MANATEE COUNTY

November 10, 2010

All Interested Bidders:

SUBJECT: Invitation for Bid #10-3612-OV
Lincoln Park Splash Pad & Restroom Pavilion
501 17th Street East, Palmetto, FL

ADDENDUM #1

Bidders are hereby notified that this Addendum shall be acknowledged on page 00300-1 of the Bid Form and made a part of the above named bidding and contract documents. Bids submitted without acknowledgement of the Addendum will be considered incomplete.

The following items are issued to add to, modify, and clarify the bid and contract documents. These items shall have the same force and effect as the original bidding and contract documents, and cost involved shall be included in the bid prices. Bids to be submitted on the specified bid date, shall conform to the additions and revisions listed herein.

Bidders Note: The deadline for clarification requests was **November 5, 2010, 5:00 PM.** Questions received after the date shall not be considered.

Ugarte & Associates, Inc. Memorandum dated November 10, 2010 providing the "Construction Cost Estimate". (1 Total Page)

Bidders: It is important to note that Manatee County Government is currently receiving competitive bids which are up to 50% lower than the Engineers' Estimate.

Attached: Attendance Record Non-Mandatory Information Conference Sign In Sheet dated October 20, 2010. (3 Total Pages)

Financial Management Department – Purchasing Division
1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205
Phone: 941-708-7527 – Fax: 941-708-7544

Attached: **REVISED** Federal Decision Number FL 20080123 Dated 10/08/2010
For the State of Florida, Manatee County, Construction Type: Building. (4 Total Pages)

Delete: Federal Decision Number FL 22080264 dated 7/23/2010
For the State of Florida, Manatee County, Construction Type: Heavy.

Ugarte & Associates, Inc. Memorandum dated November 10, 2010 responding to questions received at the Pre-Bid / Information Conference held on October 20, 2010 and questions received from contractors and suppliers through November 5, 2010. Ugarte Memorandum lists all revised drawings, Health Department Comments and revised submission sketches which are made a part of this Addendum No. 1. (42 Total Pages)

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Additional Clarification Requests:

RFI Question #10: Can you please advise if there model #'s for the restroom accessories & what type of material for the restroom partitions. Thank you.

RFI Response #10: Sheet A401 indicating Plastic Laminate Partitions and provides a list of toilet accessories. **Add** the following to the Accessory Notes / Symbol Legend.

All Toilet Partitions shall be Floor Braced Series 500 by Bradley or Equal.

Symbol Notes:

Toilet accessories items on sheet A401:
1. Bobrick 1658 1830 Series or equal
2. See Sheet P002
3. See Sheet P002
4. Bobrick B-2890 Series or equal
5. Bobrick B-6806 Series or equal
6. See Sheet P002
7. See Specification 09 91 23
8. Bobrick B-43944 Series or equal
9. Not used
10. Bobrick B-2111 Series or equal
11. Not used
12. See Sheet P002
13. Not Used
14. See sheet A401
15. Bobrick, KB 100-00 or equal

RFI Question #11: We will be bidding on the Lincoln Park Splash Pad Project next week and would like to comply with the Section 3 requirement. Is there a list of Section 3 residents and businesses? Thank you for your assistance

RFI Response #11: Please reference the Invitation for Bid Article A.31, Section 3 Requirements, pages 11 through 13. Residents are handled through Suncoast Workforce, reference Bid Article B.03, Qualification of Bidders, pages 15 and 16 for registration information with Suncoast Workforce. Manatee County has recently been advised that HUD is in the process of compiling Section 3 businesses. The website Information is: certified minoritybiz.com

Bidders Note: **The Bid Opening date has been REVISED TO:**

Bid Opening Date: November 19, 2010 at 3:30 P.M.

(Was: November 17, 2010 at 2:00 PM)

If you have submitted a bid prior to receiving this addendum, you may request in writing that your original, sealed bid be returned to your firm. All sealed bids received will be opened on the date stated.

END OF ADDENDUM #1

Bids will be received at the **Manatee County Purchasing Division, 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205 until 3:30 P.M. on November 19, 2010.**

Sincerely,

R. C. "Rob" Cuthbert, C.P.M, CPPO
Purchasing Division Manager

Ov
Attachments – (50 Total Pages)

UGARTE & ASSOCIATES, INC.
ARCHITECTURE • PLANNING

434 9TH AVENUE WEST • PALMETTO, FLORIDA 34221
p: (941) 729-5691 • f: (941) 729-5692

November 10, 2010

Subject: IFB # 10-3612-OV Lincoln Park Splash Pad and Restroom Pavilion

To All Bidders:

The construction cost estimate for the Lincoln Splash Pad and Restroom Pavilion is $440,000 (four hundred forty thousand dollars and no cents).

The construction cost estimate was determined as of January 28, 2010. The construction cost estimate is based on the original specifications and drawings issued August 8, 2010. Changes to the specifications subsequent to the original documents by addenda to this bid may not be accounted in this construction cost estimate.

Sincerely,

David Bishop, LEED AP
Project Manager

Cc: Olga Valcich, Manatee County Purchasing Department
Howard Leyo, Manatee County Project Management

ATTENDANCE RECORD
NON-MANDATORY
INFORMATION CONFERENCE

Title: Lincoln Park Splash Pad & Restroom Pavilion
Location: 501 17th Street East, Palmetto, FL 34221
Date / Time: October 20, 2010 @ 10:00 am OV
IFB #: IFB #10-3612-OV

Name/Title	Firm	Phone #	Email Address
Olga Valcich, Construction Buyer OV	Manatee County Government, Purchasing Division	(941) 708-7527	Olga.valcich@mymanatee.org
See pg. 3 Howard Leyo, Project Manager	Manatee County Government, Property Management Dept.	(941) 749-3052	Howard.leyo@mymanatee.org
See pg. 2 William (Bill) O'Shea, Project Manager	Manatee County Government Neighborhood Services, Community Development	(941)749-3029 /xt.6858	William.OShea@mymanatee.org
See pg. 3 David Bishop, Engineer of Record	Ugarte Architecture, Palmetto, FL	(941)729-5691	
Bob Wilson Project manager	Spectrum Underground	941-342-6708	bwilson@spectrumunderground.com
MICHAEL WEIDA OWNER	SOUTHEASTERN GROUP	239-560-5207	MCW03@AOL.COM
Robert Englen Owner	Crystal Waterscapes	239-263-0444	Robert@CrystalWaterscapes.com
Rob Reynolds Estimator	CARE ELECTRIC	941 925-3367	Rob@Careelectric.us
Joe Hennelly	Kimmins Contr. Corp	(813) 805-8670	Jhennelly@kimmins.com
CHRIS ARNOLD	TRI-TECH	941 773-9762	C.ARNOLD@4423 VERIZON.NET
CARL Shoffstall	Florida Playstructures & Water features Inc	813-967 2687	CARL@Florida Playstructures.com

Name/Title	Firm	Phone No.	Email Address
Mike Scherette	Power Contr	803.8123	MSchERETTE@PowerContractingLLC.com
Spencer Gilbert	Gilbert & Son Construction	813.672.9606	Spencer@GilbertandSon.us
Mark Harmison	StormSafe Consulting	928.1852	mharmis1@earthlink.net
Gary Giak	Aqualinc	727 288GILF	sales@aqualinc.net
Craig Sas	CRS Building Corporation	727-895-7500	Csas@crsbuildingcorp.com
Dalas Lamberson	T&C Diversified	941-722 0621	DLAMBERSON@tcdiversified.com
Chip Bell	DE Murphy Const.	955-5990	Chip@demurphy.com
Eric Latine	Braden River Constructions Inc.	755-2846	Eric@bradenriverconstruction.com
Joe Aycock	Jon F. Swift, Inc.	941 951 6100	Joe@jonfswiftinc.com
Brian Hennings	Tri-Tech	941 751 1727	BRIANANDTERRIE@AOL.COM
Bill O'Shea	MCNSD	941 748 4501 X6858	bill.oshea@mymanatee.org
Mark Conti	Freeport Fountains	407 330-1150	*Primary* KValet@FreeportFountains.Com MConti@FreeportFountains.Com
Matt Mathews	Zirkelbach Construction	941 729-0000	matt.mathews@zconstruction.com
Rick Isom	Superior Asphalt		
Dennis Parks	CES	941 650-4816	Dparks@cesmail.org

Name/Title	Firm	Phone #	Email Address
John Delesline President	Delesline Const. Inc	941-723-6112 F941-723-1530	John@delesline con.com
DAN HARTE	TCS INC	941-721-7711 F941-721-7733	tcsgc1@verizon.net
Eric Ansersoll	Manatee County	737-3079	—
HOWARD LEYO	MANATEE COUNTY	749-3052	—
CARLOS UGARTE	UGARTE & ASSOC.	7295691	CUGARTE@UGARTEARCHITECTURE.com
DAVID BISHOP	" "	"	DBISHOP@UGARTEARCHITECTURE.c
Todd Radebach	Remco Builders	748-5200	
ADAM PHILLIPS	NDC CONSTRUCTION	747.1062	ADAM@NDCCONSTRUCTION.COM

10/20/2010

General Decision Number: FL100123 10/08/2010 FL123

Superseded General Decision Number: FL20080123

State: Florida

Construction Type: Building

County: Manatee County in Florida.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Modification Number	Publication Date
0	03/12/2010
1	03/26/2010
2	04/02/2010
3	05/21/2010
4	07/23/2010
5	10/08/2010

ELEC0915-002 12/01/2009

	Rates	Fringes
ELECTRICIAN		
All building work other than Industrial Work which includes Telephone, Utility Companies, and Water Treatment Plants and also excludes Educational, Theme Park, Hospital Facilities, and all building work under $200,000 or less	$ 22.07	34%+$0.22
Educational, Theme Park, Hospital Facilities, and all building work under $200,000 or less, excluding Telephone, Utility Companies and Water Treatment plants	$ 19.69	34%+$0.22

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* ENGI0925-003 07/01/2010

	Rates	Fringes
OPERATOR: Crane		
Crawler Cranes; Truck Cranes; Pile Driver Cranes; Rough Terrain Cranes; and Any Crane not otherwise described below...	$ 27.91	10.59
Hydraulic Cranes Rated 100 Tons or Above but Less Than 250 Tons; and Lattice Boom Cranes Less Than 150 Tons if not described below.	$ 28.91	10.59

Lattice Boom Cranes Rated at 150 Tons or Above; Friction Cranes of Any Size; Mobile Tower Cranes or Luffing Boom Cranes of Any Size; Electric Tower Cranes; Hydraulic Cranes Rated at 250 Tons or Above; and Any Crane Equipped with 300 Foot or More of Any Boom Combination.....$ 29.91 10.59
OPERATOR: Mechanic.....$ 27.91 10.59
OPERATOR: Oiler.....$ 21.38 10.59
OPERATOR: Boom Truck.....$ 27.91 10.59

IRON0397-001 07/01/2010

	Rates	Fringes
IRONWORKER, ORNAMENTAL, REINFORCING AND STRUCTURAL	$ 26.67	11.16

PLUM0123-001 05/01/2010

	Rates	Fringes
PIPEFITTER (HVAC Pipe Installation Only)	$ 23.65	10.55

SHEE0015-002 07/01/2009

	Rates	Fringes
SHEETMETAL WORKER (HVAC Duct Installation Only)	$ 21.52	12.49

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* SUFL2009-020 05/22/2009

	Rates	Fringes
BRICKLAYER	$ 18.95	0.00
CARPENTER, Includes Form Work	$ 15.89	0.00
CEMENT MASON/CONCRETE FINISHER	$ 13.05	1.49
INSULATOR - PIPE & PIPEWRAPPER	$ 13.13	3.03
LABORER: Asphalt Shoveler	$ 7.88	0.00
LABORER: Common or General	$ 9.42	0.00
LABORER: Concrete Saw	$ 12.63	0.00
LABORER: Mason Tender - Brick	$ 13.00	0.00
LABORER: Mason Tender - Cement/Concrete	$ 12.83	1.90

LABORER: Pipelayer	$ 12.31	1.19
LABORER: Roof Tearoff	$ 8.44	0.00
LABORER: Landscape and Irrigation	$ 12.00	0.00
OPERATOR: Asphalt Spreader	$ 11.41	0.00
OPERATOR: Backhoe	$ 11.00	0.00
OPERATOR: Blade/Grader	$ 13.73	0.00
OPERATOR: Bulldozer	$ 15.01	0.00
OPERATOR: Distributor	$ 12.37	0.00
OPERATOR: Forklift	$ 14.00	0.00
OPERATOR: Loader	$ 13.80	1.79
OPERATOR: Paver	$ 11.69	0.00
OPERATOR: Pump	$ 19.00	0.00
OPERATOR: Roller	$ 10.68	0.00
OPERATOR: Screed	$ 11.34	0.00
OPERATOR: Tractor	$ 9.91	0.00
OPERATOR: Trencher	$ 11.75	0.00
PAINTER: Brush, Roller, and Spray	$ 14.00	0.43
PIPEFITTER (Excluding HVAC Pipe Installation)	$ 17.83	0.00
PLUMBER	$ 13.58	0.00
ROOFER (Metal Roofs Only)	$ 14.26	0.59
ROOFER, Including Built Up, Hot Tar, Modified Bitumen, Shake & Shingle, Single Ply and Slate & Tile (Excluding Metal Roof)	$ 14.00	0.43
SHEETMETAL WORKER (Excluding HVAC Duct Installation)	$ 18.79	3.21
TILE SETTER	$ 14.61	0.00
TRUCK DRIVER: Dump Truck	$ 10.00	0.00
TRUCK DRIVER: Lowboy Truck	$ 12.09	0.00

WELDERS - Receive rate prescribed for craft performing

operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the
classifications listed may be added after award only as provided in the labor
standards contract clauses (29 CFR 5.5(a)(1)(ii)).

In the listing above, the "SU" designation means that rates listed under the
identifier do not reflect collectively bargained wage and fringe benefit
rates. Other designations indicate unions whose rates have been determined
to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage
determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries
of surveys, should be with the Wage and Hour Regional Office for the area in
which the survey was conducted because those Regional Offices have
responsibility for the Davis-Bacon survey program. If the response from this
initial contact is not satisfactory, then the process described in 2.) and
3.) should be followed.

With regard to any other matter not yet ripe for the formal process
described here, initial contact should be with the Branch of Construction
Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.

Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

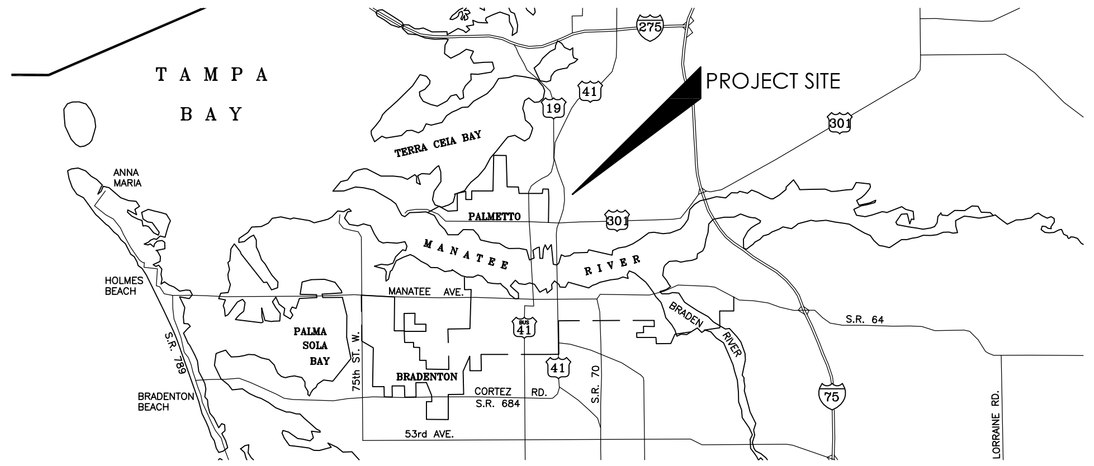
4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

DRAWINGS FOR A NEW

SPLASH PAD AND RESTROOM FACILITIES IN LINCOLN PARK

PALMETTO, FLORIDA



N

VICINITY MAP

SCALE: NOT TO SCALE

BUILDING CODE ANALYSIS - FBC 2007 W/ 2009 UPDATES

CITY OF PALMETTO

PROJECT NAME: * LINCOLN SPLASH PARK

GENERAL BUILDING INFORMATION

SPRINKLER SYSTEM: NO

BUILDING OCCUPANCY (CHAPTER 3): * 'U' – UTILITY

BUILDING CONSTRUCTION TYPE (CHAPTER 6): * VB

DESIGN LOADS AND STRESSES (TABLE 1607.1 & SECTION 1606 & 1607)						WIND LOADS SECTION (1609 AND TABLES 1609A–E)	
ROOF:	DEAD LOAD *	25 PSF.	FLOORS–	DEAD LOAD: *	SLAB ON GRADE PSF.	BASIC WIND SPEED (FIGURE 1609): *	130 MPH
	COLLATERAL: *	NA PSF.		LIVE LOAD: *	NA PSF.	EXPOSURE CATEGORY (1609.4): *	C
	LIVE LOAD: *	30 PSF.	BALCONIES–	DEAD LOAD: *	NA PSF.	IMPORTANCE FACTOR (TABLE 1604.5): *	1.0
CORRIDORS:	DEAD LOAD: *	NA PSF.		LIVE LOAD: *	NA PSF.	INTERNAL PRESSURE COEFFICIENTS *	+.55, –.55
	LIVE LOAD: *	NA PSF.	SOIL BEARING CAPACITY: *		2000 PSF PSF.	BUILDING DEFINITION (1609.2) *	PARTIALLY ENCLOSED

BUILDING AREAS, BUILDING SIZE AND EGRESS REQUIREMENTS

MAXIMUM ALLOWABLE FLOOR AREA/STORIES (TABLE 503): * 5,500 SF/ 1 STORY

MAXIMUM ALLOWABLE BUILDING HEIGHT AND NUMBER OF STORIES (TABLE 503): * 40 FT – 1 STORY

ACTUAL BUILDING HEIGHT AND NUMBER OF STORIES: * 15 FT – 1 STORY

COMPUTATION OF AREA MODIFICATIONS (SECTION 506): * NA

OCCUPANT LOAD (TABLE 1004.1.2): * MECH = 2 PERSONS @ 300 GROSS (*)

MINIMUM # OF EXITS REQUIRED (TABLE 1018.1): * 1 PER ROOM

MAXIMUM TRAVEL DISTANCE (TABLE 1015.1): * 300 FT

MAXIMUM COMMON PATH OF TRAVEL (1013.3): * 75 FT

GROSS FLOOR AREA ENTIRE BUILDING: * 885 SQ. FT.

GROSS FLOOR AREA PER FLOOR: * 885 SQ. FT.

NET FLOOR AREA ENTIRE BUILDING: * NA SQ. FT.

NET FLOOR AREA PER FLOOR: * NA SQ. FT.

FIRE RESISTANCE RATING OF BUILDING COMPONENTS AND ELEMENTS PER TABLE 601: 0

PARTY AND FIRE WALLS: * N/A

INTERIOR NON-LOAD BEARING WALLS: * 0

BEAMS, GIRDERS, TRUSSES, ARCHES: * 0

ROOFS, ROOF/CEILING ASSEMBLIES: * 0

EXTERIOR NON-LOAD BEARING WALLS: * 0

INTERIOR BEARING WALLS: * 0

COLUMNS: * 0

FLOOR, FLOOR/CEILING ASSEMBLIES: * 0

EXTERIOR BEARING WALLS: * 0

INTERIOR SEPARATION WALL: * 0

REQUIRED SEPARATION FROM A COMMON OR ASSUMED PROPERTY LINE PER TABLE 602: * NA

(*) OCCUPANCY LOAD OF SITE

PER F.B.C. 2007 W/ 2009 UPDATES
TABLE 1004.1.2

OCCUPANCY OF SWIMMING POOL WATER SURFACE
3,500 SF / 50 GROSS = 70 PERSONS

OCCUPANCY OF SWIMMING POOL DECK
1,800 SF / 30 GROSS = 60 PERSONS

OCCUPANCY OF MECHANICAL EQUIPMENT ROOM
400 SF / 300 GROSS = 2 PERSONS

TOTAL SITE OCCUPANCY = 132 PERSONS

RESTROOM FIXTURE COUNT

PER FLORIDA PLUMBING CODE 2007 W/ 2009 UPDATES
TABLE 403.8

PUBLIC SWIMMING POOL FIXTURES REQUIRED
TOTAL SF OF POOL = 3,500 SF
(2,501–5,000)

MEN'S RESTROOMS
URINALS = 2
WC = 1
LAVATORY = 1

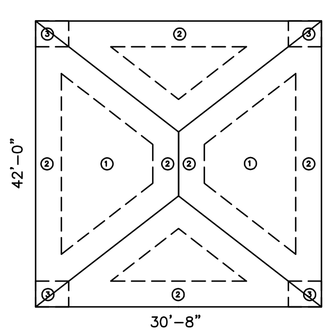
WOMEN'S RESTROOMS
WC = 5
LAVATORY = 1

ROOF UPLIFT DIAGRAM
2007 FLORIDA BUILDING CODE

Wind Speed = 130mph
Exposure Category = C
Importance Factor = 1.0 (T1606)
Building is Partially Enclosed
Internal Pressure Coef. = 0.55
Height = 15.5'
Width =42'
A = .1xW or .4xH (whichever is smaller
but not less then 3').
(4.2') or (6.2') or (3.0') use 6.8'.
Dead Load = 25psf

Sheathing/Cladding – ASCE 7–02

	+P	–P	
Zone '1' =	32.78	–45.26	
Zone '2' =	32.78	–70.24	OH = –68.68
Zone '3' =	32.78	–70.24	OH = –115.50
Zone '4' =	48.39	–51.51	
Zone '5' =	48.39	–60.87	



PRODUCT APPROVAL LIST

APPROVAL No.	MANUFACTURER	PRODUCT CATEGORY	PRODUCT MODEL # or NAME	PRESSURE		APPROVAL ENTITY	EXPIRATION/ APPROVAL DATE	COMMENTS
				DESIGN PRESSURE	MAX SYSTEM PRESSURE			
08–0908.20	INGERSOLL–RAND	DOOR	H16 OUT SWING	––	±60	MIAMI–DADE	EXP. NOV. 13, 2013	––
FL6876.3	GREENHECK	LOUVER	ESD–435X	––	±152	FLORIDA	APP. FEB. 2, 2010	––
09–0901.06	KP BUILDING PRODUCTS	SOFFIT	SOFFIT	––	±40	MIAMI–DADE	EXP. NOV. 11, 2010	––
09–0929.03	METAL SALES MANF. CORP	ROOF	5V	––	±131	MIAMI–DADE	EXP. JUNE 29, 2013	––

MANATEE COUNTY GOVERNMENT

INDEX TO SHEETS

PERMIT SET

11/9/2010 2:50 PM David Bishop CAD TWG FILE: A001 TITLE SHEET.DWG

UGARTE & ASSOCIATES, INC.
ARCHITECTS PLANNERS
434 9th AVENUE WEST
PALMETTO, FLORIDA 34221
PHONE (941)729-5691
FAX (941)729-5692
AA-C001654

TITLE SHEET

MANATEE COUNTY - LINCOLN SPLASH PARK
501 17TH STREET EAST PALMETTO, FL 34221

REVISIONS:
1 11.09.2010 PERMIT AND RFI

PROJECT NO: 2009–46
DATE: 08.27.2010
DRAWN BY: –
CHK'D BY: –

CARLOS D. UGARTE
LIC. NO. AR–0010725

SHEET
A001

UGARTE & ASSOCIATES, INC.

ARCHITECTURE • PLANNING

434 9TH AVENUE WEST • PALMETTO, FLORIDA 34221
p: (941) 729-5691 • f: (941) 729-5692

MEMORANDUM

TO: Olga Valcich, Manatee County Purchasing Department
CC: Howard Leyo, Manatee County Project Management
FROM: David Bishop, Project Manager
DATE: November 10, 2010
RE: Addendum No. 1
IFB #10-3612-OV Lincoln Park Splash Pad and Restroom Pavilion

Full sheet revisions

A001 Title Sheet Addendum 1.pdf	Updated cover sheet
C Cover Addendum 1.pdf	New cover sheet added.
C1 Addendum 1.pdf	Add water main extension information and revise sanitary sewer design.
C2 Addendum 1.pdf	Update information per C1 modifications.
C3 Addendum 1.pdf	New sheet added, connection details per Manatee County Utilities.
P001 Addendum 1.pdf	Rinse shower added.
P002 Addendum 1.pdf	Rinse shower added.
P003 Addendum 1.pdf	Rinse shower added.
P201 Addendum 1.pdf	Pump revised.
P301 Addendum 1.pdf	Rinse shower added.
S1 Addendum 1.pdf	New sheet added.

Health Department Comments Revised Submission Sketch revisions

WTI cover letter dated October 29, 2010	2 pages
Health Department comments dated October 6, 2010	8 pages
SKA102	1 Page
Validation Certificate and product information	9 pages
SKPl1.10-1, SKPL4.00-4, SKPL5.10-1,SKPL5.10-2,SK5.10-3, SKPL5.10-4	1 page each

Pre-Bid Conference (PBC) questions about the construction

It was stated at the meeting that is was still the responsibility of the Bidder to formally submit the questions in writing to Manatee County. The following are the notes taken by Ugarte & Associates and should not be considered all inclusive.

PBC Question #1: Who is paying the Permit fees for the City of Palmetto?
PBC Response #1: see table below

Anticipated permits already applied for by Ugarte & Associates and Allison Engineering on behalf of the owner

ENTITY	Fees	Review Status
SWFWMD	Paid	Approved
City of Palmetto Building Depart.	Pending*	Approved
(*pending payment and General contractor and sub-contractors listed on application)		
Manatee County Utilities Review Fee	Paid	Approved
Manatee County Utilities, Impact Fee	Pending**	Approved
(**pending payment by Manatee County Government)		
Health Department, Review Fee	Paid	Under review
(Addendum #1 submitted)		
Fire Department, Review Fee	Paid	Approved
Fire Department, Impact Fee	Paid	Approved

PBC Question #2: Can an alternate surge tank design method be used to the Cast-in-Place concrete as shown on the bidding plans?

PBC Response #2: Contractor to bid in accordance with the plans and specifications See attached Addendum #1 sheet S1 Addendum 1.pdf.

PBC Question #3: How is the site to be secured?

PBC Response #3: See Architectural Specification Section 01 50 00, section 3.3.

PBC Question #4: Who is responsible for the demolition of existing playground equipment?

PBC Response #4: Architectural Specifications Section 02 41 19, 1.8 A1 shall be amended to state: Contractor to disassemble the Playground equipment and coordinate with Manatee County Park and Recreation for removal from the site.

PBC Question #5: What is the surface/substrate under the artificial turf at the existing playground?

PBC Response #5: A visual observation of one corner after the meeting indicates stabilized base and asphalt. Contractor shall refer section B04 inspection of site page 16 of the invitation for bid; each bidder shall visit the site to become familiar with all conditions that may affect services that are required to completely execute the full intent of the specifications..

Pre Bid RFI (Request for Information) submitted to Manatee County Government

RFI Question #1: On the civil site plan there is a 4" wet tap required on the existing water main for the installation of the new 4" water main. On that drawing there is no gate valve called out on the new 4" pvc run between the BFP/Meter assembly and wet tap. On the Notes & Details drawing there is a gate valve shown under the detail for the 3" Water Meter w/ Backflow Preventer. It is shown between the main and new BFP assembly. Is this valve required in addition to the valve at the wet tap?

Drawing P101 refers to Key Note #1, which states to refer to drawing M2.01 for the details on the packaged sewer system. I do not see such a drawing.

RFI Response #1: Civil site plan C1 Addendum 1 and corresponding Civil Sheets the wet tap, water meter and backflow preventer have been revised by the Manatee County Utility Department. Package Sewer System is included in Sheet P201 Addendum 1.

RFI Question #2: On the civil site drawing there is a note that says, "All underground work to be hand dug." Will that apply to the 300' of 4" water main? I would assume that this does not apply to the cast in place concrete water tank, or does it?

RFI Response #2: The intent of the hand digging note on the Civil drawing is to minimize damage to the roots of the existing trees by new plumbing line installations. This note applies to the water main extension. Please note that In Addendum #1 Sheet C1 indicates directional boring for certain segments.
This does not apply to the cast-in-place concrete surge tank.

RFI Question #3: Upper left corner of sheet P201, specifies a Little Giant Pump, Model 105-CIA-RF5 at 1/2 hp, 115 volt, 1-phase for 45 GPM @ 115' TDH. This pump will not meet those conditions. It will require a 5 hp grinder pump or a 25 hp standard pump. I think maybe it's a typo and should be 45 GPM @ 15' TDH. Also, the pump model is listed incorrectly, it should have been 10S-CIA-RFS. Please verify proper TDH.

RFI Response #3: See revised Sheet P201 Addendum #1 for new pump information..

RFI Question #4: Water Park Features, Inc. is a manufacturer and installer of water park features...and would like to be considered an alternate water park feature supplier.

RFI Answer #4: The Rain drop "omni pod" system was requested by the Parks and Recreation Department specifically to rotate and interchange features between the new Lincoln Park splash pad and the existing splash pad at Pride Park. Water Splash Inc. has their own proprietary mounting system for the above grade and ground spray features which appear to have some interchangeability; however this system is not compatible with the system specified in the bidding documents.

RFI Question #5: Water Splash Inc would like to be considered an alternate water park feature supplier.

RFI Response #5 The Rain drop “omni pod” system was requested by the Parks and Recreation Department specifically to rotate and interchange features between the new Lincoln Park splash pad and the existing splash pad at Pride Park. This system is not compatible with the system specified in the bidding documents.

RFI Question #6: Will the concrete floors and plywood ceilings in the building need to be painted?

RFI Response #6: See Architectural Specifications Section(s) 09 91 13, 09 91 23, 09 96 00**.**

RFI Question #7: Playmore would like to be considered an alternate water park feature supplier.

RFI Response #7: The Rain drop “omni pod” system was requested by the Parks and Recreation Department specifically to rotate and interchange features between the new Lincoln Park splash pad and the existing splash pad at Pride Park. This system is not compatible with the system specified in the bidding documents.

RFI Question #8: Is there a sheet E2.01? Our set has E1.01, E3.01, E4.01, E5.01, and E6.01.

RFI Response #8: There is no Sheet E2.01.

RFI Question #9: The specification page 087100-5 lists the single hardware group. Currently there is no lock or latch in the set. As is, there is no way to latch the doors. If any doors are intended to latch, please specify a lock / latch for the doors and identify which doors are to receive the lock / latch.

RFI Response #9: Hardware set 01 shall include a lockset per 08710 door hardware, Section 2.5, A for lockset information.

