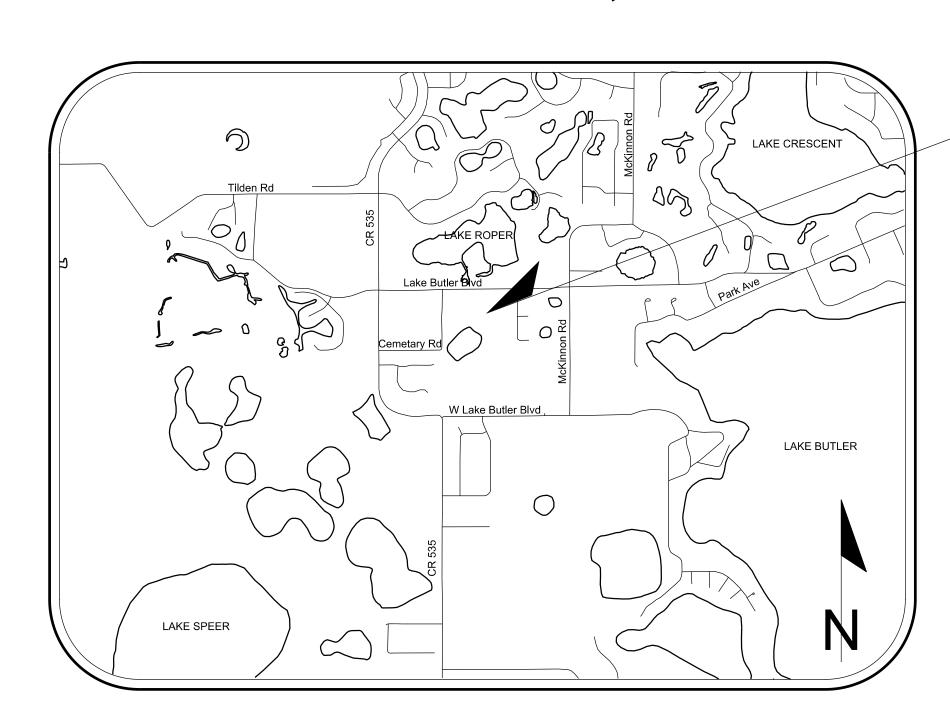


CONSTRUCTION PLANS FOR ESTATES AT LAKE CLARICE RETROFIT PROJECT

	INDEX OF SHEETS
SHEET	DESCRIPTION
1	COVER SHEET
2	GENERAL AND PAY ITEM NOTES
3	SURVEY
4	SURVEY
5	SITE LAYOUT AND GRADING PLAN
6	SITE LAYOUT AND GRADING PLAN
7	CROSS SECTIONS
8	OUTFALL STRUCTURE DETAIL
9	UPFLOW FILTER DETAILS
10	STORMWATER POLLUTION PREVENTION PLAN

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.

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

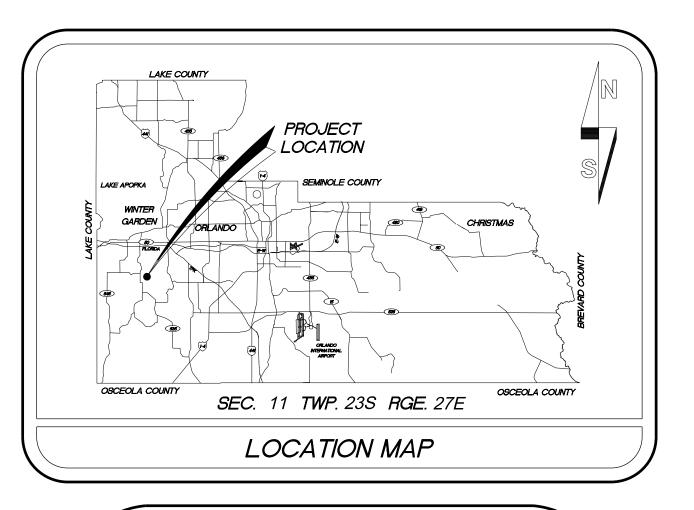
NOTE

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.



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):	_ <i>407-254-9672</i>
ELECTRIC (DUKE ENERGY):	_ 407-942-9421
ELECTRIC TRANSMISSION (DUKE ENERGY):	_ <i>407-942-9498</i>
TELEPHONE/CABLE (ORLANDO TELEPHONE CO.):	407-996-1149
TELEPHONE/CABLE (ATT):	_ <i>813-342-0512</i>
TELEPHONE/CABLE (BRIGHT HOUSE NETWORKS):	_ <i>407-532-8509</i>
TELEPHONE/CABLE (CENTURYLINK):	_ <i>407-814-5344</i>
GAS (LAKE APOPKA NATURAL GAS DISTRICT):	_ <i>407-656-2734</i>



PREPARED BY:
SINGHOFEN & ASSOCIATES, INC.
11723 ORPINGTON STREET, SUITE 100
ORLANDO, FLORIDA 32817
PH: (407) 679-3001
FAX: (407) 679-2691

REVISIONS	DATE	BY

_			
[DESIGNED BY:	BRW
		DRAWN BY:	BRW/HMD
		CHECKED BY:	RBG
		APPROVED BY:	BRW
ackslash		PROJECT NO:	2013-029.20
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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.
- 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
- 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 lalets
- 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

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			
TITIES			
EMBANKMENT			
(CY)			
28			

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	-			Approved by:	BRW
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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

