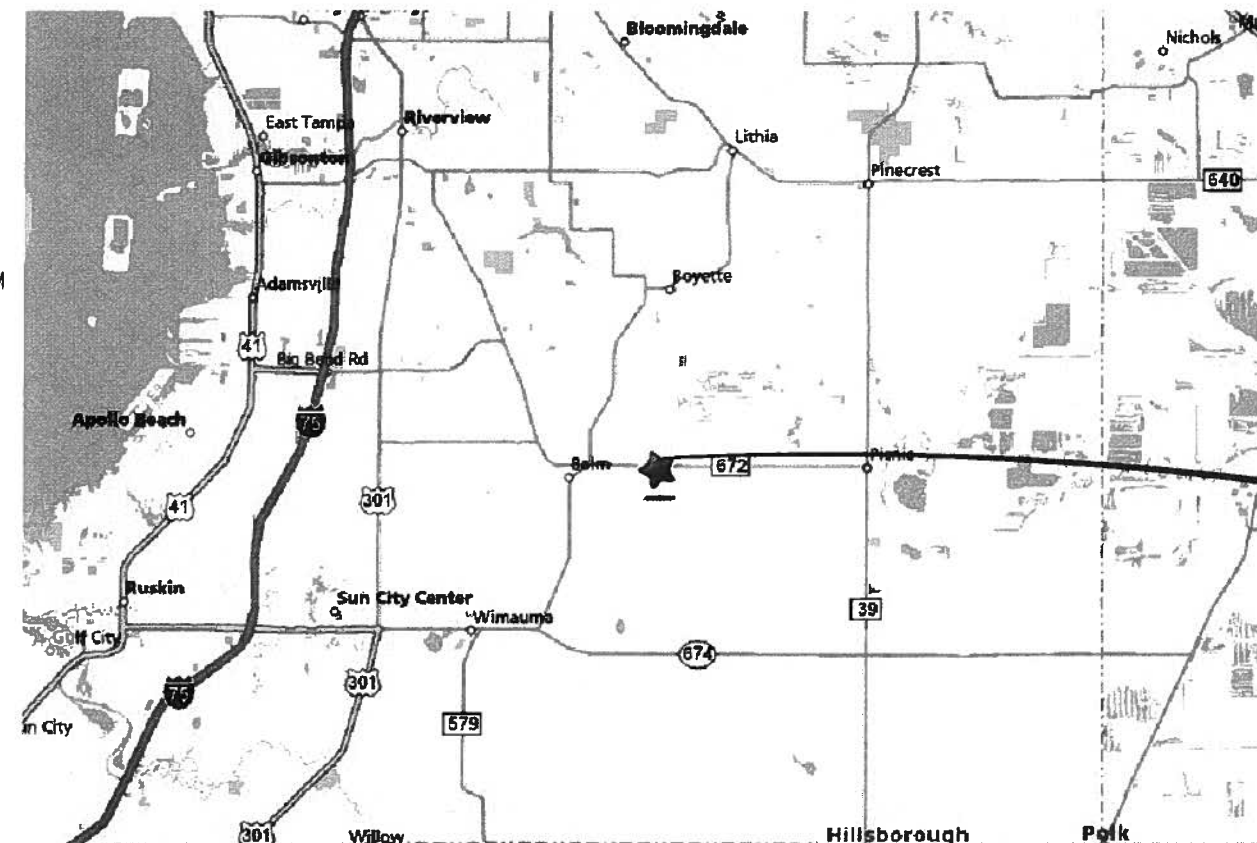


FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY TASK C RECORD DRAWINGS DECEMBER 2011

LIST OF DRAWINGS

SHEET COUNT	SHEET NUMBER	SHEET TITLE
GENERAL		
1	G-1	COVER SHEET AND INDEX OF DRAWINGS
2	G-2	LEGENDS AND NOTES
CIVIL		
3	C-1	EXISTING ONSITE WASTEWATER TREATMENT SYSTEM
4	C-2	OVERALL PROPOSED SITE PLAN
5	C-3	PROCESS FLOW DIAGRAM
6	C-4	HYDRAULIC PROFILE PNRS II
7	C-5	PNRS II DETAILS
8	C-6	PNRS II DETAILS
9	C-7	TASK C NITROGEN FATE & TRANSPORT STUDY AND PNRS II IN-SITU SYSTEMS
10	C-8	WASTEWATER SOURCE COMPONENTS DETAILS
11	C-9	MONITORING PLAN
STRUCTURAL		
12	S-1	PNRS II STRUCTURAL SITE PLAN
13	S-2	PNRS II STRUCTURAL SITE PLAN AND DETAILS
14	S-3	PNRS II STRUCTURAL SITE PLAN AND DETAILS
MECHANICAL		
15	M-1	YARD PIPING PLAN
ELECTRICAL		
16	E-1	ELECTRICAL SITE PLAN
17	E-2	ELECTRICAL SITE PLAN AND DETAILS
INSTRUMENTATION		
18	I-1	PANEL POWER
19	I-2	DI MODULE 1
20	I-3	DI MODULE 2
21	I-4	DI MODULE 3
22	I-5	DO MODULE 1
23	I-6	DO MODULE 2
24	I-7	PANEL ELEVATIONS
25	I-8	BILL OF MATERIALS
26	I-9	FUNCTIONAL CONTROL DESCRIPTIONS
27	I-10	FUNCTIONAL CONTROL DESCRIPTIONS

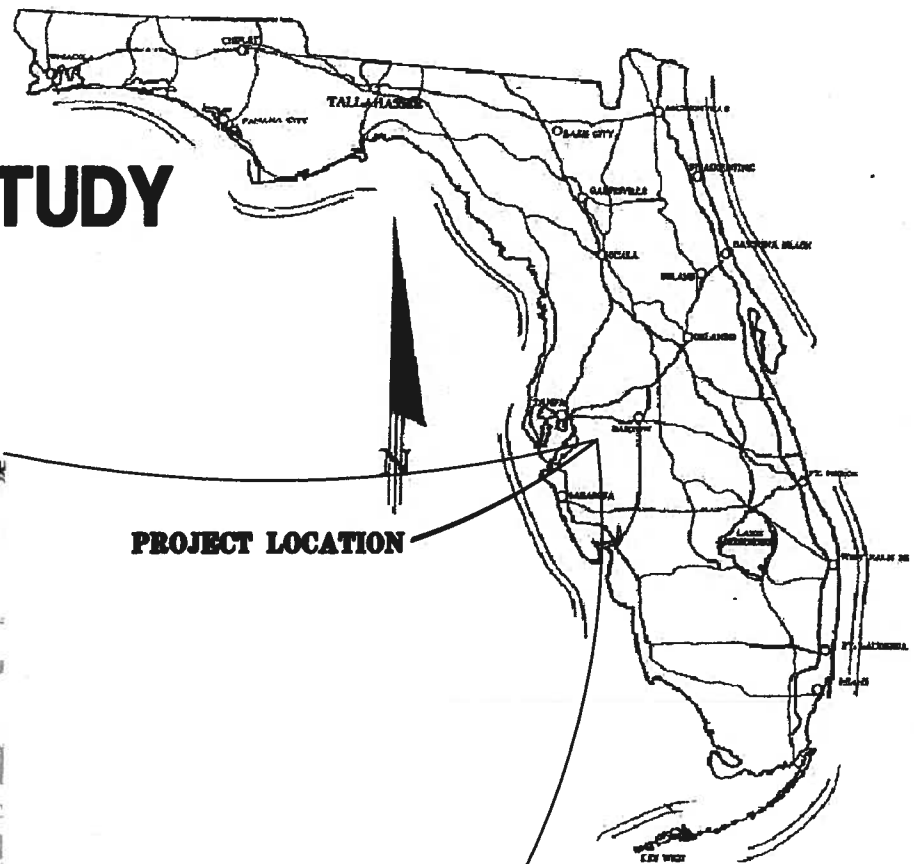


LOCATION MAP

N.T.S.

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10002 Princess Palm Ave., Suite 200
Tampa, Florida 33619
Certificate of Authorization Number: 2771



PROJECT LOCATION

PROJECT LOCATION
UNIVERSITY OF FLORIDA
GULF COAST RESEARCH AND
EDUCATION CENTER
WIMAUMA, FL.



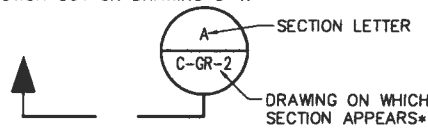
FLORIDA DEPARTMENT OF HEALTH
4052 BALD CYPRESS WAY, BIN A08
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(850)-245-4070

NOTICE:

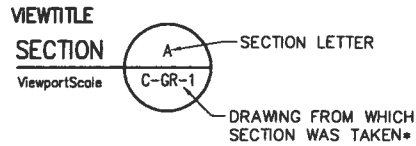
THESE "RECORD DRAWINGS" REPRESENT THE FINAL CONDITIONS OF THE CONSTRUCTION PROJECT BASED UPON THE LOCATIONS, DOCUMENTATION, AND INFORMATION FURNISHED TO HAZEN AND SAWYER BY OTHERS, FIELD OBSERVATION AND SUPPORTING PROJECTS RECORDS.