Sheet Title: CONST. COVER SHEET | Job Number: 3040 | Sheet Number: 00 | File Number: 3040
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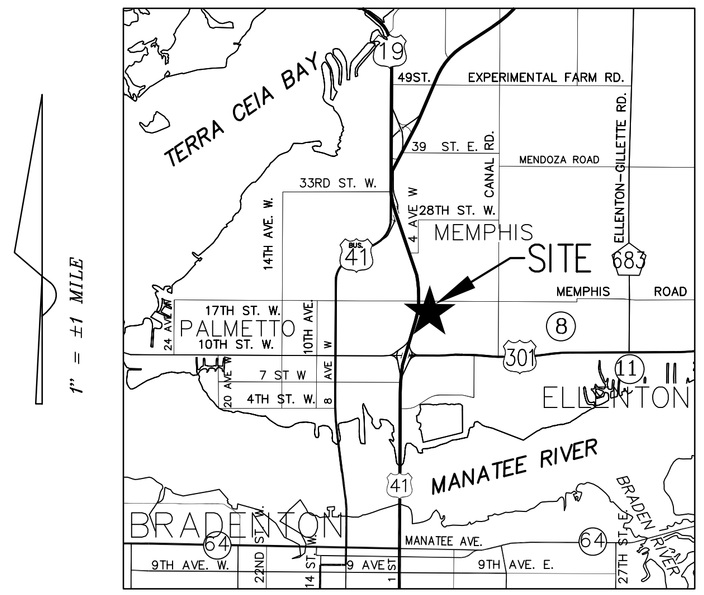
INDEX



VICINITY MAP

CONSTRUCTION PLANS

FOR

MANATEE COUNTY–LINCOLN SPLASH PARK

LOCATED IN
SECTION 13, TOWNSHIP 34 SOUTH, RANGE 17 EAST
CITY OF PALMETTO, FLORIDA

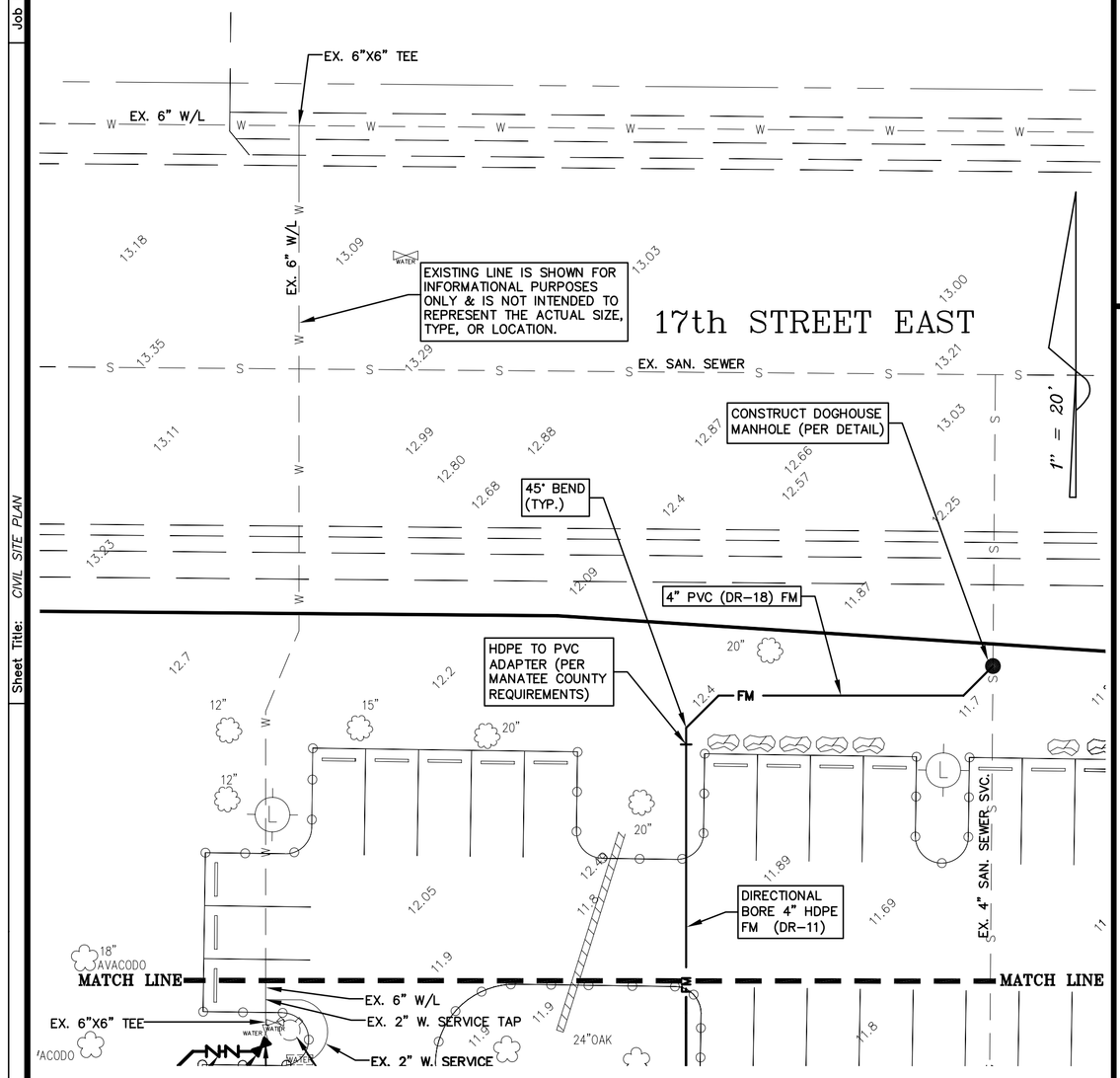
M. ANDREW ALLISON
PE # 53966

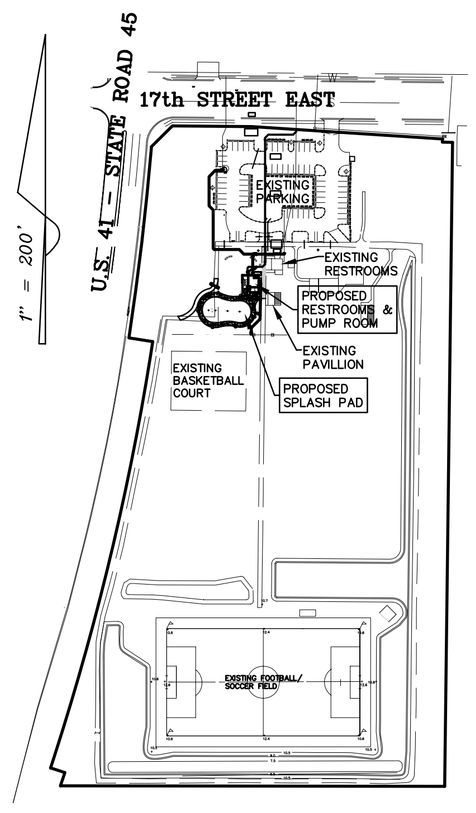
PREPARED BY:

ALLISON ENGINEERING

926 14TH ST. W.
BRADENTON, FL 34205
TEL: (941) 708–5400

Sheet Title: CIVIL SITE PLAN | Sheet #: C1 | Job Number: 3040





OVERALL SITE PLAN

NOTE:

1. THIS PLAN WAS PREPARED BASED ON BEST AVAILABLE INFORMATION PROVIDED. THE CONTRACTOR SHOULD HAVE THE INFORMATION CONFIRMED BY WHATEVER MEANS HE DEEMS NECESSARY INCLUDING BUT NOT LIMITED TO AN UPDATED BOUNDARY, TREE, TOPOGRAPHIC AND UTILITY SURVEY. ANY DESIGN INFORMATION PROVIDED ON THIS PLAN THAT IS IN CONFLICT WITH EXISTING CONDITIONS SHOULD BE REPORTED TO THE ENGINEER OF RECORD AND ARCHITECT OF RECORD PRIOR TO ANY CONSTRUCTION.
2. ALL UNDERGROUND WORK TO BE HAND DUG WITH THE EXCEPTION OF THE DIRECTIONAL BORE.
3. SEE LANDSCAPE PLAN FOR TREES TO BE REMOVED.
4. 1' OF COVER REQUIRED FOR SANITARY SEWER.
5. SHALL THERE BE A CONFLICT BETWEEN THE NOTES ON THESE PLANS AND THE PROJECT SPECIFICATIONS, THE NOTES ON THE PLANS SHALL SUPERCEDE. SHOULD THERE BE A CONFLICT BETWEEN THE NOTES ON THESE PLANS, THE MOST STRINGENT REQUIREMENTS SHALL BE ADHERED TO.
6. ALL WORK SHALL MEET FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2007.
7. ALL WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL TRENCH SAFETY REQUIREMENTS.
8. THE CONTRACTOR SHALL OBTAIN AND COMPLY WITH ALL GOVERNMENTAL AGENCY CONDITIONS OF APPROVALS.
9. THE CONTRACTOR SHALL OBTAIN A NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION PRIOR TO CONSTRUCTION.
10. ALL SOD AREAS TO BE BAHIA.
11. SEE ARCHITECTURAL PLANS FOR GRADING OF SPLASH PAD AND INTERIOR WALKWAYS.
12. PRIOR TO CONNECTING THE NEW WATERMAIN TO THE EXISTING WATER SYSTEM, THE CONTRACTOR SHOULD HAVE THE LINE TESTED AND ACCEPTED FOR OPERATION WITH THE HEALTH DEPARTMENT.
13. ALL FITTINGS SHALL BE RESTRAINED JOINTS.
14. DISCHARGE WATER FROM THE FILTER SYSTEM (I.E. BACKWASHING) WILL NOT BE DISCHARGED TO THE EXISTING STORMWATER SYSTEM.
15. CONTRACTOR TO VERIFY EXISTING SIZE, TYPE, INVERT, & LOCATION OF EXISTING 4" SEWER SERVICE PRIOR TO PRECASTING DOGHOUSE MANHOLE OR PERFORMING DIRECTIONAL BORE. THE SIZE, TYPE, INVERT, & LOCATION TO BE VERFIED WITH THE E.O.R. PRIOR TO THE ABOVE.
16. ALL DISTURBED AREAS SHALL BE RESTORED TO EXISTING CONDITIONS.

LEGEND

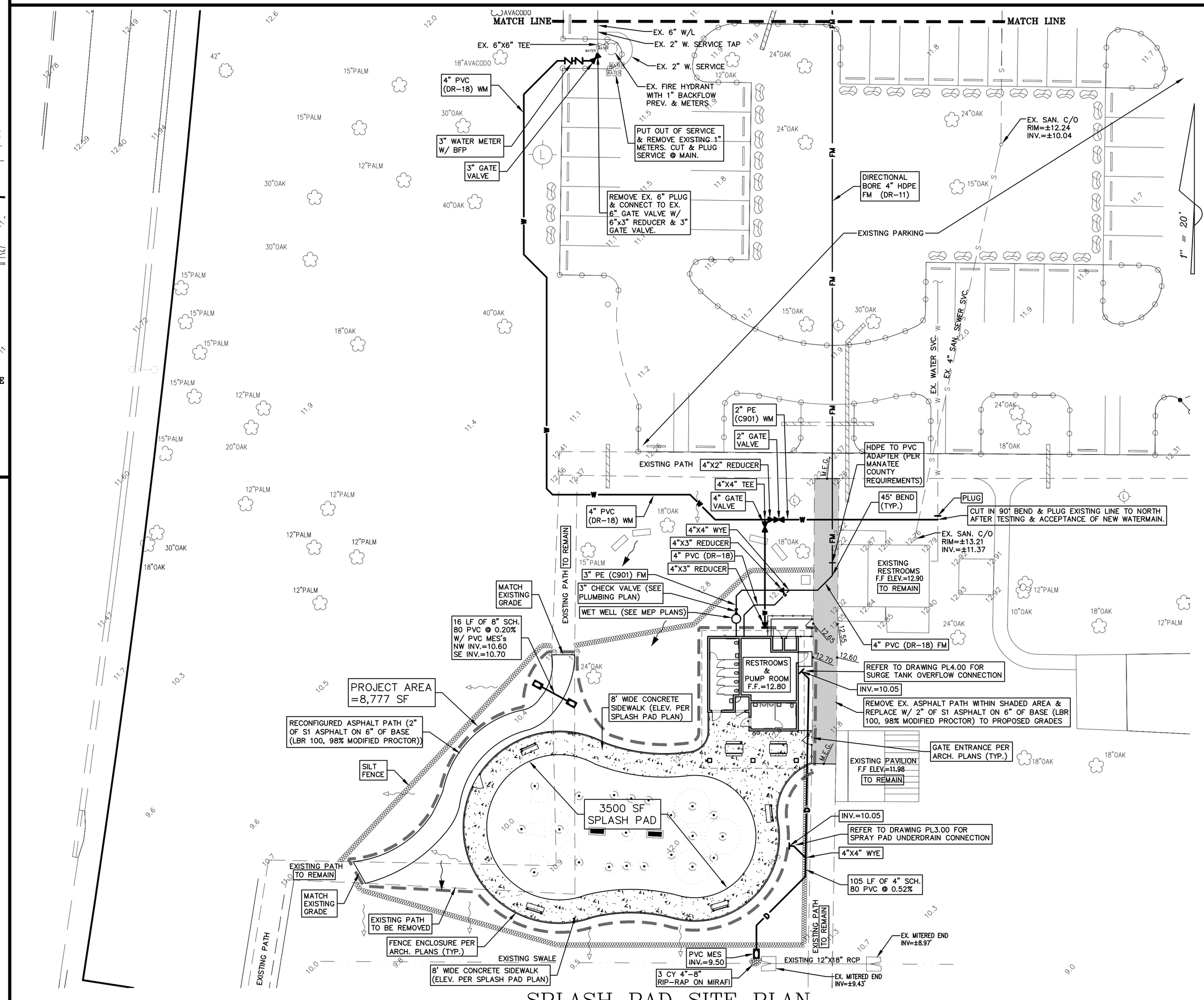
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING IRRIGATION SLEEVE
- EXISTING SPOT ELEVATION
- EXISTING SURFACE DRAINAGE FLOW
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING WATER METER/BFP
- PROPOSED CONCRETE
- PROPOSED WATER SERVICE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED SILT FENCE
- PROPOSED SURFACE DRAINAGE FLOW
- PROPOSED SPOT ELEVATION
- PROPOSED SPOT ELEVATION TO MATCH EXISTING GRADE

THE FOLLOWING SIGNATURE INDICATES THAT I AM THE APPLICANT AND AM AWARE OF AND WILL ADHERE TO THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THIS PLAN.

DATE

CHARLIE BISHOP

PROPOSED IMPERVIOUS AREA CALCULATION:
EXISTING IMPERVIOUS AREA TO BE REMOVED=1,115 SF
PROPOSED IMPERVIOUS AREA=7,896 SF
NET ADDITIONAL IMPERVIOUS AREA=6,781 SF



SPLASH PAD SITE PLAN

ALLISON ENGINEERING
926 14th STREET WEST
BRADENTON, FLORIDA 34205
TEL:(941)708-5400 FAX:(941)708-5405

DESIGNED: MAA
DATE: 8/20/10
DRAWN: BRT
JOB NO.: 3040
SCALE: AS SHOWN

REVISIONS:
1 BID SET 8/20/10
2 REVISED PER PUBLIC WORKS 9/29/10
3
4
5
6
7

ADDENDUM #01

MANATEE COUNTY LINCOLN SPLASH PARK

LOCATED AT:
SECTION 13
TOWNSHIP 34 SOUTH
RANGE 17 EAST
MANATEE COUNTY, FLORIDA

CIVIL SITE PLAN

M. ANDREW ALLISON
PE # 53966

SHEET C1

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Sheet Title: NOTES & DETAILS | Sheet #: C2 | Job Number: 3040

GENERAL CONSTRUCTION NOTES

1. ALL PROPOSED CONSTRUCTION, EXCLUDING WATER & SEWER, IS TO MEET OR EXCEED THE LATEST APPLICABLE CITY OF PALMETTO CONSTRUCTION STANDARDS AND SPECIFICATIONS. ALL WATER & SEWER CONSTRUCTION IS TO MEET THE LATEST EDITION OF MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS. ALL PROPOSED CONSTRUCTION IS TO BE PUBLICLY OWNED AND MAINTAINED FOLLOWING COMPLETION AND ACCEPTANCE.
2. THE CONTRACTOR IS TO COORDINATE THE LOCATION AND ELEVATION OF ALL FP&L, GTE AND IRRIGATION SERVICE SLEEVES WITH RESPECTIVE AGENCY PRIOR TO CONSTRUCTION.
3. ALL PROPOSED ELECTRICAL AND COMMUNICATION SERVICES ARE TO BE LOCATED UNDERGROUND AS DIRECTED BY RESPECTIVE AGENCY.
4. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND ISSUANCE OF ALL COMMENCEMENT AND/OR PROGRESS NOTICES TO GOVERNMENTAL AGENCIES DURING THE COURSE OF CONSTRUCTION, AS REQUIRED FOR INSPECTION, TESTING AND TRACKING PER APPLICABLE AGENCY PERMIT CONDITIONS.
5. NOTIFY CITY OF PALMETTO PRIOR TO THE INITIATION OF CONSTRUCTION. A PRE CONSTRUCTION INSPECTION OF THE SEDIMENTATION AND EROSION CONTROL (S&EC) DEVICES MAY BE REQUIRED AND WILL BE THE OPTION OF THE CITY OF PALMETTO STAFF.
6. CONTRACTOR TO NOTIFY "SUNSHINE" AND COP 48 HOURS PRIOR TO START OF CONSTRUCTION.
7. TOPOGRAPHIC AND PROPERTY SURVEYS GIVING LOT SIZE, GROUND ELEVATIONS, OBSTRUCTIONS ON SITE, LOCATIONS AND DEPTHS OF SEWERS, CONDUITS, PIPES, EXISTING STRUCTURES, CURBS, PAVEMENTS, TRACTS, AND SOIL BORING DATA GIVING THE NATURE OF GROUND AND SUBSURFACE CONDITIONS HAVE BEEN OBTAINED FROM RELIABLE SOURCES. THE ACCURACY OF THIS DATA IS NOT GUARANTEED, AND IS FURNISHED SOLELY AS AN ACCOMMODATION TO THE CONTRACTOR. USE OF THIS DATA SHALL BE MADE AT THE CONTRACTOR'S DISCRETION. NO ADDITIONAL COMPENSATION WILL BE GRANTED DUE TO THE CONTRACTOR'S LACK OF KNOWLEDGE OF SITE CONDITIONS. PRIOR TO BID SUBMISSION, THE CONTRACTOR SHALL CONDUCT ANY ADDITIONAL SURVEYS AND SOILS TESTS NECESSARY TO VERIFY THE ACCURACY OF THE INFORMATION PROVIDED.
8. ALL CONSTRUCTION STAKEOUT AND RECORD DRAWING INFORMATION IS TO BE PERFORMED IN THE FIELD BY OR UNDER THE SUPERVISION OF A FLORIDA REGISTERED LAND SURVEYOR.
9. THE CONTRACTOR SHALL SUPPLY THE ENGINEER OF RECORD (EOR) WITH ALL NECESSARY TEST INFORMATION TO CERTIFY THE JOB IS COMPLETE PER CITY OF PALMETTO STANDARDS. THIS SHALL INCLUDE BUT NOT LIMITED TO DENSITY & LBR TESTING OF BASE & SUB-BASE MATERIAL, BACTERIOLOGICAL CLEARANCE, & RECORD DRAWING MEETING AGENCY REQUIREMENTS.
10. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMIT CONDITIONS AND STIPULATIONS FOR ALL LOCAL, REGIONAL AND STATE AGENCIES, INCLUDING, BUT NOT LIMITED TO, FINAL SITE PLANS, UTILITIES, DRAINAGE, FUGITIVE PARTICULATES AND EROSION.
11. ALL SODDED AND SEEDED AREAS SHALL BE WATERED AND FERTILIZED UNTIL THE PROJECT IS COMPLETED AND ACCEPTED BY THE OWNER.
12. THE CONTRACTOR SHALL SUPPLY ALLISON ENGINEERING INC. WITH A PHOTOCOPY OF ALL COMPACTION TESTS AND OTHER REQUIRED MATERIALS TESTS UNDER THE TESTING SCHEDULE GUIDE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL REQUIRED TESTING WITH THE GEOTECHNICAL ENGINEER. UPON COMPLETION OF THE WORK, THE GEOTECHNICAL ENGINEER SHALL SUBMIT CERTIFICATIONS TO THE ENGINEER AND OWNER THAT STATE THAT ALL REQUIREMENTS HAVE BEEN MET.
14. THE CONTRACTOR SHALL REVIEW ALL PROJECT GEOTECHNICAL REPORTS PRIOR TO BIDDING AND THE START OF CONSTRUCTION.
15. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED CONSTRUCTION DRAWINGS AND ALL PERMITS AT THE CONSTRUCTION SITE.

TESTING SCHEDULE GUIDE

ITEM	TEST TYPE	TEST I.D.	REQUIREMENT	FREQUENCY
Enbankment	Maximum Density Optimum Moisture Field Density	AASHTO T180 ASTM D1557 AASHTO T191 , T204 T238 ASTM D1556 , D2937 D2922	N/A 95% of maximum Density	Per Soil Type One Per 2,500 S.F. Horizontally * : Alternating Lifts (12 Inches)
Utility Trench Backfill Under Roadways and Structures	Maximum Density Optimum Moisture Field Density	AASHTO T180 ASTM D1557 AASHTO T191 , T204 T238 ASTM D1556 , D2937 D2922	N/A 95% of maximum Density	Per Soil Type One Per 2,500 S.F. Horizontally * : Every 2' Vertically D2922 At least one for each pipe run
Backfill of Structures	Maximum Density Optimum Moisture Field Density	AASHTO T180 ASTM D1557 AASHTO T191 , T204 T238 ASTM D1556 , D2937 D2922	N/A 95% of maximum Density	Per Soil Type Every 2' Vertically
Subgrade	Bearing Values Maximum Density Optimum Moisture Field Density & Thickness	LBR – FLA. D.O.T. AASHTO T180 ASTM D1557 AASHTO T191 , T238 ASTM D1556 , D2922	 See Typical Pavement Section	One Per Soil Type Check Point LBR at 500 L. F. Horizontally One Per Soil Type One Per 2,500 S.F. Horizontally
Subgrade	Bearing Values Maximum Density Optimum Moisture Thickness Field Density Gradation Atterberg Limits	LBR – FLA. D.O.T. AASHTO T180 ASTM D1557 AASHTO T191 , T238 ASTM D1556 , D2922 AASHTO T27 , T98 AASHTO T90 ASTM C136 , D423 , D424	 See Typical Pavement Section	One Per Source or as Mtl. Changes Check Point LBR at 500 L. F. Horiz. One Per Source One Per 2,500 S.F. Horizontally One Per Source
Soil Cement Base (To be used if separation between SHWL & bottom of base is <1.5')	Mix Design Maximum Density Optimum Moisture Compressive Strength Specimens Test Cores Field Density & Thickness	Portland Cement Assoc. Specifications AASHTO T134 (Standard) Portland Cement Assoc. Specifications Portland Cement Assoc. Specifications AASHTO T191 , T238 ASTM D1556 , D2922	 See Typical Pavement Section	One Per Soil Type One Per Soil Type Daily One Set of 3 Per Soil One Set of 3 Per Soil ** One Per 2,500 S.F. Horizontal
Asphaltic Concrete	Materials Quality Bitumen Content , Gradation Field Density Los Angeles Abrasion Thickness	AASHTO T164 ASTM D2172 ASTM 02950–81 AASHTO T96–77 ASTM C131–81 N/A	 Per Specifications 95% of Lab Density Per Specifications Per Specifications	One Per Day One Per 2,500 S.F. Horizontal One Per Source One Per 2,500 S.F.

NOTES:
* The Contractor shall not pave over soil cement base until a 30 day curing time has elapsed
** Maximum strength limits, as established by soils testing company, shall not be exceeded
*** Should any of the information provided herein conflict with either the recommendations of the Geotechnical Engineer, and/or the Geotechnical report, then the aforementioned recommendations will supercede this "TESTING SCHEDULE GUIDE"

–Fill material shall meet AASHTO A3 Standards. This shall include a 2' depth below pond bottom.

UTILITY NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR THE PRODUCTION OF REPRODUCIBLE RECORD DRAWINGS. PRIOR TO SCHEDULING OF ANY UNDERGROUND UTILITY PRESSURE TESTS, CONTRACTOR SHALL HAVE OBTAINED (FROM A PROFESSIONAL SURVEYOR) ALL NECESSARY FIELD DATA REQUIRED FOR THE PRODUCTION OF RECORD DRAWINGS. SAID RECORD DRAWINGS ARE TO MEET THE REQUIREMENTS OF CITY OF PALMETTO HEALTH DEPARTMENT & PUBLIC WORKS DEPARTMENT MINIMUM TECHNICAL STANDARD (REV#3) AND FDEP. THE CONTRACTOR SHALL PROCESS SAID DRAWINGS THROUGH CITY OF PALMETTO PLANNING, PERMITTING AND INSPECTIONS DEPARTMENT AND UPON COMPLETION SHALL PROVIDE A REPRODUCIBLE MYLAR AND FIVE SETS OF PRINTS OF THE RECORD DRAWINGS, SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR TO THE ENGINEER. THESE RECORD DRAWINGS SHALL BE CERTIFIED TO THE OWNER, APPROPRIATE GOVERNMENTAL AGENCIES, AND ALLISON ENGINEERING, INC.
2. THE CONTRACTOR IS TO ASSURE HIMSELF THAT ALL UNDERGROUND UTILITIES AND STORM SEWER IS CONSTRUCTED, TESTED AND OPERATIONAL PRIOR TO ANY ROADWAY CONSTRUCTION.
3. WATERMAINS ARE TO BE PIGMENTED, COLOR BLUE, SDR–18, C–900 OR C–905 PVC. WATER SERVICES, WHERE LOCATED UNDER PAVEMENT, TO BE ENCASED IN CLASS 150, SDR–26 (3" MIN.). MAINTAIN A MINIMUM OF 36" COVER.
4. GRAVITY SANITARY SEWERS ARE TO BE PIGMENTED, COLOR GREEN, SDR 26 PVC AND CONFORMING TO ASTM D–3034. MAINTAIN A MINIMUM OF 36" COVER.
5. SANITARY SEWER FORCEMAINS ARE TO BE PIGMENTED, COLOR GREEN, SDR–18, C–900 OR C–905 PVC. MAINTAIN A MINIMUM OF 36" COVER.
6. RECLAIMED WATERMAINS ARE TO BE PIGMENTED, COLOR PURPLE, SDR–18, C–900 OR C–905 PVC. MAINTAIN A MINIMUM OF 36" COVER.
7. 10' HORIZONTAL AND 1.5' VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN SEWER AND WATER LINES MEETING "TEN STATE STANDARDS, SECTION 38.31".
8. ALL UTILITIES SHOWN AS EXISTING WERE DERIVED FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE ACTUAL LOCATION, SIZE, TYPE AND AMOUNT OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR TO NOTIFY "CALL SUNSHINE" (PH. 1–800–432–4770), COP AND FP&L 48 HOURS MINIMUM PRIOR TO START OF CONSTRUCTION FOR POSSIBLE DRAINAGE LOCATIONS NOT SHOWN ON PLANS.
9. CONTRACTOR IS RESPONSIBLE FOR ALL GOVERNMENTAL CONSTRUCTION FEES AND CHARGES. I.E.; INSPECTIONS AND TESTING FEES. HOWEVER, IMPACT FEES (FIF), IF APPLICABLE, TO BE PAID BY THE OWNER.
10. ALL WATER & SEWER UTILITIES WILL BE TESTED TO THE REQUIREMENTS OF THE LATEST EDITION OF MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS.

DRAINAGE AND GRADING NOTES

1. THE CONTRACTOR IS TO PROVIDE THE ENGINEER OF RECORD WITH REPRODUCIBLE RECORD DRAWINGS SHOWING ALL IMPROVEMENT LOCATIONS AND ELEVATIONS IN ACCORDANCE WITH LATEST CITY OF PALMETTO PLANNING, PERMITTING AND INSPECTIONS AND SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD) STANDARDS. THE CONTRACTOR SHALL ALSO PROVIDE FIVE SETS OF PRINTS, SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR, OF THE RECORD DRAWINGS TO THE ENGINEER OF RECORD. SAID RECORD DRAWINGS, AT A MINIMUM, SHOULD INCLUDE ALL INFORMATION SHOWN ON THE CONSTRUCTION PLANS.
2. TO PREVENT SEDIMENTARY RUNOFF DURING CONSTRUCTION, STAKED HAY BALES, STAKED SILT SCREENS, OR INLET DEBRIS CONTROL SCREENS ARE TO BE PLACED AT STORM INLETS, OUTFALL LOCATIONS AND ADJACENT PROPERTY LINES AS REQUIRED PRIOR TO ANY CONSTRUCTION ACTIVITIES. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SEDIMENTATION BARRIERS IN A WORKING MANNER FOR THE DURATION OF CONSTRUCTION AND SHOULD BE CHECKED DAILY. SILTATION ACCUMULATIONS GREATER THAN THE LESSER OF 12 INCHES OR ONE–HALF OF THE DEPTH OF THE SEDIMENTATION BARRIER SHALL BE IMMEDIATELY REMOVED AND REPLACED IN UPLAND AREAS. IN ADDITION TO SPECIFIED EROSION CONTROL LOCATIONS, THE CONTRACTOR SHALL PERFORM DAILY SITE INSPECTIONS FOR POTENTIAL EROSION PROBLEMS. IF PROBLEMS OCCUR, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING APPROPRIATE EROSION CONTROL IMMEDIATELY. STORMWATER TREATMENT FACILITIES INCLUDING OUTFALL PER DETAIL ARE TO BE CONSTRUCTED EARLY IN SITE DEVELOPMENT, WITH NO OFF–SITE UNTREATED RUNOFF OCCURRING DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING TEMPORARY EROSION CONTROL DEVICES FOLLOWING COMPLETION OF ALL CONSTRUCTION AND FINAL STABILIZATION. SOIL SHOULD BE WATERED DURING ANY INDICATION OF AIRBONE MATERIALS. THE CONTRACTOR IS RESPONSIBLE FOR THE DAILY FUNCTION OF ALL EROSION CONTROL DEVICES AND SHOULD LEAVE THEM IN PLACE UNTIL THE JOB IS DEEMED COMPLETE BY THE ENGINEER OF RECORD (EOR) AND ALL APPLICABLE GOVERNMENT AGENCIES.
3. ALL DRAINAGE SHOWN AS EXISTING WERE DERIVED FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE ACTUAL LOCATION, SIZE, TYPE AND AMOUNT OF EXISTING DRAINAGE PRIOR TO CONSTRUCTION. THE CONTRACTOR TO NOTIFY "CALL SUNSHINE" (PH. 1–800–432–4770), MCPWD AND FP&L 48 HOURS MINIMUM PRIOR TO START OF CONSTRUCTION FOR POSSIBLE DRAINAGE LOCATIONS NOT SHOWN ON PLANS.
4. AS–BUILT STORMWATER FACILITY LOCATIONS, INCLUDING TOP OF BANK, UNDERDRAIN AND CONTROL STRUCTURES, SHALL BE PERFORMED BY A REGISTERED LAND SURVEYOR AND REVIEWED BY THE ENGINEER OF RECORD PRIOR TO ACCEPTANCE AND PAYMENT. BENCH MARKS WITH THE ELEVATION CLEARLY AND PERMANENTLY MARKED ARE TO BE PLACED ON THE TOP OF ALL PROPOSED OUTFALL CONTROL STRUCTURES. AS–BUILTS OF ALL MITIGATION AREAS INCLUDING ELEVATIONS, ZONES AND LIMITS SHALL BE PERFORMED BY A REGISTERED LAND SURVEYOR AND REVIEWED BY THE ENGINEER OF RECORD PRIOR TO ACCEPTANCE AND PAYMENT.
5. ALL PIPE LENGTHS SHOWN ON PLAN VIEW ARE TO THE END OF THE MITERED END SECTION. REFER TO MITERED END SECTION DETAIL FOR LENGTH OF PIPE TO BE INCLUDED IN PRICE FOR MITERED END SECTION.
6. THE CONTRACTOR SHALL VERIFY TOPOGRAPHY AND SATISFY HIMSELF AS TO THE EXTENT OF FILL NECESSARY TO ACHIEVE FINISHED GRADE PRIOR TO AWARD OF CONTRACT. THERE SHALL BE NO CLAIM FOR EXTRAS NOTWITHSTANDING SITE PLAN REVISIONS PROMULGATED SUBSEQUENT TO AWARD OF CONTRACT.
7. THE CONTRACTOR IS RESPONSIBLE FOR ESTIMATING AND CALCULATING ALL CUT AND FILL QUANTITIES. PRIOR TO BID SUBMISSION THE CONTRACTOR SHALL CONDUCT ANY ADDITIONAL SURVEYS AND SOIL TESTS HE DEEMS NECESSARY TO CALCULATE THE CUT AND FILL QUANTITIES PROPERLY. ADDITIONAL SURVEYS AND TESTS MADE BY THE CONTRACTOR SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
8. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURES PRIOR TO INSTALLATIONS.
9. ALL EASEMENTS AS SHOWN WITHIN THE PROJECT BOUNDARY LIMITS ARE TO BE CONSIDERED PUBLIC (UNLESS OTHERWISE STATED). EASEMENTS TO BE GRANTED IN CONJUNCTION WITH RECORD PLAT PROCESSING.
10. ALL FILL AREAS ARE TO BE CONSTRUCTED PER PROJECT GEO–TECHNICAL REPORT.
11. THE CONTRACTOR IS TO REVIEW SOILS TESTS AS PERFORMED BY THE SOIL CONSULTANT AND IS ENCOURAGED TO CONDUCT ON–SITE TESTING TO SATISFY HIMSELF AS TO ACTUAL LIMITS OF REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIALS PRIOR TO BIDDING.
12. THE CONTRACTOR IS TO PROVIDE THE ENGINEER OF RECORD WITH VERIFICATION OF LOT GRADES PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.
13. ALL CONTROL STRUCTURES SHALL HAVE A SEPARATE TOP SLAB TO ALLOW FOR FINAL ADJUSTMENT TO DESIGN GRADE. PRECAST CONTROL STRUCTURES SHALL BE CAST SO AS TO ALLOW A MINIMUM OF 6" OF BRICK ADJUSTMENT FOR CONSTRUCTION OF THE WEIR(S).