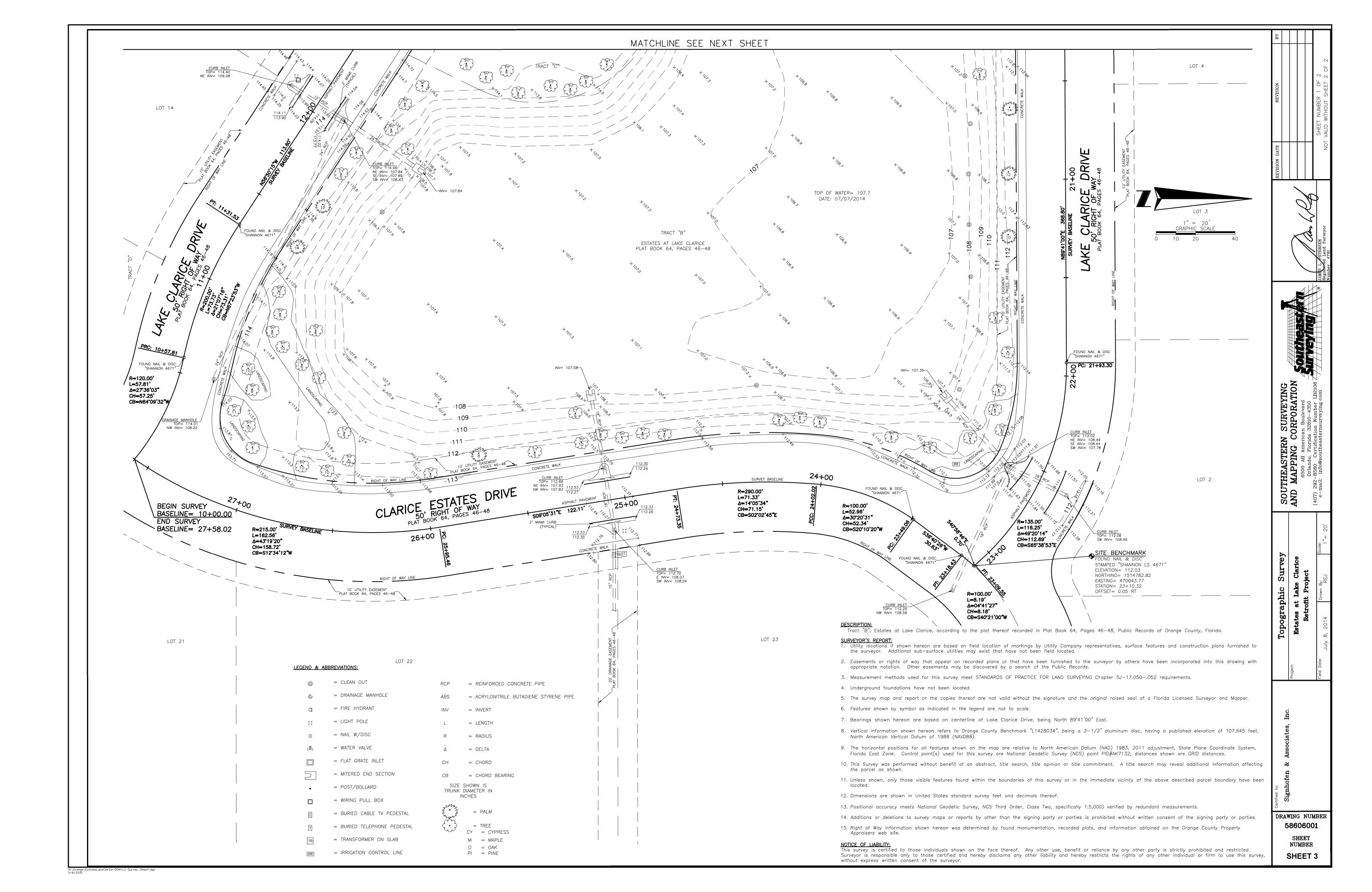
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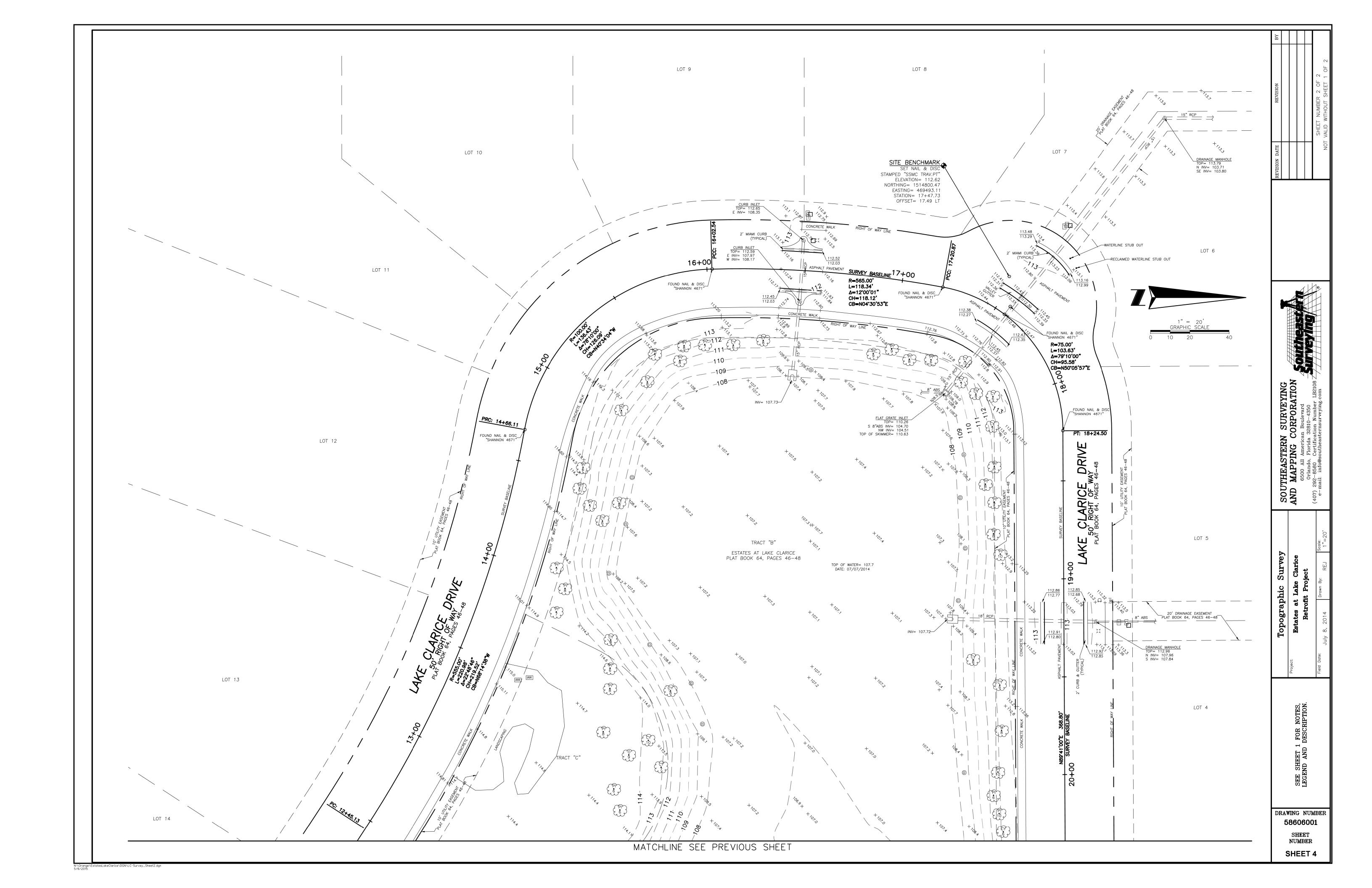
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