SECTION IDENTIFICATION

(1) SECTION CUT ON DRAWING G-1:

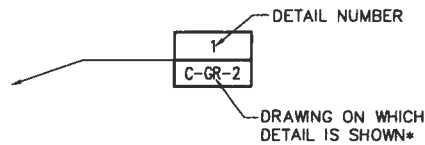


(2) ON DRAWING G-2 THIS SECTION IS IDENTIFIED AS:

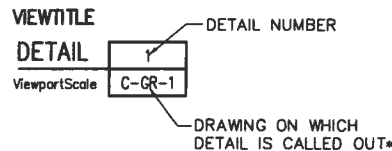


DETAIL IDENTIFICATION

(1) DETAIL CALL-OUT ON DRAWING G-1 AS:



(2) ON DRAWING G-2 THIS DETAIL IDENTIFIED AS:



SITE GENERAL NOTES

1. THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON A SURVEY AS PREPARED BY PHOTOGRAMMETRIC TECHNOLOGIES, INC. DATED FEBRUARY 2, 2003. THE BOUNDARY SURVEY IS AS PROVIDED BY U.F. I.F.A.S.
2. CONTRACTOR TO REVIEW GEOTECHNICAL REPORT AND BORINGS PRIOR TO BIDDING THE PROJECT AND FOLLOW OUTLINED CONSTRUCTION TECHNIQUES.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPLICABLE TESTING WITH THE SERVICES OF AN APPROVED TESTING LABORATORY AND SOILS ENGINEER, AS REQUIRED BY APPLICABLE REGULATORY AGENCIES AND AS MAY BE FOUND IN THE ENGINEERING CONSTRUCTION DRAWINGS. CONTRACTOR TO VERIFY ALL TESTING WITH THE OWNER PRIOR TO COMMENCING CONSTRUCTION. UPON COMPLETION OF THE WORK, THE SOILS ENGINEER MUST SUBMIT TO THE OWNER'S ENGINEER CERTIFICATIONS STATING THAT ALL REQUIREMENTS HAVE BEEN MET.
4. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTIONS.
6. ALL WORK PERFORMED SHALL COMPLY WITH THE REGULATIONS AND ORDINANCES OF THE VARIOUS GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK INCLUDING LANDSCAPING.
7. REPAIR AND REPLACEMENT OF ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THEN EXISTING CONDITIONS BEFORE COMMENCING CONSTRUCTION WORK UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION WILL BE ALLOWED.
8. RECORD DRAWINGS:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING INFORMATION ON A SET OF THE APPROVED PLANS CONCURRENTLY WITH CONSTRUCTION PROGRESS. WITHIN TWO WEEKS FOLLOWING FINAL INSPECTIONS THE CONTRACTOR SHALL SUBMIT ONE SET OF DRAWINGS TO THE ENGINEER OF RECORD. THE FINAL RECORD DRAWINGS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
A. DRAWING TO BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION.
B. DRAWINGS SHALL SHOW ACTUAL LOCATION OF ALL UTILITIES AND RELATED ITEMS, BOTH ABOVE AND BELOW GROUND. ALL CHANGES TO PIPING LOCATION INCLUDING HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES SHALL BE CLEARLY SHOWN AND REFERENCED TO PERMANENT SURFACE IMPROVEMENTS. DRAWINGS SHALL ALSO SHOW ACTUAL INSTALLED PIPE MATERIAL.
C. DRAWINGS SHALL CLEARLY SHOW ALL FIELD CHANGES OF DIMENSION AND DETAIL.
D. DRAWINGS SHALL CLEARLY SHOW ALL DETAILS NOT ON ORIGINAL CONTRACT DRAWINGS BUT CONSTRUCTED IN THE FIELD. ALL EQUIPMENT AND PIPING RELOCATIONS SHALL BE CLEARLY SHOWN.
E. LOCATIONS OF ALL MANHOLES, HYDRANTS, VALVES AND VALVE BOXES SHALL BE SHOWN.
F. THE CONTRACTOR SHALL PROVIDE CERTIFIED RECORD DRAWING, SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR. THE RECORD DRAWINGS SHALL SHOW FINAL GRADES AND LOCATIONS ON ALL UTILITIES INCLUDING THE SANITARY SEWER, WATER, PRODUCT PIPING, AND STORM WATER COLLECTION SYSTEM (I.E. PIPES, INLETS, AND PONDS). THE CONTRACTOR SHALL PROVIDE TEN COPIES OF THE CERTIFIED RECORD DRAWINGS TO THE OWNER.
9. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS.
10. ALL DELETERIOUS MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS) IS TO BE EXCAVATED IN ACCORDANCE WITH THESE PLANS OR AS DIRECTED BY THE OWNER'S ENGINEER OR OWNER'S SOIL TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE STOCKPILED AND REMOVED FROM THE CAMPUS AREA AND PLACED ON-SITE AS DIRECTED BY THE OWNERS REPRESENTATIVE. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE AREAS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND SHALL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. TRENCHES SHALL BE KEPT DRY WHILE PIPES ARE BEING PLACED. DEWATERING SHALL BE USED AS REQUIRED, AND PERMITTED THROUGH LOCAL GOVERNMENTAL AGENCIES AND WATER MANAGEMENT DISTRICT PER CURRENT REGULATIONS AT THE SOLE COST OF THE CONTRACTOR.

CONSTRUCTION NOTES

1. ALL MATERIALS AND WORK SHALL COMPLY WITH REQUIREMENTS OF CHAPTER 64E-6, FLORIDA ADMINISTRATIVE CODE (FAC), AND REQUIREMENTS, OF PERMITS ISSUED FOR THIS CONSTRUCTION. SHOP DRAWINGS FOR ALL COMPONENTS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING SYSTEM COMPONENTS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR APPLYING FOR AND OBTAINING APPROPRIATE PERMITS AND FOR SCHEDULE/COORDINATING INSPECTIONS, REVIEWS, AND APPROVALS
3. LOCATIONS SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND MAY BE FIELD ADJUSTED WITH APPROVAL OF OWNER AND HEALTH DEPARTMENT.
4. ENGINEER OF RECORD IS REQUIRED TO DO AN INITIAL INSPECTION. CONTRACTOR TO CALL (48) HOURS PRIOR TO INSPECTION TO REQUEST AN INSPECTOR.

WATER AND WASTEWATER GENERAL NOTES

1. ALL WATER AND WASTEWATER INSTALLATION CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS ON DRAWINGS AND INCLUDED DETAILS.
2. IF THE VERTICAL CLEARANCE AT CROSSING POINTS OF WATER AND SANITARY SEWER LINES IS LESS THAN 18" (IN), THE SANITARY SEWER LINE SHALL THEN BE ENCASED IN A WATER TIGHT CARRIER PIPE FOR 10' (FT) EACH SIDE OF THE CROSSING POINT.
3. CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE OWNER AND OWNER'S ENGINEER SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO BE USED ON THIS SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE. ENGINEER'S APPROVAL OF A SHOP DRAWING DOES NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR THE PERFORMANCE OF THE ITEM.
4. THE CONTRACTOR IS RESPONSIBLE FOR ANY NECESSARY UTILITY FIELD LOCATIONS, RELOCATIONS AS REQUIRED, SHALL BE COORDINATED BY THE CONTRACTOR.
5. THE HORIZONTAL SEPARATION BETWEEN WATER MAINS AND PERMANENT STRUCTURES, TREES AND SANITARY SEWER MAINS SHALL BE 10' (FT) MINIMUM.
6. THE HORIZONTAL SEPARATION BETWEEN SEWER MAINS AND PERMANENT STRUCTURES AND TREES SHALL BE 15' (FT) MINIMUM.
7. WATER MAIN MATERIALS SHALL BE:
4" - 12" MAINS SHALL BE PER AWWA, C900, DR18, CLASS 150.
2" AND SMALLER LINES SHALL BE PVC SCHEDULE 80 WITH PRESSURE RATING OF 200.
8. SANITARY SEWER PIPE MATERIALS SHALL BE:
4" - 8" SEWER SHALL BE PVC, SDR26 MEETING ASTM D3034.
4" AND SMALLER LINES SHALL BE PVC SCHEDULE 80 WITH PRESSURE RATING OF 200.
MINIMUM SLOPE FOR LATERALS SHALL BE 1.00%.
9. PROJECT IS LOCATED IN THE HILLSBOROUGH FIRE DISTRICT, STATION NO. 3.

