

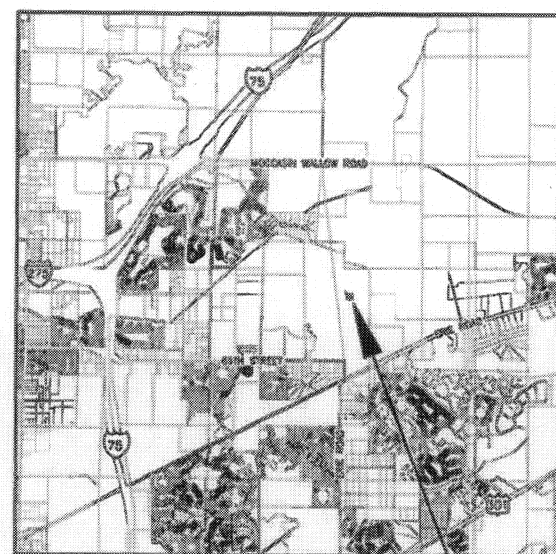
# MANATEE COUNTY, FLORIDA

## NORTH WATER RECLAMATION FACILITY

### SLUDGE HOLDING IMPROVEMENTS

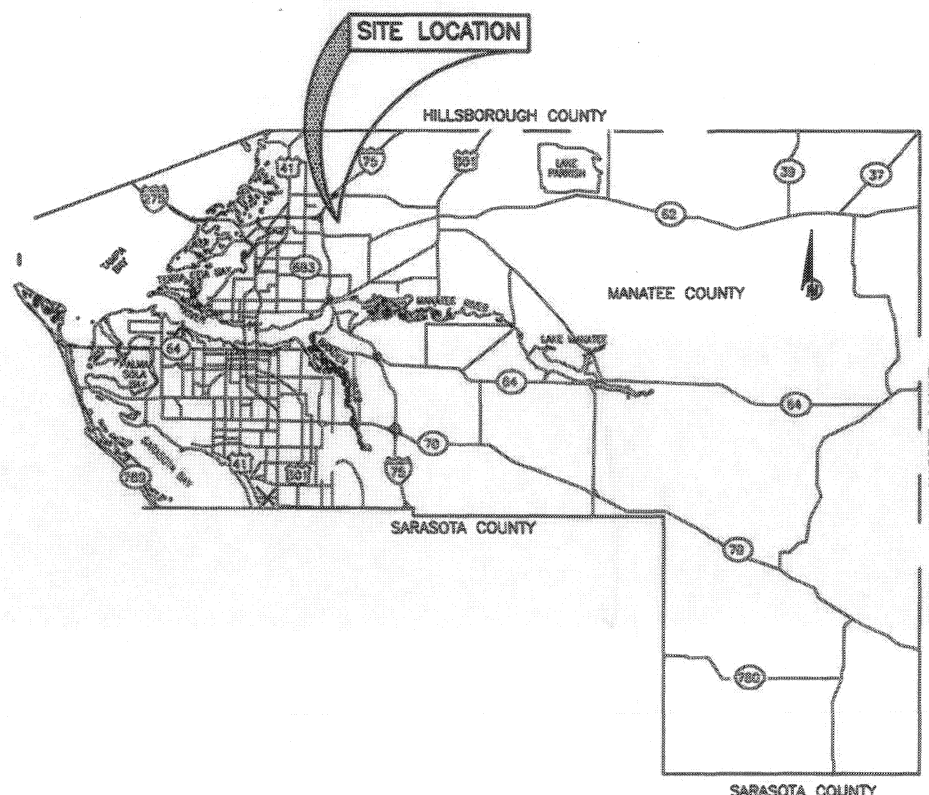
#### 6050581

December 2013



VICINITY MAP  
N.T.S.

PROJECT SITE



#### PROJECT DESCRIPTION

PROJECT INCLUDES IMPROVEMENTS TO THE SLUDGE HOLDING FACILITIES AND REHABILITATION OF EFFLUENT AUTOMATIC BACKWASH FILTERS. THESE IMPROVEMENTS WILL PROVIDE OPERATIONAL RELIABILITY AND FLEXIBILITY. IMPROVEMENTS INCLUDE THE FOLLOWING:

- DEMOLISH AND REPLACE TWO SLUDGE HOLDING TANKS
- INSTALL FINE BUBBLE DIFFUSERS IN THE TWO NEW TANKS
- REPLACE THE AERATION SYSTEM BLOWERS AND MODIFY ASSOCIATED ELECTRICAL AND CONTROL SYSTEMS
- REPLACE AIR PIPING
- MODIFY YARD PIPING AND VALVES TO IMPROVE RELIABILITY AND FLEXIBILITY OF SLUDGE TRANSFER FROM THE HOLDING TANKS TO THE BELT FILTER PRESSES.
- EXTEND THE CATWALK AT THE EXISTING SLUDGE HOLDING TANK
- REHABILITATION OF TWO EFFLUENT AUTOMATIC BACKWASH FILTERS
- MODIFY EXISTING BELT FILTER PRESS CONTROL PANEL.

100% SUBMITTAL

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NORTH WATER RECLAMATION FACILITY  
SLUDGE HOLDING IMPROVEMENTS  
COVER SHEET

NO.	DATE	BY	REVISION DESCRIPTION
PROJECT #	177310545		
SURVEY #	000		
SEC./TWN./RGE	26/33S/18E		
DATE	N/A		
DESIGNED	KKB	08/28/13	
DRAWN	SRP	08/28/13	
CHECKED	JRC	11/14/13	
KELLY BLAKE	11/14/13		
FLORIDA #	68976		
STATE	FL		
PROFESSIONAL ENGINEER			
SHEET G-1			

GENERAL

1. ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE PROJECT MANAGER IS: WALTER SOWA III, P.E. (941) 708-7450 EXT. 7332
2. SITE VISITS ARE MANDATORY FOR ALL BIDDERS. THESE SITE VISITS CAN BE ARRANGED THROUGH THE PROJECT MANAGER.
3. ALL CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MANATEE COUNTY UTILITY AND TRANSPORTATION STANDARDS AND/OR FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" UNLESS OTHERWISE INDICATED ON THE PLANS.
4. VERTICAL CONTROL FOR THIS PROJECT WAS ESTABLISHED BY A MINIMUM OF TWO REFERENCE BENCHMARKS DESCRIBED ON THE "THE NATIONAL GEODETIC VERTICAL DATUM OF 1929", (NGVD '29).
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS AND REQUIREMENTS OF ALL PERMITS AND ALL GOVERNING FEDERAL, STATE, AND LOCAL AGENCIES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS THAT ARE NOT PROVIDED IN THE BID DOCUMENTS, AT NO ADDITIONAL COST TO THE OWNER.
6. THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATION THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED.
7. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS ON THE PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. SHOULD DISCREPANCIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO OBTAIN THE ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH CONSTRUCTION.
8. AT LEAST 2 BUSINESS DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA AT 1-800-432-4770, OR THE NATIONAL 811 ONE CALL NUMBER WHEN APPLICABLE FOR UTILITY LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITIES FOR THE POSSIBLE RELOCATION OR THE TEMPORARY MOVEMENT OF ANY EXISTING UTILITIES WITHIN THE RIGHTS-OF-WAY.
9. NO WORK, EXCEPT FOR EMERGENCY TYPE, SHALL BE PERFORMED AFTER 7:00 PM AND BEFORE 7:00 AM. FOR ADDITIONAL PROJECT RESTRAINTS, REFER TO SECTION 01310 OF THE SPECIFICATIONS.

SAFETY

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR • CONSTRUCTION SITE SAFETY COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT, 90-98, LAWS OF FLORIDA EFFECTIVE OCTOBER 1, 1990 AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION EXCAVATION SAFETY STANDARDS, 29 CFR 1926.650, SUBPART P, AS AMENDED. THE CONTRACTOR SHALL INCLUDE IN THE TOTAL BID PRICE ALL COSTS FOR COMPLIANCE WITH THESE REGULATIONS.
11. THE CONTRACTOR SHALL USE SHEET PILING, SHEETING, BRACING, ETC., AS REQUIRED IN ALL EXCAVATION AREAS AND CONFORM TO ALL OSHA REQUIREMENTS.
12. THE CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND UTILITIES, POWER LINES, ETC.
13. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THIS EXCLUSION DOES NOT ALLEVATE THE CONTRACTOR FOR PROVIDING A CONTINUOUS SAFE WORKSPACE.

ENVIRONMENTAL

14. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION ALL SEDIMENT AND EROSION CONTROL (SEC) DEVICES (E.G., BARRIERS, SEDIMENT TRAPS/BASINS, VEGETATIVE BUFFERS, ETC.) AS SPECIFIED IN THE FINAL APPROVED PLANS FOR THE PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL SEC DEVICES UTILIZED DURING THE PROJECT, AS WELL AS INSTALLATION & MAINTENANCE OF ANY ADDITIONAL MEASURES DEEMED NECESSARY DURING PROJECT IMPLEMENTATION, TO PREVENT EROSION AND OFF-SITE SEDIMENT MIGRATION. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ALL SEC DEVICES UPON COMPLETION OF THE PROJECT, AND UPON ADEQUATE STABILIZATION OF DISTURBED SOILS.
15. **[NOT USED]**
16. **[NOT USED]**
17. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY STORM WATER, EROSION, AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH THE FDEP "FLORIDA STORM WATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT TO SURFACE DRAINS AND TO DITCHES DURING CONSTRUCTION.
18. STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-SITE DRAINAGE CONTROLS WHICH PREVENT EROSION OF THE STOCKPILED MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILES IS REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY STOCKPILED MATERIAL REMAIN AFTER THIRTY (30) CALENDAR DAYS.
19. STORM WATER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION. THIS WILL BE MAINTAINED TO PREVENT DEGRADATION OF THE WATERS OF THE COUNTY AND STATE.
20. SEDIMENT BASINS AND TRAPS, PERIMETER BERMES, SEDIMENT BARRIERS, VEGETATIVE BUFFERS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING BODIES OF WATER, MUST BE INSTALLED, CONSTRUCTED, OR IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS. EARTHEN STRUCTURES INCLUDING BUT NOT LIMITED TO BERMES, EARTH FILTERS, DAMS OR DIKES SHALL BE STABILIZED AND PROTECTED FROM DRAINAGE DAMAGE OR EROSION WITHIN ONE (1) WEEK OF INSTALLATION.
21. ALL SWALES, DITCHES, AND CHANNELS LEADING FROM THE SITE SHALL BE PROTECTED FROM SILTATION AND EROSION DURING CONSTRUCTION AND BE SODDED WITHIN THREE (3) DAYS OF EXCAVATION.
22. SOIL DISPLACED BY CONSTRUCTION WILL BE REMOVED. EROSION CONTROL SHALL BE IMPLEMENTED IN AREAS WHICH ARE CONSIDERED ENVIRONMENTALLY SENSITIVE. EROSION CONTROL SYSTEMS SHALL BE REQUIRED FOR ALL WORK WITHIN JURISDICTIONAL AREAS. THESE SYSTEMS MAY INCLUDE STACKED HAY BALES, SILT SCREENS, FILTER FABRIC, AND TURBIDITY SCREENS.
23. ALL EROSION AND POLLUTION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND SHALL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.
24. THE CONTRACTOR SHALL NOT ENTER UPON OR IN ANY WAY ALTER WETLAND AREAS THAT MAY BE ON OR NEAR THE CONSTRUCTION SITE. ALL WORK IN THE VICINITY OF OPEN WATER AND/OR WETLANDS IS TO BE PERFORMED IN COMPLIANCE WITH THE ENVIRONMENTAL REGULATIONS AND/OR PERMITS FOR THE SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINES RESULTING FROM HIS VIOLATION OF ANY REGULATIONS OR PERMIT CONDITIONS.
25. FOR MORE INFORMATION, SEE THE EROSION CONTROL DETAIL SHEET INCLUDED IN THE PLANS.

