAMPS AND DETECTABLE WARNING SURFACES PER FDOT INDEX 304.

536-73 INCLUDES REMOVAL OF EXISTING CABLE BARRIER.

570-1-2 INCLUDES THE COST OF SOD (MATCH EXISTING), PEGGING THE SOD, FERTILIZER AND WATER AS REQUIRED FOR ESTABLISHMENT OF PERMANENT SODDING. ALSO INCLUDES THE COST OF MOWING UNTIL FINAL PROJECT ACCEPTANCE BY THE COUNTY. SOD FOR SWALES SHALL BE SAND BASED.

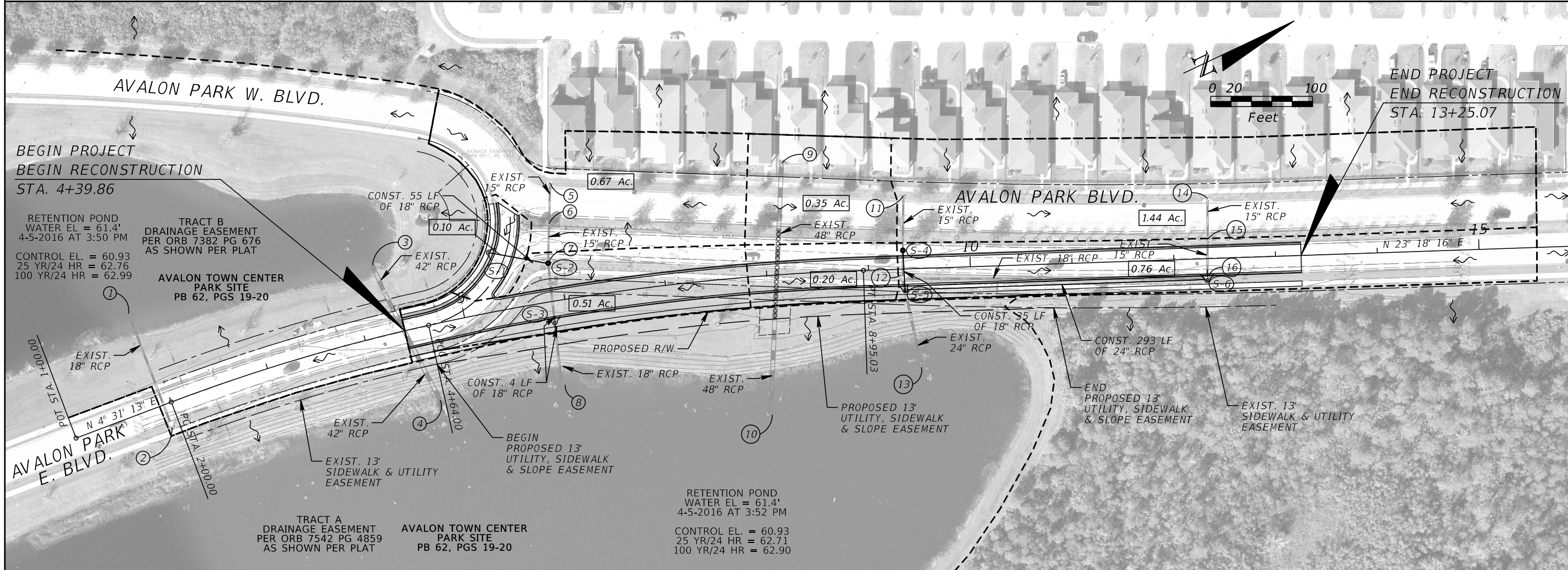
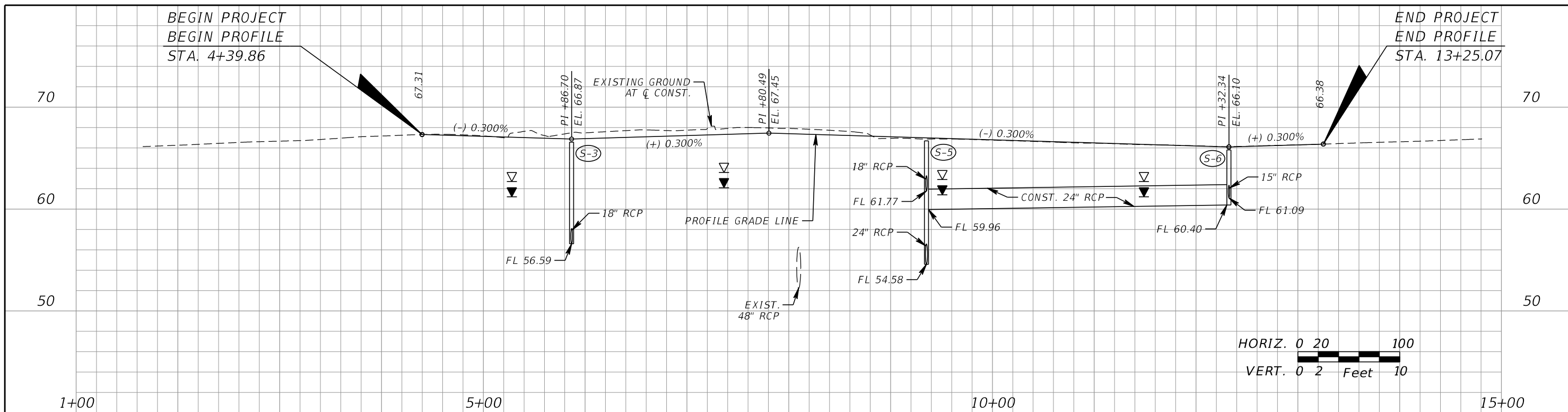
U1.04 INCLUDES THE COST OF ALL FITTINGS AND RESTRAINING OF EXISTING 12" WATER MAIN PER ORANGE COUNTY UTILITIES STANDARD DRAWINGS, FIGURE A104-1.

FOR ORANGE COUNTY UTILITIES PAY ITEMS U1.01 TO U1.06 REFER TO ORANGE COUNTY UTILITIES MASTER CIP TECHNICAL SPECIFICATIONS SECTION 01025 MEASUREMENT AND PAYMENT (REV JANUARY 2016) FOUND AT: <https://www.ocfl.net/WaterGarbageRecycling/UtilitiesCapitalImprovementProgram.aspx>

ORANGE COUNTY UTILITIES SUMMARY OF PAY ITEMS

REFERENCE ID SECTION 01025	ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY TOTAL	
				PLANS	FINAL
10.110.XXX	U1.01	MOBILIZATION, DEMOBILIZATION, BONDS, AND PERMITS	LS	1	
10.140.XXX	U1.02	PROJECT RECORD DOCUMENTS	LS	1	
11.530.XXX	U1.03	REMOVAL OF EXISTING 12" PVC WATERMAIN	LF	148	
12.110.XXX	U1.04	12" PVC WATERMAIN	LF	151	
12.310.XXX	U1.05	12" TAPPING SLEEVE & VALVE ASSEMBLY	EA	2	
12.510.XXX	U1.06	12" LINE STOP ASSEMBLY	EA	2	

REVISIONS				GTC Engineering Corporation 98 South Semoran Blvd, Orlando, FL 32807 Phone Number - 407.380.0402 Certificate of Authorization Number 6758	Claude L. Cassagnol, P.E. P.E. Number 35490	ORANGE COUNTY PUBLIC WORKS		SHEET NO. 4
DATE	DESCRIPTION	DATE	DESCRIPTION			GTC PROJECT NO. FLO 20.15	AVALON PARK BLVD. SAFETY IMPROVEMENTS	
							SUMMARY OF PAY ITEMS	



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GTC Engineering Corporation
98 South Semoran Blvd, Orlando, FL 32807
Phone Number - 407.380.0402

Certificate of Authorization
Number 6758

Claude L. Cassagnol, P.E.
P.E. Number 35490

ORANGE COUNTY PUBLIC WORKS

GTC PROJECT NO.	AVALON PARK BLVD. SAFETY IMPROVEMENTS	OCPW PROJECT NO.
FLO 20.15		5142

DRAINAGE MAP

SHEET NO.
5

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① APPROXIMATE LOCATION OF MITERED END SECTION PER PLAN SEARCHED, NO STRUCTURE FOUND POSSIBLY SUBMERGED

② CURB INLET WITH DRAINAGE MANHOLE
RIM EL = 66.39'
W INV APPROXIMATE EL = 55.2'±
BOTTOM AT CENTER OF OPENING APPROXIMATE EL = 55.3'±
UNABLE TO OBTAIN PIPE INFORMATION
STRUCTURE FULL OF WATER AND DEBRIS

③ MOUTH OF MITERED END SECTION STRUCTURE NOT LOCATED
INV EL = 55.1'±
INVERT IS APPROXIMATE PIPE IS SUBMERGED

④ MOUTH OF MITERED END SECTION
INV EL = 55.1'±
INVERT IS APPROXIMATE STRUCTURE NOT LOCATED
PIPE AND STRUCTURE SUBMERGED

⑤ CURB INLET WITH DRAINAGE MANHOLE
RIM EL = 67.22'
E INV EL = 62.22'

⑥ DRAINAGE MANHOLE
RIM EL = 67.74'
E INV EL = 62.02'
W INV EL = 62.14'

⑦ CURB INLET WITH DRAINAGE MANHOLE
RIM EL = 67.10'
E INV EL = 58.0'±
W INV EL = 61.9'±
INVERTS ARE APPROXIMATE
UNABLE TO OBTAIN PIPE INFORMATION
FULL OF WATER & DEBRIS

⑧ APPROXIMATE LOCATION OF MITERED END SECTION PER PLAN SEARCHED, NO STRUCTURE FOUND POSSIBLY SUBMERGED

⑨ APPROXIMATE LOCATION OF CATCH BASIN PER PLAN SEARCHED, NO STRUCTURE FOUND

⑩ APPROXIMATE LOCATION OF MITERED END SECTION PER PLAN SEARCHED, NO STRUCTURE FOUND POSSIBLY SUBMERGED

⑪ CURB INLET WITH DRAINAGE MANHOLE
RIM EL = 67.11'
E INV EL = 62.32'

⑫ CURB INLET WITH DRAINAGE MANHOLE
RIM EL = 67.27'
N INV EL = 60.17'
E INV EL = 54.59'
W INV EL = 62.06'
UNABLE TO OBTAIN PIPE INFORMATION
FULL OF WATER & DEBRIS

