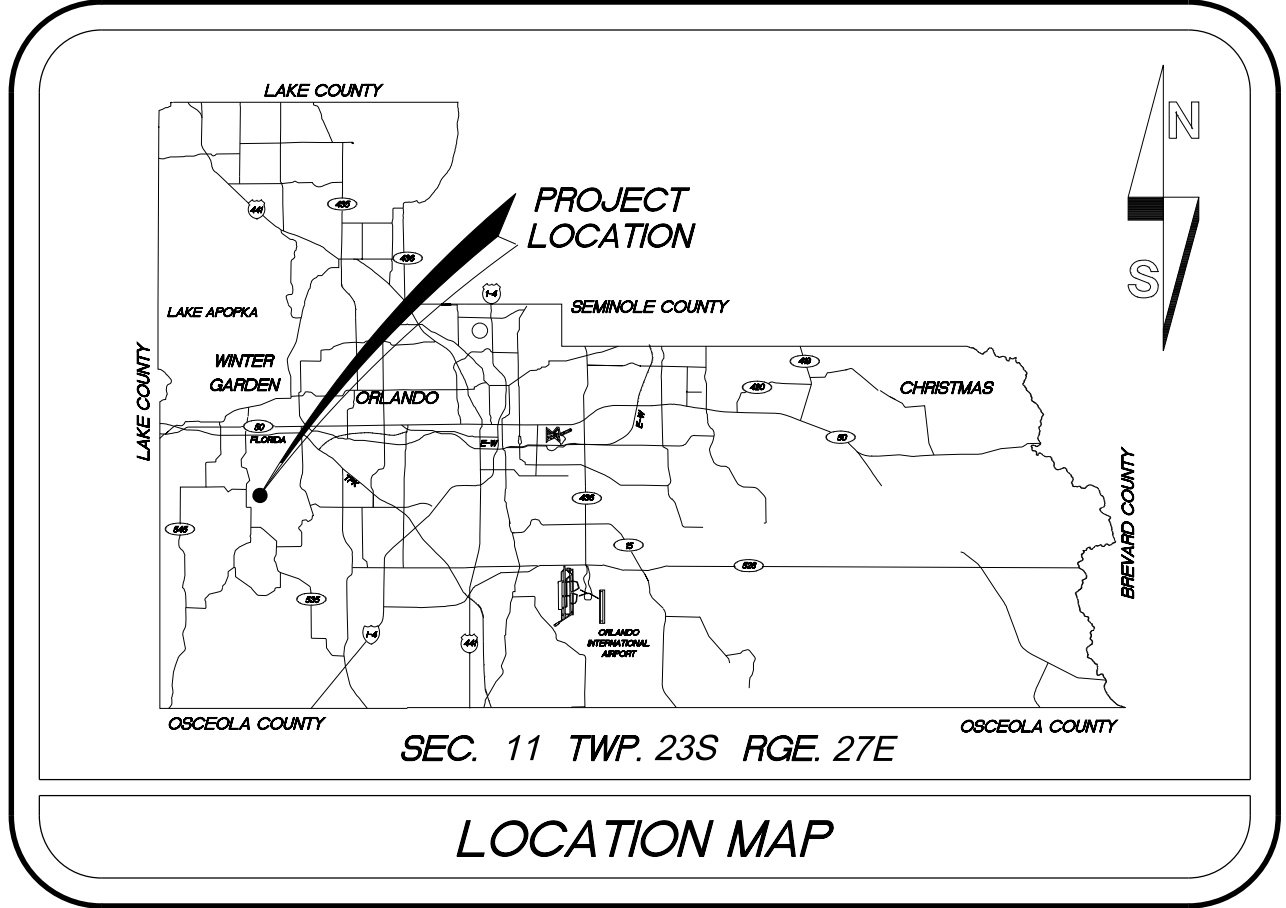




CONSTRUCTION PLANS FOR ESTATES AT LAKE CLARICE RETROFIT PROJECT



SOURCE OF BENCHMARK DATUM

VERTICAL INFORMATION SHOWN HEREON REFERS TO ORANGE COUNTY VERTICAL CONTROL BENCHMARK "L1428034", BEING A 3-1/2" ALUMINUM DISC
PUBLISHED ELEVATION = 107.645 FEET (NAVD88)

THE HORIZONTAL POSITIONS FOR ALL FEATURES SHOWN ON THE MAP ARE RELATIVE TO NORTH AMERICAN DATUM (NAD) 1983, 2011 ADJUSTMENT, STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE. CONTROL POINT USED FOR THIS SURVEY IS NATIONAL GEODETIC SURVEY (NGS) POINT PID#AK7132.

PROJECT LENGTH:

FEET

TOTAL LENGTH:

500

UTILITIES ENCOUNTERED

POTABLE WATER (ORANGE COUNTY UTILITIES): 407-254-9672
SANITARY SEWER (ORANGE COUNTY UTILITIES): 407-254-9672
ELECTRIC (DUKE ENERGY): 407-942-9421
ELECTRIC TRANSMISSION (DUKE ENERGY): 407-942-9498
TELEPHONE/CABLE (ORLANDO TELEPHONE CO.): 407-996-1149
TELEPHONE/CABLE (ATT): 813-342-0512
TELEPHONE/CABLE (BRIGHT HOUSE NETWORKS): 407-532-8509
TELEPHONE/CABLE (CENTURYLINK): 407-814-5344
GAS (LAKE APOPKA NATURAL GAS DISTRICT): 407-656-2734



PREPARED BY:
SINGHOFEN & ASSOCIATES, INC.
11723 ORPINGTON STREET, SUITE 100
ORLANDO, FLORIDA 32817
PH: (407) 679-3001
FAX: (407) 679-2691
DBPR NO. 5112