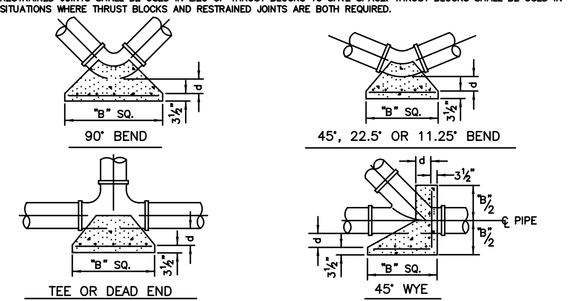
CLEARING AND GRUBBING NOTES

1. EROSION CONTROL PREVENTIVE METHODS, SILT SCREENING AND/OR HAY BALES, TO BE IN PLACE PRIOR TO COMMENCEMENT OF EARTHWORK CONSTRUCTION TO MINIMIZE EROSION AND SEDIMENTARY RUNOFF. THE CONTRACTOR SHALL PERFORM DAILY SITE INSPECTIONS FOR ANY POTENTIAL EROSION PROBLEMS. IF ANY POTENTIAL EROSION PROBLEMS ARE ENCOUNTERED, OR HAVE OCCURRED, THE CONTRACTOR SHALL INSTALL PROPER EROSION CONTROL MEASURES IMMEDIATELY. STORMWATER TREATMENT FACILITIES ARE TO BE CONSTRUCTED EARLY IN SITE DEVELOPMENT, WITH NO UNTREATED RUNOFF OFF–SITE OCCURRING DURING CONSTRUCTION.
2. EROSION CONTROL AND FUGITIVE PARTICULATE ABATEMENT PLANS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
3. ALL EXISTING TREES AND BRUSH DESIGNATED FOR REMOVAL ARE TO BE CLEARED AND DISPOSED OF OFFSITE.
4. SODDING AND/OR GRASSING TO BE COMPLETED IMMEDIATELY UPON COMPLETION OF FINISH GRADING. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE FUGITIVE PARTICULATE ABATEMENT PLAN (DUST CONTROL).
5. PROPOSED PARKING AND BUILDING AREAS TO BE CLEARED OF ALL TREES AND BRUSH, AND STRIPPED TO A MINIMUM DEPTH OF 8" AND/OR BOTTOM OF ORGANIC LAYER.

THRUST BLOCK DIMENSIONS B ft. x d inches												
PIPE SIZE	90°BEND		45°BEND		22.5°BEND		11.25°BEND		DEAD END & TEE		45° WYE	
(IN.)	B	d	B	d	B	d	B	d	B	d	B	d
4	1.5	3½	1.1	3½	0.8	3½	0.6	3½	1.3	3½	1.1	3½
6	2.2	5¼	1.6	3¾	1.2	3½	0.8	3½	1.9	4½	1.6	3¾
8	2.9	7	2.1	5	1.5	3½	1.1	3½	2.4	5¾	2.0	4¾
10	3.5	8½	2.6	6¼	1.9	4½	1.3	3½	3.0	7¼	2.5	6
12	4.2	10	3.1	7½	2.2	5¼	1.6	3¾	3.5	8½	3.0	7¼
14	4.9	11¾	3.6	8¾	2.6	6¼	1.8	4¼	4.1	9¾	3.4	8¼
16	5.5	13¼	4.1	9¾	2.9	7	2.1	5	4.7	11¼	3.9	9¼
18	6.2	15	4.6	11	3.3	8	2.3	5½	5.2	12½	4.4	10½
20	6.9	16½	5.0	12	3.6	8¾	2.6	6¼	5.8	14	4.9	11¾
24	8.2	19¾	6.0	14½	4.3	10¼	3.1	7½	6.9	16½	5.8	14
30	10.1	24¼	7.5	18	5.3	12¾	3.8	9	8.5	20½	7.2	17¼
36	12.1	29	8.9	21¼	6.4	15¼	4.5	10¾	10.2	24½	8.6	20¾

REINFORCEMENT MAT SCHEDULE
FOR DIM. 'B' BETWEEN 5.75" & 12.5'USE #4 @ 8" EACH WAY
FOR DIM. 'B' LESS THAN 5.75' USE #3 @ 8" EACH WAY

NOTES:
1. ALL THRUST BLOCKS SHALL BE CAST IN PLACE. FITTINGS ADJACENT TO THRUST BLOCKS SHALL BE WRAPPED IN POLYETHYLENE.
2. THIS TABLE IS BASED ON WATER PRESSURE=180 PSI WITH AN ALLOWABLE SOIL BEARING PRESSURE=2000 PSF, CONCRETE STRENGTH f'c=3000 PSI, REINFORCEMENT f'y=60.0 KSI. THRUST BLOCK SHALL BE CAST AGAINST FIRM UNDISTURBED SOIL.
3. FOR LARGER 'B' DIMENSIONS IT IS NECESSARY TO CHECK THAT PIPE IS SUFFICIENTLY DEEP TO ALLOW 15" MIN. SOIL COVER OVER TOP EDGE OF THRUST BLOCK.
4. RESTRAINED JOINTS SHALL BE USED IN LIEU OF THRUST BLOCKS TO SAVE SPACE. THRUST BLOCKS SHALL BE USED IN SITUATIONS WHERE THRUST BLOCKS AND RESTRAINED JOINTS ARE BOTH REQUIRED.



MANATEE COUNTY PUBLIC WORKS DEPARTMENT			
REV.BY	DATE		
CLB/KE	2/05	MARCH 17, 2009 DATE OF APPROVAL	CONCRETE THRUST BLOCKS
JAV/JB	2/09		UG–7

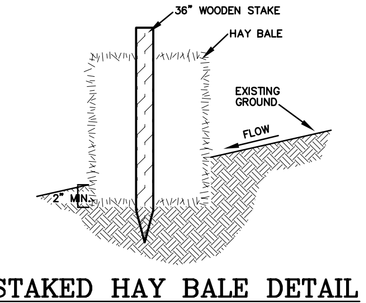
EROSION CONTROL NOTES:

1. TO PREVENT SEDIMENTARY RUNOFF DURING CONSTRUCTION, STAKED HAYBALES, STAKED SILT SCREENS OR INLET DEBRIS CONTROL SCREENS ARE TO BE PLACED AT STORM INLETS, OUTFALL LOCATIONS AND ADJACENT PROPERTY LINES AS REQUIRED PRIOR TO ANY CONSTRUCTION ACTIVITIES.

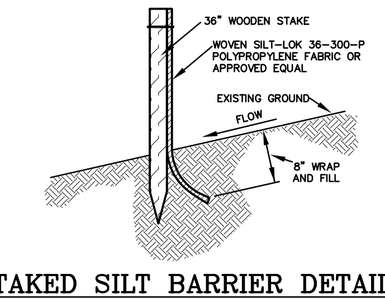
SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSTALLED AND THEN VERIFIED/INSPECTED BY MANATEE COUNTY.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SEDIMENTATION BARRIERS IN A WORKING MANNER FOR THE DURATION OF CONSTRUCTION AND SHOULD BE CHECKED DAILY. SILTATION ACCUMULATIONS GREATER THAN THE LESSER OF 12 INCHES OR ONE–HALF OF THE DEPTH OF THE SEDIMENTATION BARRIER SHALL BE IMMEDIATELY REMOVED AND REPLACED IN UPLAND AREAS. IN ADDITION TO SPECIFIED EROSION CONTROL LOCATIONS, THE CONTRACTOR SHALL PERFORM DAILY SITE INSPECTIONS FOR POTENTIAL EROSION PROBLEMS. IF PROBLEMS OCCUR, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING APPROPRIATE EROSION CONTROL IMMEDIATELY. STORMWATER TREATMENT FACILITIES INCLUDING OUTFALL PER DETAIL ARE TO BE CONSTRUCTED EARLY IN SITE DEVELOPMENT, WITH NO OFF–SITE UNTREATED RUN–OFF OCCURRING DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING TEMPORARY EROSION CONTROL DEVICES FOLLOWING COMPLETION OF ALL CONSTRUCTION AND FINAL STABILIZATION.

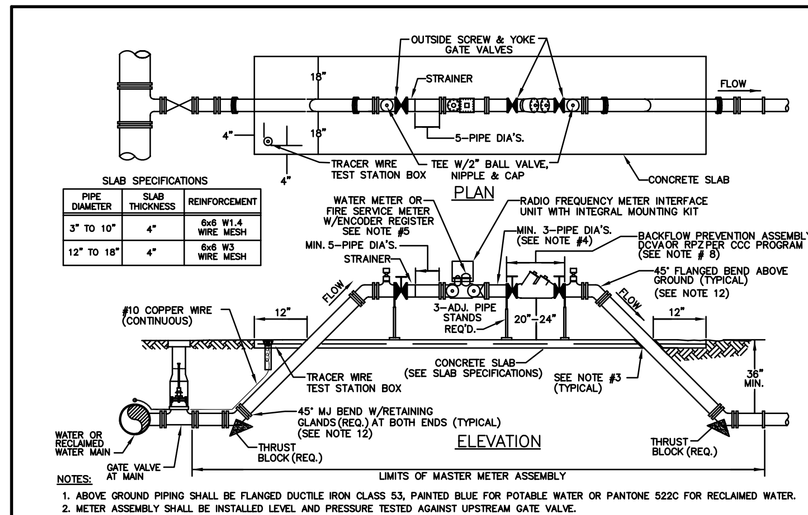
2. CONTRACTOR TO KEEP CONSTRUCTION ACTIVITIES AND EQUIPMENT TO A MINIMUM AT OUTFALL LOCATIONS WHICH DISCHARGE TO EXISTING JURISDICTIONAL AREAS. FLOATING OR STAKED TURBIDITY BARRIERS MAY BE USED IN LIEU OF STAKED HAYBALES/SILT SCREENS WHERE WARRANTED.
3. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN–PLACE UNTIL THE SITE HAS BEEN STABILIZED AND REVEGETATED.
4. CONSTRUCTION METHOD AND MATERIALS TO BE IN ACCORDANCE WITH SECTION 104–6 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION SPECIFICATIONS.
   a) HAY BALES MUST BE BUTTED CLOSE TOGETHER AND HAVE NO GAPS TO ALLOW FLOW TO PASS THROUGH WITHOUT BEING FILTERED.
   b) JOINTS OF THE FILTER FABRIC MUST BE OVERLAPPED AND PROPERLY CONNECTED TO PREVENT ANY OPENING FROM OCCURRING.
5. SILT SCREENS MAY ALSO REPRESENT CONSTRUCTION LIMITS BARRIERS. THEY SHALL BE ERECTED PRIOR TO INITIATION OF SITE CLEARING OPERATIONS NEAR WETLANDS, BUFFER AREAS AND ANY OTHER AREAS SHOWN AS PRESERVED OR PROTECTED FROM CONSTRUCTION ACTIVITIES. FAILURE TO INSTALL AND MAINTAIN BARRIERS/SILT SCREENS SHALL BE CAUSE FOR PUNITIVE FINANCIAL PENALTIES. FINANCIAL PENALTIES (PUNITIVE AND REGULATORY), CONSULTING FEES AND ESTIMATED COST OF RESTORATION WILL BE DEDUCTED FROM SUBSEQUENT PAYMENT REQUESTS.



STAKED HAY BALE DETAIL
N.T.S.



STAKED SILT BARRIER DETAIL
N.T.S.

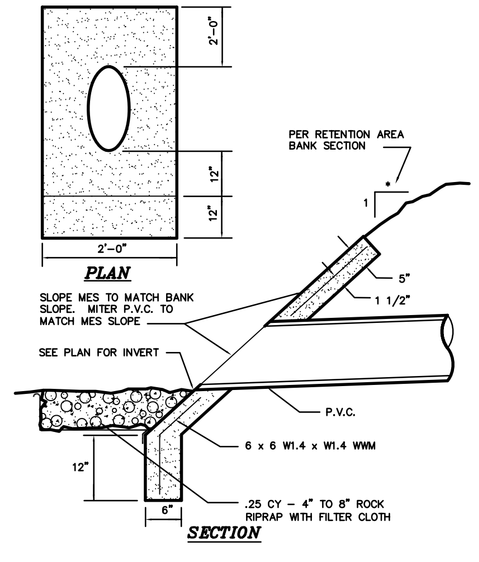


SLAB SPECIFICATIONS

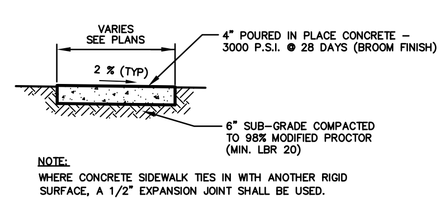
PIPE DIAMETER	SLAB THICKNESS	REINFORCEMENT
3" TO 10"	4"	6x6 W1.4 WIRE MESH
12" TO 18"	4"	6x6 W3 WIRE MESH

NOTES:
1. ABOVE GROUND PIPING SHALL BE FLANGED DUCTILE IRON CLASS 53, PAINTED BLUE FOR POTABLE WATER OR PANTONE 522C FOR RECLAIMED WATER.
2. METER ASSEMBLY SHALL BE INSTALLED LEVEL AND PRESSURE TESTED AGAINST UPSTREAM GATE VALVE.
3. PIPE ENCASED IN CONCRETE AND ALL BELOW GROUND D.I. PIPE AND FITTINGS SHALL BE POLYETHYLENE WRAPPED.
4. TEE BETWEEN METER AND BACKFLOW IS REQUIRED ON TURBINE METERS. TEE IS NOT REQUIRED ON COMPOUND METERS.
5. FIRE SERVICE METER TO BE USED ONLY WHEN POTABLE WATER AND FIRE PROTECTION ARE SUPPLIED THROUGH A SINGLE POTABLE WATER LINE.
6. ALL EXPOSED EDGES OF CONCRETE SHALL HAVE 1/2" CHAMFER.
7. LANDSCAPE VEGETATION SHALL BE10 '–0" MIN. FROM METER & ABOVE GROUND PIPINGTREET SIDE OF ASSEMBLY SHALL REMAIN OPEN.
8. BACKFLOW PREVENTER IS NOT REQUIRED ON RECLAIMED WATER MASTER METER ASSEMBLY, EXCEPT WHERE FERTILIZER OR CHEMICAL INJECTION METHODS WILL BE IN USE.
9. ALL BOLTING SHALL BE 316 STAINLESS STEEL.
10. SEE GATE VALVE, BOX AND LID STANDARD DETAIL UW–2.
11. BALL VALVES SHALL BE FULL PORT WITH LOCKING TABS.
12. SHOULD THERE BE INSUFFICIENT ROOM TO INSTALL THE METER ASSEMBLY, 90° BENDS AND TEES MAY BE USED AS SHOWN IN STANDARD DETAIL UW–16.

3" WATER METER W/ BACKFLOW PREVENTER
N.T.S.



P.V.C. MITERED END SECTION
N.T.S.



NOTE:
WHERE CONCRETE SIDEWALK TIES IN WITH ANOTHER RIGID SURFACE, A 1/2" EXPANSION JOINT SHALL BE USED.

TYPICAL SIDEWALK DETAIL
N.T.S.

ALLISON ENGINEERING
926 14th STREET WEST
BRADENTON, FLORIDA 34205
TEL:(941)708–5400 FAX:(941)708–5405

DESIGNED: MAA
DATE: 8/20/10
DRAWN: BRT
JOB NO.: 3040
SCALE: AS SHOWN

REVISIONS:
1 BID SET 8/20/10
2 REVISED PER PUBLIC WORKS 9/29/10
3
4
5
6
7
ADDENDUM #01

MANATEE COUNTY LINCOLN SPLASH PARK

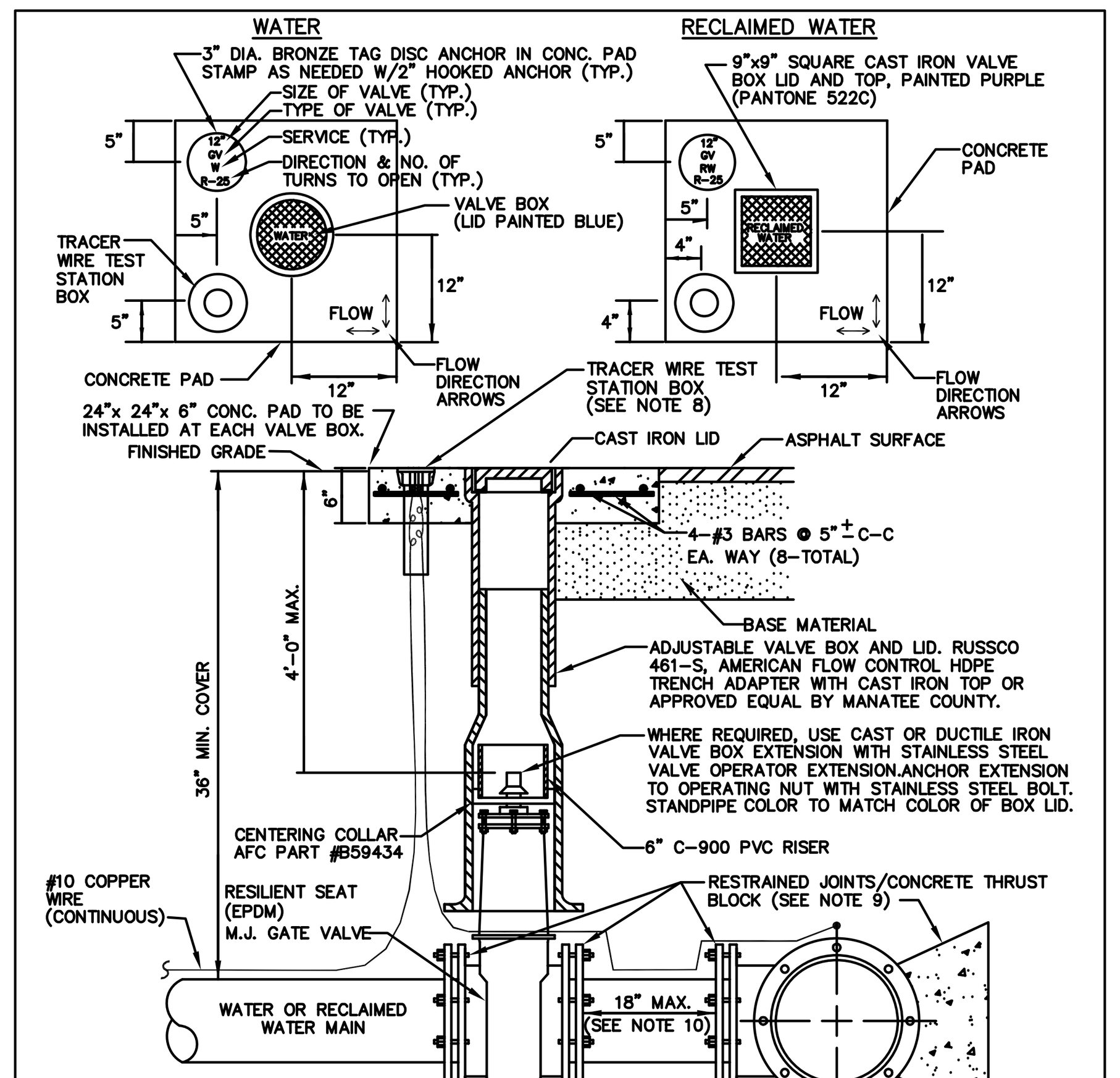
LOCATED AT:
SECTION 13
TOWNSHIP 34 SOUTH
RANGE 17 EAST
MANATEE COUNTY, FLORIDA

NOTES & DETAILS

M. ANDREW ALLISON
PE # 53966

SHEET C2

10/27/2010 3:37:05 PM BRAD D:\Data\AutoCad Projects\LINCOLN PARK\LINCOLN PARK–Civil.dwg



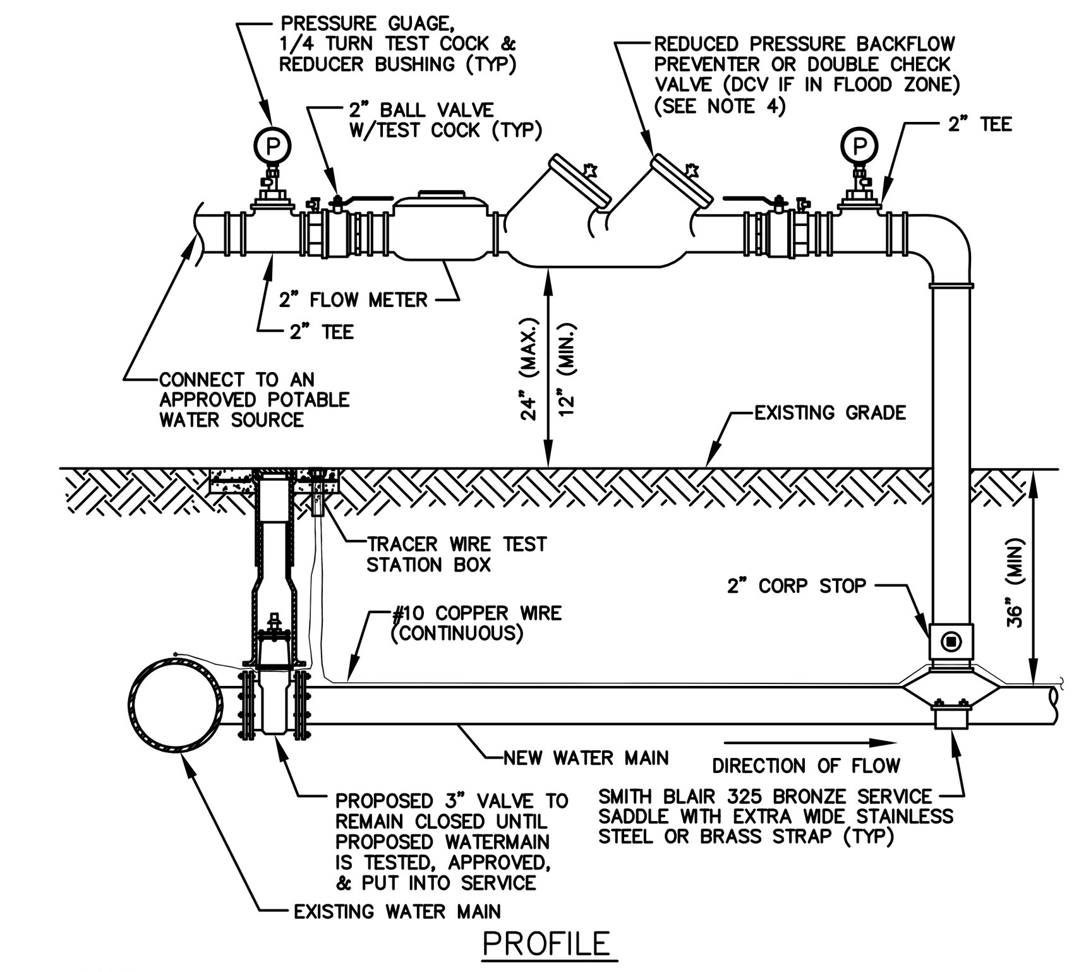
NOTES:

1. "WV" OR "RWV" TO BE IMPRESSED INTO THE NEWLY-POURED CONCRETE CURB, ALONG WITH DISTANCE IN FEET TO THE VALVE. IF NO CURB, INSTALL A BLUE DISC WITH "WV" OR PURPLE DISC WITH "RWV" AND A 1/8"x1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE FOOTAGE FROM THE DISC TO THE VALVE.
2. ALL EXISTING AND PROPOSED VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADES AS DETERMINED IN THE FIELD.
3. WATER VALVES SHALL NOT BE PLACED IN HANDICAPPED RAMPS.
4. PRECAST CONCRETE PADS & THRUST BLOCKS SHALL NOT BE USED.
5. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
6. FOR VALVES 16" AND LARGER, USE BUTTERFLY VALVES.
7. "FLOW" AND FLOW DIRECTION ARROWS TO BE IMPRESSED INTO NEWLY POURED CONCRETE PAD.
8. TRACER WIRE TEST STATION BOX IS NOT REQUIRED IN VALVE BOX PAD IF THE GATE VALVE IS LOCATED WITHIN 200 FEET OF A WATER SERVICE, BLOW-OFF, BACKFLOW PREVENTER OR FIRE HYDRANT THAT HAS A TRACER WIRE BOX. A TRACER WIRE BOX IS REQUIRED IN THE CONCRETE PAD AT ALL GATE VALVES AT CONNECTIONS TO EXISTING MAINS.
9. CONCRETE THRUST BLOCK IS ALSO REQUIRED UNLESS RESTRAINED JOINT LENGTH IS TREATED AS A PLUG SHOWN IN STANDARD DETAIL UG-8
10. SHOULD THERE BE AN OBSTACLE/CONFLICT IN INSTALLING THE VALVE, THE ENGINEER OF RECORD MAY PROPOSE A REVERSE TAP, ETC. AND SEPARATE APPROVAL SHALL BE OBTAINED FROM MANATEE COUNTY.

MANATEE COUNTY — PUBLIC WORKS DEPARTMENT — GATE VALVE, BOX, LID AND TAG — UW-2

REV.BY	DATE
CLB/KE	03/06
JAA/JB	09/08
JAA/JEA	02/09

MARCH 17, 2009 — DATE OF APPROVAL



NOTES:

1. FOR TIE-IN VALVE, SEE DETAIL UW-4 FOR TAPPING SLEEVE VALVE, DETAIL UW-2 FOR GATE VALVE AND DETAIL UW-3 FOR BUTTERFLY VALVE.
2. CORPORATION STOP CONNECTIONS TO WATER MAINS SHALL BE AT A SUFFICIENT DISTANCE FROM NEW TAPPING SLEEVE & VALVE (TIE-IN VALVE). ALL CORPORATION STOP TAPS SHALL BE PLACED NO CLOSER THAN 30" OR A DISTANCE EQUAL TO (1) MAIN PIPE DIAMETER PLUS (2) TAP DIAMETERS (WHICHEVER IS LARGER) FROM THE NEW TIE-IN VALVE (TAPPING VALVE & SLEEVE). A CROSS MAY BE INSTALLED IF THE EXISTING WATER MAIN IS NOT LARGER THAN THE NEW WATER MAIN.
3. IF THE EXISTING WATER MAIN IS LOCATED UNDER PAVEMENT OR CLOSE TO THE ROADWAY, BOTH JUMPER CORPORATION STOPS MAY CONNECT TO THE NEW WATER MAIN LOCATED OUTSIDE OF THE PAVEMENT. AN ADDITIONAL GATE VALVE OR BUTTERFLY VALVE SHALL BE INSTALLED AND THE VALVE MAY BE LOCATED AT THE ROW LINE. PIPING AND APPURTENANCES BETWEEN THE EXISTING MAIN AND ISOLATION VALVE AND JUMPER SHALL BE DISINFECTED BY SPRAYING OR SWABBING.
4. BACKFLOW PREVENTER SHALL BE STRUCTURALLY SUPPORTED.
5. SEE DETAIL UW-22 FOR ADDITIONAL JUMPER CONNECTION NOTES.

MANATEE COUNTY — PUBLIC WORKS DEPARTMENT — TEMPORARY JUMPER CONNECTION — UW-21

REV.BY	DATE
JAA/JEA	02/09

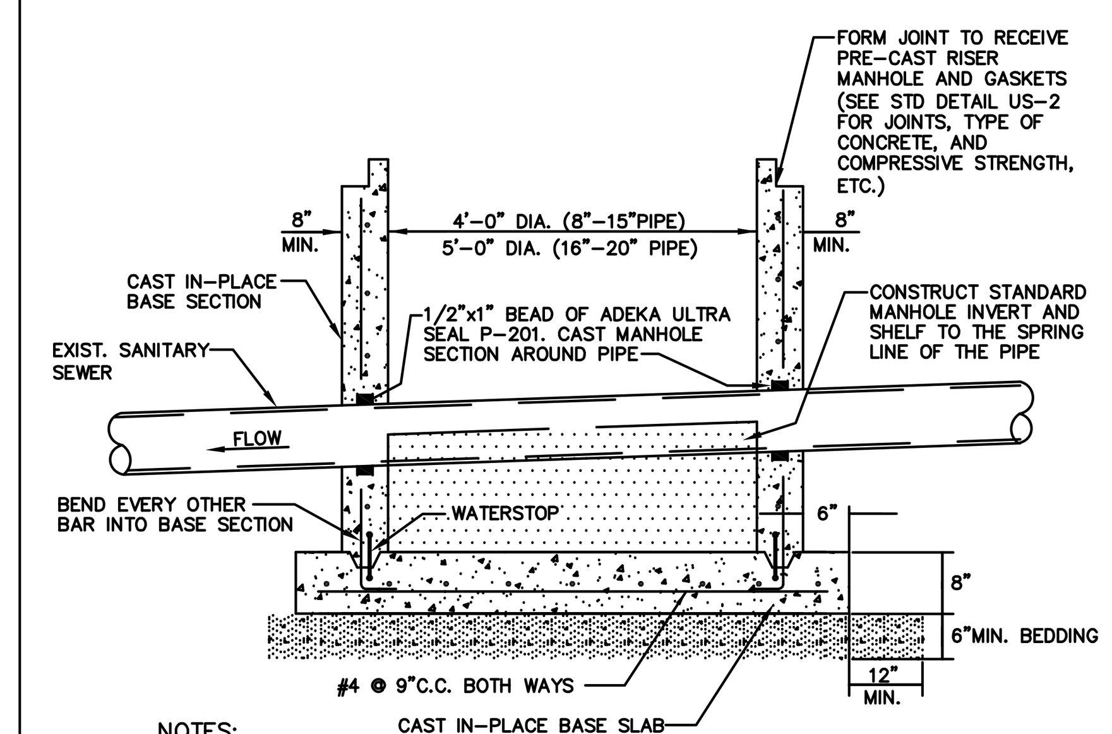
MARCH 17, 2009 — DATE OF APPROVAL

1. A temporary jumper connection is required at all connections between existing active potable water mains and proposed new water main improvements with the following exceptions:
   A. Projects that include a permanent backflow preventer at the right-of-way which is adjacent to the existing water main;
   B. Projects that include new water mains that are less than or equal to 18 linear feet in length; or
   C. Other proposed cases that are approved by Manatee County and the construction drawings specifically state that a temporary jumper connection is not required.
2. A temporary jumper shall be used and be connected to an approved potable water source (e.g., existing fire hydrant, existing main, existing service tap or tank truck, etc.) as shown in the standard temporary jumper detail UW-21. A temporary jumper shall be used for filling any new water main of any size, for flushing of new mains up to 6 inches in diameter (3.0 fps minimum velocity, preferably 3.5 fps) and for disinfection of any new main of any size. Water mains with a pipe diameter greater than or equal to 6 inches shall be pigged in lieu of preliminary flushing. The jumper connection shall be maintained until after the filling, flushing, testing and disinfection of the new main has been successfully completed and clearance for use from the Florida Department of Environmental Protection (FDEP) or the Florida Department of Health (FDOH) has been obtained.
3. Locations and orientation of jumpers associated with connections to existing water mains that are located under the roadway pavement shall be approved on a case-by-case basis.
4. Pipe and fittings used for connecting the new pipe to the existing pipe shall be disinfected prior to installation in accordance with AWWA C651, latest edition. Unless approved otherwise, the tapping sleeve, and exterior of the existing main to be tapped, piping within the jumper, and new piping shown on standard temporary jumper detail UW-21 shall be disinfected by spraying or swabbing per Section 4.6 of AWWA C651. Unless approved otherwise, the remainder of the new main shall be disinfected in accordance with Section 4.4.3.3 of AWWA C651. The use of tablets is prohibited.
5. A separate and successful hydrostatic test on the new system shall occur between the tie-in valve and the closest downstream gate valve or butterfly valve before performing a hydrostatic test on the remainder of the newly-constructed water main. The tie-in valve and the closest downstream gate valve or butterfly valve shall be closed during the hydrostatic test of the remainder of the newly constructed water main.
6. The jumper shall include a flow meter to ensure that the flow from the supply source is at a constant measured rate while chlorinating the new main. The chlorine concentration shall be measured at regular intervals to ensure that it is fed at a constant rate of not less than 25 milligrams per liter (mg/L) of free chlorine.
7. After preliminary flushing (watermains with diameters less than 6 inches) and pigging (watermains with diameters greater than or equal to 6 inches) of the new water main, a minimum feed concentration of 25 mg/L of free chlorine is required. The chlorinated water shall be retained in the main for at least 24 hours and all portions of the main shall have a residual of not less than 10 mg/L of free chlorine at the end of this 24-hour period. The Contractor shall provide the Inspector documentation that the aforementioned concentrations have been achieved. Final flushing of the mains shall occur prior to performing bacteriological evaluations and the total chlorine residual in the mains shall be no more than 4.0 mg/L in any bacteriological sample. If the chlorine residual exceeds 4.0 mg/L, a sample shall be obtained at the test cock located upstream of the backflow preventer, to ensure that the total chlorine residual of the new main does not exceed the residual of the existing system.
8. The jumper connection shall also be used to maintain a minimum pressure of 20 psi in the new mains continuously after disinfection and until FDEP/FDOH clearance letter is obtained.
9. All temporary backflow devices or "jumpers" utilized during pipeline construction must show certification that they have been tested annually according to the Florida Building Code, Plumbing Section, Chapter 3, Section 312.9.1, 312.9.2, Chapter 6, Section 608, and Resolution R87-125. Annual certification must be valid at time of installation and provided to the Manatee County Inspector upon request.
10. Except as required to flush lines greater than 6 inches in diameter, the lockable tie-in valve shall remain closed and shall be locked in the closed position by Manatee County. The tie-in valve shall remain closed and locked until the new system has been cleared for use by the FDEP/FDOH and all other pertinent agencies.
11. After receipt of clearance for use by FDEP/FDOH, Manatee County, and all other pertinent agencies, the Contractor shall remove the temporary jumper connection. The corporation stops are to be closed and plugged with 2-inch brass or PVC stops.
12. All installation and maintenance of the temporary jumper connection and associated backflow prevention device, flow meter, fittings, valves, etc., shall be the responsibility of the Contractor.
13. If the water main to receive final flushing is greater than 6 inches in diameter or such length that a full pipe flush at the minimum velocity cannot be accomplished, the following procedure shall be utilized:
   A. Check the pressure on the upstream side of the jumper to ensure that there is adequate pressure on the existing system.
   B. Open downstream valves in the new system prior to flush.
   C. Partially open the tie-in valve and maintain a lower pressure on the downstream side of the jumper than the pressure on the upstream side of the jumper while flushing/pigging the new water main.
   D. Manatee County personnel shall operate the tie-in valve to ensure that a pressure differential is maintained.
   E. Close tie-in valve and then close all downstream valves in the new system.
14. The tie-in valve shall remain closed if the potable water source is a tank truck.