RIGHT-OF-WAY

26. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY/FDOT RIGHT-OF-WAY AND/OR EASEMENTS SHOWN ON THE DRAWINGS.
27. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO REFERENCE AND RESTORE PROPERTY CORNER MONUMENTS, PINS, AND LANDMARKS THAT MAY BE DISTURBED BY CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
28. THE CONTRACTOR, PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC, MUST OBTAIN A RIGHTS-OF-WAY USE PERMIT AND A TRAFFIC CONTROL PLAN. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM OTHER GOVERNMENTAL AGENCIES HAVING RELEVANT JURISDICTION. ALL MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION "MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES". A TRAFFIC CONTROL PLAN SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.
29. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL DAMAGED STORM WATER STRUCTURES, PIPING, ENTRANCE PIPE AND HEADWALLS WHETHER SHOWN ON THE PLANS OR NOT. THE HEADWALLS SHALL BE REPLACED IN ACCORDANCE WITH F.D.O.T. STANDARDS.

30. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH IN THE FIELD THE RIGHT-OF-WAY LINES, BASE LINES, BENCH MARKS (ELEV.), CENTER LINES, AND STATIONING AS REQUIRED TO CONSTRUCT THIS PROJECT.

31. **[NOT USED]**

32. **[NOT USED]**

UTILITIES

33. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THERE MAY BE OTHER IMPROVEMENTS, UTILITIES, ETC. WHICH ARE WITHIN THE PROJECT AREA AND WHICH HAVE NOT BEEN LOCATED OR IDENTIFIED. MAY NOT BE IN THE EXACT LOCATION SHOWN OR RELOCATED SINCE THE PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES STRUCTURES AND OTHER FEATURES (WHETHER OR NOT SHOWN ON THE PLANS) THAT MAY EFFECT HIS WORK. ALL EXISTING UTILITIES TO BE EXTENDED, CROSSED OR CONNECTION POINTS SHALL BE EXPOSED PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND ELEVATION. ANY DISCREPANCIES OR CONFLICTS FOUND SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION.
34. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER AND SEWER LINES, STORM DRAINS, UTILITIES, DRIVEWAYS, SIDEWALKS, SIGNS, MAIL BOXES, FENCES, TREES, LANDSCAPING, AND ANY OTHER IMPROVEMENT OR FACILITY IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DAMAGED ITEM DUE TO HIS CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
35. THE CONTRACTOR SHALL USE APPROPRIATE TECHNIQUES, AS APPROVED, RECOMMENDED OR OFFERED BY FLORIDA POWER AND LIGHT TO PREVENT UNDERMINING OF POWER POLES DURING CONSTRUCTION. IF HOLDING OF POWER POLES IS RECOMMENDED OR REQUIRED BY THE UTILITY, THE CONTRACTOR SHALL COORDINATE THIS ACTIVITY WITH THE UTILITY AND BEAR ALL RELATED COSTS.
36. ANY TEMPORARY SHUTDOWNS FOR MODIFICATIONS OF EXISTING UTILITY SYSTEMS THAT MUST REMAIN IN SERVICE DURING CONSTRUCTIONS SHALL BE KEPT TO A MINIMUM AND SHALL BE COORDINATED WITH AND APPROVED BY THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. IT IS NOTED THAT TEMPORARY SHUTDOWNS MAY BE RESTRICTED TO CERTAIN HOURS AT ANY TIME OF THE DAY OR NIGHT AND WILL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER.
37. FOR WORK BEING DONE ON EXISTING SANITARY SEWER LINES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE FLOW OF ALL SEWAGE DURING CONSTRUCTION, WHICH MAY REQUIRE BY-PASS PUMPING AND/OR PUMPER TRUCKS. THE CONTRACTOR SHALL SUBMIT A DETAILED BY-PASS PUMPING PLAN PER SECTION 02720.

RESTORATION

38. ALL RESTORATION WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES UNLESS SHOWN OTHERWISE.
39. ALL DISTURBED GRASSED AREAS SHALL BE SODDED OR SEEDED UNLESS OTHERWISE INDICATED. THE TYPE OF SOD USED TO REPLACE OWNER MAINTAINED AREAS IN RIGHT-OF-WAY SHALL BE COORDINATED WITH THE PROPERTY OWNER.
40. ALL CONCRETE THRUST BLOCKS INSTALLED FOR TESTING PURPOSES AND NOT REQUIRED FOR THE OPERATION OF THE PIPELINE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR, PRIOR TO FINAL ACCEPTANCE, AT NO ADDITIONAL COST TO THE OWNER.
41. ASPHALT DRIVES THAT ARE CUT SHALL BE RESTORED PER SECTION 02513.
42. CONCRETE DRIVEWAYS OR SIDEWALKS THAT ARE CUT SHALL BE RESTORED TO MATCH EXISTING ACCORDING TO THE CURRENT EDITIONS OF THE F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE DESIGN, SECTION 522, AND SECTION 310 OF THE F.D.O.T. DESIGN STANDARDS.
43. WHENEVER A PERMANENT ROADWAY SURFACE IS NOT PLACED IMMEDIATELY AFTER BACKFILLING AND COMPACTION OF THE NEWLY INSTALLED PIPE LINE IN AREAS WHERE TRAFFIC MUST PASS, THE CONTRACTOR SHALL INSTALL A TEMPORARY SURFACE CONSISTING OF NINE INCHES OF COMPACTED LINE ROCK BASE AND A COAT OF ASPHALT EMULSION. PERMANENT ROADWAY REPAIR SHALL BE PERFORMED A MAXIMUM OF TWENTY-ONE CALENDAR DAYS AFTER THE INITIAL OPEN CUTTING.
44. RESTORATION OF CURBS, DRIVEWAYS, SIDEWALKS, AND PLACEMENT OF SOD SHALL BE COMPLETED WITHIN FORTY-FIVE CALENDAR DAYS OF INITIAL DISTURBANCE, OR TWENTY-ONE CALENDAR DAYS OF SUBSTANTIAL COMPLETION, WHICHEVER OCCURS FIRST.

CONSTRUCTION

45. THE EXHAUST SYSTEM OF ALL GASOLINE AND DIESEL ENGINES SHALL BE EQUIPPED WITH MUFFLERS THAT MEET THE EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR NOISE SUPPRESSION. THE CONTRACTOR SHALL INSTALL NOISE ABATEMENT Baffles POSITIONED TO BREAK LINE-OF-SITE FROM THE NOISE SOURCE TO AFFECTED RESIDENCES, AS APPROVED BY THE ENGINEER.
46. NO MATERIAL SHALL BE STOCKPILED IN ROADWAYS. ALL DIRT AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE DAILY. ROADS SHALL BE SWEEPED DAILY AS PART OF DAILY CLEAN UP.
47. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.
48. INGRESS AND EGRESS TO ALL THE PROPERTIES IN THE CONSTRUCTION AREA SHALL BE MAINTAINED AT ALL TIMES.
49. PRIOR APPROVAL WILL BE REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE CONSTRUCTION AREA.
50. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY. DEWATERING IS REQUIRED TO 18" BELOW TRENCH BOTTOM.
51. ALL PIPING AND FITTINGS USED ON THIS PROJECT SHALL BE AS NOTED ON THE PLANS AND IN THE CONTRACT DOCUMENT AND SHALL BE INSTALLED TO THE LINES AND GRADES SHOWN ON THE PLANS AND PROFILES.
52. ALL PIPE SHALL BE COLOR CODED TO CONFORM TO MANATEE COUNTY STANDARDS.
53. ALL PIPE AND FITTINGS SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND ALL PIPE JOINTS SHALL BE RESTRAINED WHERE REQUIRED.
54. ALL FITTINGS FOR PRESSURE CLASS-RATED PIPE SHALL BE RESTRAINED DUCTILE IRON. RESTRAINED LENGTHS OF PIPE SHALL ADHERE TO THE REQUIREMENTS AS SHOWN ON THE DETAIL SHEETS.
55. WHERE IT IS NECESSARY TO DEFLECT PIPE EITHER HORIZONTALLY OR VERTICALLY, PIPE DEFLECTION SHALL NOT EXCEED 75% OF THE MANUFACTURER'S MAXIMUM ALLOWABLE RECOMMENDED DEFLECTION.
56. ALL PIPE LENGTHS ARE PLUS OR MINUS AND MAY BE ADJUSTED IN THE FIELD AS REQUIRED. PIPE MEASUREMENTS ARE TO CENTER OF STRUCTURES OR FITTINGS.
57. ALL ROCKS OR STONES LARGER THAN SIX INCH DIAMETER SHALL BE REMOVED FROM THE BACKFILL MATERIAL. BACKFILL MATERIAL PLACED WITHIN ONE FOOT OF PIPING AND APPURTENANCES SHALL NOT CONTAIN ANY STONES LARGER THAN TWO INCH DIAMETER.
58. ONLY MANATEE COUNTY UTILITY OPERATIONS STAFF ARE AUTHORIZED TO OPERATE VALVES ON COUNTY OWNED AND MAINTAINED UTILITY SYSTEMS.
59. ALL PENETRATION OF EXISTING STRUCTURES SHALL BE BY THE MECHANICAL ROTARY CORE BORING METHOD.
60. ALL CONCRETE PENETRATED OR DISTURBED SHALL BE COATED WITH TWO COATS OF EPOXY.