REVISIONS

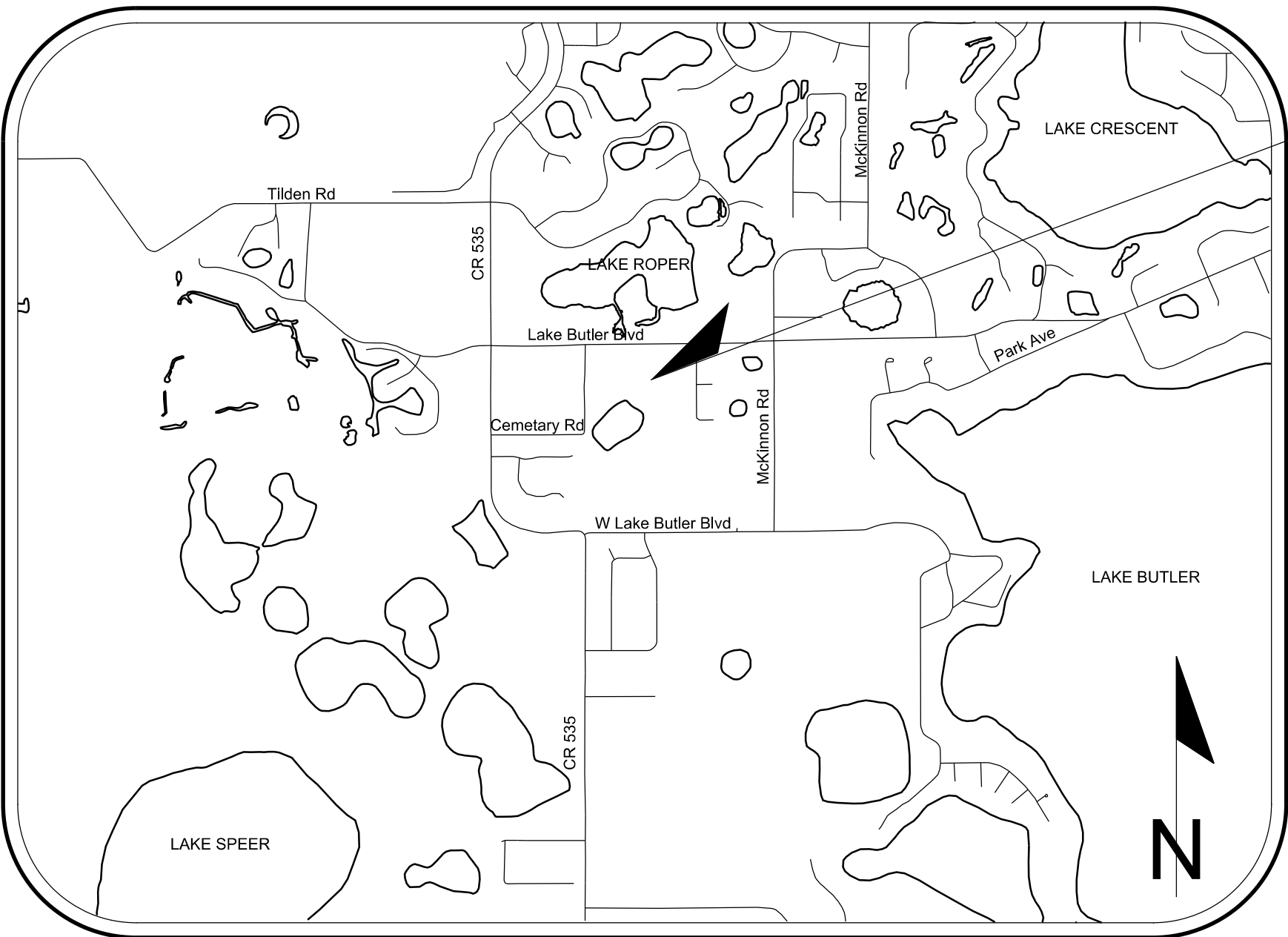
DATE

BY

DESIGNED BY: BRW
DRAWN BY: BRW/HMD
CHECKED BY: RBG
APPROVED BY: BRW
PROJECT NO: 2013-029.20

SHEET 1

DISTRICT NO: 1 ORANGE COUNTY, FLORIDA



PROJECT LOCATION

GOVERNING STANDARDS
AND SPECIFICATIONS :
FLORIDA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS FOR DESIGN,
CONSTRUCTION, MAINTENANCE AND UTILITY
OPERATIONS ON THE STATE HIGHWAY SYSTEM,
DATED 2014.

STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION, DATED 2014
AS AMENDED BY CONTRACT DOCUMENTS.

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: BRETT R. WITTE, P.E.

TERESA JACOBS, COUNTY MAYOR

BOARD OF COUNTY
COMMISSIONERS

S. SCOTT BOYD	DISTRICT 1
BRYAN NELSON	DISTRICT 2
PETE CLARKE	DISTRICT 3
JENNIFER THOMPSON	DISTRICT 4
TED EDWARDS	DISTRICT 5
VICTORIA SIPLIN	DISTRICT 6
MARK V. MASSARO, P.E.	PUBLIC WORKS DIRECTOR

\\orange\state\info\projects\2013\13-029\13-029.dwg
2/6/2013

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH AND CONFORM TO THE MOST STRINGENT REQUIREMENT OF THE PROJECT SPECIFICATION, THE 2014 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. THIS INFORMATION MAY NOT ACCURATELY REFLECT ACTUAL SOIL CONDITIONS AS TO THE DEPTH, EXTENT, OR CHARACTER OF THE MATERIAL TO BE ENCOUNTERED IN CONSTRUCTION OF THE PROJECT 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 F.D.O.T. DESIGN STANDARD 532. ALL COSTS SHALL BE INCLUDED IN THE UNIT PRICE OF THE PAY ITEM FOR CLEARING AND GRUBBING.
4. THE DISPOSAL OF EXCESS EARTHWORK MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. APPROVAL OF DISPOSAL SITES SHALL BE OBTAINED FROM ORANGE COUNTY PRIOR TO DISPOSAL. ALL EXCESS MATERIAL IS THE PROPERTY OF THE CONTRACTOR.
5. SOD IN DISTURBED AREAS SHALL MATCH EXISTING TYPE SOD, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- ~~6. INSTALL A 4" MUCK BLANKET OR TOPSOIL TREATMENT ON ALL PERMANENT GRASS AREAS. COST TO BE INCLUDED IN CONTRACT UNIT PRICE FOR SOD.~~
- ~~7. SOD ALL SLOPES 2:1 OR STEEPER.~~
8. SAW CUT CONCRETE DRIVEWAYS AND SIDEWALKS AS REQUIRED FOR CONSTRUCTION.
- ~~9. ALL PAVEMENT OFFSETS SHOWN ARE TO PROPOSED SURVEY BASELINE OF CONSTRUCTION. ALL RADII AND DIMENSIONS ARE TO PROPOSED EDGE OF PAVEMENT, UNLESS NOTED OTHERWISE.~~
- ~~10. FOR STABILIZATION AT TURNOUTS AND DRIVEWAY CONNECTIONS SEE STANDARD INDEX No. 515 AND TYPICAL SECTIONS FOR DEPTH AND LBR.~~
- ~~11. DRIVEWAY LOCATIONS AND WIDTHS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED AS NECESSARY AS DIRECTED BY THE ENGINEER.~~
12. THE CONTRACTOR SHALL PERFORM HIS WORK IN ACCORDANCE WITH REQUIREMENTS OF THE VARIOUS PERMITS INCLUDED IN THE BID DOCUMENTS. PAYMENT IS INCLUDED IN THE BID PRICE FOR PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION.
13. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON AVAILABLE RECORDS AND SURVEYED INFORMATION. THE INFORMATION MAY NOT REFLECT ACTUAL CONDITIONS OR BE ALL INCLUSIVE REGARDING ALL UTILITIES IN THE AREA, EITHER IN SERVICES OR ABANDONED, OR THAT THE UTILITIES ARE IN THE HORIZONTAL OR VERTICAL LOCATIONS SHOWN. 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. DAMAGE TO EXISTING UTILITIES AS A RESULT OF THE CONTRACTOR'S WORK OR HIS SUBCONTRACTORS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR, PAY ALL FINES, PAY ALL FEES, AND ALL OTHER COSTS ASSOCIATED WITH RESTORING THE UTILITY.
14. PRIOR TO COMMENCEMENT OF WORK CONTRACTOR SHALL CALL SUNSHINE ONE 48 HOURS IN ADVANCE OF PERFORMING ANY UTILITY ADJUSTMENTS OR RELOCATIONS. SUNSHINE ONE PHONE NUMBER IS 1-800-432-4770.
15. UTILITIES ARE TO BE ADJUSTED BY OTHERS OR AS DIRECTED BY THE ENGINEER.
16. THE CONTRACTOR SHALL NOTIFY ALL GAS UTILITY COMPANIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATION AS REQUIRED BY CHAPTER 77-153 OF THE FLORIDA STATUTES. MAPS SHOW ONLY THE APPROXIMATE LOCATION OF GAS MAINS OR SERVICE LINES. THE ONLY SAFE AND PROPER WAY TO LOCATE GAS FACILITIES IS BY AN ON-SITE INSPECTION BY THE GAS PROVIDER(S). EXCAVATORS ARE INSTRUCTED TO TELEPHONE THE GAS COMPANY TWO WORKING DAYS BEFORE DIGGING IN A CONSTRUCTION AREA.
17. ALL DRAINAGE PIPES SHALL BE STEEL REINFORCED CONCRETE PIPE, CLASS III, UNLESS OTHERWISE NOTED.
18. MEASUREMENT OF DRAINAGE PIPE FOR PAYMENT SHALL BE DETERMINED FROM ACTUAL LENGTHS INSTALLED.
19. 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.
20. ALL INLET/MANHOLE - PIPE JOINTS SHALL BE FILLED WITH NON-SHRINK GROUT, COVERED WITH AN ASPHALT MASTIC COATING, AND WRAPPED WITH A FILTER FABRIC MATERIAL PER SECTION 13.03.03 OF THE ORANGE COUNTY ROAD CONSTRUCTION SPECIFICATIONS. ALL PIPE JOINTS IN THIS PROJECT SHALL BE WRAPPED PER FDOT STANDARD INDEX No. 280 OR AS DIRECTED BY THE ENGINEER COST TO BE INCLUDED IN THE COST OF THE PIPE CULVERT.
21. ALL CURB INLETS, DITCH BOTTOM INLETS, AND MANHOLES SHALL HAVE TRAFFIC BEARING FRAMES AND COVERS OR GRATES MEETING HS-20 LOADING REQUIREMENTS.
22. ALL EXISTING DRAINAGE STRUCTURES AND PIPES IF ABANDONED WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REMOVED, UNLESS OTHERWISE SHOWN IN THE PLANS OR DIRECTED BY THE ENGINEER.
23. 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.
24. 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.
25. 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 407-836-7940 AND BOTH SHALL NOTIFY:
STATE GEODETIC ADVISOR
3900 COMMONWEALTH BOULEVARD, SUITE 309,
TALLAHASSEE, FL
850-245-2606