MANATEE COUNTY — PUBLIC WORKS DEPARTMENT — TEMPORARY JUMPER CONNECTION NOTES — UW-22

REV.BY	DATE
JAA/JEA	02/09

MARCH 17, 2009 — DATE OF APPROVAL



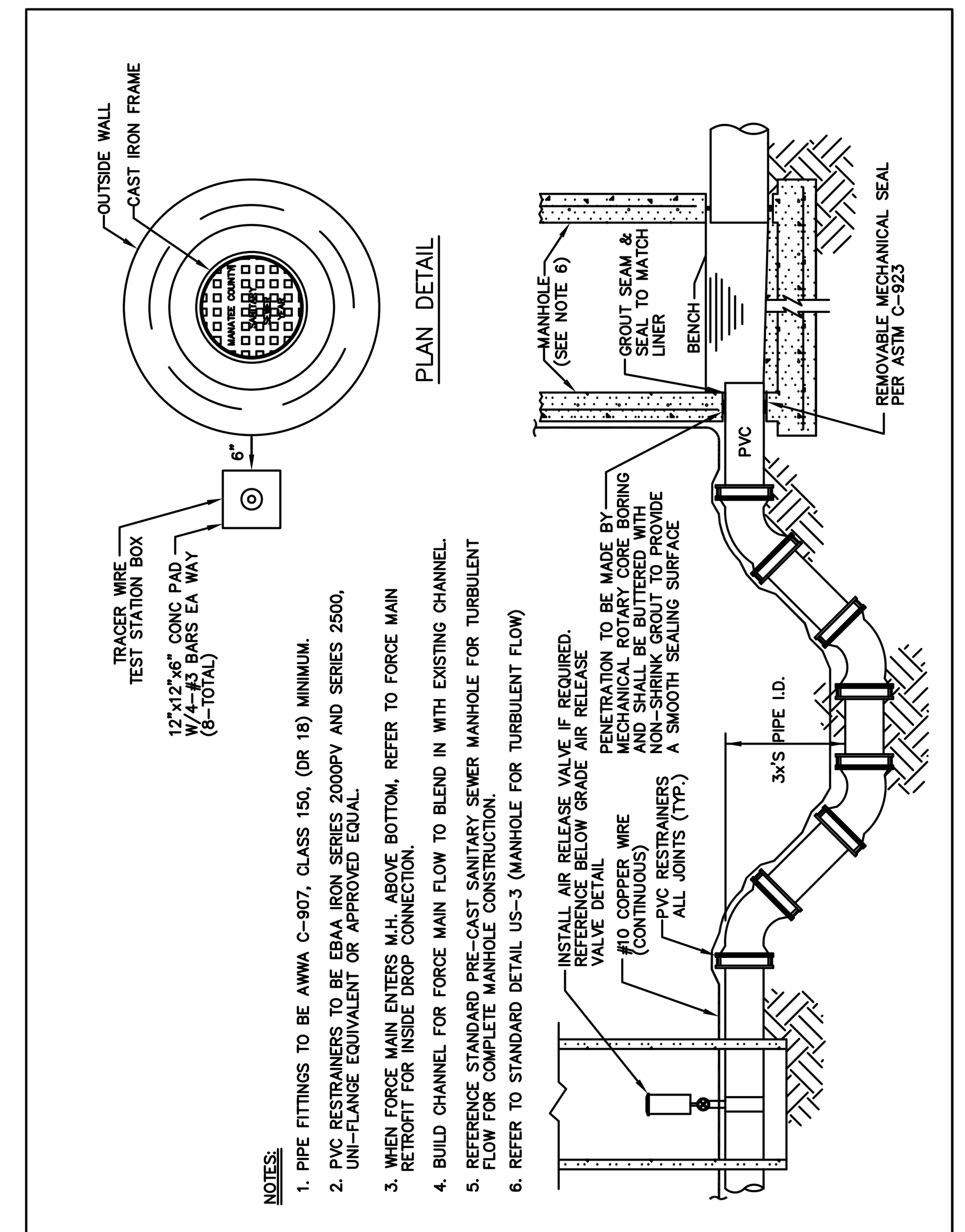
NOTES:

1. PRIOR TO ANY EXCAVATION OVER THE PIPE, A TV RECORDING OF THE EXISTING SEWER MAIN SHALL OCCUR BETWEEN THE UPSTREAM AND DOWNSTREAM MANHOLES WHILE THE COUNTY INSPECTOR IS PRESENT.
2. THE CONTRACTOR SHALL CAREFULLY EXCAVATE AROUND AND PROPERLY SUPPORT THE EXISTING PIPE.
3. PREFERRED CONSTRUCTION IS BY "CUTTING-IN" A STANDARD SANITARY SEWER MANHOLE WITH A TEMPORARY FLOW BY-PASS SYSTEM.
4. SEWER LINES GREATER THAN 20" REQUIRE SPECIAL DESIGN AND APPROVAL BY MANATEE COUNTY UTILITIES ENGINEERING.
5. ALLOW SUFFICIENT CURING TIME, 24-36 HOURS, FOR THE ADEKA ULTRA-SEAL P-201, BEFORE POURING CONCRETE.
6. FOLLOWING SATISFACTORY CURING OF THE INVERT CHANNEL AND SHELF, THE CONTRACTOR SHALL CUT AND REMOVE THE TOP HALF OF THE EXISTING PIPE WITHIN THE MANHOLE, TAKING CARE NOT TO ALLOW ANY PIECES TO BE WASHED DOWN STREAM IN THE PIPE. CUTTING OF THE PIPE SHALL BE IN A WORKMAN LIKE MANNER, PROVIDING A SMOOTH AND EVEN FINISHED PRODUCT.
7. A TV RECORDING OF THE SEWER MAIN SHALL ALSO OCCUR AFTER CONSTRUCTION WHILE THE COUNTY INSPECTOR IS PRESENT. PIPE DEFLECTION SHALL NOT DEVIATE BY MORE THAN 1 INCH FROM THE DESIGN LINE.
8. THERE SHALL BE NO VISIBLE LEAKS IN THE MANHOLE.

MANATEE COUNTY — PUBLIC WORKS DEPARTMENT — SANITARY SEWER MANHOLE CONSTRUCTED OVER EXISTING SEWER LINE (DOGHOUSE MANHOLE) — US-5

REV.BY	DATE
CLB/KE	08/05
JAA/JB	10/08
JAA/JEA	02/09

MARCH 17, 2009 — DATE OF APPROVAL



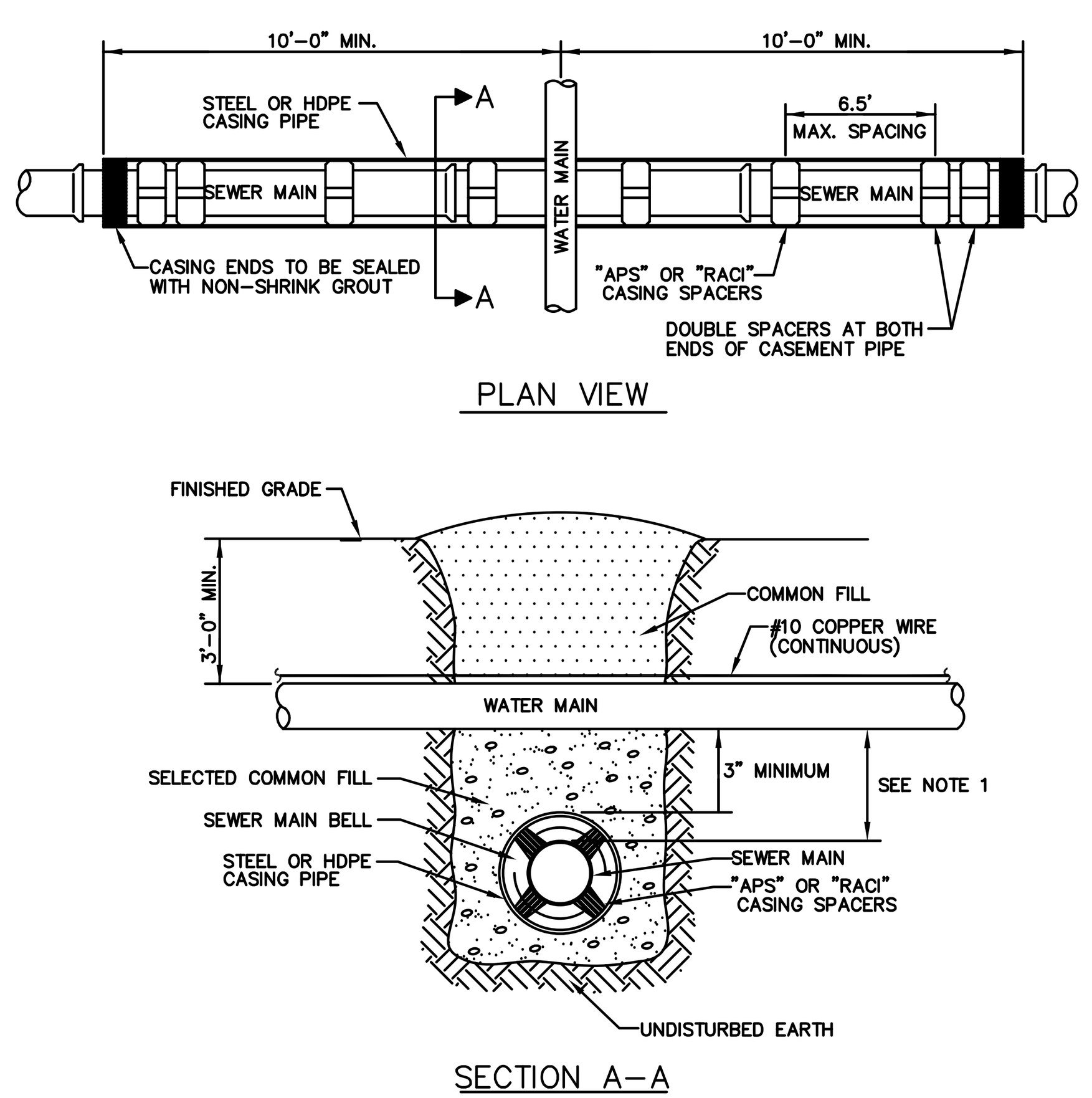
NOTES:

1. PIPE FITTINGS TO BE AWWA C-907, CLASS 150, (DR 18) MINIMUM.
2. PVC RESTRAINERS TO BE EBAA IRON SERIES 2000PV AND SERIES 2500, UNI-FLANGE EQUIVALENT OR APPROVED EQUAL.
3. WHEN FORCE MAIN ENTERS M.H. ABOVE BOTTOM, REFER TO FORCE MAIN RETROFIT FOR INSIDE DROP CONNECTION.
4. BUILD CHANNEL FOR FORCE MAIN FLOW TO BLEND IN WITH EXISTING CHANNEL.
5. REFERENCE STANDARD PRE-CAST SANITARY SEWER MANHOLE FOR TURBULENT FLOW FOR COMPLETE MANHOLE CONSTRUCTION.
6. REFER TO STANDARD DETAIL US-3 (MANHOLE FOR TURBULENT FLOW)

MANATEE COUNTY — PUBLIC WORKS DEPARTMENT — FORCE MAIN CONNECTION TO MANHOLE — US-9

REV.BY	DATE
CLB/KE	3/05
JAA/KE	10/08
JAA/JB	2/09

MARCH 17, 2009 — DATE OF APPROVAL



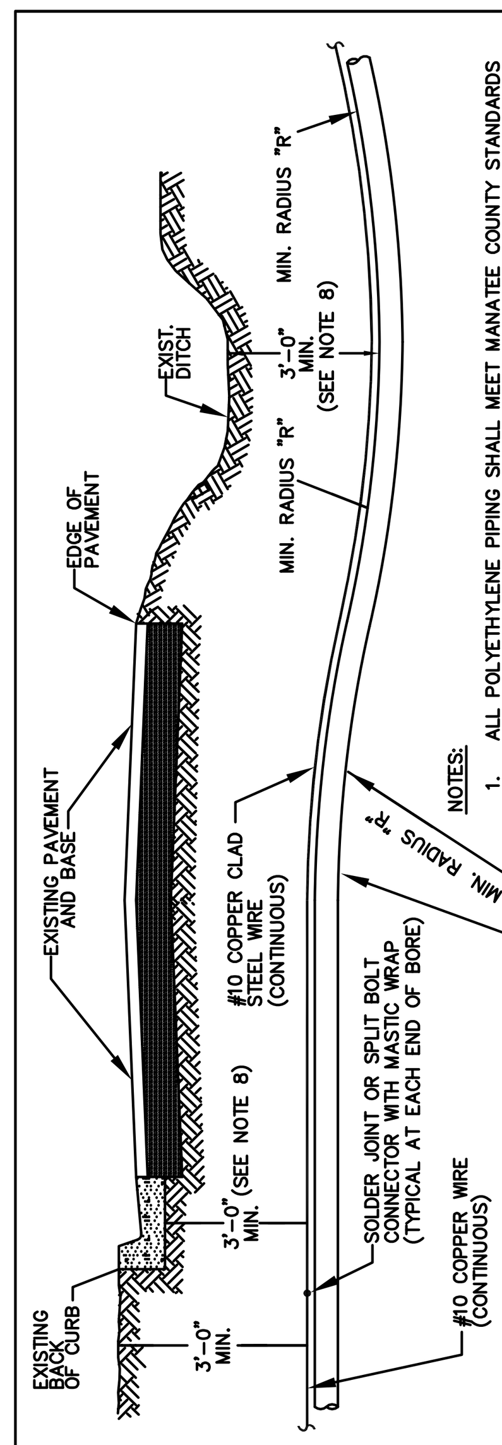
NOTE:

1. WHERE CLEARANCE IS LESS THAN 18", SEWER MAIN SHALL BE ENCASED AS DETAILED. FOR VERTICAL CLEARANCE OF 18" OR GREATER NO CASEMENT IS REQUIRED.
2. NEW WATER MAIN AND SEWER MAIN PIPE SECTIONS ARE TO BE CENTERED AT THE CROSSING POINT REGARDLESS OF THE VERTICAL CLEARANCE.
3. REFER TO STANDARD DETAIL UG-3 FOR ADDITIONAL CASING AND SPACER DETAILS.

MANATEE COUNTY — PUBLIC WORKS DEPARTMENT — TYPICAL WATER & SEWER CROSSING — UG-2

REV.BY	DATE
CLB/KE	8/05
JAA/KE	02/09

MARCH 17, 2009 — DATE OF APPROVAL



NOTES:

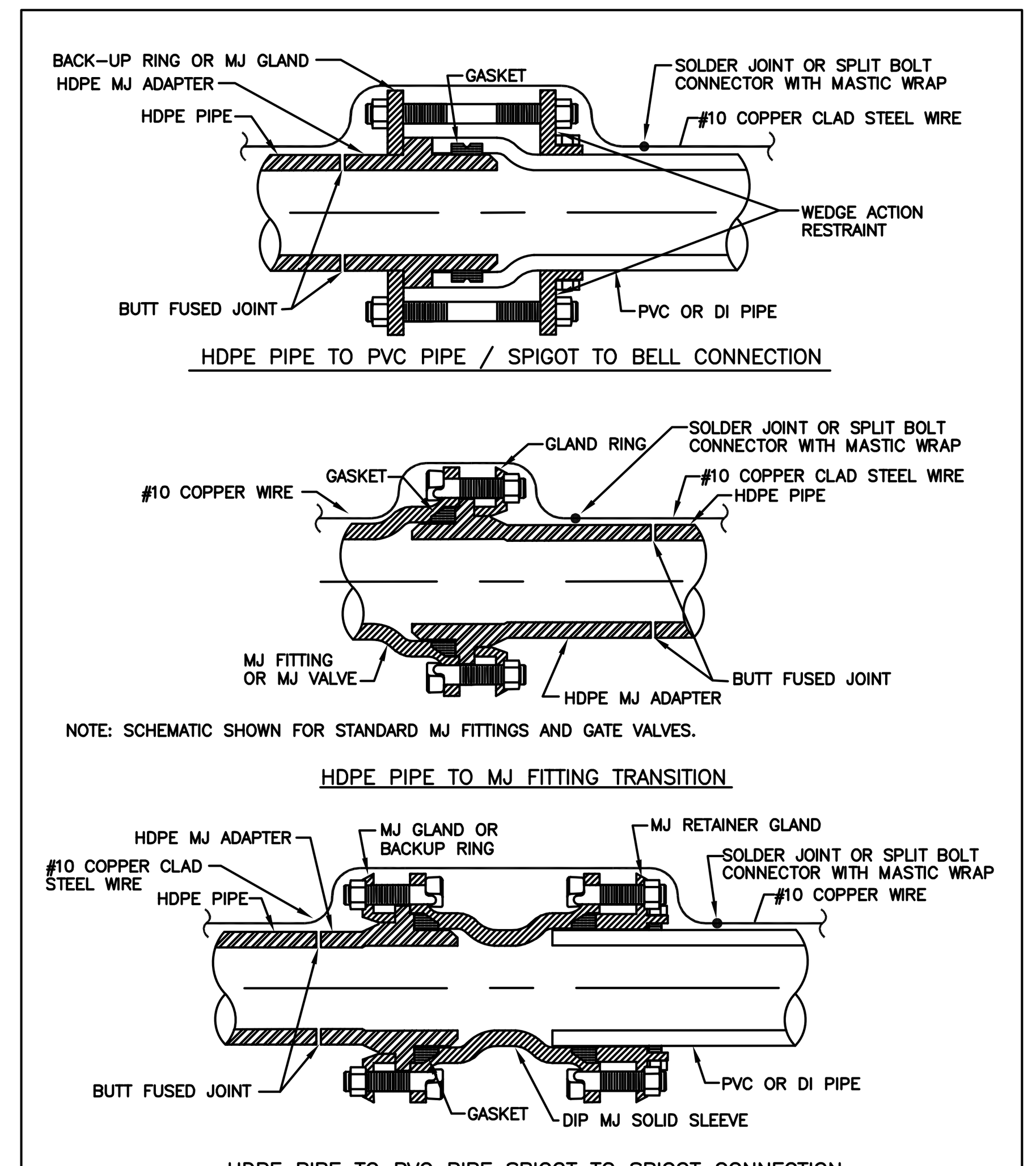
1. ALL POLYETHYLENE PIPING SHALL MEET MANATEE COUNTY STANDARDS AND SPECIFICATIONS. DR-11, CLASS 160 OR GREATER PRESSURE CLASS SHALL BE USED FOR POTABLE, RECLAIMED WATER OR SANITARY FORCE MAINS. DR-9 MAY BE REQUIRED BASED ON THE ENGINEERS CALCULATIONS. SEE NOTE #2.
2. THE ENGINEER SHALL SUBMIT CALCULATIONS FOR THE MAXIMUM PULLING LENGTH, TOTAL PULL FORCE AND THE ALLOWABLE TENSILE LOAD, IN ACCORDANCE WITH AWWA M55 & ASTM F1804. DESIGN SHALL ALSO BE IN ACCORDANCE WITH ASTM F1962.
3. THE PIPE STRING SHALL BE ATTACHED TO THE BACKREAMER THROUGH A "WEAK-LINK" DEVICE TO ENSURE THAT THE PULLING FORCE DOES NOT EXCEED THE PIPE'S ALLOWABLE TENSILE LOAD RATING.
4. ONE # 10 GAUGE EXTRA HIGH STRENGTH COPPER CLAD STEEL TRACER WIRE SHALL BE PULLED AND SECURED TO THE PIPE FOR PIPELINES THAT ARE INSTALLED BY TRENCHLESS HORIZONTAL DIRECTIONAL DRILLING METHOD. IN TRENCHLESS/NON-DIRECTIONAL BORE APPLICATIONS, A # 10 GAUGE SOLID INSULATED COPPER WIRE SHALL BE ATTACHED TO THE PIPE. TRACER WIRES SHALL HAVE A MINIMUM 30-MILS OF POLYETHYLENE INSULATION.
5. COLOR CODED BLUE FOR POTABLE WATER MAINS.
6. COLOR CODED PURPLE (PANTONE 522 C) FOR RECLAIMED WATER MAINS.
7. COLOR CODED GREEN FOR SANITARY FORCE MAINS.
8. PIPE DEPTHS MAY NEED TO BE DEEPER TO AVOID FRACKOUTS. PIPE ALIGNMENT SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS.
9. FDOT CRITERIA SHALL BE MET FOR PIPES UNDER STATE ROADS.

PIPE DIAMETER "D" IN INCHES	MIN. RADIUS FOR PE PIPE IN FEET: MIN. RADIUS "R" FOR DR-11	MIN. RADIUS "R" FOR DR-9
2	4	5.5
3	6	8.3
4	8	11.0
6	12	16.5
8	16	22.0
10	20	27.5
12	24	33.0
16	32	44.0
18	36	49.5
20	40	55.0

MANATEE COUNTY — PUBLIC WORKS DEPARTMENT — DIRECTIONAL BORE ROADWAY CROSSING — UG-4

REV.BY	DATE
CLB/KE	9/05
JAA/KE	10/08
JAA/JB	2/09

MARCH 17, 2009 — DATE OF APPROVAL



1. ONE # 10 GAUGE EXTRA HIGH STRENGTH COPPER CLAD STEEL TRACER WIRE SHALL BE PULLED AND SECURED TO THE PIPE FOR PIPELINES THAT ARE INSTALLED BY TRENCHLESS HORIZONTAL DIRECTIONAL DRILLING METHOD. IN NON-DIRECTIONAL BORE (TRENCHES AND BORE & JACK) APPLICATIONS, A # 10 GAUGE SOLID INSULATED COPPER WIRE SHALL BE ATTACHED TO THE PIPE. TRACER WIRES SHALL HAVE A MINIMUM 30-MILS OF POLYETHYLENE INSULATION.

MANATEE COUNTY — PUBLIC WORKS DEPARTMENT — HDPE TO PVC OR DI PIPE ADAPTER — UG-6

REV.BY	DATE
CLB/KE	8/05
JAA/JB	10/08
JAA/JB	2/09

MARCH 17, 2009 — DATE OF APPROVAL

REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR DR-18 PVC PIPE

MAIN PIPE SIZE	HORIZ. BENDS 90°	45°	22.5°	TEES (SIZE / LENGTH)					REDUCERS (SIZE / LENGTH)			PLUGS	VALVES
24	90	38	18	X24 / 169	X20 / 132	X16 / 90	X12 / 38	X10 / 6	X20 / 64	X16 / 117	X12 / 158	214	107
20	78	32	16	X20 / 141	X16 / 101	X12 / 53	X10 / 24	X8 / 1	X16 / 65	X12 / 115	X10 / 149	184	92
16	66	27	13	X16 / 111	X12 / 67	X10 / 41	X8 / 12		X12 / 64	X10 / 107	X8 / 111	151	76
12	52	22	10	X12 / 80	X10 / 56	X8 / 31	X6 / 1		X10 / 58	X8 / 62	X6 / 86	118	59
10	44	18	9	X10 / 63	X8 / 40	X6 / 7			X8 / 33	X6 / 61	X4 / 81	100	50
8	37	15	7	X8 / 49	X6 / 18	X4 / 1			X6 / 35	X4 / 60		83	42
6	29	12	6	X6 / 29	X4 / 1				X4 / 33			63	32
4	21	8	4	X4 / 12								45	23

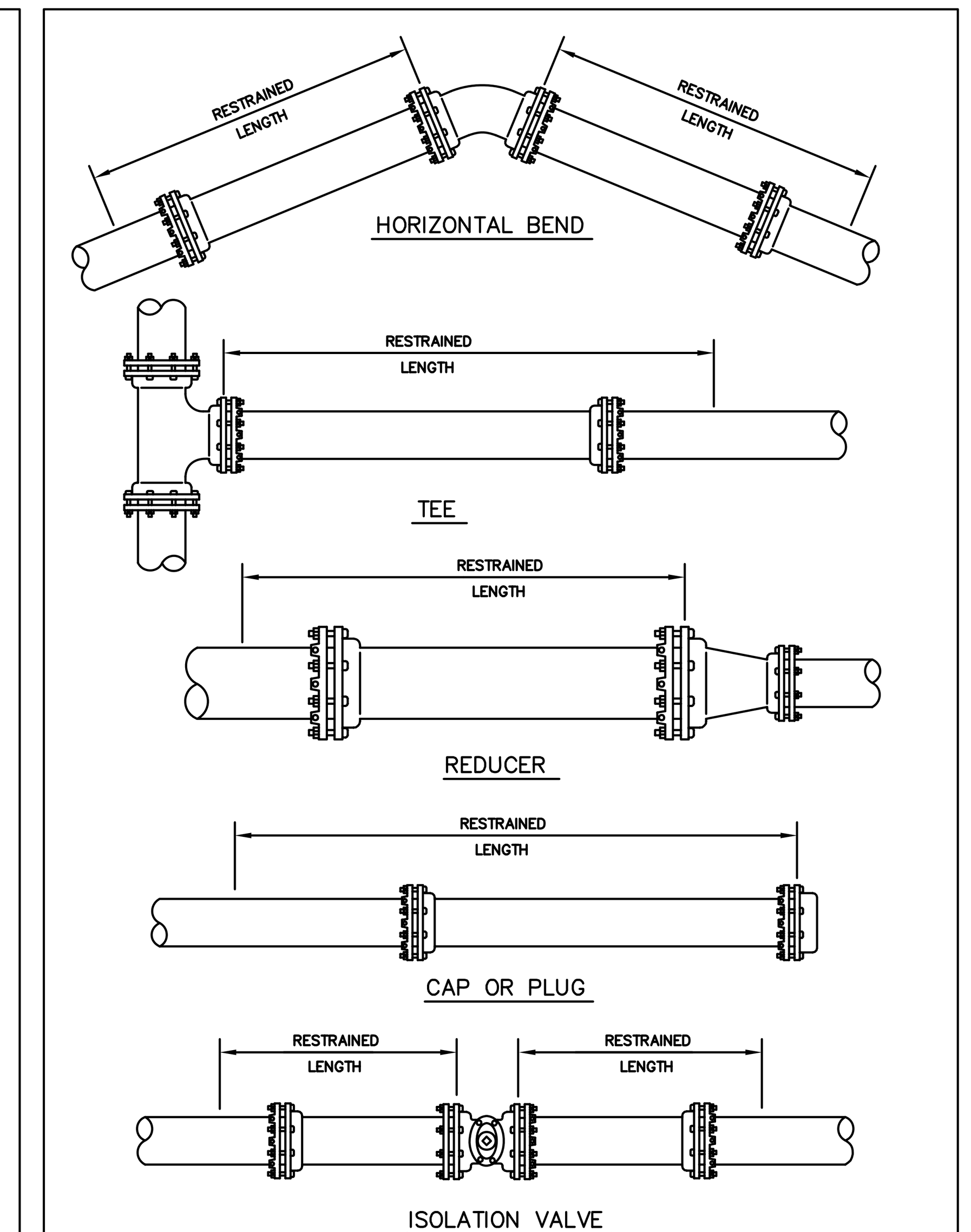
NOTES:

1.) RESTRAIN 11.25° BENDS 50% OF LENGTH FOR 22.5° BENDS.
2.) ALL VALVES AND FITTINGS SHALL BE RESTRAINED TO THE CONNECTING SECTIONS OF PIPE.
3.) ALL ISOLATION VALVES MUST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PSI TEST PRESSURE IN EITHER DIRECTION.
4.) PIPE SIZES ARE GIVEN IN INCHES.
5.) RESTRAINED PIPE LENGTHS ARE GIVEN IN FEET.
6.) LENGTHS SHOWN ARE FOR A TEST PRESURE OF 180 PSI.
7.) THE RESTRAINED LENGTHS SHOWN IN THESE TABLES ARE BASED ON SOIL CLASSIFICATION SP WITH AWWA TYPE 3 TRENCH CONDITIONS, 180 PSI TEST PRESSURE, 3 FEET OF COVER AND 1.5 FACTOR OF SAFTEY. ACTUAL BURY CONDITIONS MUST BE DETERMINED BY THE ENGINEER OF RECORD AND THE RESTRAINED LENGTHS MODIFIED ACCORDINGLY.
8.) SEE RESTRAINED LENGTHS FOR PIPE STD. DETAIL UG-10.

MANATEE COUNTY — PUBLIC WORKS DEPARTMENT — RESTRAINED LENGTHS FOR PVC PIPE — UG-8

REV.BY	DATE
CLB/KE	2/05
JAA/JB	10/08

MARCH 17, 2009 — DATE OF APPROVAL



MANATEE COUNTY — PUBLIC WORKS DEPARTMENT — RESTRAINED LENGTHS FOR PIPE — UG-10

REV.BY	DATE
CLB/KE	8/05
JAA/JB	10/08

MARCH 17, 2009 — DATE OF APPROVAL

ALLISON ENGINEERING
926 14th STREET WEST
BRADENTON, FLORIDA 34205
TEL:(941)708-5400 FAX:(941)708-5405

DESIGNED: MAA
DATE: 8/20/10
DRAWN: BRT
JOB NO.: 3040
SCALE: N.T.S.

REVISIONS:
1 REV. PER P.W. (SHEET ADDED) 9/29/10
2
3
4
5
6
7

ADDENDUM #01

MANATEE COUNTY LINCOLN SPLASH PARK

LOCATED AT:
SECTION 13
TOWNSHIP 34 SOUTH
RANGE 17 EAST
MANATEE COUNTY, FLORIDA

DETAILS

M. ANDREW ALLISON
PE # 53966

October 29th, 2010

Brian Dietz, P.E.
Manatee County Health Department
Environmental Health Services
410 Sixth Avenue. E.
Bradenton, FL 34208

REFERENCE: Lincoln Park Spray Pad Review Comments

Dear Brian:

Thank you for your review of the Lincoln Park interactive water feature project. Below we have responded and addressed your review comments. The attached sketches are incorporated as part of the drawing set.

1. The bench locations have been revised to comply with 64E-9.006(2)(a) and is shown on the attached revised sketch #**SK A102.**

2. The bather load computation has been included to comply with 64E-9.006(1)(b) and 195 patrons have been added. Please see attached sketch #**SKPL4.00-4**.