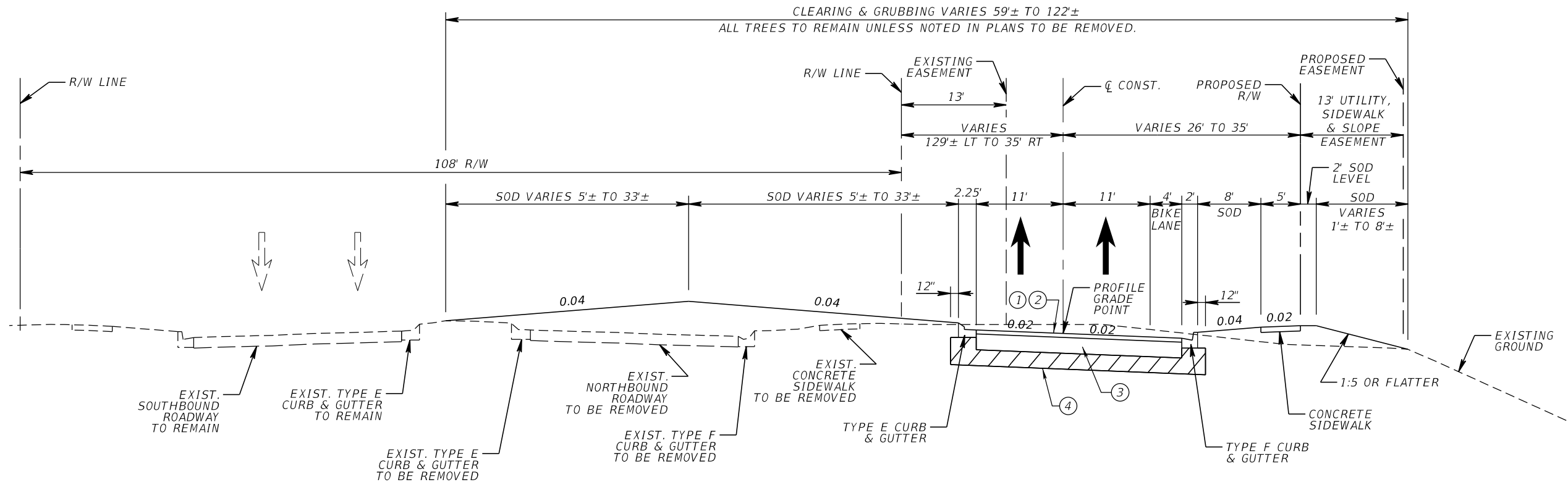
⑬ APPROXIMATE LOCATION OF MITERED END SECTION PER PLAN SEARCHED, NO STRUCTURE FOUND POSSIBLY SUBMERGED

⑭ CURB INLET WITH DRAINAGE MANHOLE
RIM EL = 66.20'
E INV EL = 61.28'

⑮ DRAINAGE MANHOLE
RIM EL = 67.18'
E INV EL = 61.27'
W INV EL = 61.40'

⑯ CURB INLET WITH DRAINAGE MANHOLE
RIM EL = 66.18'
S INV EL = 60.90'
W INV EL = 61.09'

REVISIONS				GTC Engineering Corporation 98 South Semoran Blvd, Orlando, FL 32807 Phone Number - 407.380.0402 Certificate of Authorization Number 6758 Claude L. Cassagnol, P.E. P.E. Number 35490	ORANGE COUNTY PUBLIC WORKS		SUMMARY OF EXISTING DRAINAGE STRUCTURES	SHEET NO. 6
DATE	DESCRIPTION	DATE	DESCRIPTION		GTC PROJECT NO. FLO 20.15	AVALON PARK BLVD. SAFETY IMPROVEMENTS OCPW PROJECT NO. 5142		



**TYPICAL SECTION
 AVALON PARK BLVD.
 STA. 4+39.86 TO STA. 13+25.07**

NEW CONSTRUCTION

- ① (1.5") FRICTION COURSE FC-12.5 (TRAFFIC C)
- ② (2.5") TYPE SP-12.5 STRUCTURAL COURSE (TRAFFIC C)
- ③ (12") SOIL CEMENT BASE COURSE (300 PSI) PRIMED
- ④ (12") TYPE "B" STABILIZATION (MINIMUM LBR 40)

NOTE: NEW CONSTRUCTION PAVEMENT DESIGN IS TO BE USED FOR THE U-TURN RECONSTRUCTION AS WELL.

TRAFFIC DATA (NB)

CURRENT YEAR = 2016 AADT = 10,751
 ESTIMATED OPENING YEAR = 2018 AADT = 11,406
 ESTIMATED DESIGN YEAR = 2038 AADT = 20,600
 K = 9.5 % D = N/A % T = 3.0% (24 HOUR)
 DESIGN HOUR T = 1.5%
 DESIGN SPEED = 45 MPH

NOTE: K AND DESIGN HOUR T VALUES ESTIMATED USING 2014 FDOT PROJECT TRAFFIC FORECASTING HANDBOOK.

REVISIONS				GTC Engineering Corporation 98 South Semoran Blvd, Orlando, FL 32807 Phone Number - 407.380.0402	ORANGE COUNTY PUBLIC WORKS		SHEET NO. 7
DATE	DESCRIPTION	DATE	DESCRIPTION		GTC PROJECT NO. FLO 20.15	AVALON PARK BLVD. SAFETY IMPROVEMENTS	
				Certificate of Authorization Number 6758	Claude L. Cassagnol, P.E. P.E. Number 35490		TYPICAL SECTION

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SUMMARY OF CURB AND GUTTER TYPE E					
LOCATION	SIDE	TYPE F LENGTH (FT)		REMARKS	FIELD BOOK REFERENCE
STATION		P	F		
5+32.34 TO 5+35.59	LT	4			
5+32.34 TO 5+68.09	LT	69			
5+35.59 TO 8+95.03	LT	361			
8+95.03 TO 13+25.07	LT	430			
TOTAL:		864			

SUMMARY OF SIDEWALK (4")								
LOCATION	SIDE	CONCRETE SIDEWALK						FIELD BOOK REFERENCE
		P			F			
STA. TO STA.		L	W	SY	L	W	SY	
4+39.86 TO 4+64.03	LT	24.5	5	13.6				
4+64.03 TO 5+43.50	LT	129.5	5	74.1				
4+39.86 TO 5+28.67	RT	87.6	5	48.7				
5+28.67 TO 8+95.03	RT	361.7	5	201.2				
8+95.03 TO 13+25.07	RT	430.0	5	238.9				
TOTAL:				577				

SUMMARY OF CURB AND GUTTER TYPE F					
LOCATION	SIDE	TYPE F LENGTH (FT)		REMARKS	FIELD BOOK REFERENCE
STATION		P	F		
4+39.86 TO 4+63.39	LT	24			
4+63.39 TO 5+52.43	LT	143			
4+39.86 TO 5+28.67	RT	88			
5+28.67 TO 8+95.03	RT	352			
8+95.03 TO 13+25.07	RT	409			
TOTAL:		1016			

SUMMARY OF PERFORMANCE TURF - SOD								
LOCATION	SIDE	P			F			FIELD BOOK REFERENCE
STA. TO STA.		L	W	SY	L	W	SY	
4+39.86 TO 5+43.50	LT	VARIES	VARIES	48				BETWEEN CURB & SIDEWALK
4+39.86 TO 5+43.50	LT	VARIES	VARIES	34				BEHIND SIDEWALK
5+35.59 TO 13+25.07	LT	VARIES	VARIES	2,497				MEDIAN
4+39.86 TO 13+25.07	RT	VARIES	VARIES	784				BETWEEN CURB & SIDEWALK
4+39.86 TO 13+25.07	RT	VARIES	VARIES	1,454				BEHIND SIDEWALK TO TIE-DOWN
TOTAL:				4,817				

SUMMARY OF EARTHWORK AVALON PARK BLVD.		
DESCRIPTION	CY	
	P	F
REGULAR EXCAVATION		
AVALON PARK BLVD.	1189	
TOTAL	1189	
EMBANKMENT		
AVALON PARK BLVD.	1126	
TOTAL	1126	

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GTC Engineering Corporation
 98 South Semoran Blvd, Orlando, FL 32807
 Phone Number - 407.380.0402
 Certificate of Authorization Number 6758
 Claude L. Cassagnol, P.E.
 P.E. Number 35490