26. 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.
27. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO ORANGE COUNTY HIGHWAY CONSTRUCTION DEPARTMENT A SET OF FIELD NOTES VERIFYING THE BENCHMARK ELEVATIONS AND THE REFERENCE POINT TIES SHOWN ON THE TITLE SHEET AND PLAN AND 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.
28. TO MEET ADA REQUIREMENTS, ALL SIDEWALK CONSTRUCTION SHALL COMPLY WITH THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION.
- ~~29. FOR PEDESTRIAN CURB CUT RAMPS DETAILS, REFER TO FDOT STANDARD INDEX 304 NOMENCLATURE SHOW IN THE PLANS REFERS TO THE RAMP TYPES IDENTIFIED IN INDEX 304.~~
30. THE CONTRACTOR SHALL RELOCATE EXISTING TRAFFIC SIGNS AS REQUIRED DURING CONSTRUCTION. SIGNS WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE COUNTY. THE CONTRACTOR SHALL REMOVE AND STORE EXISTING TRAFFIC SIGNS THAT ARE NOT USED DURING CONSTRUCTION. THE CONTRACTOR SHALL RE-INSTALL THE STORED SIGNS AS SHOWN ON THE SIGNING PLANS OR AS DIRECTED BY THE ENGINEER. SIGNS NOT TO BE RE-INSTALLED SHALL BE DELIVERED TO ORANGE COUNTY'S TRAFFIC SIGN SHOP. DAMAGE SIGNS SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO ORANGE COUNTY. COST OF RELOCATION, MAINTENANCE, REMOVAL AND LEFTOVER SHALL BE INCLUDED IN THE BID PRICE FOR MAINTENANCE OF TRAFFIC.
31. ALL EXCAVATIONS SHALL BE REQUIRED TO CONFORM TO THE PROVISION OF PART IV OF CHAPTER 553.60, F.S., ALSO KNOWN AS THE "TRENCH SAFETY ACT" TO PROTECT EXISTING PAVEMENT, STRUCTURES, FOUNDATIONS, AND CONSTRUCTION PERSONNEL DURING CONSTRUCTION OF THE PROJECT.
32. THE CONTRACTOR IS TO MAINTAIN UNINTERRUPTED ACCESS TO ALL DRIVEWAYS AND SIDE STREETS AT ALL TIMES AND IS TO NOTIFY PROPERTY OWNERS FIVE DAYS PRIOR TO STARTED CONSTRUCTION.
33. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING PAVEMENT ELEVATIONS OF ALL DRIVEWAYS AND SIDEWALKS TO MATCH THE PROPOSED PAVEMENT TO THE EXISTING.
34. ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAT THE CONDITION EXISTING. COST TO BE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION WILL BE ALLOWED.
35. ALL CONCRETE SHALL BE MIN. OF 3,000 PSI.
- ~~36. NOTIFY THE FDOT OFFICE 48 HOUR ADVANCE NOTICE PRIOR TO STARTING WORK.~~
- ~~37. MAINTENANCE OF TRAFFIC WHILE WORKING WITHIN THE FDOT RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE F.D.O.T. ROADWAY STANDARD 600 SERIES.~~
- ~~38. ANY DAMAGE CAUSED TO FDOT RIGHT-OF-WAY OR FACILITIES DUE TO CONSTRUCTION ASSOCIATED WITH THIS PROJECT SHALL BE REPAIRED BY CONTRACTOR.~~
- ~~39. NO WORK WILL BE ALLOWED UNTIL AGREEMENT IS SIGNED BY BOTH PARTIES.~~

SUPPLEMENTAL GENERAL NOTES:

1. DISTURBED AREAS SHALL BE COMPACTED (AS A MINIMUM) EQUAL TO ADJACENT UNDISTURBED GROUND EXCEPT WHEN OTHERWISE SPECIFIED. DISTURBED AREAS AND PROPERTIES ADJACENT TO WORK ZONES SHALL BE GRADED TO DRAIN WITHIN THE LIMITS OF CONSTRUCTION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. SOD ALL DISTURBED AREAS ABOVE NWL.
3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONTROL OF EROSION AND THE TRANSPORTATION OF ERODED MATERIALS OFFSITE. THE CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN AT THE PRECONSTRUCTION CONFERENCE FOR APPROVAL BY THE ENGINEER. THE EROSION CONTROL PLAN SHALL ADDRESS THE INSTALLATION AND MAINTENANCE OF ALL TEMPORARY AND PERMANENT SEDIMENT AND EROSION CONTROL DEVICES TO BE UTILIZED DURING EACH PHASE OF CONSTRUCTION, INCLUDING TREE REMOVAL, CLEARING AND GRUBBING, AND THE HAULING OF EXCAVATED MATERIALS AND BACKFILL. THE PLAN SHALL ALSO DETAIL THE EROSION CONTROL MEASURES TO BE EMPLOYED AT ALL STOCKPILE AND CONSTRUCTION STAGING AREAS.
4. PRIOR TO ANY SCHEDULED INTERRUPTION OF UTILITY SERVICE, THE CONTRACTOR SHALL COORDINATE SUCH INTERRUPTION WITH THE UTILITY PROVIDER AND SHALL PROVIDE A MINIMUM 24-HOUR NOTICE TO THE AFFECTED PARTIES. IN THE CASE OF A WATER MAIN SHUT DOWN, A MINIMUM 24-HOUR NOTICE ALSO SHALL BE PROVIDED TO THE FIRE DEPARTMENT.
5. NO TRENCHES SHALL BE ALLOWED TO REMAIN OPEN OVERNIGHT.
6. WHERE THE REQUIRED MINIMUM SEPARATION BETWEEN UTILITIES IS SPECIFIED, THE DISTANCE SHALL BE MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
7. THE CONTRACTOR SHALL PROVIDE A WRITTEN AND NOTARIZED STATEMENT ON COMPANY LETTERHEAD TO CERTIFY AND WARRANT THAT "ASBESTOS WAS NOT USED IN THE MANUFACTURING, CONSTRUCTION, AND PLACEMENT OF ANY PART OF THE WORK OF THE PROJECT".
8. NO BURNING SHALL BE DONE EXCEPT UPON APPROVAL BY THE JURISDICTIONAL MUNICIPALITY.
9. THE LIMITS OF CONSTRUCTION ARE DEFINED AS ROADWAY RIGHTS-OF-WAY, ORANGE COUNTY PROPERTIES, DRAINAGE RIGHTS-OF-WAY, PERMANENT DRAINAGE EASEMENTS, AND TEMPORARY CONSTRUCTION EASEMENTS OBTAINED BY THE COUNTY.
10. THE CONTRACTOR SHALL BE ENTIRELY RESPONSIBLE AND LIABLE FOR ALL DAMAGE OR INJURY AS A RESULT OF HIS OPERATIONS TO ALL OTHER ADJACENT PUBLIC AND PRIVATE PROPERTY, LANDSCAPING, TREES, FENCES, UTILITIES, STRUCTURES OF ANY KIND AND APPURTENANCES DURING THE PROGRESS OF THE WORK.
11. ALL ROADWAYS SHALL BE MAINTAINED AND KEPT CLEAN DURING CONSTRUCTION. ALL SEDIMENT AND DEBRIS SHALL BE REMOVED/CLEANED IMMEDIATELY.

GENERAL PAY ITEM NOTES:

1. No separate payment will be made for dewatering and pumping. The costs for dewatering and pumping shall be included in the unit price for Inlets.
2. No separate payment will be made for geotextile fabric or filter fabric. The costs for these items shall be included in the unit price for pipes.

STORMWATER PAY ITEM NOTES:

101-1 MOBILIZATION
The lump sum price also shall include all costs for furnishing, installing, relocating and removing the project signs.

102-1 MAINTENANCE OF TRAFFIC
The lump sum price constitutes full compensation for all labor and materials required to implement the approved traffic control plan to safely maintain traffic around or through the work zone not included for payment under other related pay items, including warning and regulatory signs, message boards, drums, barricades, channelizing devices, temporary concrete barrier, warning lights, flaggers, and for the maintenance of existing driveways, temporary pavement, and removal and reinstallation of existing signs in conflict with construction as directed by the engineer. No adjustments will be made to the contract price for increases in contract time.