61. **[NOT USED]**

62. ALL NEW PIPE LINES SHALL BE PIG CLEANED (4" AND LARGER), FLUSHED, PRESSURE TESTED, DISINFECTED AND CERTIFIED PRIOR TO TIE-INS TO EXISTING FACILITIES. THE CONTRACTOR WILL BE ALLOWED TO USE TEMPORARY PLUGS FOR PIG CLEANING AND PRESSURE TESTING.
63. ALL TEST POINT PIPING SHALL BE CUT LOOSE FROM THE CORPORATION STOP AND COMPLETELY REMOVED AND DISPOSED OF BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE. A CORPORATION STOP PLUG SHALL BE INSTALLED AND THE CORPORATION STOP SHALL REMAIN IN PLACE.
64. ALL EXISTING MAINS THAT ARE BEING REPLACED SHALL BE ABANDONED IN PLACE • UNLESS OTHERWISE NOTED ON PLANS UPON ACCEPTANCE AND ACTIVATION OF THE NEW MAINS. ABANDONED MAINS SHALL BE CUT, FILLED WITH GROUT AND CAPPED. REFER TO SECTION 02064 OF THE SPECIFICATIONS FOR GROUTING OF ABANDONED PIPE.

65. WATER MAINS CROSSING OVER OR UNDER SANITARY SEWERS, FORCE MAINS, AND RECLAIMED WATER LINES SHALL BE LAID PER CURRENT EDITION OF "10 STATE STANDARDS" AND MANATEE COUNTY UTILITY STANDARDS UNLESS NOTED OTHERWISE ON THE PLANS.

66. FIELD CONDITIONS MAY NECESSITATE MINOR ALIGNMENT AND GRADE DEVIATION OF THE PROPOSED UTILITIES TO AVOID OBSTACLES, AS ORDERED BY THE ENGINEER.

67. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH SECTION 14 IN THE CURRENT MANATEE COUNTY UTILITY STANDARDS AT NO COST TO THE OWNER. RECORD DRAWINGS SHALL BE SIGNED & SEALED BY A SURVEYOR CURRENTLY LICENSED BY THE STATE OF FLORIDA. ALL RECORD DRAWING INFORMATION REQUIREMENTS IN SECTION 14 SHALL BE STRICTLY ENFORCED. A COPY OF SECTION 14 WILL BE PROVIDED UPON REQUEST.

PROJECT NOTES

1. ALL ABOVE GRADE PIPING SHALL BE FLANGED DUCTILE IRON CLASS 53, UNLESS OTHERWISE SPECIFIED. FLANGED COUPLING ADAPTORS SHALL BE MEGA LUGS BY EBMA.
2. ALL BURIED PIPE SHALL BE DUCTILE IRON WITH CLASS 53 WITH RESTRAINED MECHANICAL JOINTS, UNLESS OTHERWISE SPECIFIED.
3. ALL BURIED PIPES SHALL HAVE A MINIMUM OF 30 INCHES OF COVER UNLESS OTHERWISE SPECIFIED.
4. ALL ABOVE GRADE AIR PIPING SHALL BE 10S STAINLESS STEEL 304L.
5. RESTRAIN ALL PIPE.
6. WHEN CONNECTING TO AN EXISTING PIPE USE ADAPTORS AS REQUIRED. CONTRACTOR SHALL EXPOSE 60 FEET OF THE EXISTING PIPE AND RESTRAIN ALL JOINTS, AS NECESSARY.
7. PROVIDE STAINLESS STEEL TAGS FOR IDENTIFICATION ON ALL VALVES. TAGS SHALL CONSIST OF A 14 GA 304 SS DISK (2" DIAMETER) WITH A 304 SS BEAD CHAIN WITH CLOSURE. THE DISK SHALL BE ENGRAVED WITH "X" BLOCK LETTERING TO INCLUDE THE VALVE SIZE AND TYPE AND PROCESS FLOW ABBREVIATION AS SHOWN ON THE DRAWING.
8. WHERE PIPING CONNECTS TO EQUIPMENT, IT SHALL BE SUPPORTED BY A PIPE SUPPORT AND NOT THE EQUIPMENT. REFER TO MECHANICAL DRAWINGS FOR PIPE SUPPORTS.
9. DIMENSIONS FOR ALL EQUIPMENT SHALL BE VERIFIED BY CONTRACTOR PER MANUFACTURERS' SHOP DRAWINGS AND REVERSED AS NECESSARY PRIOR TO CONSTRUCTION. CONTRACTOR SHALL INFORM COUNTY OF ANY DISCREPANCY.
10. SIZE AND FINAL LOCATION OF ALL OPENINGS AND CONNECTIONS SHALL BE COORDINATED WITH EQUIPMENT MANUFACTURER/SUPPLIER. ALL EQUIPMENT PAD DIMENSIONS INDICATED ON THE DRAWINGS SHALL BE VERIFIED WITH MANUFACTURER FOR ACTUAL SIZE OF EQUIPMENT SELECTED.

CONTACTS

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FAX: (813) 632-7662  
jeff.hilton@dep.state.fl.us

PEACE RIVER ELECTRIC  
COOPERATIVE, INC.  
210 METHENY ROAD  
WACHULA, FL 33873  
KENDELL COKER  
(863) 767-4680  
FAX: (863) 767-4662  
kendell.coker@preco.coop

MANATEE COUNTY  
PUBLIC WORK DEPT.  
TRAFFIC ENGINEERING  
PAUL VILLALUZ, P.E.  
2101 47th TERRACE EAST  
BRADENTON, FL 34203  
(941) 748-3500 EXT. 7859  
FAX: (941) 748-3571  
paul.villaluz@mymanatee.org

MANATEE COUNTY, FLORIDA  
PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES



1022 26th Avenue East  
Bradenton, FL 34208

NORTH WATER RECLAMATION FACILITY  
SLUDGE HOLDING IMPROVEMENTS

GENERAL NOTES

NO.	REVISION DESCRIPTION	BY	DATE
1	PROJECT #		177310545
2	SURVEY #		000
3	SEC./TWN./RGE		26/33S/18E
4	DATE		10/13
5	DESIGNED	KR	05/23/13
6	CHECKED	JRG	05/23/13
7	DATE		10/13
8	DATE		10/13
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99	DATE		10/13
100	DATE		10/13

100% SUBMITTAL



STANTEC CONSULTING SERVICES INC.  
5172 STATION WAY, SARASOTA, FLORIDA 34237  
TEL. 941.366.8600 - FAX 941.366.1822  
FLORIDA CERTIFICATE NO. 27103 - WWW.STANTEC.COM

• INDICATES REVISION TO STANDARD MANATEE COUNTY NOTES

## NORTH WATER RECLAMATION FACILITY SLUDGE HOLDING IMPROVEMENTS LEGEND AND AERIAL

REVISION DESCRIPTION		BY	DATE
NO.			
PROJECT #		177310545	
SURVEY #		000	
SECTION / RGE		28/33S/18E	
DATE		AS SHOWN	
SURVEYED		BY	DATE
DESIGNED		BY	DATE
DRAWN		BY	DATE
CHECKED		BY	DATE

KELLY BLAKE  
FLORIDA P.E. # 698

DA

ENCLOSURE 13

Signature & Date  
SHEET G-3

**100% SUBMITTAL**

 **Stantec**

STANTEC CONSULTING SERVICES INC.  
5172 STATION WAY, SARASOTA, FLORIDA 34233  
TEL. 841.385.5800 • FAX: 841.388.1922  
FLORIDA CERTIFICATE NO. 27103 • [WWW.STANTEC.COM](http://WWW.STANTEC.COM)



## PROPOSED

- |  |                          |  |                        |
|--|--------------------------|--|------------------------|
|  | BENCH MARK               |  | CHAIN LINK FENCE       |
|  | CONCRETE MONUMENT        |  | WOOD FENCE             |
|  | IRON PIPE                |  | BARBED WIRE FENCE      |
|  | IRON ROD                 |  | FORCE MAIN             |
|  | HUB                      |  | POTABLE WATER          |
|  | NAIL & DISK              |  | RECLAIMED WATER        |
|  | ELEVATION                |  | SANITARY SEWER         |
|  | PARCEL ID NO.            |  | STORM DRAIN            |
|  | PARCEL ID NO.            |  | GAS LINE               |
|  | LOT NO.                  |  | OVERHEAD CABLE TV      |
|  | GUY WIRE                 |  | BURIED CABLE TV        |
|  | POWER POLE               |  | OVERHEAD ELECTRIC      |
|  | LIGHT POLE               |  | BURIED ELECTRIC        |
|  | MAIL BOX                 |  | OVERHEAD VERIZON       |
|  | SIGN                     |  | BURIED VERIZON         |
|  | REFLECTOR                |  | VERIZON                |
|  | SPRINKLER                |  | BURIED UTILITY         |
|  | GAS MARKER               |  | OVERHEAD UTILITY       |
|  | BACKFLOW PREVENTER       |  | AIR LINE               |
|  | BLOW OFF VALVE           |  | EFFLUENT MAIN          |
|  | FIRE HYDRANT             |  | FILTER BACK WASH       |
|  | WATER VALVE              |  | RECLAIMED MAIN         |
|  | AIR RELEASE VALVE        |  | SANITARY SEWER         |
|  | WATER METER              |  | THICKENED SLUDGE       |
|  | SANITARY SEWER MANHOLE   |  | WASTE ACTIVATED SLUDGE |
|  | SANITARY SEWER CLEAN OUT |  | RAIL ROAD TRACKS       |
|  | SOIL BORING LOCATION     |  | EDGE OF CONCRETE       |
|  | TELEPHONE SERVICE BOX    |  | EDGE OF ROAD           |
|  | FLOW DIRECTION           |  | TOE OF SLOPE           |
|  | GRATE INLET              |  | TOP OF BANK            |
|  | MITERED END SECTION      |  | PROPERTY LINE          |
|  | BUSH                     |  | RIGHT OF WAY           |
|  | TREE                     |  | CONCRETE               |
|  | OAK TREE                 |  | ASPHALT                |
|  | PALM TREE                |  | ABANDONED              |
|  | PINE TREE                |  | DEMOLITION             |
|  | EDGE OF VEGETATION       |  |                        |

- |  |                 |
|--|-----------------|
|  | MAIN            |
|  | VALVE           |
|  | CHECK VALVE     |
|  | BUTTERFLY VALVE |
|  | REDUCER         |
|  | TEE             |
|  | HORIZONTAL BEND |
|  | VERTICAL BEND   |
|  | PLUG            |
|  | SIDEWALK        |
|  | CONCRETE        |

THE PHOTO BEING REFERENCED

INDICATES LOCATION OF PHOTO TAKEN

THE SHEET THE PHOTO IS LOCATED ON

PHOTO CALL OUT SYMBOLS

THE DETAIL BEING REFERENCED

THE SHEET THE DETAIL IS LOCATED ON

DETAIL CALL OUT SYMBOLS

DIRECTION OF THE SECTION BEING REFERENCED

THE SECTION BEING REFERENCED

1  
A-1

THE SHEET THE SECTION IS LOCATED ON

SECTION CUT SYMBOLS

THE SECTION/DETAIL NUMBER

1

SECTION/DETAIL TITLE

N.T.S.