ORANGE COUNTY PUBLIC WORKS
 GTC PROJECT NO. FLO 20.15
 AVALON PARK BLVD. SAFETY IMPROVEMENTS
 OCPW PROJECT NO. 5142

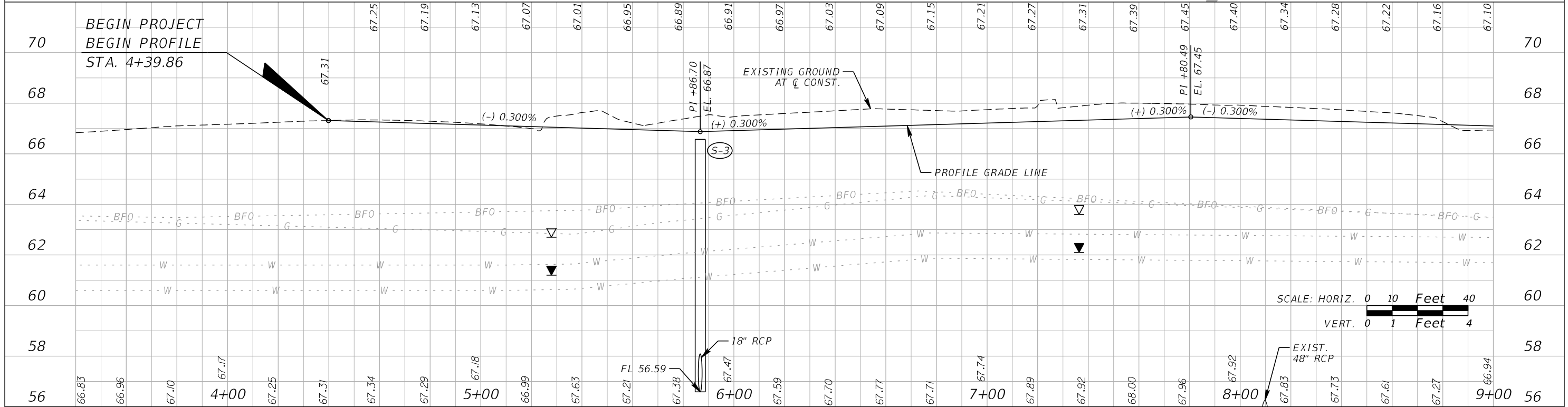
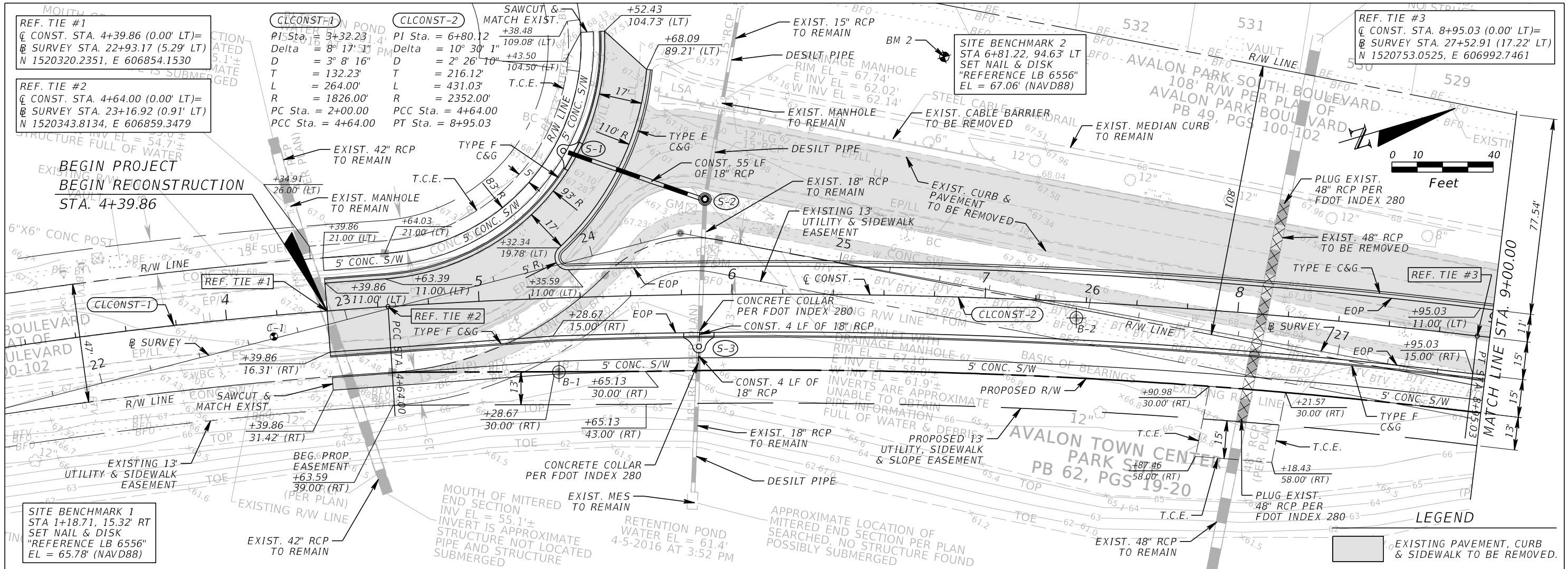
SUMMARY OF QUANTITIES

SHEET NO.
8

SUMMARY OF DRAINAGE STRUCTURES

QUANTITY	STR. NO.	INDEX NO.	STATION	SIDE	DESCRIPTION	BARRELS	SIZE (INCHES)	LENGTH (LF)	RCP STORM SEWER			MANHOLE	MANHOLE (PARTIAL)	CURB INLETS		REMARKS
									CLASS III	CLASS III	CLASS III	TYPE 8	TYPE 8	P-3	P-4	
									15"	18"	24"	<10'	<10'	>10'	<10'	
P	S-1	210	5+35.35	LT	INLET, PIPE	1	18	55		55				1		
F																
P	S-2	200, 201	5+89.73	LT	MANHOLE (PARTIAL)						1				REMOVE EXISTING CURB INLET TOP.	
F																
P	S-3	210	5+86.70	RT	PIPE, INLET, PIPE	1	18	8		8				1	INCLUDES CONCRETE COLLAR	
F																
P	S-4	200, 201	9+34.40	RT	MANHOLE	1	18	35		35	1				INCLUDES CONCRETE COLLAR	
F																
P	S-5	210	9+35.23	RT	INLET							1			INCLUDES CONCRETE COLLAR	
F																
P	S-6	210	12+32.34	RT	INLET, PIPE	1	15	8	8					1	INCLUDES CONCRETE COLLAR	
F							24	293			293					
TOTALS						PLAN QUANTITY			8	98	293	1	1	1	3	
						FINAL QUANTITY										

<p align="center">REVISIONS</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				DATE	DESCRIPTION	DATE	DESCRIPTION					<p>GTC Engineering Corporation 98 South Semoran Blvd, Orlando, FL 32807 Phone Number - 407.380.0402 Certificate of Authorization Number 6758 Claude L. Cassagnol, P.E. P.E. Number 35490</p>		<p>ORANGE COUNTY PUBLIC WORKS</p> <table border="1"> <tr> <td>GTC PROJECT NO.</td> <td>AVALON PARK BLVD. SAFETY IMPROVEMENTS</td> <td>OCPW PROJECT NO.</td> </tr> <tr> <td>FLO 20.15</td> <td></td> <td>5142</td> </tr> </table>		GTC PROJECT NO.	AVALON PARK BLVD. SAFETY IMPROVEMENTS	OCPW PROJECT NO.	FLO 20.15		5142	<p align="center">SUMMARY OF DRAINAGE STRUCTURES</p>		<p>SHEET NO. 9</p>
DATE	DESCRIPTION	DATE	DESCRIPTION																					
GTC PROJECT NO.	AVALON PARK BLVD. SAFETY IMPROVEMENTS	OCPW PROJECT NO.																						
FLO 20.15		5142																						



REVISIONS			
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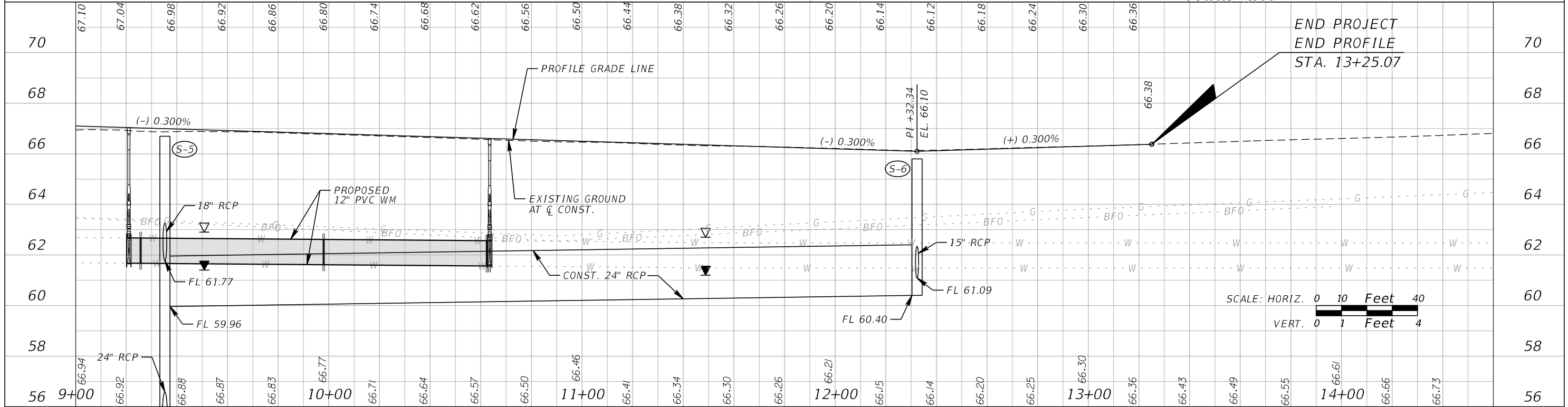
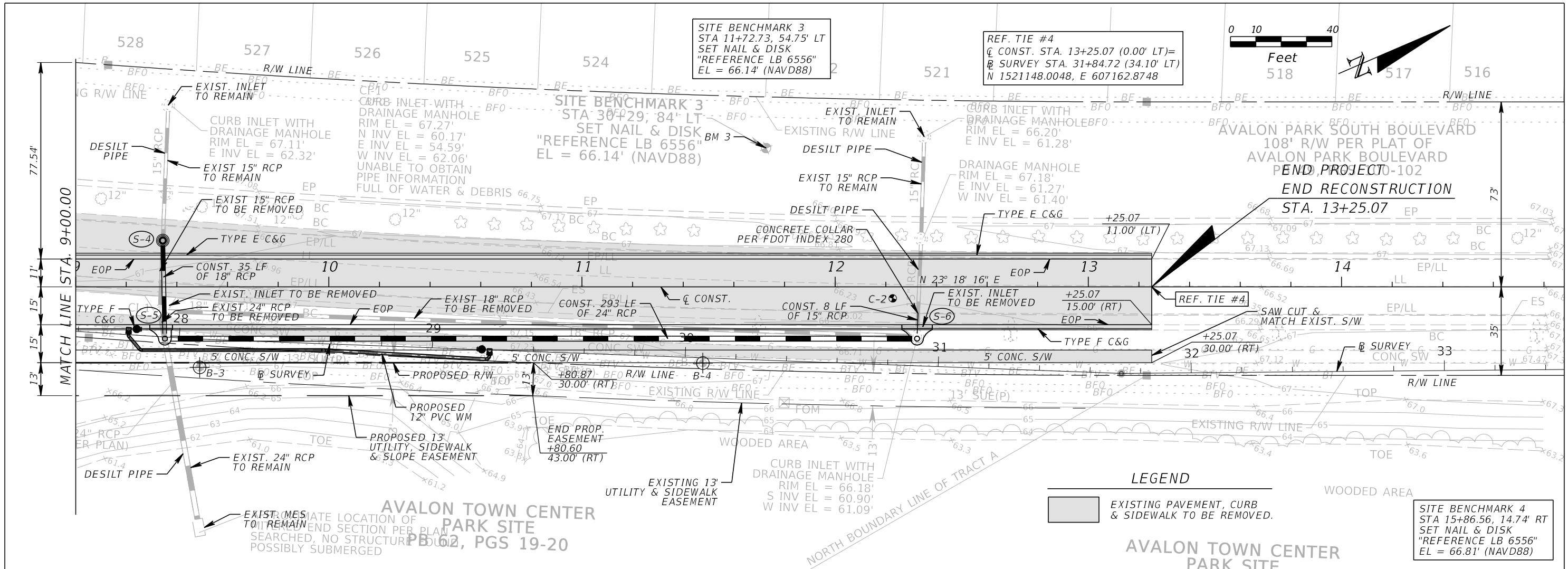
GTC Engineering Corporation
 98 South Semoran Blvd, Orlando, FL 32807
 Phone Number - 407.380.0402
 Certificate of Authorization Number 6758
 Claude L. Cassagnol, P.E.
 P.E. Number 35490