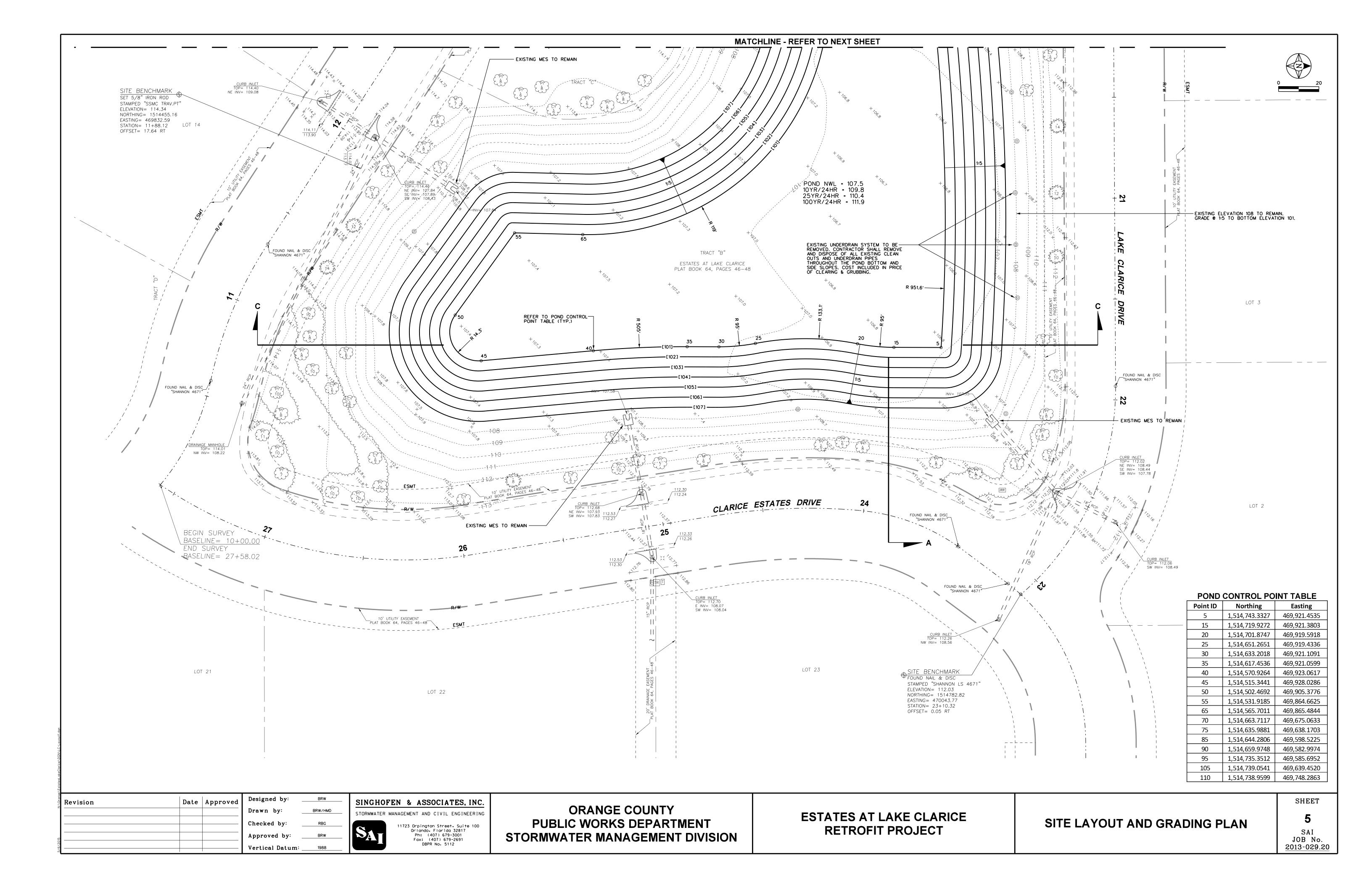
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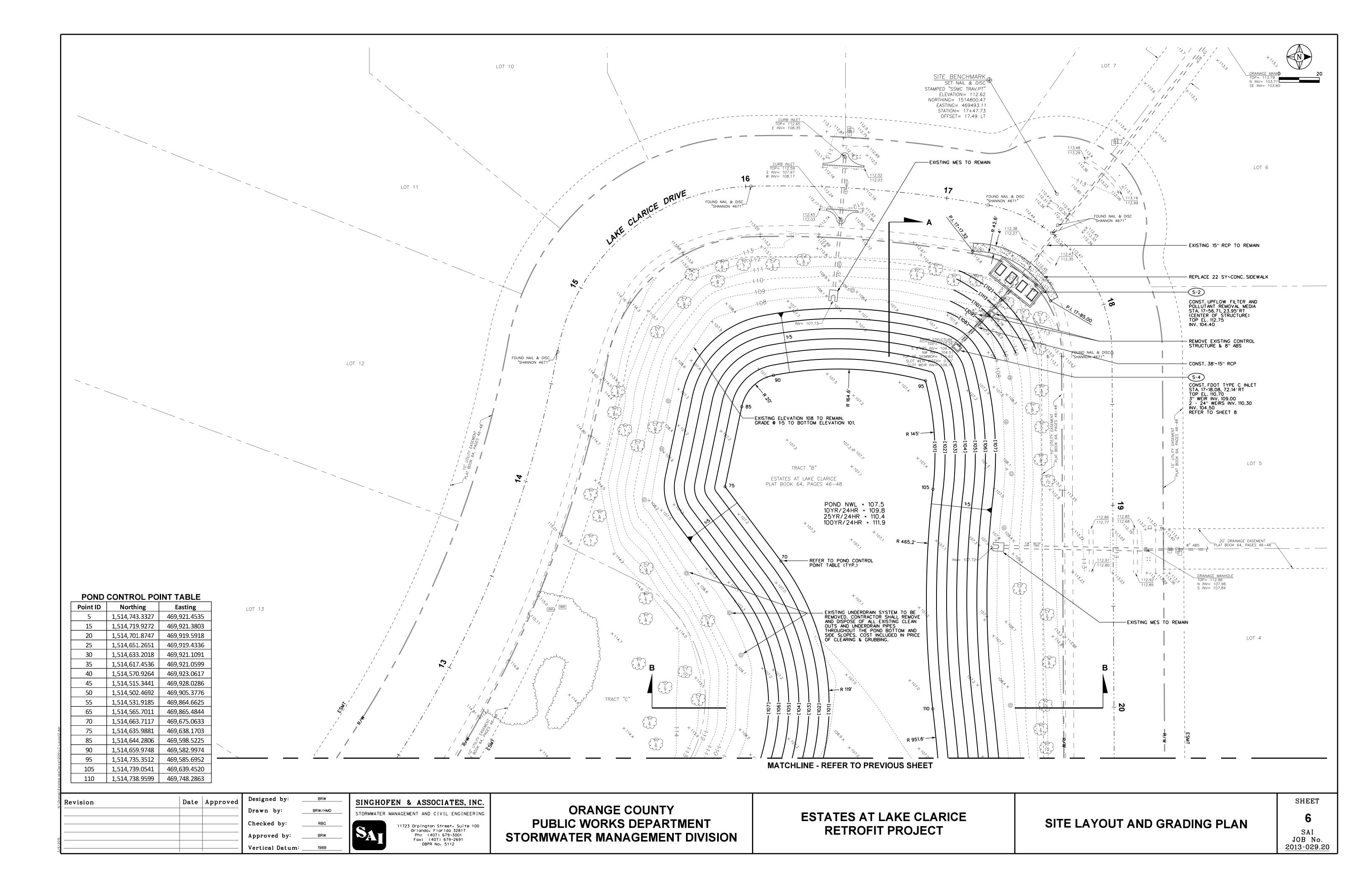