3. The pool signage and bather load has been included with the Architects building signage package to comply with 64E-9.008(7). Please see Architectural drawing sketch #**SK A102**

4. Pressure gauges have been added to comply with 64E-9.007(5)(b). Please see attached sketch #**SKPL5.10-2**.

5. A rinse shower in compliance to 64E-9.006(2)(g) is already shown on drawing sheet A102 located on a column with in 20' of the Water Attraction. WTI has also referenced the rinse shower on attached sketch **#SKPL1.10-1.**

6. As discussed over the phone means of vacuuming the collection tank is already provided in the equipment list shown on drawing PL1.00-3. Access is provided to the tank interior with a 36" x 36" hatch.

7. A Pulsar one chlorine injection system has been specified in lieu of the Hayward system to comply with 64E-9.007(16) with chemical loop and venturi system. Please see attached sketch **#SKPL5.10-1, #SKPL5.10-3, #SKPL5.10-4, #SKPL4.02-8** and revised equipment list on sketch **#SKPL4.00-4.**

8. The UV validation certificate and additional information has been attached to this submittal package for you reference and are in compliance with 64E-9.007(16)(f)3.

9. The UV equipment specified is in compliance with 64E-9.007(16)(f)(4). A note has been added to the UV equipment list as shown on attached Sketch **#SKPL4.00-4**

We believe we have addressed your comments and concerns accordingly. If you should have any questions or have any concerns please do not hesitate to contact me @ 920-887-7375 or by e-mail at slemonds@wtiworld.com

Sincerely,

WATER TECHNOLOGY, INC.

Scott LeMonds
Project Manager

FACSIMILE COVER SHEET

MANATEE COUNTY HEALTH DEPT
ENVIRONMENTAL HEALTH SERVICES
410 Sixth Ave. E.
Bradenton, FL 34208

TO: Brian Freber, P.E.

Company: WTI

Phone Number: 920-887-7375

Fax Number: 920-887-7999

FROM: Brian C. Dietz, P.E.

Phone Number: (941) 748-0747 Ext 1211
Fax Number: (941) 750-9364

Date: 10/6/10

Time:

Pages including this cover page: 8

Comments: Lincoln Splash Park Comments

(faxehs)

Lincoln Park Splash Pad
SwP 41-60-01000

Comments:

1. 64E-9.006(2)(a)1 Pool wet decks shall have a minimum unobstructed width of four feet around perimeter of the pool, . . .

   The benches shown on A101 and A102 need to be installed so 4' walkway is available. Please include additional room for any one sitting on the benches and their leg room.

2. 64E-9.006(1)(b) Bathing load is 195

3. 64E-9.008(7) Pool rules sign → where located & what will it say?

4. 64E-9.007(5)(b)1 Pressure sand filters have influent and effluent pressure gauges with minimum 2" face diameters and scale of 0-60psi.

5. 64E-9.008(2)(g) Sanitary facilities - rinse shower - where?

6. 64E-9.011(8)(f)6 Means of vacuuming the tank - How?

7. 64E-9.007(16) Feeding chlorinated isocyanurate disinfectant is prohibited in spas, wading pools and interactive water features, . . .

How do you propose to permit Alternate Activity Chlorine Feeder AZT - Pentair Model HC-3315?

Please be aware that this IWF should never have any cyanuric acid present!

8. 64E-9.007(16)(f)3 UV equipment is validated

We have contacted ETS for validation certificate. We have not received said certificate.

9.64E-9.007(16)(f)4 UV equipment shall constantly produce a validated dosage of min. 40 mJ/cm² at end of lamp life

PLANS REVIEW CHECK LIST - INTERACTIVE WATER FEATURE

Date_____

County Manatee Date Received 9/14/10 Log#_____

Project Lincoln Splash Park - Interactive Water Feature

Engineer Brian W. Freber # 60424 Original ✓ Revision____ Modification____

Reviewed By B. Dietz SP- 41-60-01000 File #_____

Date Re-Submittal Received:_____ Date of 2nd Review:_____

Items needing correction or clarification are marked by an "X" beside the appropriate section number of the Florida Administrative Code (12-28-98).

Florida Administrative Code Section		
64E-9.005(1)(a)1.-3.	✓	Fees, signed and sealed plans and applications received as required. old application - use proviso to void time extension
64E-9.005(1)(a)2.	Proviso	An equipment list & specifications with manufacturer and/or distributor names, model numbers, & catalog numbers included on plans.
64E-9.006(1)	✓	Constructed of impervious structurally rigid material, light in color, with a smooth, non-toxic, slip-resistant finish.
64E-9.011(8)(a)	✓	Floor slopes to drains.
64E-9.006(1)(f)	✓	Vertical clearance above the pool deck is at least 7'.
64E-9.004(1)	✓	Makeup water supply is from an approved potable water system, or meets those requirements with bacteriological/chemical reports to the county public health unit.
64E-9.004(1)(a)	✓	Makeup water supply has air break or approved backflow prevention device.
64E-9.004(1)(a)	✓	Hose bibbs have vacuum breakers. HBI / sht. P002
64E-9.007(11)	✓	An automatic water makeup control and a manual fillspout are provided to discharge into the collector tank with an air gap.
64E-9.007(4)	✓	Recirculation pump is sized for 60' TDH. (@ 75' TDH)
64E-9.007(4)	✓	Recirculation pump is specified as self-priming.
64E-9.007(10)(b)	✓	Open area of the drain grates is such that the flow velocity does not exceed 1.5 fps
64E-9.007(13)	✓	A flowmeter capable of reading at least 1.5 times the design flow rate is properly located with proper clearances upstream and downstream Signet Flowmeter 3-8550-1 Sensor P51530-P2 0-500 gpm
64E-9.007(6) & (2)(e)	✓	Plastic pipe has NSF-pw Seal of Approval. Pipe exposed to sunlight is coated for UV protection
64E-9.007(7)	✓	Return line, main drain line, & surface overflow system lines each have proportioning valves

64E-9.007(8)	✓	Pressure piping is sized such that the flow velocity does not exceed 8 fps at the design flow rate.
64E-9.007(8)	✓	Suction piping is sized such that the flow velocity does not exceed 6 fps at the design flow ra
64E-9.007(8)	✓	Gravity flow rate does not exceed 3 fps.
64E-9.007(15)	✓	Waste line has air gap and method of water disposal is adequate.
64E-9.007(5)(a)	✓	**Sand filters:** The filter is sized such that the filtration rate does not exceed 15 gpm/ft² for high rate sand filters (or 20 if so rated by NSF). 21,85F X 12.5gpm/SF = 272.5 gpm
64E-9.007(1)	✓	Sand filters meet the requirements of NSF Standard 50-1992.
64E-9.007(8)	✓	Sand filt. :The recirculation pump(s) & piping are designed to be capable of backwashing.
64E-9.007(5)(b)1.	✓	Sand filters: Pressure filters have influent and effluent pressure gauges with minimum 2" face diameter(s) and scale(s) of 0-60 psi and a sight glass in the backwash line.
64E-9.007(8)	✓	Piping system permits filtering to reservoir, filtering to waste, backwashing individual filters, complete drainage of the system, and space to allow maintenance.
64E-9.007(16)&(16)(b)	N/A	**Hypohalogenation:** The feeder has adjustable feed rate from zero to full range and meets the requirements of NSF Standard 50-1992.
64E-9.011(8)(c)	N/A	Disinfection feeder is capable of feeding 12 ppm of free chlorine to the filter return flow rate
64E-9.007(16)(b)	✓	**Erosion type feeder** shall have a flowmeter and flow adjustment valve.
64E-9.007(16)(c)	✓	**pH adjustment feeder:** A positive displacement type feeder adjustable from zero to full range is provided. Not required with erosion type chlorinators feeding chlorinated isocyanurates.
64E-9.007(16)(c)	✓	pH adjustment: An electrical feeder has electrical interlock with the recirculation pump.
64E-9.007(16)(c	✓	pH adjustment: The solution crock volume is at least 50% of the maximum daily capacity of the feeder and is marked to indicate the contents.
64E-9.004(11)	✓	A test kit is provided and is capable of testing for free active halogens, total or combined available chlorine, total alkalinity, calcium hardness & pH.
64E-9.006(2)(e)	✓	An **equipment room** or enclosure is provided which is protected from unauthorized entrance and from the weather on 3 sides and overhead. (Equipment designated by manufacturer for outdoor use may be located in a fenced equipment area.)
64E-9.006(2)(e)	✓	The equipment room floor is constructed of concrete or other nonabsorbent material having a smooth slip-resistant finish and uniformly sloped to prevent standing water.
64E-9.006(2)(e)1 & (2)(e)	✓	The equipment room has forced draft, or adequate cross ventilation, and positive floor drainage with sump pump if needed. Below grade equipment rooms have a stairway with forced draft ventilation or door is fully louvered with vent louvers on at least one other side of room. see Mech. Sht. M6 of #M3
64E-9.006(2)(e)1	✓	The equipment room access is at least 3' x 6'.
64E-9.006(2)(e)1	✓	The equipment room is provided with a hose bibb with vacuum breaker.

64E-9.006(2)(e)2 ✓ The equipment room size and layout provides clearances for all equipment as prescribed by the manufacturer to allow normal maintenance and removal. The equipment room with a fixed ceiling has a minimum height of 7'.

64E-9.006(2)(e)2 ✓ The equipment room is lighted to provide a minimum 30 fc of illumination at floor level. see Elec. E4.0 & E6.01

64E-9.006(2)(e) ✓ Collector tank or filter tank (vacuum system) is not accessible to unauthorized individuals.

64E-9.011(8)(d) N/A For night operation, 6 fc of light is provide on deck and water feature area.

64E-9.006(2)(c)4 & (d) ✓ Plans do not show overhead service wiring within 10' horizontally of the IWF or deck appurtenances. All electric work complies with the National Electrical Code.

64E-9.006(1)(b) Bathing load is the average of (1 person per 10 ft² of pool area) and (1 person per 5 gpm of filter rate). 264 gpm / 5 gpm = 52.8 ; 3,390 ft² / 10 ft² = 339 ; 391.8 ÷ 2 = 195.9 = 195

64E-9.008(7) The following rules will be posted at or near poolside and will be legible from deck:
1. No food, drink, glass or animals in pool or on pool deck.
2. Shower before entering pool.
3. Bathing Load:____persons.
4. Pool Hours: ____A.M. to ____P.M.

64E-9.008(7) ___ The lettering for the pool rules sign is at least 1" high.

64E-9.006(2)(a)3 ✓ There is no provision for drink or food serving facilities within 12' of the water's edge.

64E-9.006(2)(f) ___ Sanitary facilities available and meet code.

64E-9.008(5) ___ Provision is made for storage of chemicals under roof and protected from access by unauthorized persons.

64E-9.006(2)(a)3 ✓ There is no provision for drink or food serving facilities within 12' of the water's edge.

64E-9.011(8)(a) ✓ Water flows by gravity to below grade collection system

64E-9.011(8)(a) ✓ Min. size of sump or collector tank equals 3 minutes of combined flow of all pumps

64E-9.011(8)(a) ✓ Adequate access to collector tank is provided.

64E-9.011(8)(b) ✓ If underground sump used, automatic skimmer system is provided.

64E-9.011(8)(c) ✓ Automated ORP & pH controllers with sensing probes are provided.

64E-9.011(8)(f)1. ✓ Filter system capable of 30 min. turnover 5273 gal. / 264 gpm = 19.97 min.

64E-9.011(8)(f)1. Proviso ___ Flow through evenly spaced inlet fittings does not exceed 20 gpm. see inlet manifold on SH. PL5.10

64E-9.011(8)(f)3. ✓ Automatic level controller is provided.

64E-9.011(8)(f)4. Proviso ___ Flow rate through feature nozzles does not exceed 20 fps.

64E-9.011(8)(f)5. ✓ Overflow waste line with air gap is provided.

64E-9.011(8)(f)6. ___ Means of vacuuming and completely draining tank is provided.

Lincoln Park
Splash Park

Ultraviolet disinfectant

Florida Administrative Code Section		
64E-9.007(16)(f)	✓	UV system is supplemental treatment to systems that provide a residual.
64E-9.007(16)(f)1	✓	UV equipment & electrical components & wiring comply with NEC. Manufacturer certification of conformance is provided.
64E-9.007(16)(f)2	✓	UV equipment meets UL standards and is electrically interlocked with recirculation pump(s).
64E-9.007(16)(f)2	✓	IWF: If UV equipment fails to produce required dosage measured by automated sensor, feature pumps are disabled and feature does not operate.
64E-9.007(16)(f)3	○	UV equipment is validated to comply with USEPA Ultraviolet Disinfectant Guidance Manual, Nov. 2006, # EPA 815-R-06-007.
64E-9.007(16)(f)4	○	UV equipment shall constantly produce a validated dosage of min. 40mJ/cm2 at the end of lamp life.
64E-9.007(16)(f)5	✓	UV equipment is not located in a side stream flow & is located to treat all water returning to pool or water features.

ETS Model
ECF-225-10 V

877-885-4628

Tom & Dennis

VALIDATION TEST CERTIFICATION

for the

atg UV Technology ECF 225-10 UV Disinfection Unit

This is to certify that validation testing has been satisfactorily completed for the ***atg UV Technology*** ECF 225-10 UV disinfection system. Validation testing was conducted based on the Validation Test Protocol (August 2006) established for the project. With the release of the United States Environmental Protection Agency's (USEPA's) Ultraviolet Disinfection Guidance Manual (Final UVDGM, November 2006), the Validation Test Protocol was modified to comply with the final UVDGM. The testing was conducted at the UV Validation and Research Center, Johnstown, NY. The test plan for this validation was written by HydroQual Environmental Engineers and Scientists, P.C., and approved for implementation by ***atg UV Technology***. HydroQual Environmental Engineers and Scientists, P.C. conducted all testing, sampling and analysis, data analysis and documentation, and prepared this final validation report, which compiles the results of the validation tests and presents the validated performance summary for the subject system.

HydroQual Engineers and Scientists, P.C.
1200 MacArthur Blvd.
Mahwah, NJ 07430
(201) 529-5151

O. Karl Scheible Date: 12/22/08

O. Karl Scheible, Managing Director

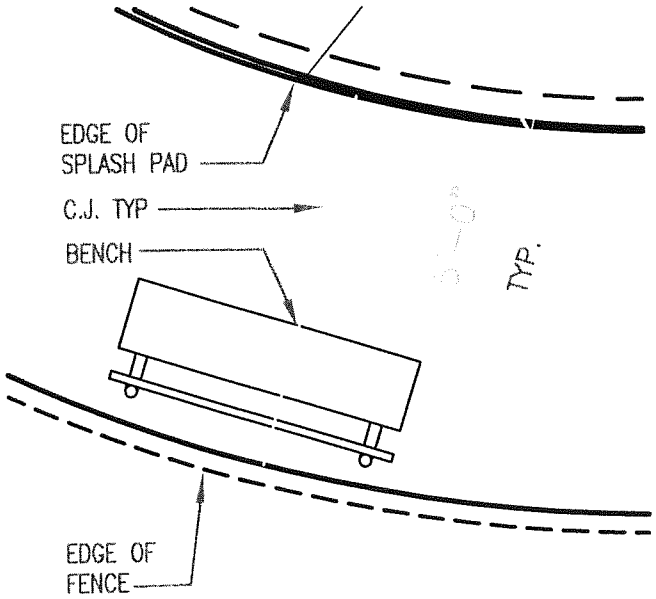
George J. Kehrberger Date: 12/22/08

George J. Kehrberger, P.E., Ph.D., Engineering Director

PROVIDED BY OWNER INSTALLED BY CONTRACTOR

ELEVATION SIGNAGE

NTS



SITE PLAN

NTS

GENERAL NOTE: SPLASH PAD MAXIMUM OCCUPANCY = 195

UGARTE & ASSOCIATES, INC.
ARCHITECTS PLANNERS
434 9th AVENUE WEST
PALMETTO, FLORIDA 34221
PHONE (941)729-5691
FAX (941)729-5692
AA-C001654

ADDENDUM #1

MC LINCOLN SPLASH PARK

REVISIONS:

2009-46
PROJECT NO.
DATE: 08.27.2010
DRAWN BY: DB
CHK'D BY: CU

CARLOS D. UGARTE
LIC. NO. AR-0010725

SHEET

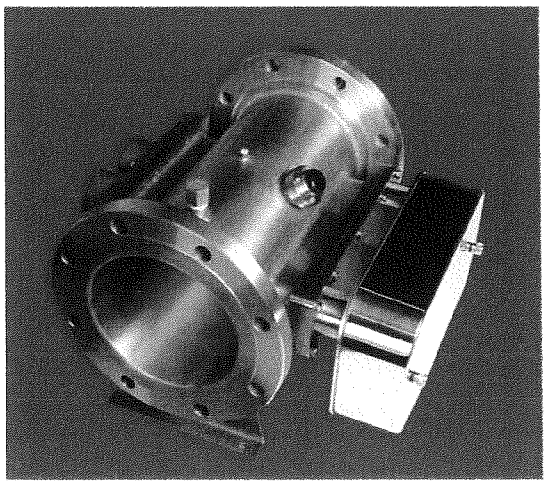
SK A102

11/5/2010 10:[illegible] DWG FILE: A102 ARCHITECTURAL SITE PLAN.DWG

ECOFLO II UNITS

The ECOFLO II is the latest, state-of-the-art UV treatment system. Our objective for the product was simple – to be the best on the market, no compromise. The ECOFLO II offers the flexibility of a horizontal or vertical installation application

Utilizing our proven medium pressure lamp technology, the ECOFLO II type UV systems offer a high quality 'high specifications' product at a very competitive price. The powerful two lamp units are designed to provide protection and extended life from that of single lamp systems. Suitable for all pools and whirlpools with flows from 560 – 7000 gpm and flange sizes from 6" – 14'.



Treatment Chamber

The new ECOFLO II UV treatment chambers are designed for installation into the piping after the filters and heaters, but before any chemical dosing. Please refer to the ECOFLO II Units Technical Specifications document for dimensions and clearance requirements.

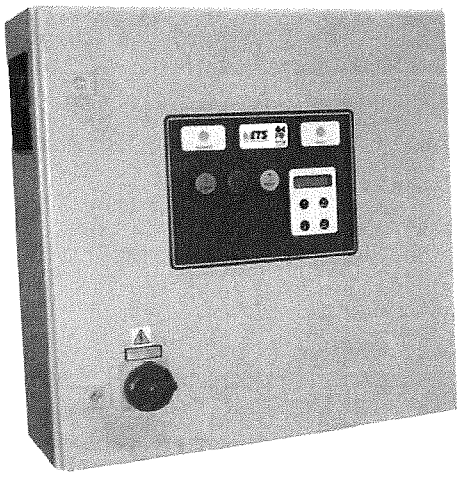
The UV chamber is manufactured from polished 316L stainless steel, with ANSI 150 RF flanges for easy installation. Temperature probes, UV monitor probes, and automatic quartz wipers are included.

A pressure rating for the unit is 150 psi, and pressure drop through the chamber is minimal.

The treatment chamber has been designed for the simplest installation into any pipe work system. They can be mounted vertically or horizontally. The compact design allows existing facilities to be easily upgraded with minimum site work.

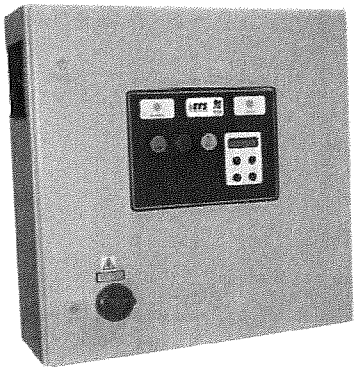
Control System

The control system is located in a NEMA 12 (IP54) rated cabinet.
As a standard, it is supplied with a 15' cables for connection to the treatment chamber.
The power supply (PSU) and control cabinet is powered with the latest SPECTRA microprocessor control unit. Three levels of operation (simple control, full parameter display, and operator configuration) allow easy, uncomplicated operation of the unit by an operator. Included is a sophisticated password protected engineering section for integrating the unit with other system devices.
Auto power restart, pump and valve interfaces, process interrupt and low power overnight operation are all features specifically designed for use on swimming pools and waterparks.



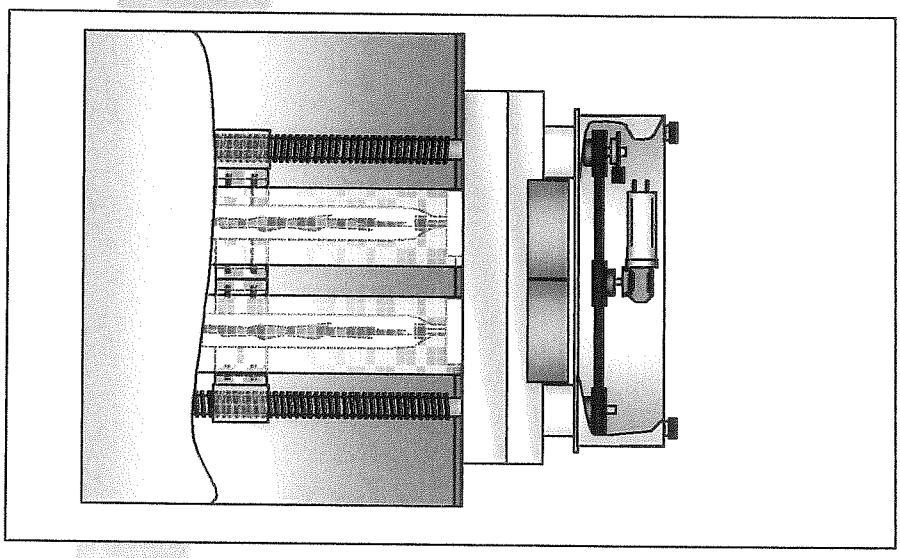
ECOFLO II

CONTROL UNIT TECHNICAL SPECIFICATIONS



TYPE	SUPPLY	WEIGHT	DIMENSIONS		
			Width	Height	Depth
ECF – A-XX	480/460v 60hz	250lbs	24"	40"	12"
ECF – C-XX	480/460v 60hz	350lbs	32"	48"	12"
MATERIAL	Carbon Steel		IP Rating	IP54	
COMPLETE WITH					
RCD protection			Overtemperature Protection		
UV Monitoring			Automatic Wiper		
SPECTRA Microprocessor Control					
Simple START STOP and RESET buttons			Full fault screen display and help screens		
Dose, Flow, Current and Temperature display			Remote operation and control function		
Auto restart on power failure			Valve and Pump interface contacts		
Half power operation for low pool use periods			Separate password protected engineer functions		

ECOFLO II UNITS
INTELLIGENT WIPER – THE RQWE RANGE



Designed for the ETS ECOFLO II units, the new wiper system includes many unique features, making it a state-of-the-art wiper.

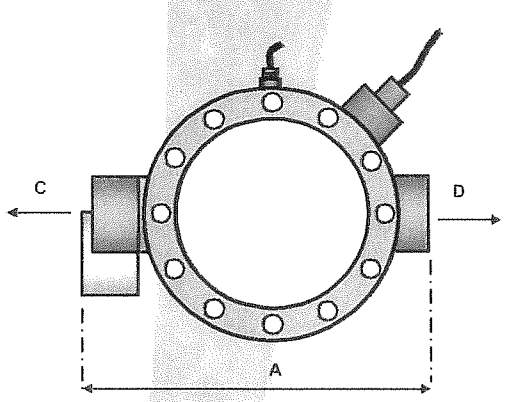
- Unique double seal and bearing housing for longer life, including food-grade-approved seal materials.
- A single wiper shaft
- Fully enclosed housing to maintain NEMA (IP) ratings.
- Wiper power supply @ 24 Volt DC for improved safety.
- Belt drive with all pulleys and shafts square-machined to prevent slippage and pin shearing.
- Direct shaft encoding for positional location; no need for external proximity switches and internally located magnets. No complex transfer gear boxes for limit switches.
- Wiper interval operator selectable, with an optional override switch.
- Ability to upgrade most systems with a retrofit wiper.

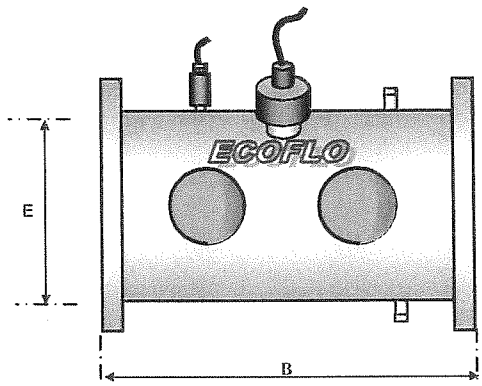
INTELLIGENT OPERATION

The new electronic control system features an automatic start-up/commissioning application. Operators do not need to position the wiper carriage. A very simple commissioning procedure records the wiper position at both ends of the chamber and establishes its travel run without the need to check stop positions and adjust limits accordingly. There is no risk of proxy faults causing wiper failure.

The system also fully recovers from power dips and interruptions, with a permanent memory of wiper location and travel direction stored in its processor. The wiper can also report directly into the new SPECTRA control panel for fault reporting and data logging.

ECOFLO II TECHNICAL SPECIFICATIONS



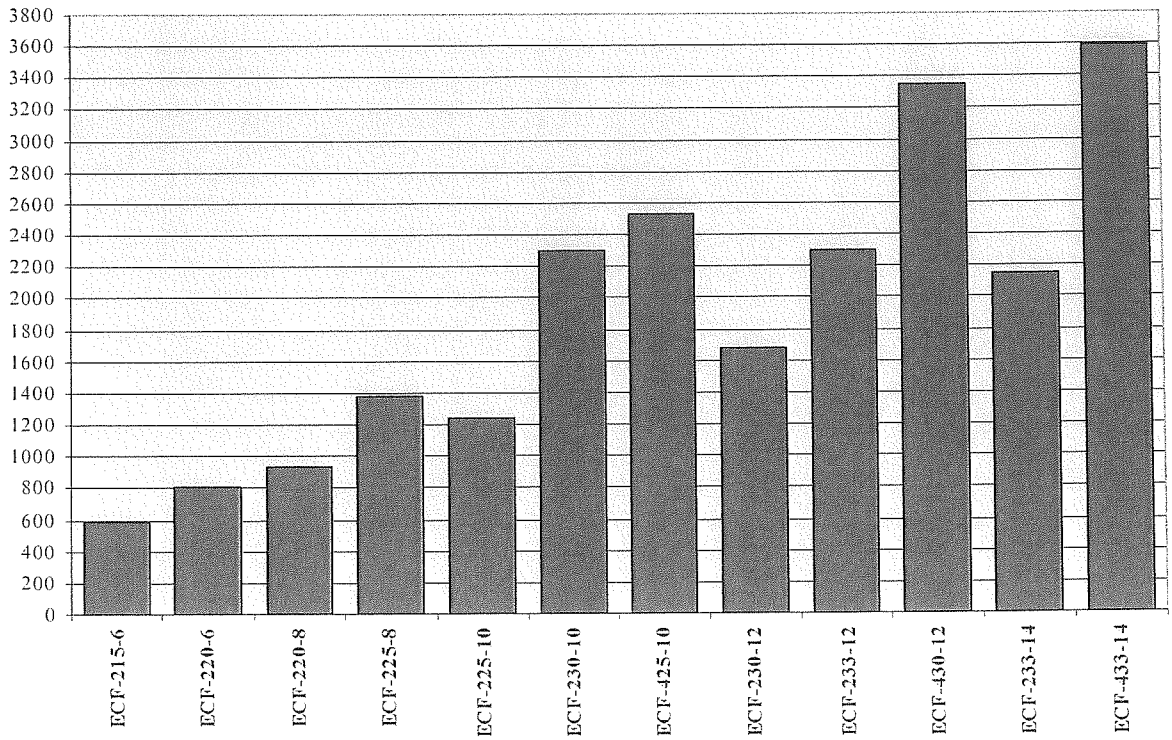


TYPE	LAMPS & POWER	FLOW (US GPM)	WEIGHT (Dry/Wet)	DIMENSIONS & ACCESS					CONTROL PANEL TYPE
				A	B	C	D	E	
ECF-215-6	2 *1.5kW	580	125/145lbs	19"	20"	16"	6"	6"	ECF – A-15
ECF-220-6	2 * 2.0kW	800	140/185lbs	21"	24"	16"	6"	6"	ECF – A-20
ECF-220-8	2 * 2.0kW	930	140/180lbs	21"	20"	16"	6"	8"	ECF – A-20
ECF-225-8	2 * 2.5kW	1,370	150/225lbs	23"	26"	16"	6"	8"	ECF – A-25
ECF-225-10	2 * 2.5kW	1,230	150/210lbs	23"	20"	18"	6"	10"	ECF – A-25
ECF-230-10	2 * 3.0kW	2,300	160/275lbs	24"	28"	18"	6"	10"	ECF – A-30
ECF-425-10	4 * 2.5kW	2,525	190/270lbs	23"	28"	18"	6"	10"	ECF – C-25
ECF-230-12	2 * 3.0kW	1,680	160/245lbs	24"	20"	20"	6"	12"	ECF – A-30
ECF-233-12	2 * 3.0kW	2,300	170/320lbs	26"	28"	22"	6"	12"	ECF – A-33
ECF-430-12	4 * 3.0kW	3,350	200/315lbs	24"	28"	20"	6"	12"	ECF – C-30
ECF-233-14	2 * 3.0kW	2,150	170/320lbs	26"	24"	22"	6"	14"	ECF – A-33
ECF-433-14	4 * 3.0kW	3,590	220/375lbs	26"	28"	22"	6"	14"	ECF – C-33

MATERIAL	316 Stainless steel	FLANGE TYPE	ANSI 150 RF
PRESSURE DROP	Less than 0.6 PSI	DRAIN & VENT	¾" NPT & ¼" NPT
PRESSURE RATING	150PSI	STRAINER	Supplied loose

Ecoflo II Sizing Chart

Pipe	Model	Lamps	Total KW	Flow (GPM)
6"	ECF-215-6	2*1.5kW	3	580
	ECF-220-6	2*2.0KW	4	800
8"	ECF-220-8	2*2.0kW	4	930
	ECF-225-8	2*2.5kW	5	1370
10"	ECF-225-10	2*2.5 kW	5	1230
	ECF-230-10	2*3.0kW	6	2300
	ECF-425-10	4*2.5kW	10	2525
12"	ECF-230-12	2*3.0kW	6	1680
	ECF-233-12	2*3.0kW	6	2300
	ECF-430-12	4*3.0kW	12	3350
14"	ECF-233-14	2*3.0kW	6	2150
	ECF-433-14	4*3.0kW	13	3590



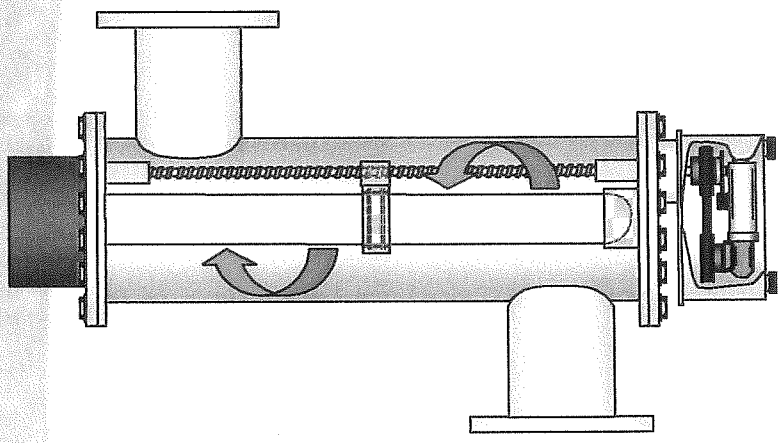
THE ECOFLO II UV WATER TREATMENT UNIT

Background

ATG Willand has been manufacturing UV water treatment products for a quarter century.
UV treatment works by exposing water borne bacteria to intense UV light which alters the DNA of the bacteria, preventing replication and thus effectively killing the bacteria. With no chemical additives and very efficient disinfection with short contact times it has many diverse applications including drinking water, bottled drinks, pharmaceutical plants, aquaculture and many others. When applied to swimming pools a more significant benefit is the additional breakdown of combined chlorine - significantly improving the water quality for pool users

Traditional Design

The traditional configuration for a UV system is shown below.



Water enters the chamber, travels around a lamp or lamps mounted axially along the centre and then exits the chamber. The flow is assumed to swirl evenly through the chamber at the same speed, allowing all the water to receive the proper contact time.