ORANGE COUNTY PUBLIC WORKS
 GTC PROJECT NO. FLO 20.15
 AVALON PARK BLVD. SAFETY IMPROVEMENTS
 OCPW PROJECT NO. 5142

PLAN AND PROFILE
STA. 4+39.86 TO STA. 9+00.00

SHEET NO. 10

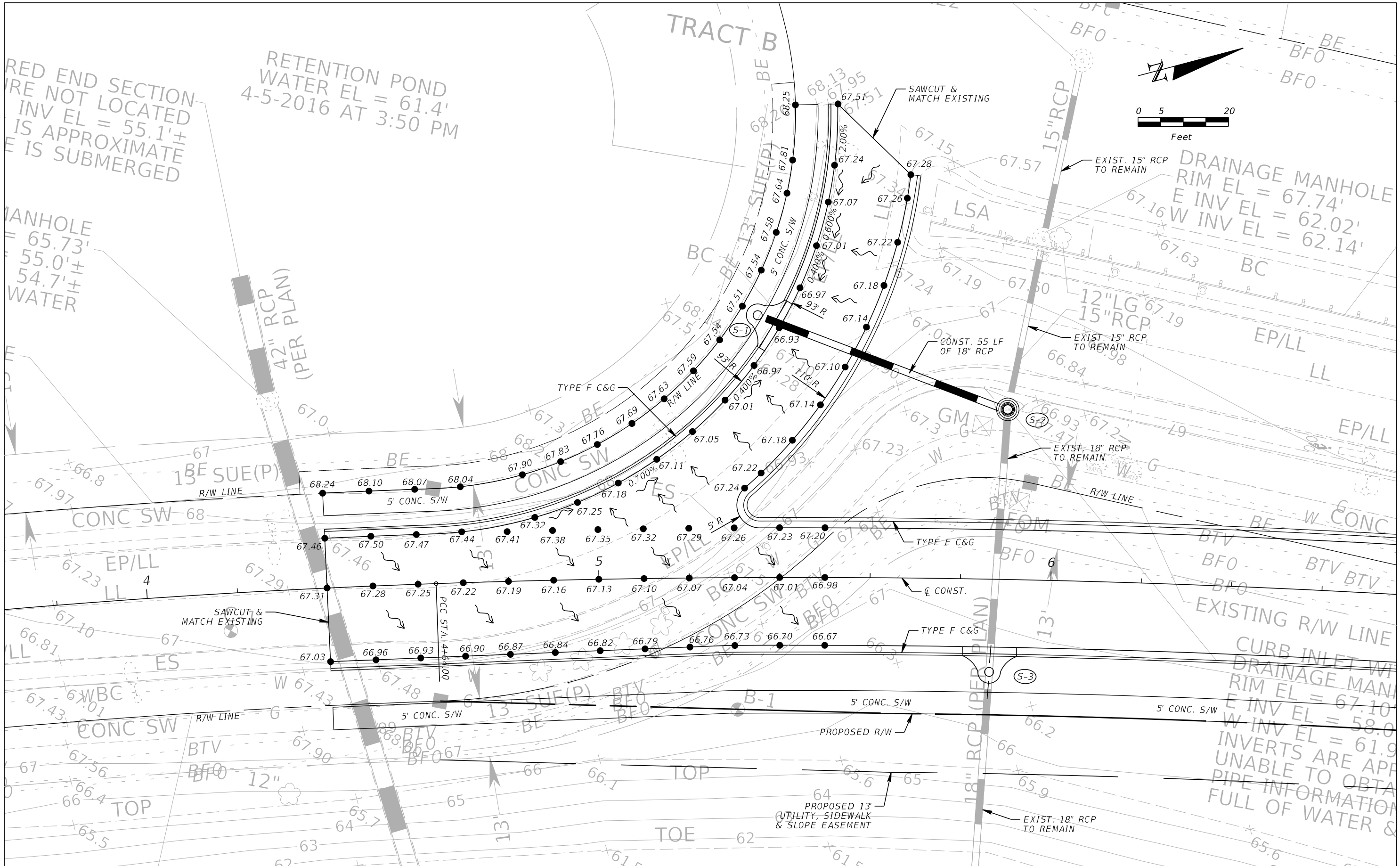
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REVISIONS		GTC Engineering Corporation		ORANGE COUNTY PUBLIC WORKS		SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	GTC PROJECT NO.	OCPW PROJECT NO.	
				FLO 20.15	5142	11