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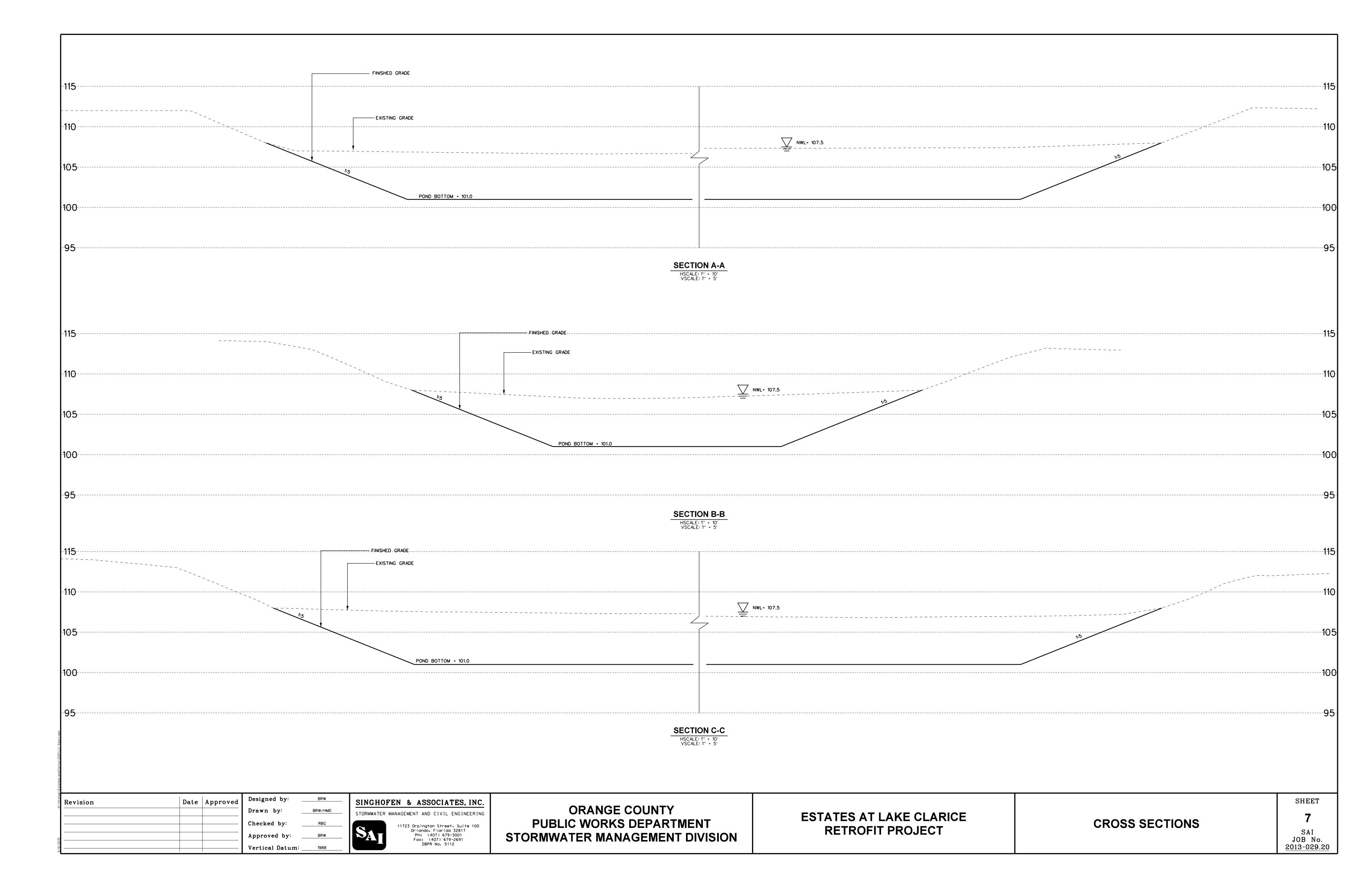
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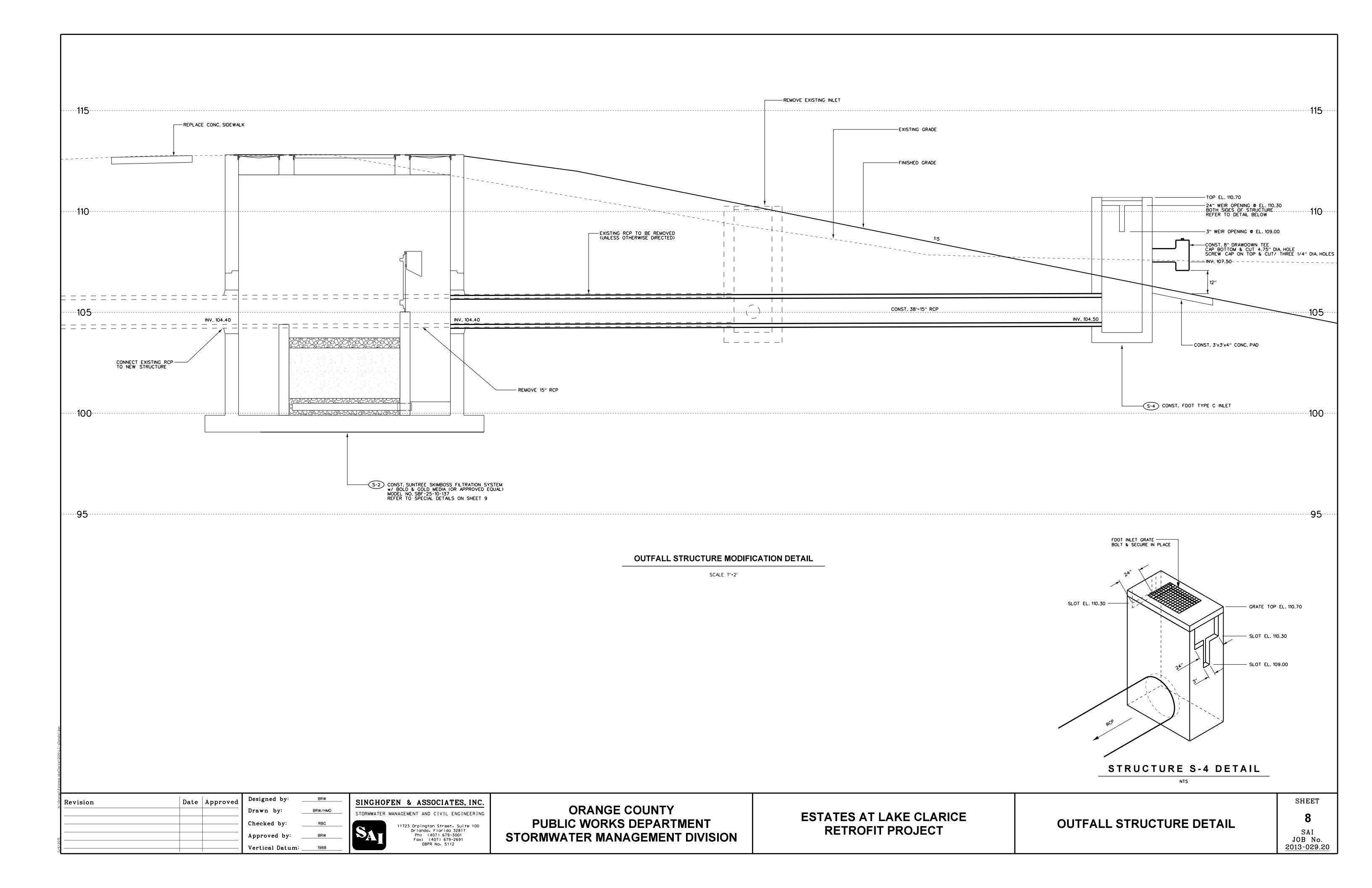