THE SHEET THE SECTION/DETAIL IS LOCATED ON

A-1

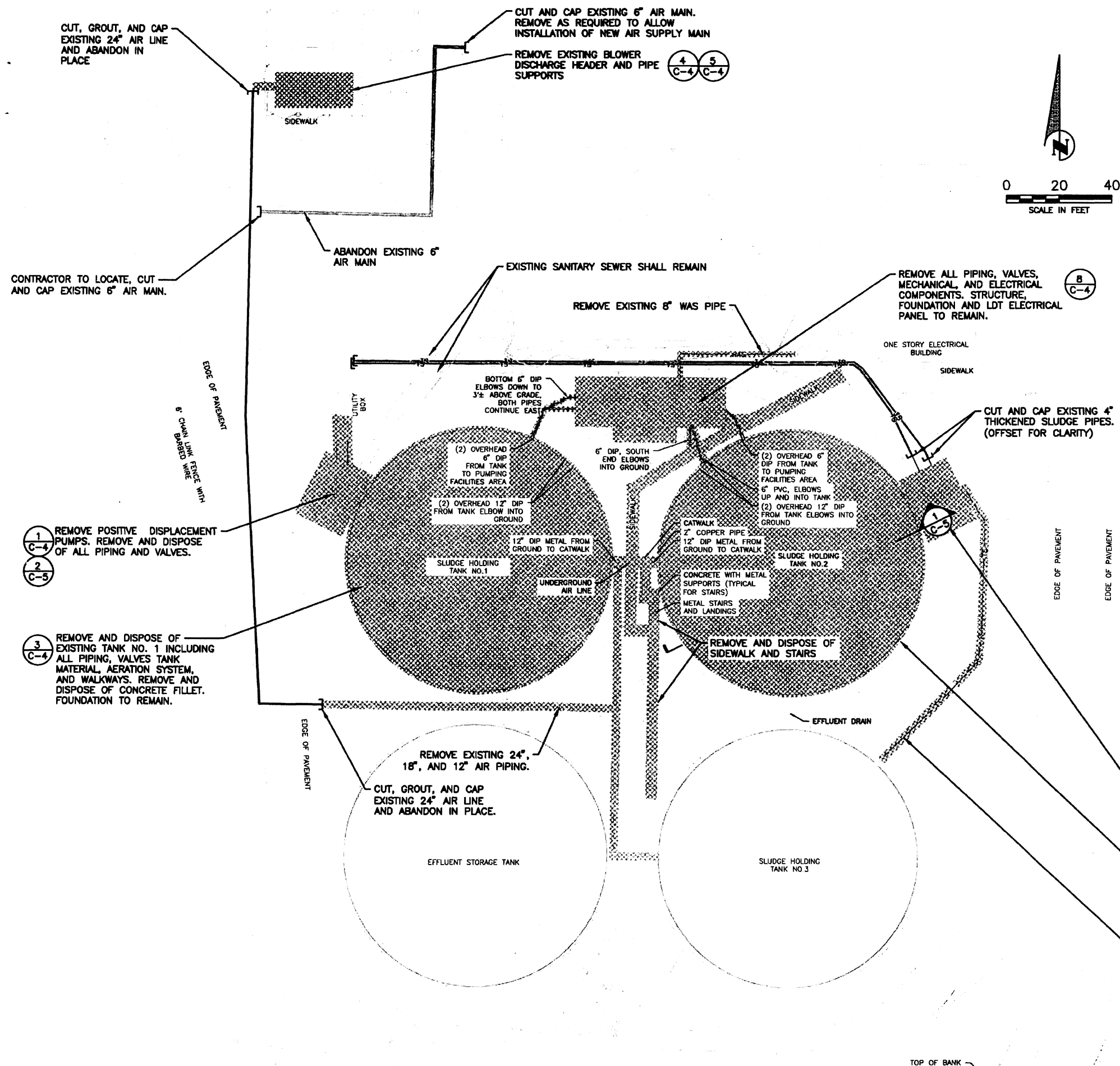
SECTION AND DETAIL TITLES











- MAINTENANCE OF FLOW NOTES:**

1. THE CONTRACTOR SHALL, AT HIS OWN COST, PROVIDE FOR THE FLOW OF SEWERS, DRAINS, AND PROCESS WATERS DURING THE PROGRESS OF THE WORK.
2. THE CONTRACTOR SHALL PREPARE A WRITTEN MAINTENANCE OF FLOW PLAN AND SUBMIT IT TO THE COUNTY FOR REVIEW AND APPROVAL PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES.
3. THE MAINTENANCE OF FLOW PLAN SHALL INCLUDE THE CONTRACTOR'S PROPOSED SEQUENCING OF WORK. INFORMATION TO BE SUBMITTED TO THE COUNTY FOR REVIEW PRIOR TO COMMENCEMENT OF THE WORK SHALL INCLUDE, BUT NOT LIMITED TO:
  - 3.1. SLUDGE REMOVAL AND DISPOSAL MEANS AND METHODS INCLUDING METHOD OF DEWATERING, TRANSPORTATION OF MATERIAL, TO ANY INTERMEDIATE SITE PRIOR TO DISPOSAL SITE AND THE FINAL DISPOSAL SITE.
  - 3.2. DISINFECTION MEANS AND METHODS INCLUDING CHEMICALS AND STRENGTHS OF CHEMICALS TO BE UTILIZED FOR NECESSARY ITEMS.
  - 3.3. TANK DEMOLITION MEANS AND METHODS INCLUDING EQUIPMENT AND DISPOSAL LOCATION. THE SUBMITTALS SHALL INCLUDE APPROVED METHODS OF CUTTING OF STEEL AND FIBERGLASS AND RESPIRATION EQUIPMENT NECESSARY FOR MEETING AIR QUALITY STANDARDS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING, SUBMITTING, AND EXECUTING A SEQUENCE OF CONSTRUCTION THAT MINIMIZES THE TIME THAT ANY EQUIPMENT IS OUT OF SERVICE. THE CONTRACTOR SHALL DEVELOP A CONSTRUCTION SEQUENCE SO THAT TWO SLUDGE HOLDING TANKS AND ASSOCIATED EQUIPMENT, PIPING, AND APPURTENANCES ARE ALWAYS IN SERVICE.
  - 4.1 SLUDGE HOLDING TANK NO. 1 AND ASSOCIATED SLUDGE PUMPING STATION WILL REMAIN IN SERVICE AND OPERATIONAL WHILE SLUDGE HOLDING TANK NO. 2 IS BEING DEMOLISHED AND NEW TANK CONSTRUCTED.
  - 4.2 CONTRACTOR TO PROVIDE TEMPORARY FLOW FROM SLUDGE TANK NO. 3 TO SLUDGE TANK NO. 1 WHILE SLUDGE TANK NO. 2 WORK IS OCCURRING.
  - 4.3 EXISTING AERATION SYSTEM MUST BE MAINTAINED UNTIL NEW AERATION SYSTEM CAN BE ACTIVATED.

- DEMOLITION NOTES:**

1. CONTRACTOR SHALL DESIGN, INSTALL, AND REMOVE TEMPORARY WORKS NECESSARY TO GAIN ACCESS TO WORK AREAS FOR REMOVAL AND INSTALLATION OF EQUIPMENT.
2. UNLESS OTHERWISE NOTED CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL DEMOLITION MATERIAL.
3. ALL TANKS SHALL BE DRAINED, CLEANED, AND DISINFECTED PRIOR TO DEMOLITION. THE COUNTY WILL DRAIN THE TANKS TO WITHIN 2' OF BOTTOM. CONTRACTOR IS RESPONSIBLE FOR REMOVING EXCESS SLUDGE WITHIN THE TANKS BELOW THE 2' LINE. CONTRACTOR SHALL COORDINATE ALL SLUDGE REMOVAL WITH THE COUNTY.
4. TANK DEMOLITION METHODS SHALL NOT COMPROMISE THE EXISTING FOUNDATIONS. CONTRACTOR SHALL BE REQUIRED TO HAVE AN INVESTIGATION PERFORMED BY A LICENSED GEOTECHNICAL ENGINEER AND STRUCTURAL ENGINEER TO ESTABLISH THE CONDITION OF THE EXISTING TANK FOUNDATION. THE ENGINEERING REPORT SHALL BE SUBMITTED TO THE COUNTY TO CERTIFY THE CONDITIONS OF THE EXISTING FOUNDATIONS.
5. CONTRACTOR SHALL REMOVE BURIED PIPING SHOWN, AND VERIFIED BASED ON FIELD CONDITIONS.
6. CONTRACTOR SHALL CUT FLUSH ALL PIPES, BOLTS, LAGS, CONDUITS, ETC. AND GROUT FILL ALL HOLES AND PENETRATIONS, NOT INTENDED FOR USE IN THE COMPLETED PROJECT TO A MINIMUM DEPTH OF 6".

REMOVE POSITIVE DISPLACEMENT  
PUMPS. REMOVE AND DISPOSE  
OF ALL PIPING AND VALVES.

REMOVE AND DISPOSE OF EXISTING TANK NO. 2 INCLUDING ALL PIPING, VALVES TANK MATERIAL, AERATION SYSTEM, AND WALKWAYS. REMOVE AND DISPOSE OF CONCRETE FILLET. FOUNDATION TO REMAIN.

REMOVE EXISTING 4" THICKENED  
SLUDGE LINE.

**100% SUBMITTAL**



1022 26th Avenue East  
Bradenton, FL 34208

**NORTH WATER RECLAMATION FACILITY  
SLUDGE HOLDING IMPROVEMENTS  
SLUDGE HOLDING FACILITY  
DEMOLITION PLAN**

NO.	REVISION DESCRIPTION	BY	DATE
	PROJECT #	177310545	
	SURVEY #	000	
	SEC./TWN./RGE	26/33S/18E	
	SCALE	1" = 20'	
	SURVEYED BY	DATE	
	DESIGNED BY	DATE	
	DRAWN BY	DATE	
	CHECKED BY	DATE	
<p align="center">★ KERRY BLAKE ★</p> <p align="center">FLORIDA P.E. # 68076</p>			
<p align="center">STATE OF FLORIDA</p> <p align="center">COUNTY OF ALACHUA</p> <p align="center">CITY OF GULF BREEZE</p> <p align="center">SHEET C-3</p>			



1 TANK NO. 1 SLUDGE PUMP STATION  
C-3 N.T.S.  
REMOVE POSITIVE DISPLACEMENT PUMPS. REMOVE AND DISPOSE OF ALL PIPING, VALVES, AND CONCRETE PUMP PEDESTALS.



2 TANKS NO. 2 & 3 SLUDGE PUMP STATION  
C-3 N.T.S.  
REMOVE POSITIVE DISPLACEMENT PUMPS. REMOVE AND DISPOSE OF ALL PIPING, VALVES, AND CONCRETE PUMP PEDESTALS.