SUMMARY OF TANKAGE

TANK	TANK DESCRIPTION	SIZE	MATERIAL
TANK 1	NEW STE TWO COMPARTMENT DOSING TANK	1050 GAL	CONCRETE
TANK 2	EXISTING STAGE 2 SEPTIC TANK	1250 GAL	CONCRETE
TANK 3	NEW DENITE FEED TANK	30 GAL	PLASTIC
TANK 4	NEW STE DRIP STORAGE TANK	300 GAL	CONCRETE
TANK 5	NEW NO3 DRIP STORAGE TANK	300 GAL	CONCRETE

SUMMARY OF PUMPS

PUMP	PUMP LOCATION	TYPE	MANUFACTURER/MAKE	MODEL
P1	TANK 2	SUBMERSIBLE	STA-RITE	20D0M05221
P2	TANK 1	SUBMERSIBLE	LITTLE GIANT	5-MSP
P3	TANK 1	SUBMERSIBLE	LITTLE GIANT	5-MSP
P4	TANK 1	SUBMERSIBLE	LITTLE GIANT	5-MSP
P5	DOSES INSITU STAGE 1 BIOFILTERS	PERISTALTIC	MASTERFLEX	R-07523-80
P6	RECIRCULATION DOSE TANK 1	SUBMERSIBLE	LITTLE GIANT	5-MSP
P7	RECIRCULATION DOSE TANK 2	SUBMERSIBLE	LITTLE GIANT	5-MSP
P8	RECIRCULATION DOSE TANK 3	SUBMERSIBLE	LITTLE GIANT	5-MSP
P9	RECIRCULATION DOSE TANK 4	SUBMERSIBLE	LITTLE GIANT	5-MSP
P10	NOT USED			
P11	DOSES STAGE 2 BIOFILTERS	PERISTALTIC	MASTERFLEX	R-07253-90
P12	TANK 4	SUBMERSIBLE	STA-RITE	20D0M05221
P13	TANK 5	SUBMERSIBLE	STA-RITE	20D0M05221
P14	TANK 1	SUBMERSIBLE	LITTLE GIANT	5-MSP
P15	TANK 4	SUBMERSIBLE	LITTLE GIANT	5-MSP

LEGEND

EXISTING	NEW
---99---	EXISTING ELEVATION CONTOUR
---SS---	EXISTING SPOT ELEVATION
---X---	EXISTING FENCE
---SS---	EXISTING SANITARY SEWER LINE & MANHOLE
---W---	EXISTING WATER LINE & VALVE
---ST---	EXISTING STORM LINE & STRUCTURE
---E---	EXISTING ELECTRIC LINE
---OPL---	EXISTING OVERHEAD POWER LINE
---GAS---	EXISTING GAS LINE
---	EXISTING LIGHT
---	EXISTING UTILITY POLE
---	EXISTING WOOD POWER POLE
---	EXISTING TELEPHONE PEDESTAL
---	EXISTING GUY ANCHOR
---	EXISTING WELL
---	EXISTING WATER METER
---	EXISTING FIRE HYDRANT
---	EXISTING UNDERGROUND TELEPHONE LINE
---	EXISTING TREE (SIZE & TYPE)
---	EXISTING STRUCTURE
---	PROJECT BENCHMARK

ELECTRICAL LEGEND

ⓔ	EQUIPMENT CONNECTION OUTLET - VERIFY LOCATION
ⓓ	JUNCTION BOX
Ⓣ	TRANSFORMER
ⓧⓧⓧ	DISTRIBUTION SWITCHBOARD OR PANELBOARD
---	BRANCH CIRCUIT PANELBOARD
---	CONDUIT
---	HOMERUN TO PANELBOARD. "1,3" INDICATES THE BRANCH CIRCUIT NUMBERS. HATCH MARKS DENOTE NUMBER OF CONDUCTORS EXCLUDING GROUND CONDUCTOR. NO HATCH MARKS DENOTES TWO #12 CONDUCTORS AND ONE #12 GROUNDING CONDUCTOR
---	UNDERGROUND CONDUIT
---	CONDUIT STUB-UP
Ⓛ1	PANELBOARD NUMBER

ELECTRICAL ABBREVIATIONS

A	AMPS	HOA	HAND-OFF-AUTOMATIC
AFF	ABOVE FINISHED FLOOR	HP	HORSEPOWER
AICS	AMPS INTERRUPTING CAPACITY SYMMETRICAL	IMC	INTERMEDIATE METAL CONDUIT
BKR	BREAKER	K	KILO
C	CONDUIT	LTG	LIGHTING
CLG	CEILING	MTD	MOUNTED
CKT	CIRCUIT	NEC	NATIONAL ELECTRICAL CODE
CU	COPPER	OHP	OVERHEAD PRIMARY
EF	EXHAUST FAN	P	POLE
EMT	ELECTRICAL METALLIC TUBING	PWR	POWER
FU	FUSE	UGE	UNDERGROUND ELECTRIC
FLR	FLOOR	UL	UNDERWRITERS LABORATORIES
GFI	GROUND FAULT INTERRUPTER	UNO	UNLESS NOTED OTHERWISE
GRD	GROUND	V	VOLTS
		VA	VOLT-AMPERES
		W	WATTS
		WP	WEATHERPROOF
		Ⓢ	PHASE

RECORD DRAWING

DESIGNED	JME
DRAWN	CMS
CHECKED	DBS
PROJ. ENGR.	JME
DLA	
APPROVED	
JOSEFIN M. EDEBACK	
Name:	Date:
Florida Professional Engineer's Registration Number: 69835	

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FLORIDA DEPARTMENT OF HEALTH

FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY

LEGENDS AND NOTES

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

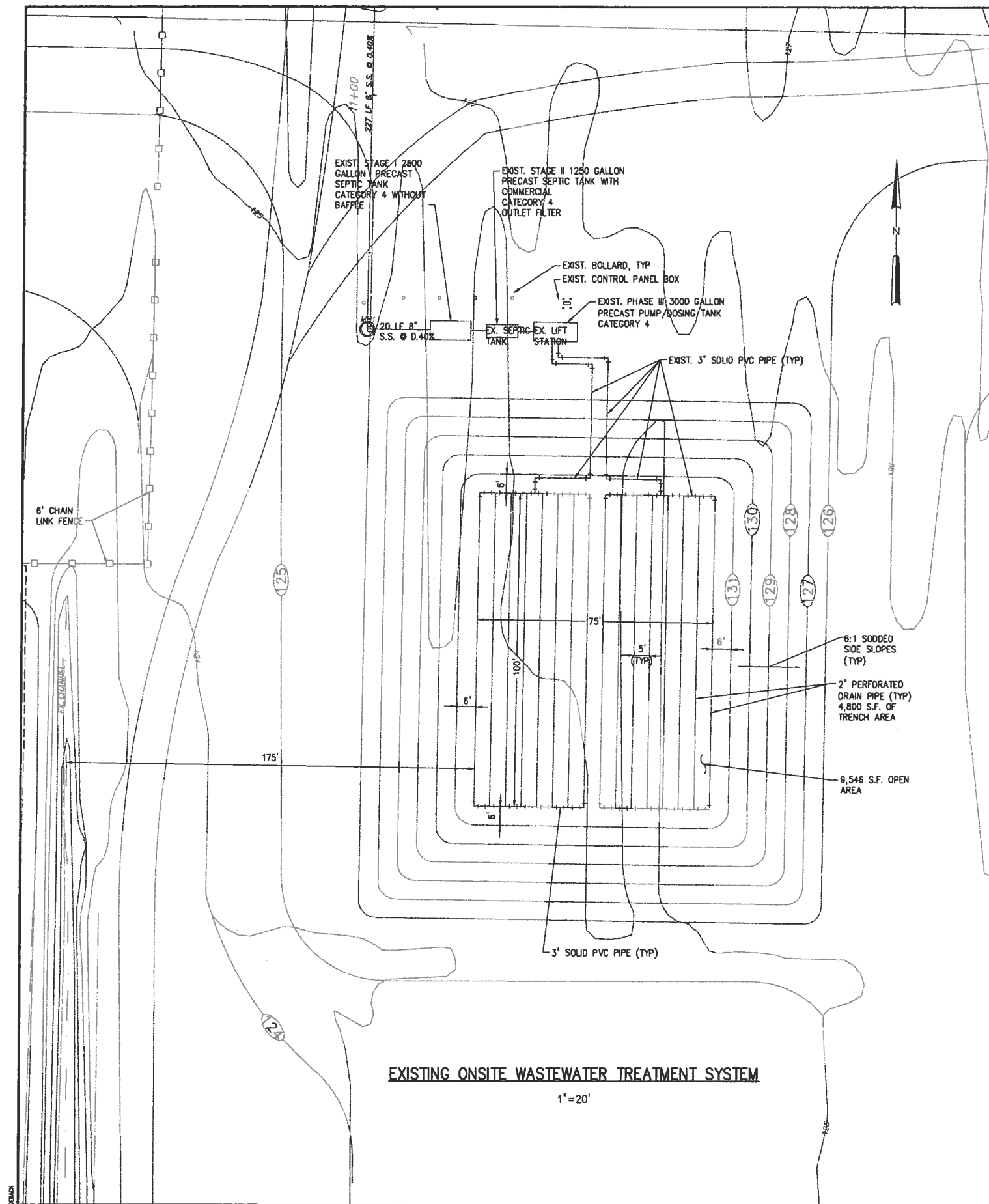
DATE DECEMBER 2011

H & S JOB NUMBER 44237-001

CONTRACT NUMBER

DRAWING NUMBER

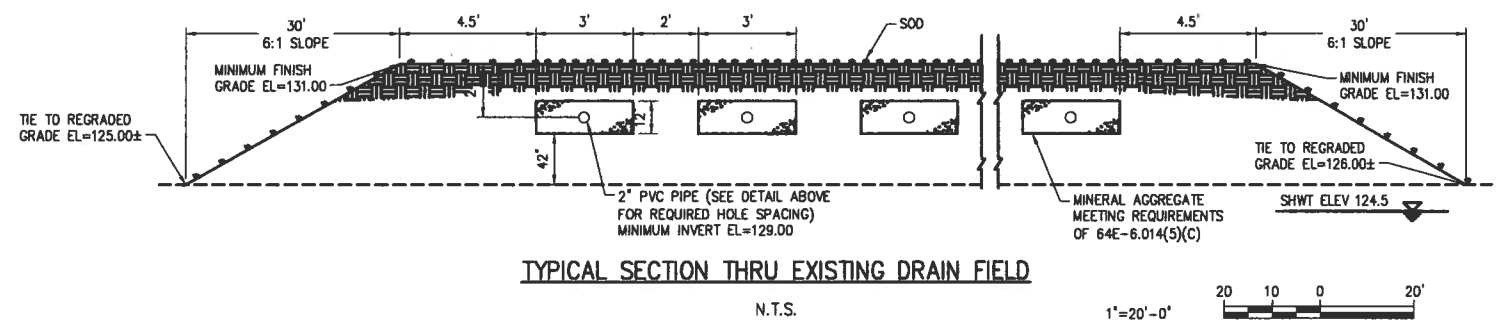
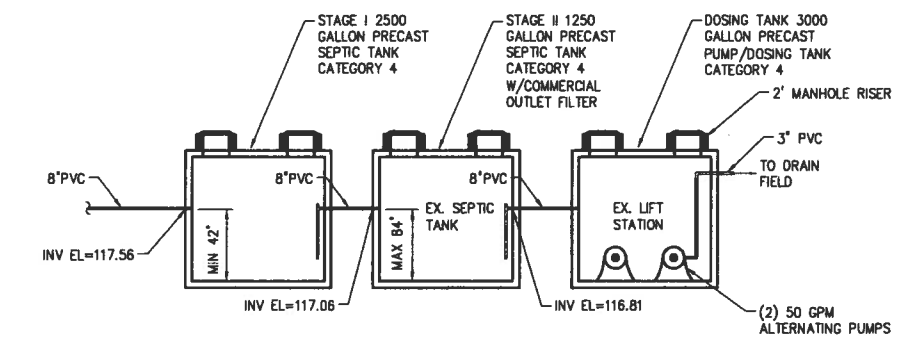
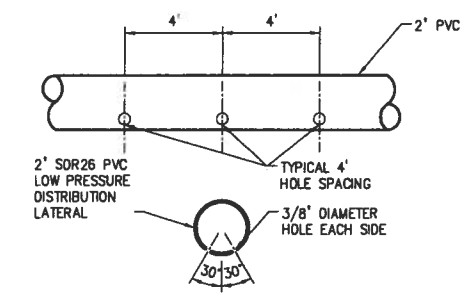
G-2



NOTE:
THIS SHEET IS BASED ON ORIGINAL DESIGN DRAWINGS FOR THE GCRC FACILITY WHICH WERE NOT PREPARED BY HAZEN AND SAWYER, P.C. IT IS UNKNOWN IF THESE DRAWINGS REPRESENT AS-BUILT CONDITIONS OR ARE ONLY DESIGN DRAWINGS AND CALCULATIONS.

EXISTING DRAIN FIELD CALCULATION
BASED ON UNSUITABLE SUBSURFACE CONDITIONS
LOAD RATE = 0.65
TRENCH AREA = 2828 GPD/0.65 = 4351 SF
OPEN AREA = 2 x 4351 SF = 8702 SF

EXISTING SYSTEM FLOW CALCULATION
DESIGN FLOW (PER 64E-6.008(1b) TABLE 1)
ADMIN/STAFF (100x15) = 1500 GPD
SCHOOL [STUDENT BOARDING TYPE] (16 x 75 GPD) = 1200 GPD
ADD FOR SHOWERS (16 x 4) = 64 GPD
ADD FOR CAFETERIA (16 x 4) = 64 GPD
TOTAL = 2828 GPD



NO.	ISSUED FOR	DATE	BY	APPROVED
6	RECORD DRAWING TASK C	12/11	-	-
5	RECORD DRAWING PNRS II	05/10	-	-
4	FINAL SUBMITTAL	01/10	-	-
3	100% SUBMITTAL	12/09	-	-
2	75% SUBMITTAL	12/09	-	-
1	50% SUBMITTAL	08/09	-	-

DESIGNED	
DRAWN	
CHECKED	
PROJ. ENGR.	
APPROVED	

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FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY

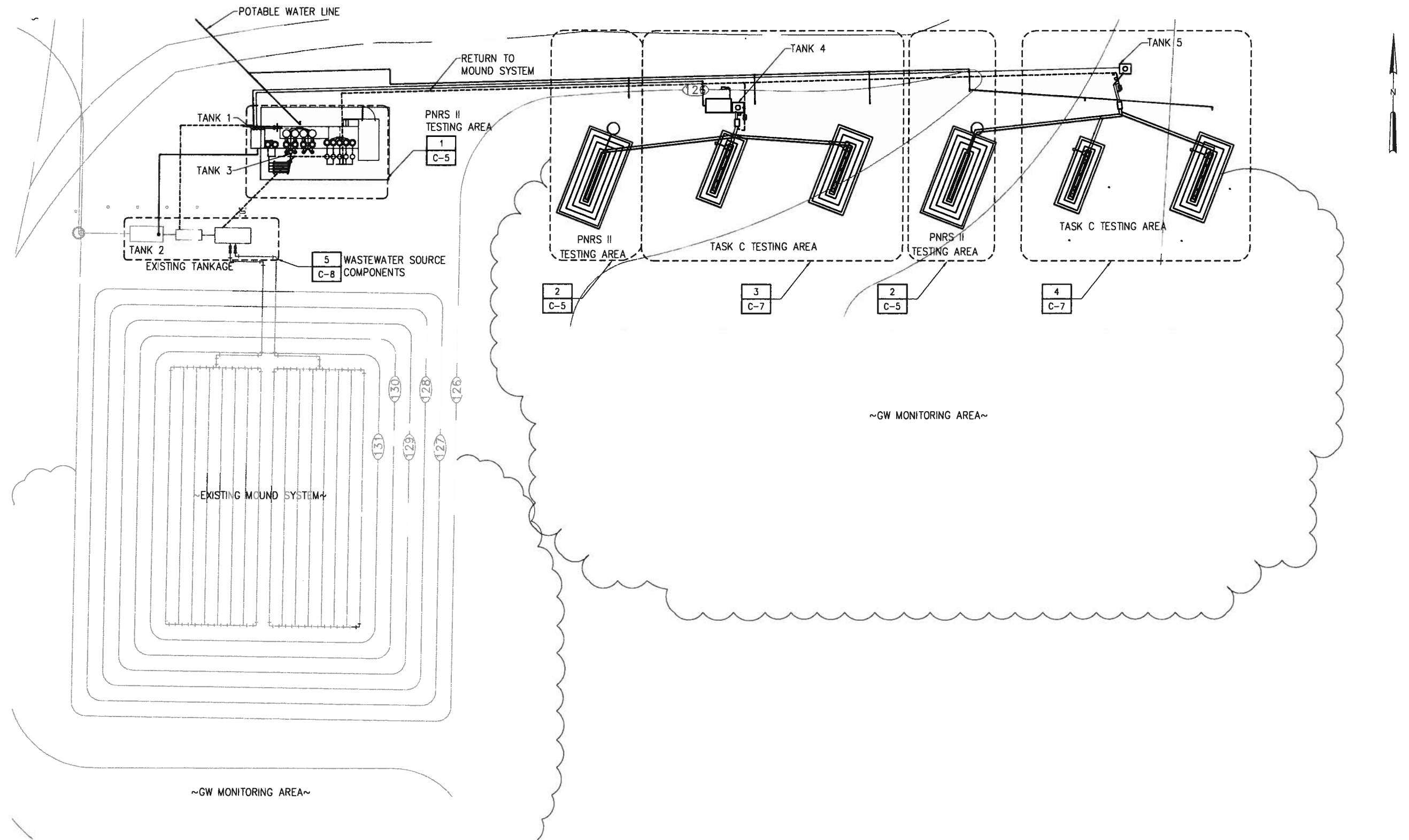
EXISTING ONSITE WASTEWATER TREATMENT SYSTEM

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

DATE: DECEMBER 2011
H & S JOB NUMBER: 44237-001
CONTRACT NUMBER:
DRAWING NUMBER: C-1

PLOT DATE: 12/22/2011 3:30 PM PLOT: JWB

File: C:\V037-000-001\PROJECTS\037-001\Drawings\037-001-001.dwg Plot Date: 12/22/2011 3:30 PM



PROPOSED SITE PLAN

1"=20'

1"=20'-0"



Plot Date: 12/22/2011 3:25 PM BY: JEDBACK

6	RECORD DRAWING TASK C	12/11	-	DESIGNED	JME
5	RECORD DRAWING PNRS II	05/10	-	DRAWN	CMS
4	FINAL SUBMITTAL	01/10	-	CHECKED	DBS
3	100% SUBMITTAL	12/09	-	PROJ. ENGR.	JME
2	75% SUBMITTAL	12/09	-		
1	50% SUBMITTAL	08/09	-		DLA
NO.	ISSUED FOR	DATE	BY	APPROVED	

JOSEPH M. EDEBACK
Name: _____ Date: _____
Florida Professional Engineer's Registration Number: 69835