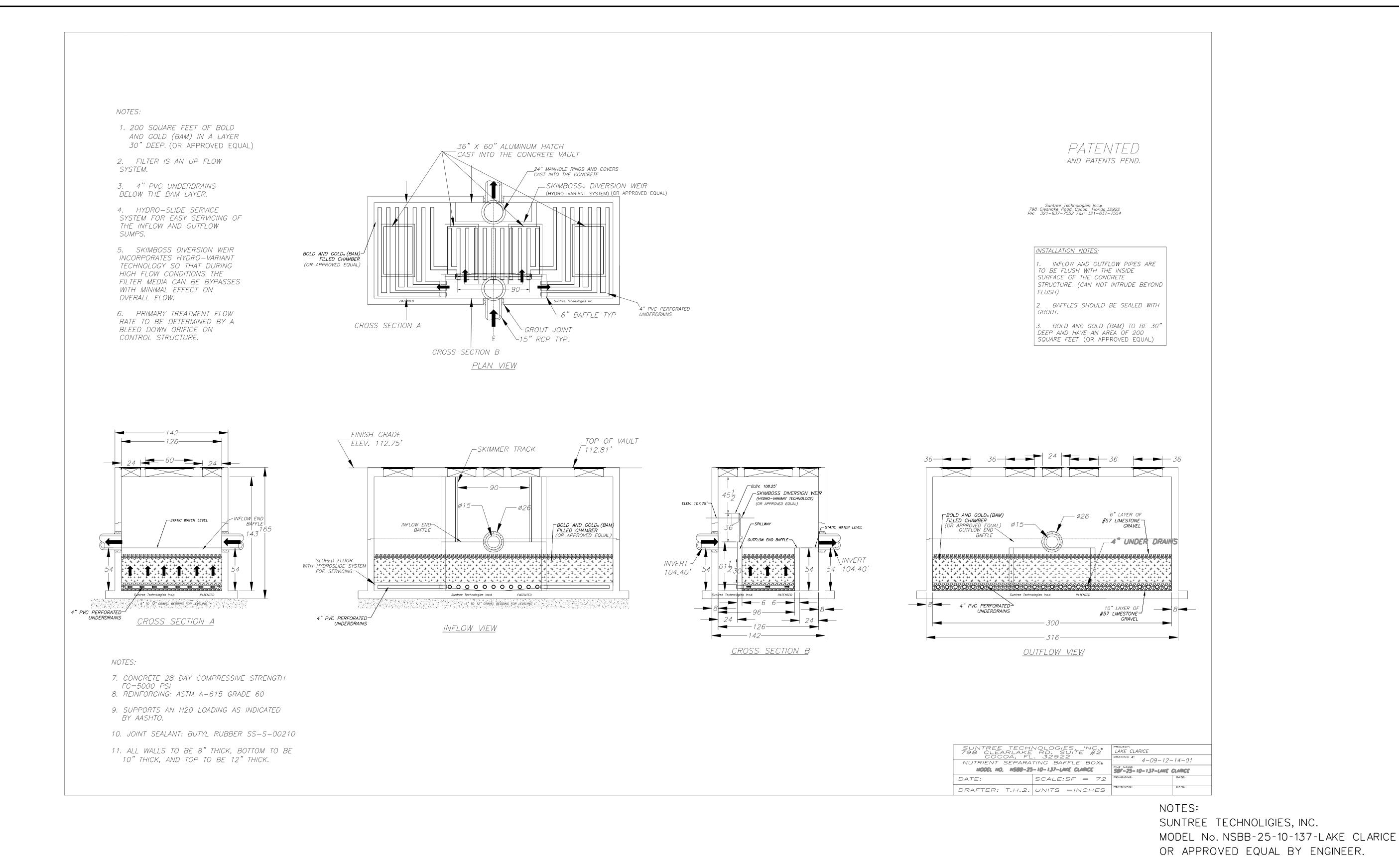












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Designed by:

Drawn by:

Checked by:

Approved by:

BRW/HMD

RBG

BRW

BRW

BRW

BRW

SINGHOFEN & ASSOCIATES, INC.