3 TANKS NO. 1 & 2  
C-3 N.T.S.  
REMOVE AND DISPOSE OF EXISTING TANKS INCLUDING ALL PIPING, VALVES, TANK MATERIAL, AERATION SYSTEM, AND WALKWAYS, AND CONCRETE FILLET. PRESERVE FOUNDATION.



4 BLOWER ROOM  
C-3 N.T.S.  
REMOVE AND DISPOSE OF ABOVE GRADE PIPING, AIR HEADER, AND SUPPORTS.



5 BLOWER ROOM  
C-3 N.T.S.  
REMOVE AND DISPOSE OF ALL ABOVE GRADE AIR PIPING SUPPORTS. (TYPICAL OF 3).



6 AUTOMATIC BACKWASH FILTER  
M-7 N.T.S.  
REMOVE, DISPOSE OF, AND REPLACE FILTER COMPONENTS INCLUDING: POROUS PLATES, MEDIA, WASH TROUGH, RAIL CAP, TRAVEL TIP, BACKWASH DRIVE ASSEMBLY, ELECTRICAL CABLE FESTOONING SYSTEM, AND CONTROL SYSTEM.



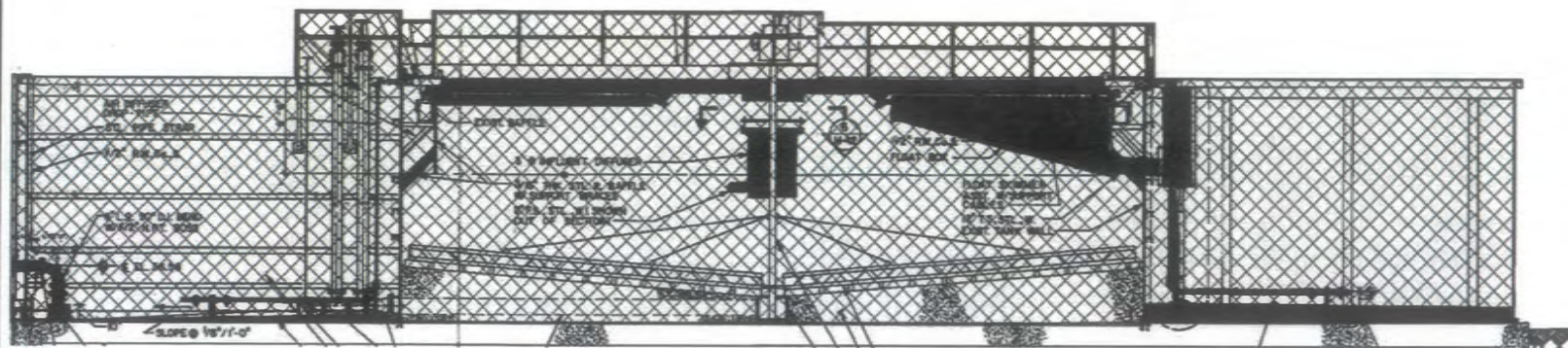
7 TANK NO. 1 AND 2 STAIRS AND BRIDGE  
C-3 N.T.S.  
REMOVE AND DISPOSE OF ACCESS STAIRS AND BRIDGE. REMOVE STAIR FOUNDATION AND COLUMNS.



8 PROPOSED BLOWER LOCATION  
C-3 N.T.S.  
REMOVE AND DISPOSE OF ALL PIPING, VALVES, MECHANICAL, ELECTRICAL COMPONENTS OF DAF RE-CIRCULATION STATION (CURRENTLY NOT IN SERVICE). STRUCTURE, FOUNDATION, AND LDT ELECTRICAL PANEL TO REMAIN IN SERVICE.

NORTH WATER RECLAMATION FACILITY  
SLUDGE HOLDING IMPROVEMENTS  
DEMOLITION DETAILS

NO.	REVISION DESCRIPTION	BY	DATE
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1 TYPICAL TANK SECTION  
C-3 N.T.S.

TANK DEMOLITION NOTES:

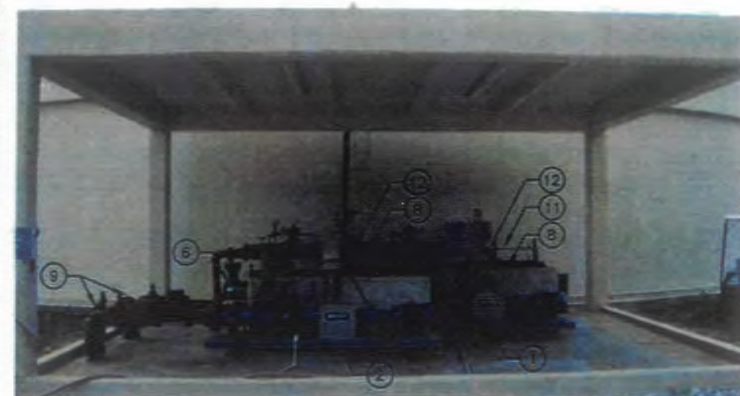
1. EXISTING STEEL TANKS WERE ORIGINALLY CONSTRUCTED AS PACKAGE PLANTS AND THEN WERE RETROFITTED INTO DISSOLVED AIR FLOTATION THICKENERS AND LATER SLUDGE HOLDING TANKS. MECHANICAL COMPONENTS DEPICTED ABOVE MAY OR MAY NOT BE CURRENTLY INSTALLED.
2. ALL MATERIALS ABOVE DIGESTER TANK BASE FOUNDATION AND INCLUDING TANK WALLS SHALL BE REMOVED.
3. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEMOLITION MATERIALS FROM SITE.

PUMP STATION DEMOLITION NOTES:

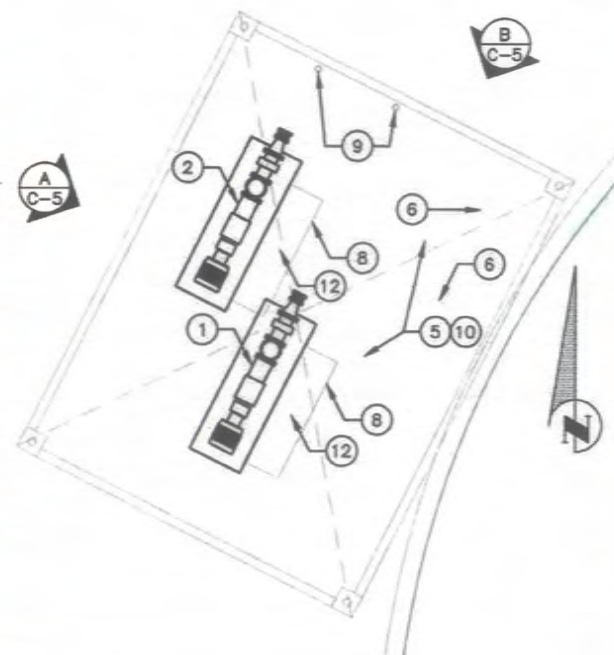
1. CONTRACTOR SHALL REMOVE EXISTING 10 HP INLINE MOYNO POSITIVE DISPLACEMENT PUMPS (MODEL 1G065 G1 CBQ3AAA).
2. CONTRACTOR SHALL REMOVE AND DISPOSE OF CONCRETE EQUIPMENT PADS, PUMP CONTROL PANEL, PIPING, VALVES, SEAL WATER SYSTEM, PIPE SUPPORTS, AND MISCELLANEOUS APPURTENANCES.
3. CONTRACTOR SHALL PROTECT INCOMING ELECTRICAL CONDUIT TO PUMP PANELS.
4. PLAN VIEW SHOWS EXISTING SLAB PENETRATIONS FOR CLARITY. SEE PHOTOS FOR EXISTING ABOVE GRADE PIPING, VALVES, AND APPURTENANCES.

LEGEND

- 1 PUMP No. 1
- 2 PUMP No. 2
- 3 PUMP No. 3
- 4 PUMP No. 4
- 5 4" RECLAIMED WATER
- 6 8" SANITARY SEWER
- 7 1" PUMP DRAIN
- 8 CONCRETE EQUIPMENT PAD
- 9 4" THICKENED SLUDGE DISCHARGE
- 10 2" RECLAIMED WATER
- 11 WATER SEAL SYSTEM
- 12 ELECTRICAL FEED



A EXISTING CONDITIONS (WEST)  
C-5 N.T.S.



2 TANK NO. 1 PUMP STATION  
C-3  
0 5 10  
SCALE IN FEET



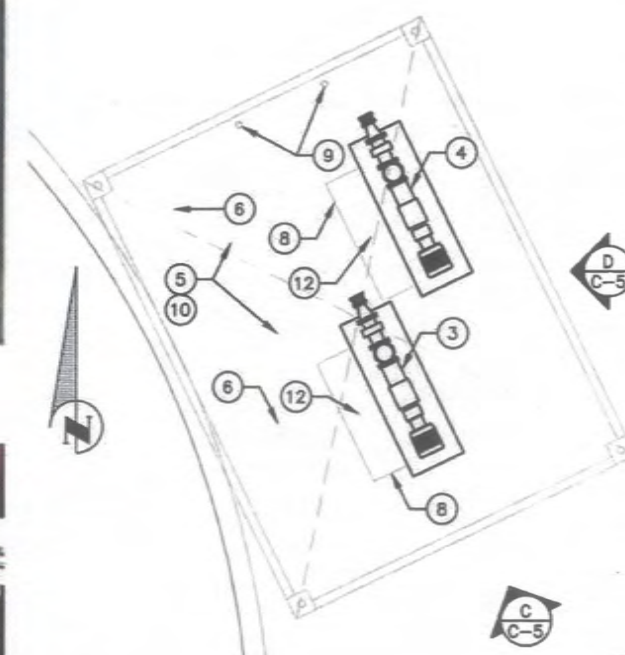
B EXISTING CONDITIONS (SOUTH)  
C-5 N.T.S.



C EXISTING CONDITIONS (NORTH)  
C-5 N.T.S.



D EXISTING CONDITIONS (WEST)  
C-5 N.T.S.