Pressure drops are not excessive, in the region of 1.0/1.2 psi. The chamber shown above is more often supplied with the inlets and outlets mounted on the top.

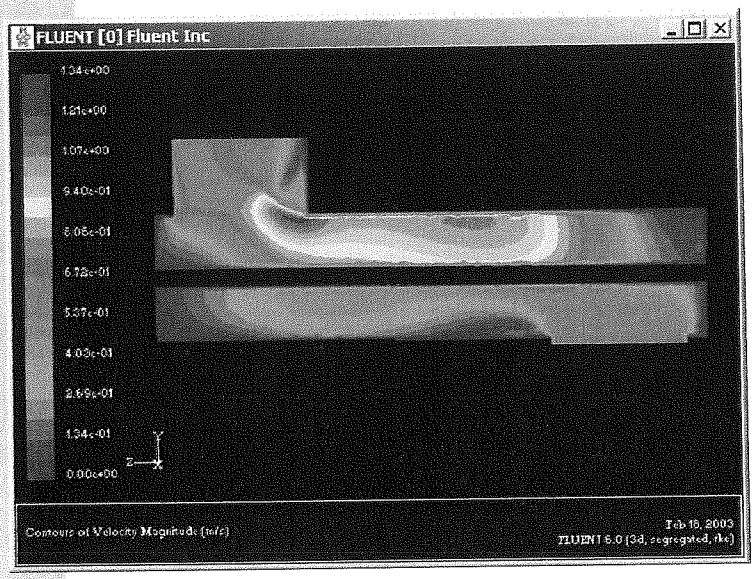
THE ECOFLO II UV WATER TREATMENT UNIT CONTD.

Using CFD (computational fluid dynamics) to assess hydraulic performance

The advent of more powerful desktop computers and the increasing use of CFD modelling have allowed the assumptions behind the standard UV systems to be reviewed.

The use of CFD modelling has shown that these basic assumptions are not correct. In practice the 90 degree direction changes create secondary back flows, dead zones and zones in which the water particles are accelerated.

A CFD plot illustrating the velocity contours is show below.



The water does not evenly swirl around the chamber but accelerates quickly through the chamber. Some particles receive less than 50% of the theoretical contact time. The ratio (percentage) of the fastest particles divided by the theoretical contact time is referred to as the hydraulic efficiency.

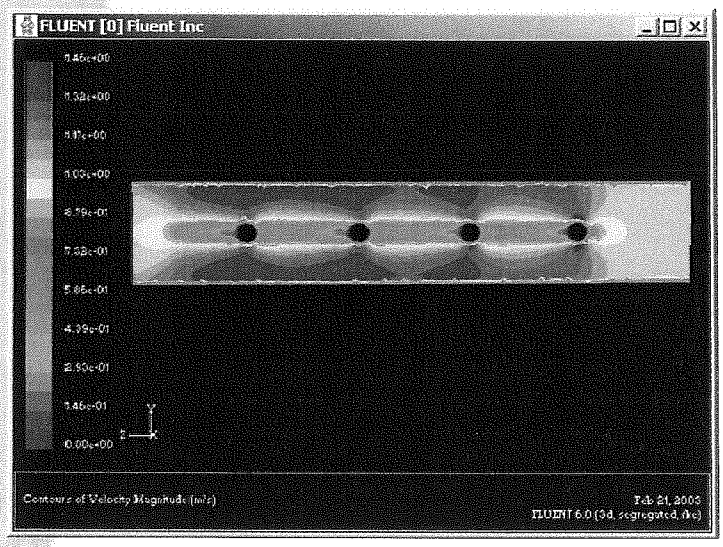
Placing the inlet and outlet in the same plane (i.e. both on top) improves the hydraulic efficiency but this is still below 60%

ATG Willand has carried out an extensive R & D programme to investigate alternative configurations.

The final result was the development of the ECOFLO II range

THE ECOFLO II UV WATER TREATMENT UNIT CONTD.

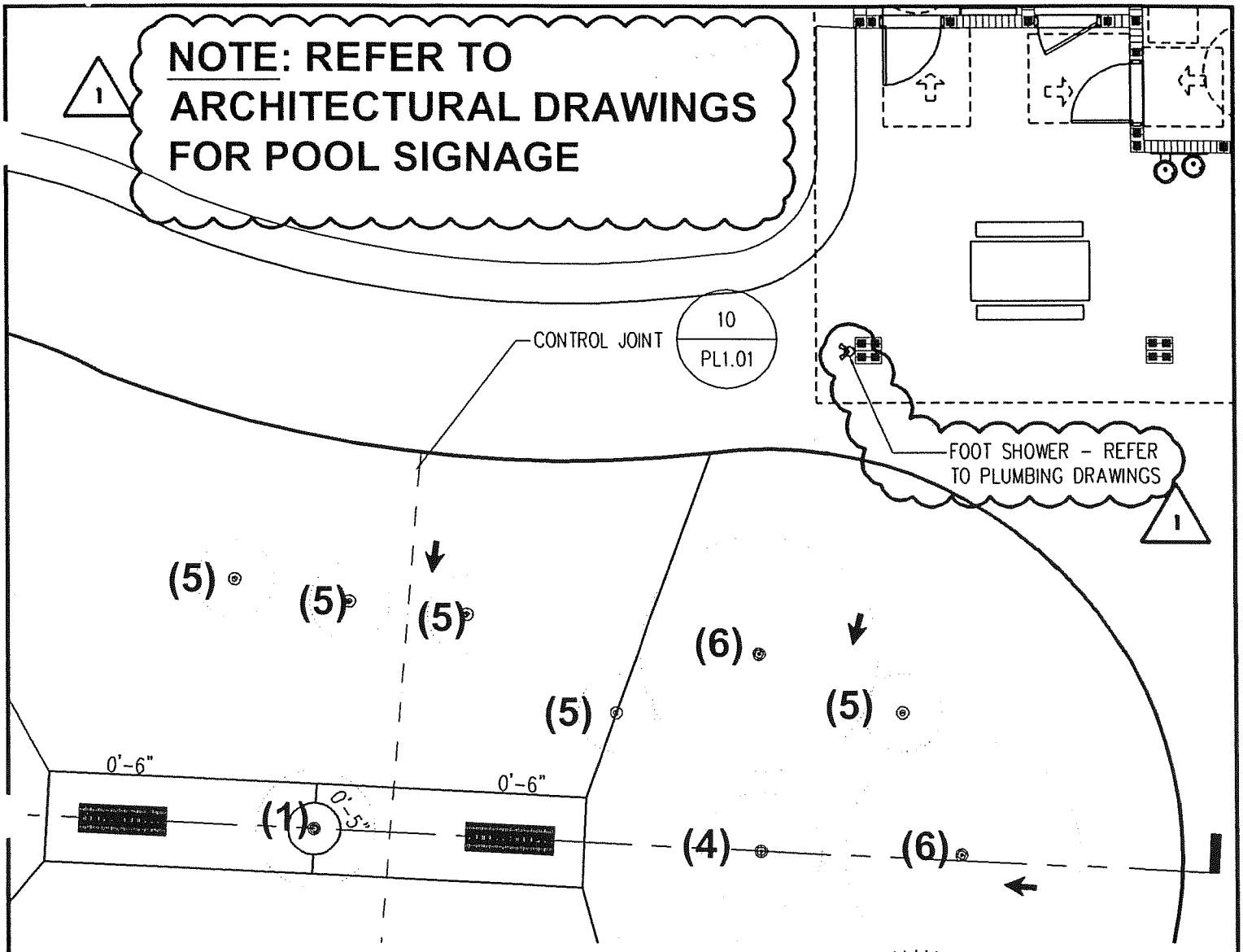
ECOFLO II CFD Design



The new ECOFLO II design utilises a number of lamps mounted axially across the UV chamber. This results in a more homogenous flow distribution. For most models the hydraulic efficiency is >85%.

The improved application of the UV energy in the ECF units gives an increased treatment per energy applied. This varies depending on the model selected and the flow rate but is on average 15% improved for the ECOFLO II range.

The improvement in hydraulic efficiency also results in a much reduced pressure drop (typically half that of a standard unit) and a more compact and simpler installation.



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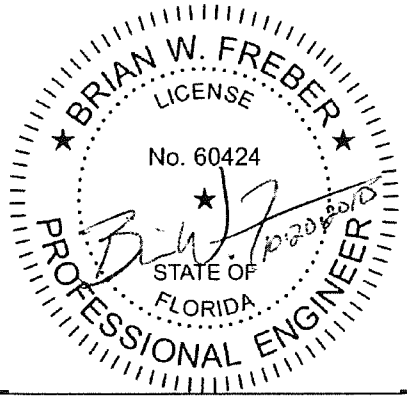

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MANATEE COUNTY - LINCOLN SPLASH PARK
PALMETTO, FL

SCALE	NONE
PROJECT NO.	00489
DATE	10/20/2010
DRAWN BY	AMJ
CHECKED BY	SAL

SPRAY PAD ACTIVITY LAYOUT (BASE BID)

SKPL1.10-1

Date: Wednesday, October 20, 2010 Plotted by: Andrea Jackson Drawing location: P:\2009\00489.00 Manatee County Florida\Drawings\00489 PL 110.dwg

SPRAY PAD (POOL A DATA)

SPRAY PAD PERIMETER	236	LINEAR FEET
SPRAY PAD SURFACE AREA	3,390	SQUARE FEET
STORAGE TANK VOLUME	5,273	GALLONS
TURNOVER RATE	20	MINUTES
CIRCULATION FLOW	264	GPM
FILTRATION RATE	~~12.5~~	~~G/SF~~
BATHER LOAD	195	PERSONS

BASE BID WATER ACTIVITIES

POPCORN JET (1)	30 GPM EA.	30 GPM MAXIMUM
SLANT JETS (3)	5 GPM EA.	15 GPM MAXIMUM

7 / PL4.01	A1S	FLOW METER	1	SIGNET 2551 MAG METER, INSERTION STYLE MAGNETIC FLOW SENSOR, MODEL #3-2551-P0-11. PROVIDE WITH FIELD MOUNT FLOW TRANSIMITTER(MODEL #3-8550-1), AND UNIVERSAL MOUNTING KIT(MODEL #3-8050). PROVIDE WITH 4" DIAMETER PVC SADDLE INSERTION FITTING. FLOWMETER SHALL BE WALL MOUNTED. FLOW RANGE 0 - 500 GPM.
8 / PL4.01	A1F	AUTO FILL	1	CLA-VAL CO., #100-01A-KC, 1-1/2" PILOT VALVE, PROVIDE WITH CF1 FLOAT CONTROLLER AND REQUIRED FLOAT ROD LENGTH, FLOAT ROD TO BE OF PVC ROD STOCK ONLY. PROVIDE WITH FACTORY APPLIED FUSION BONDED EPOXY COATING TO VALVE BODY AND COVER.
9 / PL4.01	A2R	U.V. SYSTEM (ALTERNATE)	1	ETS, U.V. CHAMBER MODEL ECF-225-10 V (VALIDATED), 10" CONNECTIONS, 480V, 60 Hz, 3 PHASE, 5.0 KW, PROVIDE WITH CONTROL PANEL. TO INCLUDE ETS 208 V, 3 PHASE TO 480 VOLT, 3 PHASE STEP UP TRANSFORMER MODEL # BAUT4T15E AND 120 V AUDIBLE ALARM PANEL TO MEET FLORIDA CODE REQUIREMENTS. UV SYSTEM TO BE INTERLOCKED TO ACTIVITY PUMP TO SHUT DOWN ACTIVITY PUMP WHEN UV DOSAGE FALLS BELOW 40MJ/CM² REQUIRED DOSAGE. PROVIDE ONE EXTRA STRAINER SCREEN. (1)
8 / PL4.02	A2J	ACTIVITY CHLORINE FEEDER (ALTERNATE)	(1) 1	ARCH CHEMICALS, PULSAR I, 0.5 TO 25 LBS/DAY OUTPUT, WITH VENTURI AND CONNECTIONS FOR STANDARD INSTALLATION. USE PULSAR BRIQUETTES (CALCIUM HYPOCHLORITE) FOR DISINFECTANT. PROVIDE WITH EXTRA TABLET STRAINER

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BRIAN W. FREBER ★ LICENSE ★ No. 60424 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

10.20.2010

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MANATEE COUNTY - LINCOLN SPLASH PARK
PALMETTO, FLO

SCALE	NONE
PROJECT NO.	00489
DATE	10/20/2010
DRAWN BY	AMJ
CHECKED BY	SAL

MECHANICAL EQUIPMENT LIST

SKPL4.00-4

74	T.U.B.V.	----	ALT. ACTIVITY SUPPLY
75	T.U.B.V.	----	ALT. ACTIVITY SUPPLY
76	T.U.B.V.	----	ALT. ACTIVITY SUPPLY
77	T.U.B.V.	----	ALT. ACTIVITY SUPPLY
78	T.U.B.V.	----	ALT. ACTIVITY SUPPLY
79	T.U.B.V.	----	ALT. ACTIVITY SUPPLY
80	T.U.B.V.	----	ALT. ACTIVITY SUPPLY
81	T.U.B.V.	----	ALT. ACTIVITY SUPPLY
82	T.U.B.V.	----	ALT. ACTIVITY SUPPLY
83	T.U.B.V.	----	ALT. CHEMICAL INJECTION LOOP
84	T.U.B.V.	----	ALT. CHEMICAL INJECTION LOOP
85	BUTTERFLY	GEAR	ALT. CHEMICAL INJECTION LOOP

1

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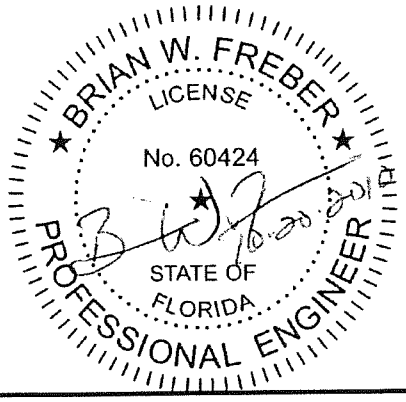

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PALMETTO, FLO

SCALE	NONE
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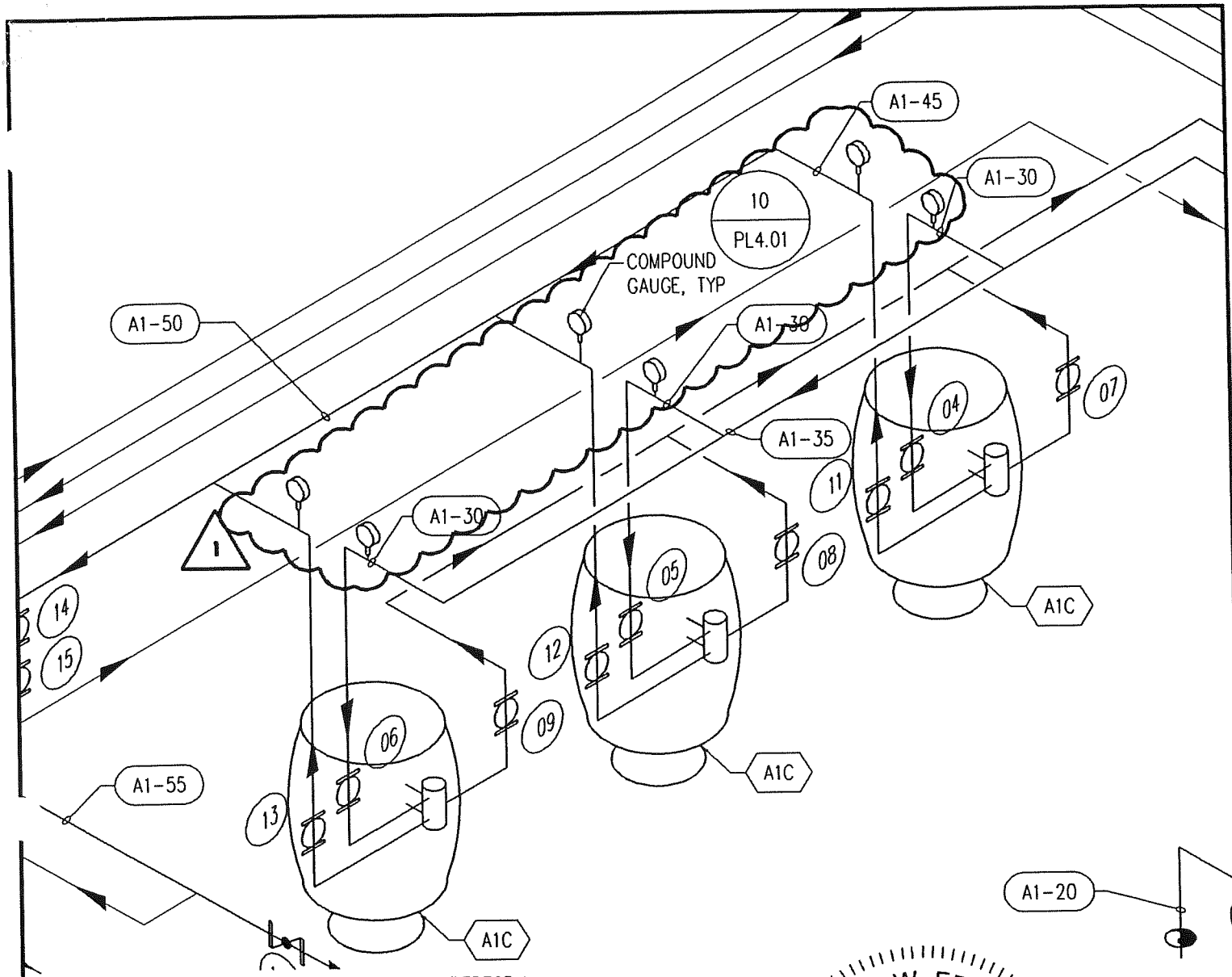
VALVE SCHEDULE

SKPL5.10-1

Date: Wednesday, October 20, 2010 Plotted by: Andrea Jackson Drawing location: P:\2009\00489.00 Manatee County Florida\Drawings\00489 PL510.dwg



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MECHANICAL ROOM PIPING ISOMETRIC

SKPL5.10-2

Date: Wednesday, October 20, 2010 Plotted by: Andrea Jackson Drawing location: P:\2009\00489.00 Manatee County Florida\Drawings\00489 PL510.dwg

A1-25	PVC SCH 80	4	264	7.5	FILTER INFLUENT
A1-30	PVC SCH 80	2.5	88	6.9	FILTER INFLUENT
A1-35	PVC SCH 80	4	176	5.0	FILTER INFLUENT
A1-40	PVC SCH 80	3	106	5.3	FILTER BACKWASH
A1-45	PVC SCH 80	2.5	88	6.9	FILTER EFFLUENT
A1-50	PVC SCH 80	4	176	5.0	FILTER EFFLUENT
A1-55	PVC SCH 80	4	264	7.5	FILTER EFFLUENT
A1-57	PVC SCH 80	8	1000	7.1	ACTIVITY SUPLY MANIFOLD TEE
A1-58	PVC SCH 80	6	500	6.3	ACTIVITY MANIFOLD
A1-60	PVC SCH 80	2	44	4.9	FILTER EFFLUENT
A1-61	PVC SCH 80	2	92	10.0	ACTIVITY FEED
A1-65	PVC SCH 80	0.5	0	0.0	ACID INJECTION LINE
A1-70	PVC SCH 80	1.5	0	0.0	CHLORINE INJECTION LINE
A1-95	PVC SCH 80	0.75	0	0.0	CHEMICAL SAMPLING LINE
A2-75	PVC SCH 80	8	500	3.6	ACTIVITY SUCTION
A2-80	PVC SCH 80	6	500	6.3	ACTIVITY SUPPLY
A2-85	PVC SCH 80	8	1000	7.1	ACTIVITY SUPPLY
A2-90	PVC SCH 80	1.5	0	0.0	CHEMICAL INJECTION LOOP
	-	-	-	-	-
	-	-	-	-	-

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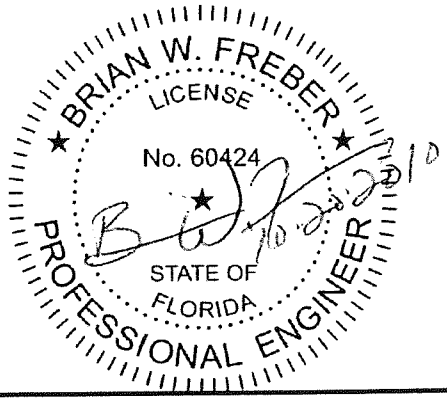

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SCALE	NONE
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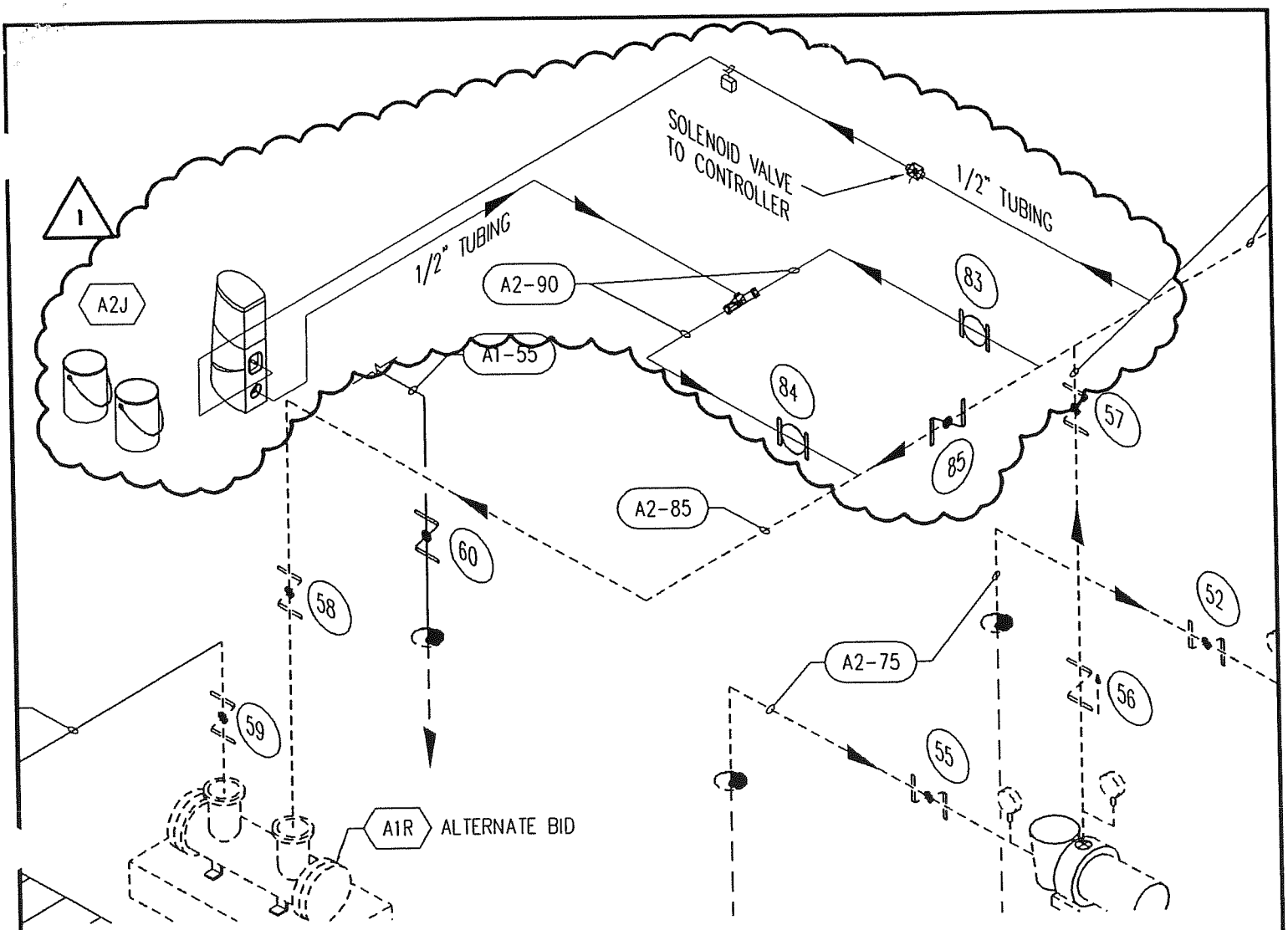
PIPE SCHEDULE

SKPL5.10-3



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ALTERNATE BID - UV EQUIPMENT & PIPING AND ACTIVITY PUMPS & PIPING

SKPL5.10-4

Date: Wednesday, October 20, 2010 Plotted by: Andrea Jackson Drawing location: P:\2009\00489.00 Manatee County Florida\Drawings\00489 PL 510.dwg

PLUMBING PROJECT GENERAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY FITTINGS AS REQUIRED BY ALL APPLICABLE CODES AND GOVERNING AUTHORITIES.
2. CONTRACTOR SHALL VERIFY AND CORRECT AS REQUIRED TO MEET ALL CODES AND REGULATIONS ANY POSSIBLE DISCREPANCIES BETWEEN TYPE AND SIZE OF CONNECTION SPECIFIED IN PLUMBING FIXTURE SCHEDULE AND FIXTURES ACTUALLY INSTALL ON THE SITE.
3. ALL SANITARY PIPING SHALL HAVE A 1/8" PER FOOT SLOPE UNLESS OTHERWISE NOTED.
4. VENT PIPING SHOWN ON FLOOR PLANS IS ONLY INDICATIVE EXCEPT FOR VTR LOCATIONS.
5. VALVES AND FITTINGS SHALL BE OF SAME SIZE OF LINE ON WHICH THEY ARE LOCATED, UNLESS OTHERWISE INDICATED ON DRAWINGS.
6. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES.
7. CONTRACTOR SHALL FIELD VERIFY ALL GIVEN MEASUREMENTS PRIOR TO LAYING AND CONNECTING ALL SANITARY AND WASTE PIPING AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
8. AIR CHAMBERS SHALL NOT BE CONSIDERED AN EQUAL TO WATER HAMMER ARRESTORS AS SPECIFIED.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FIRE RATING AND WEATHERPROOFING INTEGRITY OF ALL PIPING AND PENETRATIONS.
10. ALL WATER SUPPLY AND SANITARY LINES SHALL BE RUN AS CLOSE TO PLANS AS POSSIBLE WITH NO CHANGES IN SIZING.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY SUPPORTING DEVICES FOR ALL FIXTURES INCLUDED IN CONTRACT OR HEREIN SPECIFIED OR OTHERWISE.
12. CHANGES IN THE DIRECTION OF SANITARY AND STORM DRAIN PIPING SHALL NOT BE MADE WITH FITTINGS WHICH WILL CAUSE EXCESSIVE REDUCTION IN THE VELOCITY OF FLOW OR CREATE ANY OTHER ADVERSE EFFECT UNLESS PHYSICALLY IMPOSSIBLE (I.E. USE OF SANITARY TEE IN A HORIZONTAL CONNECTION, USE OF A DOUBLE SANITARY TEE IN A VERTICAL STACK, IN GENERAL, USE OF A SHORT-RADIUS FITTINGS FOR BRANCH TO HOUSE DRAIN OR STACK CONNECTION).
13. CONTRACTOR SHALL GIVE 24 HOURS NOTICE TO APPLICABLE UTILITY COMPANY PRIOR TO PERFORMING WORK INVOLVING UTILITIES.
14. ALL SANITARY, STORM AND WATER SUPPLY LINES SHALL BE MARKED WITH THE SEAL OF APPROVAL OF THE NATIONAL SANITATION FOUNDATION.
15. WHERE SANITARY SEWER LINES CROSS UNDERGROUND WATER SUPPLY LINES WITH LESS THAN 8" MINIMUM VERTICAL CLEARANCE, THE WATER LINES SHOULD BE MODIFIED TO PROVIDE 8" MINIMUM CLEARANCE.
16. ALL FLOOR DRAINS SHALL BE PROVIDED WITH DEEP SEAL TRAPS AND PRIMER FITTINGS UNLESS NOTED OTHERWISE.
17. ROUTE ALL PIPING CONCEALED ABOVE CEILINGS, WITHIN WALLS, OR IN CHASES EXCEPT AS SPECIFICALLY NOTED, OR IN MECHANICAL ROOMS.
18. PROVIDE ACCESS PANELS TO ALL VALVES AND CLEAN-OUTS WITHIN CHASES OR ABOVE NON-ACCESSIBLE CEILINGS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
19. INSTALL WATER HAMMER SHOCK ARRESTORS AT EACH FIXTURE OR BATTERY OF FIXTURES WHERE REQUIRED. ARRESTORS SHALL BE FACTORY FABRICATED. INSTALL ARRESTORS AND SIZE PER PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.I. WH-201. ACCEPTABLE MANUFACTURERS: SIOUX CHIEF OR PRECISION PLUMBING PRODUCTS.
20. METERING AND SITE UTILITY CONNECTIONS SHALL BE PROVIDED ON CIVIL DRAWINGS. ALL SERVICES SHOWN ON THIS SET OF PLANS TERMINATE 5'-0" FROM BUILDING, UNLESS SHOWN OTHERWISE ON DRAWINGS. PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO SITE UTILITIES.
21. FURNISH AND INSTALL HOSE BIBBS AND/OR WALL HYDRANTS 24" ABOVE FINISHED GRADE/FLOOR AND PROVIDE VACUUM BREAKERS.
22. SEE ARCHITECTURAL DRAWINGS FOR EXACT PLUMBING FIXTURE LOCATIONS, MOUNTING HEIGHTS, AND DIMENSIONS.
23. CONTRACTOR SHALL VERIFY INVERT ELEVATIONS OF SEWERS TO WHICH NEW SEWER LINES ARE TO BE CONNECTED BEFORE INSTALLATION OF NEW SEWER LINE.
24. ALL VENTS THROUGH ROOF SHALL BE MIN. 10'-0" FROM ANY AIR INTAKES.
25. CONTRACTOR SHALL INSTALL DIELECTRIC UNIONS AT CONNECTIONS OF DISSIMILAR METALS.
26. CONTRACTOR SHALL ROUGH-IN ALL WASTES AND SUPPLIES TO SPECIAL EQUIPMENT ACCORDING TO MANUFACTURERS SHOP DRAWINGS AND MAKE FINAL CONNECTIONS. ALL SUPPLIES SHALL BE VALVED. INSTALL REDUCED PRESSURE BACKFLOW PREVENTERS, AS REQUIRED BY CODE.
27. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS (INCLUDING PIPE ROUTING AND EQUIPMENT LOCATIONS) TO ARCHITECT/ENGINEER FOR REVIEW PRIOR TO THE INSTALLATION OR PURCHASING OF ANY PIPING AND/OR EQUIPMENT.
28. PRESSURE REDUCING VALVES SHALL BE INSTALLED ON BRANCH LINES SERVING FIXTURES AND/OR EQUIPMENT, WHEN THE PRESSURE IN THE LINE EXCEEDS 60 P.S.I. IT IS REQUIRED THAT A VELOCITY BETWEEN 5
29. AND 8 FEET PER SECOND BE MAINTAINED FOR ALL DOMESTIC WATER SYSTEMS.
30. COORDINATE EXACT LOCATION OF FLOOR DRAINS WITH ARCHITECT.
31. DO NOT PENETRATE WALL FOOTINGS WITH PIPING, COORDINATE WITH GENERAL CONTRACTOR TO DROP FOOTINGS AS REQUIRED TO CLEAR PLUMBING SERVICES WHERE ABSOLUTELY NECESSARY. ALL PIPING PENETRATING A BEARING WALL OR FOOTING MUST BE SLEEVED AND LOCATION APPROVED BY STRUCTURAL ENGINEER.
32. ALL WORK SHALL COMPLY WITH FBC 2007, 2009 SUPPLEMENTS TO THE 2007 FBC AND CODES AND STANDARDS LISTED IN THE SPECIFICATIONS.
33. REFER TO THE PLUMBING FIXTURE SCHEDULE ON SHEET P0.02 FOR THE MINIMUM SIZES OF ALL PIPING CONNECTIONS TO EACH INDIVIDUAL PLUMBING FIXTURE.

PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION
HWR	HOT WATER RETURN PIPING AND FLOW
SAN	WASTE OR SANITARY PIPING
V	VENT PIPING
4" VTR	VENT THRU ROOF AND SIZE
GR	KITCHEN GREASE PIPING
CWV	COMBINATION WASTE + VENT PIPING
ST	STORM DRAIN PIPING
OF	OVERFLOW STORM PIPING
SAN PD	SANITARY PUMP DISCHARGE FROM SEWAGE EJECTOR
ST PD	STORM PUMP DISCHARGE FROM SUMP PUMP
G	GAS PIPING AND FLOW
XV	EXISTING VENT PIPING
XCW	EXISTING COLD WATER PIPING
XHW	EXISTING HOT WATER PIPING
	ISOLATION VALVE (SEE NOTE 2)
4" RD	ROOF DRAIN AND SIZE
	CHECK VALVE
WC1	PLUMBING FIXTURE NUMBER
	DRAWING KEY NOTE
	POINT OF CONNECTION (NEW TO EXISTING)
I.E. 98'-0"	INVERT ELEVATION DESIGNATION
	SOLENOID VALVE
FD1	FLOOR DRAIN AND TYPE
ECO	EXTERIOR CLEANOUT
WCO	WALL CLEANOUT
FCO	FLOOR CLEANOUT
HB / W. HY.	HOSE BIBB OR WALL HYDRANT (SEE SPECS)
	RISER WITH SHUT OFF VALVE
	BALL VALVE
	VALVE IN VALVE BOX
	GATE VALVE
	BACKFLOW PREVENTER
	GAS COCK
	PRESSURE REDUCING VALVE
	BALANCING VALVE (SEE NOTE 2)
	UNION
	SHOWER HEAD

NOTES:
1. THIS IS A STANDARD LIST OF SYMBOLS. SOME SYMBOLS SHOWN ON THIS LEGEND MAY NOT APPLY TO THE PROJECT.
2. SEE SPECIFICATIONS FOR THE EXACT TYPE OF VALVE TO BE PROVIDED IN EACH APPLICATION.

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GRAEF PROJECT #2009-4110

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PLUMBING NOTES, LEGEND, AND ABBREVIATIONS

MANATEE COUNTY - LINCOLN SPLASH PARK
501 17TH STREET EAST PALMETTO, FL 34221

REVISIONS:

1	10/29/10	ADD 1

PROJECT NO: 10-4110
DATE: 08.27.2010
DRAWN BY: CF
CHK'D BY: MR

Baltu Yorkos
LIC. NO. 60308

SHEET
P001

PLUMBING FIXTURE SCHEDULE

ITEM	DESCRIPTION	FIXTURE	FAUCET OR VALVE	DRAIN	ACCESSORIES	PIPING CONNECTIONS				
						WASTE	TRAP	VENT	H W	C W
WC1	WATER CLOSET	FLOOR MOUNTED, FLUSH VALVE, SIPHON JET WITH ELONGATED BOWL. 10" ROUGH-IN, 15" HIGH RIM, WATER SAVER (1.6 GALLONS PER FLUSH). KOHLER "WELLCOMME" #K-4350	EXPOSED, CHROME PLATED, ADA COMPLIANT, VANDAL-PROOF FLUSH VALVE WITH SOLID RING PIPE SUPPORT AND VACUUM BREAKER. LOW CONSUMPTION 1.6 GALLONS PER FLUSH. SLOAN "ROYAL" #111-YK	INTEGRAL TRAP	WHITE, SOLID PLASTIC SEAT, OPEN FRONT WITHOUT COVER. STAINLESS STEEL, SELF-SUSTAINING, CHECK HINGE. EXTRA HEAVY WEIGHT PLASTIC WITH ANTI-MICROBIAL AGENT. 19"x14"x2-5/8" HIGH - 'CHURCH' #3155-SSC	3"	INT	2"	-	1"
WC2	HANDICAPPED WATER CLOSET	FLOOR MOUNTED, FLUSH VALVE, SIPHON JET WITH ELONGATED BOWL. 10" ROUGH-IN, 17-1/2" HIGH RIM (ADA), WATER SAVER (1.6 GALLONS PER FLUSH). KOHLER "HIGHCLIFF" #K-4368	EXPOSED, CHROME PLATED, ADA COMPLIANT, VANDAL-PROOF FLUSH VALVE WITH SOLID RING PIPE SUPPORT AND VACUUM BREAKER. LOW CONSUMPTION 1.6 GALLONS PER FLUSH. SLOAN "ROYAL" #111-YK	INTEGRAL TRAP	WHITE, SOLID PLASTIC SEAT, OPEN FRONT WITHOUT COVER. STAINLESS STEEL, SELF-SUSTAINING, CHECK HINGE. EXTRA HEAVY WEIGHT PLASTIC WITH ANTI-MICROBIAL AGENT. 19"x14"x2-5/8" HIGH - 'CHURCH' #3155-SSC	3"	INT	2"	-	1"
UR1	URINAL	FLUSH VALVE, SIPHON JET, WALL HUNG, MOUNTED 24" ABOVE FINISHED FLOOR KOHLER "BARDON" #K-4960-ET	EXPOSED, CHROME PLATED, ADA COMPLIANT, VANDAL-PROOF FLUSH VALVE WITH INTEGRAL STOP AND VACUUM BREAKER. LOW CONSUMPTION 1.0 GALLONS PER FLUSH. SLOAN "ROYAL" #186-1.0	INTEGRAL TRAP	PROVIDE FLOOR MOUNTED CARRIER BEHIND WALL OR IN CHASE, ANCHORED TO SLAB. 'ZURN' #Z-1222.	2"	INT	1 1/2"	-	3/4"
UR2	HANDICAPPED URINAL	FLUSH VALVE, SIPHON JET, WALL HUNG, MOUNTED PER 1980 ANSI AT 17" ABOVE FINISHED FLOOR. KOHLER "BARDON" #K-4960-ET	EXPOSED, CHROME PLATED, ADA COMPLIANT, VANDAL-PROOF FLUSH VALVE WITH INTEGRAL STOP AND VACUUM BREAKER. LOW CONSUMPTION 1.0 GALLONS PER FLUSH. SLOAN "ROYAL" #186-1.0	INTEGRAL TRAP	PROVIDE FLOOR MOUNTED CARRIER BEHIND WALL OR IN CHASE, ANCHORED TO SLAB. 'ZURN' #Z-1222.	2"	INT	1 1/2"	-	3/4"
L1	LAVATORY WALL HUNG COLD WATER ONLY	21"x18" VITREOUS CHINA, WITH OVERFLOW, HANGER, AND 4"CENTERS. KOHLER #K-2032	DECK MOUNTED, POLISHED CHROME PLATED, SELF-CLOSING, A.D.A. COMPLIANT, SINGLE TEMPERATURE, VANDAL RESISTANT, METERING FAUCET. CHICAGO #333-336-PSH-CP PROVIDE WITH CHROME DECK COVER PLATE TO CONCEAL EXTRA HOLES.	CAST BRASS, SOLID TOP, OPEN GRID, PERFORATED DRAIN WITH 1-1/4", 17 GAUGE TAILPIECE AND CAST BRASS LOCKNUT. 1-1/4", 17 GAUGE, CAST BRASS P-TRAP WITH CLEANOUT. 'McGUIRE' #155A DRAIN WITH 'McGUIRE' #8872 TRAP.	PROVIDE FLOOR MOUNTED, CONCEALED ARM CARRIER. 'ZURN' #Z-1231	2"	1 1/4"	1 1/2"	-	1/2"
L2	HANDICAPPED LAVATORY WALL HUNG COLD WATER ONLY	21"x18" VITREOUS CHINA, WITH OVERFLOW, HANGER, AND 4"CENTERS. KOHLER #K-2032 SET AT WHEELCHAIR HEIGHT.	DECK MOUNTED, POLISHED CHROME PLATED, SELF-CLOSING, A.D.A. COMPLIANT, SINGLE TEMPERATURE, VANDAL RESISTANT, METERING FAUCET. CHICAGO #333-336-PSH-CP PROVIDE WITH CHROME DECK COVER PLATE TO CONCEAL EXTRA HOLES.	CAST BRASS, SOLID TOP, OPEN GRID, PERFORATED DRAIN WITH 1-1/4", 17 GAUGE PRE-INSULATED OFFSET TAILPIECE AND CAST BRASS LOCKNUT. 1-1/4", 17 GAUGE, CAST BRASS P-TRAP WITH CLEANOUT. 'McGUIRE' #PW155WC DRAIN AND #PW2125 TRAP + SUPPLY KIT.	PROVIDE FLOOR MOUNTED, CONCEALED ARM CARRIER. 'ZURN' #Z-1231	2"	1 1/4"	1 1/2"	-	1/2"
MS1	MOP SINK	28"X28"X12" FLOOR MOUNTED TERRAZZO ROUNDED CORNER MOP SINK. FRONT SHOULDER TO HAVE 6" DROP WITH STAINLESS STEEL CAP.	WALL MOUNTED, CHROME PLATED BRASS SERVICE FAUCET WITH RENEWABLE SEATS, PAIL HOOK, WALL BRACE, 3/4" MALE HOSE OUTLET, VACUUM BREAKER, AND 2.5"LEVER HANDLES ON 8"CENTERS. CHICAGO #540-LD897SWXFCP	3" P-TRAP	FLAT STAINLESS STEEL STRAINER	3"	3"	1 1/2"	1/2"	1/2"
HB1	HOSE BIBB	POLISHED CHROME PLATED BRASS WALL FAUCET WITH ANTI-SIPHON VACUUM BREAKER AND LOOSE KEY TEE HANDLE. - WOODFORD #24	-	-	-	-	-	-	-	3/4"
HB2	HOSE BIBB IN WALL BOX	POLISHED CHROME PLATED BRASS WALL FAUCET WITH ANTI-SIPHON VACUUM BREAKER AND LOOSE KEY TEE HANDLE. FAUCET SHALL BE INSIDE CHROME PLATED BOX RECESSED IN WALL. WOODFORD #B24	-	-	-	-	-	-	-	3/4"
FD1	FLOOR DRAIN IN FINISHED AREAS	DURA-COATED CAST IRON BODY WITH 3" BOTTOM OUTLET, TRAP PRIMER CONNECTION, AND 7" POLISHED NICKEL BRONZE STRAINER. - ZURN #Z415B	-	DEEP SEAL TRAP		3"	3"	1 1/2"	-	-
FD2	FLOOR DRAIN IN UN-FINISHED AREAS	DURA-COATED CAST IRON BODY WITH 3" BOTTOM OUTLET, TRAP PRIMER CONNECTION, AND 7" DURA-COATED C.I. STRAINER. - ZURN #Z415N	-	DEEP SEAL TRAP		3"	3"	1 1/2"	-	-
DF1	DRINKING FOUNTAIN	HEAVY GAUGE, TYPE 304 STAINLESS STEEL, DUAL LEVEL, A.D.A. COMPLIANT, NON-REFRIGERATED, LEAD-FREE, SECURITY TYPE DRINKING VANDALPROOF, CHROME PLATED, PUSHBUTTON CONTROL VALVE. FOUNTAIN. ANTI-SQUIRT BUBBLER WITH SANITARY MOUTHGUARD. ELKAY # EHWM217C	PROVIDE 1/2" STRAIGHT STOP IN STAINLESS STEEL LOCKING ACCESSIBLE PANEL BEHIND FIXTURE.	1-1/4" INTEGRAL P-TRAP.	EIGHT POINT ANCHOR SYSTEM WITH SURFACE MOUNTE PLATE. MOUNT AT HEIGHT AS SHOWN ON ARCHITECTURAL DRAWINGS.	2"	1 1/4"	1 1/2"	-	1/2"
ESH	EMERGENCY SHOWER/ EYEWASH OUTSIDE.	SINGLE PRE-FAB. UNIT WITH 9" DEEP FLR FLANGE, 1-1/4" GALV. STL. STANDPIPE, ABS PLASTIC SHOWR HEAD. BRASS BALL VLVS. S.S. RECEPTOR WITH DUST COVERS AND FREEZE PROTECTION BLEED VALVE. HAWS # 8300.158	INTEGRAL	INTEGRAL	NONE	1 1/4"	1 1/4"	1 1/4"	-	1"
SH1	OUTDOOR SHOWER	SINGLE PRE-FAB. UNIT WITH VANDAL PROOF SPRAY HEADS, ONE HIGH AND ONE LOW, WITH VANDAL PROOF, TIMER CONTROLLED WATER CONTROL VALVES, AND VANDAL RESISTANT ACCESS PLATES. STERN-WILLIAMS MODEL 6300.	INTEGRAL	-	MANUFACTURER'S HOSE KIT FOR CONNECTION TO 1/2 DOMESTIC WATER PIPING UNDERGROUND, VALVE BOX, PIPING TEE, SHUT OFF VALVE AND DRAIN-DOWN VALVE ARE PROVIDED BY OTHERS.	-	-	-	-	1/2"

1

NOTES:

1 REFER TO SPECIFICATION SECTIONS 220500 AND 224000 FOR ADDITIONAL INFORMATION, STANDARDS AND PROCEDURES.
2 PROVIDE ALL, LAVATORIES, WATER COOLERS, AND SIMILAR FIXTURES WITH CHROME PLATED, LOOSE-KEY STOPS AND WALL ESCUTCHEONS FOR ALL WATER SUPPLIES.

THE FOLLOWING MANUFACTURERS ARE ACCEPTED AS ALTERNATES TO THOSE LISTED ABOVE. PROPOSED ALTERNATE EQUIPMENT SHALL BE SIMILAR IN STYLE, SIZE, MATERIAL AND QUALITY AS DETERMINED BY THE A/E.

1 SINKS, LAVATORIES, WATER CLOSETS, URINALS: CRANE, KOHLER, AND AMERICAN STANDARD.
2 WATER CLOSET SEATS: BEMIS, CENTOCO AND OLSONITE.
3 FLUSH VALVES: DELANY AND ZURN.
4 DRINKING FOUNTAINS: SUNROC, HAWS, HALSEY TAYLOR AND ELKAY.
5 FAUCETS; SPEAKMAN, ZURN, AND T&S BRASS. AN ACCEPTABLE FIXTURE MANUFACTURER MAY ALSO BE THE ACCEPTABLE FAUCET MANUFACTURER.
6 FLOOR DRAINS, ROOF DRAINS AND FLOOR SINKS: JOSAM, WATTS, AND J.R. SMITH.

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GRAEF PROJECT #2009-4110

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PLUMBING FIXTURE SCHEDULE

MANATEE COUNTY - LINCOLN SPLASH PARK
501 17TH STREET EAST PALMETTO, FL 34221

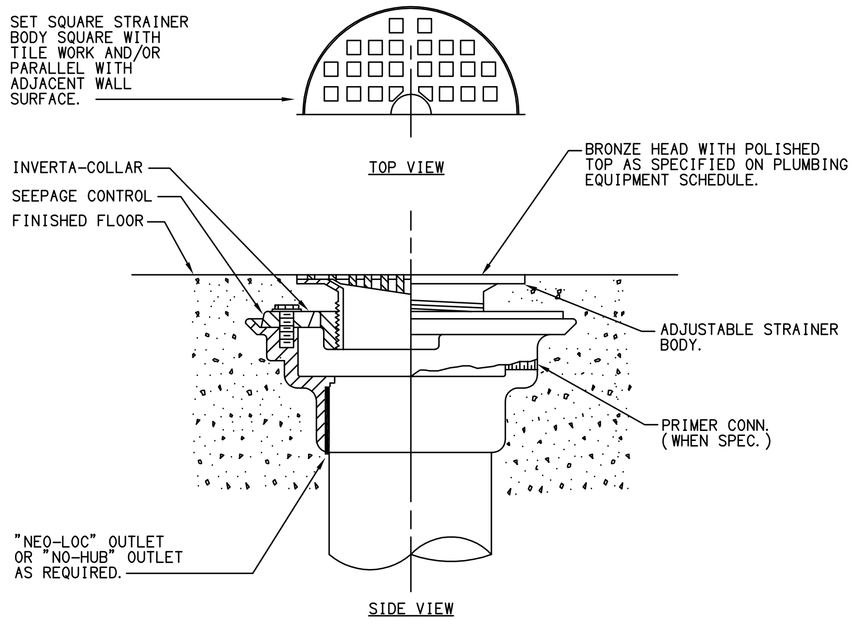
REVISIONS:

1	10/29/10	ADD 1

PROJECT NO: 10-4110
DATE: 08.27.2010
DRAWN BY: CF
CHK'D BY: MR

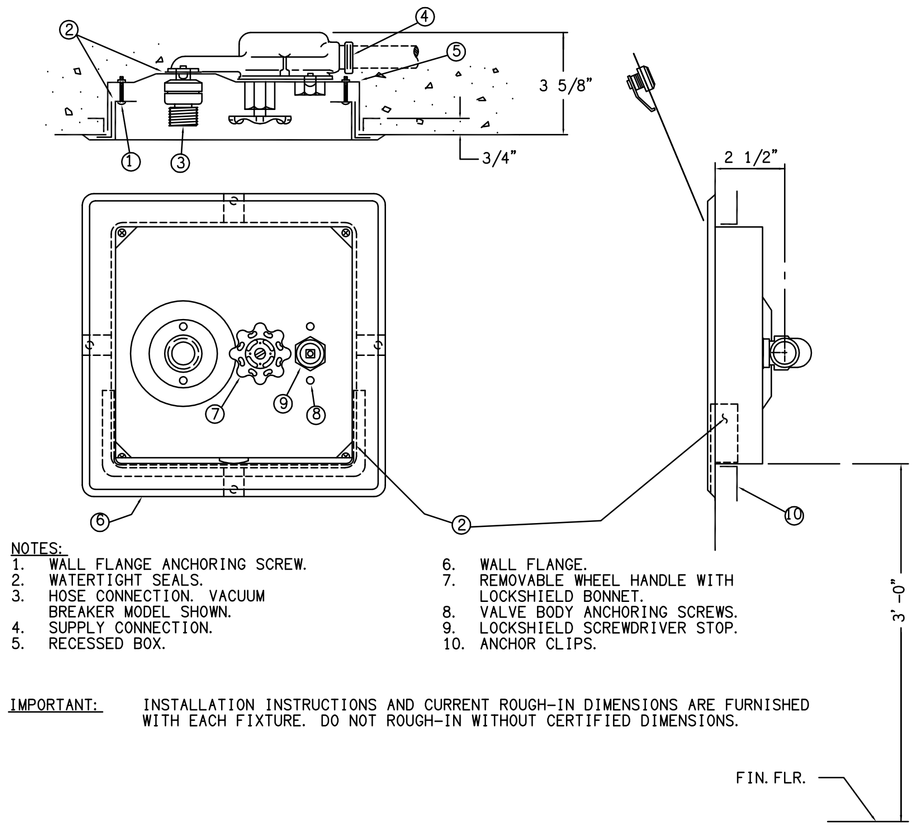
Baltu Yorkos
LIC. NO. 60308

SHEET
P002



1 FLOOR DRAIN "A" DETAIL (FD-1 + FD-2)

SCALE: NOT TO SCALE P-DRAIN-01A

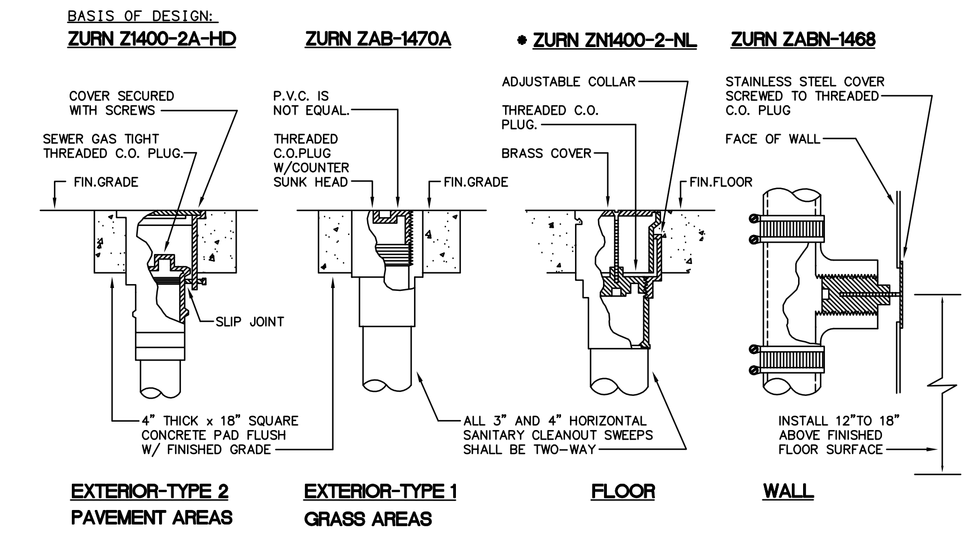


NOTES:
1. WALL FLANGE ANCHORING SCREW.
2. WATERTIGHT SEALS.
3. HOSE CONNECTION. VACUUM BREAKER MODEL SHOWN.
4. SUPPLY CONNECTION.
5. RECESSED BOX.
6. WALL FLANGE.
7. REMOVABLE WHEEL HANDLE WITH LOCKSHIELD BONNET.
8. VALVE BODY ANCHORING SCREWS.
9. LOCKSHIELD SCREWDRIVER STOP.
10. ANCHOR CLIPS.

IMPORTANT: INSTALLATION INSTRUCTIONS AND CURRENT ROUGH-IN DIMENSIONS ARE FURNISHED WITH EACH FIXTURE. DO NOT ROUGH-IN WITHOUT CERTIFIED DIMENSIONS.

2 WALL HYDRANT DETAIL

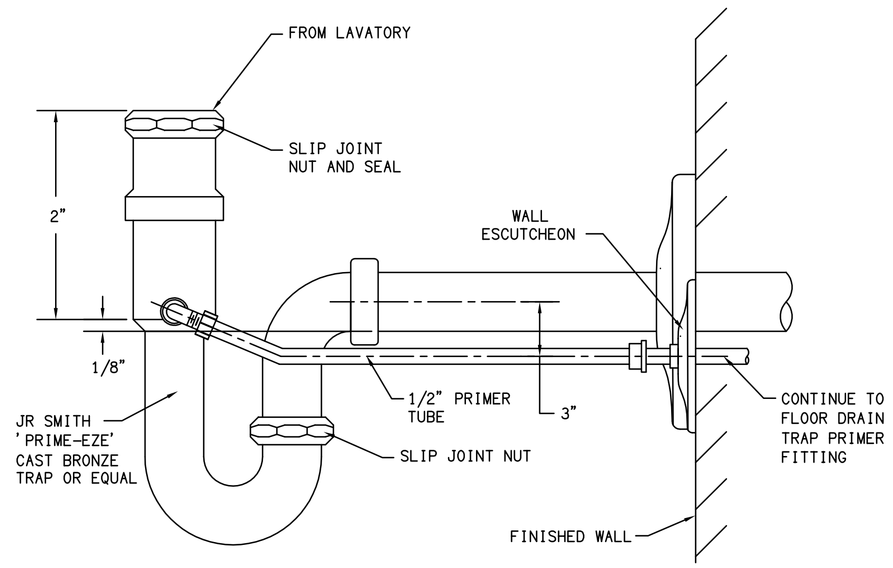
SCALE: NOT TO SCALE

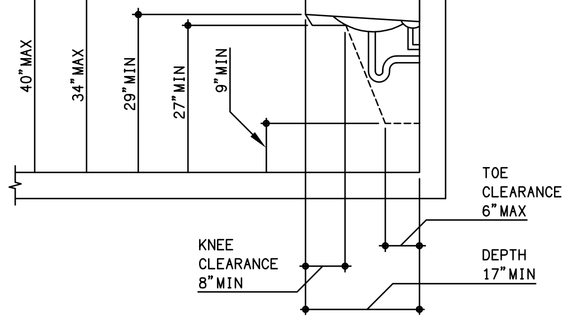


NOTES:
1. P. V. C. /C. I. CLEAN-OUT PLUGS ARE NOT APPROVED.
2. CONTRACTOR SHALL PROVIDE CARPET MARKERS WHEN ARCHITECTURAL FINISH SCHEDULE CALLS FOR CARPETED SURFACES.

3 TYPICAL CLEAN-OUT DETAILS

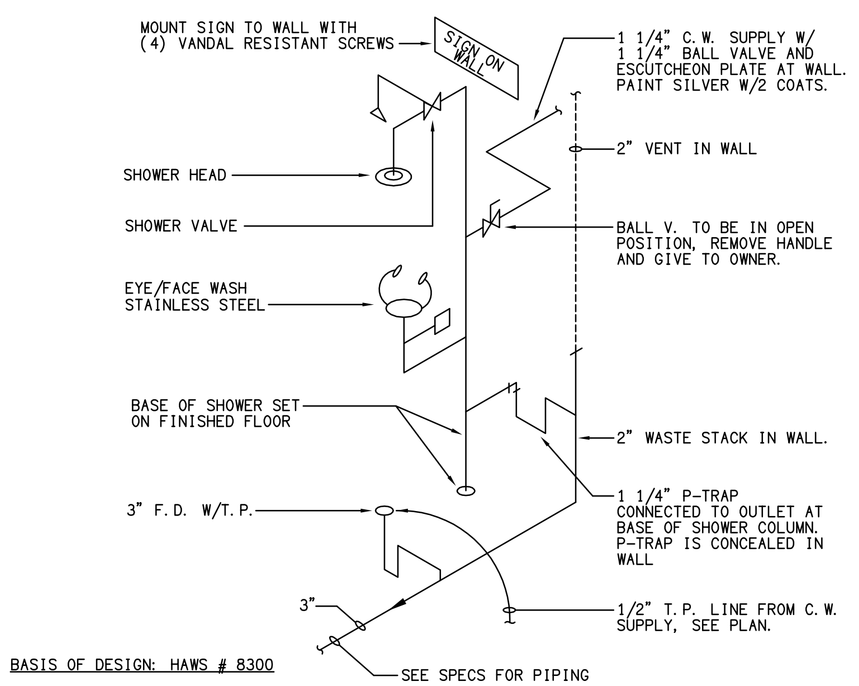
SCALE: NOT TO SCALE





4 ADA LAVATORY CLEARANCES

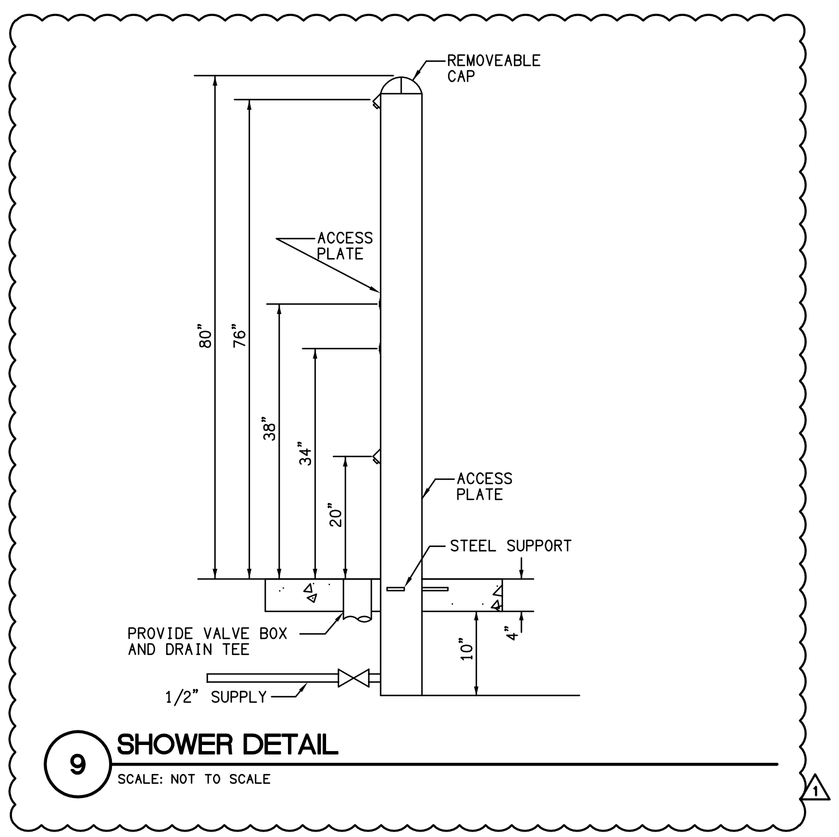
SCALE: NOT TO SCALE



BASIS OF DESIGN: HAWS # 8300

7 EMERGENCY SHOWER EYE/FACE WASH DETAIL

SCALE: NOT TO SCALE P-LABORATORY-01C



9 SHOWER DETAIL

SCALE: NOT TO SCALE

BASIS OF DESIGN: PRECISION PLUMBING PRODUCTS

6 TRAP PRIMER DETAIL

SCALE: NOT TO SCALE P-TRAP_PRIMER-01A

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PLUMBING DETAILS

MANATEE COUNTY – LINCOLN SPLASH PARK
501 17TH STREET EAST PALMETTO, FL 34221

REVISIONS:

1	10/29/10	ADD 1

PROJECT NO:10-4110
DATE: 08.27.2010
DRAWN BY: CF
CHK'D BY: MR

Baltu Yorkos
LIC. NO. 60308

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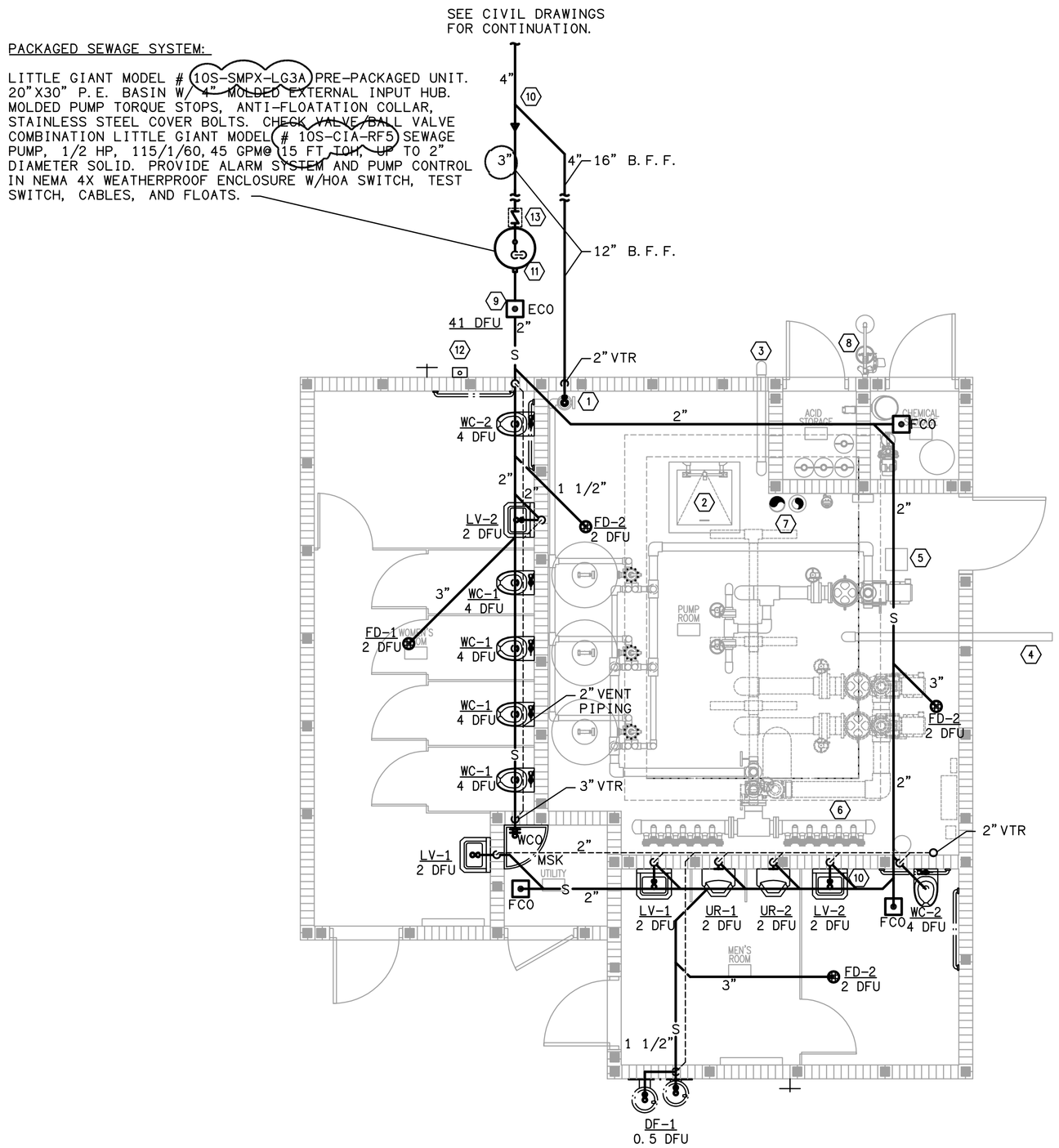
SHEET
P003

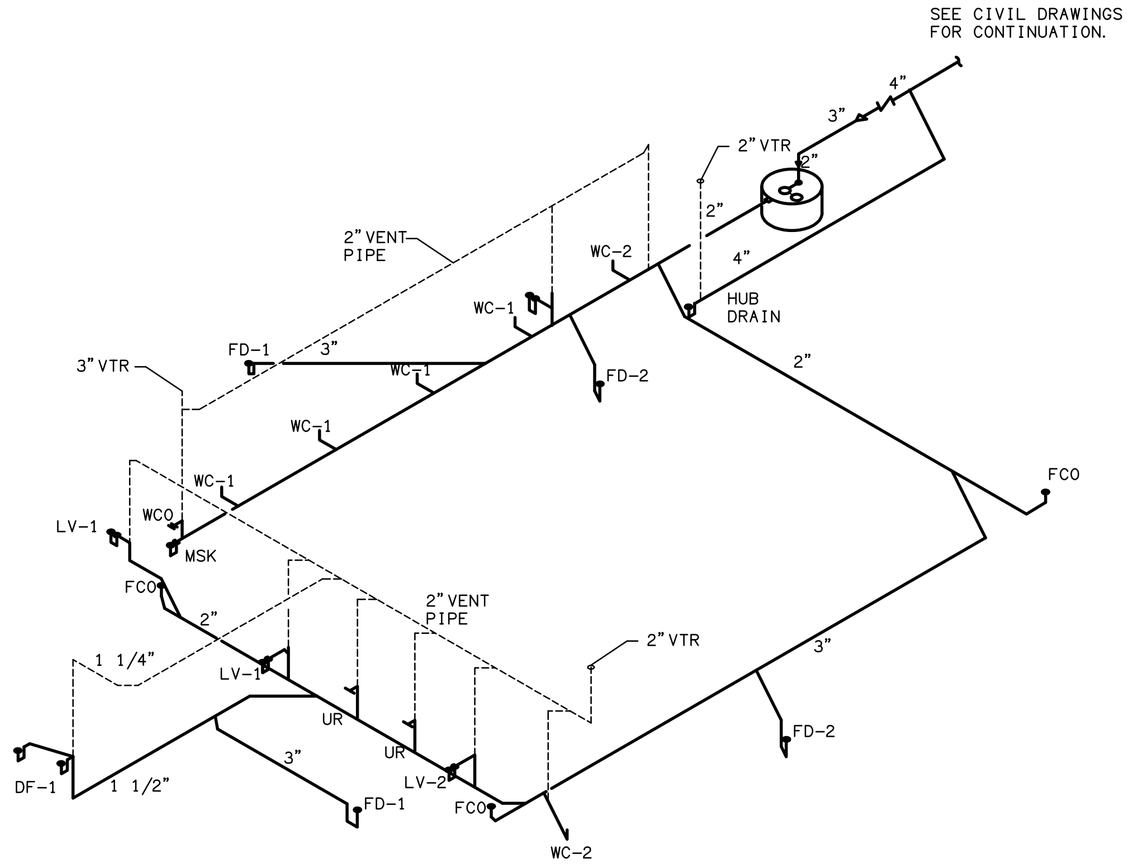


GENERAL NOTES:

1. COORDINATE ALL EQUIPMENT LOCATIONS TO PROVIDE SERVICE CLEARANCE REQUIRED BY THE MANUFACTURER.
2. ALL MECHANICAL EQUIPMENT AND ACCESSORIES PROVIDED FOR THE POOL CHEMICAL STORAGE AND THE POOL EQUIPMENT ROOM SHALL BE FIBERGLASS REINFORCED PLASTIC OR PVC. OTHER CHEMICAL RESISTANT MATERIALS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. SEE POOL LAYOUT DRAWINGS FOR DETAILS REGARDING CHEMICALS.
3. DRAINAGE PIPE ELEVATIONS ARE CRITICAL. COORDINATE CLOSELY WITH CIVIL DRAWINGS. MAINTAIN AS HIGH AS POSSIBLE.