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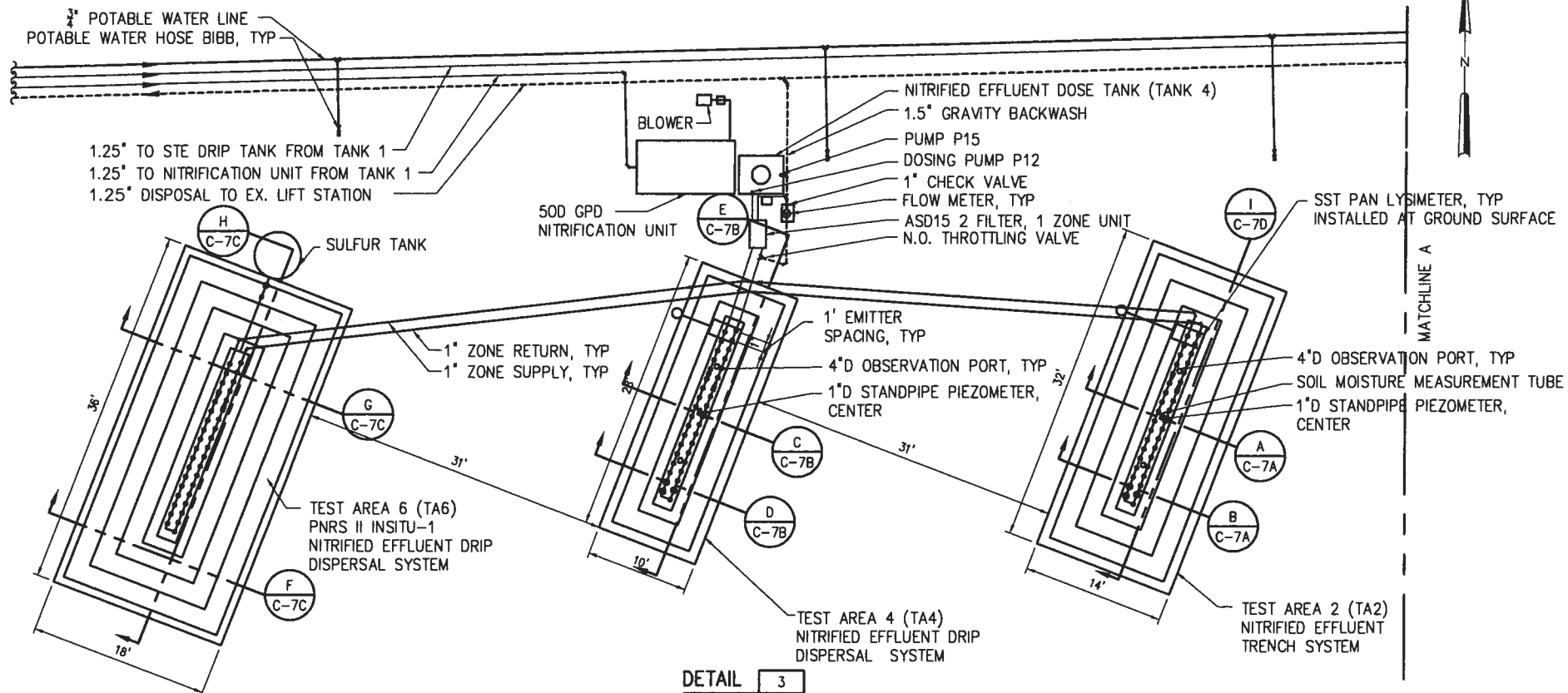
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FLORIDA DEPARTMENT OF HEALTH
FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY

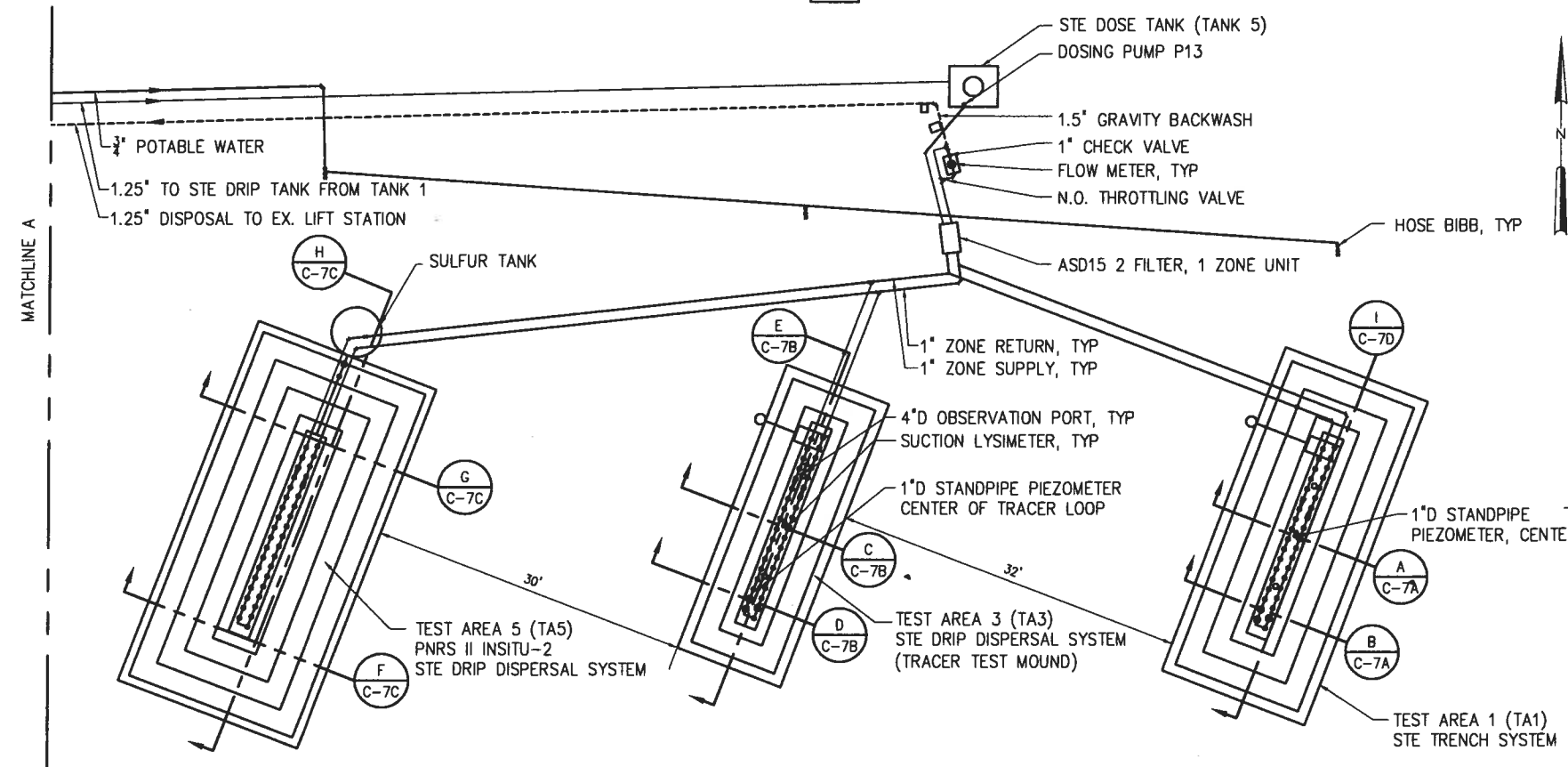
OVERALL PROPOSED SITE PLAN

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE DECEMBER 2011
	H & S JOB NUMBER 44237-001
	CONTRACT NUMBER
	DRAWING NUMBER C-2