STORMWATER MANAGEMENT AND CIVIL ENGINEERING

11723 Orpington Street, Suite 100
Orlando, Florida 32817
Ph: (407) 679-3001
Fax: (407) 679-2691

ORANGE COUNTY
PUBLIC WORKS DEPARTMENT
STORMWATER MANAGEMENT DIVISION

ESTATES AT LAKE CLARICE RETROFIT PROJECT

UPFLOW FILTER DETAILS

EACH UNDERDRAIN

CLEAN OUTS SHALL BE PROVIDED AT

SHEET

9
SAI
JOB No.

2013-029.20

THE FOLLOWING NARRATIVE IS THE STORMWATER POLLUTION PREVENTION PLAN AND CONTAINS REFERENCES TO THE FDOT STANDARD SPECIFICATIONS, FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (2012/13), AND OTHER SHEETS OF THESE CONSTRUCTION DOCUMENTS. THE FIRST SHEET OF THE CONSTRUCTION PLANS (CALLED THE KEY SHEET) CONTAINS AN INDEX TO THE OTHER SHEETS. THE COMPLETE STORMWATER POLLUTION PREVENTION PLAN INCLUDES SEVERAL ITEMS:

- THIS NARRATIVE DESCRIPTION,
- THE DOCUMENTS REFERENCED IN THIS NARRATIVE,
- THE CONTRACTOR'S APPROVED EROSION CONTROL PLAN REQUIRED BY SECTION 104 OF THE FDOT STANDARD
- REPORTS OF INSPECTION MADE DURING CONSTRUCTION.

SITE DESCRIPTION

1.A NATURE OF CONSTRUCTION ACTIVITY

THE SUBJECT SITE IS LOCATED IN SECTION 11, TOWNSHIP 23 SOUTH, RANGE 27 EAST WITHIN THE LAKE APOPKA DRAINAGE BASIN IN ORANGE COUNTY, FLORIDA. THE EXISTING DRY POND IS BEGIN CONVERTED TO A WET DETENTION FACILITY IN ADDITION TO THE ADDITION OF A FILTRATION SYSTEM DOWNSTREAM OF THE EXISTING CONTROL

1.B SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A DETAILED SEQUENCE OF CONSTRUCTION FOR ALL CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF MAJOR ACTIVITIES DESCRIBED BELOW, UNLESS THE CONTRACTOR PROPOSES A DIFFERENT SEQUENCE THAT IS EQUAL OR BETTER AT CONTROLLING EROSION AND TRAPPING SEDIMENT AND IS APPROVED BY THE COUNTY.

INSTALL TURBIDITY BARRIERS.

- 2. INSTALL SILT FENCE CONTINUOUSLY ALONG THE WORK ZONE AS NECESSARY
- 3. STABILIZE DISTURBED AREAS AND SOD AS WORK IS COMPLETED FOR EACH WORK ZONE.
- 4. THE CONTRACTOR SHALL NOT LEAVE AN AREA UNPROTECTED FROM EROSION.

1.C AREA ESTIMATES

ALL ESTIMATES ARE BASED ON AREAS LIKELY TO BE IMPACTED BY CONSTRUCTION ACTIVITY. THE COUNTY CANNOT DICTATE MEANS AND METHODS OF THE CONTRACTOR. THEREFORE, AREAS OF DISTURBANCE ARE DIFFICULT TO DETERMINE PRIOR TO SELECTION OF THE CONTRACTOR AND ESTABLISHMENT OF THE SEQUENCE AND SCHEDULE FOR CONSTRUCTION. THE TOTAL ESTIMATED IMPACTS ARE APPROXIMATELY 2.7 ACRES.

1.D STORMWATER DATA

THIS IS A STORMWATER MAINTENANCE PROJECT TO IMPROVE TREATMENT CAPACITY OF THE EXISTING POND.

SOIL BORINGS HAVE NOT BEEN PERFORMED FOR THIS PROJECT.

1.F OUTFALL INFORMATION DESCRIPTION

NO CHANGES ARE PROPOSED TO THE EXISTING OUTFALL STRUCTURE. AN IN-LINE FILTRATION UNIT WILL BE PLACED IN THE DOWNSTREAM PIPE.

THE CONSTRUCTION PLANS ARE BEING USED AS THE SITE MAPS. THE LOCATION OF THE REQUIRED INFORMATION IS DESCRIBED BELOW. THE SHEET NUMBERS FOR THE PLAN SHEETS REFERENCED ARE IDENTIFIED ON THE KEY SHEET OF

THESE CONSTRUCTION PLANS.

THE EXISTING DRAINAGE BASINS AND FLOW DIRECTIONS REMAIN UNCHANGED.

AREAS OF SOIL DISTURBANCE

THE AREAS OF SOILS TO BE DISTURBED ARE INDICATED ON THE PLAN SHEETS.

THE AREAS NOT TO BE DISTURBED ARE PROPERTIES NOT OWNED BY THE COUNTY.

LOCATIONS OF TEMPORARY CONTROLS THE TEMPORARY EROSION CONTROL MEASURES INCLUDE TURBIDITY BARRIERS AND SILT FENCE AS NEEDED, AND ADDITIONAL MEASURES AS INDICATED IN STATE OF FLORIDA EROSION AND SEDIMENT CONTROL MANUAL, OR

THE LOCATIONS AND TYPES OF ENVIRONMENTAL CONTROL FEATURES SHOWN MAY NOT ADEQUATELY PREVENT EROSION OR THE TRANSPORTATION OF ERODED MATERIALS OFF-SITE DURING EACH PHASE OF CONSTRUCTION. SUPPLEMENTARY SEDIMENT AND EROSION CONTROL DEVICES MAY BE REQUIRED.

LOCATIONS OF PERMANENT CONTROLS

THE PERMANENT EROSION CONTROL MEASURES INCLUDE SODDING OF PERVIOUS AREAS.

AREAS TO BE STABILIZED

TEMPORARY STABILIZATION PRACTICES ARE SHOWN IN THE CONTRACTOR'S EROSION CONTROL PLAN.