PLANNING AND PROFILE
STA. 9+00.00 TO STA. 13+25.07

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REVISIONS			
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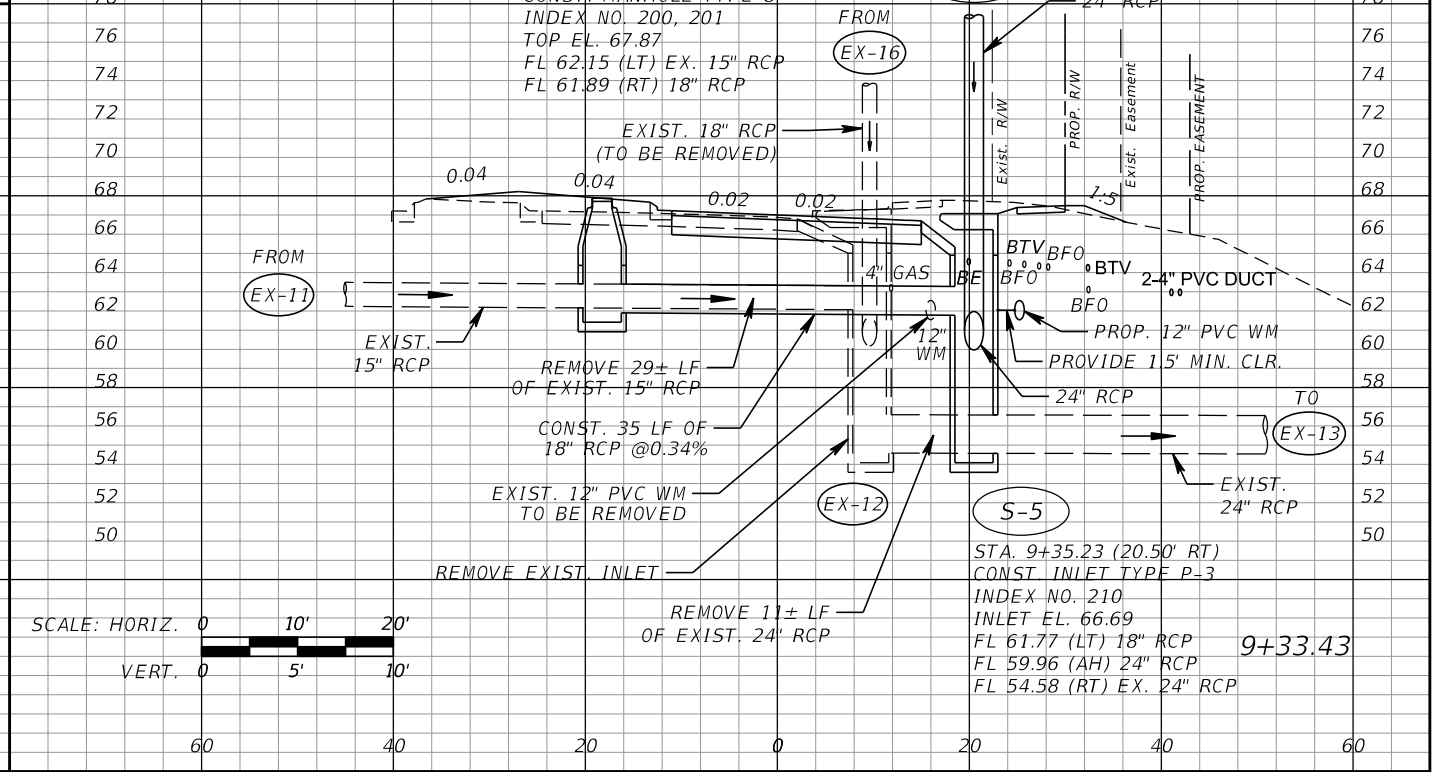
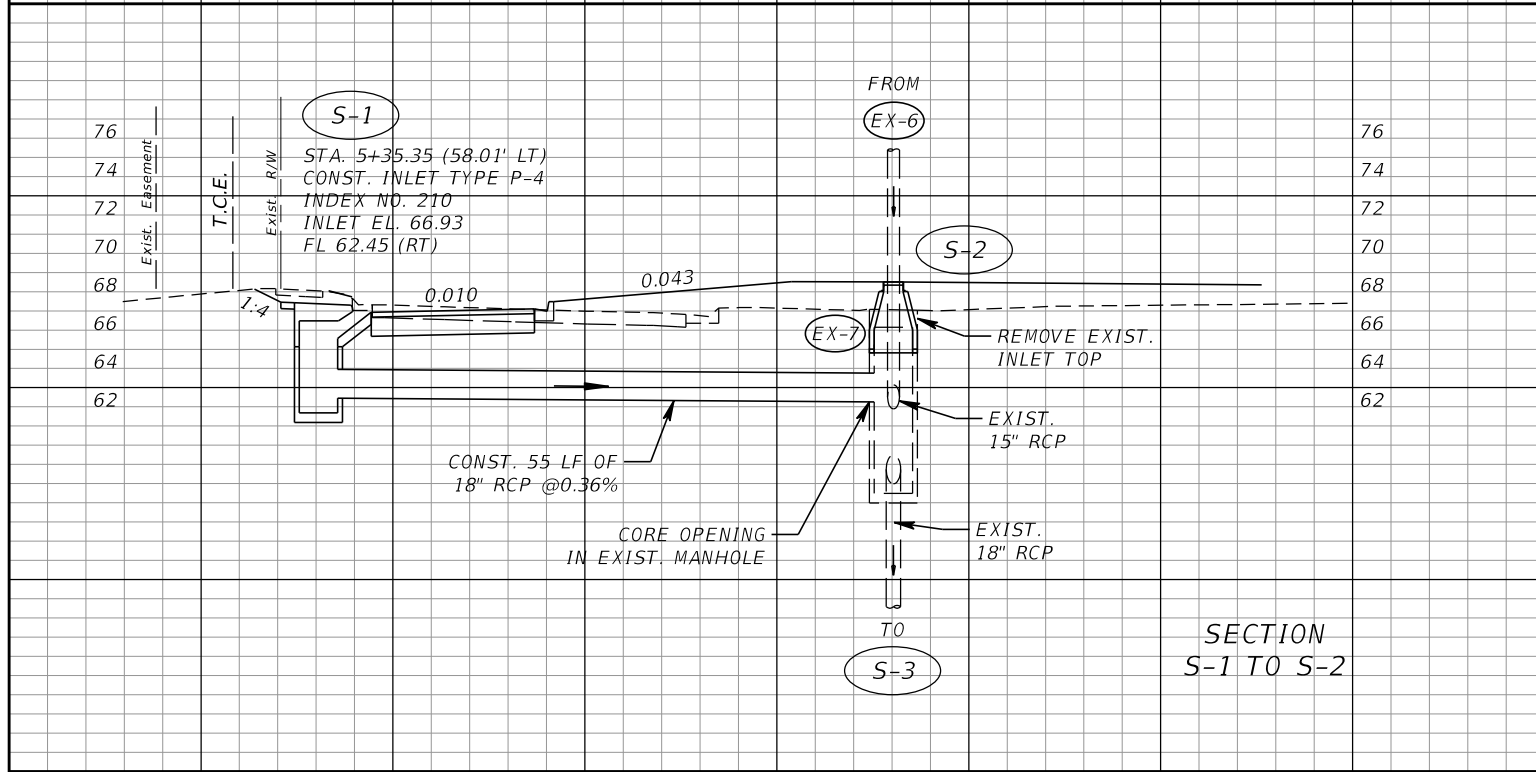
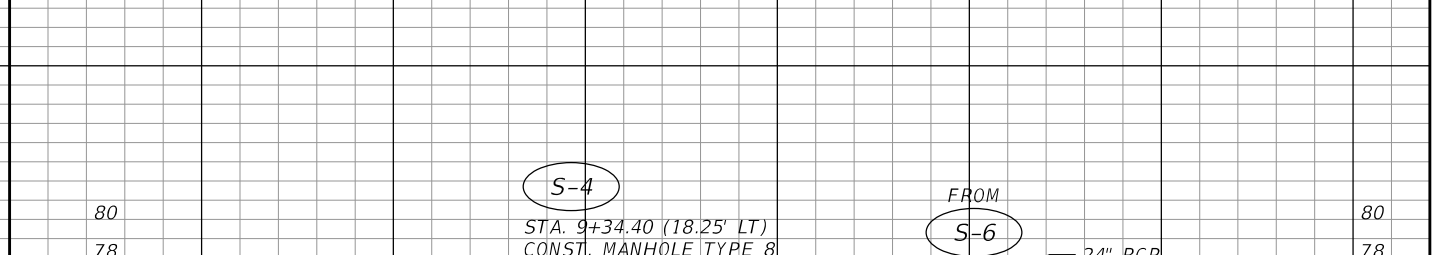
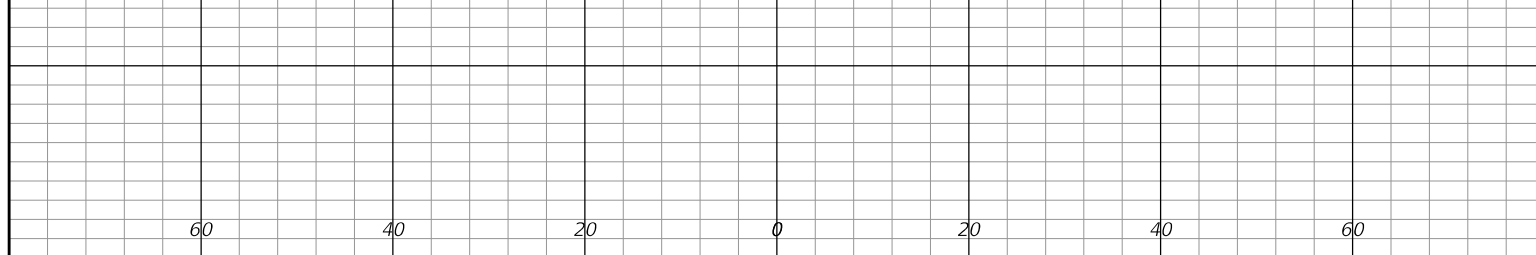
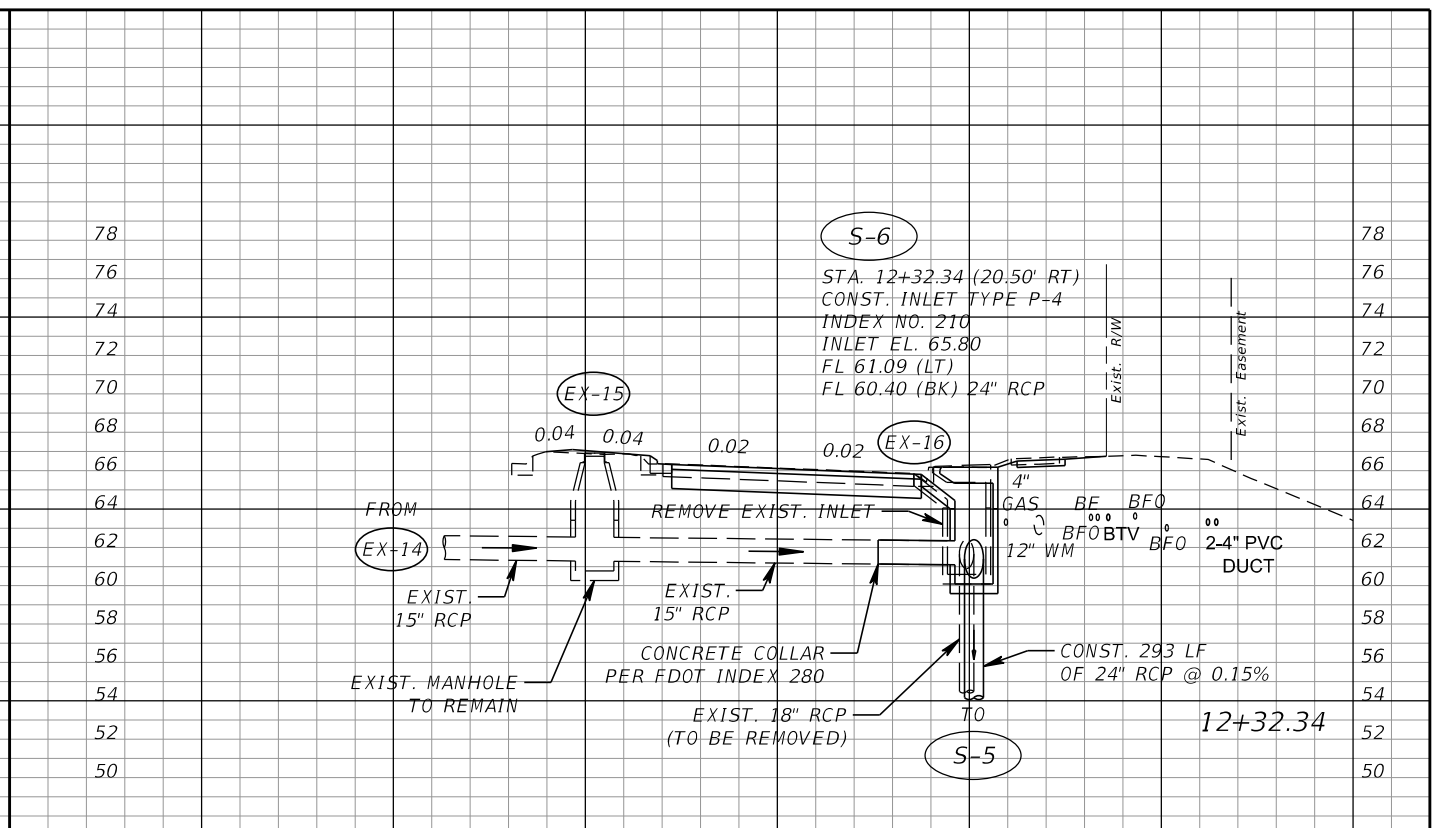
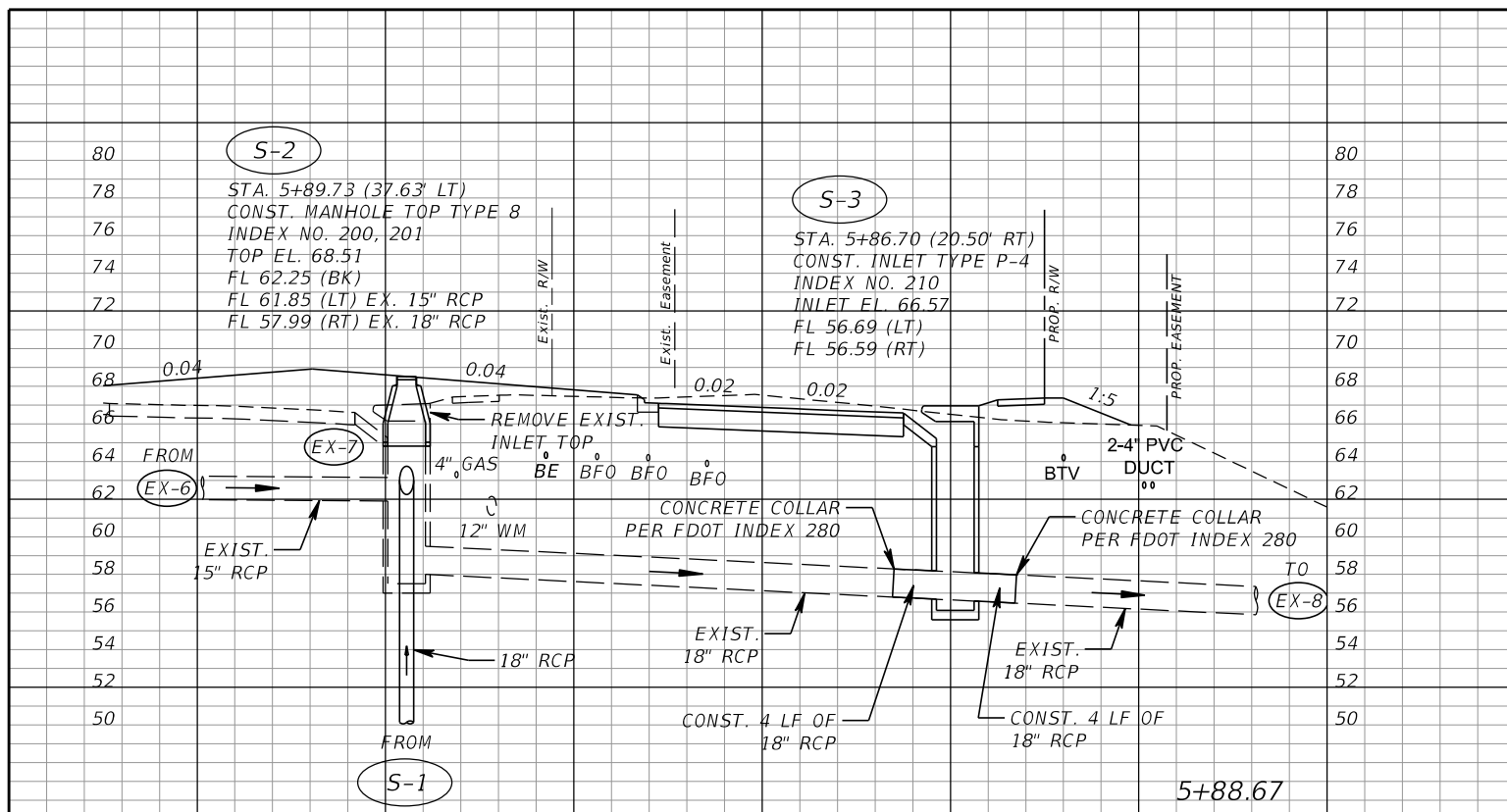
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 OCPW PROJECT NO. 5142