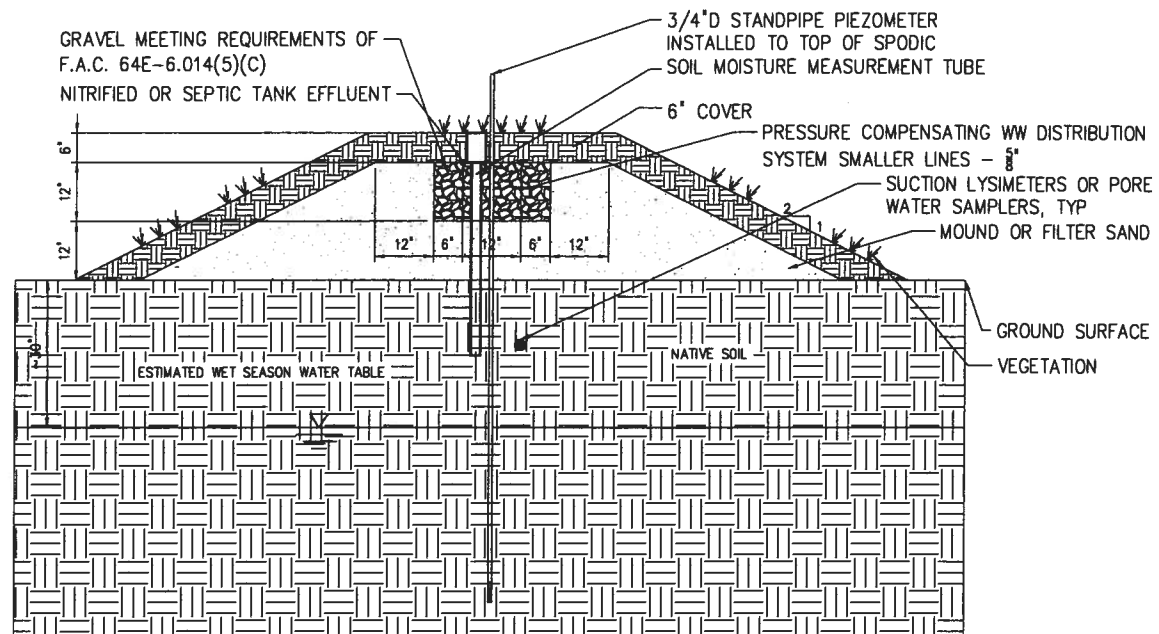
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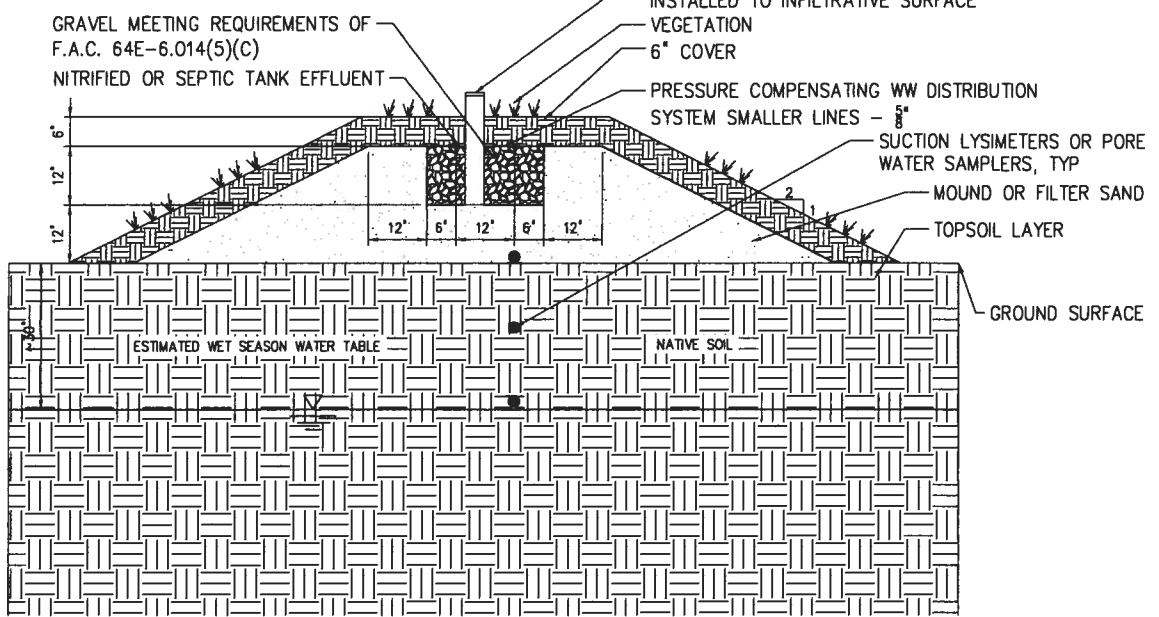
DETAIL 3
1' = 8'-0" C-2



DETAIL 4
1' = 8'-0" C-2



SECTION A
1' = 1'-8"



SECTION B
1' = 1'-8"

NOTES

1. PROPOSED NITRIFICATION UNIT AT THIS FACILITY REFERS TO A WASTEWATER TREATMENT SYSTEM WHICH MAY UTILIZE SPECIAL EQUIPMENT AND MATERIALS SUPPLIED AS A SINGLE PACKAGE WHERE INDICATED. THIS SYSTEM WILL BE PROVIDED BY OTHERS.
2. TWO DRIP DISPERSAL SYSTEMS WITH THREE ZONES EACH SHALL BE PROVIDED AS INDICATED. THE SYSTEMS SHALL INCLUDE A PRESSURE REGULATOR AND FLOW METER ON THE RETURN LINE. THE INSTALLATION OF THIS SYSTEM SHALL BE IN ACCORDANCE WITH SPECIFICATIONS AND PROCEDURES AS SUPPLIED BY THE MANUFACTURER OF THE EQUIPMENT.
3. THE DRIP TUBING SHALL BE INSTALLED BASED ON MANUFACTURER'S RECOMMENDATIONS.
4. ALL PVC PIPING AND FITTINGS SHALL BE PVC SCH 40 TYPE 1 RATED FOR PRESSURE APPLICATIONS. ALL GLUED JOINTS SHALL BE CLEANED AND PRIMED WITH PURPLE (DYED) PVC PRIMER PRIOR TO BEING GLUED.
5. ALL CUTTING OF PVC PIPE, FLEXIBLE PVC AND DRIPPER TUBING OF SIZE 1.5" OR SMALLER SHALL BE ACCOMPLISHED WITH PIPE CUTTERS APPROVED BY AMERICAN MANUFACTURING COMPANY, INC. NO SAWING OF PVC, FLEXIBLE PVC, OR DRIPPER TUBING OF SIZE 1.5" OR SMALLER IS ALLOWED.
6. ALL PVC PIPE, FLEXIBLE PVC AND DRIPPER TUBING IN THE WORK AREA SHALL HAVE THE ENDS COVERED WITH DUCT TAPE TO PREVENT CONSTRUCTION DEBRIS FROM ENTERING THE PIPE. PRIOR TO GLUING, ALL JOINTS SHALL BE INSPECTED FOR AND CLEARED OF ANY CONSTRUCTION DEBRIS.
7. ALL AUTOMATIC VALVES (ZONE VALVES & FIELD FLUSH RETURN VALVES) SHALL BE INSTALLED WITH ISOLATION VALVES, BYPASS VALVES, AND DISCONNECTS (I.E. UNIONS, FLANGES) FOR MANUAL FIELD OPERATION DURING FIELD MAINTENANCE EVENTS. ALL VALVES MUST BE PROVIDED WITH AT-GRADE ACCESS.
8. NO ACTIVITY ON DRAINFIELD AREA OTHER THAN MINIMUM IS REQUIRED TO INSTALL SYSTEMS. DO NOT PARK EQUIPMENT, DRIVE LARGE EQUIPMENT OVER OR STORE MATERIALS ON DRAINFIELD AREAS.
9. NO WET WEATHER INSTALLATION IS PERMITTED.
10. ALL FORCE MAINS SHALL BE TESTED FOR LEAKS PRIOR TO DRIP TUBING INSTALLATION AND PRIOR TO SYSTEM STARTUP. UNCOVERED FORCE MAINS SHALL BE VISIBLY INSPECTED FOR LEAKS. IF A LEAK IS SUSPECTED IN COVERED FORCE MAINS THEN THE FORCE MAIN SHALL BE RE-TESTED AT A MINIMUM PRESSURE OF AT LEAST 50 PERCENT ABOVE THE DESIGN OPERATING PRESSURE, FOR AT LEAST 30 MINUTES. THERE SHALL BE NO DISCERNIBLE LEAKAGE.
11. THE CONTRACTOR IS ADVISED THAT THE NITRIFICATION UNIT AND DRIP DISPERSAL SYSTEMS AND POSSIBLY OTHER DONATED EQUIPMENT WILL BE DELIVERED AND STORED AT THE PROJECT SITE. EXCEPT WHERE INDICATED IN CONTRACT DOCUMENTS ALL SHIPMENTS WILL BE ARRANGED BY FDOH AND THE ENGINEER. MANUFACTURERS REPRESENTATIVES WILL BE AVAILABLE FOR TECHNICAL GUIDANCE AT THE TIME OF INSTALLATION.

RECORD DRAWING

PLT DATE: 12/22/2011 3:36 PM BY: ADEKANE

NO.	ISSUED FOR	DATE	BY	APPROVED
6	RECORD DRAWING TASK C	12/11	-	DESIGNED JME
5	RECORD DRAWING PNRS II	05/10	-	DRAWN CMS
4	FINAL SUBMITTAL	01/10	-	CHECKED DBS
3	100% SUBMITTAL	12/09	-	PROJ. ENGR. JME
2	75% SUBMITTAL	12/09	-	
1	50% SUBMITTAL	08/09	-	

DESIGNED	JME
DRAWN	CMS
CHECKED	DBS
PROJ. ENGR.	JME
DATE	
BY	
APPROVED	

JOSEFIN M. EDEBACK
Name:
Date:
Florida Professional Engineer's Registration Number: 69835