THE SURFACE WATER IS THE DRY RETENTION FACILITY FOR THE ESTATES AT LAKE CLARICE SUBDIVISION IN ORANGE COUNTY, FLORIDA. THE POND DISCHARGES TO THE NORTH, TO LAKE ROPER.

DISCHARGE POINTS TO SURFACE WATERS THE DISCHARGE IS SHOWN ON THE PLAN SHEETS.

CONTROLS

2.A. EROSION AND SEDIMENT CONTROLS

IN THE SECTION 104 EROSION CONTROL PLAN. THE CONTRACTOR SHALL DESCRIBE THE PROPOSED STABILIZATION AND STRUCTURAL PRACTICES BASED ON THE CONTRACTOR'S TRAFFIC CONTROL PLAN. THE CONTRACTOR MAY CHOOSE TO ACCEPT THE FOLLOWING GUIDELINES OR MODIEY THEM IN THE SECTION 104 EROSION CONTROL PLAN. SUBJECT TO APPROVAL OF THE COUNTY ENGINEER. AS WORK PROGRESSES, THE CONTRACTOR SHALL MODIFY THE PLAN TO ADAPT TO SEASONAL VARIATION, CHANGES IN CONSTRUCTION ACTIVITIES, AND THE NEED FOR BETTER PRACTICES.

2.A.1 STABILIZATION PRACTICES

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE STABILIZATION PRACTICES PROPOSED TO CONTROL EROSION. THE CONTRACTOR SHALL INITIATE ALL STABILIZATION MEASURES AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. THE STABILIZATION PRACTICES SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.

TEMPORARY

ARTIFICIAL COVERINGS IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 104. * SOD IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 104.

SOD IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 575.

2.A.2 STRUCTURAL PRACTICES

IN SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED STRUCTURAL PRACTICES TO CONTROL OR TRAP SEDIMENT AND OTHERWISE PREVENT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SEDIMENT CONTROLS SHALL BE IN PLACE BEFORE DISTURBING SOIL UPSTREAM OF THE CONTROL. THE STRUCTURAL PRACTICES SHALL INCLUDE AT LEAST THE FOLLOWING UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.

TEMPORARY

- SILT FENCE IN ACCORDANCE WITH FDOT DESIGN STANDARDS. SANDBAGS TO CONTROL EROSION AND TRAP SILT.
- TURBIDITY BARRIERS IN ACCORDANCE WITH FDOT DESIGN STANDARDS.

PERMANENT * SOD

2.B STORMWATER MANAGEMENT NO CHANGE IN THE DRAINAGE SYSTEM.

2.C OTHER CONTROLS

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS TO PREVENT THE DISCHARGE OF SOLID MATERIALS INCLUDING BUILDING MATERIALS, TO WATERS OF THE UNITED STATES. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING UNLESS OTHERWISE APPROVED

- * PROVIDING LITTER CONTROL AND COLLECTION WITHIN THE PROJECT DURING CONSTRUCTION ACTIVITIES.
- DISPOSING OF ALL FERTILIZER OR OTHER CHEMICAL CONTAINERS ACCORDING TO EPA'S STANDARD
- DISPOSING OF SOLID MATERIALS INCLUDING BUILDING AND CONSTRUCTION MATERIALS OFF THE PROJECT

2.C.2 OFF-SITE VEHICLE TRACKING AND DUST CONTROL

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS FOR MINIMIZING OFFSITE VEHICLE TRACKING OF SEDIMENTS AND GENERATING DUST. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE COUNTY.

COVERING LOADED HAUL TRUCKS WITH TARPAULINS,

PRACTICES AS DETAILED BY THE MANUFACTURER.

SITE BUT NOT IN SURFACE WATERS OR WETLANDS.

- * REMOVING EXCESS DIRT FROM ROADS DAILY.
- USING ROADWAY SWEEPERS DURING DUST GENERATING ACTIVITIES SUCH AS EXCAVATION AND HAULING

2.C.3 STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC TANKS

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED PROCEDURES TO COMPLY WITH APPLICABLE STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, AND SANITARY SEWER OR

2.C.4 FERTILIZERS AND PESTICIDES

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROCEDURES FOR APPLYING FERTILIZERS AND PESTICIDES. THE PROPOSED PROCEDURES SHALL COMPLY WITH APPLICABLE SUBSECTIONS OF EITHER SECTION 570 OR 577 OF THE FDOT SPECIFICATIONS.

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A LIST OF TOXIC SUBSTANCES THAT ARE LIKELY TO BE USED ON THE JOB AND PROVIDE A PLAN ADDRESSING THE GENERATION, APPLICATION, MIGRATION, STORAGE, AND DISPOSAL OF THESE SUBSTANCES.

2.D APPROVED STATE AND LOCAL PLANS AND PERMITS

THIS PROJECT HAS NOT YET BEEN ISSUED A PERMIT BY SJRWMD.

MAINTENANCE

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A PLAN FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROLS THROUGHOUT CONSTRUCTION. THE MAINTENANCE PLAN SHALL AT A MINIMUM, COMPLY WITH

MAINTAIN PER SECTION 104. THE CONTRACTOR SHOULD ANTICIPATE REPLACING SILT FENCE ON 6 MONTH

INTERVALS. ROCK BAGS

REMOVE SEDIMENT WHEN IT REACHES 1/2 HEIGHT OF BAGS OR WHEN WATER PONDS IN UNACCEPTABLE AMOUNTS. THE CONTRACTOR SHOULD ANTICIPATE REPLACING BAGS ON 3 MONTH INTERVALS.

TURBIDITY BARRIERS REMOVE FLOATING DEBRIS WEEKLY.