INTERSECTION DETAILS
 SHEET NO. 12

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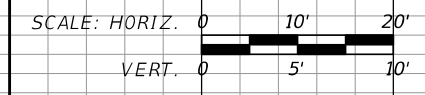


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DATE	DESCRIPTION	DATE	DESCRIPTION

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 P.E. Number 35490

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 OCPW PROJECT NO. 5142

DRAINAGE STRUCTURE SHEET
 SHEET NO. 13



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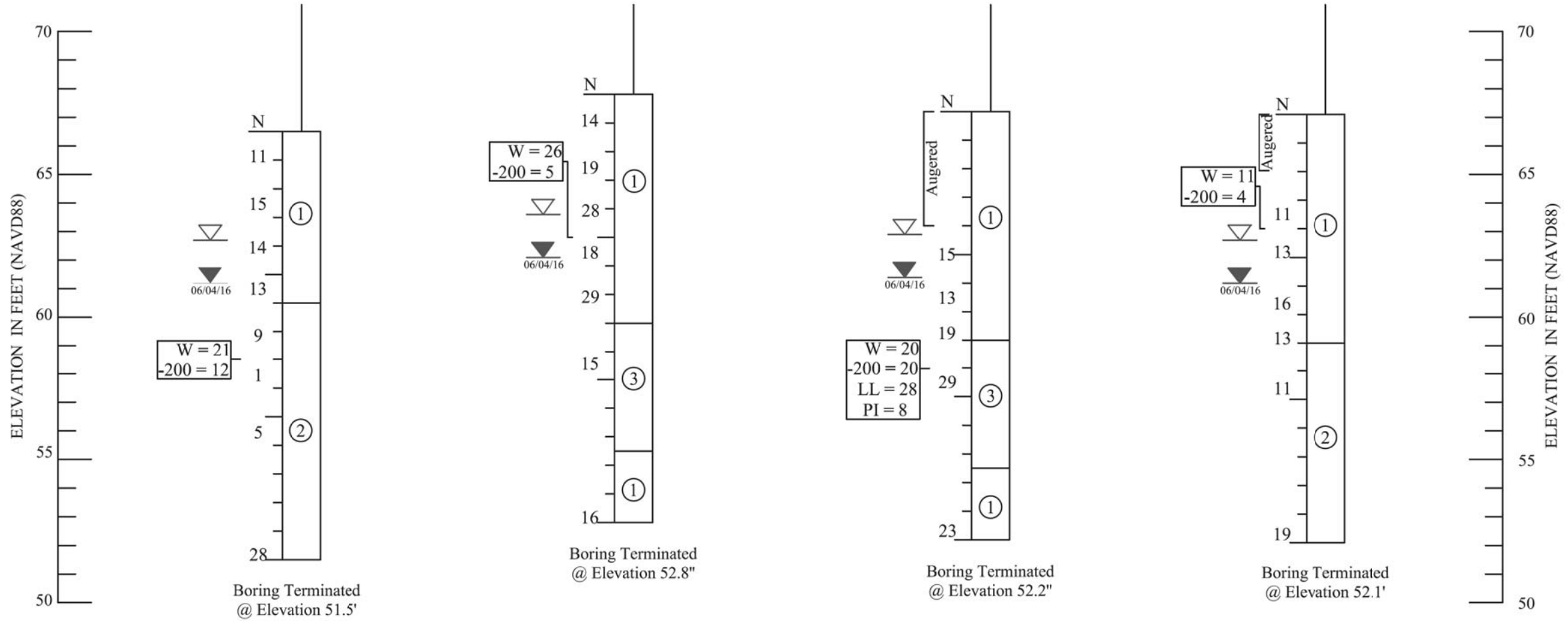


USGS QUAD MAP: OVIEDO SW, FL
SECTION: 6
TOWNSHIP: 23 South
RANGE: 32 East
Photo Issued: 2015

NOT TO SCALE

- LEGEND**
- ① Light brown to gray fine SAND, with silt/ clay/roots, (A-3)
 - ② Light brown to dark brown silty fine SAND, (A-2-4)
 - ③ Brown clayey fine SAND, (A-2-6)
- W = Natural Moisture Content (%) (FM 1-T265)
-200 = Percent passing no. 200 U.S. standard sieve (FM 1-T088)
LL = Liquid Limit (%) (FM 1-T089)
PI = Plasticity Index (%) (FM 1-T090)
- B-1 ⊕ Approximate Boring location
 - C-2 ● Approximate Pavement Coring Locations
 - ▽ 01/25/16 Groundwater level encountered on date shown
 - ▽ Estimated seasonal high groundwater level
 - GNE Groundwater not encountered
 - N Standard Penetration Test Data
- Standard penetration resistance in blows per foot (24" spoon ASTM D-1586)
Spoon Inside Diameter 1 3/8 in.
Spoon Outside Diameter 2 in.
ASTM Standard Automatic Hammer and ASTM Standard Drop Safety Hammer (Rope-Cathead)
Hammer Weight 140 lbs.
Drop 30 in.

Boring No:	B-1	B-2	B-3	B-4
Station:	5+28	7+36	9+51	11+49
Offset:	20' RT	6' RT	12' RT	20' RT
Northing:	1520401.2'	1520603.2'	1520790.0'	1520973.2'
Easting:	606903.3'	606940.9'	607043.3'	607120.4'
Elevation:	66.5'	67.8'	67.2'	67.1'
Date Drilled:	06-03-16	06-03-16	06-03-16	06-03-16



- NOTES**
- Standard Penetration Test borings were performed in accordance with ASTM D-1586. Standard Penetration Resistance are shown on the borings at the test depths in blows per foot unless otherwise noticed.
 - Subsurface conditions shown on the boring do not represent conditions between boring locations. Actual conditions between the borings may vary from those shown.
 - Unified Soil Classifications shown on the boring are based on visual examination and limited laboratory testing.

RELATIVE DENSITY	GRANULAR MATERIALS	
	Drop Safety Hammer SPT (BLOWS/FT.)	Automatic Hammer SPT (BLOWS/FT.)
Very loose	Less than 4	Less than 3
Loose	4-10	3-7
Medium Dense	10-30	7-21
Dense	30-50	21-35
Very Dense	Greater than 50	Greater than 35

CONSISTENCY	SILTS AND CLAYS	
	Drop Safety Hammer SPT (BLOWS/FT.)	Automatic Hammer SPT (BLOWS/FT.)
Very soft	Less than 2	Less than 1
Soft	2-4	1-3
Firm	4-8	3-6
Stiff	8-15	6-11
Very Stiff	15-30	11-21
Hard	Greater than 30	Greater than 21

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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

Drawn by: MS 06/13/16
Checked by: GNN 06/13/16
Designed by: N/A N/A
Checked by: N/A N/A
Approved by: GNN

NADIC ENGINEERING SERVICES, INC.
601 N. HART BOULEVARD
ORLANDO, FL 32818
PH (407) 521-4771 FAX (407) 521-4772



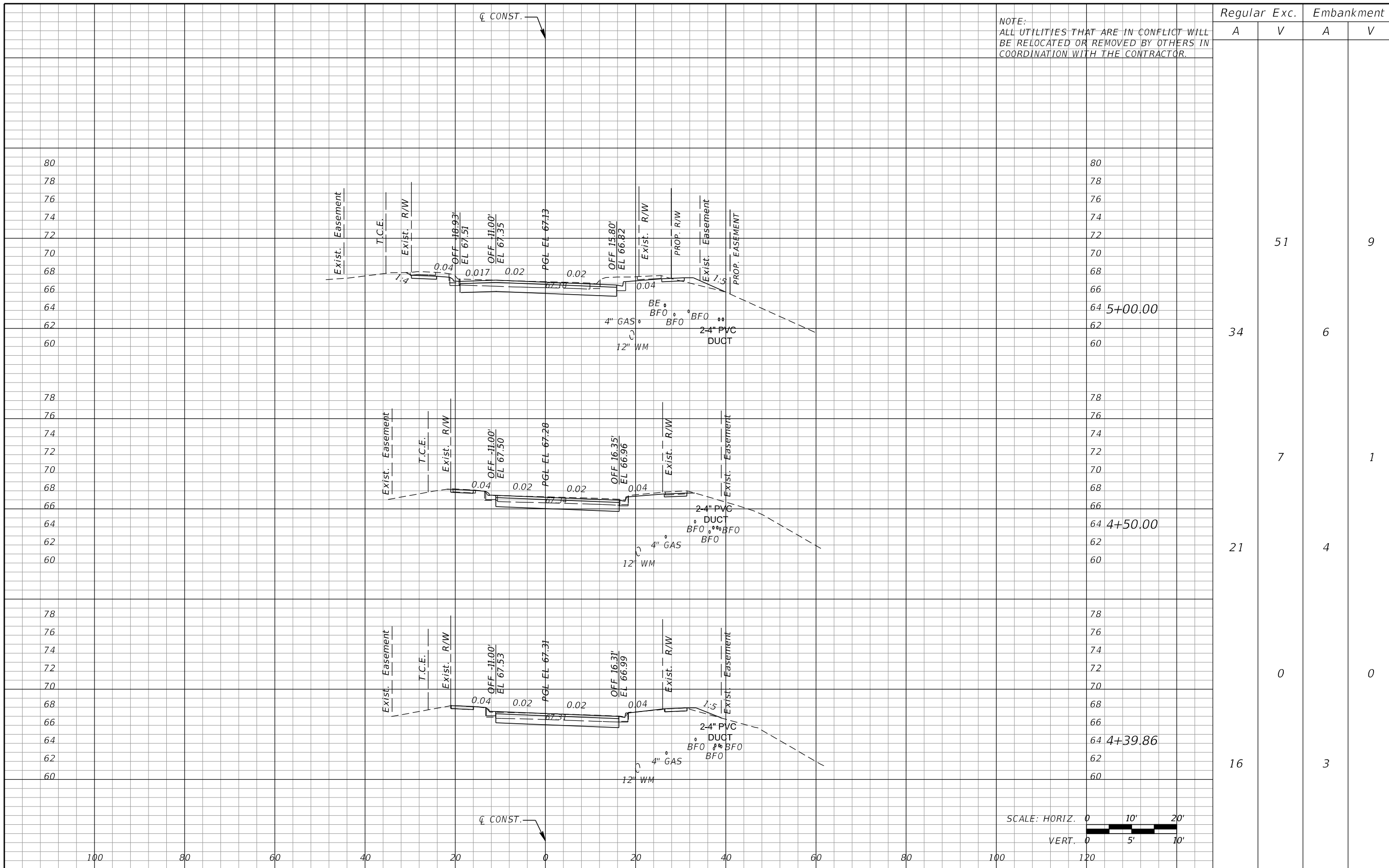
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COUNTY: ORANGE CONTRACT NO: Y12-905B