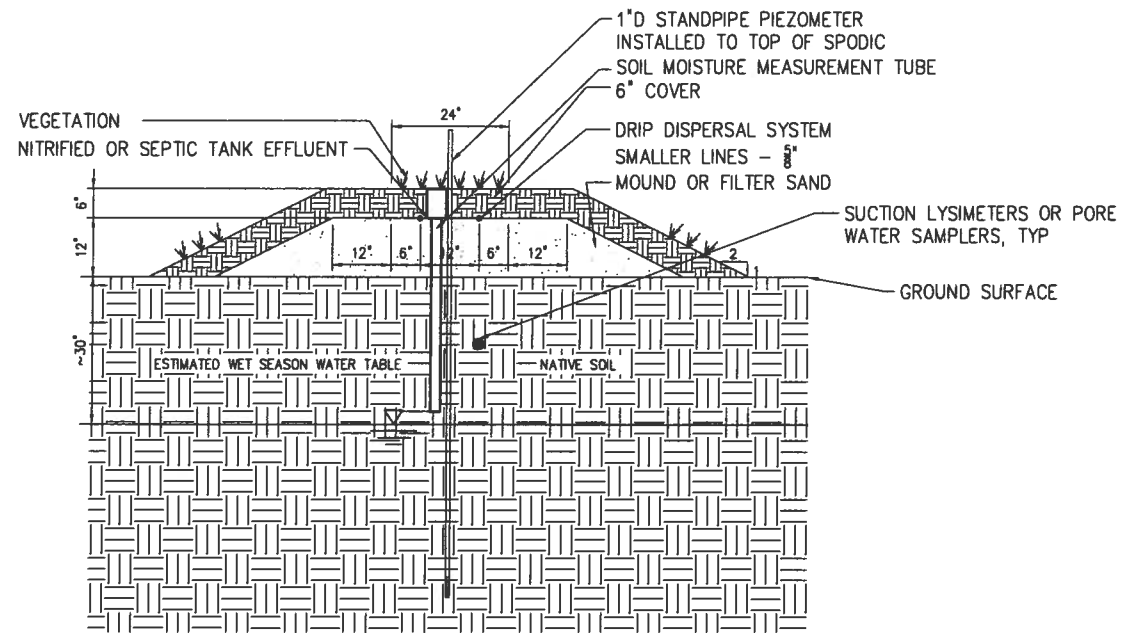
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Environmental Engineers & Scientists
10002 Princess Palm Avenue
Regency One Building, Suite 200
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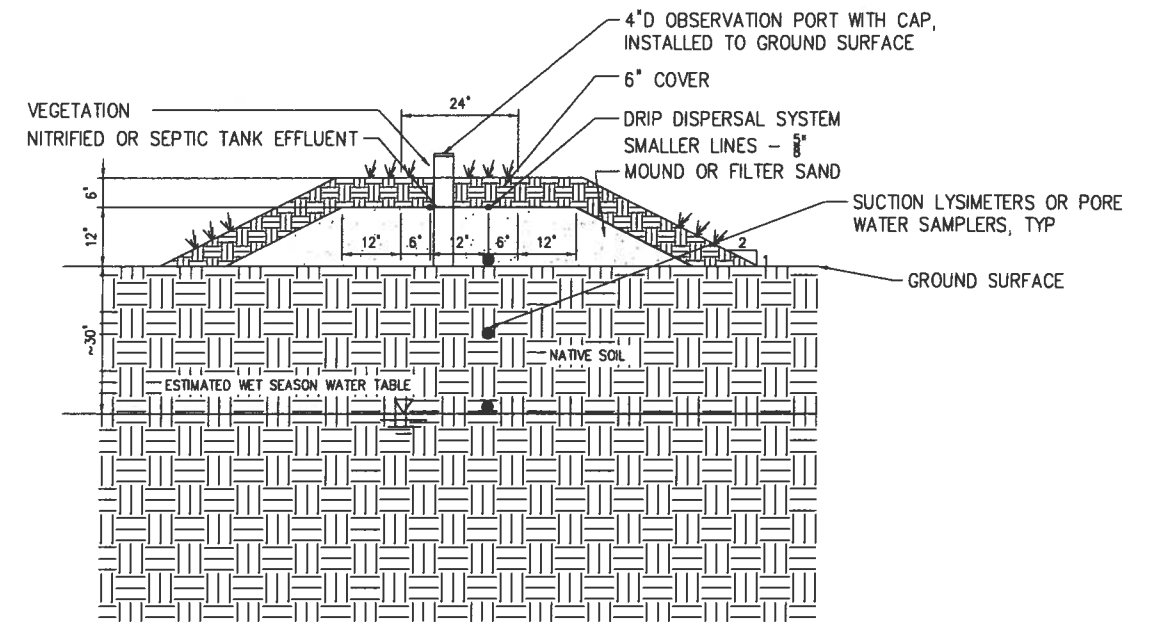
FLORIDA DEPARTMENT OF HEALTH
FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY
TASK C NITROGEN FATE & TRANSPORT STUDY & PNRS II IN-SITU SYSTEMS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

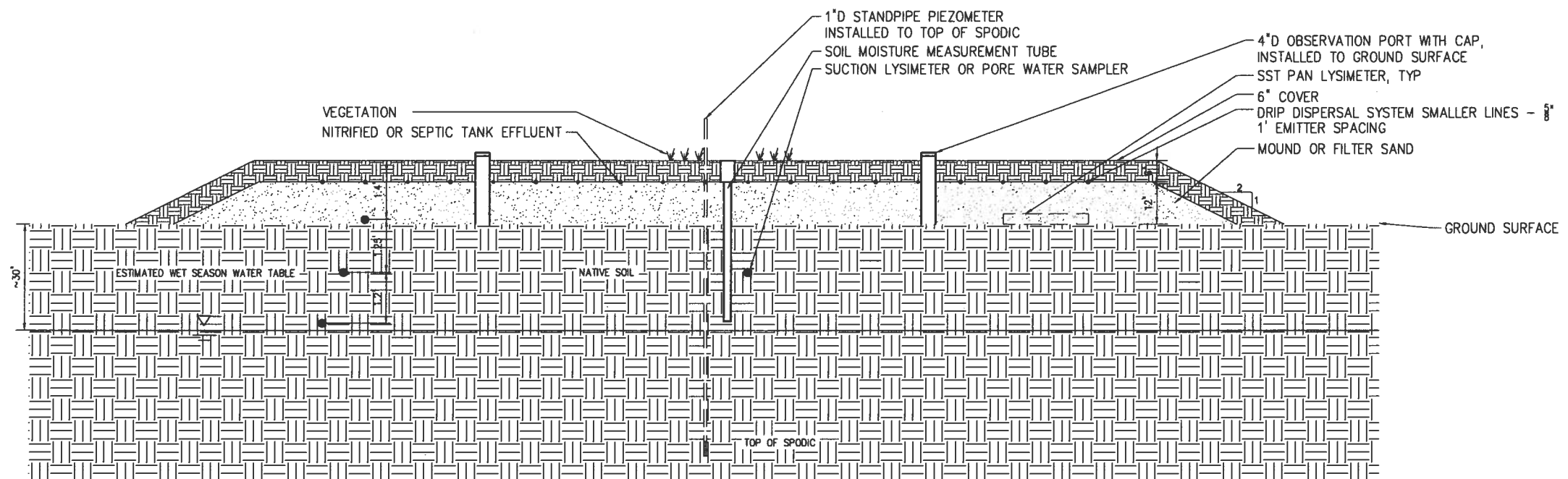
DATE	DECEMBER 2011
H & S JOB NUMBER	44237-001
CONTRACT NUMBER	
DRAWING NUMBER	C-7A



SECTION C
1' = 1'-8" C-7A



SECTION D
1' = 1'-8" C-7A



SECTION E
1' = 1'-8" C-7A

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2	75% SUBMITTAL	12/09	--		
1	50% SUBMITTAL	08/09	--	DLA	
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JOSEFIN M. EDEBACK
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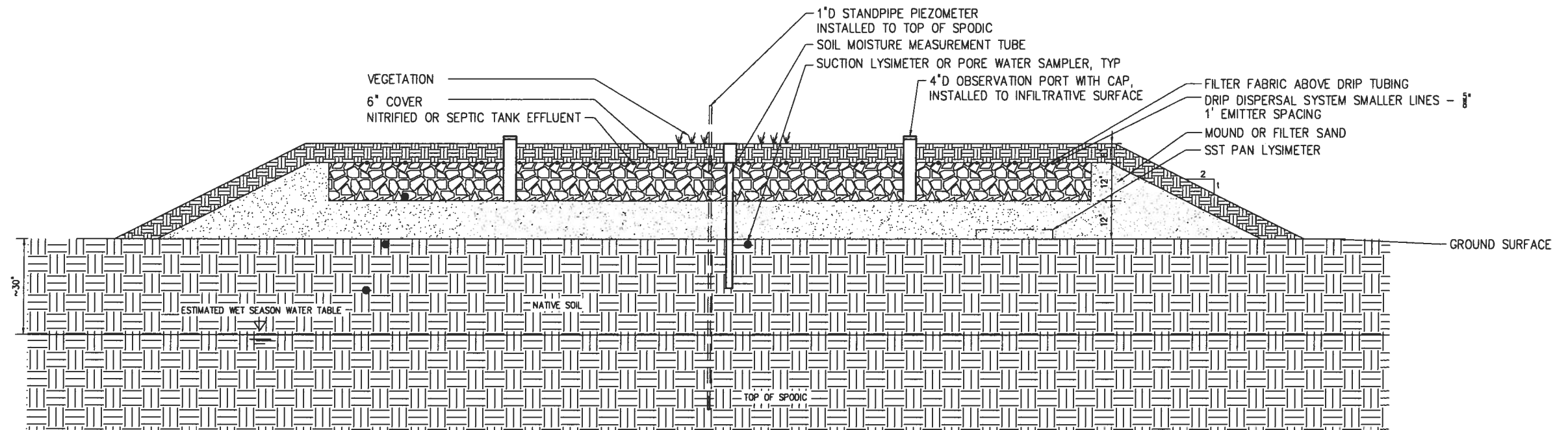