4. INSPECTIONS

QUALIFIED PERSONNEL SHALL INSPECT THE FOLLOWING ITEMS AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.50 INCHES OR GREATER. TO COMPLY, THE CONTRACTOR SHALL INSTALL AND MAINTAIN RAIN GAGES AND RECORD DAILY RAINFALL. WHERE SITES HAVE BEEN PERMANENTLY STABILIZED, INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH. THE CONTRACTOR SHALL ALSO INSPECT THAT CONTROLS INSTALLED IN THE FIELD AGREE WITH THE LATEST STORMWATER POLLUTION PREVENTION PLAN. AREAS THAT MUST BE INSPECTED INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

- DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED
- * AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
- * STRUCTURAL CONTROLS.
- * STORMWATER MANAGEMENT SYSTEMS.
- * LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

THE CONTRACTOR SHALL INITIATE REPAIRS WITHIN 24 HOURS OF INSPECTIONS THAT INDICATE ITEMS ARE NOT IN GOOD

IF INSPECTIONS INDICATE THAT THE INSTALLED STABILIZATION AND STRUCTURAL PRACTICES ARE NOT SUFFICIENT TO MINIMIZE EROSION, RETAIN SEDIMENT, AND PREVENT DISCHARGING

POLLUTANTS, THE CONTRACTOR SHALL PROVIDE ADDITIONAL MEASURES, AS APPROVED BY THE COUNTY NON-STORMWATER DISCHARGES

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL IDENTIFY ALL ANTICIPATED NON-STORM WATER DISCHARGES (EXCEPT FLOWS FROM FIRE FIGHTING ACTIVITIES). THE CONTRACTOR SHALL DESCRIBE THE PROPOSED MEASURES TO PREVENT POLLUTION OF THESE NON-STORM WATER DISCHARGES SUCH AS

DEWATERING

THE CONTRACTOR SHALL DEVELOP, AS NEEDED, ANY DEWATERING SYSTEM THAT PROVIDES PRETREATMENT OF EFFLUENT PRIOR TO DISCHARGE ALONG WITH MEETING ANY FEDERAL, STATE, AND LOCAL DEWATERING PERMIT LAWS, RULES, AND REGULATIONS. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN PERMITS AND FEES ASSOCIATED

DUST CONTROL

THE CONTRACTOR SHALL DEVELOP IN THE SECTION 104 EROSION CONTROL PLAN A DUST CONTROL PLAN AND REMEDIAL ACTIONS TO CORRECT ANY MALFUNCTIONING MEASURES.

EQUIPMENT WASHOUT

HAZARDOUS MATERIAL SPILL

THE CONTRACTOR SHALL DEVELOP IN THE SECTION 104 EROSION CONTROL PLAN AN EFFECTIVE PLAN TO CONTROL EQUIPMENT WASHOUT AND OTHER EROSIVE CONDITIONS FROM EQUIPMENT CLEANING PROCESSES, AND REMEDIAL ACTIONS TO CORRECT ANY MALFUNCTIONING MEASURES.

THE CONTRACTOR SHALL DEVELOP IN SECTION 104 EROSION CONTROL PLAN AN EFFECTIVE PLAN TO CONTROL IN

THE EVENT ANY HAZARDOUS MATERIALS SHOULD SPILL AND REMEDIAL ACTION TO CORRECT ANY MALFUNCTIONING

FRAME & FILTER BARRIER FOR AREA DRAINS

PLACE TWO OR MORE SETS OF SAND BAGS IN A MANNER THAT RESULTS IN MAXIMUM SUPPORT. THE FLOW LINE BAG MUST BE LOWER THAN THE TOP OF THE CURB. SIDEWALK SEDIMENT LADEN FLOWS FLOOD FLOWS DEPOSTION ZONE

STATE OF FLORIDA EROSION & SEDIMENT CONTROL - DESIGNER & REVIEWER MANUAL

Figure V-50: Illustration of a Curb and Gutter Sediment Containment System

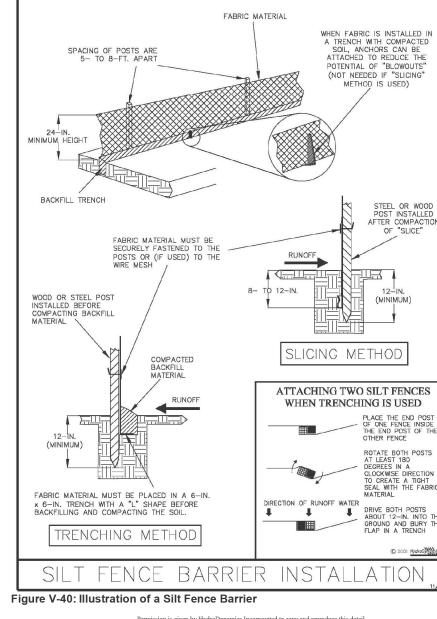
BEFORE PLACING IN THE GUTTER

NOTE: FILL SAND BAGS ABOUT 2/3 FULL

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CURB AND GUTTER SEDIMENT CONTAINMENT SYSTEM

SPACING



STATE OF FLORIDA EROSION & SEDIMENT CONTROL - DESIGNER & REVIEWER MANUAL

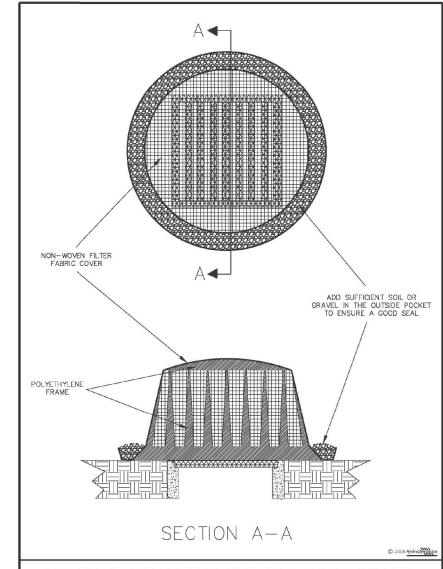


Figure V-47: Illustration of a Frame & Filter Barrier for Area Drains

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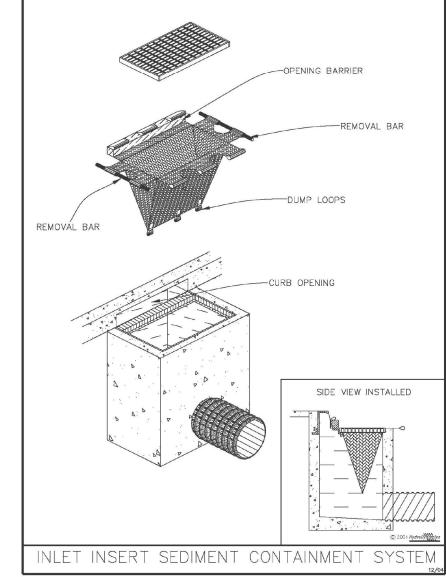


Figure V-51: Illustration of an Inlet Insert Sediment Containment System

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STORMWATER POLLUTION

SHEET SAI JOB No. 2013-029.20

Designed by: Date | Approved Revision Drawn by: Checked by: Approved by: Vertical Datum:

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ORANGE COUNTY PUBLIC WORKS DEPARTMENT STORMWATER MANAGEMENT DIVISION

ESTATES AT LAKE CLARICE RETROFIT PROJECT

PREVENTION PLAN