SHEET TITLE: REPORT OF SPT BORINGS

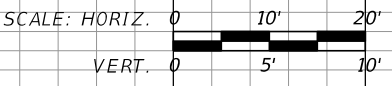
PROJECT NAME: AVALON PARK BOULEVARD SAFETY IMPROVEMENTS

SHEET NO.: 15



NOTE:
ALL UTILITIES THAT ARE IN CONFLICT WILL
BE RELOCATED OR REMOVED BY OTHERS IN
COORDINATION WITH THE CONTRACTOR.

Regular		Exc.		Embankment	
A	V	A	V	A	V
34	51	6	9		
21	7	4	1		
16	0	3	0		



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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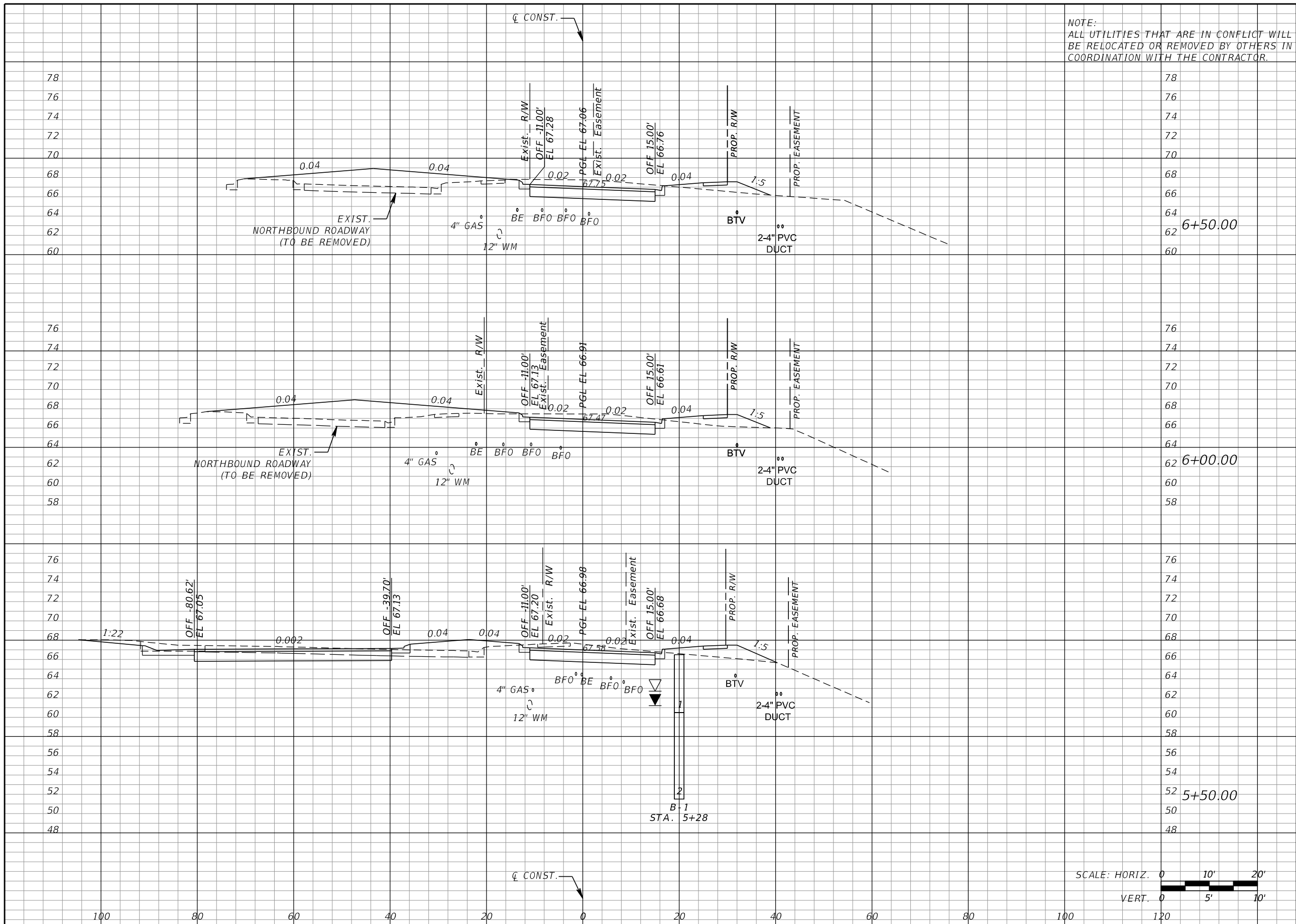
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Certificate of Authorization Number 6758 Claude L. Cassagnol, P.E. P.E. Number 35490

CROSS SECTIONS

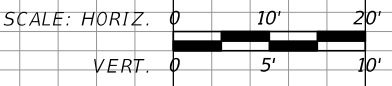
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NOTE:
ALL UTILITIES THAT ARE IN CONFLICT WILL BE RELOCATED OR REMOVED BY OTHERS IN COORDINATION WITH THE CONTRACTOR.

Regular		Exc.		Embankment	
A	V	A	V	A	V
53	95	90		184	
49	108	109		146	
68	94	49		51	



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GTC Engineering Corporation
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Phone Number - 407.380.0402

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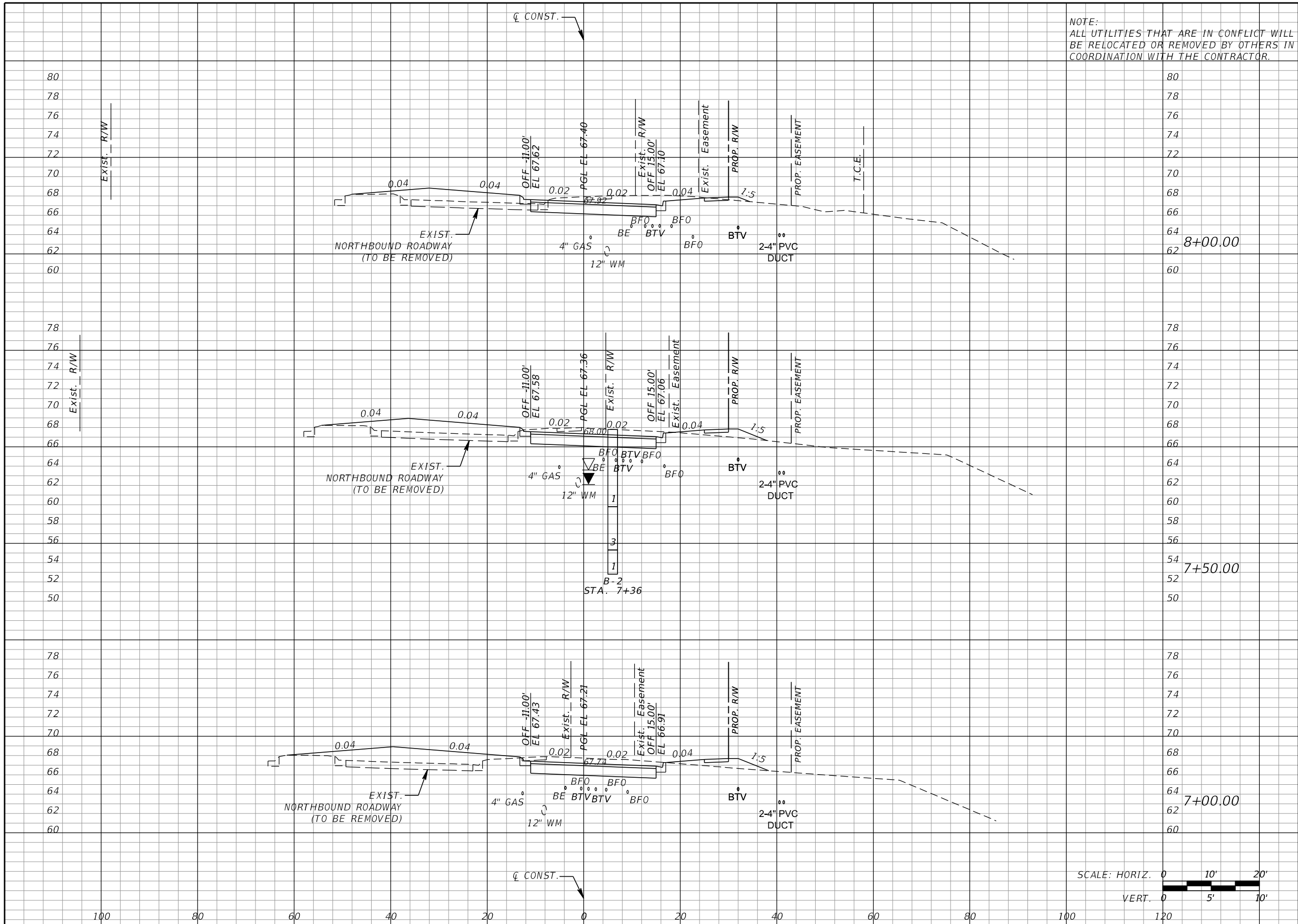
GTC PROJECT NO. **FLO 20.15** AVALON PARK BLVD. SAFETY IMPROVEMENTS OCPW PROJECT NO. **5142**

Certificate of Authorization Number 6758 Claude L. Cassagnol, P.E. P.E. Number 35490

CROSS SECTIONS

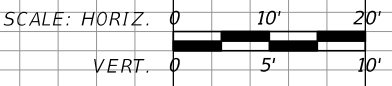
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NOTE:
ALL UTILITIES THAT ARE IN CONFLICT WILL BE RELOCATED OR REMOVED BY OTHERS IN COORDINATION WITH THE CONTRACTOR.