104-14 PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION
The lump sum price shall include all costs for furnishing, installing, and maintaining silt fence, temporary cofferdams, synthetic bales, floating turbidity barrier, sedimentation barriers, and temporary grassing as shown on the construction plans or directed by the Engineer. Also, includes costs for removal and disposal of captured sediment, removal and disposal of sediment off-site upon completion of construction (including any necessary permits and fees for disposal).

110-1-1 CLEARING AND GRUBBING
Partial payments shall be based upon the estimated lump sum price of clearing & grubbing work completed to the date of the estimate as determined by the Engineer. All partial estimates and payments shall be subject to correction in subsequent estimates and payment. Payment also includes cost for removal and disposal of existing underdrain system.

120-1 EXCAVATION, EMBANKMENT, AND GRADING
Payment shall constitute full compensation for grading of shoulders, slopes, compaction, final dressing, excavation, and all earthworks necessary to complete the project to the lines and grades shown on the plans. Lump sum price also includes work to shape pond side slopes to existing mitered end sections.

425-1-521 INLETS AND MANHOLES
The unit price shall constitute full compensation for all work and materials necessary for the installation of inlets and manholes. Payment includes all materials, foundation preparation, 2-piece covers, bolts, connecting existing pipes, drainage structure inverts, concrete inlet pavement, and all appurtenances necessary to complete the project.

425-3-81 JUNCTION BOX SPECIAL (SUNTREE TECHNOLOGIES SKIMBOSS OR APPROVED EQUAL)
The unit price shall constitute full compensation for all work and materials necessary for the installation of junction boxes. Payment includes all materials, grates, foundation preparation, covers, bolts, connecting existing pipes, drainage structure inverts, Suntree Tech, Inc. Skimboss Filtration Unit (complete) or approved equal, and all appurtenances necessary to complete the project.

430-175-115 CONCRETE PIPE CULVERT
The unit price includes payment for furnishing and installing pipe, furnishing and placing select bedding and backfill, placing regular backfill, dewatering, wrapping of pipe joints with filter fabric, concrete pipe collars, shoring & bracing, restoration of pavement, and video.

522-1 CONCRETE SIDEWALK
The unit price shall constitute full compensation for all labor and materials necessary for the installation of concrete sidewalk. Payment includes all materials, foundation preparation, reinforcing steel, joint forming (or sawing), placing, finishing, and curing.

570-1-2 PERFORMANCE TURF, SOD (MATCH EXISTING)
The unit price constitutes full compensation for furnishing, delivering, protecting, pegs, and installing sod, including site preparation, removal of undesirable plant species, soil amendment, top soil, application of fertilizer, planting, staking, watering, and mowing and maintenance of the area until final completion of the project.


COUNTY REFERENCE NO.	ITEM NO.	DESCRIPTION	EST. QTY.	UNIT
1	101-1	MOBILIZATION	1	LS
2	102-1	MAINTENANCE OF TRAFFIC	1	LS
3	104-14	PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION	1	LS
4	110-1-1	CLEARING & GRUBBING	1	LS
5	120-1	EXCAVATION , EMBANKMENT & GRADING	1	LS
6	425-1-521	INLETS (DT BOT) (TYPE C) (SLOTS) (<10')	1	EA
7	425-3-81	JUNCTION BOX (SPECIAL, <10') (NUTRIENT SEPARATING BAFFLE BOX & POLLUTANT REMOVAL MEDIA)	1	EA
8	430-175-115	PIPE CONC CULV (CLASS III) (15")	38	LF
9	522-1	CONCRETE SIDEWALK, 4" THICK	22	SY
10	570-1-2	PERFORMANCE TURF (SOD)	1,568	SY
11	900-1	AS-BUILT CERTIFICATIONS	1	LS
12	900-2	INDEMNIFICATION	1	LS
13	900-3	GROUNDWATER TREATMENT & DISPOSAL	120	DY

SUMMARY OF EARTHWORK QUANTITIES	
EXCAVATION (CY)	EMBANKMENT (CY)
10982	28

Revision	Date	Approved

Designed by: BRW
Drawn by: BRW/HMD
Checked by: RBG
Approved by: BRW
Vertical Datum: 1988

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING



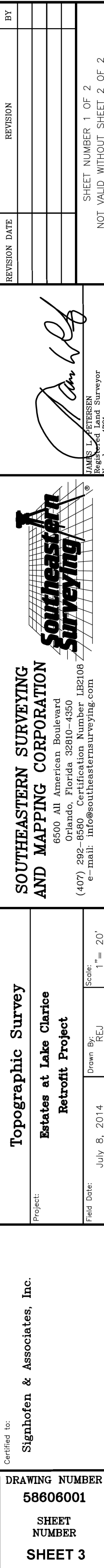
11723 Orington Street, Suite 100
Orlando, Florida 32817
Ph: (407) 679-3001
Fax: (407) 679-2691
DBPR No. 5112

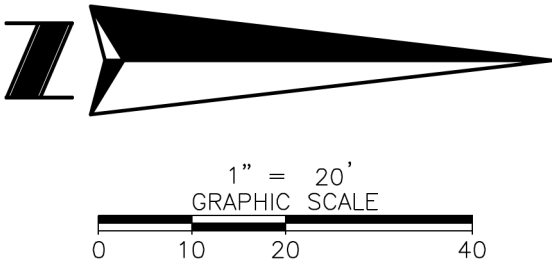
ORANGE COUNTY
PUBLIC WORKS DEPARTMENT
STORMWATER MANAGEMENT DIVISION

ESTATES AT LAKE CLARICE
RETROFIT PROJECT

GENERAL & PAY ITEM NOTES

SHEET
2
SAI
JOB No.
2013-029.20

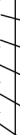




REVISION DATE	REVISION	BY

SHEET NUMBER 2 OF 2
NOT VALID WITHOUT SHEET 1 OF 2

SHEET NUMBER 2 OF 2
NOT VALID WITHOUT SHEET 1 OF 2



**SOUTHEASTERN SURVEYING
AND MAPPING CORPORATION**
6500 All American Boulevard
Orlando, Florida 32810-4350
(407) 292-8580 Certification Number LB2108
e-mail: info@southeasternsurveying.com

Topographic Survey

Project: **Estates at Lake Clarice
Retrofit Project**

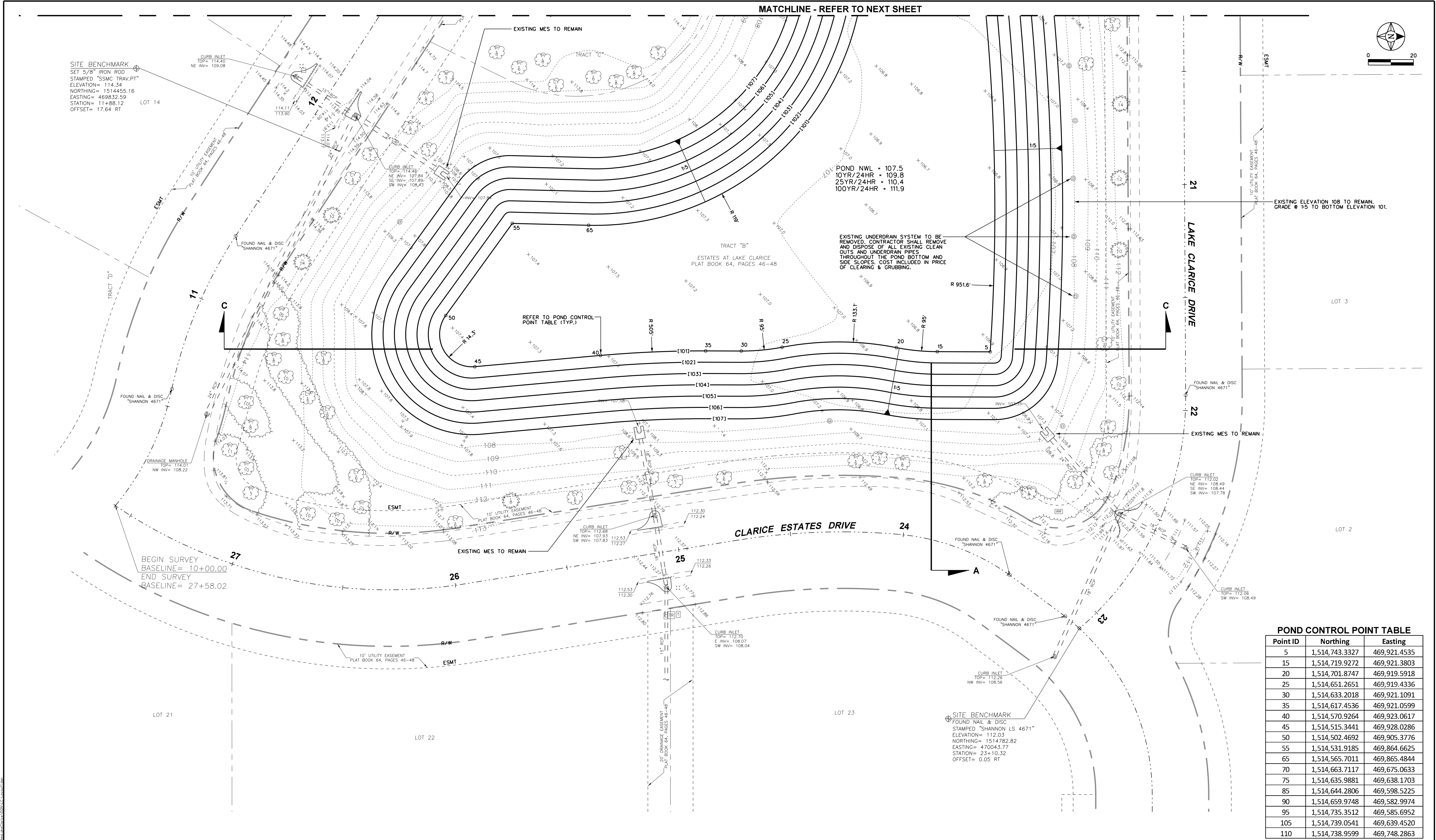
Field Date:	July 8, 2014	Drawn By:	REJ	Scale:	1"=20'
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SEE SHEET 1 FOR NOTES,
LEGEND AND DESCRIPTION.