3 TANK NO. 2 AND 3 PUMP STATION  
C-3  
0 5 10  
SCALE IN FEET

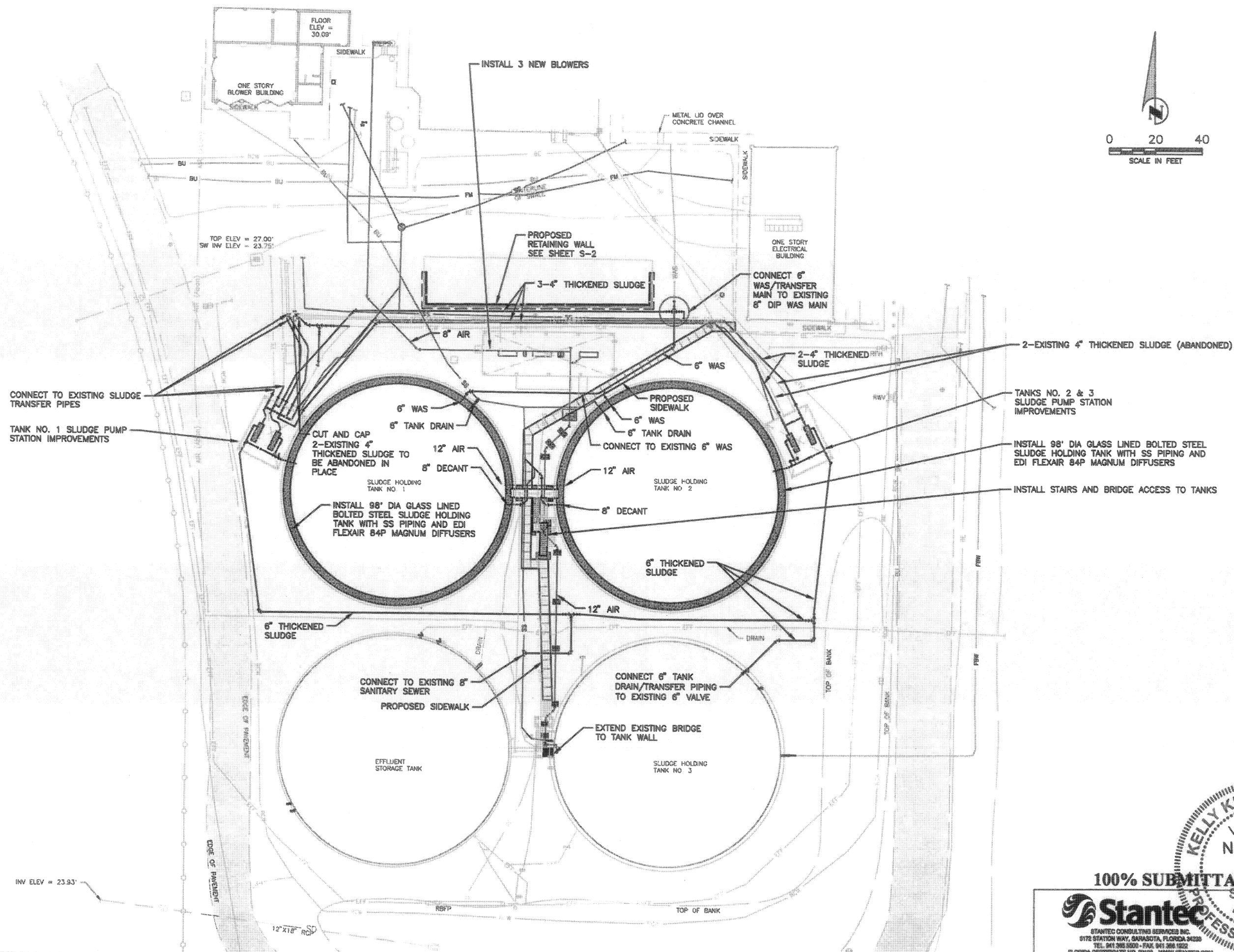
100% SUBMITTAL

**Stantec**  
STANTEC CONSULTING SERVICES INC.  
6172 STATION WAY, SARASOTA, FLORIDA 34235  
TEL. 941.565.5000 - FAX. 941.565.1922  
FLORIDA CERTIFICATE NO. 27102 - WWW.STANTEC.COM

KELLY KRISTEN  
No. 69876  
KELLY BLAKE  
FLORIDA P.E. # 69876  
DATE 05/10/13  
DESIGNED 05/23/13  
DRAWN 05/23/13  
CHECKED 05/23/13  
APPROVED 05/23/13  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER  
SHEET C-5

**NORTH WATER RECLAMATION FACILITY  
SLUDGE HOLDING IMPROVEMENTS  
DEMOLITION DETAILS**

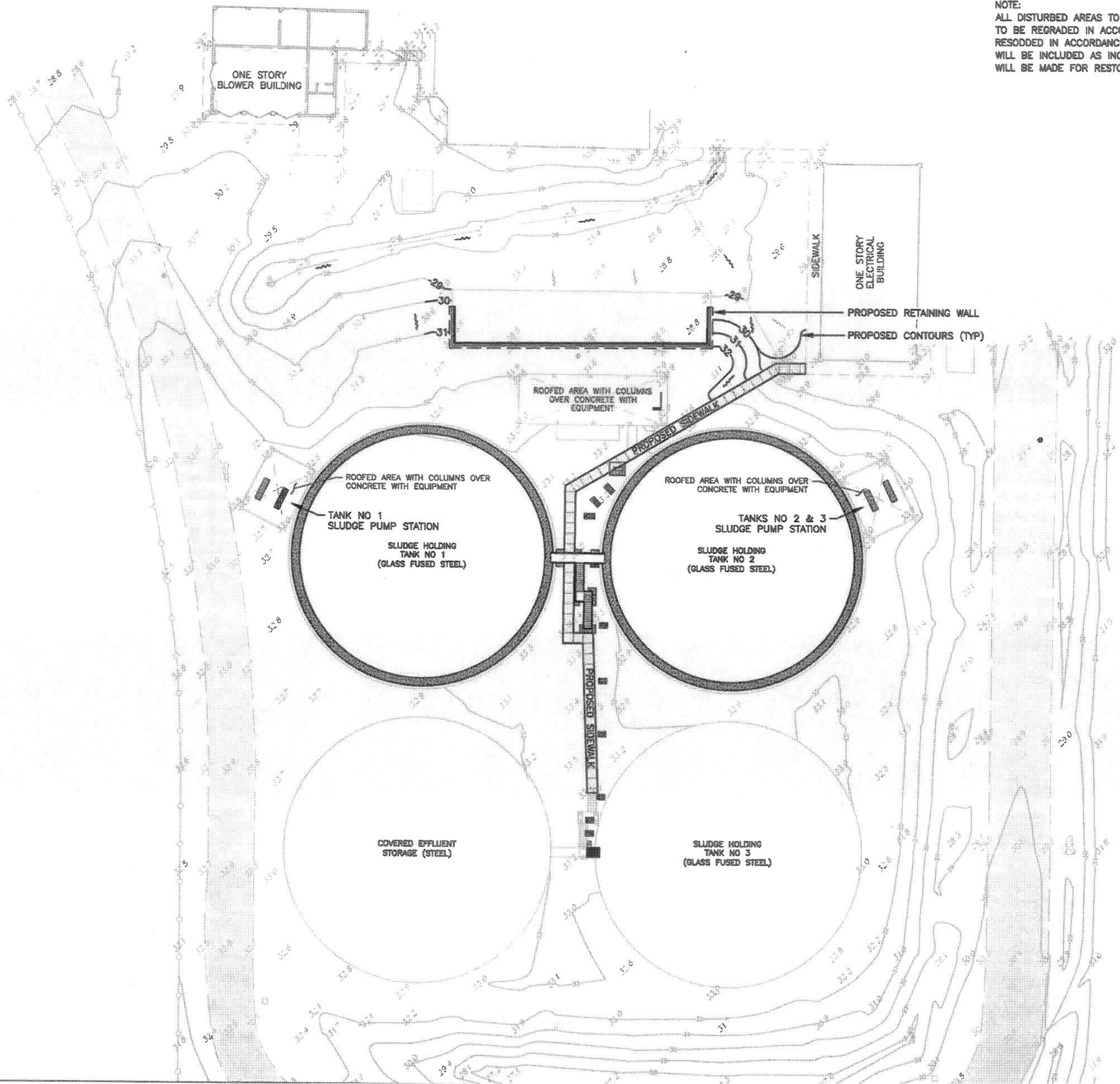
NO.	REVISION DESCRIPTION	BY	DATE
1	PROJECT #	177310545	
2	SURVEY #	000	
3	SEC./TWN./RGE	28/33S/18E	
4	SCALE	AS SHOWN	
5	DATE	05/10/13	
6	DATE	05/23/13	
7	DATE	05/23/13	
8	DATE	05/23/13	
9	DATE	05/23/13	
10	DATE	05/23/13	
11	DATE	05/23/13	
12	DATE	05/23/13	



**NORTH WATER RECLAMATION FACILITY  
SLUDGE HOLDING IMPROVEMENTS  
PROPOSED SLUDGE HOLDING FACILITY  
SITE TOPOGRAPHY**

[illegible]

NOTE:  
ALL DISTURBED AREAS TO BE RESTORED TO EXISTING CONDITIONS. AREAS  
TO BE REGRADED IN ACCORDANCE WITH SPECIFICATION SECTION 02260.  
RESODED IN ACCORDANCE WITH SPECIFICATION SECTION 02485. PAYMENT  
WILL BE INCLUDED AS INCIDENTAL TO OTHER ITEMS, NO SEPARATE PAYMENT  
WILL BE MADE FOR RESTORATION.



**100% SUBMITTAL**



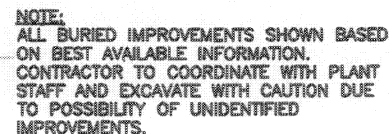
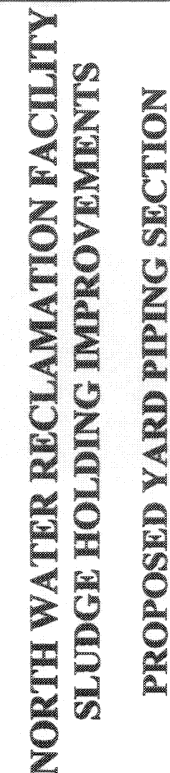
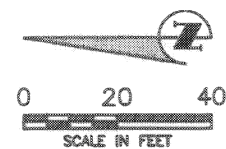
6172 STATION WAY, SARASOTA, FLORIDA 34233  
TEL. 941.366.8800 • FAX 941.366.1922  
FLORIDA CERTIFICATE NO. 27103 • WWW.STANTEC.COM

SHEET C-7





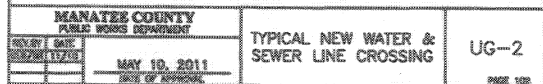




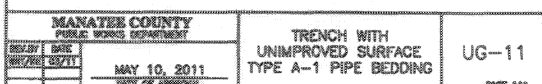
NO.	REVISION DESCRIPTION	BY	DATE
	PROJECT #	177310545	
	SURVEY #	000	
	SEC./TWN./RGE	28/33S/18E	
	SCALE	1"=20'	
	DRAWN BY	KELLY BLAKE	DATE 06/10/98
	CHECKED BY	JRG	DATE 06/23/98
	* KELLY BLAKE * Z		
	FLORIDA P.E.# 88976		
	PROFESSOR OF SURVEYING & BOTA		
	SHEET C-11		