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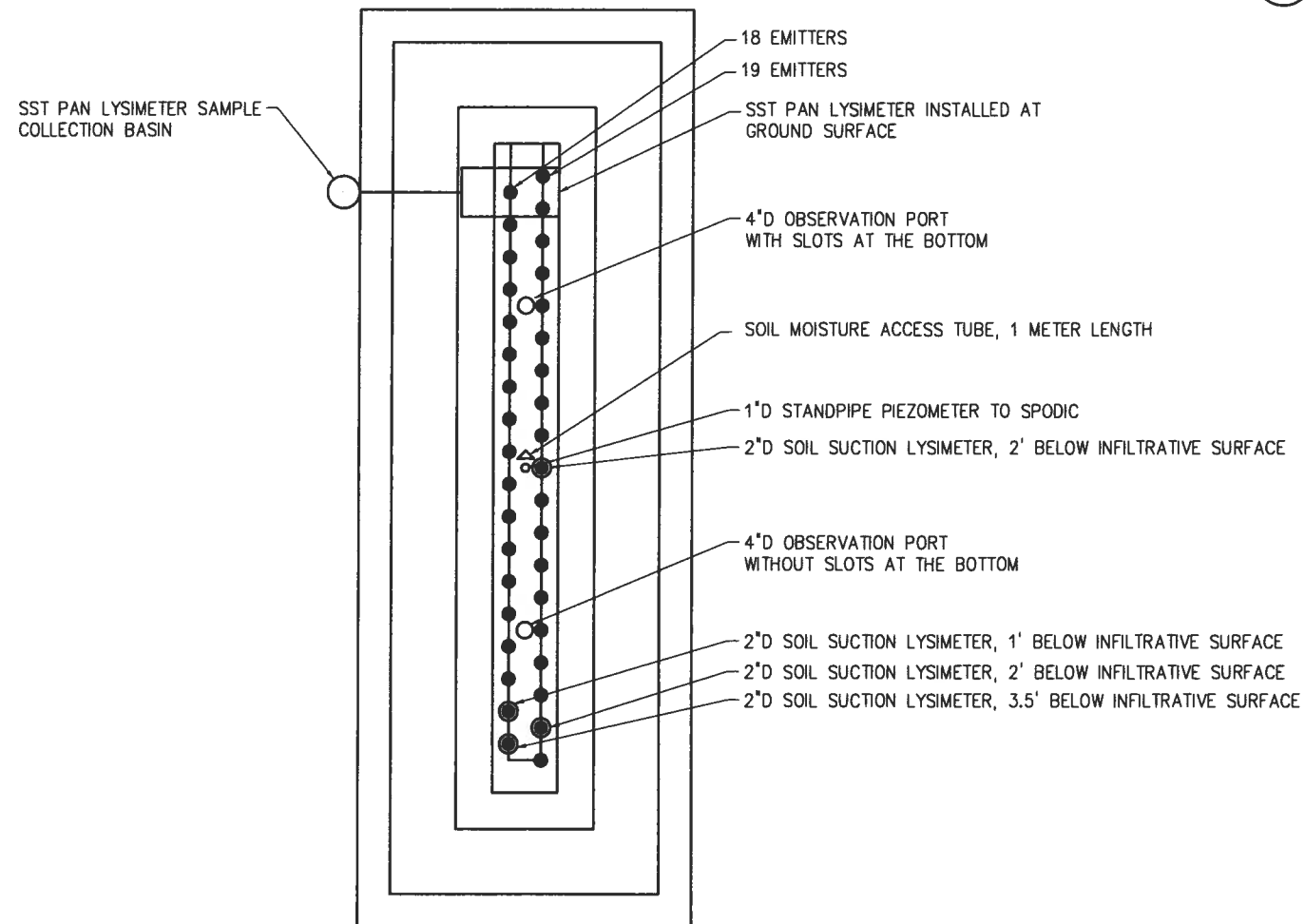
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	CONTRACT NUMBER
	DRAWING NUMBER C-7B

Fig. = 03 (V4237-D01) (V4237-D01) Drawing V4237-D01 - Task C-SITE PLAN - Scale by JEDBACK Date: 12/22/2011 2:27 PM



SECTION H
1" = 1'-8" C-7A



TYPICAL INSTRUMENTATION

DETAIL 1
1" = 2'-10"

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2	75% SUBMITTAL	12/09	-	DLA	
1	50% SUBMITTAL	08/09	-	APPROVED	
NO.	ISSUED FOR	DATE	BY	APPROVED	

JOSEFIN M. EDEBACK
Name: _____ Date: _____
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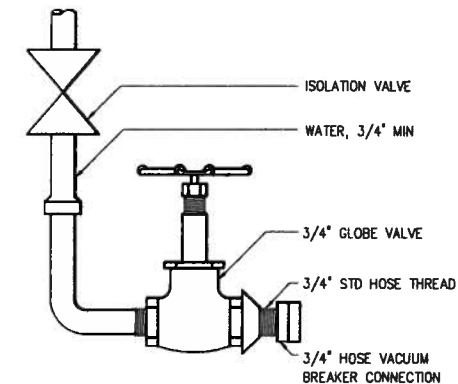
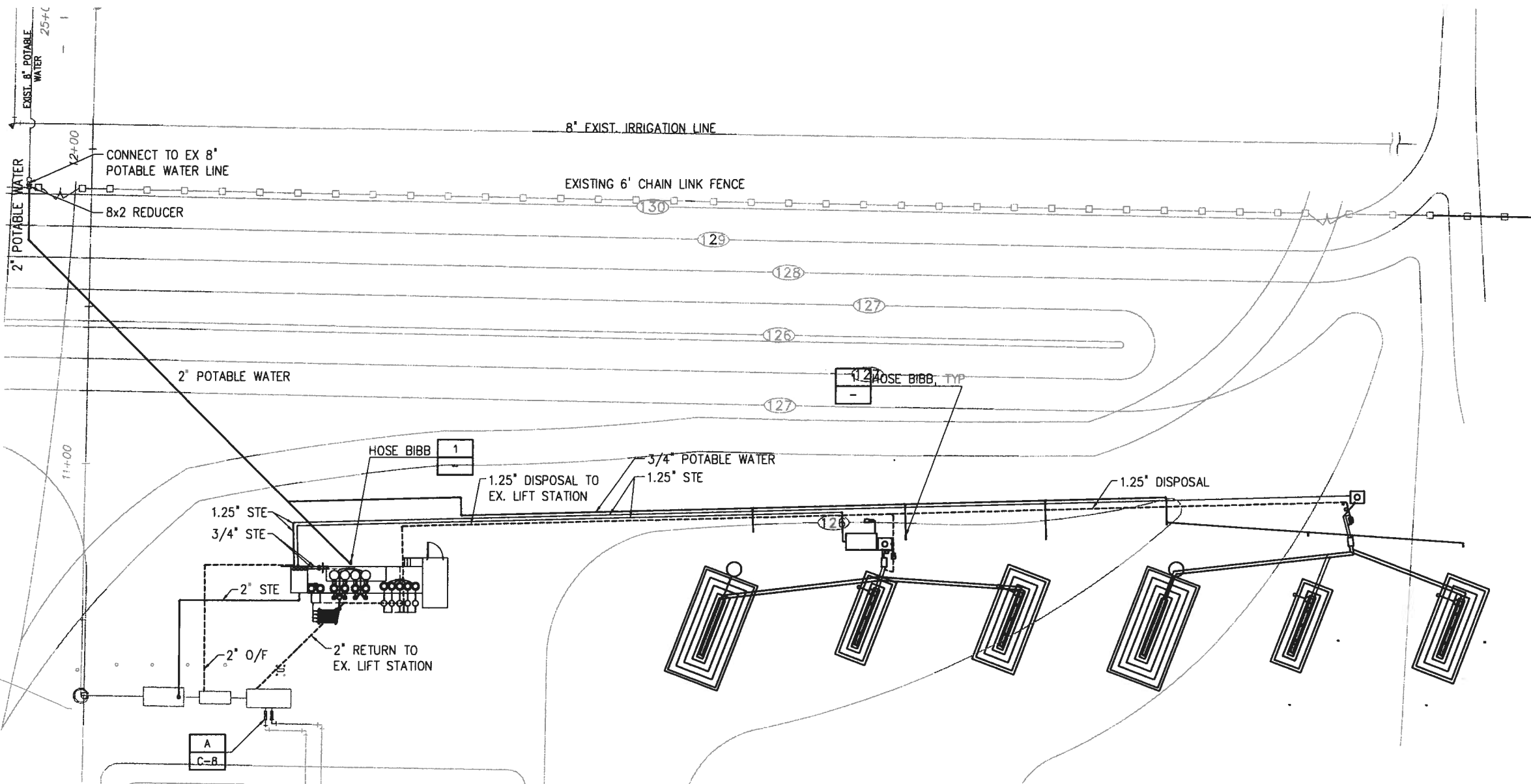
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	CONTRACT NUMBER
	DRAWING NUMBER C-7D

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HOSE BIBB

DETAIL	1
NTS	-

YARD PIPING PLAN

1"=20'

NOTES

- ALL YARD PIPING, UNLESS OTHERWISE SHOWN SHALL BE SOLVENT WELDED PVC LAID AT EXISTING SITE GRADE AND COVERED WITH FILL MATERIAL.
PVC PIPING SHALL BE LAID WHERE POSSIBLE IN COMMON TRENCHES AND MARKED WITH PIPE NUMBERS IN PERMANENT MARKINGS AT 10' INTERVALS.
- MAINTAIN SLOPE AND GRADE OF GRAVITY LINES AS INDICATED ON THE DRAWINGS.

1"=20'-0"



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2	75% SUBMITTAL	12/09	-	DLA
1	50% SUBMITTAL	08/09	-	

JOSEFIN M. EDEBACK	Date:
Florida Professional Engineer's Registration Number: 69835	

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YARD PIPING PLAN

THE SCALE BAR
SHOWN BELOW
MEASURES ONE
INCH LONG ON
THE ORIGINAL
DRAWING.

DATE	DECEMBER 2011
H & S JOB NUMBER	44237-001
CONTRACT NUMBER	
DRAWING NUMBER	M-1

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