KEY NOTES:

1. 6" BACKWASH HUB DRAIN CONNECTED TO 4" DRAIN PIPE. SEE PL4.02-9 FOR DETAILS.
2. TANK SERVICE HATCH WITH LADDER BY OTHERS.
3. SURGE TANK VENTILATION TO THE EXTERIOR BY OTHERS.
4. 4" SURGE TANK OVERFLOW PIPE BY OTHERS
5. OBSERVATION TUBE BY OTHERS.
6. WATER SUPLY TO PARK FEATURES BY OTHERS. COORDINATE PIPING HEIGHT WITH PARK WATER FEATURE CONSULTANT.
7. 1 1/2" DOMESTIC WATER SERVICE TO TANK MAKE-UP.
8. EMERGENCY EYEWASH STATION WITH DRENCH SHOWER.
9. PROVIDE TESTING TEE WITH 2-WAY CLEAN OUT.
10. CONNECT BACKWASH INTO THE SANITARY PIPING 25' DOWNSTREAM OF SEWAGE PUMPING SYSTEM.
11. TERMINATE SEWAGE PUMPING SYSTEM VENT WITH GOOSENECK.
12. WALL MOUNTED ALARM SYSTEM AND CONTROL SYSTEM FOR PACKAGED SEWAGE PUMPING SYSTEM.
13. PROVIDE CONCRETE VALVE BOX WITH LID FOR PACKAGED SEWAGE PUMPING SYSTEM CHECK VALVE.



SANITARY AND VENT PIPING

SCALE: 1/4" = 1'-0"

1 SANITARY AND VENT RISER DIAGRAM

SCALE: NOT TO SCALE

CONSTRUCTION DOCUMENTS

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SANITARY AND VENT PIPING PLAN

MANATEE COUNTY - LINCOLN SPLASH PARK

501 17TH STREET EAST PALMETTO, FL 34221

REVISIONS:

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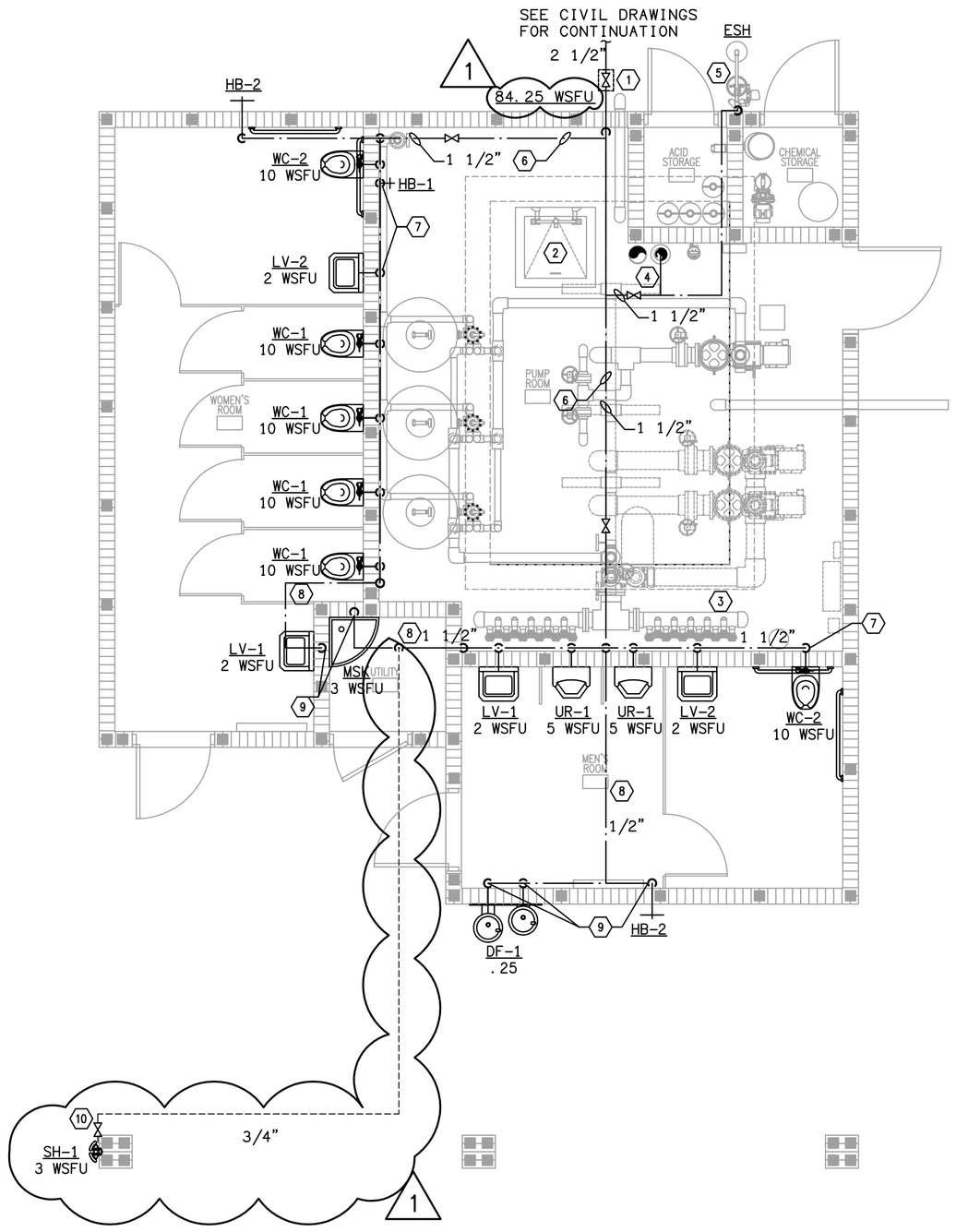

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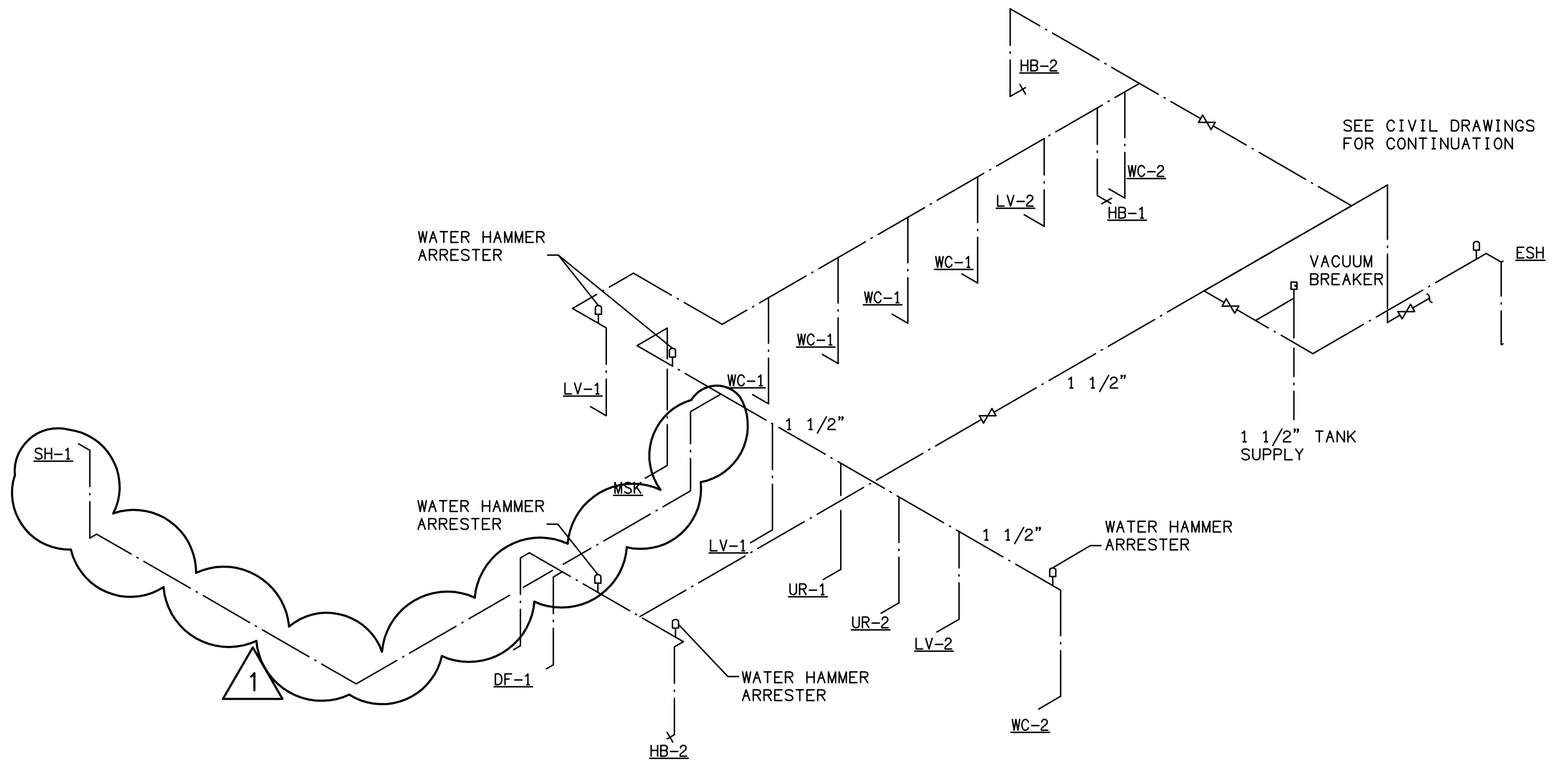
1. COORDINATE ALL EQUIPMENT LOCATIONS TO PROVIDE SERVICE CLEARANCE REQUIRED BY THE MANUFACTURER.
2. ALL MECHANICAL EQUIPMENT AND ACCESSORIES PROVIDED FOR THE POOL CHEMICAL STORAGE AND THE POOL EQUIPMENT ROOM SHALL BE FIBERGLASS REINFORCED PLASTIC OR PVC. OTHER CHEMICAL RESISTANT MATERIALS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. SEE POOL LAYOUT DRAWINGS FOR DETAILS REGARDING CHEMICALS.

KEY NOTES:

1. BUILDING SHUT OFF VALVE IN CONCRETE BOX WITH LID.
2. TANK ACCESS HATCH AND LADDER.
3. WATER SUPLY TO PARK FEATURES. COORDINATE PIPING HEIGHT WITH PARK WATER FEATURE CONSULTANT.
4. 1 1/2" DOMESTIC WATER SERVICE. PROVIDE A VACUUM BREAKER HIGHEST POINT OF THE TANK FILL PIPING. SE PL4.01-8 FOR VALVE ASSEMBLY DETAIL.
5. EMERGENCY EYEWASH STATION WITH DRENCH SHOWER.
6. OFFSET EXPOSED BELOW CEILING (TYP.).
7. OFFSET EXPOSED ON WALL (TYP.).
8. OFFSET ABOVE CEILING (TYP.).
9. RUN THROUGH CONCRETE BLOCK.
10. ROUTE DOMESTIC WATER PIPING BELOW GRADE TO THE SHOWER FIXTURE. PROVIDE A VALVE BOX WITH A CONCRETE COVER, AND PIPING TEE WITH DRAIN-DOWN VALVE. SEE P0.03 OR DETAILS.



DOMESTIC WATER PIPING

SCALE: 1/4" = 1'-0"

1 DOMESTIC WATER PIPING RISER DIAGRAM

SCALE: NOT TO SCALE

CONSTRUCTION DOCUMENTS

MEP
GRAEF
1059 Maitland Center Commons Blvd., Suite 200
Maitland, FL 32751
407 / 659 0553
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CERT # 4270

GRAEF PROJECT #2009-4110

10/29/2010 2:38 PM

CAD DWG FILE: PLOT-P301-104110.DWG

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DOMESTIC WATER PIPING

MANATEE COUNTY – LINCOLN SPLASH PARK

501 17TH STREET EAST PALMETTO, FL 34221

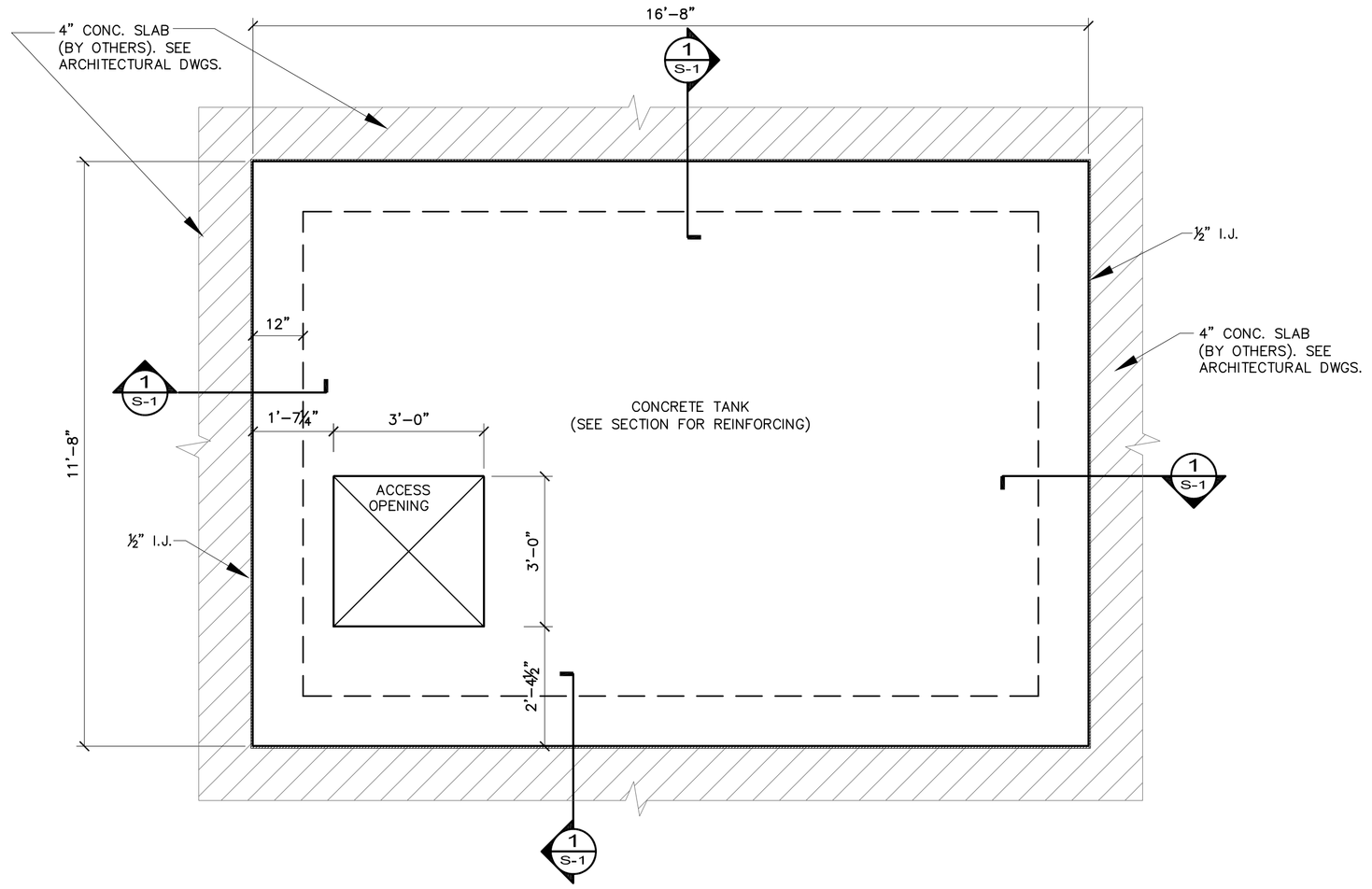
REVISIONS:

1	10/29/10	ADD 1

PROJECT NO: 10-4110
DATE: 08.27.2010
DRAWN BY: CF
CHK'D BY: MR

Baltu Yorkos
LIC. NO. 60308

SHEET
P301



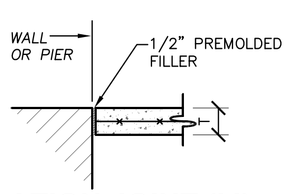
LINCON PARK WATER TANK PLAN

SCALE 1/2" = 1'-0"

NOTE:
1. VERIFY ALL DIMENSIONS W/ ARCHITECTURAL DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

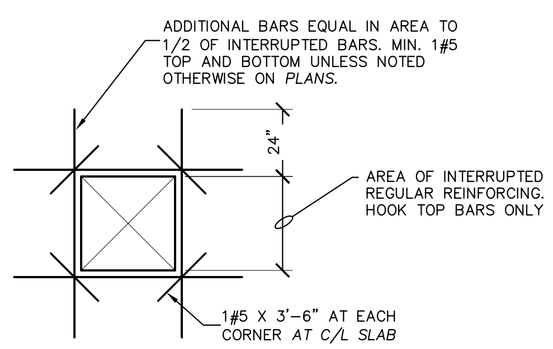
2. PROVIDE A CONTINUOUS 6" PVC WATER STOP AT ALL JOINTS, PVC WATER STOP IS TO BE PLACED ON THE WATER SIDE OF THE REBAR. THE WATER STOP SHALL BE FUSION WELDED PER MANUFACTURER REQUIREMENTS AT ALL SPLICES. PROVIDE A MINIMUM 2" CONCRETE COVERAGE AROUND WATER STOP. SECURELY FASTEN WATER STOP TO REINFORCING STEEL TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT.

3. PROVIDE 1" DEEP CONE SHAPED PLASTIC BREAKAWAY FORM TIES. PATCH ALL FORM TIE HOLES WITH EPOXY FORTIFIED NON-SHRINK, NON-METALLIC GROUT.



ISOLATION JOINT (IJ)

SCALE: NTS

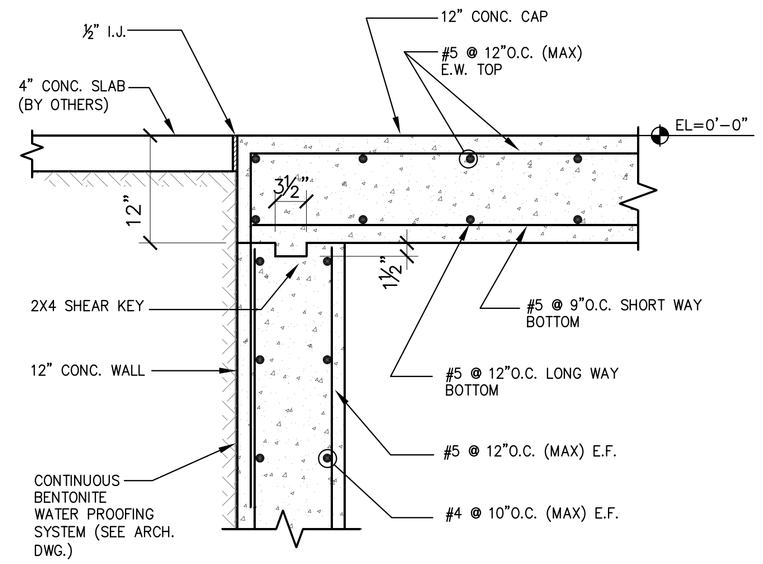


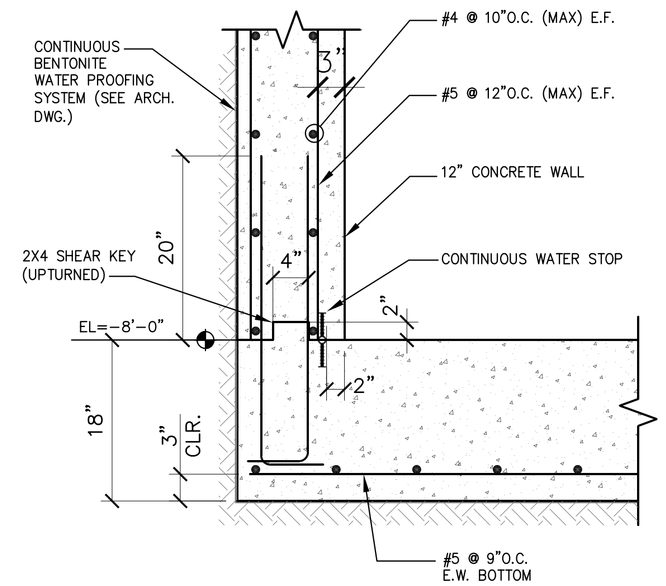
1. OMIT ADDED BARS AT OPENINGS OF 10" OR LESS AND RUN NORMAL REINFORCING BY SIDE OF OPENING. 2. HOOK BARS AT AFFECTED ENDS WHERE BARS CANNOT BE EXTENDED PAST OPENING. 3. OPENINGS SHALL BE SHOWN ON THE STEEL PLACING DRAWINGS AND REINFORCED ACCORDINGLY.

TYP. REINFORCEMENT AT SLAB OPENING

SCALE: NTS

TYPICAL DETAILS





SECTION 1

SCALE 1" = 1'-0"

Structural Notes

GENERAL NOTES: STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.

ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.

THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO INSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS.

DESIGN LOADS: THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, 2007 W/ 2009 SUPPLIMENTS. THE FOLLOWING SUPERIMPOSED LOADINGS HAVE BEEN UTILIZED:

MECHANICAL AREAS:
LIVE LOAD -250 psf.
ADDED DEAD LOAD -5 psf.

SHOP DRAWING REVIEW: SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC.

ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE ARCHITECT/ENGINEER. DRAWINGS SUBMITTED WITHOUT REVIEW WILL BE RETURNED UNCHECKED.

IN ALL INSTANCES THE CONTRACT DOCUMENTS WILL GOVERN OVER THE SHOP DRAWINGS UNLESS OTHERWISE SPECIFIED IN WRITING BY THE ENGINEER.

FOUNDATIONS: ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 2,000 psf ON COMPACTED FILL. BEFORE CONSTRUCTION COMMENCES, SOIL BEARING CAPACITY SHALL BE VERIFIED BY A SUBSURFACE INVESTIGATION, AS WELL AS FIELD AND LABORATORY TESTS PERFORMED BY A CERTIFIED TESTING LABORATORY, WHOSE REPORT SHALL INCLUDE ANALYSIS AND RECOMMENDATIONS FOR SITE PREPARATION IN ORDER TO BEAR THE FOUNDATION LOADS. ABOVE REPORT SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW BEFORE FOUNDATION CONSTRUCTION BEGINS.

FORMWORK AND SHORING: NO STRUCTURAL CONCRETE SHALL BE STRIPPED UNTIL IT HAS REACHED AT LEAST TWO-THIRDS OF THE 28 DAY DESIGN STRENGTH. DESIGN, ERECTION AND REMOVAL OF ALL FORMWORK, SHORES AND RESHORES SHALL MEET THE REQUIREMENTS SET FORTH IN ACI STANDARDS 347 AND 301.

PLUMBING SLEEVES: MINIMUM SLEEVE SPACING SHALL BE THREE DIAMETERS CENTER TO CENTER OF THE LARGER SLEEVE OR 6" CLEAR BETWEEN SLEEVES, WHICHEVER IS GREATER. PRIOR TO CONSTRUCTION SLEEVE LOCATIONS AND SIZES SHALL BE APPROVED BY THE ENGINEER.

REINFORCING STEEL: SHALL BE ASTM A615 GRADE 60 DEFORMED BARS, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS. SECURE APPROVAL OF SHOP DRAWINGS PRIOR TO COMMENCING FABRICATION.

CONCRETE: SHALL BE PER AN APPROVED MIX DESIGN PROPORTIONED TO ACHIEVE A STRENGTH AT 28 DAYS AS LISTED BELOW WITH A PLASTIC AND WORKABLE MIX:

5000 psi FOR ALL STRUCTURAL CONCRETE.

CONCRETE SHALL BE PLACED AND CURED ACCORDING TO ALL STANDARDS AND SPECIFICATIONS.

SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD CYLINDER OR LAB TESTS FOR REVIEW PRIOR TO USE. MIX SHALL BE UNIQUELY IDENTIFIED BY MIX NUMBER OR OTHER POSITIVE IDENTIFICATION. MIX SHALL MEET THE REQUIREMENTS OF ASTM C33 FOR COARSE AGGREGATE. CONCRETE SHALL COMPLY WITH ALL THE REQUIREMENTS OF ASTM STANDARD C94 FOR MEASURING, MIXING, TRANSPORTING, ETC. CONCRETE TICKETS SHALL BE TIME STAMPED WHEN CONCRETE IS BATCHED. THE MAXIMUM TIME ALLOWED FROM THE TIME THE MIXING WATER IS ADDED UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED ONE AND ONE HALF (1-1/2) HOURS. IF FOR ANY REASON THERE IS A LONGER DELAY THAN THAT STATED ABOVE, THE CONCRETE SHALL BE DISCARDED. IT SHALL BE THE RESPONSIBILITY OF THE TESTING LAB TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE ABOVE. ALL SLABS SHALL BE CURED USING A DISSIPATING CURING COMPOUND MEETING ASTM STANDARD C309 TYPE 1-D AND SHALL HAVE A FUGITIVE DYE. THE COMPOUND SHALL BE PLACED AS SOON AS THE FINISHING IS COMPLETED OR AS SOON AS THE WATER HAS LEFT THE UNFINISHED CONCRETE. ALL SCUFFED OR BROKEN AREAS IN THE CURING MEMBRANE SHALL BE RECOATED DAILY. CALCIUM CHLORIDES SHALL NOT BE UTILIZED; OTHER ADMIXTURES MAY BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.

ALL CONCRETE MIX DESIGNS SHALL INCLUDE A WRITTEN DESCRIPTION INDICATING WHERE EACH PARTICULAR MIX IS TO BE PLACED WITHIN THE STRUCTURE.

ALL CONCRETE DESIGN MIX SUBMITTALS SHALL INCLUDE TESTED, STATISTICAL BACK-UP DATA AS PER CHAPTER 5 OF ACI 318.

WATER/CEMENT RATIO FOR CONCRETE SHALL NOT EXCEED 0.40 BY WEIGHT. PROVIDE XYPEX CONCRETE ADMIXTURE.

CONCRETE TESTING: AN INDEPENDENT TESTING LABORATORY SHALL PERFORM THE FOLLOWING TESTS ON CAST IN PLACE CONCRETE:

a)ASTM C143 - "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT CONCRETE." SLUMP RANGE SHALL BE 4-6 INCHES.
b)ASTM C39 - "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS." A SEPARATE TEST SHALL BE CONDUCTED FOR EACH CLASS, FOR EVERY 50 CUBIC YARDS (OR FRACTION THEREOF), PLACED PER DAY. REQUIRED CYLINDER(S) QUANTITIES AND TEST AGE AS FOLLOWS:

1 AT 7 DAYS
2 AT 28 DAYS

ONE ADDITIONAL RESERVE CYLINDER TO BE TESTED UNDER THE DIRECTION OF THE ENGINEER, IF REQUIRED. IF 28 DAY STRENGTH IS ACHIEVED, THE ADDITIONAL CYLINDER(s) MAY BE DISCARDED.

PENETRATIONS: NO PENETRATIONS SHALL BE MADE IN ANY STRUCTURAL MEMBERS OTHER THAN THOSE LOCATED ON THESE DRAWINGS WITHOUT PREVIOUS APPROVAL OF THE ENGINEER.

CHEMICAL ANCHORS: SHALL BE AN EQUAL TWO PART EPOXY POLYMER INJECTION SYSTEM, SUCH AS RAMSET "EPCON", RAWL "FOIL-FAST" CARTRIDGE SYSTEM, DUR-O-WAL "DUR-O-PAIR" EPOXY ANCHOR, HILTI HIT RE 500 ADHESIVE EPOXY, OR ENGINEER APPROVED SUBSTITUTION. INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. INSTALLERS SHALL BE TRAINED BY THE MANUFACTURER'S REPRESENTATIVE

THIS SHEET HAS BEEN ADDED TO THE PROJECT SET AS PART OF ADDENDUM #01

Wilson Structural Consultants, Inc.
8731 PROFESSIONAL PKWY. WEST (941) 907-4789
SUITE 100 SARASOTA, FL 34240 FAX(941) 907-0576

TO THE BEST OF MY KNOWLEDGE AND ABILITY, THE COMPLETED STRUCTURE DEPICTED ON THE PLANS COMPLIES WITH THE APPLICABLE MINIMUM BUILDING CODES.

FILE: 10-147

Cert. of Authorization #9099

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AA-C001654

Water Tank Plan, Section, Structural Notes and Typ. Details

MANATEE COUNTY
LINCOLN SPLASH PARK
501 17th Street East,
Palmetto, FL

REVISIONS:

PROJECT NO:
DATE: 08-27-10
DRAWN BY: -
CHK'D BY: -

ENGINEER OF RECORD
RICHARD D. WILSON
FL P.E. # 37784

SHEET
S-1