DRAWING NUMBER
58606001

SHEET
NUMBER

SHEET 4



POND CONTROL POINT TABLE		
Point ID	Northing	Easting
5	1,514,743.3327	469,921.4535
15	1,514,719.9272	469,921.3803
20	1,514,701.8747	469,919.5918
25	1,514,651.2651	469,919.4336
30	1,514,633.2018	469,921.1091
35	1,514,617.4536	469,921.0599
40	1,514,570.9264	469,923.0617
45	1,514,515.3441	469,928.0286
50	1,514,502.4692	469,905.3776
55	1,514,531.9185	469,864.6625
65	1,514,565.7011	469,865.4844
70	1,514,663.7117	469,675.0633
75	1,514,635.9881	469,638.1703
85	1,514,644.2806	469,598.5225
90	1,514,659.9748	469,582.9974
95	1,514,735.3512	469,585.6952
105	1,514,739.0541	469,639.4520
110	1,514,738.9599	469,748.2863

Revision	Date	Approved

Designed by: BRW
Drawn by: BRW/HMD
Checked by: RBG
Approved by: BRW
Vertical Datum: 1988

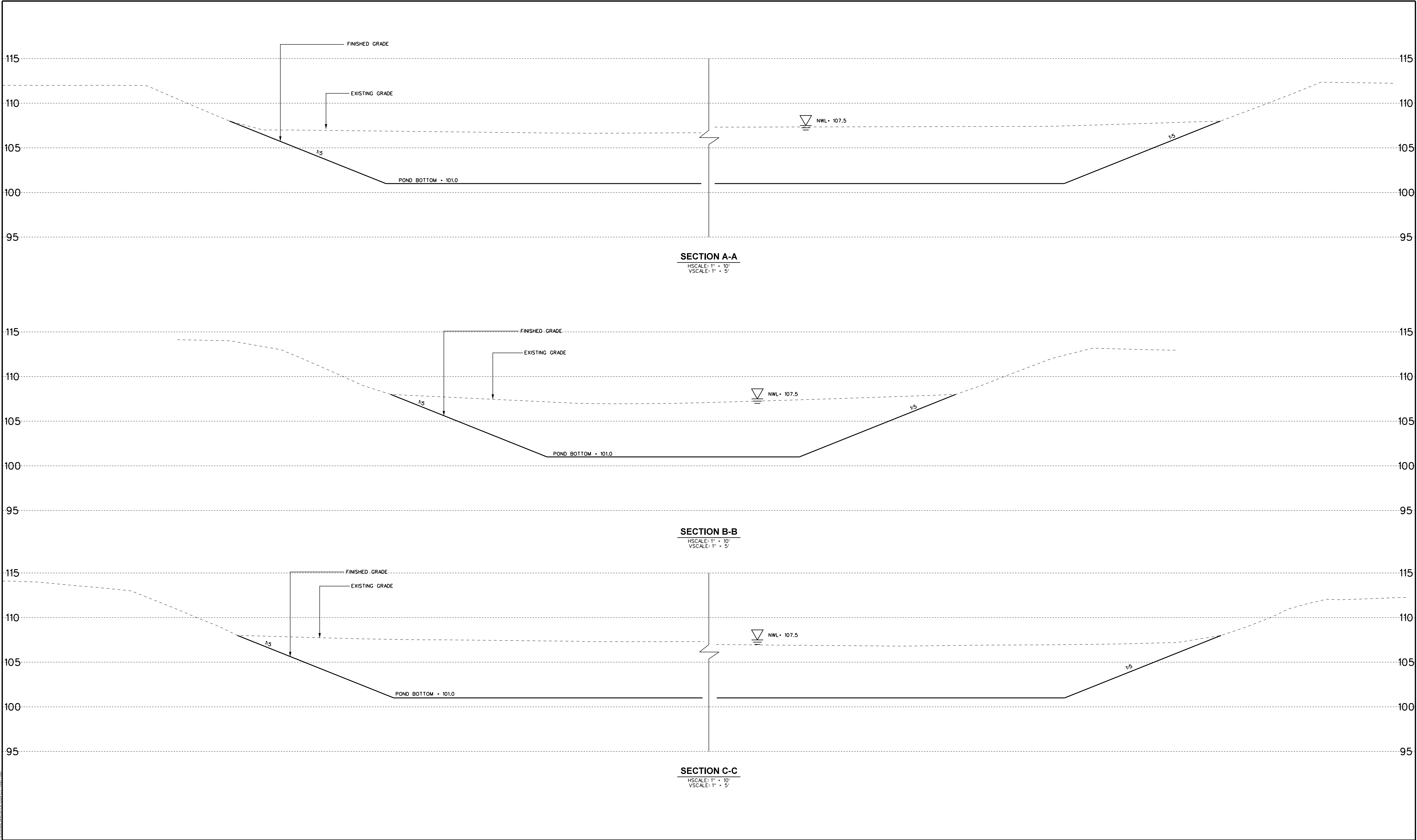
SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING

SAI 11723 Orpington Street, Suite 100
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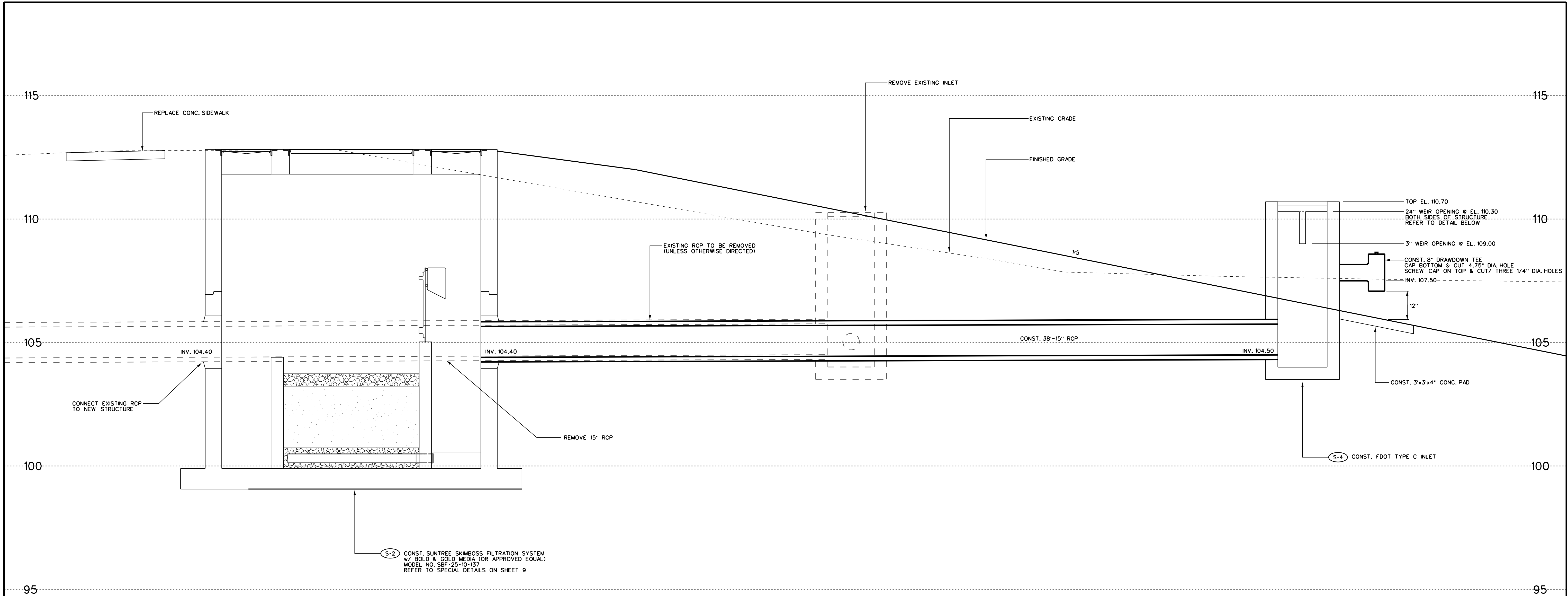
**ORANGE COUNTY
PUBLIC WORKS DEPARTMENT
STORMWATER MANAGEMENT DIVISION**