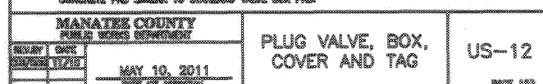
## CIVIL DETAILS



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		CONCRETE THRUST BLOCKS	UG-7
REV. BY	DATE		
REV. BY	DATE		
MAY 10, 2011			
DATE OF APPROVAL			




- |  |               |  |       |
|--|---------------|--|-------|
| <b>MANATEE COUNTY</b><br>PUBLIC WORKS DEPARTMENT |               | TRENCH WITH ASPHALT<br>PAVEMENT SURFACE TYPE<br>A-1 PIPE BEDDING | UG-12 |
| ORDER NO.<br>00000000                            | DATE<br>05/11 | MAY 10, 2011   |       |



NO.				
PROJECT #	177310545			
SURVEY #	000			
SEC./TWN./RGE	26/33S/18E			
SCALE				
DATE	05/10/11			
DESIGNED	05/23/11			
DRAWN	05/23/11			
CHECKED	05/23/11			

**100% SUBMITTAL**

 **Stantec**

STANTEC CONSULTING SERVICES INC.  
5172 STATION WAY, GARCESITA, FLORIDA 34233  
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FLORIDA CERTIFICATE NO. 21108 - [WWW.STANTEC.COM](http://WWW.STANTEC.COM)



EXISTING TANK FOUNDATION NOTES:

1. CONTRACTOR SHALL PERFORM ALL REQUIRED TESTS TO CERTIFY THE EXISTING CONCRETE FOUNDATION IS ACCEPTABLE FOR PROPOSED TANKS.
2. CONTRACTOR SHALL RETAIN A LICENSED STRUCTURAL AND GEOTECHNICAL ENGINEER TO PERFORM ALL TESTING. A GEOTECHNICAL REPORT SHALL BE PREPARED AND CERTIFY THE CONDITION OF THE EXISTING TANK FOUNDATION TO SUPPORT NEW TANK LIVE, DEAD, FLUID, AND ERECTION LOADS. THE REPORT SHALL BE PREPARED BY A GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF FLORIDA.
3. UPON RECEIPT OF THE GEOTECHNICAL REPORT, THE CONTRACTOR SHALL SUBMIT DETAILS AND SHOP DRAWINGS FOR RECOMMENDED FOUNDATION MODIFICATIONS OR IMPROVEMENTS AS STATED IN THE GEOTECHNICAL REPORT.
4. TANK CONSTRUCTION SHALL NOT COMMENCE UNTIL THE COUNTY HAS APPROVED THE PROPOSED TANK FOUNDATION MODIFICATIONS OR IMPROVEMENTS IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.

PROPOSED TANK FOUNDATION NOTES:

1. NO CONCRETE SHALL BE PLACED IN WATER.
2. ALL FOUNDATIONS SHALL BEAR ON 12" OF COMPACTED GRAVEL ON UNDISTURBED SOIL WITH A BEARING CAPACITY OF NOT LESS THAN 2500 PSF.
3. ALL FINISHED EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE ENGINEER OR HIS DESIGNEE BEFORE ANY CONCRETE IS PLACED.
4. ALL BACKFILL UNDER OR ADJACENT TO ANY PORTION OF THE STRUCTURES SHALL BE COMPACTED IN 12" LIFTS. SEE SPECIFICATIONS.
5. PROVIDE 6" GRAVEL, COMPACTED TO 90% MODIFIED PROCTOR DENSITY, UNDER ALL SLABS ON GRADE AND WHERE INDICATED ON THE DRAWINGS OVER WELL COMPACTED STRUCTURAL FILL.

## CONCRETE:

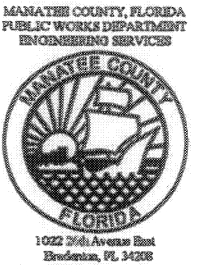
1. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE LATEST EDITION OF THE ACI BUILDING CODE (ACI 318) AND ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, AND TO THE FLORIDA BUILDING CODE. IN CASE OF CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.
2. ALL CONCRETE SHALL BE READY-MIXED IN ACCORDANCE WITH ASTM C94.
3. VERTICAL CONSTRUCTION JOINTS AND STOPS IN THE CONCRETE WORK SHALL BE MADE AT MIDSPAN. PROVIDE DOWELS AT CONSTRUCTION JOINTS OF AREA EQUAL TO 0.5% OF THE VERTICAL CONCRETE AREA. SEE SPECIFICATIONS. PROVIDE BEVELED KEYWAYS AT ALL CONSTRUCTION JOINTS.
4. AT LEAST 48 HOURS SHALL ELAPSE BEFORE DEPOSITING NEW CONCRETE AGAINST PREVIOUSLY PLACED CONCRETE.
5. ALL CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS AT 28 DAYS AGE: FOOTINGS AND INTERIOR CONCRETE SLABS - 3500 PSI., CONCRETE EXPOSED TO THE ELEMENTS (EXTERIOR SLABS) - 4,000 PSI. REFER TO SPECIFICATIONS AND ACI 301 FOR DESIGN STRENGTHS REQUIRED FOR SELECTING MIX PROPORTIONS.
6. ALL SLABS ON GRADE SHALL BE PLACED IN ALTERNATE PANELS NOT EXCEEDING 900 S.F.

### REINFORCING:

1. ALL REINFORCING BAR DETAILS SHALL CONFORM TO THE LATEST ACI CODE AND DETAILING MANUAL, EXCEPT AS OTHERWISE SPECIFIED.
2. ALL REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 EXCEPT TIES AND STIRRUPS GRADE 40. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND SHALL BE PROVIDED IN FLAT SHEETS. LAPS SHALL BE STAGGERED AND SHALL BE 1-1/2 FULL MESH MIN.
3. SCHEDULE WITH THE SHOP DRAWINGS ALL NECESSARY ACCESSORIES TO HOLD REINFORCING SECURELY IN POSITION. MINIMUM REQUIREMENTS SHALL BE: HIGH CHAIRS - 4 FEET ON CENTERS; SLAB BOLSTERS - 3'-6" ON CENTERS; SUPPORT BARS FOR HIGH CHAIRS - #5.
4. ALL BARS, EXCEPT AS OTHERWISE NOTED, SHALL BE CONTINUOUS AND SHALL BE RUN CONTINUOUSLY AROUND CORNERS, LAPPED AT NECESSARY SPLICES, AND HOOKED AT DISCONTINUOUS ENDS. LAPS SHALL BE 30-BAR DIAMETER MINIMUM, UNLESS OTHERWISE NOTED.
5. THE CONCRETE PROTECTIVE COVERING FOR MAIN REINFORCEMENT SHALL BE, UNLESS SHOWN OTHERWISE:
  - A. FOOTING BOTTOMS...3 INCHES.
  - B. COLUMNS, BEAMS AND FORMED SURFACES IN DIRECT CONTACT WITH SOIL OR EXPOSED TO THE WEATHER (EXCEPT SLABS)...2 INCHES.
  - C. SLABS EXPOSED TO THE WEATHER...1 INCH.
  - D. INTERIOR SLABS...3/4 INCH.
6. ALL CONCRETE, UNLESS SPECIFICALLY NOTED TO BE PLAIN CONCRETE, SHALL BE REINFORCED.
7. ALL REINFORCING SHALL BE INSPECTED AND APPROVED BY THE COUNTY BEFORE CONCRETE IS PLACED.

**MISCELLANEOUS:**

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT THE JOB SITE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING AND SHALL SUBMIT HIS METHODS WITH THE ENGINEER PRIOR TO THE START OF WORK.
3. CONSULT THE CIVIL, MECHANICAL AND ELECTRICAL DRAWINGS FOR VERIFICATION OF LOCATION AND DIMENSIONS OF CHASES, INSERTS, OPENINGS, SLEEVES, WASHES, REVEALS, DEPRESSIONS AND OTHER PROJECT REQUIREMENTS.
4. ALL EQUIPMENT PENETRATIONS TO BE VERIFIED BY THE CONTRACTOR.
5. DO NOT SCALE FROM DRAWINGS.
6. CONTRACTOR AND MANUFACTURERS SHALL FOLLOW MANATEE COUNTY SPECIFICATIONS FOR ALL ASSEMBLIES.
7. CONTRACTOR SHALL ENSURE ALL DISSIMILAR MATERIALS ARE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATIONS.
8. ALL MANUFACTURERS SHALL VISIT SITE TO CONFIRM THEIR DESIGNS DO NOT CONFLICT WITH ANY ABOVE AND/OR UNDER GROUND OBSTRUCTIONS.



# NORTH WATER RECLAMATION FACILITY SLUDGE HOLDING IMPROVEMENTS STRUCTURAL NOTES

REVISION DESCRIPTION	BY	DATE
NO.		
PROJECT #		177310845
SURVEY #		000
SEC./TWN./RGE		26/33S/18E
SCALE		
	BY	DATE
SURVEYED	GFY	05/10/13
DESIGNED	KKB	05/23/13
DRAWN	SAP	05/23/13
CHECKED	JRG	12/16/13

**PAUL DUQUETTE**

FLORIDA P.E. # 48457.