Regular		Exc.		Embankment	
A	V	A	V	A	V
48	89	49		108	
48	89	68		136	
48	94	79		157	



REVISIONS			
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GTC Engineering Corporation
98 South Semoran Blvd, Orlando, FL 32807
Phone Number - 407.380.0402

ORANGE COUNTY PUBLIC WORKS

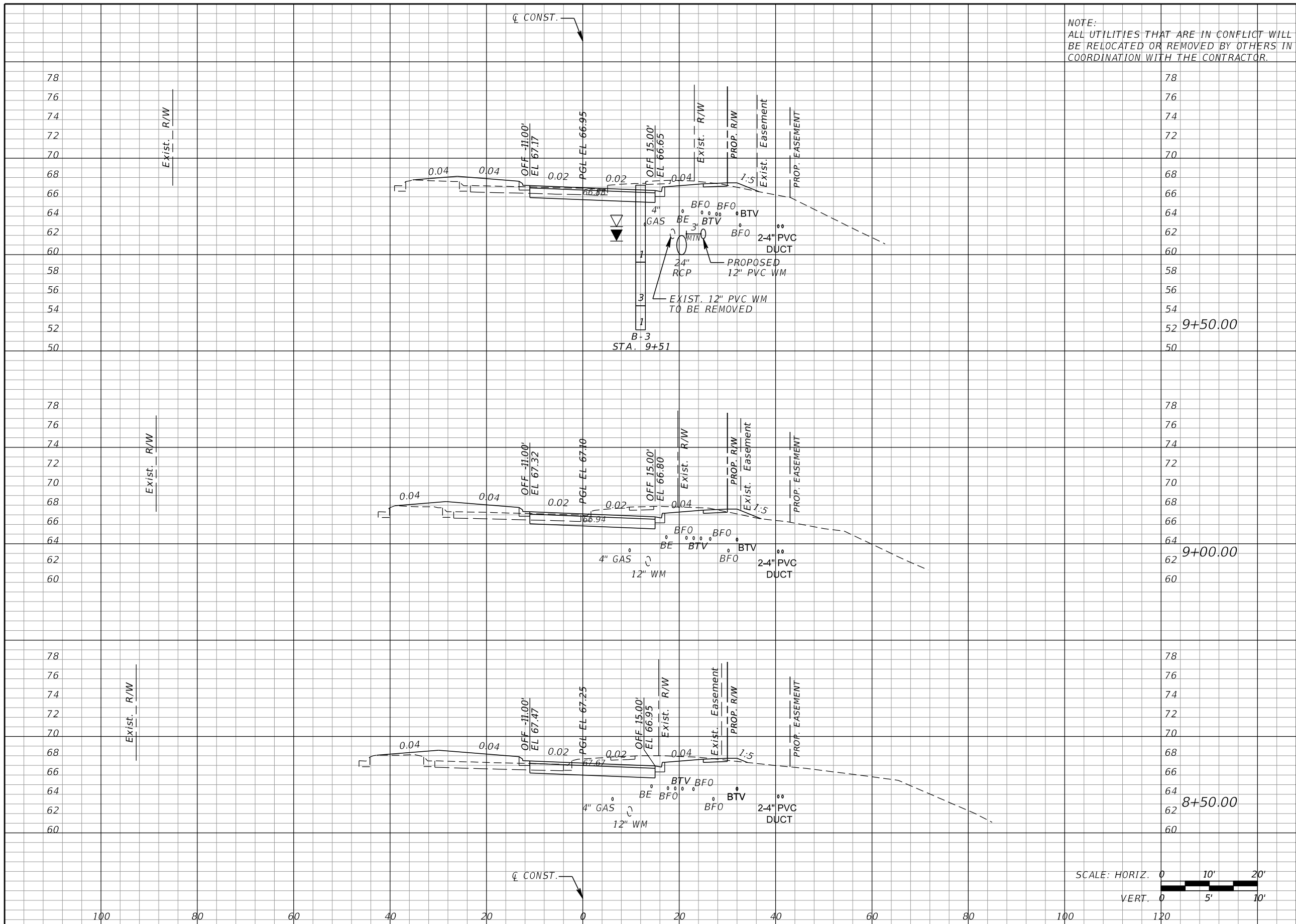
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Certificate of Authorization Number 6758 Claude L. Cassagnol, P.E. P.E. Number 35490

CROSS SECTIONS

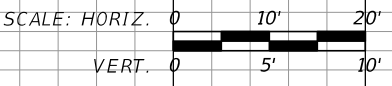
SHEET NO. **18**

FILE: H:\Jobs\FLO20.15-AvalonS\roadway\RDXSRO01.DGN DATE: 12/6/2017 2:57:22 PM



NOTE:
ALL UTILITIES THAT ARE IN CONFLICT WILL BE RELOCATED OR REMOVED BY OTHERS IN COORDINATION WITH THE CONTRACTOR.

Regular		Exc.	Embankment	
A	V	A	V	
				78
				76
				74
				72
				70
				68
				66
				64
				62
				60
				58
				56
				54
				52
				50
				78
				76
				74
				72
				70
				68
				66
				64
				62
				60
				78
				76
				74
				72
				70
				68
				66
				64
				62
				60



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GTC Engineering Corporation
98 South Semoran Blvd, Orlando, FL 32807
Phone Number - 407.380.0402

ORANGE COUNTY PUBLIC WORKS

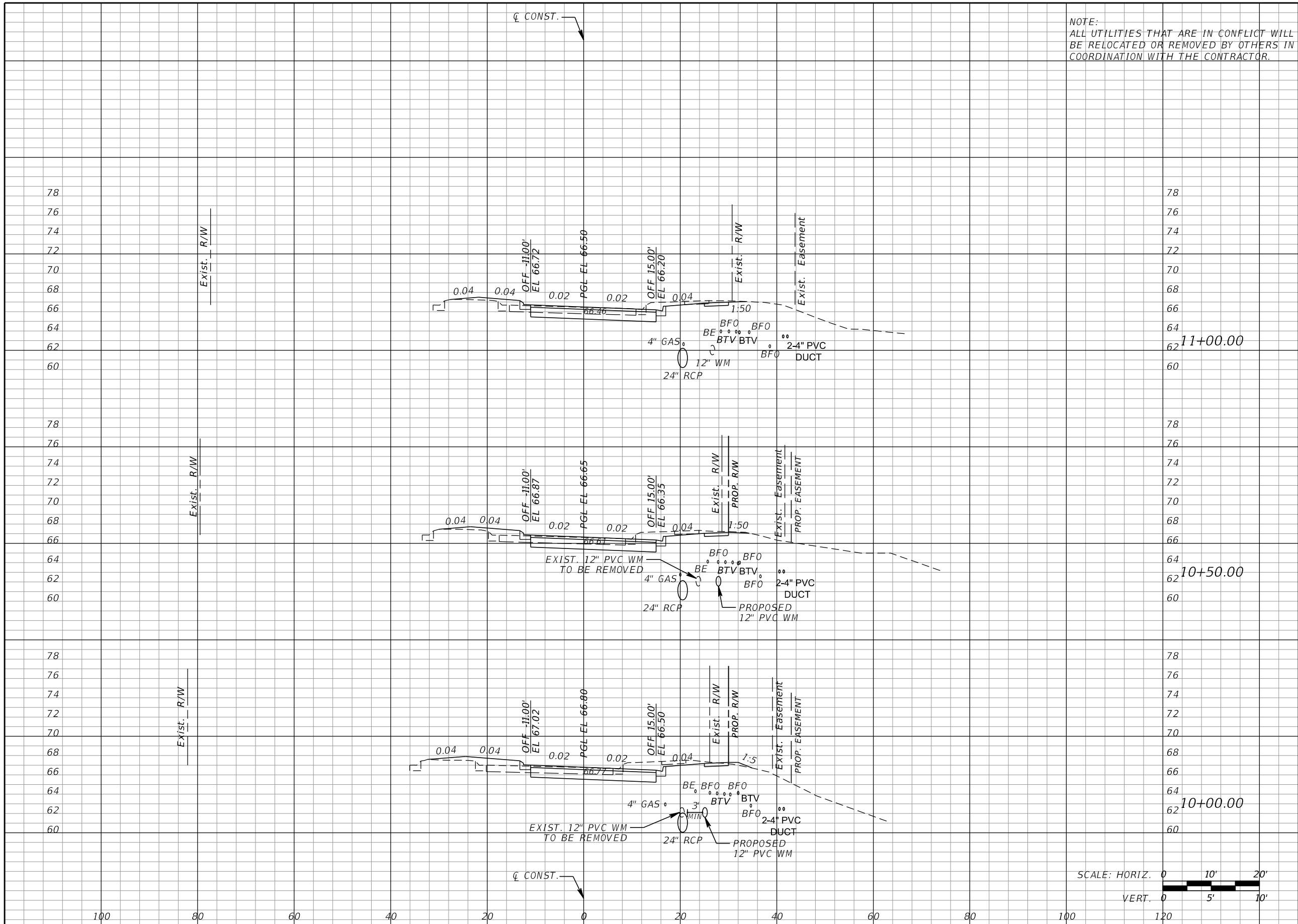
GTC PROJECT NO. **FLO 20.15** AVALON PARK BLVD. SAFETY IMPROVEMENTS OCPW PROJECT NO. **5142**

Certificate of Authorization Number 6758 Claude L. Cassagnol, P.E. P.E. Number 35490

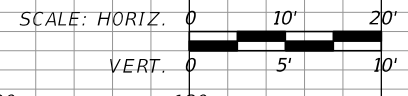
CROSS SECTIONS

SHEET NO. **19**

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DATE: 12/6/2017 2:57:22 PM



Regular		Exc.		Embankment	
A	V	A	V	A	V
			48		21
24		10			
	54		28		
	59		39		
31		18			



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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CROSS SECTIONS

SHEET NO. **20**

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