**ESTATES AT LAKE CLARICE
RETROFIT PROJECT**

SITE LAYOUT AND GRADING PLAN

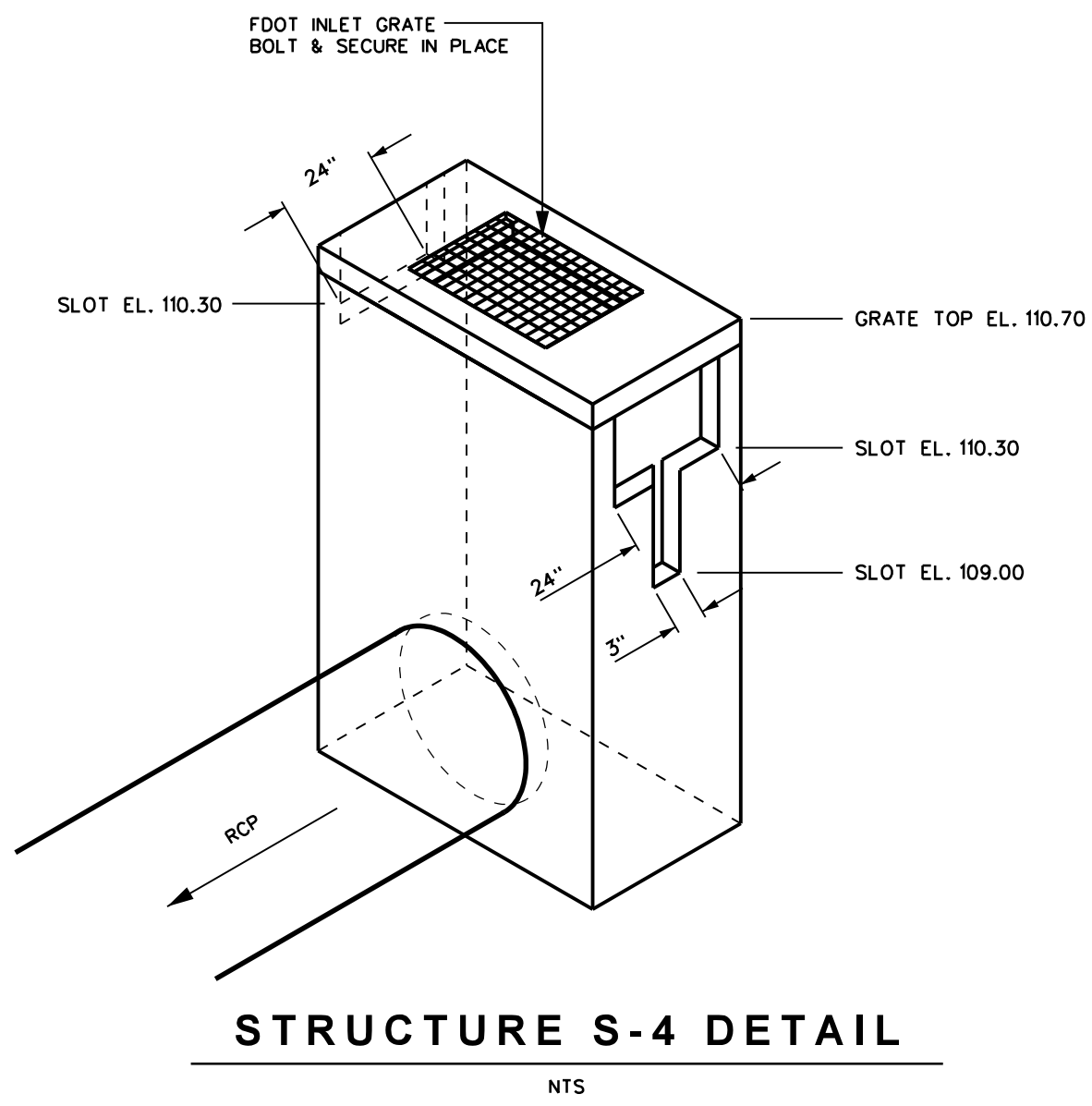


Revision			Date	Approved	Designed by: BRW	<div>SINGHOFEN & ASSOCIATES, INC. STORMWATER MANAGEMENT AND CIVIL ENGINEERING</div> <div><div>SAI</div><div>11723 Orpington Street, Suite 100 Orlando, Florida 32817 Ph: (407) 679-3001 Fax: (407) 679-2691 DBPR No. 5112</div></div>	ORANGE COUNTY PUBLIC WORKS DEPARTMENT STORMWATER MANAGEMENT DIVISION	ESTATES AT LAKE CLARICE RETROFIT PROJECT	CROSS SECTIONS	SHEET 7 SAI JOB No. 2013-029.20
					Drawn by: BRW/HMD					
					Checked by: RBG					
					Approved by: BRW					
					Vertical Datum: 1988					



OUTFALL STRUCTURE MODIFICATION DETAIL

SCALE: 1"=2'



Revision	Date	Approved

Designed by: BRW
 Drawn by: BRW/HMD
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SINGHOFEN & ASSOCIATES, INC.
 STORMWATER MANAGEMENT AND CIVIL ENGINEERING
 11723 Orpington Street, Suite 100
 Orlando, Florida 32817
 Ph: (407) 679-3001
 Fax: (407) 679-2691
 DBPR No. 5112