10/10/10

0.1215

Hand 13

3/1/50

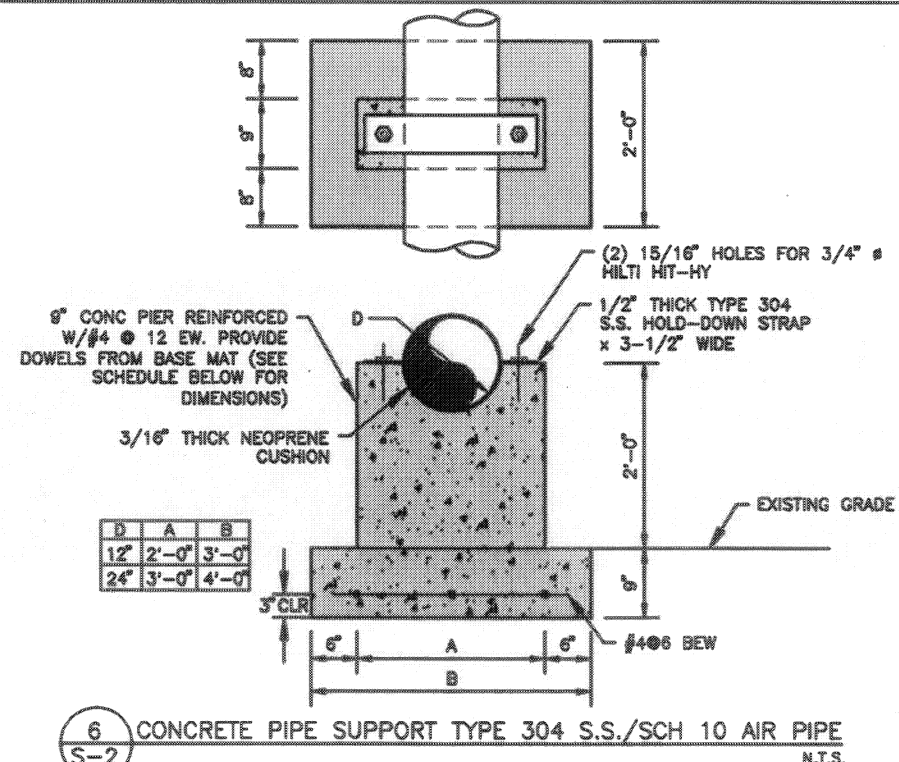
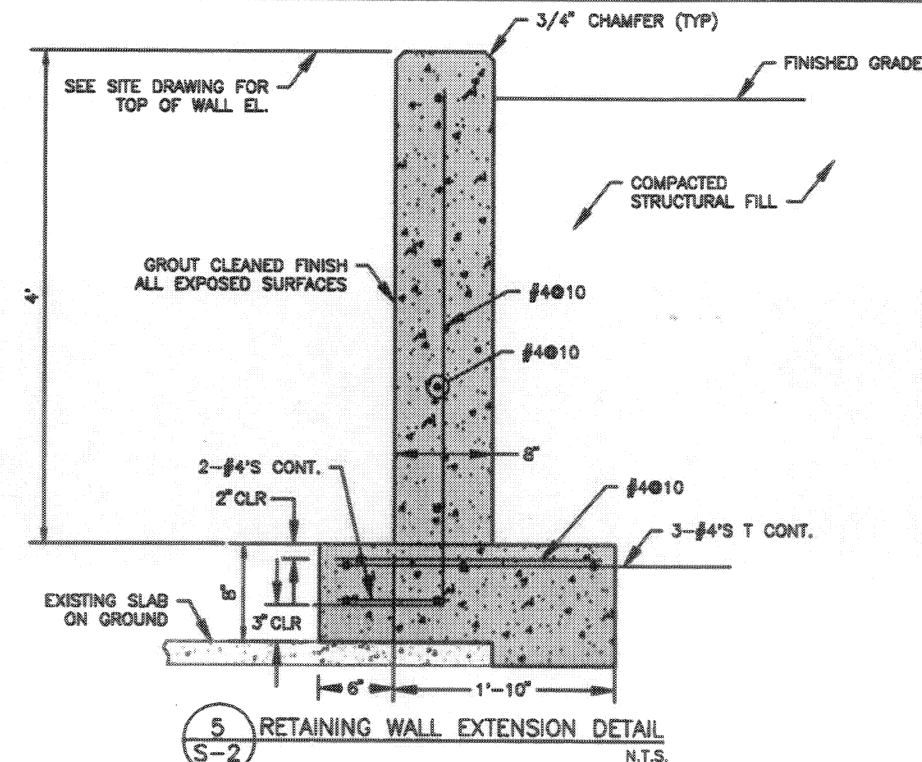
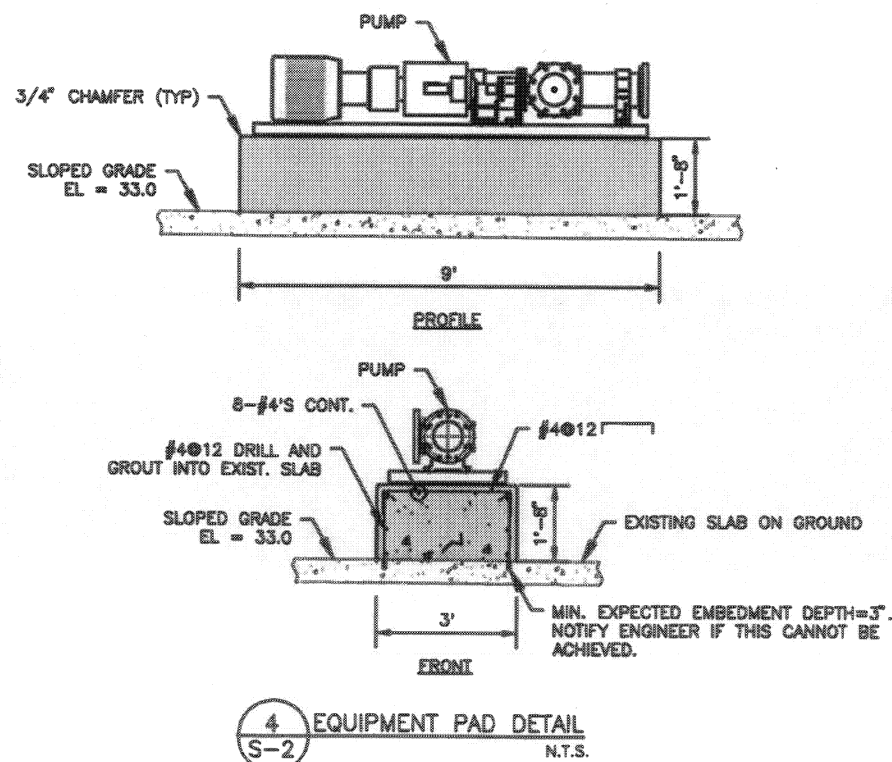
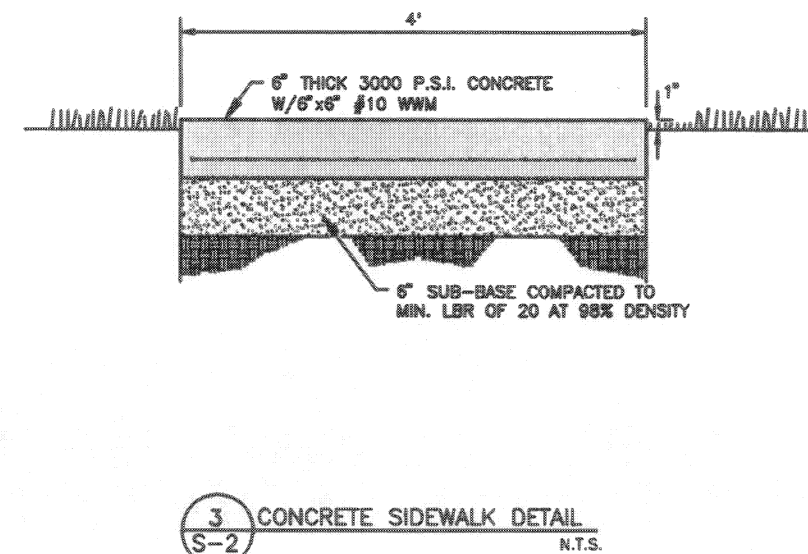
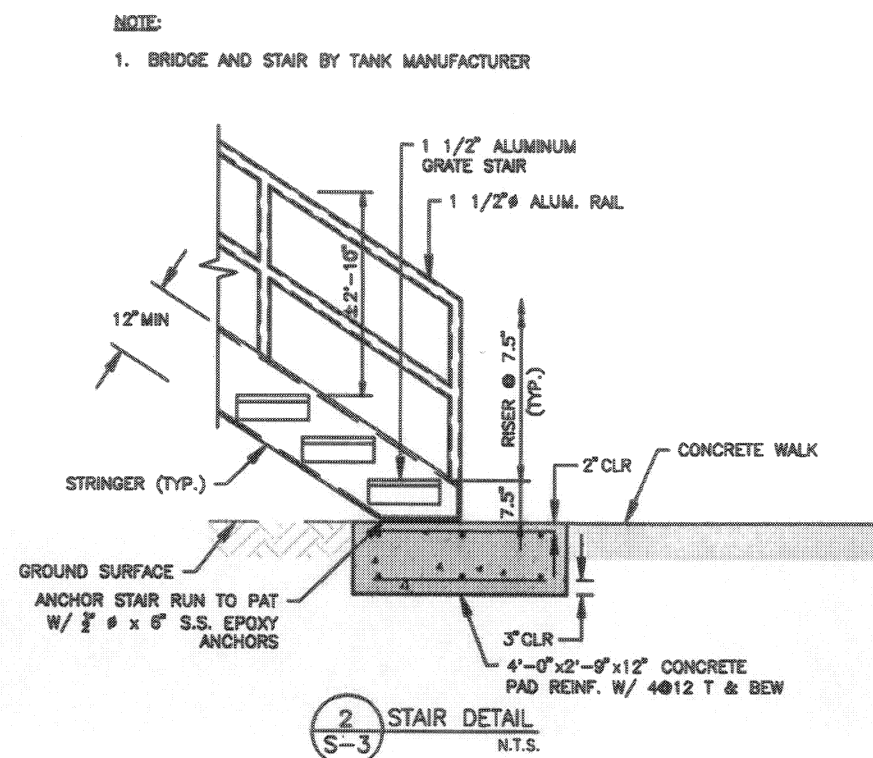
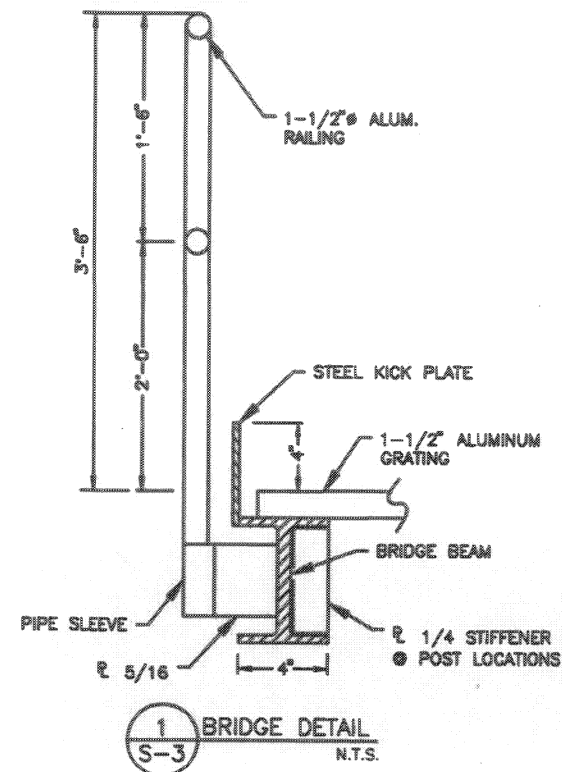
## 100% SUBMITTAL



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# NORTH WATER RECLAMATION FACILITY SLUDGE HOLDING IMPROVEMENTS STRUCTURAL DETAILS

REVISION DESCRIPTION			BY	DATE
NO.				
PROJECT #		177310545		
SURVEY #		000		
SEC./TWN./RGE		28/33S/18E		
SCALE				
	BY	DATE		
SURVEYED	GPY	05/10/		
DESIGNED	KKB	05/23/		
DRAWN	SRP	05/23/		
CHECKED	JRG	12/10/		

PAUL DUQUETTE  
FLORIDA P.E. # 48457  
*Paul R. Duquette*  
*13 Dec 13*  
Signature & Date  
SHEET S-4