**ORANGE COUNTY
 PUBLIC WORKS DEPARTMENT
 STORMWATER MANAGEMENT DIVISION**

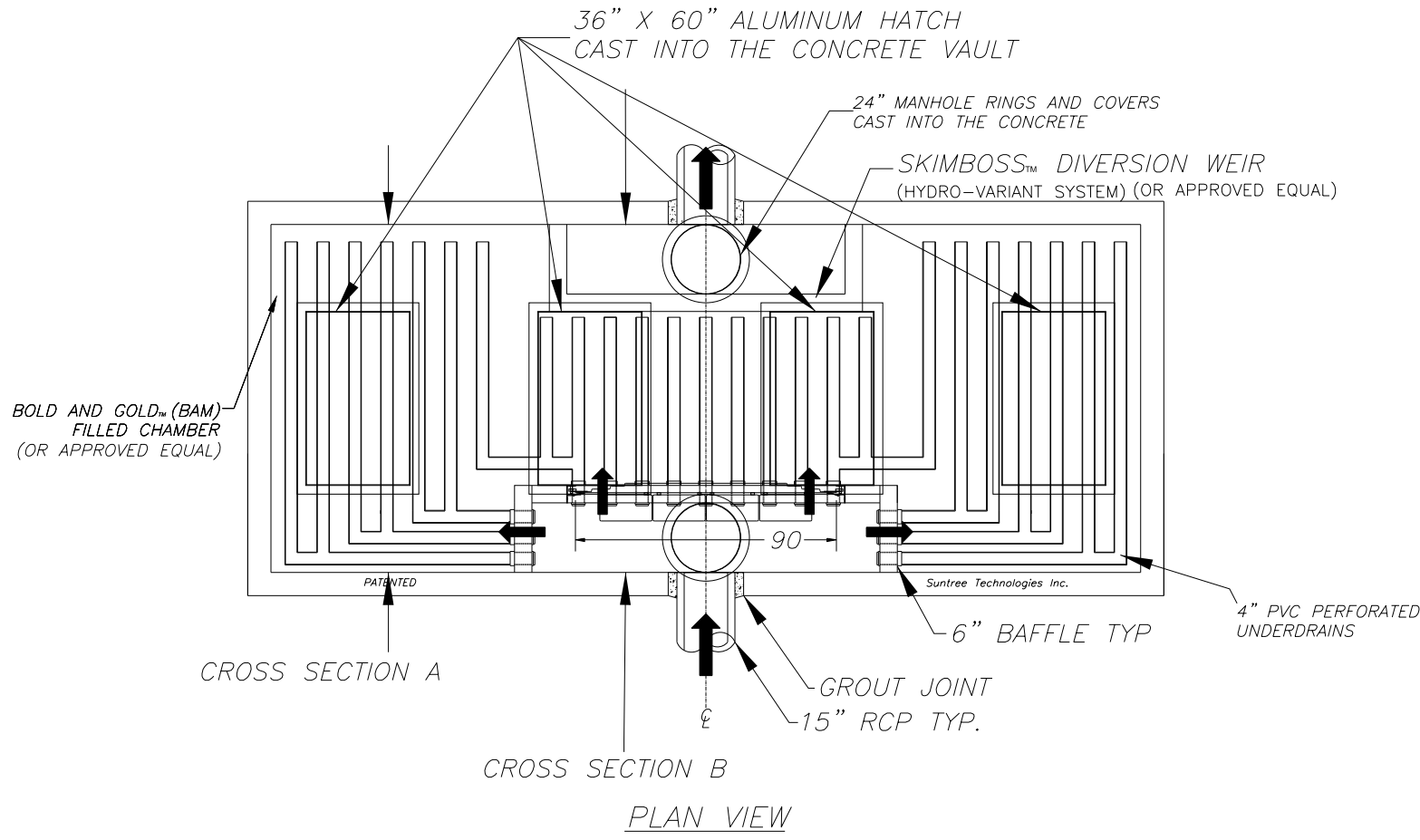
**ESTATES AT LAKE CLARICE
 RETROFIT PROJECT**

OUTFALL STRUCTURE DETAIL

**SHEET
 8**
 SAI
 JOB No.
 2013-029.20

NOTES:

1. 200 SQUARE FEET OF BOLD AND GOLD (BAM) IN A LAYER 30" DEEP. (OR APPROVED EQUAL)
2. FILTER IS AN UP FLOW SYSTEM.
3. 4" PVC UNDERDRAINS BELOW THE BAM LAYER.
4. HYDRO-SLIDE SERVICE SYSTEM FOR EASY SERVICING OF THE INFLOW AND OUTFLOW SUMPS.
5. SKIMBOSS DIVERSION WEIR INCORPORATES HYDRO-VARIANT TECHNOLOGY SO THAT DURING HIGH FLOW CONDITIONS THE FILTER MEDIA CAN BE BYPASSES WITH MINIMAL EFFECT ON OVERALL FLOW.
6. PRIMARY TREATMENT FLOW RATE TO BE DETERMINED BY A BLEED DOWN ORIFICE ON CONTROL STRUCTURE.

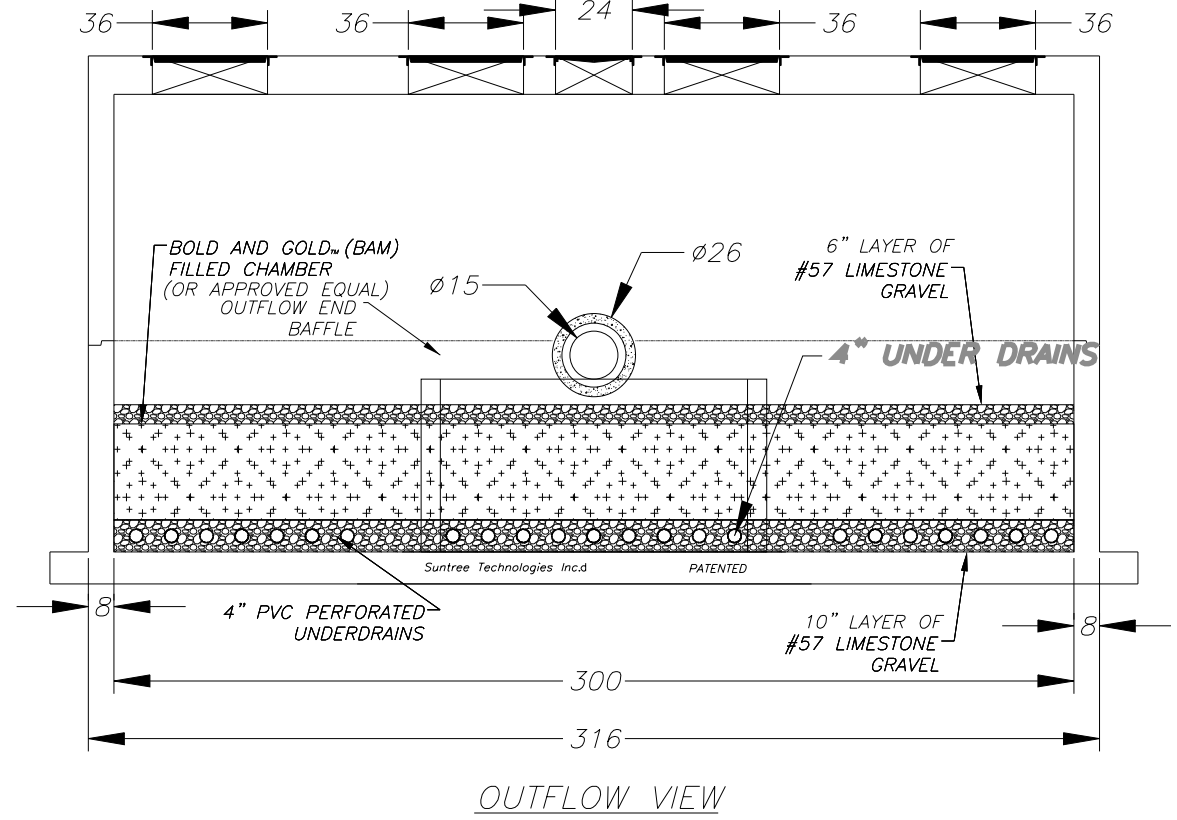
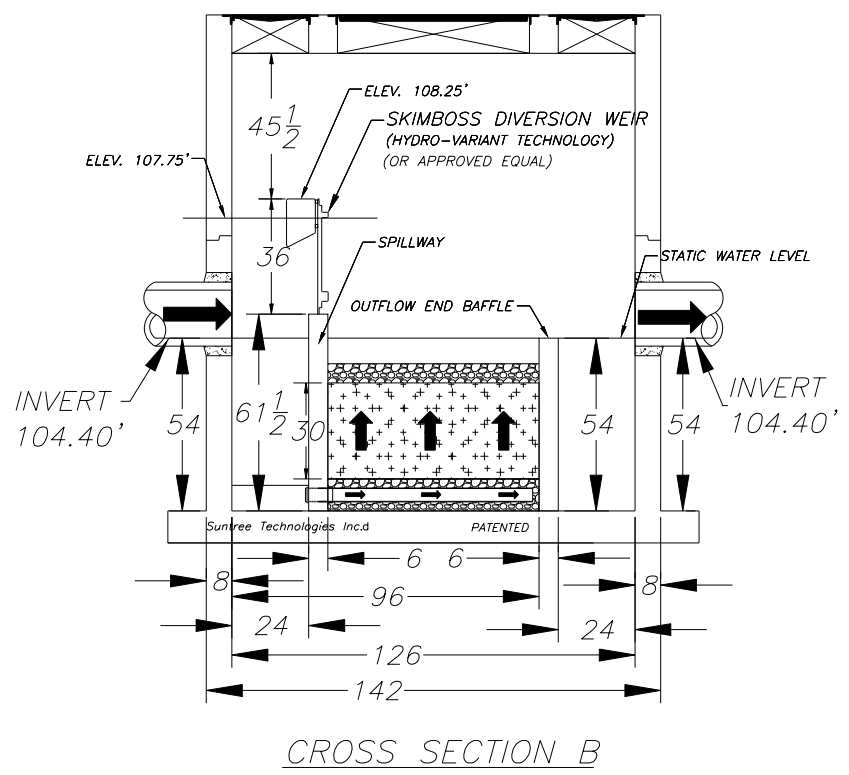
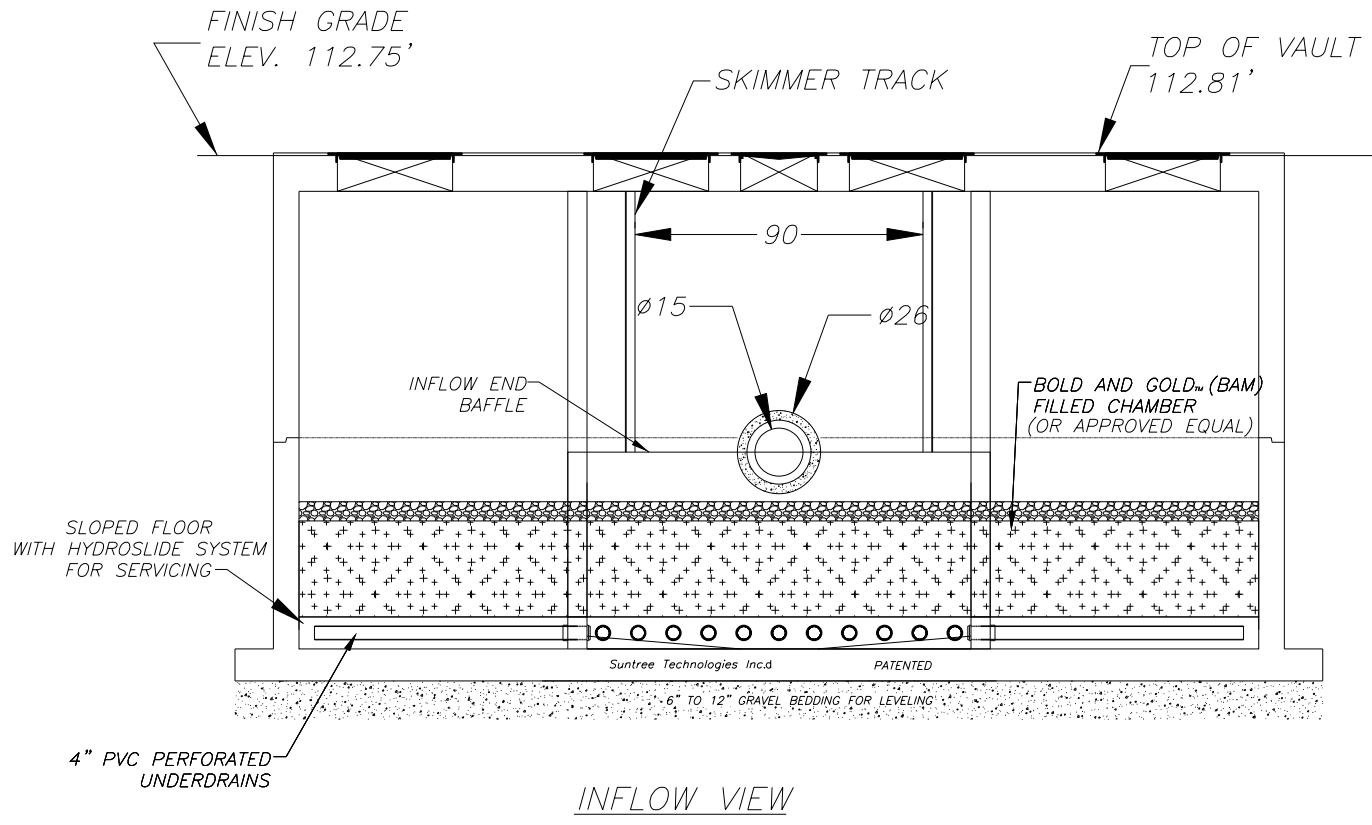
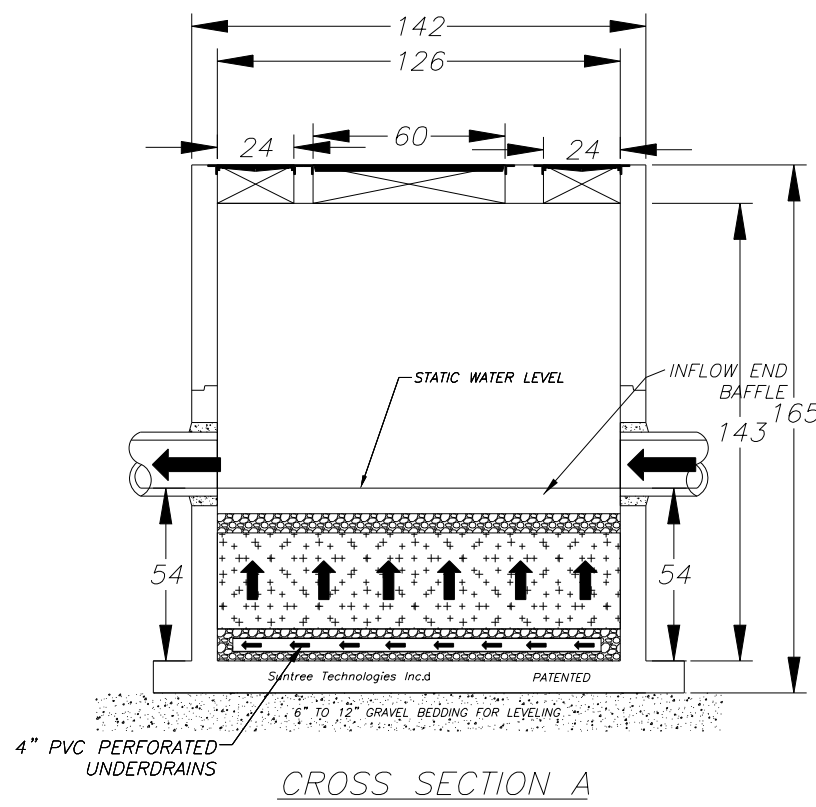


PATENTED
AND PATENTS PEND.

Suntree Technologies Inc. •
798 Clearlake Road, Cocoa, Florida 32922
Ph: 321-637-7552 Fax: 321-637-7554

INSTALLATION NOTES:

1. INFLOW AND OUTFLOW PIPES ARE TO BE FLUSH WITH THE INSIDE SURFACE OF THE CONCRETE STRUCTURE. (CAN NOT INTRUDE BEYOND FLUSH)
2. BAFFLES SHOULD BE SEALED WITH GROUT.
3. BOLD AND GOLD (BAM) TO BE 30" DEEP AND HAVE AN AREA OF 200 SQUARE FEET. (OR APPROVED EQUAL)



NOTES:

7. CONCRETE 28 DAY COMPRESSIVE STRENGTH FC=5000 PSI
8. REINFORCING: ASTM A-615 GRADE 60
9. SUPPORTS AN H20 LOADING AS INDICATED BY AASHTO.
10. JOINT SEALANT: BUTYL RUBBER SS-S-00210
11. ALL WALLS TO BE 8" THICK, BOTTOM TO BE 10" THICK, AND TOP TO BE 12" THICK.

SUNTREE TECHNOLOGIES, INC. • 798 CLEARLAKE RD, SUITE #2 COCOA, FL 32922		PROJECT: LAKE CLARICE DRAWING # 4-09-12-14-01	
NUTRIENT SEPARATING BAFFLE BOX • MODEL NO. NSBB-25-10-137-LAKE CLARICE		FILE NAME: NSBB-25-10-137-LAKE CLARICE	
DATE:	SCALE: SF = 72	REVISIONS:	DATE:
DRAFTER: T.H.2.	UNITS = INCHES	REVISIONS:	DATE:

NOTES:
SUNTREE TECHNOLOGIES, INC.
MODEL No. NSBB-25-10-137-LAKE CLARICE
OR APPROVED EQUAL BY ENGINEER.

CLEAN OUTS SHALL BE PROVIDED AT
EACH UNDERDRAIN

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ORANGE COUNTY
PUBLIC WORKS DEPARTMENT
STORMWATER MANAGEMENT DIVISION

ESTATES AT LAKE CLARICE
RETROFIT PROJECT

UPFLOW FILTER DETAILS

SHEET
9
SAI
JOB No.
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